

CMECH
DOOR & WINDOW
HARDWARE CATALOGUE
2021 / 2022

CMECH

Art of Hardware





CMECH

Window & Door Hardware | Blinds Between Glass | Glider

Established for over 25 years, Cmech is an American-based company specialized in the design and manufacture of door and window hardware, and Blinds Between Glass ("BBG"). 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
- 18 Outswing Casement Window Hardware
- 25 Outswing French Casement Window Hardware
- 30 Outswing Awning Window Hardware
- 35 Outswing Awning Window (Curtain Wall) Hardware
- 42 Inswing Casement Window Hardware
- 47 Inswing French Casement Window Hardware
- 50 Hopper Window Hardware
- 56 Tilt & Turn Window Hardware

Lift & Slide Series **112**

- 112 Lift & Slide Door Hardware

Gliding Series **122**

- 122 Gliding Door Hardware
- 157 Gliding Window Hardware

Bi-Folding Door Series **162**

- 162 Bi-Folding Door Hardware

Hinged Door Series **174**

- 174 Hinged Door Hardware

Maintenance **207**

- 207 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

	NEW YORK SERIES	KOLN SERIES	BERLIN SERIES	HUAYUN SERIES	MILAN SERIES
Spindle and Fork Drive Handle (Type W) Outswing Casement Window Inswing Casement Window Outswing Awning Window Gliding Door					
Spindle Drive Handle (Type W) • Outswing Casement Window • Inswing Casement Window • Tilt & Turn Window • Hopper Window • Outswing Awning Window					
Handle (Type TT) • Tilt & Turn Window • Inswing Casement Window • Hopper Window • Outswing Awning Window (Curtain Wall)					
Spindle Drive Handle (Type LS) • Lift & Slide Door					
Spindle Drive Handle (Type D) • Hinged Door • Bi-Folding Door					

OTHER SERIES(Type W)
 • Outswing Casement Window
 • Hopper Window
 • Outswing Awning Window
 • Bi-Folding Door

FLY SCREEN HANDLE	FLAT HANDLE	TURN HANDLE

Specialized Gliding Handle

LONDON HANDLE	METRO HANDLE	KOLN HANDLE	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	Copper 13

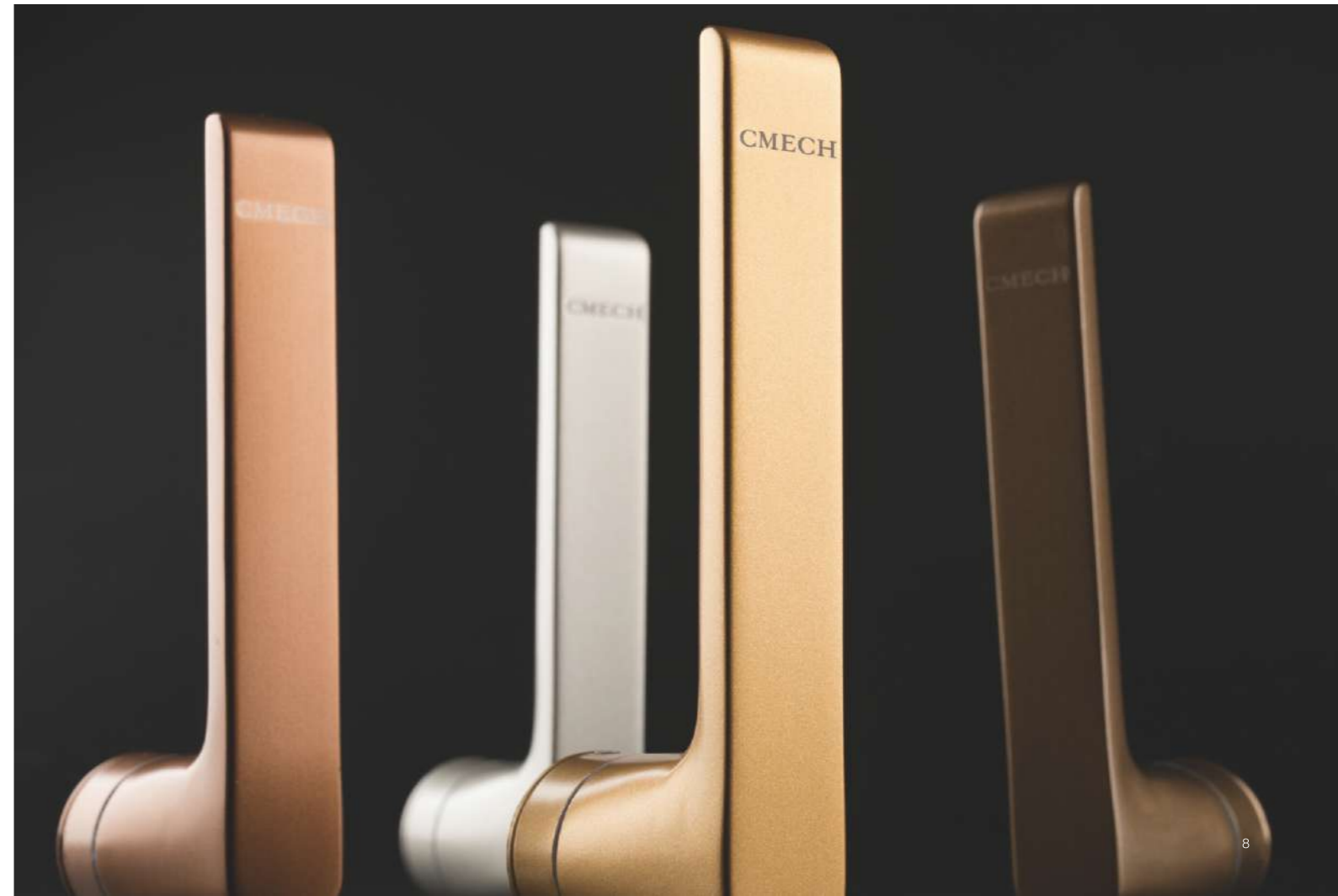
Powder Coating

White 09	Mat Black 16

E Treatment

Antique Brass 14

Note: Color is representative only.

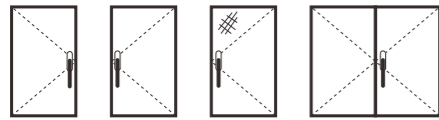


USER'S MANUAL FOR THE CATALOGUE

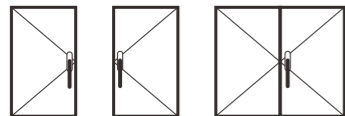
Opening Methods Diagrams

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

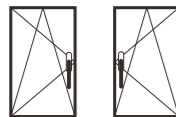
Outswing Window/Door



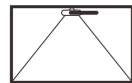
Inswing Window/Door



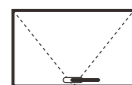
Tilt & Turn Window



Hopper Window



Outswing Awning Window



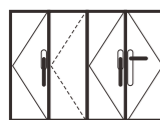
Lift & Slide Door



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
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.

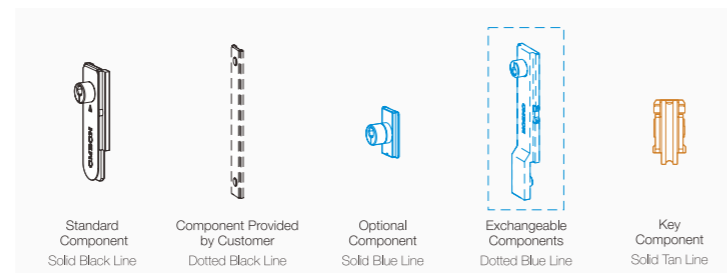
Each one has a corresponding serial number.

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
- 13 Copper
- 14 Antique Brass (Only for CHINESE TRADITIONAL HUAYUN handle)
- 16 Mat Black

Description of Features Graphics



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

Window with Fly Screen Hardware

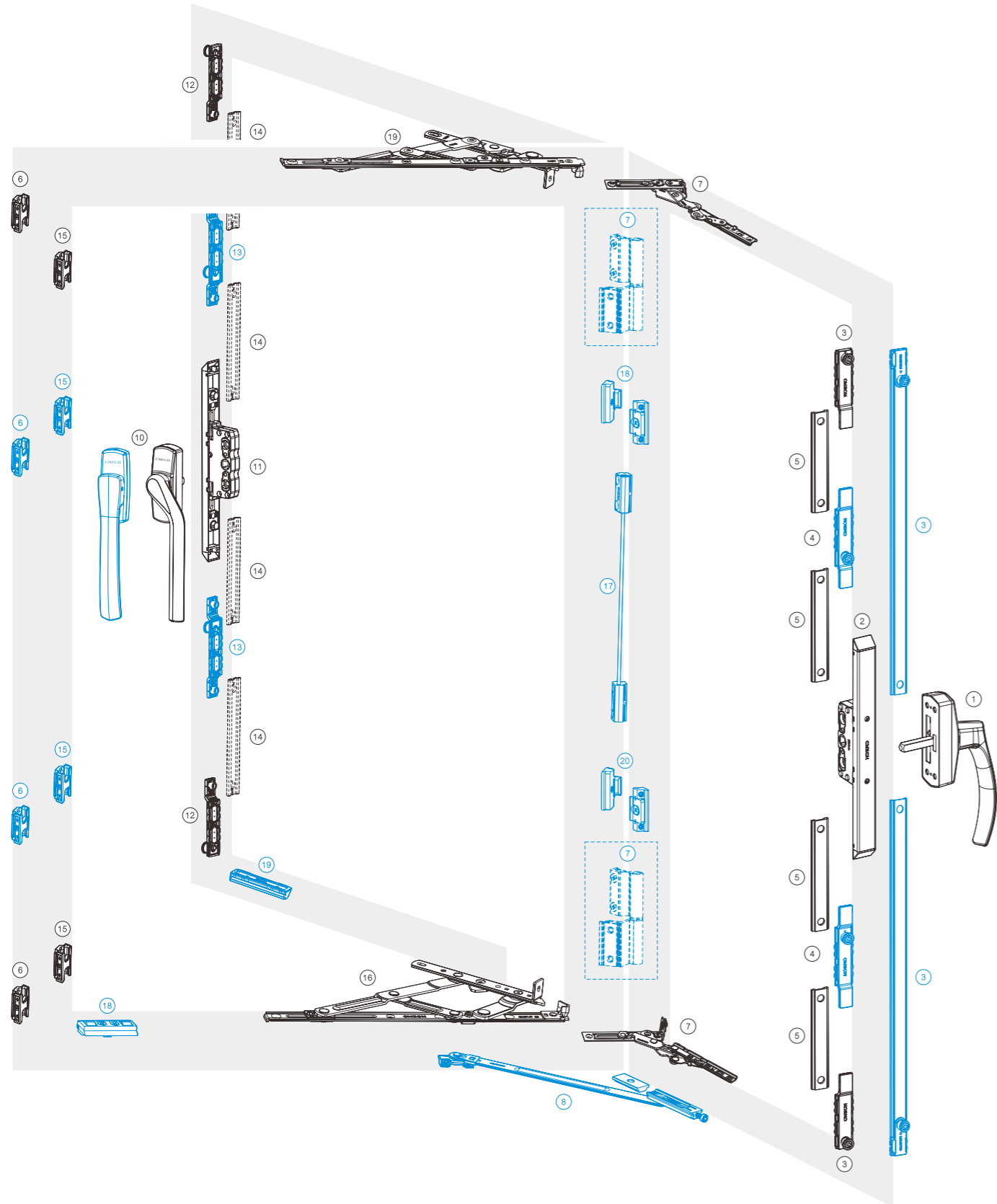


- The handles are available in many styles and colors
- Additional guide wheel support block provides a smoother operation
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Casement Window with Fly Screen	Applicable Range
Sash Width (mm)	300-800
Sash Height (mm)	300-1,800
Glass Panel Load Bearing (kg)	≤50
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, 30, 35



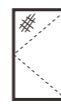
WINDOW WITH FLY SCREEN HARDWARE SERIES
Flynet and Glass Panel Integrated Window Configuration (Spindle Drive)



WINDOW WITH FLY SCREEN HARDWARE SERIES

Configuration Table - 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 (Type W)	A010127 A010452 A010217 A010606 A010607 A010608		New York Series Berlin Series Köln Series Outswing Casement Window Handle (Includes 26 mm Spindle) Outswing Casement Window Turn Handle (Left) (Includes 26 mm Spindle) Outswing Casement Window Turn Handle (Right) (Includes 26 mm Spindle)	P77, P81
2	Drive Gearbox	A020119 A020134 A020130	1	11 mm Fly Screen Drive Gearbox (Not suitable for Baseless Handle) Hole Center to Attachment Surface: 13 mm Hole Center to Attachment Surface: 22 mm	P91
3	Lock Point	A090032 A090001 A090005 A090007 A090008	2	Pry-Resistant End Lock Point with Bearing 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	P86, P87, P88, P89
	Pry-Resistant Connecting Rod with Bearing		1	Multiple Types Available	P87
4	Central Lock Point	A090033 A090009 A090010	0-2	Pry-Resistant Central Point with Bearing Ø9.5x6.0 mm Ø9.5x7.0 mm	P86, P87, P89
5	Connecting Strip			Provided by Customer or Cmech	
6	Keeper	A100122 A100101	2-4	Pry-Resistant Keeper with Bearing Keeper	P90
7	Hinge	B040037 B040036	1	165° Clamping Hinge 45 kg Clamping Hinge	P106, P107
8	Limiting Stay	B040041 B040042	1	10" 14"	P108
9	Handle Screw Pack	A110237	1	Milan Handle M4x25 Pan Screws	



WINDOW WITH FLY SCREEN HARDWARE SERIES

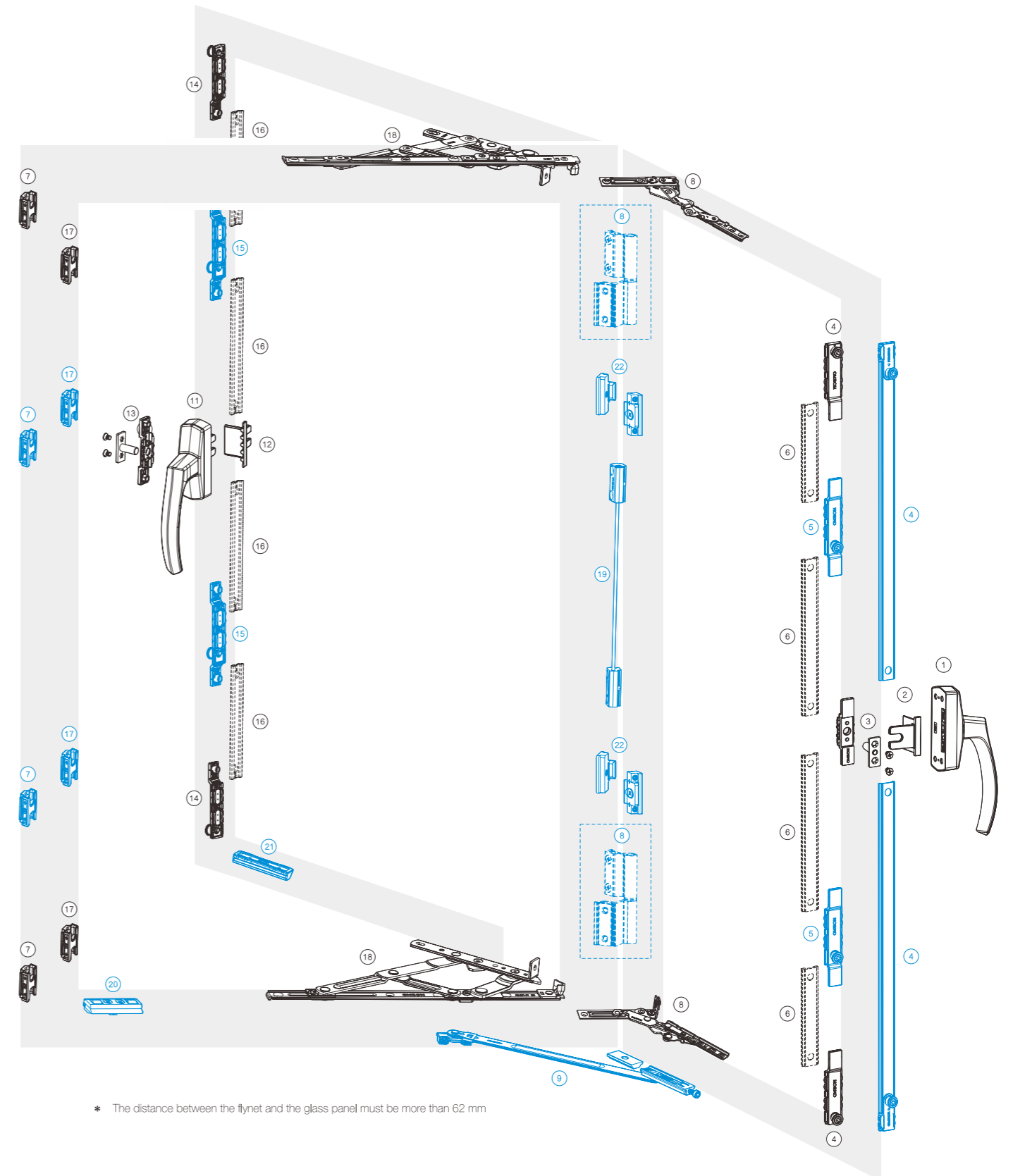
Configuration Table - Flynet and Glass Panel Integrated Window - Inner Flynet Outer Glass Panel Configuration (Glass Panel)

No.	Description	P/N	Qty	Notes	Ref. Page
10	Spindle Drive Handle	A010408-A010418 A010419-A010429 A010004 A010453 A010454 A010604 A010605	1	Left Turn Handle Right Turn Handle Fly Screen Handle S Series Left Turn Handle S Series Right Turn Handle Milan Series Left Turn Handle Milan Series Right Turn Handle	P75, P76, P77, P78, P79, P82
11	Drive Gearbox	A020135 A020131 A020133	1	Hole Center to Attachment Surface: 25 mm Hole Center to Attachment Surface: 30 mm Hole Center to Attachment Surface: 35 mm	P91
12	Lock Point	A090032 A090001 A090005 A090007 A090008	2	Pry-Resistant End Lock Point with Bearing 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	P86, P87, P88, P89
	Pry-Resistant Connecting Rod with Bearing		1	Multiple Types Available	P87
13	Central Lock Point	A090033 A090009 A090010	0-2	Pry-Resistant Central Point with Bearing Ø9.5x6.0 mm Ø9.5x7.0 mm	P86, P87, P89
14	Connecting Strip			Provided by Customer or Cmech	
15	Keeper	A100122 A100101	2-4	Pry-Resistant Keeper with Bearing Keeper	P90
16	Friction Hinge		1	Multiple Types Available	P95, P96, P110, P111
17	Anti-fall Hardware	A120003	1		P105
18	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	P104, P105
19	Sash Support Block	A080012	1	Height: 7.5 mm	P104
20	Hidden Lock	A100121 A100104	2	For a Single-Sided C-Groove For a Double-Sided C-Groove	P104
21	Handle Screw Pack		1		P70
22	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111

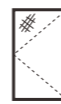


WINDOW WITH FLY SCREEN HARDWARE SERIES

Flynet and Glass Panel Integrated Window Configuration (Fork Drive)



* The distance between the flynet and the glass panel must be more than 62 mm



WINDOW WITH FLY SCREEN HARDWARE SERIES

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

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74
2	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P85, P86
3	T-Drive		1		P93, P94
4	Lock Point	A090032 A090001 A090005 A090007 A090008	2	Pry-Resistant End Lock Point with Bearing 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	P86, P87, P88, P89
	Pry-Resistant Connecting Rod with Bearing		1	Multiple Types Available	P87
5	Central Lock Point	A090033 A090009 A090010	0-2	Pry-Resistant Central Point with Bearing Ø9.5x6.0 mm Ø9.5x7.0 mm	P86, P87, P89
6	Connecting Strip			Provided by Customer or Cmech	
7	Keeper	A100122 A100101	2-4	Pry-Resistant Keeper with Bearing Keeper	P90
8	Hinge	B040037 B040036	1	165° Clamping Hinge 45 kg Clamping Hinge	P106, P107
9	Limiting Stay	B040041 B040042	1	10° 14°	P108
10	Handle Screw Pack	A110078	1		



WINDOW WITH FLY SCREEN HARDWARE SERIES

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

No.	Description	P/N	Qty	Notes	Ref. Page
11	Spindle and Fork Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74
12	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P85, P86
13	T-Drive		1		P93, P94
14	Lock Point	A090032 A090001 A090005 A090007 A090008	2	Pry-Resistant End Lock Point with Bearing 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	P86, P87, P88, P89
	Pry-Resistant Connecting Rod with Bearing		1	Multiple Types Available	P87
15	Central Lock Point	A090033 A090009 A090010	0-2	Pry-Resistant Central Point with Bearing Ø9.5x6.0 mm Ø9.5x7.0 mm	P86, P87, P89
16	Connecting Strip			Provided by Customer or Cmech	
17	Keeper	A100122 A100101	2-4	Pry-Resistant Keeper with Bearing Keeper	P90
18	Friction Hinge		1	Multiple Types Available	P95, P96, P110, P111
19	Anti-fall Hardware	A120003	1		P105
20	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	P104, P105
21	Sash Support Block	A080012	1	Height: 7.5 mm	P104
22	Hidden Lock	A100121 A100104	2	For a Single-Sided C-Groove For a Double-Sided C-Groove	P104
21	Handle Screw Pack		1		P70
22	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111



Outswing Casement Window Hardware



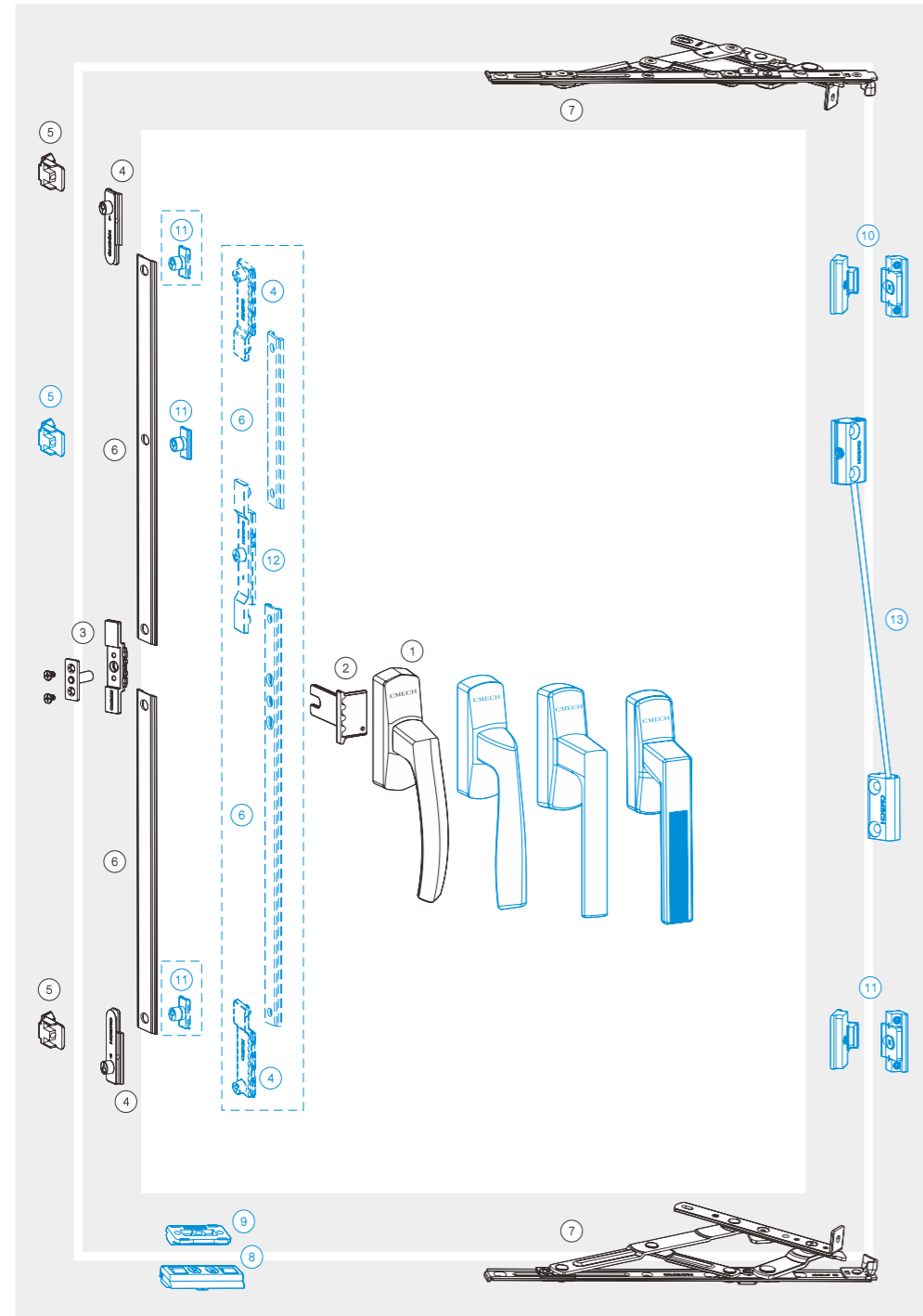
- The handles are available in many styles and colors
- Additional guide wheel support block provides a smoother operation
- Unique friction hinge block provides for easier opening of the window
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Outswing Casement Window	Applicable Range	
Sash Width	(mm)	300-800
Sash Height	(mm)	300-1,800
Load-bearing	(kg)	≤ 50
Length of T-Drive	(mm)	17, 20, 24, 28, 32, 36, 40
Center Distance of Spindle Drive Gearbox	(mm)	22, 25, 30, 35



OUTSWING CASEMENT WINDOW HARDWARE SERIES

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



OUTSWING CASEMENT WINDOW HARDWARE SERIES

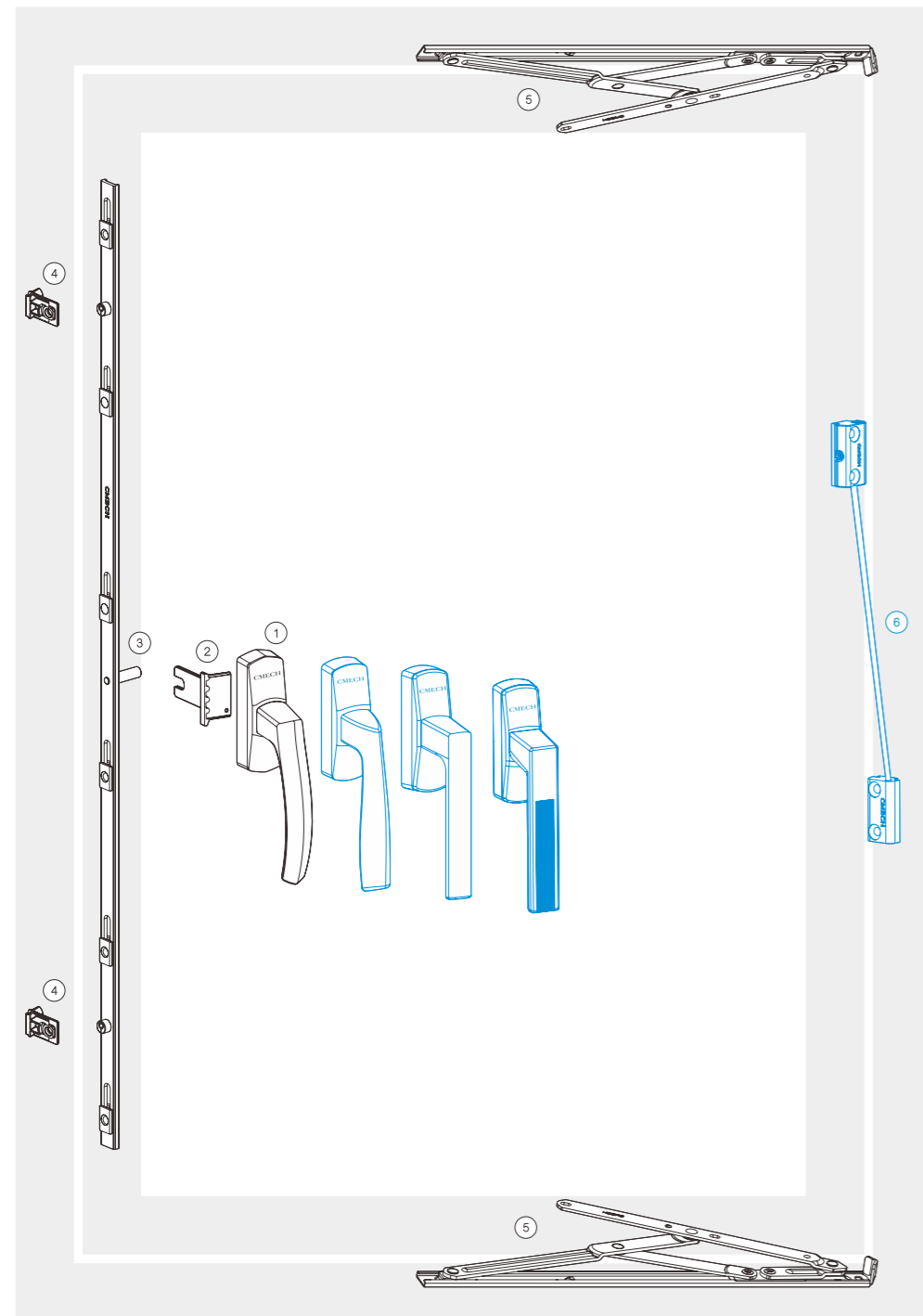
Configuration Table - Fork Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74
2	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P85, P86
3	T-Drive		1		P93, P94
4	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
5	Keeper		2~4	Multiple Types Available	P90
6	Connecting Strip			Provided by Customer or Cmech	
7	Friction Hinge		1	Multiple Types Available	P95, P96
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	P104, P105
9	Sash Support Block	A080012	1	Height: 7.5 mm	P104
10	Hidden Lock	A100121 A100104	2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P104
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	P88
12	Central Lock Point	A090009 A090010 A090033	0~2	Ø9.5x6.0 mm Ø9.5x7.0 mm Pry-Resistant Central Point with Bearing	P86, P87, P89
13	Safety Catch System Hardware	A120003	1		P105
14	Handle Screw Pack	A110078	1		
15	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111



OUTSWING CASEMENT WINDOW HARDWARE SERIES

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



OUTSWING CASEMENT WINDOW HARDWARE SERIES

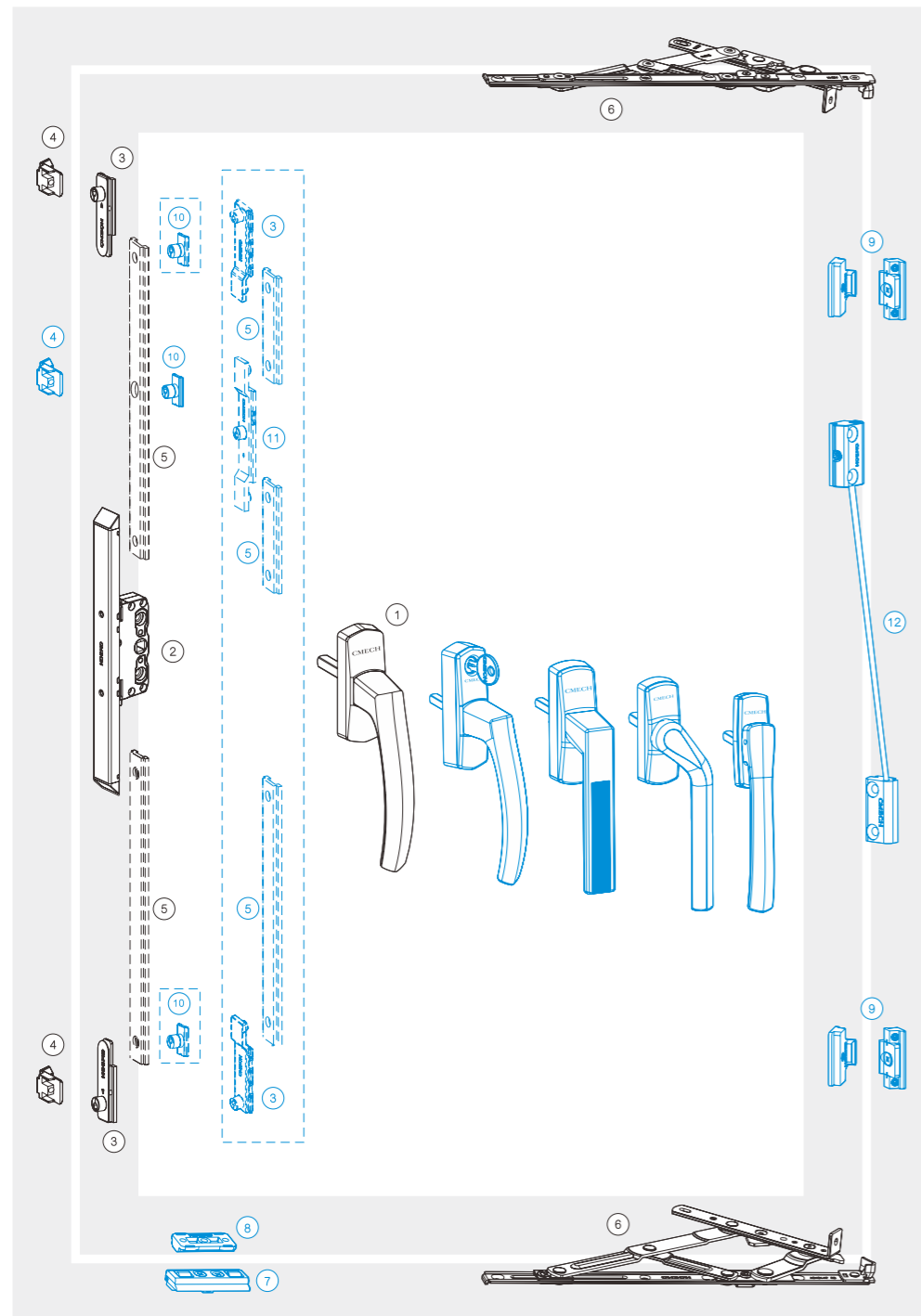
Configuration Table - Fork Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74
2	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P85, P86
3	Surface Mount Drive Gear	A020050 A020051 A020052 A020053 A020061	1	410 mm 600 mm 800 mm 1000 mm 1300 mm	P92
4	Keeper		2	Multiple Types Available	P90
5	Friction Hinge		1	Multiple Types Available	P110, P111
6	Safety Catch System Hardware	A120003	1		P105
7	Handle Screw Pack	A110078	1		
8	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111



OUTSWING CASEMENT WINDOW HARDWARE SERIES

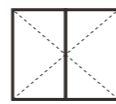
Spindle Drive Handle (Type W) Configuration:C-Groove



OUTSWING CASEMENT WINDOW HARDWARE SERIES

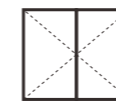
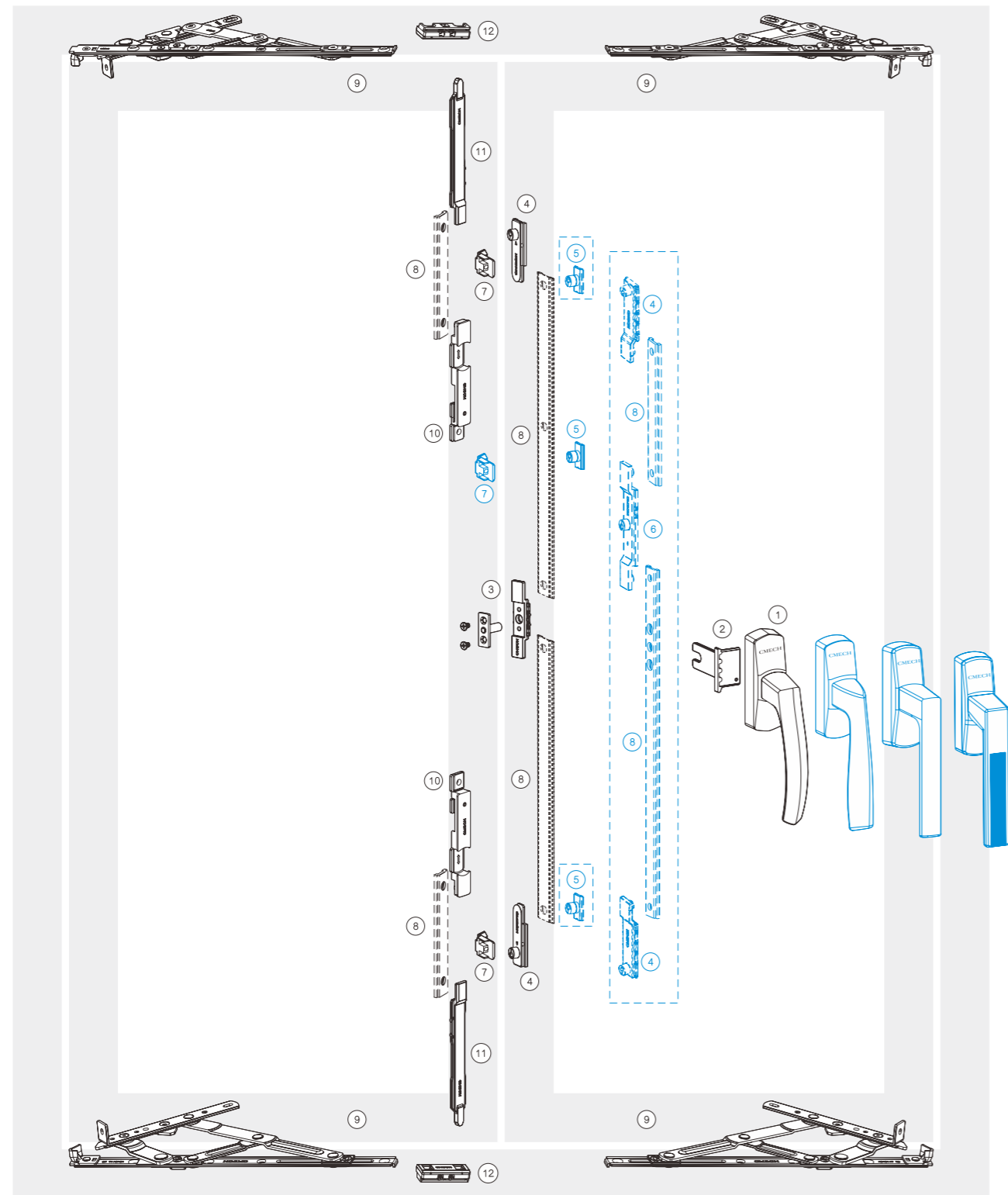
Configuration Table - Spindle Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010215 A010125 A010448 A010214 A010122 A010446 A010215 A010004 A010408~A010418 A010419~A010429 J010201~J010208 J010401~J010408 J010209~J010216 A010003	1	New York Series, Aluminum Alloy Berlin Series, Aluminum Alloy Koln Series, Aluminum Alloy New York Series, Aluminum Alloy Berlin Series, Aluminum Alloy Koln Series, Aluminum Alloy New York Series, Zinc Alloy Berlin Series, Zinc Alloy Koln Series, Zinc Alloy New York Series, Zinc Alloy Berlin Series, Zinc Alloy Koln Series, Zinc Alloy New York Handle Keyed Berlin Handle Keyed Koln Handle Keyed Fly Screen Handle Left Turn Handle Right Turn Handle New York Series Berlin Series Koln Series Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74, P75, P76, P77, P78, P79, P80
2	Bi-directional Spindle Drive Gearbox	A020130 A020131 A020133 A020135	1	Hole Center to Attachment Surface: 22 mm Hole Center to Attachment Surface: 20 mm Hole Center to Attachment Surface: 35 mm Hole Center to Attachment Surface: 25 mm	P91
3	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
4	Keeper		2~4	Multiple Types Available	P90
5	Connecting Strip			Provided by Customer or Cmech	
6	Friction Hinge		1	Multiple Types Available	P95, P96, P110, P111
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	P104, P105
8	Sash Support Block	A080012	1	Height: 7.5 mm	P104
9	Hidden Lock	A100121 A100104	2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P104
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	P88
11	Central Lock Point	A090009 A090010 A090033	0~2	Ø9.5x6.0 mm Ø9.5x7.0 mm Pry-Resistant Central Point with Bearing	P86, P87, P89
12	Safety Catch System Hardware	A120003	1		P105
13	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111
14	Handle Screw Pack		1		P70



OUTSWING FRENCH CASEMENT WINDOW HARDWARE SERIES

Fork Drive Handle (Type W) Configuration



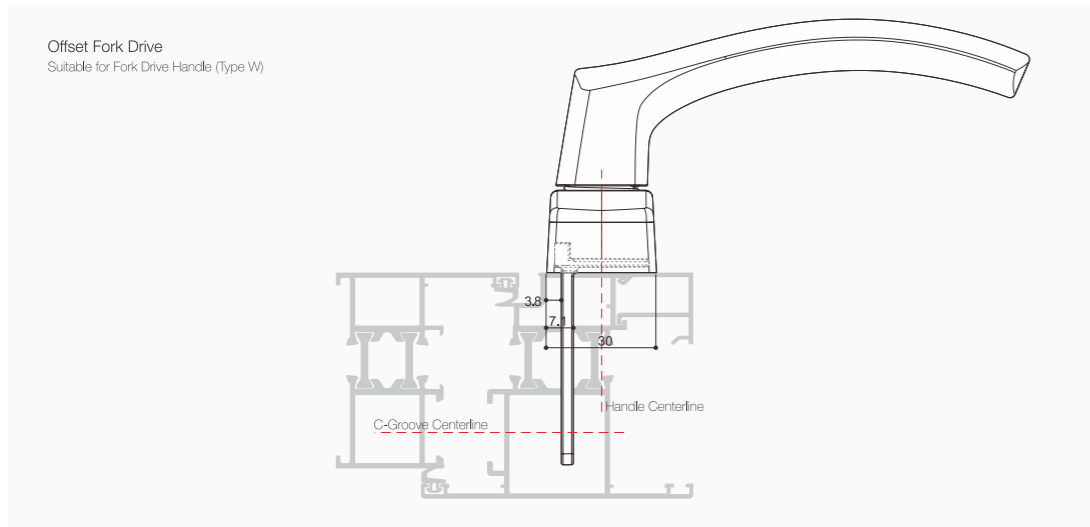
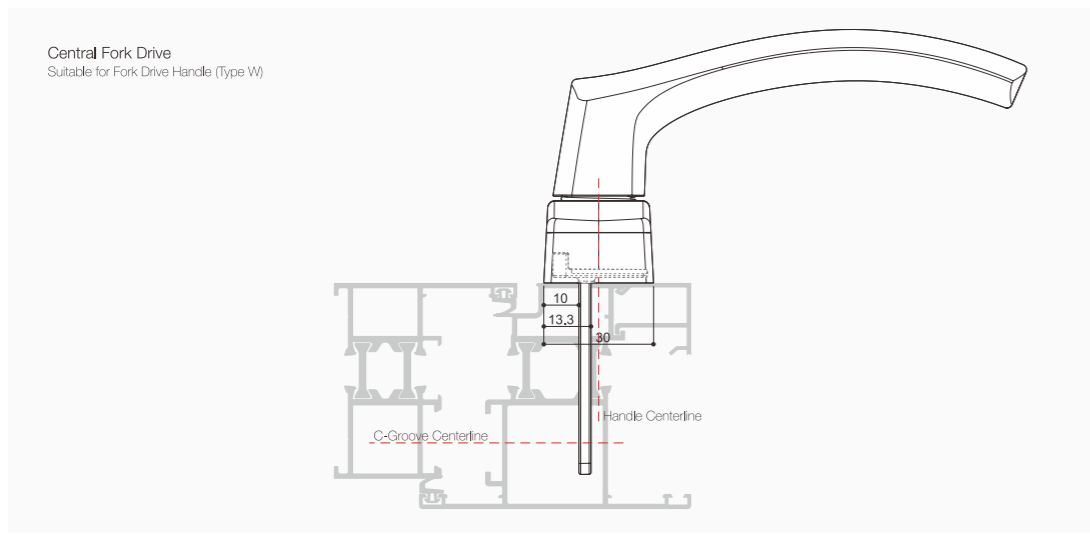
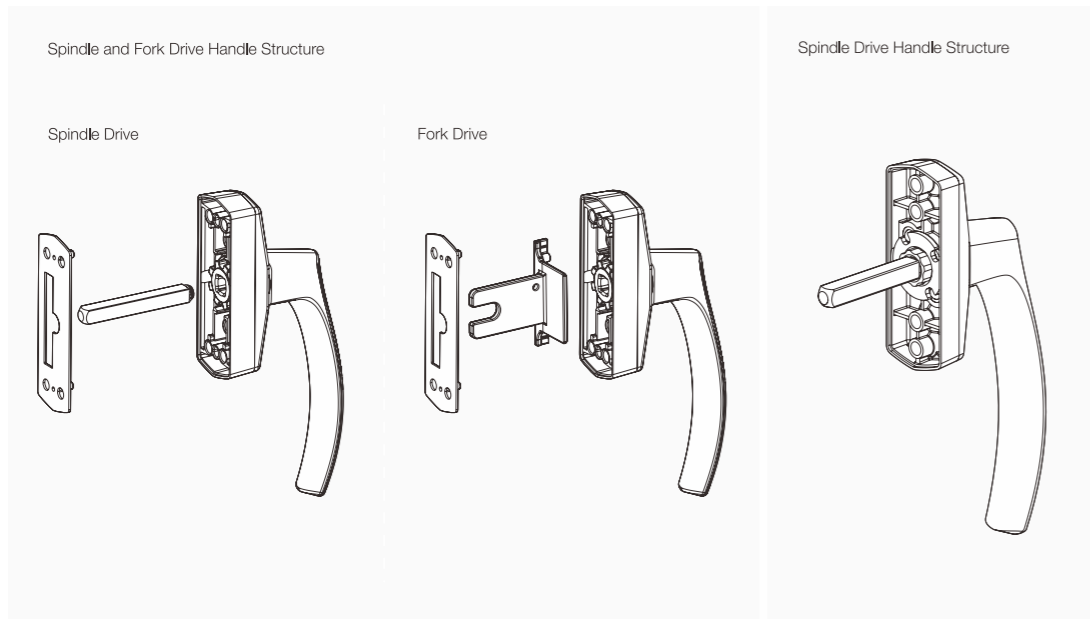
OUTSWING FRENCH CASEMENT WINDOW HARDWARE SERIES

