



CMECH DOOR & WINDOW
HARDWARE CATALOGUE
2025/2026

CMECH
www.cmech.com

CMECH



Venice Handle



CMECH

Window & Door Hardware

Established for over 30 years, Cmech is an American-based company specialized in the design and manufacture of door and window hardware.

Cmech's manufacturing plant is located in Guangdong province, southern China and spans 80,000 m² with over 1,000 employees. Cmech's stringent quality control and management system has achieved ISO9001 certification and most importantly long term customer satisfaction.

Our primary goal is to understand your needs and provide the ultimate in quality and satisfaction. A flexible, experienced management team and tightly integrated operational structure allows us to anticipate and respond rapidly to customer needs. We deliver innovative products of outstanding quality.

Cmech Handles **07**

Standard Colors for Handles **08**

User's Manual for the Catalogue **09**

Window Hardware Series **10**

10 Window With Fly Screen Hardware

20 Outswing Casement Window Hardware

32 Outswing Awning Window Hardware

35 Outswing Awning Window (Curtain Wall) Hardware

40 Inswing Casement Window Hardware

50 Hopper Window Hardware

Tilt & Turn Window Series **100**

100 Tilt & Turn Window Hardware

Outswing Casement & Awning Series **128**

128 Outswing Casement & Awning Window Hardware

Lift & Slide Series **136**

136 Lift & Slide Door Hardware

Tightly Sealed Sliding Series **162**

162 Tightly Sealed Sliding Hardware

Sliding Series **174**

174 Sliding Door Hardware

217 Sliding Window Hardware

Bi-Folding Door Series **230**

230 Bi-Folding Door Hardware

Hinged Door Series **252**

252 Hinged Door Hardware

Maintenance **304**

304 Maintenance

UNCOMPROMISING QUALITY

All our products begin with in-depth research and prototyping. Before approved for sale, every Cmech product must survive a brutal testing regime that surpasses the toughest real world conditions.

Cmech quality also means environmental responsibility - our manufacturing facilities operate to strict green protocols and standards.

A HIGH PERFORMING WINDOW & DOOR NEEDS HIGH QUALITY HARDWARE

Produced to European and American standards, Cmech products are found throughout luxury residences, prime commercial space, five-star hotels and premium developments.

Cmech door and window hardware adds real value to quality real estate.

CMECH HANDLES

	MILAN SERIES	BERLIN SERIES	VENICE SERIES				
<p>Spindle and Fork Drive Handle (Type W)</p> <ul style="list-style-type: none"> • Outswing Casement Window • Inswing Casement Window • Outswing Awning Window • Gliding Door 							
<p>Spindle Drive Handle (Type W)</p> <ul style="list-style-type: none"> • Outswing Casement Window • Inswing Casement Window • Tilt & Turn Window • Hopper Window • Outswing Awning Window 							
<p>Handle (Type T T)</p> <ul style="list-style-type: none"> • Tilt & Turn Window • Inswing Casement Window • Hopper Window • Outswing Awning Window (Curtain Wall) 							
<p>Spindle Drive Handle (Type LS)</p> <ul style="list-style-type: none"> • Lift & Slide Door 							
<p>Spindle Drive Handle (Type D)</p> <ul style="list-style-type: none"> • Hinged Door • Bi-Folding Door 							
OTHER SERIES (Type W)							
	FLY SCREEN HANDLE	FLAT HANDLE	TURN HANDLE	SLIM TURN HANDLE	Slim Handle		
Specialized Gliding Handle							
	MILAN HANDLE	LONDON HANDLE	METRO HANDLE	KOLN HANDLE	RECESSED HANDLE (HEAVY-DUTY)	RECESSED HANDLE	SLIM RECESSED HANDLE

STANDARD COLORS FOR HANDLES

Two types of surface treatments and seven colors are available.

M Treatment

Silver 01	Champagne 02	Gold 11	Bronze 12

Powder Coating

White 09	Black 17	Silver C11A	Champagne C11B	Gold C11C	Bronze C11D

Note: Color is representative only.

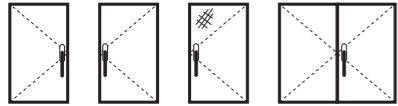


USER'S MANUAL FOR THE CATALOGUE

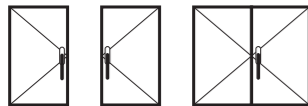
Opening Methods Diagrams

The solid line refers to inswing door
The dotted line refers to outswing door

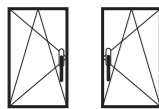
Outswing Window/Door



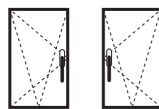
Inswing Window/Door



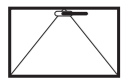
Tilt & Turn Window



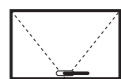
Outswing Casement & Awning Window



Hopper Window



Outswing Awning Window



Lift & Slide Door



Tightly Sealed Sliding Window



Gliding Window/Door



Bi-Folding Door



Explanation of Part Numbers (P/N)

Our P/Ns consist of letters (A, B, C, D...) and numbers (0, 1, 2, 3...)
For example, A010102 and 010101.

- The first letter denotes which hardware series the product belongs to:
- A: Outswing Casement Window Hardware Series for C-Groove Profile
- B: Inswing Casement Window Hardware Series for C-Groove Profile
- C: Tilt & Turn Window Hardware Series for C-Groove Profile
- D: Hinged Door Hardware Series for C-Groove Profile
- E: Gliding Door Hardware Series
- F: Lift & Slide Door Hardware Series
- G: Bi-Folding Door Hardware Series
- H: Outswing Awning Window for C-Groove Profile
- J: Outswing Casement Window for U-Groove Profile
- K: Outswing Casement & Awning Window Hardware Series
- N: Tightly Sealed Sliding Window Hardware Series
- P: Gliding Window

For example, A010102 refers to New York Series Fork Drive Handle (Type W) for Outswing Casement Window.

Note: Some parts may appear to be the same hardware components used for both doors and windows.
See the configuration tables for specific information.

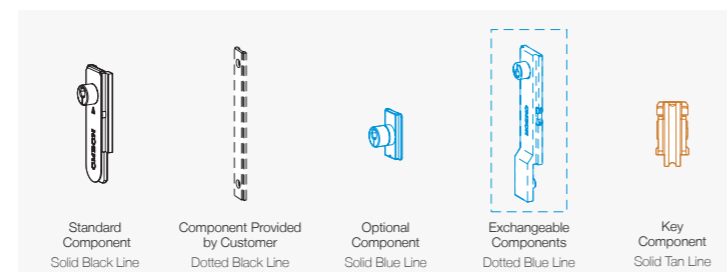
Color Selection

Seven standard colors are available.
Each one has a corresponding serial number.
A "-" refers to an available color.

For example, A010102-01 means the color for the Fork Drive Handle (Type W) New York Series outswing casement window is silver.

- 01 Silver
- 02 Champagne
- 09 White
- 11 Gold
- 12 Bronze
- 17 Black Smooth
- 18 Black Textured
- C11A Silver
- C11B Champagne
- C11C Gold
- C11D Bronze

Description of Features Graphics



Unit: Measurements are in millimeters (mm) unless otherwise indicated.

Window with Fly Screen Hardware



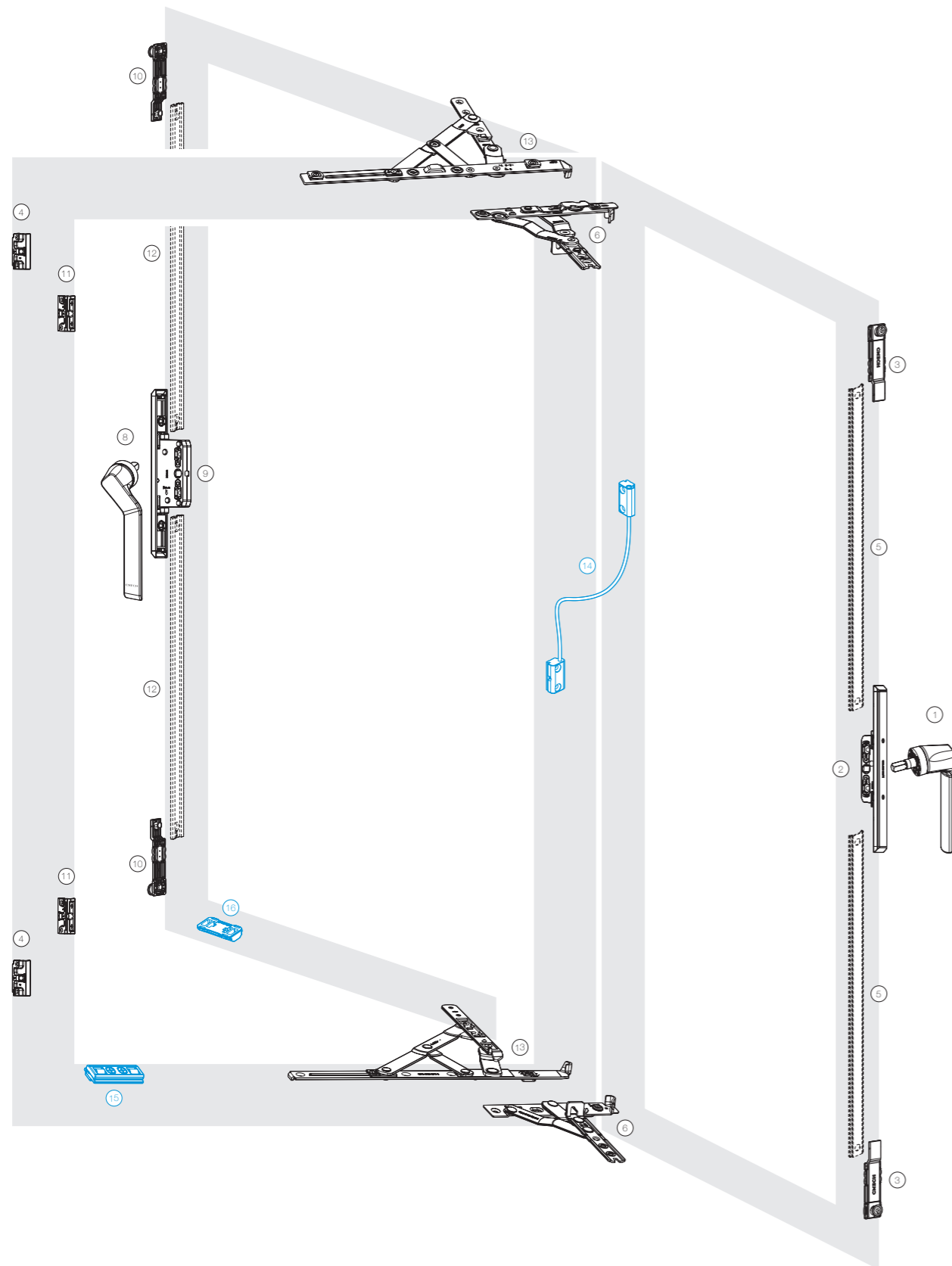
- The handles are available in many styles and colors
- Additional guide wheel support block provides a smoother operation
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Casement Window with Fly Screen	Applicable Range
Sash Width (mm)	300-800
Sash Height (mm)	300-1,800
Glass Panel Load Bearing (kg)	60
Screen Panel Load Bearing (kg)	25, 45
Length of T-Drive (mm)	17, 20, 24, 28, 32, 36, 40
Center Distance of Spindle Drive Gearbox (mm)	11, 13, 22, 25, 28, 30, 35



WINDOW WITH FLY SCREEN HARDWARE SERIES

Master Series Flynet and Glass Panel Integrated Window Configuration (Spindle Drive)



WINDOW WITH FLY SCREEN HARDWARE SERIES

Configuration Table - Master Series Flynet and Glass Panel Integrated Window-Inner Flynet Outer Glass Panel Configuration (Flynet)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010701 A010603 A010633	1	Master Series Venice Handle, Aluminum Alloy Master Series Milan Handle, Aluminum Alloy Master Series Milan Handle, Aluminum Alloy (With Spindle)	P67, P69, P72, P75
2	Spindle Drive Gearbox	A020185	1	Spindle Drive Gearbox 11mm (Master Series)	P93
3	Lock Point	A090048-C320	2	Pry-Resistant End Lock Point (Master Series)	P88, P89, P90, P91
4	Keeper	A100125-C320	2	Pry-Resistant Keeper with Bearing	P92
5	Connecting Strip		3-5	Provided by Customer or Cmech	
6	Hinge	B040083 B040037 B040076	1	165° Fly Screen Hinge, Applicable with Removable and Washable Screw Pack 165° Fly Screen Hinge 90° Fly Screen Hinge, Applicable with Removable and Washable Screw Pack 180° Fly Screen Hinge	P103, P104, P105
	Hinge Screw Pack	B110013 B110012	1	165° 90°	
7	Handle Screw Pack		1		P66

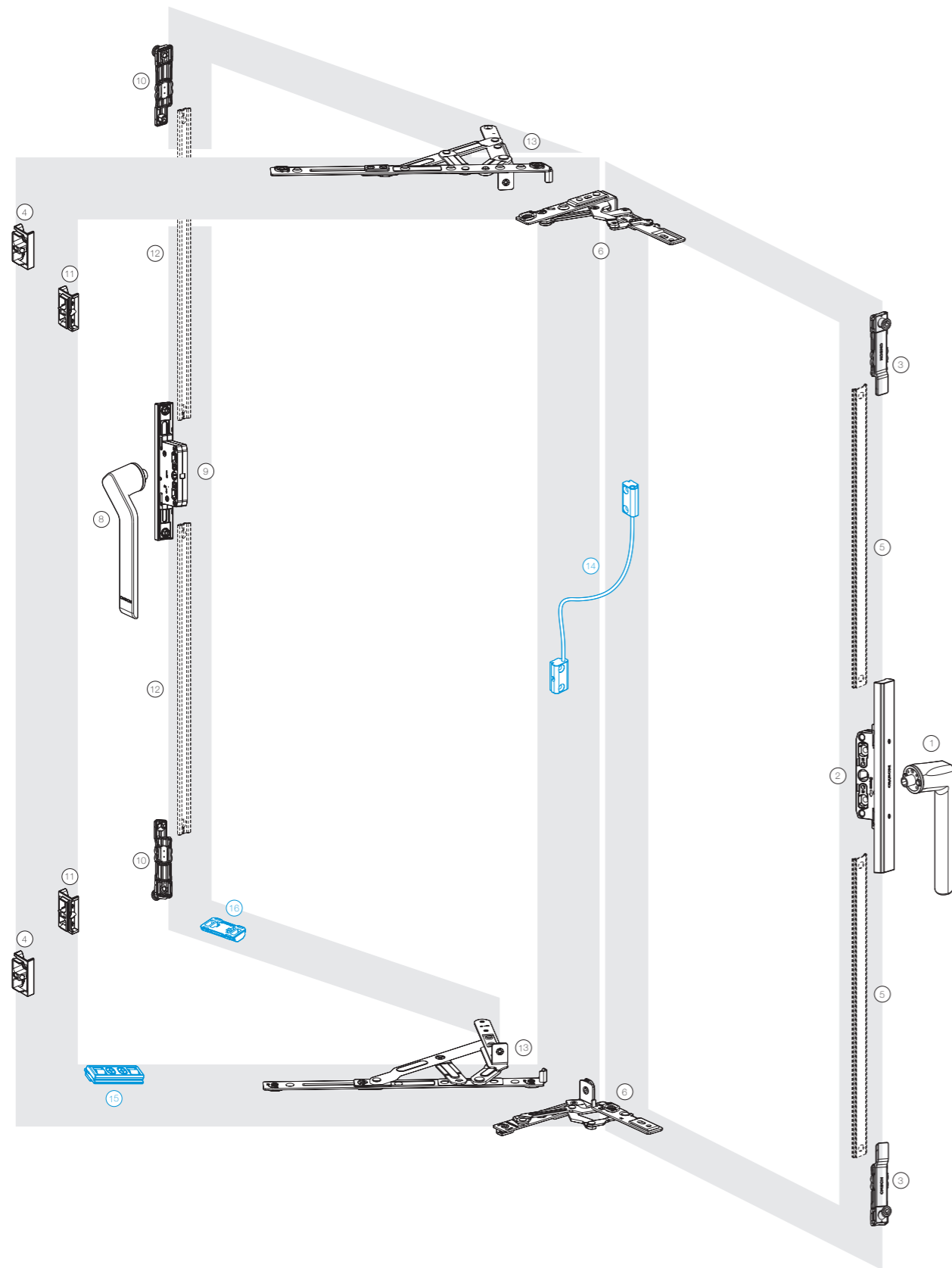
Configuration Table - Master Series Flynet and Glass Panel Integrated Window-Inner Flynet Outer Glass Panel Configuration (Glass Panel)

No.	Description	P/N	Qty	Notes	Ref. Page
8	Spindle Drive Handle	A010702 A010703 A010707 A010604 A010605 A010634 A010635	1	Master Series Venice Left Turn Handle, Aluminum Alloy Master Series Venice Right Turn Handle, Aluminum Alloy Master Series Venice Handle, Aluminum Alloy Master Series Milan Left Turn Handle, Aluminum Alloy Master Series Milan Right Turn Handle, Aluminum Alloy Master Series Milan Left Turn Handle, Aluminum Alloy (With Spindle) Master Series Milan Right Turn Handle, Aluminum Alloy (With Spindle)	P68, P69, P70, P73, P74, P75, P76
9	Spindle Drive Gearbox	A020144 A020146 A020148 A020186 A020150 A020152	1	Hole Center to Attachment Surface: 13 mm Hole Center to Attachment Surface: 22 mm Hole Center to Attachment Surface: 25 mm Hole Center to Attachment Surface: 28 mm Hole Center to Attachment Surface: 30 mm Hole Center to Attachment Surface: 35 mm	P93
10	Lock Point	A090048-C320	2	Pry-Resistant End Lock Point (Master Series)	P88, P89, P90, P91
11	Keeper	A100125-C320	2	Pry-Resistant Keeper with Bearing	P92
12	Connecting Strip		3-5	Provided by Customer or Cmech	
13	Hinge	A040201 A040202	1	14" Free-Mill Friction Hinge (Left) (Master Series) 14" Free-Mill Friction Hinge (Right) (Master Series)	P101
14	Anti-fall Hardware	A120003	1		P109
15	Frame Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P108, P109
16	Sash Support Block	A080012	1	Height: 7.5 mm	P108
17	Handle Screw Pack		1	Reference P66	



WINDOW WITH FLY SCREEN HARDWARE SERIES

Classic Series Flynet and Glass Panel Integrated Window Configuration (Spindle Drive)



WINDOW WITH FLY SCREEN HARDWARE SERIES

Configuration Table - Classic Series Flynet and Glass Panel Integrated Window-Inner Flynet Outer Glass Panel Configuration (Flynet)

N o.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010704 A010651 A010652 A010669 A010670	1	Classic Series Venice Small Base Handle Classic Series Milan Small Base Handle(38 mm Height) Classic Series Milan Small Base Handle(44 mm Height) Classic Series Milan Baseless Handle Classic Series Milan Baseless Handle(38 mm Height)	P71, P76, P79,
2	Spindle Drive Gearbox	A020181	1	Spindle Drive Gearbox 11 mm (Classic Series)	P94
3	Lock Point	A090059-C282	2	Pry-Resistant End Lock Point (Classic Series)	P88, P89, P90, P91
4	Keeper	A100132-C282	2	Pry-Resistant Keeper with Bearing	P92
5	Connecting Strip		3-5	Provided by Customer or Cmech	
6	Hinge	B040090	1	Classic Series 180°Fly Screen Hinge	P103, P104, P105
7	Handle Screw Pack		1		P66

Configuration Table - Classic Series Flynet and Glass Panel Integrated Window-Inner Flynet Outer Glass Panel Configuration (Glass Panel)

N o.	Description	P/N	Qty	Notes	Ref. Page
8	Spindle Drive Handle	A010705 A010706 A010653 A010654 A010671 A010672 A010487 A010488	1	Classic Series Venice Small Base Left Turn Handle Classic Series Venice Small Base Right Turn Handle Classic Series Milan Small Base Left Turn Handle Classic Series Milan Small Base Right Turn Handle Classic Series Milan Baseless Left Turn Handle Classic Series Milan Baseless Right Turn Handle Classic Series Left Turn Handle with Base Classic Series Right Turn Handle with Base	P76, P77, P80
9	Spindle Drive Gearbox	A020191 A020182 A020183 A020184 A020194	1	Hole Center to Attachment Surface: 22 mm Hole Center to Attachment Surface: 25 mm Hole Center to Attachment Surface: 28 mm Hole Center to Attachment Surface: 30 mm Hole Center to Attachment Surface: 35 mm	P94
10	Lock Point	A090059-C282	1	Pry-Resistant End Lock Point (Classic Series)	P88, P89, P90, P91
11	Keeper	A100132-C282	1	Pry-Resistant Keeper with Bearing	P92
12	Connecting Strip		3-5	Provided by Customer or Cmech	
13	Hinge	A040198	1	14" 50kg Free-Mill Friction Hinge (Classic Series)	P104
14	Anti-fall Hardware	A120003	1		P109
15	Frame Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P108, P109
16	Sash Support Block	A080012	1	Height: 7.5 mm	P108
17	Handle Screw Pack		1		P66



WINDOW WITH FLY SCREEN HARDWARE SERIES

Slimline Flynet and Glass Panel Integrated Window Configuration (Spindle Drive)



WINDOW WITH FLY SCREEN HARDWARE SERIES

Configuration Table - Slimline Internal Flynet and Glass Panel Integrated Window-Inner Flynet Outer Glass Panel Configuration (Flynet)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010701 A010603 A010633	1	Master Series Venice Handle, Aluminum Alloy Master Series Milan Handle, Aluminum Alloy Master Series Milan Handle, Aluminum Alloy (With Spindle)	P67, P69, P72, P75
2	Gearbox	A020185	1	Spindle Drive Gearbox 11 mm (Master Series)	P93
3	Lock Point	A090048-C320	2	Pry-Resistant End Lock Point (Master Series)	P88, P89, P90, P91
4	Keeper	A100125-C320	2	Pry-Resistant Keeper with Bearing	P92
5	Connecting Strip		3-5	Provided by Customer or Cmech	
6	Hinge	B040083 B040037 B040076 B040091	1	165° Fly Screen Hinge, Applicable with Removable and Washable Screw Pack 165° Fly Screen Hinge 90° Fly Screen Hinge, Applicable with Removable and Washable Screw Pack 180° Fly Screen Hinge	P103, P104, P105
	Hinge Screw Pack	B110013 B110012	1	165° 90°	
7	Handle Screw Pack		1		P66

Configuration Table - Slimline Internal Flynet and Glass Panel Integrated Window-Inner Flynet Outer Glass Panel Configuration (Glass Panel)

No.	Description	P/N	Qty	Notes	Ref. Page
8	Slim Handle	A010637 A010638	1	Milan Slim Left Turn Handle Milan Slim Right Turn Handle	P78
9	Gearbox	A020177	1	Hole Center to Attachment Surface: 15 mm	P95
10	Lock Point	A090048-C320	2	Pry-Resistant End Lock Point (Master Series)	P89, P91
11	Keeper	A100125-C320	2	Pry-Resistant Keeper (Master Series)	P92
12	Connecting Strip			Provided by Customer or Cmech	
13	Hingo	A040190 A040205	1	14" Internal Friction Hinge 14" Front Fixed Free-Mill Friction Hinge	P103
14	Frame Support Block	A120003	1		P109
15	Sash Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P109
16	Safety Catch System Hardware	A080012	1	Height: 7.5 mm	P108, P109



WINDOW WITH FLY SCREEN HARDWARE SERIES

Slimline Flynet and Glass Panel Integrated Window Configuration (Fork Drive)



WINDOW WITH FLY SCREEN HARDWARE SERIES

Configuration Table - Slimline Internal Flynet and Glass Panel Integrated Window-Inner Flynet Outer Glass Panel Configuration (Flynet)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010701 A010603 A010633	1	Master Series Venice Handle, Aluminum Alloy Master Series Milan Handle, Aluminum Alloy Master Series Milan Handle, Aluminum Alloy (With Spindle)	P67, P69, P72, P75
2	Spindle Drive Gearbox	A020185	1	Spindle Drive Gearbox 11mm (Master Series)	P93
3	Lock Point	A090048-C320	2	Pry-Resistant End Lock Point (Master Series)	P88, P89, P90, P91
4	Keeper	A100125-C320	2	Pry-Resistant Keeper with Bearing	P92
5	Connecting Strip		3-5	Provided by Customer or Cmech	
6	Hinge	B040083	1	165° Fly Screen Hinge, Applicable with Removable and Washable Screw Pack	P103, P104, P105
		B040037		165° Fly Screen Hinge	
		B040076		90° Fly Screen Hinge, Applicable with Removable and Washable Screw Pack	
	Hinge Screw Pack	B110013 B110012	1	165° 90°	
7	Handle Screw Pack		1		P66

Configuration Table - Slimline Internal Flynet and Glass Panel Integrated Window-Inner Flynet Outer Glass Panel Configuration (Glass Panel)

No.	Description	P/N	Qty	Notes	Ref. Page
8	Slim Handle	A010649	1	Slim Side-fitting Offset Fork Drive Left Turn Handle	P78
		A010650		Slim Side-fitting Offset Fork Drive Right Turn Handle	
		A010659		Slim Side-fitting Central Fork Drive Left Turn Handle	
		A010660		Slim Side-fitting Central Fork Drive Right Turn Handle	
		A010665		Slim Side-fitting Central Fork Drive Left Turn Handle	
		A010666		Slim Side-fitting Central Fork Drive Right Turn Handle	
		A010667		Slim Side-fitting Offset Fork Drive Left Turn Handle	
		A010668		Slim Side-fitting Offset Fork Drive Right Turn Handle	
9	Gearbox	A020188	1	Slim Bi-directional Fork Drive	P95
10	Lock Point	A090048-C320	2	Pry-Resistant End Lock Point (Master Series)	P89, P91
11	Keeper	A100125-C320	2	Pry-Resistant Keeper (Master Series)	P92
12	Connecting Strip			Provided by Customer or Cmech	
13	Hingo	A040190	1	14" Internal Friction Hinge	P103
		A040205		14" Front Fixed Free-Mill Friction Hinge	
14	Frame Support Block	A120003	1		P109
15	Sash Support Block	A120005	1	Frame Support Block with Guide Wheel; Height: 12.6 mm	P109
		A080003		Frame Support Block; Height: 12.8 mm	
		A080004		Frame Support Block; Height: 8.3 mm	
16	Safety Catch System Hardware	A080012	1	Height: 7.5 mm	P108, P109

Outswing Casement Window Hardware



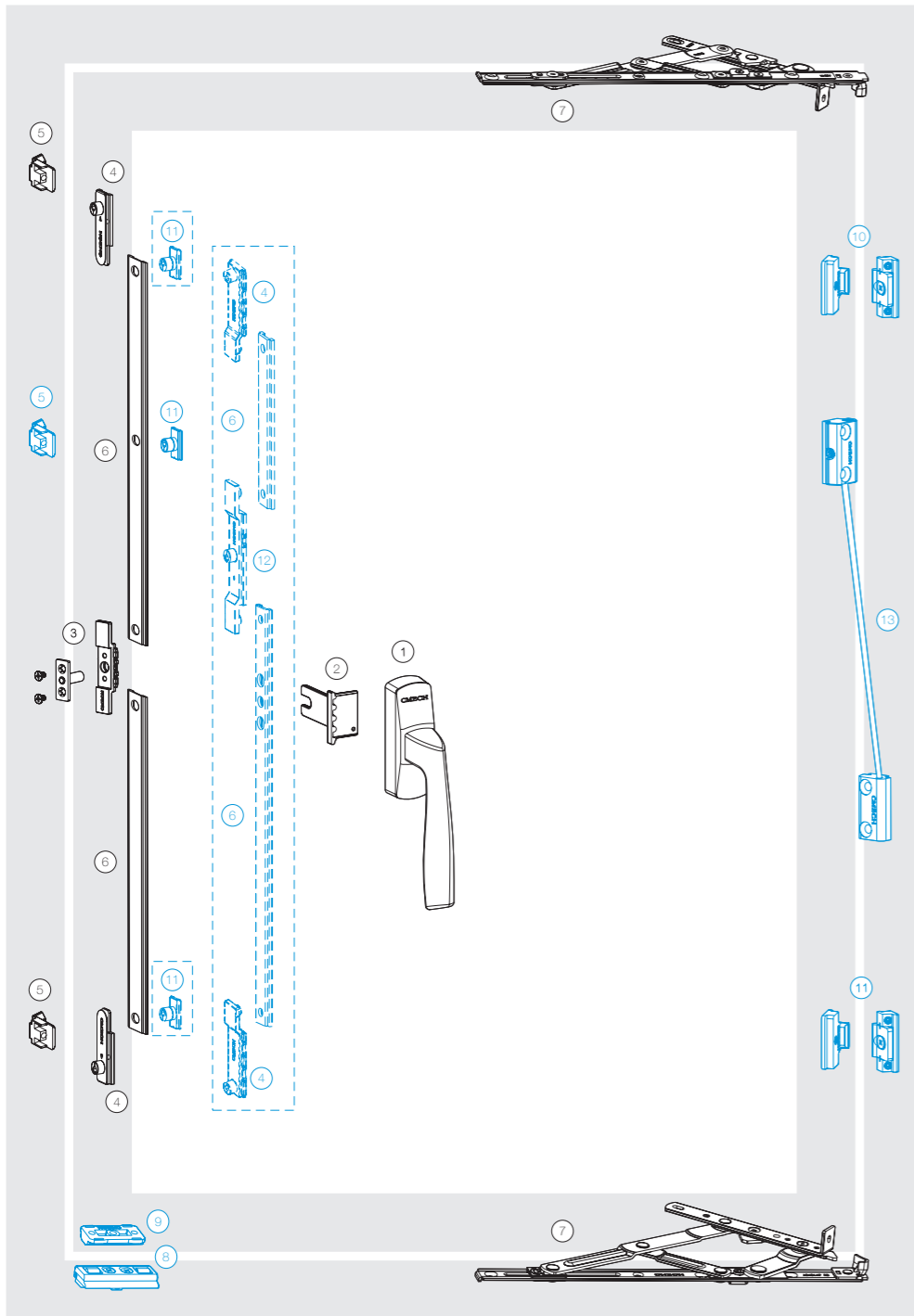
- The handles are available in many styles and colors
- Additional guide wheel support block provides a smoother operation
- Unique friction hinge block provides for easier opening of the window
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Outswing Casement Window		Applicable Range
Sash Width	(mm)	300-800
Sash Height	(mm)	300-1,800
Load-bearing	(kg)	60
Length of T-Drive	(mm)	17, 20, 24, 28, 32, 36, 40
Center Distance of Spindle Drive Gearbox	(mm)	22, 25, 28, 30, 35



OUTSWING CASEMENT WINDOW HARDWARE SERIES

Fork Drive Handle (Type W) Configuration: C-Groove



OUTSWING CASEMENT WINDOW HARDWARE SERIES

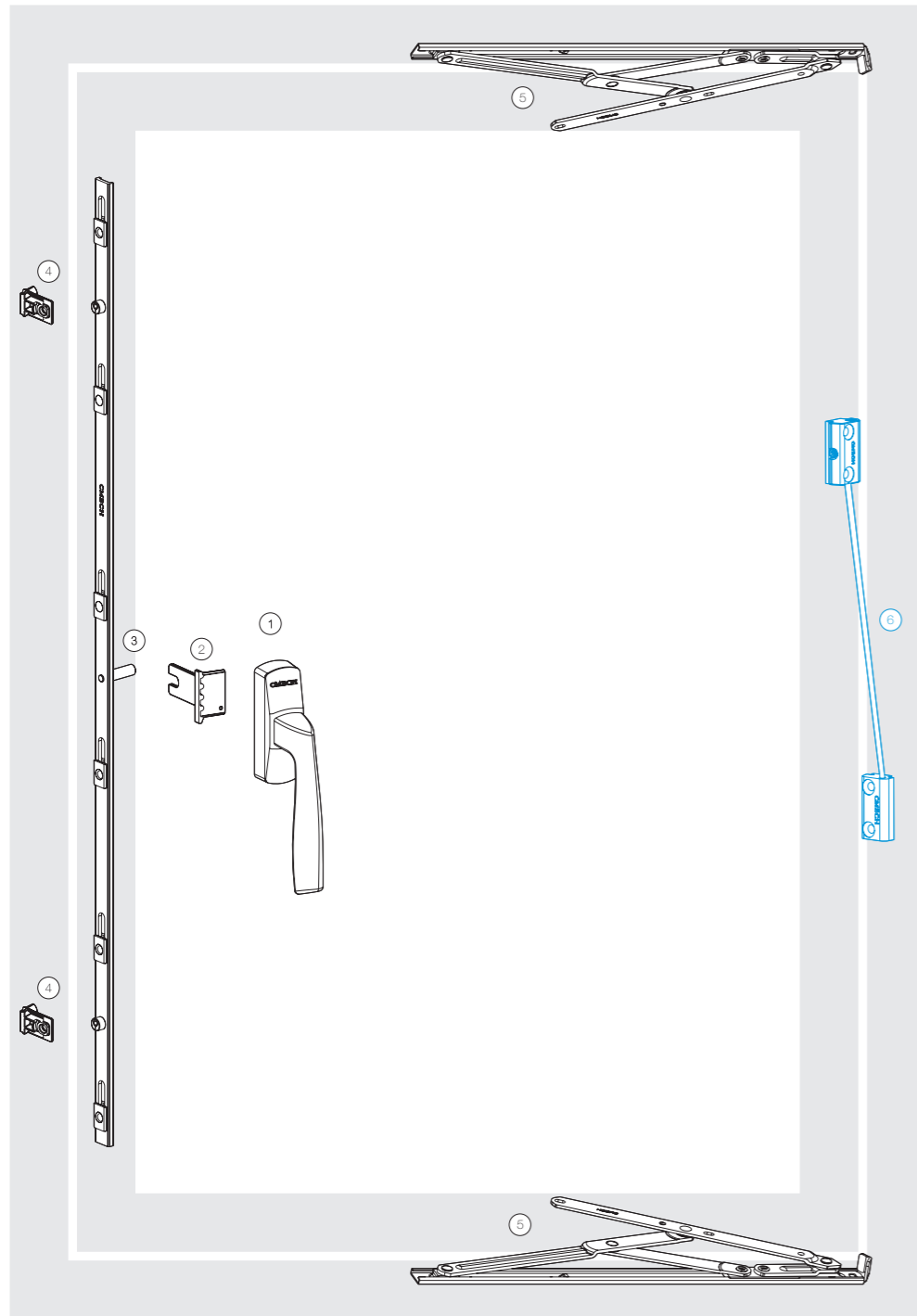
Configuration Table - Fork Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010601 A010406 A010407 A010447 A010448	1	Milan Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Central Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Zinc Alloy Berlin Handle, Suitable for Central Fork Drive, Zinc Alloy	P71, P81, P82
2	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P87, P88
3	T-Drive		1		P96, P97
4	Lock Point	A090048 A090001 A090005 A090007 A090008 A090059	2	Pry-Resistant End Lock Point (Master Series) Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-Resistant End Lock Point (Classic Series)	P88, P89, P90, P91
5	Keeper	A100125 A100132 A100127	2~4	Multiple Types Available	P92
6	Connecting Strip			Provided by Customer or Cmech	
7	Friction Hinge		1	Multiple Types Available	P99, P100, P101, P102
8	Frame Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P108, P109
9	Sash Support Block	A080012	1	Height: 7.5 mm	P108
10	Hidden Lock	A100121 A100104	2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P108
11	Active Lock Point	A090002 A090003 A090011 A090012	0~4	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
12	Central Lock Point	A090009 A090010 A090033 A090034	0~2	Ø9.5x6.0 mm Ø9.5x7.0 mm Pry-Resistant Central Point with Bearing Ø9.3x8.0 mm	P88, P89, P90, P91
13	Safety Catch System Hardware	A120003	1		P109
14	Handle Screw Pack	A110078	1		P66
15	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P111



OUTSWING CASEMENT WINDOW HARDWARE SERIES

Fork Drive Handle (Type W) Configuration: Non-Groove



OUTSWING CASEMENT WINDOW HARDWARE SERIES

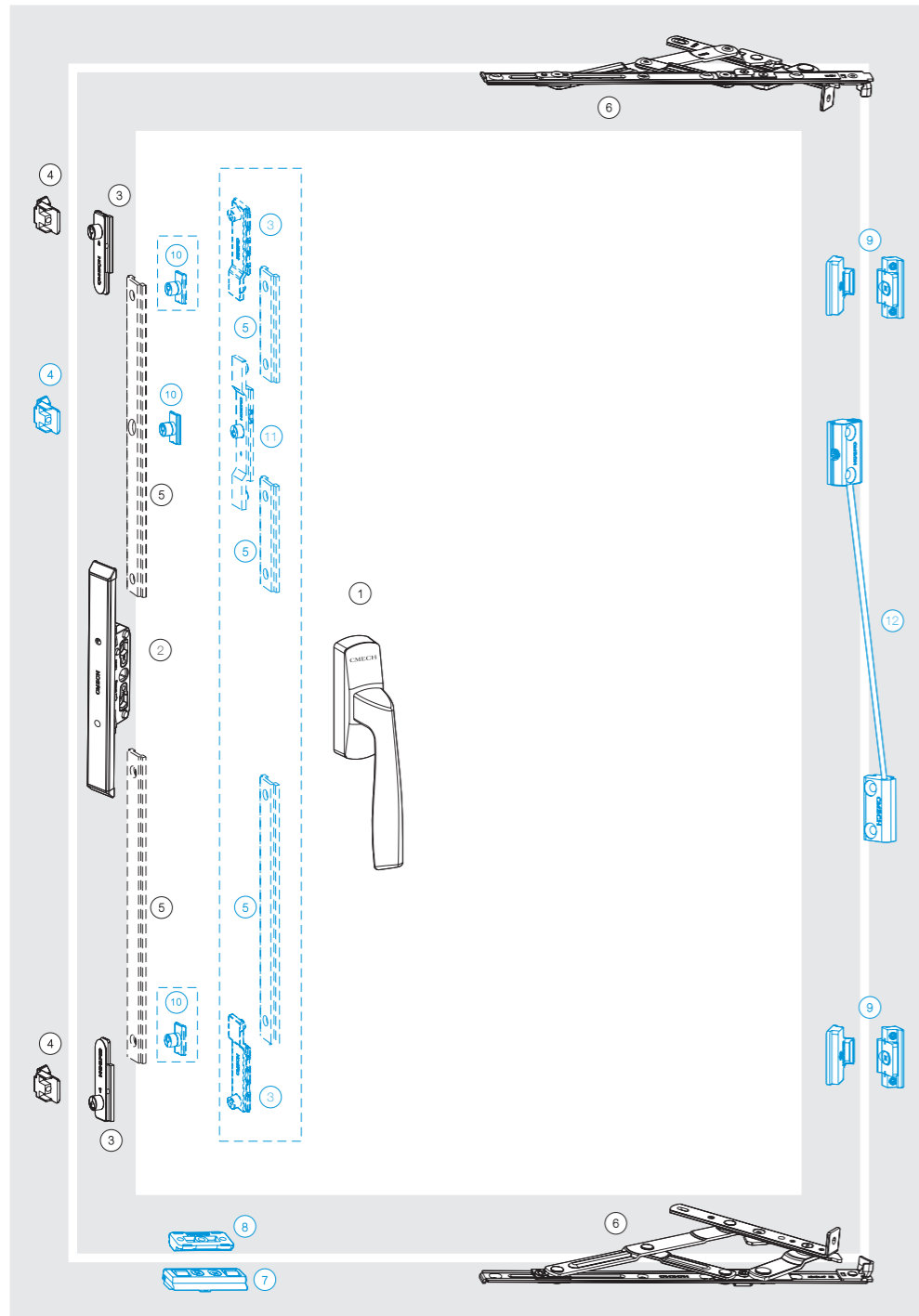
Configuration Table - Fork Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010601 A010406 A010407 A010447 A010448	1	Milan Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Central Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Zinc Alloy Berlin Handle, Suitable for Central Fork Drive, Zinc Alloy	P71, P81, P82
2	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P87, P88
3	Surface Mount Drive Gear	A020050 A020051 A020052 A020053 A020061	1	410 mm 600 mm 800 mm 1000 mm 1300 mm	P95
4	Keeper	A100127	2	Multiple Types Available	P92
5	Friction Hinge		1	Multiple Types Available	P99, P100, P101, P102
6	Safety Catch System Hardware	A120003	1		P109
7	Handle Screw Pack	A110078	1		
8	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P111



OUTSWING CASEMENT WINDOW HARDWARE SERIES

Spindle Drive Handle (Type W) Configuration:C-Groove



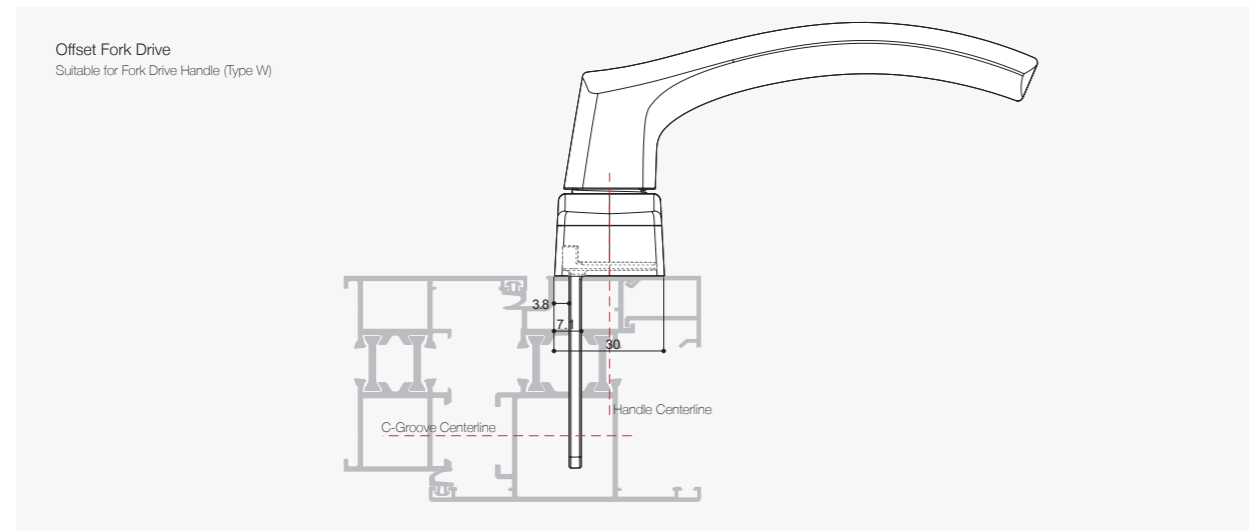
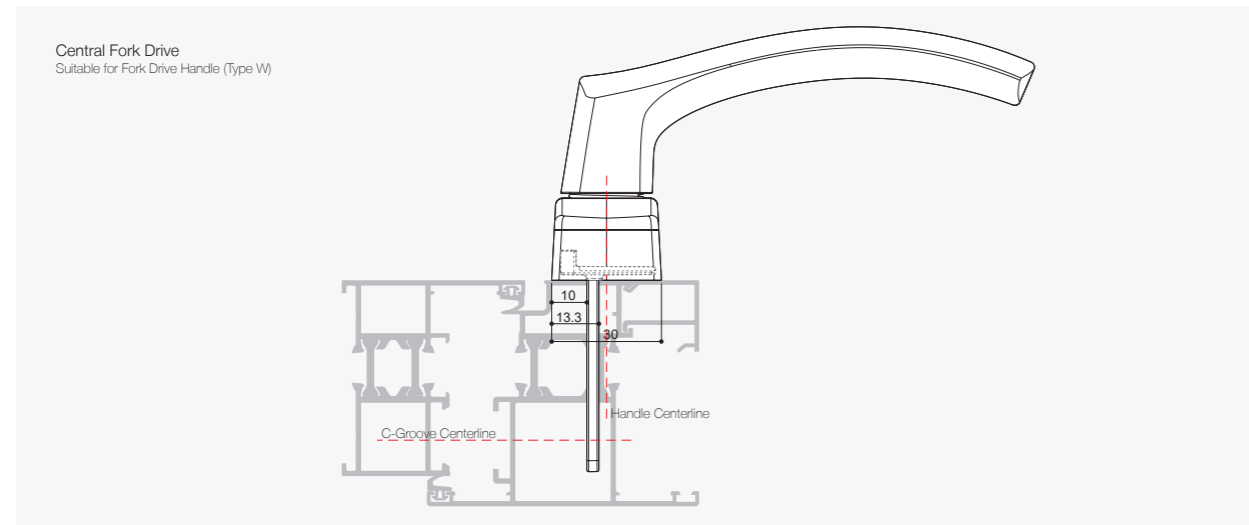
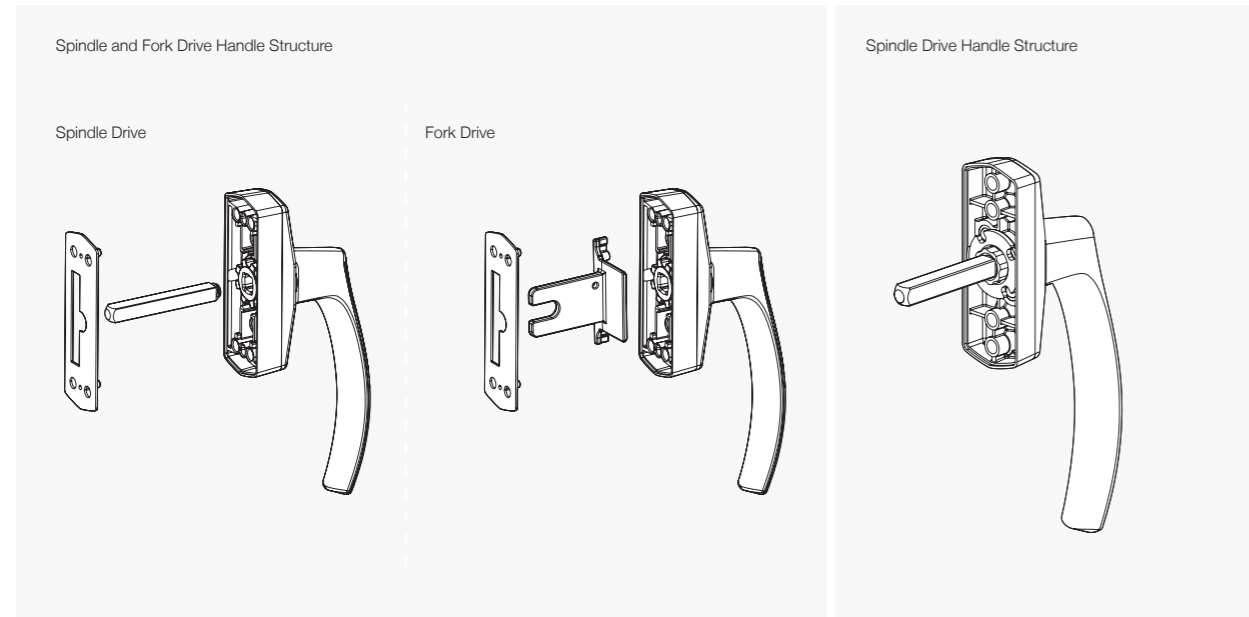
OUTSWING CASEMENT WINDOW HARDWARE SERIES

Configuration Table - Spindle Drive Handle (Type W)

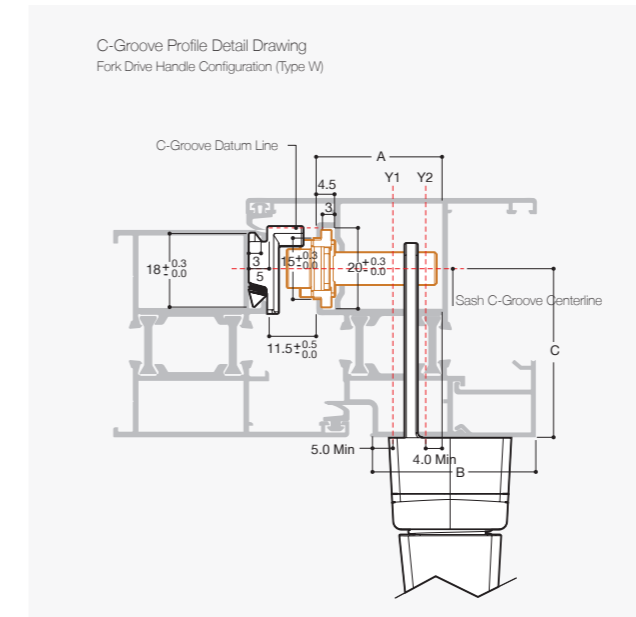
No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type W)	A010601 A010406 A010407 A010447 A010448 A010470 A010004 A010487 A010488	1	Milan Handle, Aluminum Alloy Berlin Handle, Aluminum Alloy Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy Berlin Handle, Zinc Alloy Berlin Handle Keyed Fly Screen Handle Left Turn Handle Right Turn Handle	P71, P81, P82, P83
2	Bi-directional Spindle Drive Gearbox	A020146 A020148 A020150 A020152 A020186	1	Hole Center to Attachment Surface: 22 mm Hole Center to Attachment Surface: 25 mm Hole Center to Attachment Surface: 30 mm Hole Center to Attachment Surface: 35 mm Hole Center to Attachment Surface: 28 mm	P93
3	Lock Point	A090001 A090005 A090007 A090008 A090035 A090048 A090059	2	Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-Resistant End Lock Point with Bearing Ø8.5x9.3 mm Pry-Resistant End Lock Point (Master Series) Pry-Resistant End Lock Point (Classic Series)	P88, P89, P90, P91
4	Keeper	A100125 A100132 A100127	2~4		P92
5	Connecting Strip			Provided by Customer or Cmech	
6	Friction Hinge		1	Multiple Types Available	P99, P100, P101, P102
7	Frame Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P108, P109
8	Sash Support Block	A080012	1	Height: 7.5 mm	P108
9	Hidden Lock	A100121 A100104	2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P108
10	Active Lock Point	A090002 A090003 A090011 A090012	0~4	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
11	Central Lock Point	A090009 A090010 A090034	0~2	Ø9.5x6.0 mm Ø9.5x7.0 mm Ø9.3x8.0 mm	P88, P89, P90, P91
12	Safety Catch System Hardware	A120003	1		P109
13	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P111
14	Handle Screw Pack		1		P66

FORK DRIVE HANDLE AND SPINDLE DRIVE HANDLE INSTRUCTIONS

(See P64 for Spindle Length, See P89 for Fork Length)



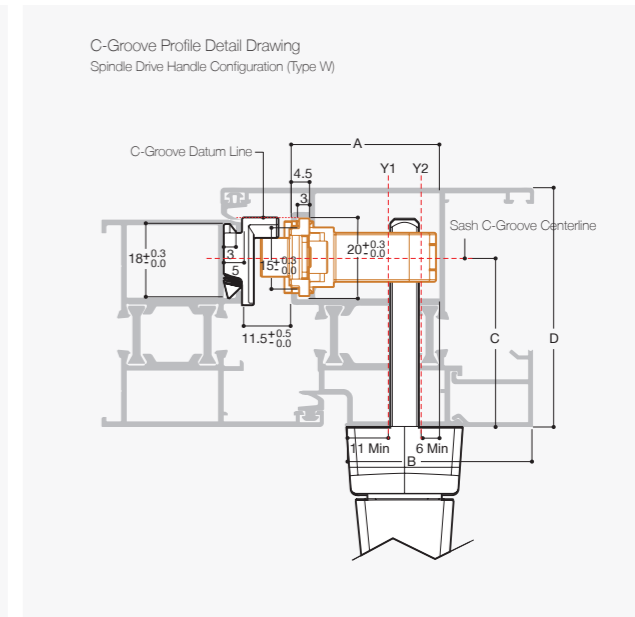
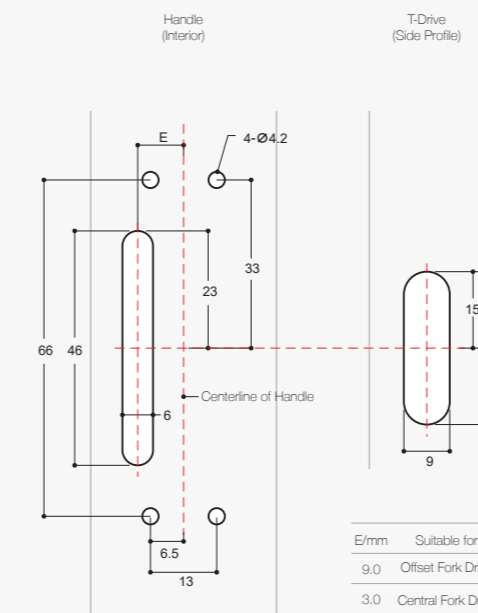
MILAN SERIES FORK DRIVE HANDLE SPINDLE DRIVE HANDLE PROFILE AND DRILLING REQUIREMENTS



Relationship Between Dimensions and Hardware:

- A: Determines the maximum length allowable for the T-drive
- B: Determines the allowable width of the handle plate. The chosen fork must be between lines Y1 and Y2
- C: Determines the length of the fork: the shortest fork length is C+5.0 mm, while the longest length is C+10.0 mm

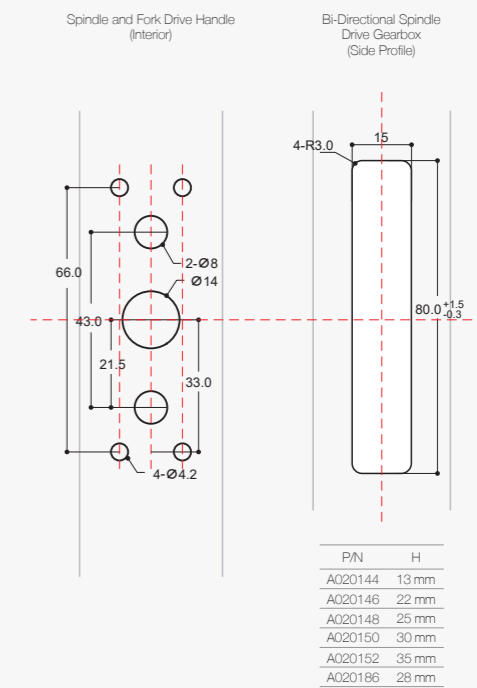
Drill Hole Drawing



Relationship Between Dimensions and Hardware:

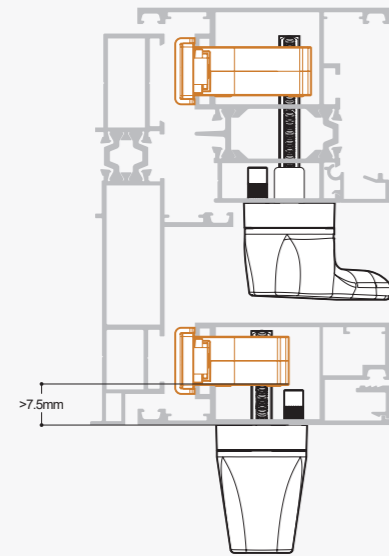
- A: Determines the maximum length allowable for the spindle drive
- A & B: Determines the horizontal hole distance and the allowable width of the handle plate. The centerline of the holes in the drive must be between lines Y1 and Y2
- C & D: Determines the length of the spindle: the shortest length is C+6.0 mm, while the longest length is D-profile thickness-2.0 mm

Drill Hole Drawing



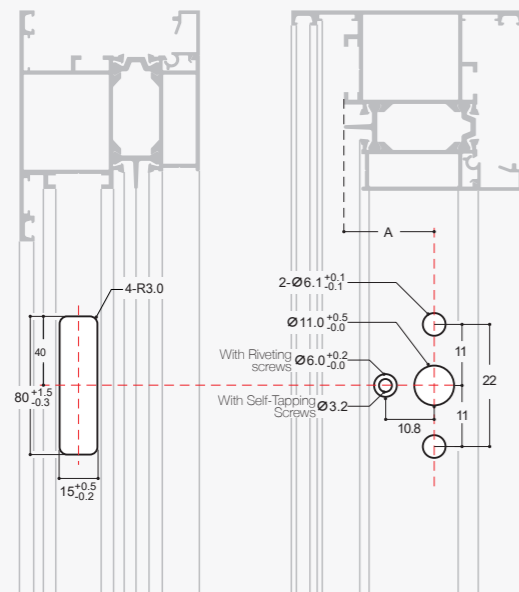
HANDLE PROFILE AND DRILLING REQUIREMENTS

Fly Screen Window with C-Groove Profile Detail Drawing
Master Series Milan Handle Outer Glass Panel Inner Flynet Configuration



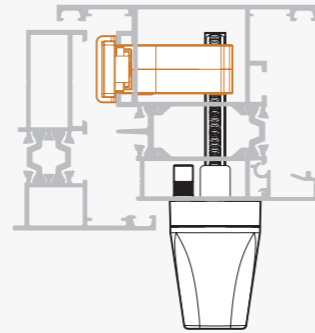
Drill Hole Drawing

Glass Panel Drill Hole Drawing

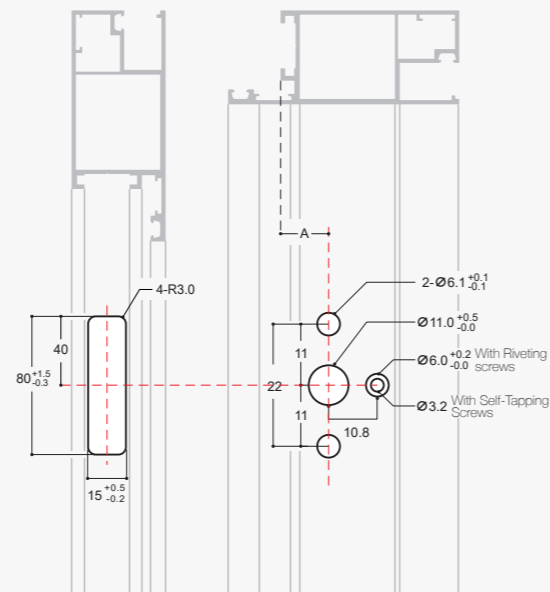


PN	A	Description
A020144	13 mm	Master Series Spindle Drive Gearbox
A020146	22 mm	
A020148	25 mm	
A020150	30 mm	
A020152	35 mm	

Outswing Casement Window with C-Groove Profile Detail Drawing
Master Series Milan Handle Configuration



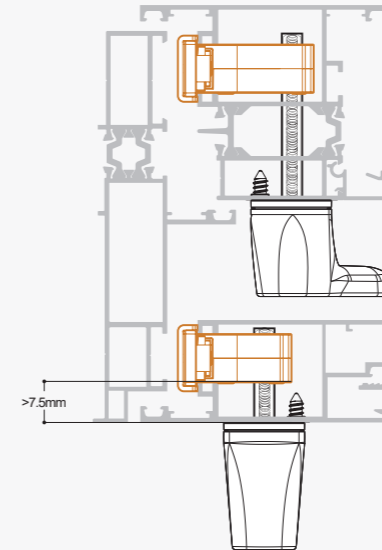
Flynet Drill Hole Drawing



PN	A	Description
A020185	11 mm	Fly Screen Spindle Drive Gearbox

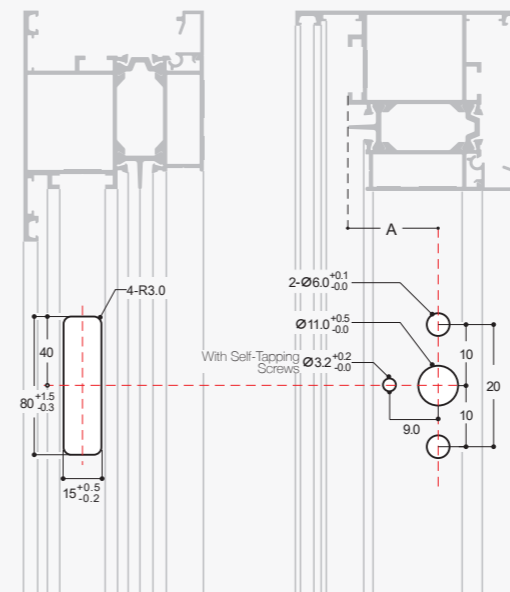
HANDLE PROFILE AND DRILLING REQUIREMENTS

Fly Screen Window with C-Groove Profile Detail Drawing
Classic Series Milan Handle Outer Glass Panel Inner Flynet Configuration



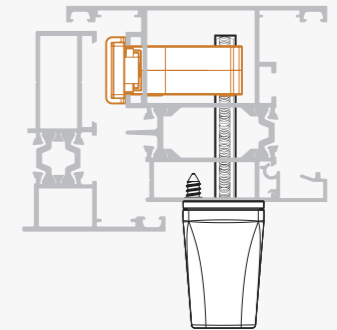
Drill Hole Drawing

Glass Panel Drill Hole Drawing

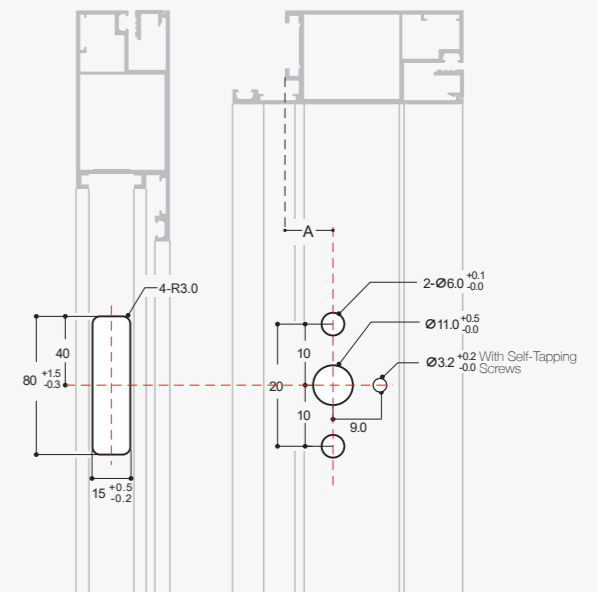


PN	A	Description
A020182	25 mm	Classic Series Spindle Drive Gearbox
A020183	28 mm	
A020184	30 mm	

Outswing Casement Window with C-Groove Profile Detail Drawing
Classic Series Milan Handle Configuration



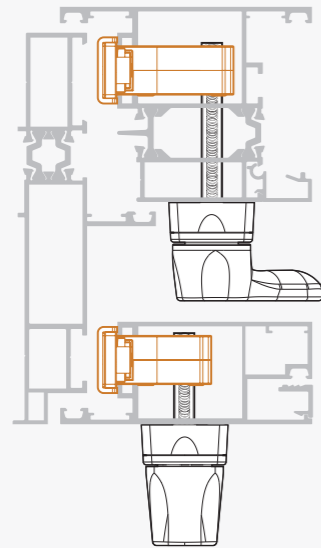
Flynet Drill Hole Drawing



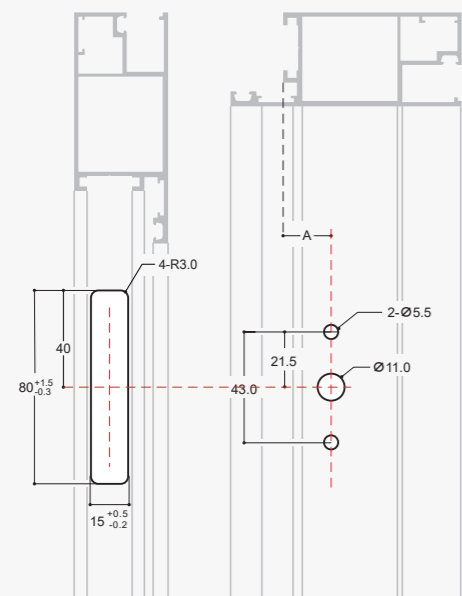
PN	A	Description
A020181	11 mm	Fly Screen Spindle Drive Gearbox

HANDLE PROFILE AND DRILLING REQUIREMENTS

Fly Screen Window with C-Groove Profile Detail Drawing
S/P Series Milan Handle Outer Glass Panel Inner Flynet Configuration

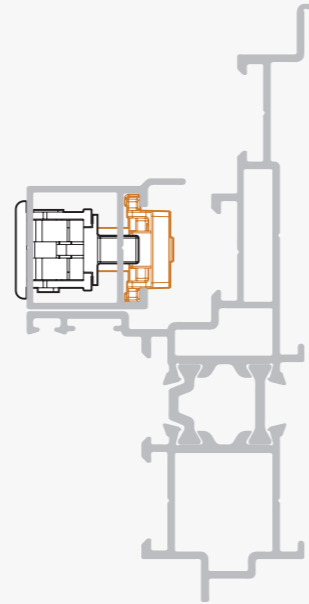


Drill Hole Drawing



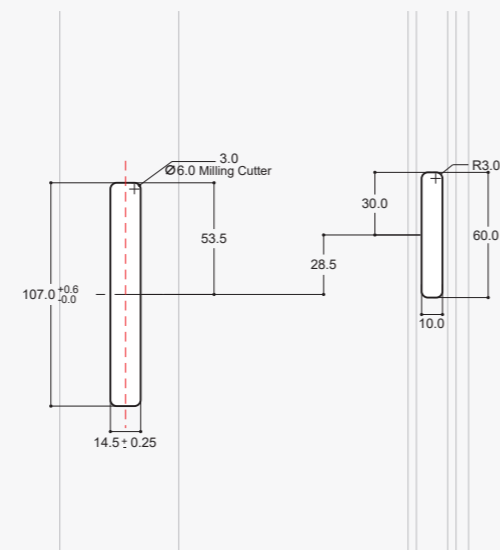
PN	A	Description
A020181	11 mm	
A020182	25 mm	Classic Series Spindle Drive Gearbox
A020183	28 mm	
A020184	30 mm	

Anti-misoperation Recessed Handle Drawing

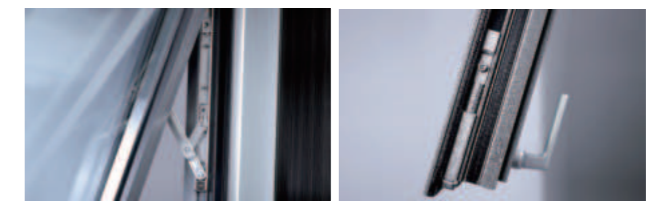


Drill Hole Drawing

Guard Grills Drill Hole Drawing
Opening Diagram of Guard Grills

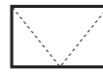


Outswing Awning Window Hardware



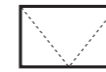
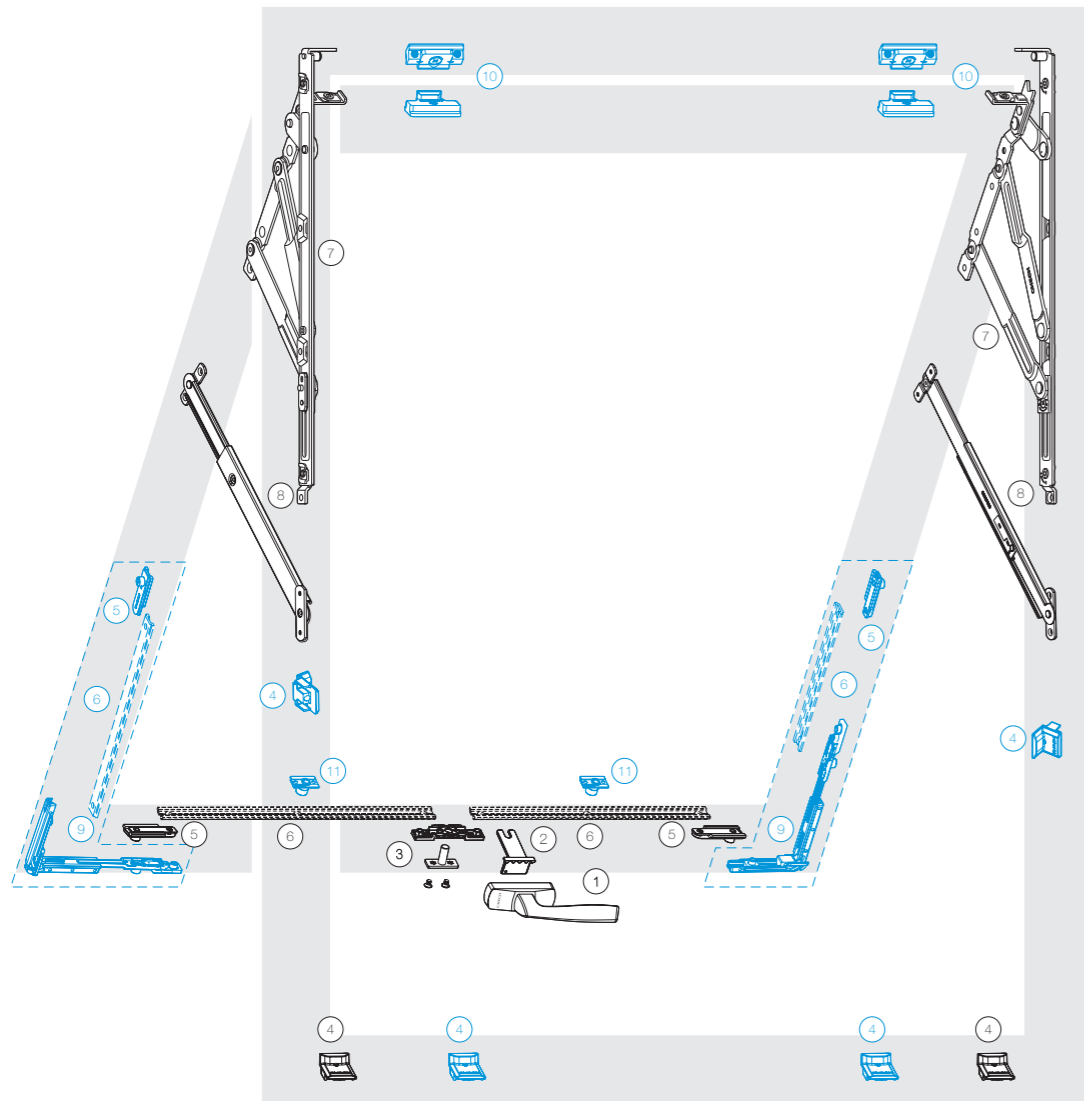
- The handles are available in many styles and colors
- Multiple types of limiting stays are available and suitable for various profiles
- Unique friction hinge block provides for easier opening of the window
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Outswing Awning Window	Applicable Range
Sash Width (mm)	400-2,000
Sash Height (mm)	400-2,000
Load-bearing (kg)	130
Length of T-Drive (mm)	17, 20, 24, 28, 32, 36, 40
Center Distance of Spindle Drive Gearbox (mm)	22, 25, 30, 35



OUTSWING AWNING WINDOW HARDWARE SERIES

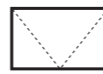
Fork Drive Handle (Type W) and Free-Mill Friction Configuration



OUTSWING AWNING WINDOW HARDWARE SERIES

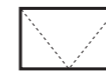
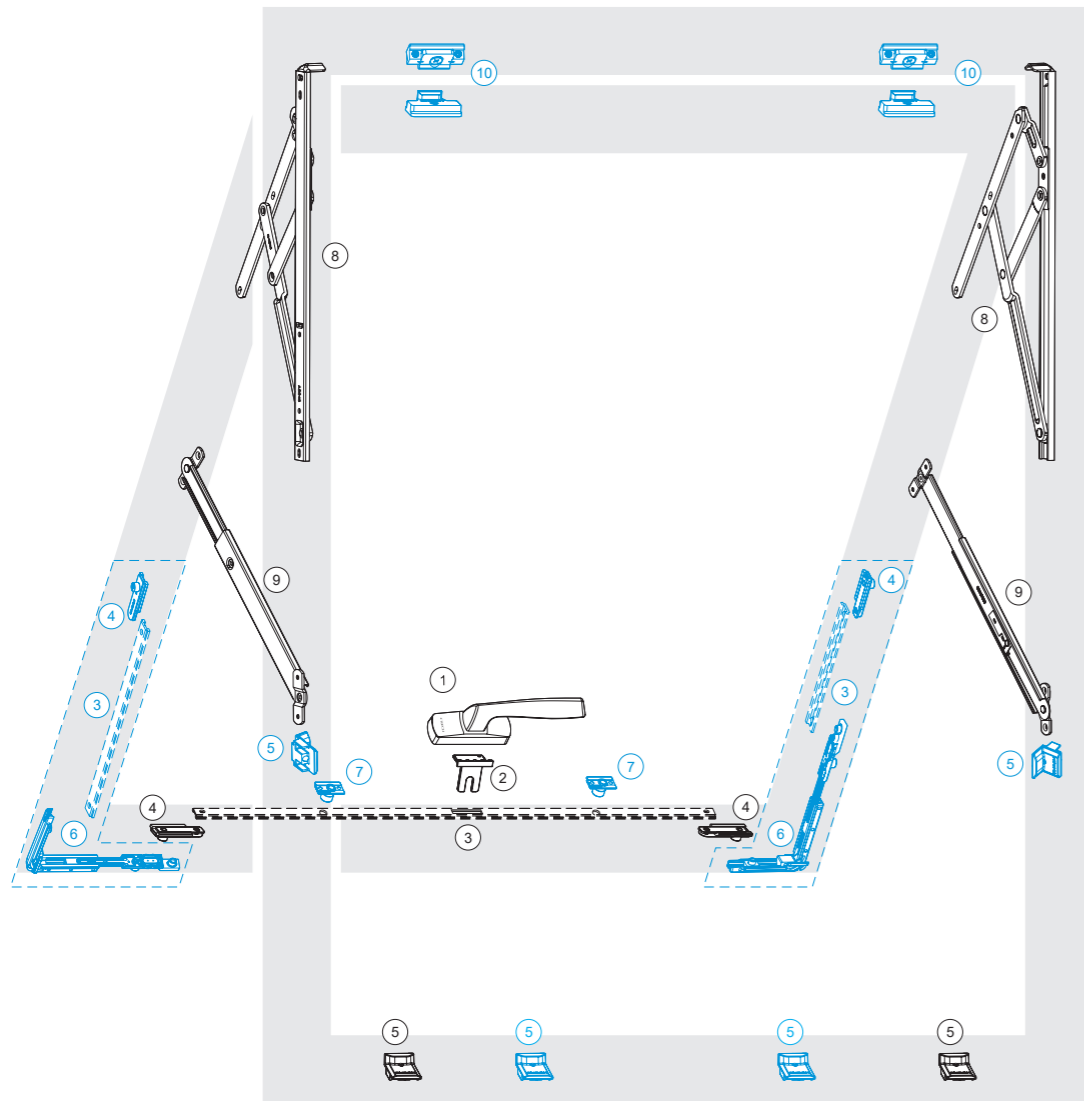
Configuration Table - Fork Drive Handle and Free-Mill Friction (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010601 A010406 A010407 A010447 A010448	1	Milan Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Central Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Zinc Alloy Berlin Handle, Suitable for Central Fork Drive, Zinc Alloy	P71, P81, P82
2	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P87, P88
3	T-Drive		1		P96, P97
4	Keeper		2-6	Multiple Types Available	P92
5	Lock Point	A090001 A090005 A090007 A090008 A090059 A090048	2	Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-Resistant End Lock Point (Classic Series) Pry-Resistant End Lock Point (Master Series)	P88, P89, P90, P91
6	Connecting Strip			Provided by Customer or Cmech	
7	Friction Hinge	H040095 H040096	1	12" Free-Mill Friction Hinge 16" Free-Mill Friction Hinge Multiple Types Available	P112
8	Limiting Stay		1	Multiple Types Available	P109, P110
9	Corner Drive	C060009	2		P139
10	Hidden Lock	A100121 A100104	1-2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P108
11	Active Lock Point	A090002 A090003 A090011 A090012	2	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
12	Handle Screw Pack	A110078	1		P66
13	Limiting Stay Screw Pack	H110003	2		
14	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P112



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

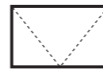
Fork Drive Handle (Type W) Configuration(C-Groove)



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

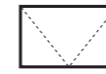
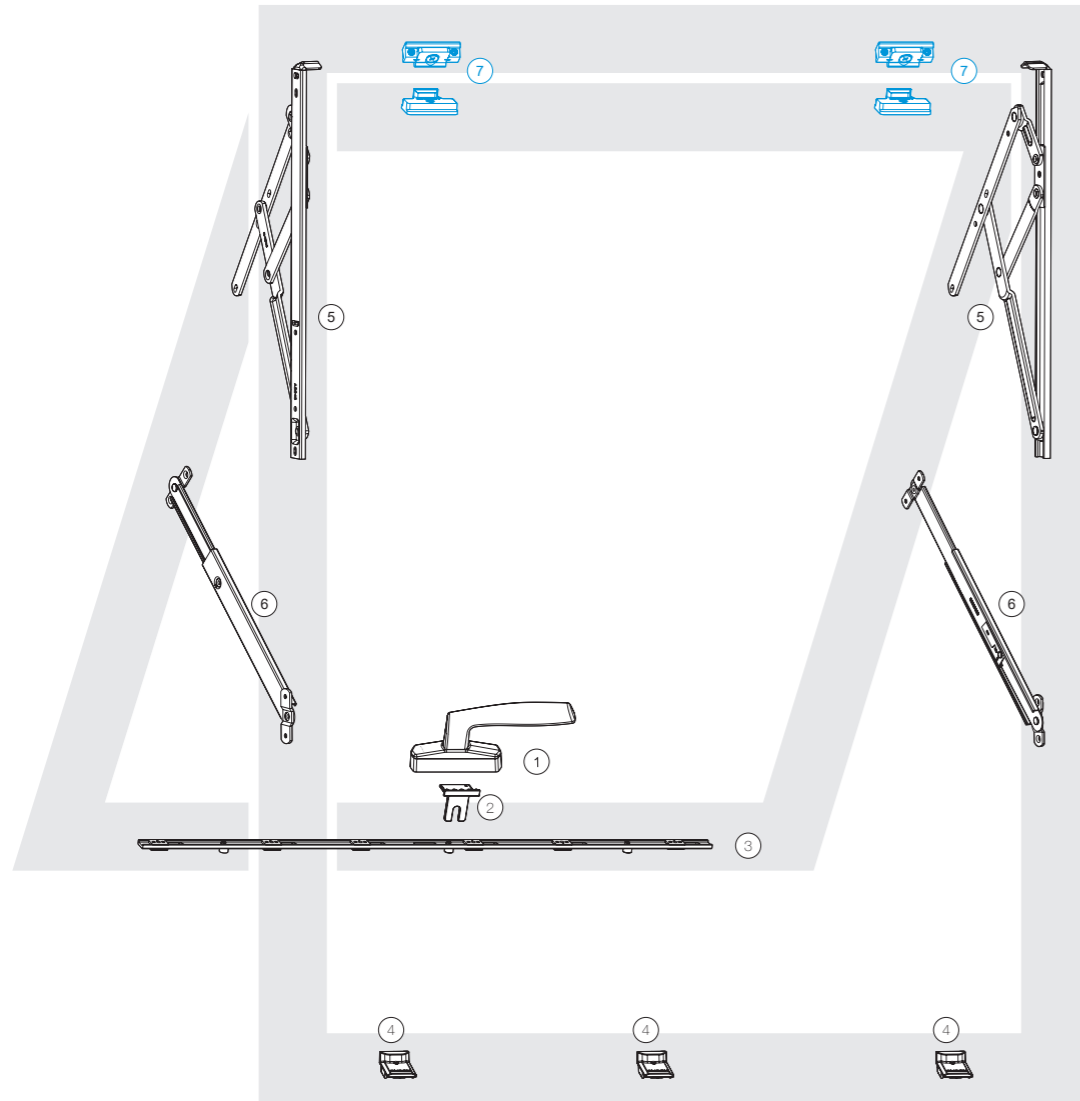
Configuration Table - Fork Drive Handle (Type W)(C-Groove)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010601 A010406 A010407 A010447 A010448	1	Milan Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Zinc Alloy Berlin Handle, Suitable for Central Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Central Fork Drive, Zinc Alloy	P83, P84
2	Fork Drive		1	Offset Fork Drive Central Fork Drive	P89
3	Connecting Strip			Provided by Customer or Cmech	
4	Lock Point	A090001 A090005 A090007 A090008 A090059 A090048	2	Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-Resistant End Lock Point (Classic Series) Pry-Resistant End Lock Point (Master Series)	P88, P89, P90, P91
5	Keeper	A100127 A100122	2~6	Keeper Pry-Resistant Keepers with Bearing	P92
6	Corner Drive	C060009	2		P139
7	Active Lock Point	A090002 A090003 A090011 A090012	2	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
8	Friction Hinge		1	Multiple Types Available	P112
9	Limiting Stay		1	Multiple Types Available	P109
10	Hidden Lock	A100121 A100104	1~2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P108
11	Limiting Stay Screw Pack	H110003	2		
12	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P112
13	Handle Screw Pack	A110078	1		



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

Fork Drive Handle (Type W) Configuration(Grooveless)



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

Configuration Table - Fork Drive Handle (Type W)(Grooveless)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010601 A010406 A010407 A010447 A010448	1	Milan Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Zinc Alloy Berlin Handle, Suitable for Central Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Central Fork Drive, Zinc Alloy	P71, P81, P82
2	Fork Drive		1	Offset Fork Drive Central Fork Drive	P87, P88
3	Surface Mount Drive Gear	A020062 A020063 A020064 A020065	1	410 mm 600 mm 800 mm 1000 mm	P95
4	Keeper		3	Multiple Types Available	P92
5	Friction Hinge		1	Multiple Types Available	P112
6	Limiting Stay		1	Multiple Types Available	P109, P110
7	Hidden Lock	A100121 A100104	1~2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P108
8	Handle Screw Pack	A110078	1		
9	Limiting Stay Screw Pack	H110003	2		
10	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P112

Inswing Casement Window Hardware



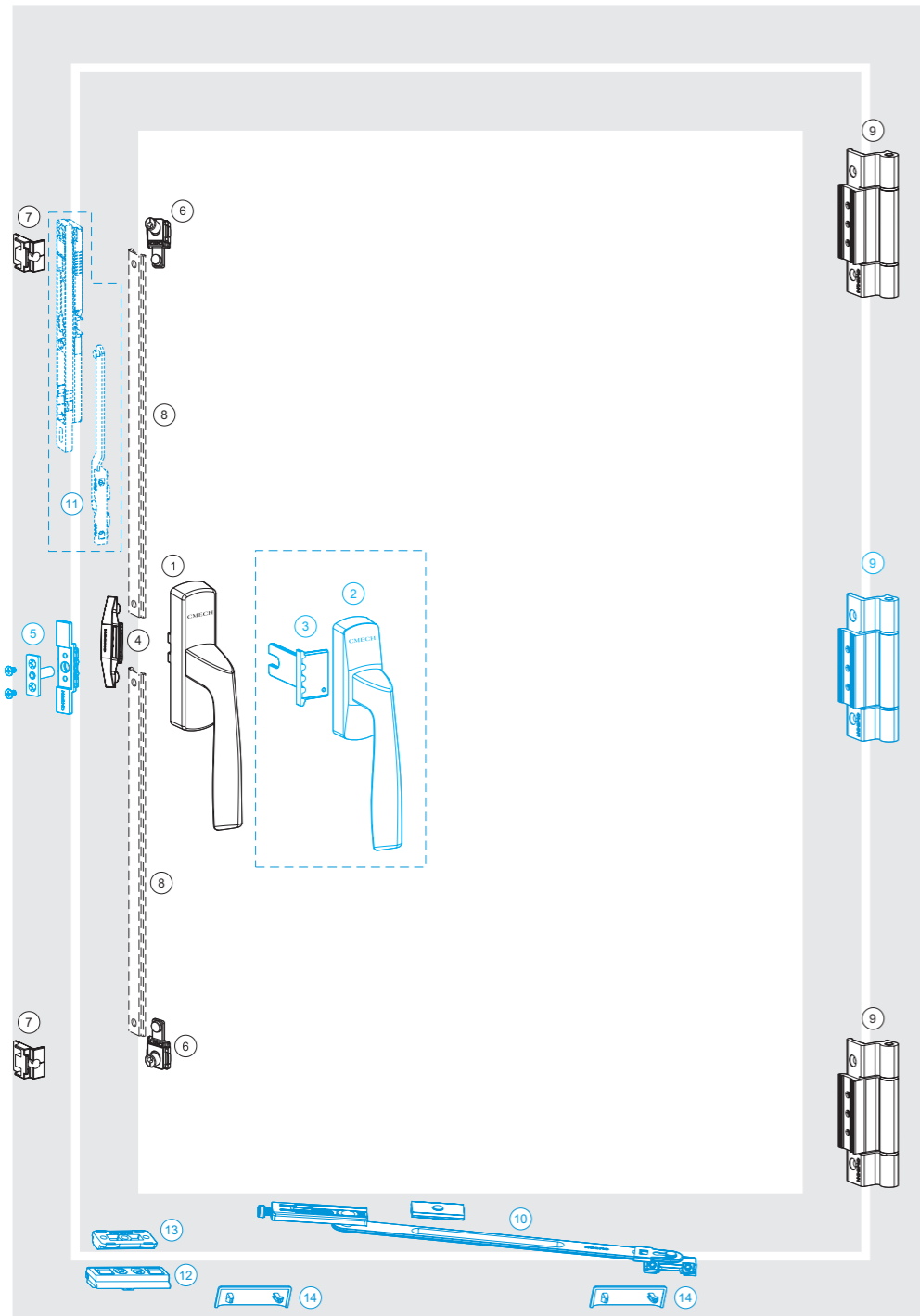
- The handles are available in many styles and colors
- Hinges are easy to install
- Unique support block with guide wheel provides for extra support for sash and smoother opening of the window
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Inswing Casement Window	Applicable Range
Sash Width (mm)	300-1,200
Sash Height (mm)	400-2,400
Load-bearing (kg)	25-100
Length of T-Drive (mm)	17, 20, 24, 28, 32, 36, 40
Center Distance of Spindle Drive Gearbox (mm)	6,11,11.5, 12, 13



INSWING CASEMENT WINDOW HARDWARE SERIES

Classic Series Fork Drive Handle & Clamping Hinge (80 kg) Configuration



INSWING CASEMENT WINDOW HARDWARE SERIES

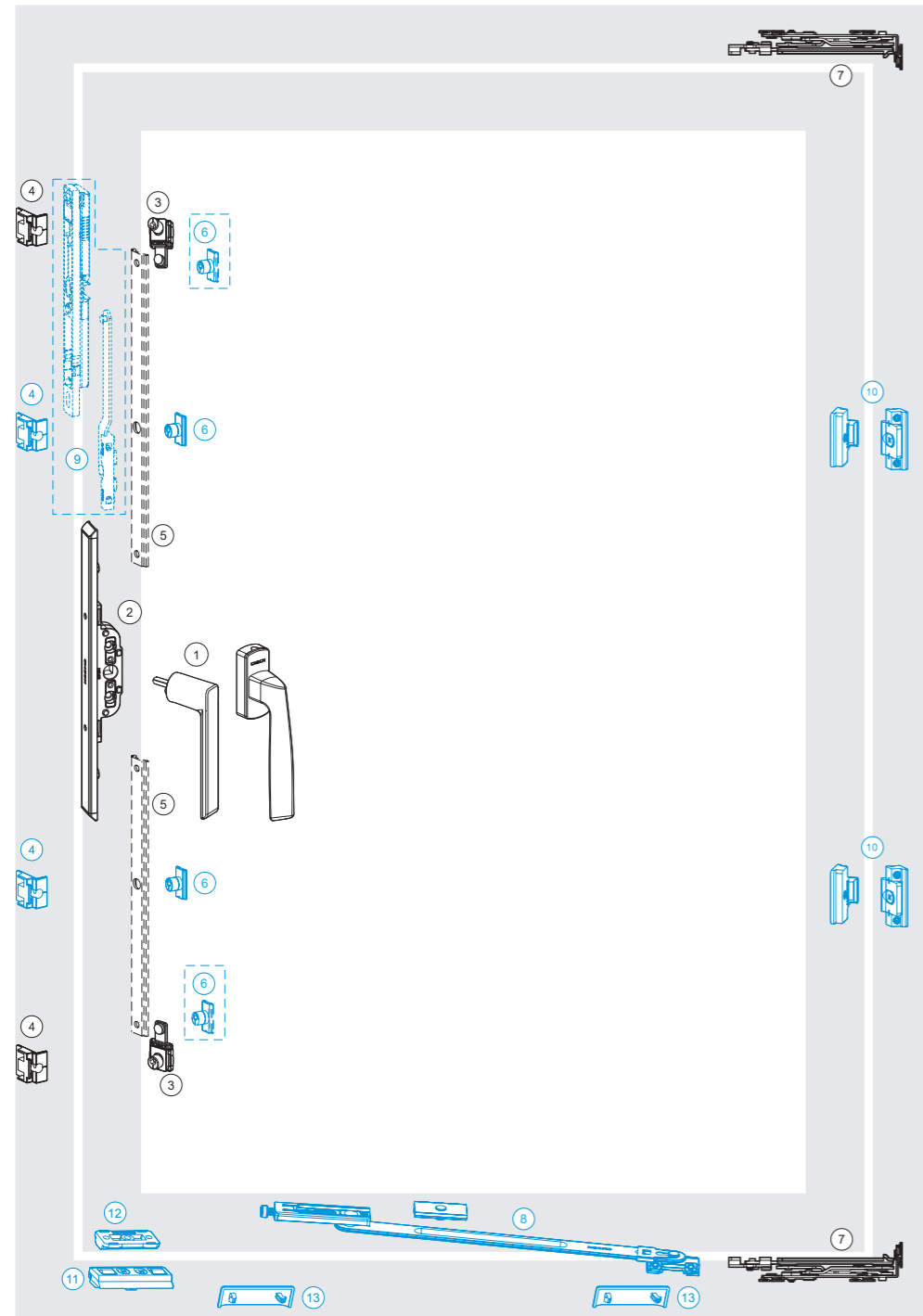
Configuration Table - Fork Drive Handle (Type TT)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type T T)	C010402 C010401	1	Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy	P86
2	Fork Drive Handle (Type W)	A010601 A010406 A010448	1	Milan Handle, Aluminum Alloy Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy	P97
3	Fork Drive		1	Offset Fork Drive Central Fork Drive	P97
4	Fork Drive Connector	B020004	1		P97
5	T-Drive		1		P97
6	Lock Point	A090001 A090005 A090007 A090008 A090059 C090011	2	Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-Resistant End Lock Point (Classic Series) Back-lock End Lock Point	P88, P89, P90, P91
7	Keeper	A100127	2-4		P92
8	Connecting Strip			Provided by Customer or Cmech	
9	Hinge	B040059	2-3	80 kg Clamping Hinge	P106
10	Limiting Stay	B040041 B040042	1	10" 14"	P110
11	Handle Screw Pack	A110078	1	Suitable for Outswing Casement Window Handle	
12	Frame Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P108, P109
13	Sash Support Block	A080012	1	Height: 7.5 mm	P108
14	Drain Cover	C120002	2		P102



INSWING CASEMENT WINDOW HARDWARE SERIES

Classic Series Spindle Handle & Concealed Hinge Configuration



INSWING CASEMENT WINDOW HARDWARE SERIES

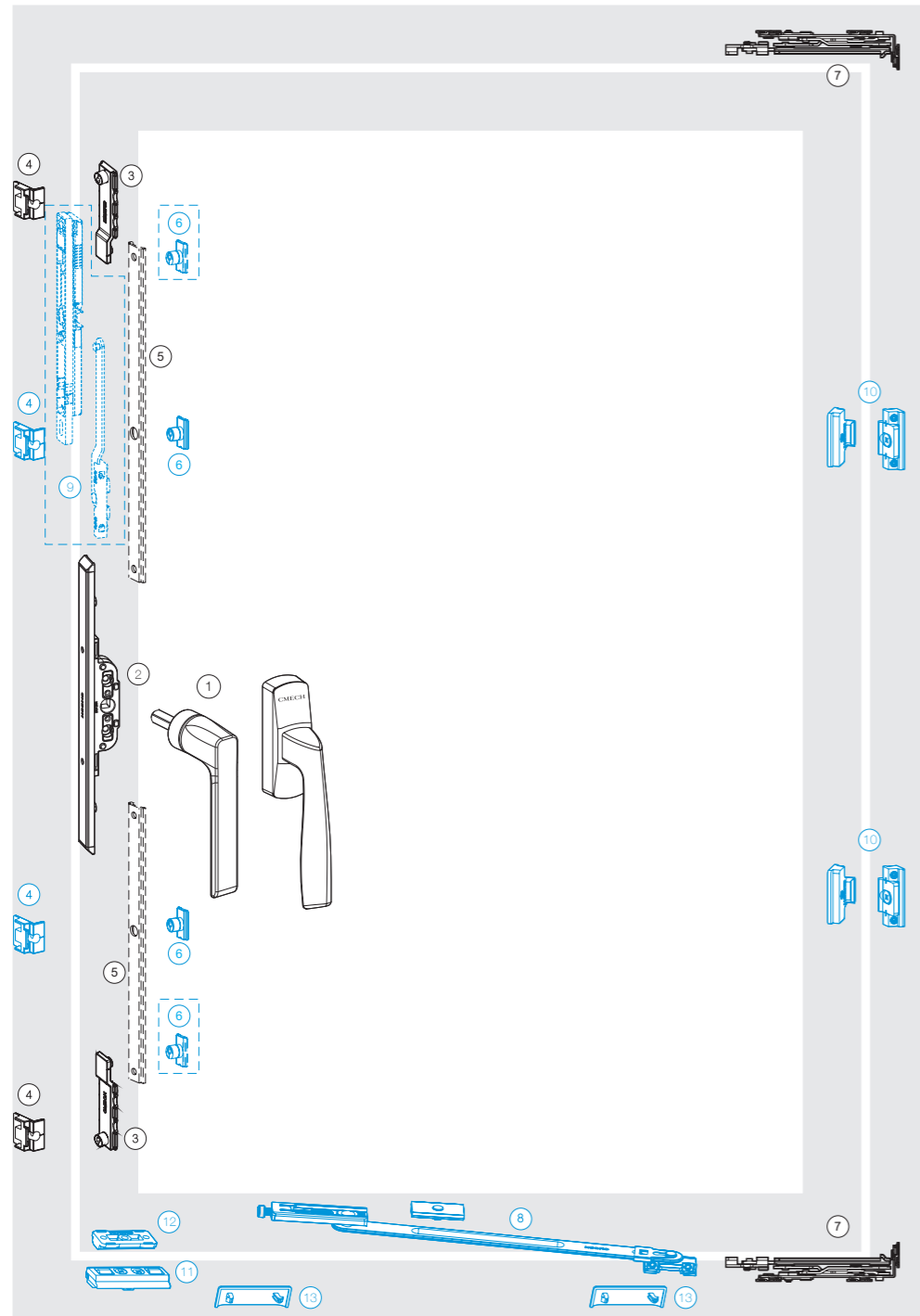
Configuration Table - Spindle Handle & Drive Gearbox

No.	Description	P/N	Qty	Notes	Ref. Page
1	Handle	A010674 C010407	1	Milan Baseless Handle (Includes 25 mm Spindle) Berlin Handle with Base	P67, P69, P72, P75
2	Spindle Drive Gearbox	A020181 C020020 C020022 C020026 C020027	1	11 mm Gearbox 11.5 mm Gearbox, Back Dim. 13 mm 12 mm Gearbox, Back Dim. 10 mm 6 mm Gearbox, Back Dim. 11.7 mm 12 mm Gearbox, Back Dim.11.7 mm	P93
3	Lock Point	A090001 A090005 A090007 A090008 A090059 C090011	2	Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-Resistant End Lock Point (Classic Series) Back-lock End Lock Point	P88, P89, P90, P91
4	Keeper	A100127	2-4		P92
5	Connecting Strip			Provided by Customer or Cmech	
6	Active Lock Point	A090002 A090003 A090011 A090012	2-4	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
7	Concealed Hinge	B040082 B040073 B040095 B040096	1	80 kg Concealed Hinge 100 kg Concealed Hinge 60 kg Concealed Hinge, Left Open 60 kg Concealed Hinge, Right Open	P106 P103, P104, P105
8	Limiting Stay	B040041 B040042	1	10" 14"	P110
9	Ventilation Assist	B040072	1		P96
10	Hidden Lock	A100121 A100104	0-2	For a Single-Sided C-Groove For a Double-Sided C-Groove	P108
11	Frame Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P108, P109
12	Sash Support Block	A080012	1	Height: 7.5 mm	P108
13	Drain Cover	C120002	2		P102
14	Handle Screw Pack	A110238 A110346	1	Suitable for A010674 Suitable for C010407	



INSWING CASEMENT WINDOW HARDWARE SERIES

Master Series Spindle Handle & Concealed Hinge Configuration



INSWING CASEMENT WINDOW HARDWARE SERIES

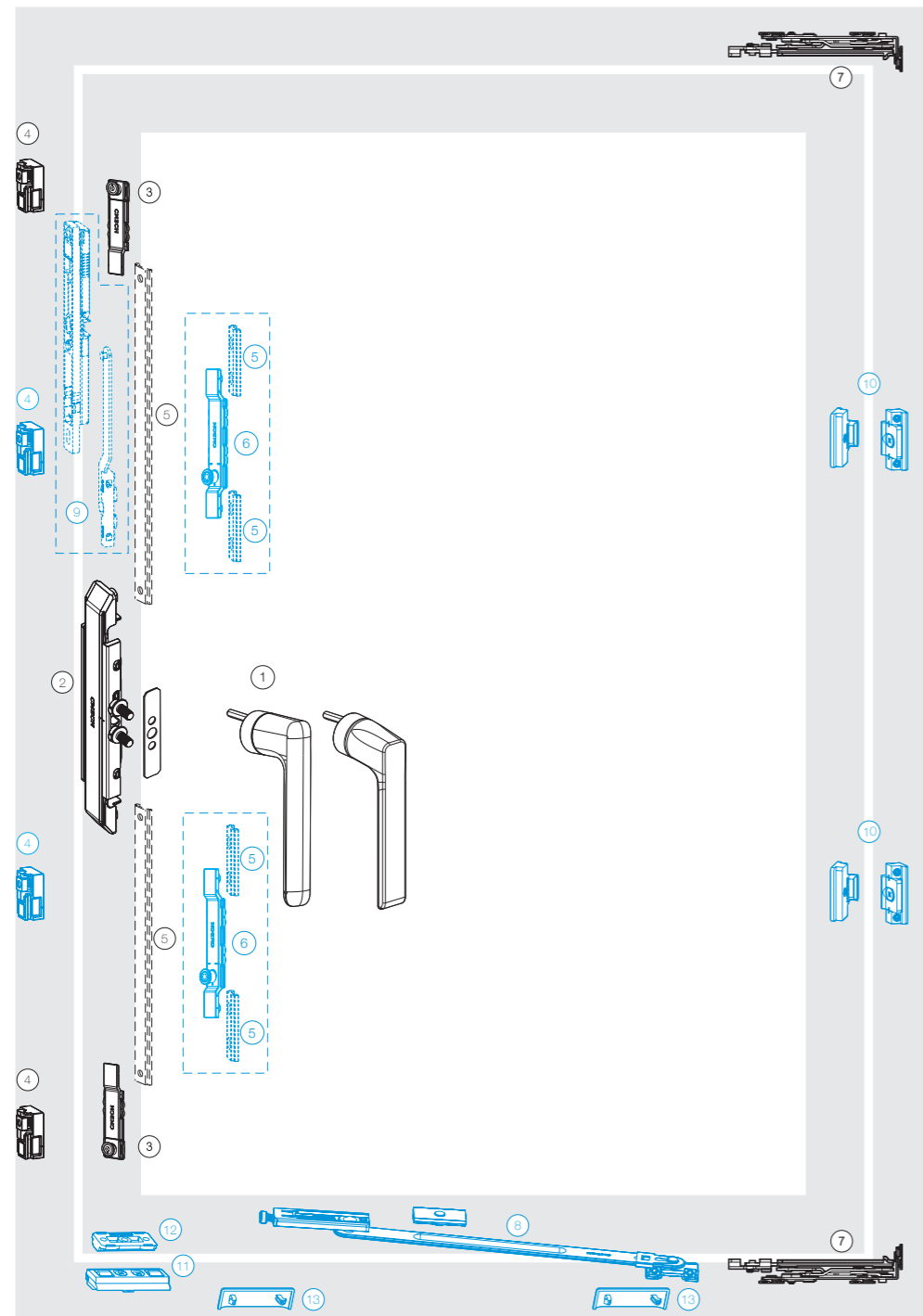
Configuration Table - Spindle Handle & Drive Gearbox

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010633 A010601 A010406 A010448	1	Milan Round-Base Handle, Include 26mm Spindle Milan Handle, Aluminum Alloy Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy	P71 P81 P82 P83
2	Spindle Drive Gearbox	A020144 A020185 C020020 C020022 C020026 C020027	1	11 mm Gearbox 13 mm Gearbox 11.5 mm Gearbox, Back Dim. 13 mm 12 mm Gearbox, Back Dim. 10 mm 6 mm Gearbox, Back Dim. 11.7 mm 12 mm Gearbox, Back Dim.11.7 mm	P93
3	Lock Point	A090001 A090005 A090007 A090008 A090059 C090011	2	Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-Resistant End Lock Point (Classic Series) Back-lock End Lock Point	P88, P89, P90, P91
4	Keeper	A100127	2-4		P92
5	Connecting Strip			Provided by Customer or Cmech	
6	Active Lock Point	A090002 A090003 A090011 A090012	2-4	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
7	Concealed Hinge	B040082 B040073 B040095 B040096	1	80 kg Concealed Hinge 100 kg Concealed Hinge 60 kg Concealed Hinge, Left Open 60 kg Concealed Hinge, Right Open	P106 P103, P104, P105
8	Limiting Stay	B040041 B040042	1	10" 14"	P110
9	Ventilation Assist	B040072	1		P96
10	Hidden Lock	A100121 A100104	0-2	For a Single-Sided C-Groove For a Double-Sided C-Groove	P108
11	Frame Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P108, P109
12	Sash Support Block	A080012	1	Height: 7.5 mm	P108
13	Drain Cover	C120002	2		P102
14	Handle Screw Pack	A110256 C110005	1	Suitable for A010633 Suitable for A010601/A010406/A010448	



INSWING CASEMENT WINDOW HARDWARE SERIES

Hexagon Spindle Handle & Drive Gearbox Configuration



INSWING CASEMENT WINDOW HARDWARE SERIES

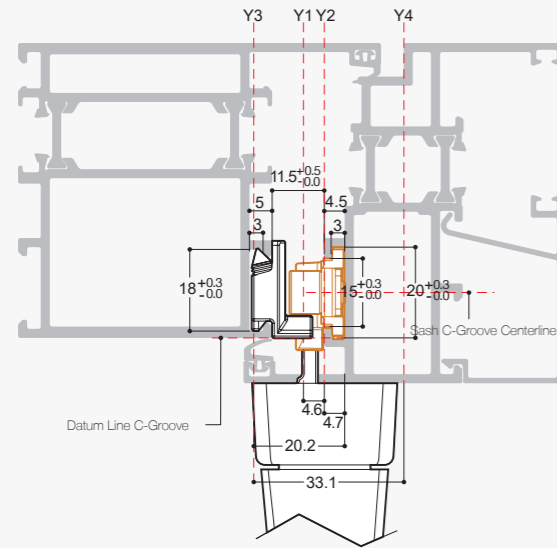
Configuration Table - Hexagon Spindle Handle & Drive Gearbox

No.	Description	P/N	Qty	Notes	Ref. Page
1	Hexagon Spindle Handle	C010601 C010701	1	Milan Handle Venice Handle	P67
2	Hexagon Spindle Drive Gearbox	B020003	1		
3	Lock Point	A090048	2	Pry-Resistant End Lock Point (Master Series)	P90
4	Keeper	C100005	2-4		P92
5	Connecting Strip			Provided by Customer or Cmech	
6	Middle Lock Point	A090034	2-4	Pry-Resistant End Lock Point (Master Series)	P90
7	Concealed Hinge	B040082 B040073 B040095 B040096	1	80 kg Concealed Hinge 100 kg Concealed Hinge 60 kg Concealed Hinge, Left Open 60 kg Concealed Hinge, Right Open	P103, P104, P105
8	Limiting Stay	B040041 B040042	1	10" 14"	P110
9	Ventilation Assist	B040072	1		P96
10	Hidden Lock	A100121 A100104	0-2	For a Single-Sided C-Groove For a Double-Sided C-Groove	P108
11	Frame Support Block	A120005 A080003 A080004	1	Frame Support Block with Guide Wheel; Height: 12.6 mm Frame Support Block; Height: 12.8 mm Frame Support Block; Height: 8.3 mm	P108, P109
12	Sash Support Block	A080012	1	Height: 7.5 mm	P108
13	Drain Cover	C120002	2		P102
14	Tapping Screws Pack	C110013	1		
15	Ram Screws Pack	C110014	1		



INSWING CASEMENT WINDOW PROFILE AND DRILLING REQUIREMENTS

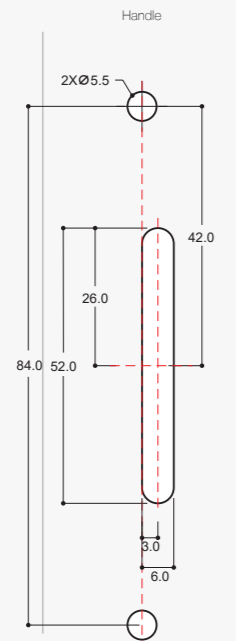
Inswing Casement Window with C-Groove Profile Detail Drawing
Fork Drive Handle Configuration (Type TT)



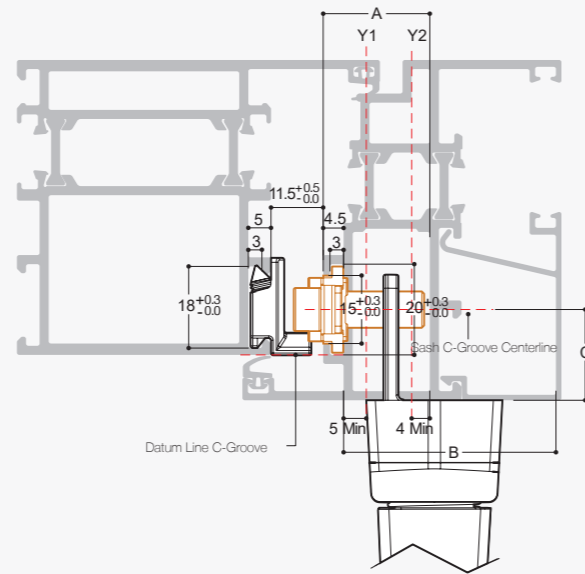
Relationship Between Dimensions and Hardware:

- A: The fork must be between lines Y1 and Y2
- B: The handle must be between lines Y3 and Y4

Drill Hole Drawing



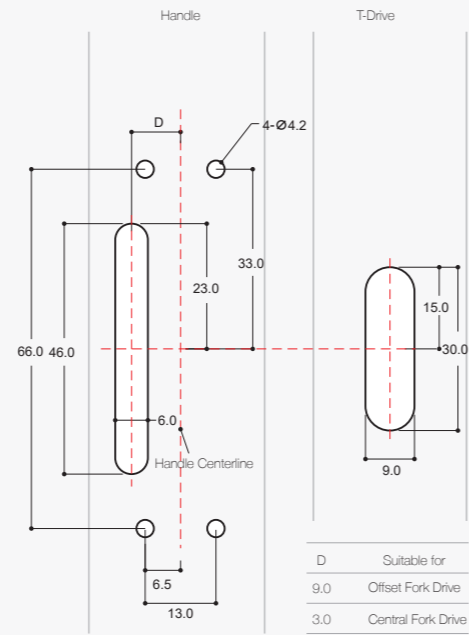
Inswing Casement Window with C-Groove Profile Detail Drawing
Fork Drive Handle Configuration (Type V)



Relationship Between Dimensions and Hardware:

- A: Determines the maximum allowable length of the T-drive
- B: Determines the allowable width for the handle plate; the chosen fork must be between line Y1 and Y2
- C: Determines the length of the fork; the shortest length is C+5.0 mm, while the longest is C+10.0 mm

Drill Hole Drawing

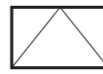


Hopper Window Hardware



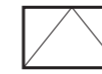
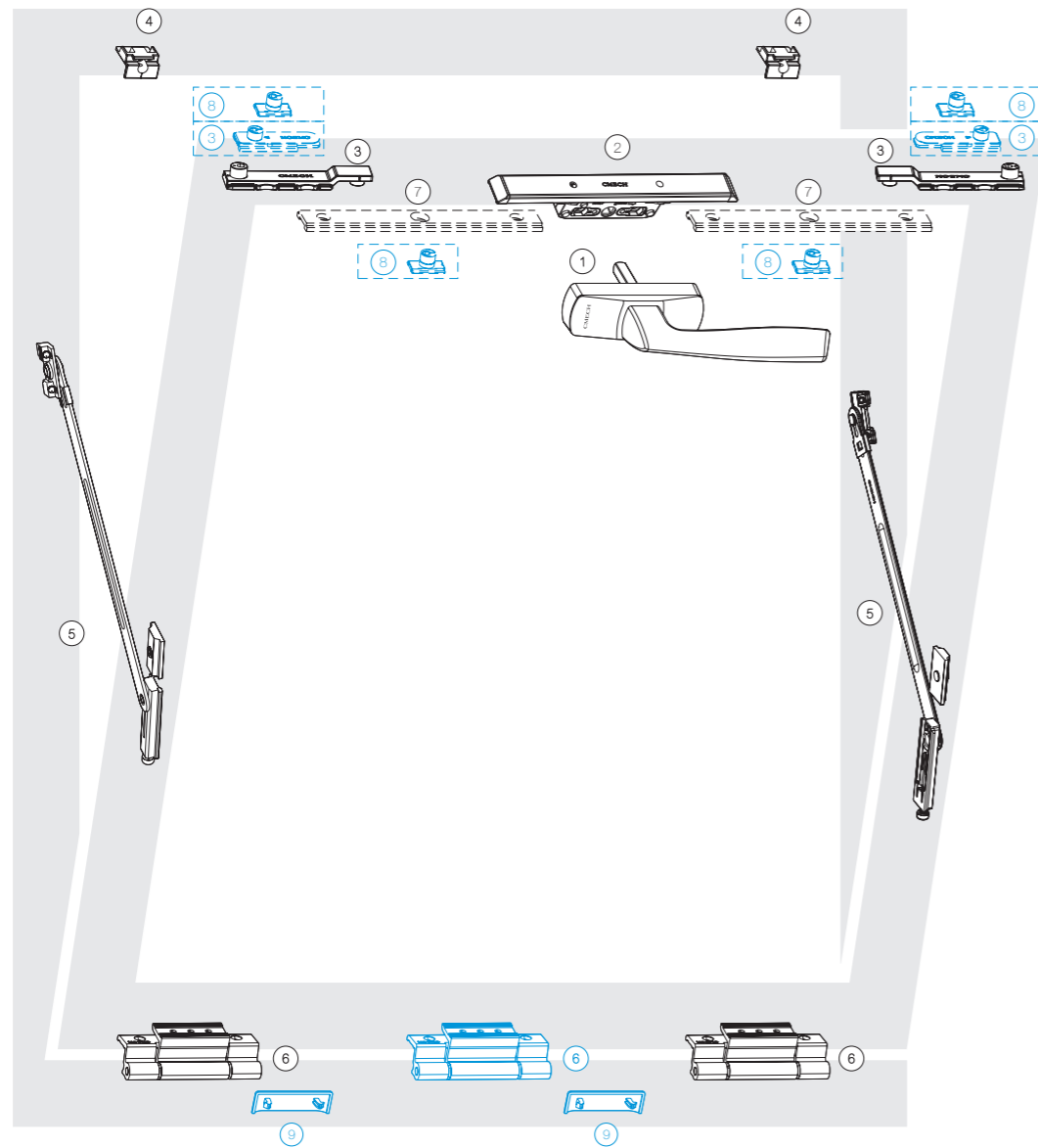
- The handles are available in many styles and colors
- Hinges are easy to install
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Hopper Window		Applicable Range
Sash Width	(mm)	500-1,600
Sash Height	(mm)	500-1,300
Load-bearing	(kg)	80
Length of T-Drive	(mm)	17, 20, 24, 28, 32, 36, 40
Center Distance of Spindle Drive Gearbox	(mm)	22, 25, 28, 30, 35



HOPPER WINDOW HARDWARE SERIES

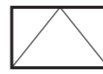
Spindle Drive Handle (Type W) Configuration



HOPPER WINDOW HARDWARE SERIES

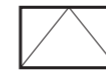
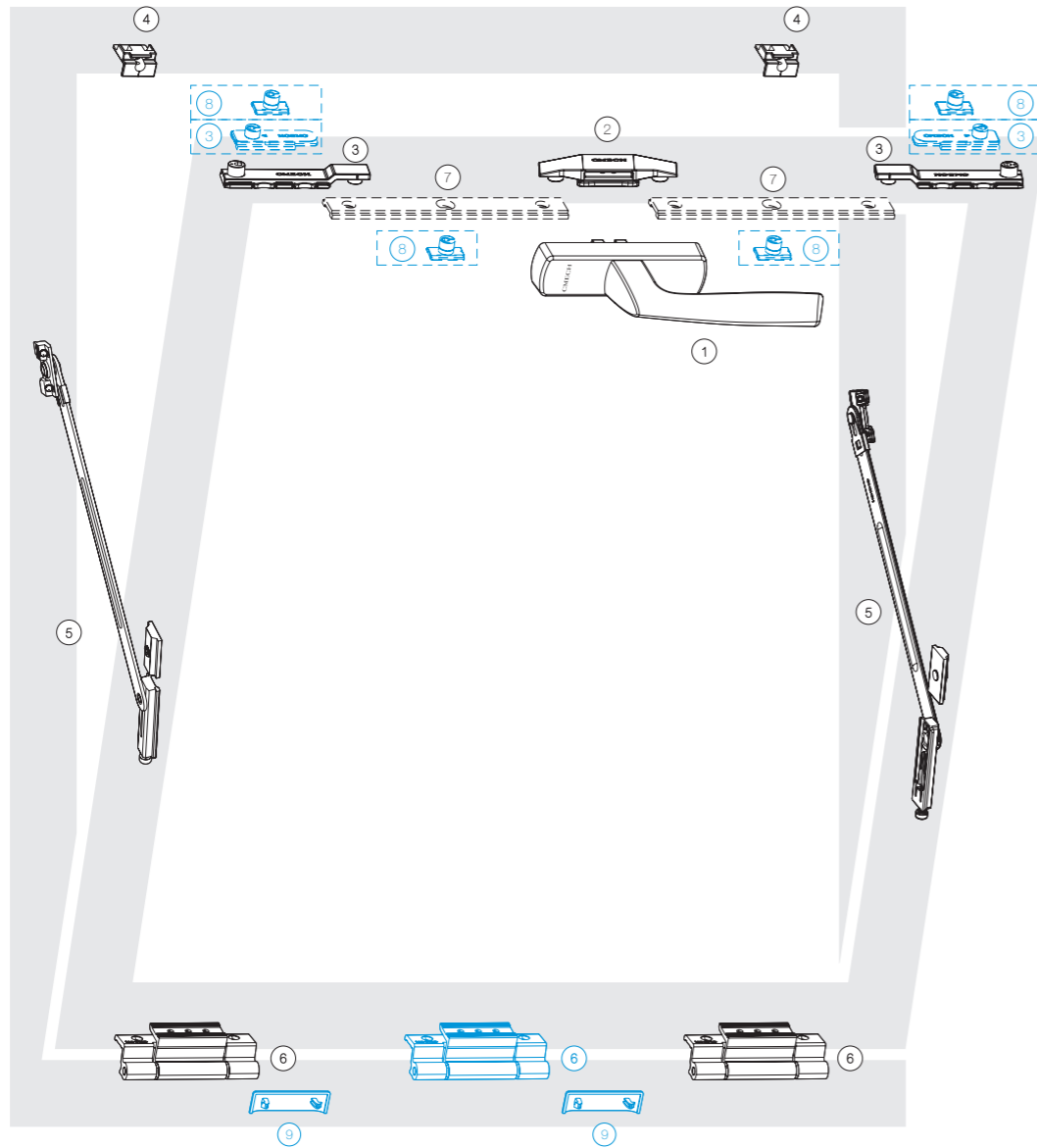
Configuration Table - Spindle Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type W)	A010406 A010407 A010447 A010448 A010470 A010004 A010487 A010488	1	Berlin Handle, Aluminum Alloy Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy Berlin Handle, Zinc Alloy Berlin Handle Keyed Fly Screen Handle Left Turn Handle Right Turn Handle	P71, P81, P82, P83
2	Bi-Directional Spindle Drive Gearbox	A020146 A020148 A020150 A020152 A020186	1	Hole Center to Attachment Surface: 22 mm Hole Center to Attachment Surface: 25 mm Hole Center to Attachment Surface: 30 mm Hole Center to Attachment Surface: 35 mm Hole Center to Attachment Surface: 28 mm	P93
3	Lock Point	A090001 A090005 A090007 A090008	2	Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm	P88, P89, P90, P91
4	Keeper	A100127	2		P92
5	Limiting Stay	B040041 B040042	2	10" 14"	P110
6	Hinge	B040059	2-3	80 kg Clamping Hinge	P106
7	Connecting Strip			Provided by Customer or Cmech	
8	Active Lock Point	A090002 A090003 A090011 A090012	0-4	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
9	Drain Cover	C120002	2		
10	Handle Screw Pack				P66



HOPPER WINDOW HARDWARE SERIES

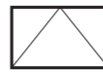
Fork Drive Handle (Type TT) Configuration



HOPPER WINDOW HARDWARE SERIES

Configuration Table - Fork Drive Handle (Type W/ TT)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type T T)	C010402 C010401	1	Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy	P86
2	Fork Drive Connector	B020004	1		P97
3	Lock Point	A090001 A090005 A090007 A090008	2	Lock Point Ø9.5x6.0 mm Lock Point Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm	P88, P89, P90, P91
4	Keeper	A100127	2		P92
5	Limiting Stay	B040041 B040042	2	10" 14"	P110
6	Hinge	B040059	2-3	80 kg Clamping Hinge	P106
7	Connecting Strip			Provided by Customer or Cmech	
8	Active Lock Point	A090002 A090003 A090011 A090012	0-4	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
9	Drain Cover	C120002	2		
10	Fork Drive		1	Offset Fork Drive Central Fork Drive	P87
11	Handle Screw Pack	B110010	1	Suitable for Inswing Casement Window Handle	
12	Handle Screw Pack	C110004	1	Suitable for Fork Drive Handle (Type TT)	



HOPPER WINDOW PROFILE AND DRILLING REQUIREMENTS

Hopper Window with C-Groove Profile Detail Drawing
Fork Drive Handle Configuration (Type TT)

Drill Hole Drawing

Handle (Interior)

Hopper Window with C-Groove Profile Detail Drawing
Spindle Drive Handle Configuration (Type W)

Drill Hole Drawing

Spindle and Fork Drive Handle (Interior)

Bi-Directional Spindle Drive Gearbox (Side Profile)

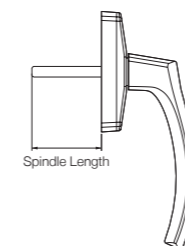
P/N	H
A020130	22 mm
A020131	30 mm
A020133	35 mm
A020135	25 mm
A020119	11 mm
A020134	13 mm

SCREW PACK SELECTIONS

Classic Series/Fly Screen Handle			Handle Screw Pack		
P/N	Notes	Qty	P/N	Notes	Qty
A110179	Steel, Suitable for 26.7 mm Spindle	1	J110001	Stainless Steel, M5x0.8x25 mm Cross Screws	2
A110180	Steel, Suitable for 32.7 mm Spindle	1	J110002	Stainless Steel, M5x0.8x35 mm Cross Screws	2
A110181	Steel, Suitable for 37.7 mm Spindle	1	J110003	Stainless Steel, M5x0.8x45 mm Cross Screws	2
A110182	Steel, Suitable for 42.7 mm Spindle	1	J110004	Stainless Steel, M5x0.8x55 mm Cross Screws	2
A110183	Steel, Suitable for 52.7 mm Spindle	1	J110005	Stainless Steel, M5x0.8x60 mm Cross Screws	2
A110184	Steel, Suitable for 62.7 mm Spindle	1	J110006	Stainless Steel, M5x0.8x65 mm Cross Screws	2
A110185	Steel, Suitable for 72.7 mm Spindle	1	J110007	Stainless Steel, M5x0.8x70 mm Cross Screws	2
A110186	Steel, Suitable for 87.7 mm Spindle	1	J110008	Stainless Steel, M5x0.8x80 mm Cross Screws	2
A110187	Steel, Suitable for 102.7 mm Spindle	1	J110009	Steel, M5x0.8x25 mm Cross Screws	2
A110188	Steel, Suitable for 117.7 mm Spindle	1	J110010	Steel, M5x0.8x35 mm Cross Screws	2
A110292	Spindle, Steel, Suitable for 22.5 mm Spindle	1	J110011	Steel, M5x0.8x45 mm Cross Screws	2
A110293	Spindle, Steel, Suitable for 26.5 mm Spindle	1	J110012	Steel, M5x0.8x55 mm Cross Screws	2
A110294	Spindle, Steel, Suitable for 32.5 mm Spindle	1	J110013	Steel, M5x0.8x60 mm Cross Screws	2
A110295	Spindle, Steel, Suitable for 37.5 mm Spindle	1	J110014	Steel, M5x0.8x65 mm Cross Screws	2
A110296	Spindle, Steel, Suitable for 42.5 mm Spindle	1	J110015	Steel, M5x0.8x70 mm Cross Screws	2
A110297	Spindle, Steel, Suitable for 47.5 mm Spindle	1	J110016	Steel, M5x0.8x80 mm Cross Screws	2
A110298	Spindle, Steel, Suitable for 52.5 mm Spindle	1	J110019	Steel, M5x0.8x95 mm Cross Screws	2
A110299	Spindle, Steel, Suitable for 57.5 mm Spindle	1			
A110300	Spindle, Steel, Suitable for 62.5 mm Spindle	1			
A110301	Spindle, Steel, Suitable for 67.5 mm Spindle	1			
A110302	Spindle, Steel, Suitable for 72.5 mm Spindle	1			

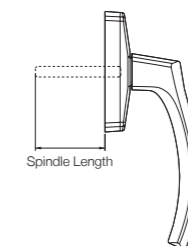
Spindle and Fork Drive Handle			Handle with Cylinder		
P/N	Notes	Qty	P/N	Notes	Qty
A110159	Steel, Suitable for 20 mm Spindle	1	A110169	Steel, Suitable for 18 mm Spindle	1
A110160	Steel, Suitable for 25 mm Spindle	1	A110170	Steel, Suitable for 23 mm Spindle	1
A110161	Steel, Suitable for 30 mm Spindle	1	A110171	Steel, Suitable for 28 mm Spindle	1
A110162	Steel, Suitable for 40 mm Spindle	1	A110172	Steel, Suitable for 38 mm Spindle	1
A110163	Steel, Suitable for 50 mm Spindle	1	A110173	Steel, Suitable for 48 mm Spindle	1
A110164	Steel, Suitable for 60 mm Spindle	1	A110174	Steel, Suitable for 58 mm Spindle	1
A110165	Steel, Suitable for 75 mm Spindle	1	A110175	Steel, Suitable for 73 mm Spindle	1
A110166	Steel, Suitable for 90 mm Spindle	1	A110176	Steel, Suitable for 88 mm Spindle	1
A110167	Steel, Suitable for 105 mm Spindle	1	A110177	Steel, Suitable for 103 mm Spindle	1
A110168	Steel, Suitable for 120 mm Spindle	1	A110178	Steel, Suitable for 118 mm Spindle	1
A110213	Steel, Suitable for 35 mm Spindle	1			
A110214	Steel, Suitable for 45 mm Spindle	1			
A110215	Steel, Suitable for 55 mm Spindle	1			

Fixed Spindle



- 28 Spindle Drive Handle
- Turn Handle

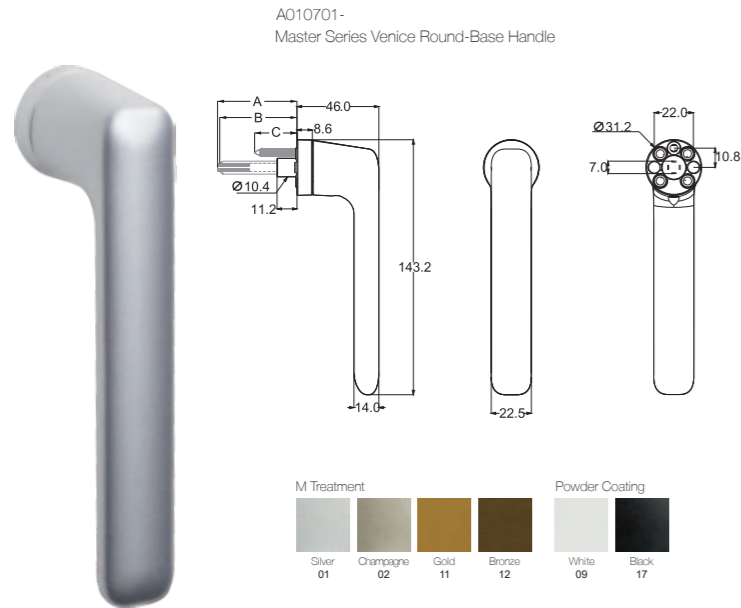
Moveable Spindle



- Keyed Handle
- Spindle and Fork Drive Handle
- Fly Screen Handle
- Classic Series

HANDLE SELECTIONS

VENICE SERIES

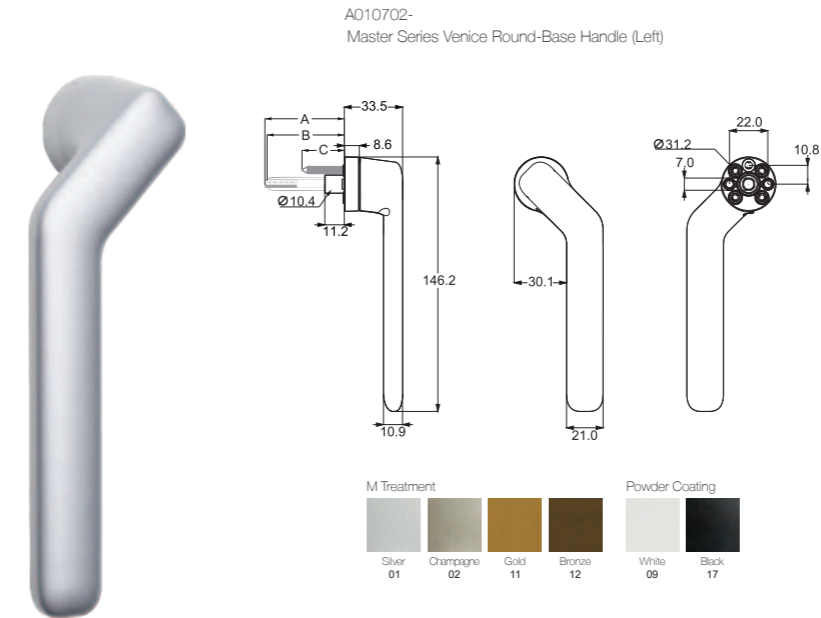


Screw Pack

P/N	A	B	C
A110239	20-5=15	20	ST4.2x14 Self-Tapping Screws
A110219	25-5=20	20	ST4.2x14 Self-Tapping Screws
A110220	30-5=25	25	ST4.2x14 Self-Tapping Screws
A110221	35-5=30	30	ST4.2x14 Self-Tapping Screws
A110222	45-5=40	40	ST4.2x14 Self-Tapping Screws
A110223	55-5=50	50	ST4.2x14 Self-Tapping Screws
A110224	65-5=60	60	ST4.2x14 Self-Tapping Screws
A110225	75-5=70	70	ST4.2x14 Self-Tapping Screws
A110226	85-5=80	80	ST4.2x14 Self-Tapping Screws
A110227	95-5=90	90	ST4.2x14 Self-Tapping Screws
A110240	20-5=15	20	M4x20 Ram Screws
A110228	25-5=20	20	M4x20 Ram Screws
A110229	30-5=25	25	M4x20 Ram Screws
A110230	35-5=30	30	M4x20 Ram Screws
A110231	45-5=40	40	M4x20 Ram Screws
A110232	55-5=50	50	M4x20 Ram Screws
A110233	65-5=60	60	M4x20 Ram Screws
A110234	75-5=70	70	M4x20 Ram Screws
A110235	85-5=80	80	M4x20 Ram Screws
A110236	95-5=90	90	M4x20 Ram Screws
A110249	50-5=45	45	M4x20 Ram Screws
A110258	/	25	/
A110259	/	30	/
A110260	/	50	/
A110261	/	60	/

HANDLE SELECTIONS

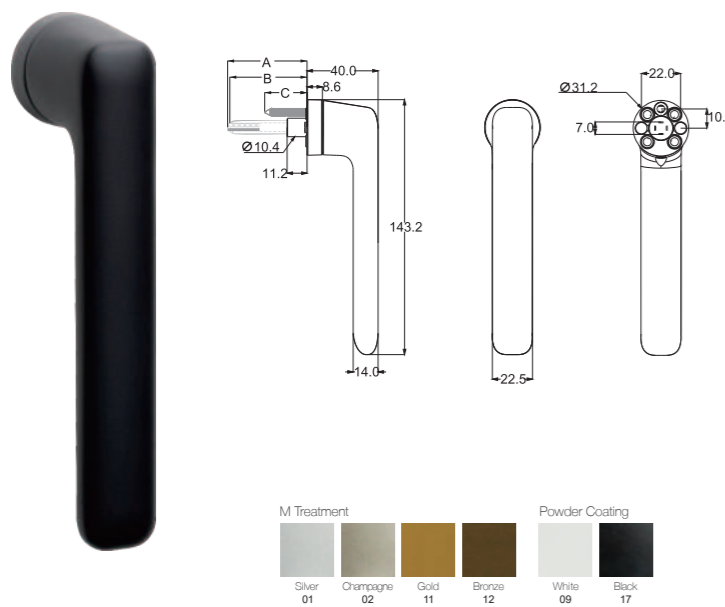
VENICE SERIES



Screw Pack

P/N	A	B	C
A110239	20-5=15	20	ST4.2x14 Self-Tapping Screws
A110219	25-5=20	20	ST4.2x14 Self-Tapping Screws
A110220	30-5=25	25	ST4.2x14 Self-Tapping Screws
A110221	35-5=30	30	ST4.2x14 Self-Tapping Screws
A110222	45-5=40	40	ST4.2x14 Self-Tapping Screws
A110223	55-5=50	50	ST4.2x14 Self-Tapping Screws
A110224	65-5=60	60	ST4.2x14 Self-Tapping Screws
A110225	75-5=70	70	ST4.2x14 Self-Tapping Screws
A110226	85-5=80	80	ST4.2x14 Self-Tapping Screws
A110227	95-5=90	90	ST4.2x14 Self-Tapping Screws
A110240	20-5=15	20	M4x20 Ram Screws
A110228	25-5=20	20	M4x20 Ram Screws
A110229	30-5=25	25	M4x20 Ram Screws
A110230	35-5=30	30	M4x20 Ram Screws
A110231	45-5=40	40	M4x20 Ram Screws
A110232	55-5=50	50	M4x20 Ram Screws
A110233	65-5=60	60	M4x20 Ram Screws
A110234	75-5=70	70	M4x20 Ram Screws
A110235	85-5=80	80	M4x20 Ram Screws
A110236	95-5=90	90	M4x20 Ram Screws
A110249	50-5=45	45	M4x20 Ram Screws
A110258	/	25	/
A110259	/	30	/
A110260	/	50	/
A110261	/	60	/

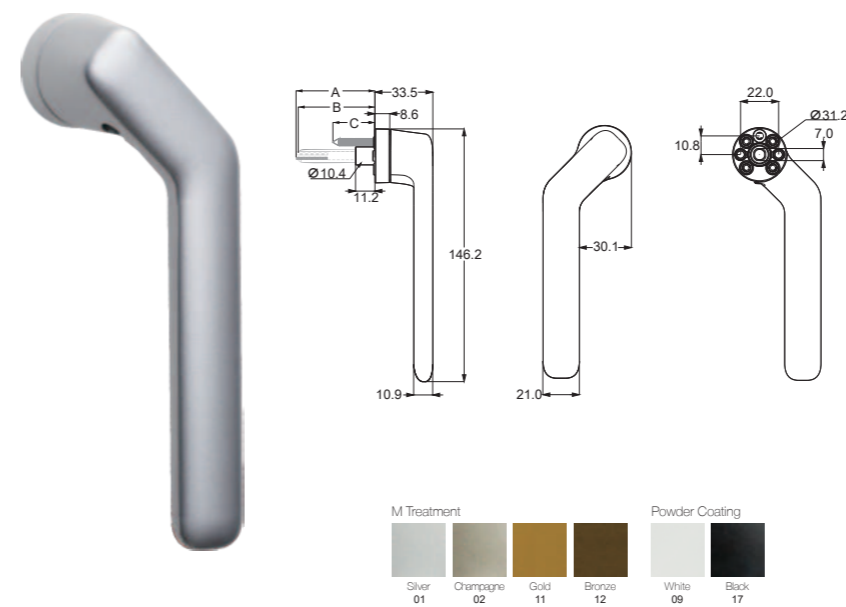
A010707-
Master Series Venice Round-Base Handle (40mm Height)



Screw Pack

P/N	A	B	C
A110239	20-5=15	20	ST4.2x14 Self-Tapping Screws
A110219	25-5=20	20	ST4.2x14 Self-Tapping Screws
A110220	30-5=25	25	ST4.2x14 Self-Tapping Screws
A110221	35-5=30	30	ST4.2x14 Self-Tapping Screws
A110222	45-5=40	40	ST4.2x14 Self-Tapping Screws
A110223	55-5=50	50	ST4.2x14 Self-Tapping Screws
A110224	65-5=60	60	ST4.2x14 Self-Tapping Screws
A110225	75-5=70	70	ST4.2x14 Self-Tapping Screws
A110226	85-5=80	80	ST4.2x14 Self-Tapping Screws
A110227	95-5=90	90	ST4.2x14 Self-Tapping Screws
A110240	20-5=15	20	M4x20 Ram Screws
A110228	25-5=20	20	M4x20 Ram Screws
A110229	30-5=25	25	M4x20 Ram Screws
A110230	35-5=30	30	M4x20 Ram Screws
A110231	45-5=40	40	M4x20 Ram Screws
A110232	55-5=50	50	M4x20 Ram Screws
A110233	65-5=60	60	M4x20 Ram Screws
A110234	75-5=70	70	M4x20 Ram Screws
A110235	85-5=80	80	M4x20 Ram Screws
A110236	95-5=90	90	M4x20 Ram Screws
A110249	50-5=45	45	M4x20 Ram Screws
A110258	/	25	/
A110259	/	30	/
A110260	/	50	/
A110261	/	60	/

A010703-
Master Series Venice Round-Base Handle (Right)



Screw Pack

P/N	A	B	C
A110239	20-5=15	20	ST4.2x14 Self-Tapping Screws
A110219	25-5=20	20	ST4.2x14 Self-Tapping Screws
A110220	30-5=25	25	ST4.2x14 Self-Tapping Screws
A110221	35-5=30	30	ST4.2x14 Self-Tapping Screws
A110222	45-5=40	40	ST4.2x14 Self-Tapping Screws
A110223	55-5=50	50	ST4.2x14 Self-Tapping Screws
A110224	65-5=60	60	ST4.2x14 Self-Tapping Screws
A110225	75-5=70	70	ST4.2x14 Self-Tapping Screws
A110226	85-5=80	80	ST4.2x14 Self-Tapping Screws
A110227	95-5=90	90	ST4.2x14 Self-Tapping Screws
A110240	20-5=15	20	M4x20 Ram Screws
A110228	25-5=20	20	M4x20 Ram Screws
A110229	30-5=25	25	M4x20 Ram Screws
A110230	35-5=30	30	M4x20 Ram Screws
A110231	45-5=40	40	M4x20 Ram Screws
A110232	55-5=50	50	M4x20 Ram Screws
A110233	65-5=60	60	M4x20 Ram Screws
A110234	75-5=70	70	M4x20 Ram Screws
A110235	85-5=80	80	M4x20 Ram Screws
A110236	95-5=90	90	M4x20 Ram Screws
A110249	50-5=45	45	M4x20 Ram Screws
A110258	/	25	/
A110259	/	30	/
A110260	/	50	/
A110261	/	60	/

HANDLE SELECTIONS

VENICE SERIES

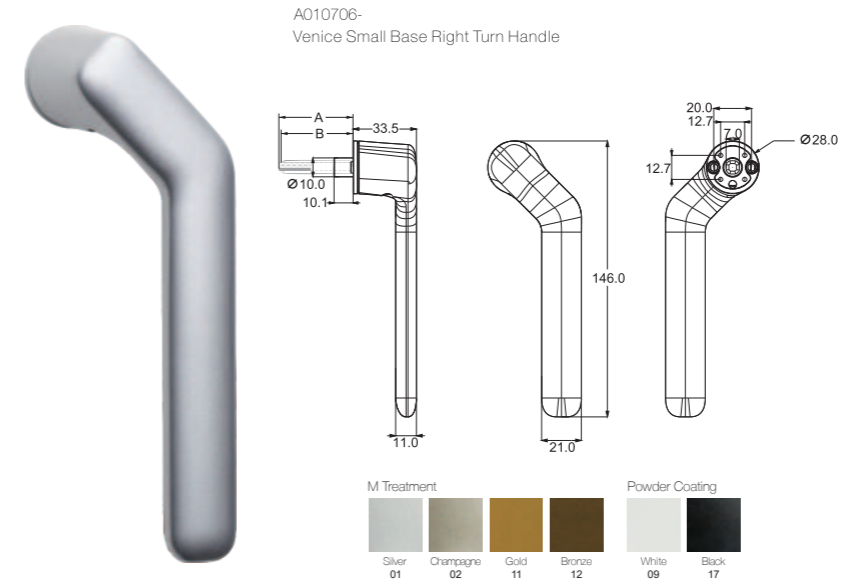


Screw Pack

P/N	A	B
A110305	M4x20 5.3 Cross Recessed Pan Head Screws	20mm
A110306	M4x25 5.3 Cross Recessed Pan Head Screws	20mm
A110307	M4x30 5.3 Cross Recessed Pan Head Screws	25mm
A110308	M4x35 5.3 Cross Recessed Pan Head Screws	30mm
A110309	M4x45 5.3 Cross Recessed Pan Head Screws	40mm
A110310	M4x50 5.3 Cross Recessed Pan Head Screws	45mm
A110311	M4x55 5.3 Cross Recessed Pan Head Screws	50mm
A110312	M4x65 5.3 Cross Recessed Pan Head Screws	60mm
A110313	M4x75 5.3 Cross Recessed Pan Head Screws	70mm
A110314	M4x85 5.3 Cross Recessed Pan Head Screws	80mm
A110315	M4x95 5.3 Cross Recessed Pan Head Screws	90mm

HANDLE SELECTIONS

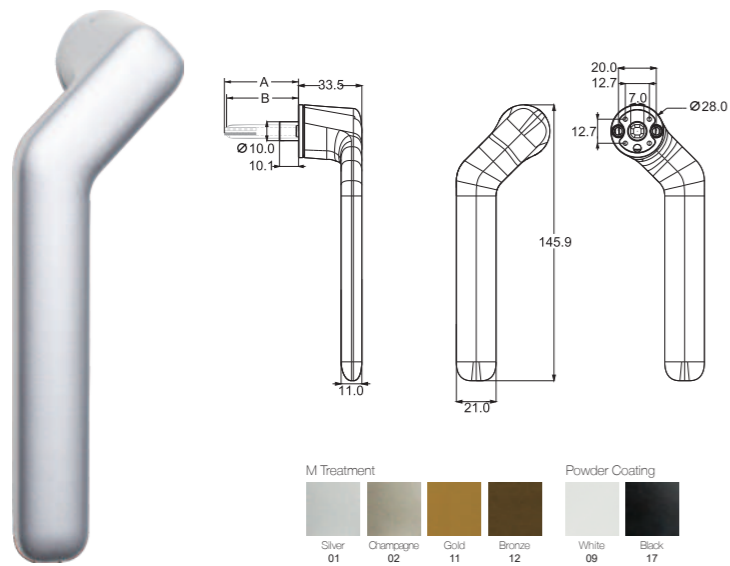
VENICE SERIES



Screw Pack

P/N	A	B
A110305	M4x20 5.3 Cross Recessed Pan Head Screws	20mm
A110306	M4x25 5.3 Cross Recessed Pan Head Screws	20mm
A110307	M4x30 5.3 Cross Recessed Pan Head Screws	25mm
A110308	M4x35 5.3 Cross Recessed Pan Head Screws	30mm
A110309	M4x45 5.3 Cross Recessed Pan Head Screws	40mm
A110310	M4x50 5.3 Cross Recessed Pan Head Screws	45mm
A110311	M4x55 5.3 Cross Recessed Pan Head Screws	50mm
A110312	M4x65 5.3 Cross Recessed Pan Head Screws	60mm
A110313	M4x75 5.3 Cross Recessed Pan Head Screws	70mm
A110314	M4x85 5.3 Cross Recessed Pan Head Screws	80mm
A110315	M4x95 5.3 Cross Recessed Pan Head Screws	90mm

A010705- Venice Small Base Left Turn Handle



Screw Pack

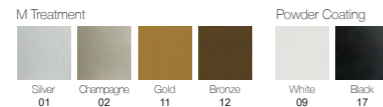
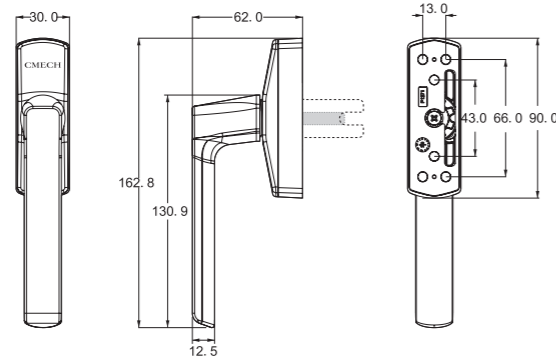
P/N	A	B
A110305	M4x20 5.3 Cross Recessed Pan Head Screws	20mm
A110306	M4x25 5.3 Cross Recessed Pan Head Screws	20mm
A110307	M4x30 5.3 Cross Recessed Pan Head Screws	25mm
A110308	M4x35 5.3 Cross Recessed Pan Head Screws	30mm
A110309	M4x45 5.3 Cross Recessed Pan Head Screws	40mm
A110310	M4x50 5.3 Cross Recessed Pan Head Screws	45mm
A110311	M4x55 5.3 Cross Recessed Pan Head Screws	50mm
A110312	M4x65 5.3 Cross Recessed Pan Head Screws	60mm
A110313	M4x75 5.3 Cross Recessed Pan Head Screws	70mm
A110314	M4x85 5.3 Cross Recessed Pan Head Screws	80mm
A110315	M4x95 5.3 Cross Recessed Pan Head Screws	90mm

HANDLE SELECTIONS

MILAN SERIES



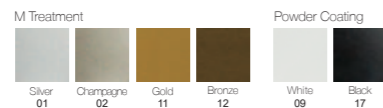
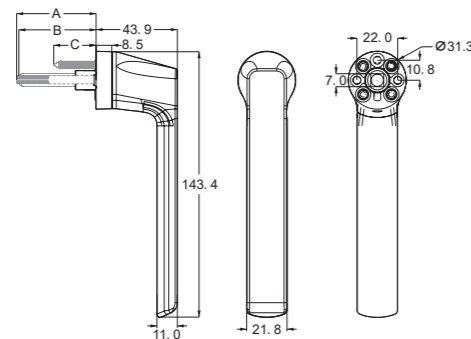
A010601-
Spindle and Fork Drive Handle (Offset Gasket)
(Outswinging Casement Windows, Inswinging Casement Windows)



Screw Pack

P/N	A	B	C
A110239	20-5=15	20	ST4.2x14 Self-Tapping Screws
A110219	25-5=20	20	ST4.2x14 Self-Tapping Screws
A110220	30-5=25	25	ST4.2x14 Self-Tapping Screws
A110221	35-5=30	30	ST4.2x14 Self-Tapping Screws
A110222	45-5=40	40	ST4.2x14 Self-Tapping Screws
A110223	55-5=50	50	ST4.2x14 Self-Tapping Screws
A110224	65-5=60	60	ST4.2x14 Self-Tapping Screws
A110225	75-5=70	70	ST4.2x14 Self-Tapping Screws
A110226	85-5=80	80	ST4.2x14 Self-Tapping Screws
A110227	95-5=90	90	ST4.2x14 Self-Tapping Screws
A110240	20-5=15	20	M4x20 Ram Screws
A110228	25-5=20	20	M4x20 Ram Screws
A110229	30-5=25	25	M4x20 Ram Screws
A110230	35-5=30	30	M4x20 Ram Screws
A110231	45-5=40	40	M4x20 Ram Screws
A110232	55-5=50	50	M4x20 Ram Screws
A110233	65-5=60	60	M4x20 Ram Screws
A110234	75-5=70	70	M4x20 Ram Screws
A110235	85-5=80	80	M4x20 Ram Screws
A110236	95-5=90	90	M4x20 Ram Screws
A110249	50-5=45	45	M4x20 Ram Screws
A110258	/	25	/
A110259	/	30	/
A110260	/	50	/
A110261	/	60	/
A110253	22-5=17	17	/
A110254	20-5=15	15	/
A110255	25-5=20	20	/
A110256	22-5=17	17	/
A110257	20-5=15	15	/

A010603-
Master Series Milan Round-Base Handle without Spindle



Screw Pack

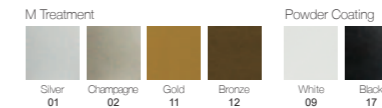
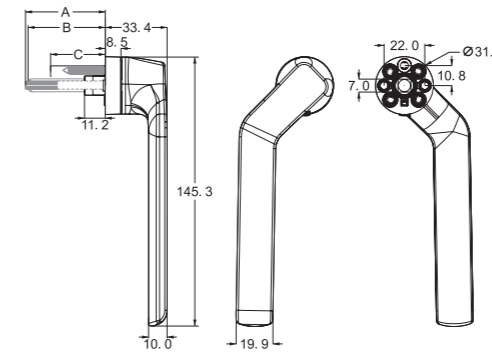
P/N	A	B	C
A110239	20-5=15	20	ST4.2x14 Self-Tapping Screws
A110219	25-5=20	20	ST4.2x14 Self-Tapping Screws
A110220	30-5=25	25	ST4.2x14 Self-Tapping Screws
A110221	35-5=30	30	ST4.2x14 Self-Tapping Screws
A110222	45-5=40	40	ST4.2x14 Self-Tapping Screws
A110223	55-5=50	50	ST4.2x14 Self-Tapping Screws
A110224	65-5=60	60	ST4.2x14 Self-Tapping Screws
A110225	75-5=70	70	ST4.2x14 Self-Tapping Screws
A110226	85-5=80	80	ST4.2x14 Self-Tapping Screws
A110227	95-5=90	90	ST4.2x14 Self-Tapping Screws
A110240	20-5=15	20	M4x20 Ram Screws
A110228	25-5=20	20	M4x20 Ram Screws
A110229	30-5=25	25	M4x20 Ram Screws
A110230	35-5=30	30	M4x20 Ram Screws
A110231	45-5=40	40	M4x20 Ram Screws
A110232	55-5=50	50	M4x20 Ram Screws
A110233	65-5=60	60	M4x20 Ram Screws
A110234	75-5=70	70	M4x20 Ram Screws
A110235	85-5=80	80	M4x20 Ram Screws
A110236	95-5=90	90	M4x20 Ram Screws
A110249	50-5=45	45	M4x20 Ram Screws
A110258	/	25	/
A110259	/	30	/
A110260	/	50	/
A110261	/	60	/

HANDLE SELECTIONS

MILAN SERIES



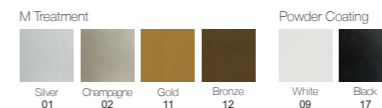
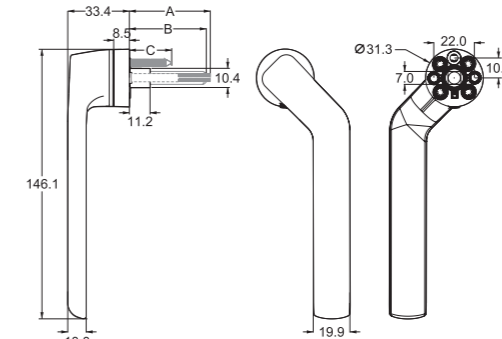
A010604-
Master Series Milan Round-Base Left Turn Handle (without Spindle)



Screw Pack

P/N	A	B	C
A110239	20-5=15	20	ST4.2x14 Self-Tapping Screws
A110219	25-5=20	20	ST4.2x14 Self-Tapping Screws
A110220	30-5=25	25	ST4.2x14 Self-Tapping Screws
A110221	35-5=30	30	ST4.2x14 Self-Tapping Screws
A110222	45-5=40	40	ST4.2x14 Self-Tapping Screws
A110223	55-5=50	50	ST4.2x14 Self-Tapping Screws
A110224	65-5=60	60	ST4.2x14 Self-Tapping Screws
A110225	75-5=70	70	ST4.2x14 Self-Tapping Screws
A110226	85-5=80	80	ST4.2x14 Self-Tapping Screws
A110227	95-5=90	90	ST4.2x14 Self-Tapping Screws
A110240	20-5=15	20	M4x20 Ram Screws
A110228	25-5=20	20	M4x20 Ram Screws
A110229	30-5=25	25	M4x20 Ram Screws
A110230	35-5=30	30	M4x20 Ram Screws
A110231	45-5=40	40	M4x20 Ram Screws
A110232	55-5=50	50	M4x20 Ram Screws
A110233	65-5=60	60	M4x20 Ram Screws
A110234	75-5=70	70	M4x20 Ram Screws
A110235	85-5=80	80	M4x20 Ram Screws
A110236	95-5=90	90	M4x20 Ram Screws
A110249	50-5=45	45	M4x20 Ram Screws
A110258	/	25	/
A110259	/	30	/
A110260	/	50	/
A110261	/	60	/
A110253	22-5=17	17	/
A110254	20-5=15	15	/
A110255	25-5=20	20	/
A110256	22-5=17	17	/
A110257	20-5=15	15	/

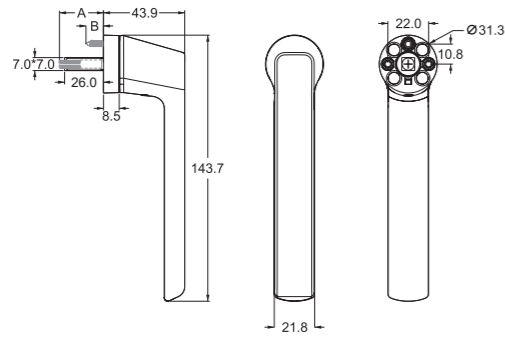
A010605-
Master Series Milan Round-Base Right Turn Handle (without Spindle)



HANDLE SELECTIONS

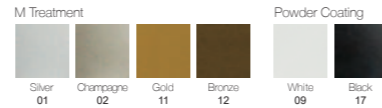
MILAN SERIES

A010633-
Master Series Milan Round-Base Handle (with 26mm Spindle)



Screw Pack

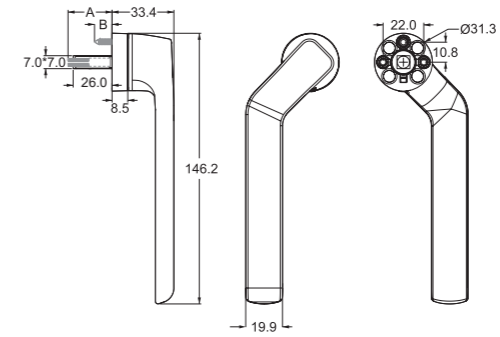
P/N	A	B
A110237	30-5=25	M4x30 Ram Screws
A110238	30-5=25	ST4.2x14 Self-Tapping Screws
A110252	25-5=20	M4x25 Ram Screws
A110253	22-5=17	M4x22.5 Ram Screws
A110254	20-5=15	M4x20 Ram Screws
A110255	25-5=20	ST4.2x14 Self-Tapping Screws
A110256	22-5=17	ST4.2x14 Self-Tapping Screws
A110257	20-5=15	ST4.2x14 Self-Tapping Screws



HANDLE SELECTIONS

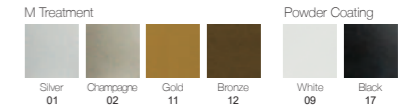
MILAN SERIES

A010635-
Master Series Milan Round-Base Right Turn Handle (with 26mm Spindle)

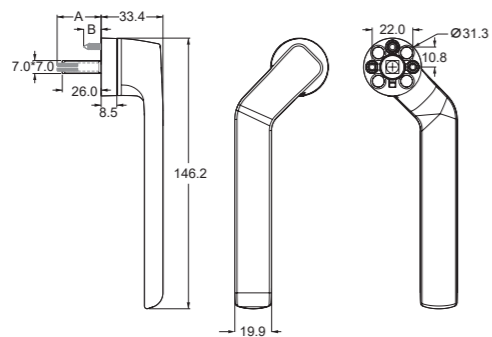


Screw Pack

P/N	A	B
A110237	30-5=25	M4x30 Ram Screws
A110238	30-5=25	ST4.2x14 Self-Tapping Screws
A110252	25-5=20	M4x25 Ram Screws
A110253	22-5=17	M4x22.5 Ram Screws
A110254	20-5=15	M4x20 Ram Screws
A110255	25-5=20	ST4.2x14 Self-Tapping Screws
A110256	22-5=17	ST4.2x14 Self-Tapping Screws
A110257	20-5=15	ST4.2x14 Self-Tapping Screws

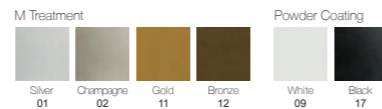


A010634-
Master Series Milan Round-Base Left Turn Handle (with 26mm Spindle)

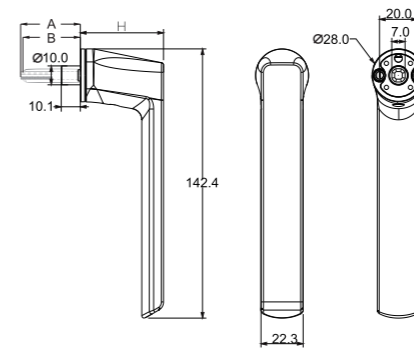


Screw Pack

P/N	A	B
A110237	30-5=25	M4x30 Ram Screws
A110238	30-5=25	ST4.2x14 Self-Tapping Screws
A110252	25-5=20	M4x25 Ram Screws
A110253	22-5=17	M4x22.5 Ram Screws
A110254	20-5=15	M4x20 Ram Screws
A110255	25-5=20	ST4.2x14 Self-Tapping Screws
A110256	22-5=17	ST4.2x14 Self-Tapping Screws
A110257	20-5=15	ST4.2x14 Self-Tapping Screws



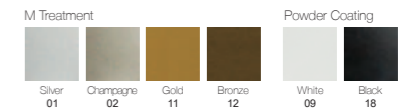
Classic series Milan Small Base Handle



P/N	Material	H
A010651-	Aluminum Alloy	38mm
A010652-	Aluminum Alloy	44mm

Screw Pack

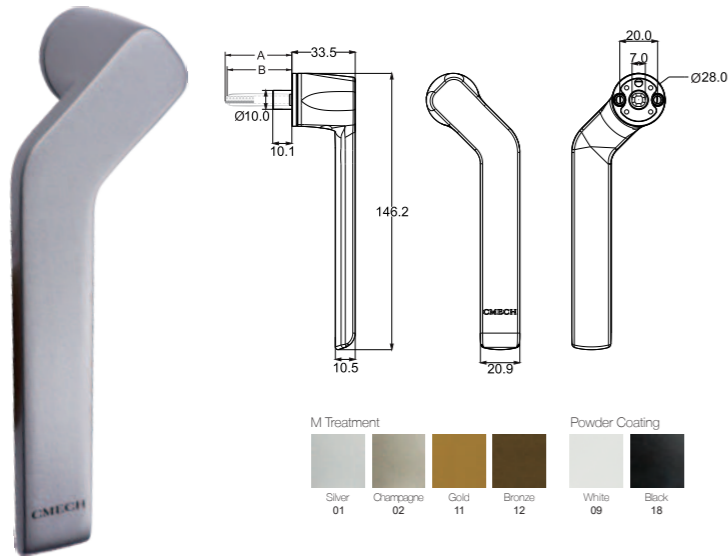
P/N	A	B
A110266	M4x20 Cross Pan Head Screws	18.4mm
A110267	M4x25 Cross Pan Head Screws	18.4mm
A110268	M4x30 Cross Pan Head Screws	23.4mm
A110269	M4x35 Cross Pan Head Screws	28.4mm
A110270	M4x45 Cross Pan Head Screws	38.4mm
A110271	M4x50 Cross Pan Head Screws	43.4mm
A110272	M4x55 Cross Pan Head Screws	48.4mm
A110273	M4x65 Cross Pan Head Screws	58.4mm
A110274	M4x75 Cross Pan Head Screws	68.4mm
A110275	M4x85 Cross Pan Head Screws	78.4mm
A110276	M4x95 Cross Pan Head Screws	88.4mm



HANDLE SELECTIONS

MILAN SERIES

A010653-
Classic Series Milan Small Base Left Turn Handle



Screw Pack

P/N	A	B
A110266	M4x20 Cross Pan Head Screws	18.4mm
A110267	M4x25 Cross Pan Head Screws	18.4mm
A110268	M4x30 Cross Pan Head Screws	23.4mm
A110269	M4x35 Cross Pan Head Screws	28.4mm
A110270	M4x45 Cross Pan Head Screws	38.4mm
A110271	M4x50 Cross Pan Head Screws	43.4mm
A110272	M4x55 Cross Pan Head Screws	48.4mm
A110273	M4x65 Cross Pan Head Screws	58.4mm
A110274	M4x75 Cross Pan Head Screws	68.4mm
A110275	M4x85 Cross Pan Head Screws	78.4mm
A110276	M4x95 Cross Pan Head Screws	88.4mm

HANDLE SELECTIONS

MILAN SERIES

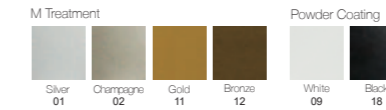
Classic Series Milan Baseless Handle(38 mm Height)



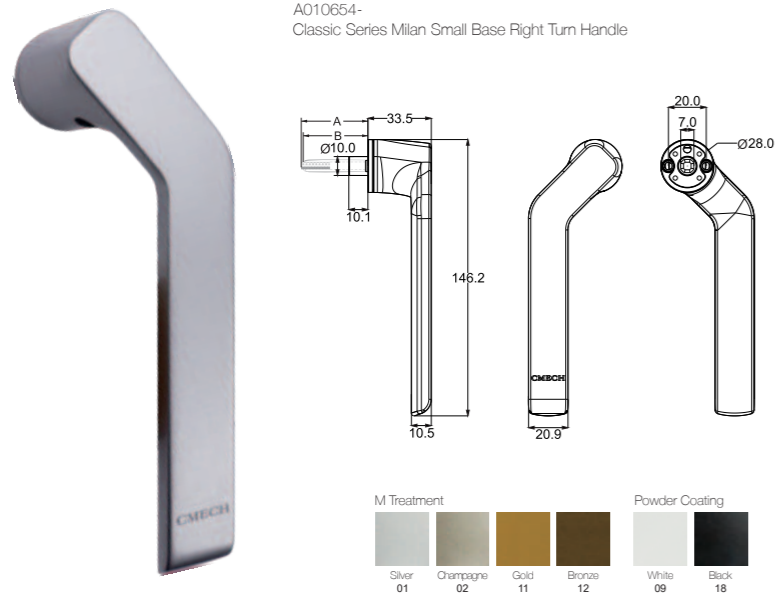
Screw Pack

P/N	A	B	C
A110358	20-6=14	20mm	4.5mm
A110359	25-6=19	20mm	4.5mm
A110360	22.5-6=16.5	25mm	4.5mm
A110361	25-6=19	25mm	4.5mm
A110362	35-6=29	30mm	4.5mm
A110363	45-6=39	40mm	4.5mm
A110364	50-6=44	45mm	4.5mm
A110365	55-6=49	50mm	4.5mm
A110366	65-6=59	60mm	4.5mm
A110367	75-6=69	70mm	4.5mm
A110368	85-6=79	80mm	4.5mm
A110369	95-6=89	90mm	4.5mm

P/N	Material	H
A010669-	Aluminum Alloy	44mm
A010670-	Aluminum Alloy	38mm



A010654-
Classic Series Milan Small Base Right Turn Handle



Screw Pack

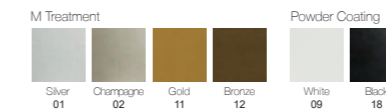
P/N	A	B
A110266	M4x20 Cross Pan Head Screws	18.4mm
A110267	M4x25 Cross Pan Head Screws	18.4mm
A110268	M4x30 Cross Pan Head Screws	23.4mm
A110269	M4x35 Cross Pan Head Screws	28.4mm
A110270	M4x45 Cross Pan Head Screws	38.4mm
A110271	M4x50 Cross Pan Head Screws	43.4mm
A110272	M4x55 Cross Pan Head Screws	48.4mm
A110273	M4x65 Cross Pan Head Screws	58.4mm
A110274	M4x75 Cross Pan Head Screws	68.4mm
A110275	M4x85 Cross Pan Head Screws	78.4mm
A110276	M4x95 Cross Pan Head Screws	88.4mm

A010674-
Classic Series Milan Baseless Handle(with 25mm Spindle)



Screw Pack

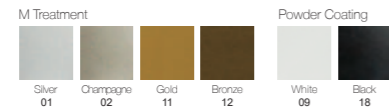
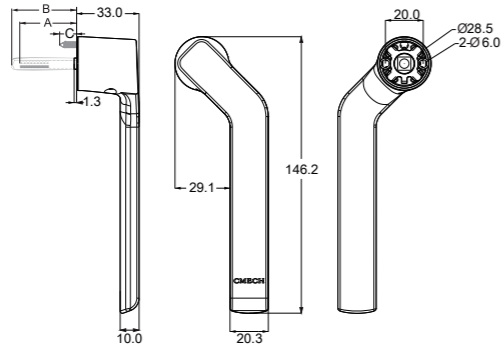
P/N	A	B
A110338	16.5	ST4.2x14 Self-Tapping Screws



HANDLE SELECTIONS

MILAN SERIES

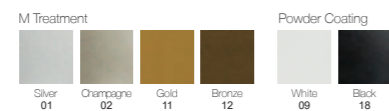
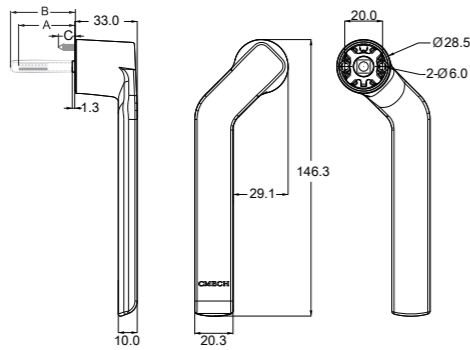
A010671-
Classic Series Milan Baseless Left Turn Handle



Screw Pack

P/N	A	B	C
A110358	20-6=14	20mm	4.5mm
A110359	25-6=19	20mm	4.5mm
A110360	22.5-6=16.5	25mm	4.5mm
A110361	25-6=19	25mm	4.5mm
A110362	35-6=29	30mm	4.5mm
A110363	45-6=39	40mm	4.5mm
A110364	50-6=44	45mm	4.5mm
A110365	55-6=49	50mm	4.5mm
A110366	65-6=59	60mm	4.5mm
A110367	75-6=69	70mm	4.5mm
A110368	85-6=79	80mm	4.5mm
A110369	95-6=89	90mm	4.5mm

A010672-
Classic Series Milan Baseless Right Turn Handle



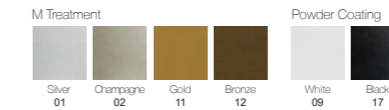
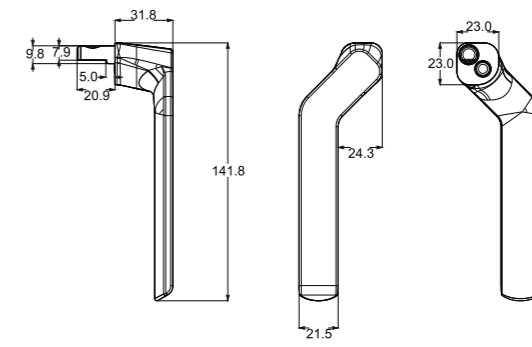
Screw Pack

P/N	A	B	C
A110358	20-6=14	20mm	4.5mm
A110359	25-6=19	20mm	4.5mm
A110360	22.5-6=16.5	25mm	4.5mm
A110361	25-6=19	25mm	4.5mm
A110362	35-6=29	30mm	4.5mm
A110363	45-6=39	40mm	4.5mm
A110364	50-6=44	45mm	4.5mm
A110365	55-6=49	50mm	4.5mm
A110366	65-6=59	60mm	4.5mm
A110367	75-6=69	70mm	4.5mm
A110368	85-6=79	80mm	4.5mm
A110369	95-6=89	90mm	4.5mm

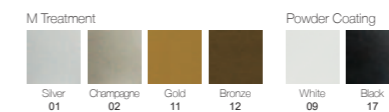
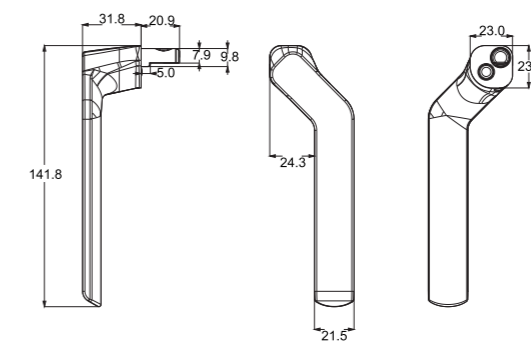
HANDLE SELECTIONS

MILAN SERIES

A010637-
Milan Slim Left Turn Handle



A010638-
Milan Slim Right Turn Handle



HANDLE SELECTIONS

SIDE-FITTING HANDLE

Side-fitting Offset Fork Drive Left Turn Handle

P/N	L	Fork
A010649-	26.5 mm	Offset Fork Drive
A010667-	14 mm	
A010659-	28.2 mm	Central Fork Drive
A010665-	21.5 mm	

Side-fitting Central Fork Drive Left Turn Handle

M Treatment: Silver 01, Champagne 02, Gold 11, Bronze 12

Powder Coating: White 09, Black 17

Side-fitting Offset Fork Drive Left Turn Handle

P/N	L	Fork
A010650-	26.5 mm	Offset Fork Drive
A010668-	14 mm	
A010660-	28.2 mm	Central Fork Drive
A010666-	21.5 mm	

Side-fitting Central Fork Drive Left Turn Handle

M Treatment: Silver 01, Champagne 02, Gold 11, Bronze 12

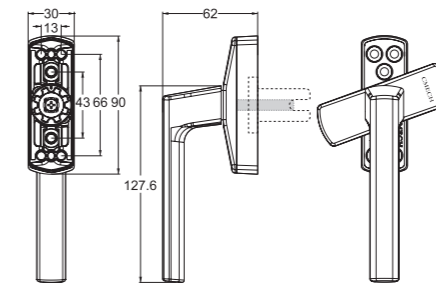
Powder Coating: White 09, Black 17

HANDLE SELECTIONS

KOLN SERIES



Spindle and Fork Drive Handle

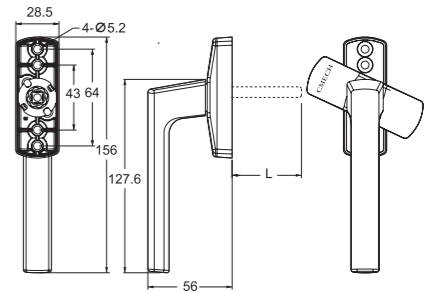


P/N	Material	Suitable for	Suitable for
A010213-	Zinc Alloy	Offset Fork Drive, Spindle Drive	Outswing Casement Windows
A010210-	Aluminum Alloy		Inswing Casement Windows
A010214-	Zinc Alloy	Central Fork Drive, Spindle Drive	Outswing Awning Windows
A010211-	Aluminum Alloy		Tilt & Turn Windows, Gliding Doors

M Treatment: Silver 01, Champagne 02, Gold 11, Bronze 12

Powder Coating: White 09, Black 17

Spindle Drive Handle (Type W)



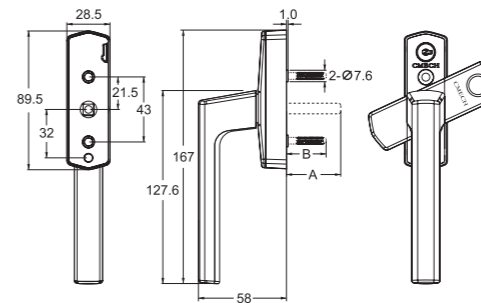
P/N	L	Material	Suitable for
J010209-	15		
J010210-	25		
J010211-	35		
J010212-	45	Zinc Alloy	Outswing Casement Windows
J010213-	50		Inswing Casement Windows
J010214-	55		Outswing Awning Windows
J010215-	60		Hopper Windows
J010216-	70		

Note: Screw Pack J110001-J110019



A010222-

Spindle Drive Handle Keyed
(Outswing Casement Windows, Inswing Casement Windows, Outswing Awning Windows, Hopper Windows, Tilt & Turn Windows)



M Treatment: Silver 01, Champagne 02, Gold 11, Bronze 12

Powder Coating: White 09, Black 17

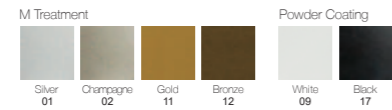
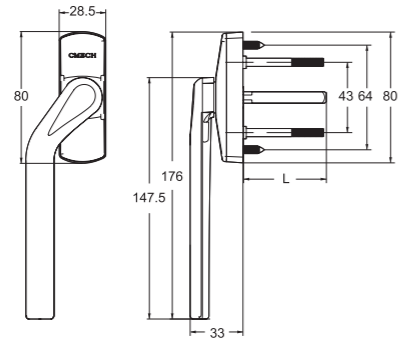
Spindle Screw Pack Selection List

P/N	A	B
A110169	18	16.2
A110170	23	21.2
A110171	28	26.2
A110172	38	36.2
A110173	48	46.2
A110174	58	56.2
A110175	73	71.2
A110176	88	86.2
A110177	103	101.2
A110178	118	116.2

HANDLE SELECTIONS

TURN HANDLE

Turn Handle (Left)

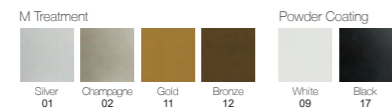
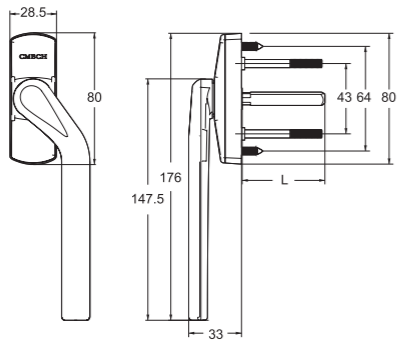


P/N	L	Material	Suitable for
A010408-	20	Zinc Alloy	Outswing Casement Windows Inswing Casement Windows Outswing Awning Windows
A010409-	30		
A010410-	40		
A010411-	50		
A010412-	55		
A010413-	60		
A010414-	65		
A010415-	75		
A010416-	90		
A010417-	105		
A010418-	120		
A010432-	135		

Note: Screw Pack J110001~J110019



Turn Handle (Right)



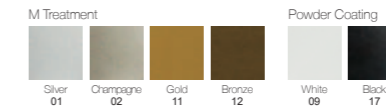
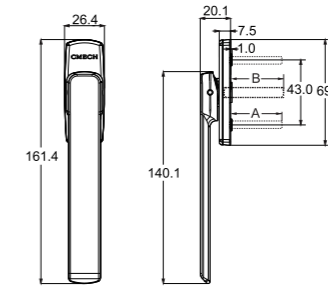
P/N	L	Material	Suitable for
A010419-	20	Zinc Alloy	Outswing Casement Windows Inswing Casement Windows Outswing Awning Windows
A010420-	30		
A010421-	40		
A010422-	50		
A010423-	55		
A010424-	60		
A010425-	65		
A010426-	75		
A010427-	90		
A010428-	105		
A010429-	120		
A010433-	135		

Note: Screw Pack J110001~J110019

HANDLE SELECTIONS

FLY SCREEN HANDLE
A010010

Suitable for: Outswing Casement Windows

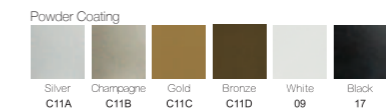
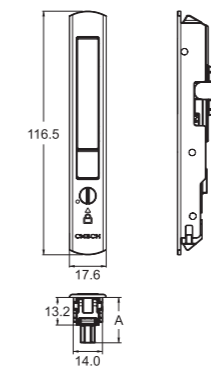


Screw Pack

P/N	A	B
A110179	28.8	26.5
A110180	33.8	32.5
A110181	38.8	37.5
A110182	43.8	42.5
A110183	53.8	52.5
A110184	63.8	62.5
A110185	73.8	72.5
A110186	88.8	87.5
A110187	103.8	102.5
A110188	118.8	117.5

ANTI-MISOPERATION RECESSED HANDLE

Suitable for Casement Windows
(Applicable for Window Screens and Guard Grills; Not for Glass Panels)



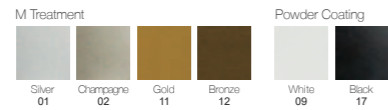
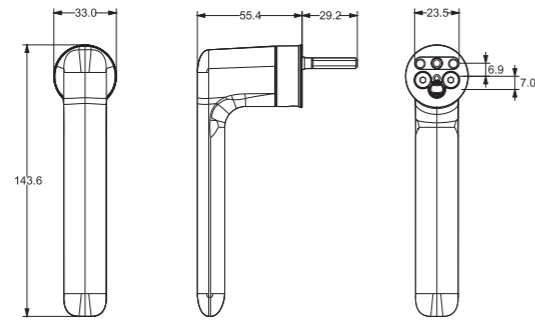
P/N	A
A010005-	21.7 mm
A010006-	15.7 mm

HANDLE SELECTIONS

VENICE SERIES



C010701-
Hexagon Spindle Drive Handle
(Tilt & Turn Windows)



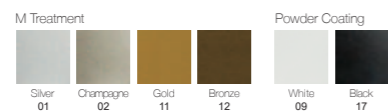
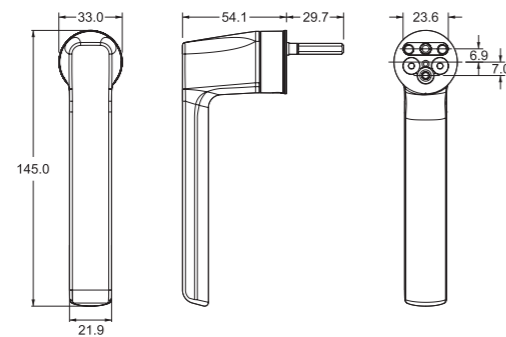
Screw Pack

P/N	Instruction
C110013	Self-Tapping Screws
C110014	Ram Screws

MILAN SERIES



C010601-
Hexagon Spindle Drive Handle
(Tilt & Turn Windows)



Screw Pack

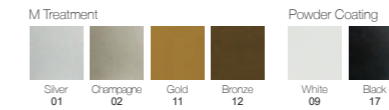
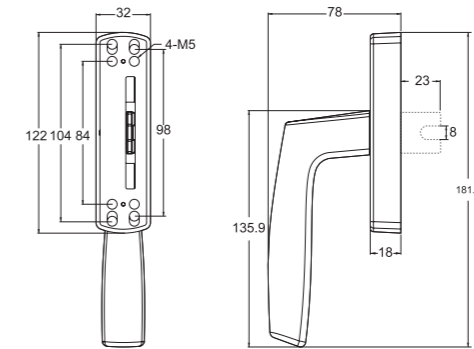
P/N	Instruction
C110013	Self-Tapping Screws
C110014	Ram Screws

HANDLE SELECTIONS

BERLIN SERIES



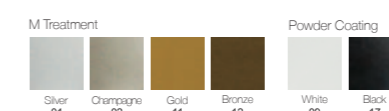
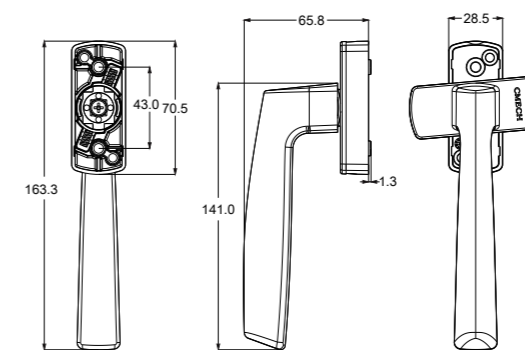
Fork Drive Handle (Type TT)



P/N	Material	Suitable for
C010401-	Zinc Alloy	Tilt & Turn Windows Inswing Casement Windows
C010402-	Aluminum Alloy	



C010407
Spindle Drive Handle
(Tilt & Turn Windows)

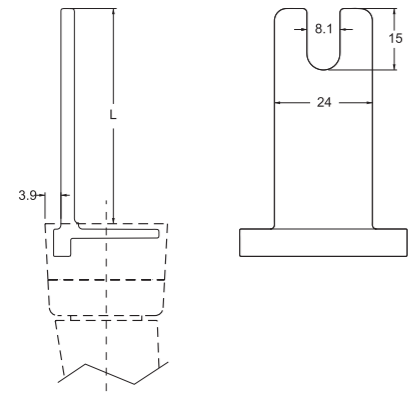


Screw Pack

P/N	Notes
A110330	25 mm Spindle, M5x35 mm Cross Screws
A110346	28 mm Spindle, M5x35 mm Cross Screws
A110344	30 mm Spindle, M5x35 mm Cross Screws
A110331	40 mm Spindle, M5x35 mm Cross Screws
A110332	45 mm Spindle, M5x35 mm Cross Screws
A110341	50 mm Spindle, M5x35 mm Cross Screws
A110345	55 mm Spindle, M5x35 mm Cross Screws
A110333	60 mm Spindle, M5x35 mm Cross Screws
A110342	70 mm Spindle, M5x35 mm Cross Screws
A110343	80 mm Spindle, M5x35 mm Cross Screws

FORK DRIVES

Offset Fork Drive Dimensions and Selections

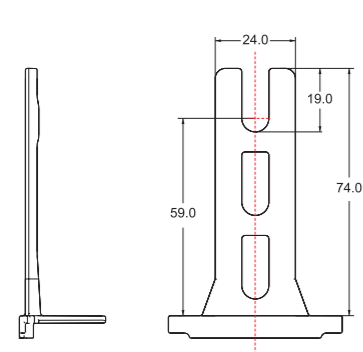


P/N	L	Specifications
A110097	21	21x3.9
A110098	27	27x3.9
A110099	31	31x3.9
A110100	33	33x3.9
A110101	41	41x3.9
A110102	45	45x3.9
A110103	37	37x3.9
A110104	49	49x3.9
A110105	53	53x3.9
A110106	63	63x3.9

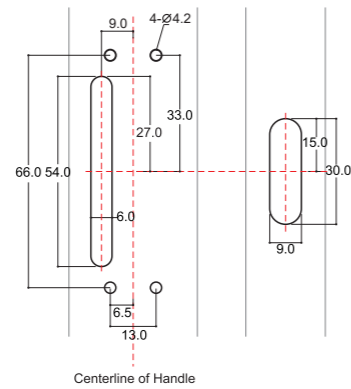
Note: The Offset Fork Drive must be specified with a Type W handle with an offset gasket (included with handle screw pack).



A110194
Offset Fork Drive-73mm



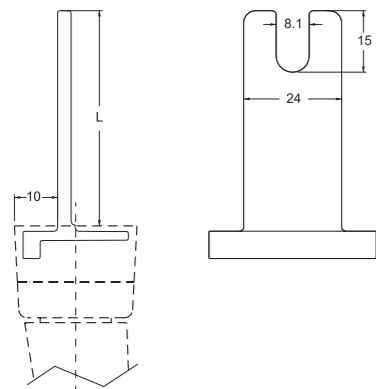
Handle Drill Hole Drawing (Interior) T-Drive Drill Hole Drawing (Side Profile)



Centerline of Handle



Central Fork Drive Dimensions and Selections



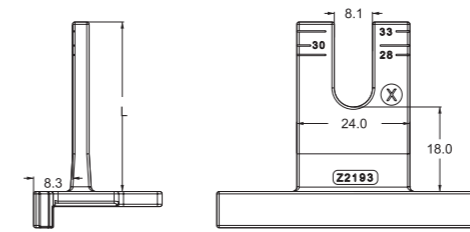
P/N	L	Specifications
A110107	21	21x10
A110108	27	27x10
A110109	31	31x10
A110110	33	33x10
A110111	41	41x10
A110112	45	45x10
A110113	37	37x10
A110114	49	49x10
A110115	53	53x10
A110116	63	63x10

Note: The Central Fork Drive must be specified with a Type W handle with a central gasket (included with handle screw pack).



FORK DRIVES

Offset Fork Drive Dimensions and Selections
Suitable for Tilt & Turn Window

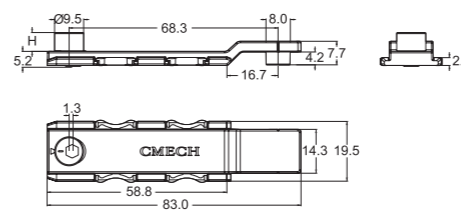


P/N	L	Specifications
C110016	28	28x8.3
C110017	30	30x8.3
C110018	33	33x8.3
C110019	35	35x8.3



LOCK POINTS

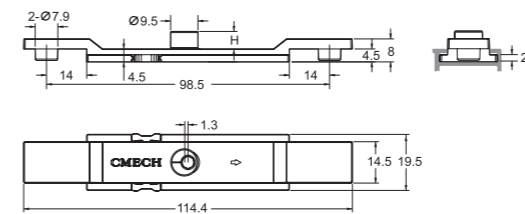
End Lock Point



P/N	H
A090007	6.2 mm
A090008	7.2 mm



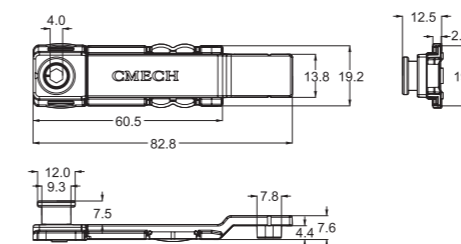
Central Lock Point



P/N	H
A090009	6.0 mm
A090010	7.0 mm

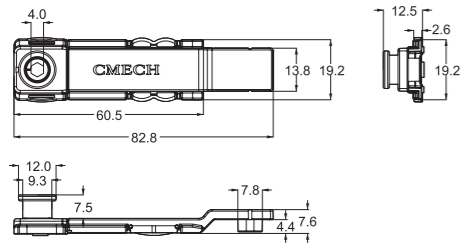


A090048-C254
Pry-Resistant End Lock Point with Bearing

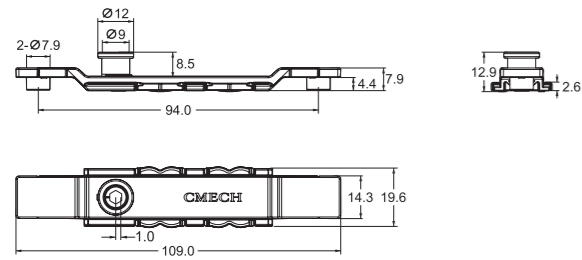


LOCK POINTS

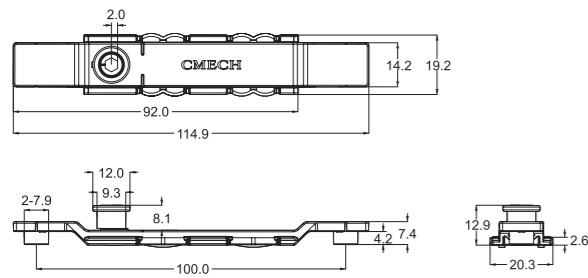
A090048-C320
Pry-Resistant End Lock Point (Master Series)



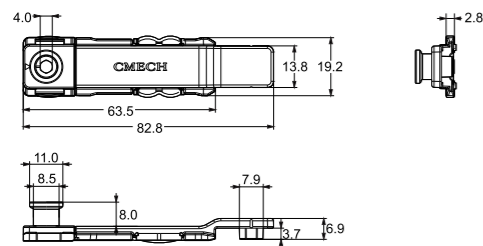
A090033
Pry-Resistant Central Lock Point with Bearing



A090034-C320
Pry-Resistant Central Lock Point with Bearing

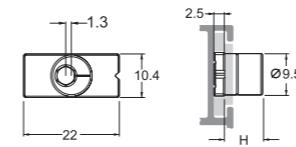


A090059-C282
Pry-Resistant End Lock Point (Classic Series)



LOCK POINTS

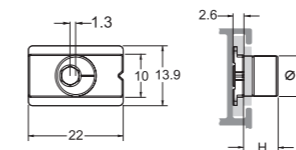
Single-Stage Active Lock Point



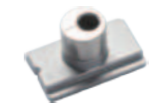
P/N	H
A090011	8.7 mm
A090012	9.7 mm



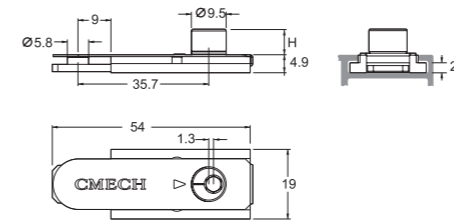
Dual-Stage Active Lock Point



P/N	H
A090002	8.75 mm
A090003	8.1 mm



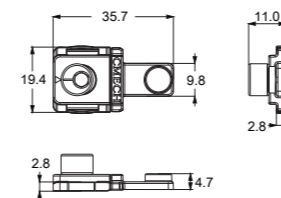
Lock Point



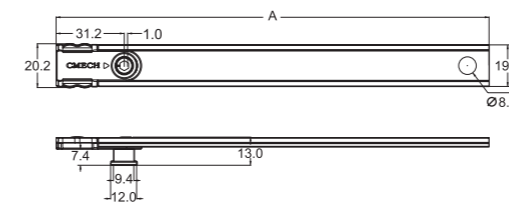
P/N	H
A090001	6.0 mm
A090005	7.0 mm



C090011
Back Lock Point



Pry-Resistant Connecting Rod with Bearing

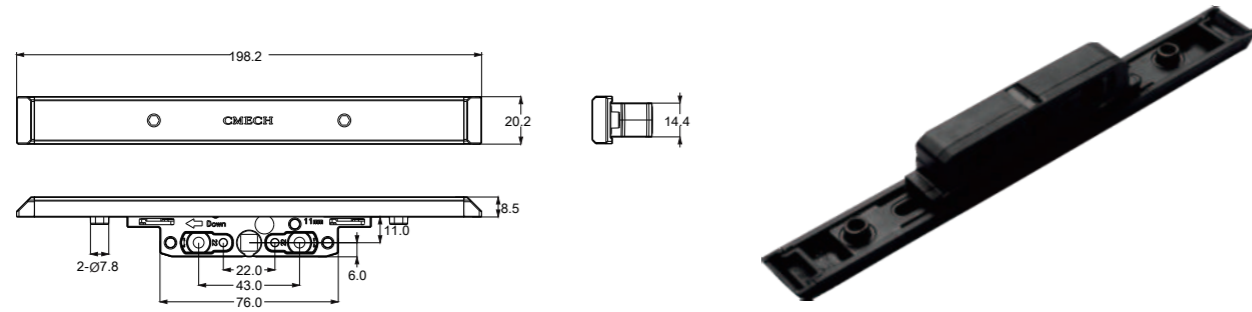


P/N	A
A090022	150
A090023	200
A090024	300
A090025	400
A090026	500
A090027	600
A090028	700
A090029	800
A090030	900
A090031	1000

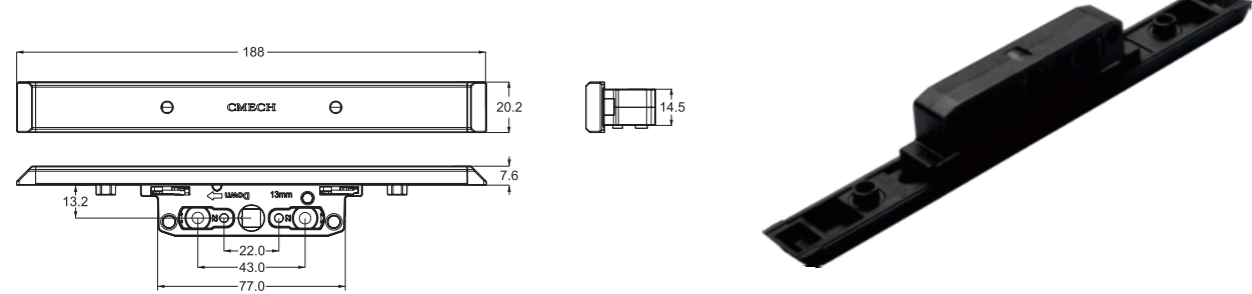


TRANSMISSION MACHANISM

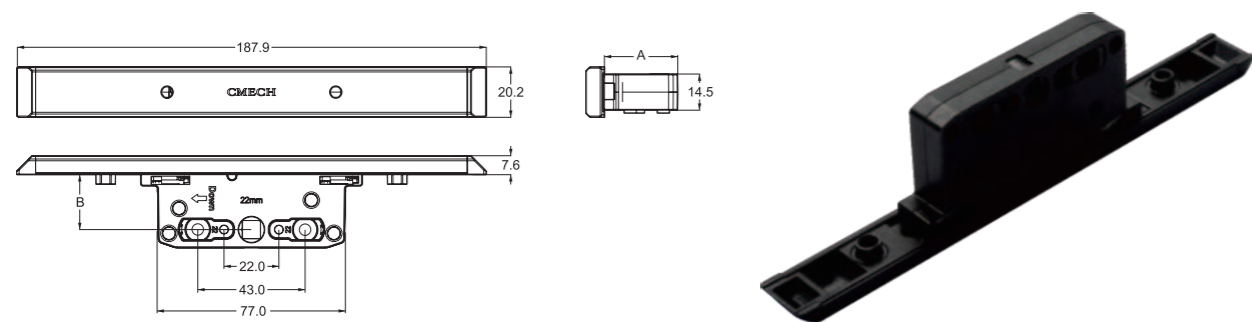
A020185
11mm Fly Screen Drive Gearbox (Master Series)



A020144
13 mm Bi-Directional Spindle Drive Gearbox (Master Series)



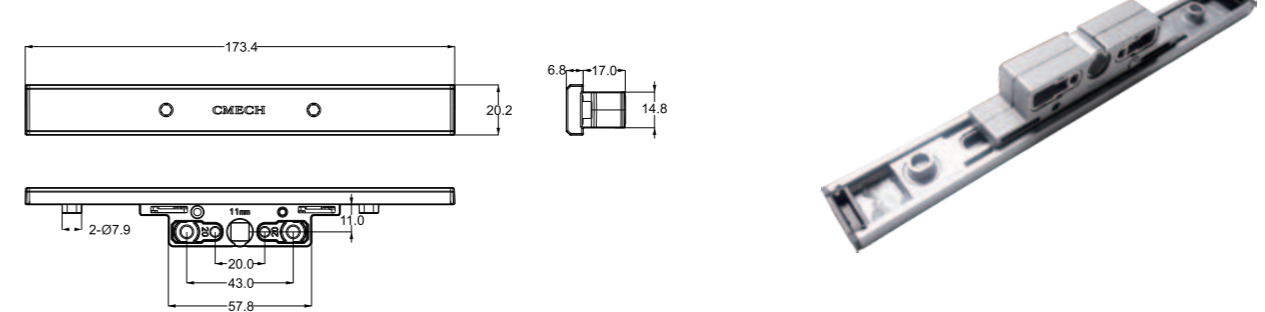
Bi-Directional Spindle Drive Gearbox (Master Series)



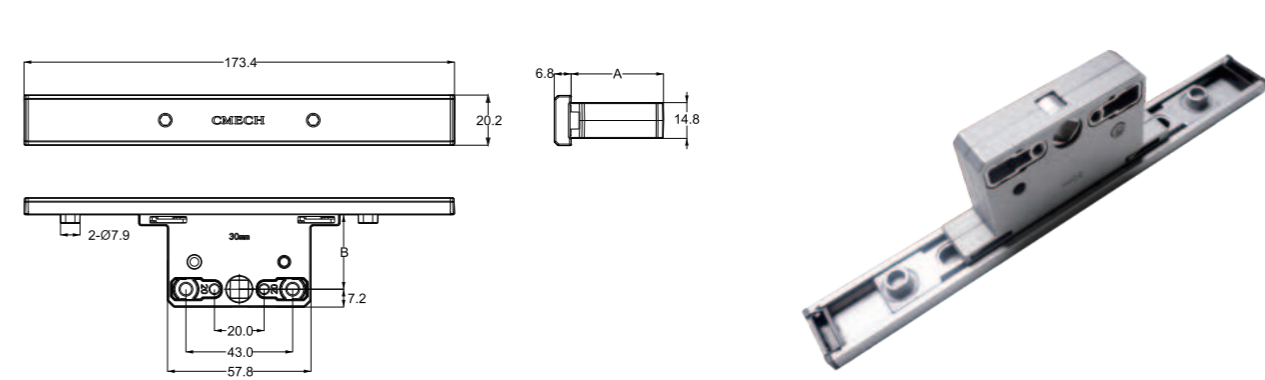
P/N	A	B
A020146	24.7 mm	22 mm
A020148	27.7 mm	25 mm
A020150	32.7 mm	30 mm
A020152	37.7 mm	35 mm
A020186	35.3 mm	28 mm

TRANSMISSION MACHANISM

A020181
11mm Fly Screen Drive Gearbox (Classic Series)

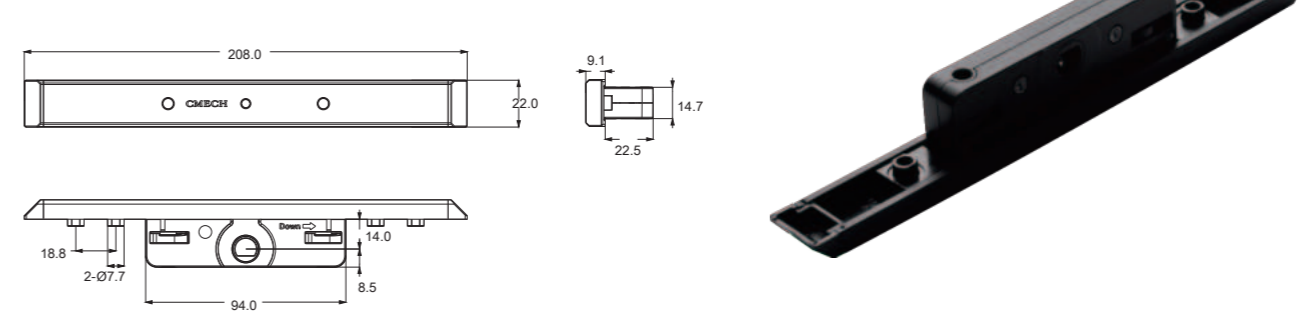


13 mm Bi-Directional Spindle Drive Gearbox (Classic Series)



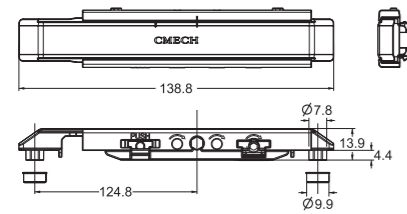
P/N	A	B
A020182	32.2 mm	25 mm
A020183	35.2 mm	28 mm
A020184	37.2 mm	30 mm
A020191	29.2 mm	22 mm
A020194	42.2 mm	35 mm

A020177
Slim Drive Gearbox

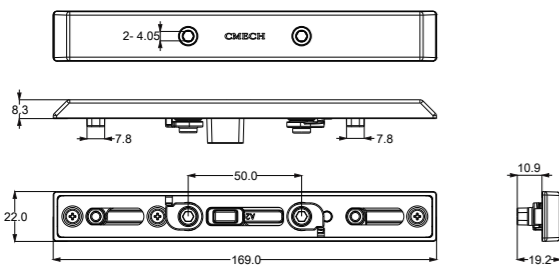


TRANSMISSION MACHANISM

B020003
Hexagon Spindle Drive Gearbox



A020188
Hexagon Spindle Drive Gearbox



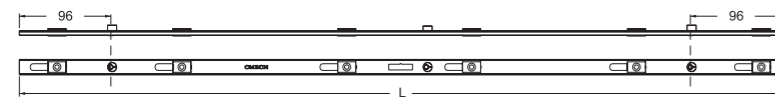
Surface Mount Drive Gear



P/N	L
A020050	410 mm
A020051	600 mm
A020052	800 mm
A020053	1000 mm
A020061	1300 mm



Surface Mount Drive Gear



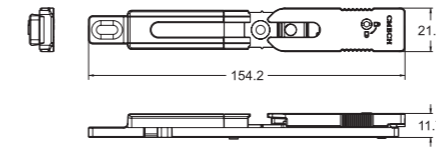
P/N	L
A020062	410 mm
A020063	600 mm
A020064	800 mm
A020065	1000 mm



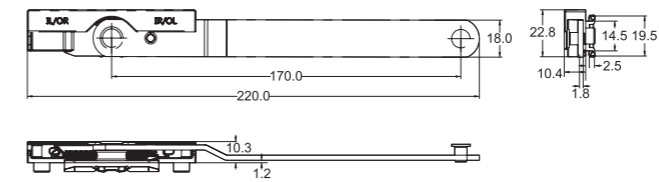
TRANSMISSION MACHANISM

B040072
Ventilation Assist

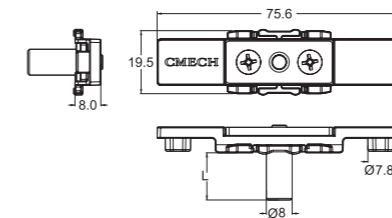
Glide Components



Glide Components



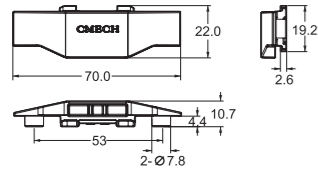
Reinforced T-Drive



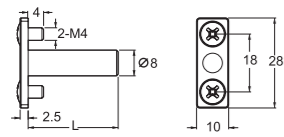
P/N	L
AQ20115	14.5 mm
AQ20116	18.5 mm
AQ20117	22.5 mm
AQ20126	26.5 mm
AQ20127	30.5 mm
AQ20128	34.5 mm
AQ20129	11.5 mm
AQ20180	20.5 mm

TRANSMISSION MACHANISM

B020004
Fork Drive Connector

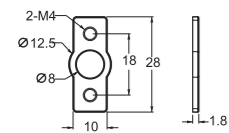


Standard T-Drive

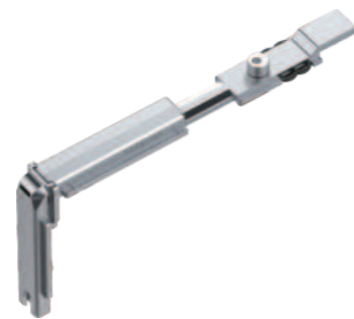
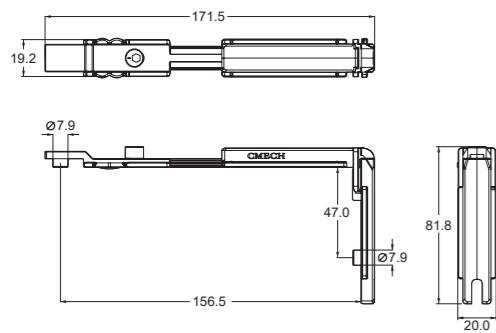


P/N	L
A020029	20 mm
A020030	24 mm
A020031	28 mm

A110120
Threaded Screw Plate
(Use with Standard T-Drive)



C060009
Corner Drive



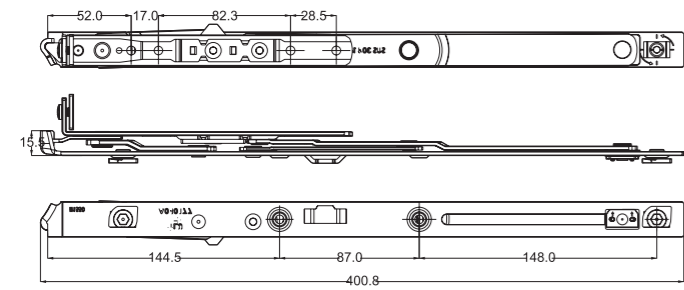
T-DRIVE SELECTION TABLE

Unit: mm

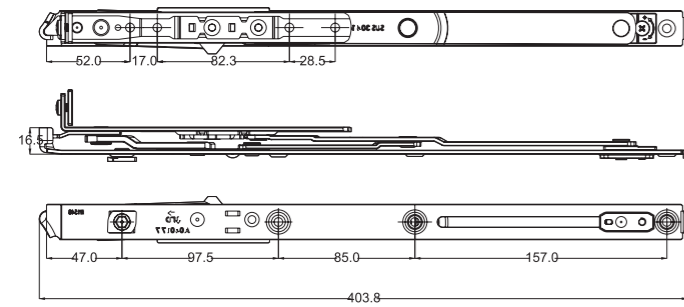
T-Drive Selections	Suitable Sash Profile and Connecting Strip Combinations			
	Connecting Strip	Sash Profile	Connecting Strip	Sash Profile
Product				
Description	Standard T-Drive (Connected Directly to the Aluminum Connecting Strip)	Standard T-Drive	Threaded Screw Plate	
P/N	A020029 A020031	A020029 A020031	A110120	

FRICION HINGES

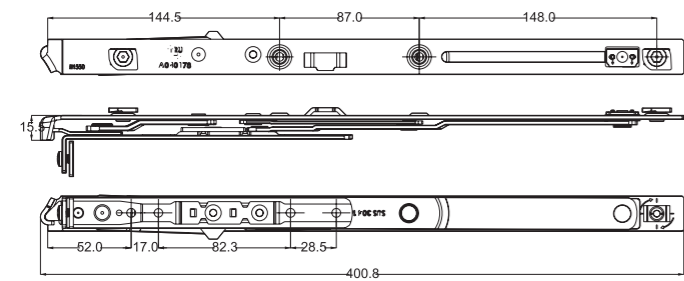
A040177
 16" Free-Mill Friction Up Hinge Left
 Suitable for Sash Width: 500-800 mm



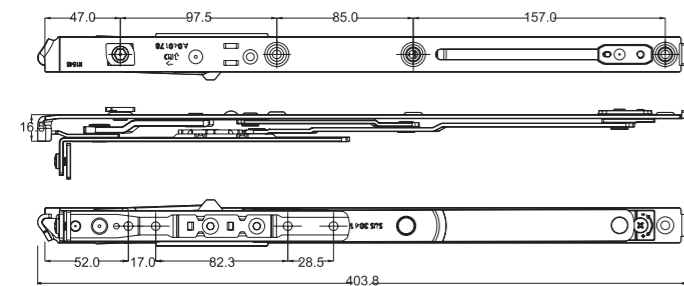
16" Free-Mill Friction Lower Hinge Left
 Suitable for Sash Width: 500-800 mm



A040178
 16" Free-Mill Friction Up Hinge Right
 Suitable for Sash Width: 500-800 mm

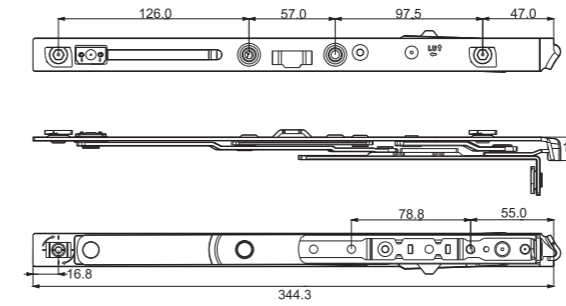


16" Free-Mill Friction Lower Hinge Right
 Suitable for Sash Width: 500-800 mm

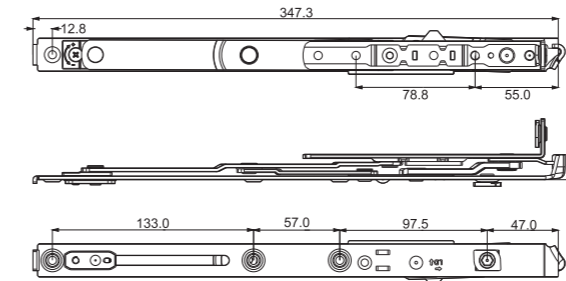


FRICION HINGES

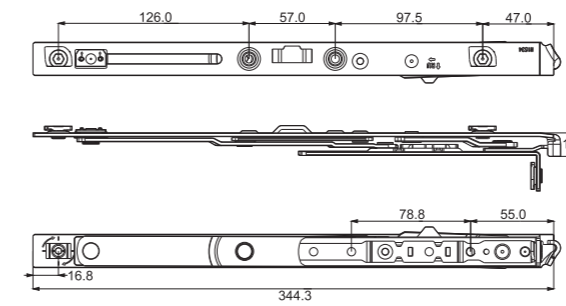
A040201
 14" Free-Mill Friction Up Hinge Left (Master Series) (C-Groove)
 Suitable for Sash Width: 400-750 mm



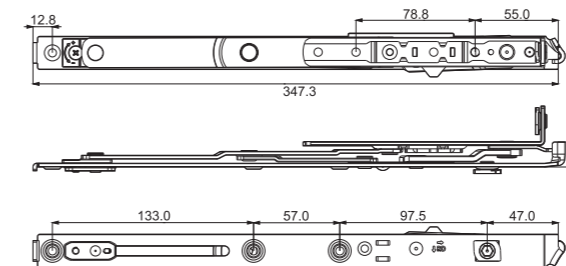
14" Free-Mill Friction Lower Hinge Left (Master Series) (C-Groove)
 Suitable for Sash Width: 400-750 mm



A040202
 14" Free-Mill Friction Up Hinge Right (Master Series) (C-Groove)
 Suitable for Sash Width: 400-750 mm

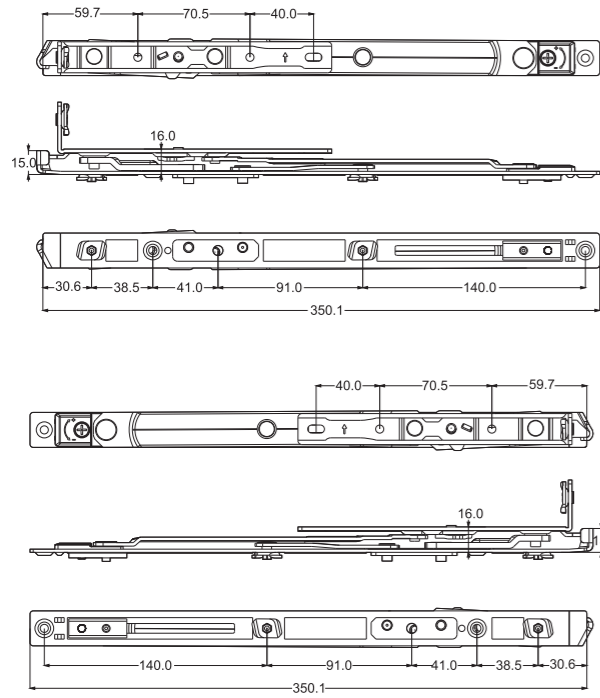


14" Free-Mill Friction Lower Hinge Right (Master Series) (C-Groove)
 Suitable for Sash Width: 400-750 mm