Configuration Table - Fork Drive Handle (Type W)

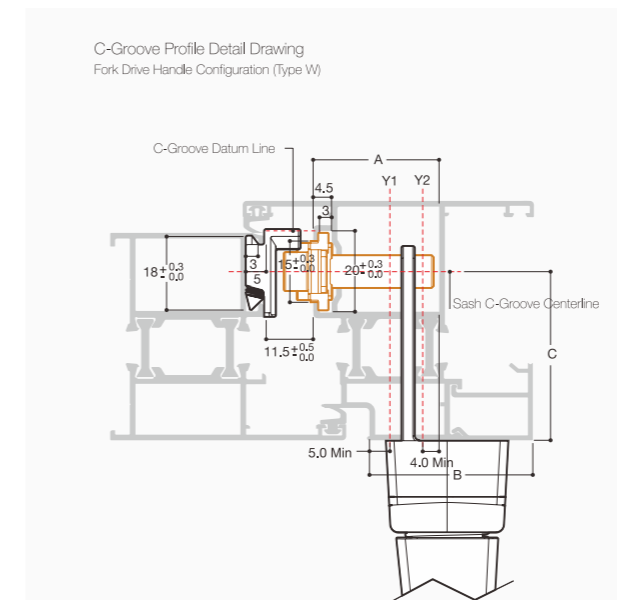
No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74
2	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P85, P86
3	T-Drive		1		P93, P94
4	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
5	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	P88
6	Central Lock Point	A090009 A090010 A090033	0~2	Ø9.5x6.0 mm Ø9.5x7.0 mm Pry-Resistant Central Point with Bearing	P86, P87, P89
7	Keeper		2~4	Multiple Types Available	P90
8	Connecting Strip			Provided by Customer or Cmech	
9	Friction Hinge		2	Multiple Types Available	P95, P96, P110, P111
10	Operating Lever	A020055	2		P97
11	Shootbolt	A070001 A070002 A070003 A070004	2	19.6 mmx156 mm 17.6 mmx156 mm 19.6 mmx90 mm 17.6 mmx90 mm	P97
12	Shootbolt Bracket	A100112	2		P97
13	Handle Screw Pack	A110078	1		
14	Friction Hinge Screw Pack		4	Determined by Friction Hinge	P110, P111

FORK DRIVE HANDLE AND SPINDLE DRIVE HANDLE INSTRUCTIONS

(See P70 for Spindle Length, See P85 for Fork Length)



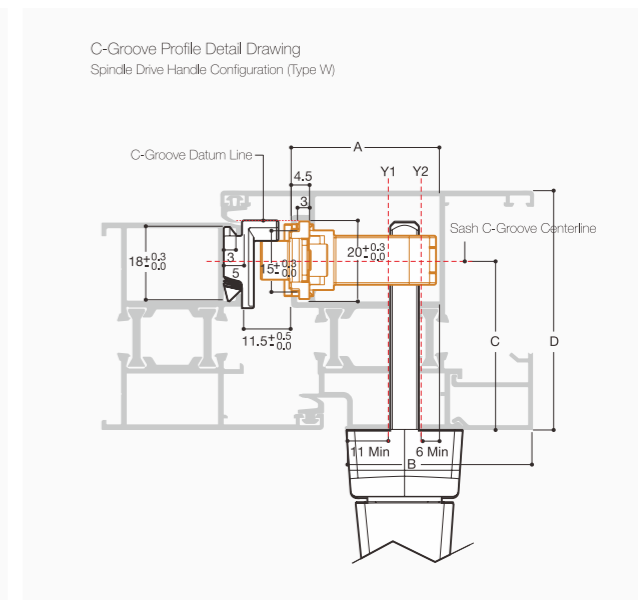
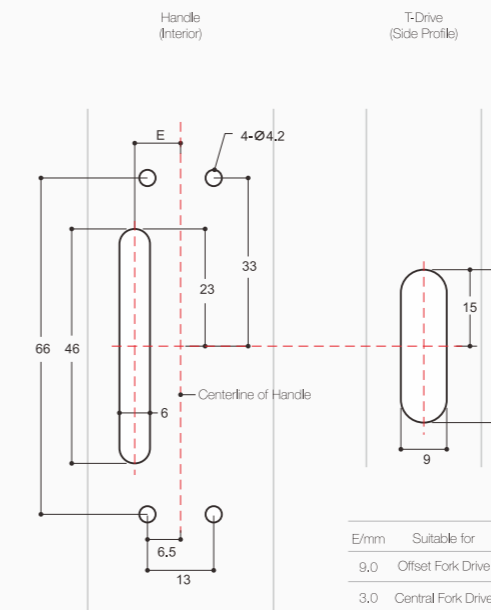
MILAN SERIES FORK DRIVE HANDLE SPINDLE DRIVE HANDLE PROFILE AND DRILLING REQUIREMENTS



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

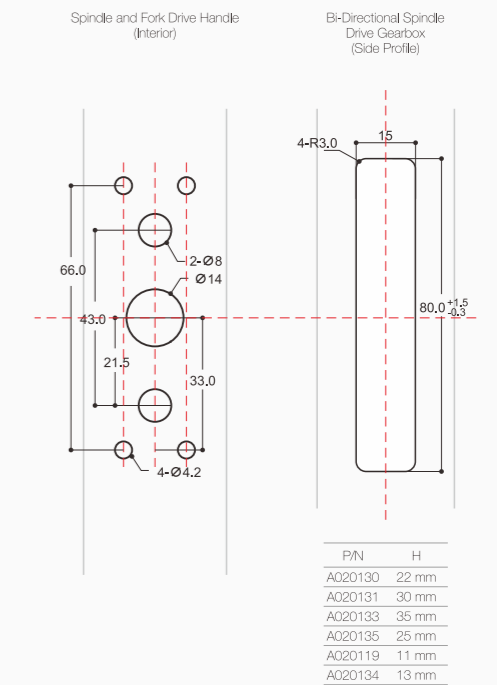
Drill Hole Drawing



Relationship Between Dimensions and Hardware:

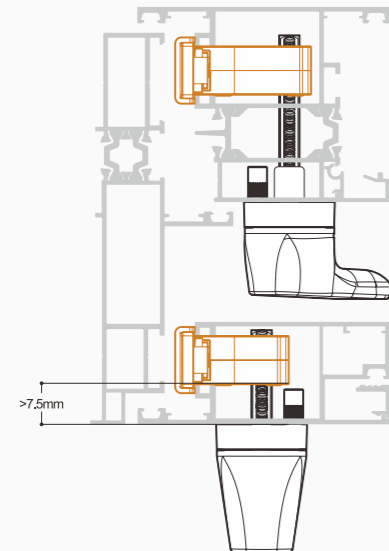
- A: Determines the maximum length allowable for the spindle drive
- A & B: Determines the horizontal hole distance and the allowable width of the handle plate. The centerline of the holes in the drive must be between lines Y1 and Y2
- C & D: Determines the length of the spindle: the shortest length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

Drill Hole Drawing

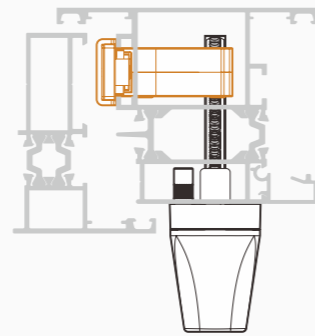


MILAN SERIES BASELESS HANDLE PROFILE AND DRILLING REQUIREMENTS

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

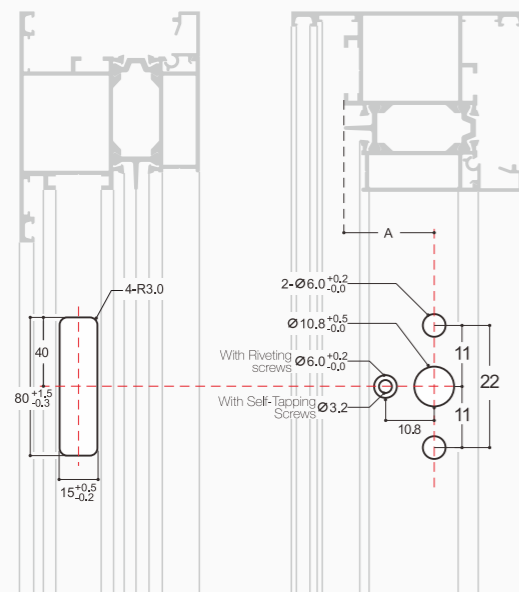


Outswing Casement Window with C-Groove Profile Detail Drawing
Milan Handle Configuration



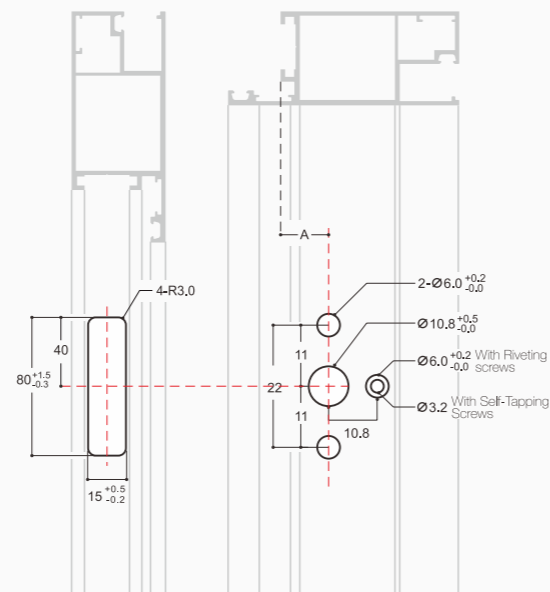
Drill Hole Drawing

Glass Panel Drill Hole Drawing



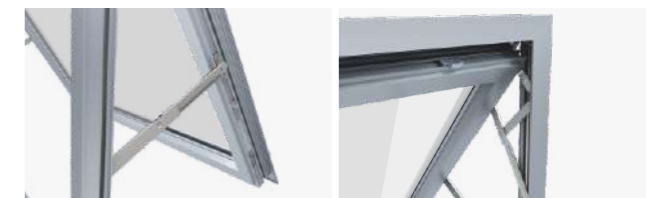
PN	A	Description
A020130	22 mm	
A020131	30 mm	Bi-Directional Spindle Drive Gearbox
A020133	35 mm	
A020135	25 mm	

Flynet Drill Hole Drawing



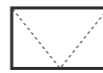
PN	A	Description
A020134	13 mm	Fly Screen Spindle Drive Gearbox

Outswing Awning Window Hardware



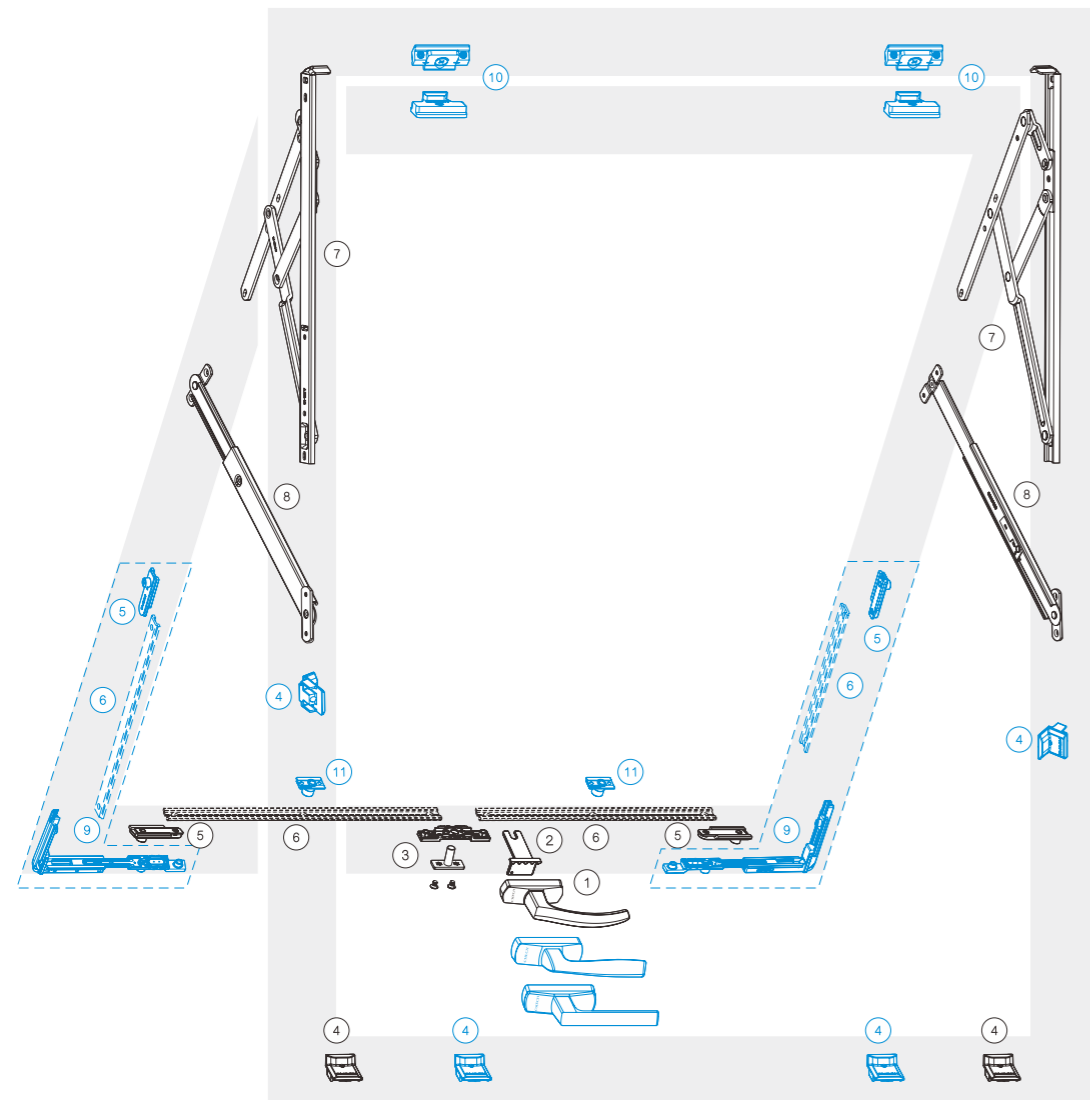
- The handles are available in many styles and colors
- Multiple types of limiting stays are available and suitable for various profiles
- Unique friction hinge block provides for easier opening of the window
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

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

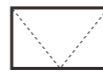
Fork Drive Handle (Type W) Configuration



OUTSWING AWNING WINDOW HARDWARE SERIES

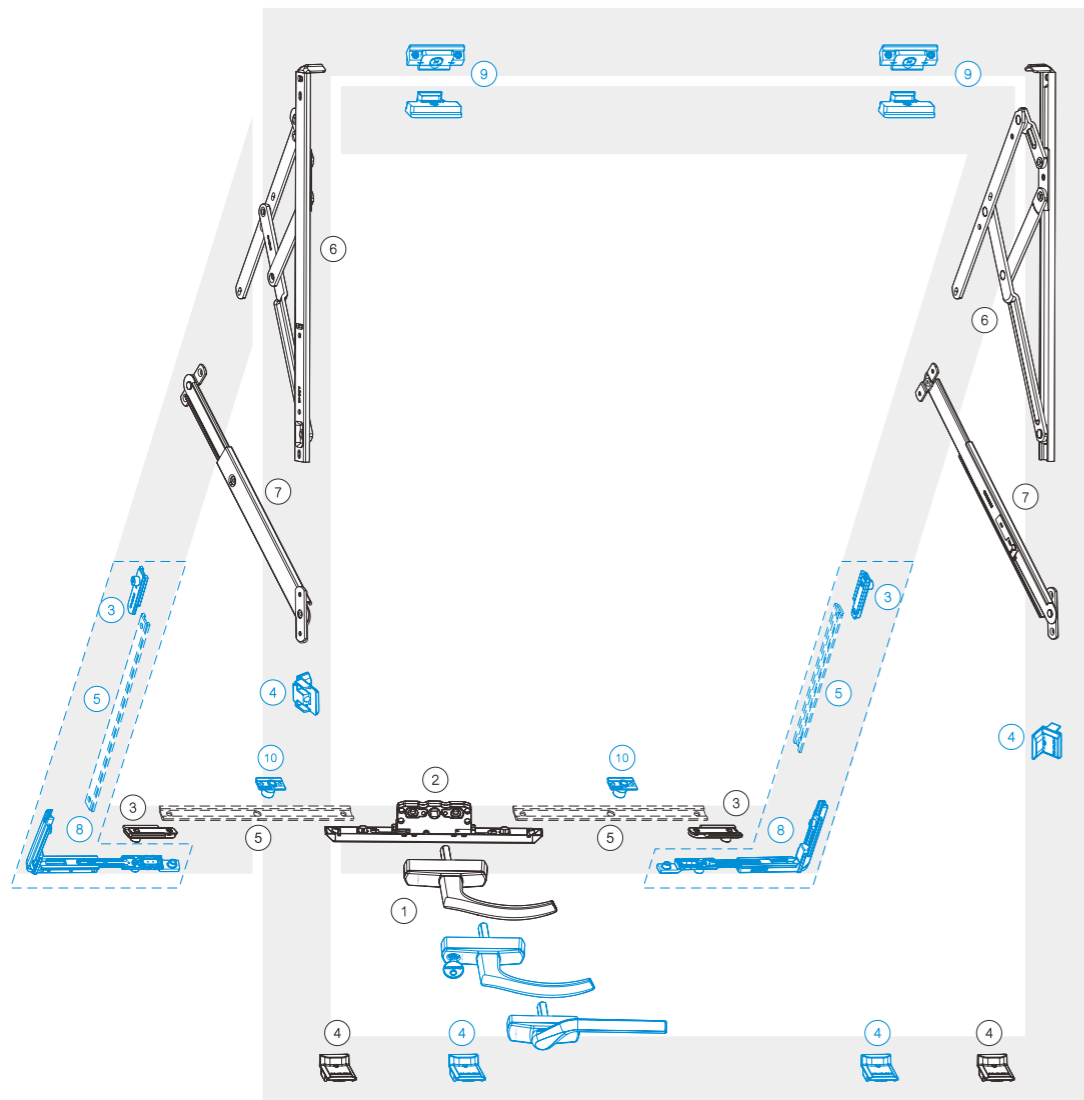
Configuration Table - Fork Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74
2	Fork Drive		1	Offset Fork Drive, Multiple Types Available Central Fork Drive, Multiple Types Available	P85, P86
3	T-Drive		1		P93, P94
4	Keeper		2-6	Multiple Types Available	P90
5	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
6	Connecting Strip			Provided by Customer or Cmech	
7	Friction Hinge		1	Multiple Types Available	P110, P111
8	Limiting Stay		1	Multiple Types Available	P109
9	Corner Drive	C060009	2		P98
10	Hidden Lock	A100121 A100104	1-2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P104
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	P88
12	Handle Screw Pack	A110078	1		
13	Limiting Stay Screw Pack	H110003	2		
14	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111



OUTSWING AWNING WINDOW HARDWARE SERIES

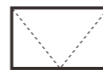
Spindle Drive Handle (Type W) Configuration



OUTSWING AWNING WINDOW HARDWARE SERIES

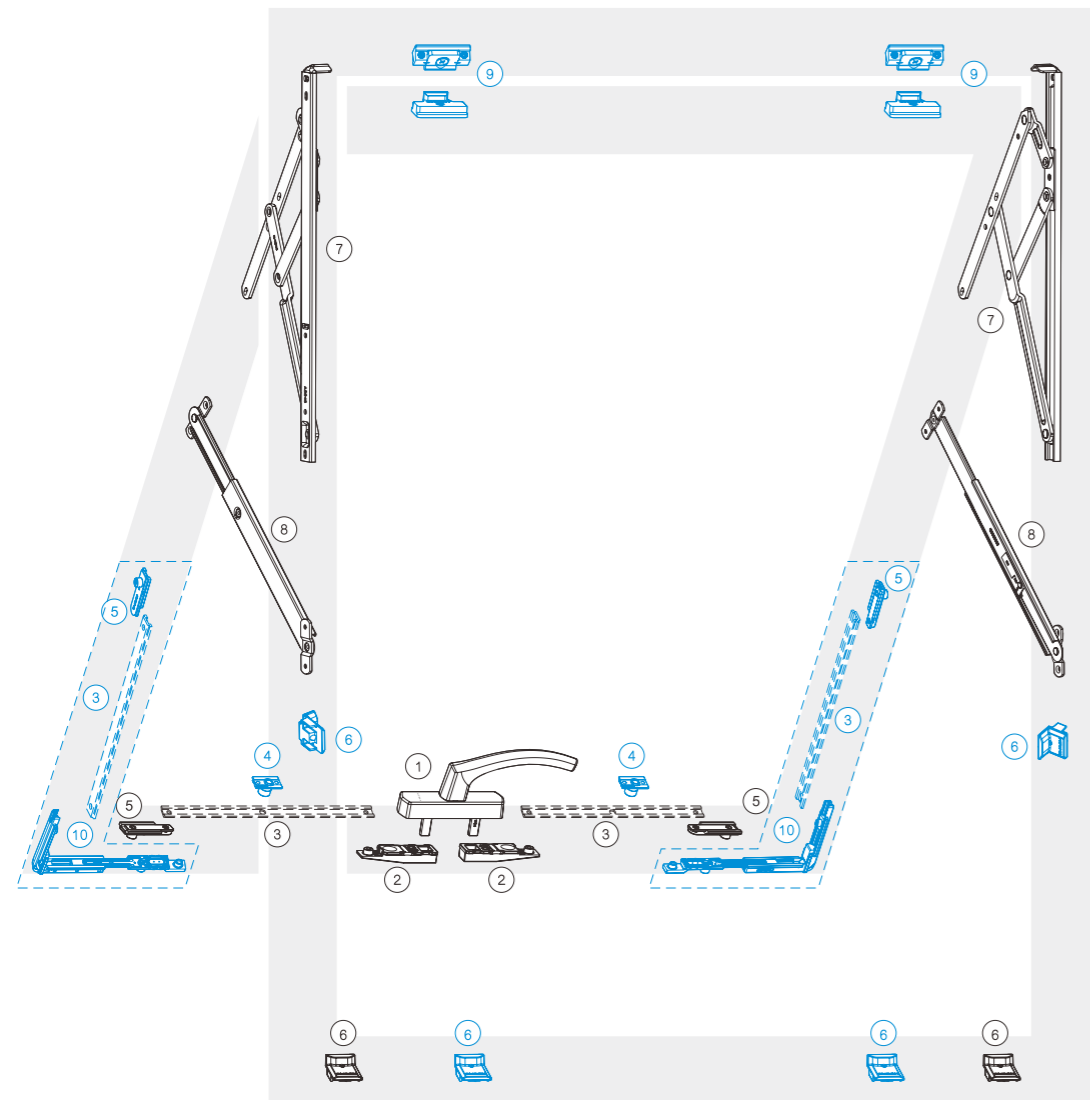
Configuration Table - Spindle Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010122 A010446 A010215 A010004 A010419~A010429 J010201~J010208 J010401~J010408 J010209~J010216 A010003	1	New York Series, Aluminum Alloy Berlin Series, Aluminum Alloy Koln Series, Aluminum Alloy New York Series, Aluminum Alloy Berlin Series, Aluminum Alloy Koln Series, Aluminum Alloy New York Series, Zinc Alloy Berlin Series, Zinc Alloy Koln Series, Zinc Alloy New York Series, Zinc Alloy Berlin Series, Zinc Alloy New York Handle Keyed Berlin Handle Keyed Koln Handle Keyed Fly Screen Handle Right Turn Handle New York Series Berlin Series Koln Series Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74, P75, P76, P77, P78, P79, P80
2	Bi-Directional Spindle Drive Gearbox	A020130 A020131 A020133 A020135	1	Hole Center to Attachment Surface: 22 mm Hole Center to Attachment Surface: 20 mm Hole Center to Attachment Surface: 35 mm Hole Center to Attachment Surface: 25 mm	P91
3	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
4	Keeper		2~6	Multiple Types Available	P90
5	Connecting Strip			Provided by Customer or Cmech	
6	Friction Hinge		1	Multiple Types Available	P110, P111
7	Limiting Stay		1	Multiple Types Available	P109
8	Corner Drive	C060009	2		P98
9	Hidden Lock	A100121 A100104	1~2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P104
10	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	P88
11	Handle Screw Pack	A110078	1		
12	Limiting Stay Screw Pack	H110003	2		
13	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

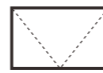
Bi-directional Fork Drive Handle (Type TT) Configuration



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

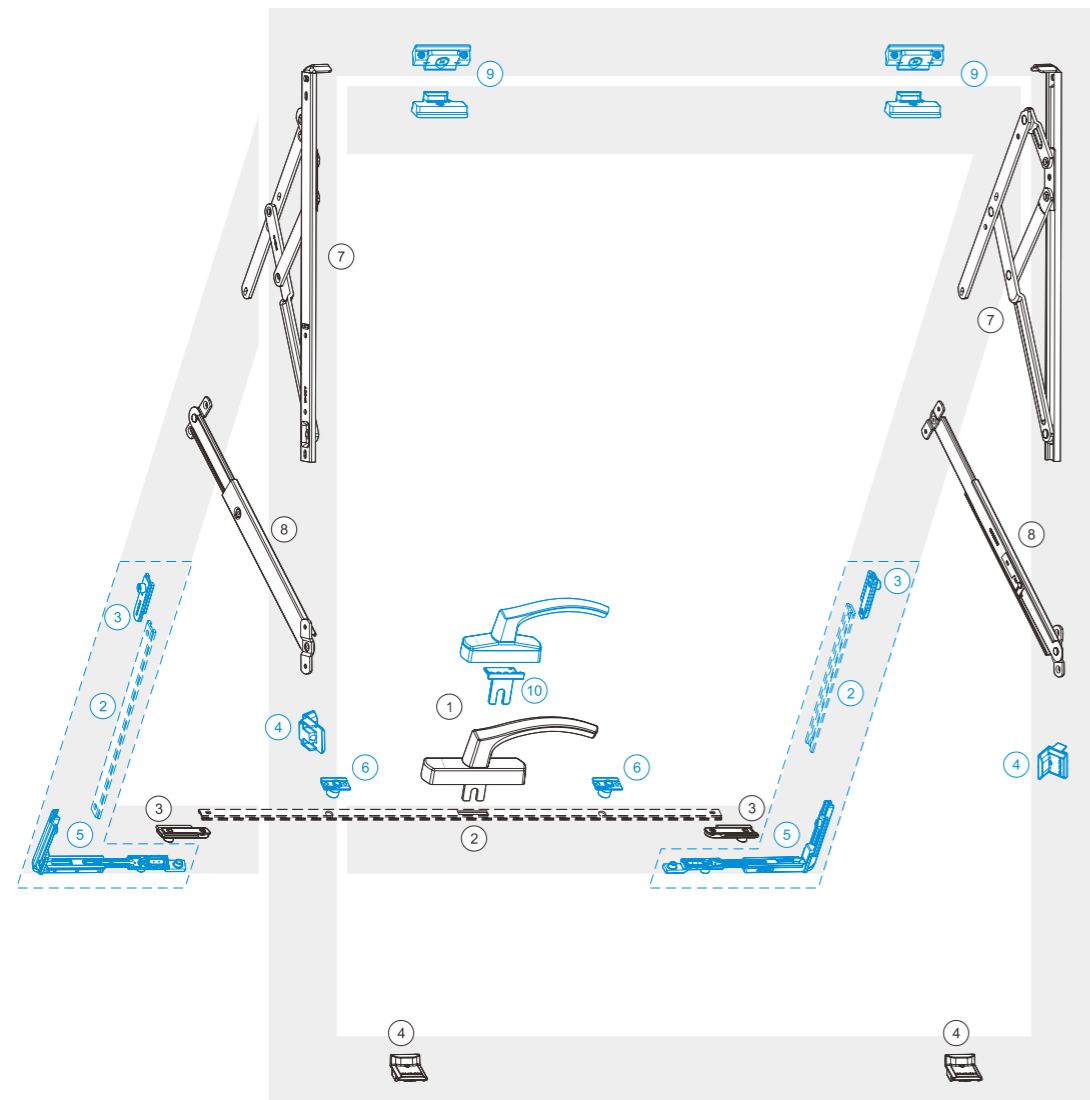
Configuration Table - Bi-directional Fork Drive Handle (Type TT)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Bi-directional Fork Drive Handle (Type TT)	A010104 A010105 A010106 A010403 A010404 A010405 A010207 A010208 A010209	1	Exposed Fork Drive Length for New York Handle: 20 mm Exposed Fork Drive Length for New York Handle: 24 mm Exposed Fork Drive Length for New York Handle: 28 mm Exposed Fork Drive Length for Berlin Handle: 20 mm Exposed Fork Drive Length for Berlin Handle: 24 mm Exposed Fork Drive Length for Berlin Handle: 28 mm Exposed Fork Drive Length for Koln Handle: 20 mm Exposed Fork Drive Length for Koln Handle: 24 mm Exposed Fork Drive Length for Koln Handle: 28 mm	P83, P84
2	Bi-directional Fork Drive Connector	A020057	2		P93
3	Connecting Strip			Provided by Customer or Cmech	
4	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	P88
5	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
6	Keeper	A100101 A100122	2-6	Keeper Pry-Resistant Keepers with Bearing	P90, P172
7	Friction Hinge		1	Multiple Types Available	P110, P111
8	Limiting Stay		1	Multiple Types Available	P109
9	Hidden Lock	A100121 A100104	1-2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P104
10	Corner Drive	C060009	2		P98
11	Limiting Stay Screw Pack	H110003	2		
12	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

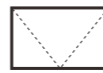
Fork Drive Handle (Type W/Type TT) Configuration



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

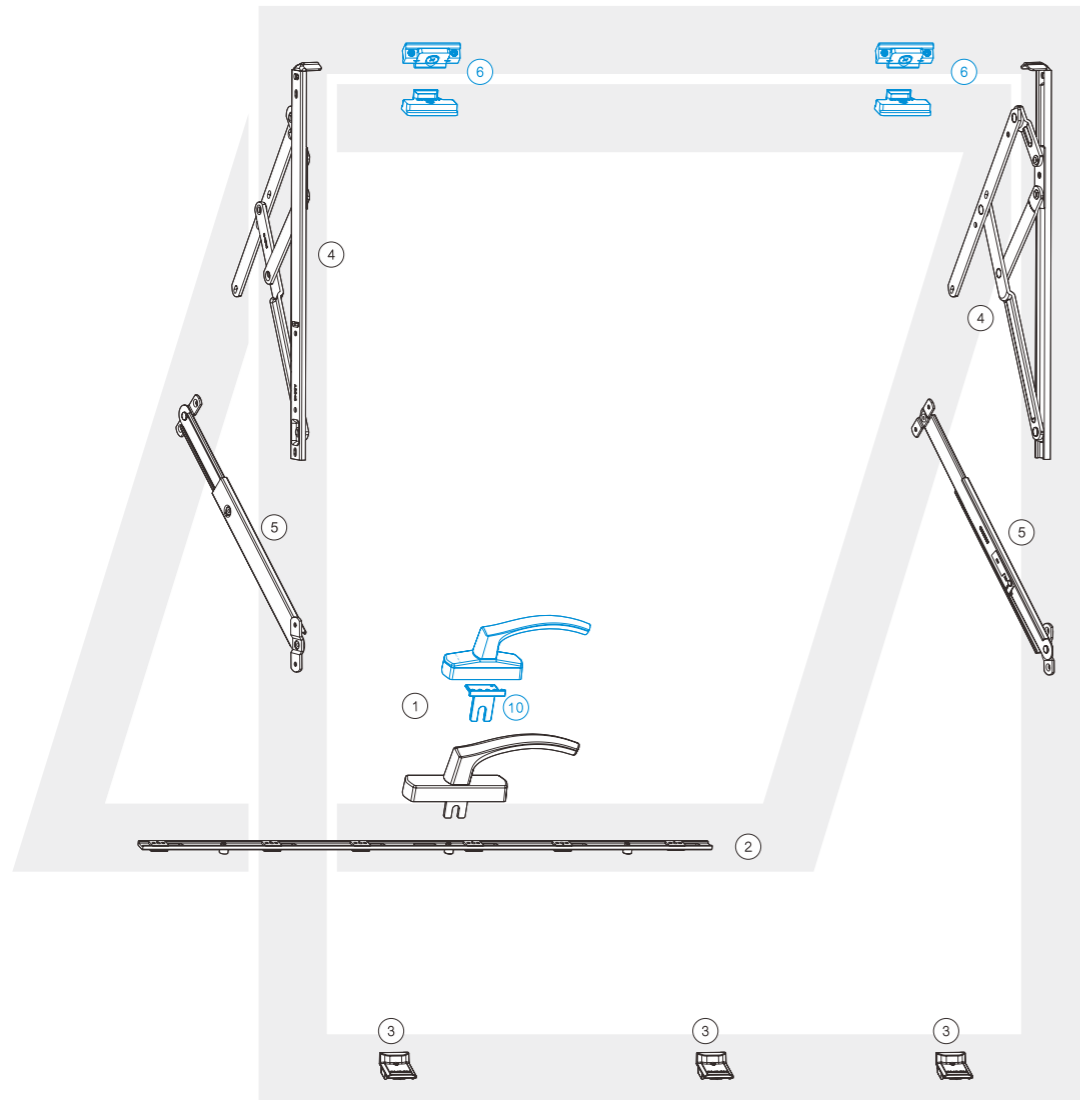
Configuration Table - Fork Drive Handle (Type W/Type TT)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type TT) / Spindle and Fork Drive Handle (Type W)	C010101 C010401 C010201 A010107 A010406 A010210 A010108 A010407 A010124 A010447 A010213 A010125 A010448 A010214	1	New York Series, Zinc Alloy Berlin Series, Zinc Alloy Koln Series, Zinc Alloy New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy	P71, P72, P73, P74
2	Connecting Strip			Provided by Customer or Cmech	
3	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
4	Keeper	A100101 A100122	2-6	Keeper Pry-Resistant Keepers with Bearing	P90, P172
5	Corner Drive	C060009	2		P98
6	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	P88
7	Friction Hinge		1	Multiple Types Available	P110, P111
8	Limiting Stay		1	Multiple Types Available	P109
9	Hidden Lock	A100103 A100104	1-2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P104
10	Fork Drive		1	Offset Fork Drive Central Fork Drive	P85, P86
11	Limiting Stay Screw Pack	H110003	2		
12	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111
13	Handle Screw Pack	A110078	1		



OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

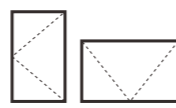
Fork Drive Handle (Type W/Type TT) Configuration



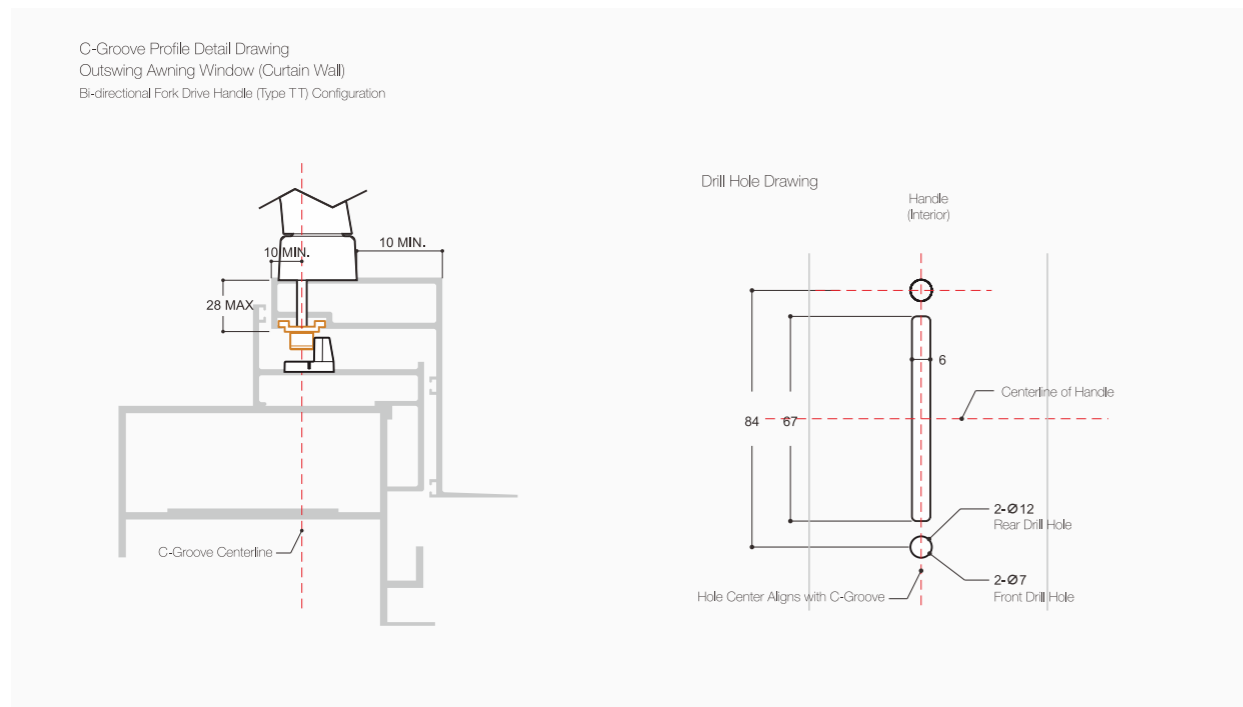
OUTSWING AWNING WINDOW (CURTAIN WALL) HARDWARE SERIES

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

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type TT) / Spindle and Fork Drive Handle (Type W)	C010101 C010401 C010201 A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214	1	New York Series, Zinc Alloy Berlin Series, Zinc Alloy Koln Series, Zinc Alloy New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy	P71, P72, P73, P74
2	Surface Mount Drive Gear	A020062 A020063 A020064 A020065	1	410 mm 600 mm 800 mm 1000 mm	P92
3	Keeper		3	Multiple Types Available	P90
4	Friction Hinge		1	Multiple Types Available	P110, P111
5	Limiting Stay		1	Multiple Types Available	P109
6	Hidden Lock	A100121 A100104	1~2	For a Double-Sided C-Groove For a Single-Sided C-Groove	P104
7	Handle Screw Pack	A110078	1		
8	Limiting Stay Screw Pack	H110003	2		
9	Friction Hinge Screw Pack		2	Determined by Friction Hinge	P110, P111
10	Fork Drive		1	Offset Fork Drive Central Fork Drive	P85, P86



OUTSWING CASEMENT AND AWNING WINDOW PROFILE AND DRILLING REQUIREMENTS



Inswing Casement Window Hardware



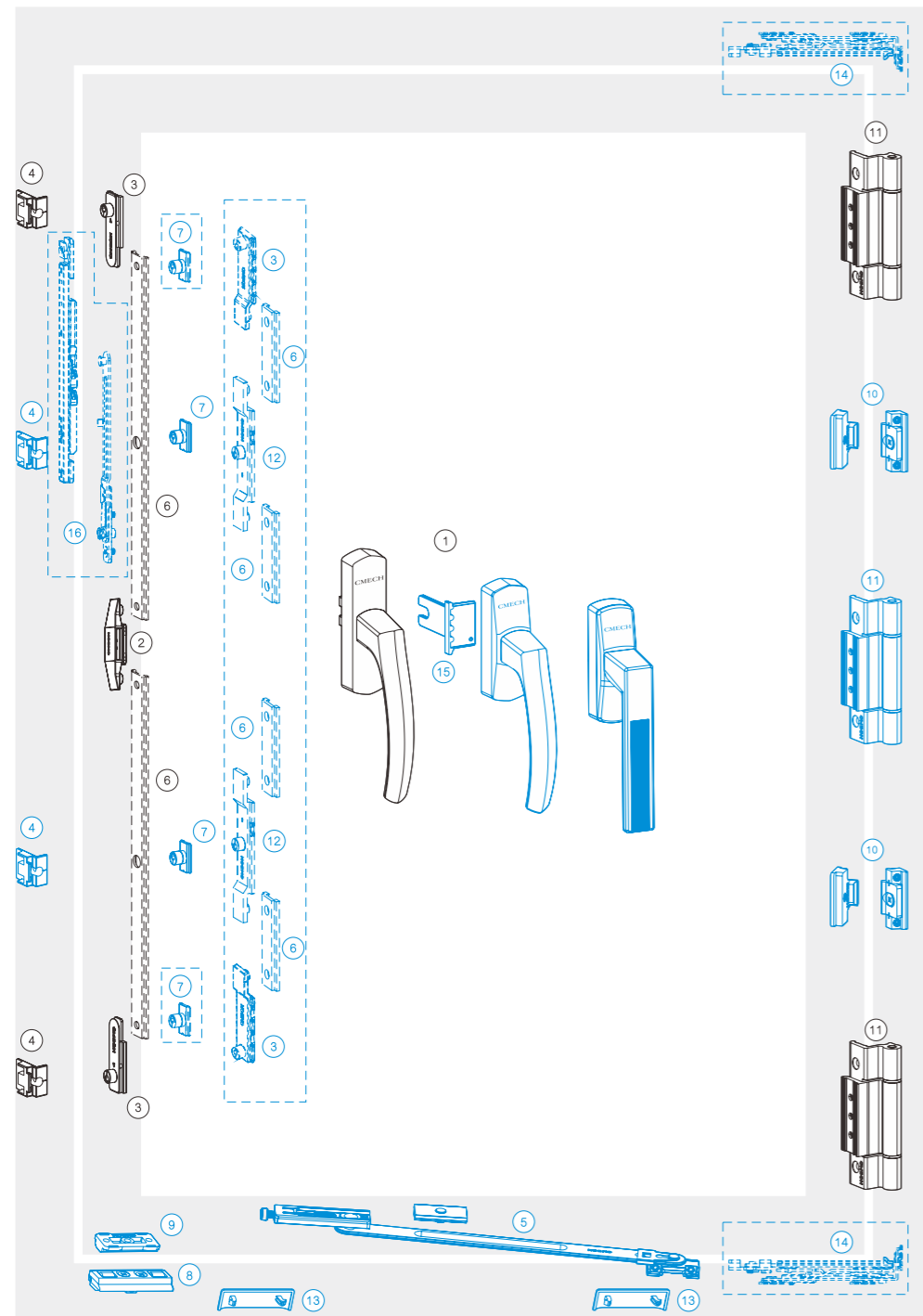
- The handles are available in many styles and colors
- Hinges are easy to install
- Unique support block with guide wheel provides for extra support for sash and smoother opening of the window
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

Inswing Casement Window	Applicable Range
Sash Width (mm)	300-1,600
Sash Height (mm)	400-2,400
Load-bearing (kg)	≤80
Length of T-Drive (mm)	17, 20, 24, 28, 32, 36, 40
Center Distance of Spindle Drive Gearbox (mm)	11.5, 22, 25, 30, 35