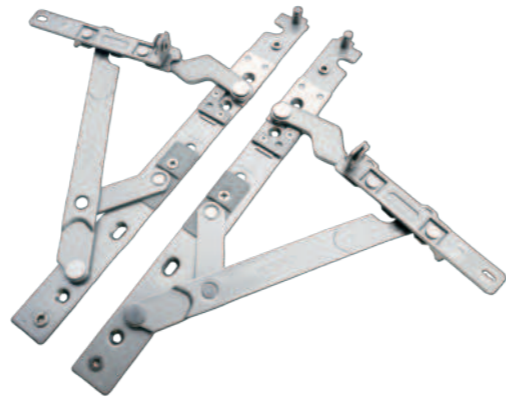
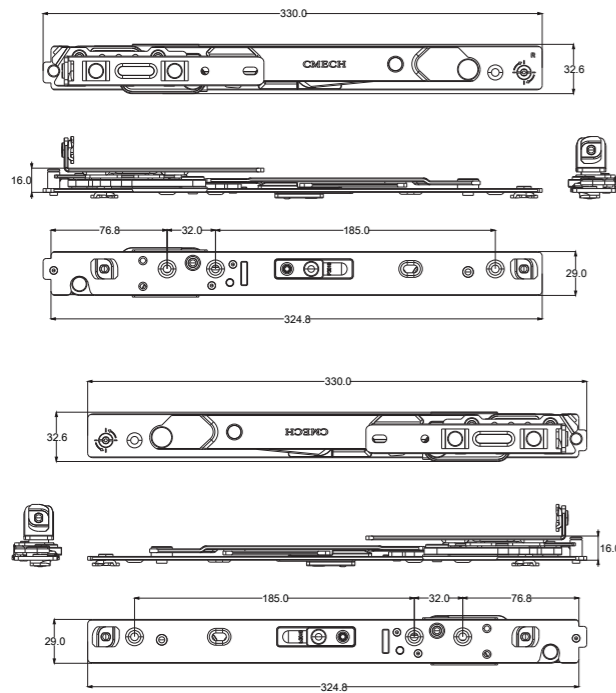


FRICION HINGES

A040198
 14" Free-Mill Friction Up Hinge Left (Classic Series) (C-Groove)
 Suitable for Sash Width: 400-750 mm

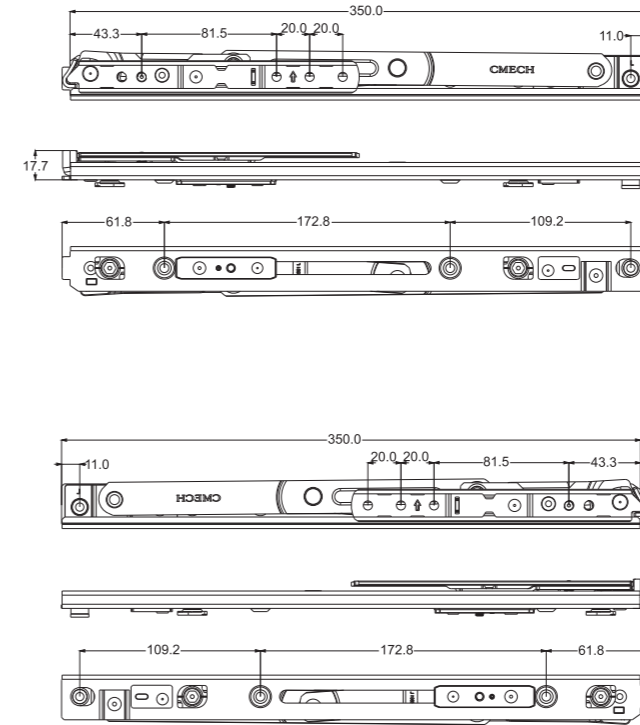


A040205
 14" Front Fixed Free-Mill Friction Hinge (C-Groove)
 Suitable for Sash Width: 400-750 mm



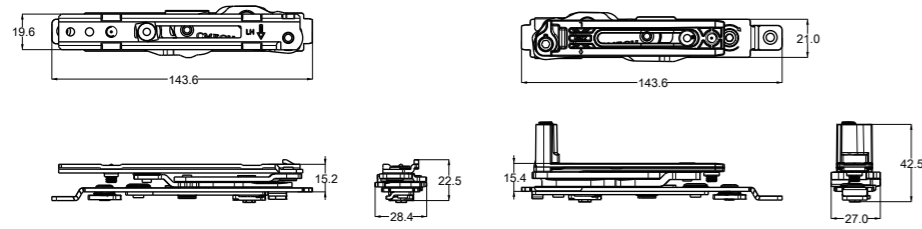
FRICION HINGES

A040190
 14" Internal Friction Hinge (C-Groove)
 Suitable for Sash Width: 400-750 mm

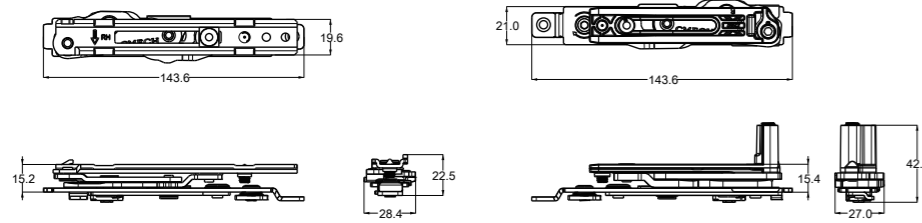


FRICION HINGES

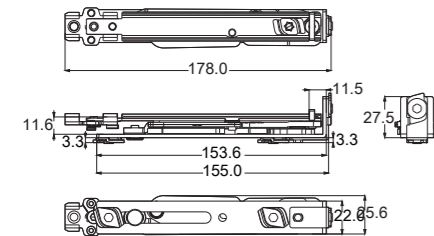
B040095
70kg 90° Left-Open Hinge (C-Groove)(Inswing Casement Window)
Suitable for Sash Width: 400-750 mm



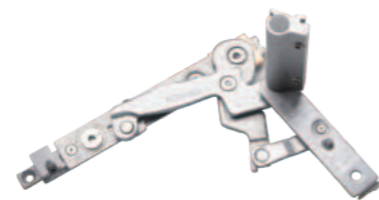
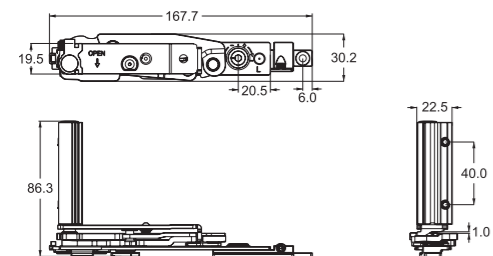
B040096
70kg 90° Right-Open Hinge (C-Groove)(Inswing Casement Window)
Suitable for Sash Width: 400-750 mm



B040082
80Kg Concealed Hinge (C-Groove)(Inswing Casement Window)
Suitable for Sash Width: 400-750 mm

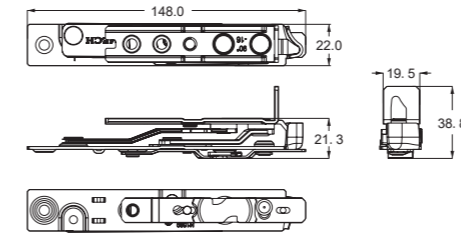


B040073
100 kg Concealed Hinge (C-Groove)(Inswing Casement Window)
Suitable for Sash Width: 400-750 mm

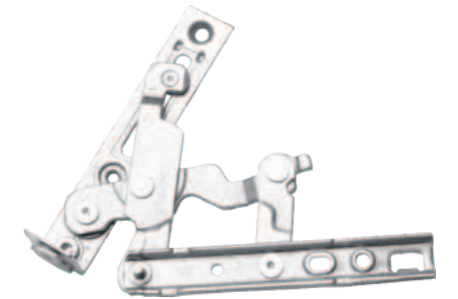
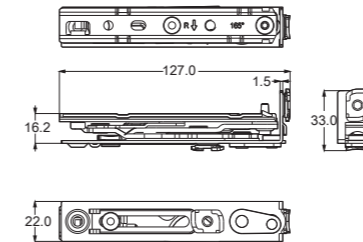


FRICION HINGES

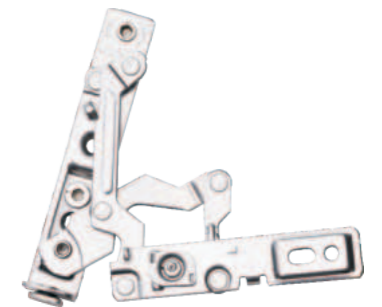
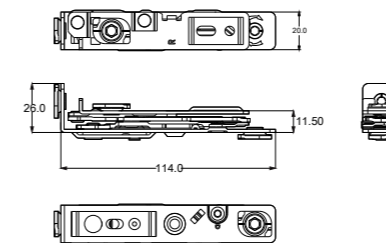
B040076
90° Fly Screen Friction Hinge (Master Series) (C-Groove)
Suitable for Sash Width: 400-750 mm



B040083
165° Fly Screen Friction Hinge (Master Series) (C-Groove)
Suitable for Sash Width: 400-750 mm



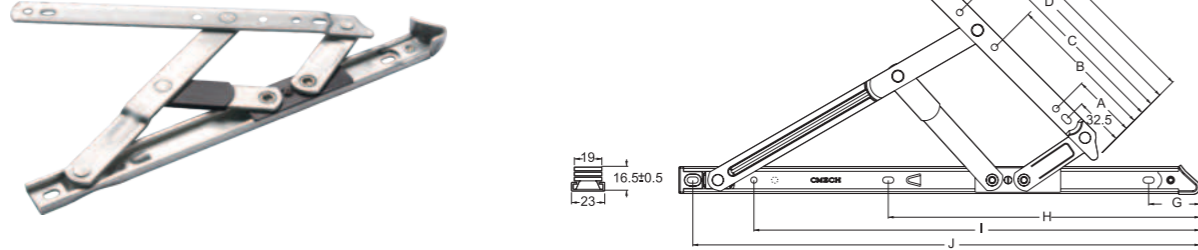
B040090
180° Fly Screen Friction Hinge (Classic Series) (C-Groove)
Suitable for Sash Width: 400-750 mm



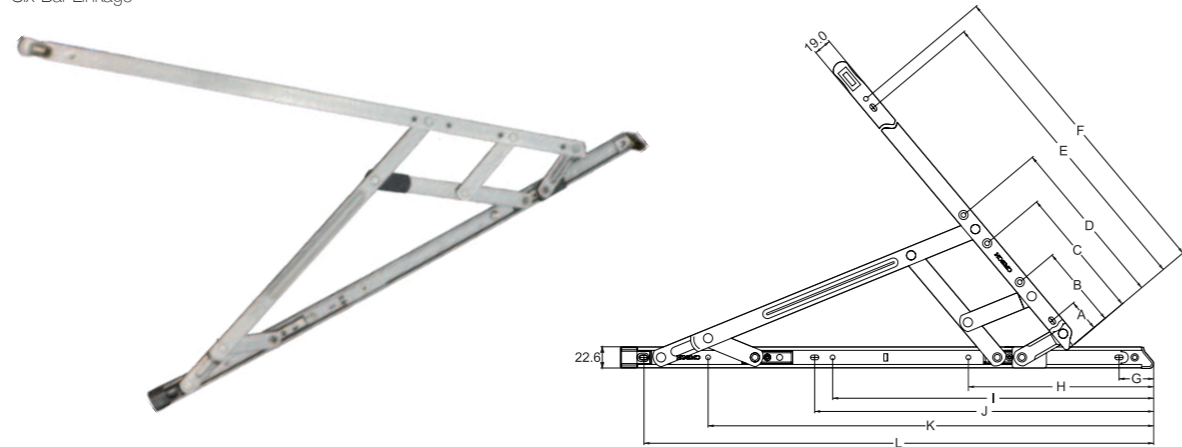
FRICION HINGES

Suitable for Outswing Casement Windows

Four-Bar Linkage



Six-Bar Linkage



Technical Parameters

P/N	Direction	Size (in.)	# of Bars	Max. Sash Height (mm)	Max. Sash Width (mm)	Max. Sash Weight (kg)	Opening Angle (±2°)	Screw Pack P/N
A040131	Left & Right	10	4	1,600	500	32	80	A110123
A040132	Left & Right	12	4	1,600	600	38	84	A110124
A040133	Left & Right	14	4	1,600	650	40	87	A110124
A040134	Left & Right	16	4	1,800	750	42	79	A110124
A040135	Left & Right	18	4	1,800	800	45	79	H110004
A040136	Left & Right	20	4	1,800	800	48	80	A110130
A040139	Left & Right	22	6	1,800	900	48	80	A110135
A040142	Left & Right	24	6	1,800	1,000	50	25/45/88	A110147

Installation Sizes

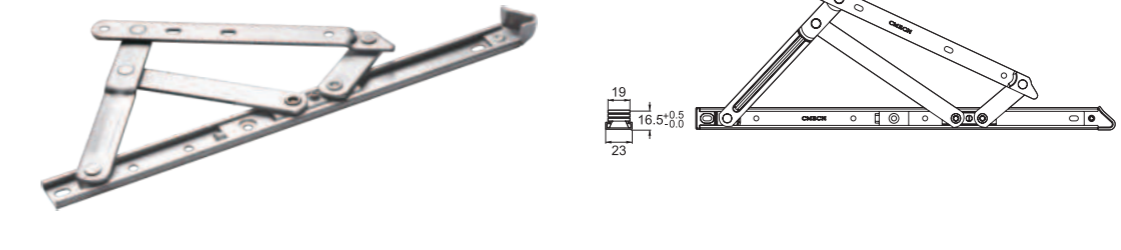
P/N	Direction	Size (in.)	Stack Height (mm)	Specifications (mm)											
				A	B	C	D	E	F	G	H	I	J	K	L
A040131	Left & Right	10	16.5	46	66.5	106.5	-	198	210.5	35.5	213.5	-	255.5	-	-
A040132	Left & Right	12	16.5	46	66.5	126.5	-	223	235	35.5	226.5	252.5	304.5	-	-
A040133	Left & Right	14	16.5	46	97.5	147.5	-	253.5	266	35.5	248.5	302	357	-	-
A040134	Left & Right	16	16.5	46	97.5	137.5	-	274.5	287	35.5	240.5	339.5	406.5	-	-
A040135	Left & Right	18	16.5	46	87.5	127.5	-	287.5	300	35.5	218.5	395	455.5	-	-
A040136	Left & Right	20	16.5	46.5	176.5	218.5	284.5	322	334.5	35.5	392	460	509	-	-
A040139	Left & Right	22	16.5	35	89.5	144.5	184.5	506	518.5	37.5	-	348	367.5	483	552.5
A040142	Left & Right	24	16.5	33.5	111.5	173.5	213.5	578.5	-	32	See Notes	-	405	535	600.5
A040181	Left & Right	12	16.3	-	-	-	88	102.5	117	70	134.5	227	-	-	-
A040182	Left & Right	12	16.3	-	-	-	88	102.5	117	70	134.5	227	-	-	-

Notes: The H dimension of A040142 limits the maximum opening angle of the friction hinge using different hole locations: 25° when H=164.5, 45° when H=216.2, and 88° when H=364.5

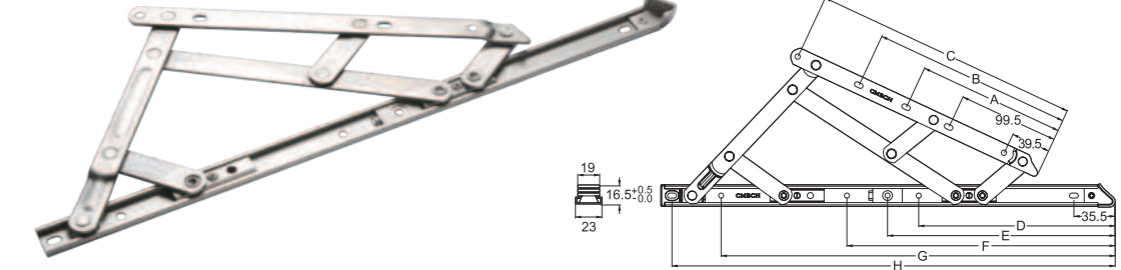
FRICION HINGES

Suitable for Outswing Awning Windows

Four-Bar Linkage



Six-Bar Linkage



Technical Parameters

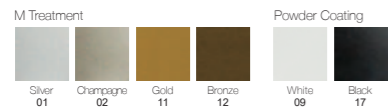
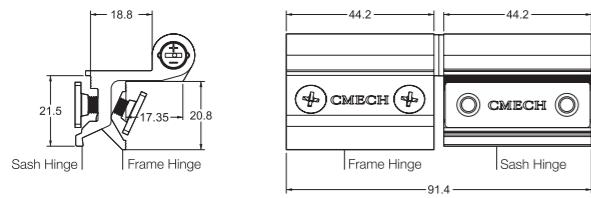
P/N	Direction	Size (in.)	# of Bars	Max. Sash Height (mm)	Max. Sash Width (mm)	Max. Sash Weight (kg)	Opening Angle (±2°)	Screw Pack P/N
H040057	Left & Right	12	4	800	1,200	50	30/35	H110004
H040058	Left & Right	14	4	1,000	1,200	65	30/35	H110004
H040059	Left & Right	16	4	1,200	1,200	82	25/30	H110004
H040060	Left & Right	18	6	1,400	1,500	100	25/30	H110004
H040061	Left & Right	20	6	1,600	1,600	108	20/25	A110129
H040062	Left & Right	22	6	1,800	1,800	110	20/25	A110129
H040063	Left & Right	24	6	1,800	1,800	120	15/20	H110004
H040064	Left & Right	26	6	1,900	2,000	125	15/20	A110129
H040065	Left & Right	28	6	2,000	2,000	130	15/20	A110129

Installation Sizes

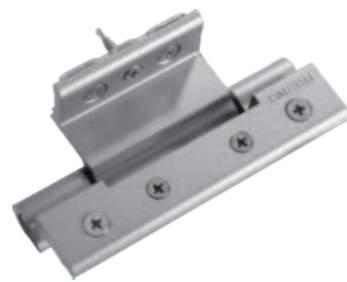
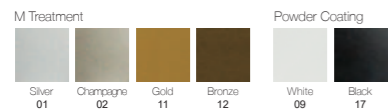
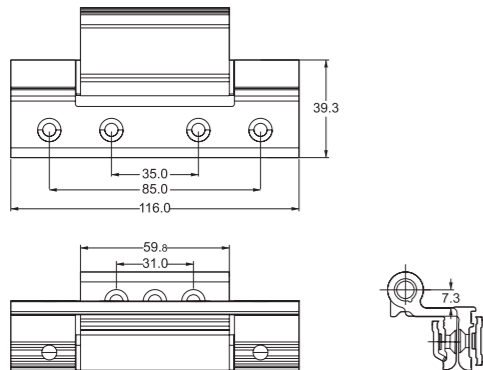
P/N	Direction	Size (in.)	Stack Height (mm)	Specifications (mm)							
				A	B	C	D	E	F	G	H
H040057	Left & Right	12	16.5	-	132.5	174.5	167	188	225	259	301.5
H040058	Left & Right	14	16.5	-	158.5	200.5	182	206	247.5	303.5	348.5
H040059	Left & Right	16	16.5	-	200.5	242.5	174.5	207.5	249	365.5	409.5
H040060	Left & Right	18	16.5	-	226.5	268.5	181.5	214.5	256	410.5	454.5
H040061	Left & Right	20	16.5	-	259.5	301.5	163	193	234.5	463.5	508.5
H040062	Left & Right	22	16.5	-	290.5	332.5	166	196.5	238	509.5	554.5
H040063	Left & Right	24	16.5	-	322.5	364.5	170.5	199.5	406	553.5	598.5
H040064	Left & Right	26	16.5	232.5	365.5	407.5	175.5	205.5	455	602.5	654.5
H040065	Left & Right	28	16.5	247.5	396.5	438.5	178.5	210.5	504	651.5	703.5

HINGES

B040036
45 kg Hinge

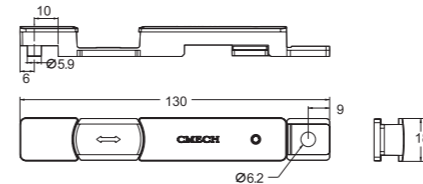


B040059
80 kg Hinge

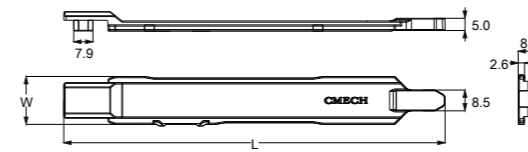


FRENCH CASEMENT WINDOW ACCESSORIES

A020190
Operating Lever

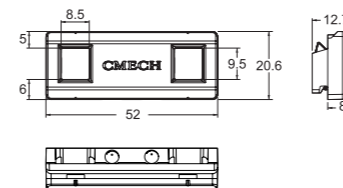


Shootbolt

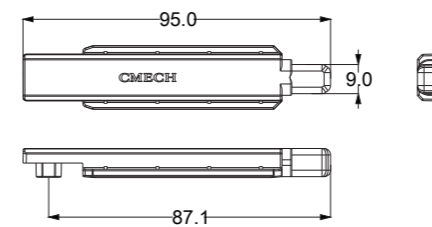


P/N	Size	
	L (mm)	W (mm)
A070005	156	19.6
A070006	156	17.6
A070007	90	19.6
A070008	90	17.6

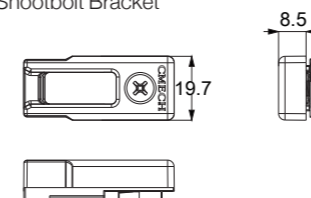
A100112
Shootbolt Bracket



B070001
Shootbolt

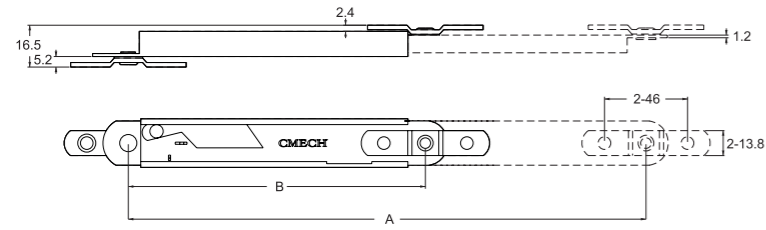


Shootbolt Bracket



OTHER ACCESSORIES

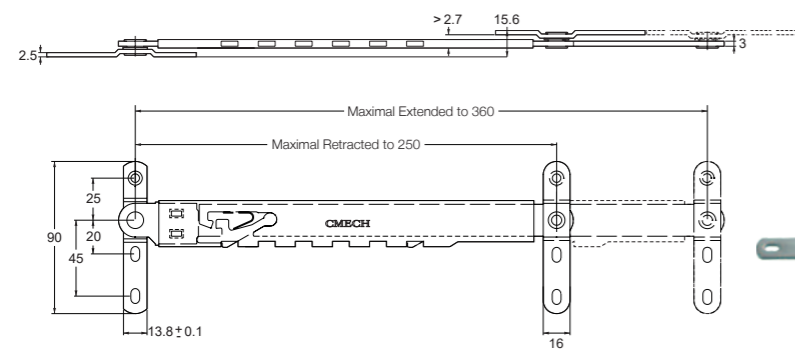
Limiting Stay



P/N	Direction	Size/in.	A	B
H040066	Left & Right	8	205	155
H040067	Left & Right	10	255	180
H040068	Left & Right	12	305	205
H040069	Left & Right	14	355	230
H040070	Left & Right	16	409	257
H040071	Left & Right	18	461	289
H040072	Left & Right	20	515	310



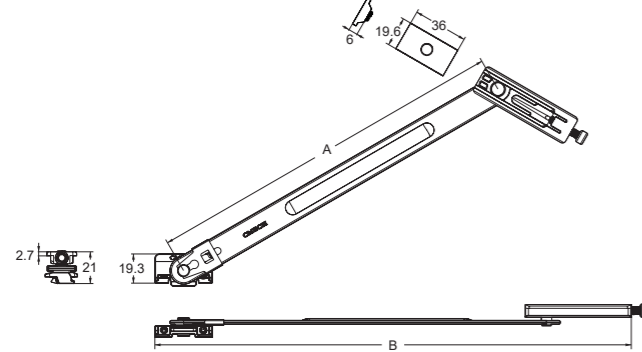
Limiting Stay



P/N	Directions	Size/in.
H040086	Left & Right	14



Limiting Stay

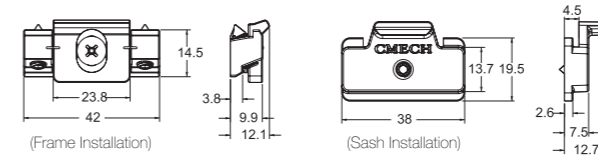


P/N	Size/in.	A	B
B040041	10	240 mm	315 mm
B040042	14	347 mm	422 mm

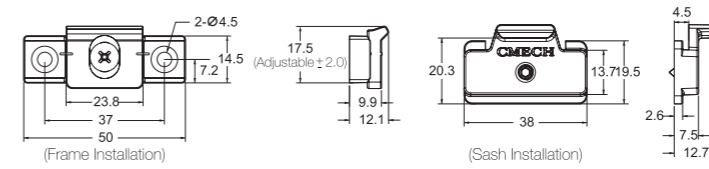


OTHER ACCESSORIES

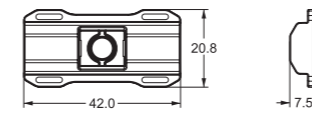
A100121
Hidden Lock
Suitable for Double-Sided C-Groove



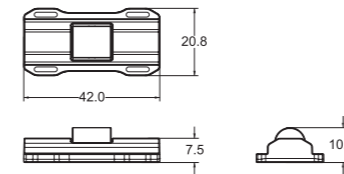
A100104
Hidden Lock
Suitable for Single-Sided C-Groove



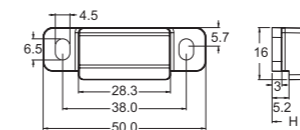
A080012
Sash Support Block



A080011
Sash Support Block (With Bearing)



Frame Support Block

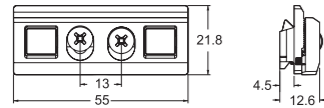


P/N	H
A080003	12.8
A080004	8.3

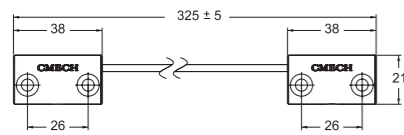


OTHER ACCESSORIES

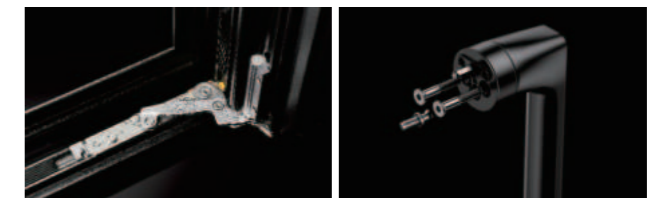
A120005
Frame Support Block with Guide Wheels



A120003
Safety Catch System Hardware



Tilt & Turn Window Hardware



- The handles are available in many styles and colors
- Hinges are easy to adjust and corner drives are quick to install
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Tilt & Turn Window with Exposed Hinge		Applicable Range
Sash Width	(mm)	390-1,300
Sash Height	(mm)	600-2,400
Load-bearing	(kg)	≤80

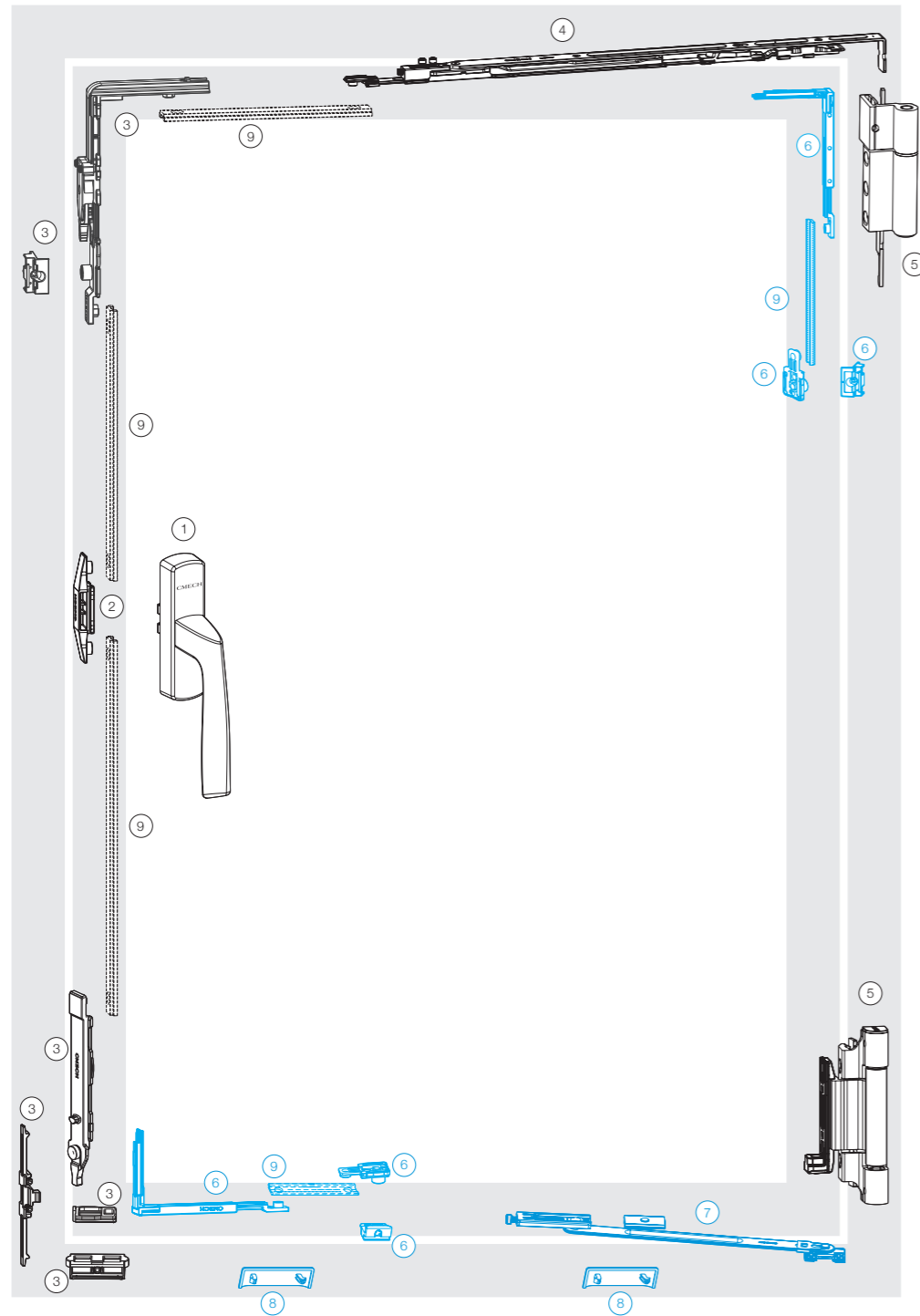
Classic Series Tilt & Turn Window with Concealed Hinge		Applicable Range
Sash Width	(mm)	380-900
Sash Height	(mm)	600-2,000
Load-bearing	(kg)	≤80

Master Series Tilt & Turn Window with Concealed Hinge		Applicable Range
Sash Width	(mm)	490-1,200
Sash Height	(mm)	800-2,800
Load-bearing	(kg)	≤90, 100, 130



TILT & TURN WINDOW HARDWARE SERIES

Classic Series Fork Drive Handle & Exposed Hinge (80 kg) Configuration



TILT & TURN WINDOW HARDWARE SERIES

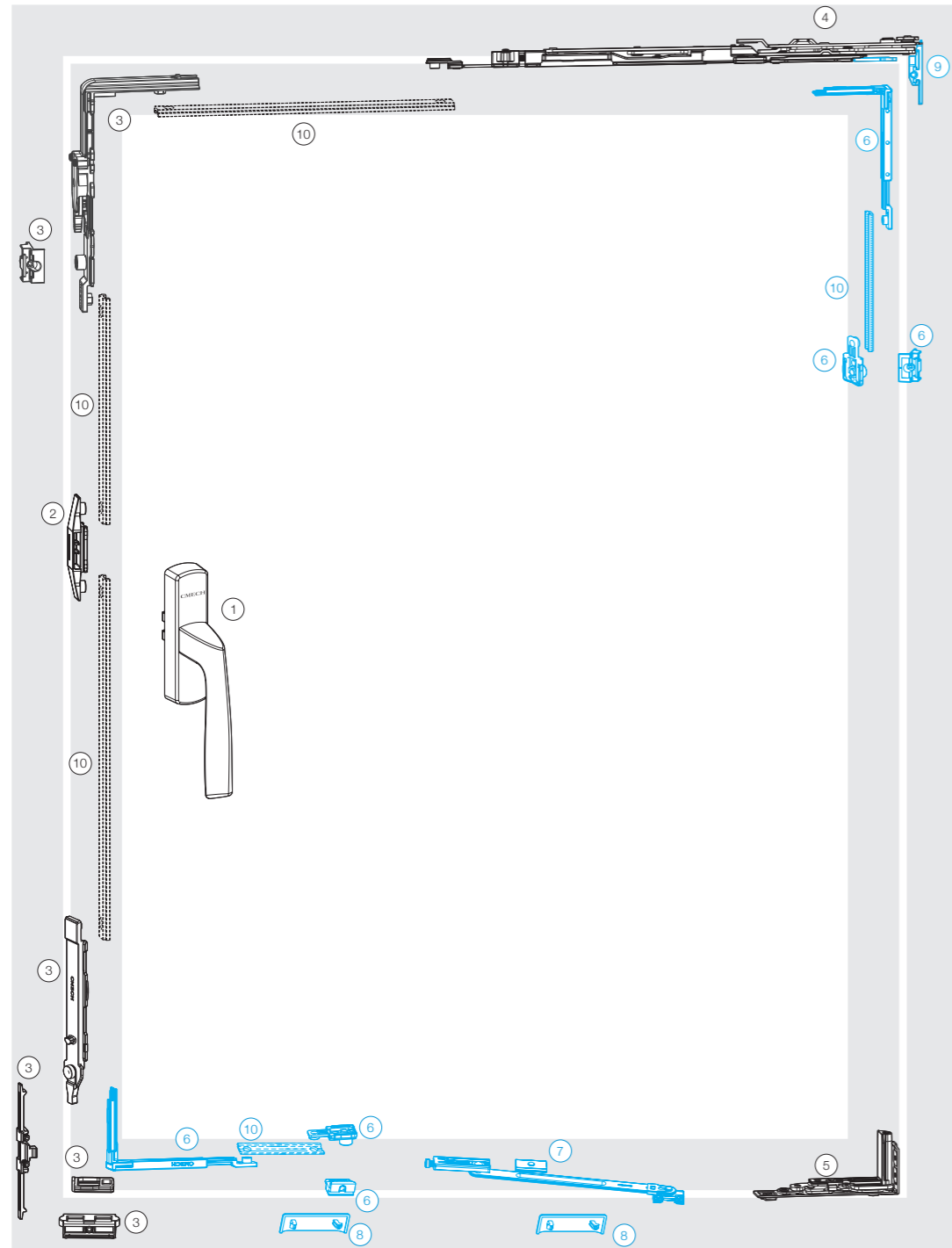
Configuration Table - Classic Series Fork Drive Handle with Exposed Hinge (80 kg)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type TT)	C010402 C010401	1	Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy	P86
2	Fork Drive Connector	B020004	1		P97
3	Tilt & Turn Standard Configuration Set	C800153	1	Equipped with Classic Series, Include items: Fail-Safe Corner Drive Keeper Tilt Strike Tilt Support Block Tilt Bolt Sash Support Block	P139
4	Stay	C020005 C020008 C020009	1	Sash Width: 390-500 mm Sash Width: 450-750 mm Sash Width: 600-1,200 mm	P142
5	Upper and Lower Hinges	C040005	1	80 kg	P150
6	Back-lock Standard Configuration Set	C800154	1-2	Equipped with 80kg Concealed Hinge, Include items: C060019 Small Corner Driver C090011 Back-lock End Lock Point A100127 Keeper	P92
7	Limiting Stay	B040041 B040042	1	10" 14"	P110
8	Drain Cover	C120002	2		P142
9	Connecting Strip		3-4	Provided by Customer or Cmech	
10	Handle Screw Pack	C110004	1		



TILT & TURN WINDOW HARDWARE SERIES

Classic Series Fork Drive Handle & Concealed Hinge (80 kg) Configuration



TILT & TURN WINDOW HARDWARE SERIES

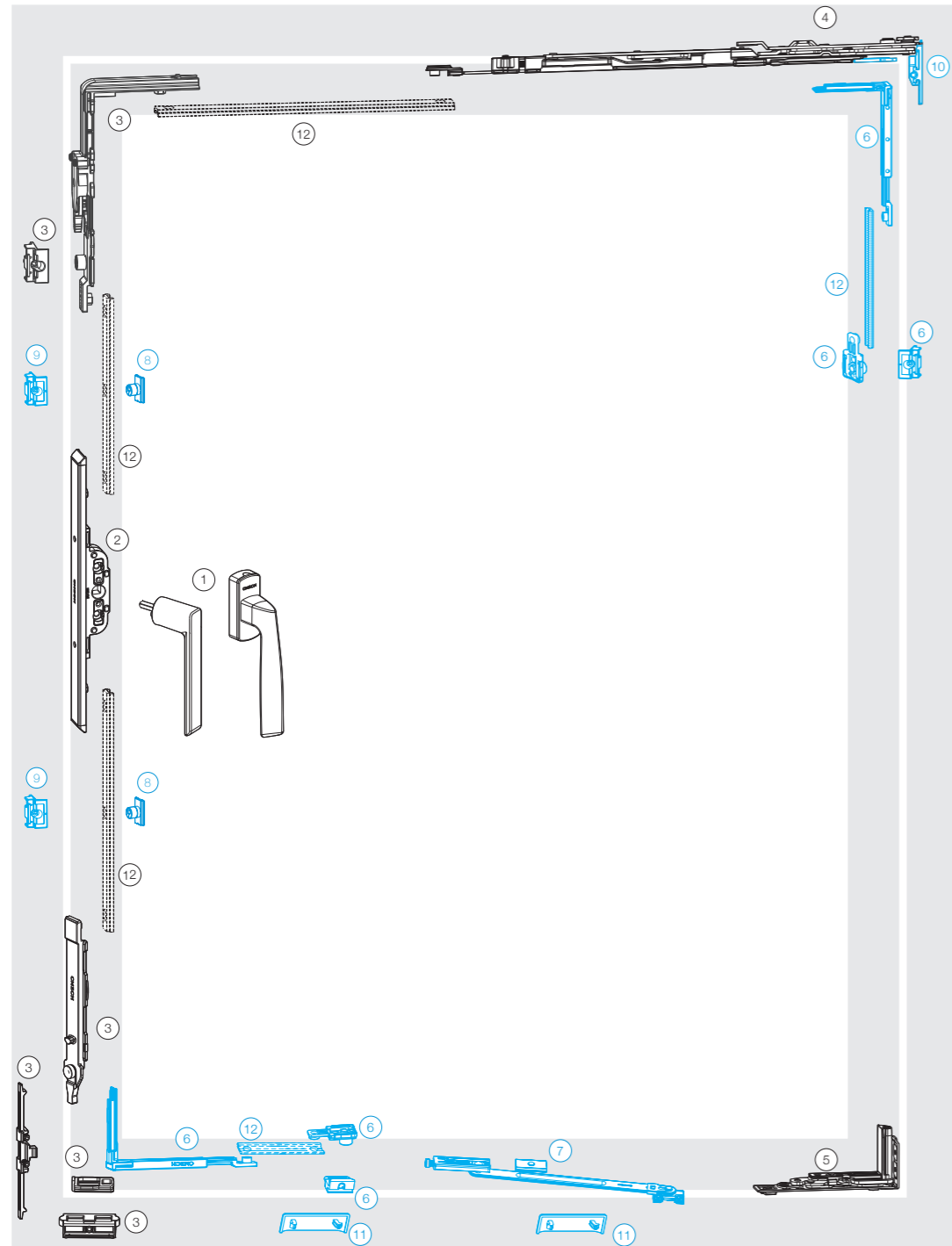
Configuration Table - Fork Drive Handle with Concealed Hinge (80 kg)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type TT)	C010402 C010401	1	Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy	P67 P69 P72 P75
2	Fork Drive Connector	B020004	1		P138
3	Tilt & Turn Standard Configuration Set	C800153	1	Equipped with Classic Series, Include items: Fail-Safe Corner Drive Keeper Tilt Strike Tilt Support Block Tilt Bolt Sash Support Block	P139
4	400 Upper Hinge Left (180°) 400 Upper Hinge Right (180°) 490 Upper Hinge Left (180°) 490 Upper Hinge Right (180°) 650 Upper Hinge Left (180°) 650 Upper Hinge Right (180°) 380 Upper Hinge Left (90°) 380 Upper Hinge Right (90°) 490 Upper Hinge Left (90°) 490 Upper Hinge Right (90°)	C040067 C040068 C040069 C040070 C040071 C040072 C040087 C040088 C040091 C040092	1	Sash Width 400-500 mm, Left-Opening Sash Sash Width 400-500 mm, Right-Opening Sash Sash Width 490-700 mm, Left-Opening Sash Sash Width 490-700 mm, Right-Opening Sash Sash Width 600-900 mm, Left-Opening Sash Sash Width 600-900 mm, Right-Opening Sash Sash Width 380-500 mm, Left-Opening Sash Sash Width 380-500 mm, Right-Opening Sash Sash Width 490-800 mm, Left-Opening Sash Sash Width 490-800 mm, Right-Opening Sash	P146 P147 P148 P149
5	Concealed Lower Hinge Left (180°) Concealed Lower Hinge Right (180°) Concealed Lower Hinge Left (90°) Concealed Lower Hinge Right (90°)	C040065 C040066 C040085 C040086	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P143 P144 P145
6	Back-lock Standard Configuration Set	C800154	1-2	Equipped with Classic Series, Include items: C060019 Small Corner Driver C090011 Back-lock End Lock Point A100127 Keeper	P92
7	Limiting Stay	B040041 B040042	1	10" 14"	P141
8	Drain Cover	C120002	2		P110
9	Shootbolt Bracket	C100007	1	Option with No.6	P90
10	Connecting Strip		3-5	Provided by Customer or Cmech	P142
11	Handle Screw Pack	C110004	1		P140



TILT & TURN WINDOW HARDWARE SERIES

Classic Series Spindle Drive Handle & Concealed Hinge (80 kg) Configuration



TILT & TURN WINDOW HARDWARE SERIES

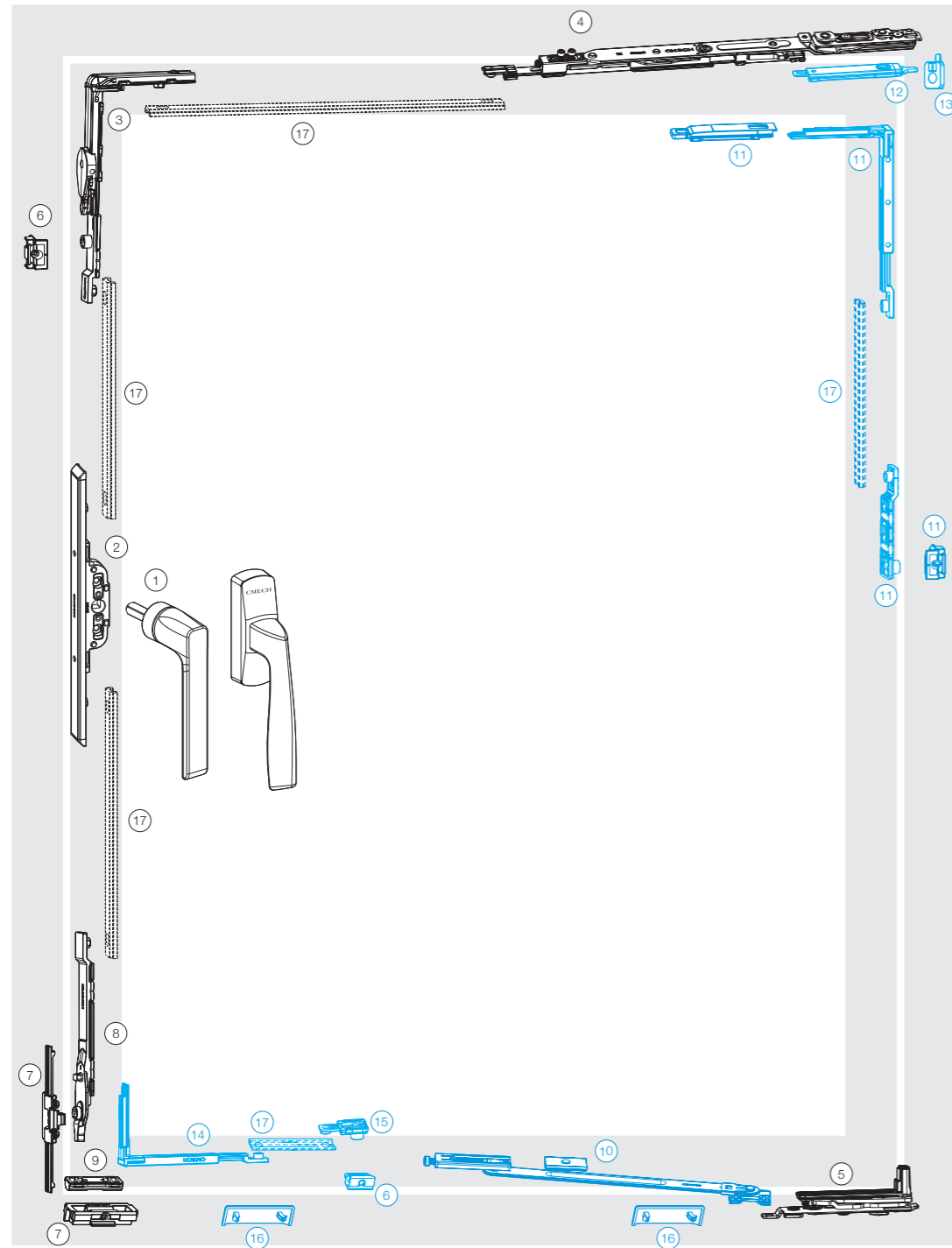
Configuration Table - Classic Series Spindle Drive Handle with Concealed Hinge (80 kg)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Handle	A010674 C010407	1	Milan Baseless Handle (Includes 25 mm Spindle) Berlin Handle with Base	P67 P69 P72 P75
2	Spindle Drive Gearbox	C020020 C020017 C020022 C020026 C020027	1	11.5 mm Gearbox, Back Dim. 13 mm 15 mm Gearbox, Back Dim. 13 mm 12 mm Gearbox, Back Dim. 10 mm 6 mm Gearbox, Back Dim. 11.7 mm 12 mm Gearbox, Back Dim.11.7 mm	P138
3	Tilt & Turn Standard Configuration Set	C800153	1	Equipped with Classic Series, Include items: Fail-Safe Corner Drive Keeper Tilt Strike Tilt Support Block Tilt Bolt Sash Support Block	P139
4	400 Upper Hinge Left (180°) 400 Upper Hinge Right (180°) 490 Upper Hinge Left (180°) 490 Upper Hinge Right (180°) 650 Upper Hinge Left (180°) 650 Upper Hinge Right (180°) 380 Upper Hinge Left (90°) 380 Upper Hinge Right (90°) 490 Upper Hinge Left (90°) 490 Upper Hinge Right (90°)	C040067 C040068 C040069 C040070 C040071 C040072 C040087 C040088 C040091 C040092	1	Sash Width 400-500 mm, Left-Opening Sash Sash Width 400-500 mm, Right-Opening Sash Sash Width 490-700 mm, Left-Opening Sash Sash Width 490-700 mm, Right-Opening Sash Sash Width 600-900 mm, Left-Opening Sash Sash Width 600-900 mm, Right-Opening Sash Sash Width 380-500 mm, Left-Opening Sash Sash Width 380-500 mm, Right-Opening Sash Sash Width 490-800 mm, Left-Opening Sash Sash Width 490-800 mm, Right-Opening Sash	P146 P147 P148 P149
5	Concealed Lower Hinge Left (180°) Concealed Lower Hinge Right (180°) Concealed Lower Hinge Left (90°) Concealed Lower Hinge Right (90°)	C040065 C040066 C040085 C040086	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P143 P144 P145
6	Back-lock Standard Configuration Set	C800154	1-2	Equipped with Classic Series, Include items: C060019 Small Corner Driver C090011 Back-lock End Lock Point A100127 Keeper	P90
7	Limiting Stay	B040041 B040042	1	10" 14"	P110
8	Active Lock Point	A090002 A090003 A090011 A090012	0-2	Dual-Stage Active Lock Point Ø9.5x8.75 mm Dual-Stage Active Lock Point Ø9.5x8.1 mm Single-Stage Active Lock Point Ø9.5x8.7 mm Single-Stage Active Lock Point Ø9.5x9.7 mm	P90
9	Keeper	A100127	0-2	Use with No.8	
10	Shootbolt Bracket	C100007	1	Option with No.6	P139
11	Drain Cover	C120002	2		P142
12	Connecting Strip		3-5	Provided by Customer or Cmech	
13	Handle Screw Pack	A110238 A110346	1	Suitable for A010674 Suitable for C010407	



TILT & TURN WINDOW HARDWARE SERIES

Master Series Spindle Drive Handle & Concealed Hinge (90 kg) Configuration



TILT & TURN WINDOW HARDWARE SERIES

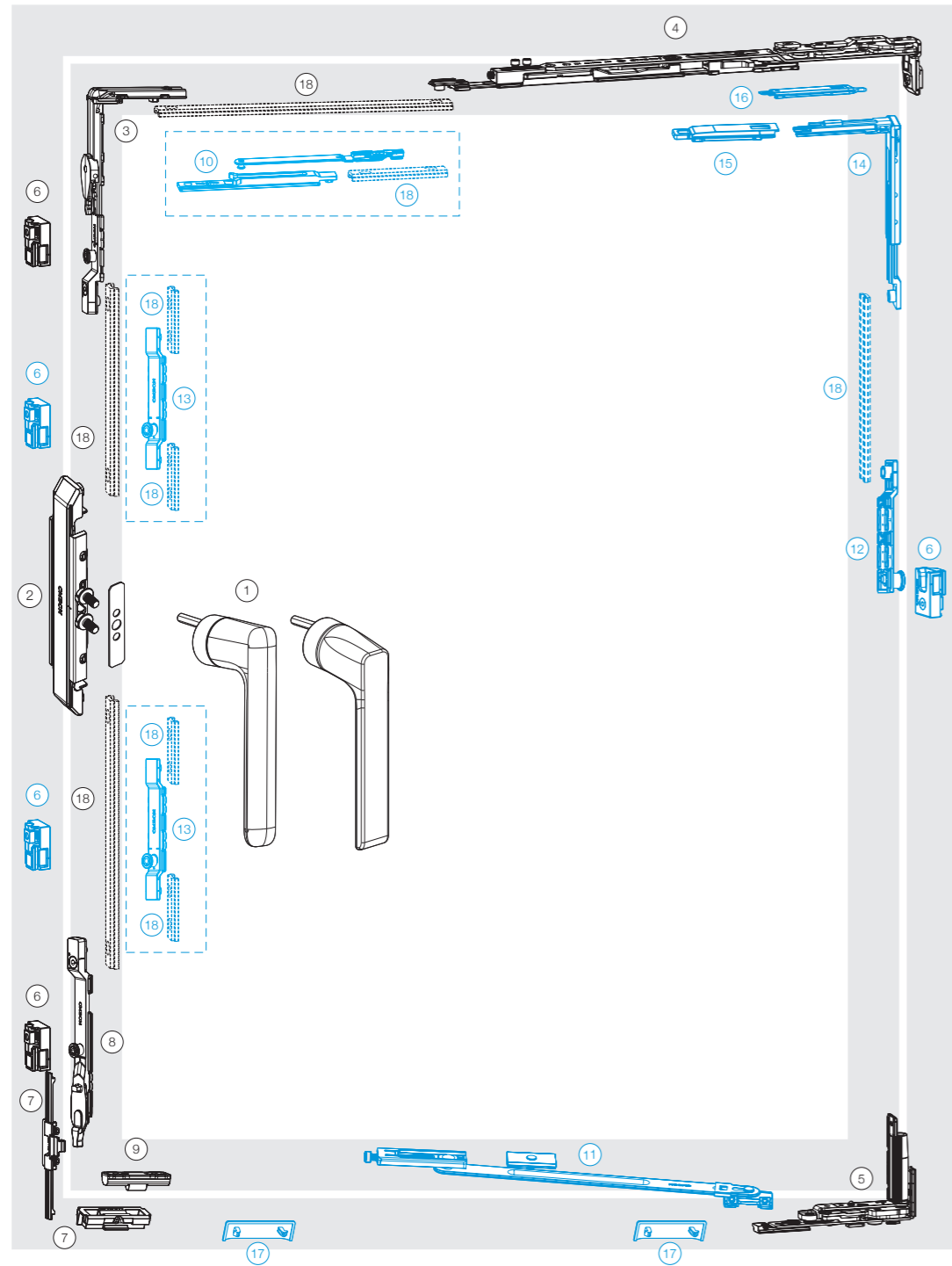
Configuration Table - Master Series Spindle Drive Handle with Concealed Hinge (90 kg)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010633 A010601 A010406 A010448	1	Milan Round-Base Handle, Include 26mm Spindle Milan Handle, Aluminum Alloy Berlin Handle, Aluminum Alloy Berlin Handle, Zinc Alloy	P71 P81 P82 P83
2	Spindle Drive Gearbox	C020020 C020017 C020022 C020026 C020027	1	11.5 mm Gearbox, Back Dim. 13 mm 15 mm Gearbox, Back Dim. 13 mm 12 mm Gearbox, Back Dim. 10 mm 6 mm Gearbox, Back Dim. 11.7 mm 12 mm Gearbox, Back Dim. 11.7 mm	P138
3	Fail-Safe Corner Drive	C060010	1	Regular Lock Point	P139
4	490 Upper Hinge Left 490 Upper Hinge Right 650 Upper Hinge Left 650 Upper Hinge Right 400 Upper Hinge Left 400 Upper Hinge Right	C040049 C040050 C040051 C040052 C040047 C040048	1	Sash Width 490-750 mm, Left-Opening Sash Sash Width 490-750 mm, Right-Opening Sash Sash Width 600-1200mm, Left-Opening Sash Sash Width 600-1200mm, Right-Opening Sash Sash Width 400-500 mm, Left-Opening Sash Sash Width 400-500 mm, Right-Opening Sash	P146 P147 P148 P149
5	Concealed Lower Hinge Left Concealed Lower Hinge Right	C040045 C040046	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P143 P144 P145
6	Keeper	A100127	1-2		P92
7	Tilt Strike Pack	C070003	1		P141
8	Tilt Bolt	C070006	1	Regular Lock Point	P141
9	Sash Support Block	A080012 A080011	1	Without Bearing With Bearing	P108
10	Limiting Stay	B040041 B040042	1	10" 14"	P110
11	Back-lock Standard Configuration Set	C800188 C800203	1	Equipped with Master Series, Include items: C060019 Small Corner Driver C090011 Back-lock End Lock Point A100127 Keeper C060012 Corner Fitting Piece Equipped with Master Series, Include items: C060019 Small Corner Driver A090007 End Lock Point A100127 Keeper C060012 Corner Fitting Piece	P90
12	Shootbolt Pack	C070007	1	Option with No. 11	P139
13	Shootbolt Bracket	C100006	1	Option with No. 11	P140
14	Small Corner Driver	C060019	1		
15	End Lock Point	C090011 A090007	1	Back-lock End Lock Point Regular Lock Point	
16	Drain Cover	C120002	2		P142
17	Connecting Strip		3-4	Provided by Customer or Cmech	
18	Handle Screw Pack	A110256 C110005	1	Suitable for A010633 Suitable for A010601/A010406/A010448	



TILT & TURN WINDOW HARDWARE SERIES

Master Series Hexagon Spindle Handle & Hexagon Spindle Drive Gearbox & Concealed Hinge (130 kg) Configuration



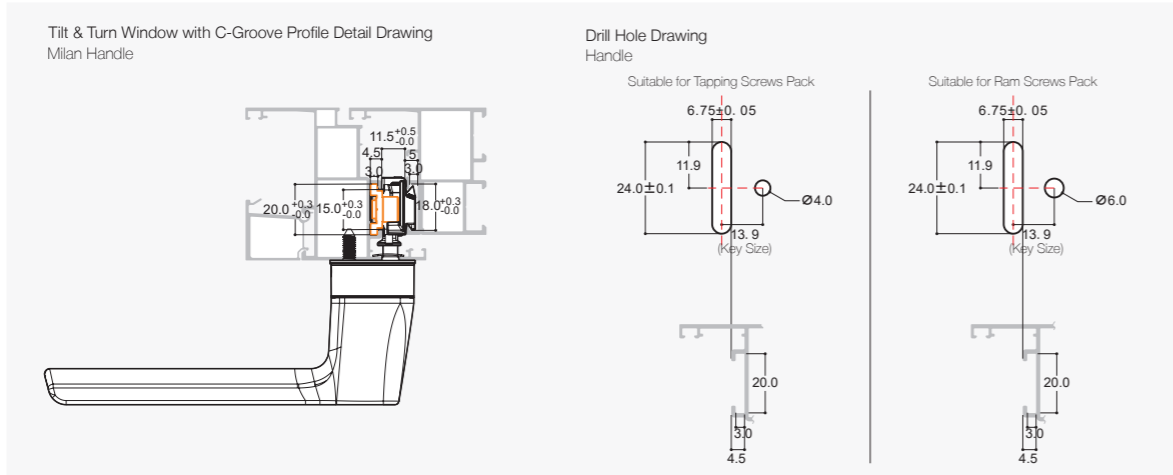
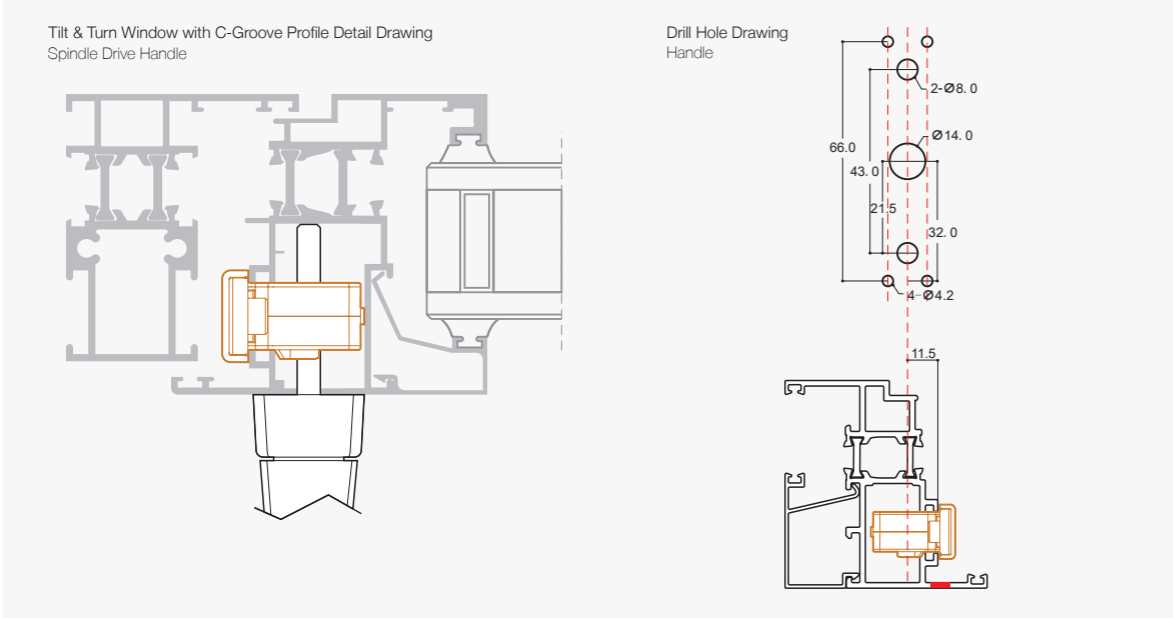
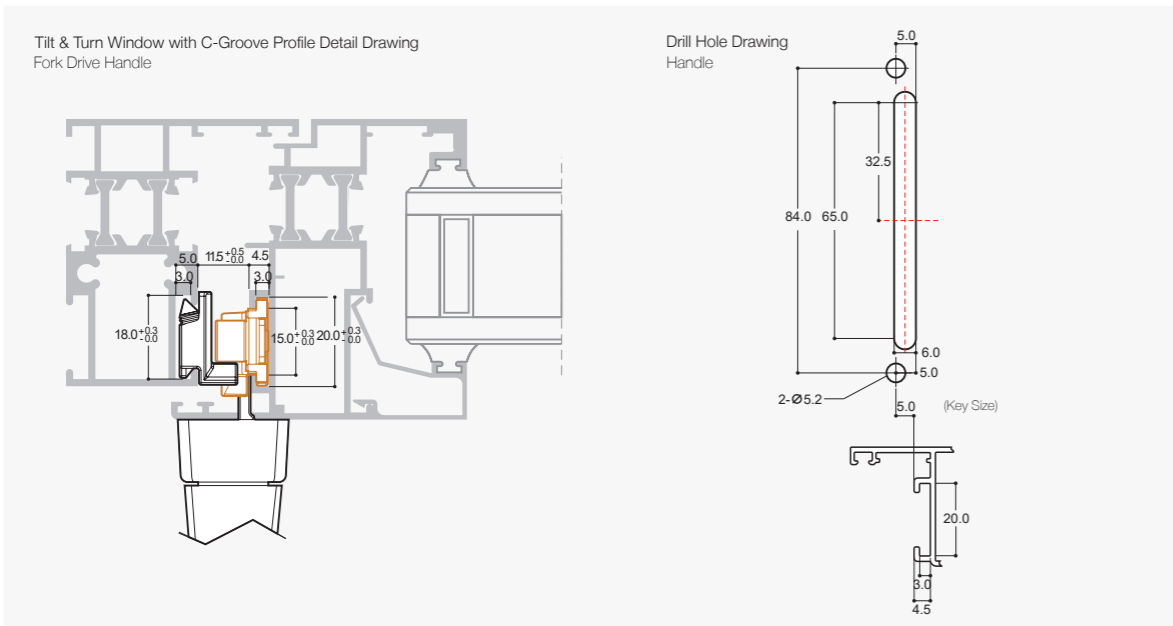
TILT & TURN WINDOW HARDWARE SERIES

Configuration Table - Master Series Hexagon Spindle Handle & Hexagon Spindle Drive Gearbox with Concealed Hinge (100-130 kg)

N.º	Description	P/N	Qty	Notes	Ref. Page
1	Hexagon Spindle Handle	C010601 C010701	1	Milan Handle Venice Handle	P67
2	Hexagon Spindle Drive Gearbox	C020016	1		P138
3	Fail-Safe Corner Drive	C060011	1	Adjustable Pry-Resistant End Lock Point with Bearing	P139
4	500 Upper Hinge Left 500 Upper Hinge Right H650 Upper Hinge Left H650 Upper Hinge Right	C040031 C040032 C040033 C040034	1	Sash Width 500-700 mm, Left-Opening Sash Sash Width 500-700 mm, Right-Opening Sash Sash Width 620-1200mm, Left-Opening Sash Sash Width 620-1200mm, Right-Opening Sash	P146 P147 P148 P149
5	130 kg Concealed Lower Hinge Left 130 kg Concealed Lower Hinge Right 100 kg Concealed Lower Hinge Left 100 kg Concealed Lower Hinge Right 100 kg Concealed Lower Hinge Left 100 kg Concealed Lower Hinge Right 100 kg Concealed Lower Hinge Left 100 kg Concealed Lower Hinge Right	C040035 C040036 C040037 C040038 C040053 C040054 C040059 C040060	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash Suitable for Left-Opening Sash Suitable for Right-Opening Sash Suitable for Left-Opening Sash ,With Seal Adjustment Suitable for Right-Opening Sash ,With Seal Adjustment Suitable for Left-Opening Sash ,With Seal and Angle Adjustment Suitable for Right-Opening Sash ,With Seal and Angle Adjustment	P143 P144 P145
6	Keeper	C100005	2-5	Suitable for Adjustable Pry-Resistant Lock Point	P142
7	Tilt Strike Pack	C070003	1		P141
8	Heavy Duty Tilt Bolt	C070009	1	Adjustable Pry-Resistant End Lock Point with Bearing	P141
9	Sash Support Block	A080011 A080012	1	With Bearing Without Bearing	P108
10	Additional Limiting Stay	C020019	1		P142
11	Limiting Stay	B040041 B040042	1	10" 14"	P110
12	End lock Point	A090032	1	Adjustable Pry-Resistant End Lock Point with Bearing	P88
13	Central Lock Point	A090034	1-2	Ø9.5x6.0 mm	P91
14	Small Corner Drive	C060019	1		P139
15	Corner Fitting Piece	C060012	1	For Use with Small Corner Drive	P140
16	Shootbolt Pack	C070007	1	Option with No.15	P140
17	Drain Cover	C120002	2		P142
18	Connecting Strip		3-6	Provided by Customer or Cmech	
19	Handle Screw Pack	C110013 C110014	1	Tapping Screws Pack Ram Screws Pack	



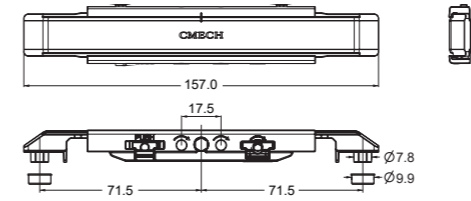
TILT & TURN WINDOW PROFILE AND DRILLING REQUIREMENTS



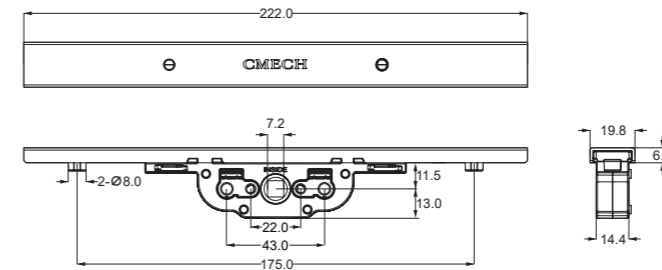
TILT & TURN WINDOW HARDWARE

GEARBOX

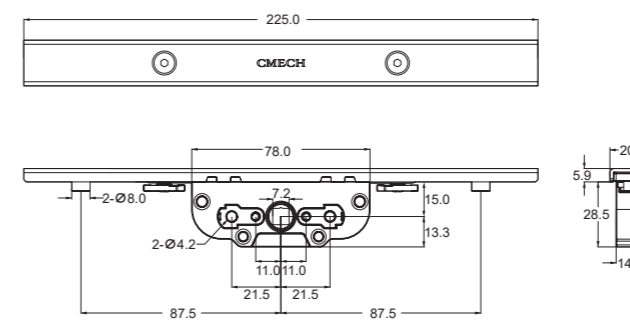
C020016
Hexagon Spindle Drive Gearbox



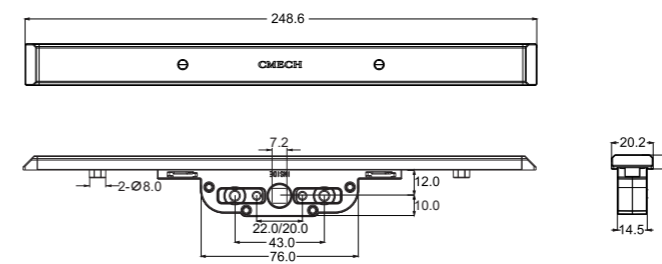
C020020
11.5 mm Spindle Drive Gearbox



C020017
15 mm Spindle Drive Gearbox



C020022
12 mm Spindle Drive Gearbox

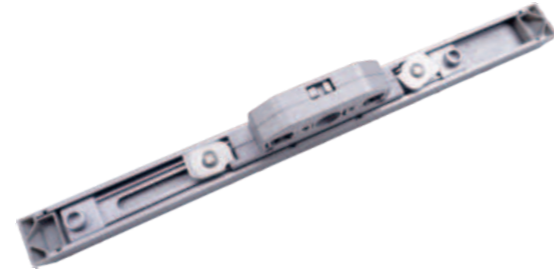
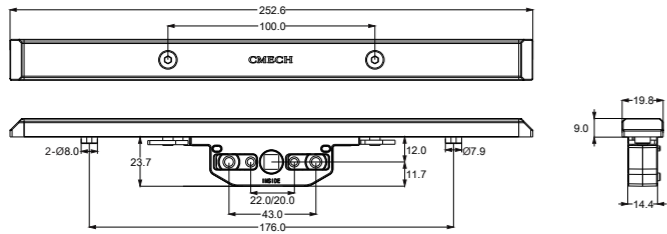




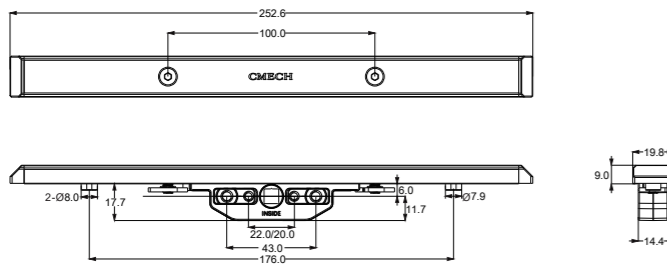
TILT & TURN WINDOW HARDWARE

GEARBOX

C020027
12 mm Spindle Drive Gearbox

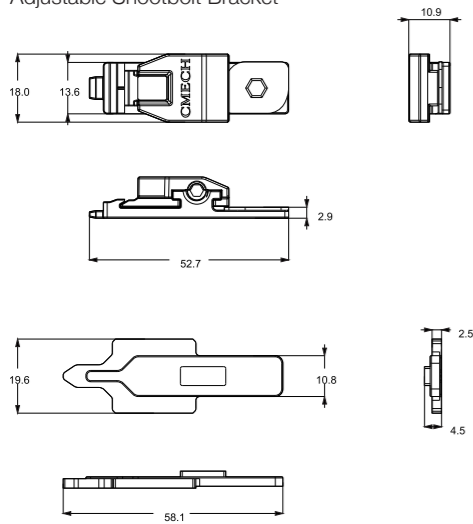


C020026
6 mm Spindle Drive Gearbox



CLASSIC SERIES STRUCTURAL COMPONENT

C100007
Adjustable Shootbolt Bracket

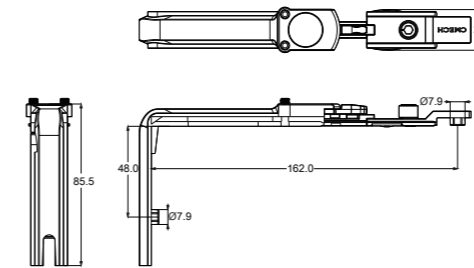


TILT & TURN WINDOW HARDWARE

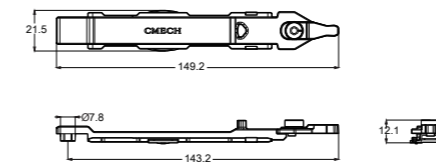
CLASSIC SERIES STRUCTURAL COMPONENT

C800153
Tilt & Turn Standard Configuration Set - Classic Series

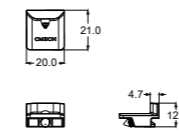
Fail-Safe Corner Drive



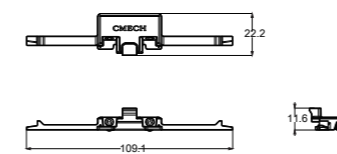
Tilt Bolt



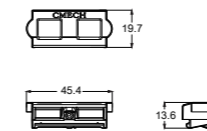
Keeper



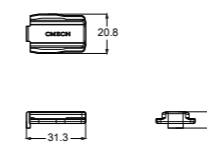
Tilt Strike



Tilt Support Block



Sash Support Block

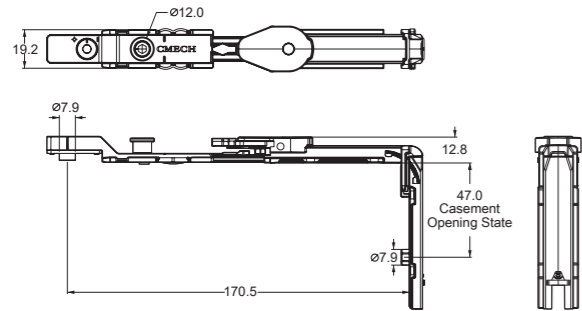




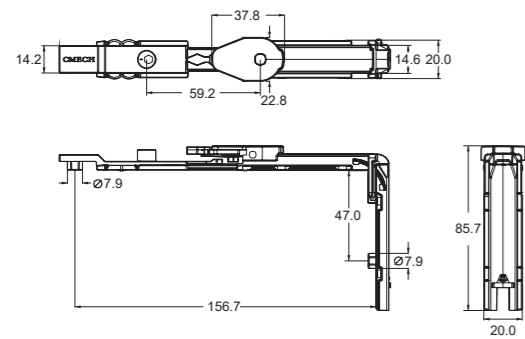
TILT & TURN WINDOW HARDWARE

MASTER SERIES STRUCTURAL COMPONENT

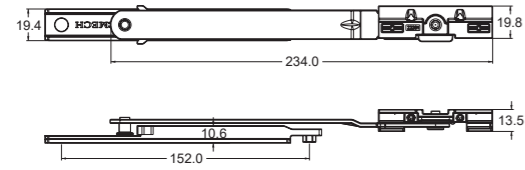
C060011
Fail-Safe Corner Drive (Adjustable Pry-Resistant End Lock Point with Bearing)



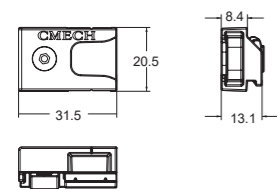
C060010
Fail-Safe Corner Drive



C020019
Additional Limiting Stay



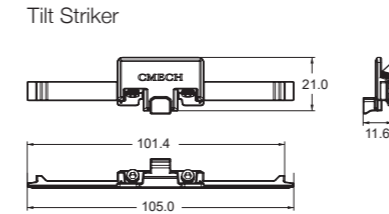
C100005
Pry-Resistant Keeper



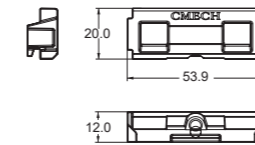
TILT & TURN WINDOW HARDWARE

MASTER SERIES STRUCTURAL COMPONENT

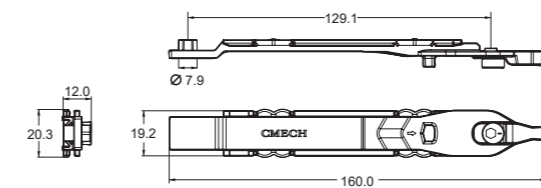
C070003
Tilt Strike Pack



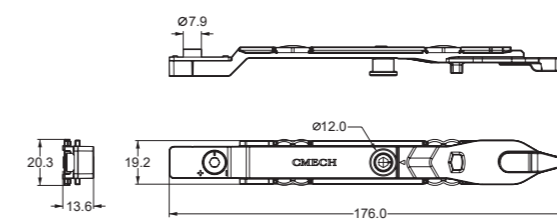
Run Up Block



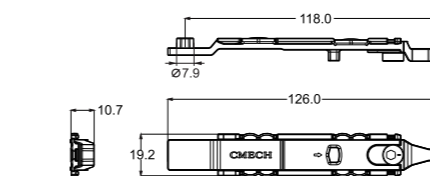
C070006
Tilt Bolt



C070009
Heavy Duty Tilt Bolt Adjustable Pry-Resistant End Lock Point with Bearing



C070013
Tilt Bolt

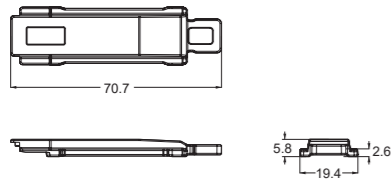




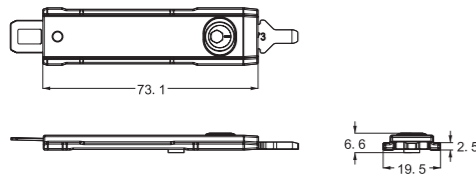
TILT & TURN WINDOW HARDWARE

MASTER SERIES STRUCTURAL COMPONENT

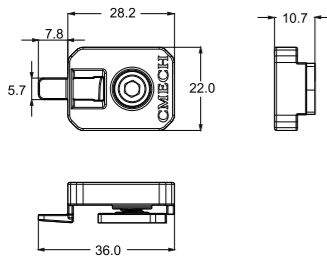
C060012
Corner Fitting Piece



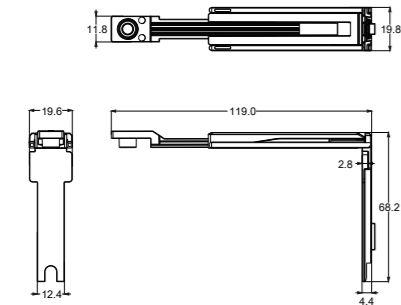
C070007
Shootbolt Pack



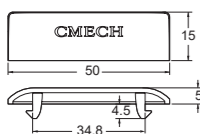
C100006
Shootbolt Pack



C060019
Small Corner Drive



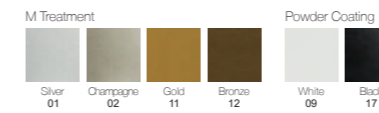
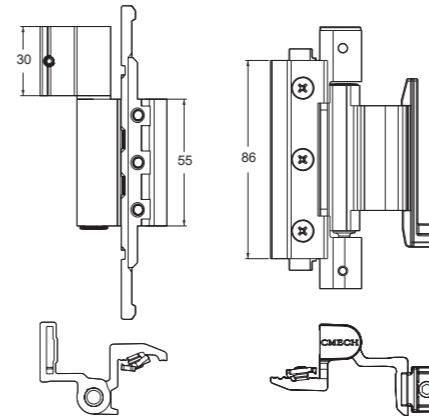
C120002
Drain Cover



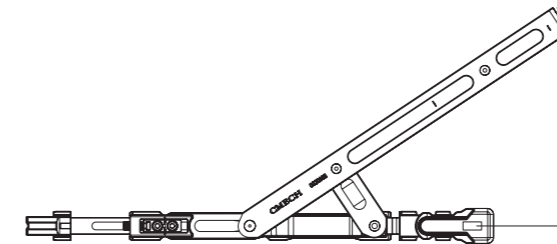
TILT & TURN WINDOW HARDWARE

CLASSIC SERIES LOAD-BEARING COMPONENT

C040005
Upper and Lower Hinges

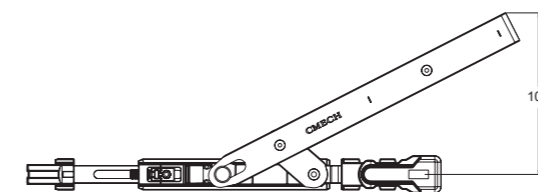


Stay



P/N	H	Instructions
C020008	147 mm	Sash Width: 450-750 mm
C020009	158 mm	Sash Width: 600-1,200 mm

C020005
Stay
Suitable for Sash Width: 390-500 mm

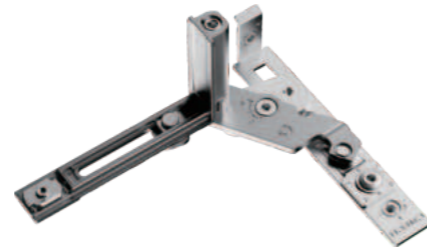
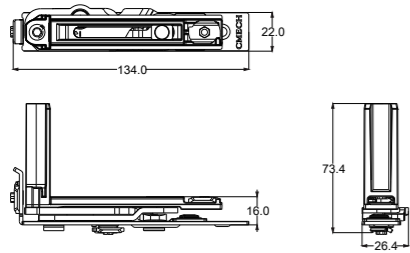




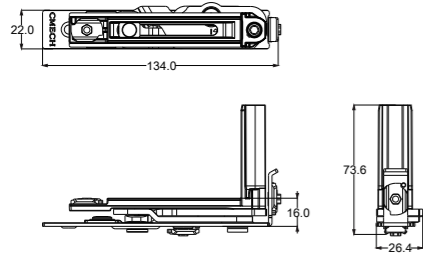
TILT & TURN WINDOW HARDWARE

CLASSIC SERIES LOAD-BEARING COMPONENT

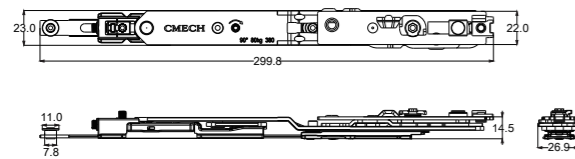
C040085
90° Concealed Lower Hinge Left (80 kg)



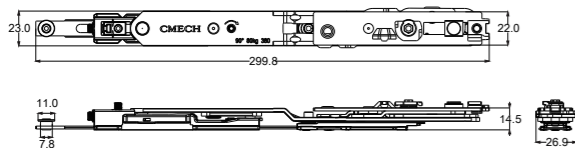
C040086
90° Concealed Lower Hinge Right (80 kg)



C040087
90° 380 Upper Hinge Left (80 kg)



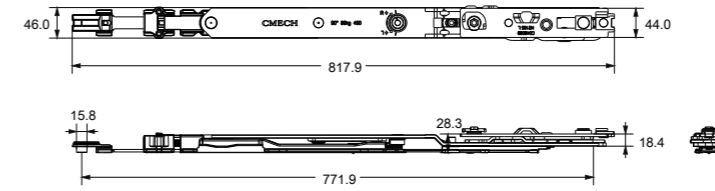
C040088
90° 380 Upper Hinge Right (80 kg)



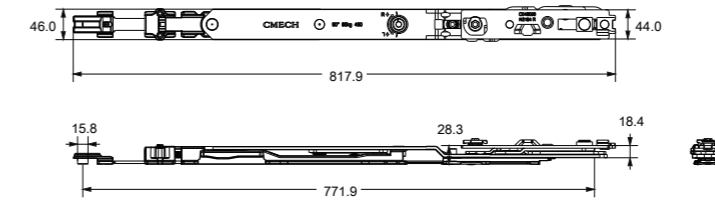
TILT & TURN WINDOW HARDWARE

CLASSIC SERIES LOAD-BEARING COMPONENT

C040091
90° 490 Upper Hinge Left (80 kg)



C040092
90° 490 Upper Hinge Right (80 kg)

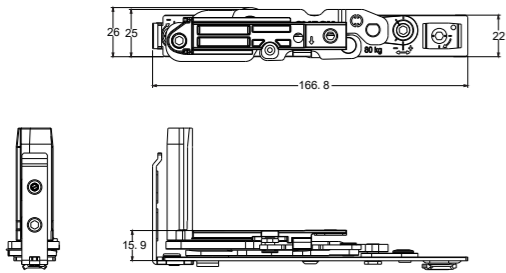




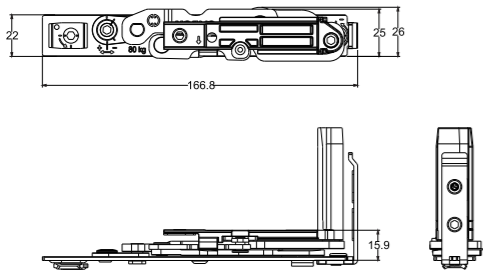
TILT & TURN WINDOW HARDWARE

CLASSIC SERIES LOAD-BEARING COMPONENT

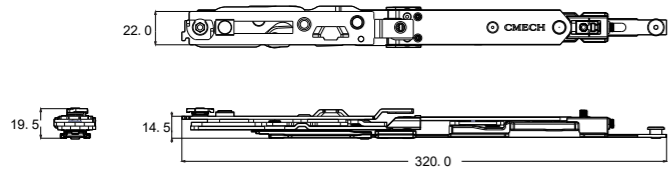
C040065
180° Concealed Lower Hinge Left (80 kg)



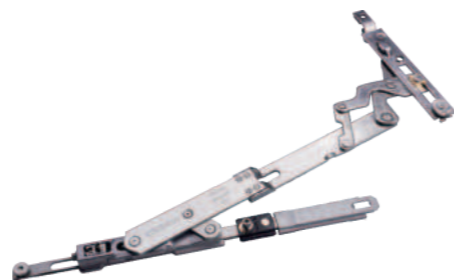
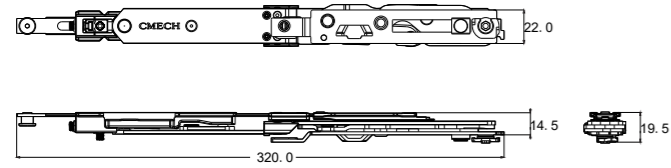
C040066
180° Concealed Lower Hinge Right (80 kg)



C040067
180° 400 Upper Hinge Left (80 kg)



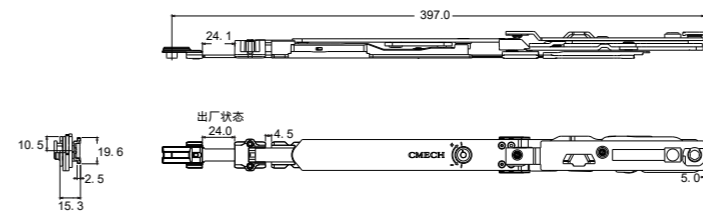
C040068
180° 400 Upper Hinge Right (80 kg)



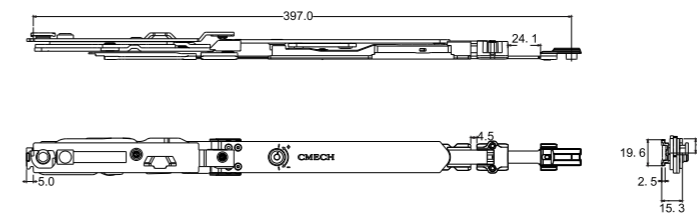
TILT & TURN WINDOW HARDWARE

CLASSIC SERIES LOAD-BEARING COMPONENT

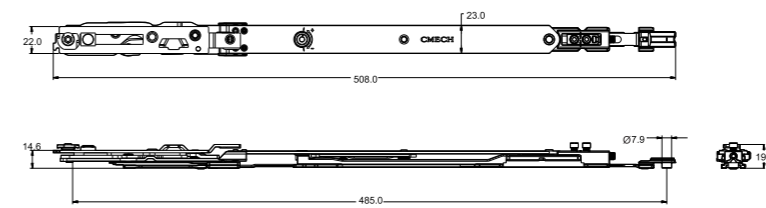
C040069
180° 490 Upper Hinge Left (80 kg)



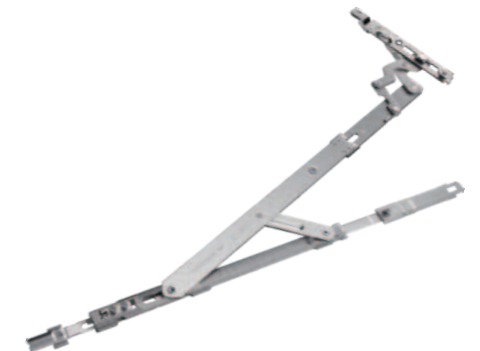
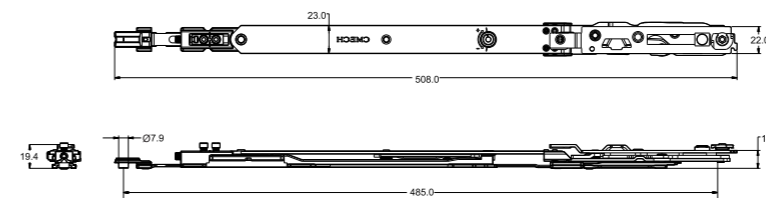
C040070
180° 490 Upper Hinge Right (80 kg)



C040071
180° 650 Upper Hinge Left (80 kg)



C040072
180° 650 Upper Hinge Right (80 kg)

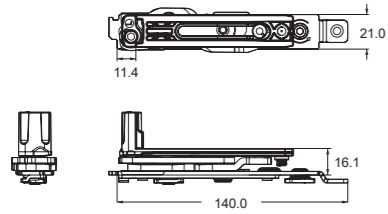




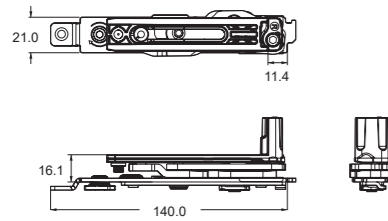
TILT & TURN WINDOW HARDWARE

MASTER SERIES LOAD-BEARING COMPONENT

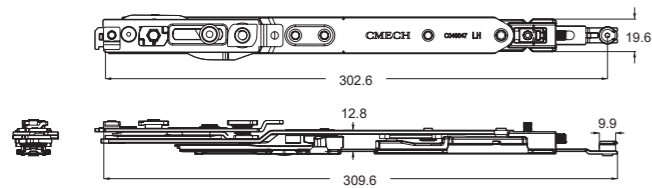
C040045
Concealed Lower Hinge Left (90 kg)



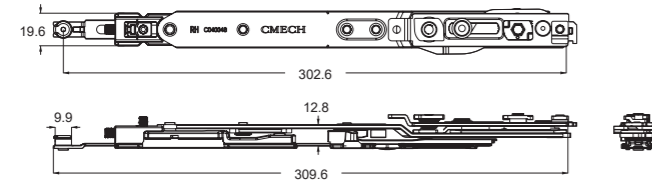
C040046
Concealed Lower Hinge Right (90 kg)



C040047
400 Upper Hinge Left (90 kg)



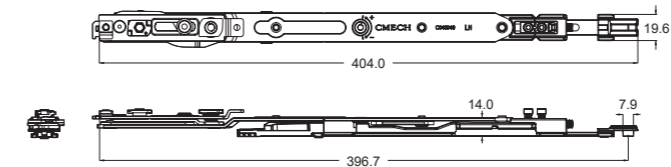
C040048
400 Upper Hinge Right (90 kg)



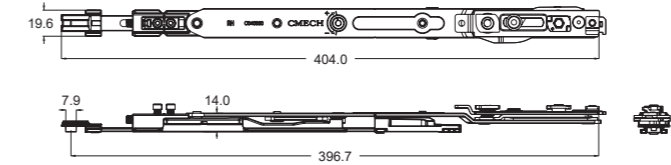
TILT & TURN WINDOW HARDWARE

MASTER SERIES LOAD-BEARING COMPONENT

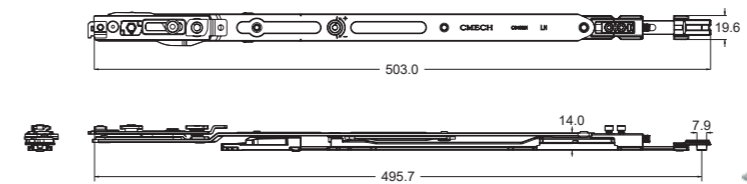
C040049
490 Upper Hinge Left (90 kg)



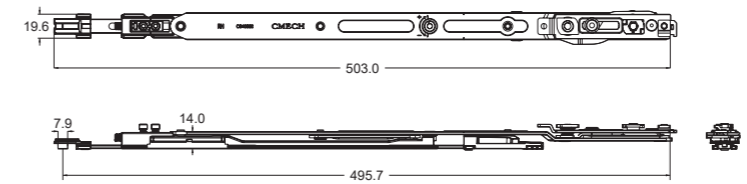
C040050
490 Upper Hinge Right (90 kg)



C040051
650 Upper Hinge Left (90 kg)



C040052
650 Upper Hinge Right (90 kg)

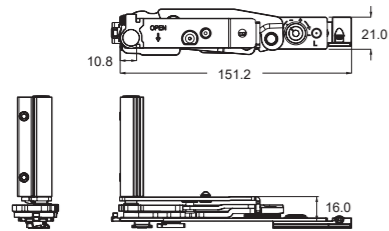




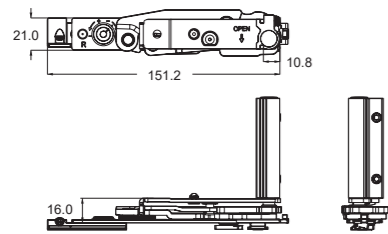
TILT & TURN WINDOW HARDWARE

MASTER SERIES LOAD-BEARING COMPONENT

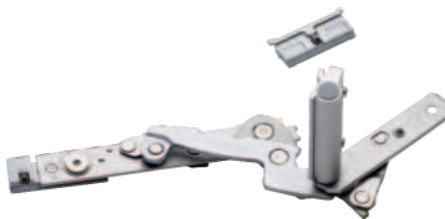
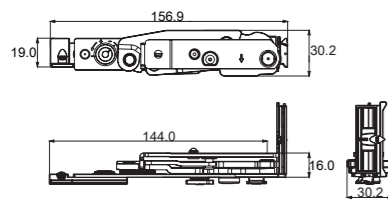
C040037
Concealed Lower Hinge Left (100 kg)



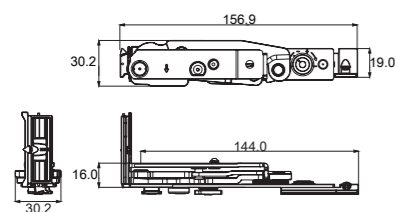
C040038
Concealed Lower Hinge Right (100 kg)



C040053
Concealed Lower Hinge With Seal Adjustment Left (100 kg)



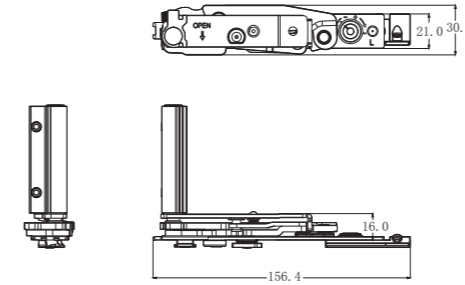
C040054
Concealed Lower Hinge With Seal Adjustment Right (100 kg)



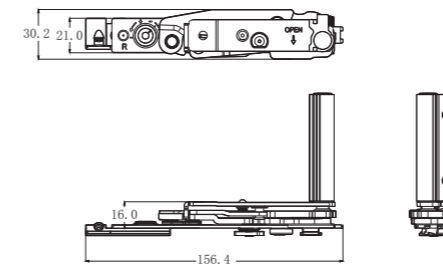
TILT & TURN WINDOW HARDWARE

MASTER SERIES LOAD-BEARING COMPONENT

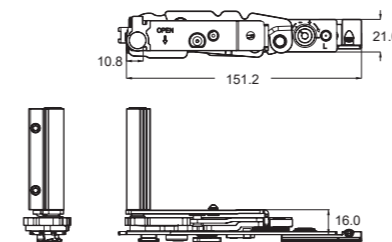
C040059
Concealed Lower Hinge Left With Seal and Angle Adjustment (100 kg)



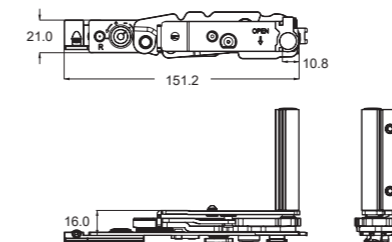
C040060
Concealed Lower Hinge Right With Seal and Angle Adjustment (100 kg)



C040035
Concealed Lower Hinge Left (130 kg)



C040036
Concealed Lower Hinge Right (130 kg)

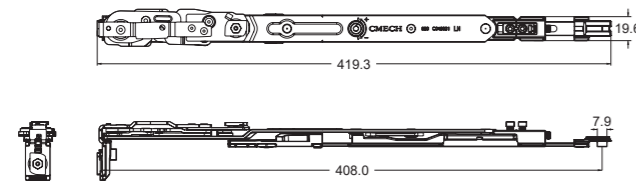




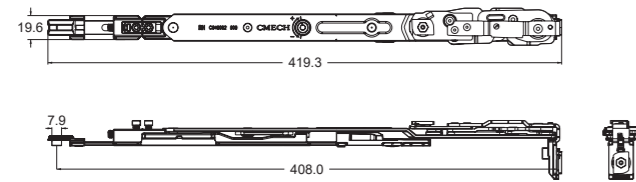
TILT & TURN WINDOW HARDWARE

MASTER SERIES LOAD-BEARING COMPONENT

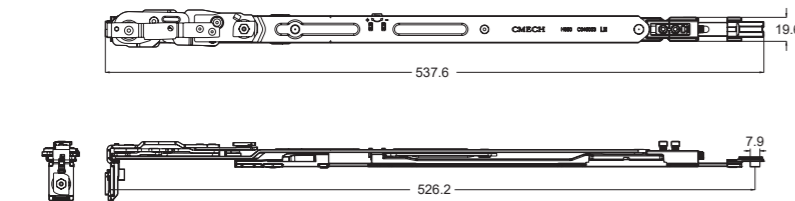
C040031
500 Upper Hinge Left (100/130 kg)



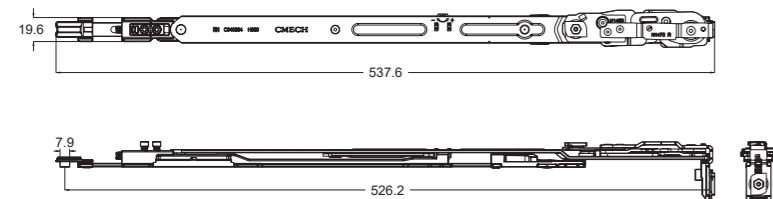
C040032
500 Upper Hinge Right (100/130 kg)



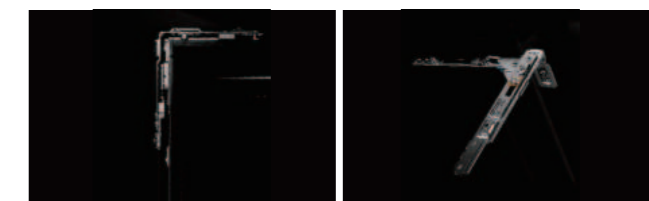
C040033
650 Upper Hinge Left (100/130 kg)



C040034
650 Upper Hinge Right (100/130 kg)



Outswing Casement & Awning Window Hardware



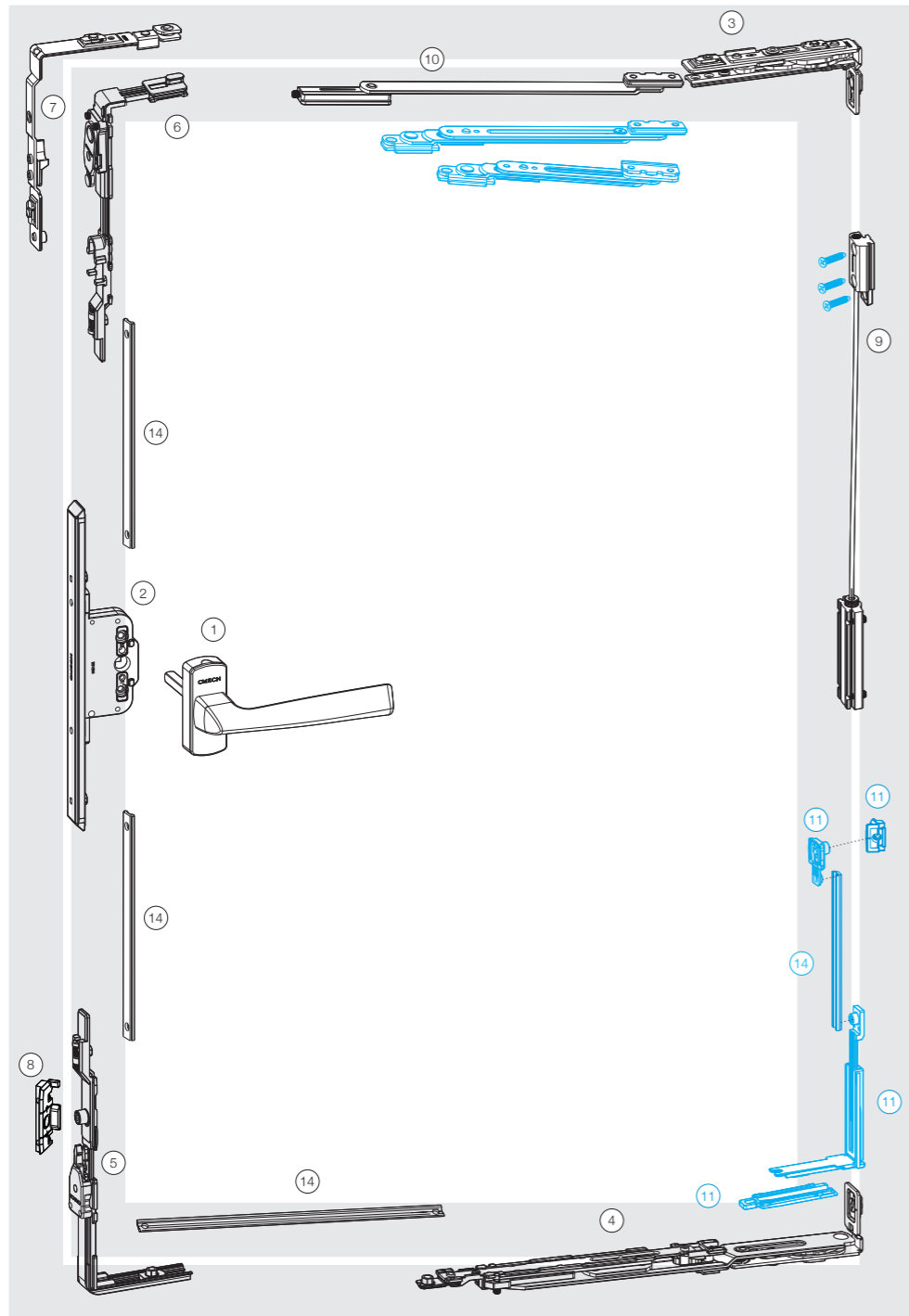
- The handles are available in many styles and colors
- Hinges are easy to adjust and corner drives are quick to install
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Outswing Casement & Awning Window		Applicable Range
Sash Width	(mm)	425-800
Sash Height	(mm)	760-2,000
Sash Flap Width	(mm)	16.5-18.5
Load-bearing	(kg)	80