INSWING CASEMENT WINDOW HARDWARE SERIES

Fork Drive Handle (Type TT) Configuration



INSWING CASEMENT WINDOW HARDWARE SERIES

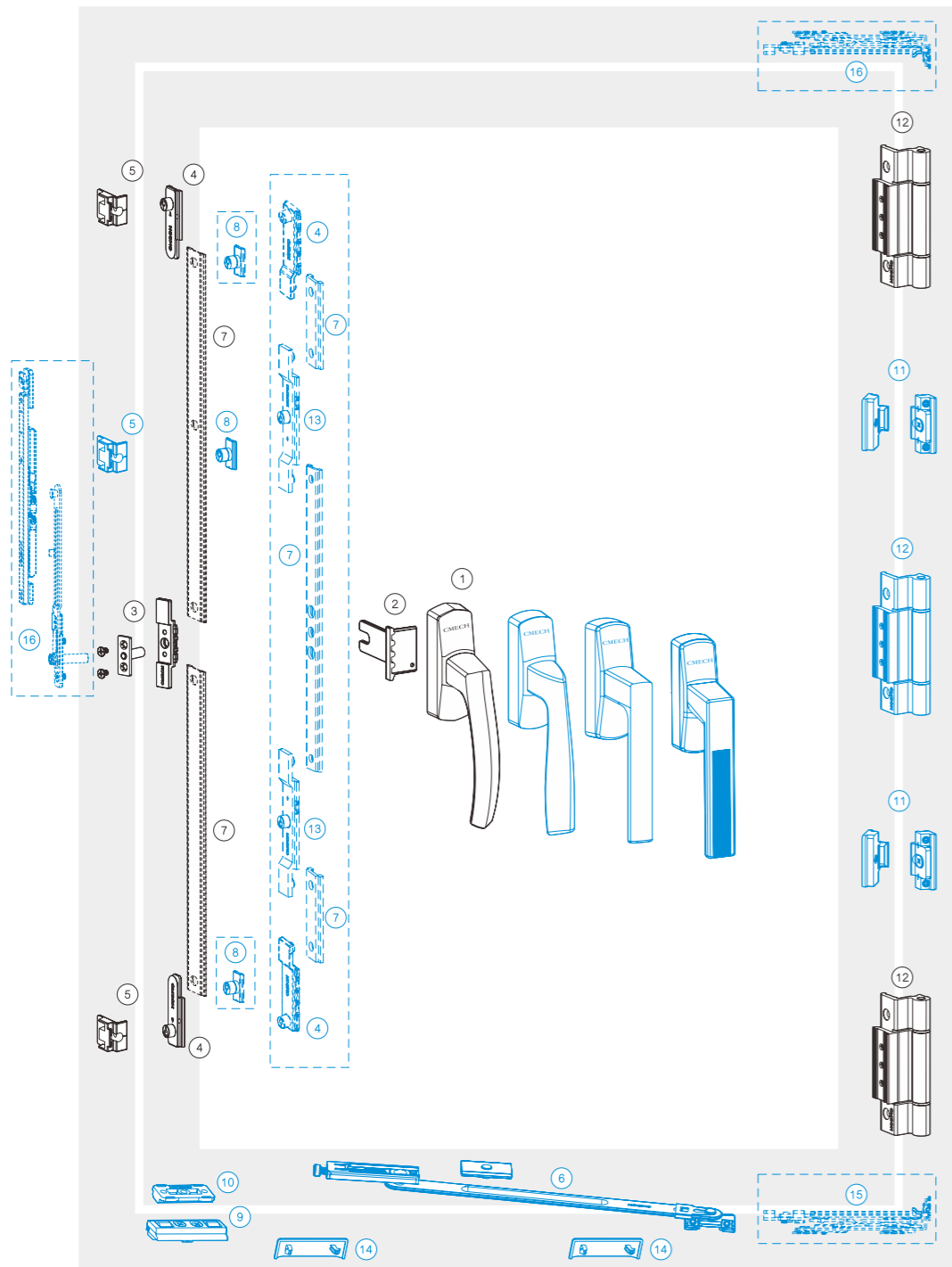
Configuration Table - Fork Drive Handle (Type TT)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type TT) / Spindle and Fork Drive Handle (Type W)	C010102 C010402 C010202 C010101 C010401 C010201 A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Aluminum Alloy Berlin Series, Aluminum Alloy Kohn Series, Aluminum Alloy New York Series, Zinc Alloy Berlin Series, Zinc Alloy Kohn Series, Zinc Alloy New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Kohn Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Kohn Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Kohn Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Kohn Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74, P83, P84
2	Fork Drive Connector	B020004	1		P93
3	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
4	Keeper		2-4	Multiple Types Available	P90
5	Limiting Stay	B040041 B040042	1	10" 14"	P108
6	Connecting Strip			Provided by Customer or Cmech	
7	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	P88
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	P104, P105
9	Sash Support Block	A080012	1	Height: 7.5 mm	P104
10	Hidden Lock	A100121 A100104	0-2	For a Single-Sided C-Groove For a Double-Sided C-Groove	P104
11	Hinge	B040059	2-3	80 kg Clamping Hinge 45 kg Clamping Hinge	P106
12	Central Lock Point	A090009 A090010 A090033	0-2	Ø9.5x6.0 mm Ø9.5x7.0 mm Pry-Resistant Central Point with Bearing	P86, P87, P89
13	Drain Cover	C120002	2		P100
14	Concealed Hinge	B040054	1	60 kg	P107
15	Fork Drive		1	Offset Fork Drive Central Fork Drive	P85, P86
16	Ventilation Assist	B040048 B040049	1	Left: 2.8 mm, Used in Both Spindle Drive and Fork Drive Handle Right: 2.8 mm, Used in Both Spindle Drive and Fork Drive Handle	P92
17	Handle Screw Pack	B110010	1	Suitable for Inswing Casement Window Handle	
18	Handle Screw Pack	A110078	1	Suitable for Outswing Casement Window Handle	



INSWING CASEMENT WINDOW HARDWARE SERIES

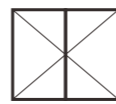
Fork Drive Handle (Type W) Configuration



INSWING CASEMENT WINDOW HARDWARE SERIES

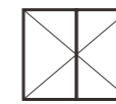
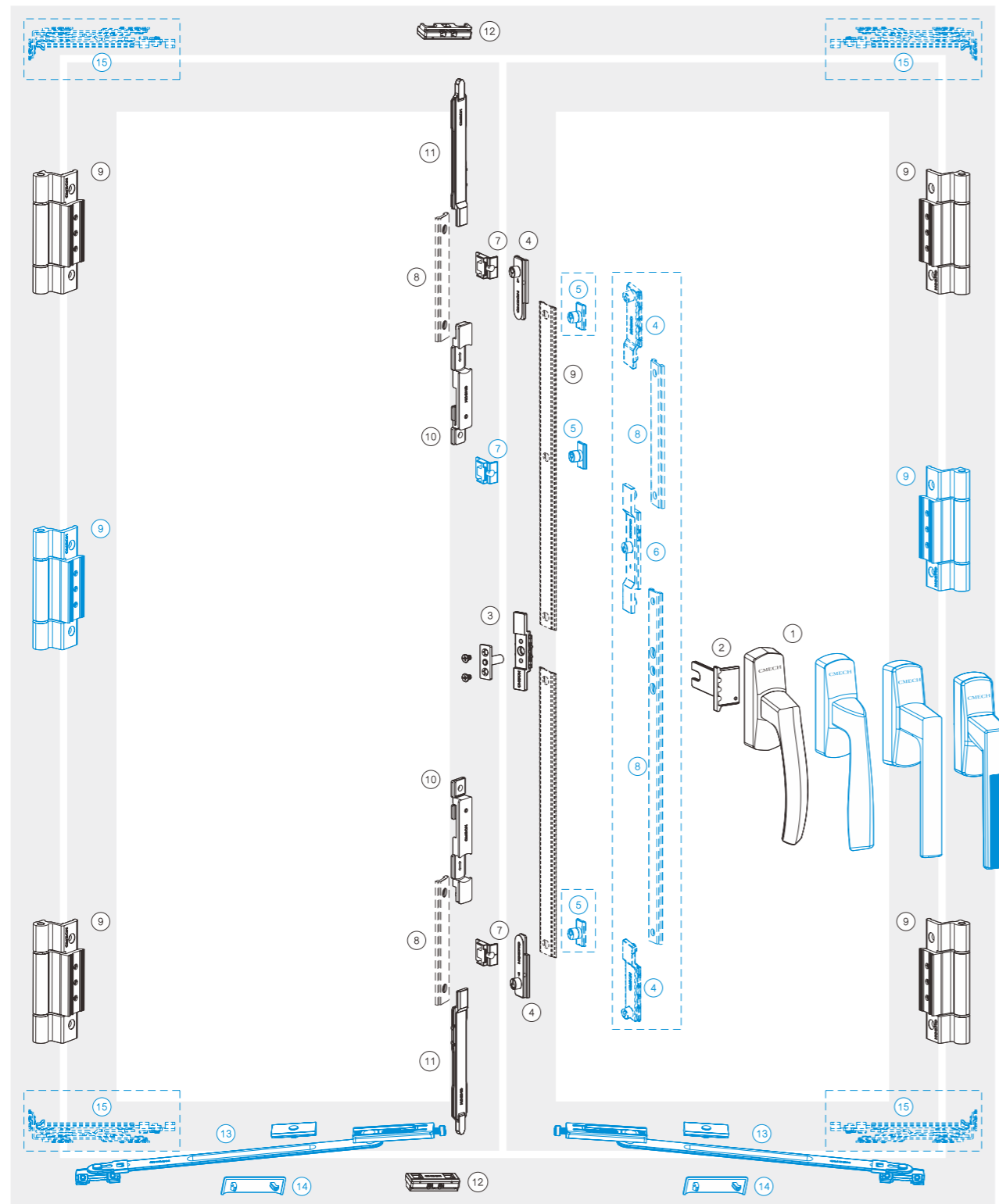
Configuration Table - Fork Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74
2	Fork Drive		1	Offset Fork Drive Central Fork Drive	P85, P86
3	T-Drive		1		P93, P94
4	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
5	Keeper		2-4	Multiple Types Available	P90
6	Limiting Stay	B040041 B040042	1	10" 14"	P108
7	Connecting Strip			Provided by Customer or Cmech	
8	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	P88
9	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	P104, P105
10	Sash Support Block	A080012	1	Height: 7.5 mm	P104
11	Hidden Lock	A100121 A100104	0-2	For a Single-Sided C-Groove For a Double-Sided C-Groove	P104
12	Hinge	B040059	2-3	80 kg Clamping Hinge	P106
13	Central Lock Point	A090009 A090010 A090033	0-2	Ø9.5x6.0 mm Ø9.5x7.0 mm Pry-Resistant Central Point with Bearing	P86, P87, P89
14	Drain Cover	C120002	2		P100
15	Concealed Hinge	B040054	1	60 kg	P107
16	Ventilation Assist	B040046 B040047 B040050 B040051 B040052 B040053	1	Left, 25 mm, Suitable for Fork Drive Handles Right, 25 mm, Suitable for Fork Drive Handles Left, 30 mm, Suitable for Fork Drive Handles Right, 30 mm, Suitable for Fork Drive Handles Left, 35 mm, Suitable for Fork Drive Handles Right, 35 mm, Suitable for Fork Drive Handles	P92
17	Handle Screw Pack	A110078	1		



INSWING FRENCH CASEMENT WINDOW HARDWARE SERIES

Fork Drive Handle (Type W) Configuration



INSWING FRENCH CASEMENT WINDOW HARDWARE SERIES

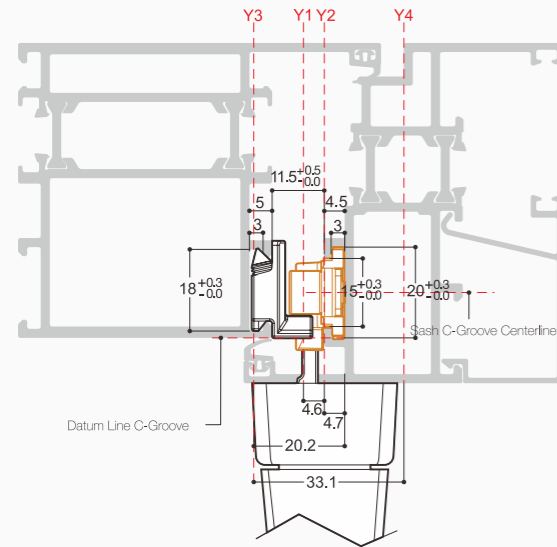
Configuration Table - Fork Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74
2	Fork Drive		1	Offset Fork Drive Central Fork Drive	P85, P86
3	T-Drive		1		P93, P94
4	Lock Point	A090001 A090005 A090007 A090008 A090032	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	P86, P87, P88, P89
5	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	P88
6	Central Lock Point	A090009 A090010 A090033	0-2	Ø9.5x6.0 mm Ø9.5x7.0 mm Pry-Resistant Central Point with Bearing	P86, P87, P89
7	Keeper		2-4	Multiple Types Available	P90
8	Connecting Strip			Provided by Customer or Cmech	
9	Hinge	B040059	2-3	80 kg Clamping Hinge	P106
10	Operating Lever	A020055	2		
11	Shootbolt	A070001 A070002 A070003 A070004	2	19.6 mmx156 mm 17.6 mmx156 mm 19.6 mmx90 mm 17.6 mmx90 mm	
12	Shootbolt Bracket	A100112	2		
13	Limiting Stay	B040041 B040042	2	10" 14"	P108
14	Drain Cover	C120002	2		P100
15	Concealed Hinge	B040054	2	60 kg	P107
16	Handle Screw Pack	A110078	1		



INSWING CASEMENT WINDOW PROFILE AND DRILLING REQUIREMENTS

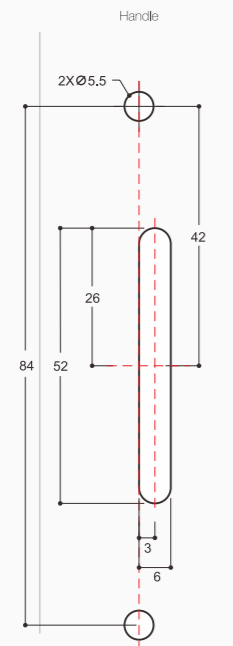
Inswing Casement Window with C-Groove Profile Detail Drawing
Fork Drive Handle Configuration (Type TT)



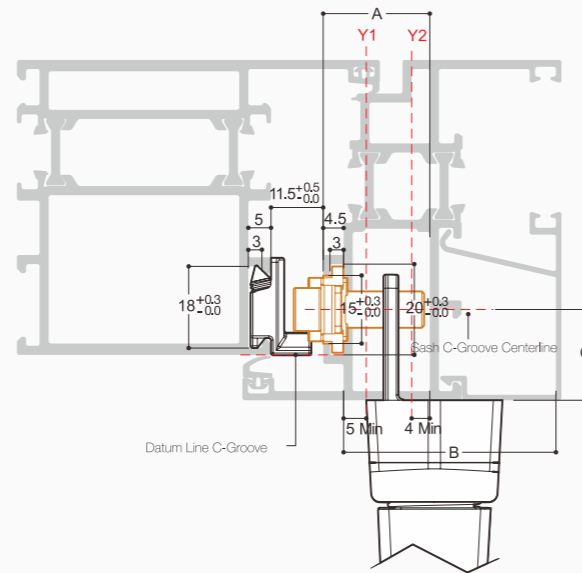
Relationship Between Dimensions and Hardware:

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

Drill Hole Drawing



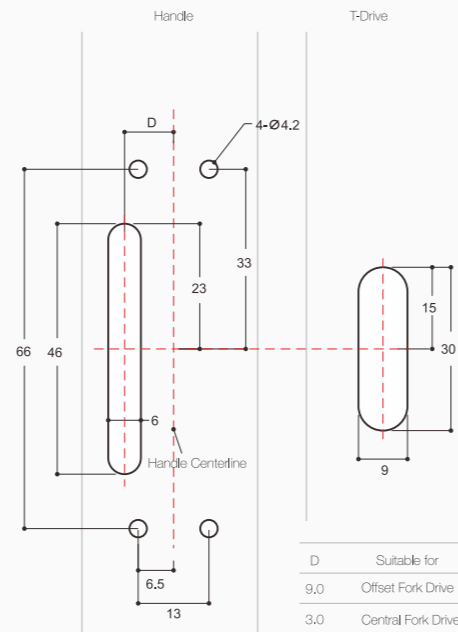
Inswing Casement Window with C-Groove Profile Detail Drawing
Fork Drive Handle Configuration (Type W)



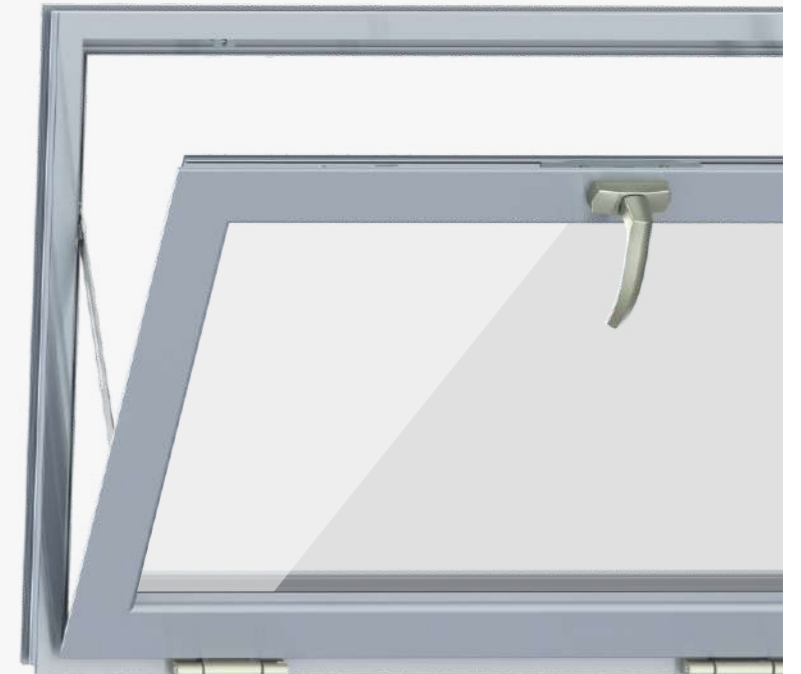
Relationship Between Dimensions and Hardware:

- 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

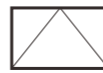


Hopper Window Hardware



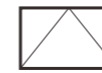
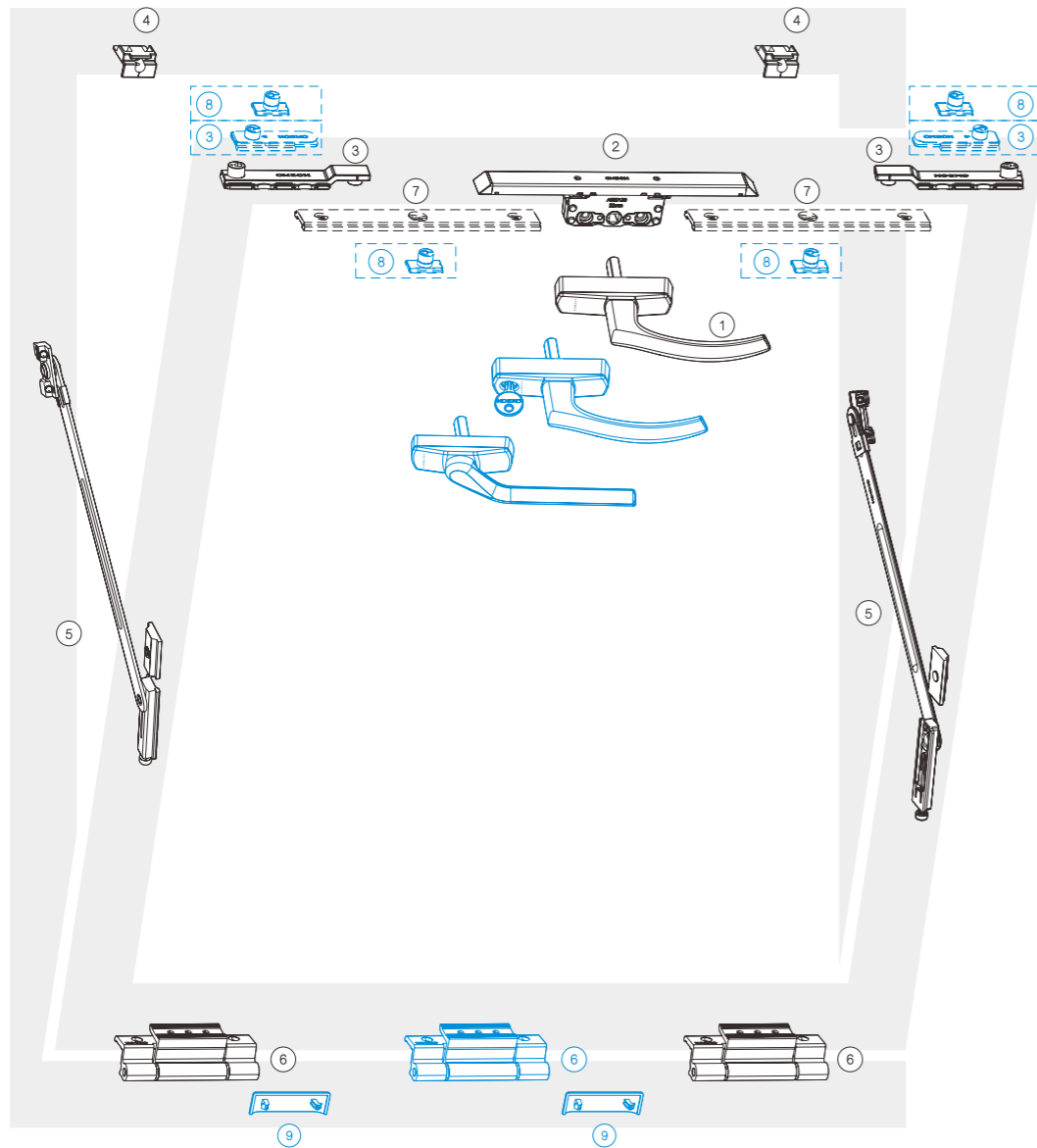
- The handles are available in many styles and colors
- Hinges are easy to install
- Multi-point locks can be specified to enhance water and air tightness and wind pressure resistance

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, 30, 35



HOPPER WINDOW HARDWARE SERIES

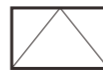
Spindle Drive Handle (Type W) Configuration



HOPPER WINDOW HARDWARE SERIES

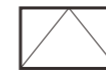
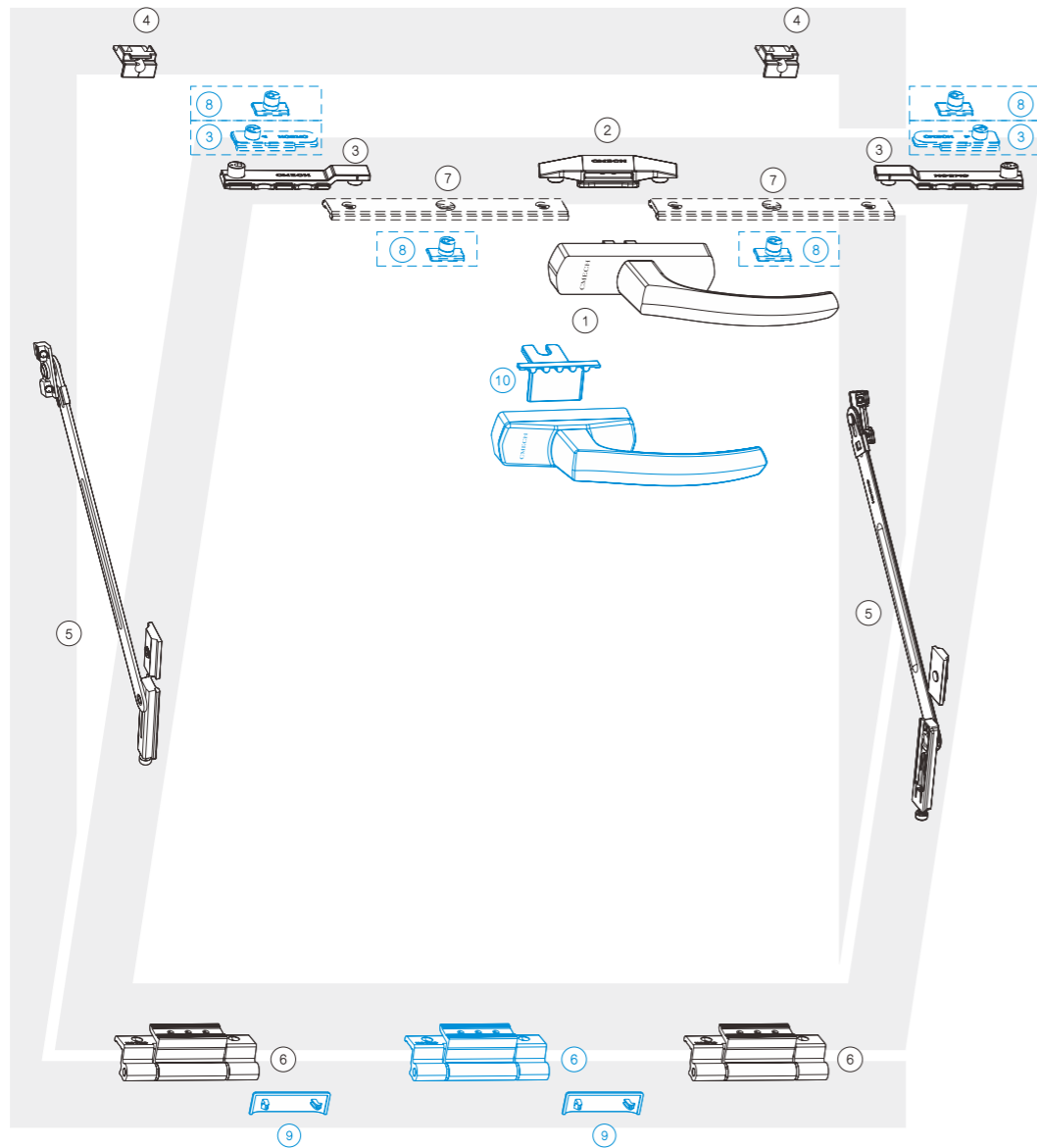
Configuration Table - Spindle Drive Handle (Type W)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010107	1	New York Series, Suitable for Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74, P75, P76, P77, P78, P79, P80
		A010406		Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy	
		A010210		Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy	
		A010108		New York Series, Suitable for Central Fork Drive, Aluminum Alloy	
		A010407		Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy	
		A010211		Koln Series, Suitable for Central Fork Drive, Aluminum Alloy	
		A010124		New York Series, Suitable for Offset Fork Drive, Zinc Alloy	
		A010447		Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy	
		A010213		Koln Series, Suitable for Offset Fork Drive, Zinc Alloy	
		A010125		New York Series, Suitable for Central Fork Drive, Zinc Alloy	
		A010448		Berlin Series, Suitable for Central Fork Drive, Zinc Alloy	
		A010214		Koln Series, Suitable for Central Fork Drive, Zinc Alloy	
		A010122		New York Handle Keyed	
		A010446		Berlin Handle Keyed	
		A010215		Koln Handle Keyed	
		A010004		Fly Screen Handle	
		A010408-A010418		Left Turn Handle	
A010419-A010429	Right Turn Handle				
J010201-J010208	New York Series				
J010401-J010408	Berlin Series				
J010209-J010216	Koln Series				
A010003	Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy				
2	Bi-Directional Spindle Drive Gearbox	A020130	1	Hole Center to Attachment Surface: 22 mm	P91
		A020131		Hole Center to Attachment Surface: 20 mm	
		A020133		Hole Center to Attachment Surface: 35 mm	
		A020135		Hole Center to Attachment Surface: 25 mm	
3	Lock Point	A090001	2	Lock Point Ø9.5x6.0 mm	P86, P87, P88, P89
		A090005		Lock Point Ø9.5x7.0 mm	
		A090007		End Lock Point Ø9.5x6.0 mm	
		A090008		End Lock Point Ø9.5x7.0 mm	
4	Keeper	A100101	2	Pry-Resistant Keeper	P90
		A101122			
5	Limiting Stay	B040041	2	10"	P108
		B040042		14"	
6	Hinge	B040059	2-3	80 kg Clamping Hinge	P106
7	Connecting Strip			Provided by Customer or Cmech	
8	Active Lock Point	A090002	0-4	Dual-Stage Active Lock Point Ø9.5x8.75 mm	P88
		A090003		Dual-Stage Active Lock Point Ø9.5x8.1 mm	
		A090011		Single-Stage Active Lock Point Ø9.5x8.7 mm	
		A090012		Single-Stage Active Lock Point Ø9.5x9.7 mm	
9	Drain Cover	C120002	2		P100
10	Handle Screw Pack				P70



HOPPER WINDOW HARDWARE SERIES

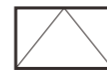
Fork Drive Handle (Type TT) Configuration



HOPPER WINDOW HARDWARE SERIES

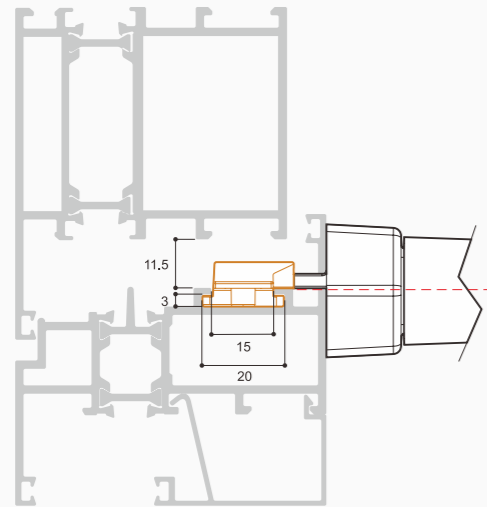
Configuration Table - Fork Drive Handle (Type W/ TT)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type TT) / Spindle and Fork Drive Handle (Type W)	C010102 C010402 C010202 C010101 C010401 C010201 A010107 A010406 A010210 A010108 A010407 A010211 A010124 A010447 A010213 A010125 A010448 A010214 A010003	1	New York Series, Aluminum Alloy Berlin Series, Aluminum Alloy Koln Series, Aluminum Alloy New York Series, Zinc Alloy Berlin Series, Zinc Alloy Koln Series, Zinc Alloy New York Series, Suitable for Offset Fork Drive, Aluminum Alloy Berlin Series, Suitable for Offset Fork Drive, Aluminum Alloy Koln Series, Suitable for Offset Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Offset Fork Drive, Zinc Alloy Berlin Series, Suitable for Offset Fork Drive, Zinc Alloy Koln Series, Suitable for Offset Fork Drive, Zinc Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy	P71, P72, P73, P74, P83, P84
2	Fork Drive Connector	B020004	1		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	P86, P87, P88, P89
4	Keeper	A100101 A101122	2	Pry-Resistant Keeper	P90
5	Limiting Stay	B040041 B040042	2	10" 14"	P108
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	P88
9	Drain Cover	C120002	2		P100
15	Fork Drive		1	Offset Fork Drive Central Fork Drive	P85, P86
10	Handle Screw Pack	B110010	1	Suitable for Inswing Casement Window Handle	

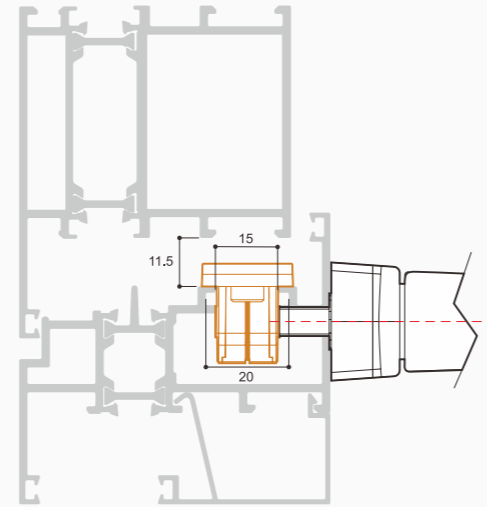


HOPPER WINDOW PROFILE AND DRILLING REQUIREMENTS

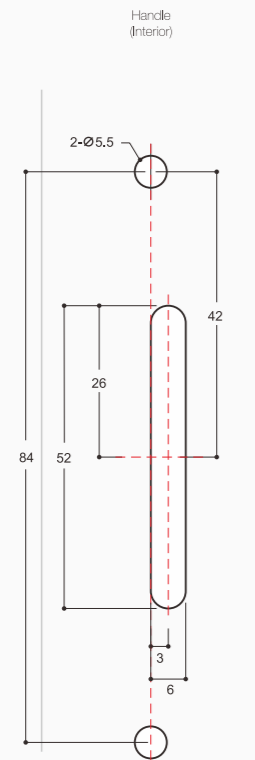
Hopper Window with C-Groove Profile Detail Drawing
Fork Drive Handle Configuration (Type TT)



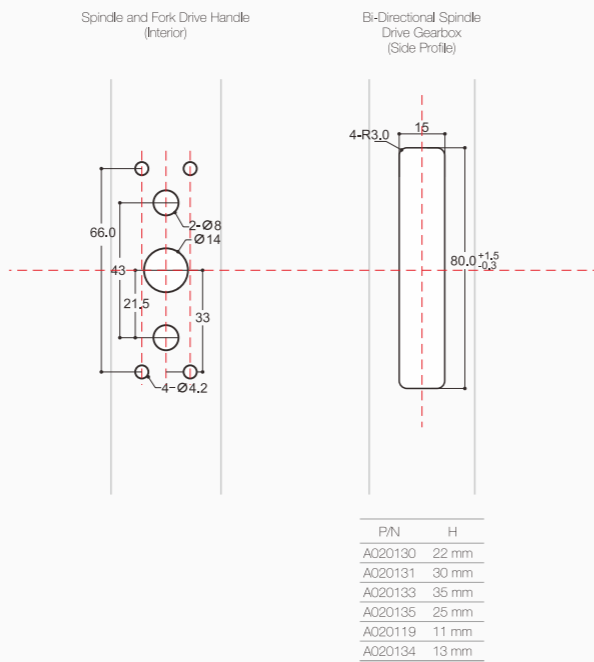
Hopper Window with C-Groove Profile Detail Drawing
Spindle Drive Handle Configuration (Type W)



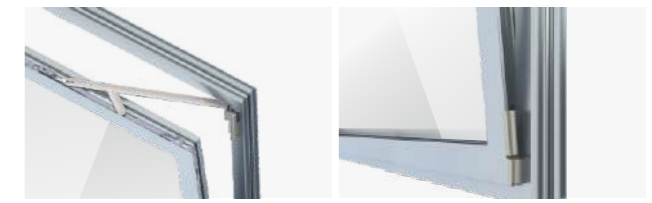
Drill Hole Drawing



Drill Hole Drawing



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

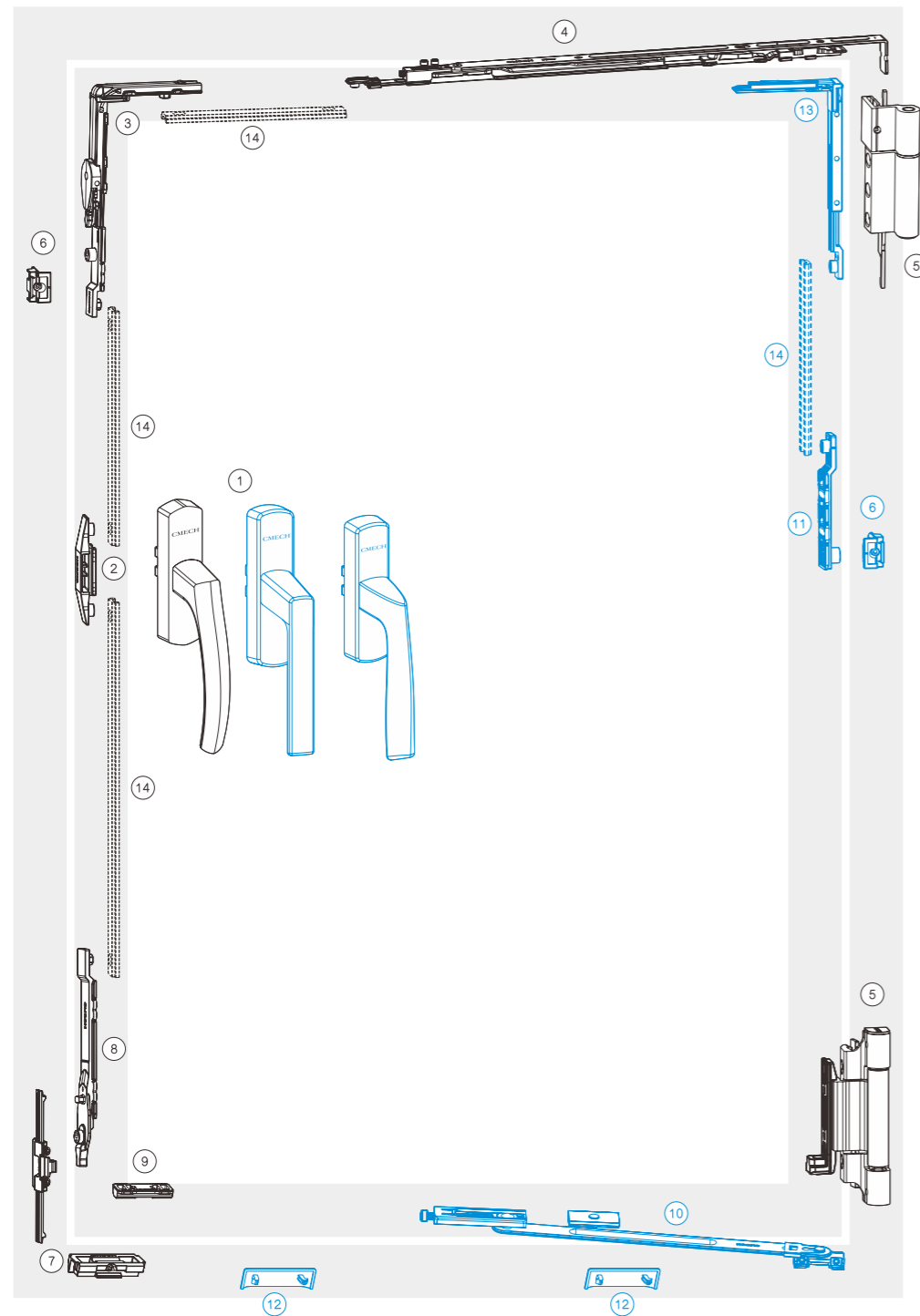
Tilt & Turn Window with Exposed Hinge		Applicable Range
Sash Width	(mm)	390-1,300
Sash Height	(mm)	600-2,400
Load-bearing	(kg)	≤80

Tilt & Turn Window with Concealed Hinge		Applicable Range
Sash Width	(mm)	490-1,300
Sash Height	(mm)	600-2,400
Load-bearing	(kg)	≤90



TILT & TURN WINDOW HARDWARE SERIES

Fork Drive Handle with Exposed Hinge (80 kg) Configuration



TILT & TURN WINDOW HARDWARE SERIES

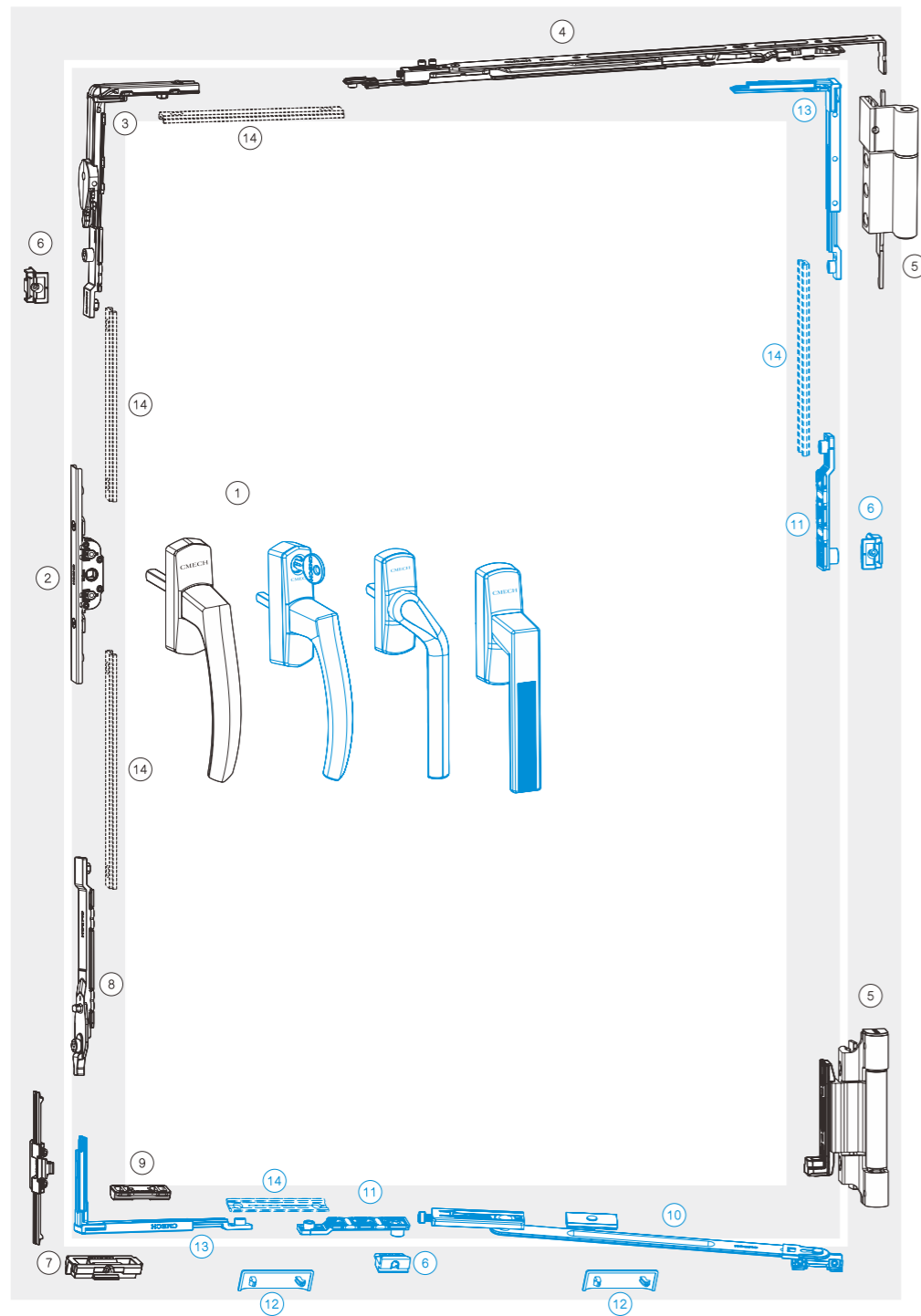
Configuration Table - Fork Drive Handle with Exposed Hinge (80 kg)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type TT)	C010102 C010402 C010202 C010101 C010401 C010201	1	New York Series, Aluminum Alloy Berlin Series, Aluminum Alloy Köln Series, Aluminum Alloy New York Series, Zinc Alloy Berlin Series, Zinc Alloy Köln Series, Zinc Alloy	P83, P84
2	Fork Drive Connector	B020004	1		P93
3	Fail-Safe Corner Drive	C060010	1		P98
4	Stay	C020008 C020009	1	Sash Width: 450-750 mm Sash Width: 600-1,200 mm	P100
5	Upper and Lower Hinges	C040005	1	80 kg	P102
6	Keeper	A100101	1-2		P90
7	Tilt Strike Pack	C070003	1		P99
8	Tilt Bolt	C070006	1		P99
9	Sash Support Block	A080012 A080011	1	Without Bearing With Bearing	P104
10	Limiting Stay	B040041 B040042	1	10" 14"	P108
11	End Lock Point	A090007	1	Ø9.5x6,0 mm	P86
12	Drain Cover	C120002	2		P100
13	Small Corner Drive	C060004	1		P98
14	Connecting Strip		3-4	Provided by Customer or Cmech	
15	Handle Screw Pack	C110004	1		



TILT & TURN WINDOW HARDWARE SERIES

Spindle Drive Handle with Exposed Hinge (80 kg) Configuration



TILT & TURN WINDOW HARDWARE SERIES

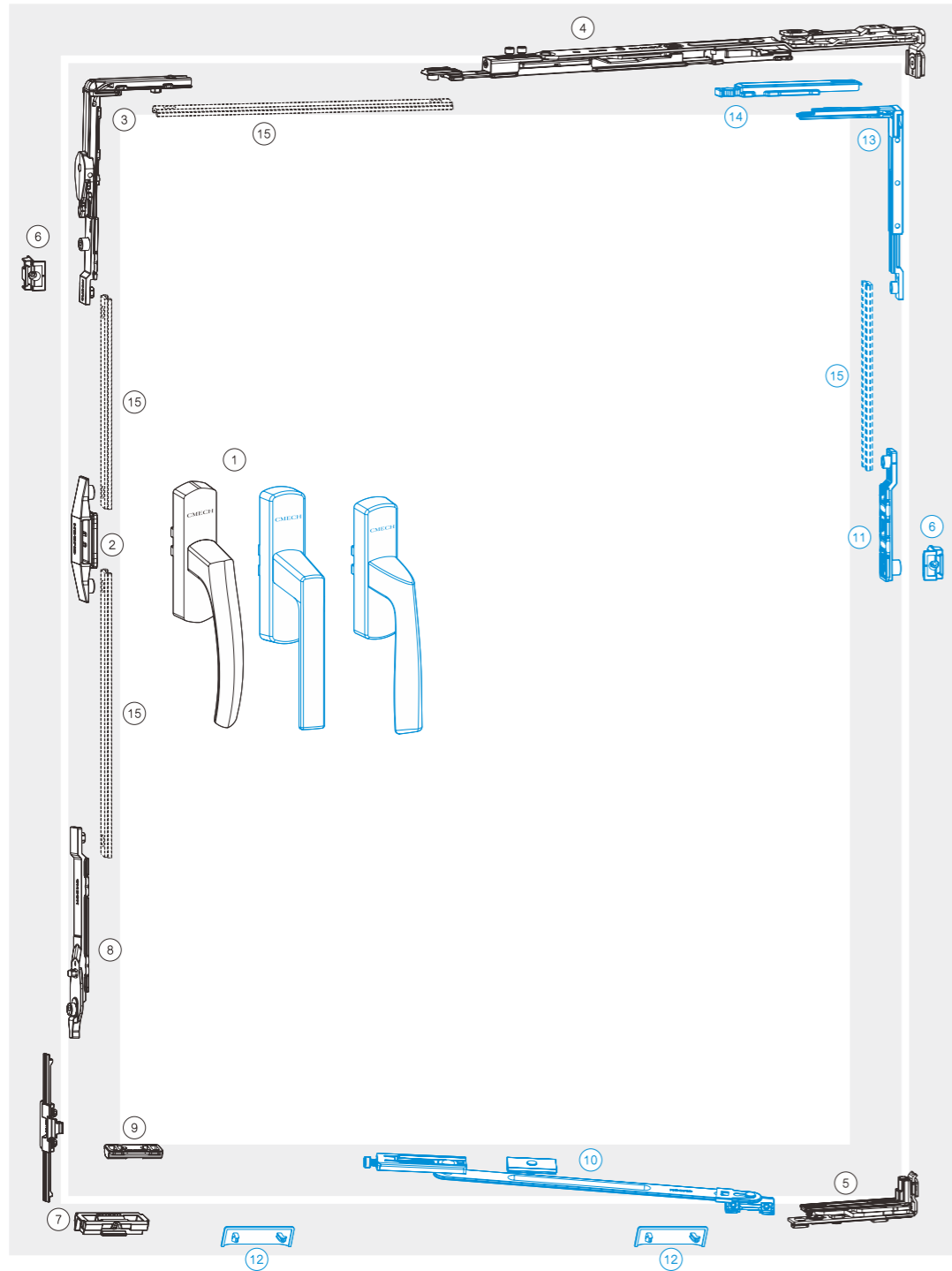
Configuration Table - Spindle Drive Handle with Exposed Hinge (80 kg)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010107	1	New York Series, Aluminum Alloy, Screw Pack C110005/A110161	P71, P72, P73, P74, P75, P76, P77, P78, P79, P80
		A010406		Berlin Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010210		Koln Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010108		New York Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010407		Berlin Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010211		Koln Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010124		New York Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010447		Berlin Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010213		Koln Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010125		New York Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010448		Berlin Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010214		Koln Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010122		New York Handle Keyed, Screw Pack A110171	
		A010446		Berlin Handle Keyed, Screw Pack A110171	
		A010215		Koln Handle Keyed, Screw Pack A110171	
		A010409		Left Turn Handle, Exposed Spindle Length 30 mm, Screw Pack J110010	
		A010420		Right Turn Handle, Exposed Spindle Length 30 mm, Screw Pack J110010	
		J010202		New York Series, Exposed Spindle Length 25 mm, Screw Pack J110010	
J010402	Berlin Series, Exposed Spindle Length 25 mm, Screw Pack J110010				
J010210	Koln Series, Exposed Spindle Length 25 mm, Screw Pack J110010				
A010003	Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy				
2	Spindle Drive Gearbox	C020015 C020017	1	Hole Center to Attachment Surface: 11.5 mm Hole Center to Attachment Surface: 15 mm	P103
3	Fail-Safe Corner Drive	C060010	1		P98
4	Stay	C020008 C020009	1	Sash Width: 450-750 mm Sash Width: 600-1,200 mm	P100
5	Upper and Lower Hinges	C040005	1	80 kg	P102
6	Keeper	A100101	1-3		P90
7	Tilt Strike Pack	C070003	1		P99
8	Tilt Bolt	C070006	1		P99
9	Sash Support Block	A080012 A080011	1	Without Bearing With Bearing	P104
10	Limiting Stay	B040041 B040042	1	10" 14"	P108
11	End lock Point	A090007	1	Ø9.5x6.0 mm	P86
12	Drain Cover	C120002	2		P100
13	Small Corner Drive	C060004	2		P98
14	Connecting Strip		3-5	Provided by Customer or Cmech	
15	Handle Screw Pack	C110005	1		
16	Handle Screw Pack	J110010	1	Suitable for 28 Spindle Drive Handle and Turn Handle	P70
17	Handle Screw Pack	A110160 A110161	1	Suitable for Spindle and Fork Drive Handle	P70
18	Handle Screw Pack	A110171	1	Suitable for Spindle Drive Handle Keyed	P70



TILT & TURN WINDOW HARDWARE SERIES

Fork Drive Handle with Concealed Hinge (90 kg) Configuration



TILT & TURN WINDOW HARDWARE SERIES

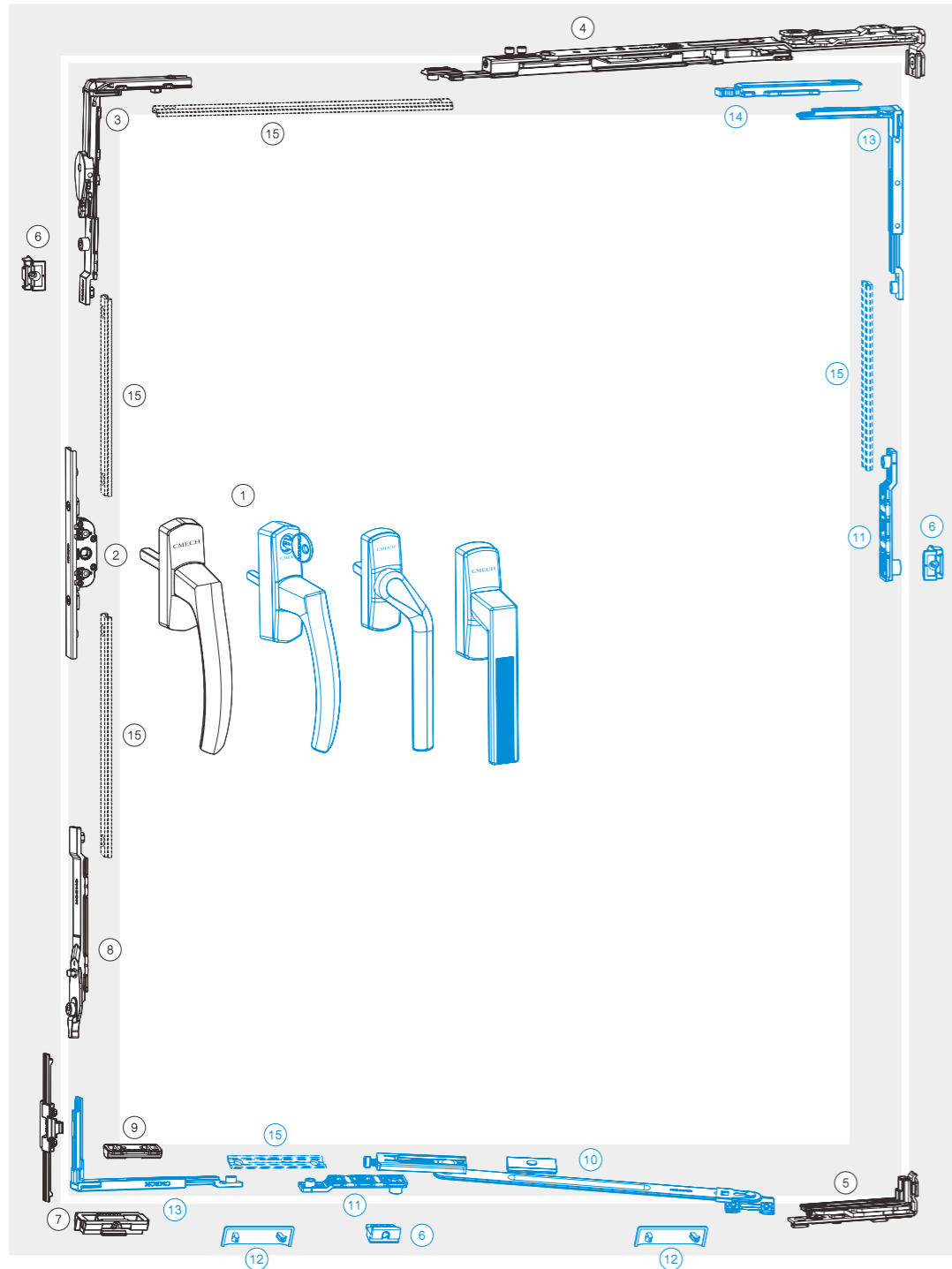
Configuration Table - Fork Drive Handle with Concealed Hinge (90 kg)

No.	Description	P/N	Qty	Notes	Ref. Page
1	Fork Drive Handle (Type T T)	C010102 C010402 C010202 C010101 C010401 C010201	1	New York Series, Aluminum Alloy Berlin Series, Aluminum Alloy Koln Series, Aluminum Alloy New York Series, Zinc Alloy Berlin Series, Zinc Alloy Koln Series, Zinc Alloy	P83, P84
2	Fork Drive Connector	B020004	1		P93
3	Fail-Safe Corner Drive	C060010	1		P98
4	460 Upper Hinge Left 460 Upper Hinge Right 650 Upper Hinge Left 650 Upper Hinge Right 400 Upper Hinge Left 400 Upper Hinge Right	C040025 C040026 C040027 C040028 C040023 C040024	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	P101, P102
5	Concealed Lower Hinge Left Concealed Lower Hinge Right	C040021 C040022	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P101
6	Keeper	A100101	1-2		P90
7	Tilt Strike Pack	C070003	1		P99
8	Tilt Bolt	C070006	1		P99
9	Sash Support Block	A080012 A080011	1	Without Bearing With Bearing	P104
10	Limiting Stay	B040041 B040042	1	10" 14"	P108
11	End lock Point	A090007	1	Ø9,5x6,0 mm	P86
12	Drain Cover	C120002	2		P100
13	Small Corner Drive	C060004	1		P98
14	Corner Fitting Piece	C060006	1	For Use with Small Corner Drive	P98
15	Connecting Strip		3-4	Provided by Customer or Cmech	
16	Handle Screw Pack	C110004	1		



TILT & TURN WINDOW HARDWARE SERIES

Spindle Drive Handle with Concealed Hinge (90 kg) Configuration



TILT & TURN WINDOW HARDWARE SERIES

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

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle	A010107	1	New York Series, Aluminum Alloy, Screw Pack C110005/A110161	P71, P72, P73, P74, P75, P76, P77, P78, P79, P80
		A010406		Berlin Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010210		Koln Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010108		New York Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010407		Berlin Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010211		Koln Series, Aluminum Alloy, Screw Pack C110005/A110161	
		A010124		New York Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010447		Berlin Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010213		Koln Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010125		New York Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010448		Berlin Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010214		Koln Series, Zinc Alloy, Screw Pack C110005/A110161	
		A010122		New York Handle Keyed, Screw Pack A110171	
		A010446		Berlin Handle Keyed, Screw Pack A110171	
		A010215		Koln Handle Keyed, Screw Pack A110171	
		A010409		Left Turn Handle, Exposed Spindle Length 30 mm, Screw Pack J110010	
		A010420		Right Turn Handle, Exposed Spindle Length 30 mm, Screw Pack J110010	
		J010202		New York Series, Exposed Spindle Length 25 mm, Screw Pack J110010	
		J010402		Berlin Series, Exposed Spindle Length 25 mm, Screw Pack J110010	
J010210	Koln Series, Exposed Spindle Length 25 mm, Screw Pack J110010				
A010003	Chinese Traditional Huayun Series, Suitable for New York Offset Fork Drive, Aluminum Alloy				
2	Spindle Drive Gearbox	C020015 C020017	1	Hole Center to Attachment Surface: 11.5 mm Hole Center to Attachment Surface: 15 mm	P103
3	Fail-Safe Corner Drive	C060010	1		P98
4	460 Upper Hinge Left 460 Upper Hinge Right 650 Upper Hinge Left 650 Upper Hinge Right 400 Upper Hinge Left 400 Upper Hinge Right	C040025 C040026 C040027 C040028 C040023 C040024	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	P101, P102
5	Concealed Lower Hinge Left Concealed Lower Hinge Right	C040021 C040022	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P101
6	Keeper	A100101	1-3		P90
7	Tilt Strike Pack	C070003	1		P99
8	Tilt Bolt	C070006	1		P99
9	Sash Support Block	A080012 A080011	1	Without Bearing With Bearing	P104
10	Limiting Stay	B040041 B040042	1	10° 14°	P108
11	End Lock Point	A090007	2	Ø9.5x6.0 mm	P86
12	Drain Cover	C120002	2		P100
13	Small Corner Drive	C060004	2		P98
14	Corner Fitting Piece	C060006	1	For Use with Small Corner Drive	P98
15	Connecting Strip		3-5	Provided by Customer or Cmech	
16	Handle Screw Pack	C110005	1		
17	Handle Screw Pack	J110010	1	Suitable for 28 Spindle Drive Handle and Turn Handle	P70
18	Handle Screw Pack	A110160 A110161	1	Suitable for Spindle and Fork Drive Handle	P70
19	Handle Screw Pack	A110171	1	Suitable for Spindle Drive Handle Keyed	P70

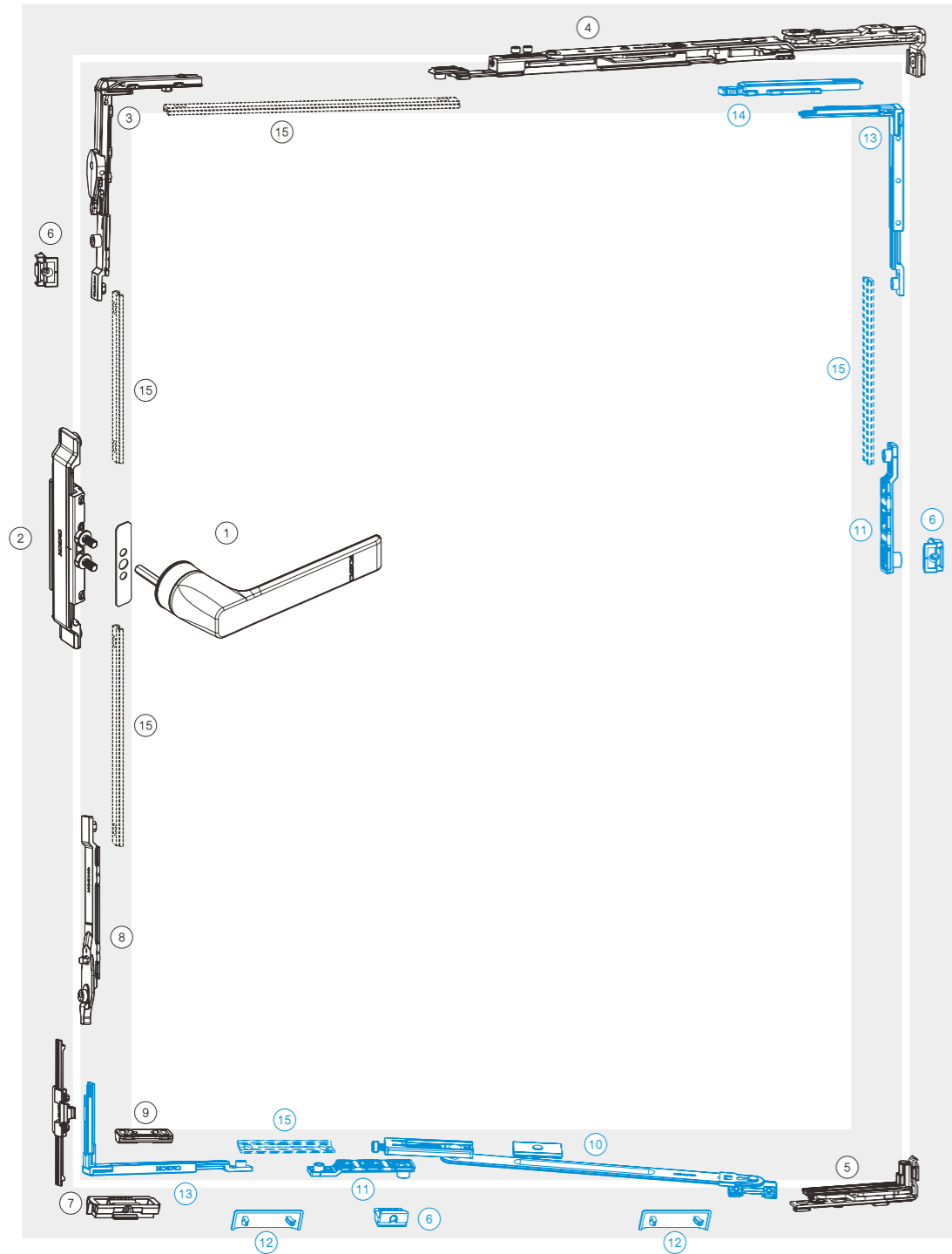


TILT & TURN WINDOW HARDWARE SERIES

Milan Handle & Hexagon Spindle Drive Gearbox with Concealed Hinge Configuration

TILT & TURN WINDOW HARDWARE SERIES

Configuration Table - Milan Handle & Hexagon Spindle Drive Gearbox with Concealed Hinge (90 kg)

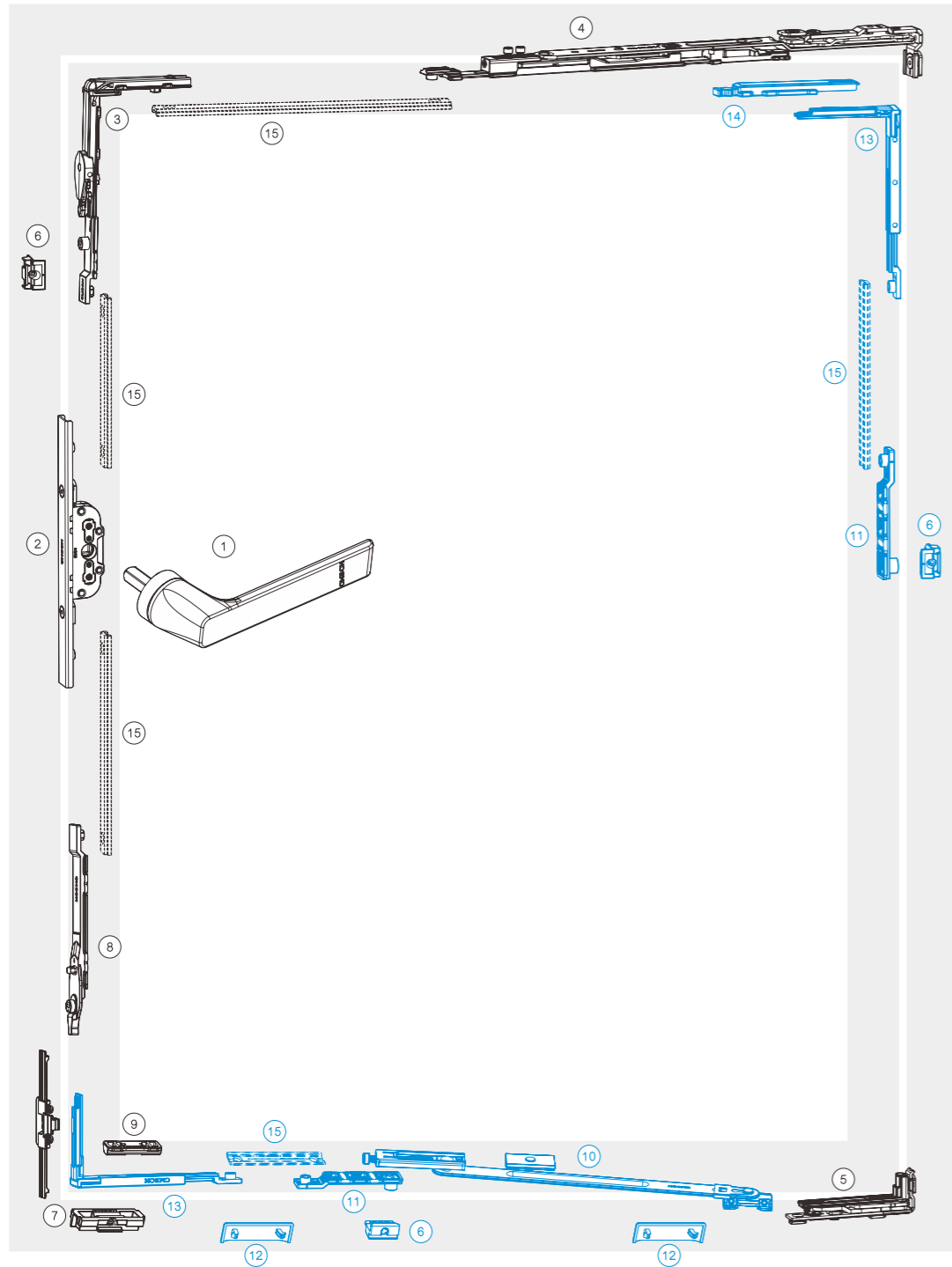


N.o.	Description	P/N	Qty	Notes	Ref. Page
1	Milan Handle	C010601	1		P84
2	Spindle Drive Gearbox	C020016	1		P103
3	Fail-Safe Corner Drive	C060010	1	Regular Lock Point	P98
4	460 Upper Hinge Left 460 Upper Hinge Right 650 Upper Hinge Left 650 Upper Hinge Right 400 Upper Hinge Left 400 Upper Hinge Right	C040025 C040026 C040027 C040028 C040023 C040024	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	P101, P102
5	Concealed Lower Hinge Left Concealed Lower Hinge Right	C040021 C040022	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P101
6	Keeper	A100101	1-4	Regular Keeper	P90
7	Tilt Strike Pack	C070003	1		P99
8	Tilt Bolt	C070006	1	Regular Lock Point	P99
9	Sash Support Block	A080012 A080011	1	Without Bearing With Bearing	P104
10	Limiting Stay	B040041	1	10°	P108
11	End lock Point	A090007	1-2	∅9.5x6.0 mm	P86
12	Drain Cover	C120002	2		P100
13	Small Corner Drive	C060004	2		P98
14	Corner Fitting Piece	C060006	1	For Use with Small Corner Drive	P98
15	Connecting Strip		3-5	Provided by Customer or Cmech	
16	Handle Screw Pack	C110013 C110014	1	Tapping Screws Pack Ram Screws Pack	



TILT & TURN WINDOW HARDWARE SERIES

Milan Handle Spindle Drive with Concealed Hinge Configuration



TILT & TURN WINDOW HARDWARE SERIES

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

N.o.	Description	P/N	Qty	Notes	Ref. Page
1	Milan Handle	A010606 A010607 A010608	1	Outswing Casement Window Handle (Includes 26 mm Spindle) Outswing Casement Window Turn Handle (Left) (Includes 26 mm Spindle) Outswing Casement Window Turn Handle (Right) (Includes 26 mm Spindle)	P80, P82
2	Spindle Drive Gearbox	C020017	1	Hole Center to Attachment Surface: 15 mm	P103
3	Fail-Safe Corner Drive	C060010	1	Regular Lock Point	P98
4	460 Upper Hinge Left 460 Upper Hinge Right 650 Upper Hinge Left 650 Upper Hinge Right 400 Upper Hinge Left 400 Upper Hinge Right	C040025 C040026 C040027 C040028 C040023 C040024	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	P101, P102
5	Concealed Lower Hinge Left Concealed Lower Hinge Right	C040021 C040022	1	Suitable for Left-Opening Sash Suitable for Right-Opening Sash	P101
6	Keeper	A100101	1-4	Regular Keeper	P90
7	Tilt Strike Pack	C070003	1		P99
8	Tilt Bolt	C070006	1	Regular Lock Point	P99
9	Sash Support Block	A080012 A080011	1	Without Bearing With Bearing	P104
10	Limiting Stay	B040041	1	10"	P108
11	End lock Point	A090007	1-2	∅9.5x6.0 mm	P86
12	Drain Cover	C120002	2		P100
13	Small Corner Drive	C060004	2		P98
14	Corner Fitting Piece	C060006	1	For Use with Small Corner Drive	P98
15	Connecting Strip		3-5	Provided by Customer or Cmech	
16	Handle Screw Pack	A110237	1	Ram Screws Pack	



TILT & TURN WINDOW PROFILE AND DRILLING REQUIREMENTS

Tilt & Turn Window with C-Groove Profile Detail Drawing Fork Drive Handle

Drill Hole Drawing Handle

Tilt & Turn Window with C-Groove Profile Detail Drawing Spindle Drive Handle

Drill Hole Drawing Handle

Tilt & Turn Window with C-Groove Profile Detail Drawing Milan Handle

Drill Hole Drawing Handle

Suitable for Tapping Screws Pack

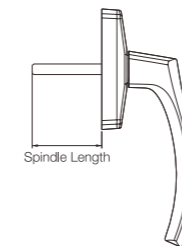
Suitable for Ram Screws Pack

SCREW PACK SELECTIONS

Handle Screw Pack			Handle with Cylinder		
P/N	Notes	Qty	P/N	Notes	Qty
J110001	Stainless Steel, M5x0.8x25 mm Cross Screws	1	A110169	Steel, Suitable for 18 mm Spindle	1
J110002	Stainless Steel, M5x0.8x35 mm Cross Screws	1	A110170	Steel, Suitable for 23 mm Spindle	1
J110003	Stainless Steel, M5x0.8x45 mm Cross Screws	1	A110171	Steel, Suitable for 28 mm Spindle	1
J110004	Stainless Steel, M5x0.8x55 mm Cross Screws	1	A110172	Steel, Suitable for 38 mm Spindle	1
J110005	Stainless Steel, M5x0.8x60 mm Cross Screws	1	A110173	Steel, Suitable for 48 mm Spindle	1
J110006	Stainless Steel, M5x0.8x65 mm Cross Screws	1	A110174	Steel, Suitable for 58 mm Spindle	1
J110007	Stainless Steel, M5x0.8x70 mm Cross Screws	1	A110175	Steel, Suitable for 73 mm Spindle	1
J110008	Stainless Steel, M5x0.8x80 mm Cross Screws	1	A110176	Steel, Suitable for 88 mm Spindle	1
J110009	Steel, M5x0.8x25 mm Cross Screws	1	A110177	Steel, Suitable for 103 mm Spindle	1
J110010	Steel, M5x0.8x35 mm Cross Screws	1	A110178	Steel, Suitable for 118 mm Spindle	1
J110011	Steel, M5x0.8x45 mm Cross Screws	1			
J110012	Steel, M5x0.8x55 mm Cross Screws	1			
J110013	Steel, M5x0.8x60 mm Cross Screws	1			
J110014	Steel, M5x0.8x65 mm Cross Screws	1			
J110015	Steel, M5x0.8x70 mm Cross Screws	1			
J110016	Steel, M5x0.8x80 mm Cross Screws	1			
J110019	Steel, M5x0.8x95 mm Cross Screws	1			

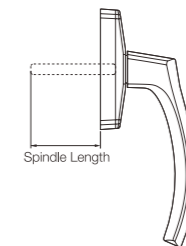
Spindle and Fork Drive Handle			S Series/Fly Screen Handle		
P/N	Notes	Qty	P/N	Notes	Qty
A110159	Steel, Suitable for 20 mm Spindle	1	A110179	Steel, Suitable for 26.5 mm Spindle	1
A110160	Steel, Suitable for 25 mm Spindle	1	A110180	Steel, Suitable for 32.5 mm Spindle	1
A110161	Steel, Suitable for 30 mm Spindle	1	A110181	Steel, Suitable for 37.5 mm Spindle	1
A110162	Steel, Suitable for 40 mm Spindle	1	A110182	Steel, Suitable for 42.5 mm Spindle	1
A110163	Steel, Suitable for 50 mm Spindle	1	A110183	Steel, Suitable for 52.5 mm Spindle	1
A110164	Steel, Suitable for 60 mm Spindle	1	A110184	Steel, Suitable for 62.5 mm Spindle	1
A110165	Steel, Suitable for 75 mm Spindle	1	A110185	Steel, Suitable for 72.5 mm Spindle	1
A110166	Steel, Suitable for 90 mm Spindle	1	A110186	Steel, Suitable for 87.5 mm Spindle	1
A110167	Steel, Suitable for 105 mm Spindle	1	A110187	Steel, Suitable for 102.5 mm Spindle	1
A110168	Steel, Suitable for 120 mm Spindle	1	A110188	Steel, Suitable for 117.5 mm Spindle	1

Fixed Spindle



- 28 Spindle Drive Handle
- Turn Handle

Moveable Spindle



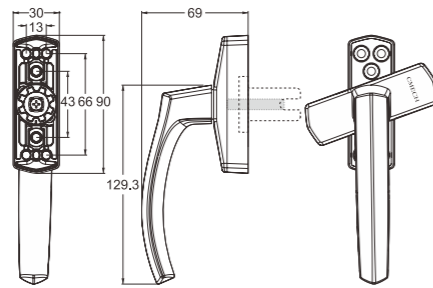
- Keyed Handle
- Spindle and Fork Drive Handle
- Fly Screen Handle
- S Series

HANDLE SELECTIONS

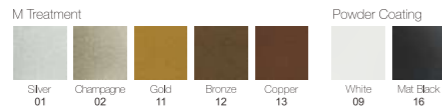
NEW YORK SERIES



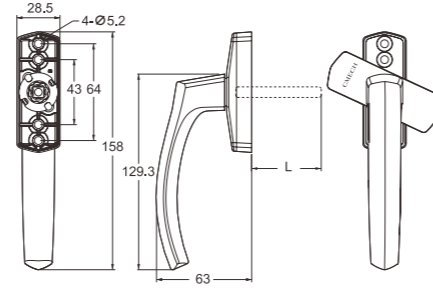
Spindle and Fork Drive Handle



P/N	Material	Suitable for	Suitable for
A010124-	Zinc Alloy	Offset Fork Drive, Spindle Drive	Outswing Casement Windows
A010107-	Aluminum Alloy		Inswing Casement Windows Outswing Awning Windows
A010125-	Zinc Alloy	Central Fork Drive, Spindle Drive	Tilt & Turn Windows
A010108-	Aluminum Alloy		Gliding Doors



Spindle Drive Handle (Type W)



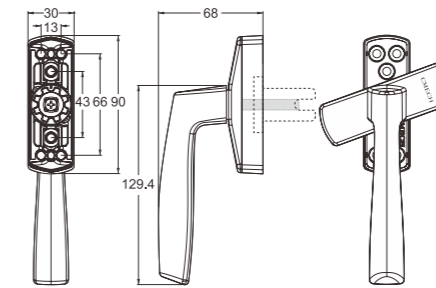
P/N	L	Material	Suitable for
J010201-	15	Zinc Alloy	Outswing Casement Windows
J010202-	25		Inswing Casement Windows
J010203-	35		Outswing Awning Windows
J010204-	45		Hopper Windows
J010205-	50		
J010206-	55		
J010207-	60		
J010208-	70		

HANDLE SELECTIONS

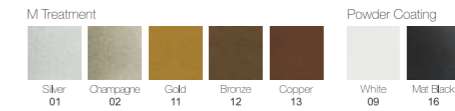
BERLIN SERIES



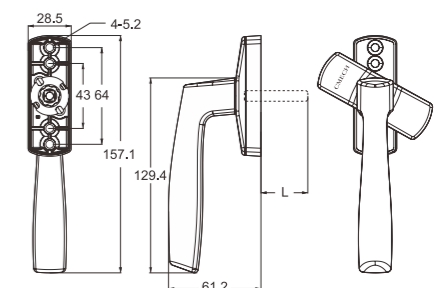
Spindle and Fork Drive Handle



P/N	Material	Suitable for	Suitable for
A010447-	Zinc Alloy	Offset Fork Drive, Spindle Drive	Outswing Casement Windows
A010406-	Aluminum Alloy		Inswing Casement Windows Outswing Awning Windows
A010448-	Zinc Alloy	Central Fork Drive, Spindle Drive	Tilt & Turn Windows
A010407-	Aluminum Alloy		Gliding Doors



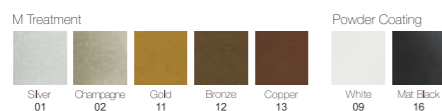
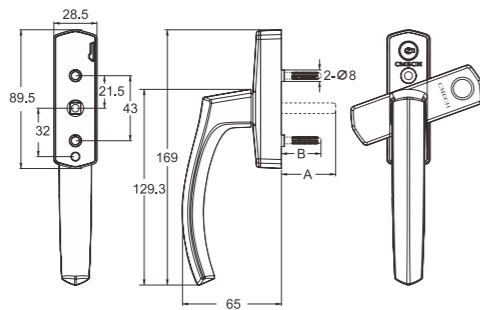
Spindle Drive Handle (Type W)



P/N	L	Material	Suitable for
J010401-	15	Zinc Alloy	Outswing Casement Windows
J010402-	25		Inswing Casement Windows
J010403-	35		Outswing Awning Windows
J010404-	45		Hopper Windows
J010405-	50		
J010406-	55		
J010407-	60		
J010408-	70		



A010122-
Spindle Drive Handle Keyed
(Outswing Casement Windows, Inswing Casement Windows,
Outswing Awning Windows, Hopper Windows, Tilt & Turn Windows)

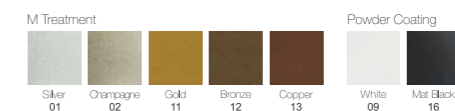
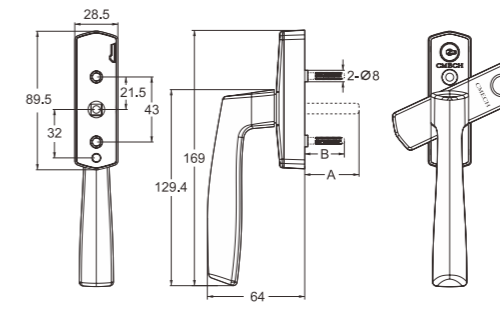


Spindle Screw Pack Selection List

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



A010446-
Spindle Drive Handle Keyed
(Outswing Casement Windows, Inswing Casement Windows,
Outswing Awning Windows, Hopper Windows, Tilt & Turn Windows)



Spindle Screw Pack Selection List

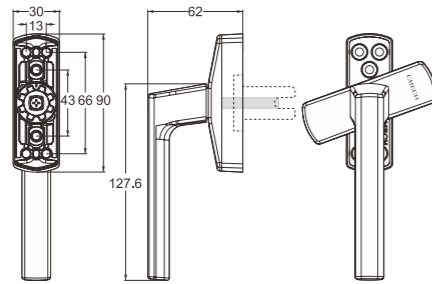
P/N	A	B
A110169	18	16.2
A110170	23	21.2
A110171	28	26.2
A110172	38	36.2
A110173	48	46.2
A110174	58	56.2
A110175	73	71.2
A110176	88	86.2
A110177	103	101.2
A110178	118	116.2

HANDLE SELECTIONS

KOLN SERIES



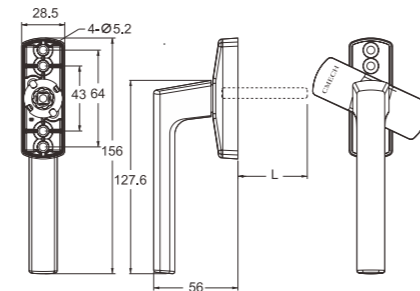
Spindle and Fork Drive Handle



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



Spindle Drive Handle (Type W)



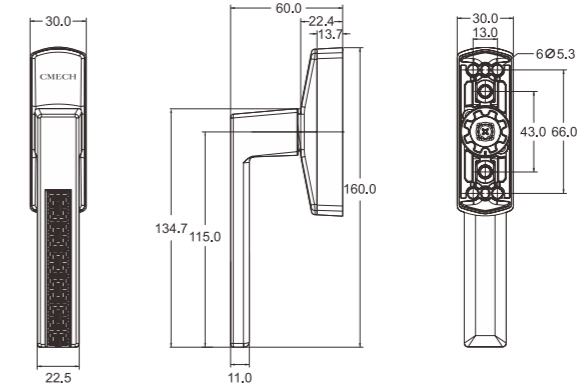
P/N	L	Material	Suitable for
J010209-	15		
J010210-	25		
J010211-	35		
J010212-	45	Zinc Alloy	Outswing Casement Windows
J010213-	50		Inswing Casement Windows
J010214-	55		Outswing Awning Windows
J010215-	60		Hopper Windows
J010216-	70		

HANDLE SELECTIONS

CHINESE TRADITIONAL HUAYUN SERIES



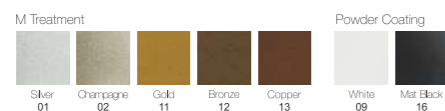
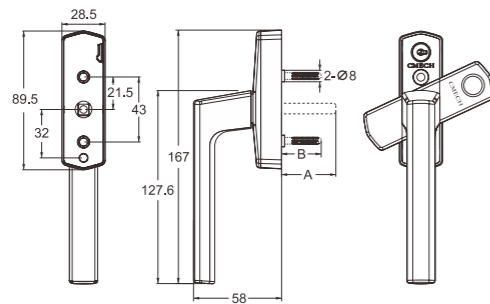
Spindle and Fork Drive Handle



P/N	Material	Suitable for
A010003-	Aluminum Alloy	Outswing Casement Windows, Outswing Awning Windows, Inswing Casement Windows, Tilt & Turn Windows



A010215- Spindle Drive Handle Keyed (Outswing Casement Windows, Inswing Casement Windows, Outswing Awning Windows, Hopper Windows, Tilt & Turn Windows)



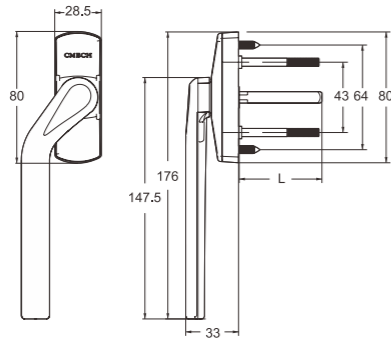
Spindle Screw Pack Selection List

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

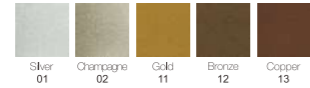
HANDLE SELECTIONS

TURN HANDLE

Turn Handle (Left)



M Treatment

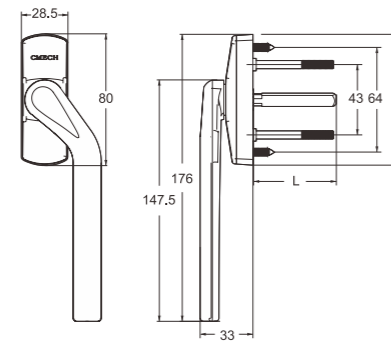


Powder Coating

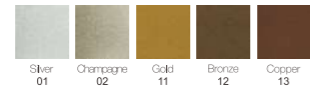


P/N	L	Material	Suitable for
A010408-	20	Zinc Alloy	Outswing Casement Windows Inswing Casement Windows Outswing Awning Windows
A010409-	30		
A010410-	40		
A010411-	50		
A010412-	55		
A010413-	60		
A010414-	65		
A010415-	75		
A010416-	90		
A010417-	105		
A010418-	120		
A010432-	135		

Turn Handle (Right)



M Treatment



Powder Coating



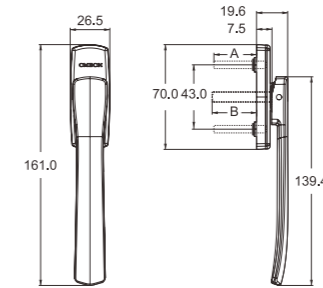
P/N	L	Material	Suitable for
A010419-	20	Zinc Alloy	Outswing Casement Windows Inswing Casement Windows Outswing Awning Windows
A010420-	30		
A010421-	40		
A010422-	50		
A010423-	55		
A010424-	60		
A010425-	65		
A010426-	75		
A010427-	90		
A010428-	105		
A010429-	120		
A010433-	135		

HANDLE SELECTIONS

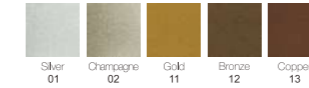
FLY SCREEN HANDLE
A010004



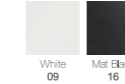
Suitable for: Outswing Casement Windows



M Treatment



Powder Coating



Screw Pack

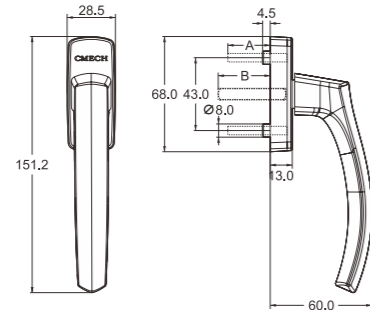
P/N	A	B
A110179	28.8	26.5
A110180	33.8	32.5
A110181	38.8	37.5
A110182	43.8	42.5
A110183	53.8	52.5
A110184	63.8	62.5
A110185	73.8	72.5
A110186	88.8	87.5
A110187	103.8	102.5
A110188	118.8	117.5

HANDLE SELECTIONS

S SERIES



A010127-
New York Handle
(Outswing Casement Windows, Inswing Casement Windows)



Screw Pack

P/N	A	B
A110179	35-10=25	36-9.3=26.7
A110180	40-10=30	42-9.3=32.7
A110181	45-10=35	47-9.3=37.7
A110182	50-10=40	52-9.3=42.7
A110183	60-10=50	62-9.3=52.7
A110184	70-10=60	72-9.3=62.7
A110185	80-10=70	82-9.3=72.7
A110186	95-10=85	97-9.3=87.7
A110187	110-10=100	112-9.3=102.7
A110188	125-10=115	127-9.3=117.7

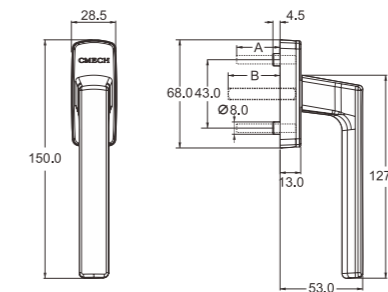


HANDLE SELECTIONS

S SERIES

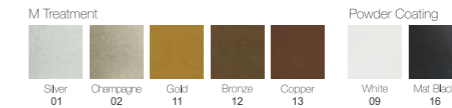


A010217-
Koln Series
(Outswing Casement Windows, Inswing Casement Windows)

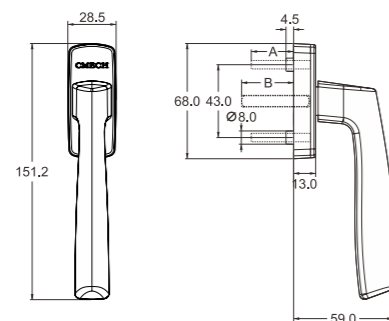


Screw Pack

P/N	A	B
A110179	35-10=25	36-9.3=26.7
A110180	40-10=30	42-9.3=32.7
A110181	45-10=35	47-9.3=37.7
A110182	50-10=40	52-9.3=42.7
A110183	60-10=50	62-9.3=52.7
A110184	70-10=60	72-9.3=62.7
A110185	80-10=70	82-9.3=72.7
A110186	95-10=85	97-9.3=87.7
A110187	110-10=100	112-9.3=102.7
A110188	125-10=115	127-9.3=117.7

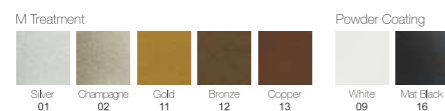


A010452-
Berlin Handle
(Outswing Casement Windows, Inswing Casement Windows)



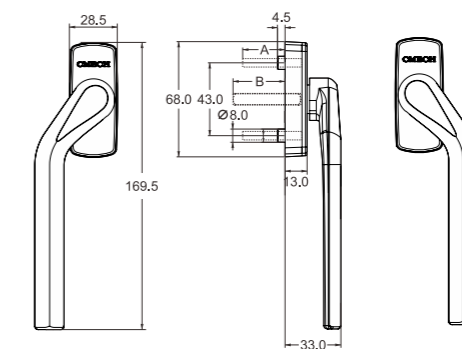
Screw Pack

P/N	A	B
A110179	35-10=25	36-9.3=26.7
A110180	40-10=30	42-9.3=32.7
A110181	45-10=35	47-9.3=37.7
A110182	50-10=40	52-9.3=42.7
A110183	60-10=50	62-9.3=52.7
A110184	70-10=60	72-9.3=62.7
A110185	80-10=70	82-9.3=72.7
A110186	95-10=85	97-9.3=87.7
A110187	110-10=100	112-9.3=102.7
A110188	125-10=115	127-9.3=117.7