OUTSWING CASEMENT & AWNING WINDOW HARDWARE SERIES

Classic Series Spindle Drive Handle with Concealed Hinge (80 kg) Configuration



OUTSWING CASEMENT & AWNING WINDOW HARDWARE SERIES

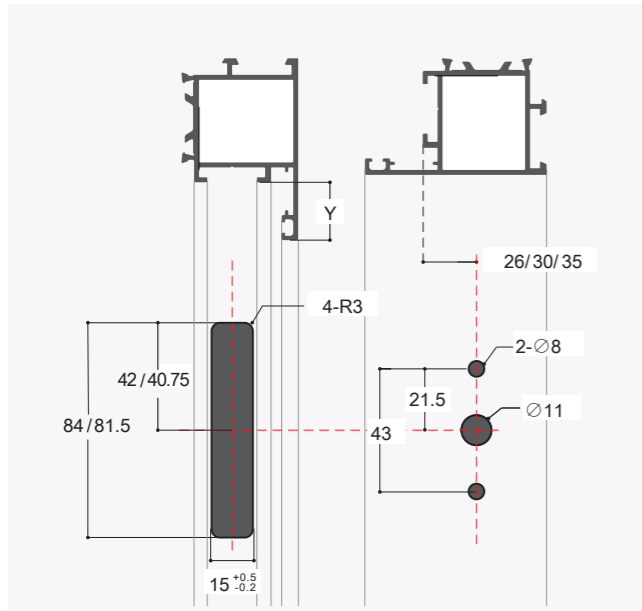
Configuration Table - Classic Series Spindle Drive Handle with Concealed Hinge (80 kg)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	C010407	1	Berlin Handle, Aluminum Alloy	P86
2	Spindle Drive Gearbox	K020001 K020002 K020003 K020004 K020005 K020006 K020007	1	30 mm Gearbox, Back Dim. 10 mm 28 mm Gearbox, Suitable for 20 mm Handle 26 mm Gearbox, Suitable for 22 mm Handle 30 mm Gearbox, Suitable for 20 mm Handle 30 mm Gearbox, Suitable for 22 mm Handle 35 mm Gearbox, Suitable for 20 mm Handle 35 mm Gearbox, Suitable for 22 mm Handle	P97
3	Upper Hinge	K040001 K040002	1	Sash Left-Opening Sash,80 kg Sash Right-Opening Sash,80 kg	P139
4	Lower Hinge	K040003 K040004	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P143 P144 P145
5	Fail-Safe Corner Drive	K060001			
6	Suspension Corner Drive	K060003			
7	Suspension Support Assembly	K070001	1		P141
8	Fail-Safe Lock Bracket	K100003 K100004	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P92
9	Safety Rope Assembly	K120003 K120004	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P108
10	Limiting Stay	K040005 K040006 K040007	1	8", Suitable for Sash Weight: 475-550 9", Suitable for Sash Weight: >550 6", Suitable for Sash Weight: <475	P110
11	Back-lock Standard Configuration Set	C800188	1	Equipped with Master Series, Include items: C060019 Small Corner Driver C090011 Back-lock End Lock Point A100127 Keeper C060012 Corner Fitting Piece	
12	Handle Screw Pack		1		
13	Screw Pack	K110001	1		
14	Connecting Strip		3-5	Provided by Customer or Cmech	



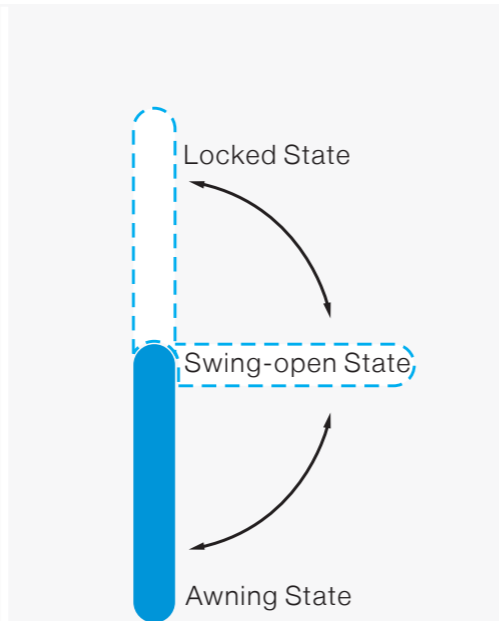
OUTSWING CASEMENT & AWNING WINDOW PROFILE REQUIREMENTS AND DRILLING INSTRUCTIONS

Spindle Drive Handle Configuration



*K020001 compatible drilling dimensions: 81.5x15
K020002-K020007 compatible drilling dimensions: 84x15

Drill Hole Drawing

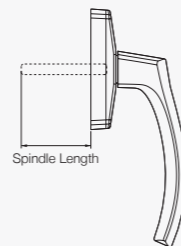


Handle Operation

Screw Pack

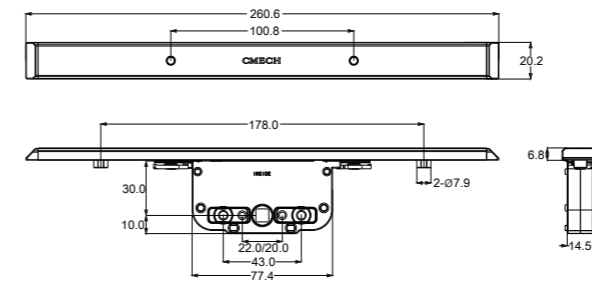
Handle with Cylinder		
P/N	Notes	Qty
A110330	25 mm Spindle, M5x35 mm Cross Screws	1
A110344	30 mm Spindle, M5x35 mm Cross Screws	1
A110331	40 mm Spindle, M5x45 mm Cross Screws	1
A110332	45 mm Spindle, M5x50 mm Cross Screws	1
A110341	50 mm Spindle, M5x55 mm Cross Screws	1
A110345	55 mm Spindle, M5x60 mm Cross Screws	1
A110333	60 mm Spindle, M5x65 mm Cross Screws	1
A110342	70 mm Spindle, M5x75 mm Cross Screws	1
A110343	80 mm Spindle, M5x85 mm Cross Screws	1

Moveable Spindle of Classic Series Handle

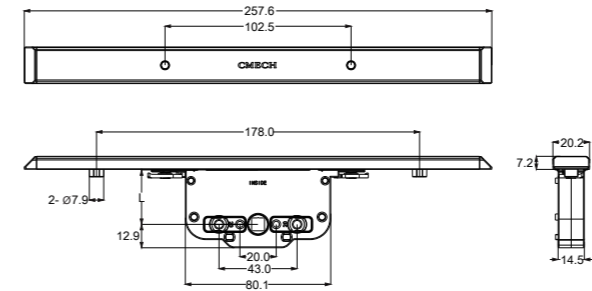


OUTSWING CASEMENT & AWNING WINDOW HARDWARE

K020001
30mm Spindle Drive Gearbox

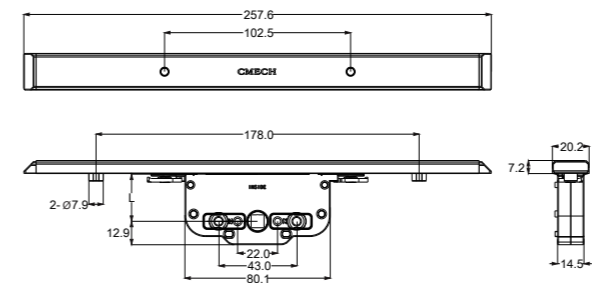


Spindle Drive Gearbox
Suitable for Handle with 20mm and 43mm Hole Distance



P/N	L
K020002	26 mm
K020004	30 mm
K020006	35 mm

Spindle Drive Gearbox
Suitable for Handle with 22mm and 43mm Hole Distance

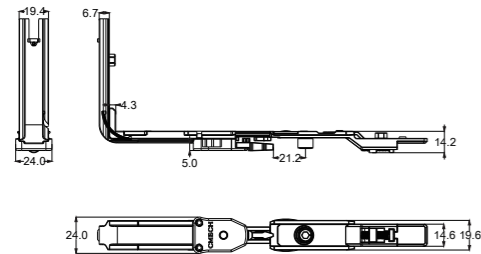


P/N	L
K020003	26 mm
K020005	30 mm
K020007	35 mm

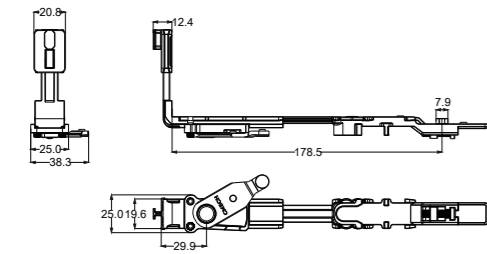


OUTSWING CASEMENT & AWNING WINDOW HARDWARE

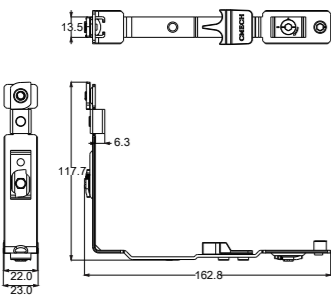
K060001
Fail-Safe Corner Drive



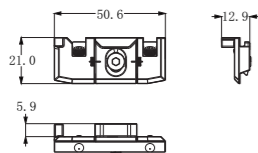
K060003
Suspension Corner Drive



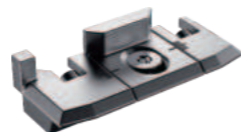
K070001
Suspension Support Assembly



Fail-Safe Lock Bracket

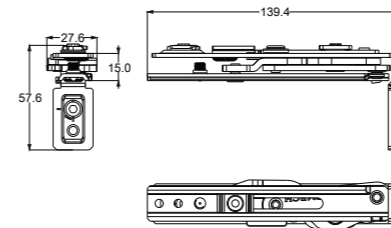


P/N	Direction
K100003	Left
K100004	Right

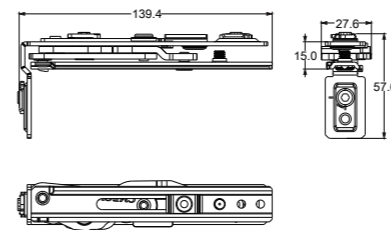


OUTSWING CASEMENT & AWNING WINDOW HARDWARE

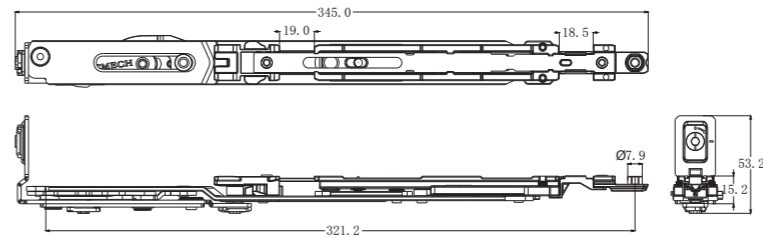
K040001
Upper Hinge Left (80 kg)



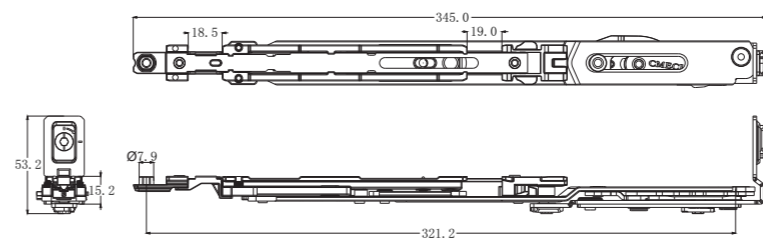
K040002
Upper Hinge Right (80 kg)



K040003
Lower Hinge Left (80 kg)



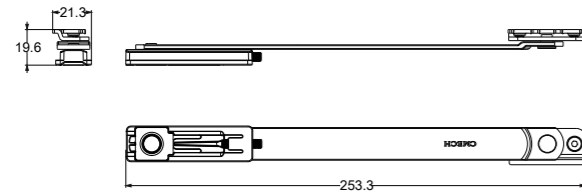
K040004
Lower Hinge Right (80 kg)



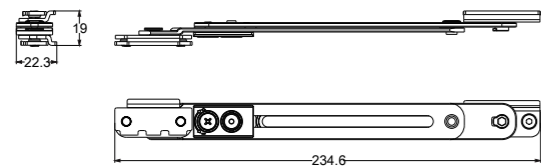


OUTSWING CASEMENT & AWNING WINDOW HARDWARE

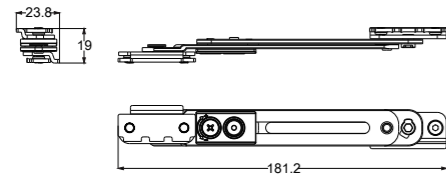
K040006
9" Limiting Stay



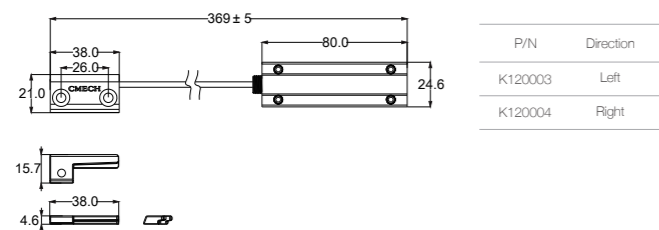
K040005
8" Limiting Stay



K040007
6" Limiting Stay



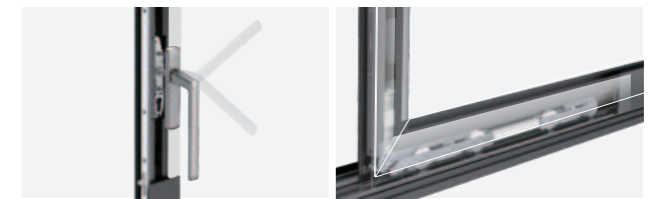
Suspension Support Assembly (with Anti-fall Frame Fixing Base)



Lift & Slide Door Hardware

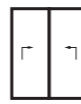


Lift & Slide Door



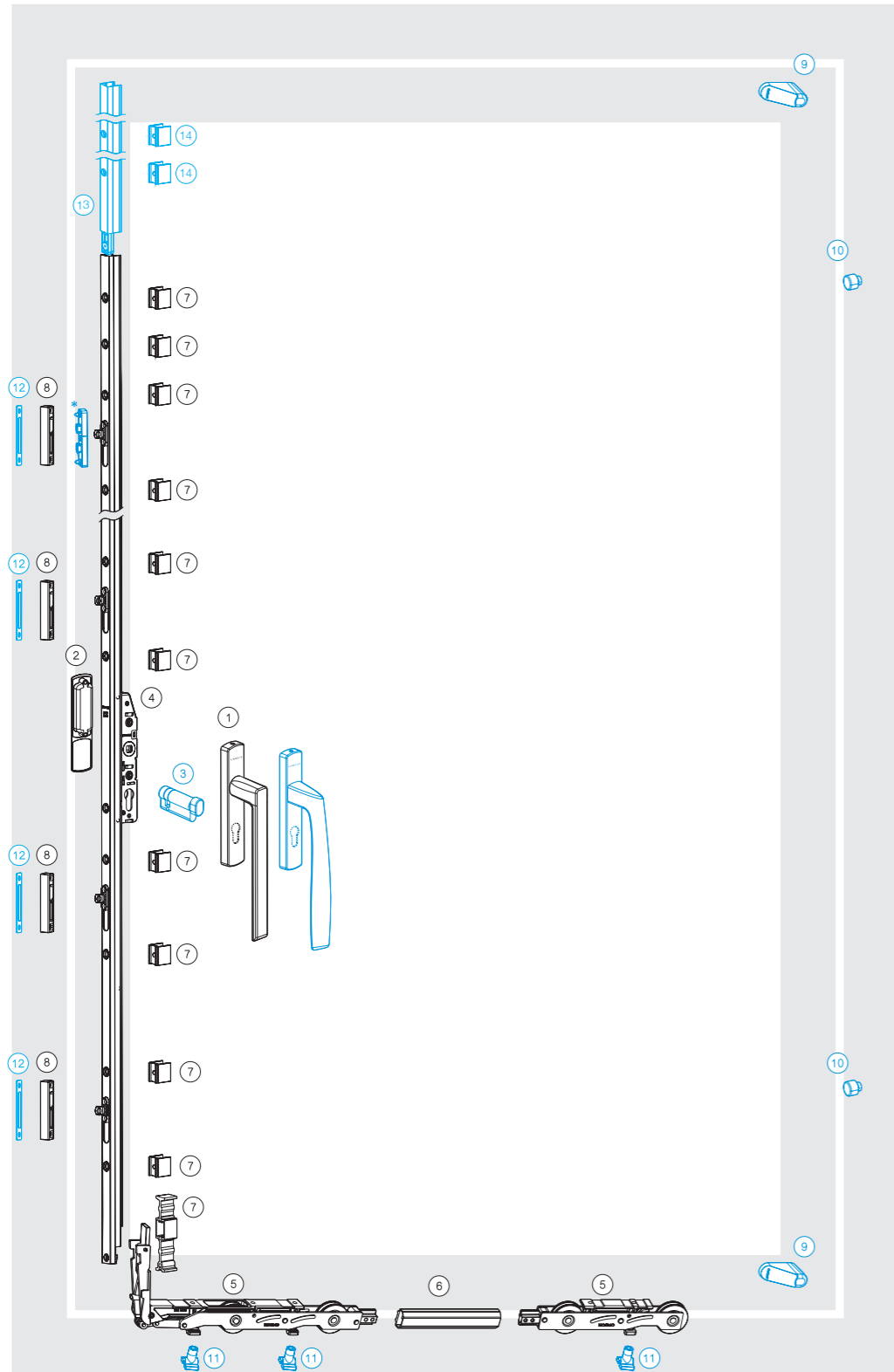
- The handles are available in many styles and colors
- The handle over time will self-adjust to always maintain a tight and wobble-free fit
- Patented lift mechanism with gear design requires the least amount of force to raise door panel
- Patented handle mechanism features speed reduction operation to avoid dangerous rebound

Lift & Slide Door	Applicable Range
Sash Width	(mm) 720-3,150
Sash Height	(mm) 1,800-3,500
Load-bearing	(kg) 200-450
Distance of the Centerline of Handle to the Roller Carriage Attachment Surface	(mm) 955
Distance of the Centerline of Handle to the Espagnolette Surface	(mm) 37.5, 27.5

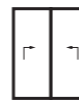


LIFT & SLIDE DOOR HARDWARE SERIES

Spindle Drive Handle (Type LS) Configuration (220/300 kg)



* Installation tool used to mark strike hole position F120003

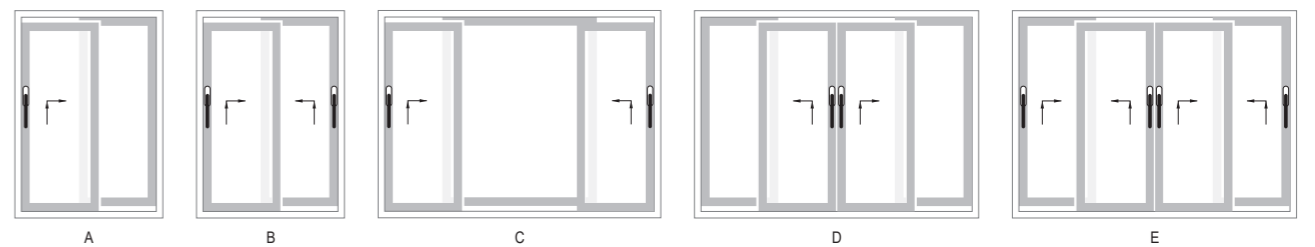


LIFT & SLIDE DOOR HARDWARE SERIES

Configuration Table - Spindle Drive Handle (Type LS) (220/300 kg)

No.	Description	P/N	Qty					Notes	Ref. Page
			A	B	C	D	E		
1	Spindle Drive Handle (Type LS)	F800014 F800018 F800027 F800029 F800033 F800034	1	2	2	2	4	Multiple Types Available	P164, P165
2	Recessed Handle	F010601 F010602	1	2	2	2	4	V Series U Series	P166
3	Cylinder		1	2	2	1	3		P288, P289
4	Espagnolette with Tilt Lock Point	F020008 F020009 F020010 F020016 F020017	1	2	2	2	4	2,000 mm, Door Height 1,800-2,100, <220kg 2,300 mm, Door Height 2,101-2,400, <220kg 2,600 mm, Door Height 2,401-2,700, <220kg 2,300 mm, Door Height 2,101-2,400, <300kg 2,600 mm, Door Height 2,401-2,700, <300kg	P168
5	Front and Rear Rollers	F800016	1	2	2	2	4	Channel Width 22 mm	P166
6	Connecting Rod	F020004 F020005 F020006 F020007	1	2	2	2	4	850 mm, Door Width 720-1,500 1,350 mm, Door Width 1,501-2,000 1,850 mm, Door Width 2,001-2,500 2,650 mm, Door Width 2,501-3,300	P167
7	Spacer Pack	F140009 F140003	1	2	2	2	4	Plastic Spacer Height 12 mm Plastic Spacer Height 17 mm	P171
8	Locking Keeper	F100006 F100007 F100008 F100010 F100011 F100012 F100013 F100015	4	8	8	4	12		P169, P170
9	Panel Stop	F080001	0	1	0	0	2	Installation Height: 42 mm	P171
10	Rubber Stop	F080002	1	0	1	2	0	Hole Size Ø13 mm (2 Pack)	P171
11	Rest Block	F110015	1	2	2	2	4		P171
12	Keeper Spacer Pack	F140010	/	/	/	/	/	The thickness of the spacer pack is 2 mm, the spacer pack is recommended to be no more than 3 pcs based on the profile and the configuration	
13	Extender Cover	F120004	1	2	2	1	3		P171
14	Extender Cover Screw Pack	F110019 F110020	1	2	2	1	3	Suitable for 12 mm Spacer Pack Suitable for 17 mm Spacer Pack	
15	Spacer Screw Pack	F110011	1	2	2	2	4	Suitable for 12 mm/17 mm Spacer Pack	
16	Handle Screw Pack		1	2	2	2	4	Reference P147	
17	Spindle Screw Pack		1	2	2	2	4	Reference P147	

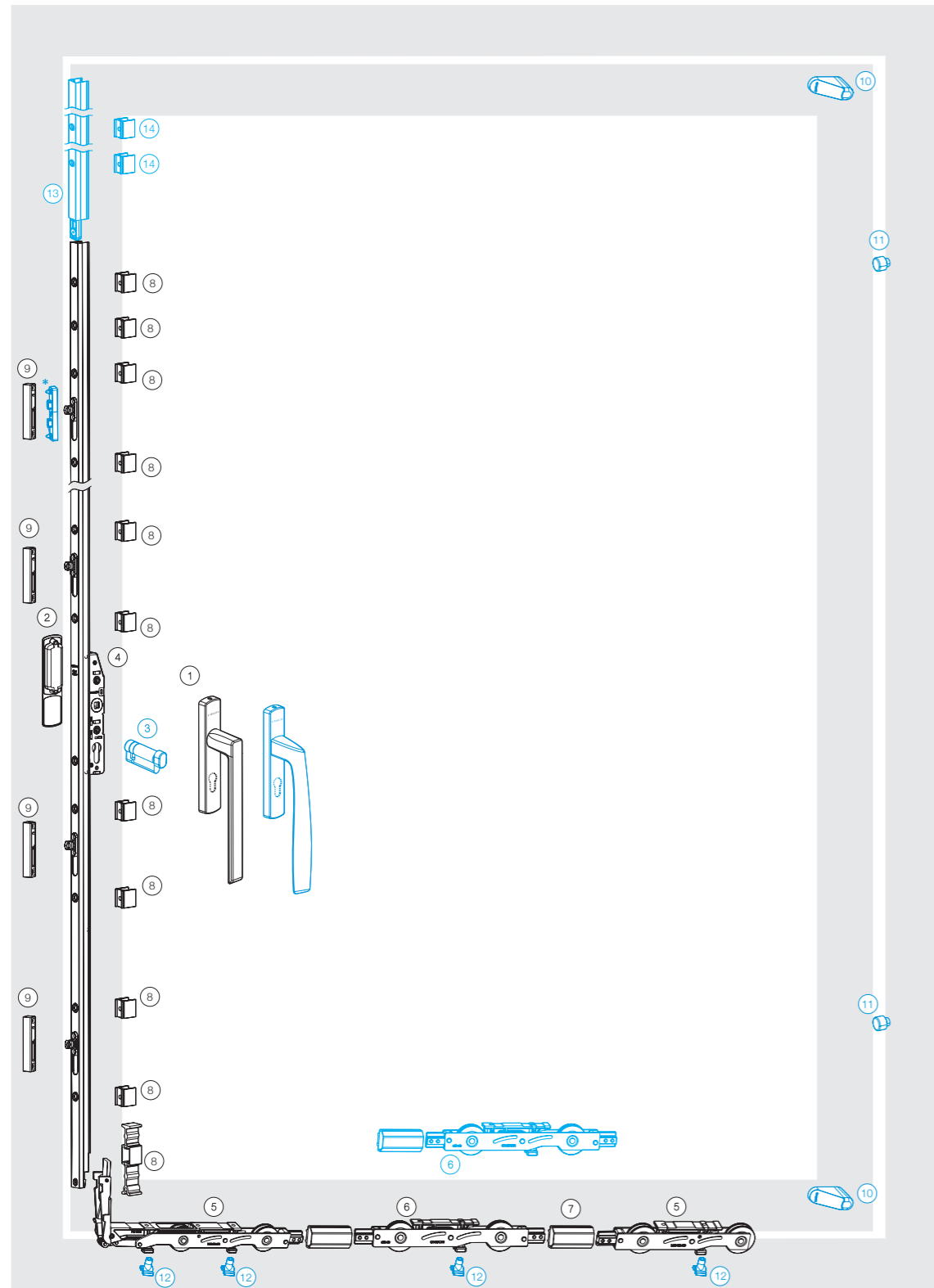
Door Configurations





LIFT & SLIDE DOOR HARDWARE SERIES

Spindle Drive Handle (Type LS) Configuration (300-380 kg)



* Installation tool used to mark strike hole position F120003

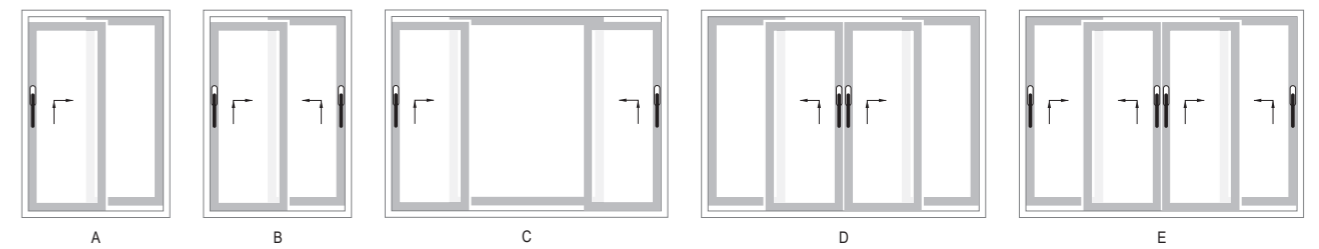


LIFT & SLIDE DOOR HARDWARE SERIES

Configuration Table - Spindle Drive Handle (Type LS) (320-380 kg)

No.	Description	P/N	Qty					Notes	Ref. Page
			A	B	C	D	E		
1	Spindle Drive Handle (Type LS)	F800014 F800018 F800027 F800029 F800033 F800034	1	2	2	2	4	Multiple Types Available	P164, P165
2	Recessed Handle	F010601 F010602	1	2	2	2	4	V Series U Series	P166
3	Cylinder		1	2	2	1	3		P288, P289
4	Espagnolette with Tilt Lock Point	F020019 F020020	1	2	2	2	4	2,300 mm, Door Height 2,101-2,400, Metal Spring + Gas Spring 2,300 mm, Door Height 2,401-2,700, Metal Spring + Gas Spring	P168
5	Front and Rear Rollers	F800016	1	2	2	2	4	Channel Width 22 mm	P167
6	Auxiliary Rollers	F500003	1	2	2	2	4	One Additional Roller for Sash Width ≤ 1200 mm, Two Additional Roller for Sash Width > 1200 mm	P167
7	Connecting Rod	F020004 F020005 F020006 F020007	1	2	2	2	4	850 mm, Door Width 720-1,500 1,350 mm, Door Width 1,501-2,000 1,850 mm, Door Width 2,001-2,500 2,650 mm, Door Width 2,501-3,300	P167
8	Spacer Pack	F140009 F140003	1	2	2	2	4	Plastic Spacer Height 12 mm Plastic Spacer Height 17 mm	P171
9	Locking Keeper	F100006 F100007 F100008 F100010 F100011 F100012 F100013 F100015	4	8	8	4	12		P169, P170
10	Panel Stop	F080001	0	1	0	0	2	Installation Height: 42 mm	P171
11	Rubber Stop	F080002	1	0	1	2	0	Hole Size Ø13 mm (2 Pack)	P171
12	Rest Block	F110015	2	4	4	4	8		P171
13	Extender Cover	F120004	1	2	2	1	3		P171
14	Extender Cover Screw Pack	F110019 F110020	1	2	2	1	3	Suitable for 12 mm Spacer Pack Suitable for 17 mm Spacer Pack	
15	Spacer Screw Pack	F110011	1	2	2	2	4	Suitable for 12 mm/17 mm Spacer Pack	
16	Handle Screw Pack		1	2	2	2	4	Reference P147	
17	Spindle Screw Pack		1	2	2	2	4	Reference P147	

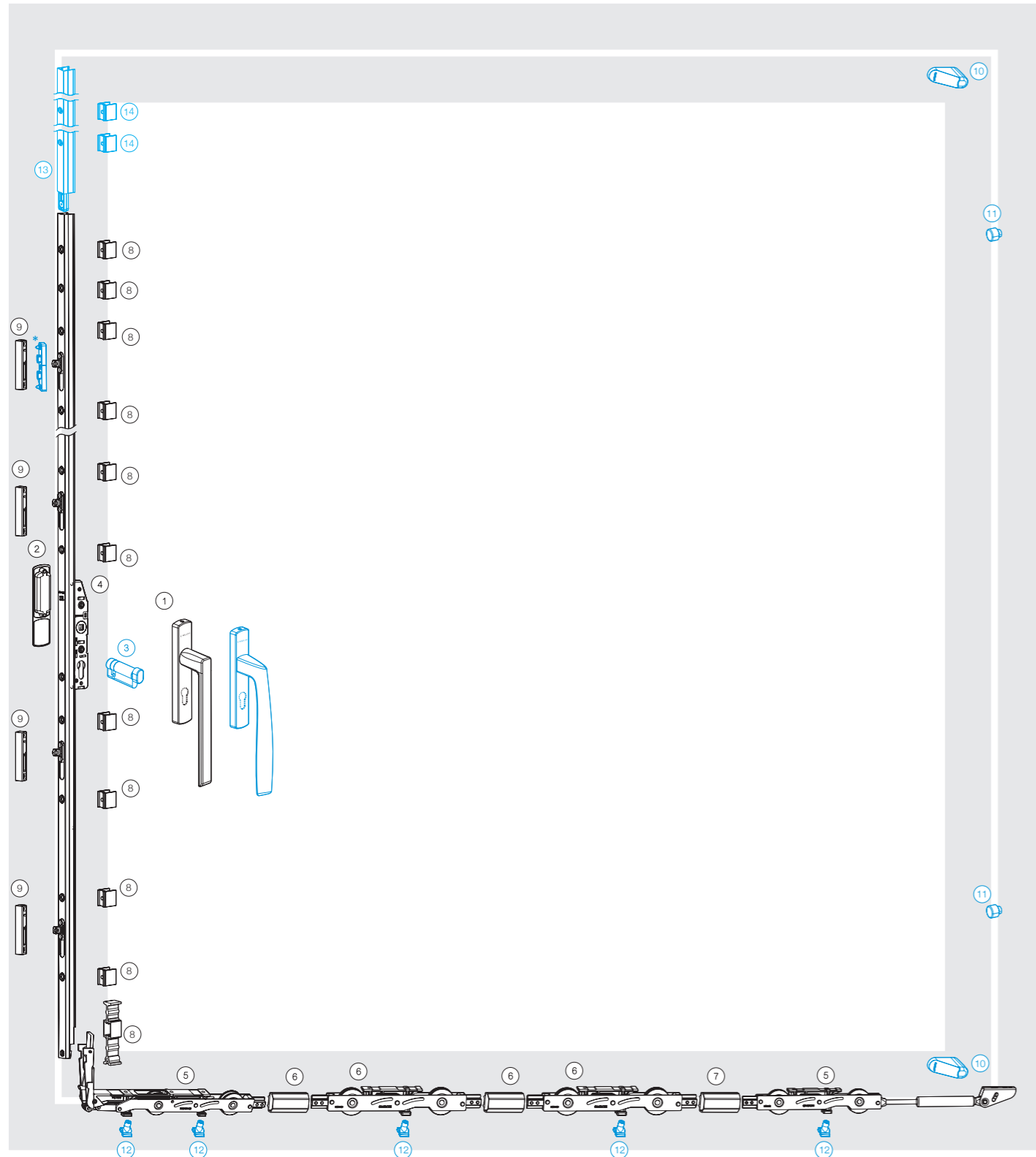
Door Configurations





LIFT & SLIDE DOOR HARDWARE SERIES

Spindle Drive Handle (Type LS) Configuration (380-450 kg)



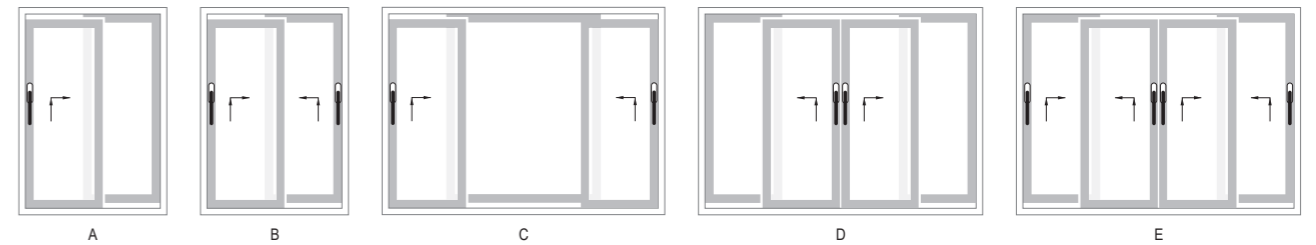
* Installation tool used to mark strike hole position F120003

LIFT & SLIDE DOOR HARDWARE SERIES

Configuration Table - Spindle Drive Handle (Type LS) (380-450 kg)

No.	Description	P/N	Qty					Notes	Ref. Page
			A	B	C	D	E		
1	Spindle Drive Handle (Type LS)	F800014 F800018 F800027 F800029 F800033 F800034	1	2	2	2	4	Multiple Types Available	P164, P165
2	Recessed Handle	F010601 F010602	1	2	2	2	4	V Series U Series	P166
3	Cylinder		1	2	2	1	3		P288, P289
4	Espagnolette with Tilt Lock Point	F020019 F020020	1	2	2	2	4	2,300 mm, Door Height 2,101-2,400, Metal Spring + Gas Spring 2,300 mm, Door Height 2,401-2,700, Metal Spring + Gas Spring	P168
5	Front and Rear Rollers	F050004	1	2	2	2	4	Channel Width 22 mm	P167
6	Auxiliary Rollers	F500003	2	4	4	4	8	One Additional Roller for Sash Width ≤ 1200 mm, Two Additional Roller for Sash Width > 1200 mm	P167
7	Connecting Rod	F020004 F020005 F020006 F020007	1	2	2	2	4	850 mm, Door Width 720-1,500 1,350 mm, Door Width 1,501-2,000 1,850 mm, Door Width 2,001-2,500 2,650 mm, Door Width 2,501-3,300	P167
8	Spacer Pack	F140009 F140003	1	2	2	2	4	Plastic Spacer Height 12 mm Plastic Spacer Height 17 mm	P171
9	Locking Keeper	F100006 F100007 F100008 F100010 F100011 F100012 F100013 F100015	4	8	8	4	12		P169, P170
10	Panel Stop	F080001	0	1	0	0	2	Installation Height: 42 mm	P171
11	Rubber Stop	F080002	1	0	1	2	0	Hole Size Ø13 mm (2 Pack)	P171
12	Rest Block	F110015	2	4	4	4	8		P171
13	Extender Cover	F120004	1	2	2	1	3		P171
14	Extender Cover Screw Pack	F110019 F110020	1	2	2	1	3	Suitable for 12 mm Spacer Pack Suitable for 17 mm Spacer Pack	
15	Spacer Screw Pack	F110011	1	2	2	2	4	Suitable for 12 mm/17 mm Spacer Pack	
16	Handle Screw Pack		1	2	2	2	4	Reference P147	
17	Spindle Screw Pack		1	2	2	2	4	Reference P147	

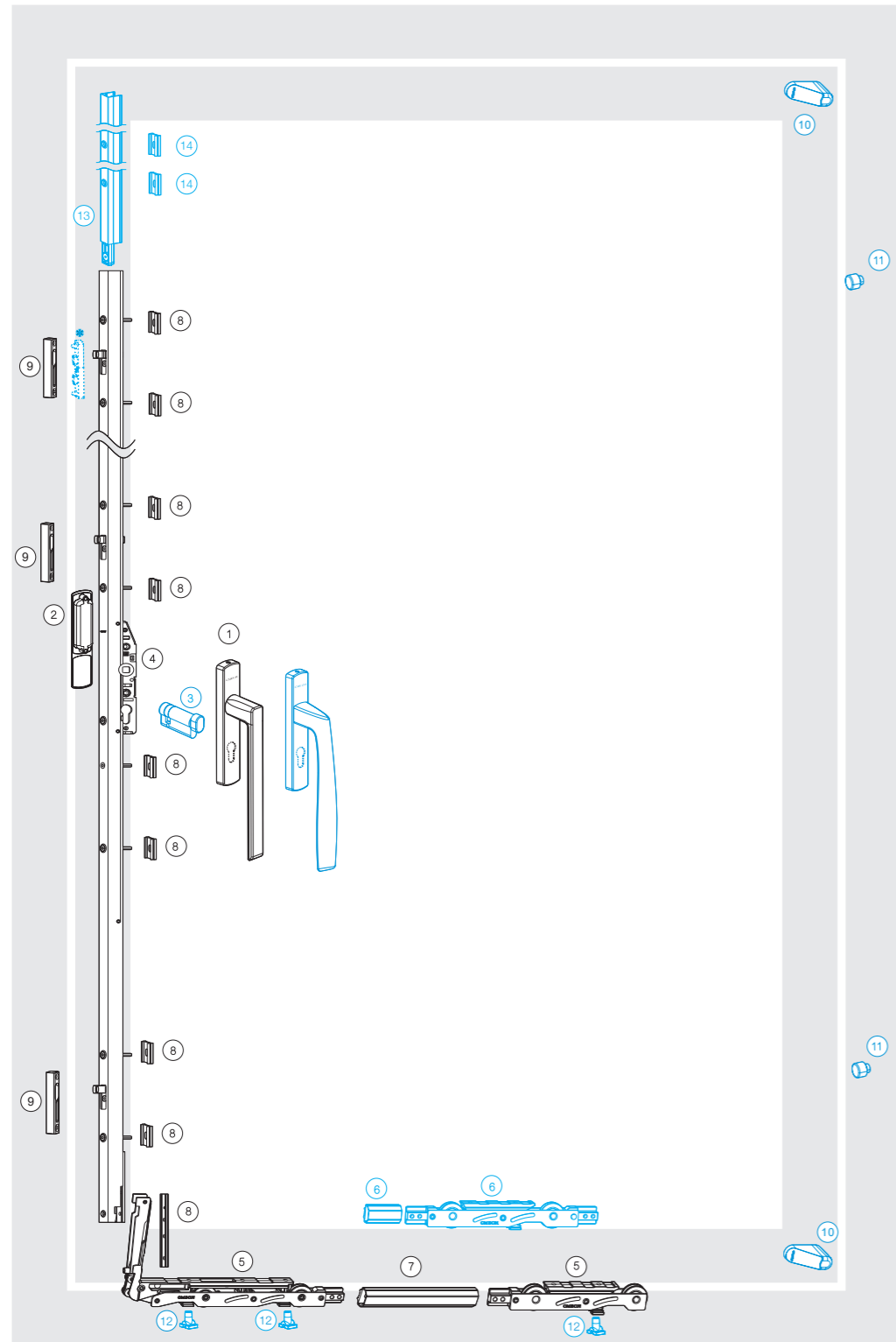
Door Configurations



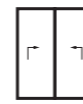


LIFT & SLIDE DOOR HARDWARE SERIES

Slim Lift & Slide Door Configuration (200 kg)



* Installation tool used to mark strike hole position F120003

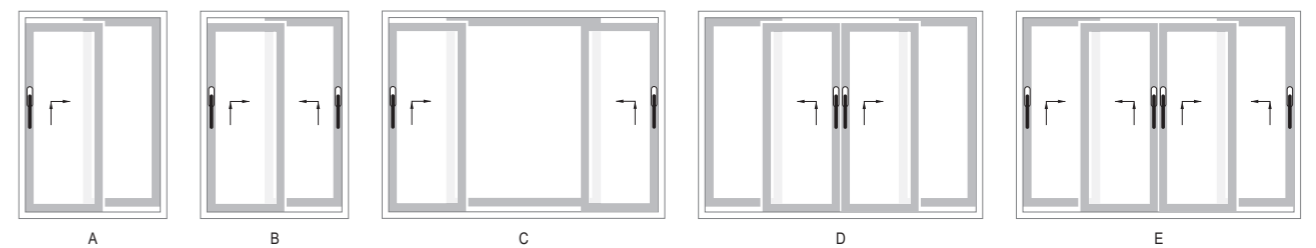


LIFT & SLIDE DOOR HARDWARE SERIES

Configuration Table - Slim Lift & Slide Door (200 kg)

No.	Description	P/N	Qty					Notes	Ref. Page
			A	B	C	D	E		
1	Spindle Drive Handle (Type LS)	F800014 F800018 F800027 F800029 F800033 F800034	1	2	2	2	4	Multiple Types Available	P164, P165
2	Recessed Handle	F010601 F010602	1	2	2	2	4	V Series U Series	P166
3	Cylinder		1	2	2	1	3		
4	Espagnolette with Tilt Lock Point	F020021 F020022	1	2	2	2	4	2,300 mm, 200 kg 2,600 mm, 200 kg	P288, P289
5	Front and Rear Rollers	F050006	1	2	2	2	4		P167
6	Auxiliary Rollers	F050008	1	2	2	2	4	One Add. Roller for Sash Width ≤ 1200 mm, Two Add. Roller for Sash Width > 1200 mm	P167
7	Connecting Rod	F020004 F020005 F020006 F020007	1	2	2	2	4	850 mm, Door Width 720-1,500 1,350 mm, Door Width 1,501-2,000 1,850 mm, Door Width 2,001-2,500 2,650 mm, Door Width 2,501-3,300	P167
8	Spacer Pack	F140018 F140019 F140020 F140021 F140022 F140023	1	2	2	2	4	Plastic Spacer Height 4 mm Plastic Spacer Height 5 mm Plastic Spacer Height 6.5 mm Plastic Spacer Height 4 mm Plastic Spacer Height 5 mm Plastic Spacer Height 6.5 mm	P171
9	Locking Keeper	F100006 F100007 F100008 F100010 F100011 F100012 F100013 F100015	4	8	8	4	12		P169, P170
10	Panel Stop	F080001	0	1	0	0	2	Installation Height: 42 mm	P171
11	Rubber Stop	F080002	1	0	1	2	0	Hole Size Ø13 mm (2 Pack)	P171
12	Rest Block	F110015	1	2	2	2	4		P171
13	Extender Cover	F120004	1	2	2	1	3		
14	Extender Cover Screw Pack	F110016 F110017 F110018	1	2	2	1	3	Suitable for 4 mm Spacer Pack Suitable for 5 mm Spacer Pack Suitable for 6.5 mm Spacer Pack	
15	Spacer Screw Pack	F110014	1	2	2	2	4	Suitable for 12 mm/17 mm Spacer Pack	
16	Handle Screw Pack		1	2	2	2	4	Reference P147	
17	Spindle Screw Pack		1	2	2	2	4	Reference P147	

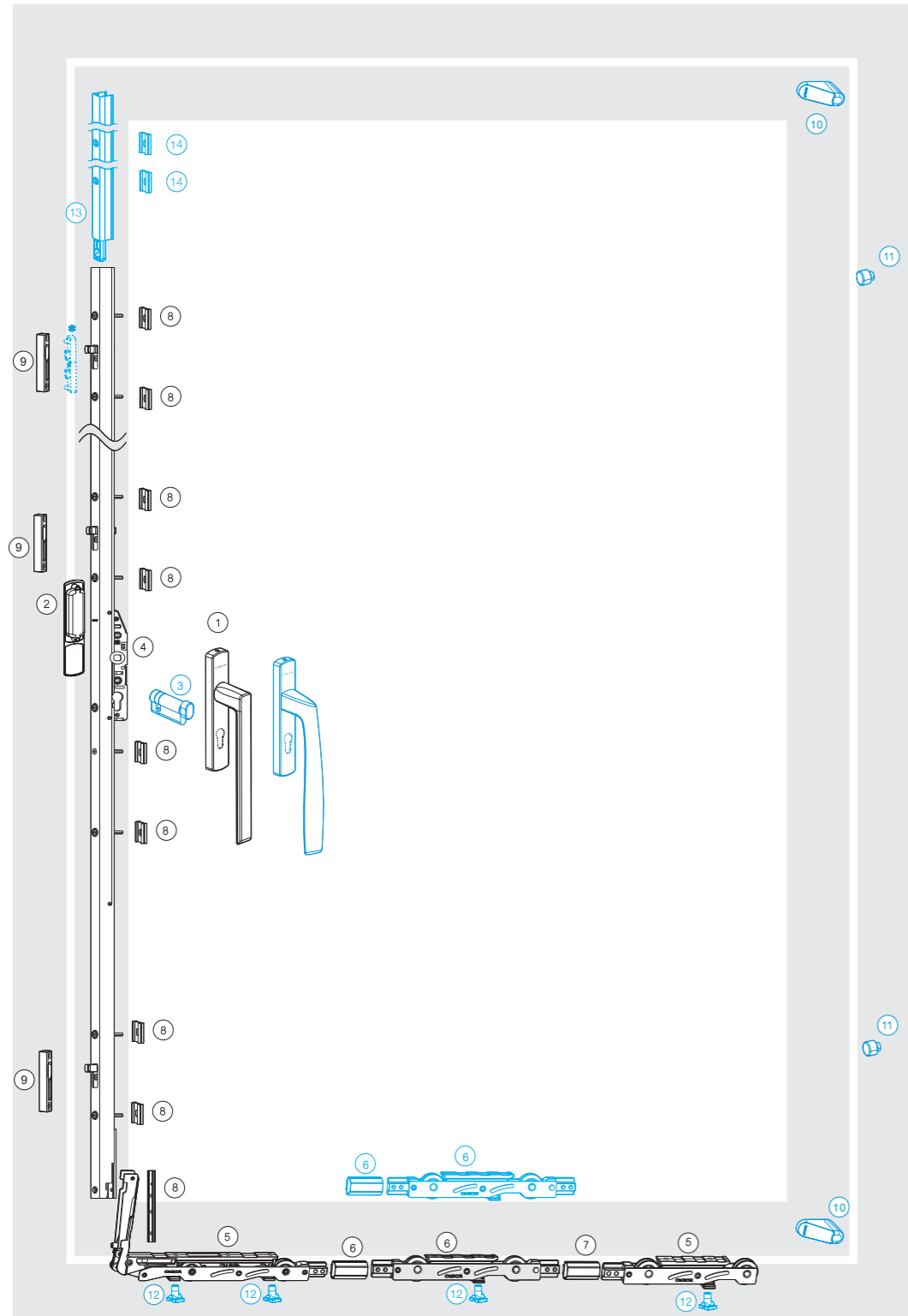
Door Configurations



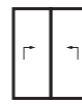


LIFT & SLIDE DOOR HARDWARE SERIES

Slim Lift & Slide Door Configuration (280 kg)



* Installation tool used to mark strike hole position F120003

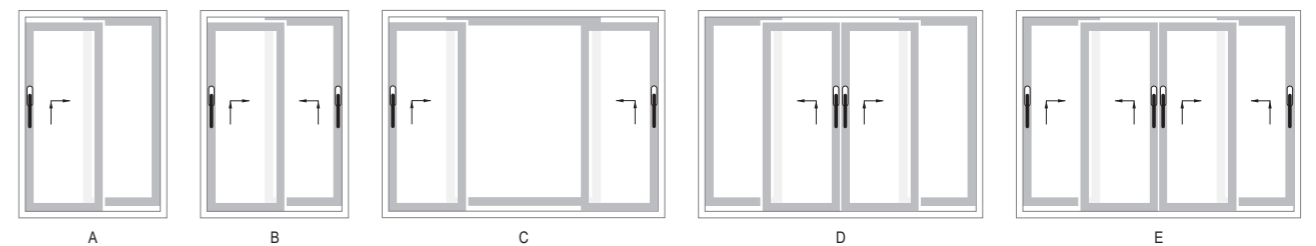


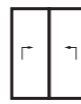
LIFT & SLIDE DOOR HARDWARE SERIES

Configuration Table - Slim Lift & Slide Door (280 kg)

No.	Description	P/N	Qty					Notes	Ref. Page
			A	B	C	D	E		
1	Spindle Drive Handle (Type LS)	F800014 F800018 F800027 F800029 F800033 F800034	1	2	2	2	4	Multiple Types Available	P164, P165
2	Recessed Handle	F010601 F010602	1	2	2	2	4	V Series U Series	P166
3	Cylinder		1	2	2	1	3		
4	Espagnolette with Tilt Lock Point	F020023 F020024	1	2	2	2	4	2,300 mm, 280kg 2,600 mm, 280kg	P288, P289
5	Front and Rear Rollers	F050006	1	2	2	2	4		P167
6	Auxiliary Rollers	F050008	1	2	2	2	4	One Add. Roller for Sash Width ≤ 1200 mm, Two Add. Roller for Sash Width > 1200 mm	P167
7	Connecting Rod	F020004 F020005 F020006 F020007	1	2	2	2	4	850 mm, Door Width 720-1,500 1,350 mm, Door Width 1,501-2,000 1,850 mm, Door Width 2,001-2,500 2,650 mm, Door Width 2,501-3,300	P167
8	Spacer Pack	F140018 F140019 F140020 F140021 F140022 F140023	1	2	2	2	4	Plastic Spacer Height 4 mm Plastic Spacer Height 5 mm Plastic Spacer Height 6.5 mm Plastic Spacer Height 4 mm Plastic Spacer Height 5 mm Plastic Spacer Height 6.5 mm	P171
9	Locking Keeper	F100006 F100007 F100008 F100010 F100011 F100012 F100013 F100015	4	8	8	4	12		P169, P170
10	Panel Stop	F080001	0	1	0	0	2	Installation Height: 42 mm	P171
11	Rubber Stop	F080002	1	0	1	2	0	Hole Size Ø13 mm (2 Pack)	P171
12	Rest Block	F110015	1	2	2	2	4		P171
13	Extender Cover	F120004	1	2	2	1	3		
14	Extender Cover Screw Pack	F110016 F110017 F110018	1	2	2	1	3	Suitable for 4 mm Spacer Pack Suitable for 5 mm Spacer Pack Suitable for 6.5 mm Spacer Pack	
15	Spacer Screw Pack	F110014	1	2	2	2	4	Suitable for 12 mm/17 mm Spacer Pack	
16	Handle Screw Pack		1	2	2	2	4	Reference P147	
17	Spindle Screw Pack		1	2	2	2	4	Reference P147	

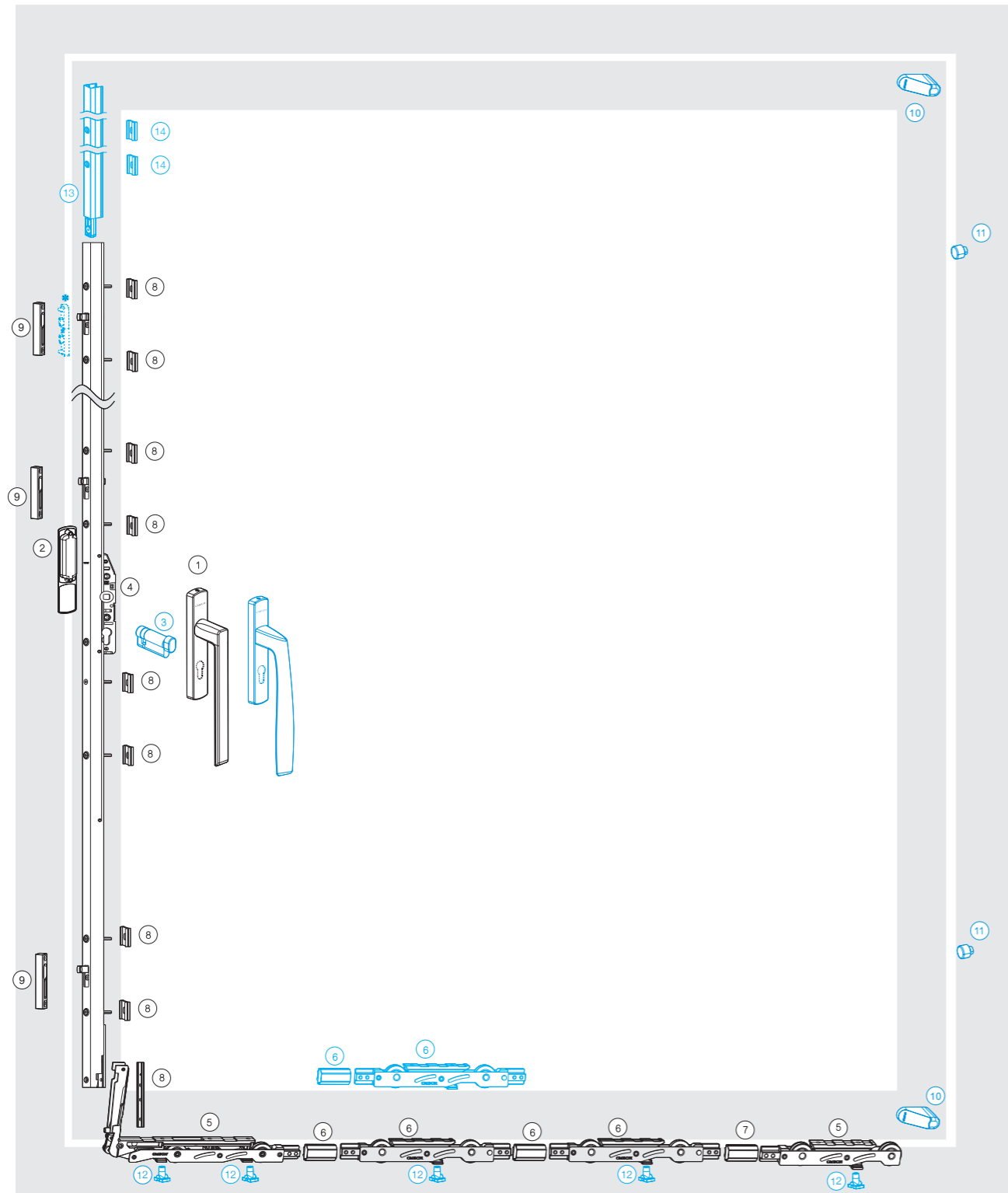
Door Configurations





LIFT & SLIDE DOOR HARDWARE SERIES

Slim Lift & Slide Door Configuration (360 kg)



* Installation tool used to mark strike hole position F120003

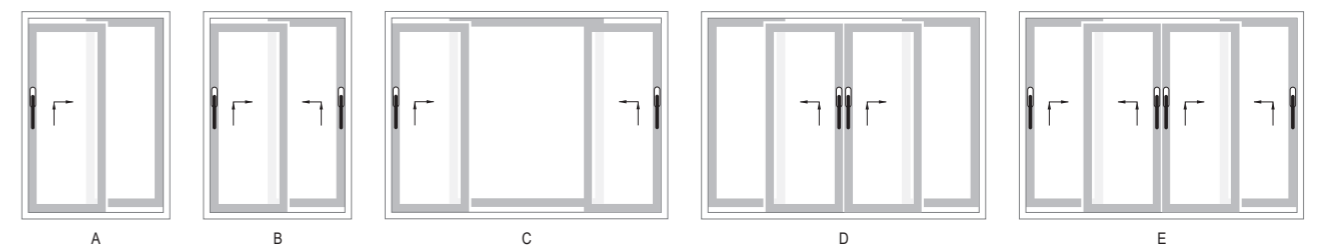


LIFT & SLIDE DOOR HARDWARE SERIES

Configuration Table - Slim Lift & Slide Door (360 kg)

No.	Description	P/N	Qty					Notes	Ref. Page
			A	B	C	D	E		
1	Spindle Drive Handle (Type LS)	F800014 F800018 F800027 F800029 F800033 F800034	1	2	2	2	4	Multiple Types Available	P164, P165
2	Recessed Handle	F010601 F010602	1	2	2	2	4	V Series U Series	P166
3	Cylinder		1	2	2	1	3		
4	Espagnolette with Tilt Lock Point	F020025 F020026	1	2	2	2	4	2,300 mm, 360kg 2,600 mm, 360kg	P288, P289
5	Front and Rear Rollers	F050006	1	2	2	2	4		P167
6	Auxiliary Rollers	F050008	2	4	4	4	8		P167
7	Connecting Rod	F020004 F020005 F020006 F020007	1	2	2	2	4	850 mm, Door Width 720-1,500 1,350 mm, Door Width 1,501-2,000 1,850 mm, Door Width 2,001-2,500 2,650 mm, Door Width 2,501-3,300	P167
8	Spacer Pack	F140018 F140019 F140020 F140021 F140022 F140023	1	2	2	2	4	Plastic Spacer Height 4 mm Plastic Spacer Height 5 mm Plastic Spacer Height 6.5 mm Plastic Spacer Height 4 mm Plastic Spacer Height 5 mm Plastic Spacer Height 6.5 mm	P171
9	Locking Keeper	F100006 F100007 F100008 F100010 F100011 F100012 F100013 F100015	4	8	8	4	12		P169, P170
10	Panel Stop	F080001	0	1	0	0	2	Installation Height: 42 mm	P171
11	Rubber Stop	F080002	1	0	1	2	0	Hole Size Ø13 mm (2 Pack)	P171
12	Rest Block	F110015	2	4	4	4	8		P171
13	Extender Cover	F120004	1	2	2	1	3		
14	Extender Cover Screw Pack	F110016 F110017 F110018	1	2	2	1	3	Suitable for 4 mm Spacer Pack Suitable for 5 mm Spacer Pack Suitable for 6.5 mm Spacer Pack	
15	Spacer Screw Pack	F110014	1	2	2	2	4	Suitable for 12 mm/17 mm Spacer Pack	
16	Handle Screw Pack		1	2	2	2	4	Reference P147	
17	Spindle Screw Pack		1	2	2	2	4	Reference P147	

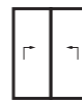
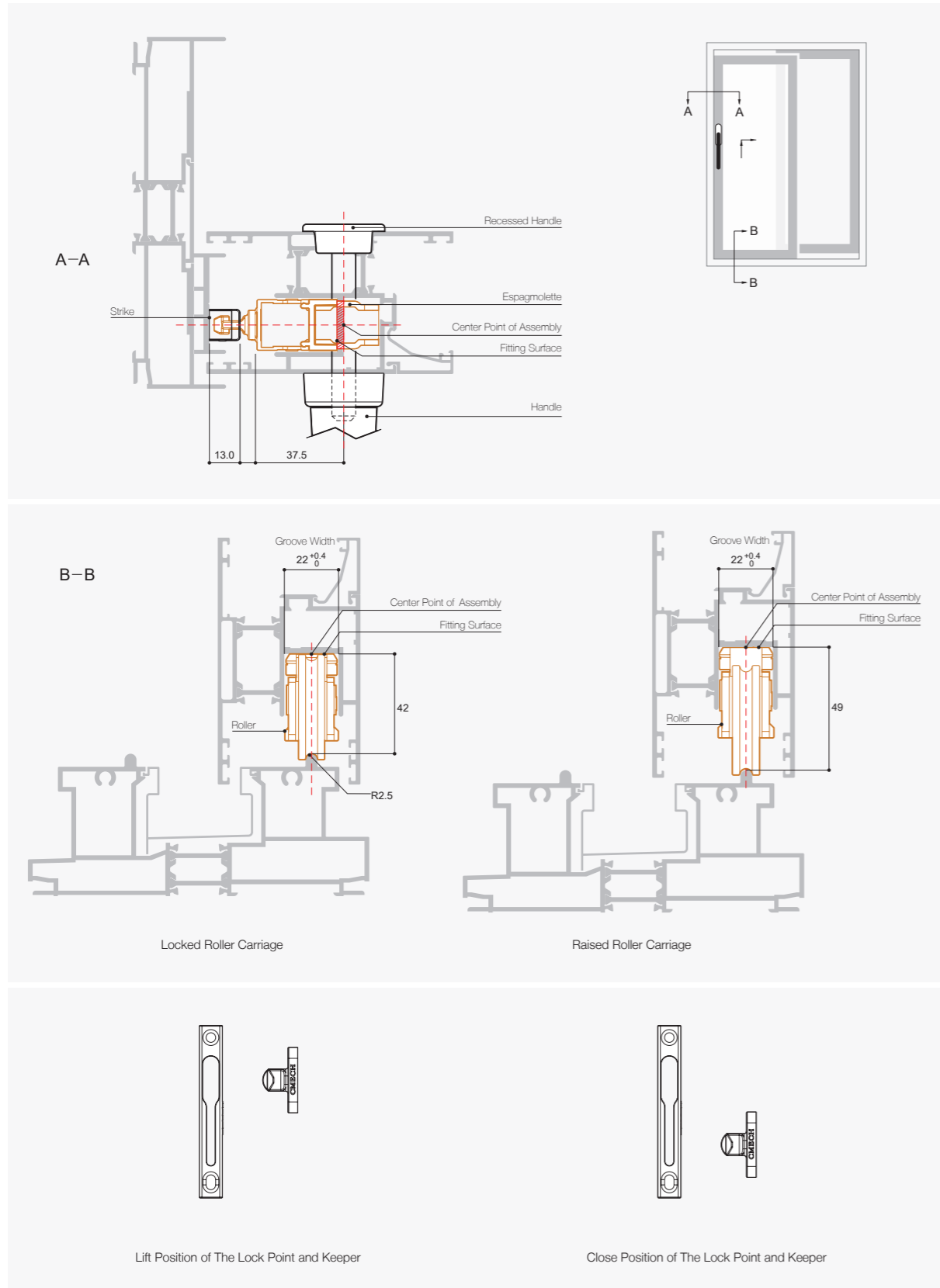
Door Configurations





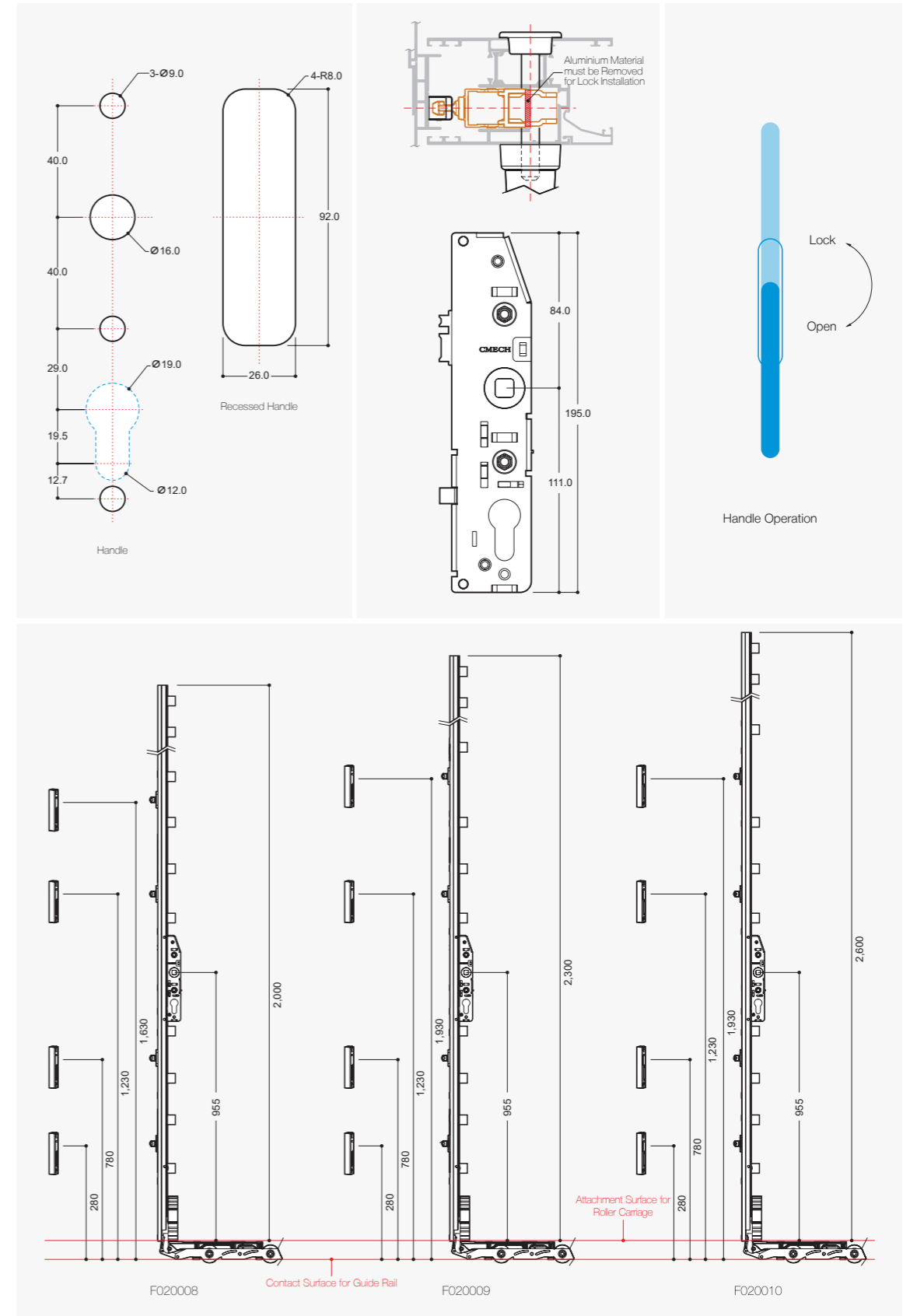
LIFT & SLIDE DOOR PROFILE REQUIREMENTS

Spindle Drive Handle (Type LS) Configuration (220-450 kg)



LIFT & SLIDE DOOR DRILLING INSTRUCTIONS

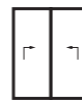
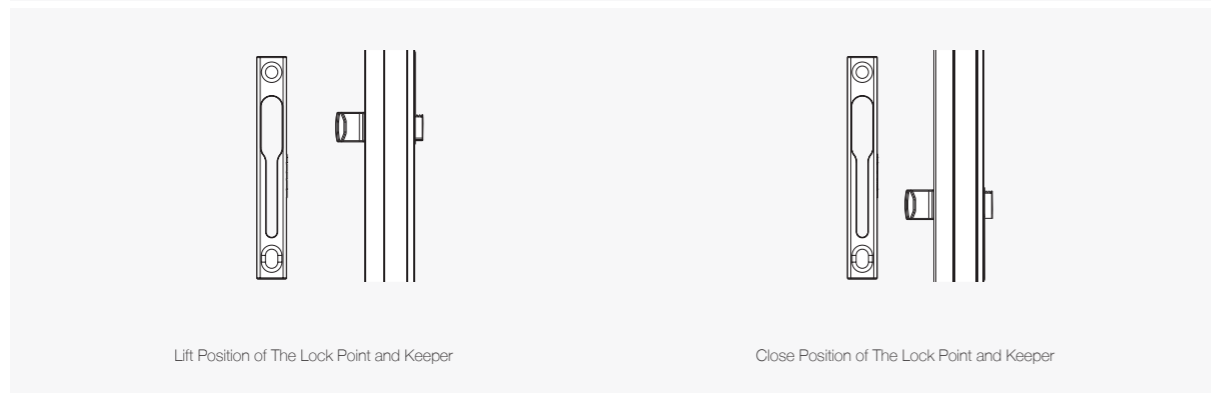
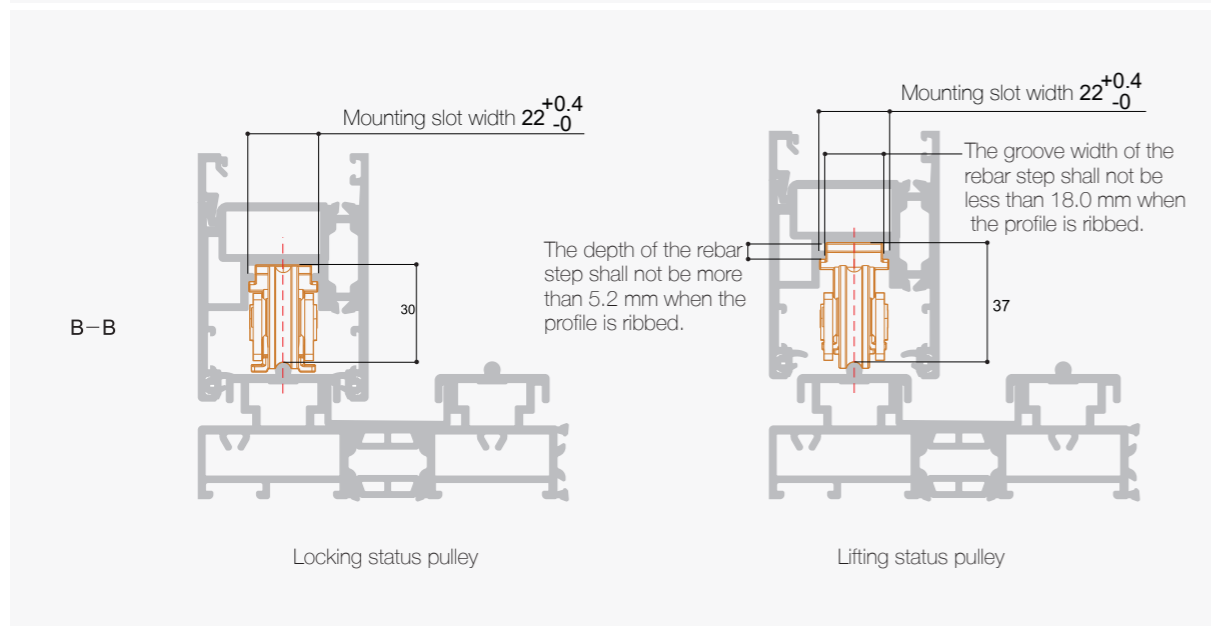
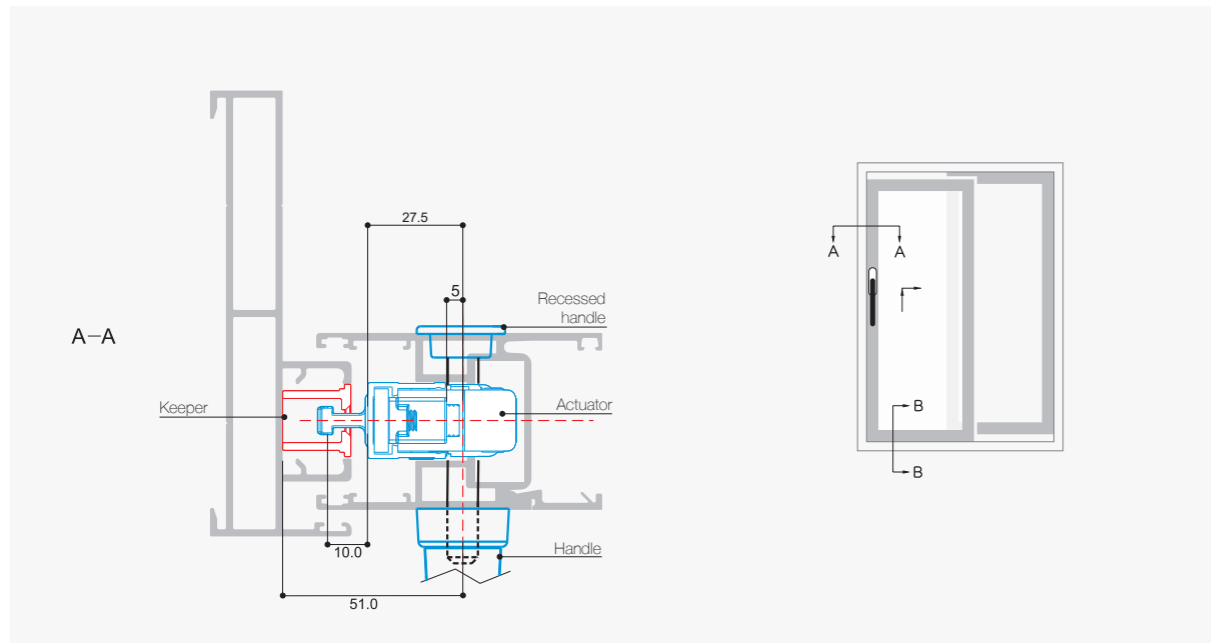
Spindle Drive Handle (Type LS) Configuration (220-450 kg)





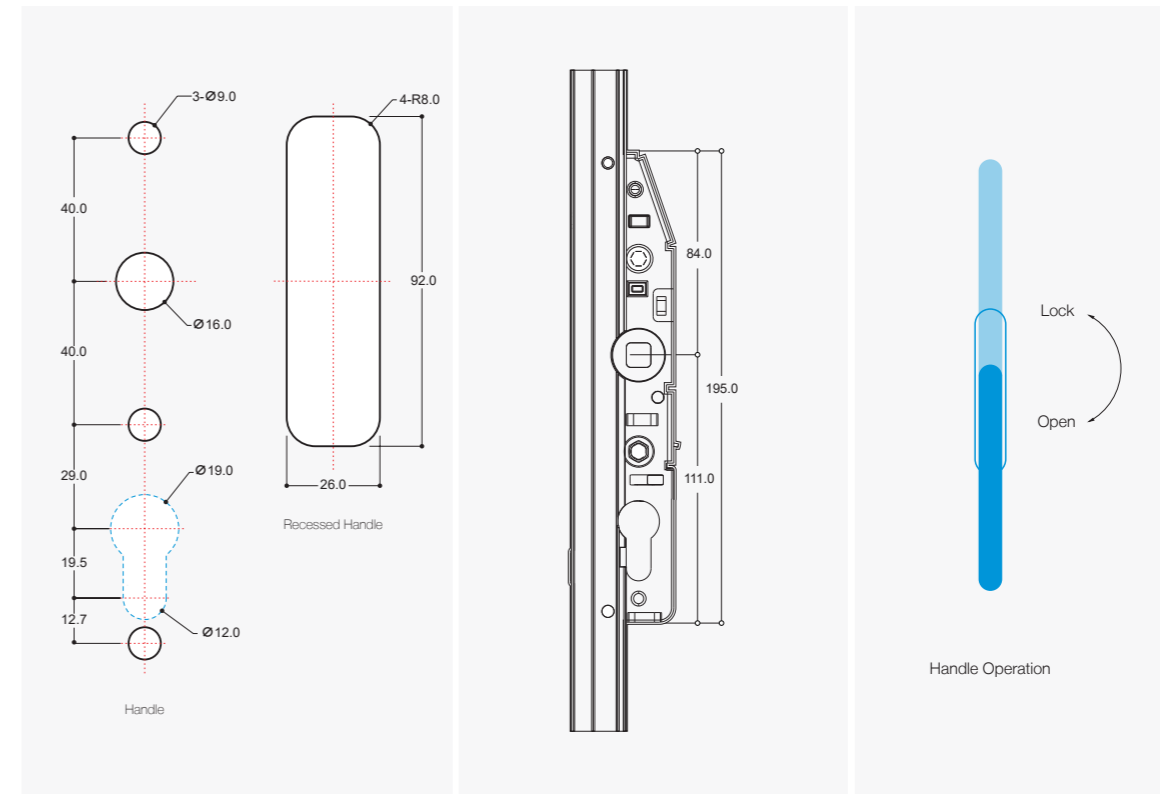
LIFT & SLIDE DOOR PROFILE REQUIREMENTS

Slim Lift & Slide Door Configuration (200-360 kg)



LIFT & SLIDE DOOR DRILLING INSTRUCTIONS

Slim Lift & Slide Door Configuration (200-360 kg)



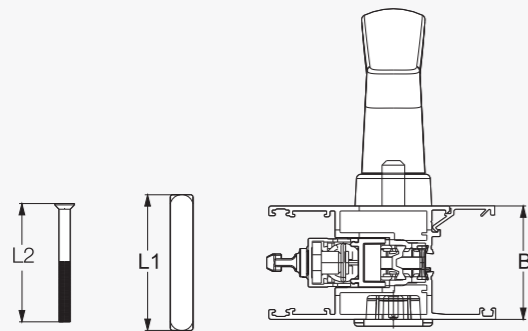


SCREW PACK SELECTIONS

Spindle Screw Pack				Handle Screw Pack			
P/N	Description	Specifications	Qty	P/N	Description	Specifications	Qty
F110023	10x10x50 Spindle Screw Pack	50	1	F110036	M5x40 Cross Screws	40	2
F110024	10x10x55 Spindle Screw Pack	55	1	F110037	M5x50 Cross Screws	50	2
F110025	10x10x60 Spindle Screw Pack	60	1	F110038	M5x55 Cross Screws	55	2
F110026	10x10x65 Spindle Screw Pack	65	1	F110039	M5x60 Cross Screws	60	2
F110027	10x10x70 Spindle Screw Pack	70	1	F110040	M5x65 Cross Screws	65	2
F110028	10x10x75 Spindle Screw Pack	75	1	F110041	M5x70 Cross Screws	70	2
F110029	10x10x80 Spindle Screw Pack	80	1	F110042	M5x75 Cross Screws	75	2
F110030	10x10x85 Spindle Screw Pack	85	1	F110043	M5x80 Cross Screws	80	2
F110031	10x10x90 Spindle Screw Pack	90	1	F110044	M5x85 Cross Screws	85	2
F110032	10x10x95 Spindle Screw Pack	95	1	F110045	M5x90 Cross Screws	90	2
F110033	10x10x100 Spindle Screw Pack	100	1	F110046	M5x95 Cross Screws	95	2
F110034	10x10x105 Spindle Screw Pack	105	1				
F110035	10x10x115 Spindle Screw Pack	115	1				
F110047	10x10x120 Spindle Screw Pack	120	1				

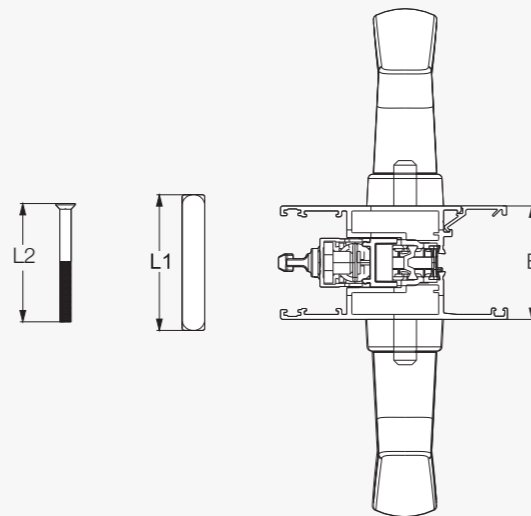
Formula for Calculating the Spindle and Screw Length

A Spindle Drive Handle matched with Recessed Handle



Formula for Calculating the Spindle and Screw Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 L2 --- Screw Length
 $L1 = B + 9$
 L1 Size Range: +0, -5.0
 $L2 = B$
 L2 Size Range: +0, -3.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.

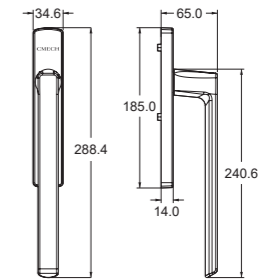
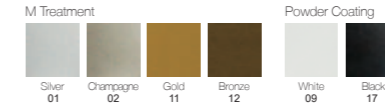
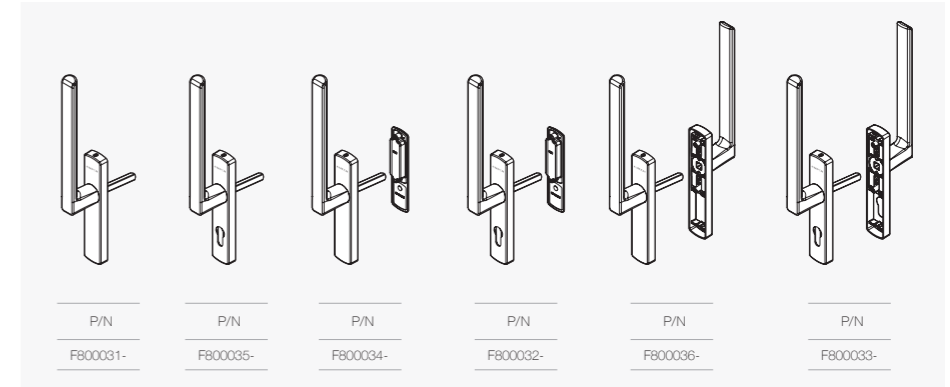
B Spindle Drive Handle matched with Spindle Drive Handle



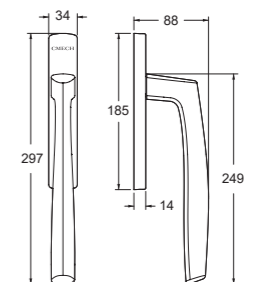
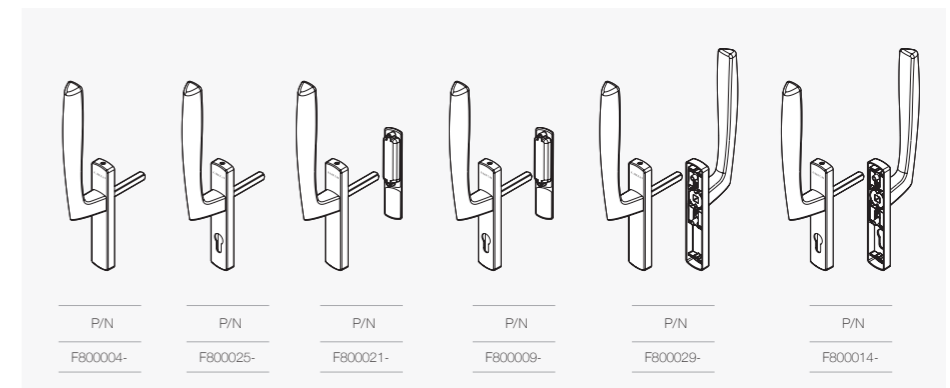
Formula for Calculating the Spindle and Screw Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 L2 --- Screw Length
 $L1 = B + 40$
 L1 Size Range: +0, -5.0
 $L2 = B + 12$
 L2 Size Range: +0, -3.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.

HANDLE SELECTIONS

MILAN SERIES
Spindle Drive Handle (Type LS)



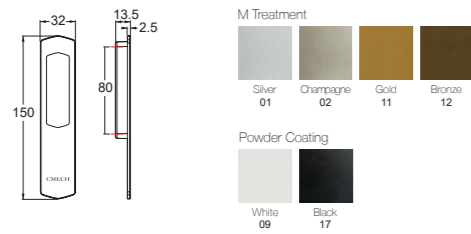
BERLIN SERIES
Spindle Drive Handle (Type LS)



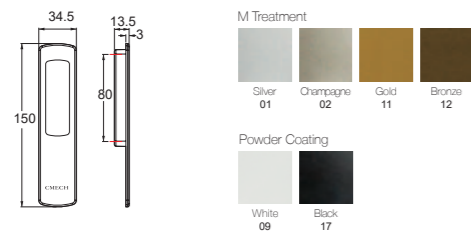


HANDLE SELECTIONS

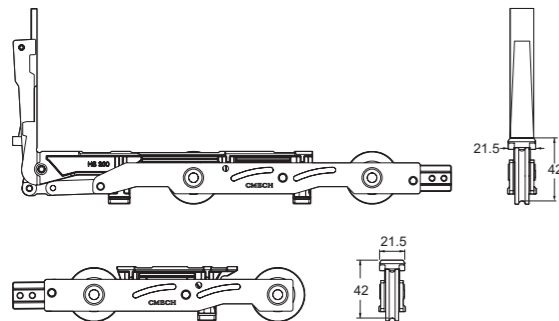
F010601
Recessed Handle (V Series)



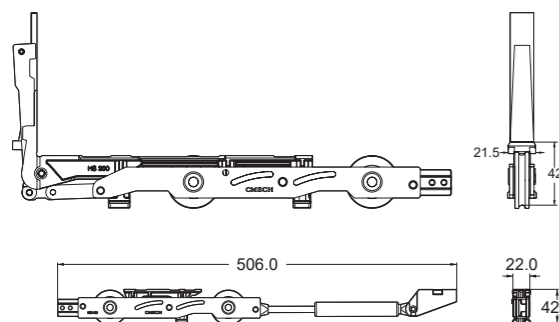
F010602
Recessed Handle (U Series)



F800016
Front and Rear Rollers

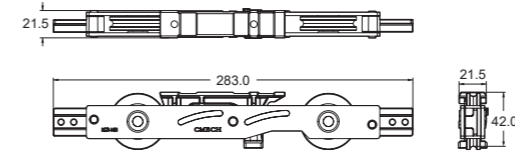


F050004
Front and Rear Rollers

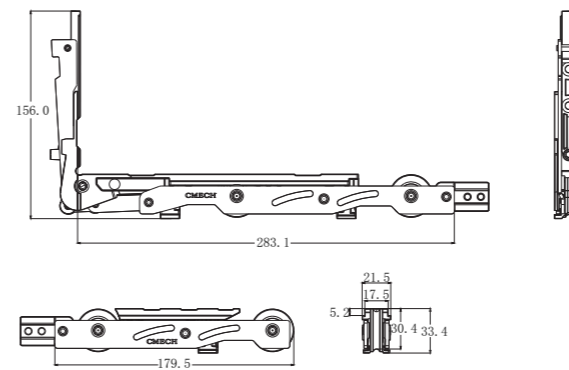


LIFT & SLIDE DOOR HARDWARE

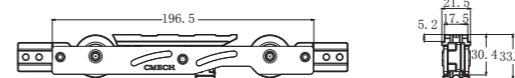
F050003
Auxiliary Roller



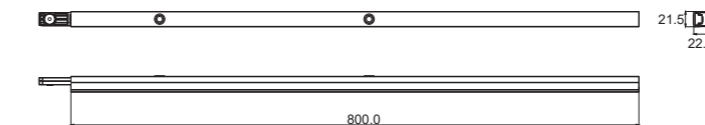
F050006
Front and Rear Rollers



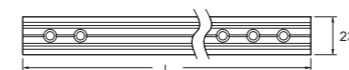
F050008
Auxiliary Roller



F120004
Extender Cover Pack

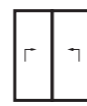


Connecting Rod



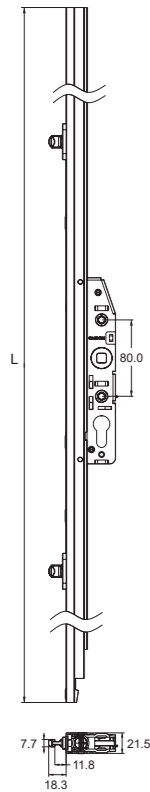
P/N	Door Panel Width Range	Connecting Rod Length (L)
F020004	720 - 1,500 mm	850 mm
F020005	1,501-2,000 mm	1,350 mm
F020006	2,001-2,500 mm	1,850 mm
F020007	2,501-3,300 mm	2,650 mm





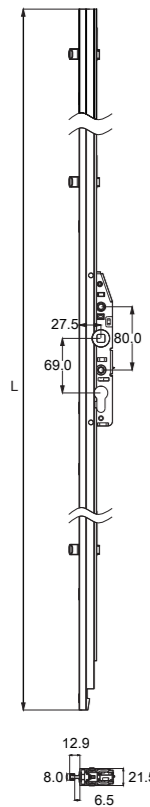
LIFT & SLIDE DOOR HARDWARE

Espagnolette with Tilt Lock Point

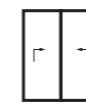


P/N	Door Panel Height Range	Espagnolette Length Spec (L)	Door Panel Load-bearing
F020008	1,800-2,100 mm	2,000 mm	300kg
F020009	2,101-2,400 mm	2,300 mm	300kg
F020016			350kg, with Gas Spring
F020019			450kg, with Metal Spring and Gas Spring
F020010	2,401-2,700 mm	2,600 mm	300kg
F020017			350kg, with Gas Spring
F020020			450kg, with Metal Spring and Gas Spring

Espagnolette with Tilt Lock Point

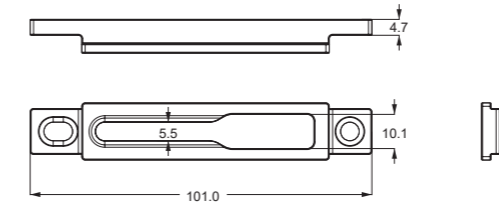


P/N	Door Panel Load-bearing	Espagnolette Length Spec (L)
F020021	200kg	2,300 mm
F020023	280kg	
F020025	360kg	
F020022	200kg	2,600 mm
F020024	280kg	
F020026	360kg	

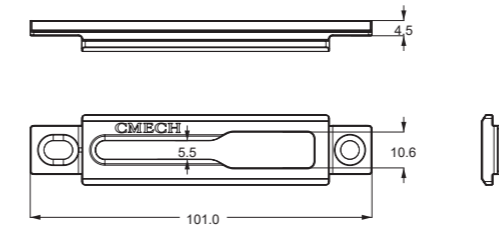


LIFT & SLIDE DOOR HARDWARE

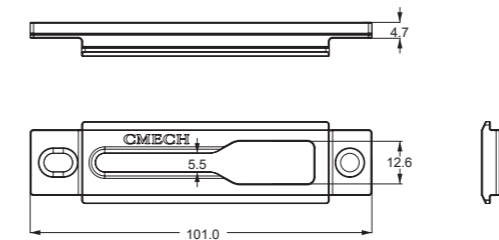
F100011
1710 Keeper



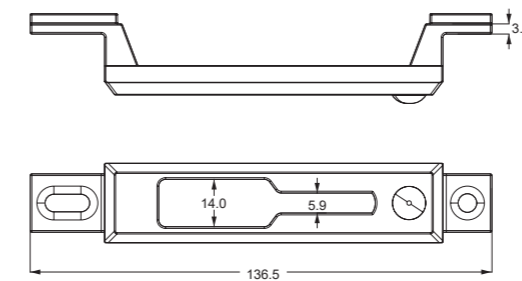
F100012
2109 Keeper

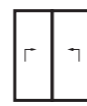


F100013
2410 Keeper



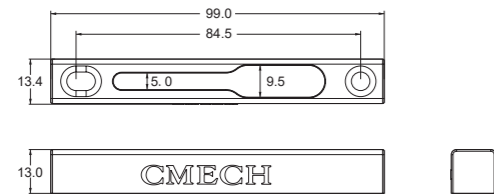
F100015
2424 Keeper



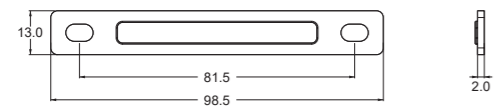


LIFT & SLIDE DOOR HARDWARE

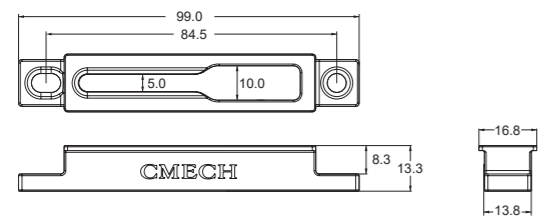
F100006
13 Keeper



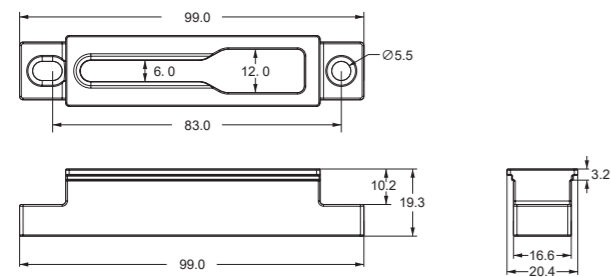
F140010
Spacer Pack



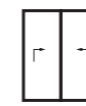
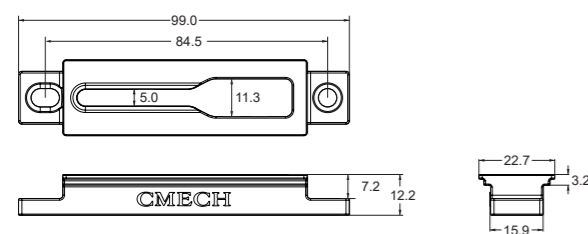
F100007
17 Keeper



F100010
21 Keeper

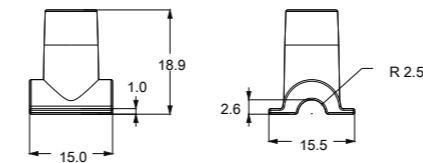


F100008
23 Keeper

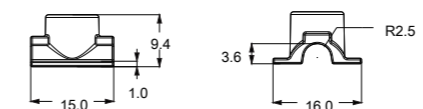


LIFT & SLIDE DOOR HARDWARE

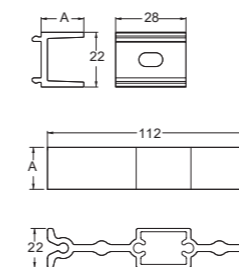
F110008
Rest Block



F110015
Rest Block



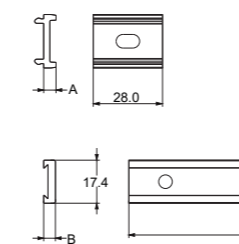
Spacer Pack
1 Long Spacer and 10 Short Spacers Per Pack



P/N	A Specifications
F140003	17 mm
F140009	12 mm



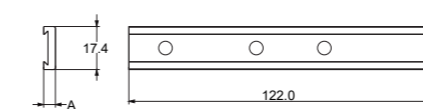
Spacer Pack
1 Long Spacer and 10 Short Spacers Per Pack



P/N	A Specifications	B Specifications
F140018	4 mm	3.75 mm
F140019	5 mm	4.75 mm
F140020	6.5 mm	6.25 mm

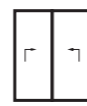


Spacer Pack
1 Long Spacer



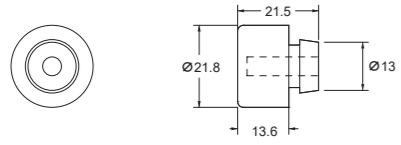
P/N	A Specifications
F140021	3.75 mm
F140022	4.75 mm
F140023	6.25 mm



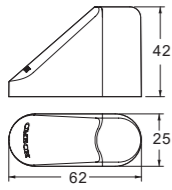


LIFT & SLIDE DOOR HARDWARE

F080002
Rubber Stop



F080001
Panel Stop



Tightly Sealed Sliding Window Hardware



Tightly Sealed Sliding Door



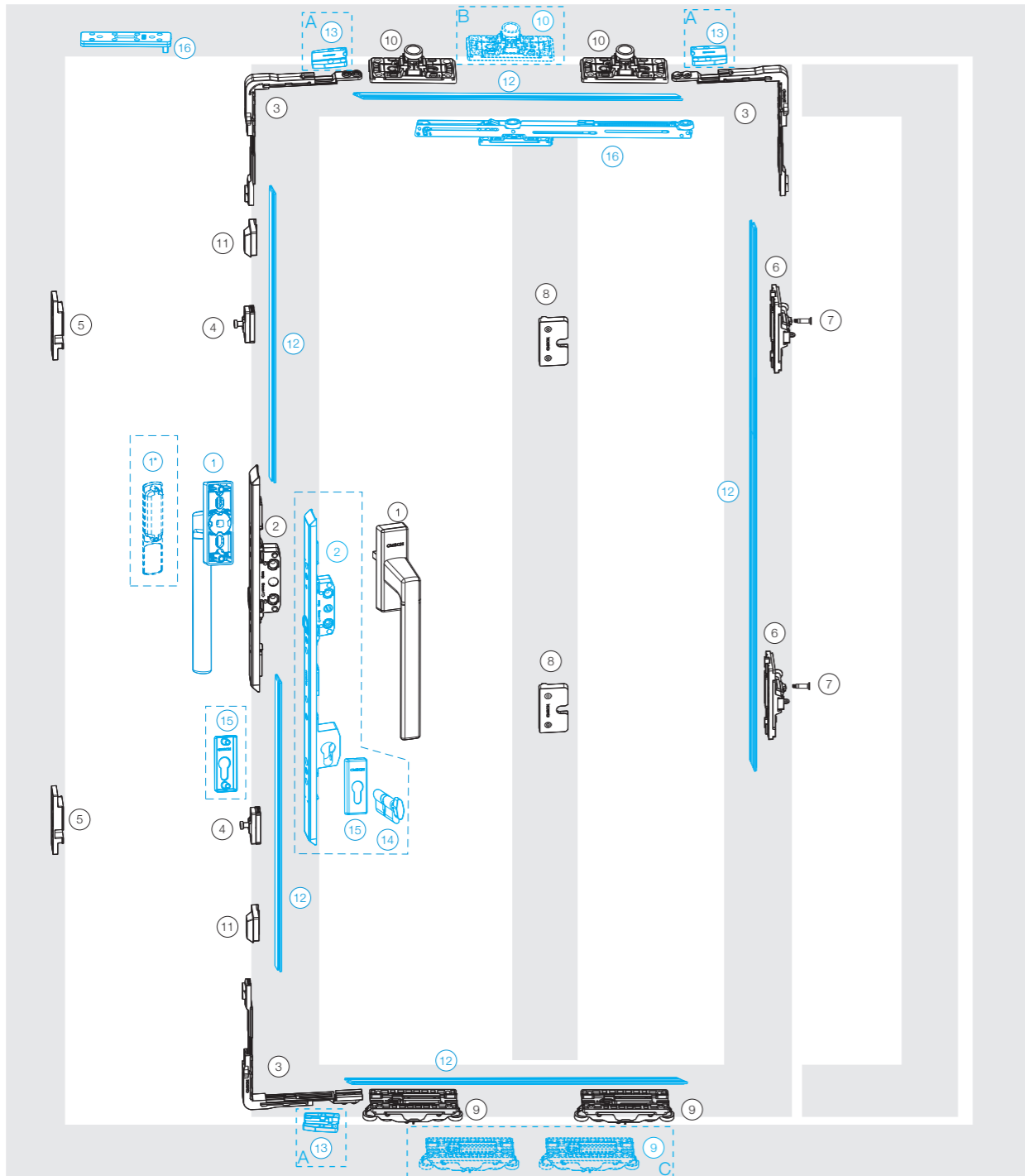
- Innovative structure and easy operation
- Excellent wind resistance and efficient sealing
- Adjustable lock point height, easy and convenient installation
- Double roller configuration, 150kg high load-bearing capacity

Tightly Sealed Sliding Window		Applicable Range
Sash Width	(mm)	610-2,800
Sash Height	(mm)	990-2,800
Load-bearing	(kg)	150, 240
Aspect ratio (sash height/sash width)		3



TIGHTLY SEALED SLIDING WINDOW HARDWARE SYSTEM

Spindle Drive Handle Configuration



Note: 1. If any looseness is found after installing the corner drive, or if the door sash weight is 150 kg, a corner drive, reinforcement block must be installed.
 2. With the 150 kg configuration, adding optional components A + B + C increases the load capacity to 240 kg. Part numbers for the options are shown in the table below:

Configuration	P/N	Description
A+B+C	N800005	Left-Hand Opening 240kg Hardware
A+B+C	N800006	Right-Hand Opening 240kg Hardware



TIGHTLY SEALED SLIDING WINDOW HARDWARE SYSTEM

Configuration Table - Spindle Drive Handle Configuration

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	E010604 E010605 E010606 E010607	1	Milan Handle; Zinc Alloy Base Milan Handle Set; Zinc Alloy Base Milan Handle; Aluminum Alloy Base Milan Handle Set; Aluminum Alloy Base	P164
1*	Recessed Handle	F010602	1	U Series	P166
2	Side Compress Drive Gearbox	N020001 N020003	1	Hole distance 15 mm Hole distance 15 mm ,with cylinder	P176
3	Fail-Safe Corner Drive	N060001	3		P176
4	Operable Sash Lock Point	N090005	Refer to the table below	Height Adjustable	P177
5	Operable Sash Keeper	N100001 N100002	Refer to the table below	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P178
6	Lock Point Seat	N090001 N090002	Refer to the table below	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P177
7	Hook Operated Sash Lock Point	N090003 N090004 N090006	Refer to the table below	55 Thickness 60 Thickness 65 Thickness	P177
8	Hook Operated Sash Keeper	N100003	Refer to the table below		P178
9	Lower Roller	N050001 N050002	Refer to the table below	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P178
10	Upper Roller	N050003 N050004	Refer to the table below	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P178
11	Rubber Stop	N800002	2		P179
12	Fail-Safe Connecting Strip	N020002		Provided by Customer or Cmech	
13	Corner Drive Reinforcing Gasket	N120001	3		P179
14	Cylinder		1		P288, P289
15	Lock Cylinder Cover	E140001 E140002	1	Double-Sided Lock Cylinder Cover Single-Sided Inner Lock Cylinder Cover	
16	Buffer	N050005 N050006 N050007 N050008	1	Left Sash Front Buffer Right Sash Front Buffer Left Sash Front and Rear Double Buffers Right Sash Front and Rear Double Buffers	
17	Screw Pack	N110001 N110002	1	Installation Aid Screws Hardware Connecting Screws	
18	Spindle Screw Pack	N110013 N110004 N110003	1	For Double-Sided Spindle Drive Handle For Single-Sided Spindle Drive Handle +Recessed Handle For Single-Sided Spindle Drive Handle	
19	Screw Pack	E110011 E110010	1	For Double-Sided Cylinder Cover For Single-Sided Cylinder Cover(Interior)	

Recommendation on the Number of Locking Points and Lock Seats Weight of Door sash ≤ 150kg

Sash height	≤ 2000 mm	2000~2400 mm	2400~2800 mm
Lock Point/Keeper	2	3	4

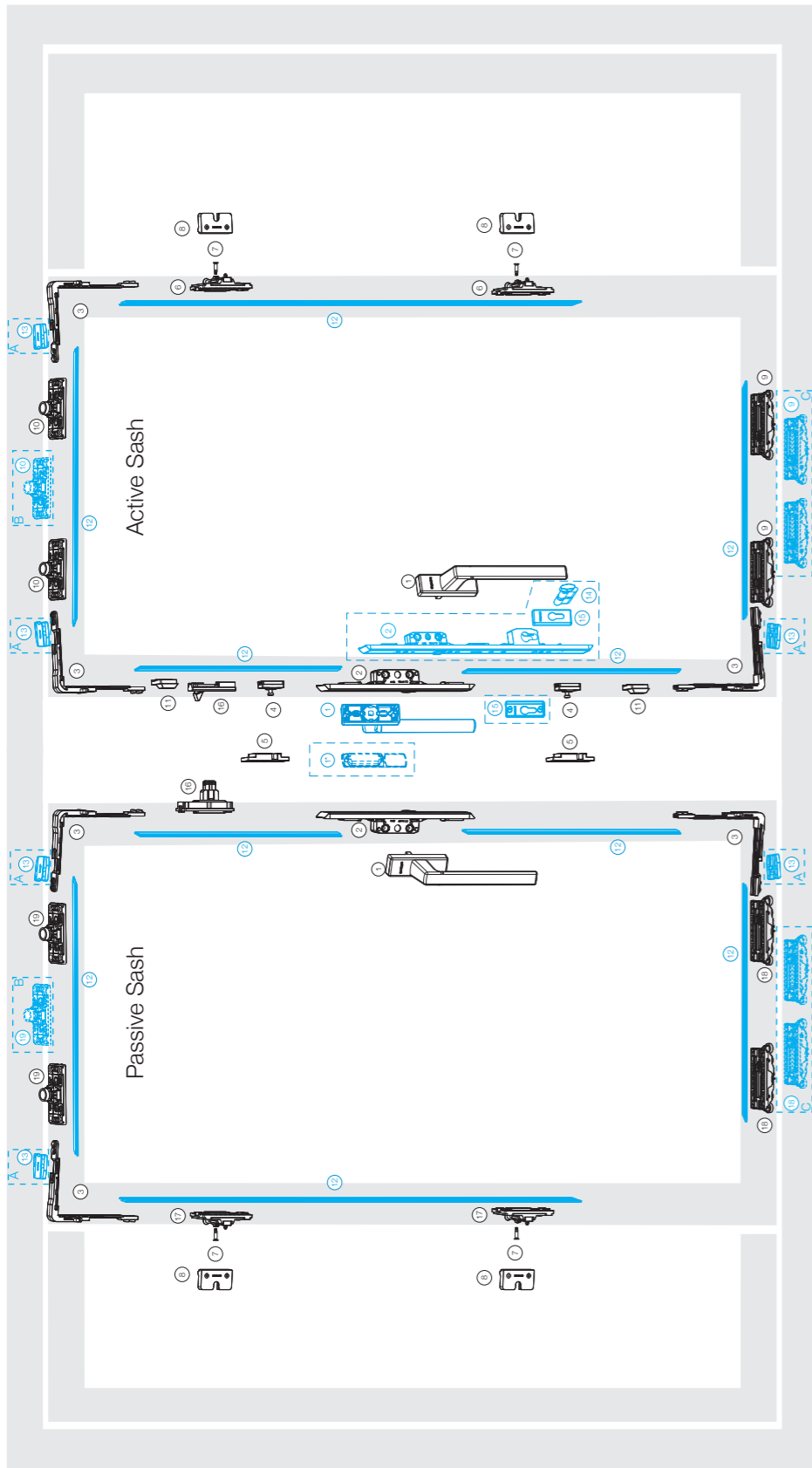
Recommended Number of Upper/Lower Roller Weight of Door sash ≤ 150kg