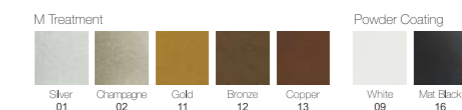
A010453-
Turn Handle (Left)
(Outswing Casement Windows,
Inswing Casement Windows)

A010454-
Turn Handle (Right)
(Outswing Casement Windows,
Inswing Casement Windows)



Screw Pack

P/N	A	B
A110179	35-10=25	36-9.3=26.7
A110180	40-10=30	42-9.3=32.7
A110181	45-10=35	47-9.3=37.7
A110182	50-10=40	52-9.3=42.7
A110183	60-10=50	62-9.3=52.7
A110184	70-10=60	72-9.3=62.7
A110185	80-10=70	82-9.3=72.7
A110186	95-10=85	97-9.3=87.7
A110187	110-10=100	112-9.3=102.7
A110188	125-10=115	127-9.3=117.7

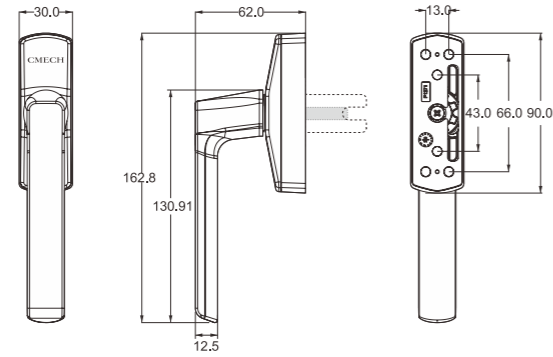


HANDLE SELECTIONS

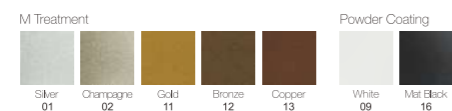
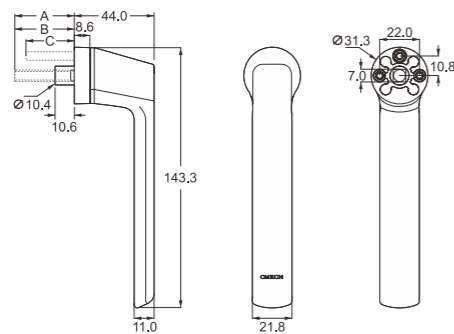
MILAN SERIES



A010601-
Spindle and Fork Drive Handle (Offset Gasket)
(Outswing Casement Windows, Inswing Casement Windows)



A010603-
Baseless Handle without Spindle
(Outswing Casement Windows)



Screw Pack

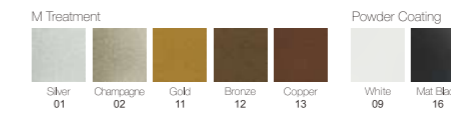
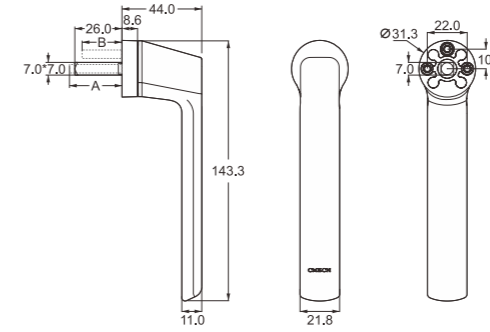
P/N	A	B	C
A110239	20-5=15	20	ST4,2X14 Self-Tapping Screws
A110219	25-5=20	20	ST4,2X14 Self-Tapping Screws
A110220	30-5=25	25	ST4,2X14 Self-Tapping Screws
A110221	35-5=30	30	ST4,2X14 Self-Tapping Screws
A110222	45-5=40	40	ST4,2X14 Self-Tapping Screws
A110223	55-5=50	50	ST4,2X14 Self-Tapping Screws
A110224	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

HANDLE SELECTIONS

MILAN SERIES



A010606-
Baseless Handle with 26mm-Spindle
(Outswing Casement Windows)

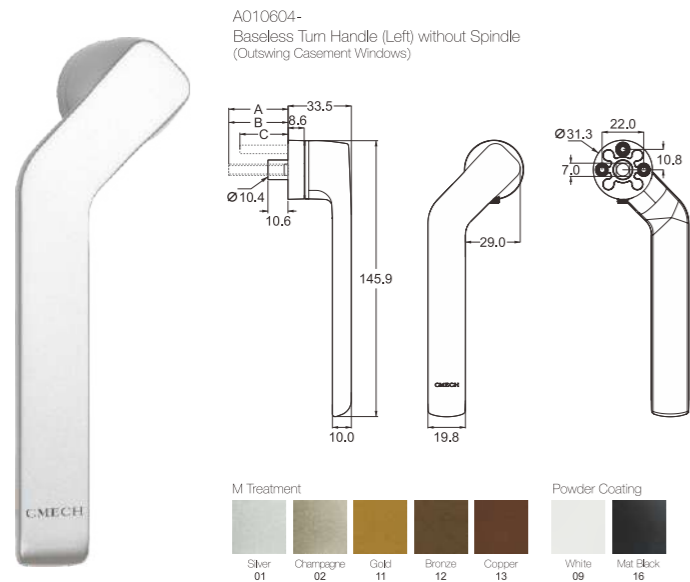


Screw Pack

P/N	A	B
A110237	30-5=25	M4X20 Ram Screws
A110238	30-5=25	ST4,2X14 Self-Tapping Screws

HANDLE SELECTIONS

MILAN SERIES

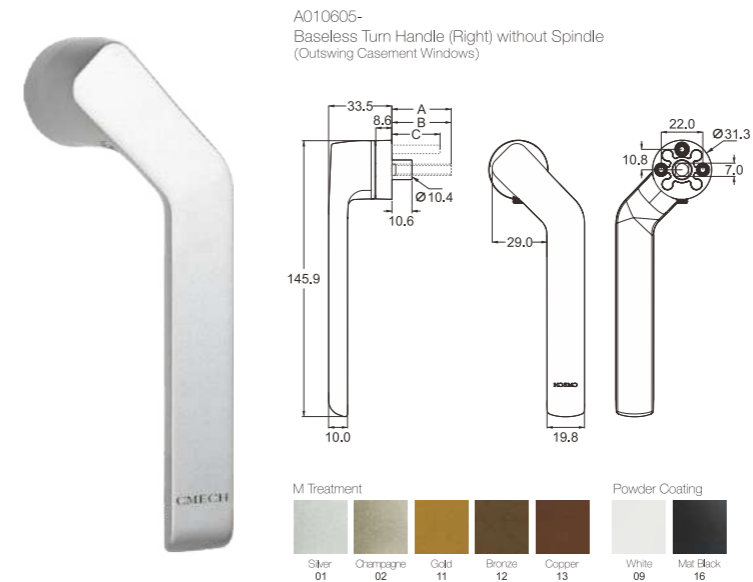


Screw Pack

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

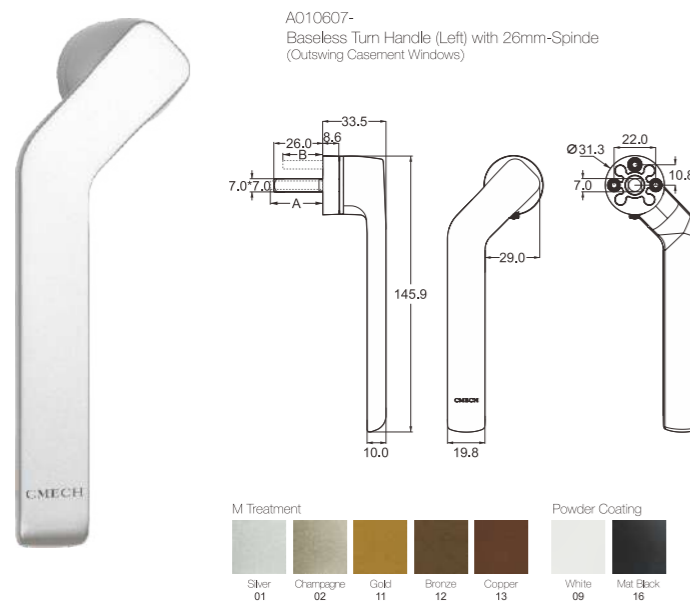
HANDLE SELECTIONS

MILAN SERIES



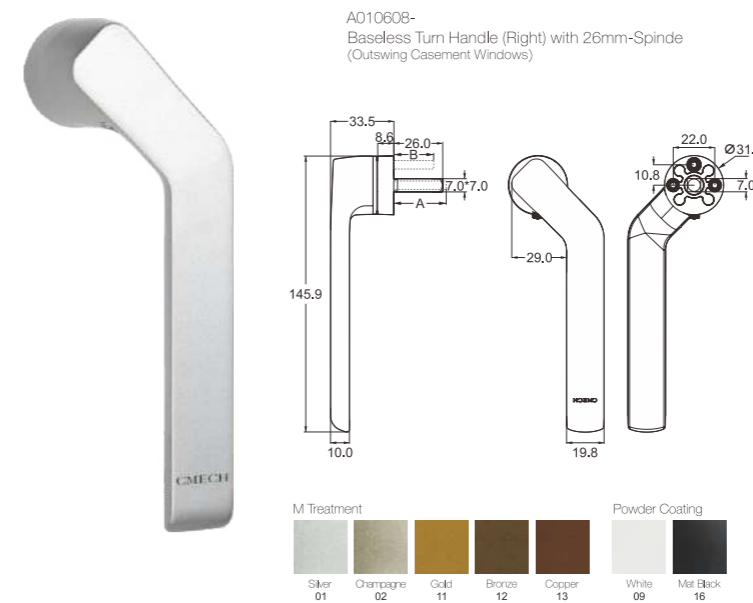
Screw Pack

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



Screw Pack

P/N	A	B
A110237	30-5=25	M4X20 Ram Screws
A110238	30-5=25	ST4,2X14 Self-Tapping Screws

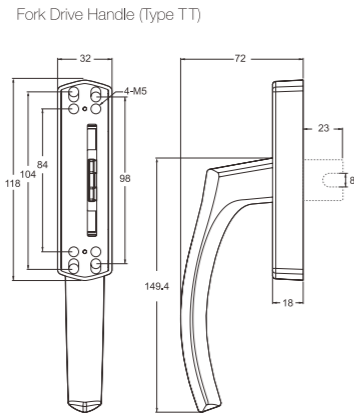


Screw Pack

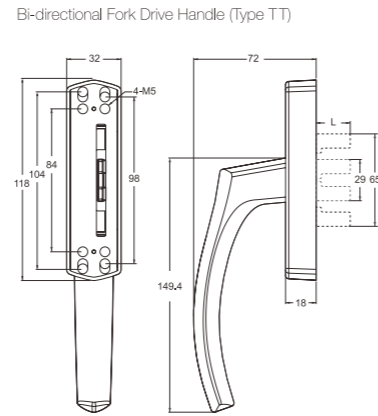
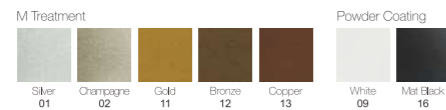
P/N	A	B
A110237	30-5=25	M4X20 Ram Screws
A110238	30-5=25	ST4,2X14 Self-Tapping Screws

HANDLE SELECTIONS

NEW YORK SERIES



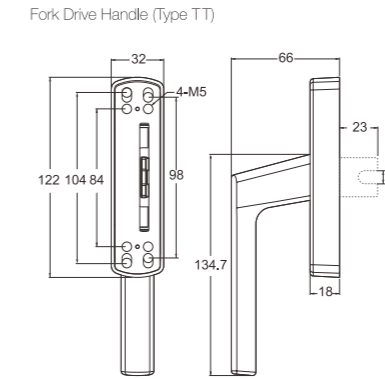
P/N	Material	Suitable for
C010101-	Zinc Alloy	Tilt & Turn Windows Inswing Casement Windows
C010102-	Aluminum Alloy	



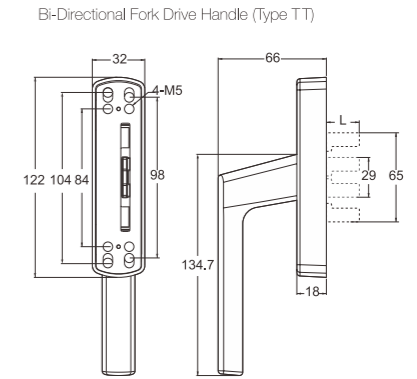
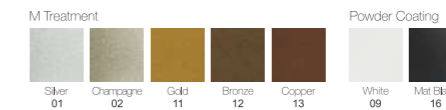
P/N	L	Material	Suitable for
A010104-	20 mm	Zinc Alloy	
A010105-	24 mm	Zinc Alloy	Outswing Awning Window (Curtain Wall)
A010106-	28 mm	Zinc Alloy	

HANDLE SELECTIONS

KOLN SERIES

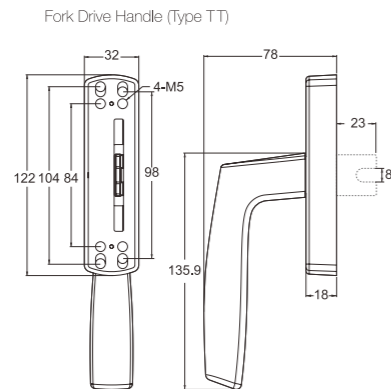


P/N	Material	Suitable for
C010201-	Zinc Alloy	Tilt & Turn Windows Inswing Casement Windows
C010202-	Aluminum Alloy	

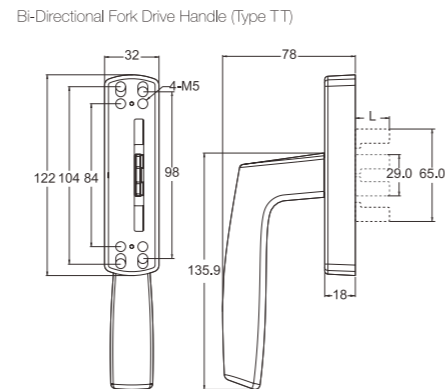
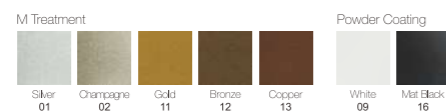


P/N	L	Material	Suitable for
A010207-	20 mm	Zinc Alloy	
A010208-	24 mm	Zinc Alloy	Outswing Awning Window (Curtain Wall)
A010209-	28 mm	Zinc Alloy	

BERLIN SERIES

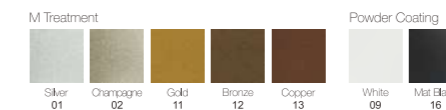
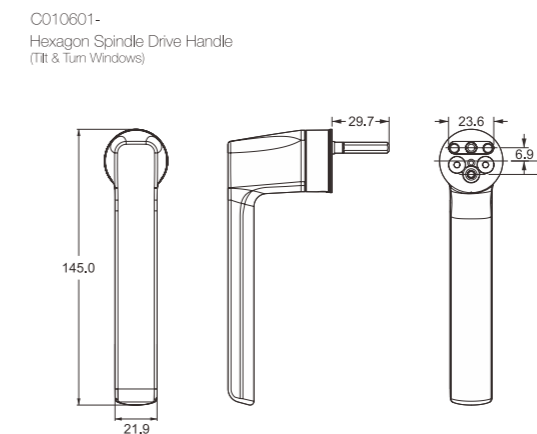


P/N	Material	Suitable for
C010401-	Zinc Alloy	Tilt & Turn Windows Inswing Casement Windows
C010402-	Aluminum Alloy	



P/N	L	Material	Suitable for
A010403-	20 mm	Zinc Alloy	
A010404-	24 mm	Zinc Alloy	Outswing Awning Window (Curtain Wall)
A010405-	28 mm	Zinc Alloy	

MILAN SERIES

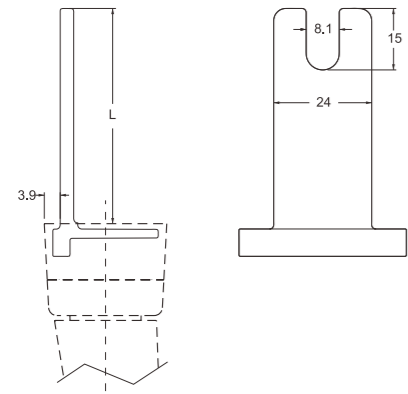


Screw Pack

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

FORK DRIVES

Offset Fork Drive Dimensions and Selections



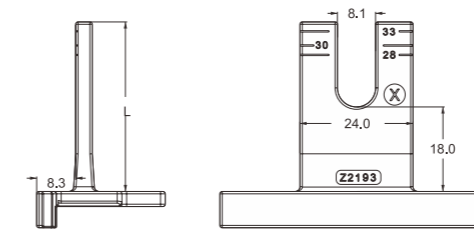
P/N	L	Specifications
A110097	21	21x3.9
A110098	27	27x3.9
A110099	31	31x3.9
A110100	33	33x3.9
A110101	41	41x3.9
A110102	45	45x3.9
A110103	37	37x3.9
A110104	49	49x3.9
A110105	53	53x3.9
A110106	63	63x3.9

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



FORK DRIVES

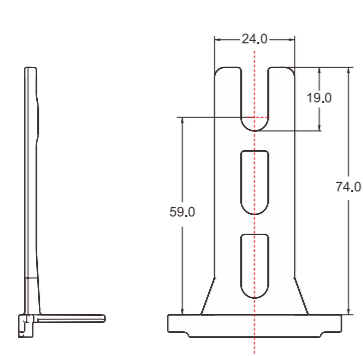
Offset Fork Drive Dimensions and Selections



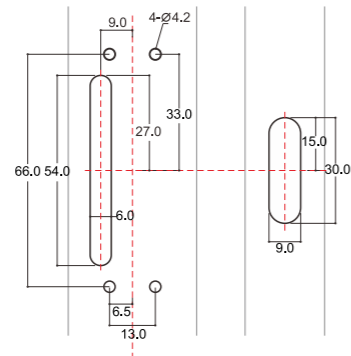
P/N	L	Specifications
C110016	28	28x8.3
C110017	30	30x8.3
C110018	33	33x8.3
C110019	35	35x8.3



A110194
Offset Fork Drive-73mm

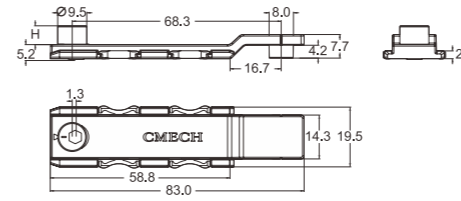


Handle Drill Hole Drawing (Interior) T-Drive Drill Hole Drawing (Side Profile)



LOCK POINTS

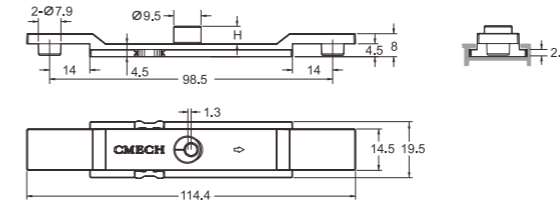
End Lock Point



P/N	H
A090007	6.0 mm
A090008	7.0 mm



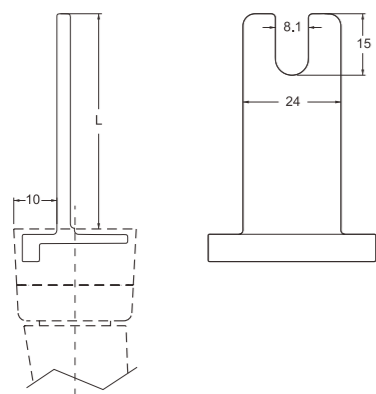
Central Lock Point



P/N	H
A090009	6.0 mm
A090010	7.0 mm



Central Fork Drive Dimensions and Selections



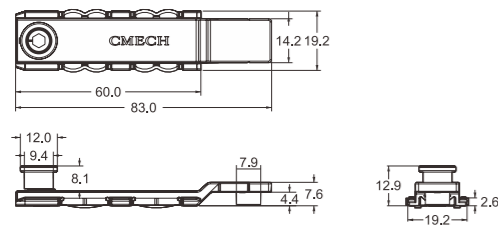
P/N	L	Specifications
A110107	21	21x10
A110108	27	27x10
A110109	31	31x10
A110110	33	33x10
A110111	41	41x10
A110112	45	45x10
A110113	37	37x10
A110114	49	49x10
A110115	53	53x10
A110116	63	63x10

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

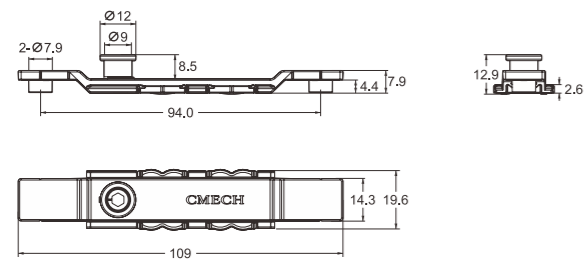


LOCK POINTS

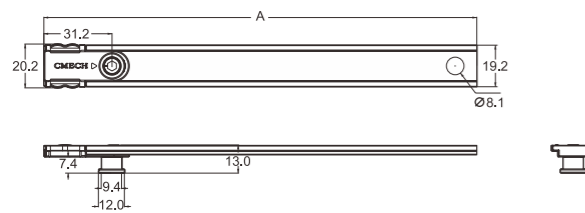
A090032
Pry-Resistant End Lock Point with Bearing



A090033
Pry-Resistant Central Lock Point with Bearing



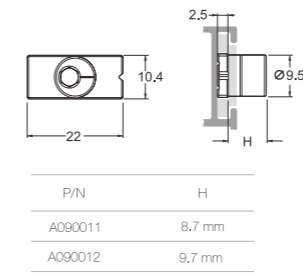
Pry-Resistant Connecting Rod with Bearing



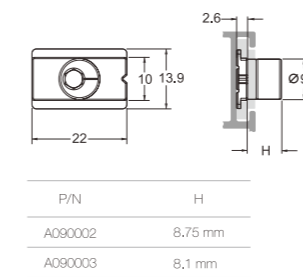
P/N	A
A090022	150
A090023	200
A090024	300
A090025	400
A090026	500
A090027	600
A090028	700
A090029	800
A090030	900
A090031	1000

LOCK POINTS

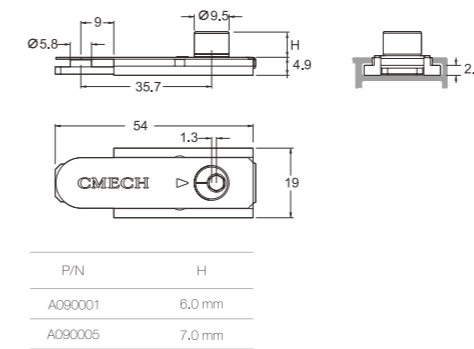
Single-Stage Active Lock Point



Dual-Stage Active Lock Point



Lock Point



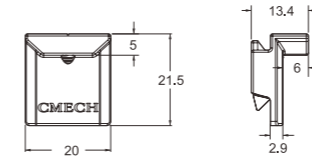
LOCK POINT SELECTION TABLE

Unit: mm

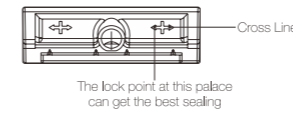
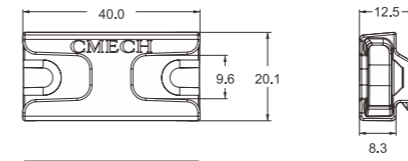
Lock Point Selections	Suitable Sash Profile and Connecting Strip Combinations													
	Sash Profile	Connecting Strip	Sash Profile	Connecting Strip	Sash Profile	Connecting Strip	Sash Profile	Connecting Strip	Sash Profile	Connecting Strip	Sash Profile	Connecting Strip		
P/N	4.5 3 20 15	4.4 2.5 19 10 6 14 2.3	4.5 3 20 15	4.3 2.6 1.1 19 14 2.7 14.2 0.6	4.5 3 20 15	4.3 2.6 1.1 19 14 2.7 14.2 0.6	4.5 3 20 15	4.3 2.6 1.1 19 14 2.7 14.2 0.6	4.5 3 20 15	4.3 2.6 1.1 19 14 2.7 14.2 0.6	4.5 3 20 15	4.3 2.6 1.1 19 14 2.7 14.2 0.6	4.5 3 20 15	4.3 2.6 1.1 19 14 2.7 14.2 0.6
A090001	Lock Point (Ø9.5x6.0 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090005	Lock Point (Ø9.5x7.0 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090007	End Lock Point (Ø9.5x6.0 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090008	End Lock Point (Ø9.5x7.0 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090009	Central Lock Point (Ø9.5x6.0 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090010	Central Lock Point (Ø9.5x7.0 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090011	Single-Stage Active Lock Point (Lock Point Height 8.7 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090012	Single-Stage Active Lock Point (Lock Point Height 9.7 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090002	Dual-Stage Active Lock Point (Lock Point Height 8.75 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090003	Dual-Stage Active Lock Point (Lock Point Height 8.1 mm)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090032	Pry-Resistant End Lock Point with Bearing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
A090033	Pry-Resistant Central Point with Bearing	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Product														
Description	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)	Central Lock Point (Ø9.5x6.0 mm)	Central Lock Point (Ø9.5x7.0 mm)	Single-Stage Active Lock Point (Lock Point Height 8.7 mm)	Single-Stage Active Lock Point (Lock Point Height 9.7 mm)	Dual-Stage Active Lock Point (Lock Point Height 8.75 mm)	Dual-Stage Active Lock Point (Lock Point Height 8.1 mm)	Pry-Resistant End Lock Point with Bearing	Pry-Resistant Central Point with Bearing		

KEEPERS

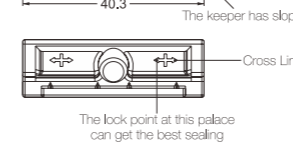
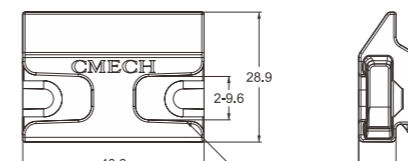
A100101
Keepers



A100122
Pry-Resistant Keepers with Bearing

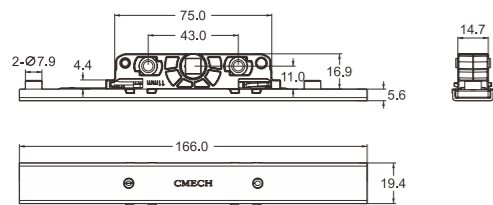


A100123
Pry-Resistant Keepers with Bearing (K-Groove)

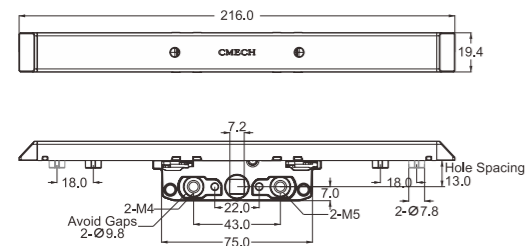


TRANSMISSION MACHANISM

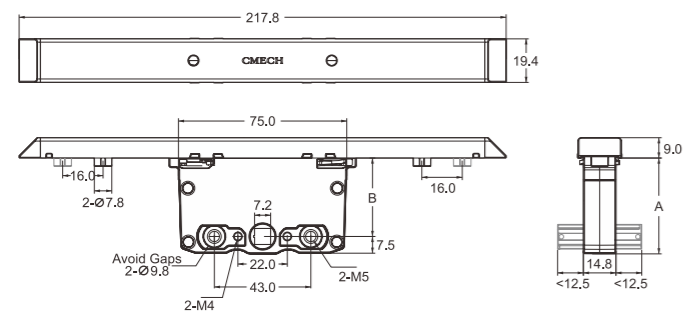
A020119
11mm Fly Screen Drive Gearbox



A020134
13 mm Bi-Directional Spindle Drive Gearbox



Bi-Directional Spindle Drive Gearbox



P/N	A	B
A020130	29.4 mm	22 mm
A020135	32.4 mm	25 mm
A020131	37.4 mm	30 mm
A020133	42.4 mm	35 mm

TRANSMISSION MACHANISM

Surface Mount Drive Gear



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



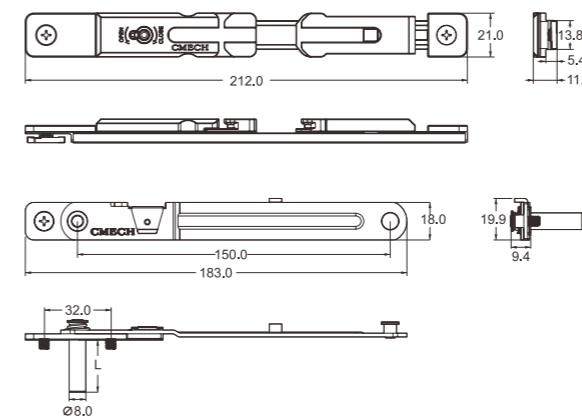
Surface Mount Drive Gear



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



Ventilation Assist

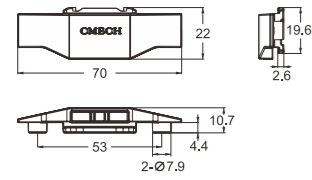


P/N	Direction	Specifications (L)	Suitable for
B040048	Left	2.8 mm	Spindle Drive Series Handle
B040049	Right	2.8 mm	
B040046	Left	25 mm	
B040047	Right	25 mm	Fork Drive Series Handle
B040050	Left	30 mm	
B040051	Right	30 mm	
B040052	Left	35 mm	
B040053	Right	35 mm	

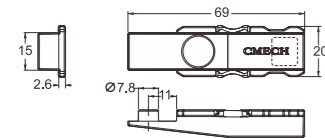


T-DRIVES AND ACCESSORIES

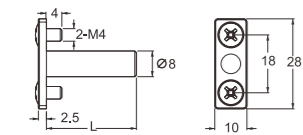
B020004
Fork Drive Connector



A020057
Bi-Directional Fork Drive Connector

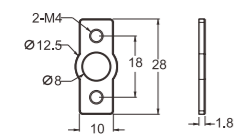


Standard T-Drive

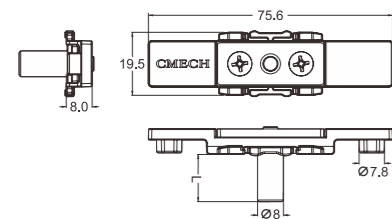


P/N	L
A020029	20 mm
A020030	24 mm
A020031	28 mm

A110120
Threaded Screw Plate



Reinforced T-Drive



P/N	L
A020115	14.5 mm
A020116	18.5 mm
A020117	22.5 mm
A020126	26.5 mm
A020127	30.5 mm
A020128	34.5 mm
A020129	11.5 mm

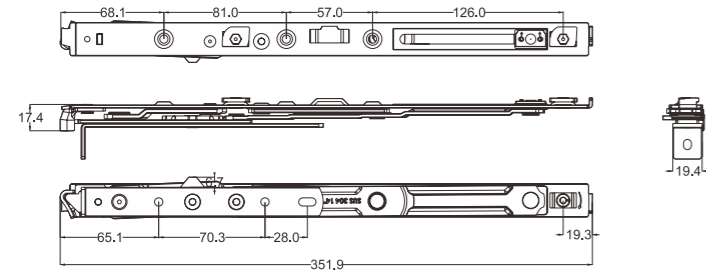
T-DRIVE SELECTION TABLE

Unit: mm

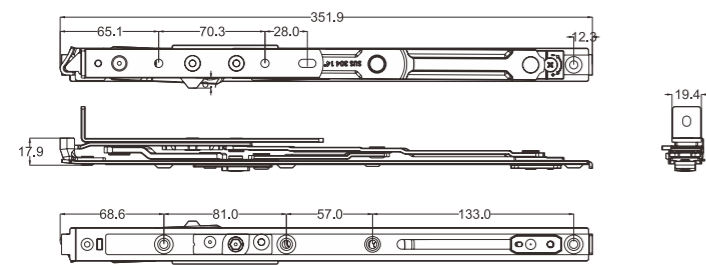
T-Drive Selections	Suitable Sash Profile and Connecting Strip Combinations				Product	Description	P/N
	Sash Profile	Connecting Strip	Sash Profile	Connecting Strip			
						Standard T-Drive (Connected Directly to the Aluminum Connecting Strip)	A020029 A020031
						Standard T-Drive	A020029 A020031
		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

FRICITION HINGES

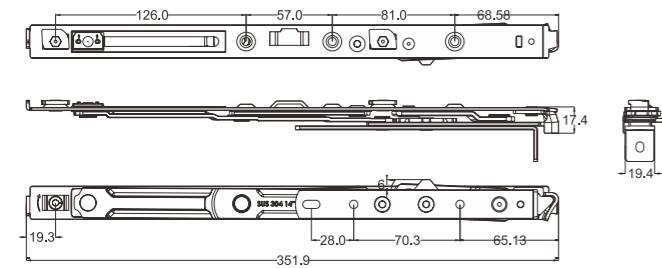
A040148
14" Upper Left Friction Hinge-C-Groove
Suitable for Sash Width: 450-750 mm



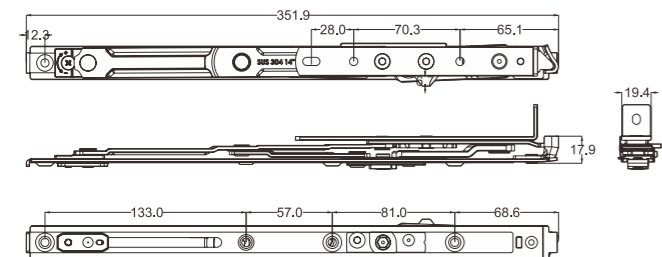
14" Bottom Left Friction Hinge-C-Groove
Suitable for Sash Width: 450-750 mm



A040149
14" Upper Right Friction Hinge-C-Groove
Suitable for Sash Width: 450-750 mm

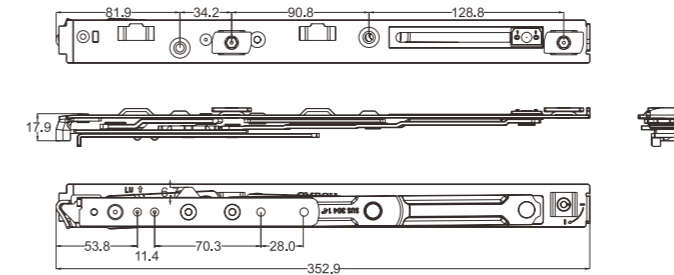


14" Bottom Right Friction Hinge-C-Groove
Suitable for Sash Width: 450-750 mm

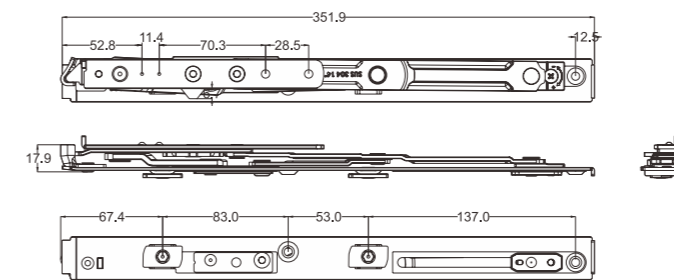


FRICITION HINGES

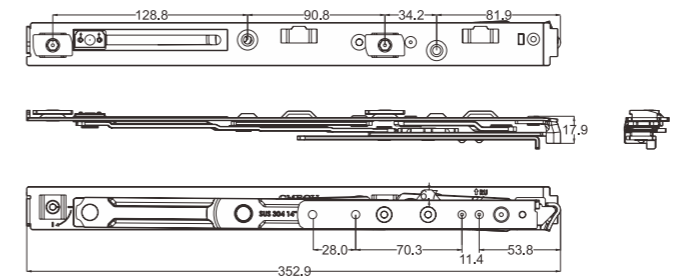
A040165
14" Upper Left Friction Hinge-K-Groove
Suitable for Sash Width: 450-750 mm



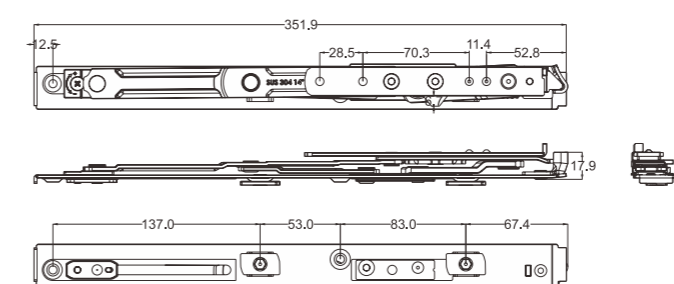
14" Bottom Left Friction Hinge-K-Groove
Suitable for Sash Width: 450-750 mm



A040166
14" Upper Right Friction Hinge-K-Groove
Suitable for Sash Width: 450-750 mm

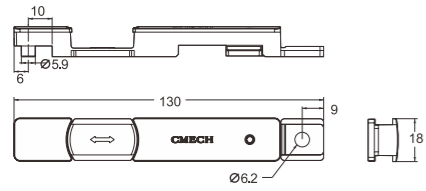


14" Bottom Right Friction Hinge-K-Groove
Suitable for Sash Width: 450-750 mm

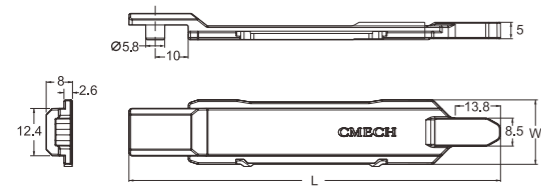


FRENCH CASEMENT WINDOW ACCESSORIES

A020055
Operating Lever

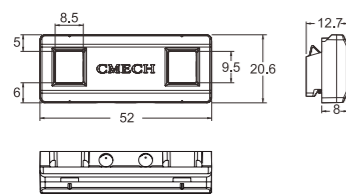


Shootbolt



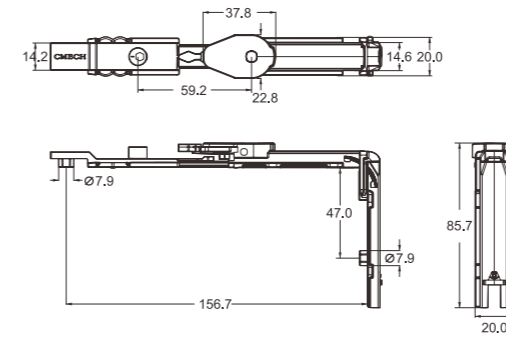
P/N	L	W
A070001	156	19.6
A070002	156	17.6
A070003	90	19.6
A070004	90	17.6

A100112
Shootbolt Bracket

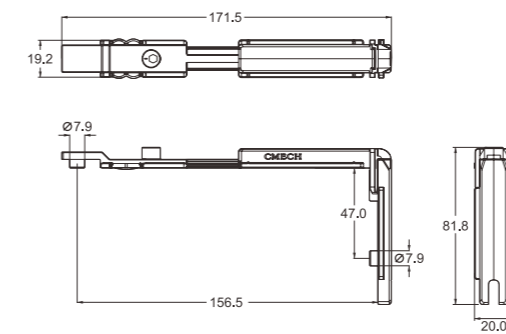


TILT & TURN WINDOW HARDWARE

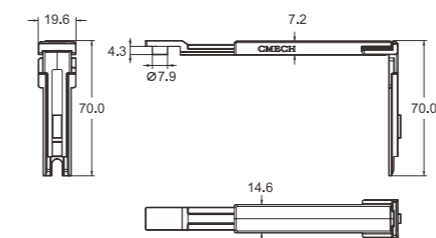
C060010
Fail-Safe Corner Drive



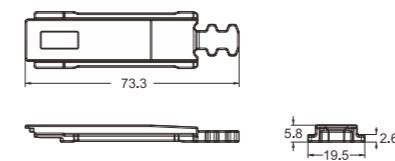
C060009
Corner Drive



C060004
Small Corner Drive



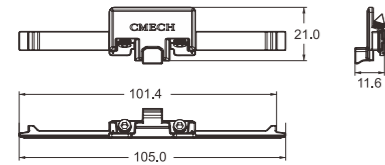
C060006
Corner Fitting Piece



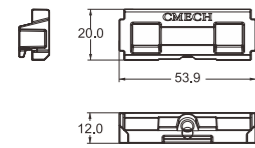
TILT & TURN WINDOW HARDWARE

C070003
Tilt Strike Pack

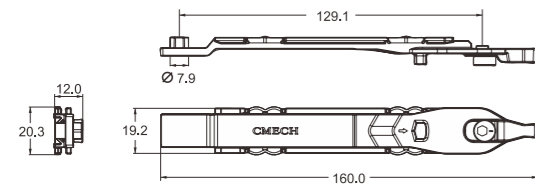
Tilt Striker



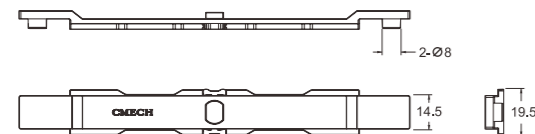
Run Up Block



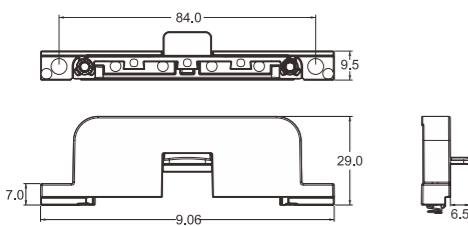
C070006
Tilt Bolt



C020001
Fork Drive Connector

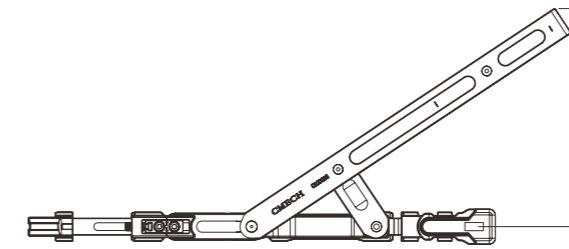


C080001
Fail-Safe Device



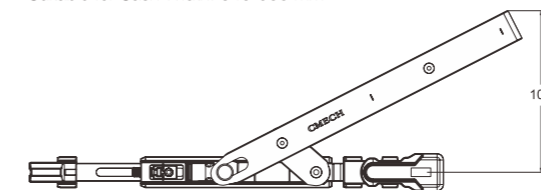
TILT & TURN WINDOW HARDWARE

Stay

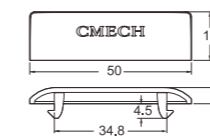


P/N	H	Instructions
C020008	147 mm	Sash Width: 450-750 mm
C020009	158 mm	Sash Width: 600-1,200 mm

C020005
Stay
Suitable for Sash Width: 340-500 mm

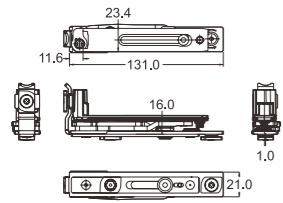


C120002
Drain Cover

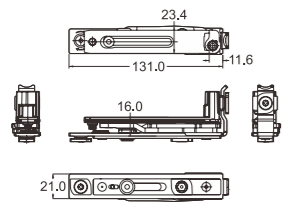


TILT & TURN WINDOW HARDWARE

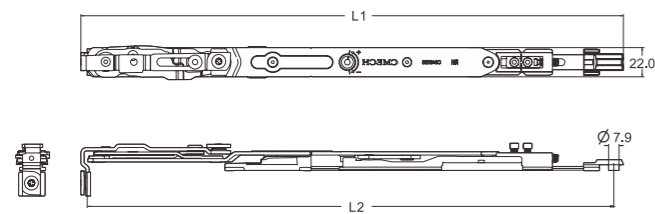
C040021
Concealed Lower Hinge Left



C040022
Concealed Lower Hinge Right

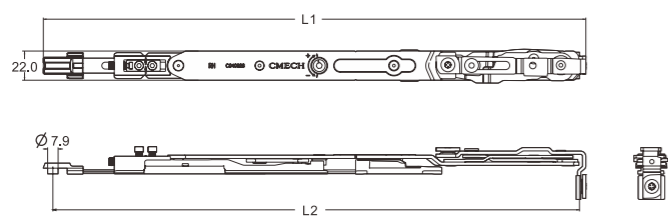


Upper Hinge Left (Dimensions shown with window open)



P/N	L1	L2	Instructions
C040025	409 mm	397 mm	Sash Width: 490-750 mm
C040027	514 mm	502 mm	Sash Width: 600-1,200 mm

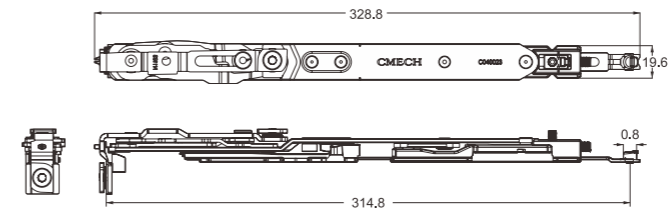
Upper Hinge Right (Dimensions shown with window open)



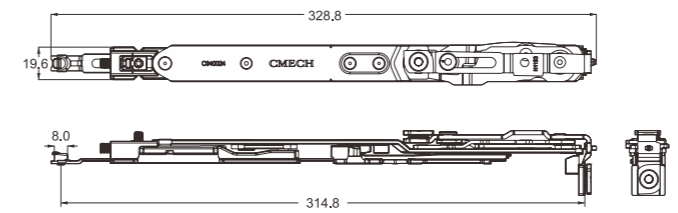
P/N	L1	L2	Instructions
C040026	409 mm	397 mm	Sash Width: 490-750 mm
C040028	514 mm	502 mm	Sash Width: 600-1,200 mm

TILT & TURN WINDOW HARDWARE

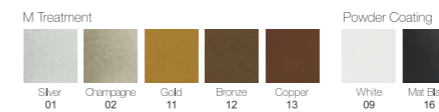
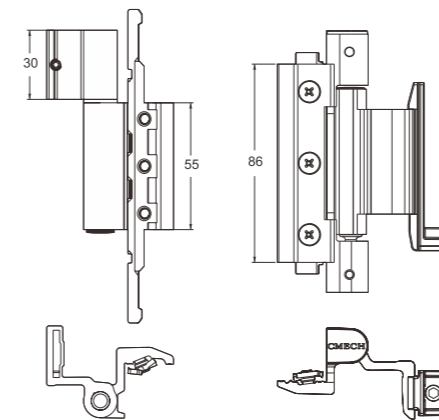
C040023
400 Upper Hinge Left
Suitable for Sash Width: 400-500 mm



C040024
400 Upper Hinge Right
Suitable for Sash Width: 400-500 mm

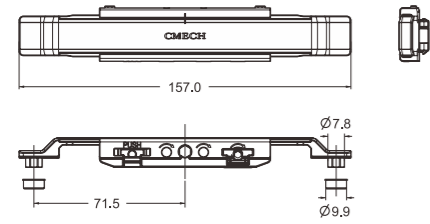


C040005
Upper and Lower Hinges

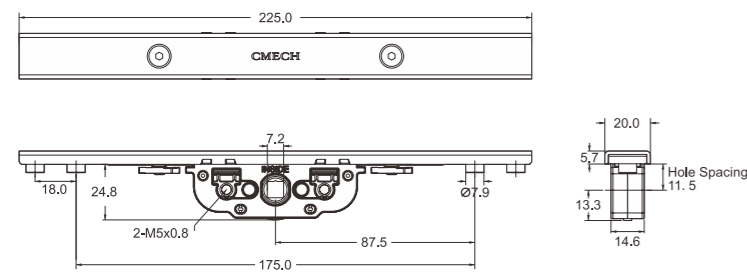


TILT & TURN WINDOW HARDWARE

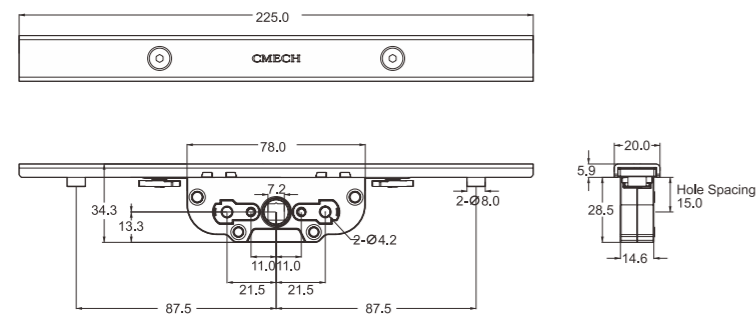
C020016
Hexagon Spindle Drive Gearbox



C020015
11.5 mm Spindle Drive Gearbox

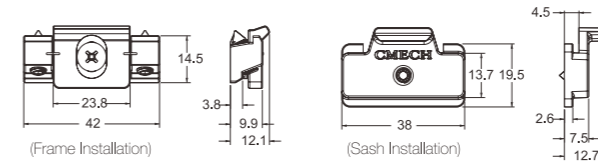


C020017
15 mm Spindle Drive Gearbox

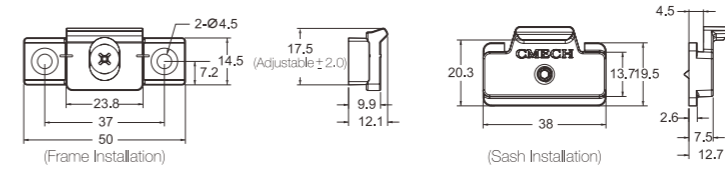


OTHER ACCESSORIES

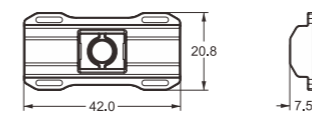
A100121
Hidden Lock
Suitable for Double-Sided C-Groove



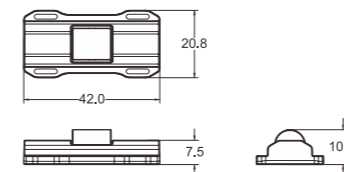
A100104
Hidden Lock
Suitable for Single-Sided C-Groove



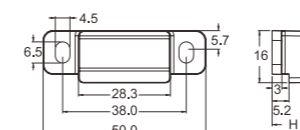
A080012
Sash Support Block



A080011
Sash Support Block (With Bearing)



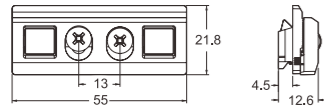
Frame Support Block



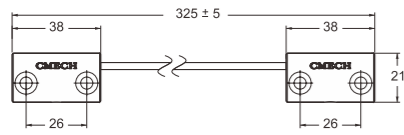
P/N	H
A080003	12.8
A080004	8.3

OTHER ACCESSORIES

A120005
Frame Support Block with Guide Wheels

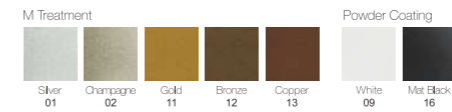
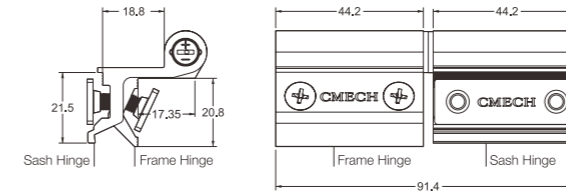


A120003
Safety Catch System Hardware

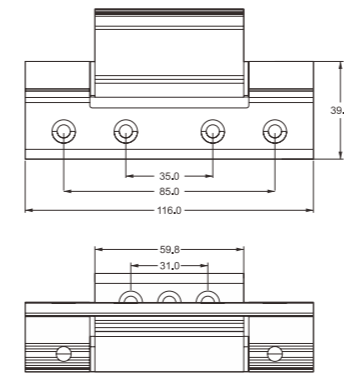


HINGES

B040036
45 kg Hinge

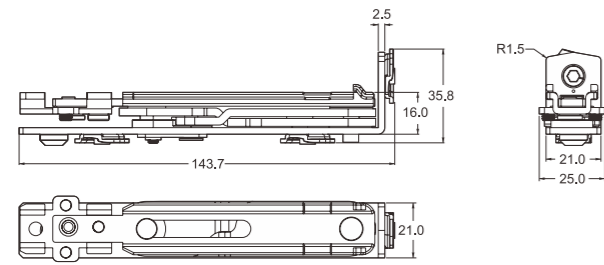


B040059
80 kg Hinge

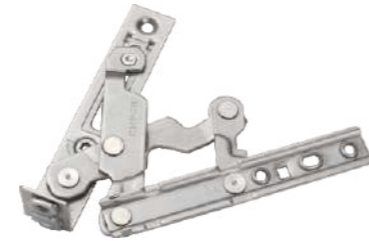
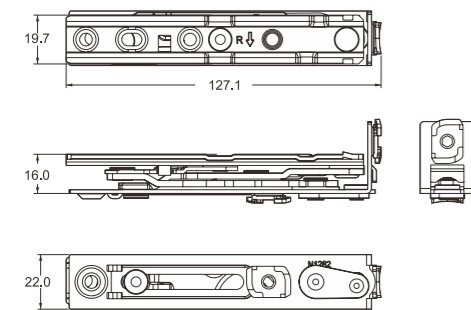


HINGES

B040054
60 kg Concealed Hinge

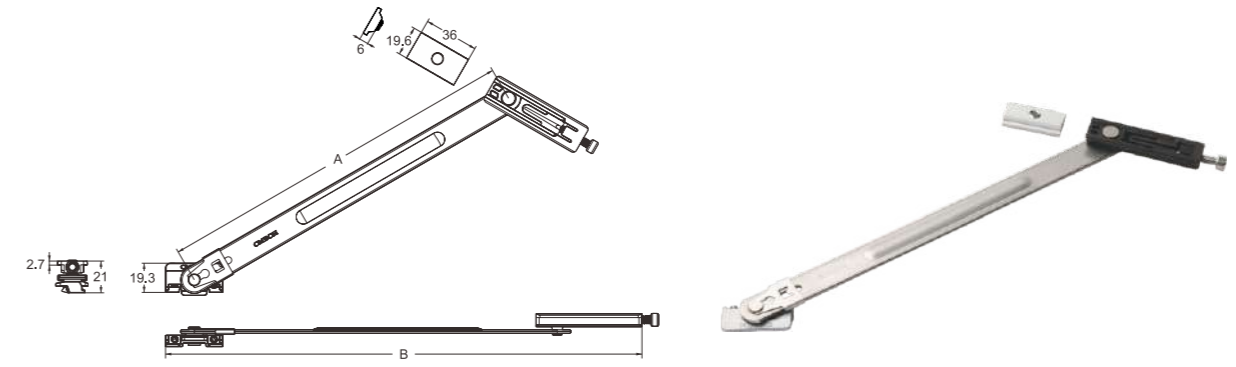


B040037
165° Window with Fly Screen Hinge



LIMITING STAYS

Limiting Stay

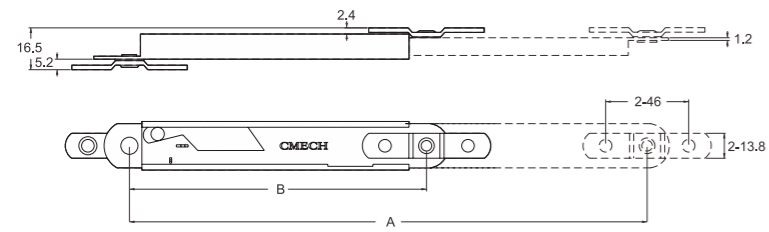


Assembly Instructions

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

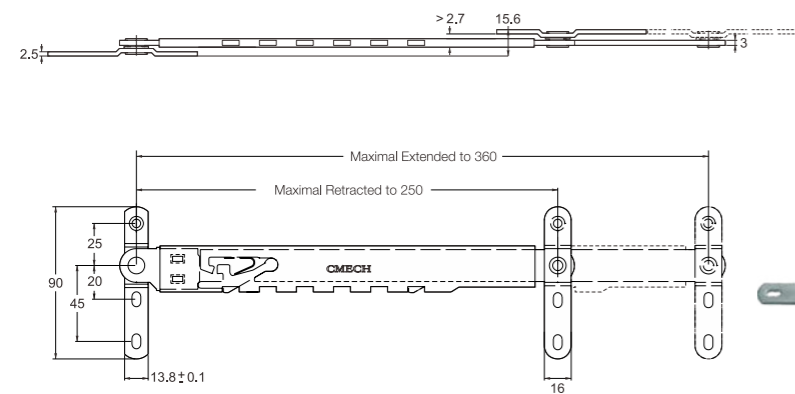
LIMITING STAYS

Limiting Stay



P/N	Direction	Size/in.	A	B
HD40066	Left & Right	8	205	155
HD40067	Left & Right	10	255	180
HD40068	Left & Right	12	305	205
HD40069	Left & Right	14	355	230
HD40070	Left & Right	16	409	257
HD40071	Left & Right	18	461	289
HD40072	Left & Right	20	515	310

Limiting Stay

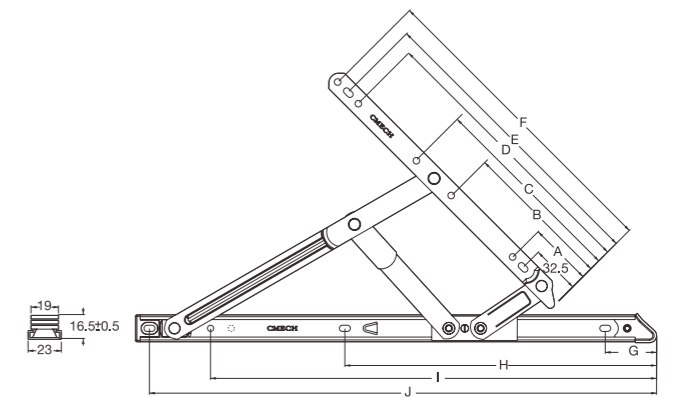


P/N	Directions	Size/in.
HD40086	Left & Right	14

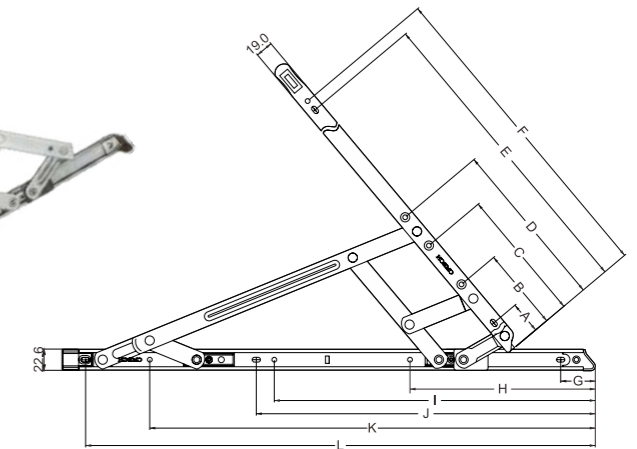
FRICTION HINGES

Suitable for Outswing Casement Windows

Four-Bar Linkage



Six-Bar Linkage



Technical Parameters

P/N	Direction	Size (in.)	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	87	A110124
A040135	Left & Right	18	4	1,800	800	45	87	H110004
A040136	Left & Right	20	4	1,800	800	48	88	A110130
A040139	Left & Right	22	6	1,800	900	48	88	A110135
A040142	Left & Right	24	6	1,800	1000	50	25/45/88	A110147

Installation Sizes

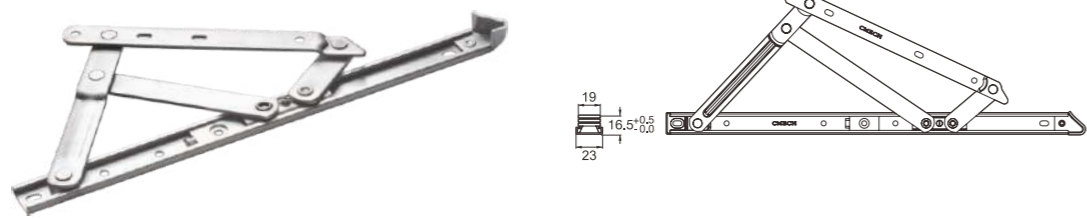
P/N	Direction	Size (in.)	Stack Height (mm)	Specifications (mm)											
				A	B	C	D	E	F	G	H	I	J	K	L
A040131	Left & Right	10	16.5	46	66.5	106.5	-	198	210.5	35.5	213.5	-	255.5	-	-
A040132	Left & Right	12	16.5	46	66.5	126.5	-	223	235	35.5	226.5	252.5	304.5	-	-
A040133	Left & Right	14	16.5	46	97.5	147.5	-	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	396	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	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

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

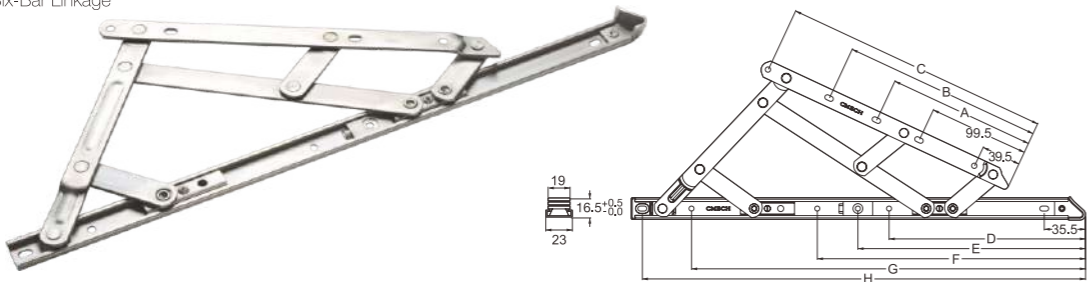
FRICITION HINGES

Suitable for Outswing Awning Windows

Four-Bar Linkage



Six-Bar Linkage



Technical Parameters

P/N	Direction	Size (in.)	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

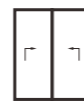
P/N	Direction	Size (in.)	Stack Height (mm)	Specifications (mm)							
				A	B	C	D	E	F	G	H
H040057	Left & Right	12	16.5	-	132.5	174.5	167	188	225	259	301.5
H040058	Left & Right	14	16.5	-	158.5	200.5	182	206	247.5	303.5	348.5
H040059	Left & Right	16	16.5	-	200.5	242.5	174.5	207.5	249	365.5	409.5
H040060	Left & Right	18	16.5	-	226.5	288.5	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

Lift & Slide Door Hardware



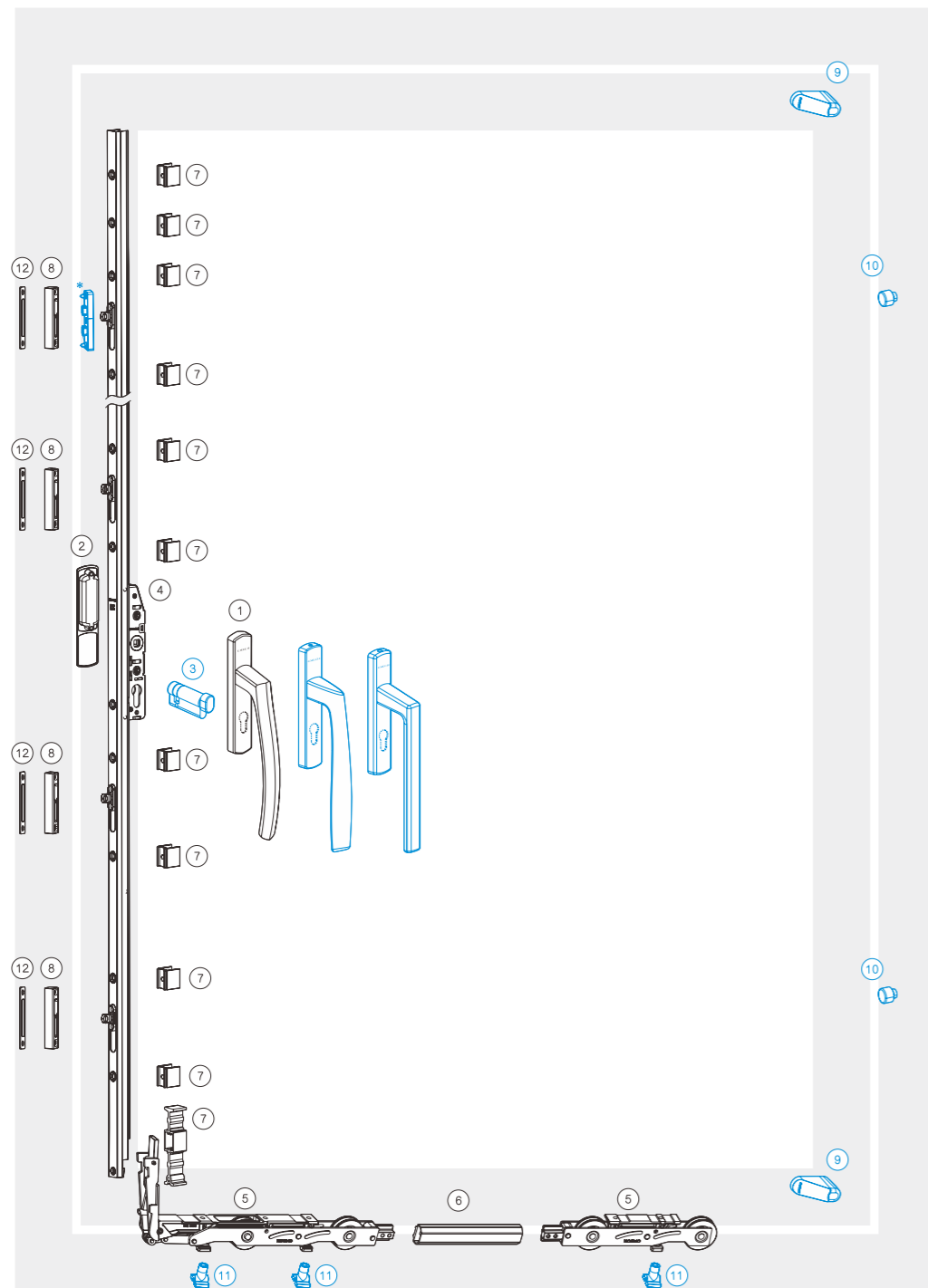
- The handles are available in many styles and colors
- The handle over time will self-adjust to always maintain a tight and wobble-free fit
- Patented lift mechanism with gear design requires the least amount of force to raise door panel
- Patented handle mechanism features speed reduction operation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

Lift & Slide Door	Applicable Range
Sash Width	(mm) 720-3,300
Sash Height	(mm) 1,800-2,700
Load-bearing	(kg) 300
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



LIFT & SLIDE DOOR HARDWARE SERIES

Spindle Drive Handle (Type LS) Configuration



* Installation tool used to mark strike hole position F120003

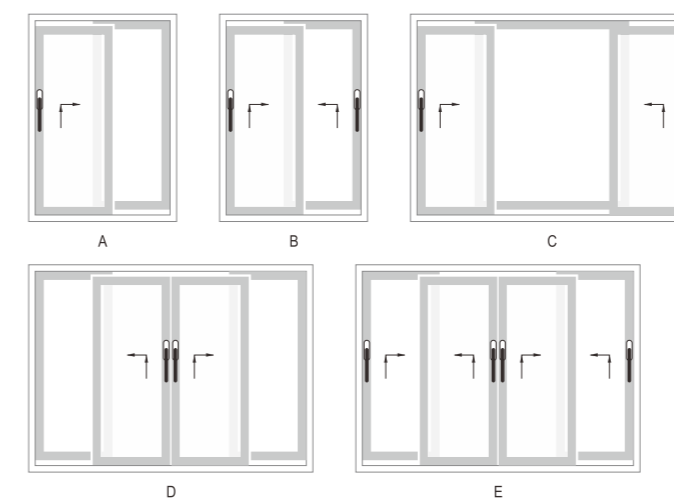


LIFT & SLIDE DOOR HARDWARE SERIES

Configuration Table - Spindle Drive Handle (Type LS)

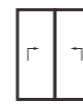
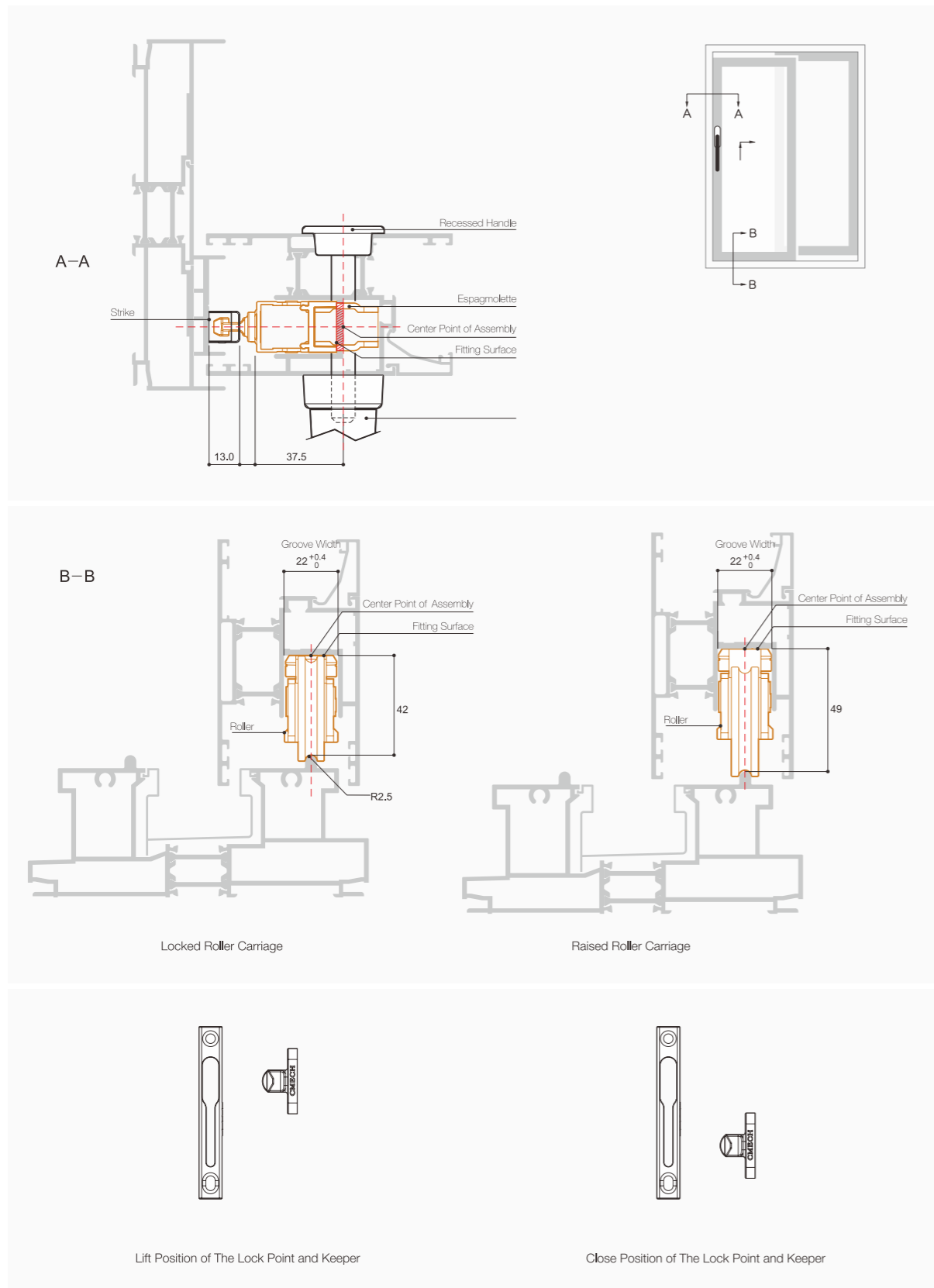
No.	Description	P/N	Qty					Notes	Ref. Page
			A	B	C	D	E		
1	Spindle Drive Handle (Type LS)	F800001 F800002 F800004 F800022 F800023 F800025	1	2	2	2	4	Multiple Types Available	P117, P118
2	Recessed Handle	F010601 F010602	1	2	2	2	4	V Series U Series	P119
3	Cylinder		1	2	2	1	3		P205, P206
4	Espagnolette with Tilt Lock Point	F020008 F020009 F020010	1	2	2	2	4	2,000 mm, Door Height 1,800-2,100 2,300 mm, Door Height 2,101-2,400 2,600 mm, Door Height 2,401-2,700	P120
5	Front and Rear Rollers	F800016	1	2	2	2	4	Channel Width 22 mm	P119
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	P119
7	Spacer Pack	F140009 F140003	1	2	2	2	4	Plastic Spacer Height 12 mm Plastic Spacer Height 17 mm	P120
8	Locking Keeper	F100006 F100007 F100008	4	8	8	4	12		P121
9	Panel Stop	F080001	0	1	0	0	2	Installation Height: 42 mm	P120
10	Rubber Stop	F080002	1	0	1	2	0	Hole Size Ø13 mm (2 Pack)	P121
11	Keeper Spacer	F110008	1	2	2	2	4		P121
12	Spacer Pack Screw 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	P121
13		F110011	1	2	2	2	4	12 mm/17 mm Spacer Pack is Suitable	

Door Configurations

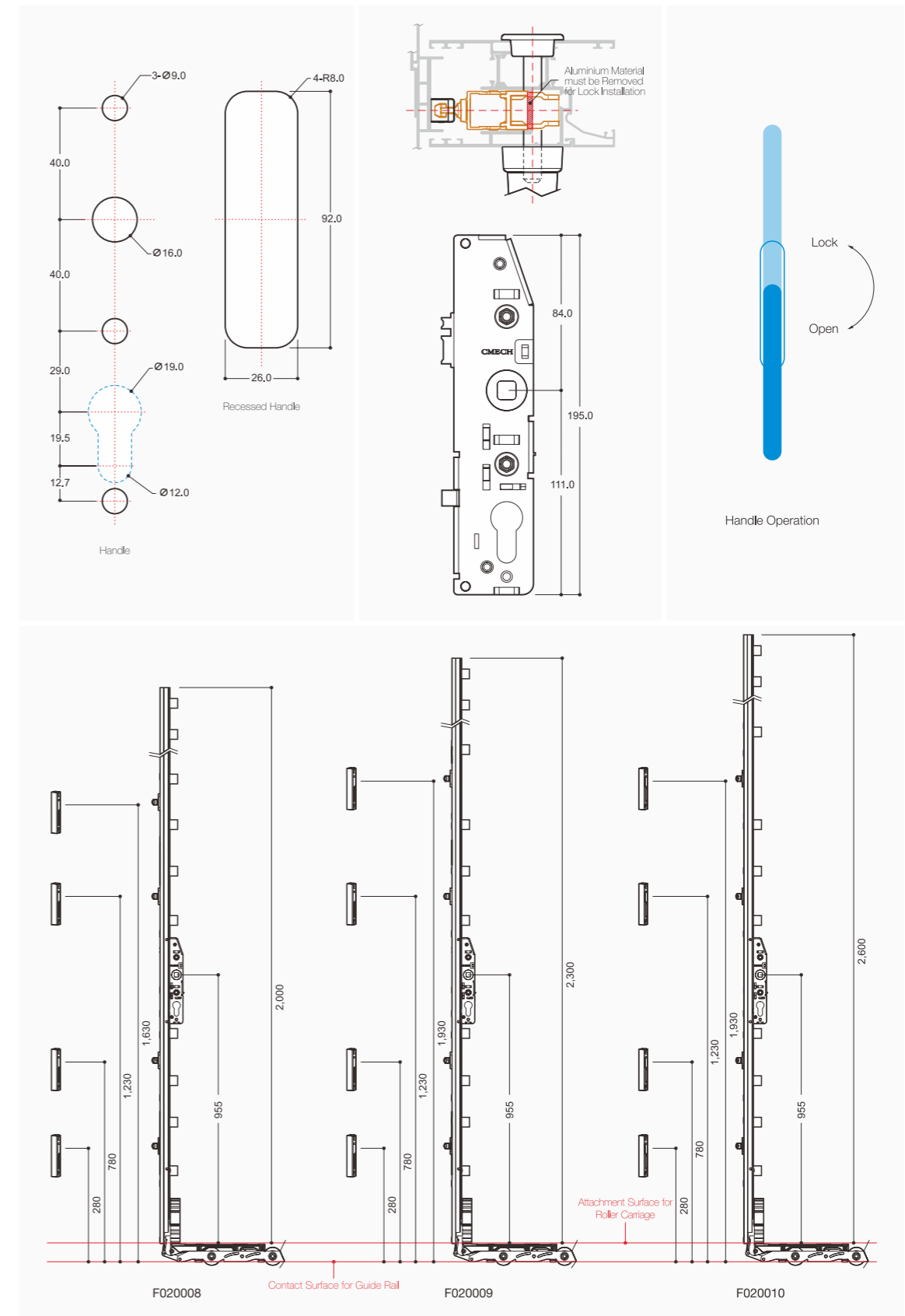




LIFT & SLIDE DOOR PROFILE REQUIREMENTS



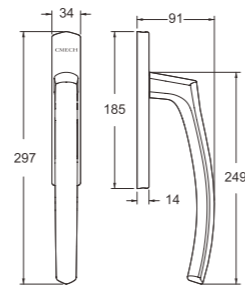
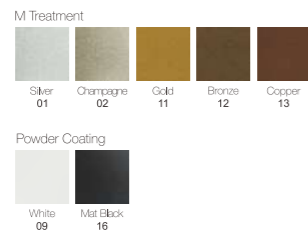
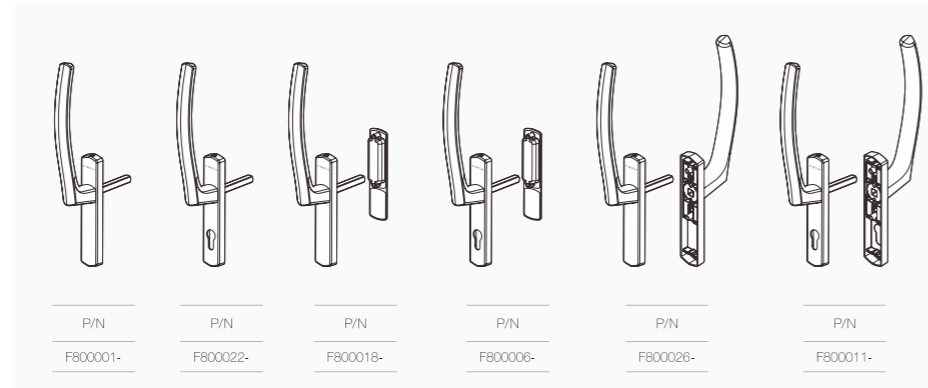
LIFT & SLIDE DOOR DRILLING INSTRUCTIONS



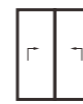
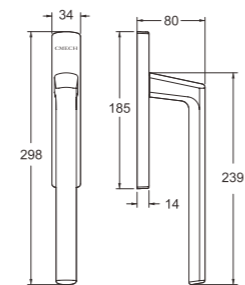
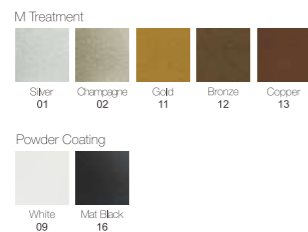
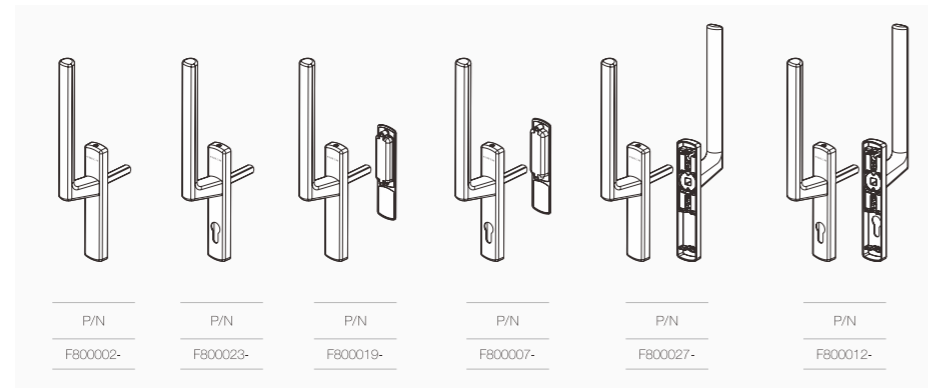


HANDLE SELECTIONS

NEW YORK SERIES
Spindle Drive Handle (Type LS)

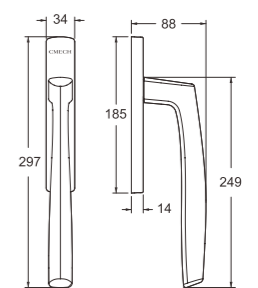
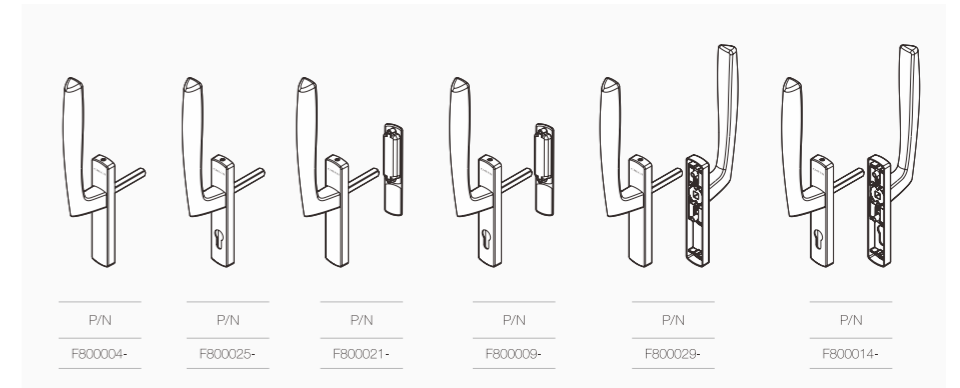


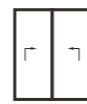
KOLN SERIES
Spindle Drive Handle (Type LS)



HANDLE SELECTIONS

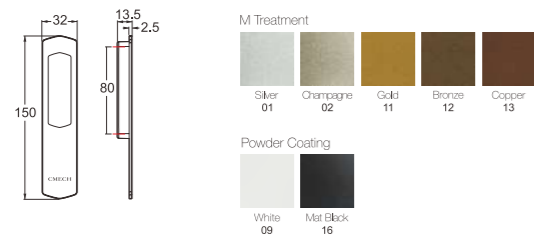
BERLIN SERIES
Spindle Drive Handle (Type LS)



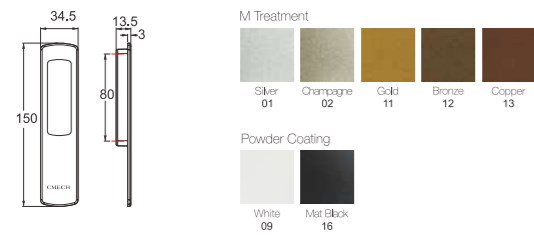


LIFT & SLIDE DOOR HARDWARE

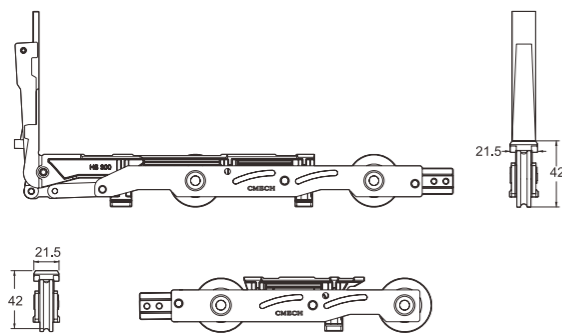
F010601
Recessed Handle (V Series)



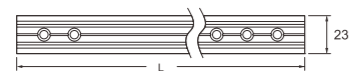
F010602
Recessed Handle (U Series)



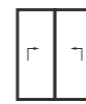
F800016
Front and Rear Rollers



Connecting Rod

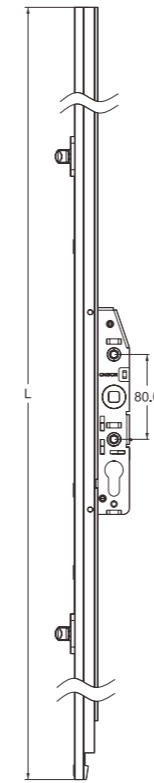


P/N	Door Panel Width Range	Connecting Rod Length (L)
F020004	720 - 1,500 mm	850 mm
F020005	1,501-2,000 mm	1,350 mm
F020006	2,001-2,500 mm	1,850 mm
F020007	2,501-3,300 mm	2,650 mm

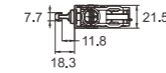


LIFT & SLIDE DOOR HARDWARE

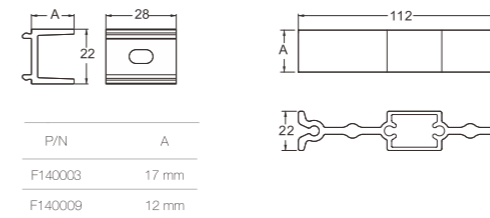
Espagnolette with Tilt Lock Point



P/N	Door Panel Height Range	Espagnolette Length Spec (L)
F020008	1,800-2,100 mm	2,000 mm
F020009	2,101-2,400 mm	2,300 mm
F020010	2,401-2,700 mm	2,600 mm



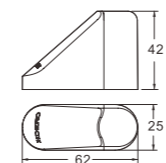
Spacer Pack
1 Long Spacer and 10 Short Spacers Per Pack

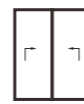


P/N	A
F140003	17 mm
F140009	12 mm



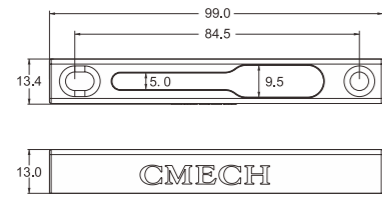
F080001
Panel Stop



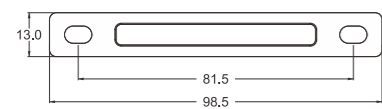


LIFT & SLIDE DOOR HARDWARE

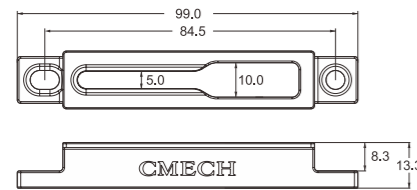
F100006
13 Keeper



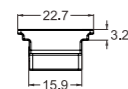
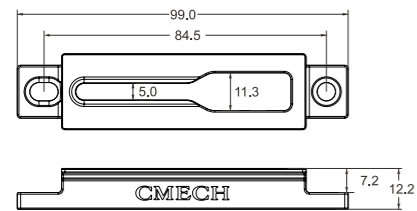
F140010
Spacer Pack



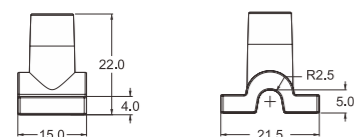
F100007
17 Keeper



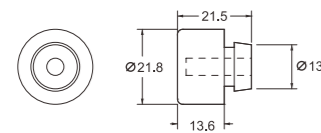
F100008
23 Keeper



F110008
Rest Block



F080002
Rubber Stop

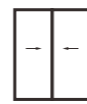


Gliding Door Hardware

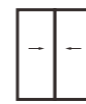
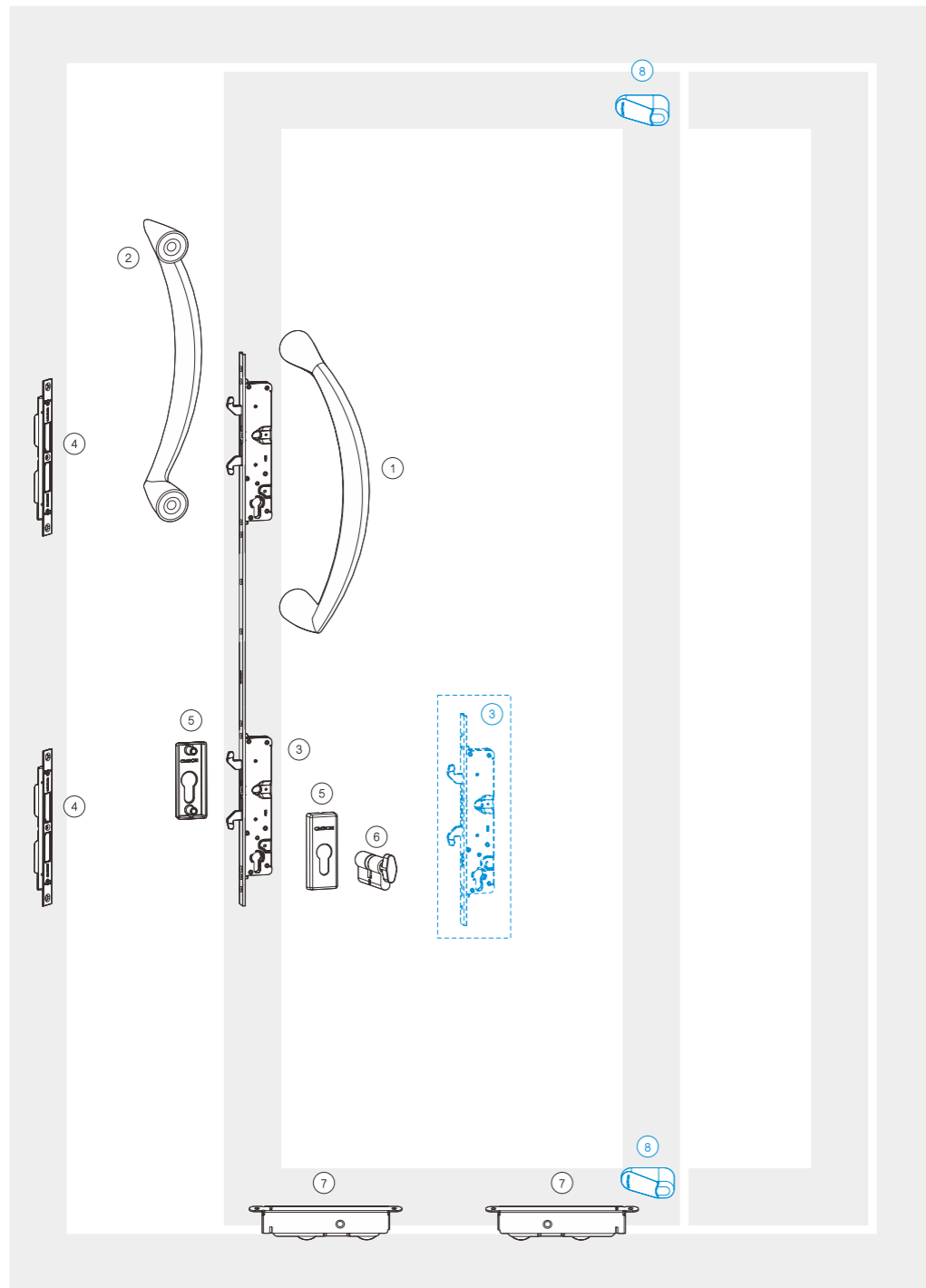