Sash width	≤ 1800 mm	1800~2800 mm
Upper Roller	2	3
Lower Roller	2	3



TIGHTLY SEALED SLIDING WINDOW HARDWARE SYSTEM

Double-Panel with Spindle Drive Handle Configuration



Note: 1. If any looseness is found after installing the corner drive, or if the door sash weight is 150 kg, a corner drive, reinforcement block must be installed.
 2. With the 150 kg configuration, adding optional components A + B + C increases the load capacity to 240 kg. Part numbers for the options are shown in the table below:

Configuration	P/N	Description
A+B+C	N800005	Left-Hand Opening 240kg Hardware
A+B+C	N800006	Right-Hand Opening 240kg Hardware

TIGHTLY SEALED SLIDING WINDOW HARDWARE SYSTEM

Configuration Table - Double-Panel with Spindle Drive Handle Configuration (Active Sash)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	E010604 E010605 E010606 E010607	1	Milan Handle; Zinc Alloy Base Milan Handle Set; Zinc Alloy Base Milan Handle; Aluminum Alloy Base Milan Handle Set; Aluminum Alloy Base	P164
1*	Recessed Handle	F010602	1	U Series	P166
2	Side Compress Drive Gearbox	N020001 N020003	1	Hole Distance 15 mm Hole Distance 15 mm ,with cylinder	P176
3	Fail-Safe Corner Drive	N060001	3		P176
4	Operable Sash Lock Point	N090005	Refer to the table below	Height Adjustable	P177
6	Lock Point Seat	N090001	Refer to the table below	Suitable for Left-Opening Sash	P177
7	Hook Operated Sash Lock Point	N090003 N090004 N090006	Refer to the table below	55 Thickness 60 Thickness 65 Thickness	P177
8	Hook Operated Sash Keeper	N100003	Refer to the table below		P178
9	Lower Roller	N050001	Refer to the table below	Suitable for Left-Opening Sash	P178
10	Upper Roller	N050003	Refer to the table below	Suitable for Left-Opening Sash	P178
11	Rubber Stop	N800002	2		P179
12	Fail-Safe Connecting Strip	N020002		Provided by Customer or Cmech	
13	Corner Drive Reinforcing Gasket	N120001	3		P179
14	Cylinder		1		P288, P289
15	Lock Cylinder Cover	E140001 E140002	1	Double-Sided Lock Cylinder Cover Single-Sided Inner Lock Cylinder Cover	
16	Fail-safe Operation Device	N080003	1		
20	Screw Pack	N110001 N110002	1	Installation Aid Screws Hardware Connecting Screws	
21	Spindle Screw Pack	N110013 N110004 N110003	1	For Double-Sided Spindle Drive Handle For Single-Sided Spindle Drive Handle +Recessed Handle For Single-Sided Spindle Drive Handle	
22	Screw Pack	E110011 E110010	1	For Double-Sided Cylinder Cover For Single-Sided Cylinder Cover(Interior)	

Recommendation on the Number of Locking Points and Lock Seats Weight of Door sash ≤ 150kg			
Sash height	≤ 2000 mm	2000~2400 mm	2400~2800 mm
Lock Point/Keeper	2	3	4

Recommended Number of Upper/Lower Roller Weight of Door sash ≤ 150kg		
Sash width	≤ 1800 mm	1800~2800 mm
Upper Roller	2	3
Lower Roller	2	3



TIGHTLY SEALED SLIDING WINDOW HARDWARE SYSTEM

Configuration Table - Double-Panel with Spindle Drive Handle Configuration (Possible Sash)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	E010604 E010605 E010606 E010607	1	Milan Handle; Zinc Alloy Base Milan Handle Set; Zinc Alloy Base Milan Handle; Aluminum Alloy Base Milan Handle Set; Aluminum Alloy Base	P164
1*	Recessed Handle	F010602	1	U Series	P166
2	Side Compress Drive Gearbox	N020001	1	Hole distance 15 mm	P176
3	Fail-Safe Corner Drive	N060001	3		P176
5	Operable Sash Keeper	N100004	Refer to the table below	Suitable for Double-Panel	P178
7	Hook Operated Sash Lock Point	N090003 N090004 N090006	Refer to the table below	55 Thickness 60 Thickness 65 Thickness	P177
8	Hook Operated Sash Keeper	N100003	Refer to the table below		P178
12	Fail-Safe Connecting Strip	N020002		Provided by Customer or Cmech	P179
13	Corner Drive Reinforcing Gasket	N120001	3		P179
17	Lock Point Seat	N090002	Refer to the table below	Suitable for Right-Opening Sash	P177
18	Lower Roller	N050002	Refer to the table below	Suitable for Right-Opening Sash	P178
19	Upper Roller	N050004	Refer to the table below	Suitable for Right-Opening Sash	P178
20	Screw Pack	N110001 N110002	1	Installation Aid Screws Hardware Connecting Screws	
21	Spindle Screw Pack	N110013 N110004 N110003	1	For Double-Sided Spindle Drive Handle For Single-Sided Spindle Drive Handle +Recessed Handle For Single-Sided Spindle Drive Handle	
22	Screw Pack	E110011 E110010	1	For Double-Sided Cylinder Cover For Single-Sided Cylinder Cover(Interior)	

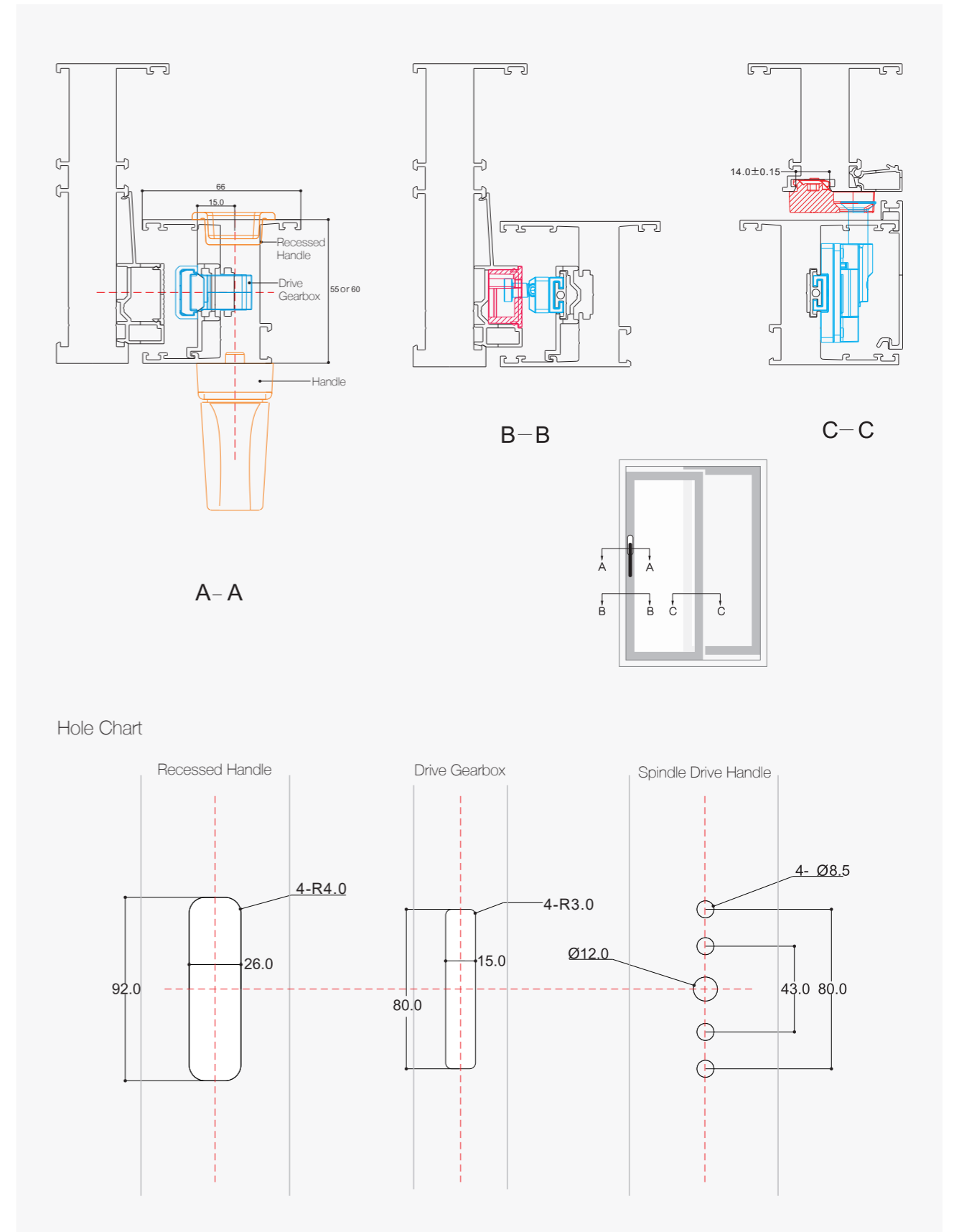
Recommendation on the Number of Locking Points and Lock Seats Weight of Door sash ≤ 150kg			
Sash height	≤ 2000 mm	2000~2400 mm	2400~2800 mm
Lock Point/Keeper	2	3	4

Recommended Number of Upper/Lower Roller Weight of Door sash ≤ 150kg		
Sash width	≤ 1800 mm	1800~2800 mm
Upper Roller	2	3
Lower Roller	2	3



TIGHTLY SEALED SLIDING WINDOW PROFILE REQUIREMENTS AND DRILLING INSTRUCTIONS

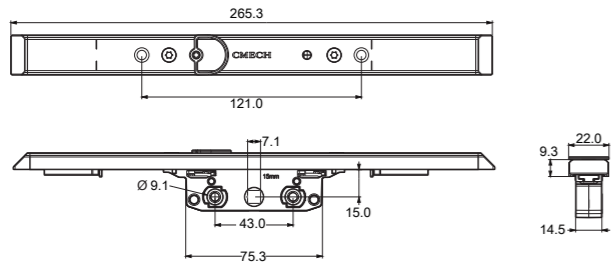
Spindle Drive Handle Configuration



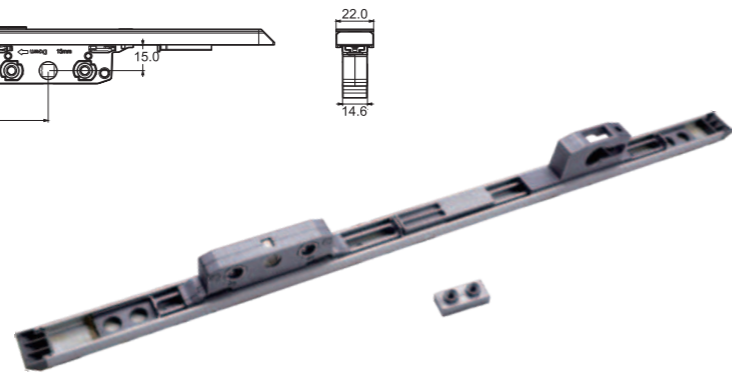
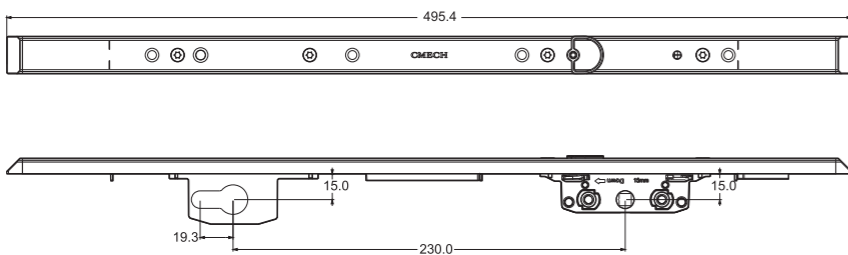


TIGHTLY SEALED SLIDING WINDOW HARDWARE

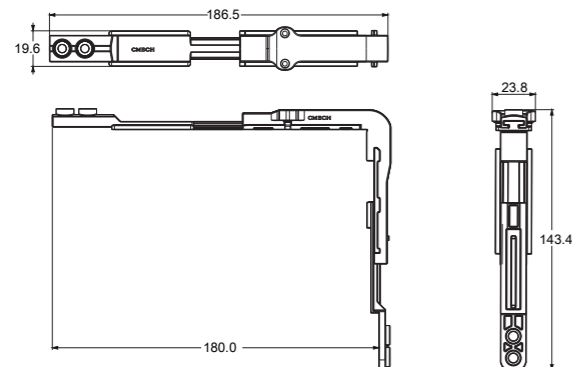
N020001
15 mm Side Compress Drive Gearbox



N020003
15 mm Side Compress Drive Gearbox with Cylinder Hole

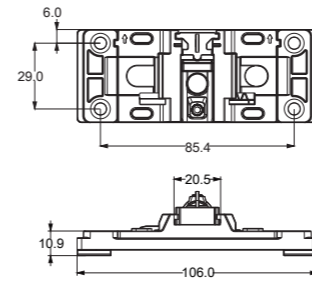


N060001
Side Compress Corner Drive



TIGHTLY SEALED SLIDING WINDOW HARDWARE

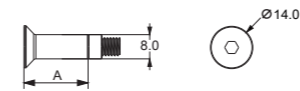
Hook Operated Sash Lock Point Seat



P/N	A
N090001	Suitable for Left-Opening Sash
N090002	Suitable for Right-Opening Sash

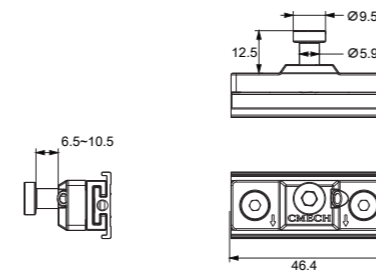


Hook Operated Sash Lock Point

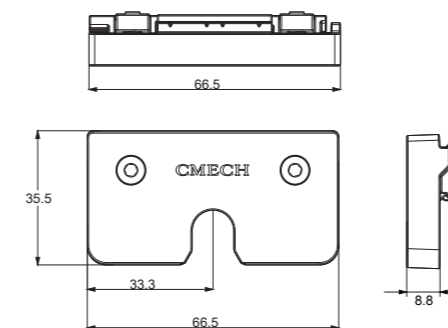


P/N	A
货号	尺寸A
N090003	16.3mm
N090004	21.3mm
N090006	26.8mm

N090005
Operable Sash Adjustable Lock Point



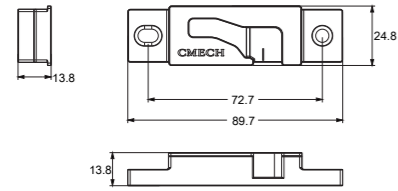
N100003
Hook Operated Sash Keeper



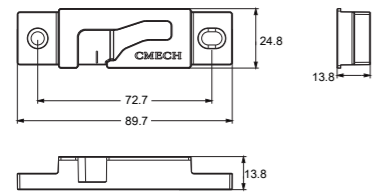


TIGHTLY SEALED SLIDING WINDOW HARDWARE

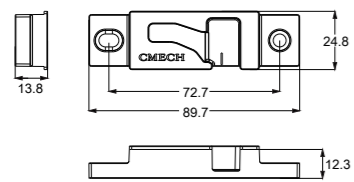
N100001
Operable Sash Keeper (Left)



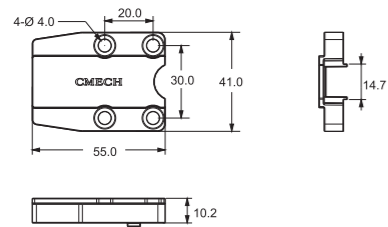
N100002
Operable Sash Keeper (Right)



N100004
Operable Sash Keeper (Double-Panel)

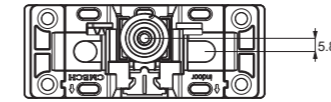


N120001
Corner Drive Reinforcing Gasket

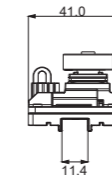
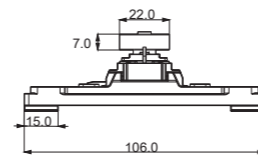
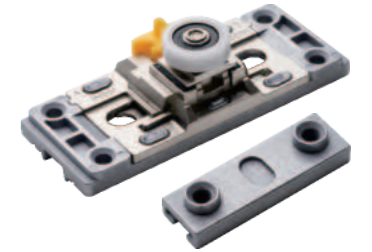


TIGHTLY SEALED SLIDING WINDOW HARDWARE

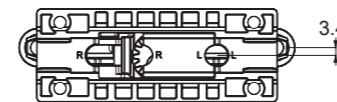
Side Compress Upper Roller



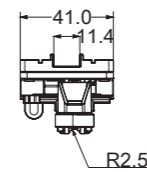
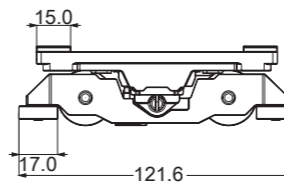
P/N	Description
N050003	Guide Roller (Left)
N050004	Guide Roller (Right)



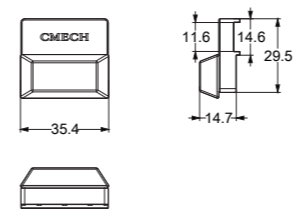
Side Compress Lower Roller

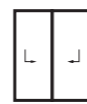


P/N	Description
N050001	Bearing Roller (Left)
N050002	Bearing Roller (Right)



N080002
Rubber Stop

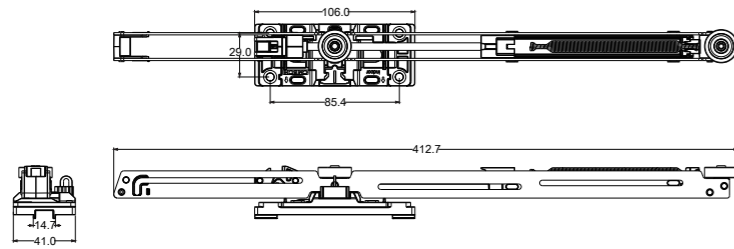




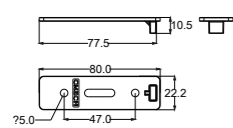
TIGHTLY SEALED SLIDING WINDOW HARDWARE

Tight Sealed Window Buffer

Buffer

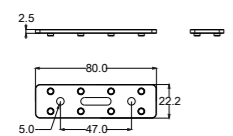


Buffer Baffle



P/N	Description
N050005	Left Sash Front Buffer
N050006	Right Sash Front Buffer
N050007	Left Sash Front and Rear Double Buffers
N050008	Right Sash Front and Rear Double Buffers

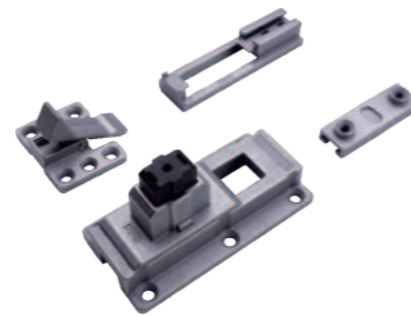
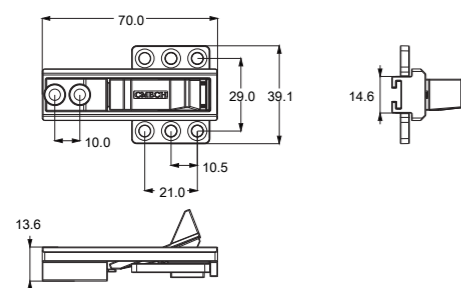
Shim Block



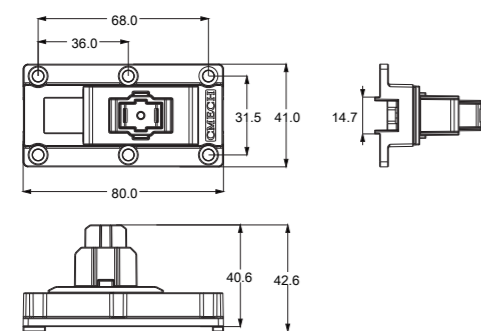
N080003

Fail-safe Operation Device

Active Sash Part



Possive Sash Part



Sliding Door Hardware



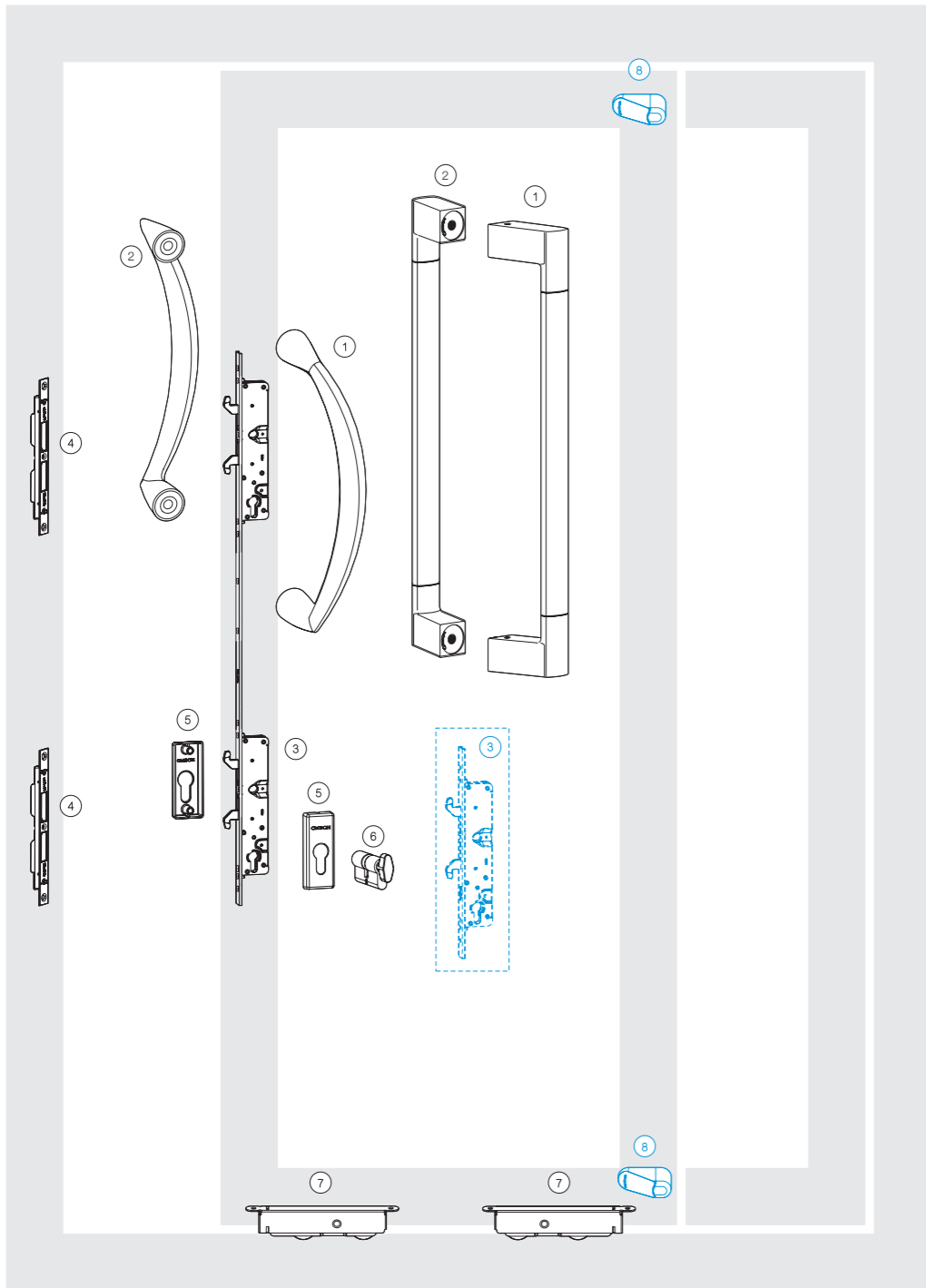
- Various configurations and rollers are available
- Fully concealed screws for a streamline appearance
- Strikes are adjustable and easy to install
- Hook lock design completely seals the door, improving energy efficiency and soundproofing while increasing safety

Sliding Doors		Applicable Range
Sash Width	(mm)	500-1,600
Sash Height	(mm)	1,200-2,700
Load-bearing	(kg)	300



SLIDING DOOR HARDWARE SERIES

Multi-Point Hook Lock Configuration



SLIDING DOOR HARDWARE SERIES

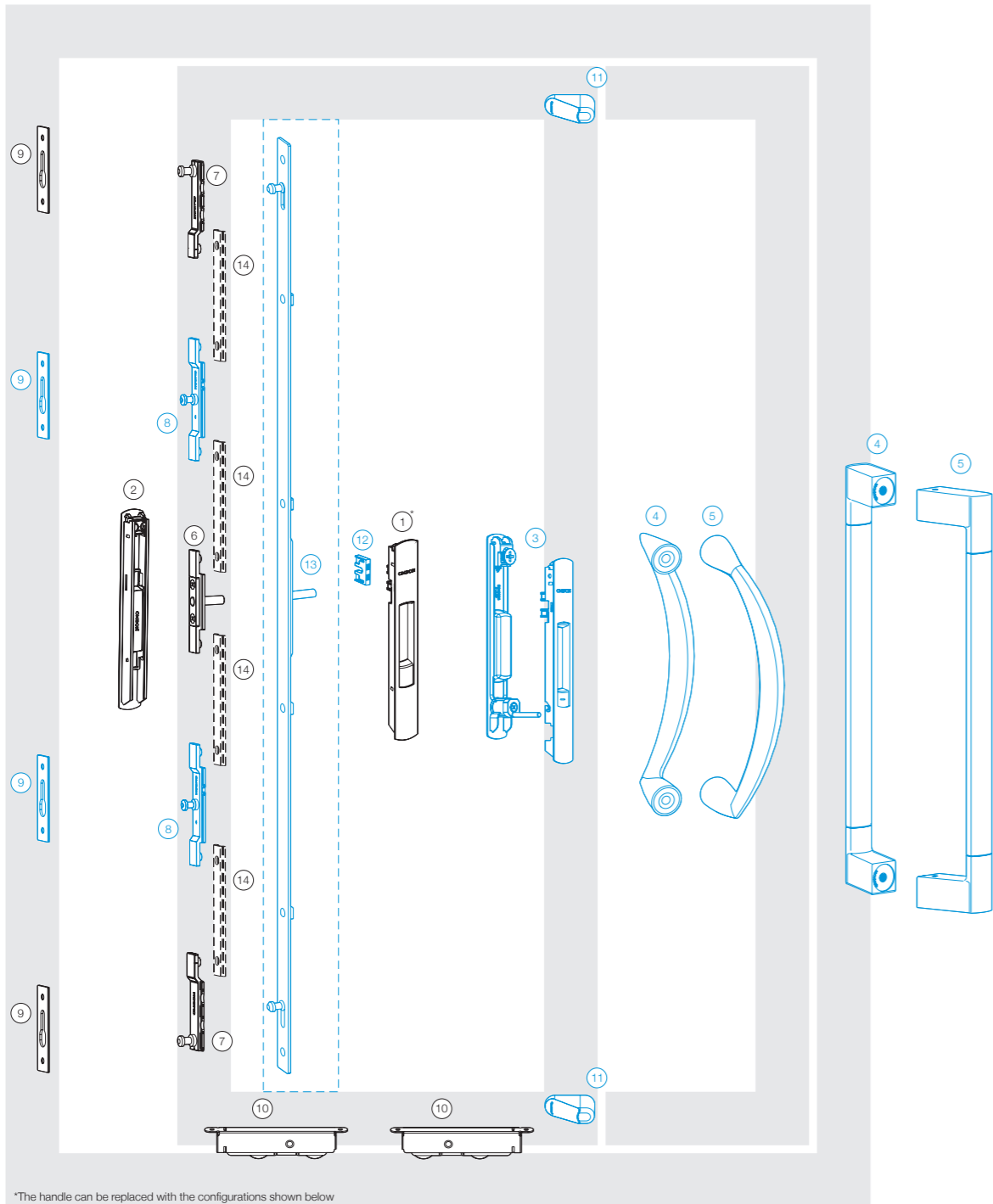
Configuration Table - Multi-Point Hook Lock

No.	Description	P/N	Qty	Notes	Ref. Page
1	Interior Handle	E010106	1	London Series; Hole Center to Attachment Surface: 260 mm; Height:70 mm	P201, P210
		E010114		London Series; Hole Center to Attachment Surface: 600 mm	
		E010601		Milan Series; Hole Center to Attachment Surface: 400 mm	
2	Exterior Handle	E010101	1	London Series; Hole Center to Attachment Surface: 260 mm; Height:70 mm	P201, P210
		E010115		London Series; Hole Center to Attachment Surface: 600 mm	
		E010603		Milan Series; Hole Center to Attachment Surface: 400 mm	
3	Multi-Point Hook Lock	E030017 E030016	1	Single Lock Body Double Lock Body	P211, P212
4	Multi-Point Hook Lock Bracket	E100018	1	Single Lock Body	P211, P212
				2	
5	Cylinder Cover	E140001 E140002	1	Set	P210
				Single	
6	Cylinder				P272, P273
7	Roller		2	Multiple Types Available	P216, P217, P218, P219
8	Panel Stop	F080001	1		P171
9	Screw Pack				P193



SLIDING DOOR HARDWARE SERIES

Multi-Point Lock Recessed Handle Configuration



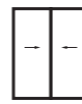
*The handle can be replaced with the configurations shown below

Configuration A: ① + ② + ⑤

Configuration B: ① + ④ + ⑤

Configuration C: ③ + ⑤

Configuration D: ③



SLIDING DOOR HARDWARE SERIES

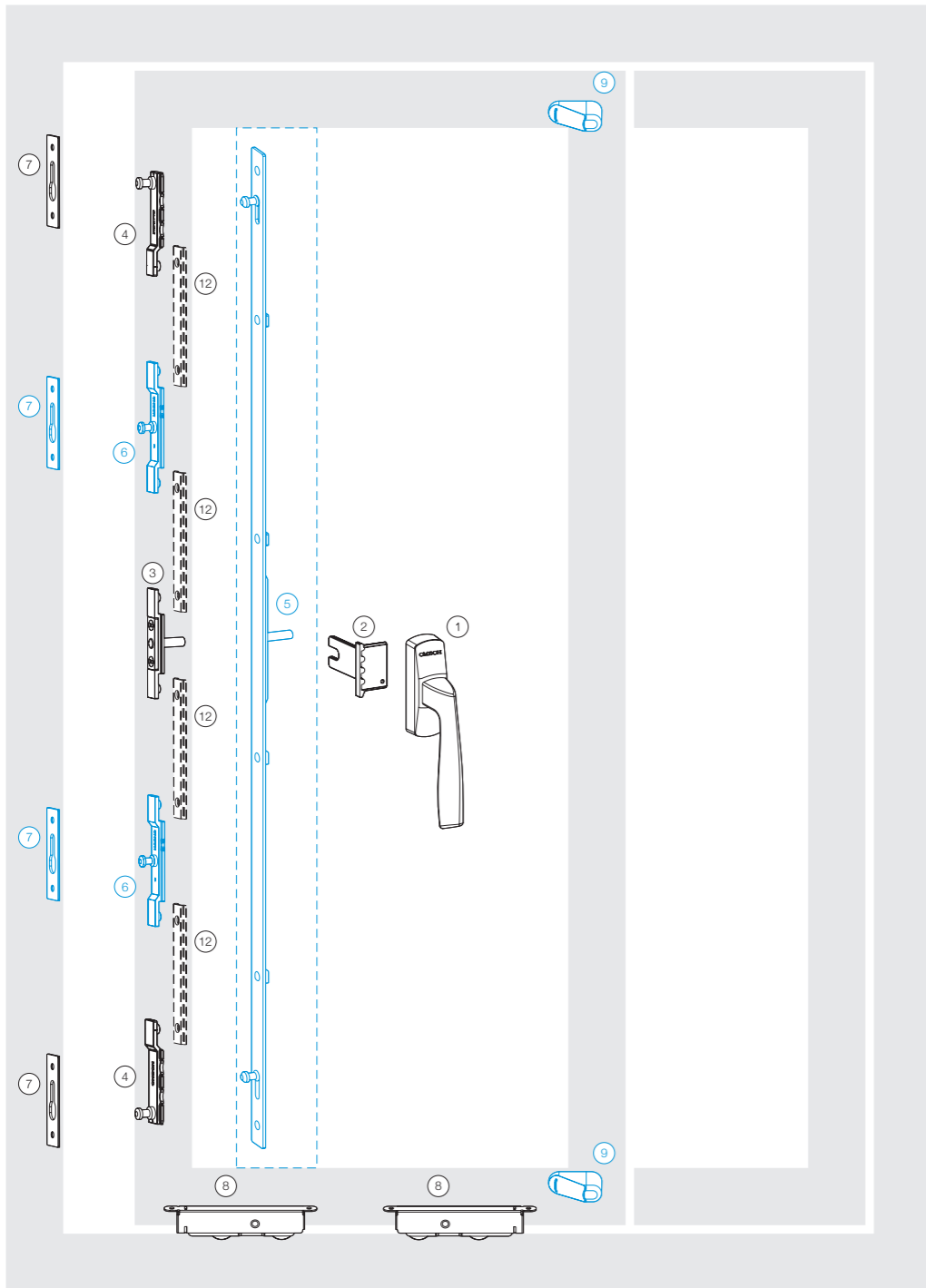
Configuration Table - Multi-Point Lock Recessed Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Multi-Point Lock Recessed Handle	E010024 E010026 E010032 E010039 E010041	1	Interior Keyed Recessed Handle Recessed Handle without Key Multi-Point Lock Recessed Handle Plus Multi-Point Lock Recessed Handle (Heavy-duty Double Side) Multi-Point Lock Recessed Handle (Heavy-duty Single Interior Side)	P204, P205, P206, P207, P208, P209
2	Fixed Recessed Handle	E010019 E010023 E010033	1	Aluminum Alloy Zinc Alloy Fixed Recessed Handle Plus (Aluminum Alloy)	P206, P207, P209
3	Multi-Point Lock Recessed Handle	E010025 E010034		Exterior Keyed Recessed Handle Exterior Keyed Multi-point Lock Recessed Handle Plus	P203
4	Exterior Handle	E010101 E010115 E010603	1	London Series; Hole Center to Attachment Surface: 260 mm; Height:70 mm London Series; Hole Center to Attachment Surface: 600 mm Milan Series; Hole Center to Attachment Surface: 400 mm	P201, P210
5	Interior Handle	E010106 E010114 E010601	1	London Series; Hole Center to Attachment Surface: 260 mm; Height:70 mm London Series; Hole Center to Attachment Surface: 600 mm Milan Series; Hole Center to Attachment Surface: 400 mm	P201, P210
6	Intermediate Drive	E020001 E020010 E020011 E020012 E020013 E020014 A020115 A020116 A020117 A020126 A020127 A020128 A020129	1	23.5 mm 15.5 mm 19.5 mm 27.5 mm 31.5 mm 35.5 mm 14.5 mm 18.5 mm 22.5 mm 26.5 mm 30.5 mm 34.5 mm 11.5 mm	P211, P212
7	End Lock Point	E090001 E090003 E090007 E090009 E090011	2	End Lock Point End Lock Point Eccentricity Adjustable End Lock Point Height Adjustable End Lock Point Height Adjustable End Lock Point(Heavy-duty)	P213, 214
8	Double-Ended Lock Point	E090002 E090004 E090006 E090008 E090012	0-2	Central Lock Point Central Lock Point Eccentricity Adjustable Central Lock Point Height Adjustable Central Lock Point Height Adjustable Central Lock Point(Heavy-duty)	P213, 214
9	Strike	E100001 E100006 E100009 E100011 E100013 E100015 E100016 E100017 E100019	2-4		P213
10	Roller		2	Multiple Types Available	P216, P217, P218, P219
11	Panel Stop	F080001	1		P171
12	Recessed Handle Fork Drive Extender	E120002 E010035	1	Lock Recessed Handle Fork Drive Extender for Recessed Handle Plus	P220
13	Drive Gear	E030014 E030015	1	Width: 22 mm Width: 16 mm	P212
14	Connecting Strip			Provided by Customer or Cmech	
15	Screw Pack				P193



SLIDING DOOR HARDWARE SERIES

Fork Drive Handle Configuration



SLIDING DOOR HARDWARE SERIES

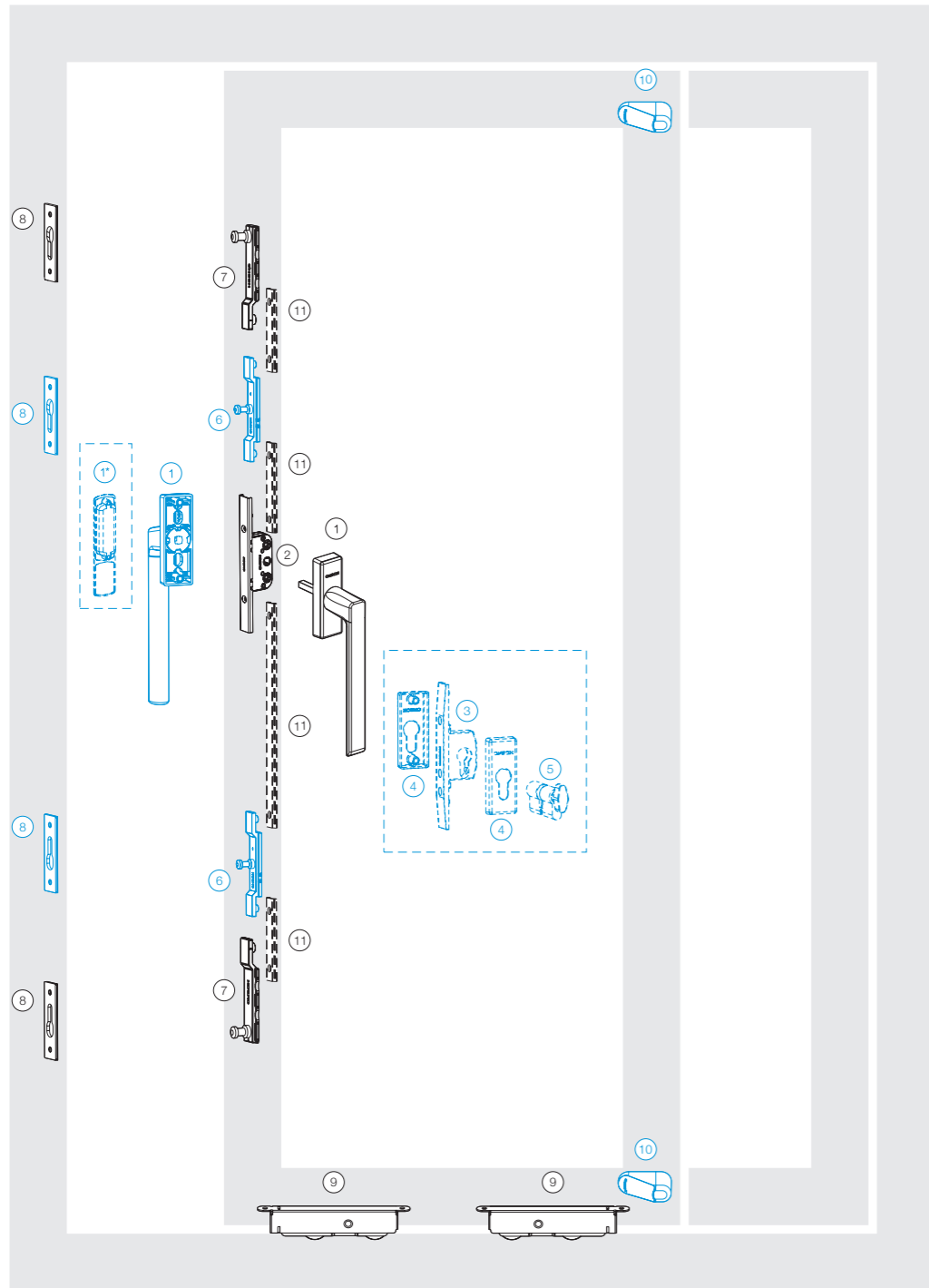
Configuration Table - Fork Drive Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010601 A010406 A010407 A010447 A010448	1	Milan Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Central Fork Drive, Aluminum Alloy Berlin Handle, Suitable for Offset Fork Drive, Zinc Alloy Berlin Handle, Suitable for Central Fork Drive, Zinc Alloy	P71, P81, P82
2	Fork Drive	A110107 A110108 A110109 A110110	1	21 mm 27 mm 31 mm 33 mm	P89
3	Intermediate Drive	E020001 E020010 E020011 E020012 E020013 E020014 A020115 A020116 A020117 A020126 A020127 A020128 A020129	1	23.5 mm 15.5 mm 19.5 mm 27.5 mm 31.5 mm 35.5 mm 14.5 mm 18.5 mm 22.5 mm 26.5 mm 30.5 mm 34.5 mm 11.5 mm	P99, 209
4	End Lock Point	E090001 E090003 E090007 E090009 E090011	2	End Lock Point End Lock Point Eccentricity Adjustable End Lock Point Height Adjustable End Lock Point Height Adjustable End Lock Point(Heavy-duty)	P208
5	Drive Gear	E030014 E030015	1	Width: 22 mm Width: 16 mm	P212
6	Double-Ended Lock Point	E090002 E090004 E090006 E090008 E090012	0-2	Central Lock Point Central Lock Point Eccentricity Adjustable Central Lock Point Height Adjustable Central Lock Point Height Adjustable Central Lock Point(Heavy-duty)	P214, P215
7	Strike	E100001 E100006 E100009 E100011 E100013 E100015 E100016 E100017 E100019	2-4		P213
8	Roller		2	Multiple Types Available	P216, P217, P218, P219
9	Panel Stop	F080001	1		P171
10	Connecting Strip			Provided by Customer or Cmech	P193
11	Screw Pack				



SLIDING DOOR HARDWARE SERIES

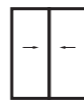
Spindle Drive Handle Configuration



SLIDING DOOR HARDWARE SERIES

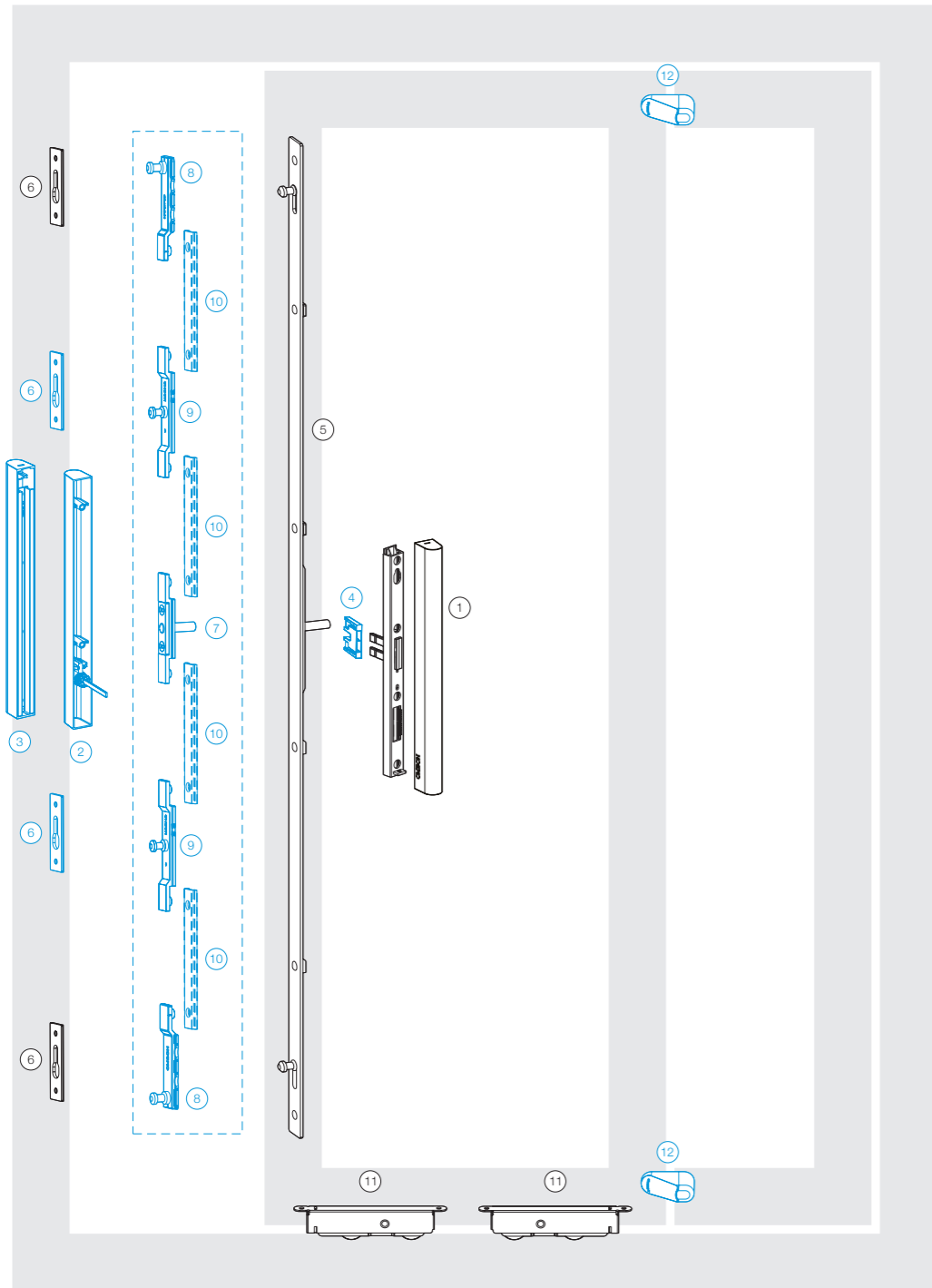
Configuration Table - Spindle Drive Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type SD)	E010604 E010605 E010606 E010607 E010608	1	Milan Series Interior Handle; Zinc Alloy Milan Series Interior Handle; Aluminum Alloy Milan Series Handle Set; Zinc Alloy Milan Series Handle Set; Aluminum Alloy Milan Series Exterior Handle; Aluminum Alloy	P202
1*	Recessed Handle (U Series)	F010602	1		P166
2	Bi-Directional Spindle Drive Gearbox	A020101 A020103	1	Hole Center to Attachment Surface: 25 mm Hole Center to Attachment Surface: 30 mm	P93
3	Locking Gearbox Housing (Only match with Bi-Directional Spindle Drive Gearbox)	E030008 E030009	1	Hole Center to Attachment Surface: 25 mm Hole Center to Attachment Surface: 30 mm	P212
4	Cylinder Cover	E140001 E140002	1	Set Single	P210
5	Cylinder		1	Suitable for Locking Gearbox Housing	P272, P273
6	Double-Ended Lock Point	E090002 E090004 E090006 E090008 E090012	0-2	Central Lock Point Central Lock Point Eccentricity Adjustable Central Lock Point Height Adjustable Central Lock Point Height Adjustable Central Lock Point(Heavy-duty)	P214, P215
7	End Lock Point	E090001 E090003 E090007 E090009 E090011	2	End Lock Point End Lock Point Eccentricity Adjustable End Lock Point Height Adjustable End Lock Point Height Adjustable End Lock Point(Heavy-duty)	P214, P215
8	Strike	E100001 E100006 E100009 E100011 E100013 E100015 E100016 E100017 E100019	2-4		P213
9	Roller		2	Multiple Types Available	P216, P217, P218, P219
10	Panel Stop	F080001	1		P171
11	Connecting Strip			Provided by Customer or Cmech	
12	Screw Pack				P193



SLIDING DOOR HARDWARE SERIES

Spindle Drive Handle Configuration



SLIDING DOOR HARDWARE SERIES

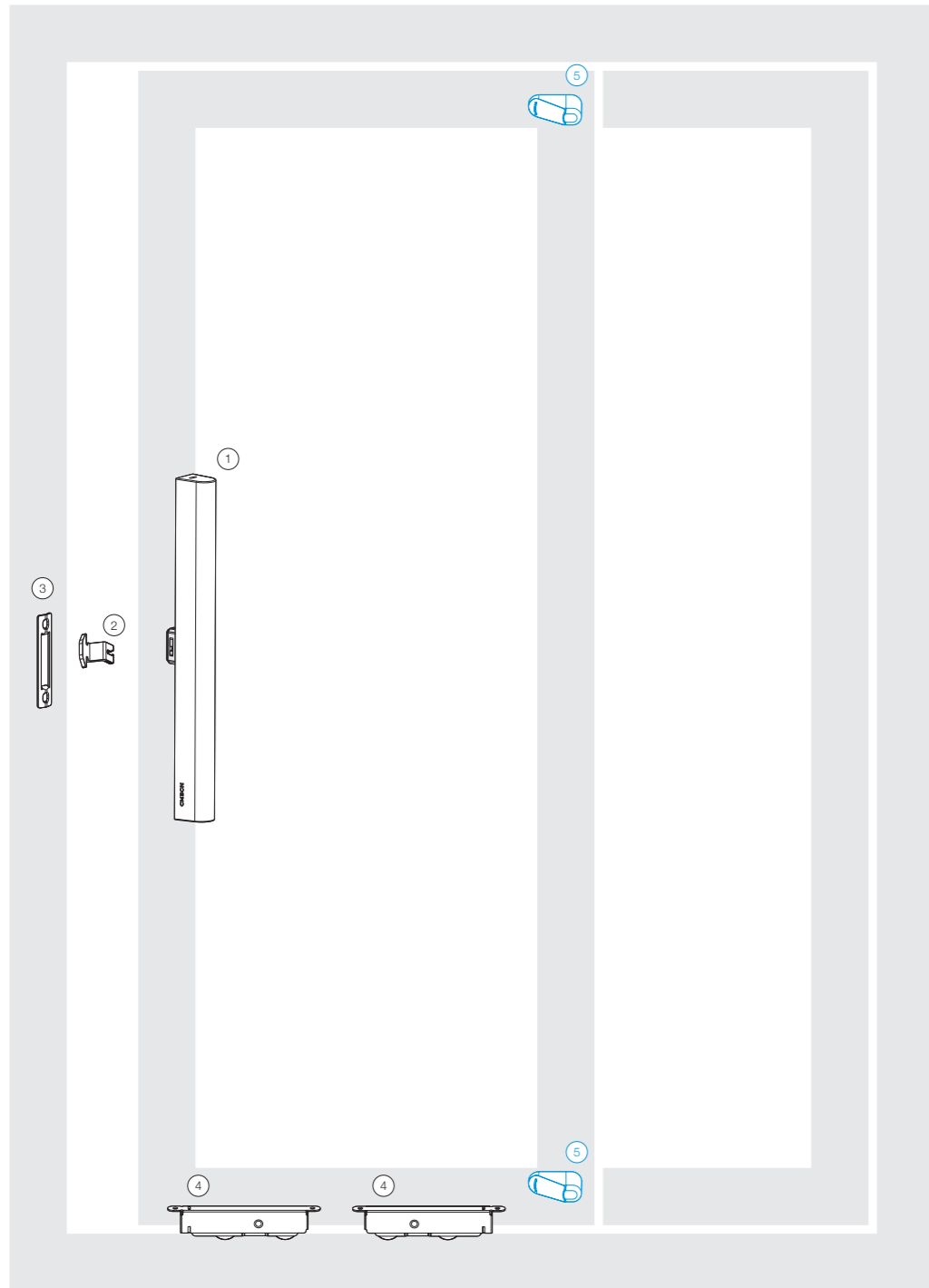
Configuration Table - Metro Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Metro Handle Plus (MP)	E010048	1	Height: 30 mm	P203
2	Metro Handle Plus (MP, one side with key)	E010049 E010050	1	Height: 30 mm	P203
3	Fixed Metro Handle Plus	E010051	1	Height: 30 mm	P203
4	Metro Handle Fork Drive Extender	E120001			P220
5	Drive Gear	E030014 E030015	1	Width: 22 mm Width: 16 mm	P212
6	Strike	E100001 E100006 E100009 E100011 E100013 E100015 E100016 E100017 E100019	2-4		P213
7	Intermediate Drive	E020001 E020010 E020011 E020012 E020013 E020014 A020115 A020116 A020117 A020126 A020127 A020128 A020129	1	23.5 mm 15.5 mm 19.5 mm 27.5 mm 31.5 mm 35.5 mm 14.5 mm 18.5 mm 22.5 mm 26.5 mm 30.5 mm 34.5 mm 11.5 mm	P93, P211
8	End Lock Point	E090001 E090003 E090007 E090009 E090011	2	End Lock Point End Lock Point Eccentricity Adjustable End Lock Point Height Adjustable End Lock Point Height Adjustable End Lock Point(Heavy-duty)	P214, P215
9	Double-Ended Lock Point	E090002 E090004 E090006 E090008 E090012	0-2	Central Lock Point Central Lock Point Eccentricity Adjustable Central Lock Point Height Adjustable Central Lock Point Height Adjustable Central Lock Point(Heavy-duty)	P214, P215
10	Connecting Strip			Provided by Customer or Cmech	
11	Roller		2	Multiple Types Available	P216, P217, P218, P219
12	Panel Stop	F080001	1		P171
13	Screw Pack				P193



SLIDING DOOR HARDWARE SERIES

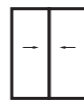
Single-Point Metro Handle Configuration



SLIDING DOOR HARDWARE SERIES

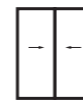
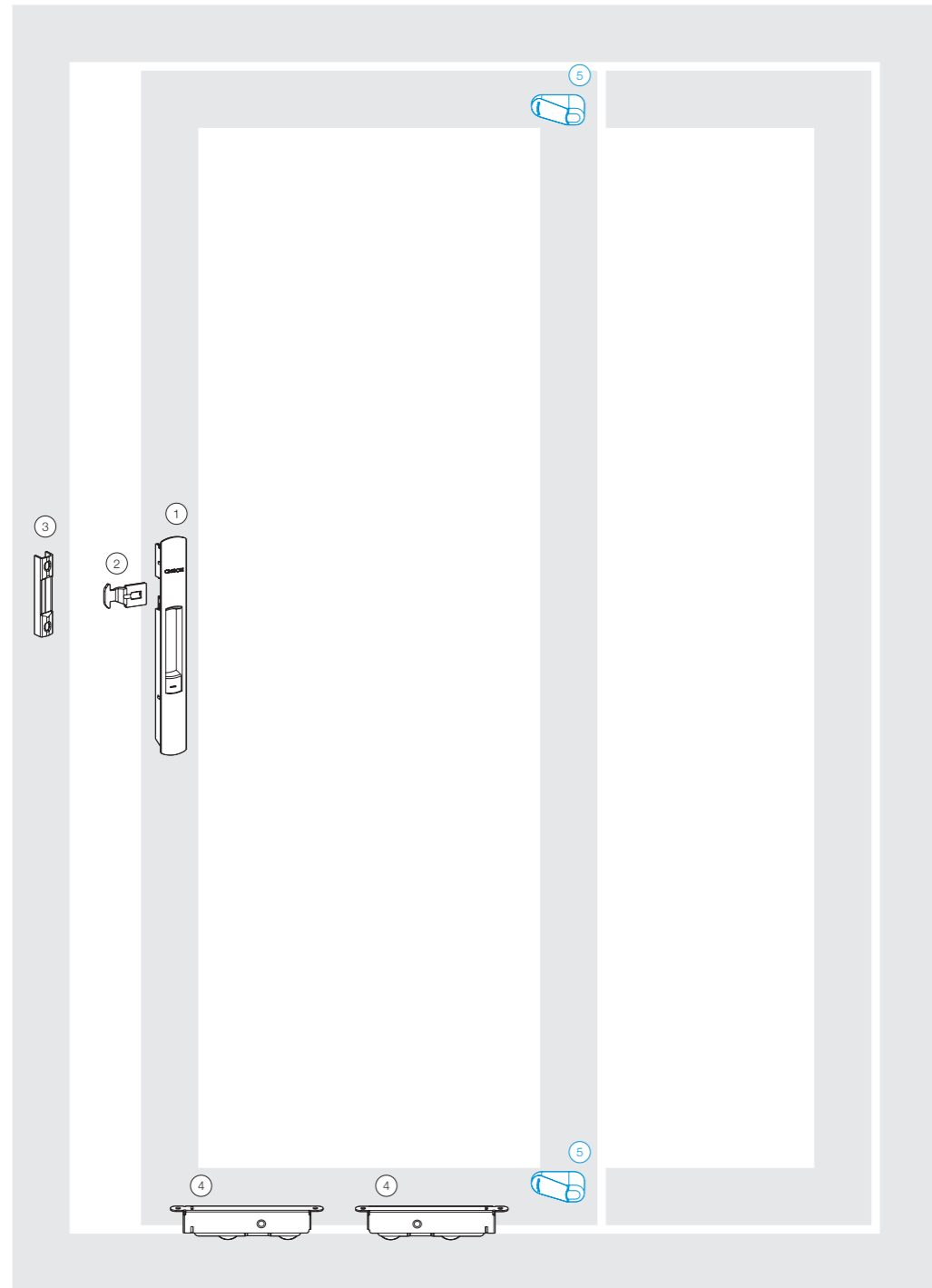
Configuration Table - Single-Point Metro Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Metro Handle Plus (SP)	E010052	1		P207
2	Hook Lock	P110019 P110020 P110021 P110022	1	Multiple Types Available	P207
3	Strike	P100011 P100012	1		P229
4	Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V)	E050001 E050002 E050003 E050004 E050007 E050008 E050011 E050013 E050020 E050021 E050024 E050025 E050026 E050005 E050006 E050009 E050010 E050012 E050014 E050015 E050017 E050018	2	1628-2934-R2.5-150 kg 1220-2127-R2.5-120 kg 2426-2532-R2.5-80 kg 2426-2532-R2.5-120 kg 2826-2532-R2.5-80 kg 2826-2532-R2.5-120 kg 2824-2430-R2.5-120 kg 2423-2430-R2.5-120 kg 2323-2226-R2.5-120 kg 323-23-R2.5-60 kg 1521-2027-R2.5-120 kg 1621-2028-R2.5-120 kg 1517-1923-R2.5-120 kg 2426-2633-V150-80 kg 2426-2633-V150-120 kg 2826-2633-V150-80 kg 2826-2633-V150-120 kg 2920-2225-V150-120 kg 2824-2430-V160-120 kg 2423-2430-V160-120 kg 2323-23-V150-60 kg 2323-2226-V150-120 kg	P216, P217, P218, P219
5	Panel Stop	F080001	1		P171
6	Screw Pack				P193



SLIDING DOOR HARDWARE SERIES

Single-Point Lock Recessed Handle Configuration



SLIDING DOOR HARDWARE SERIES

Configuration Table - Single-Point Lock Recessed Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Single-Point Lock Recessed Handle	E010030	1		P207
2	Hook Lock	P110002 P110003 P110004 P110005 P110006 P110007 P110008 P110009 P110010 P110011 P110012 P110013 P110014 P110015	1	Multiple Types Available	P207
3	Strike	P100001 P100005 P100006 P100007 P100008	1		P229
4	Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type R) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V) Roller (Type V)	E050001 E050002 E050003 E050004 E050007 E050008 E050011 E050013 E050020 E050021 E050024 E050025 E050026 E050005 E050006 E050009 E050010 E050012 E050014 E050015 E050017 E050018	2	1628-2934-R2.5-150 kg 1220-2127-R2.5-120 kg 2426-2532-R2.5-80 kg 2426-2532-R2.5-120 kg 2826-2532-R2.5-80 kg 2826-2532-R2.5-120 kg 2824-2430-R2.5-120 kg 2423-2430-R2.5-120 kg 2323-2226-R2.5-120 kg 323-23-R2.5-60 kg 1521-2027-R2.5-120 kg 1621-2028-R2.5-120 kg 1517-1923-R2.5-120 kg 2426-2633-V150-80 kg 2426-2633-V150-120 kg 2826-2633-V150-80 kg 2826-2633-V150-120 kg 2920-2225-V150-120 kg 2824-2430-V160-120 kg 2423-2430-V160-120 kg 2323-23-V150-60 kg 2323-2226-V150-120 kg	P216, P217, P218, P219
5	Panel Stop	F080001	1		P171
6	Screw Pack				P193



SLIDING DOOR & WINDOW SCREW PACK SELECTION TABLE

Screw Pack Selections

P/N Product	E110001	E110005	E110006	E110009	E110010	E110011	E110012	E110014	E110017	E110020	E110024	A110078	E110028
300 London Handle Set	1												
Single London Handle										1			
Fork Drive Handle (Type W)												1	
Spindle Drive Handle (Interior)							1						
Spindle Drive Handle (Interior + Exterior)						2							
Metro Handle Plus (MP)				1									
Metro Handle Plus (SP)				1									
Metro Handle Plus + Recessed Handle								1					
Fixed Metro Handle Plus + Recessed Handle									1				
Cylinder Cover (Interior)					1								
Cylinder Cover (Interior + Exterior)						1							
Multi-Point Hook Lock (Single Lock Body) + Keeper		3											
Multi-Point Hook Lock (Double Lock Body) + Keeper		6											
Drive Gear		3											
Strike		1											
Roller (Type R)-1628R			1										
Roller (Type R)-1220R				1/2									
Roller (Type R)-2826R				1									
Roller (Type R)-2426R				1									
Roller (Type V)-2826V				1									
Roller (Type V)-2426V				1									
Roller (Type R)-1521R				1/2									
Roller (Type R)-1621R				1/2									
Roller (Type R)-1517R				1/2									
Roller (Type R)-1215R				1/2									
Roller (Type R)-2226R										1			
200 kg Roller-1525													1
300 kg Roller-1524													1

*The Roller Qty is 2pcs Except for E110009, Which is 1pc.



SLIDING DOOR PROFILE AND DRILLING REQUIREMENTS

- Single London Handle
- Multi-Point Hook Lock (Single Lock Body)

A: The gap between the surface of the locking bracket and the mounting surface of the lock body
B: The distance between the lock body mounting surface and the centerline
E: Distance between installed surface of lock base and bottom of profile groove

Drill Hole Drawing

Brackets (Frame Side Profile) | Single London Handle + Cylinders (Interior) | Multi-point Hook Lock - Single Lock Body (Sash Side Profile) | Recessed Handle + Cylinder (Exterior)

C: Small London handle screw hole distance 260 mm, large London handle screw hole distance 600 mm
D: Single sided - Interior: Ø4.0, Exterior: no holes
Dual sided - Interior: Ø6.0, Exterior: Ø8.0
F: If E 12.5mm, F=20 mm
If E<12.5mm, F=0

- London Handle Set
- Multi-Point Hook Lock (Double Lock Body)

A: The gap between the surface of the locking bracket and the mounting surface of the lock body
B: The distance between lock body mounting surface and the centerline
E: Distance between installed surface of lock base and bottom of profile groove

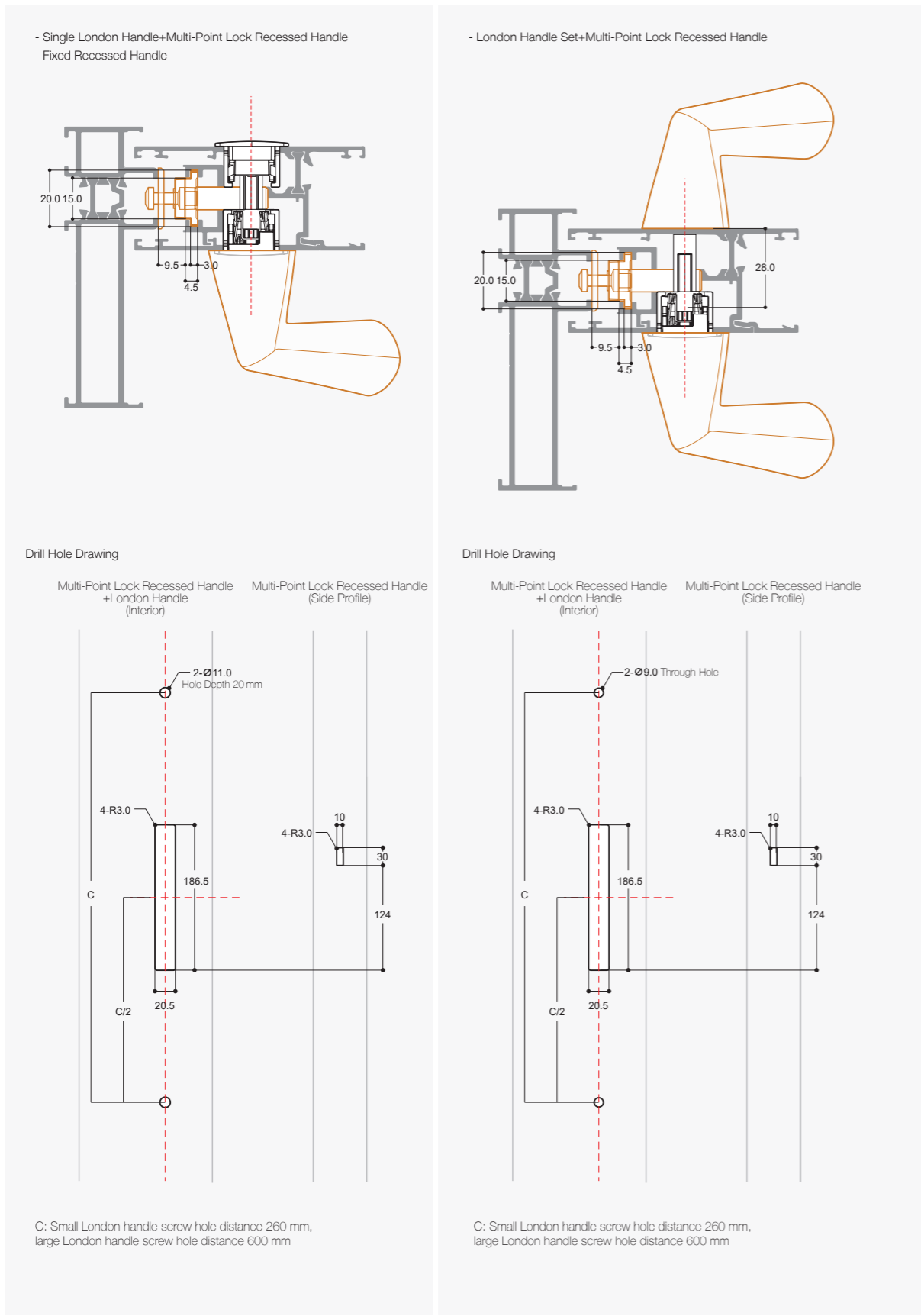
Drill Hole Drawing

Brackets (Frame Side Profile) | London Handle Set + Cylinders (Interior) | Multi-point Hook Lock - Double Lock Body (Sash Side Profile) | London Handle Set + Cylinders (Exterior)

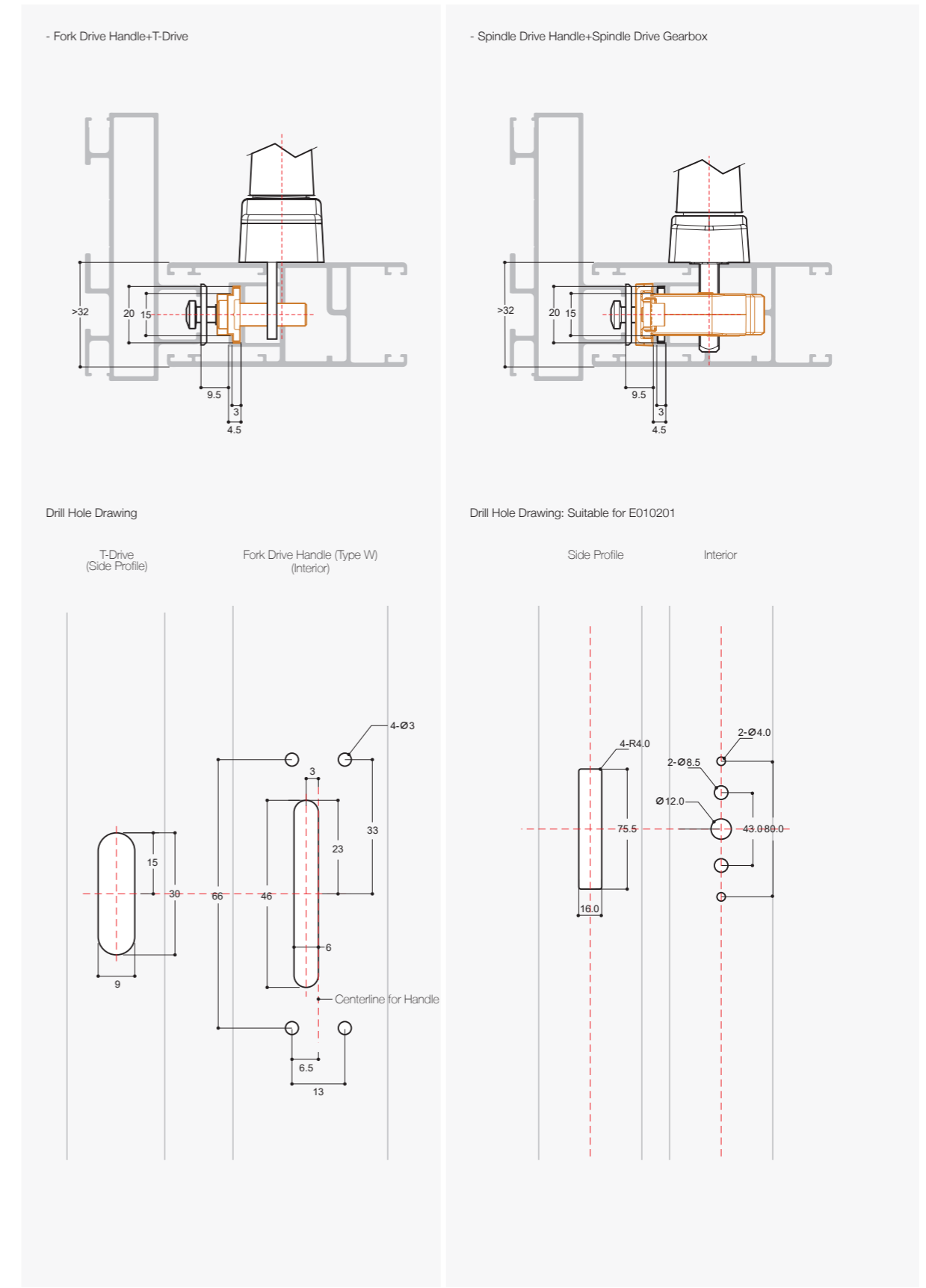
C: Small London handle screw hole distance 260 mm, large London handle screw hole distance 600 mm
D: Single sided - Interior: Ø4.0, Exterior: no holes
Dual sided - Interior: Ø6.0, Exterior: Ø8.0
F: If E 12.5mm, F=20 mm
If E<12.5mm, F=0



SLIDING DOOR PROFILE AND DRILLING REQUIREMENTS

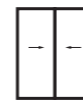
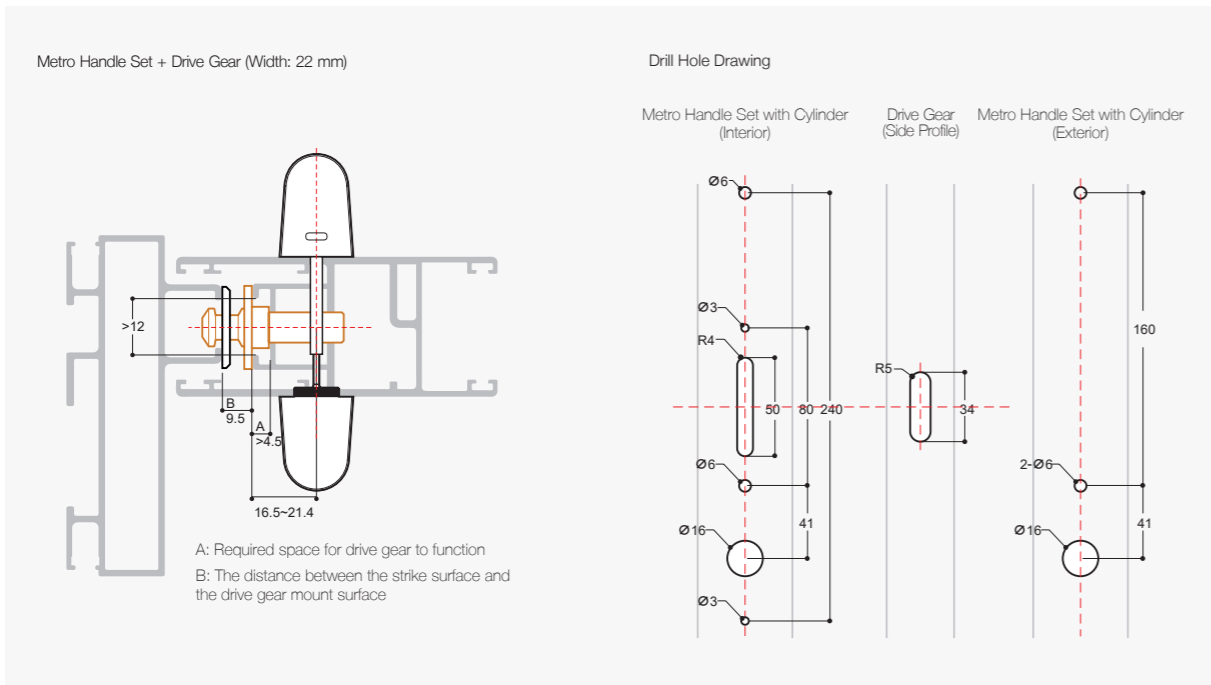
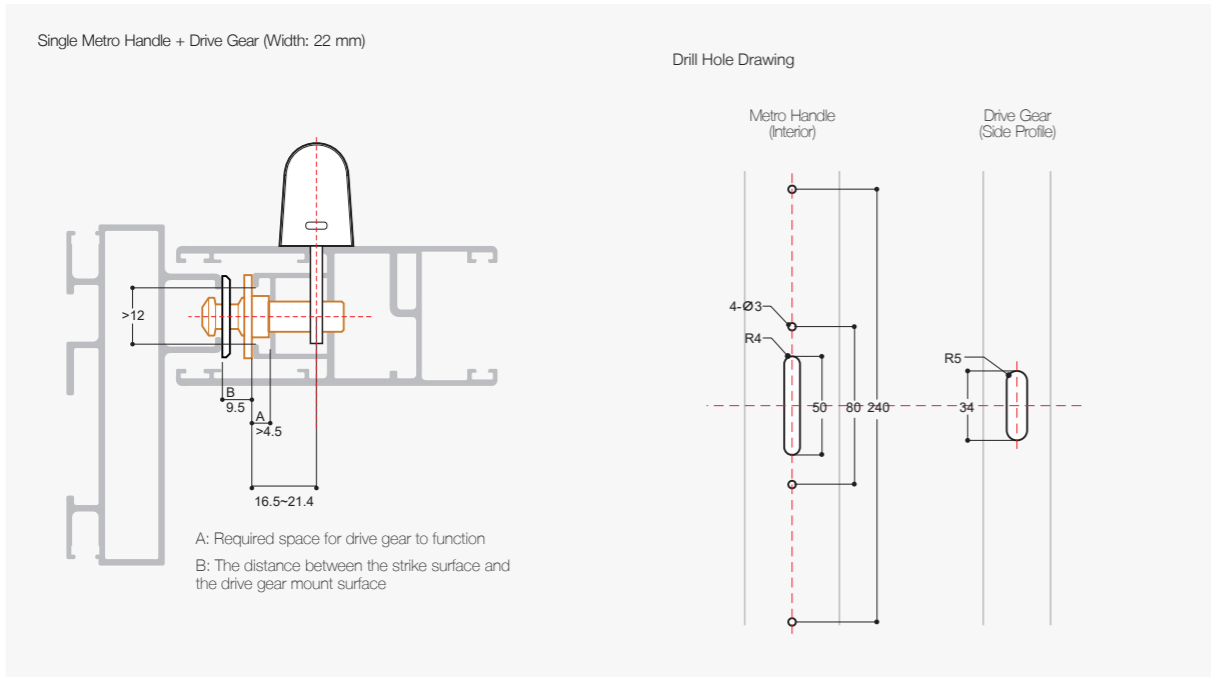


SLIDING DOOR PROFILE AND DRILLING REQUIREMENTS

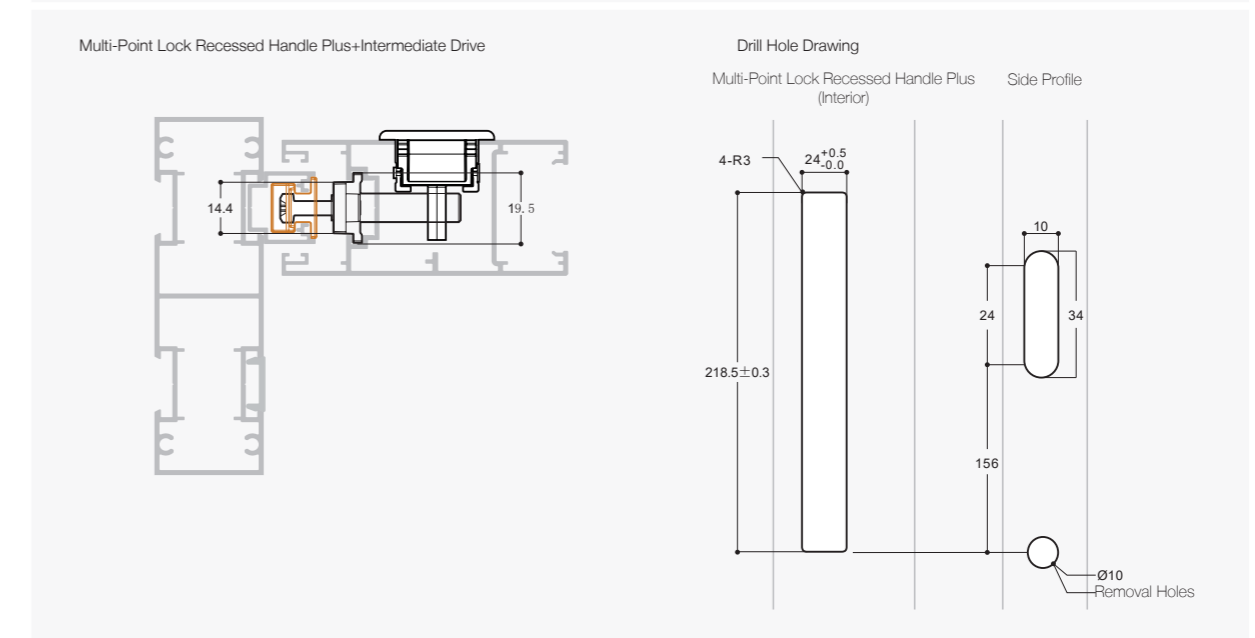
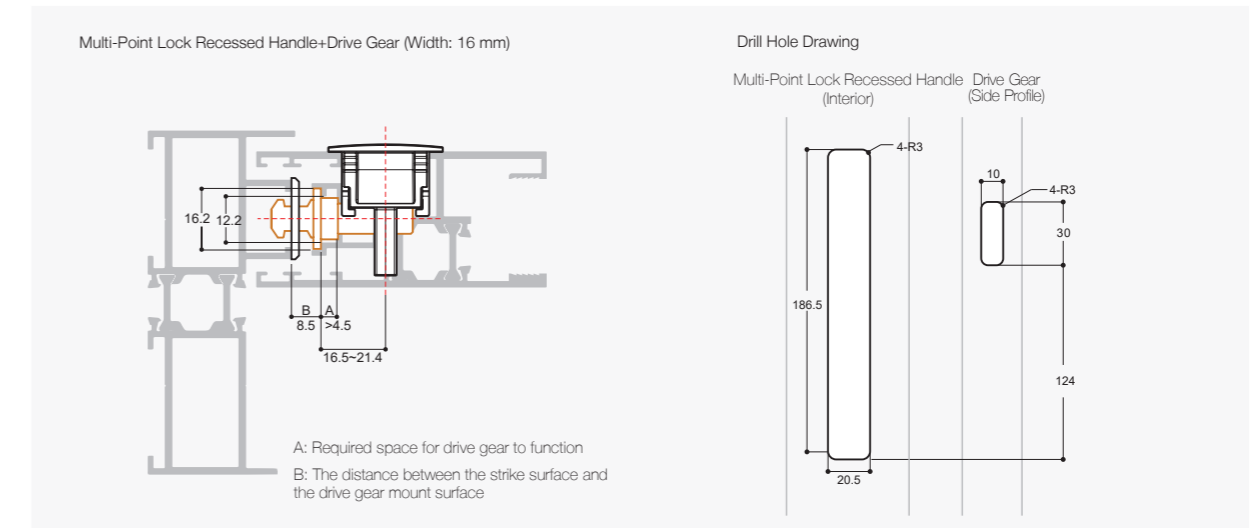
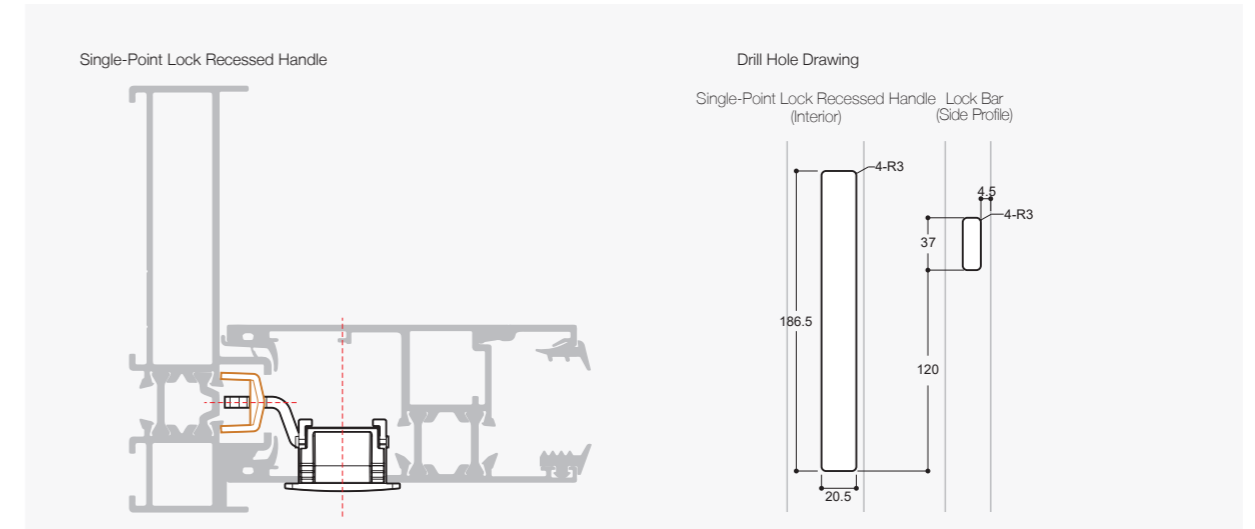




SLIDING DOOR PROFILE AND DRILLING REQUIREMENTS

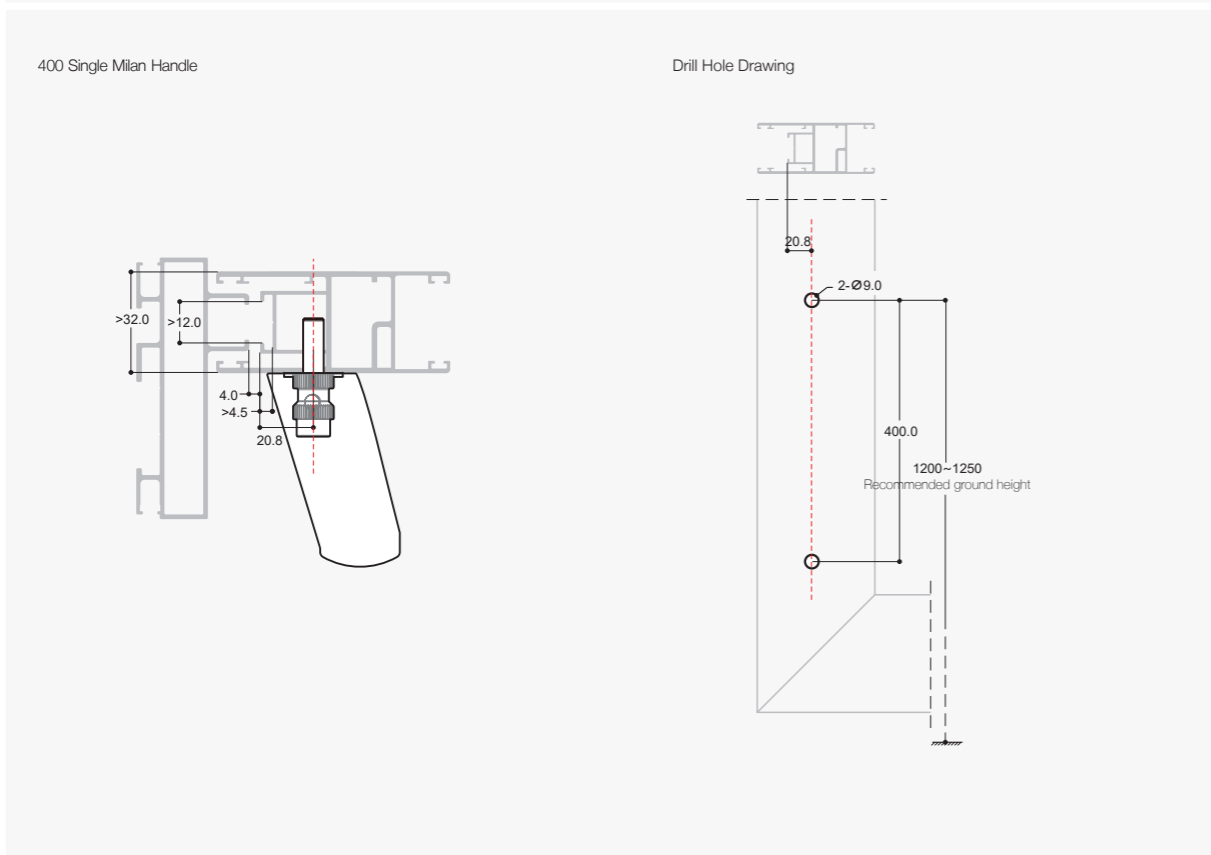
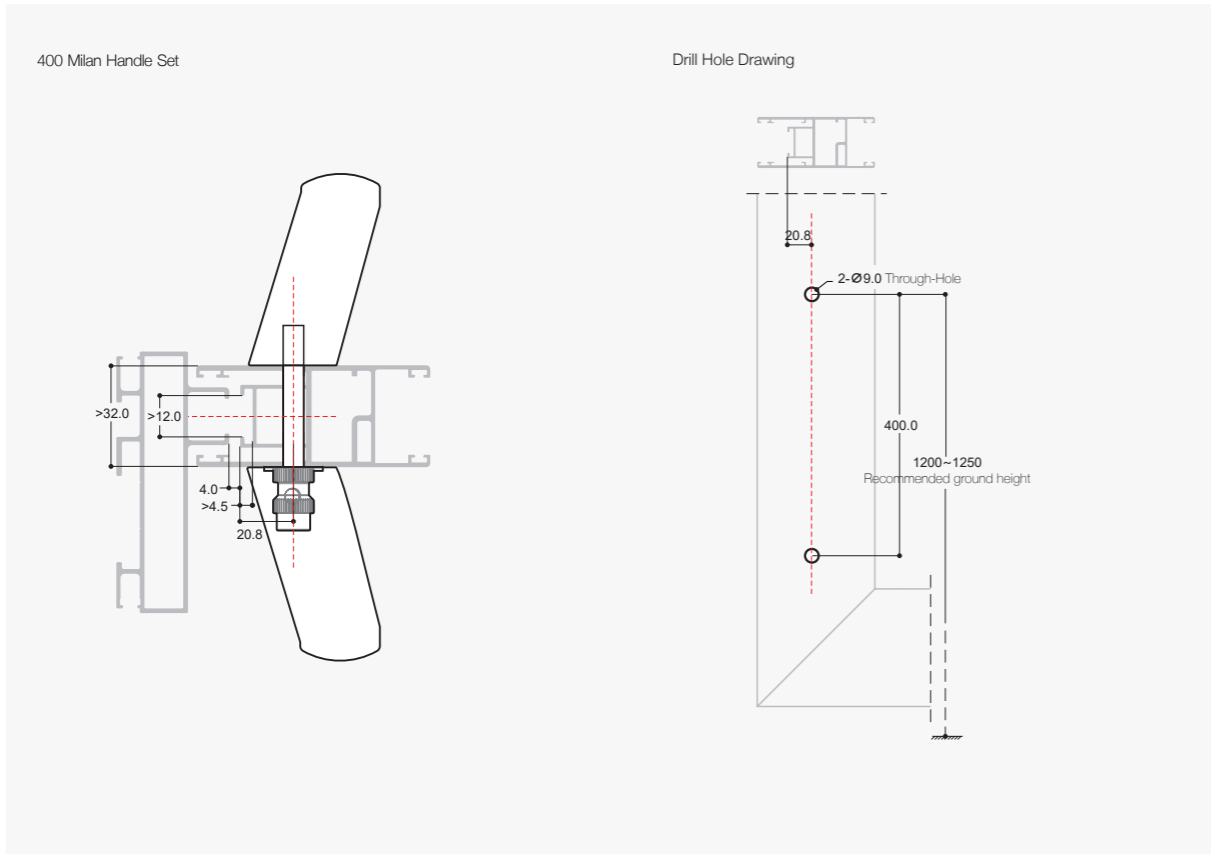


SLIDING DOOR PROFILE AND DRILLING REQUIREMENTS

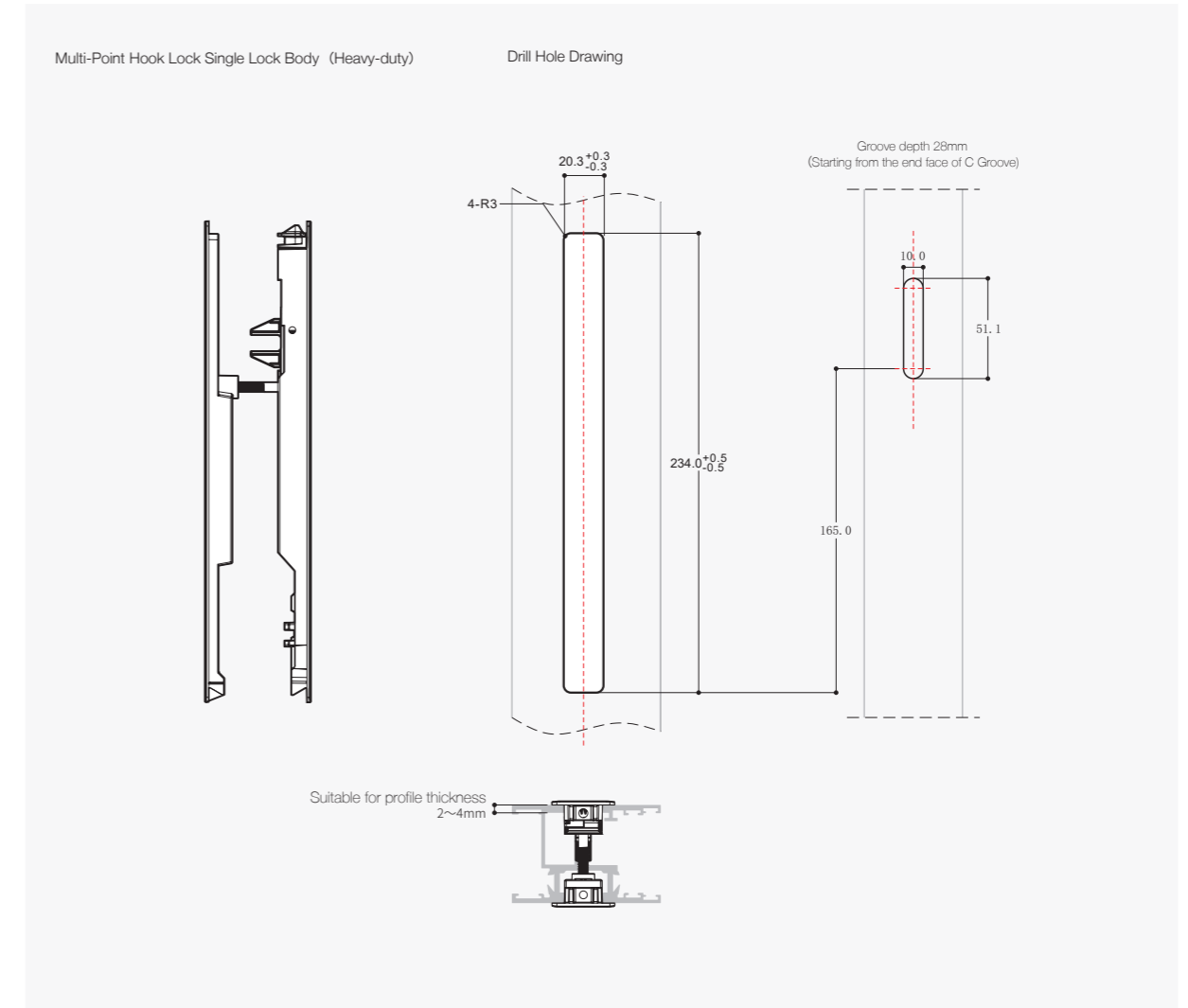




SLIDING DOOR PROFILE AND DRILLING REQUIREMENTS



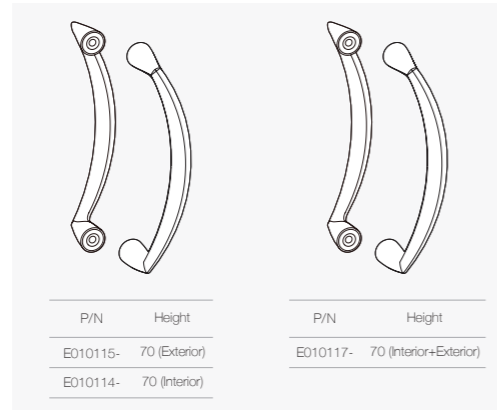
SLIDING DOOR PROFILE AND DRILLING REQUIREMENTS





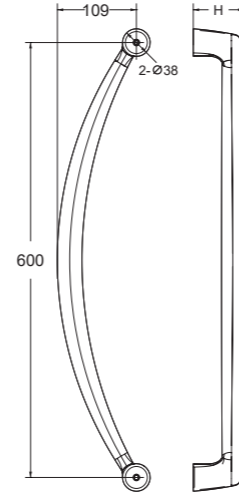
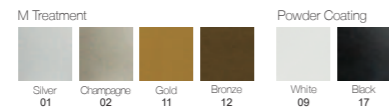
HANDLE SELECTIONS

LONDON HANDLE

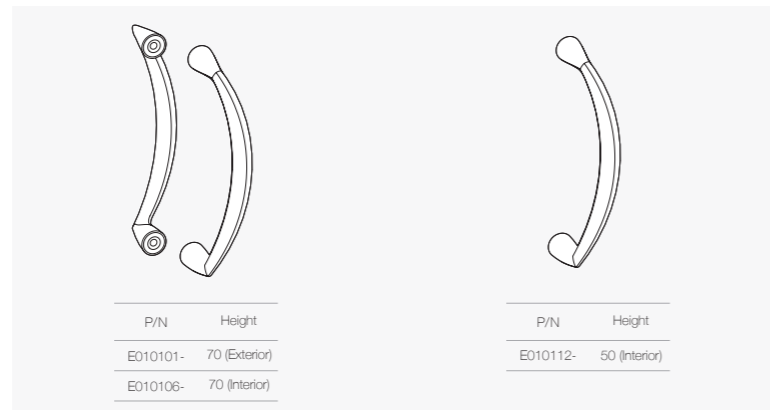


P/N	Height	P/N	Height
E010115-	70 (Exterior)	E010117-	70 (Interior+Exterior)
E010114-	70 (Interior)		

*Includes Screw Pack; The Outer Handle Cannot be Installed Separately

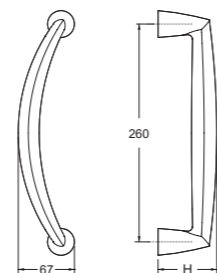
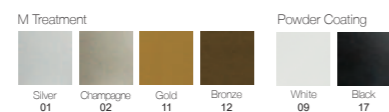


LONDON HANDLE



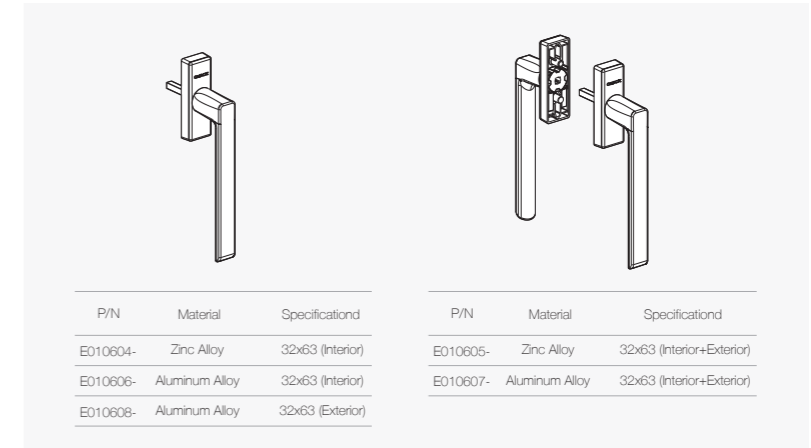
P/N	Height	P/N	Height
E010101-	70 (Exterior)	E010112-	50 (Interior)
E010106-	70 (Interior)		

*Screw Pack Options P139; The Outer Handle Cannot be Installed Separately



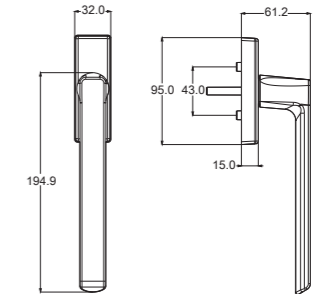
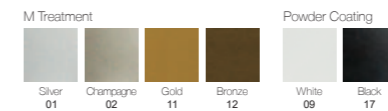
HANDLE SELECTIONS

MILAN SERIES
Spindle Drive Handle (Type SD)

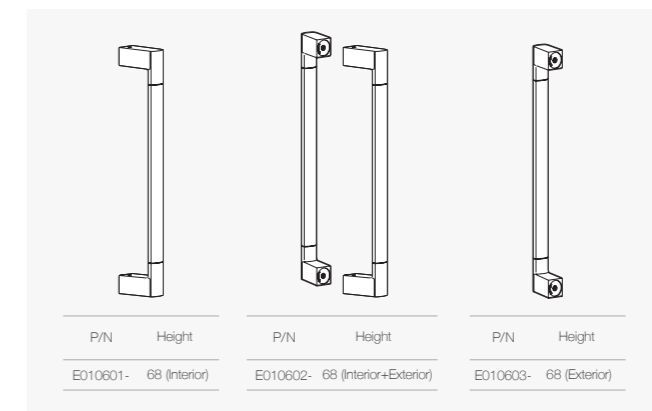


P/N	Material	Specification
E010604-	Zinc Alloy	32x63 (Interior)
E010606-	Aluminum Alloy	32x63 (Interior)
E010608-	Aluminum Alloy	32x63 (Exterior)

P/N	Material	Specification
E010605-	Zinc Alloy	32x63 (Interior+Exterior)
E010607-	Aluminum Alloy	32x63 (Interior+Exterior)

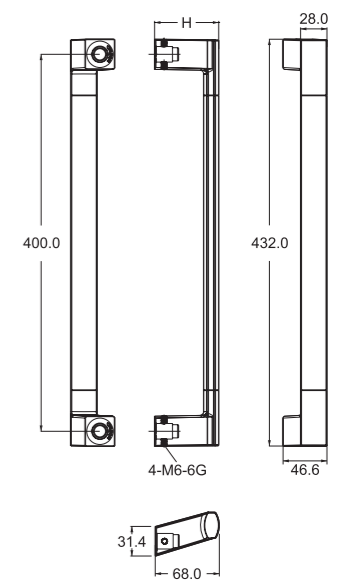
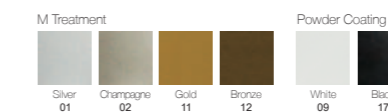


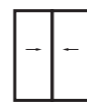
MILAN SERIES
400 Handle



P/N	Height	P/N	Height	P/N	Height
E010601-	68 (Interior)	E010602-	68 (Interior+Exterior)	E010603-	68 (Exterior)

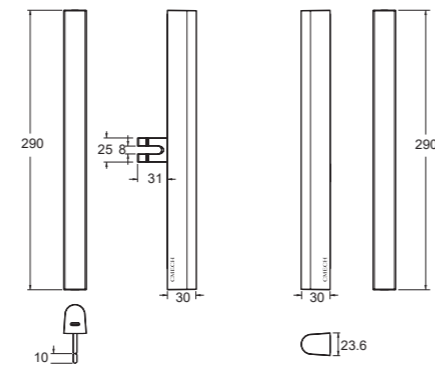
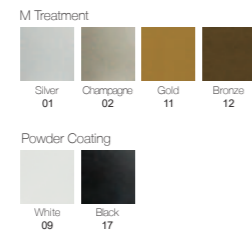
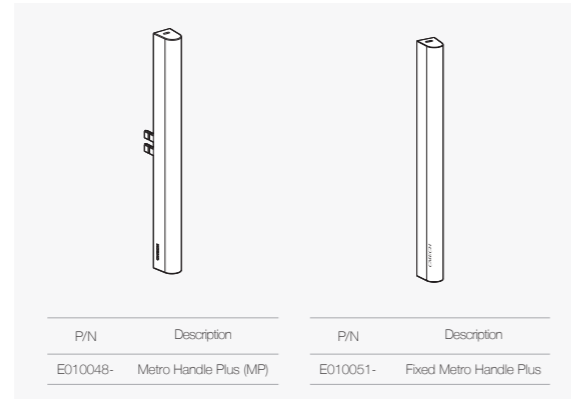
*Includes Screw Pack



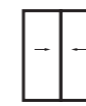
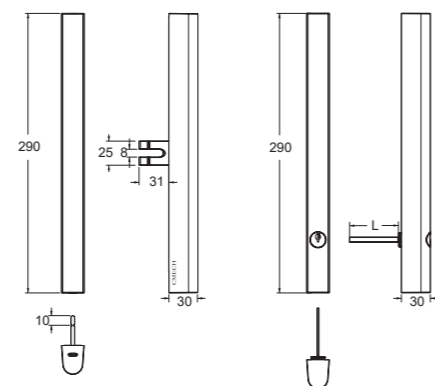
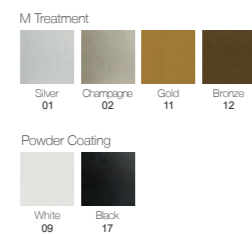
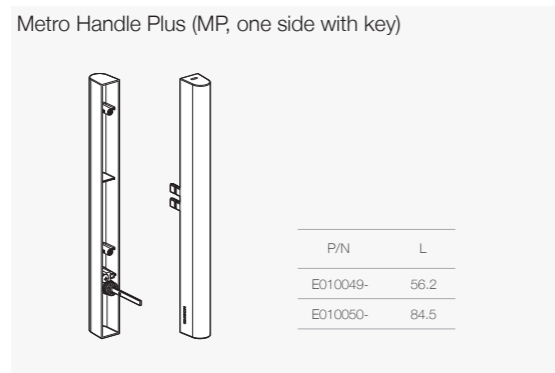


HANDLE SELECTIONS

METRO HANDLE

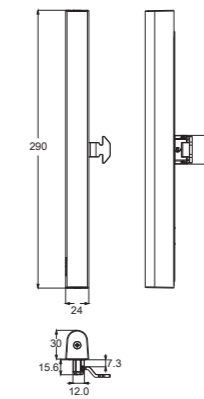
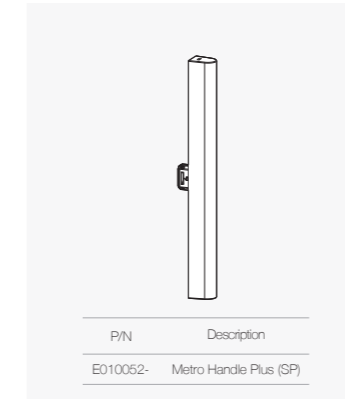


METRO HANDLE SET

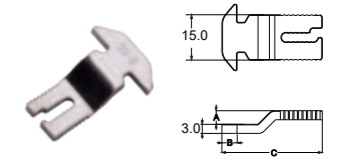


HANDLE SELECTIONS

METRO HANDLE

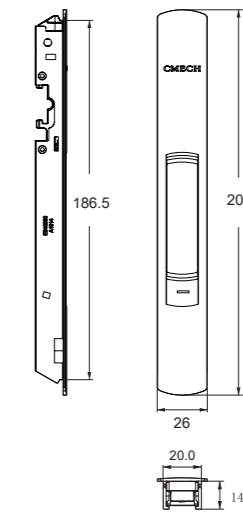
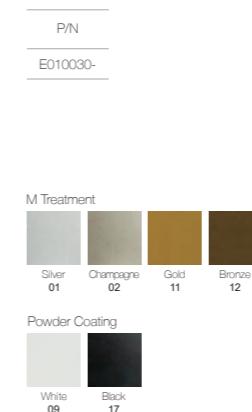


Hook Lock

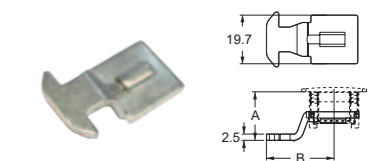


P/N	Specifications		
	A	B	C
P110019	8 mm	8 mm	39 mm
P110020	11 mm	8 mm	39 mm
P110021	4.5 mm	5 mm	33 mm
P110022	7.5 mm	5 mm	33 mm

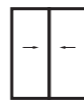
SINGLE-POINT LOCK RECESSED HANDLE



Hook Lock



P/N	Specifications	
	A	B
P110002	19.5 mm	27.1 mm
P110003	17.5 mm	29.1 mm
P110004	15.5 mm	31.1 mm
P110005	22.5 mm	24.1 mm
P110006	14.5 mm	31.1 mm
P110007	19.5 mm	35.1 mm
P110008	14.5 mm	23.1 mm

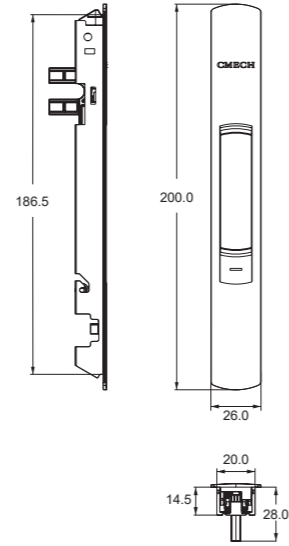


HANDLE SELECTIONS

MULTI-POINT LOCK RECESSED HANDLE



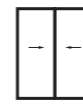
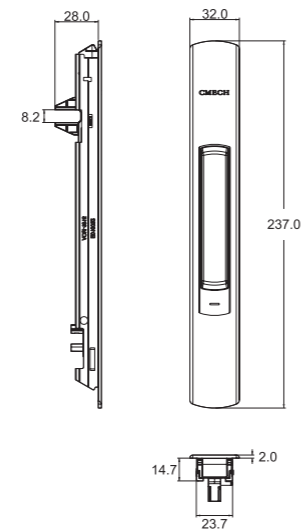
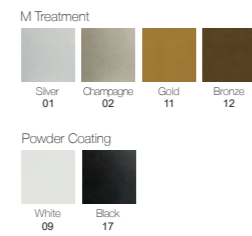
P/N
E010026-



MULTI-POINT LOCK RECESSED HANDLE PLUS



P/N
E010032-

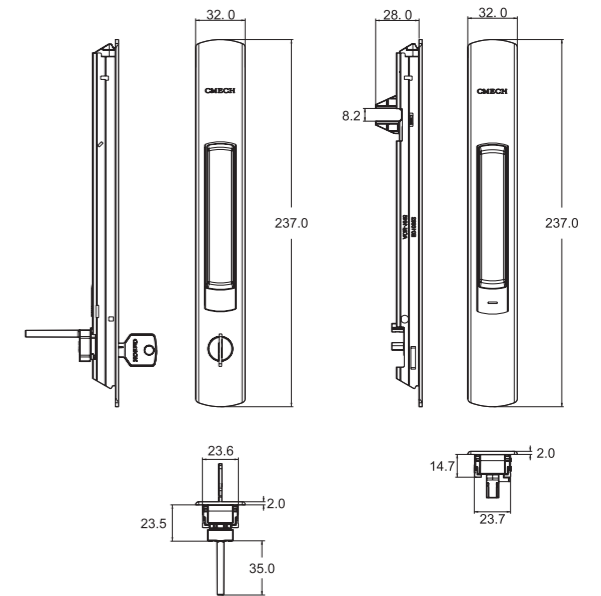


HANDLE SELECTIONS

EXTERIOR KEYED MULTI-POINT LOCK RECESSED HANDLE PLUS



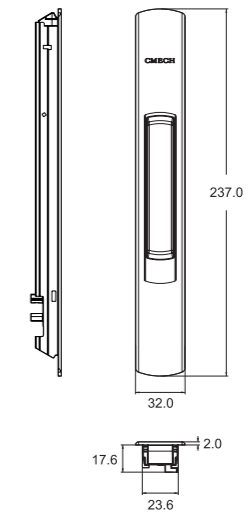
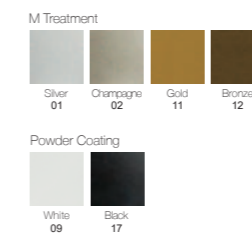
P/N
E010034-



FIXED RECESSED HANDLE PLUS



P/N
E010033-



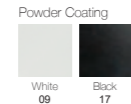
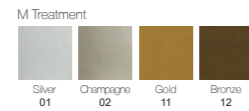


HANDLE SELECTIONS

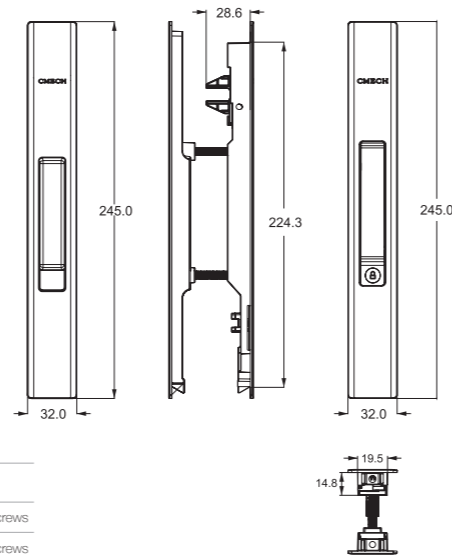
MULTI-POINT LOCK RECESSED HANDLE (HEAVY-DUTY DOUBLE SIDE)



P/N
E010039-



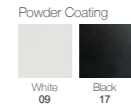
P/N	Width	Specifications
E110030	35-40 mm	M5x20 Cross recessed Countersunk head screws
E110031	46-50 mm	M5x30 Cross recessed Countersunk head screws
E110032	56-60 mm	M5x40 Cross recessed Countersunk head screws
E110033	41-45 mm	M5x25 Cross recessed Countersunk head screws
E110034	51-55 mm	M5x35 Cross recessed Countersunk head screws



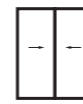
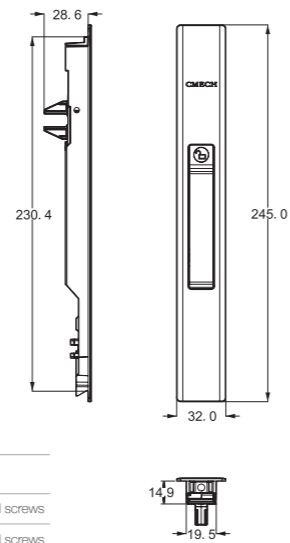
MULTI-POINT LOCK RECESSED HANDLE (HEAVY-DUTY SINGLE SIDE)



P/N
E010040-



P/N	Width	Specifications
E110030	35-40 mm	M5x20 Cross recessed Countersunk head screws
E110031	46-50 mm	M5x30 Cross recessed Countersunk head screws
E110032	56-60 mm	M5x40 Cross recessed Countersunk head screws
E110033	41-45 mm	M5x25 Cross recessed Countersunk head screws
E110034	51-55 mm	M5x35 Cross recessed Countersunk head screws

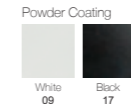


HANDLE SELECTIONS

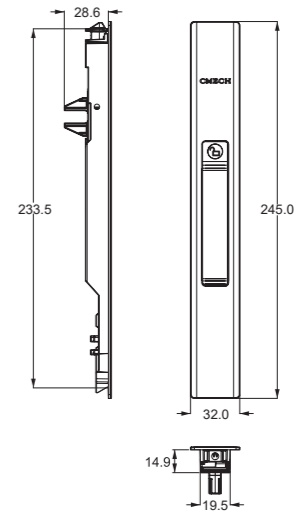
MULTI-POINT LOCK RECESSED HANDLE (HEAVY-DUTY SINGLE INTERIOR SIDE)



P/N
E010041-



P/N	Width	Specifications
E110030	35-40 mm	M5x20 Cross recessed Countersunk head screws
E110031	46-50 mm	M5x30 Cross recessed Countersunk head screws
E110032	56-60 mm	M5x40 Cross recessed Countersunk head screws
E110033	41-45 mm	M5x25 Cross recessed Countersunk head screws
E110034	51-55 mm	M5x35 Cross recessed Countersunk head screws



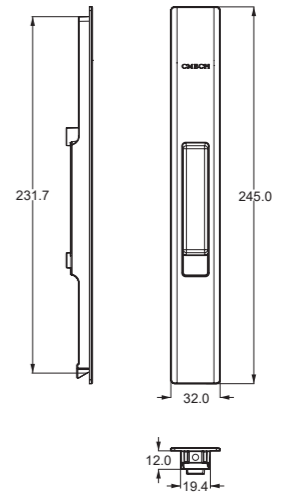
MULTI-POINT LOCK RECESSED HANDLE (HEAVY-DUTY SINGLE EXTERIOR SIDE)

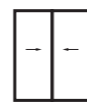


P/N
E010042-



P/N	Width	Specifications
E110030	35-40 mm	M5x20 Cross recessed Countersunk head screws
E110031	46-50 mm	M5x30 Cross recessed Countersunk head screws
E110032	56-60 mm	M5x40 Cross recessed Countersunk head screws
E110033	41-45 mm	M5x25 Cross recessed Countersunk head screws
E110034	51-55 mm	M5x35 Cross recessed Countersunk head screws



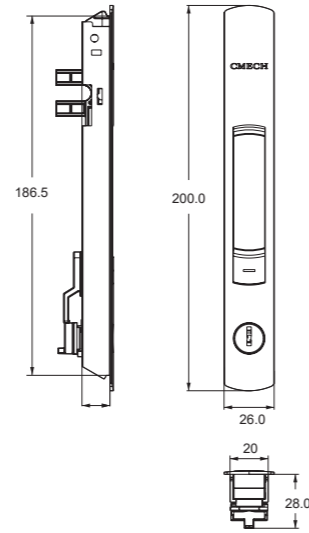
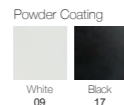


HANDLE SELECTIONS

MULTI-POINT LOCK RECESSED HANDLE



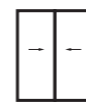
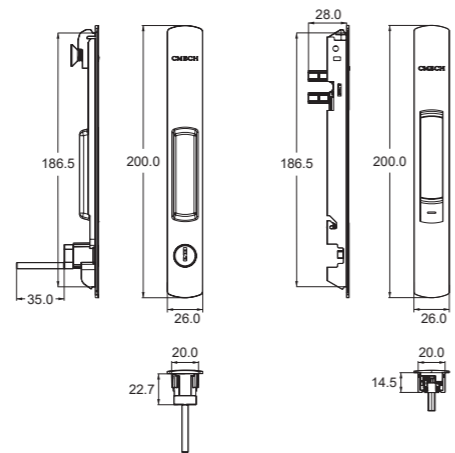
P/N	Description
E010024-	With Cylinders (Interior)



MULTI-POINT LOCK RECESSED HANDLE



E010025
Multi-Point Lock Recessed Handle - Exterior with Key

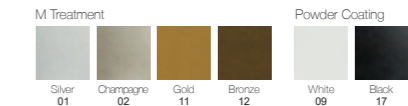
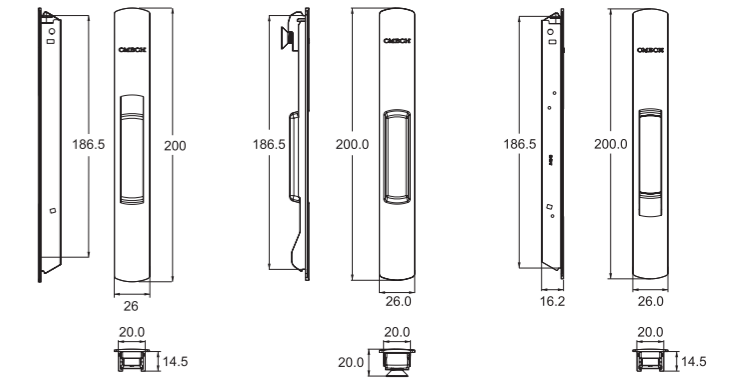


HANDLE SELECTIONS

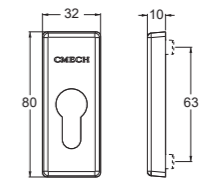
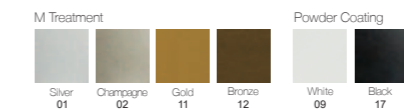
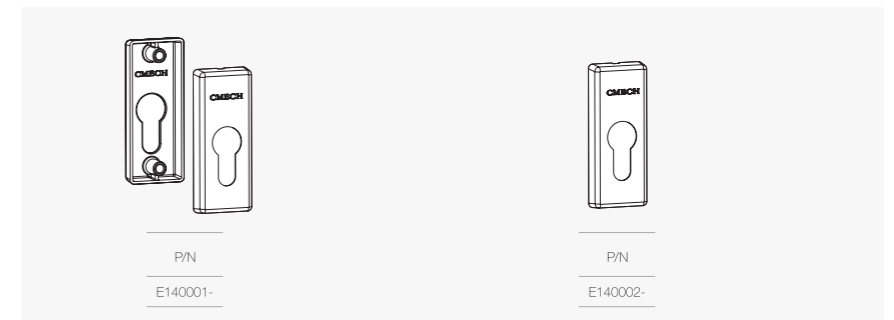
FIXED RECESSED HANDLE

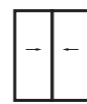


E010019 Fixed Recessed Handle E010023 Fixed Recessed Handle E010031 Fixed Recessed Handle



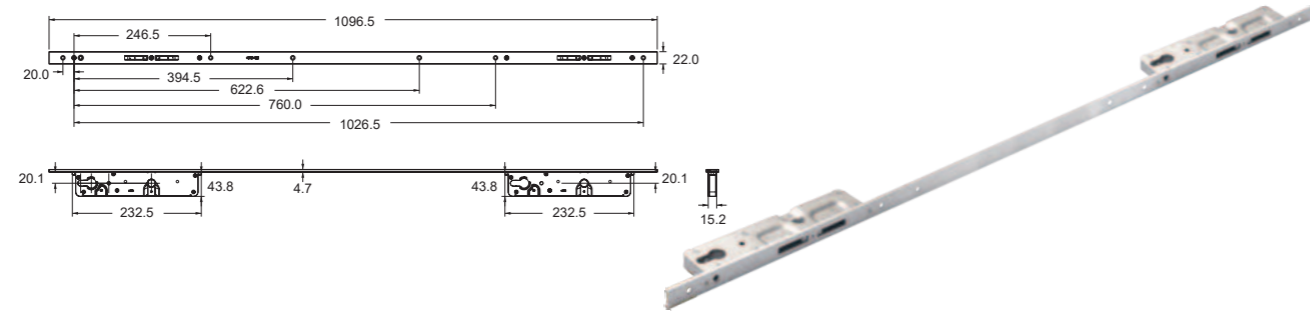
CYLINDER COVER



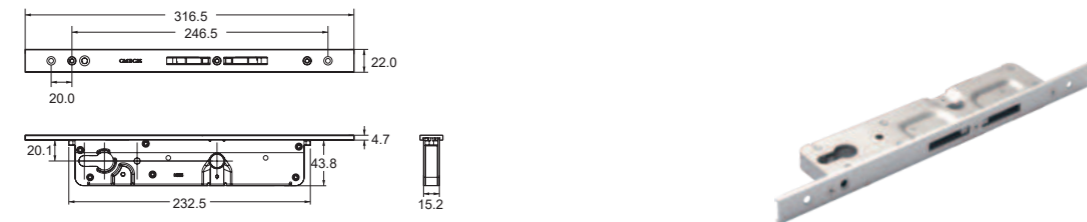


LOCKING HARDWARE

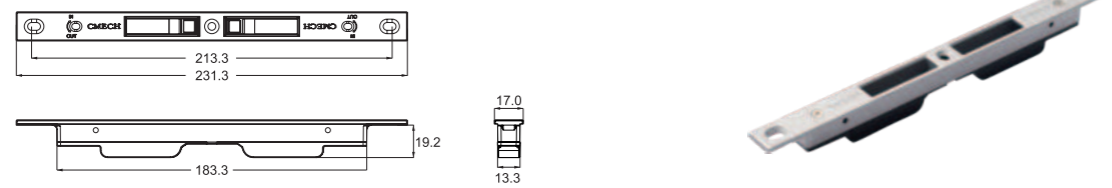
E030016
Multi-Point Hook Lock - Double Lock Body



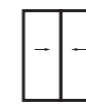
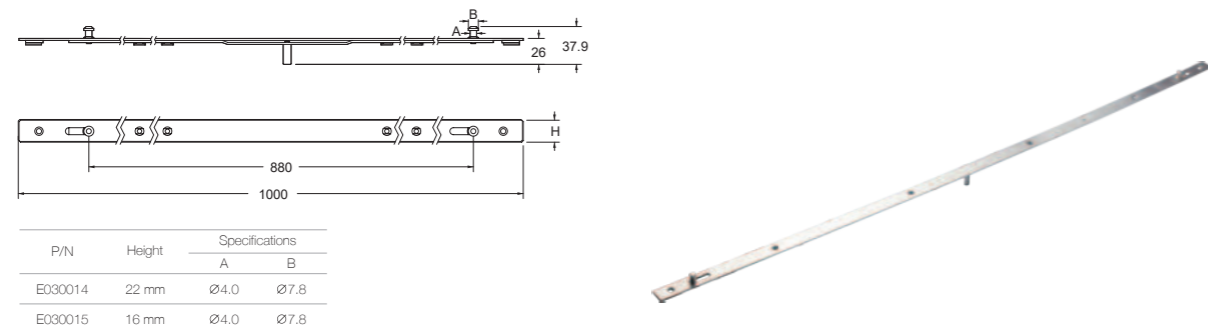
E030017
Multi-Point Hook Lock - Single Lock Body



E100018
Multi-Point Hook Lock Bracket

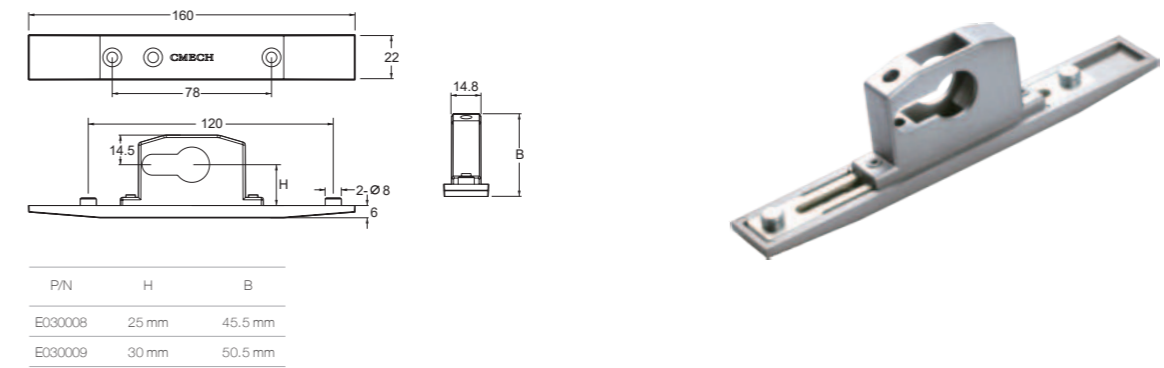


Drive Gear

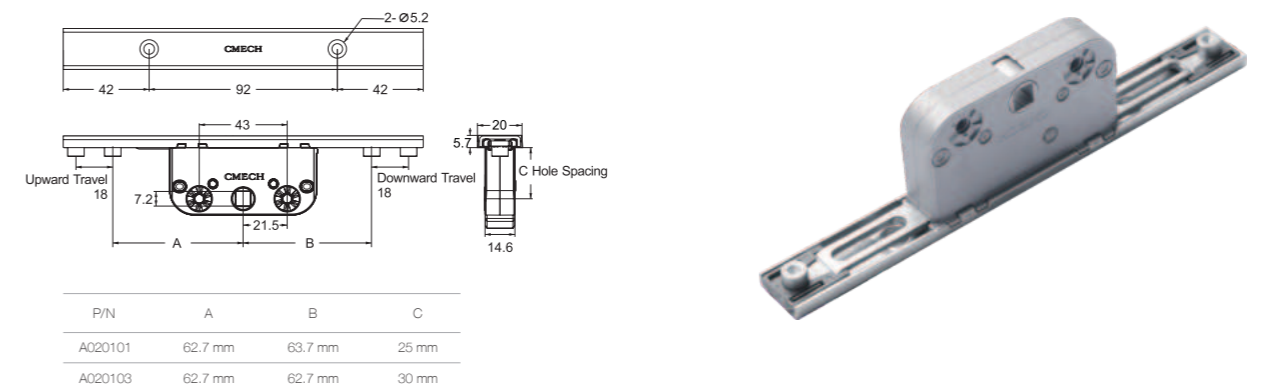


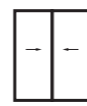
GEARBOXES

Locking Gearbox Housing



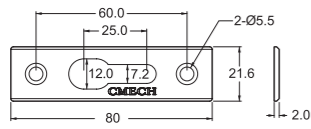
Bi-Directional Spindle Drive Gearbox



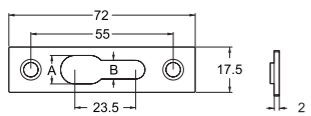


STRIKES AND BRACKETS

E100001
Strike



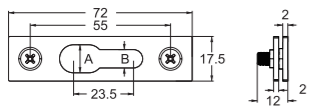
Strike



P/N	A	B
E100006	11 mm	7.2 mm
E100009	9.25 mm	5.5 mm



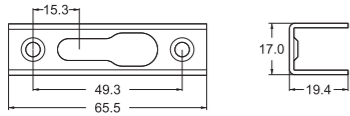
Strike



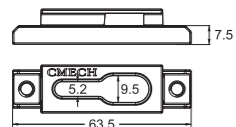
P/N	A	B
E100011	11 mm	7.2 mm
E100013	9.25 mm	5.5 mm



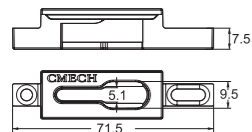
E100019
Strike (Type U)



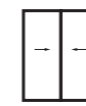
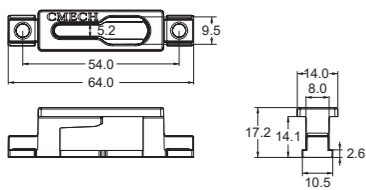
E100015
Pre-Assembly Keeper



E100016
After-Assembly Keeper

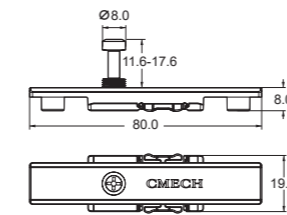


E100017
Pre-Assembly Keeper

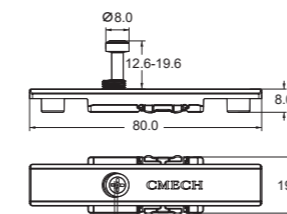


LOCK POINTS

E090008
Height Adjustable Central Lock Point



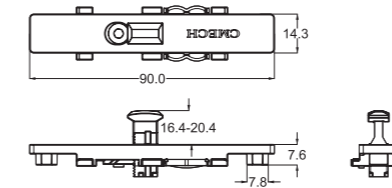
E090006
Offset Adjustable Central Lock Point



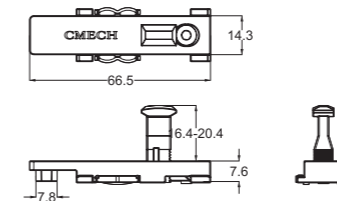
Offset 1 mm, Adjustable Offset 2 mm



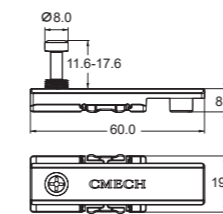
E090012
Adjustable Central Lock Point (Heavy-duty)

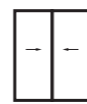


E090011
Adjustable End Lock Point (Heavy-duty)



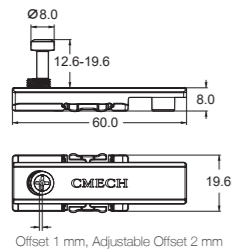
E090009
Height Adjustable End Lock Point



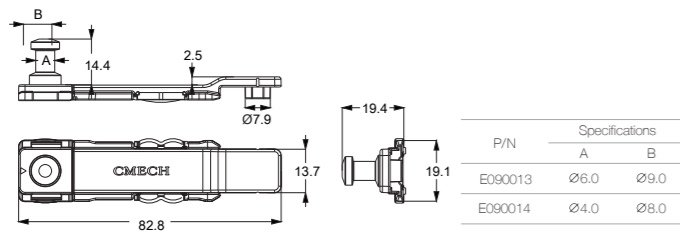


LOCK POINTS

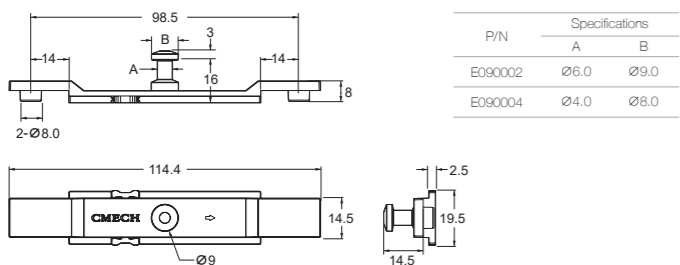
E090007
Offset Adjustable End Lock Point



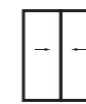
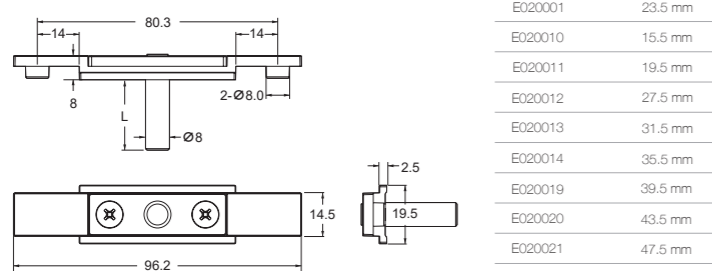
End Lock Point



Double-Ended Lock Point

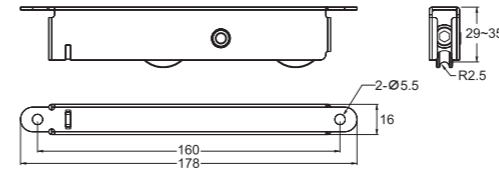


Intermediate Drive

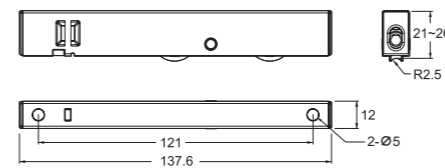


ROLLER CARRIAGES

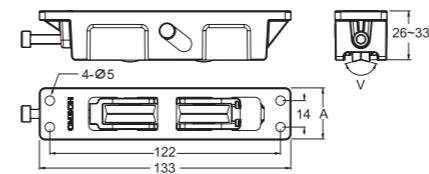
E050001
Roller (Type R)-1628-2934-R2.5-150kg



E050002
Roller (Type R)-1220-2127-R2.5-120 kg

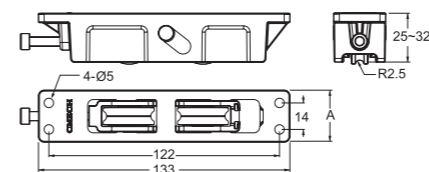


Roller (Type V)

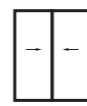


P/N	Description	A	Max. Load	Material	V-Angle
E050005	2426-2633-V150-80 kg	24 mm	80 kg	Nylon	150°
E050006	2426-2633-V150-120 kg	24 mm	120 kg	Zinc Alloy	150°
E050009	2826-2633-V150-80 kg	28 mm	80 kg	Nylon	150°
E050010	2826-2633-V150-120 kg	28 mm	120 kg	Zinc Alloy	150°
E050005-V135	2426-2633-V135-80 kg	24 mm	80 kg	Nylon	135°
E050006-V135	2426-2633-V135-120 kg	24 mm	120 kg	Zinc Alloy	135°

Roller (Type R)

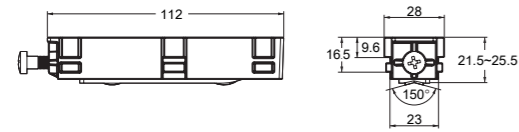


P/N	Description	A	Max. Load	Material
E050003	2426-2532-R2.5-80 kg	24 mm	80 kg	Nylon
E050004	2426-2532-R2.5-120 kg	24 mm	120 kg	Zinc Alloy
E050007	2826-2532-R2.5-80 kg	28 mm	80 kg	Nylon
E050008	2826-2532-R2.5-120 kg	28 mm	120 kg	Zinc Alloy

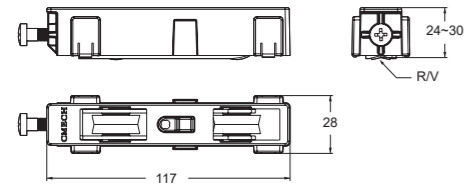


ROLLER CARRIAGES

E050012
Roller (Type V)-2920-2225-V150-120 kg

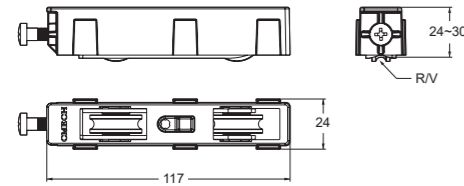


Roller-120 kg



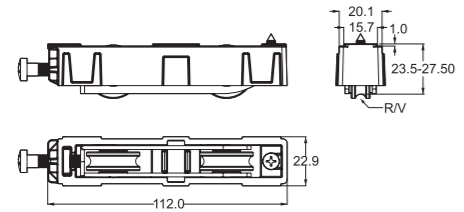
P/N	Description	Max. Load	Material	R/V-Angle
E050011	2824-2430-R2.5-120 kg	120 kg	Nylon	R2.5
E050014	2824-2430-V160-120 kg	120 kg	Nylon	160°

Roller-120 kg

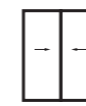


P/N	Description	Max. Load	Material	R/V-Angle
E050013	2423-2430-R2.5-120 kg	120 kg	Nylon	R2.5
E050015	2423-2430-V160-120 kg	120 kg	Nylon	160°

Roller-120 kg

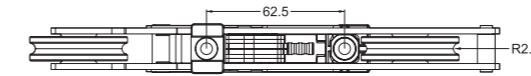
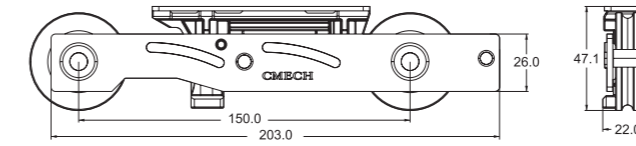


P/N	Description	Max. Load	Material	R/V-Angle
E050020	2323-2226-R2.5-120 kg	120 kg	Nylon	R2.5
E050018	2323-2226-V150-120 kg	120 kg	Nylon	150°

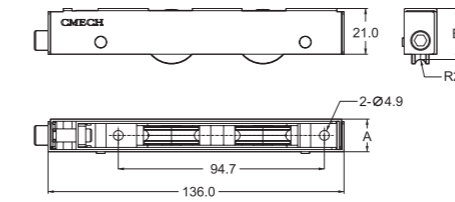


ROLLER CARRIAGES

E050022
Roller (Type R)-2226-45-R2.5-300 kg

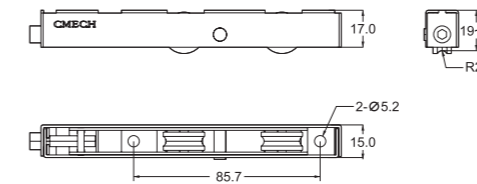


Roller (Type R)

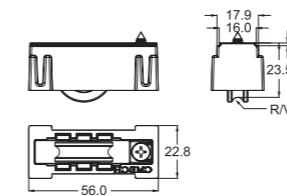


P/N	Description	A	B	Max. Load	Material
E050024	1521-2027-R2.5-120 kg	15 mm	23-31	120 kg	Stainless Steel
E050025	1621-2028-R2.5-120 kg	16 mm	23-31	120 kg	Stainless Steel

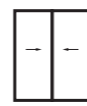
E050026
Roller (Type R)-1517-1923-R2.5-120 kg



Single Roller - 60 kg

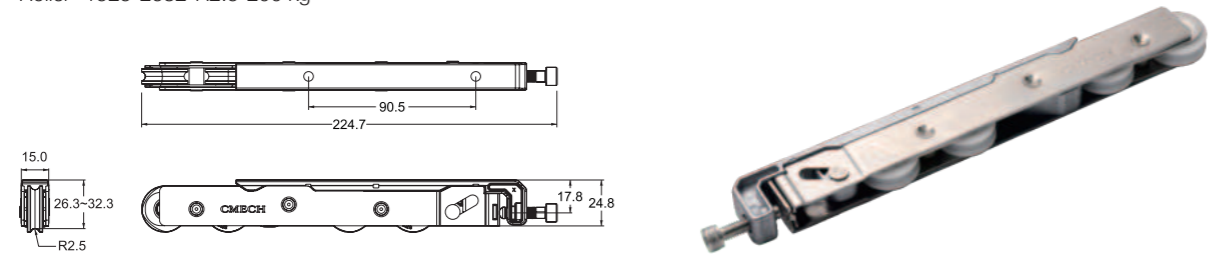


P/N	Description	Max. Load	Material	R/V-Angle
E050021	2323-23-R2.5-60 kg	60 kg	Nylon	R2.5
E050017	2323-23-V150-60 kg	60 kg	Nylon	150°

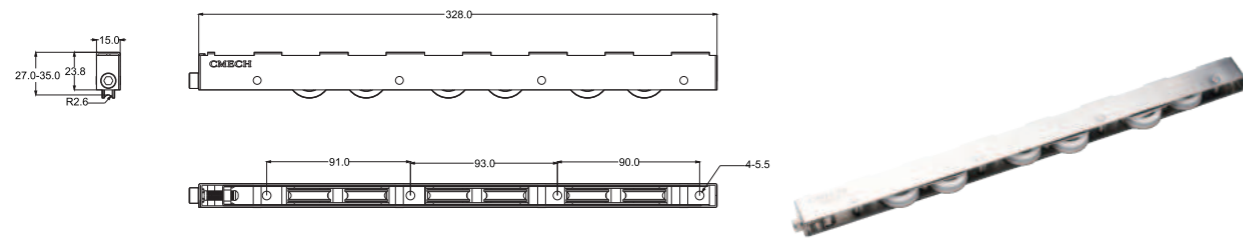


ROLLER CARRIAGES

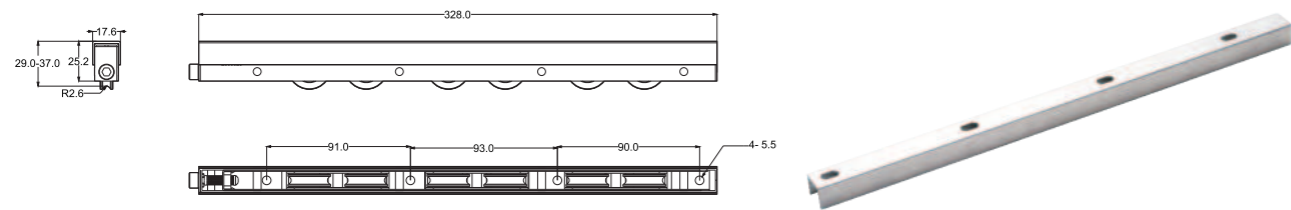
E050027
Roller -1525-2632-R2.5-200 kg



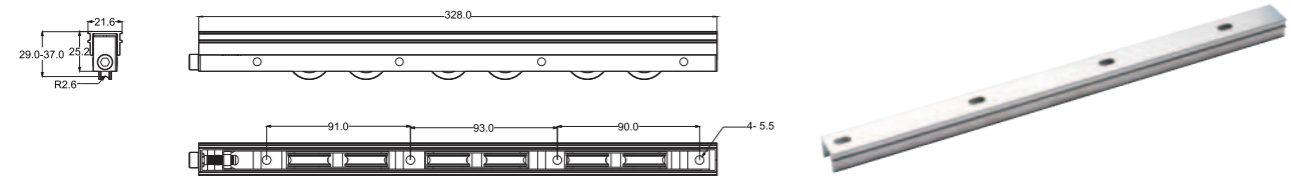
E050028
Roller -1524-2735-R2.6-300 kg



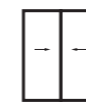
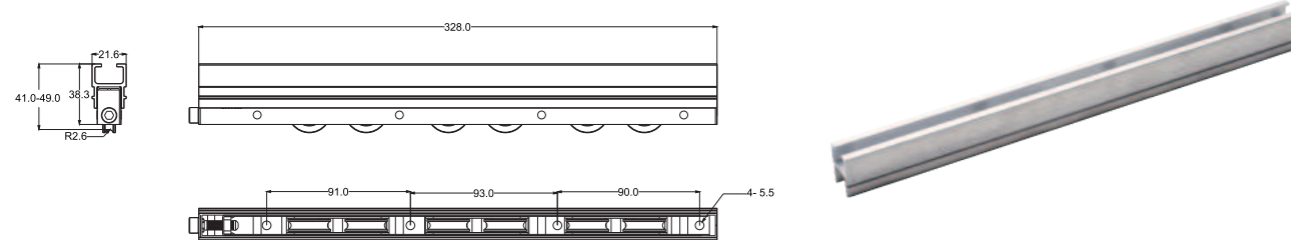
E120005
17.6x15 Roller Assist



E120006
21.6x15 Roller Assist



E120007
21.6x28 Roller Assist



OTHER ACCESSORIES

E120001
Metro Handle Fork Drive Extender



E120002
Recessed Handle Fork Drive Extender



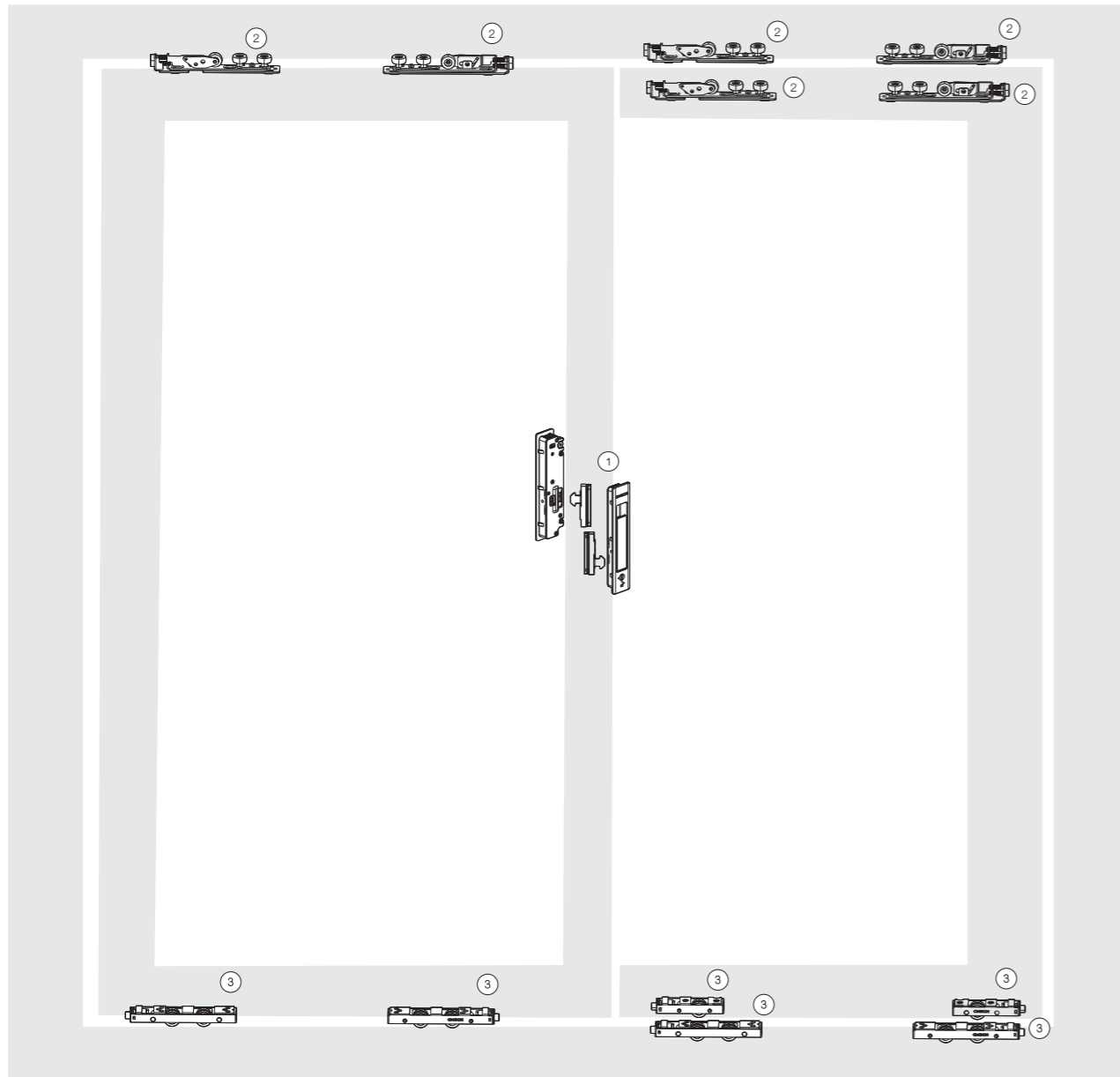
E010035
Fork Drive Extender for Recessed Handle Plus





SLIDING WINDOW HARDWARE SERIES

Six-track Sliding Window Configuration

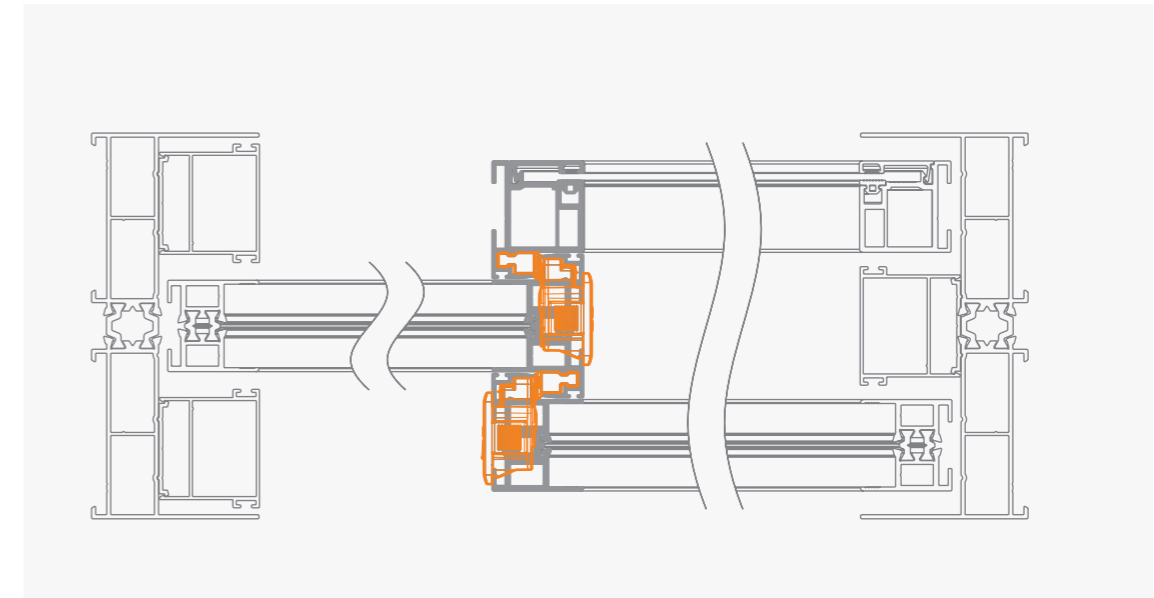


Configuration Table - Six-track Sliding Window

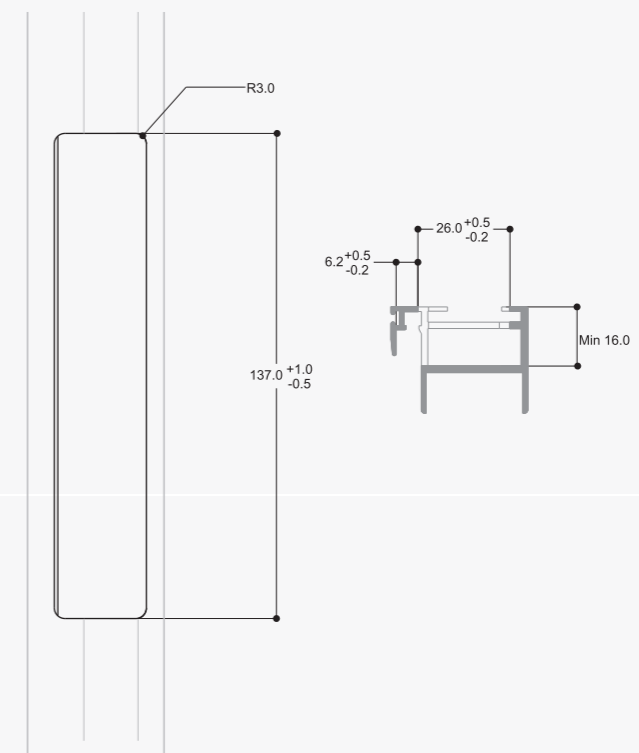
No.	Description	P/N	Qty	Notes	Ref. Page
1	Slimline Bump Lock Recessed Pull Handle	P010028 P010029	2	Right Opening , Equipped with Keeper Left Opening , Equipped with Keeper	P227
2	Upper Balance Wheel	P050006	6	15158-1825-2235 Balance wheel	P228
3	Double Track Lower Roller	P050003 P050004 P050005	6	2413-1921-R2.5-25kg Roller 2413-1921-R2.5-75kg Roller 2413-1921-R2.5-150kg Roller	P228
4	Screw Pack				

SLIDING WINDOW PROFILE AND DRILLING REQUIREMENTS

Six-track Sliding Window Configuration



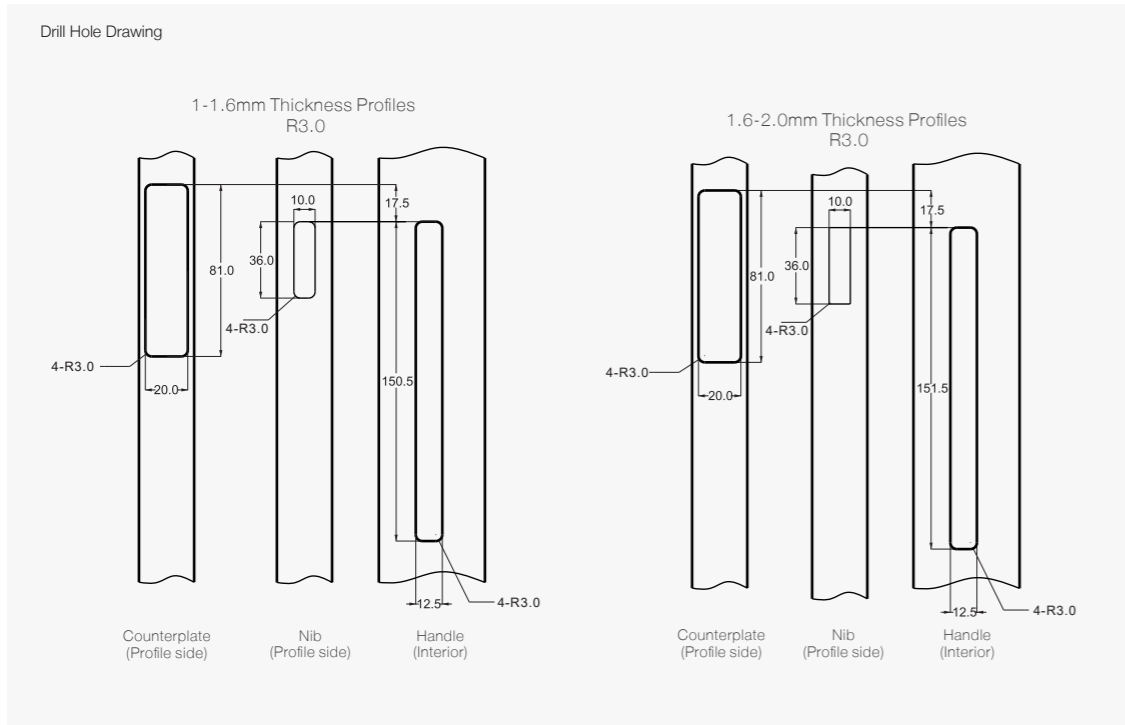
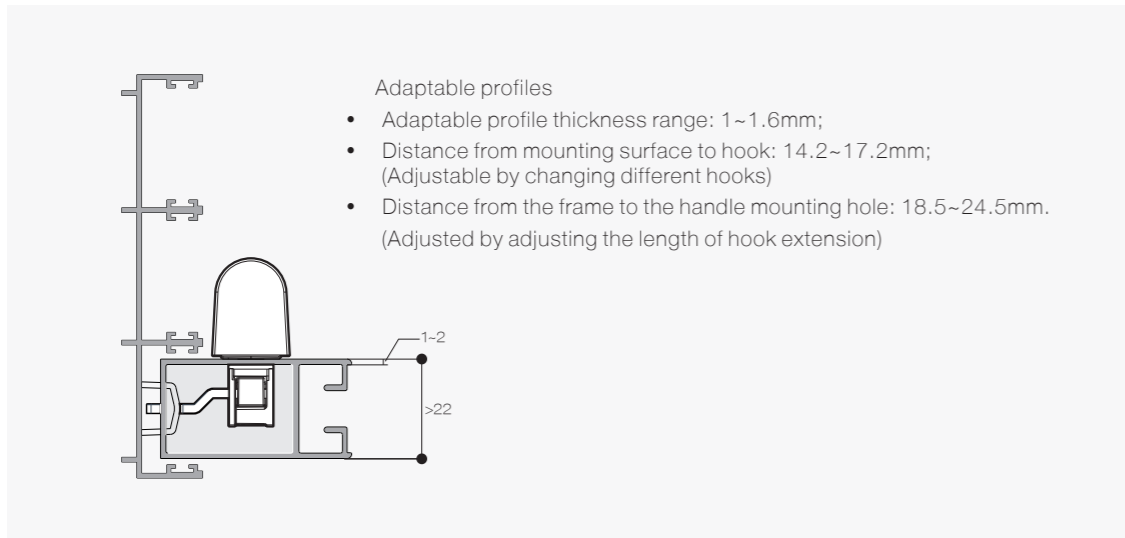
Drill Hole Drawing





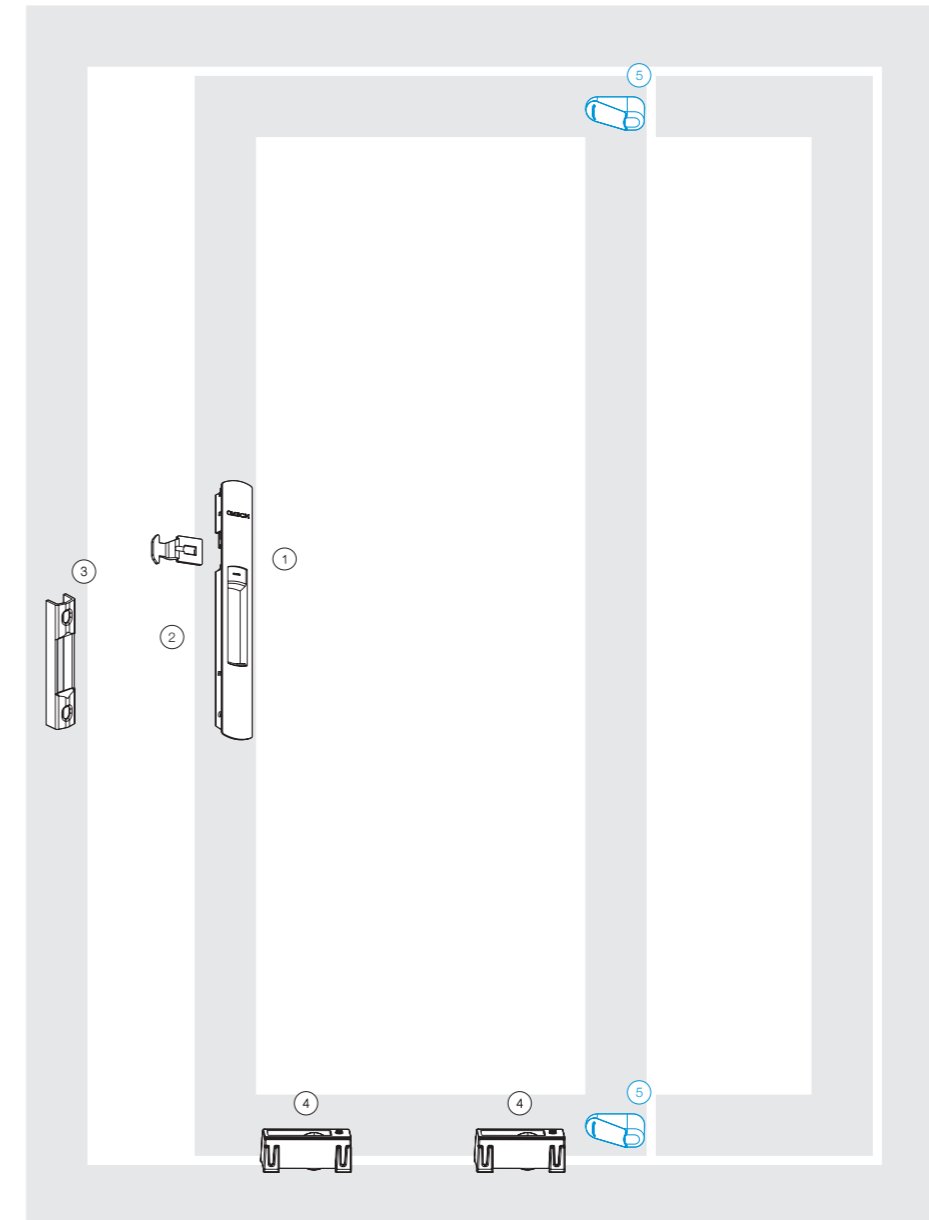
SLIDING WINDOW PROFILE AND DRILLING REQUIREMENTS

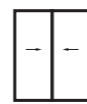
Meter Handle Sliding Window Configuration



SLIDING WINDOW HARDWARE SERIES

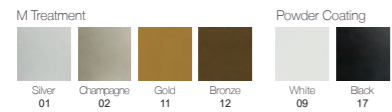
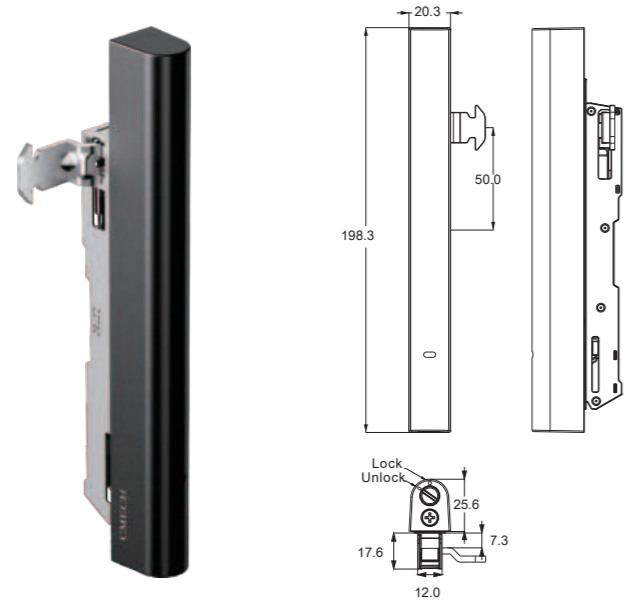
Bump Lock Recessed Pull Handle



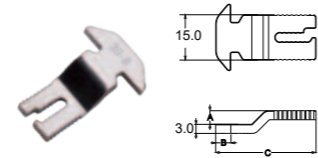


SLIDING WINDOW HARDWARE

P010032
Single-Point Bump Lock Meteor Handle S (with Child Safety Lock)

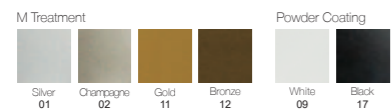
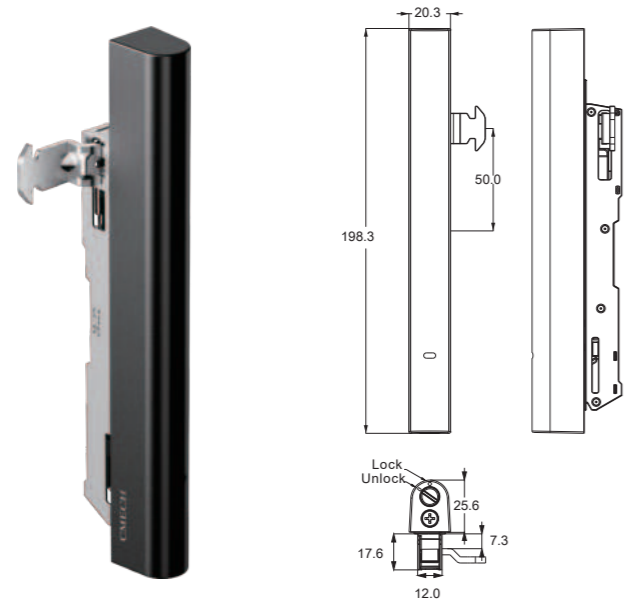


Hook Lock

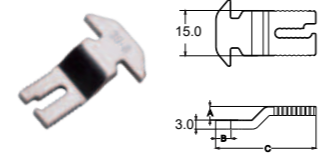


P/N	Specifications		
	A	B	C
P110019	8 mm	8 mm	39 mm
P110020	11 mm	8 mm	39 mm
P110021	4.5 mm	5 mm	33 mm
P110022	7.5 mm	5 mm	33 mm

P010033
Single-Point Manual Lock Meteor Handle S (with Child Safety Lock)



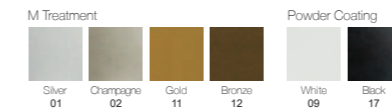
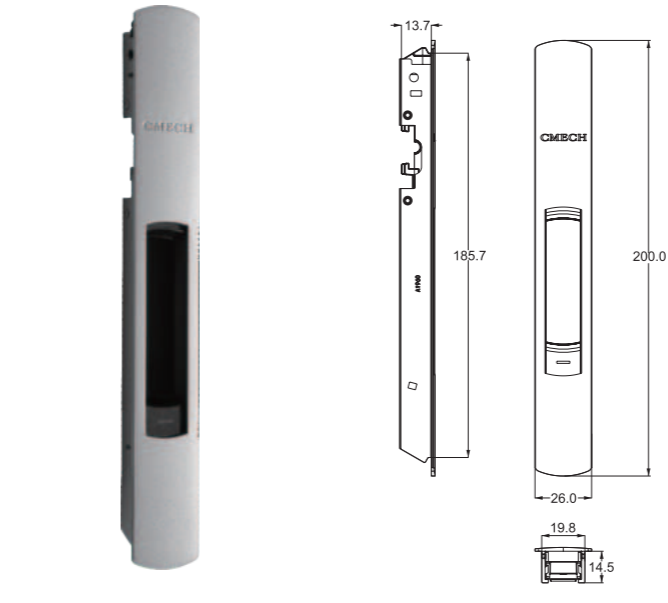
Hook Lock



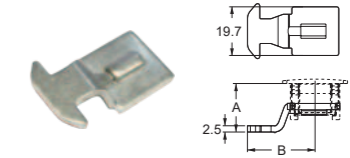
P/N	Specifications		
	A	B	C
P110019	8 mm	8 mm	39 mm
P110020	11 mm	8 mm	39 mm
P110021	4.5 mm	5 mm	33 mm
P110022	7.5 mm	5 mm	33 mm

SLIDING WINDOW HARDWARE

P010026
Bump Lock Recessed Pull Handle

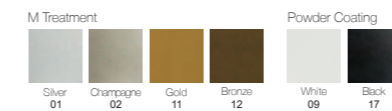
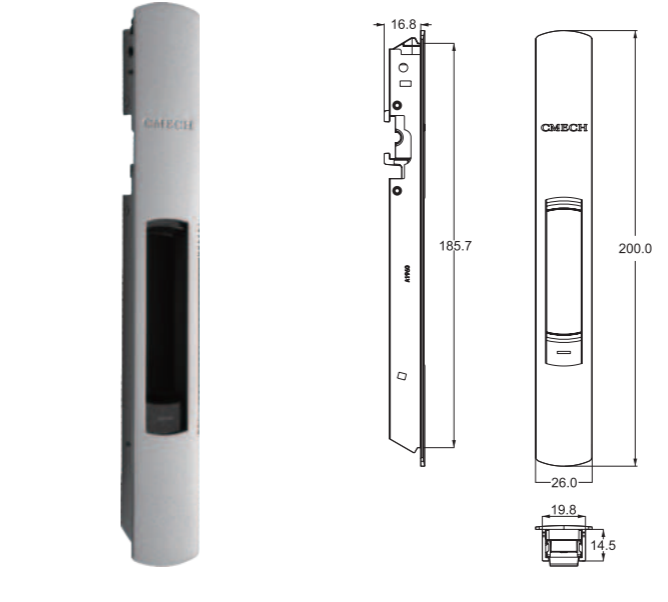


Hook Lock

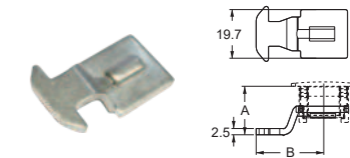


P/N	Specifications	
	A	B
P110002	19.5 mm	27.1 mm
P110003	17.5 mm	29.1 mm
P110004	15.5 mm	31.1 mm
P110005	22.5 mm	24.1 mm
P110006	14.5 mm	31.1 mm
P110007	19.5 mm	35.1 mm
P110008	14.5 mm	23.1 mm

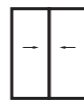
P010027
Bump Lock Recessed Pull Handle



Hook Lock

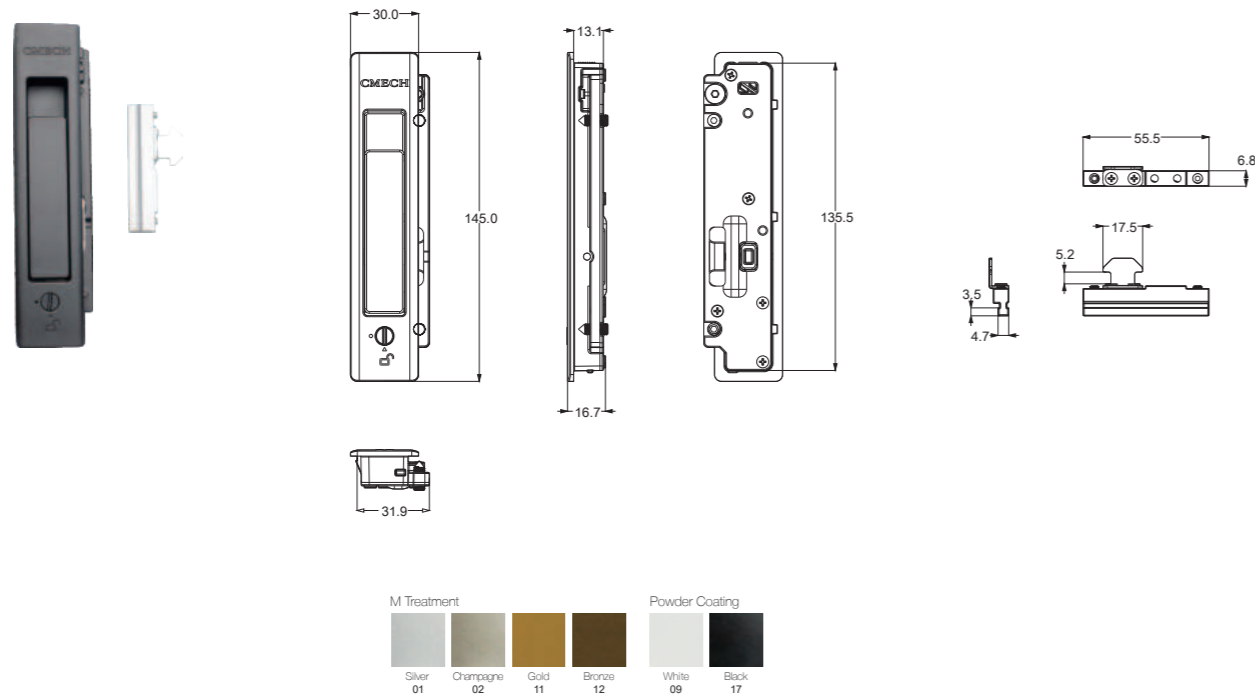


P/N	Specifications	
	A	B
P110009	14.0 mm	24.2 mm
P110011	15.0 mm	21.2 mm
P110013	15.0 mm	24.2 mm
P110014	15.0 mm	27.2 mm
P110015	17.0 mm	20.2 mm

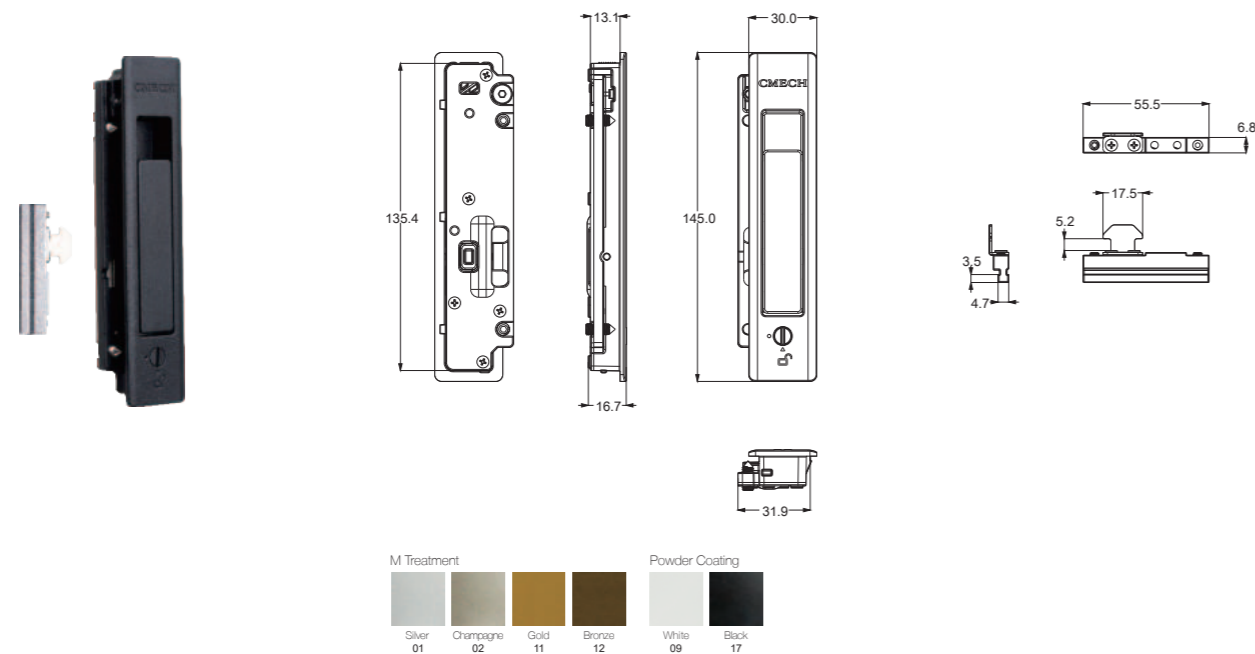


SLIDING WINDOW HARDWARE

P010028
Slimline Bump Lock Recessed Pull Handle (Right)



P010029
Slimline Bump Lock Recessed Pull Handle (Right)



SLIDING WINDOW HARDWARE

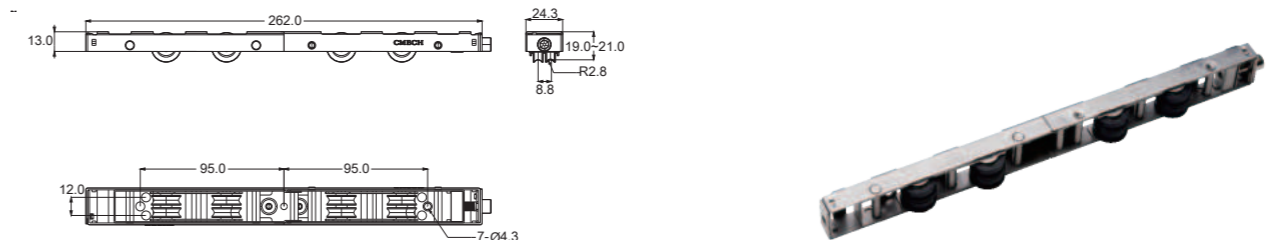
P050003
Double Track Lower Roller-2413-1921-R2.5-25KG



P050004
Double Track Lower Roller-2413-1921-R2.5-75KG

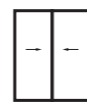


P050005
Double Track Lower Roller-2413-1921-R2.5-150KG



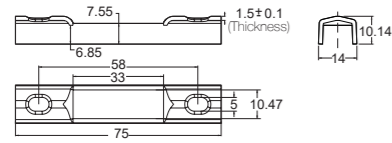
P050006
Upper Balance Wheel-15158-1825-2235



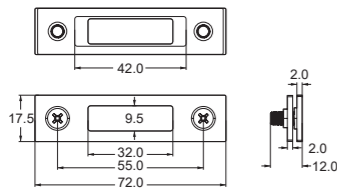


SLIDING WINDOW HARDWARE

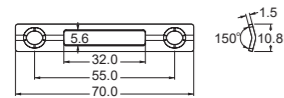
P100001
Locking Bracket



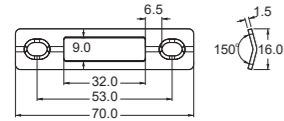
P100005
Clip Bracket



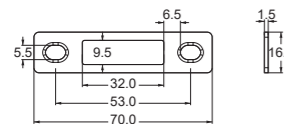
P100006
10V Bracket



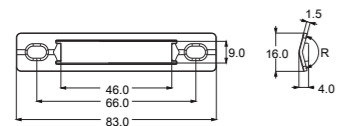
P100007
16V Bracket



P100008
16 Flat Bracket



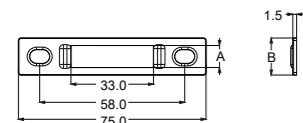
16V Bracket



P/N	R-Angle
P100011	150°
P100012	130°



16 Flat Bracket



P/N	Specifications	
	A	B
P100013	7.5 mm	13.5 mm
P100014	8.8 mm	14.8 mm



Bi-Folding Door Hardware



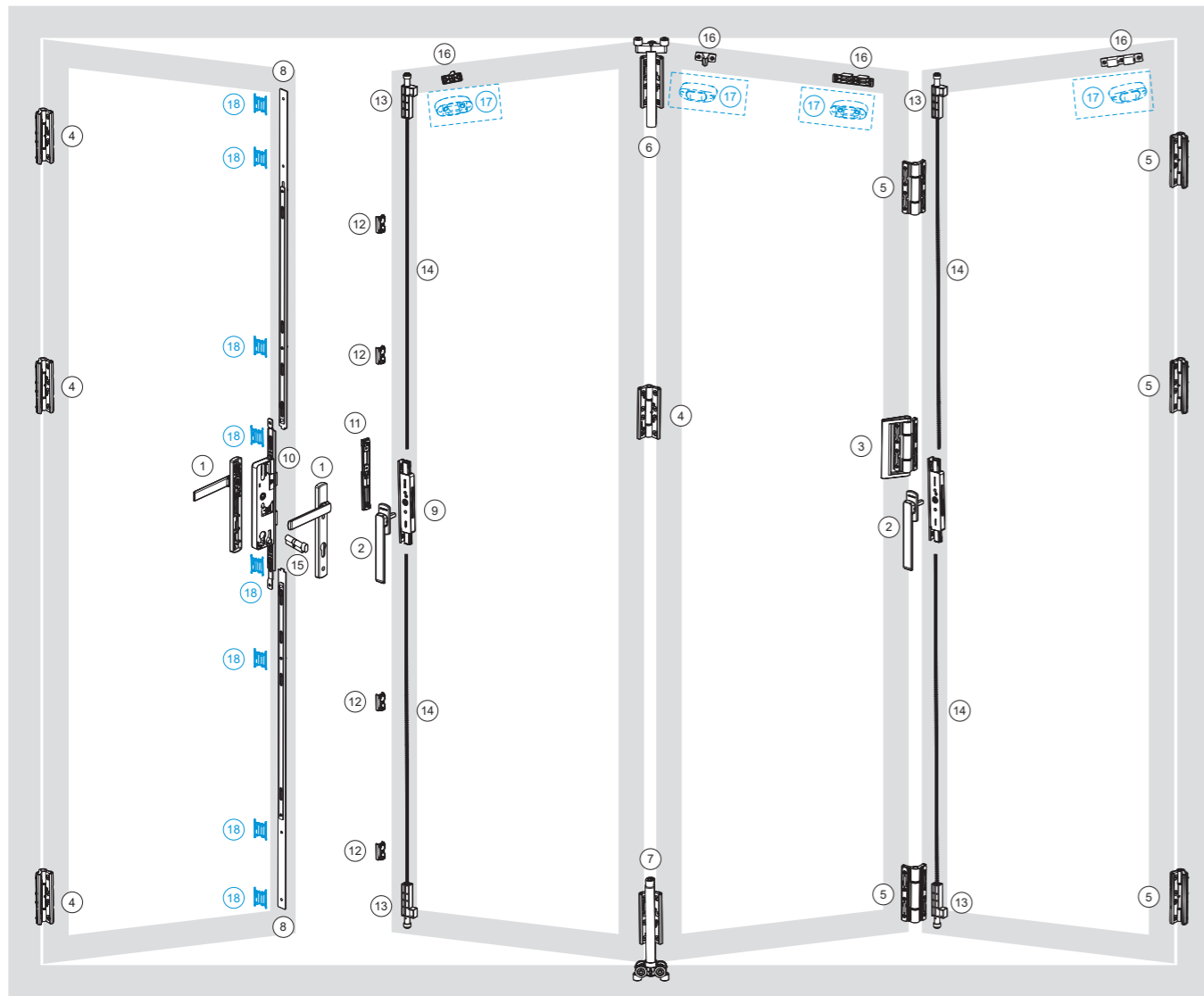
- The rollers are made of high quality stainless steel and special wear-resisting material, with high load-bearing, anti-fracture, longevity and light moving operation force
- Hinge has double anti-burglar function (metal end cover and internal anti-burglar pin) with adjustable and fixed series, which solves the problem of over-adjustment in the installation process and droop in the sash. A small sealing strip is designed on the end side, which is closely combined with the sash sealing strip for better tightness
- Multi-point lock body and shootbolt configuration

Bi-Folding Door	Applicable Range	
Sash Width (Single)	(mm)	500-900
Sash Height (Single)	(mm)	1,900-3,500
Load-bearing	(kg)	150

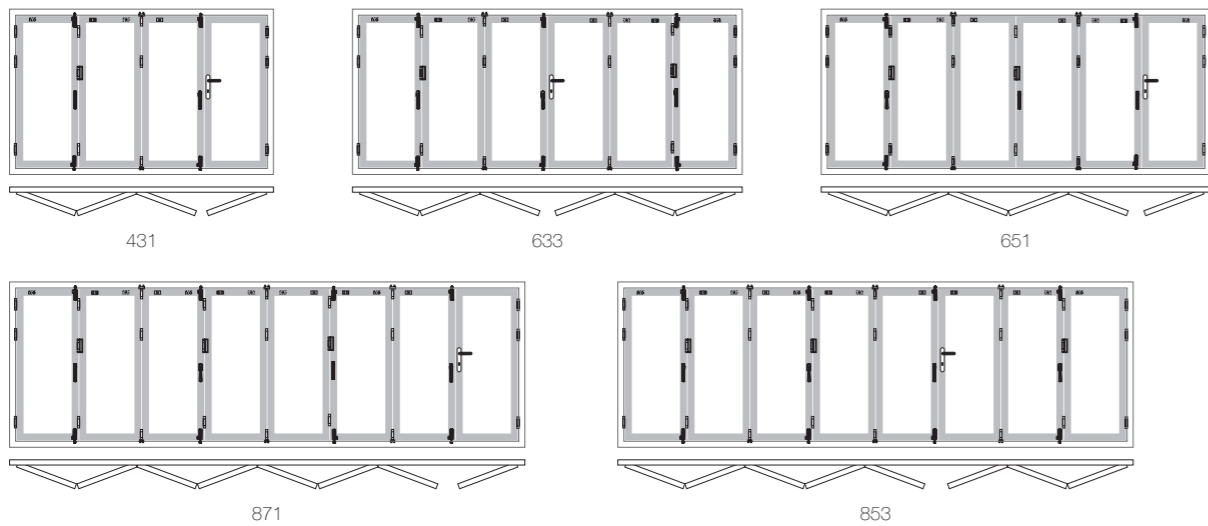


BI-FOLDING DOOR HARDWARE SERIES

431 Configuration



Door Configurations

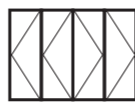


BI-FODING DOOR HARDWARE SERIES

Configuration Table

No.	Description	P/N	Qty					Notes	Ref. Page
			431	633	651	871	853		
1	Flat Handle Set (with Cylinder)	G010011 G010005	1	1	1	1	1	Casement Sash	P239
2	Flat Handle	G010006 G010007 G010008 G010009 G010010	2	3	3	4	4	Bi-Folding Sash, Exposed Spindle Length 32 mm Bi-Folding Sash, Exposed Spindle Length 37 mm Bi-Folding Sash, Exposed Spindle Length 42 mm Bi-Folding Sash, Exposed Spindle Length 47 mm Bi-Folding Sash, Exposed Spindle Length 60 mm	P240
3A	Adjustable Hinge with Handle	G040006	1	2	2	3	3	Qty for Inner Folding Door Sash	P246
3B	Fixed Hinge with Handle	G040002	1	2	2	3	3	Qty for Inner Folding Door Sash	
3C	Fixed Hinge with Handle	G040007	2	4	4	6	6	Qty for Inner Folding Door Sash	
4	Adjustable Hinge	G040001	4	2	4	4	2		P247
5	Fixed Hinge	G040003	5	10	8	11	13	Qty for Inner Folding Door Sash	P247
6A	Guide Roller	G050002	1	2	2	3	3	Left-Right Adjustable, Up-Down Adjustment Available with Part No.7 ; Option with No.6B Left-Right Fixed, Up-Down Adjustment Available with Part No.7; Option with No.6A	P242, P243
6B	Guide Roller	G050020	1	2	2	3	3		
7A	Weight Bearing Roller	G050001	1	2	2	3	3	Left-Right Adjustable, Up-Down Adjustable; Option with No.7B Left-Right Fixed, Up-Down Adjustable; Option with No.7A	P242, P243
7B	Weight Bearing Roller	G050019	1	2	2	3	3		
8	Pry-Resistant Espagnolette Bolt with Bearing	G020004 G020002 G020003 G020009	2	2	2	2	2	1,200 mm 960 mm 1,080 mm 1,965 mm	P249
9	Spindle Drive Gearbox	G020001	2	3	3	4	4		P241
10	Multi-Point Lock Body	D030037 D030036	1	1	1	1	1	22x330x33 Multi-Point Lock Body (V2.0, Used with a Steel Transmission Rod) 22x330x28 Multi-Point Lock Body (V2.0, Used with a Steel Transmission Rod)	P283, P284
11	Adjustable Main Strike	G100001 G100002	1	1	1	1	1	Suitable for Thermal Aluminum Profiles Suitable for Non-Thermal Aluminum Profiles	P248
12	Pry-Resistant Keepers	A100116	4	4	4	4	4		P249
13	Shootbolt	G070001 G070005	4	6	6	8	8	Suitable for Regular Profiles Suitable for Slim Profiles	P248
14	Shootbolt Connecting Rod	G020005 G020007 G020008	4	6	6	8	8	L=1500 mm L=2000 mm L=2500 mm	P248
15	Cylinder		1	1	1	1	1		P301, P302, P303
16	Adjustable Panel Stop	G080002	2	4	4	6	6		P250
17	Magnetic Panel Stop	G080001	2	4	4	6	6		P250
18	Espagnolette Bolt Back Plate	G120001	2-16	2-16	2-16	2-16	2-16	Suitable for the Lock Body and Transmission Rod Installation on Thermal Aluminum Profiles	P249
19	Transmission Rod Screw Pack	G110001	14	14	14	14	14	Suitable for G020002, G020003, G020004, D030037 ST4.2x25 Cross Countersunk Head Self-Tapping Screws	
20	Handle Screw Pack	G110004 G110002 G110003 G110005 G110008	4	6	6	8	8	Suitable for G010008, M5x45 mm Cross Countersunk Head Self-Tapping Screws Suitable for G010006, M5x35 mm Cross Countersunk Head Self-Tapping Screws Suitable for G010007, M5x40 mm Cross Countersunk Head Self-Tapping Screws Suitable for G010009, M5x50 mm Cross Countersunk Head Self-Tapping Screws Suitable for G010010, M5x63 mm Cross Countersunk Head Self-Tapping Screws	
21	Handle Screw Pack	D000082	1	1	1	1	1	Suitable for G010005	
22	Handle Spindle Screw Pack	D000062	1	1	1	1	1	Suitable for G010005	

Tip: If you need other special configurations, please contact the relevant technical staff.

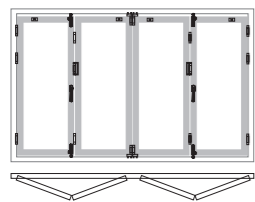


BI-FOLDING DOOR HARDWARE SERIES

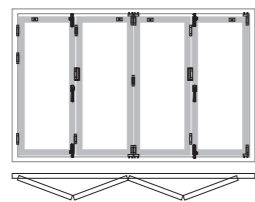
431 Configuration



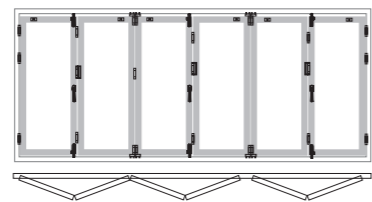
Door Configurations



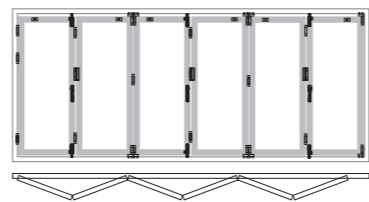
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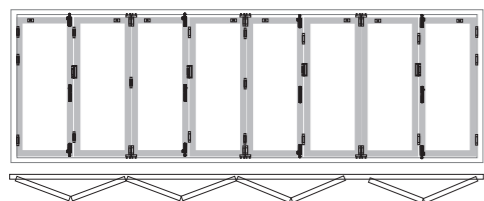
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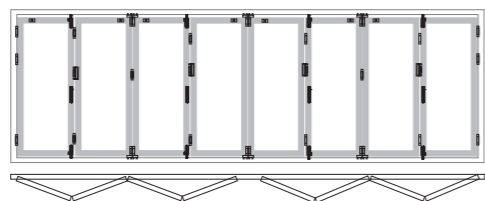
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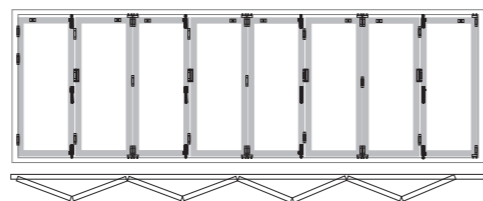
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862



844



880

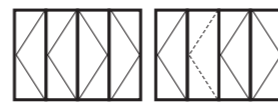


BI-FODING DOOR HARDWARE SERIES

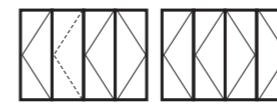
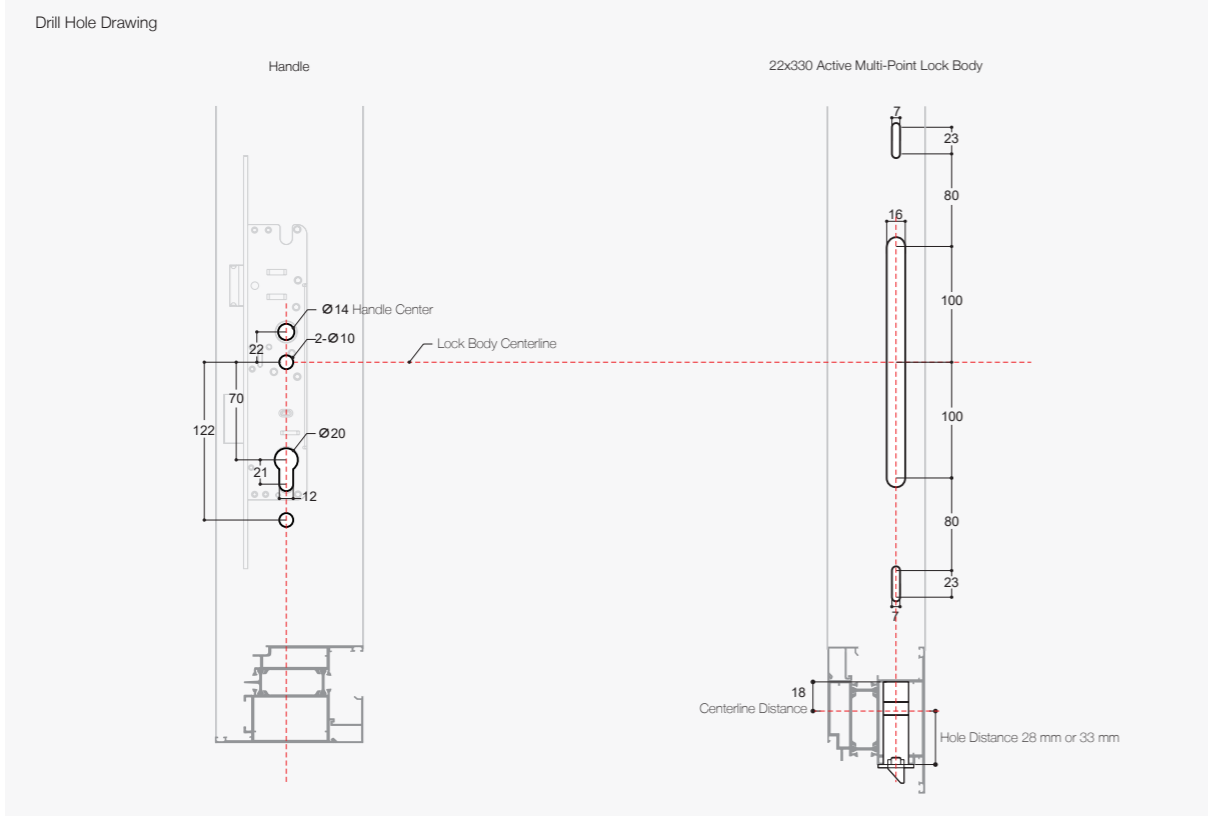
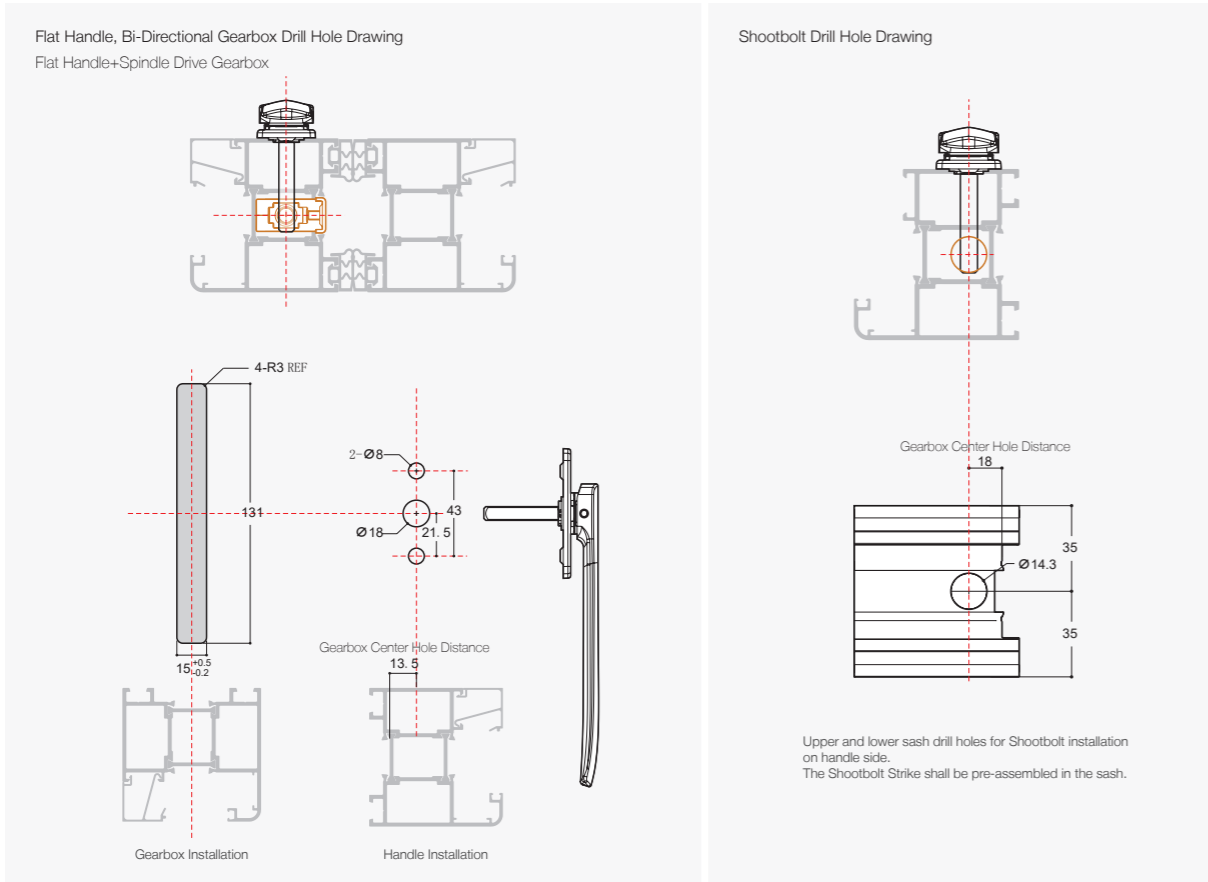
Configuration Table

No.	Description	P/N	Qty								Notes	Ref. Page
			440	422	660	642	880	862	844			
1	Flat Handle Set	G010017	1	1	1	1	1	1	1	1	Casement Sash	P239
2	Flat Handle	G010006 G010007 G010008 G010009 G010010	1	1	2	2	3	3	3	3	Bi-Folding Sash, Exposed Spindle Length 32 mm Bi-Folding Sash, Exposed Spindle Length 37 mm Bi-Folding Sash, Exposed Spindle Length 42 mm Bi-Folding Sash, Exposed Spindle Length 47 mm Bi-Folding Sash, Exposed Spindle Length 60 mm	P240
3a	Adjustable Hinge with Handle	G040006	1	2	1	2	1	2	2	2	Suitable for The Last Sash Qty for Inner Folding Door Sash	P246
3b	Fixed Hinge with Handle	G040002	1	0	2	1	3	2	2	2	Qty for Inner Folding Door Sash	P246
3c	Fixed Hinge with Handle	G040007	2	2	3	3	4	4	4	4	Qty for Inner Folding Door Sash	P246
4	Adjustable Hinge	G040001	2	4	2	4	2	4	4	4	Suitable for The Last Sash Qty for Inner Folding Door Sash	P247
5	Fixed Hinge	G040003	6	6	9	9	12	12	12	12	Qty for Inner Folding Door Sash	P247
6	Guide Roller	G050002	1	0	2	1	3	2	2	2		P242
7	Weight Bearing Roller	G050001	1	0	2	1	3	2	2	2		P242
8A	Single Guide Roller Left	G050011	0	1	0	1	0	1	1	1		P244, P245
8B	Single Guide Roller Right	G050015	1	1	1	1	1	1	1	1		P244, P245
8C	Single Guide Roller Left	G050010	0	1	0	1	0	1	1	1	Option with No.8A	P244, P245
8D	Single Guide Roller Right	G050016	1	1	1	1	1	1	1	1	Option with No.8B	P244, P245
9A	Single Weight Bearing Roller Left	G050013	0	1	0	1	0	1	1	1		P244, P245
9B	Single Weight Bearing Roller Right	G050017	1	1	1	1	1	1	1	1		P244, P245
9C	Single Weight Bearing Roller Left	G050012	0	1	0	1	0	1	1	1	Option with No.9A	P244, P245
9D	Single Weight Bearing Roller Right	G050018	1	1	1	1	1	1	1	1	Option with No.9B	P244, P245
10A	Spindle Drive Gearbox (with Cylinder)	G020010	1	1	1	1	1	1	1	1	Suitable for No.1	P241
10B	Spindle Drive Gearbox	G020001	1	1	2	2	3	3	3	3	Suitable for No.2	P241
11	Shootbolt	G070001 G070005	4	4	6	6	8	8	8	8	Suitable for Regular Profiles Suitable for Slim Profiles	P248
12	Shootbolt Connecting Rod	G020005 G020007 G020008	4	4	6	6	8	8	8	8	L=1500 mm L=2000 mm L=2500 mm	P248
13	Cylinder		1	1	1	1	1	1	1	1	Suitable for No.10a	P301, P302, P303
14	Adjustable Panel Stop	G080002	2	2	3	3	4	4	4	4		P250
15	Magnetic Panel Stop	G080001	2	2	3	3	4	4	4	4		P250
16	Cylinder Cover	G140001	1	1	1	1	1	1	1	1	Suitable for No.10a	P240
17	Handle Screw Pack		2	2	2	2	2	2	2	2		P237
18	Spindle Pack		1	1	1	1	1	1	1	1		P237
19	Handle Screw Pack	G110004 G110002 G110003 G110005 G110008	2	2	4	4	6	6	6	6	Suitable for G010008, M5x45 mm Cross Countersunk Head Self-Tapping Screws Suitable for G010006, M5x35 mm Cross Countersunk Head Self-Tapping Screws Suitable for G010007, M5x40 mm Cross Countersunk Head Self-Tapping Screws Suitable for G010009, M5x50 mm Cross Countersunk Head Self-Tapping Screws Suitable for G010010, M5x63 mm Cross Countersunk Head Self-Tapping Screws	P237

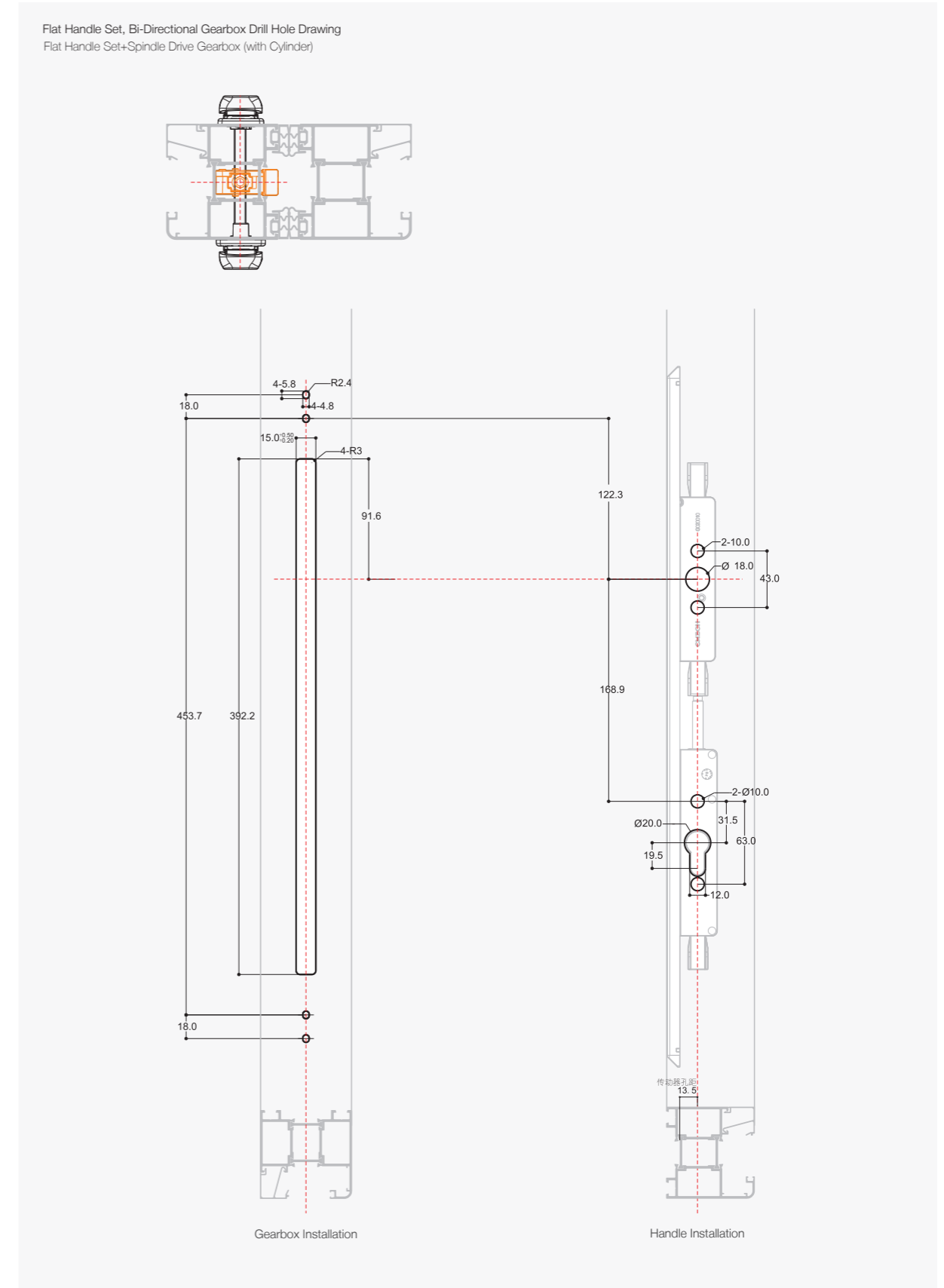
Tip: If you need other special configurations, please contact the relevant technical staff.