- Various configurations and rollers are available
- Fully concealed screws for a streamline appearance
- Strikes are adjustable and easy to install
- Hook lock design completely seals the door, improving energy efficiency and soundproofing while increasing safety

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



GLIDING DOOR HARDWARE SERIES
Multi-Point Hook Lock Configuration



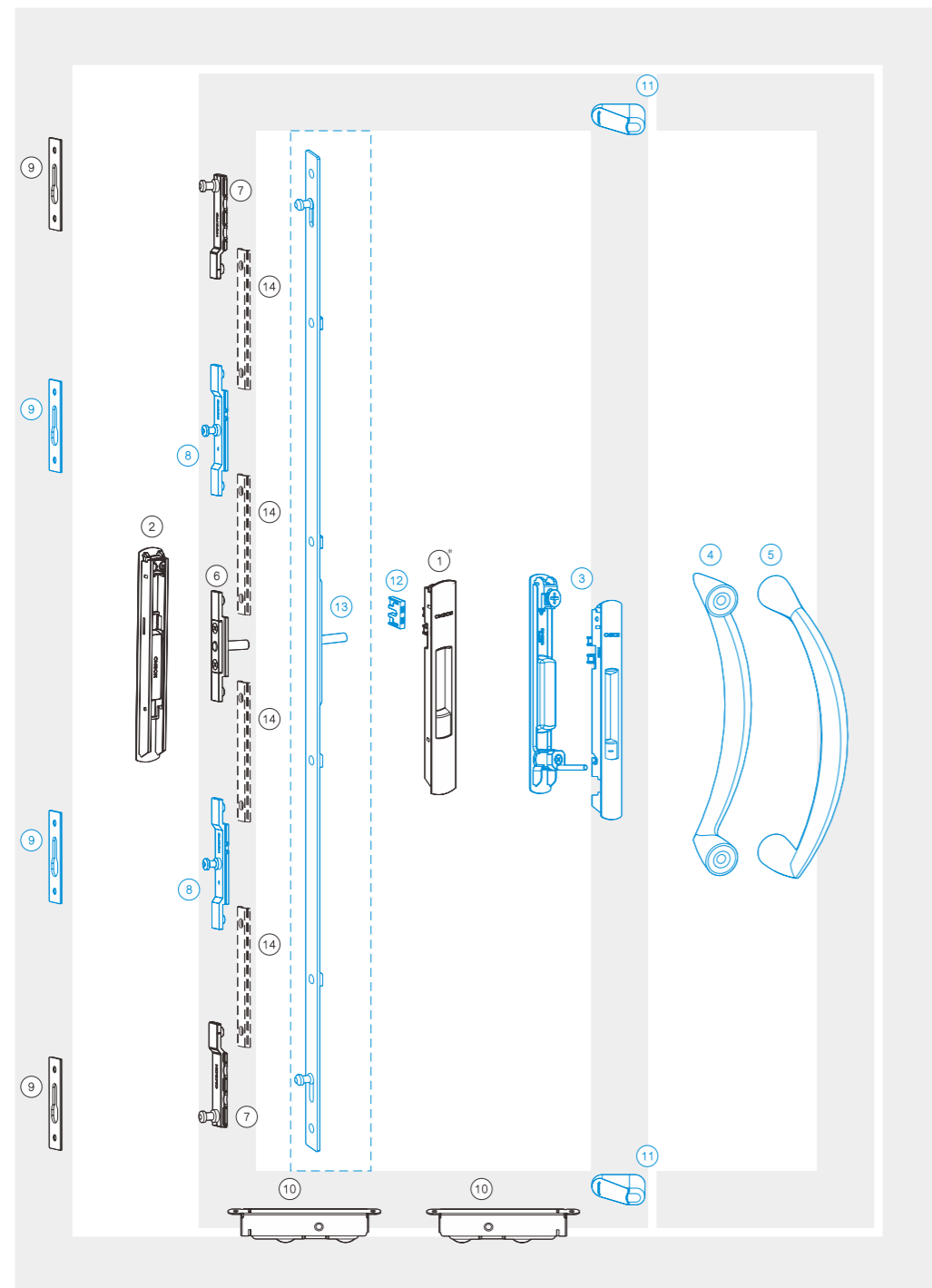
GLIDING DOOR HARDWARE SERIES
Configuration Table - Multi-Point Hook Lock

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	P141
		E010114		London Series; Hole Center to Attachment Surface: 600 mm	
2	Exterior Handle	E010101	1	London Series; Hole Center to Attachment Surface: 260 mm; Height:70 mm	P141
		E010115		London Series; Hole Center to Attachment Surface: 600 mm	
3	Multi-Point Hook Lock	E030017	1	Single Lock Body	P148
		E030016		Double Lock Body	
4	Multi-Point Hook Lock Bracket	E100018	2	Single Lock Body	P148
				Double Lock Body	
5	Cylinder Cover	E140001	1	Set	P142
		E140002		Single	
6	Cylinder				P206, P206
7	Roller		2	Multiple Types Available	P153, P154, P155, P156
8	Panel Stop	F080001	1		P120
9	Screw Pack				P135



GLIDING DOOR HARDWARE SERIES

Multi-Point Lock Recessed Handle Configuration



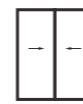
*The handle can be replaced with the configurations shown below

Configuration A: ① + ② + ⑤

Configuration B: ① + ④ + ⑤

Configuration C: ③ + ⑤

Configuration D: ③



GLIDING DOOR HARDWARE SERIES

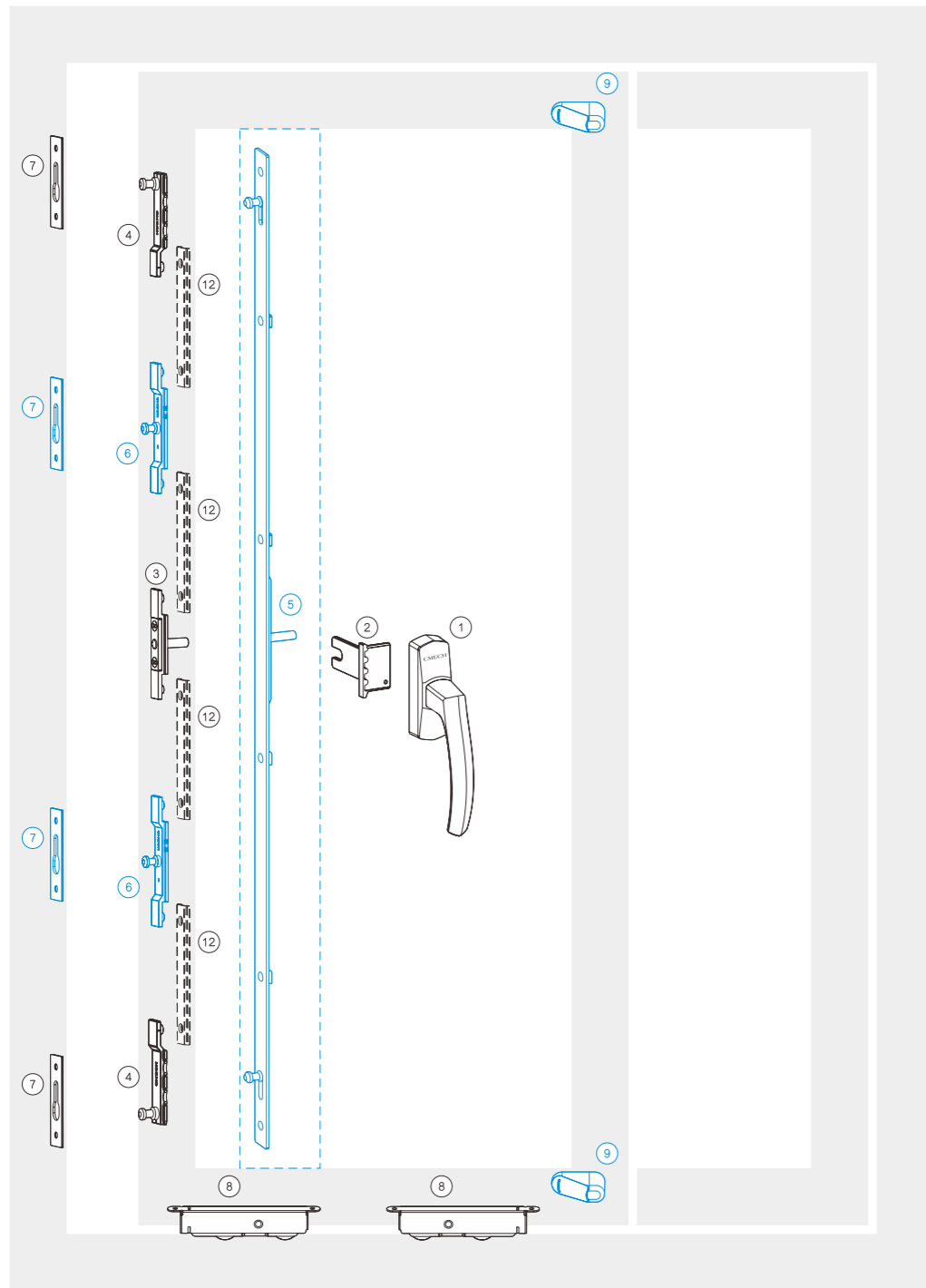
Configuration Table - Multi-Point Lock Recessed Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Multi-Point Lock Recessed Handle	E010024 E010026 E010032	1	Interior Keyed Recessed Handle Recessed Handle without Key Multi-point Lock Recessed Handle Plus	P144, P146
2	Fixed Recessed Handle	E010019 E010023 E010033	1	Aluminum Alloy Zinc Alloy Fixed Recessed Handle Plus(Aluminum Alloy)	P144, P147
3	Multi-Point Lock Recessed Handle	E010025 E010034		Exterior Keyed Recessed Handle Exterior Keyed Multi-point Lock Recessed Handle Plus	P144, P147
4	Exterior Handle	E010101 E010115	1	London Series; Hole Center to Attachment Surface: 260 mm; Height: 70 mm London Series; Hole Center to Attachment Surface: 600 mm	P141
5	Interior Handle	E010106 E010114	1	London Series; Hole Center to Attachment Surface: 260 mm; Height: 70 mm London Series; Hole Center to Attachment Surface: 600 mm	P141
6	Intermediate Drive	E020001 E020010 E020011 E020014 E020013 E020012 A020115 A020116 A020117 A020126 A020127 A020128 A020129	1	28 mm 20 mm 24 mm 40 mm 36 mm 32 mm 14.5 mm 18.5 mm 22.5 mm 26.5 mm 30.5 mm 34.5 mm 11.5 mm	P152, P93
7	End Lock Point	E090001 E090003 E090007 E090009	2		P151, P152
8	Double-Ended Lock Point	E090002 E090004 E090006 E090008	0-2		P151, P152
9	Keeper	E100001 E100006 E100009 E100011 E100013 E100015 E100016 E100017	2-4		P150
10	Roller		2	Multiple Types Available	P153, P154, P155, P156
11	Panel Stop	F080001	1		P120
12	Recessed Handle Fork Drive Extender	E120002 E010035	1	Lock Recessed Handle Fork Drive Extender for Recessed Handle Plus	P156
13	Drive Gear	E030014 E030015	1	Width: 22 mm Width: 16 mm	P148
14	Connecting Strip			Provided by Customer or Cmech	
15	Screw Pack				P135



GLIDING DOOR HARDWARE SERIES

Fork Drive Handle Configuration



GLIDING DOOR HARDWARE SERIES

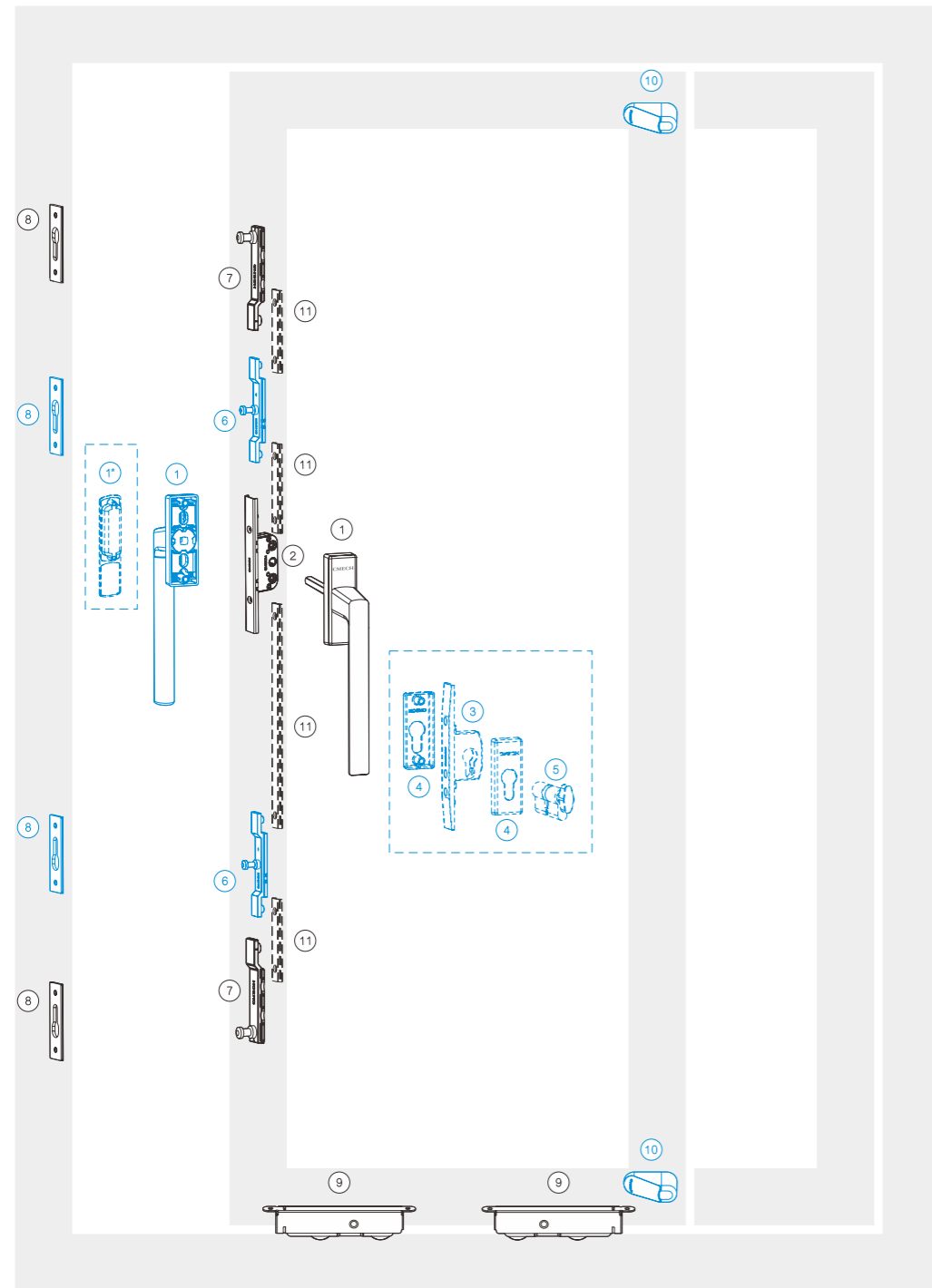
Configuration Table - Fork Drive Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle and Fork Drive Handle (Type W)	A010125 A010108 A010448 A010407 A010214 A010211	1	New York Series, Suitable for Central Fork Drive, Aluminum Alloy New York Series, Suitable for Central Fork Drive, Zinc Alloy Berlin Series, Suitable for Central Fork Drive, Aluminum Alloy Berlin Series, Suitable for Central Fork Drive, Zinc Alloy Koln Series, Suitable for Central Fork Drive, Aluminum Alloy Koln Series, Suitable for Central Fork Drive, Zinc Alloy	P71
2	Fork Drive	A110107 A110108 A110109 A110110	1	21 mm 27 mm 31 mm 33 mm	P93
3	Intermediate Drive	E020001 E020010 E020011 E020014 E020013 E020012 A020115 A020116 A020117 A020126 A020127 A020128 A020129	1	28 mm 20 mm 24 mm 40 mm 36 mm 32 mm 14.5 mm 18.5 mm 22.5 mm 28.5 mm 30.5 mm 34.5 mm 11.5 mm	P93, P152
4	End Lock Point	E090001 E090003 E090007 E090009	2		P151, P152
5	Drive Gear	E030014 E030015	1	Width: 22 mm Width: 16 mm	P148
6	Double-Ended Lock Point	E090002 E090004 E090006 E090008	0-2		P151, P152
7	Strike	E100001 E100006 E100009 E100011 E100013 E100015 E100016 E100017	2-4		P150
8	Roller		2	Multiple Types Available	P153, P154, P155, P156
9	Panel Stop	F080001	1		P120
10	Connecting Strip			Provided by Customer or Cmech	
11	Screw Pack				P135



GLIDING DOOR HARDWARE SERIES

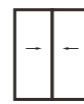
Spindle Drive Handle Configuration



GLIDING DOOR HARDWARE SERIES

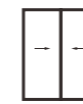
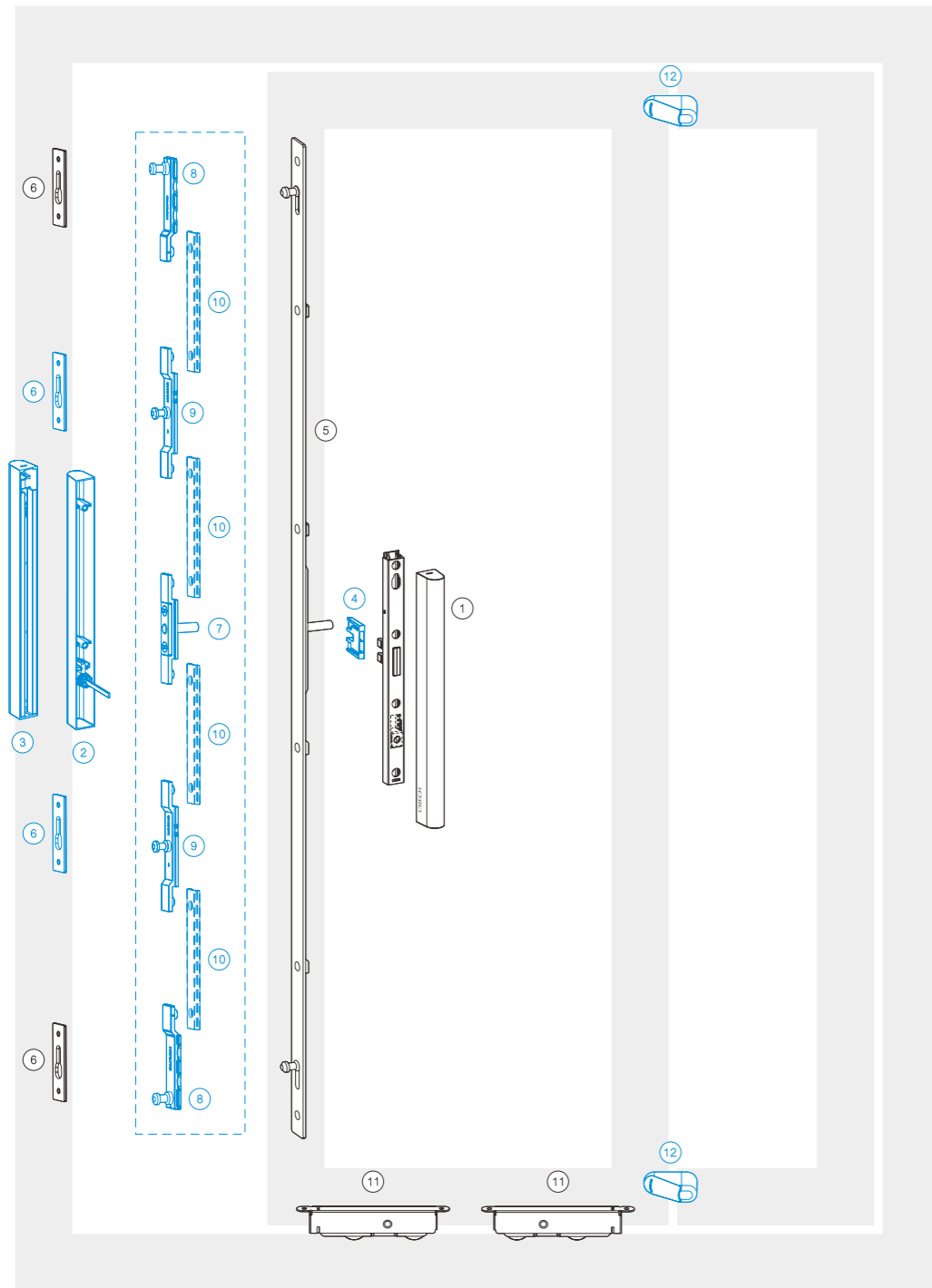
Configuration Table - Spindle Drive Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type SD)	E010201 E010202 E010203 E010204	1	Koln Series Single Handle; Width: 32 mm Koln Series Handle Set; Width: 32 mm Koln Series Single Handle; Width: 37 mm Koln Series Handle Set; Width: 37 mm	P142
1*	Recessed Handle (U Series)	F010602	1		P119
2	Bi-Directional Spindle Drive Gearbox	A020101 A020103	1	Hole Center to Attachment Surface: 25 mm Hole Center to Attachment Surface: 30 mm	P150
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	P149
4	Cylinder Cover	E140001 E140002	1	Set Single	P142
5	Cylinder		1	Suitable for Locking Gearbox Housing	P205, P206
6	Double-Ended Lock Point	E090002 E090004 E090006 E090008	0-2		P151, P152
7	End Lock Point	E090001 E090003 E090007 E090009	2		P151, P152
8	Strike	E100001 E100006 E100009 E100011 E100013 E100015 E100016 E100017	2-4		P150
9	Roller		2	Multiple Types Available	P153, P154, P155, P156
10	Panel Stop	F080001	1		P120
11	Connecting Strip			Provided by Customer or Cmech	
12	Screw Pack				P135



GLIDING DOOR HARDWARE SERIES

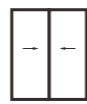
Metro Handle Configuration



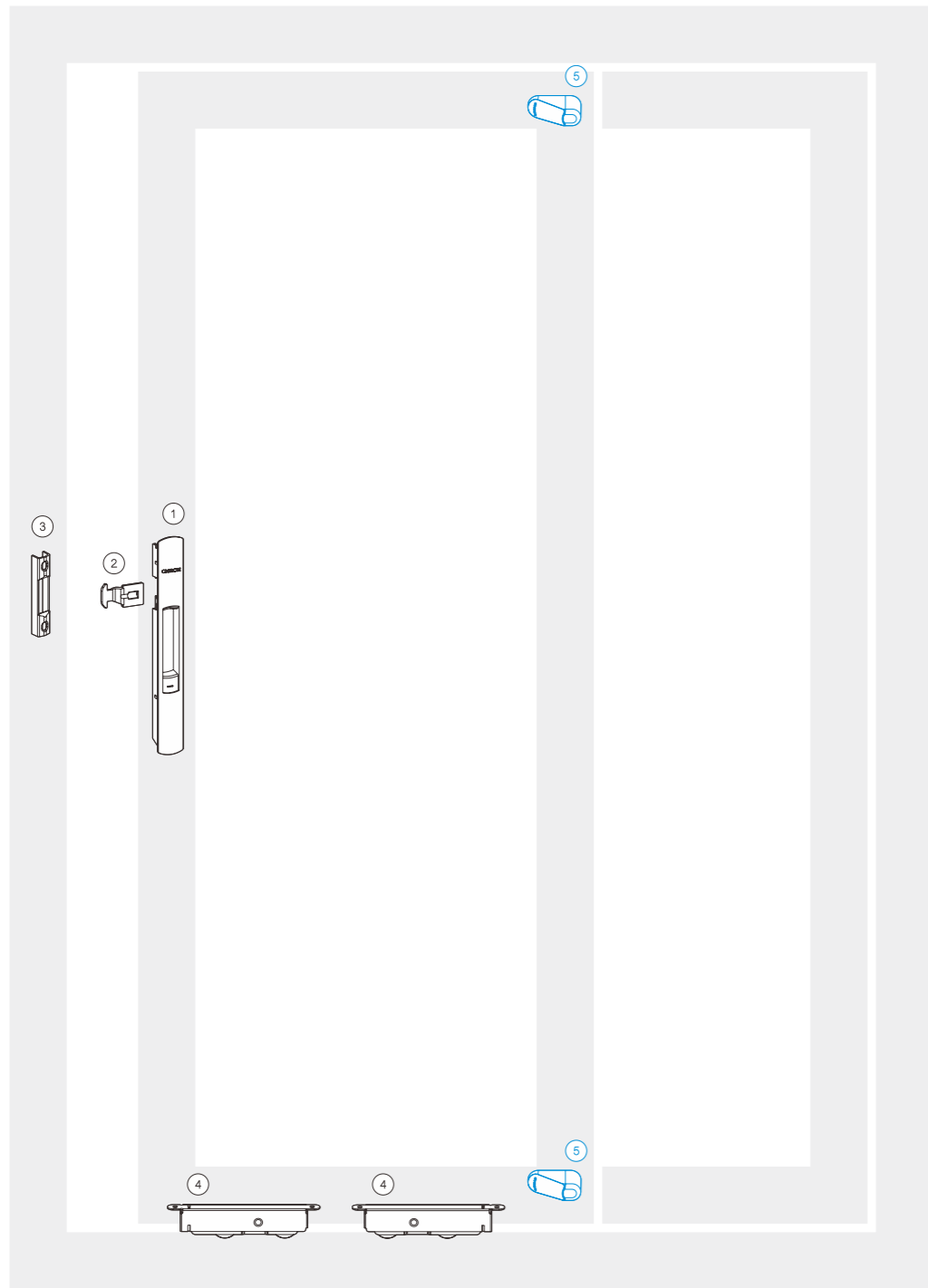
GLIDING DOOR HARDWARE SERIES

Configuration Table - Metro Handle

No.	Description	P/N	Qty	Notes	Ref. Page
1	Metro Handle	E010036	1	Height: 30 mm	P143
2	Metro Handle Set Key	E010037	1	Height: 30 mm	P143
3	Fixed Metro Handle	E010004	1	Height: 30 mm	P143
4	Metro Handle Fork Drive Extender	E120001			P156
5	Drive Gear	E030014 E030015	1	Width: 22 mm Width: 16 mm	P148
6	Strike	E100001 E100006 E100009 E100011 E100013 E100015 E100016 E100017	2-4		P130
7	Intermediate Drive	E020001 E020010 E020011 E020014 E020013 E020012 A020115 A020116 A020117 A020126 A020127 A020128 A020129	1	28 mm 20 mm 24 mm 40 mm 36 mm 32 mm 14.5 mm 18.5 mm 22.5 mm 26.5 mm 30.5 mm 34.5 mm 11.5 mm	P150
8	End Lock Point	E090001 E090003 E090007 E090009	2		P151, P152
9	Double-Ended Lock Point	E090002 E090004 E090006 E090008	0-2		P151, P152
10	Connecting Strip			Provided by Customer or Cmech	
11	Roller		2	Multiple Types Available	P153, P154, P155, P156
12	Panel Stop	F080001	1		P120
13	Screw Pack				P135

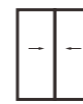
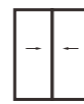


GLIDING DOOR HARDWARE SERIES
Single-Point Lock Recessed Handle Configuration



GLIDING 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		P145
2	Hook Lock	P110002 P110003 P110004 P110005 P110006 P110007 P110008	1	Multiple Types Available	P145
3	Strike	P100001 P100005 P100006 P100007 P100008	1		P161
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 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	P153, P154, P155, P156
5	Panel Stop	F080001	1		P120
6	Screw Pack				P135



GLIDING DOOR & WINDOW SCREW PACK SELECTION TABLE

Screw Pack Selections

P/N	E110001	E110005	E110006	E110007	E110009	E110010	E110011	E110012	E110013	E110014	E110017	E110020	E110024	E110026	E110027	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)									1								
Metro Handle					1												
Metro Handle + Recessed Handle										1							
Fixed Metro Handle + Recessed Handle											1						
Cylinder Cover (Interior)						1											
Cylinder Cover (Interior + Exterior)							1										
Multi-Point Hook Lock (Single Lock Body) + Keeper													1				
Multi-Point Hook Lock (Double Lock Body) + Keeper														1			
Drive Gear		3															
Strike		1															
Roller (Type R)-1628R			1														
Roller (Type R)-1220R				1													
Roller (Type R)-2826R				2													
Roller (Type R)-2426R				2													
Roller (Type V)-2826V				2													
Roller (Type V)-2426V				2													
Roller (Type R)-1521R				1													
Roller (Type R)-1621R				1													
Roller (Type R)-1517R				1													
Roller (Type R)-1215R				1													
Roller (Type R)-2226R												1					
200 kg Roller-1525																	1

GLIDING 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: Ø 4.0, Exterior: no holes
Dual sided - Interior: Ø 8.0, Exterior: Ø 8.0
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

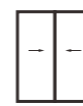
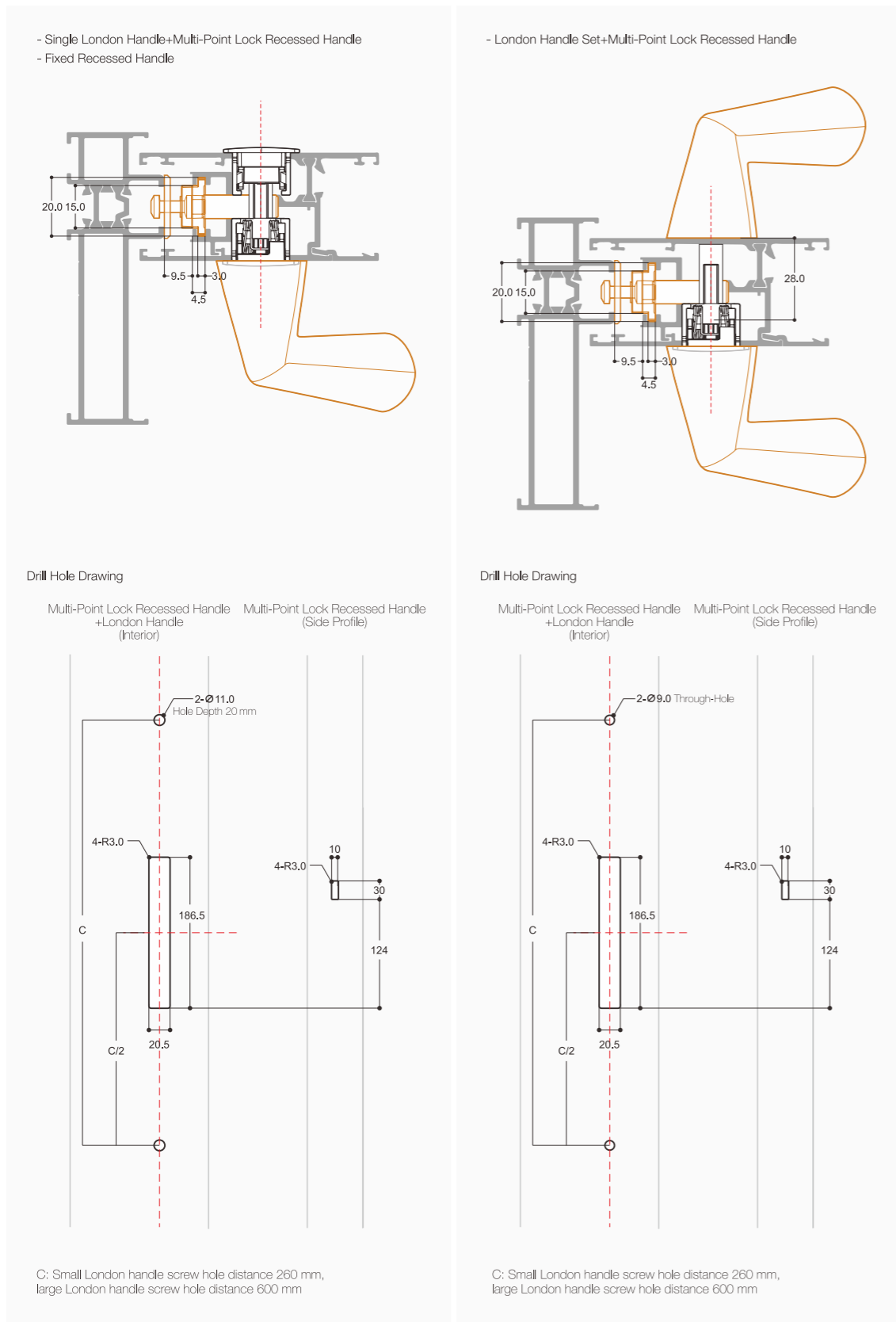
Drill Hole Drawing

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

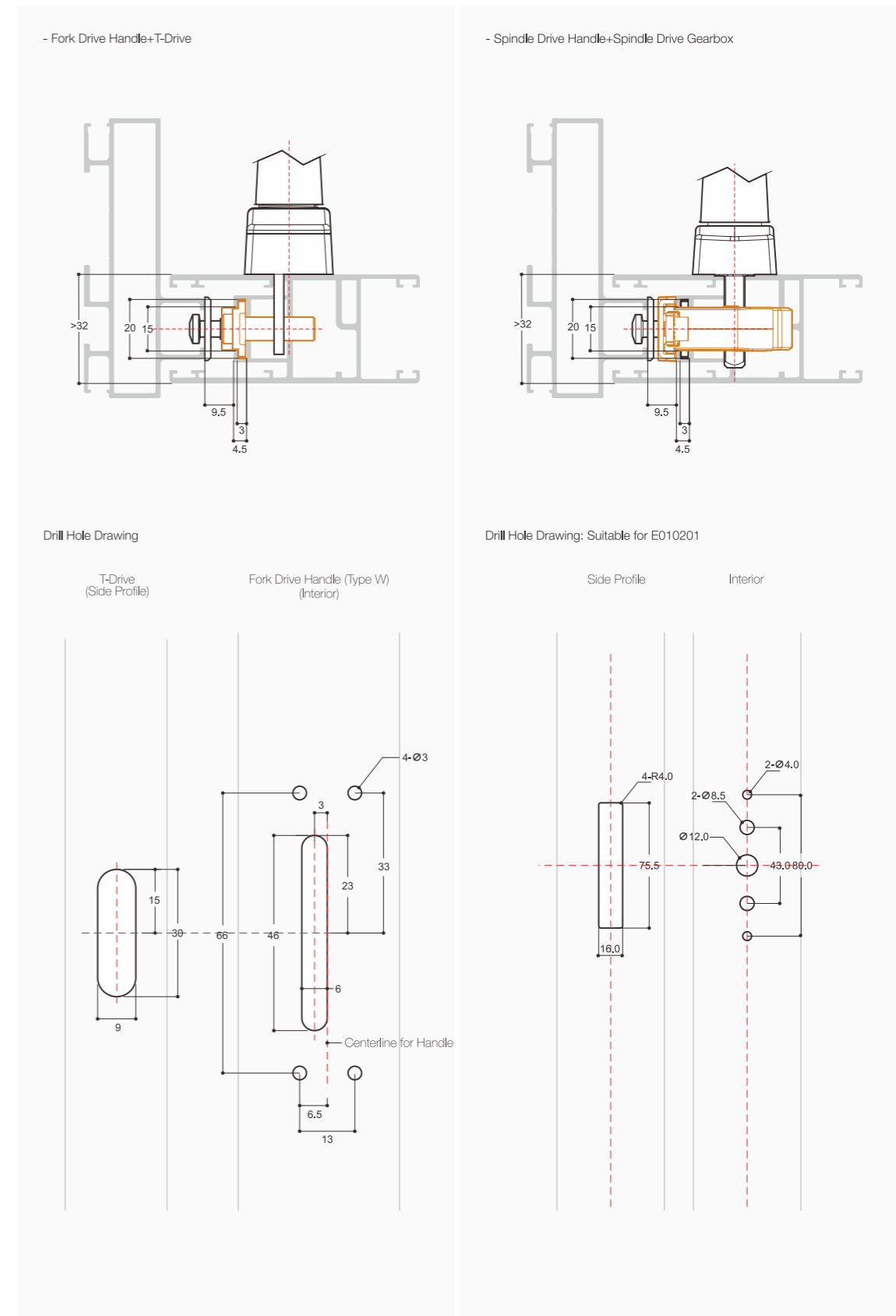
C: Small London handle screw hole distance 260 mm, large London handle screw hole distance 600 mm
D: Single sided - Interior: Ø 4.0, Exterior: no holes
Dual sided - Interior: Ø 6.0, Exterior: Ø 8.0
F: If E ≥ 12.5mm, F=20 mm
If E < 12.5mm, F=0

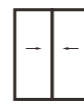


GLIDING DOOR PROFILE AND DRILLING REQUIREMENTS

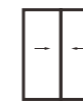
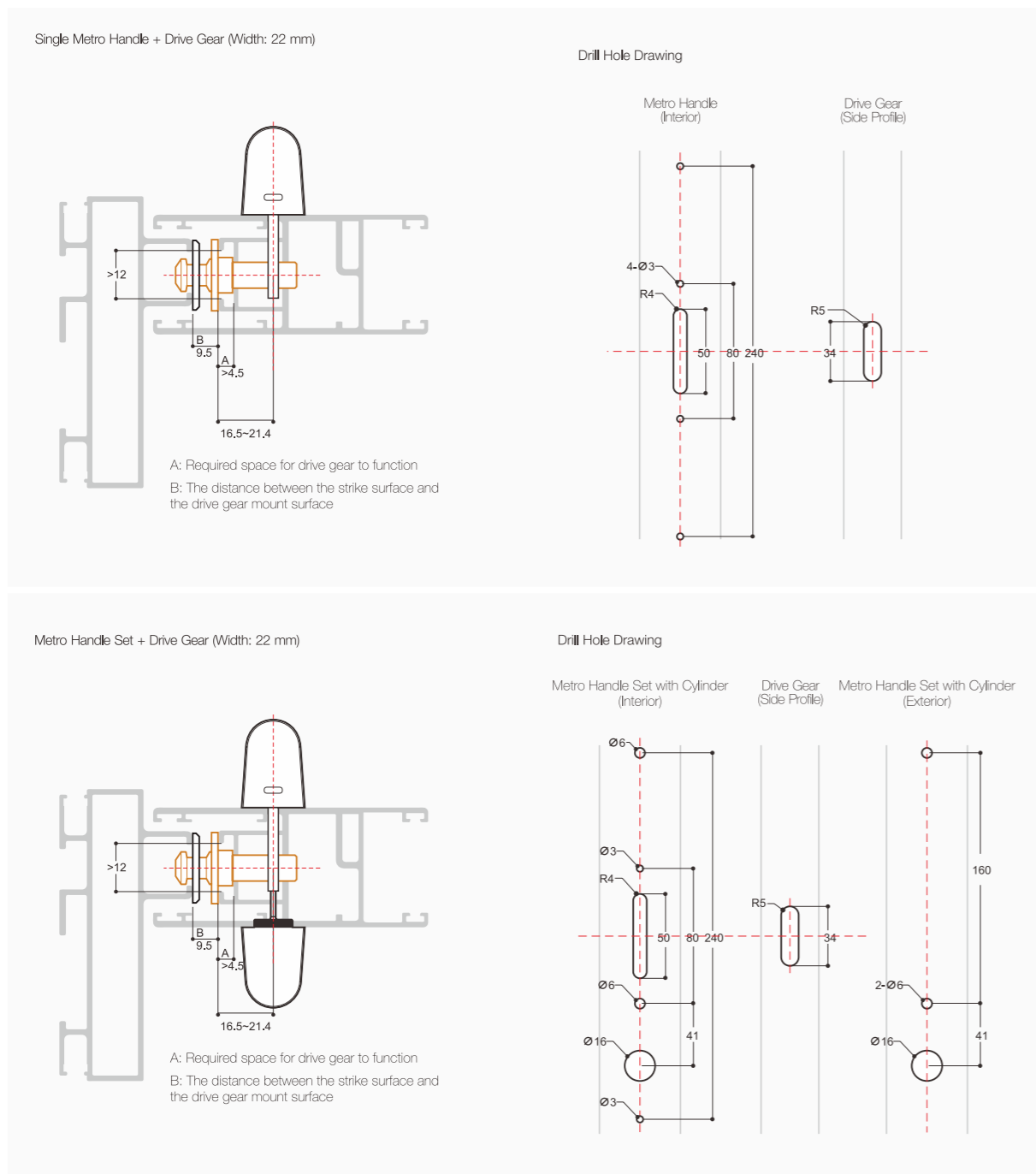


GLIDING DOOR PROFILE AND DRILLING REQUIREMENTS

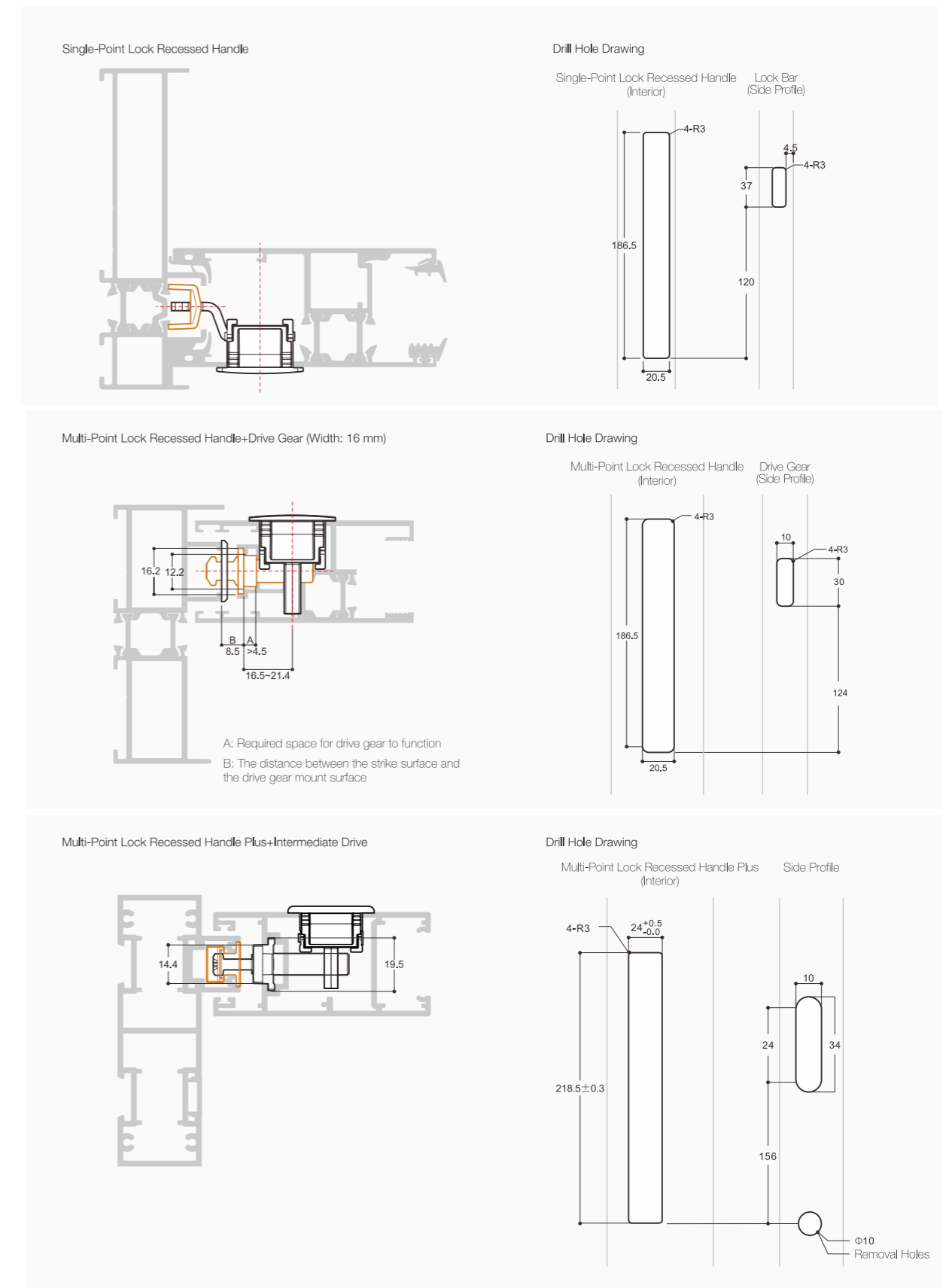


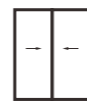


GLIDING DOOR PROFILE AND DRILLING REQUIREMENTS



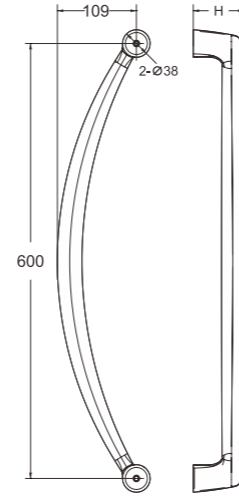
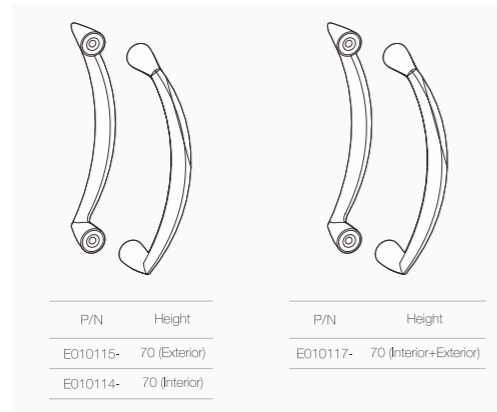
GLIDING DOOR PROFILE AND DRILLING REQUIREMENTS