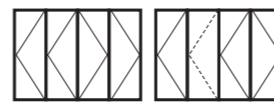


PROFILE AND DRILLING REQUIREMENTS



PROFILE AND DRILLING REQUIREMENTS

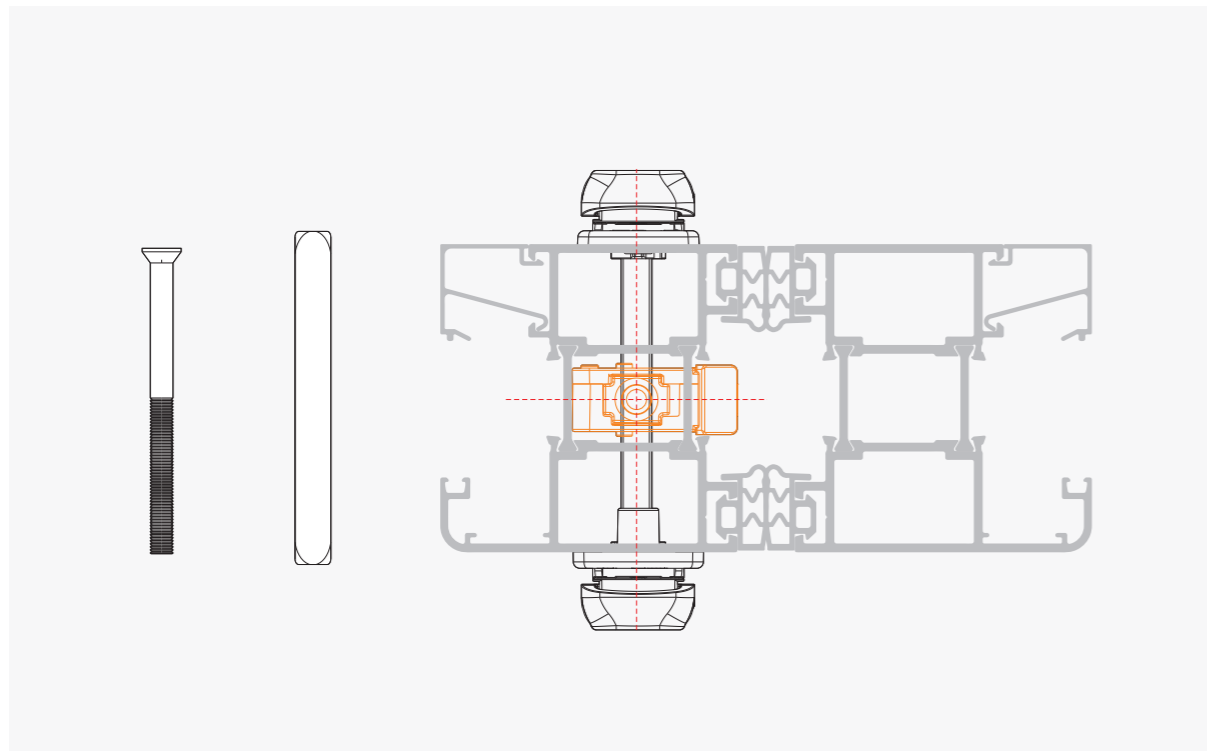




SPINDLE & SCREW PACK SELECTIONS

(For Flat Handle Set)

Spindle Pack				Handle Screw Pack			
P/N	Description	Sash Width	Qty	P/N	Description	Sash Width	Qty
G110009	7x7x77 Spindle	65	1	G110021	M5x65 Countersunk Cross Screw	65	2
G110010	7x7x82 Spindle	70	1	G110022	M5x70 Countersunk Cross Screw	70	2
G110011	7x7x84 Spindle	72	1	G110023	M5x72 Countersunk Cross Screw	72	2
G110012	7x7x87 Spindle	75	1	G110024	M5x75 Countersunk Cross Screw	75	2
G110013	7x7x92 Spindle	80	1	G110025	M5x80 Countersunk Cross Screw	80	2
G110014	7x7x97 Spindle	85	1	G110026	M5x85 Countersunk Cross Screw	85	2
G110015	7x7x100 Spindle	88	1	G110027	M5x88 Countersunk Cross Screw	88	2
G110016	7x7x102 Spindle	90	1	G110028	M5x90 Countersunk Cross Screw	90	2
G110017	7x7x107 Spindle	95	1	G110029	M5x95 Countersunk Cross Screw	95	2
G110018	7x7x112 Spindle	100	1	G110030	M5x100 Countersunk Cross Screw	100	2
G110019	7x7x117 Spindle	105	1	G110031	M5x105 Countersunk Cross Screw	105	2
G110020	7x7x122 Spindle	110	1	G110032	M5x110 Countersunk Cross Screw	110	2



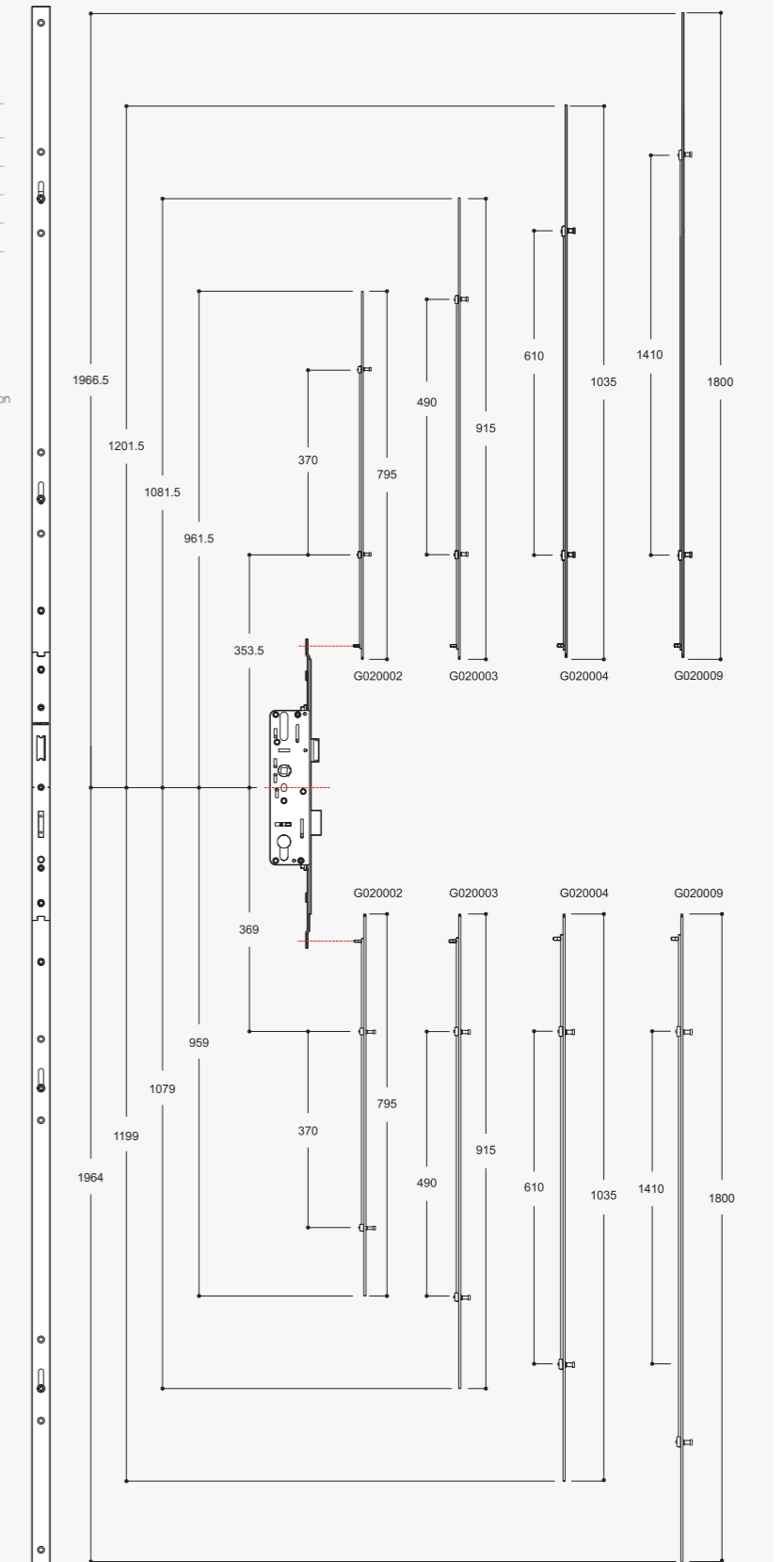
ESPAGNOLETTE BOLT SELECTION

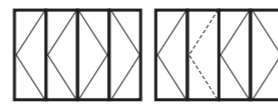
(For a 22x330 Active Multi-Point Lock Body)

Espagnolette Bolt Measurements

P/N	Specifications	Description
G020002	22x960 mm	Lock Point with Bearing
G020003	22x1,080 mm	Lock Point with Bearing
G020004	22x1,200 mm	Lock Point with Bearing
G020009	22x1,965 mm	Lock Point with Bearing

Note:
 1. The lock body is a 22x300 Active Multi-Point Lock Body.
 2. The dimensions are given in the locked position.
 3. The end of the transmission rod can be trimmed based on the actual height of the door.

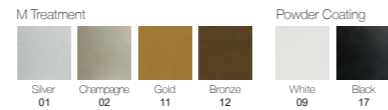
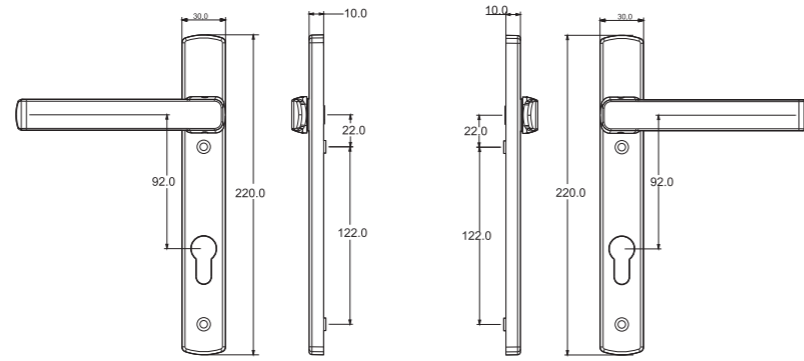




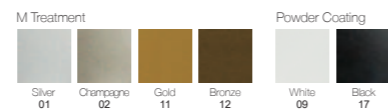
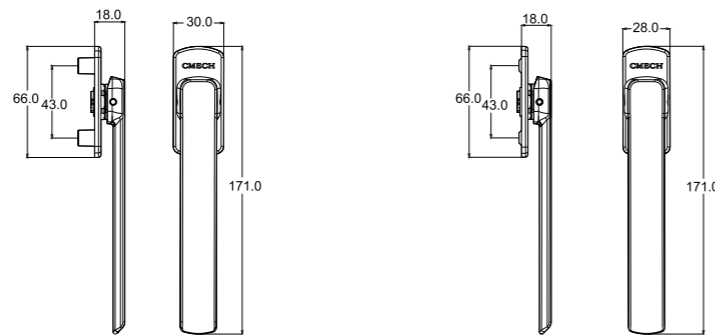
HANDLE SELECTIONS

FLAT HANDLE SET

G010011
Use on Odd-numbered Sash

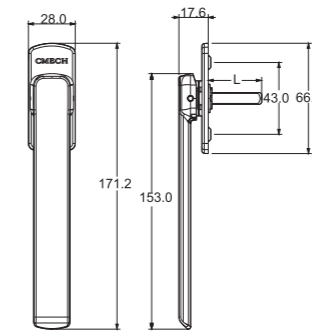


G010017
Use on Even-numbered Sash or Casement Sash

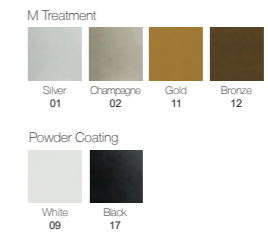


HANDLE SELECTIONS

FLAT HANDLE

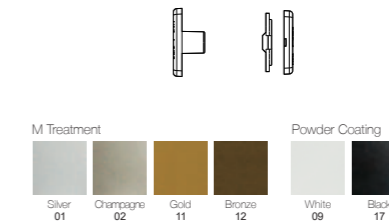
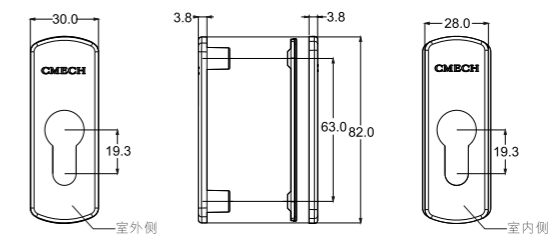


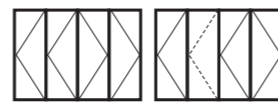
P/N	L
G010012-	32
G010013-	37
G010014-	42
G010015-	47
G010016-	60



CYLINDER COVER

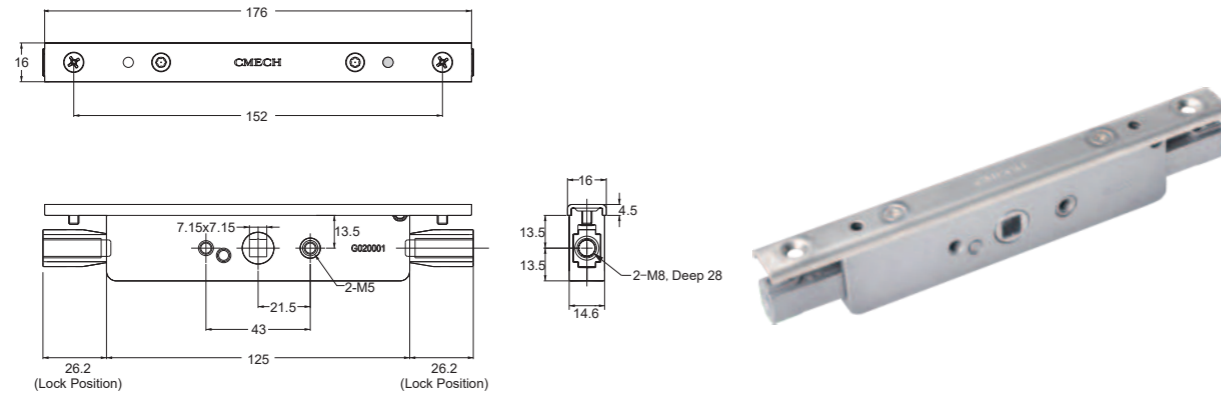
G140001
Cylinder Cover (Suitable for Spindle Drive Gearbox(with Cylinder))



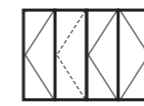
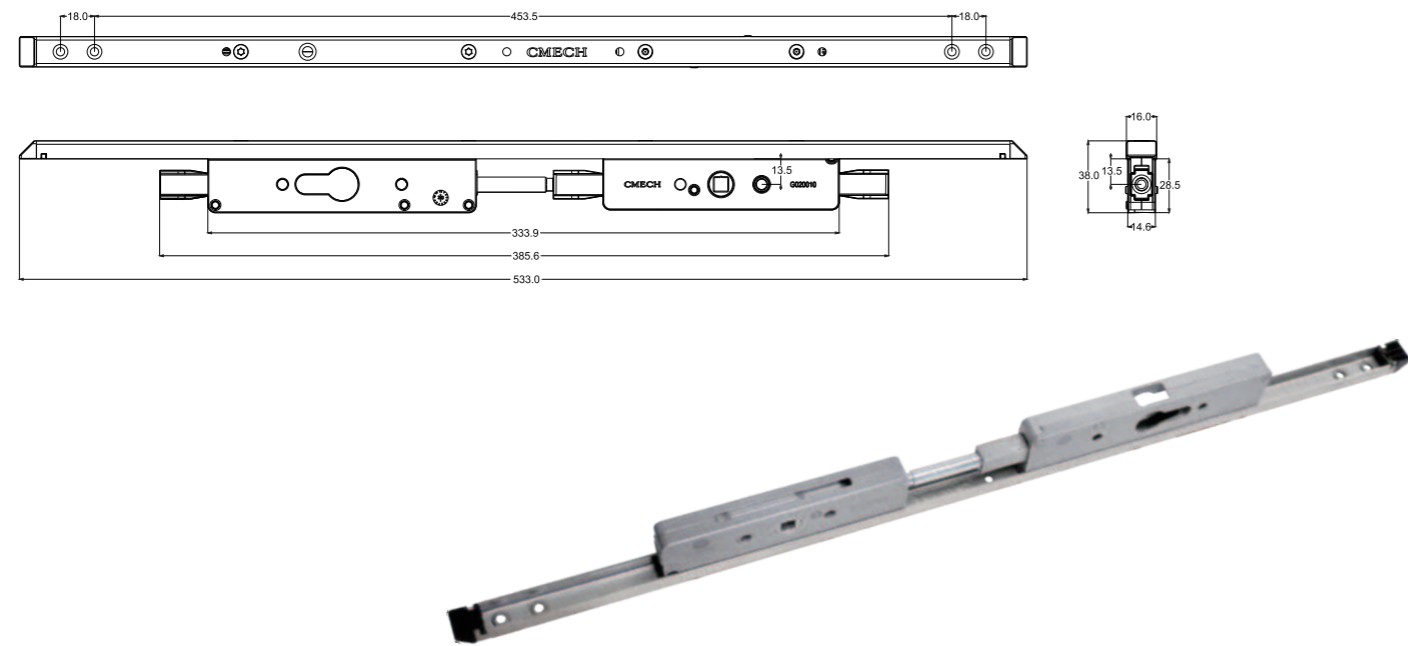


HINGES

G020001
Spindle Drive Gearbox

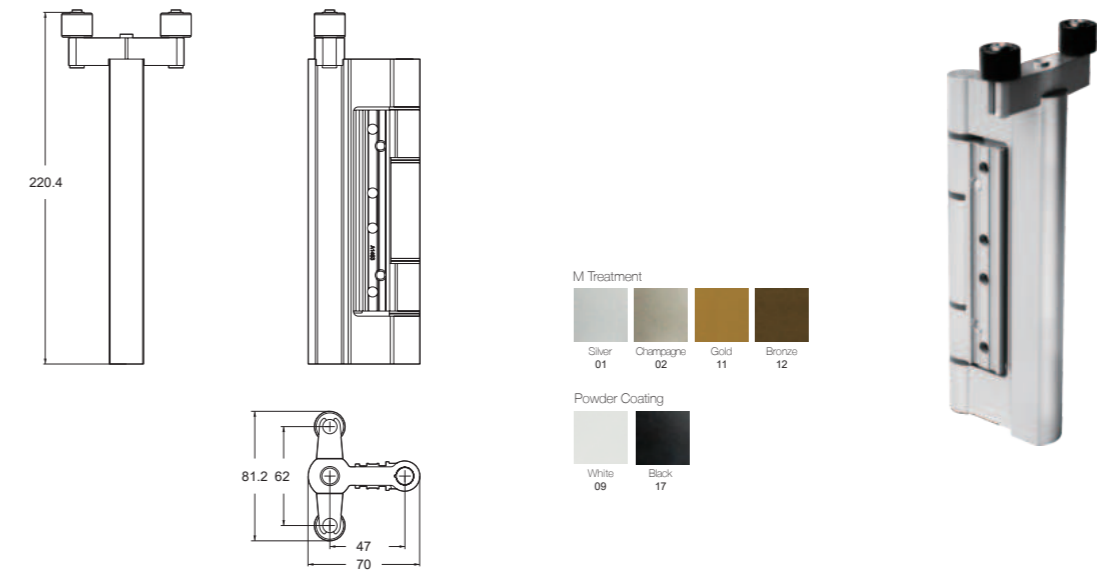


G020010
Spindle Drive Gearbox(with Cylinder)

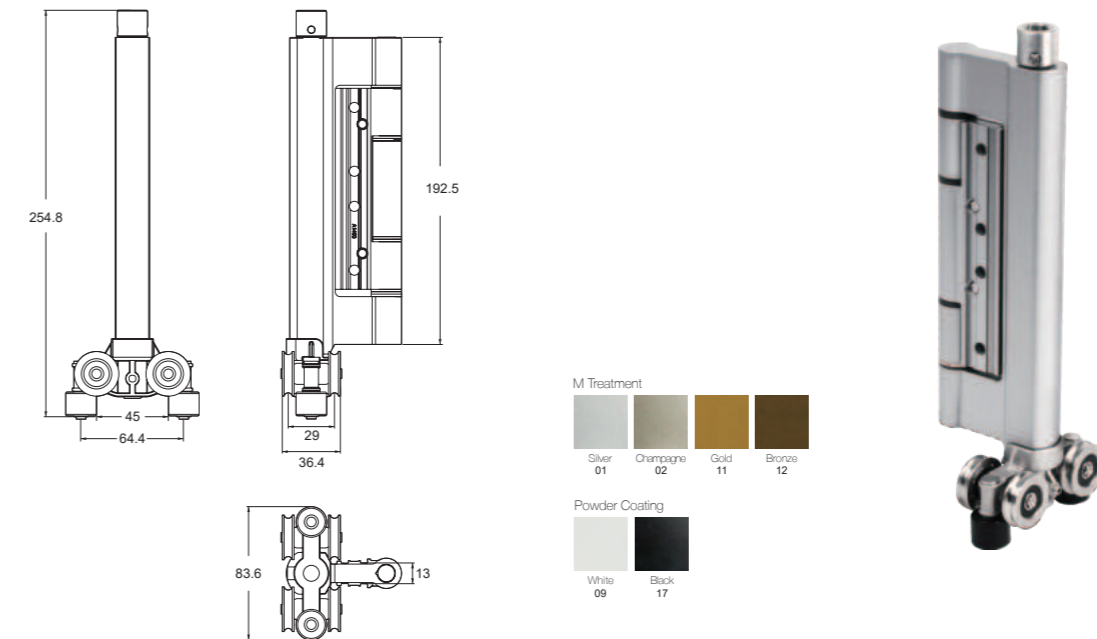


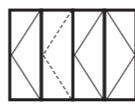
HINGES

G050002
Guide Roller (Odd-numbered Sash)



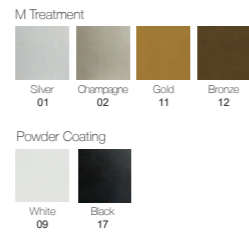
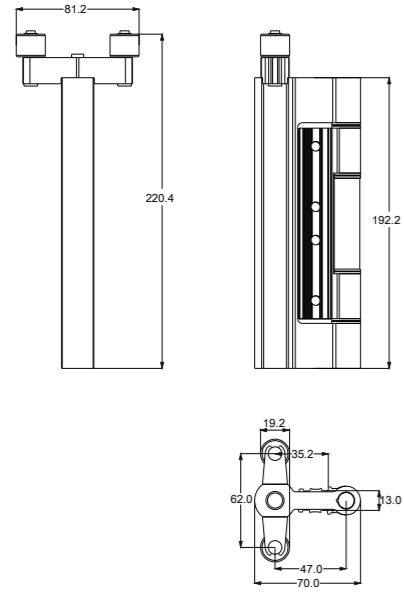
G050001
Weight Bearing Roller (Odd-numbered Sash)



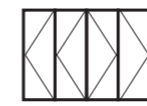
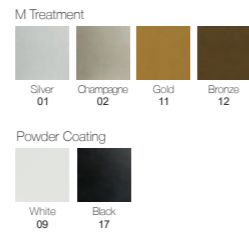
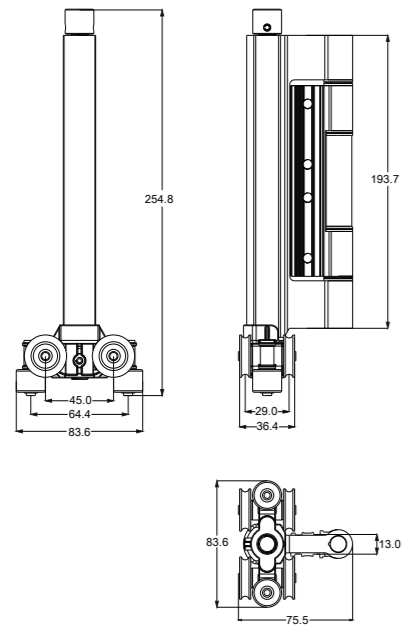


HINGES

G050019
Fixed Guide Roller (Odd-numbered Sash)

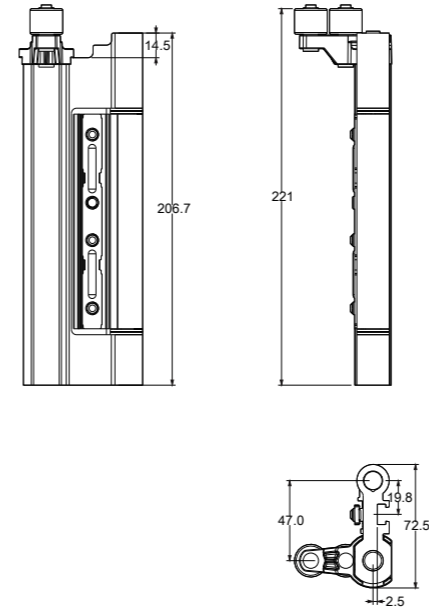


G050020
Fixed Weight Bearing Roller (Odd-numbered Sash)

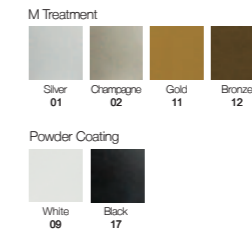


HINGES

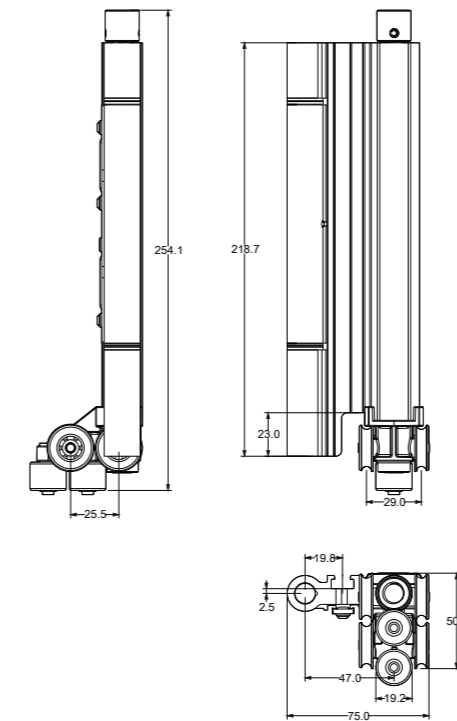
Guide Roller (Even-numbered Sash)



P/N	Description
G050010	Guide Roller (Right)
G050011	Guide Roller (Left)

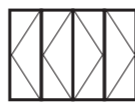


Weight Bearing Roller (Even-numbered Sash)



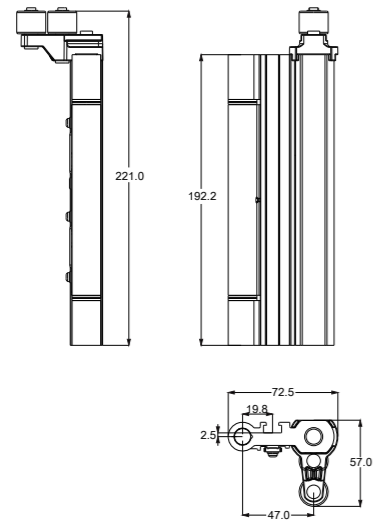
P/N	Description
G050012	Weight Bearing Roller (Right)
G050013	Weight Bearing Roller (Left)



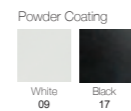
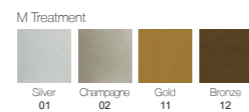


HINGES

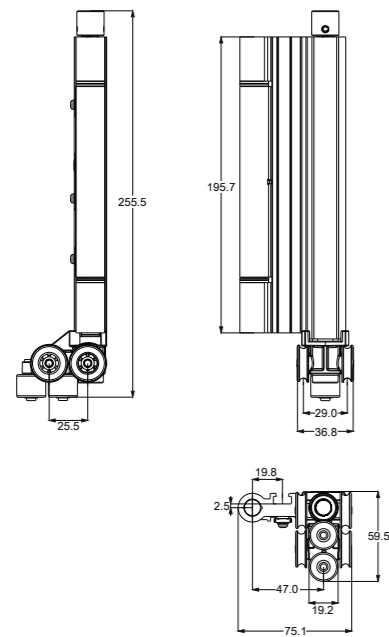
Guide Roller (Even-numbered Sash)



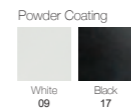
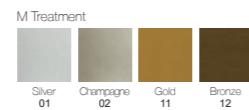
P/N	Description
G050015	Guide Roller (Right)
G050016	Guide Roller (Left)



Weight Bearing Roller (Even-numbered Sash)

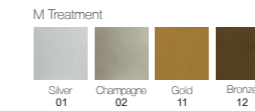
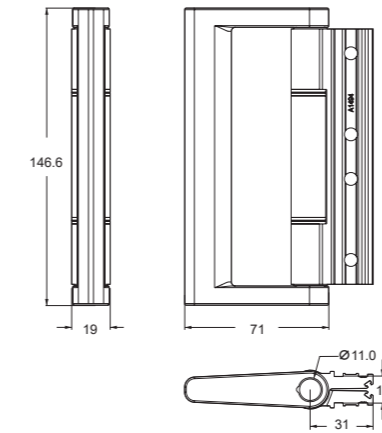


P/N	Description
G050017	Weight Bearing Roller (Right)
G050018	Weight Bearing Roller (Left)

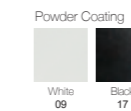
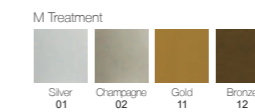
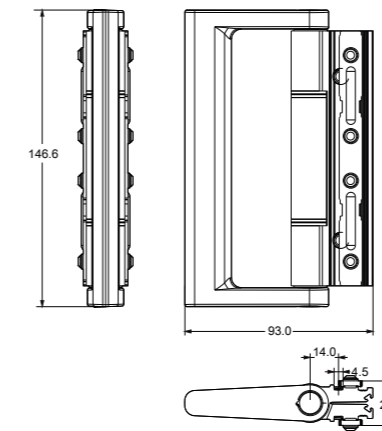


HINGES

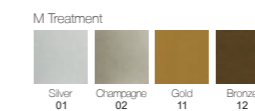
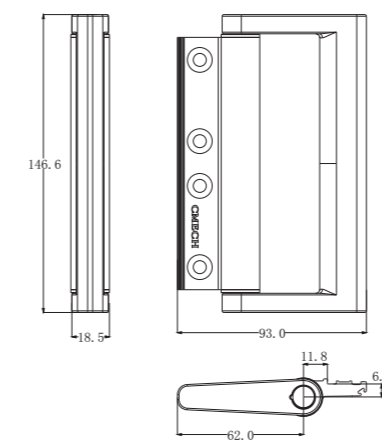
G040002
Fixed Hinge with Handle

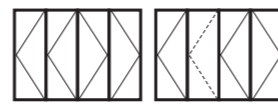


G040006
Adjustable Hinge with Handle



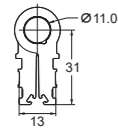
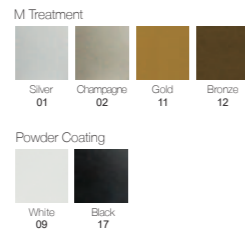
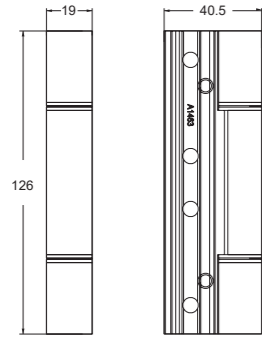
G040007
Fixed Hinge with Handle



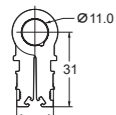
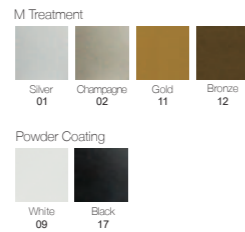
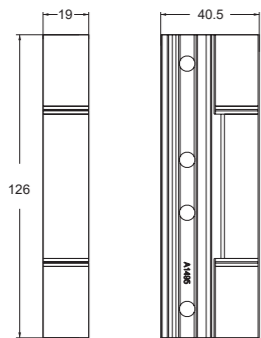


HINGES

G040001
Adjustable Hinge

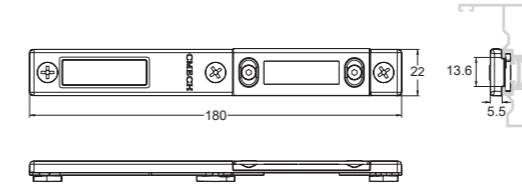


G040003
Fixed Hinge

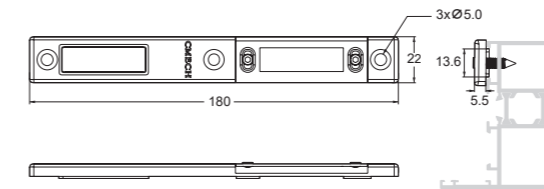


LOCKING HARDWARE

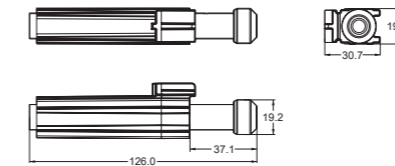
G100003
Adjustable Main Strike
(Suitable for Thermal Aluminum Profiles, Supplied Screw Pack)



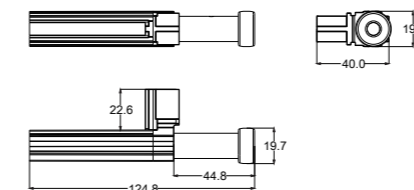
G100004
Adjustable Main Strike
(Suitable for Non-Thermal Aluminum Profiles, Supplied Screw Pack)



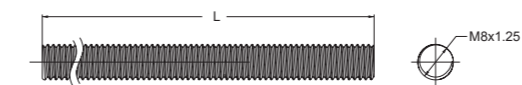
G070001
Shootbolt



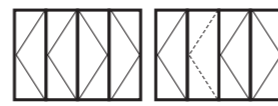
G070001
Shootbolt



Shootbolt Connecting Rod

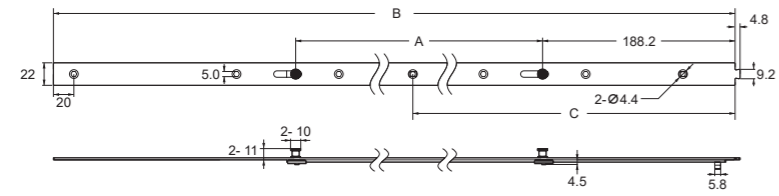


P/N	L	Instructions
G020005	1500 mm	Standard Configuration
G020007	2000 mm	Optional
G020008	2500 mm	Optional
-	Others	Customization



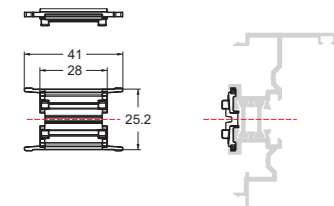
LOCKING HARDWARE

Pry-Resistant Espagnolette Bolt with Bearing

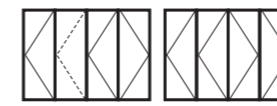
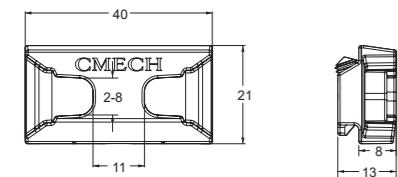


P/N	Specifications			Instructions
	A	B	C	
G020002	370 mm	795 mm	-	304SS
G020003	490 mm	915 mm	441 mm	304SS
G020004	610 mm	1,035 mm	501 mm	304SS
G020009	1410 mm	1,800 mm	1000 mm	304SS

G120001
Espagnolette Bolt Back Plate

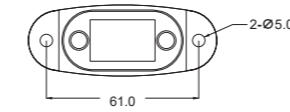
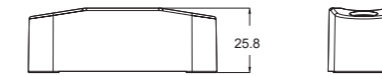
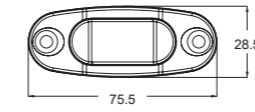


A100116
Pry-Resistant Keepers

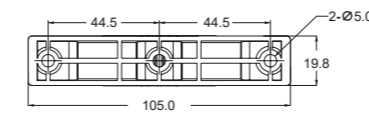
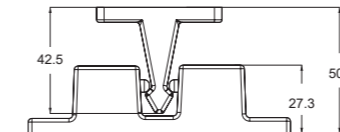


PANEL STOP

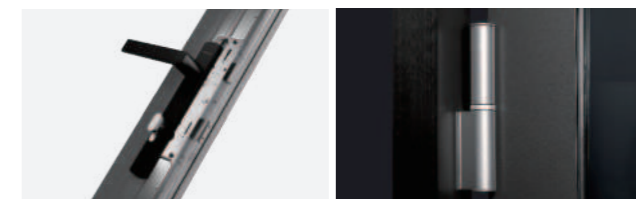
G080001
Magnetic Panel Stop



G080002
Adjustable Panel Stop



Hinged Door Hardware



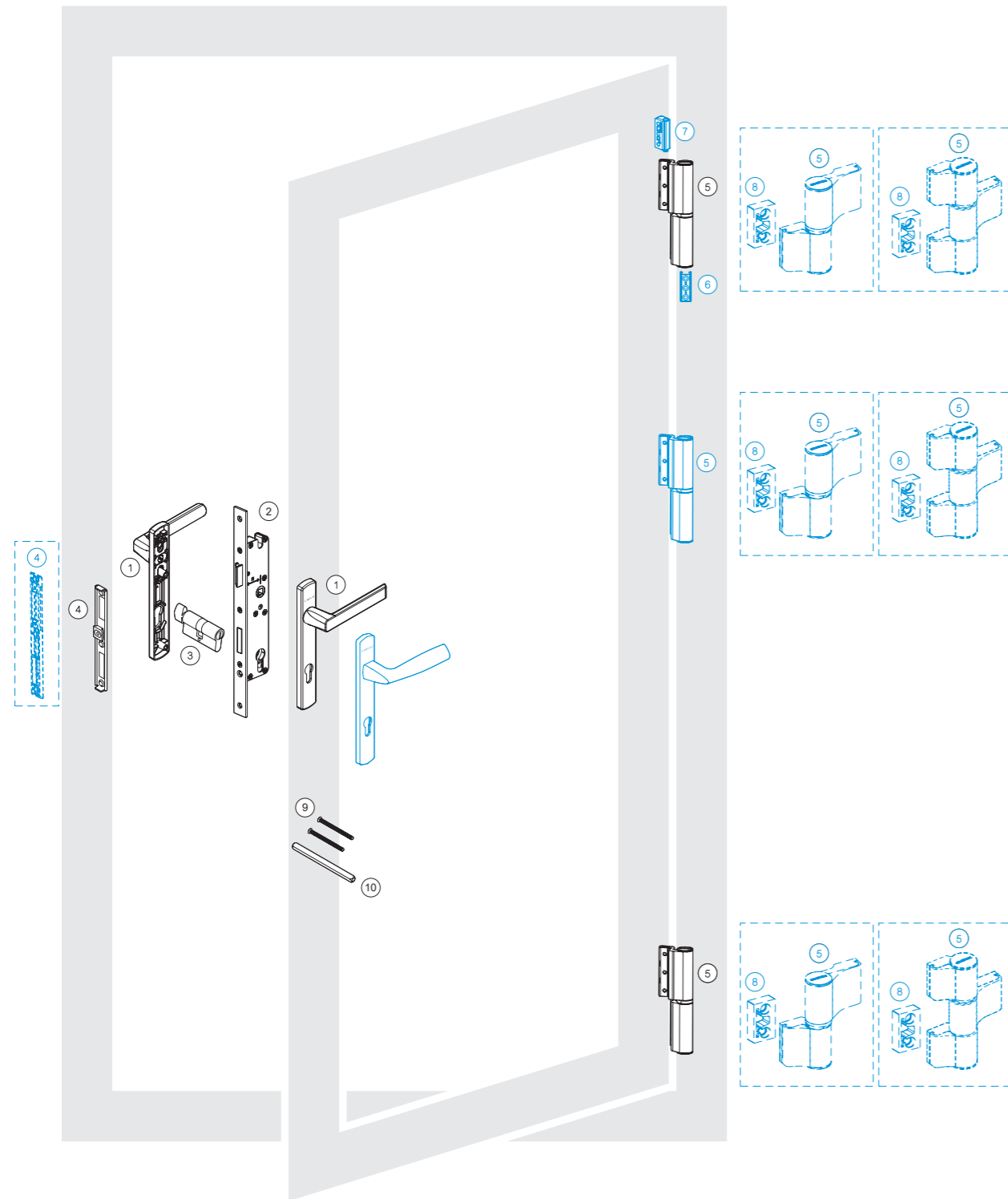
- The handles are available in many styles and colors
- Three axis adjustable hinges
- No tools are required to change the orientation of the lock, making it quick and convenient

Hinged Door		Applicable Range
Sash Width (max)	(mm)	500-1,200
Sash Height (max)	(mm)	1,920-3,000
Weight	(kg)	120, 140, 180
Lock Body Centerline	(mm)	28, 33, 38



HINGED DOOR HARDWARE SERIES

Single-Panel with Type D handle and Single-Point Lock Configuration



HINGED DOOR HARDWARE SERIES

Configuration Table - Single-Panel with Single-Point Lock

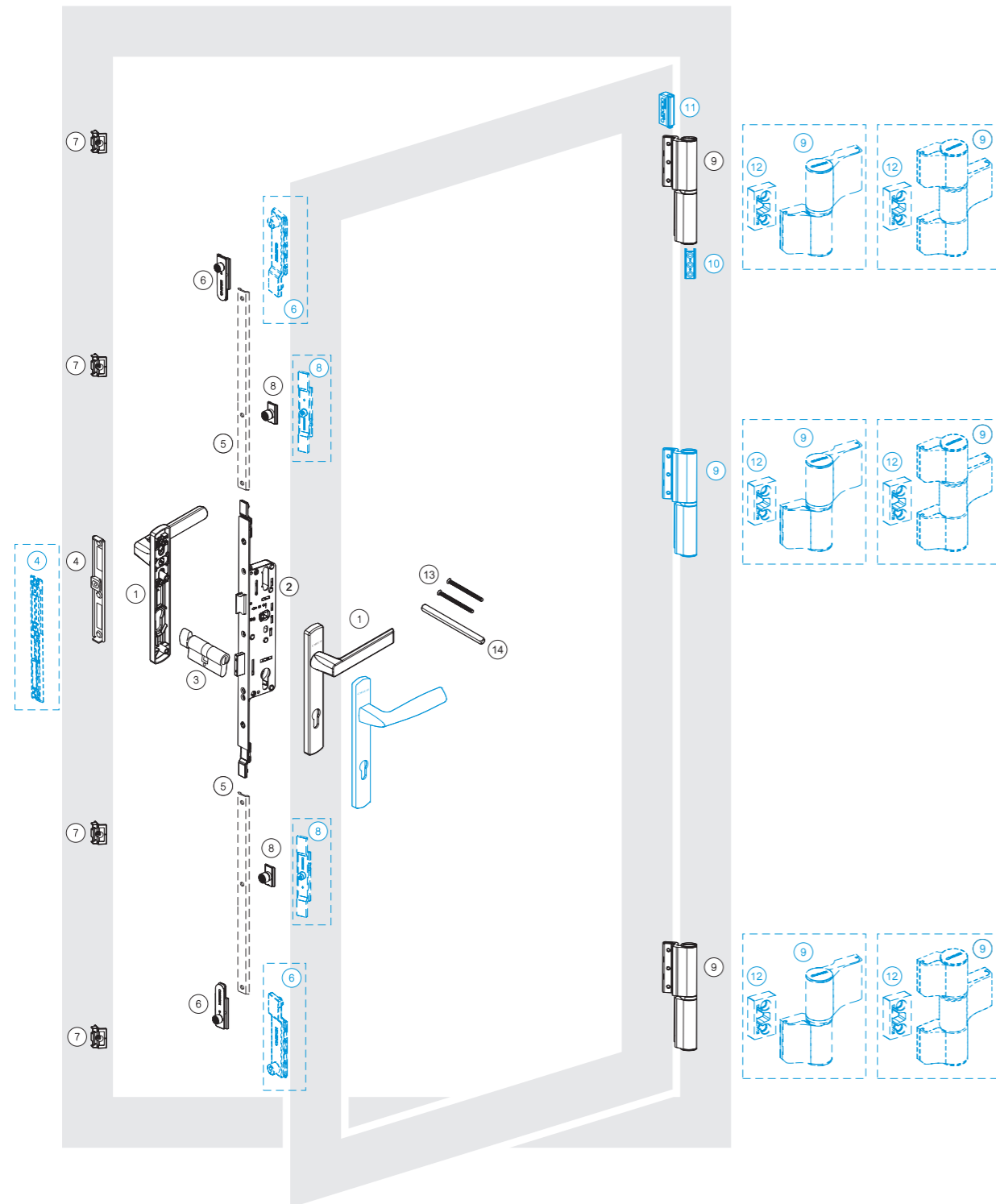
No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type D)	D010601 D010433 D010602 D010434	1	Milan Handle with Cylinder Berlin Handle with Cylinder Milan Handle without Cylinder Berlin Handle without Cylinder	P269 P270
2	Lock Body	D030040 D030041 D030046 D030047	1	Master Series, Lock Distance: 28 mm, Plate: 22x300 mm Master Series, Lock Distance: 33 mm, Plate: 22x300 mm Classic Series, Lock Distance: 28 mm, Plate: 22x238 mm Classic Series, Lock Distance: 33 mm, Plate: 22x238 mm	P274 P275
3	Cylinder		1		P288 P289
4	Adjustable Strike	D100012 G100003 G100004	1		P277
5	120 kg Reinforced Hinge 120 kg Reinforced Hinge 120 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge	D040017 D040018 D040019 D040020 D040003 D040013 D040014 D040015 D040032 D040033	2-3	With Standard Clamping Block, Load-bearing:120 kg (Left) With Standard Clamping Block, Load-bearing:120 kg (Right) Load-bearing:120 kg (Left) Load-bearing:120 kg (Right) 20.5x41x40 mm, Load-bearing:140 kg 49x41x40 mm, Load-bearing:140 kg 20.5x41x40 mm, Load-bearing:180 kg 49x41x40 mm, Load-bearing:180 kg Load-bearing:120 kg (Left) Load-bearing:120 kg (Right)	P280 P281 P282 P283 P284 P285 P286 P287
6	Anti Slide Clamping Block	D000049	1	Suitable for 120 kg Reinforced Hinge	P279
7	Sash Height Adjusting Block	D000007	1	Suitable for 120 kg Reinforced Hinge	P279
8	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8.5x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 10x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 11x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge	P279
9	Handle Screw Pack		1		P268
10	Spindle Screw Pack		1		P267

*Flat Handle is Available



HINGED DOOR HARDWARE SERIES

Single-Panel with Multi-Point Lock + Connecting Strip Configuration



HINGED DOOR HARDWARE SERIES

Configuration Table - Single-Panel with Multi-Point Lock + Connecting Strip

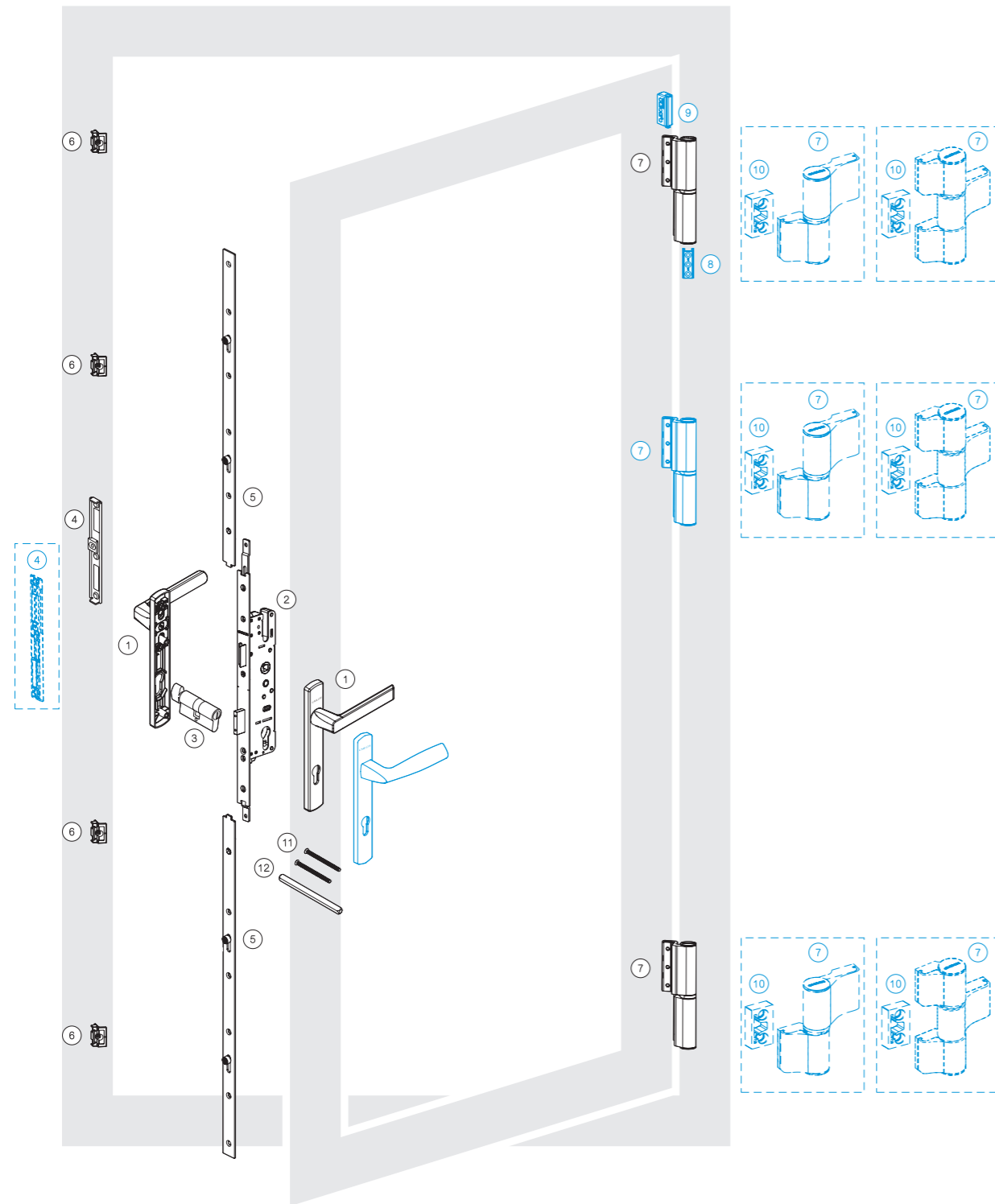
No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type D)	D010601 D010433 D010602 D010434	1	Milan Handle with Cylinder Berlin Handle with Cylinder Milan Handle without Cylinder Berlin Handle without Cylinder	P269 P270
2	Lock Body	D030038 D030039 D030042 D030043 D030044 D030045	1	Master Series, Lock Distance: 28 mm, Plate: 22x395 mm Master Series, Lock Distance: 33 mm, Plate: 22x395 mm Master Series, Lock Distance: 38 mm, Plate: 22x395 mm Classic Series, Lock Distance: 28 mm, Plate: 22x360 mm Classic Series, Lock Distance: 33 mm, Plate: 22x360 mm Classic Series, Lock Distance: 38 mm, Plate: 22x360 mm	P274 P275
3	Cylinder		1		P288 P289
4	Adjustable Strike	D100012 G100003 G100004	1		P277
5	Connecting Strip			Provided by Customer or Cmech	
6	Lock Point	A090001 A090005 A090007 A090008 A090048	2	Ø9.5x6.0 mm Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-resistant End Lock Point	P88 P89 P90 P91
7	Keeper	A100127 A100125	2-4	Pry-resistant Keeper	P92
8	Active Lock Point	A090002 A090009 A090010	2	Dual-Stage Active Lock Point Ø9.5x8.75 mm Central Lock Point Ø9.5x6.0 mm Central Lock Point Ø9.5x7.0 mm	P90
9	120 kg Reinforced Hinge 120 kg Reinforced Hinge 120 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge	D040017 D040018 D040019 D040020 D040003 D040013 D040014 D040015 D040032 D040033	2-3	With Standard Clamping Block, Load-bearing:120 kg (Left) With Standard Clamping Block, Load-bearing:120 kg (Right) Load-bearing:120 kg (Left) Load-bearing:120 kg (Right) 20.5x41x40 mm, Load-bearing:140 kg 49x41x40 mm, Load-bearing:140 kg 20.5x41x40 mm, Load-bearing:180 kg 49x41x40 mm, Load-bearing:180 kg Load-bearing:120 kg (Left) Load-bearing:120 kg (Right)	P280 P281 P282 P283 P284 P285 P286 P287
10	Anti Slide Clamping Block	D000049	1	Suitable for 120 kg Reinforced Hinge	P279
11	Sash Height Adjusting Block	D000007	1	Suitable for 120 kg Reinforced Hinge	P279
12	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8.5x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 10x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 11x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge	P279
13	Handle Screw Pack		1		P268
14	Spindle Screw Pack		1		P267

*Flat Handle is Available



HINGED DOOR HARDWARE SERIES

Single-Panel with Multi-Point Lock + Espagnolette Bolt Configuration



HINGED DOOR HARDWARE SERIES

Configuration Table - Single-Panel with Multi-Point Lock + Espagnolette Bolt

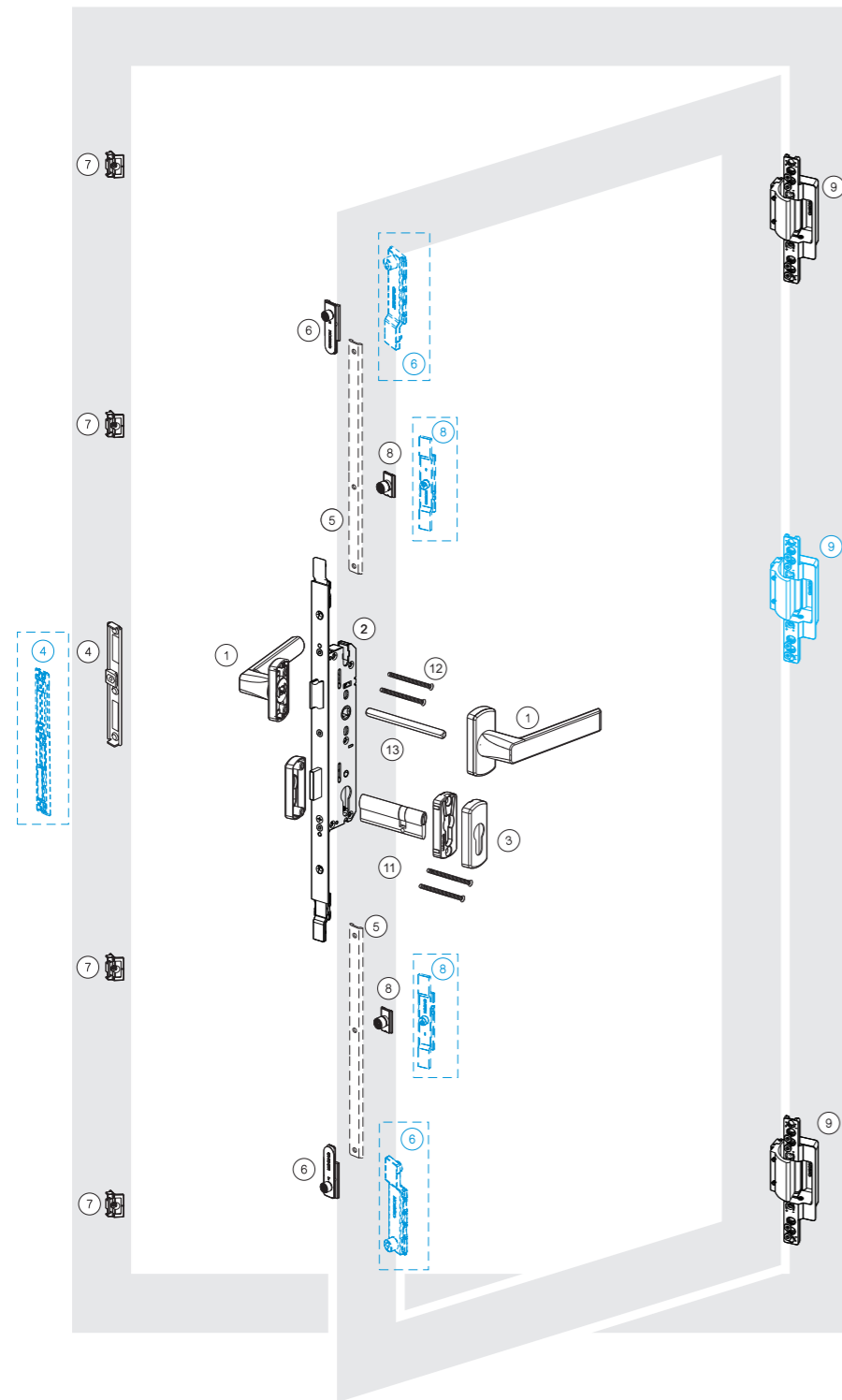
No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type D)	D010601 D010433 D010602 D010434	1	Milan Handle with Cylinder Berlin Handle with Cylinder Milan Handle without Cylinder Berlin Handle without Cylinder	P269, P270
2	Lock Body	D030036 D030037	1	Lock Distance: 28 mm, Plate: 22x330 mm Lock Distance: 33 mm, Plate: 22x330 mm	P274, P275
3	Cylinder		1		P288, P289
4	Adjustable Strike	D100012 G100003 G100004	1		P277
5	Espagnolette Bolt	D020001 D020002 D020003 D020004 D020005 D020006	2	795 mm, 304SS 915 mm, 304SS 1,035 mm, 304SS 795 mm, 304SS, Lock Point with Bearing 915 mm, 304SS, Lock Point with Bearing 1,035 mm, 304SS, Lock Point with Bearing	P276
6	Keeper	A100101 A100125	2-4		P92
7	120 kg Reinforced Hinge 120 kg Reinforced Hinge 120 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge	D040017 D040018 D040019 D040020 D040003 D040013 D040014 D040015 D040032 D040033	2-3	With Standard Clamping Block, Load-bearing:120 kg (Left) With Standard Clamping Block, Load-bearing:120 kg (Right) Load-bearing:120 kg (Left) Load-bearing:120 kg (Right) 20.5x41x40 mm, Load-bearing:140 kg 49x41x40 mm, Load-bearing:140 kg 20.5x41x40 mm, Load-bearing:180 kg 49x41x40 mm, Load-bearing:180 kg Load-bearing:120 kg (Left) Load-bearing:120 kg (Right)	P280, P281, P282, P283, P284, P285, P286, P287
8	Anti Slide Clamping Block	D000049	1	Suitable for 120 kg Reinforced Hinge	P279
9	Sash Height Adjusting Block	D000007	1	Suitable for 120 kg Reinforced Hinge	P279
10	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8.5x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 10x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 11x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge	P279
11	Handle Screw Pack		1		P268
12	Spindle Screw Pack		1		P267

*Flat Handle is Available



HINGED DOOR HARDWARE SERIES

Single-Panel with Multi-Point Lock + Connecting Strip Configuration



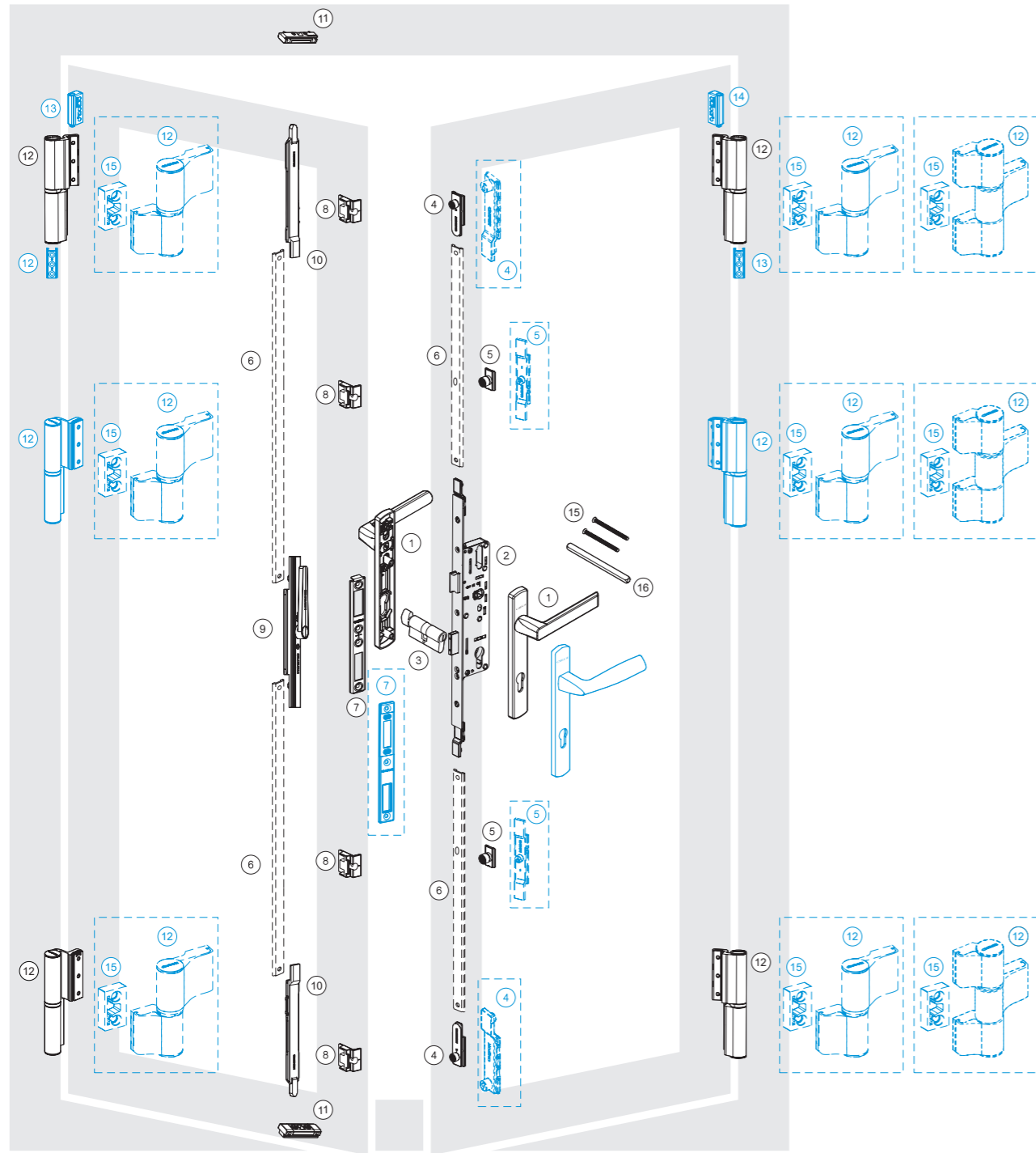
HINGED DOOR HARDWARE SERIES

Configuration Table - Single-Panel with Multi-Point Lock + Connecting Strip

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	D010631	1	Milan Series Split Type Handle	P269 P270
2	Split Type Lock Body	D030053 D030054	1	Lock Distance: 28 mm, Plate: 22x395 mm Lock Distance: 33 mm, Plate: 22x395 mm	P274 P275
3	Cylinder Cover	D140025	1		P288 P289
4	Adjustable Strike	D100012 G100002 G100003	1		P277
5	Connecting Strip			Provided by Customer or Cmech	
6	Lock Point	A090001 A090005 A090007 A090008 A090048	2	Ø9.5x6.0 mm Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm Pry-resistant End Lock Point	P88 P89 P90 P91
7	Keeper	A100127 A100125	2-4	Pry-resistant Keeper	P92
8	Active Lock Point	A090002 A090009 A090010	2	Dual-Stage Active Lock Point Ø9.5x8.75 mm Central Lock Point Ø9.5x6.0 mm Central Lock Point Ø9.5x7.0 mm	P90
9	Hidden Hinge	D040036	2-3	100° Hidden Handle	
10	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8.5x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 10x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 11x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge	P279
11	Cylinder		1		P288 P289
12	Handle Screw Pack		1		
13	Spindle Screw Pack		1		P267



HINGED DOOR HARDWARE SERIES
Double-Panel with Multi-Point Lock + Connecting Strip Configuration



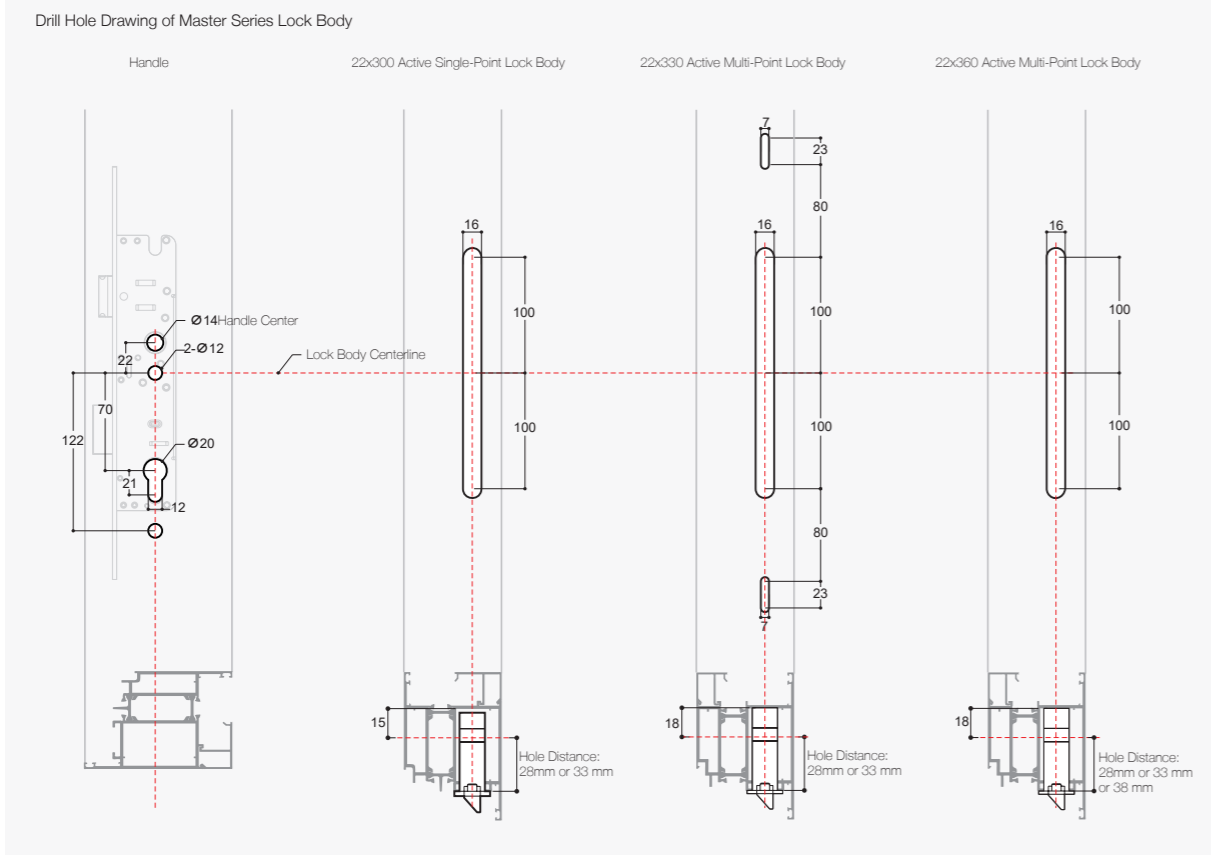
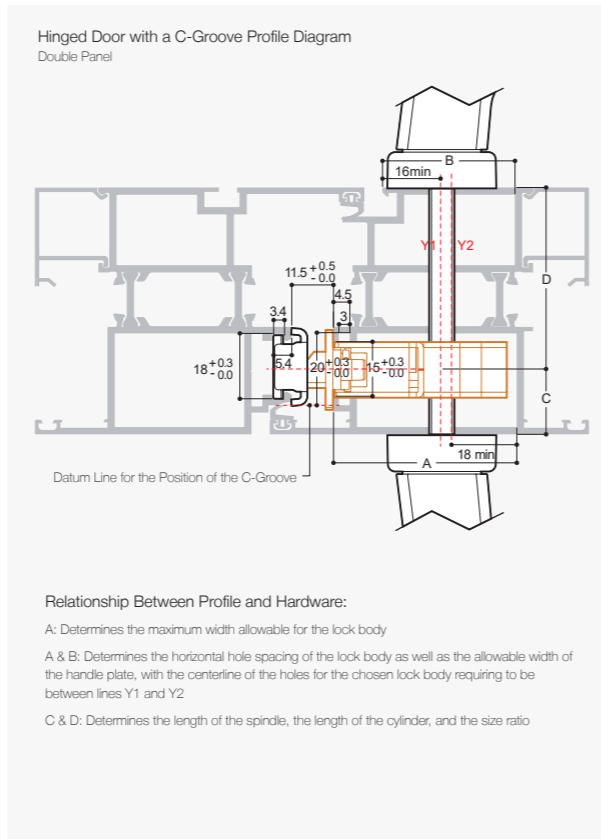
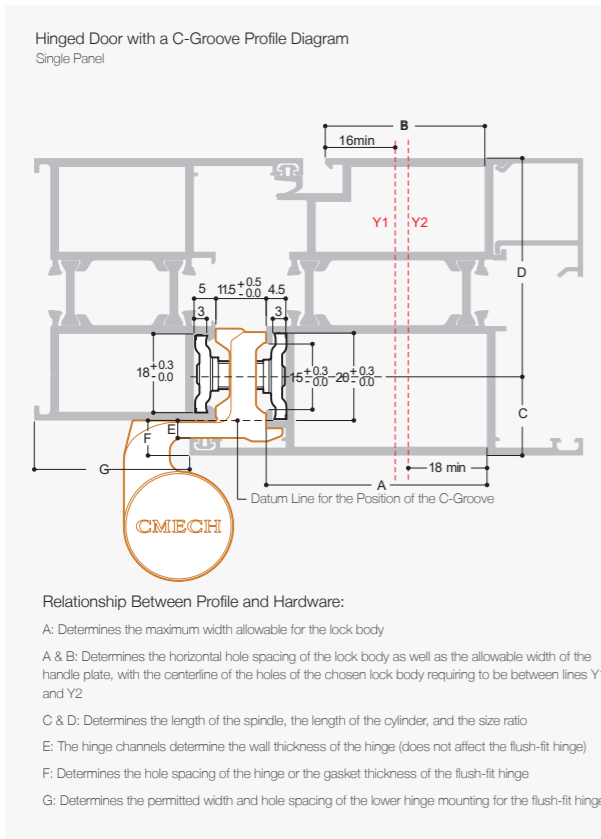
HINGED DOOR HARDWARE SERIES
Configuration Table - Double-Panel with Multi-Point Lock + Connecting Strip

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type D)	D010601 D010433 D010602 D010434	1	Milan Handle with Cylinder Berlin Handle with Cylinder Milan Handle without Cylinder Berlin Handle without Cylinder	P269 P270
2	Lock Body	D030038 D030039 D030042 D030043 D030044 D030045	1	Master Series, Lock Distance: 28 mm, Plate: 22x395 mm Master Series, Lock Distance: 33 mm, Plate: 22x395 mm Master Series, Lock Distance: 38 mm, Plate: 22x395 mm Classic Series, Lock Distance: 28 mm, Plate: 22x360 mm Classic Series, Lock Distance: 33 mm, Plate: 22x360 mm Classic Series, Lock Distance: 38 mm, Plate: 22x360 mm	P274 P275
3	Cylinder		1		P288 P289
4	Lock Point	A090001 A090005 A090007 A090008	2	Ø9.5x6.0 mm Ø9.5x7.0 mm End Lock Point Ø9.5x6.0 mm End Lock Point Ø9.5x7.0 mm	P88 P89 P90 P91
5	Active Lock Point	A090002 A090009 A090010	2	Dual-Stage Active Lock Point Ø9.5x8.75 mm Central Lock Point Ø9.5x6.0 mm Central Lock Point Ø9.5x7.0 mm	P90
6	Connecting Strip			Provided by Customer or Cmech	
7	Adjustable Strike	D100012 G100003 G100004	1		P277
8	Keeper	A100127 A100122	2-4	Keeper Pry-Resistant Keeper with Bearing	P92
9	Bi Directional Shootbolt Connector	D070015 D070016	1		P278
10	Shootbolt	A070001 A070003 D070017	2	19.6 mmx156 mm 19.6 mmx90 mm 19.6 mmx130 mm	P278
11	Shootbolt Bracket	D070003 D070004 D070007 D070013	2	For a C-Groove Pitch of 6.0 mm For a C-Groove Pitch of 5.0 mm For a Grooveless Frame Profile	P278
12	120 kg Reinforced Hinge 120 kg Reinforced Hinge 120 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge 120 kg Flush-Fit Hinge	D040017 D040018 D040019 D040020 D040003 D040013 D040014 D040015 D040032 D040033	2-3	With Standard Clamping Block, Load-bearing:120 kg (Left) With Standard Clamping Block, Load-bearing:120 kg (Right) Load-bearing:120 kg (Left) Load-bearing:120 kg (Right) 20.5x41x40 mm, Load-bearing:140 kg 49x41x40 mm, Load-bearing:140 kg 20.5x41x40 mm, Load-bearing:180 kg 49x41x40 mm, Load-bearing:180 kg Load-bearing:120 kg (Left) Load-bearing:120 kg (Right)	P280 P281 P282 P283 P284 P285 P286 P287
13	Anti Slide Clamping Block	D000049	1	Suitable for 120 kg Reinforced Hinge	P279
14	Sash Height Adjusting Block	D000007	1	Suitable for 120 kg Reinforced Hinge	P279
15	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 8.5x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 10x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge 11x40 mm Gasket, Suitable for 140 kg, 180 kg Hinge	P279
16	Handle Screw Pack		1		P268
17	Spindle Screw Pack		1		P267

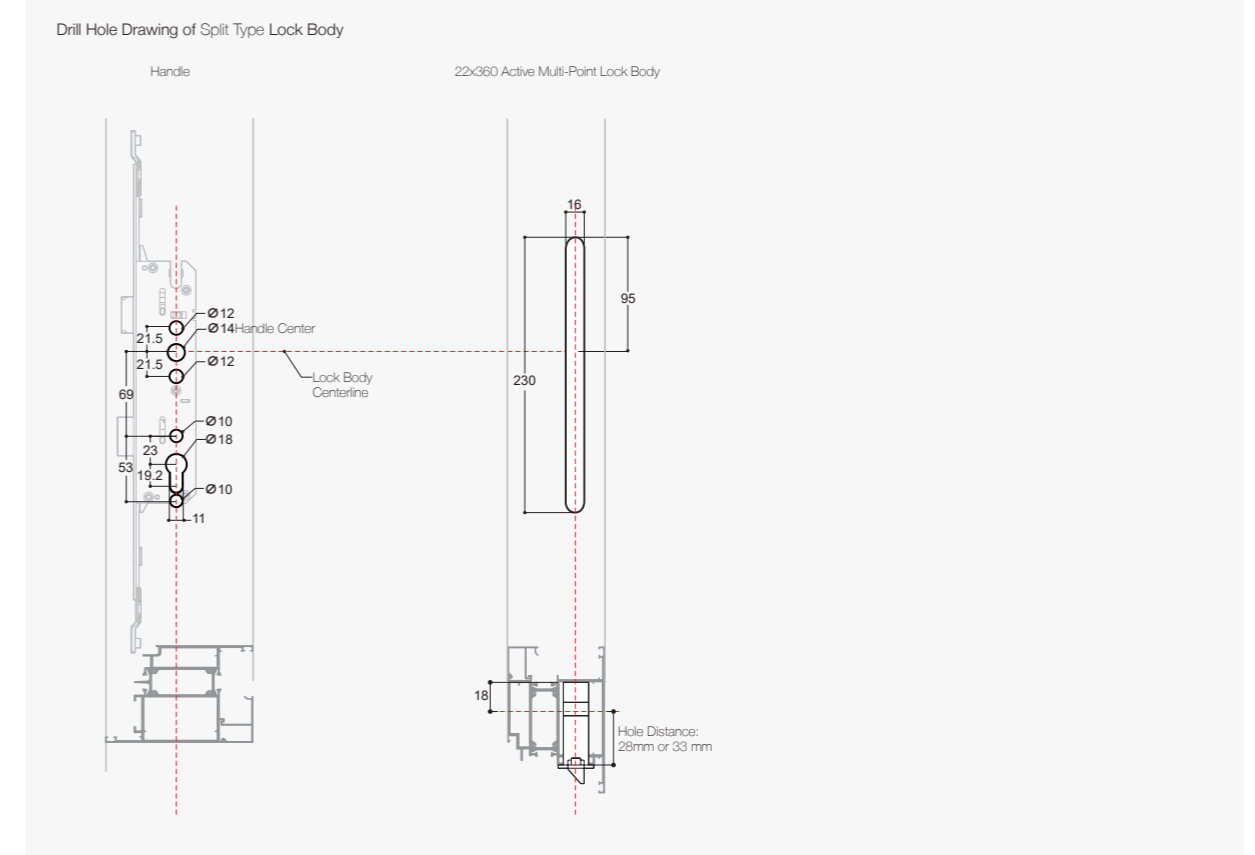
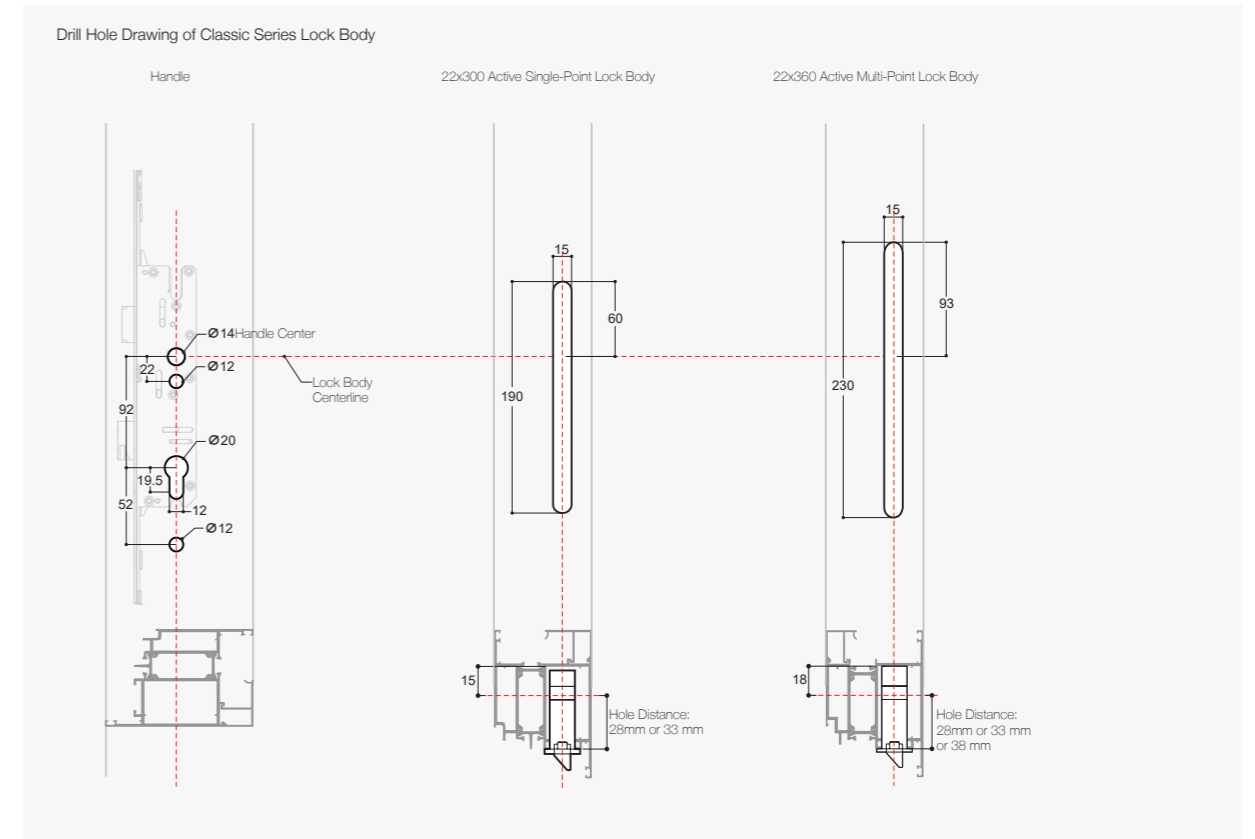
*Flat Handle is Available



HINGED DOOR PROFILE AND DRILLING REQUIREMENTS

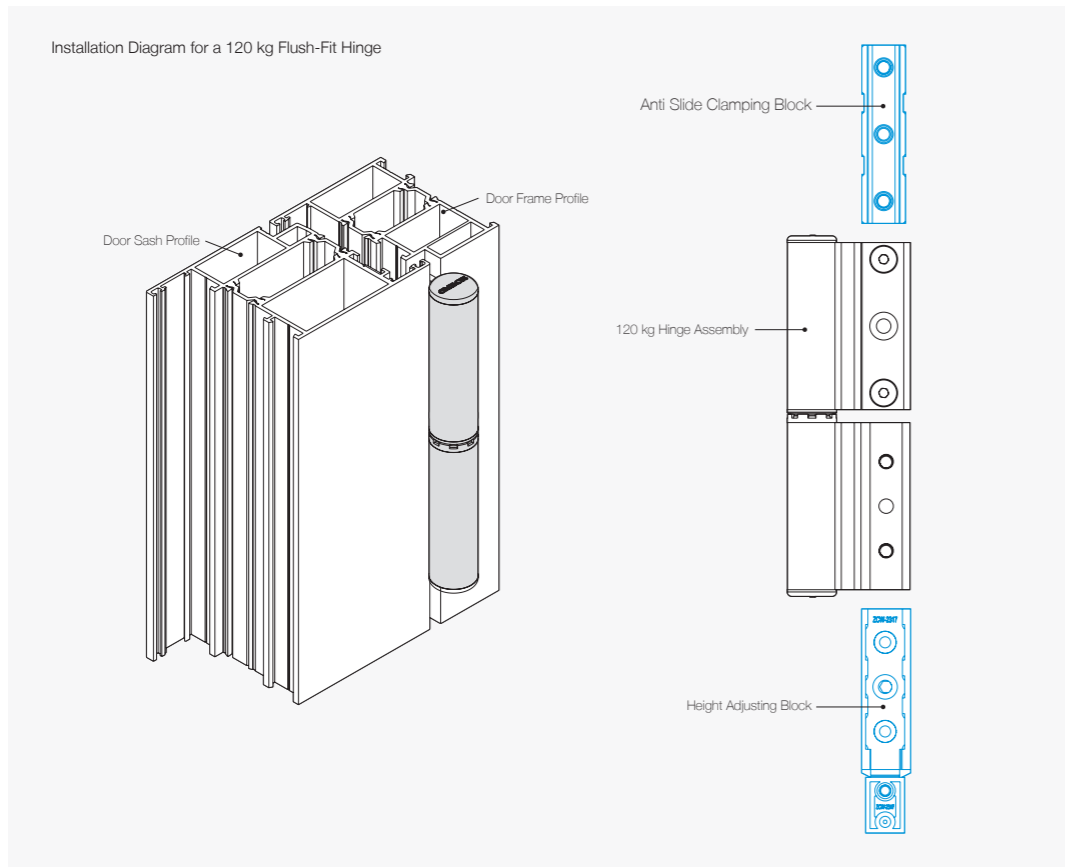
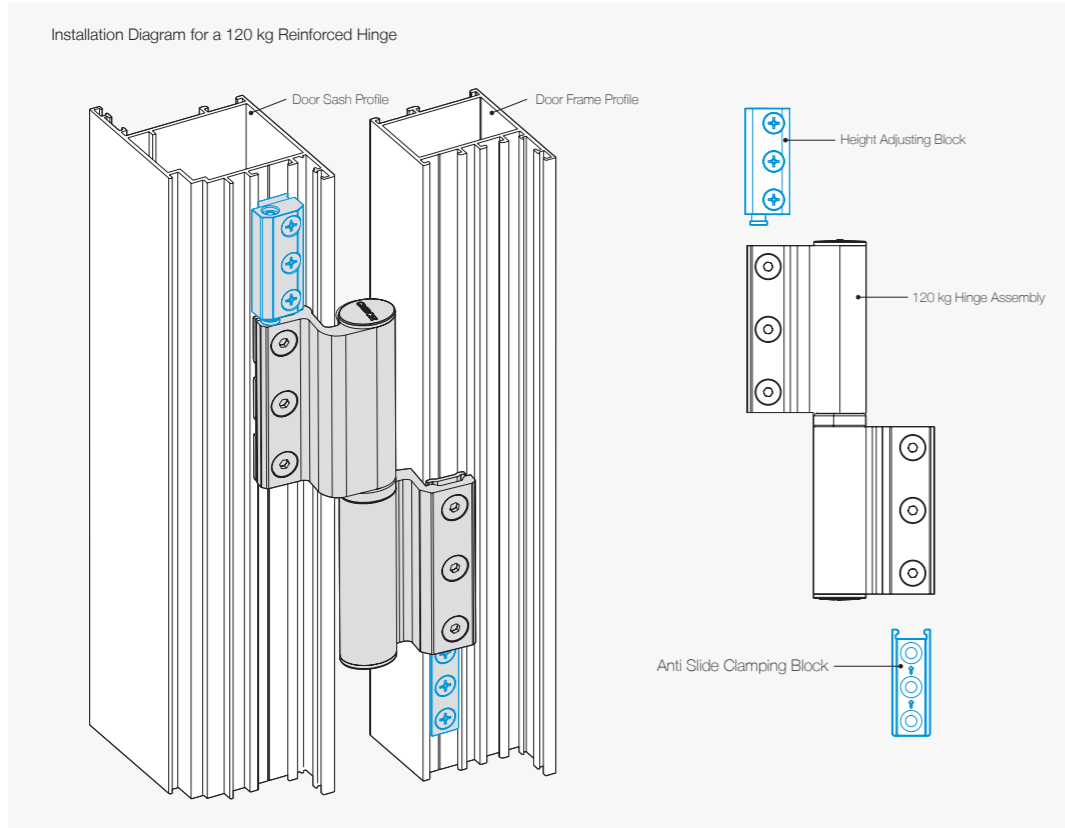


HINGED DOOR PROFILE AND DRILLING REQUIREMENTS

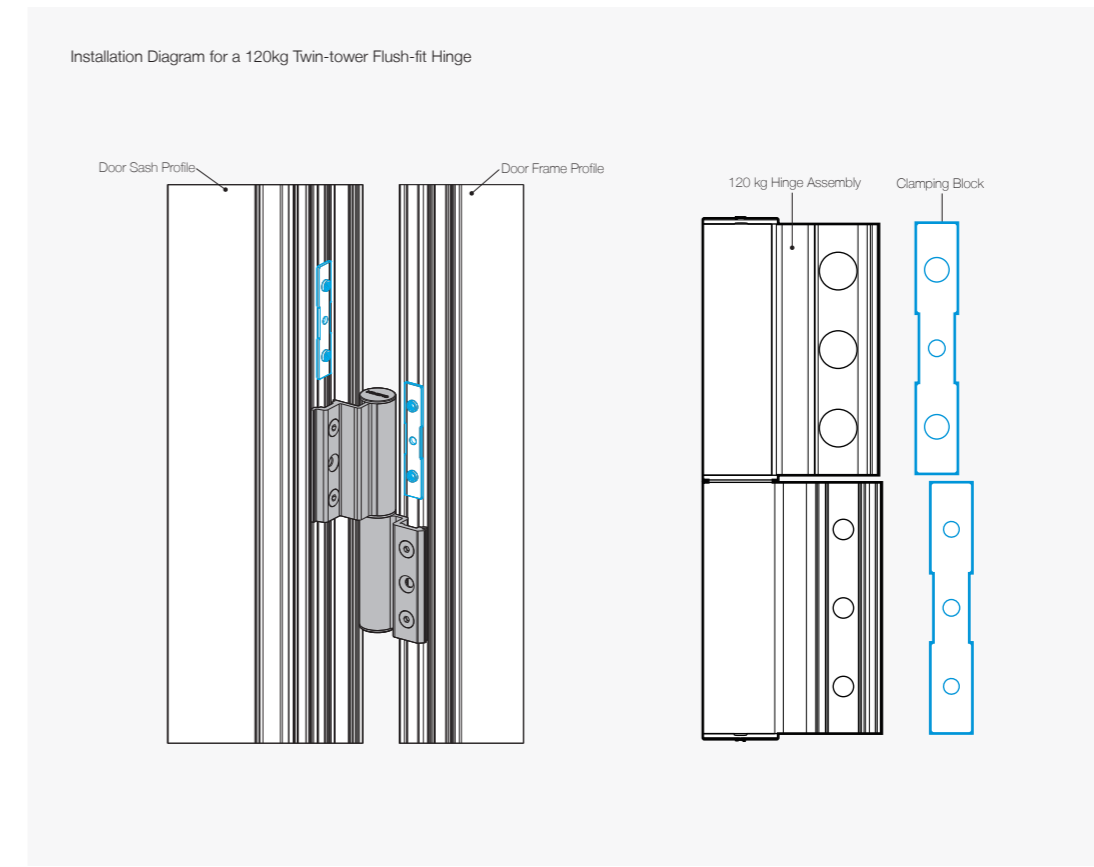
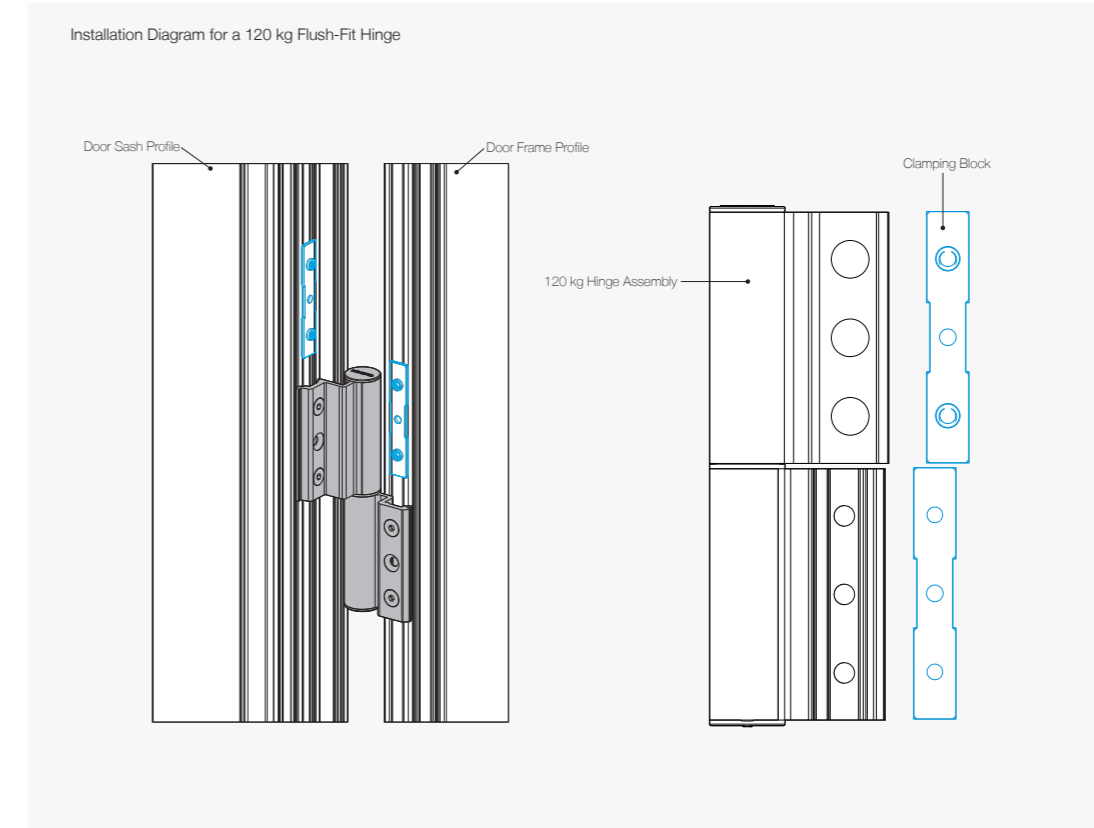




HINGE INSTALLATION INSTRUCTIONS

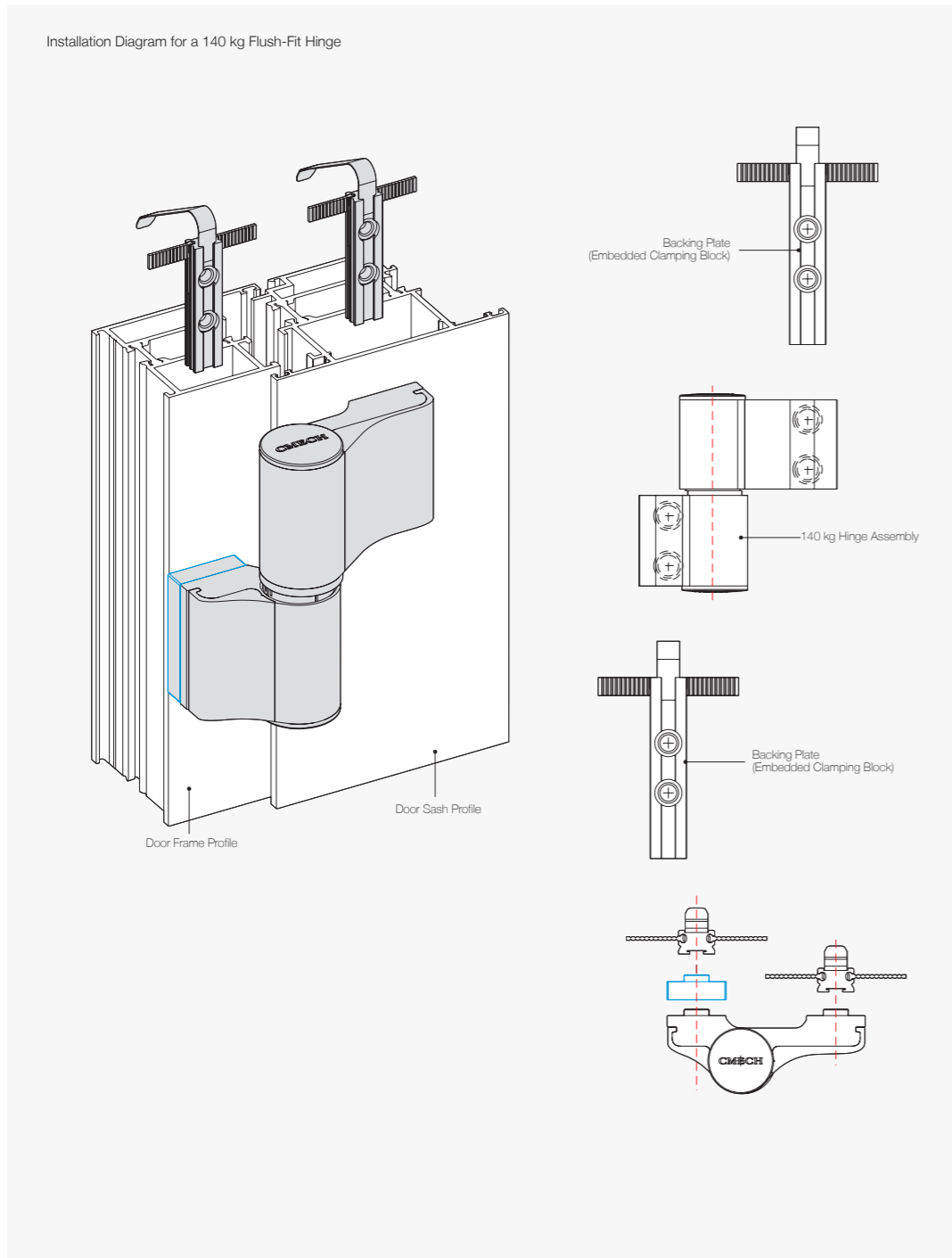


HINGE INSTALLATION INSTRUCTIONS

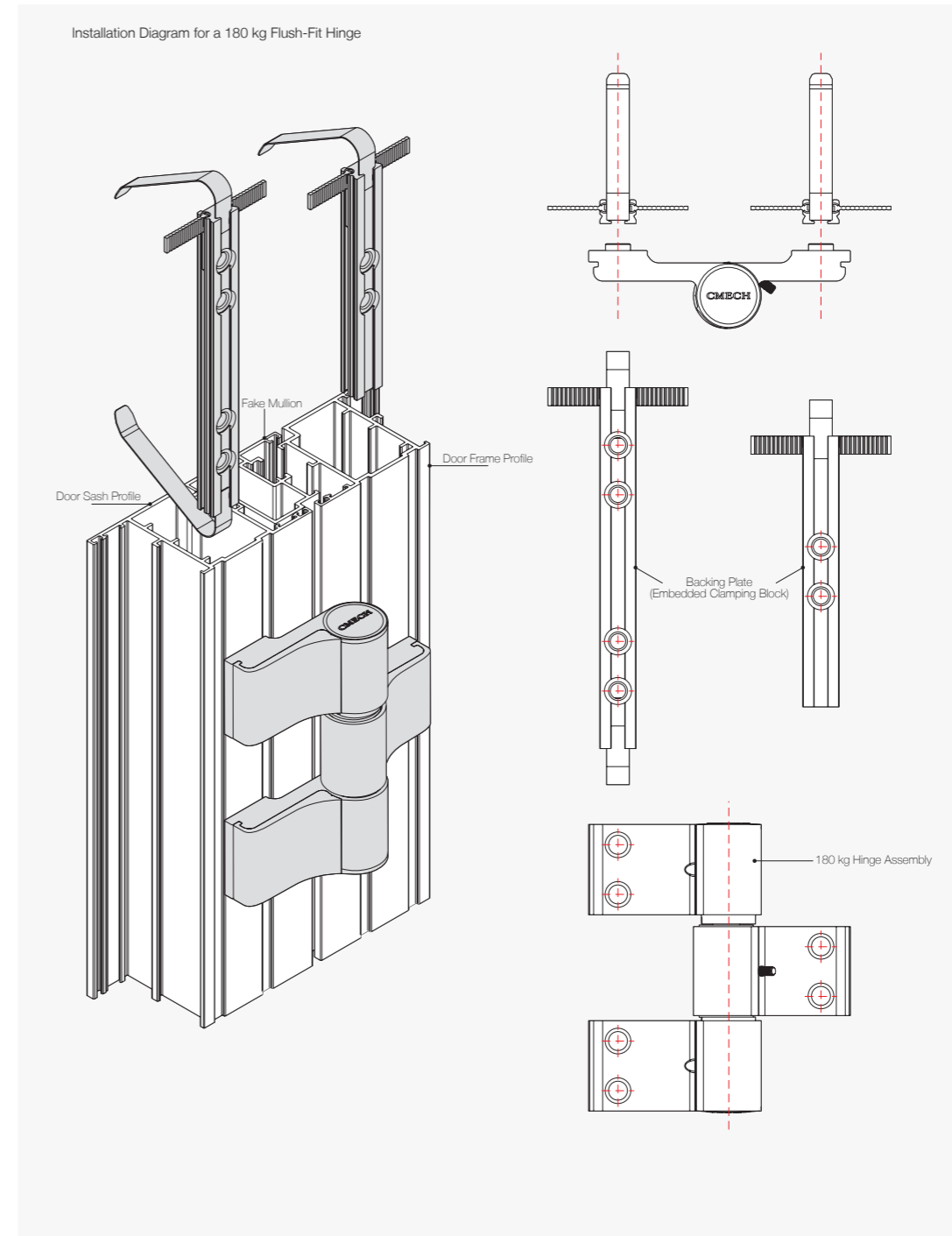




HINGE INSTALLATION INSTRUCTIONS

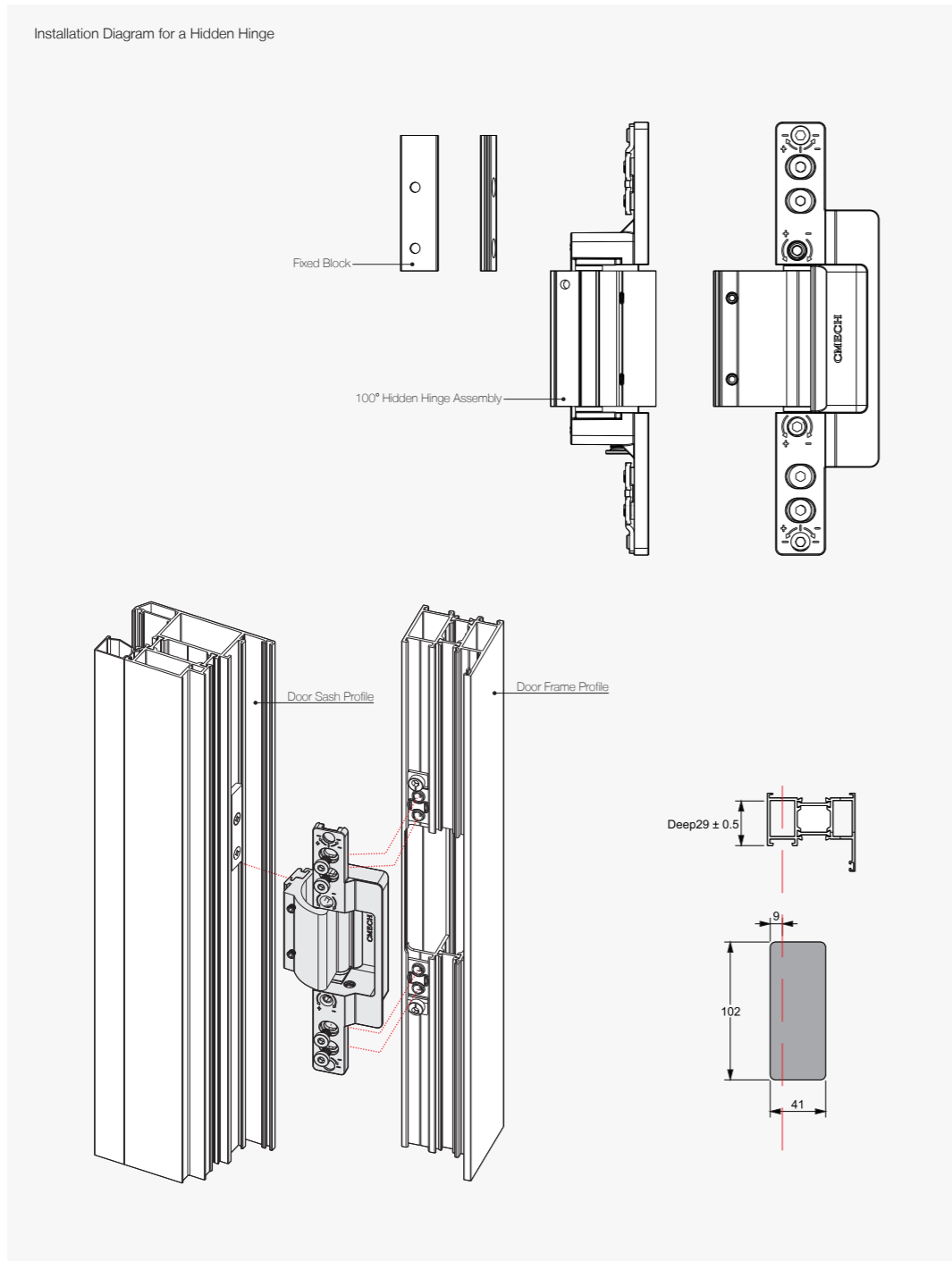


HINGE INSTALLATION INSTRUCTIONS

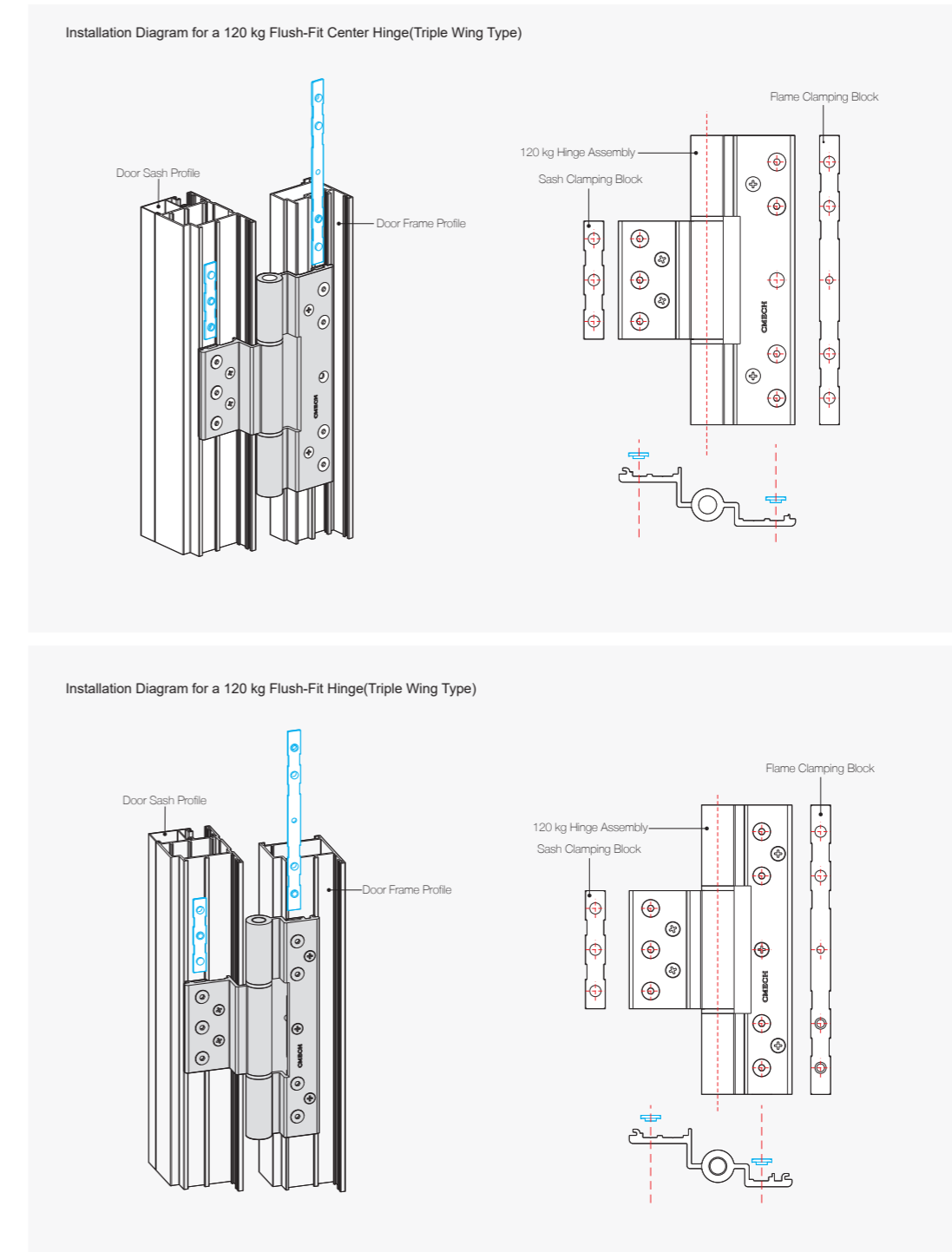




HINGE INSTALLATION INSTRUCTIONS



HINGE INSTALLATION INSTRUCTIONS





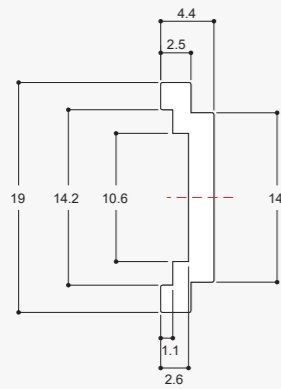
CONNECTING STRIP CUTTING AND DRILLING INSTRUCTIONS

(For a Master Series 22x359 Active Multi-Point Lock Body)

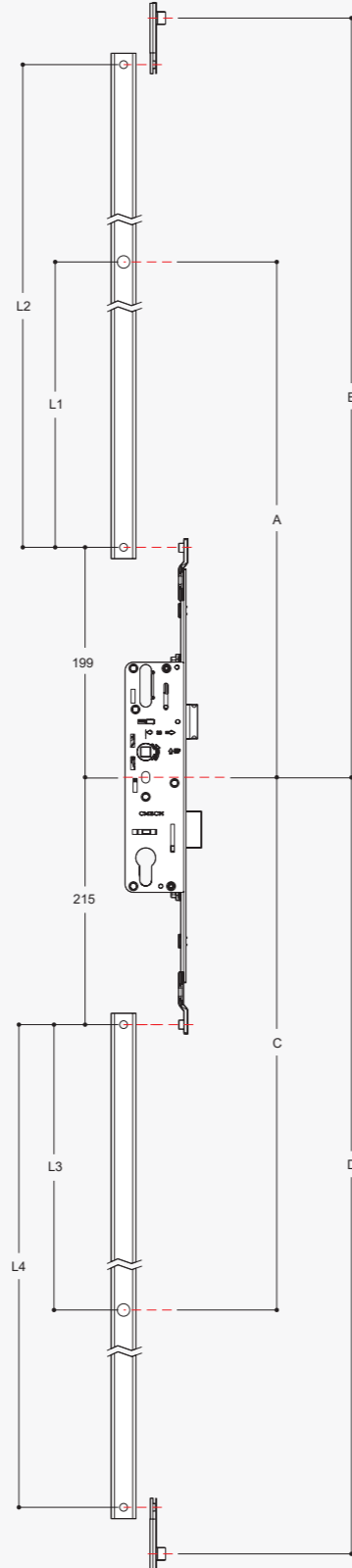
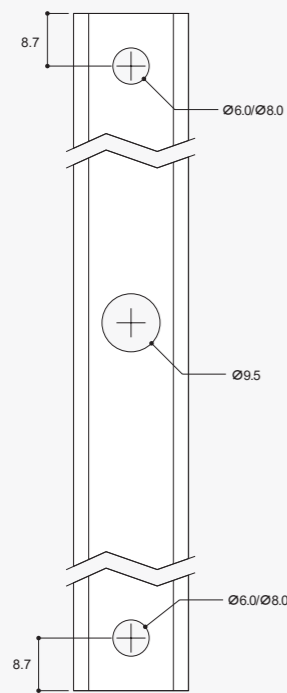
1. Dimensions for Aluminum Connecting Strip

- L1=A-199
- L2=B-199-37
- L3=C-215
- L4=D-215-37
- (Note: The Sizes of A, B, C, D are Chosen by Door Manufacturer)

2. Sectional View of Aluminum Connecting Strip



3. Drill Hole Drawing for Aluminum Connecting Strip



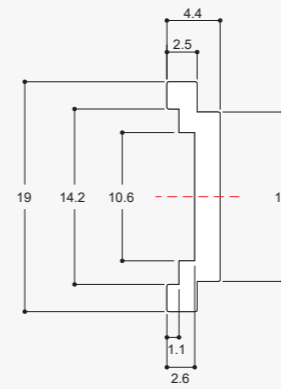
CONNECTING STRIP CUTTING AND DRILLING INSTRUCTIONS

(For a Classic Series 22x359 Active Multi-Point Lock Body)

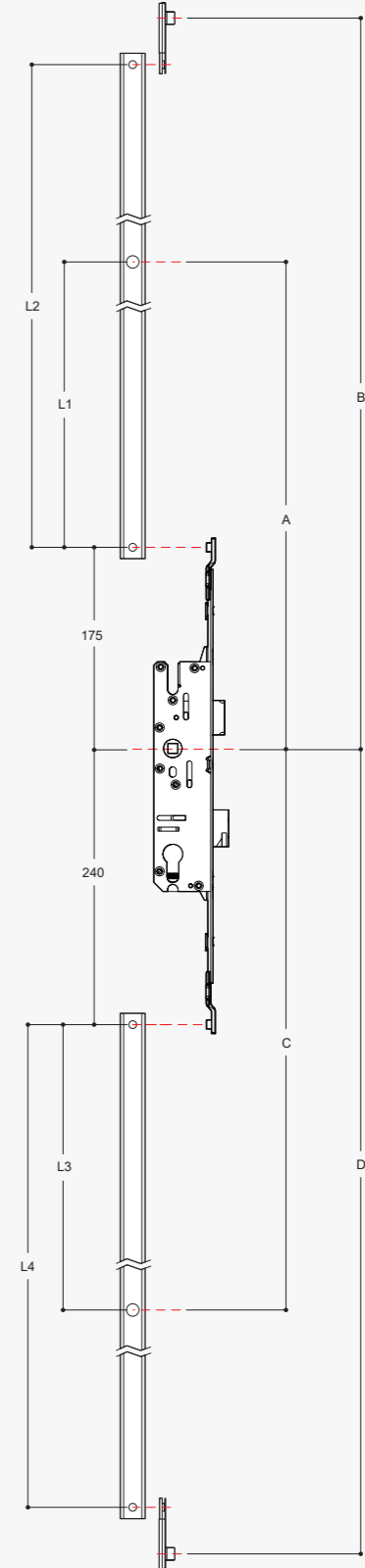
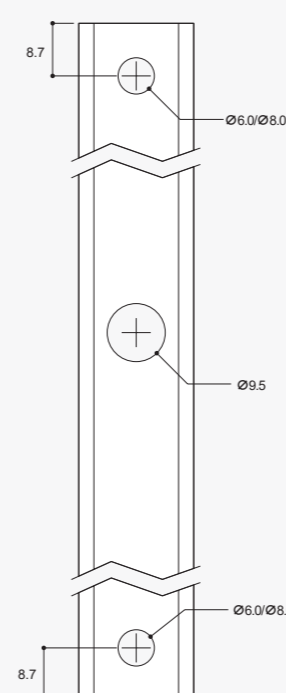
1. Dimensions for Aluminum Connecting Strip

- L1=A-175
- L2=B-175-37
- L3=C-240
- L4=D-240-37
- (Note: The Sizes of A, B, C, D are Chosen by Door Manufacturer)

2. Sectional View of Aluminum Connecting Strip



3. Drill Hole Drawing for Aluminum Connecting Strip





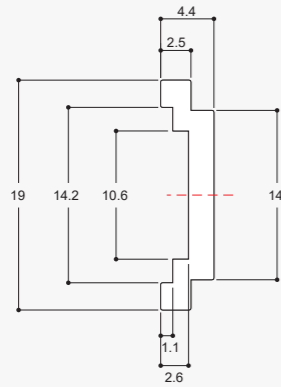
CONNECTING STRIP CUTTING AND DRILLING INSTRUCTIONS

(For a Split Type 22x360 Active Multi-Point Lock Body)

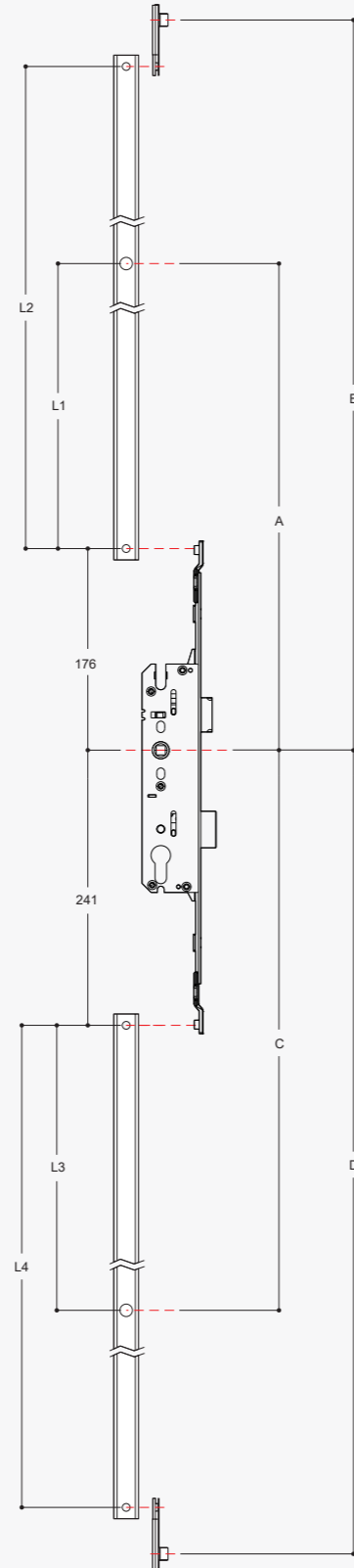
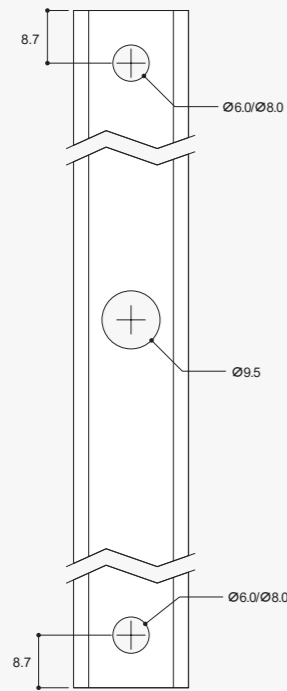
1. Dimensions for Aluminum Connecting Strip

- L1=A-176
- L2=B-176-37
- L3=C-241
- L4=D-241-37
- (Note: The Sizes of A, B, C, D are Chosen by Door Manufacturer)

2. Sectional View of Aluminum Connecting Strip



3. Drill Hole Drawing for Aluminum Connecting Strip



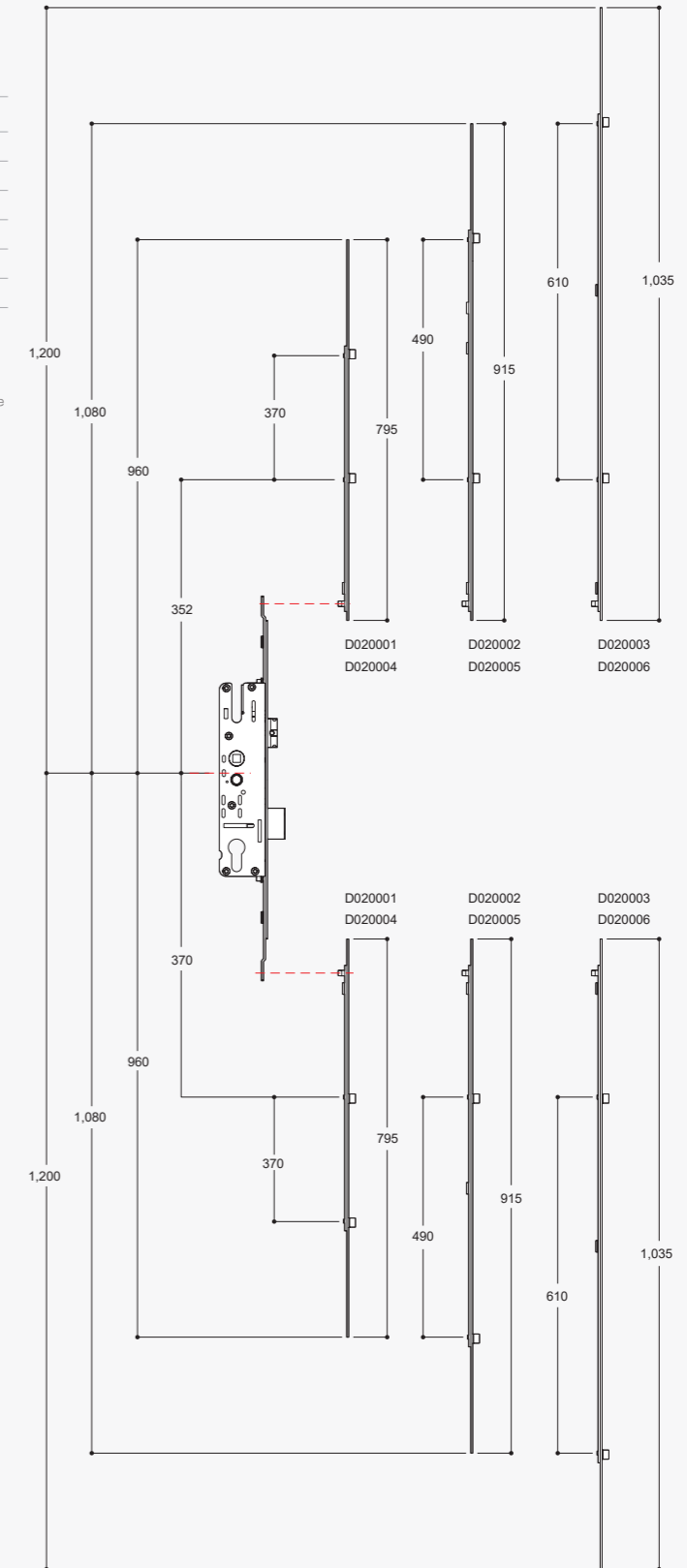
ESPAGNOLETTE BOLT SELECTION

(For a 22x330 Active Multi-Point Lock Body)

Espagnolette Bolt Measurements

P/N	Spec/mm	Descriptions
D020001	22x960	304SS
D020002	22x1,080	304SS
D020003	22x1,200	304SS
D020004	22x960	Lock Point with Bearing 304SS
D020005	22x1,080	Lock Point with Bearing 304SS
D020006	22x1,200	Lock Point with Bearing 304SS

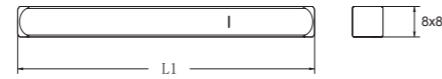
- Note:
1. The lock body is a 22x330 Active Multi-Point Lock Body.
 2. The dimensions are given in the locked position.
 3. The end of the transmission rod can be trimmed based on the actual height of the door.
 4. The P/Ns only represent different transmission rod materials. The installation measurements remain the same.





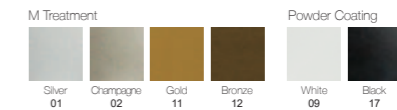
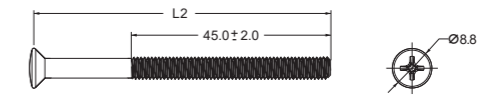
SPINDLE SELECTION

P/N	Specifications	P/N	Specifications	P/N	Specifications
D000051	32 mm	D000060	65 mm	D000069	110 mm
D000052	35 mm	D000061	70 mm	D000070	115 mm
D000053	38 mm	D000062	75 mm	D000071	125 mm
D000054	41 mm	D000063	80 mm	D000072	135 mm
D000055	46 mm	D000064	85 mm	D000090	120 mm
D000056	51 mm	D000065	90 mm	D000091	130 mm
D000057	55 mm	D000066	95 mm	D000092	150 mm
D000058	57 mm	D000067	100 mm	D000094	140 mm
D000059	60 mm	D000068	105 mm	D000095	145 mm



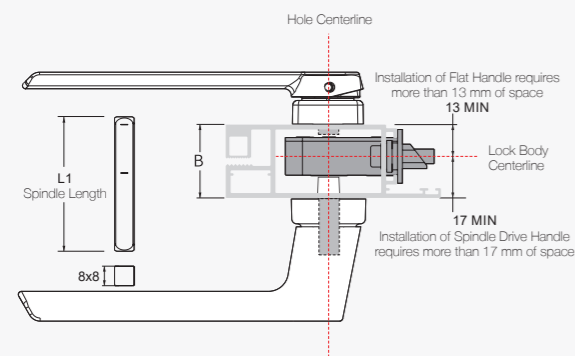
SCREW PACK SELECTION

P/N	Specifications	P/N	Specifications
D000073	40 mm	D000082	75 mm
D000074	45 mm	D000083	80 mm
D000075	47.5 mm	D000084	85 mm
D000076	50 mm	D000085	90 mm
D000077	52.5 mm	D000086	95 mm
D000078	55 mm	D000087	100 mm
D000079	60 mm	D000088	105 mm
D000080	65 mm	D000089	110 mm
D000081	70 mm	D000096	115 mm
		D000097	120 mm



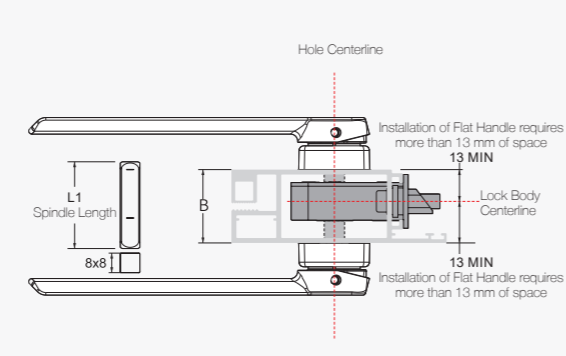
Formula for Calculating the Spindle Length:

A. Flat handle matched with Spindle Drive Handle



Formula for Calculating the Spindle Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 $L1 = B + 30$
 L1 Size Range: +0.5, -2.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.

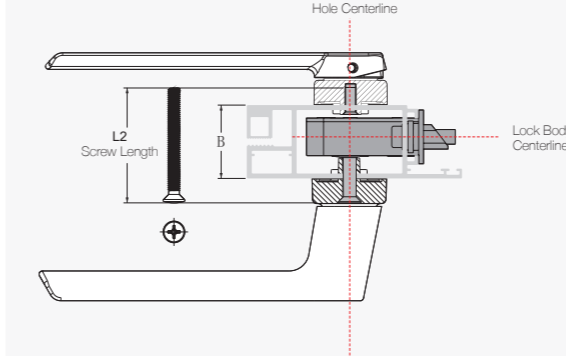
B. Flat Handle matched with Flat Handle



Formula for Calculating the Spindle Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 $L1 = B + 19$
 L1 Size Range: +0.5, -2.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.

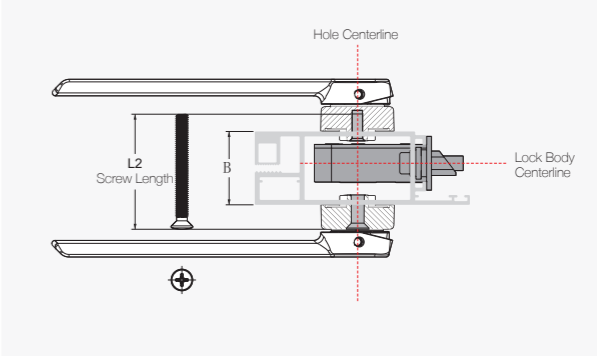
Formula for Calculating the Screw Length:

A. Exterior Flat Handle matched with interior Spindle Drive Handle



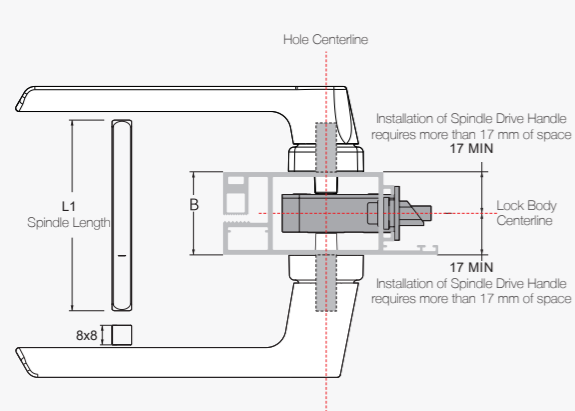
Formula for Calculating the Screw Length:
 B --- Profile Sash Thickness
 L2 --- Screw Length
 $L2 = B + 16.5$
 L2 Size Range: +0.5, -3.0
 Select the required lengths of the standard parts according to the Size L2.
 If unavailable, they will need to be customized.

B. Exterior Flat Handle matched with Interior Flat Handle



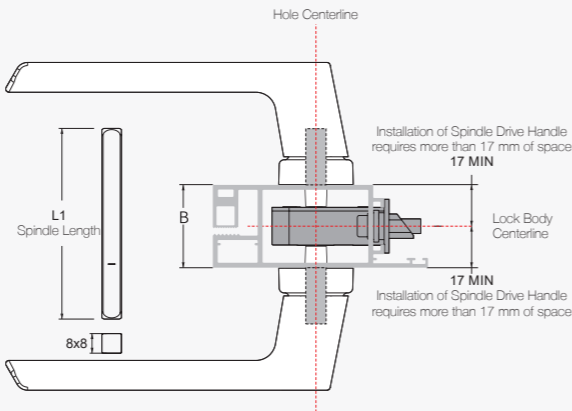
Formula for Calculating the Screw Length:
 B --- Profile Sash Thickness
 L2 --- Screw Length
 $L2 = B + 16.5$
 L2 Size Range: +0.5, -3.0
 Select the required lengths of the standard parts according to the Size L2.
 If unavailable, they will need to be customized.

C. H35 Flat Handle matched with Flat Handle (Bi-Folding Door Hardware)



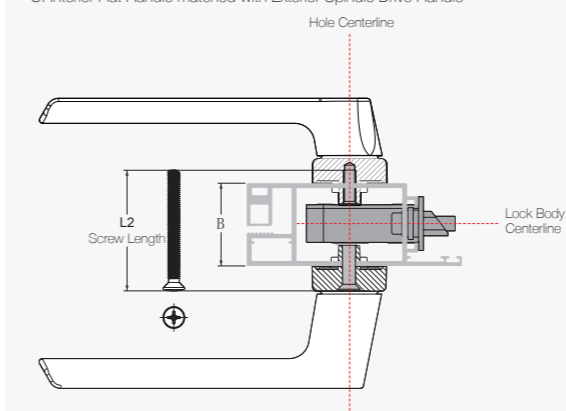
Formula for Calculating the Spindle Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 $L1 = B + 32$
 L1 Size Range: +0.5, -5.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.

D. Spindle Drive Handle matched with Spindle Drive Handle



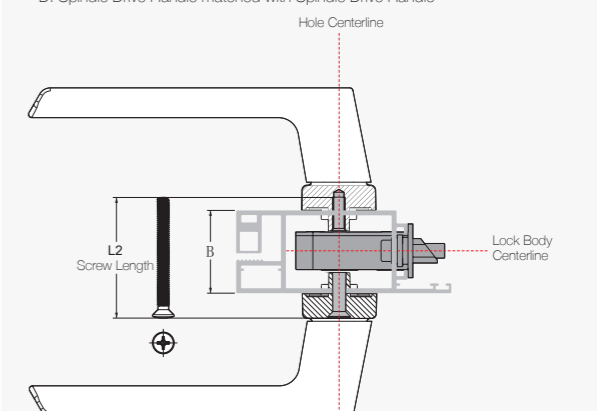
Formula for Calculating the Spindle Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 $L1 = B + 40$
 L1 Size Range: +1.5, -4.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.

C. Interior Flat Handle matched with Exterior Spindle Drive Handle



Formula for Calculating the Screw Length:
 B --- Profile Sash Thickness
 L2 --- Screw Length
 $L2 = B + 15$
 L2 Size Range: +0.5, -5.0
 Select the required lengths of the standard parts according to the Size L2.
 If unavailable, they will need to be customized.

D. Spindle Drive Handle matched with Spindle Drive Handle



Formula for Calculating the Screw Length:
 B --- Profile Sash Thickness
 L2 --- Screw Length
 $L2 = B + 15$
 L2 Size Range: +0.5, -5.0
 Select the required lengths of the standard parts according to the Size L2.
 If unavailable, they will need to be customized.



HANDLE SELECTIONS

MILAN SERIES
Spindle Drive Handle (Type D)



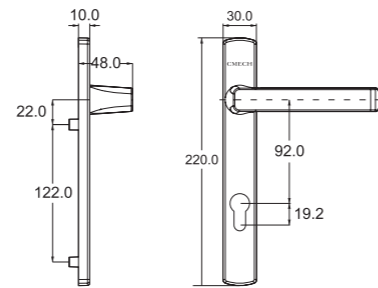
P/N	Description	P/N	Description	P/N	Description
D010601-	Double Side with Cylinder	D010603-	Single Side with Cylinder (Interior)	D010605-	Single Side without Cylinder (Interior)
D010602-	Double Side without Cylinder	D010604-	Single Side with Cylinder (Exterior)	D010606-	Single Side without Cylinder (Exterior)

M Treatment

Silver 01	Champagne 02	Gold 11	Bronze 12
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Powder Coating

White 09	Black 17
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BERLIN SERIES
Spindle Drive Handle (Type D)



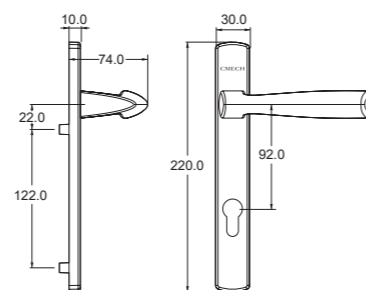
P/N	Description	P/N	Description	P/N	Description
D010433-	Double Side with Cylinder	D010429-	Single Side Fixed without Cylinder (Left Handle, Exterior)	D010431-	Single Side Fixed without Cylinder (Right Handle, Exterior)
D010434-	Double Side without Cylinder	D010430-	Single Side Fixed without Cylinder (Right Handle, Interior)	D010432-	Single Side Fixed without Cylinder (Left Handle, Interior)

M Treatment

Silver 01	Champagne 02	Gold 11	Bronze 12
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Powder Coating

White 09	Black 17
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HANDLE SELECTIONS

MILAN SERIES
Adjustable Split Handle



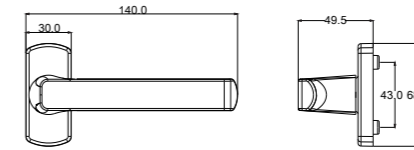
P/N	Description
D010631-	Milan Series Split Handle Set

M Treatment

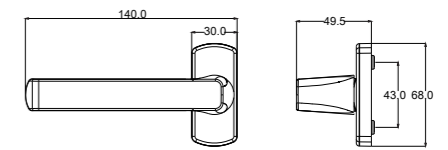
Silver 01	Champagne 02	Gold 11	Bronze 12
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Powder Coating

White 09	Black 17
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Interior Handle



Interior Handle

CYLINDER COVER



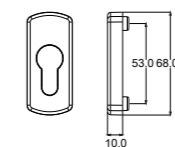
P/N	Description
D140025-	Cylinder Cover (for Split Handle Set)

M Treatment

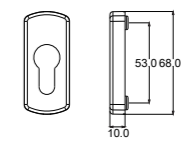
Silver 01	Champagne 02	Gold 11	Bronze 12
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Powder Coating

White 09	Black 17
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Interior Handle



Interior Handle



HANDLE SELECTIONS

MILAN FLAT HANDLE



P/N	Description
D010615-	Single Side with Cylinder (Interior)
D010616-	Single Side with Cylinder (Exterior)

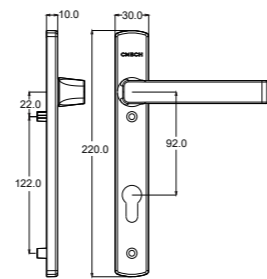
P/N	Description
D010617-	Single Side without Cylinder (Interior)
D010618-	Single Side without Cylinder (Exterior)

M Treatment

Silver 01	Champagne 02	Gold 11	Bronze 12

Powder Coating

White 09	Black 17



FLAT HANDLE



P/N	Description
D010455-	Single Side with Cylinder (Interior)
D010456-	Single Side with Cylinder (Exterior)

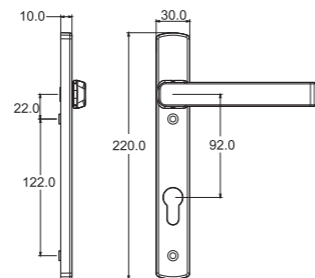
P/N	Description
D010457-	Single Side without Cylinder (Interior)
D010458-	Single Side without Cylinder (Exterior)

M Treatment

Silver 01	Champagne 02	Gold 11	Bronze 12

Powder Coating

White 09	Black 17



HANDLE SELECTIONS

FLAT HANDLE



P/N	Description
D010443-	Single Side with Cylinder (Interior)
D010444-	Single Side with Cylinder (Exterior)

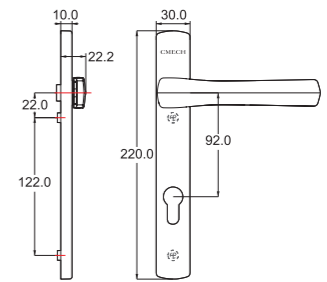
P/N	Description
D010445-	Single Side without Cylinder (Interior)
D010446-	Single Side without Cylinder (Exterior)

M Treatment

Silver 01	Champagne 02	Gold 11	Bronze 12

Powder Coating

White 09	Black 17





DOOR HANDLES SELECTION TABLE

P/N	Description	Adjustable								Note	
D010601	With Cylinder -Milan Series	✓									Hinged Door
D010603	With Cylinder (Interior)-Milan Series	✓									Can be Matched with Flat Handle
D010604	With Cylinder (Exterior)-Milan Series	✓						Optional			Can be Matched with Flat Handle
D010602	Without Cylinder -Milan Series		✓								Hinged Door
D010605	Without Cylinder (Interior)-Milan Series			✓						Optional	Can be Matched with Flat Handle
D010606	Without Cylinder (Exterior)-Milan Series		✓							Optional	Can be Matched with Flat Handle
D010611	With Cylinder(Interior) +Flat Handle(Exterior)		✓					✓			Hinged Door or Casement Door with Flyscreen
D010612	With Cylinder(Exterior) +Flat Handle(Interior)	✓							✓		Hinged Door or Casement Door with Flyscreen
D010613	Without Cylinder(Interior) +Flat Handle(Exterior)								✓		Hinged Door or Casement Door with Flyscreen
D010614	Without Cylinder(Exterior) +Flat Handle(Interior)		✓							✓	Hinged Door or Casement Door with Flyscreen

Door Handles Selection Table



DOOR HANDLES SELECTION TABLE

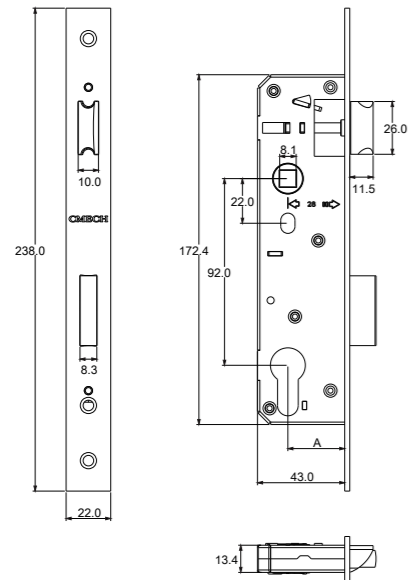
P/N	Description	Adjustable												Note	
D010427	Fixed without Cylinder (Left Handle)-Berlin Series	✓													Left Hand Door (Exterior View)
D010428	Fixed without Cylinder (Right Handle)-Berlin Series		✓												Right Hand Door (Exterior View)
D010429	Fixed without Cylinder (Left Handle, Exterior)-Berlin Series														Select as Required
D010430	Fixed without Cylinder (Right Handle, Interior)-Berlin Series														Select as Required
D010431	Fixed without Cylinder (Right Handle, Exterior)-Berlin Series														Select as Required
D010432	Fixed without Cylinder (Left Handle, Interior)-Berlin Series														Select as Required
D010433	With Cylinder -Berlin Series									✓					Hinged Door
D010435	With Cylinder(Interior) -Berlin Series									✓					Can be Matched with Flat Handle
D010436	With Cylinder(Exterior) -Berlin Series										Optional				Can be Matched with Flat Handle
D010434	Without Cylinder -Berlin Series														Hinged Door
D010437	Without Cylinder(Interior) -Berlin Series														Can be Matched with Flat Handle
D010438	Without Cylinder(Exterior) -Berlin Series														Can be Matched with Flat Handle
D010451	With Cylinder (Interior) -Flat Handle														Can be Matched with Hinged Door Handle
D010452	With Cylinder (Exterior) -Flat Handle														Can be Matched with Hinged Door Handle
D010453	Without Cylinder (Interior) -Flat Handle														Can be Matched with Hinged Door Handle
D010454	Without Cylinder (Exterior) -Flat Handle														Can be Matched with Hinged Door Handle

Door Handles Selection Table



LOCK BODIES

Classic Series 22x238 Active Single-Point Lock Body

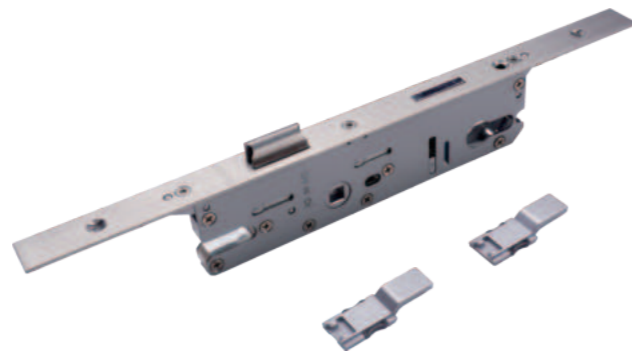
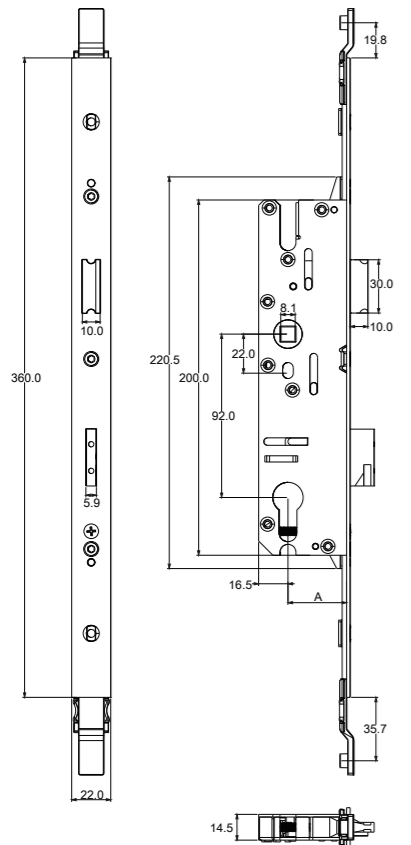


Installation & Optional Sizes are Available

P/N	A	Descriptions
D030046	28	Active Single-Point Lock Body 28 mm
D030047	33	Active Single-Point Lock Body 33 mm

Classic Series 22x360 Active Multi-Point Lock Body

Used with an Aluminum Connecting Strip



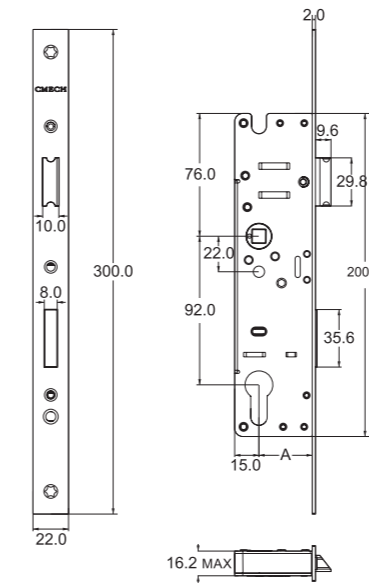
Installation & Optional Sizes are Available

P/N	A	Descriptions
D030043	28	Active Multi-Point Lock Body 28 mm
D030044	33	Active Multi-Point Lock Body 33 mm
D030045	38	Active Multi-Point Lock Body 38 mm



LOCK BODIES

Master Series 22x300 Active Single-Point Lock Body

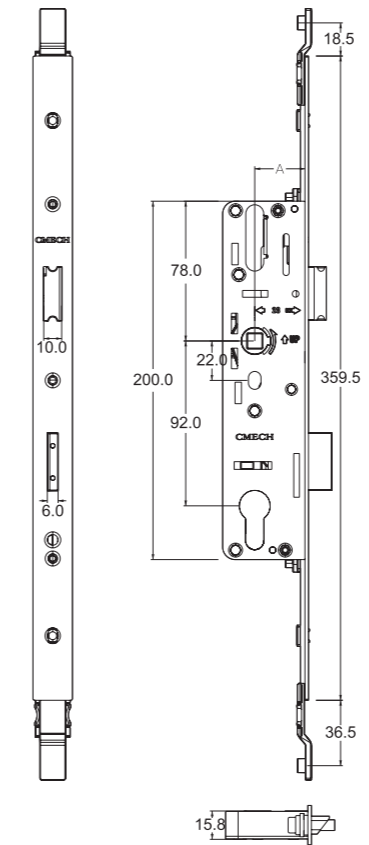


Installation & Optional Sizes are Available

P/N	A	Descriptions
D030040	28	Active Single-Point Lock Body 28 mm
D030041	33	Active Single-Point Lock Body 33 mm

Master Series 22x360 Active Multi-Point Lock Body

Used with an Aluminum Connecting Strip



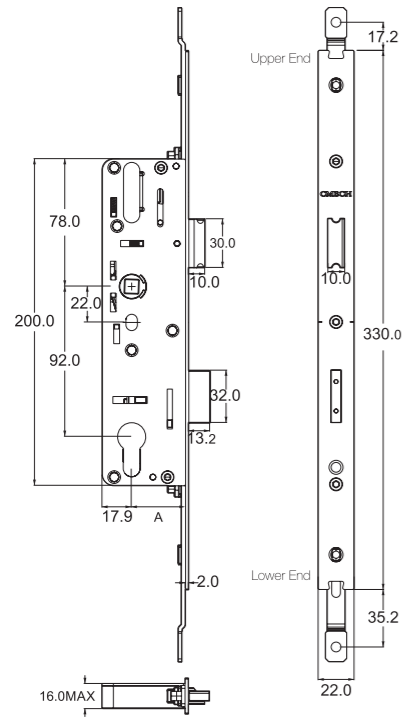
Installation & Optional Sizes are Available

P/N	A	Descriptions
D030038	28	Active Multi-Point Lock Body 28 mm
D030039	33	Active Multi-Point Lock Body 33 mm
D030042	38	Active Multi-Point Lock Body 38 mm



LOCK BODIES

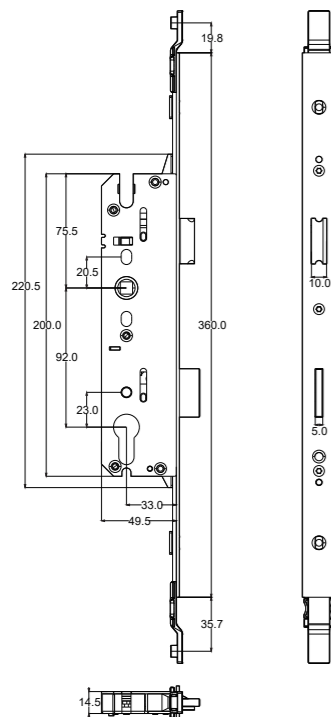
Master Series 22x330 Active Multi-Point Lock Body
Used with a Transmission Rod



Installation & Optional Sizes are Available

P/N	A	Descriptions
D030036	28	Active Multi-Point Lock Body 28 mm
D030037	33	Active Multi-Point Lock Body 33 mm

Split Type 22x360 Active Multi-Point Lock Body
Used with an Aluminum Connecting Strip



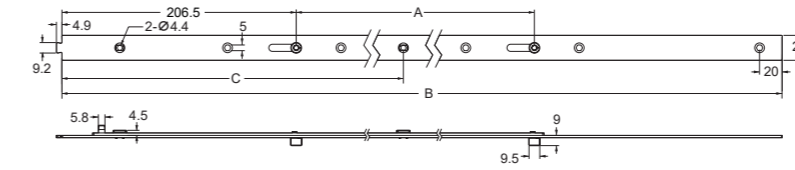
Installation & Optional Sizes are Available

P/N	A	Descriptions
D030053	28	Active Multi-Point Lock Body 28 mm
D030054	33	Active Multi-Point Lock Body 33 mm



LOCKING HARDWARE

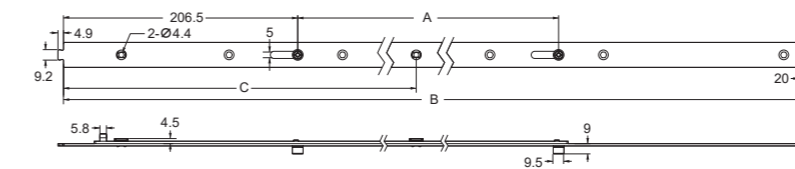
Espagnolette Bolt



P/N	A	B	C	Material
D020001	370	795	-	304SS
D020002	490	915	441	304SS
D020003	610	1,035	501	304SS



Espagnolette Bolt with Bearing



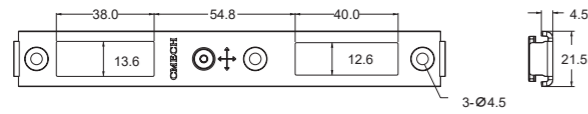
P/N	A	B	C	Material
D020004	370	795	-	304SS
D020005	490	915	441	304SS
D020006	610	1,035	501	304SS



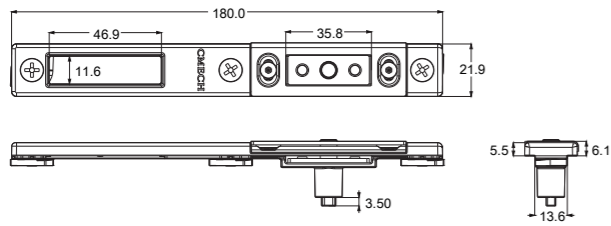


KEEPERS AND OTHER ACCESSORIES

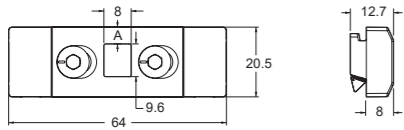
D100012
Adjustable Strike



D100024
Adjustable Strike



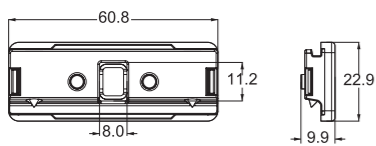
Adjustable Shootbolt Bracket (C-Groove)



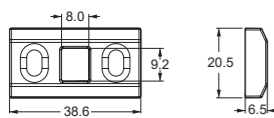
P/N	A
D070003	6 mm
D070004	5 mm



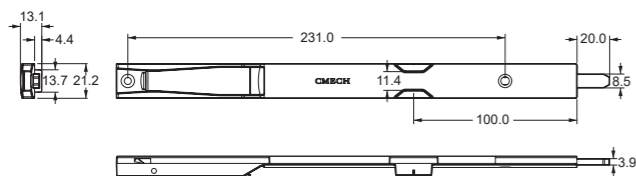
D070013
Shootbolt Bracket



D070007
Shootbolt Bracket (Grooveless)

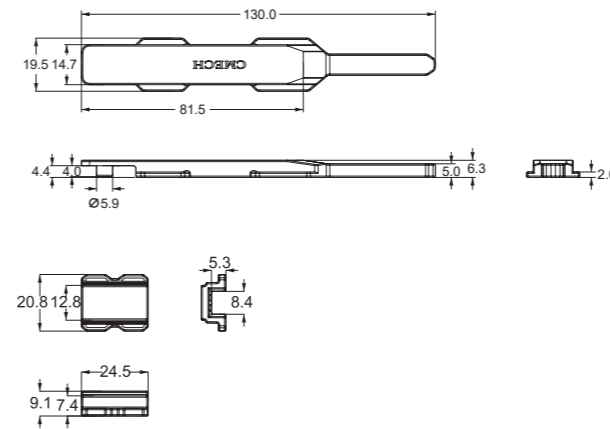


D070006
Shootbolt

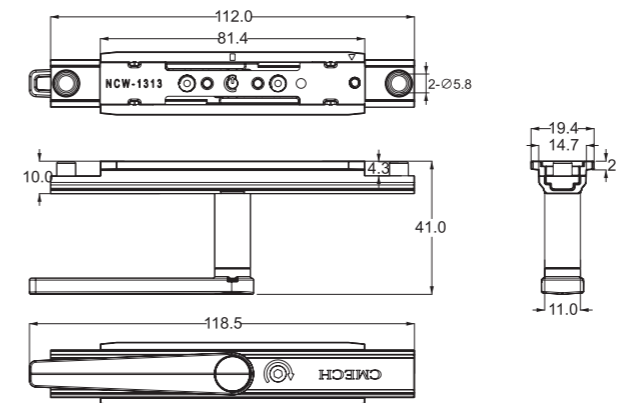


KEEPERS AND OTHER ACCESSORIES

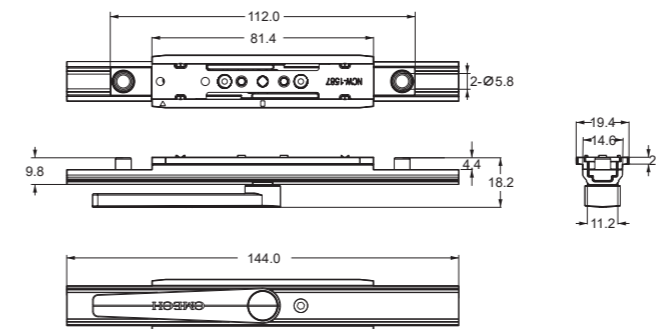
D070012
Shootbolt Part



D070015
Bi Directional Shootbolt Connector



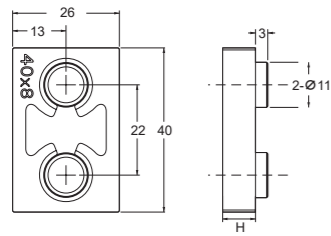
D070016
Bi Directional Shootbolt Connector





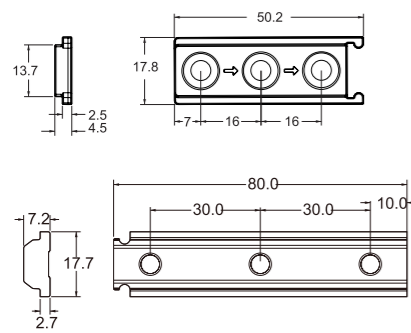
KEEPERS AND OTHER ACCESSORIES

Flush-Fit Hinge Gasket

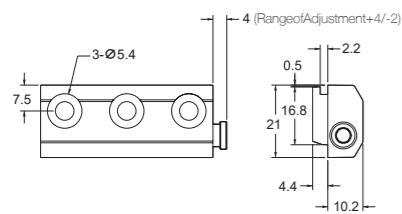


P/N	H	Descriptions
D140001	7	7x40
D140002	8	8x40
D140003	8.5	8.5x40
D140004	10	10x40
D140005	11	11x40

D000049
Anti Slide Clamping Block

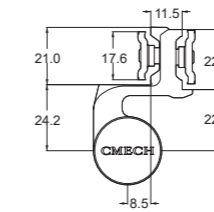
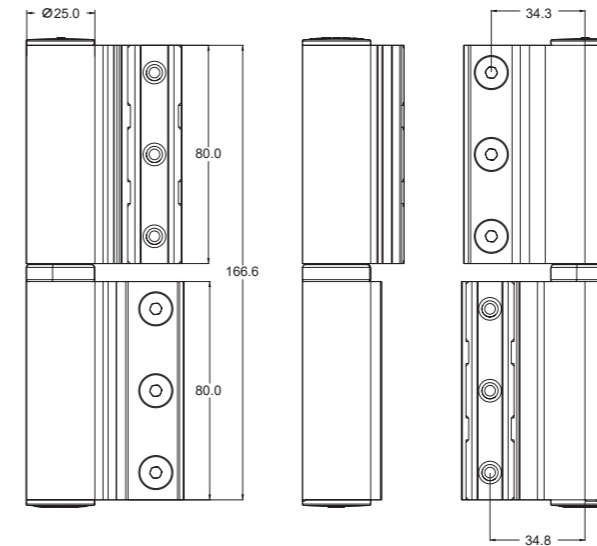


D000007
Sash Height Adjusting Block



HINGES

120 kg Reinforced Hinge



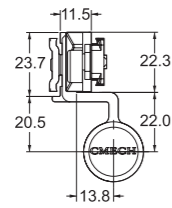
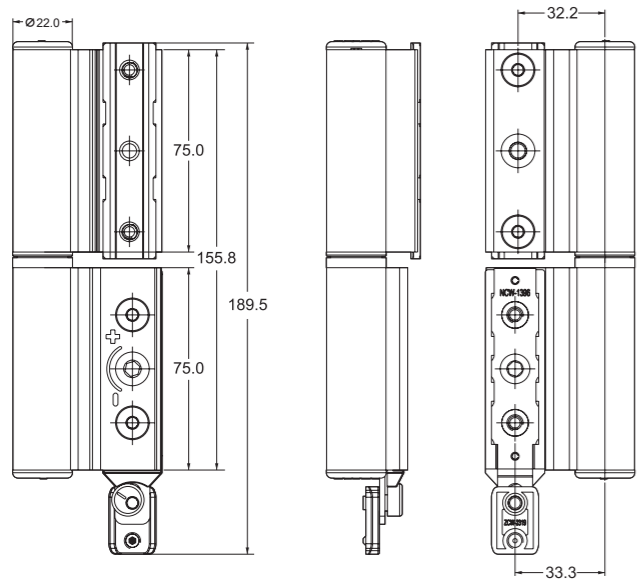
P/N	Descriptions
D040017-	Left
D040018-	Right

M Treatment				Powder Coating	
Silver 01	Champagne 02	Gold 11	Bronze 12	White 09	Black 17



HINGES

120 kg Flush-Fit Hinge



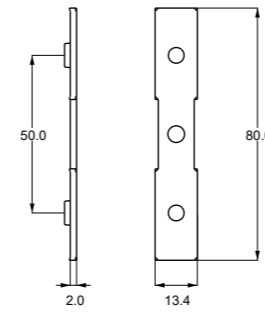
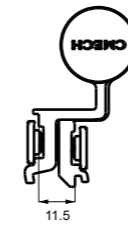
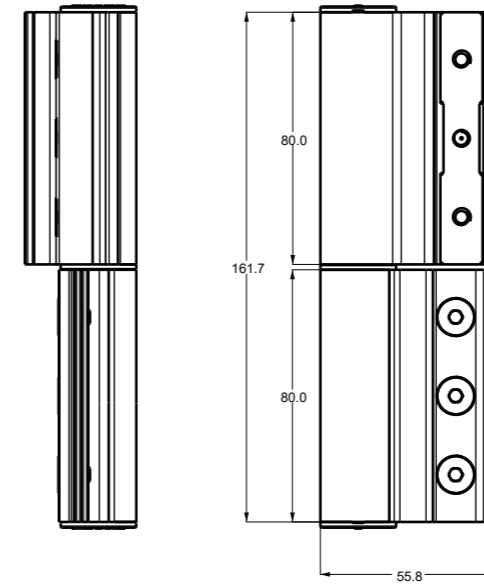
P/N	Descriptions
D040019-	Left
D040020-	Right

M Treatment				Powder Coating	
Silver 01	Champagne 02	Gold 11	Bronze 12	White 09	Black 17



HINGES

120 kg Flush-Fit Hinge



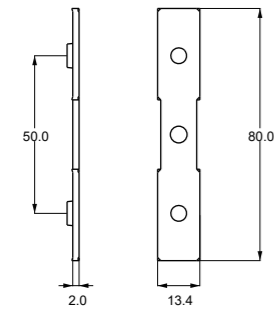
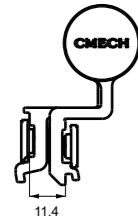
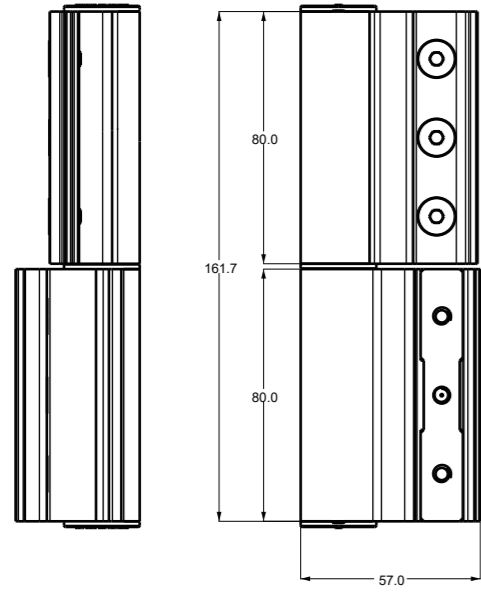
P/N	Descriptions
D040032-	Left
D040033-	Right

M Treatment				Powder Coating	
Silver 01	Champagne 02	Gold 11	Bronze 12	White 09	Black 17

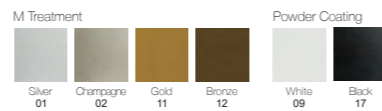


HINGES

120 kg Twin-tower Flush-Fit Hinge

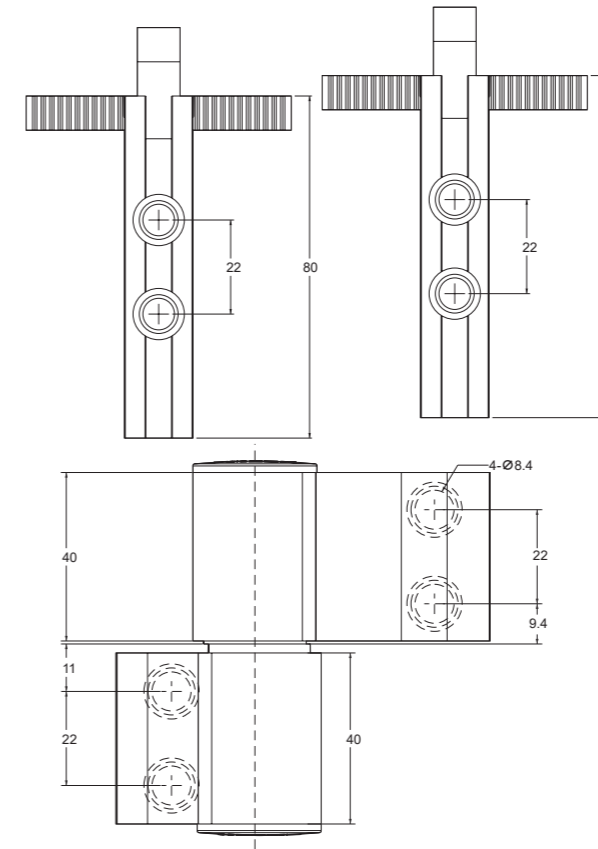


P/N	Descriptions
D040030-	Left
D040031-	Right

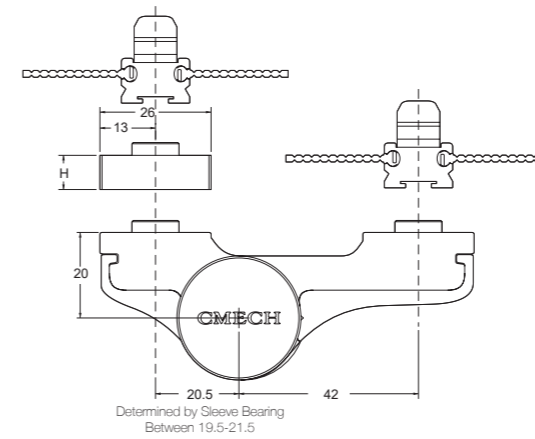
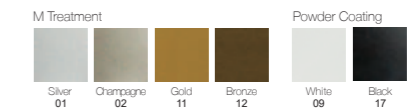


HINGES

140 kg Flush-Fit Hinge



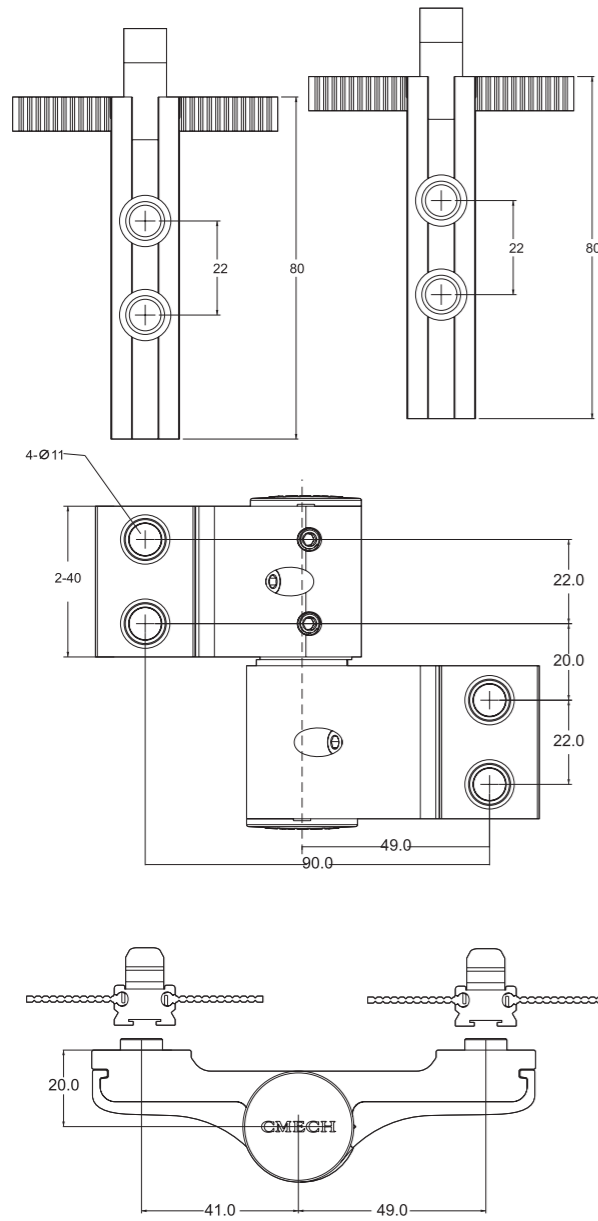
P/N	Description
D040003-	140 kg Flush-Fit Hinge (2 Sections / Centreline Distance 61.5 mm)





HINGES

140 kg Flush-Fit Hinge



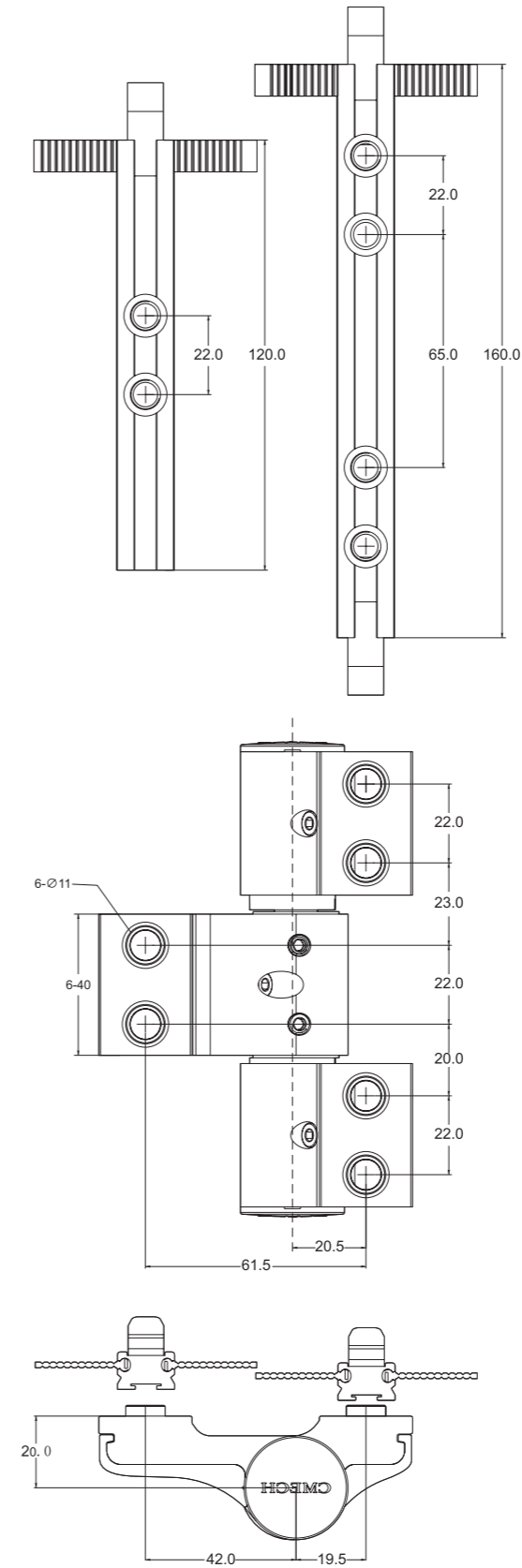
P/N	Description
D040013-	140 kg Flush-Fit Hinge (2 Sections / Centreline Distance 90 mm)

M Treatment				Powder Coating	
Silver 01	Champagne 02	Gold 11	Bronze 12	White 09	Black 17



HINGES

180 kg Flush-Fit Hinge



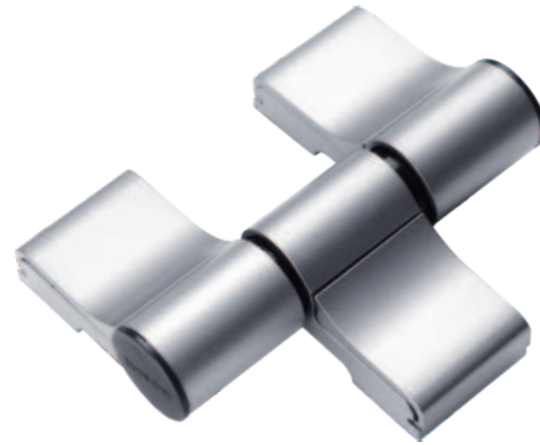
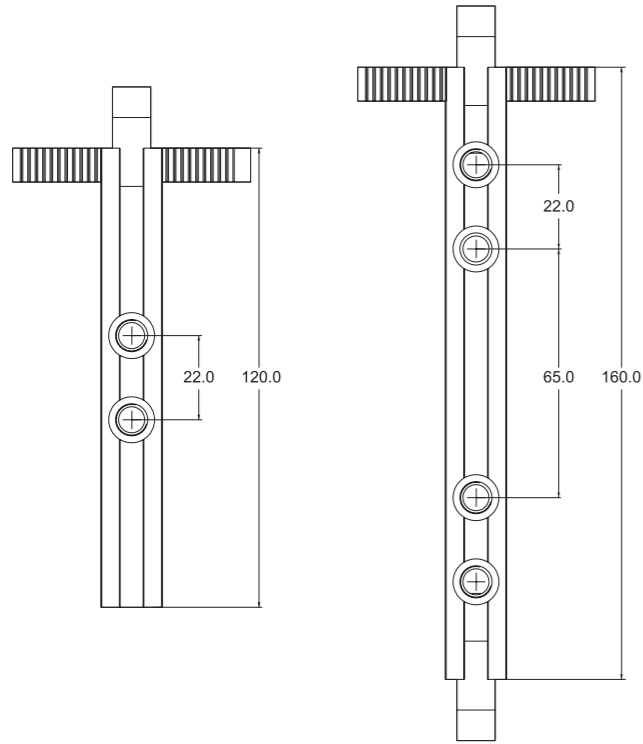
P/N	Description
D040014-	180 kg Flush-Fit Hinge (3 Sections / Centreline Distance 61.5 mm)

M Treatment				Powder Coating	
Silver 01	Champagne 02	Gold 11	Bronze 12	White 09	Black 17

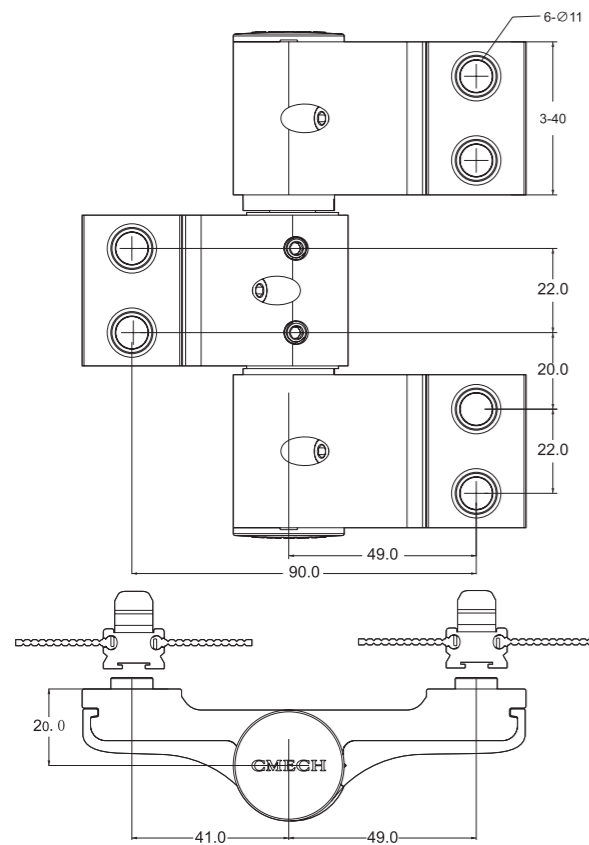
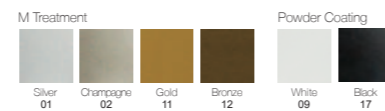


HINGES

180 kg Flush-Fit Hinge

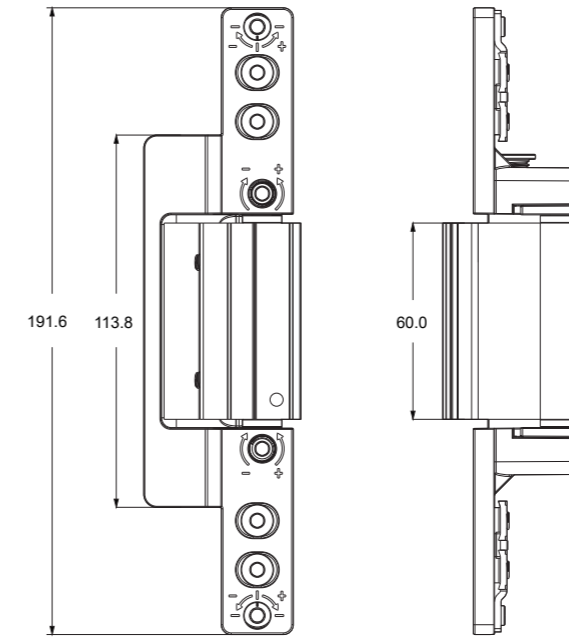


P/N	Description
D040015-	180 kg Flush-Fit Hinge (3 Sections / Centreline Distance 90 mm)

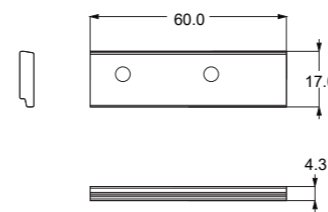
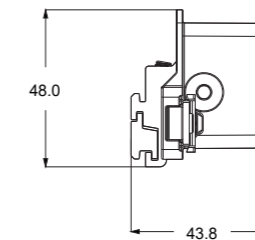
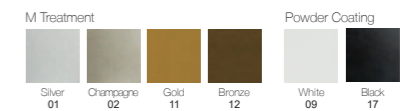


HINGES

Hidden Hinge



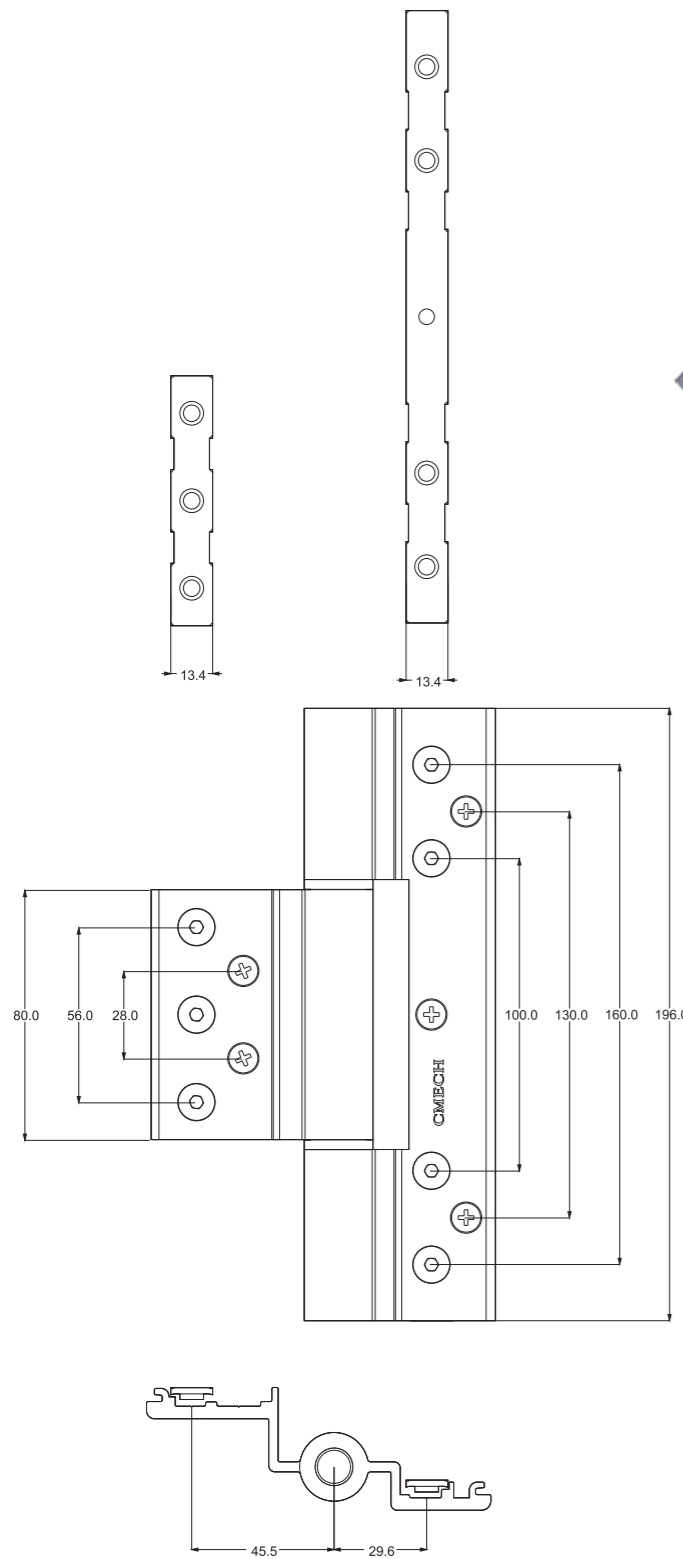
P/N	Description
D040036-	120kg Concealed Door Hinge (100°)



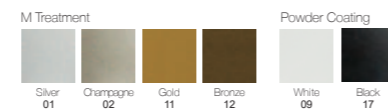


HINGES

120 kg Flush-fit Hinge (Triple Wing Type)

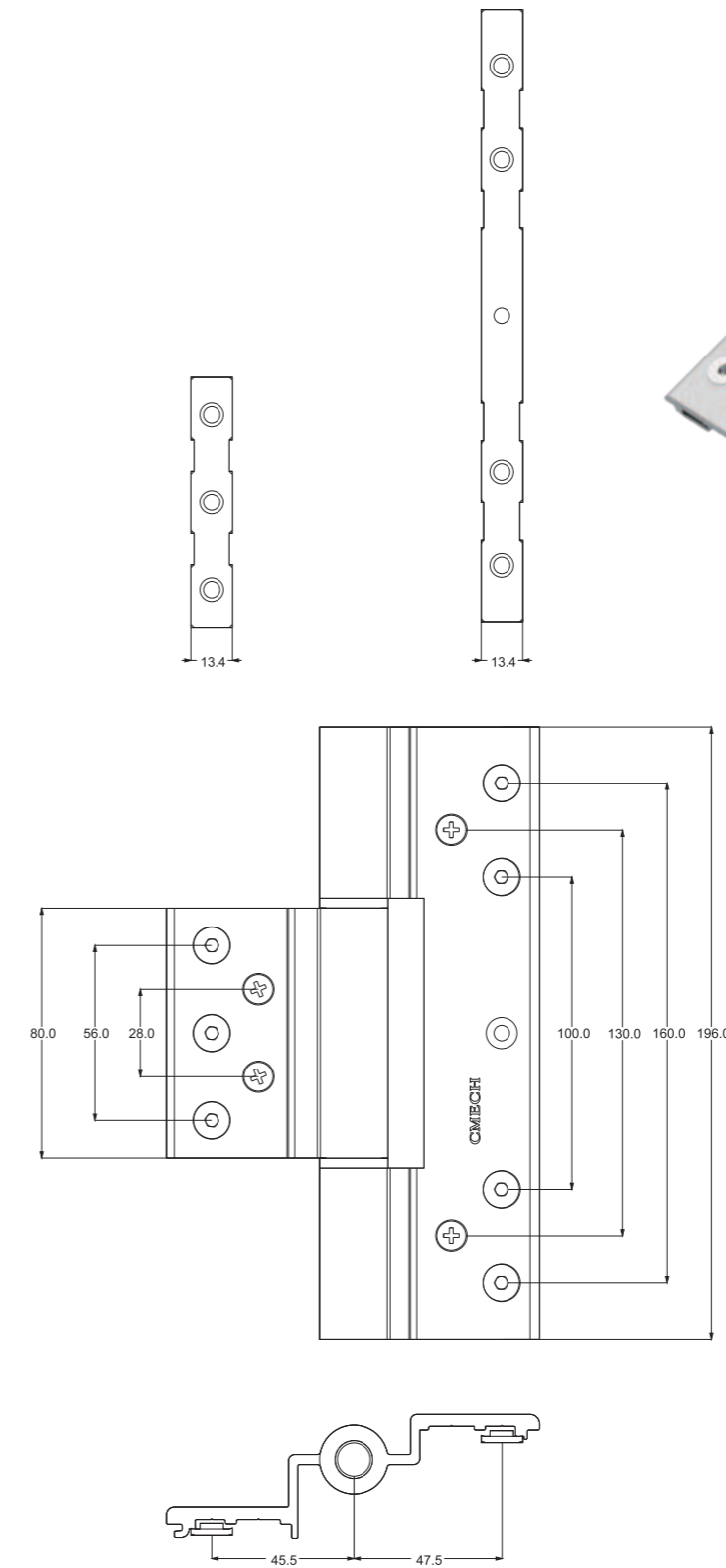


P/N	Description
D040034-	120 kg Flush-fit Hinge(Triple Wing Type)

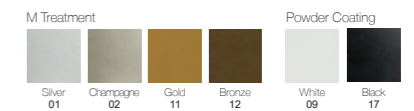


HINGES

120 kg Flush-fit Center Hinge (Triple Wing Type)



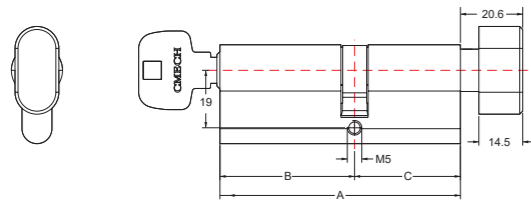
P/N	Description
D040035-	120 kg Flush-fit Center Hinge(Triple Wing Type)





CYLINDERS

Master Series Oval Thumb Turn Brass Cylinder



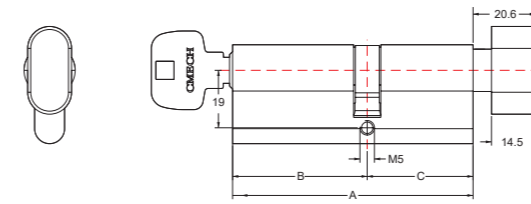
P/N	Description	Specifications		
		A	B	C
D130101	R50 x 30 mm	80	30	50
D130102	R30 x 50 mm	80	50	30
D130103	R45 x 35 mm	80	35	45
D130104	R35 x 45 mm	80	45	35
D130105	R60 x 30 mm	90	30	60
D130106	R30 x 60 mm	90	60	30
D130109	R30 x 55 mm	85	55	30
D130110	R55 x 30 mm	85	30	55
D130111	R35.5 x 35.5 mm	71	35.5	35.5
D130133	R35 x 30 mm	65	30	35
D130134	R30 x 35 mm	65	35	30
F130103	R35 x 50 mm	85	50	35
F130105	R30 x 30 mm	60	30	30
F130106	R50 x 45 mm	95	45	50
F130108	R45 x 50 mm	95	50	45
E130102	R40 x 40 mm	80	40	40
E130103	R45 x 40 mm	85	40	45
D130114	R70 x 30 mm	100	30	70
D130116	R30 x 65 mm	95	65	30
D130119	R65 x 30 mm	95	30	65
D130121	R45 x 45 mm	90	45	45
D130123	R30 x 45 mm	75	45	30
D130124	R45 x 30 mm	75	30	45
D130159	R25x30 mm	55	30	25
D130160	R30x25 mm	55	25	30
D130179	R40x70 mm	110	70	40
D130180	R38x70.5 mm	108.5	70.5	38

P/N	Description	Specifications		
		A	B	C
D130125	R30 x 70 mm	100	70	30
D130141	R35 x 60 mm	95	60	35
D130142	R60 x 35 mm	95	35	60
D130143	R65 x 35 mm	100	35	65
D130145	R70 x 35 mm	105	35	70
D130152	R60 x 40 mm	100	40	60
D130166	R25x35mm	60	35	25
D130167	R50x40mm	90	40	50
D130168	R90x30mm	120	30	90
D130169	R30x90mm	120	90	30
D130170	R85x35mm	120	35	85
D130171	R35x85mm	120	85	35
D130172	R95x30mm	125	30	95
D130173	R30x95mm	125	95	30
D130174	R90x35mm	125	35	90
D130175	R35x90mm	125	90	35
D130113	R30.5 x 40.5 mm	71	40.5	30.5
D130127	R75 x 30 mm	105	30	75
D130137	R40 x 35 mm	75	35	40
D130138	R50 x 35 mm	85	35	50
D130139	R35 x 55 mm	90	55	35
D130140	R55 x 35 mm	90	35	55
D130151	R40 x 60 mm	100	60	40
D130153	R65x40 mm	105	40	65
D130154	R45x55 mm	100	55	45
D130155	R55x45 mm	100	45	55



CYLINDERS

Classic Series Oval Thumb Turn Brass Cylinder



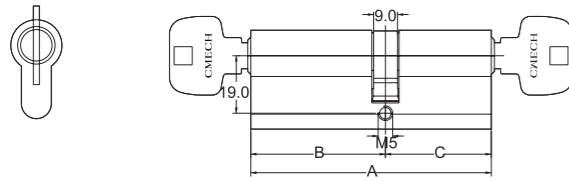
P/N	Description	Specifications		
		A	B	C
D130601	R25 x 30 mm	55	30	25
D130602	R30 x 25 mm	55	25	30
D130603	R50 x 10 mm	60	10	50
D130604	R35 x 30 mm	65	30	35
D130605	R40 x 30 mm	70	30	40
D130606	R35.5 x 35.5 mm	71	35.5	35.5
D130607	R30.5 x 40.5 mm	71	40.5	30.5
D130608	R30 x 45 mm	75	45	30
D130609	R45 x 30 mm	75	30	45
D130610	R50 x 30 mm	80	30	50
D130611	R30 x 50 mm	80	50	30
D130612	R45 x 35 mm	80	35	45
D130613	R35 x 45 mm	80	45	35
D130614	R30 x 55 mm	85	55	30
D130615	R55 x 30 mm	85	30	55
D130616	R50 x 35 mm	85	35	50
D130617	R60 x 30 mm	90	30	60
D130618	R30 x 60 mm	90	60	30
D130619	R45 x 45 mm	90	45	45
D130620	R45 x 45 mm	90	55	35

P/N	Description	Specifications		
		A	B	C
D130621	R35 x 55 mm	90	55	35
D130622	R30 x 65 mm	95	65	30
D130623	R65 x 30 mm	95	30	65
D130624	R70 x 30 mm	100	30	70
D130625	R30 x 70 mm	105	70	30
D130626	R45 x 55 mm	100	55	45
D130627	R30 x 75 mm	105	75	30
D130628	R75 x 30 mm	105	30	75
D130629	R70 x 35 mm	105	35	70
D130630	R38 x 70.5 mm	108.5	70.5	38
D130631	R75 x 35 mm	110	35	75
D130632	R 35 x 75 mm	110	75	35
D130633	R30 x 80 mm	110	80	30
D130634	R80 x 30 mm	110	30	80
D130635	R30 x 85 mm	115	85	30
D130636	R30 x 90 mm	120	90	30
D130637	R85 x 35 mm	120	35	85
D130638	R35 x 85 mm	120	85	35
D130639	R80 x 35 mm	115	35	80



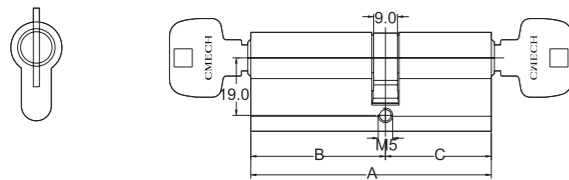
CYLINDERS

Master Series Double-Sided Keyed Brass Cylinder



P/N	Description	Specifications		
		A	B	C
D130402	R35.5 x 35.5 mm	71	35.5	35.5
D130409	R30 x 50 mm	80	50	30
D130412	R30 x 55 mm	85	55	30
D130415	R30 x 60 mm	90	60	30
D130418	R45 x 45 mm	90	45	45
D130419	R30 x 65 mm	95	65	30
D130420	R30 x 70 mm	100	70	30
E130403	R40 x 40 mm	80	40	40
F130405	R45 x 35 mm	80	35	45
F130406	R54 x 35 mm	89	35	54
F130407	R45 x 50 mm	95	50	45

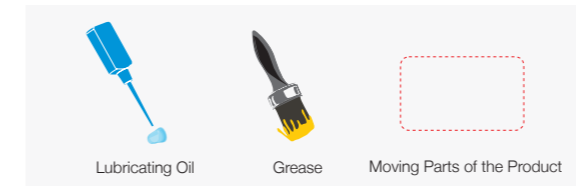
Classic Series Double-Sided Keyed Brass Cylinder



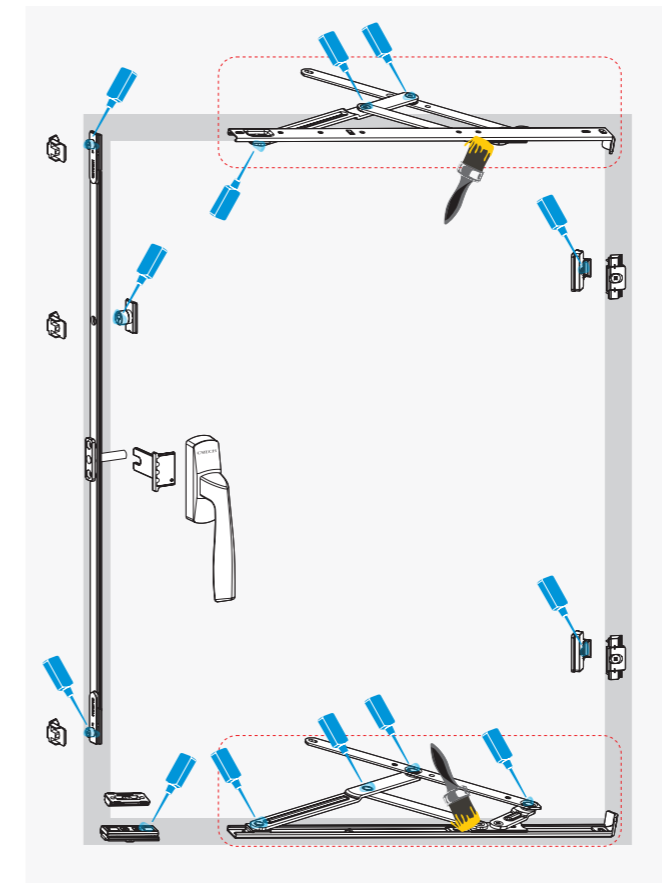
P/N	Description	Specifications		
		A	B	C
D130421	R35.5 x 35.5 mm	71	35.5	35.5
D130422	R31 x 45 mm	76	45	31
D130423	R31 x 50 mm	81	50	31
D130424	R31 x 55 mm	86	55	31
D130425	R45 x 45 mm	90	45	45
D130426	R31 x 60 mm	91	60	31
D130427	R31 x 65 mm	96	65	31
D130428	R31 x 70 mm	101	70	31
D130429	R35 x 65 mm	100	65	35

MAINTENANCE

- Please read and follow the instruction manual carefully during installation.
- Please be sure to check the product is working properly once installation is complete.
- Please prepare the appropriate tools and protective gear to facilitate a fast, proper installation and to guarantee safety.
- Add lubricating oil and grease to moving parts, locking brackets and adjustable parts to extend product life.
- The moving parts must be checked to see if they are loose or damaged in order to guarantee safety.
- Carry out maintenance at least once annually.



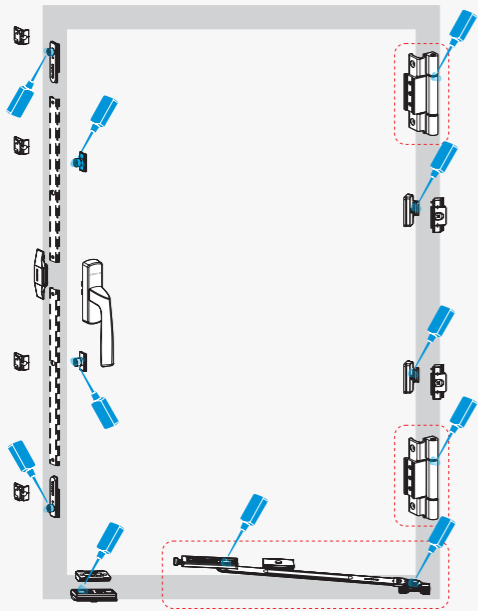
Outswing Casement Window Hardware



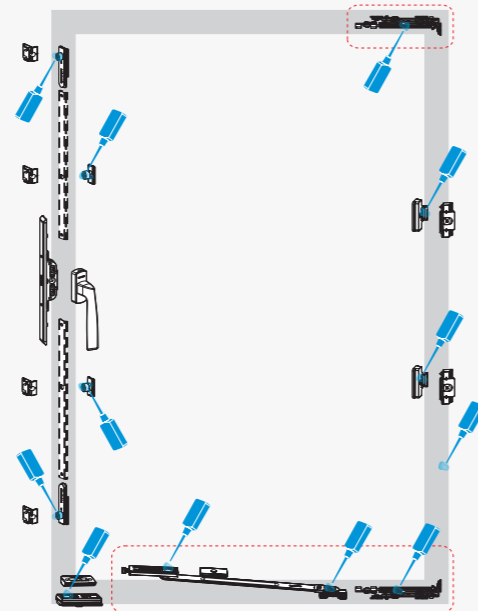
MAINTENANCE

MAINTENANCE

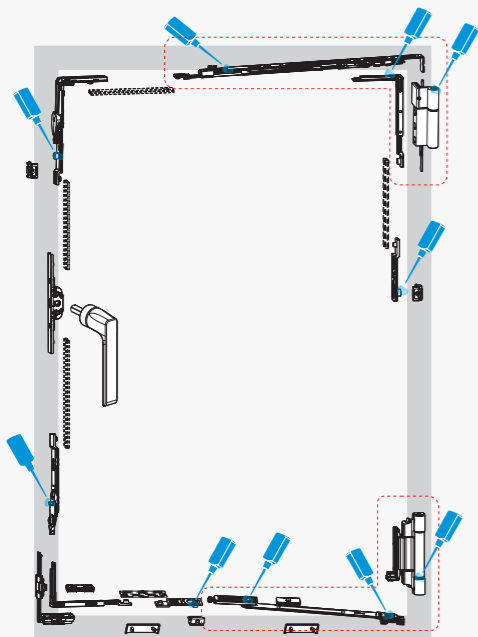
Inswing Casement Window Hardware
Exposed Hinge Configuration



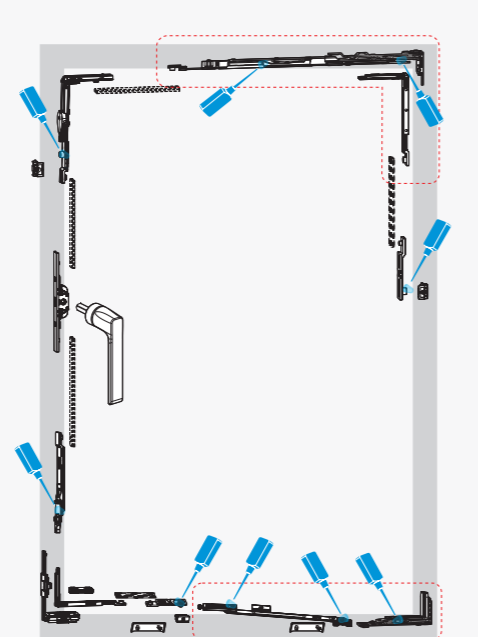
Inswing Casement Window Hardware
Concealed Hinge Configuration



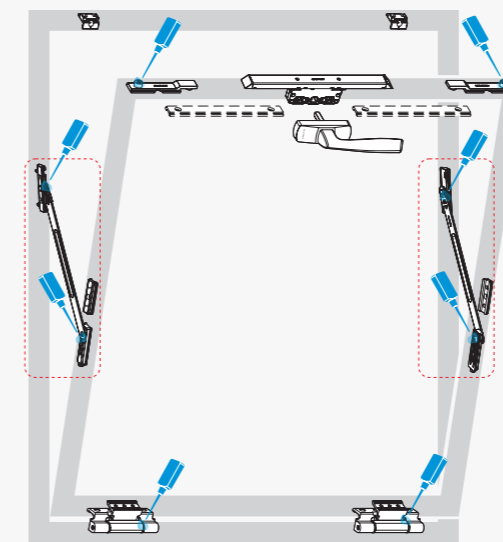
Tilt & Turn Window Hardware
Exposed Hinge Configuration



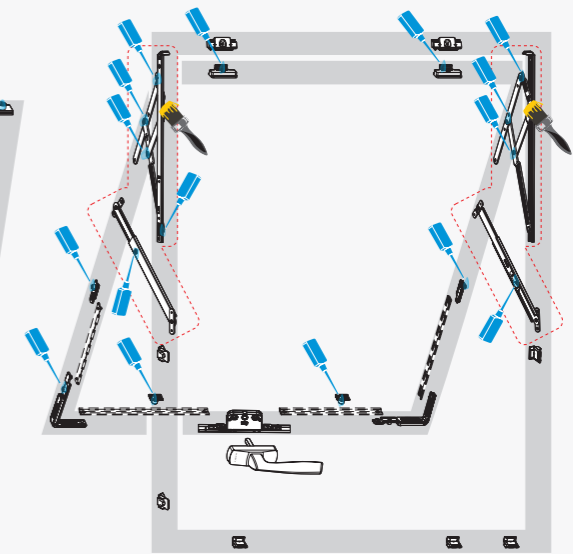
Tilt & Turn Window Hardware
Concealed Hinge Configuration



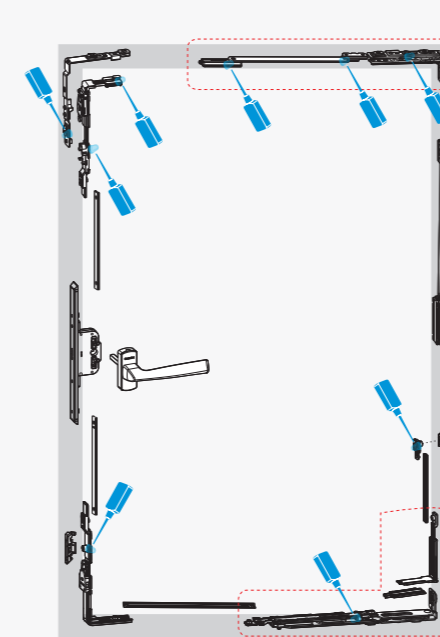
Hopper Window Hardware



Outswing Awning Window Hardware

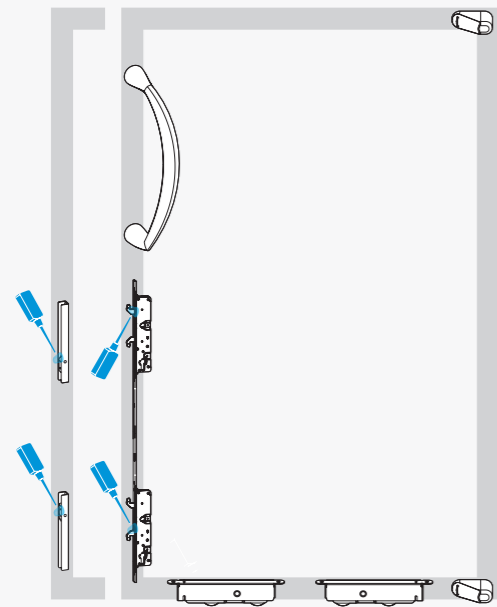


Outswing Casement & Awning Window
Concealed Hinge Configuration

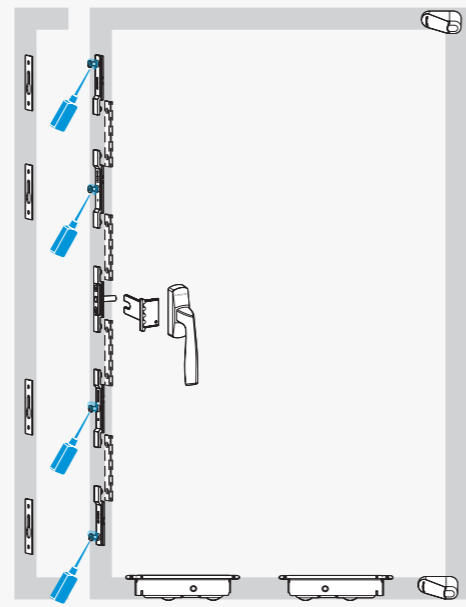


MAINTENANCE

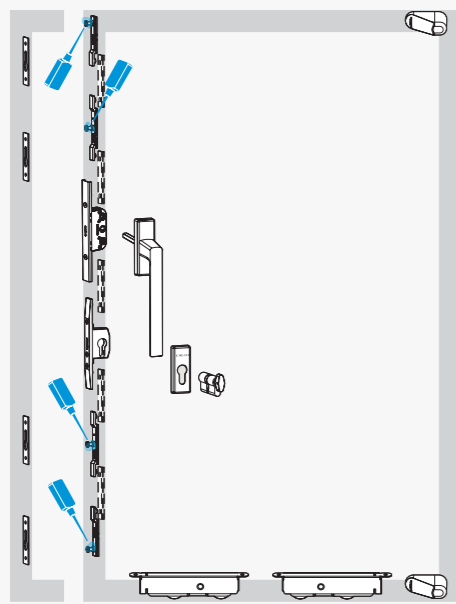
Gliding Door Hardware
London Handle + Hook Lock Configuration



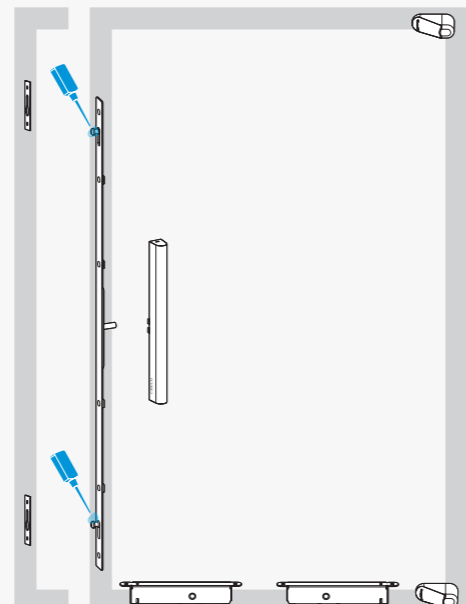
Gliding Door Hardware
T-Drive Configuration



Gliding Door Hardware
Spindle Drive Configuration

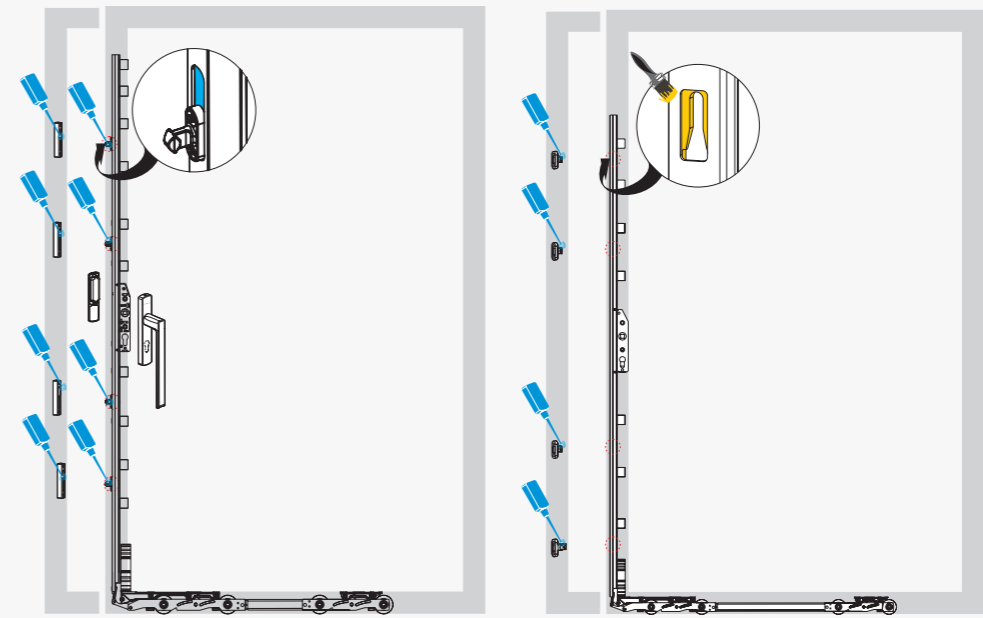


Gliding Door Hardware
Drive Gear Configuration

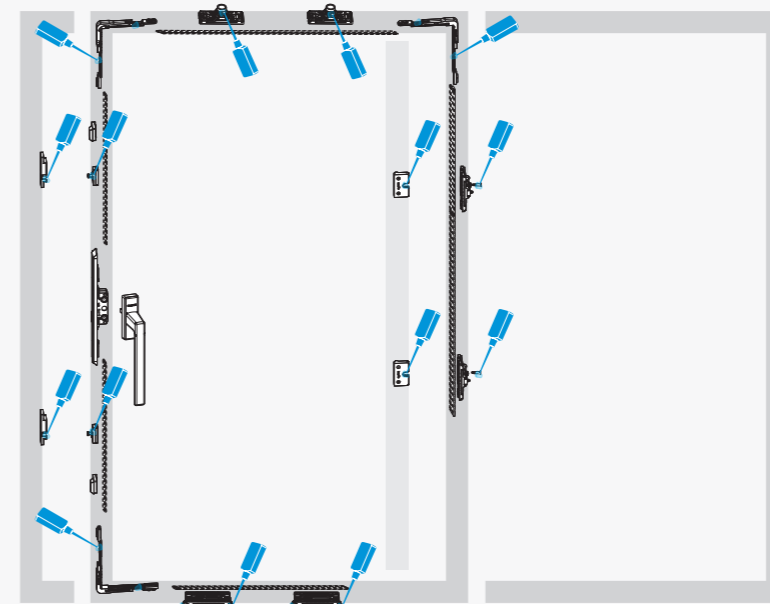


MAINTENANCE

Lift & Slide Door Hardware

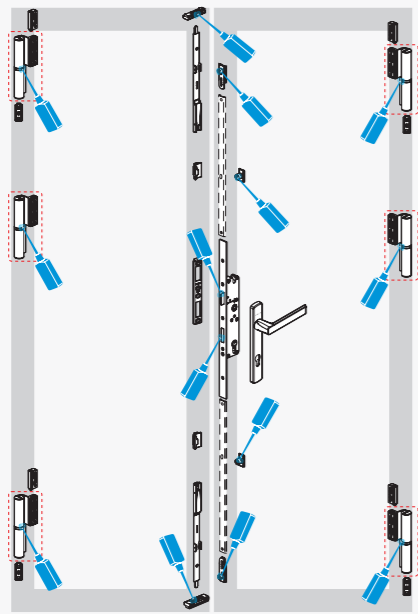


Tightly Sealed Sliding Window Hardware

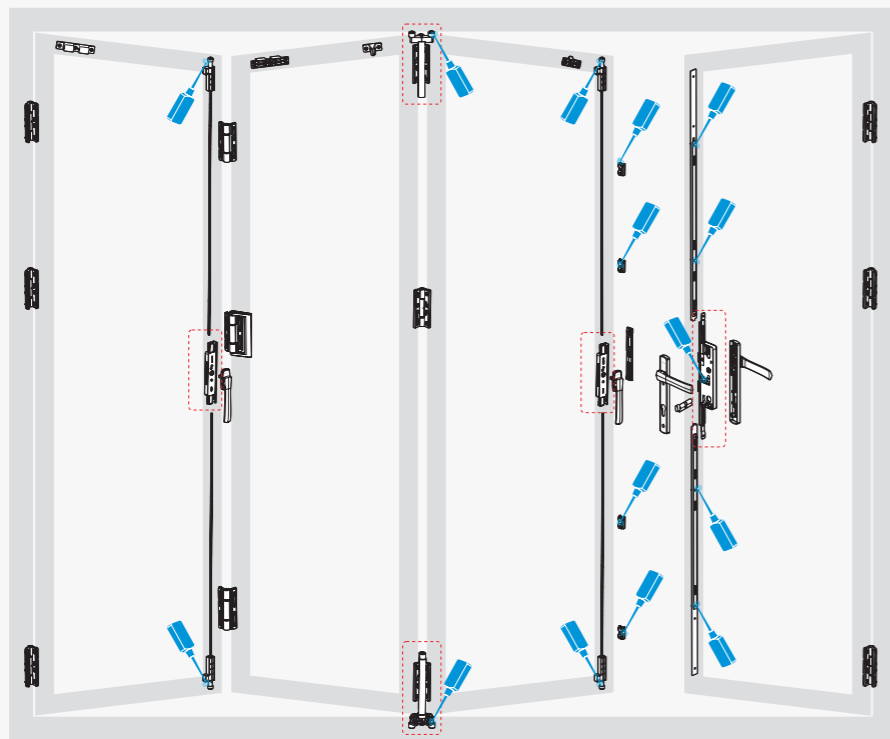


MAINTENANCE

Hinged Door Hardware



Bi-Folding Door Hardware



SALES CENTERS

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