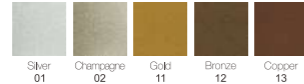
HANDLE SELECTIONS

LONDON HANDLE

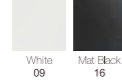


*Includes Screw Pack

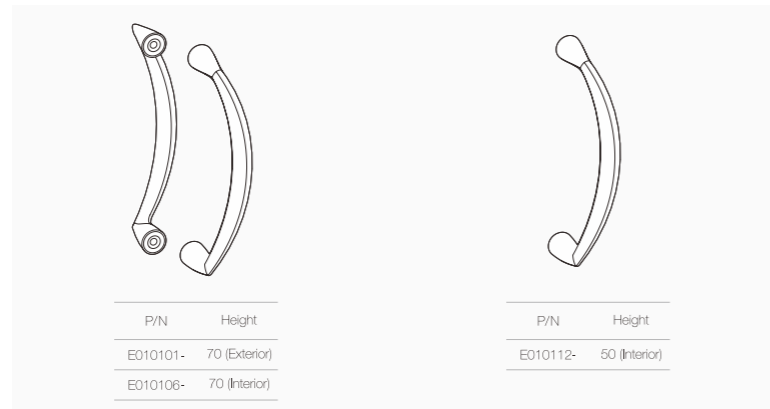
M Treatment



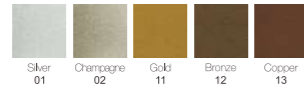
Powder Coating



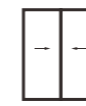
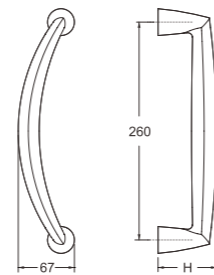
LONDON HANDLE



M Treatment



Powder Coating



HANDLE SELECTIONS

KOLN SERIES

Spindle Drive Handle (Type SD)

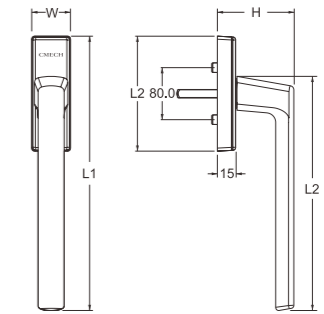
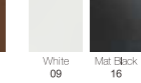


P/N	L1(mm)	L2(mm)	L3(mm)
E010201	226,8	193,2	95,0
E010202	226,8	193,2	95,0
E010203	279,4	234,4	120,0
E010204	279,4	234,4	120,0

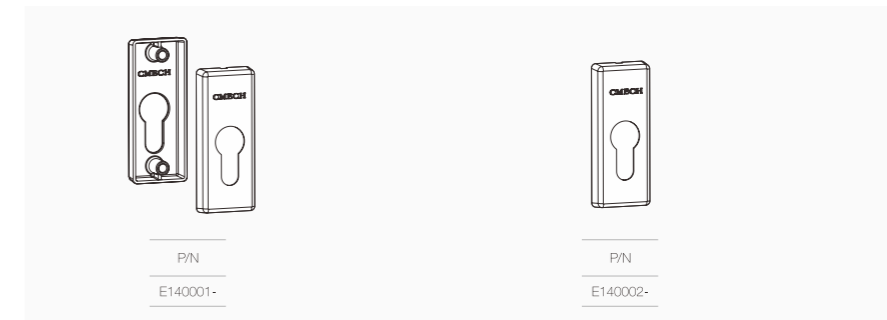
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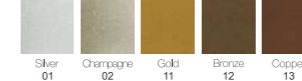
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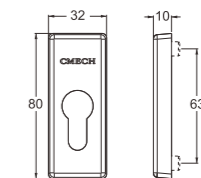
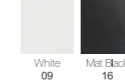
CYLINDER COVER

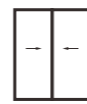


M Treatment



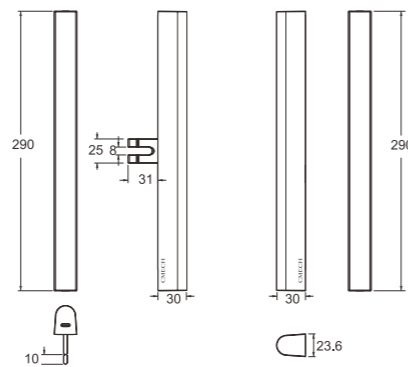
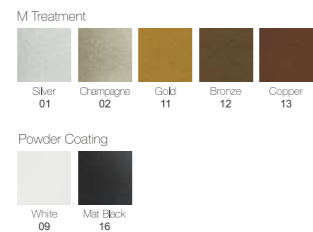
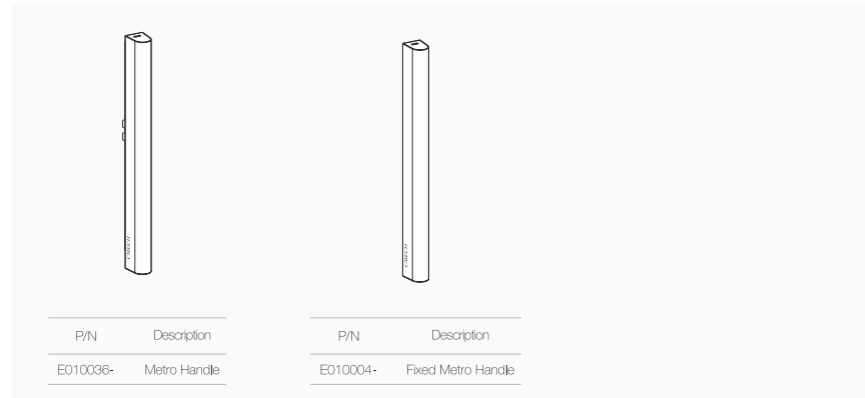
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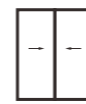
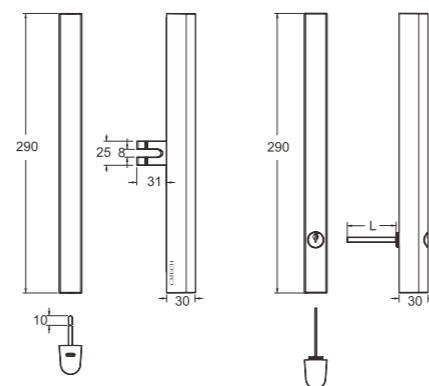
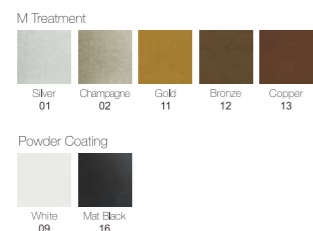
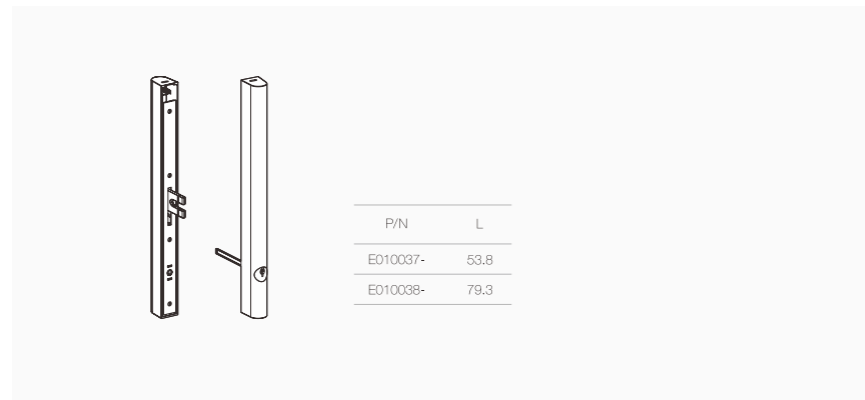


HANDLE SELECTIONS

METRO HANDLE



METRO HANDLE SET WITH CYLINDER

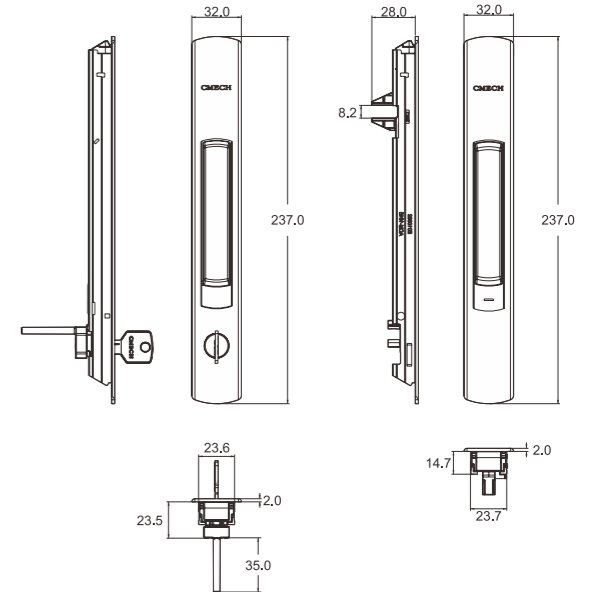


HANDLE SELECTIONS

EXTERIOR KEYED MULTI-POINT LOCK RECESSED HANDLE PLUS



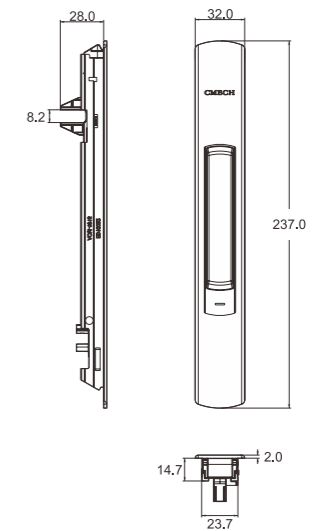
P/N
E010034-



MULTI-POINT LOCK RECESSED HANDLE PLUS



P/N
E010032-



HANDLE SELECTIONS

FIXED RECESSED HANDLE PLUS

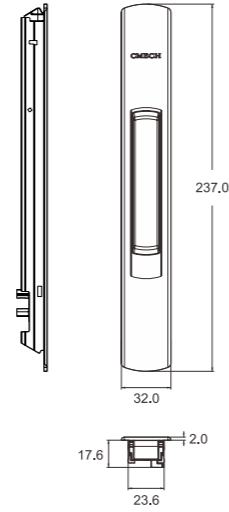


P/N
E010033-

M Treatment



Powder Coating



HANDLE SELECTIONS

MULTI-POINT LOCK RECESSED HANDLE

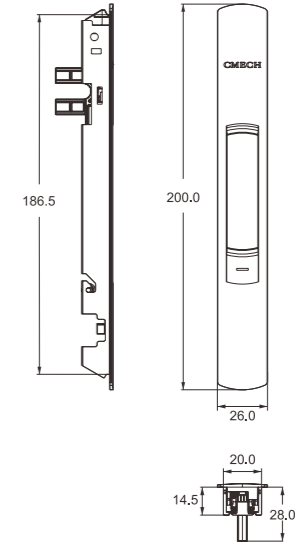


P/N
E010026-

M Treatment



Powder Coating

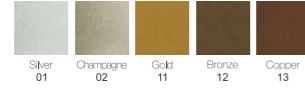


SINGLE-POINT LOCK RECESSED HANDLE

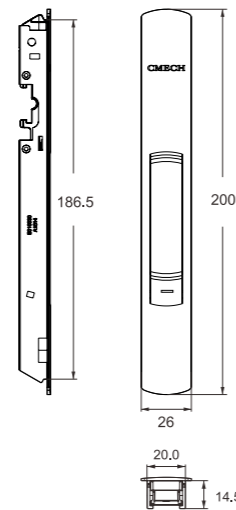


P/N
E010030-

M Treatment



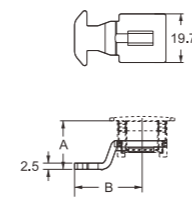
Powder Coating



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



MULTI-POINT LOCK RECESSED HANDLE

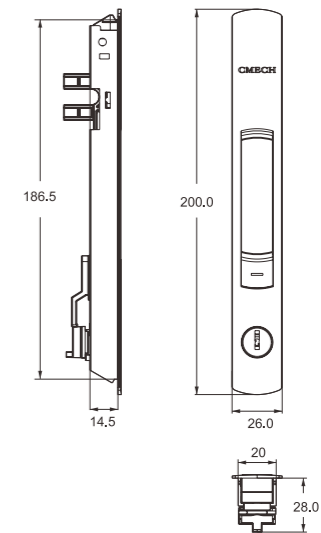
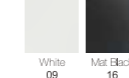


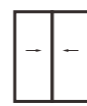
P/N Description
E010024- Interior with Key

M Treatment



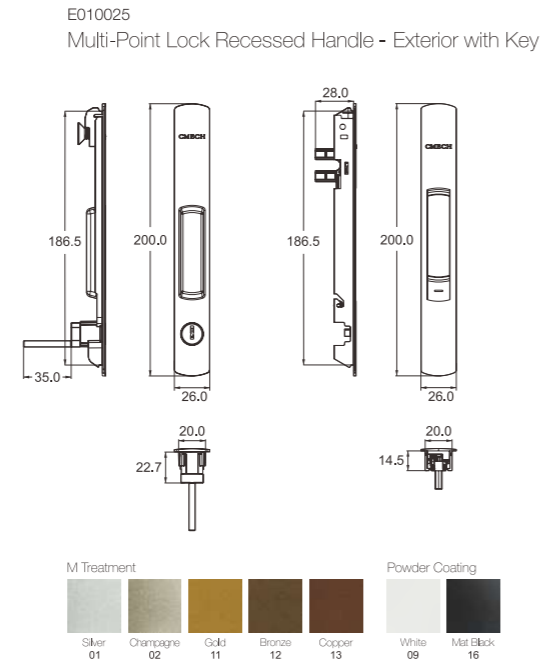
Powder Coating



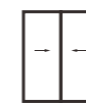
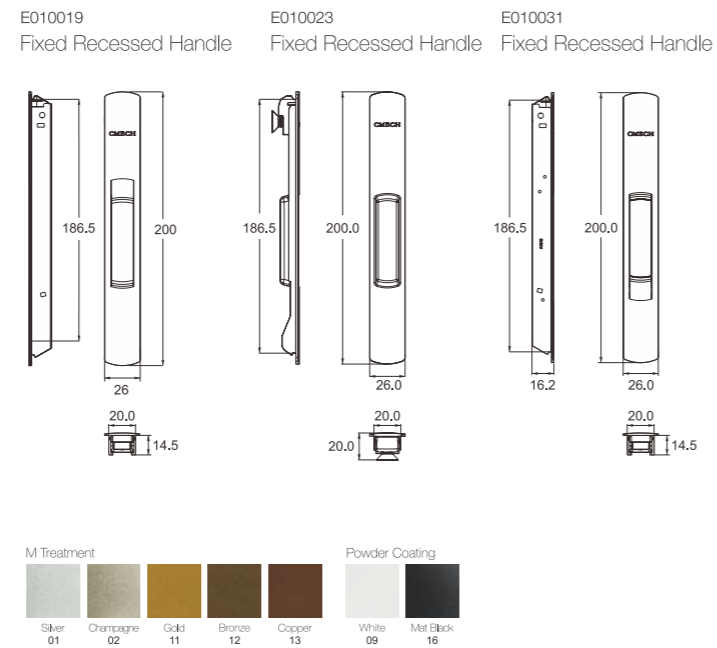


HANDLE SELECTIONS

MULTI-POINT LOCK RECESSED HANDLE

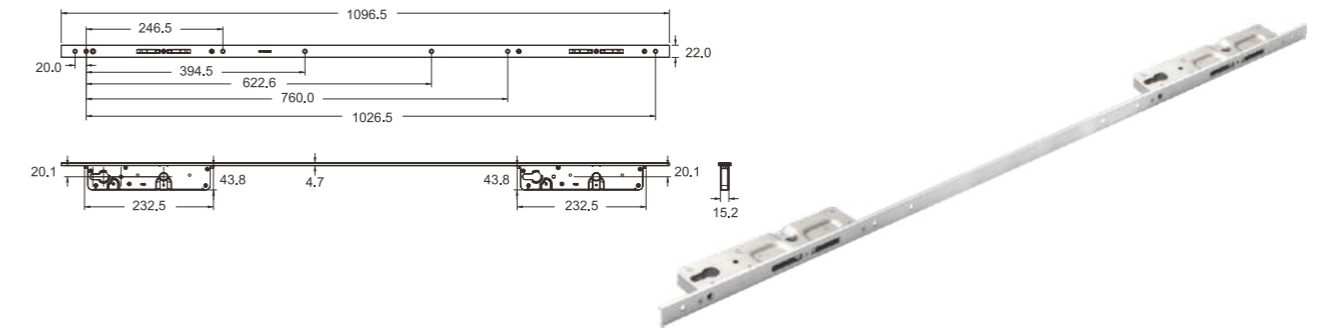


FIXED RECESSED HANDLE

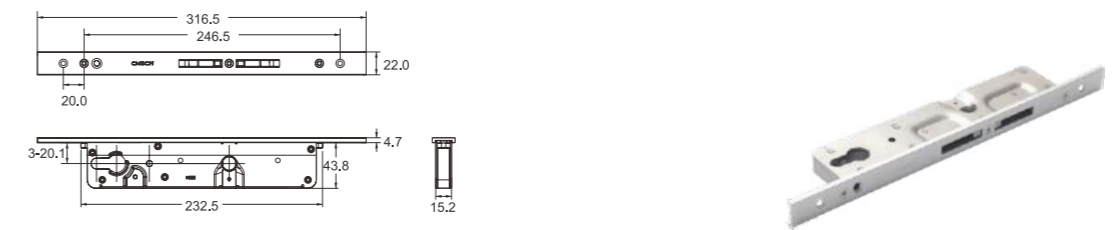


LOCKING HARDWARE

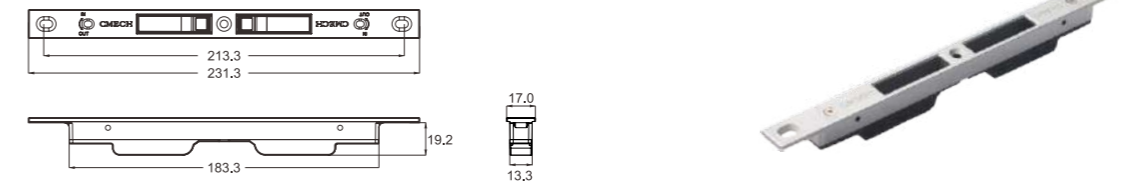
E030016
Multi-Point Hook Lock - Double Lock Body



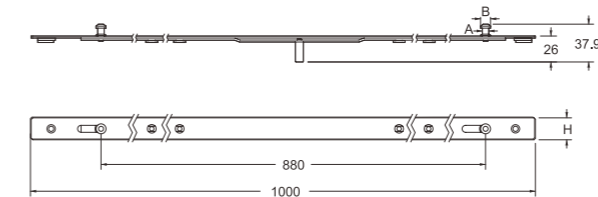
E030017
Multi-Point Hook Lock - Single Lock Body



E100018
Multi-Point Hook Lock Bracket

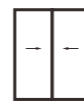


Drive Gear



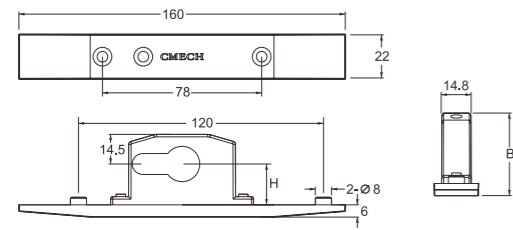
P/N	Height	Specifications	
		A	B
E030014	22 mm	Ø4.0	Ø7.8
E030015	16 mm	Ø4.0	Ø7.8





GEARBOXES

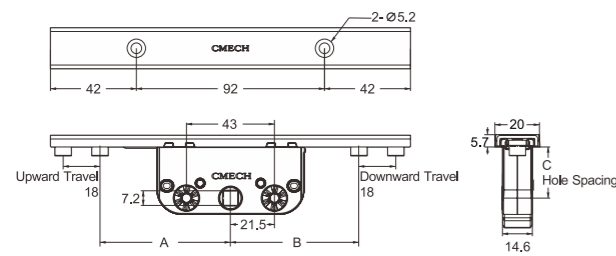
Locking Gearbox Housing



P/N	H	B
E030008	25 mm	45,5 mm
E030009	30 mm	50,5 mm



Bi-Directional Spindle Drive Gearbox

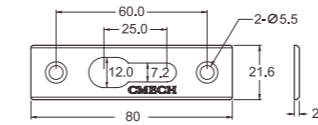


P/N	A	B	C
A020101	62,7 mm	63,7 mm	25 mm
A020103	62,7 mm	62,7 mm	30 mm

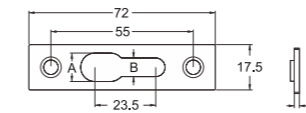


STRIKES AND BRACKETS

E100001
Strike



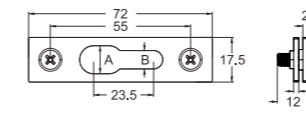
Strike



P/N	A	B
E100006	11 mm	7,2 mm
E100009	9,25 mm	5,5 mm



Strike

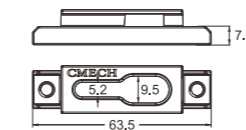


P/N	A	B
E100011	11 mm	7,2 mm
E100013	9,25 mm	5,5 mm



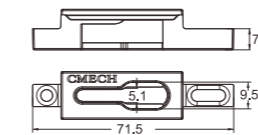
E100015

Pre-Assembly Keeper



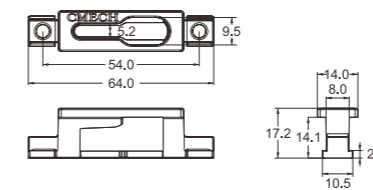
E100016

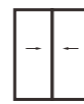
After-Assembly Keeper



E100017

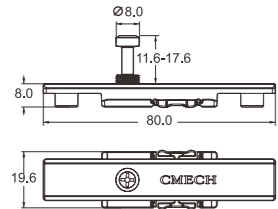
Pre-Assembly Keeper



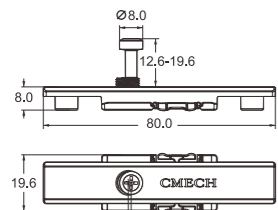


LOCK POINTS

E090008
Height Adjustable Central Lock Point



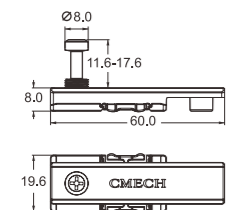
E090006
Offset Adjustable Central Lock Point



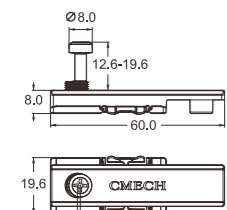
Offset 1 mm, Adjustable Offset 2 mm



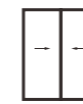
E090009
Height Adjustable End Lock Point



E090007
Offset Adjustable End Lock Point

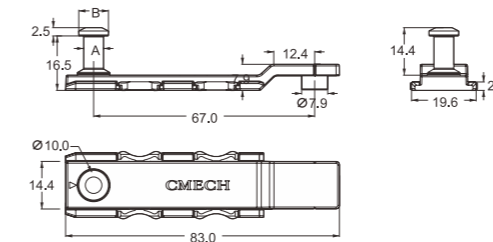


Offset 1 mm, Adjustable Offset 2 mm



LOCK POINTS

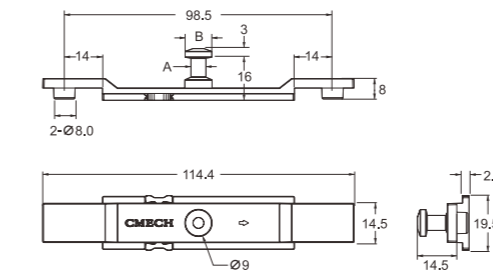
End Lock Point



P/N	Specifications	
	A	B
E090001	Ø6.0	Ø9.0
E090003	Ø4.0	Ø8.0



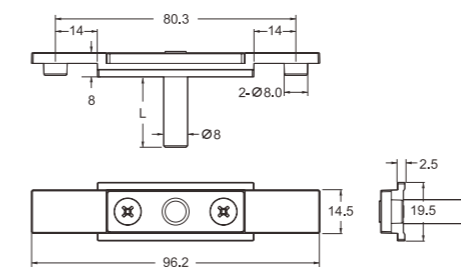
Double-Ended Lock Point



P/N	Specifications	
	A	B
E090002	Ø6.0	Ø9.0
E090004	Ø4.0	Ø8.0

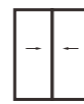


Intermediate Drive



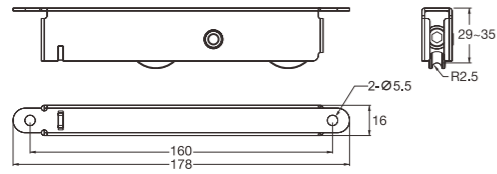
P/N	L
E020001	23.5 mm
E020010	15.5 mm
E020011	19.5 mm
E020012	27.5 mm
E020013	31.5 mm
E020014	35.5 mm



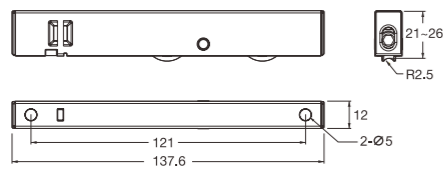


ROLLER CARRIAGES

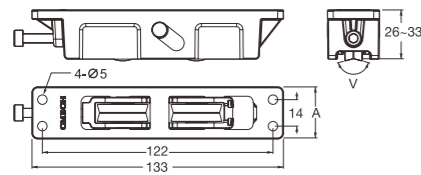
E050001
Roller (Type R)-1628-2934-R2.5-150kg



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

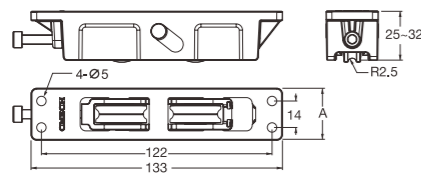


Roller (Type V)

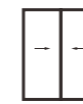


P/N	Description	A	Max. Load	Material	V-Angle
E050005	2426-2633-V150-80 kg	24 mm	80 kg	Nylon	150°
E050006	2426-2633-V150-120 kg	24 mm	120 kg	Zinc Alloy	150°
E050009	2826-2633-V150-80 kg	28 mm	80 kg	Nylon	150°
E050010	2826-2633-V150-120 kg	28 mm	120 kg	Zinc Alloy	150°
E050005-V135	2426-2633-V135-80 kg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

R型滑轮

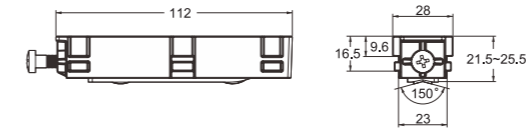


P/N	Description	A	Max. Load	Material
E050003	2426-2532-R2.5-80 kg	24 mm	80 kg	Nylon
E050004	2426-2532-R2.5-120 kg	24 mm	120 kg	Zinc Alloy
E050007	2826-2532-R2.5-80 kg	28 mm	80 kg	Nylon
E050008	2826-2532-R2.5-120 kg	28 mm	120 kg	Zinc Alloy

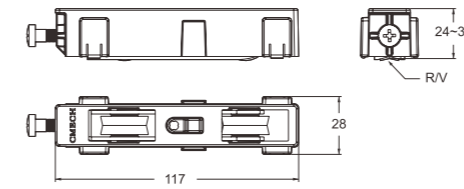


ROLLER CARRIAGES

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

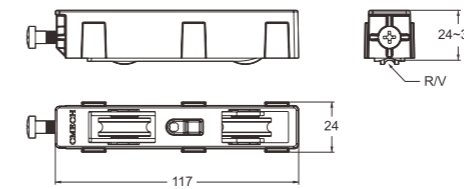


Roller-120 kg



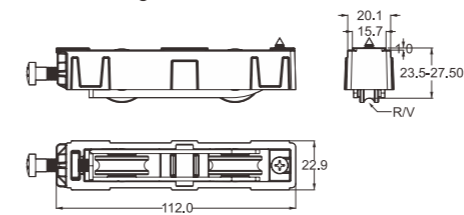
P/N	Description	Max. Load	Material	R/V-Angle
E050011	2824-2430-R2.5-120 kg	120 kg	Nylon	R2.5
E050014	2824-2430-V160-120 kg	120 kg	Nylon	160°

Roller-120 kg

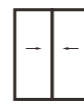


P/N	Description	Max. Load	Material	R/V-Angle
E050013	2423-2430-R2.5-120 kg	120 kg	Nylon	R2.5
E050015	2423-2430-V160-120 kg	120 kg	Nylon	160°

Roller-120 kg

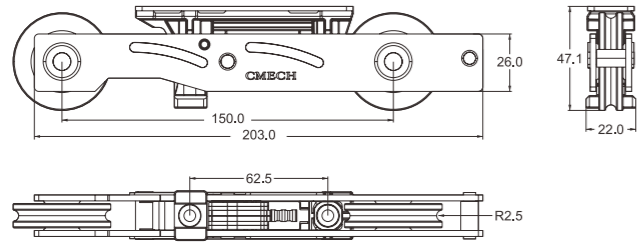


P/N	Description	Max. Load	Material	R/V-Angle
E050020	2323-2226-R2.5-120 kg	120 kg	Nylon	R2.5
E050018	2323-2226-V150-120 kg	120 kg	Nylon	150°

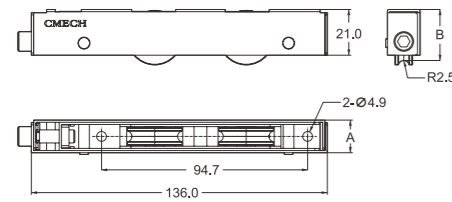


ROLLER CARRIAGES

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

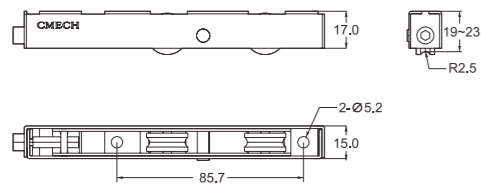


Roller (Type R)

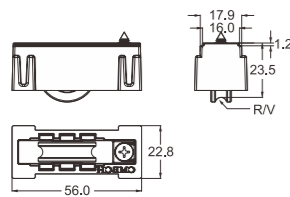


P/N	Description	A	B	Max. Load	Material
E050024	1521-2027-R2.5-120 kg	15 mm	20-27	120 kg	Stainless Steel
E050025	1621-2028-R2.5-120 kg	16 mm	20-28	120 kg	Stainless Steel

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



Single Roller - 60 kg

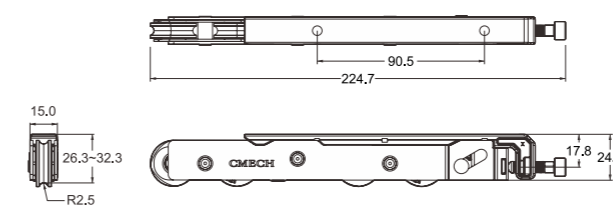


P/N	Description	Max. Load	Material	R/V-Angle
E050021	2323-23-R2.5-60 kg	60 kg	Nylon	R2.5
E050017	2323-23-V150-60 kg	60 kg	Nylon	150°



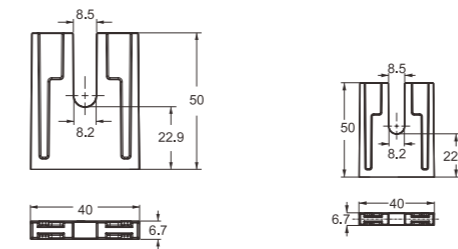
ROLLER CARRIAGES

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

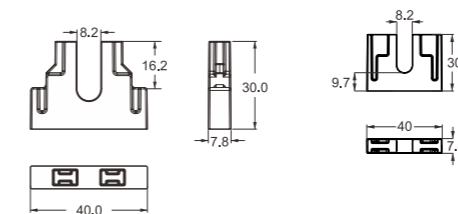


OTHER ACCESSORIES

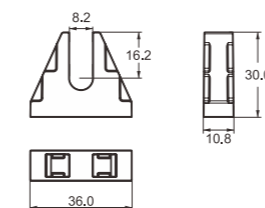
E120001
Metro Handle Fork Drive Extender



E120002
Recessed Handle Fork Drive Extender



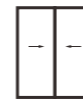
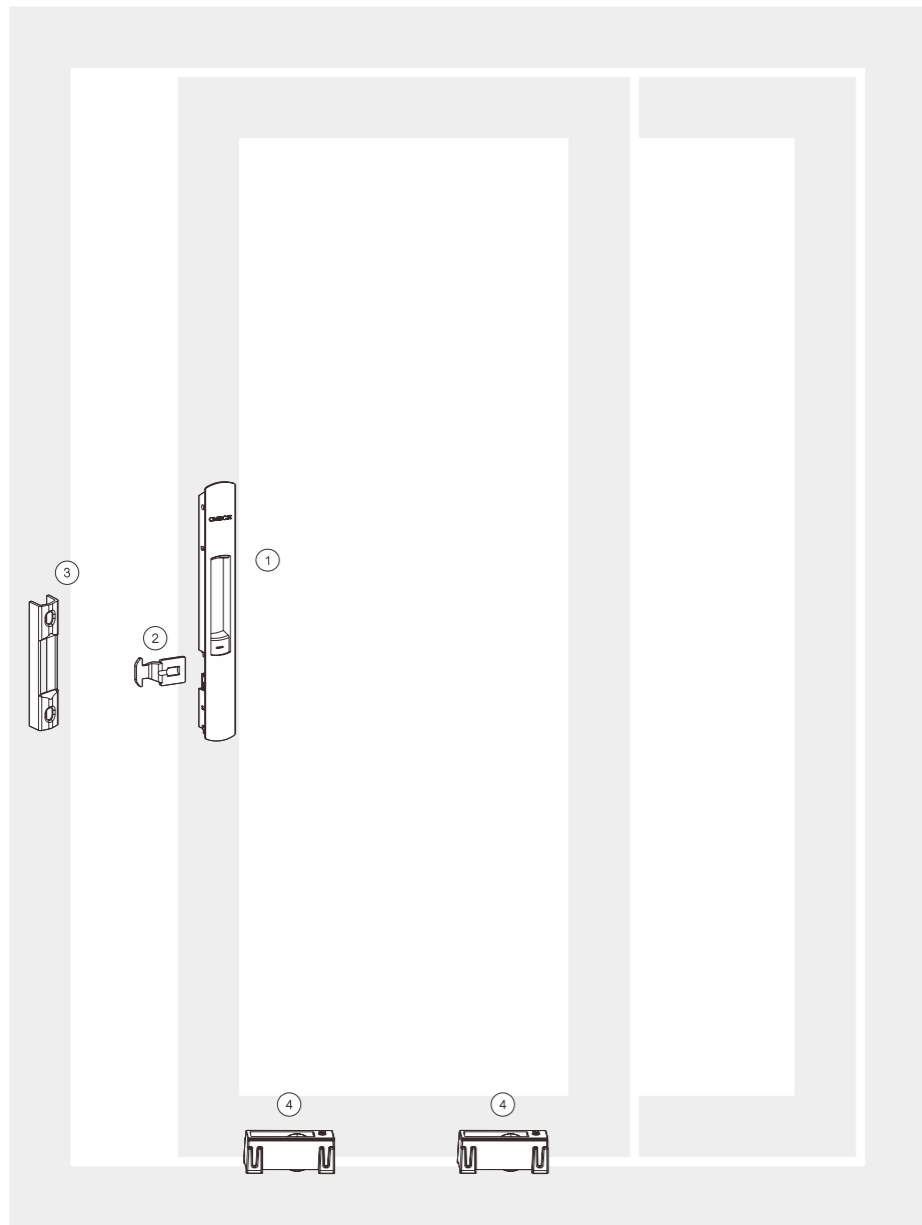
E010035
Fork Drive Extender for Recessed Handle Plus





GLIDING WINDOW HARDWARE SERIES

Bump Lock Recessed Pull Handle



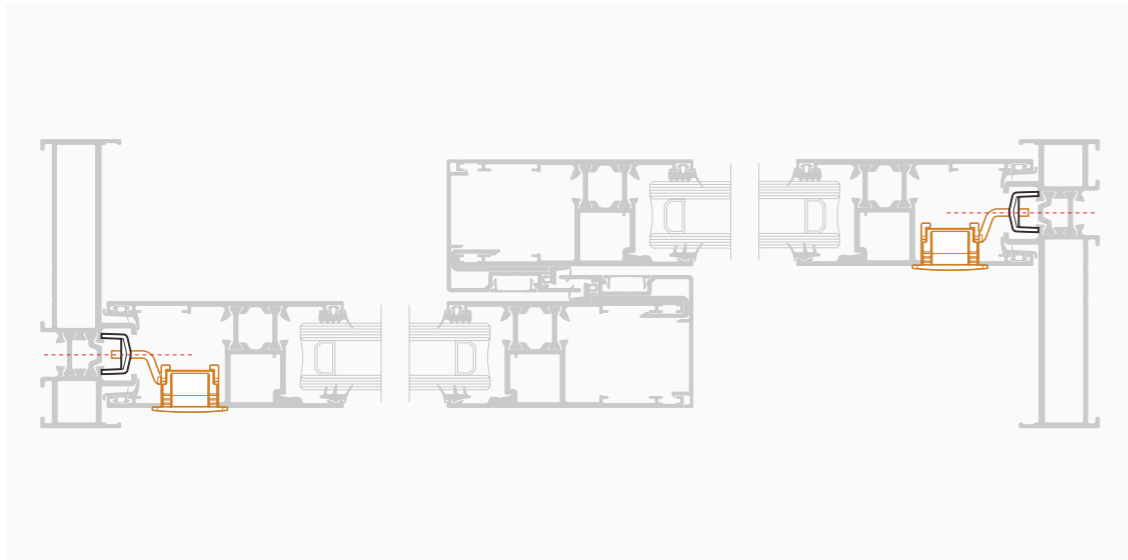
GLIDING WINDOW HARDWARE SERIES

Configuration Table - Bump Lock Recessed Pull Handle

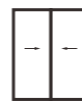
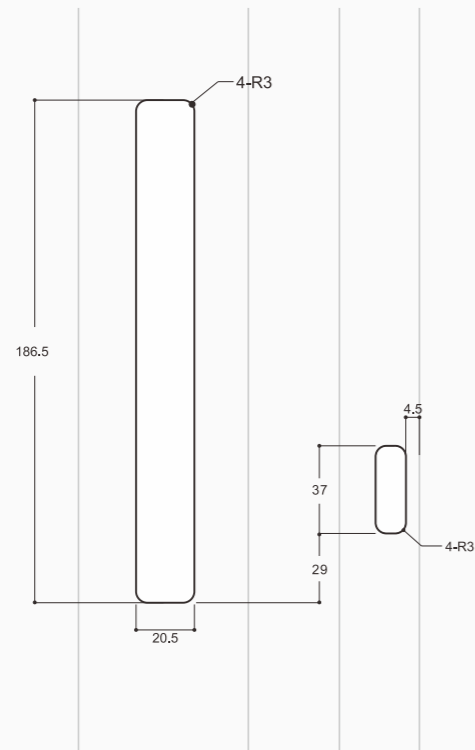
No.	Description	P/N	Qty	Notes	Ref. Page
1	Bump Lock Recessed Pull Handle	P010024	1		P160
2	Hook Lock	P110002 P110003 P110004 P110005 P110006 P110007 P110008	1	Multiple Types Available	P160
3	Locking Bracket	P100001 P100005 P100006 P100007 P100008	1	Bracket Clip Bracket 10V Bracket 16V Bracket 16 Flat Bracket	P161
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 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 P050001 E050005 E050006 E050009 E050010 E050012 E050014 E050015 E050017 E050018	2	1628-2934-R2.5-150 kg 1320-2127-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 1215-17-R2.5-60 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	P153, P154, P155, P156, P160
5	Screw Pack				P135



GLIDING WINDOW PROFILE AND DRILLING REQUIREMENTS

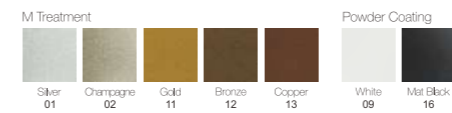
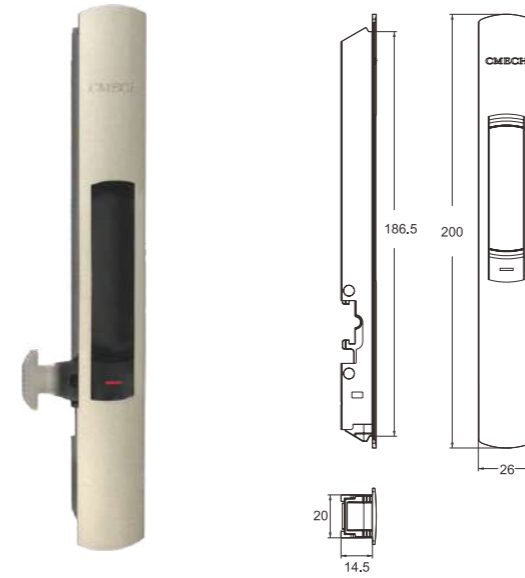


Drill Hole Drawing

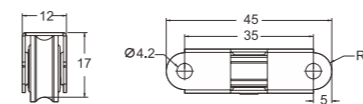


GLIDING WINDOW HARDWARE

P010024
Bump Lock Recessed Pull Handle



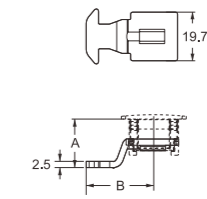
P050001
Roller-1215-17-R2.5-60 kg

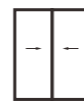


Hook Lock



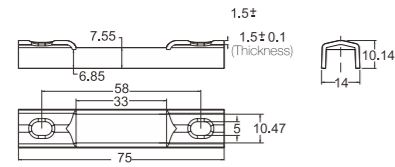
P/N	Specifications	
	A	B
P110002	19.5 mm	27.1 mm
P110003	17.5 mm	29.1 mm
P110004	15.5 mm	31.1 mm
P110005	22.5 mm	24.1 mm
P110006	14.5 mm	31.1 mm
P110007	19.5 mm	35.1 mm
P110008	14.5 mm	23.1 mm



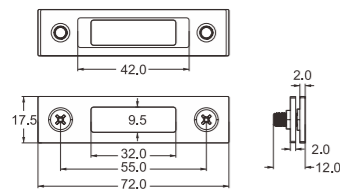


GLIDING WINDOW HARDWARE

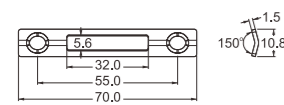
P100001
Locking Bracket



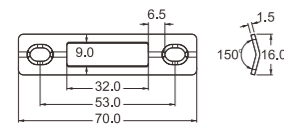
P100005
Clip Bracket



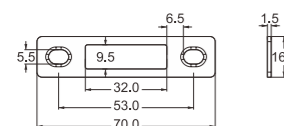
P100006
10V Bracket



P100007
16V Bracket



P100008
16 Flat Bracket

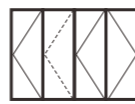


Bi-Folding Door Hardware



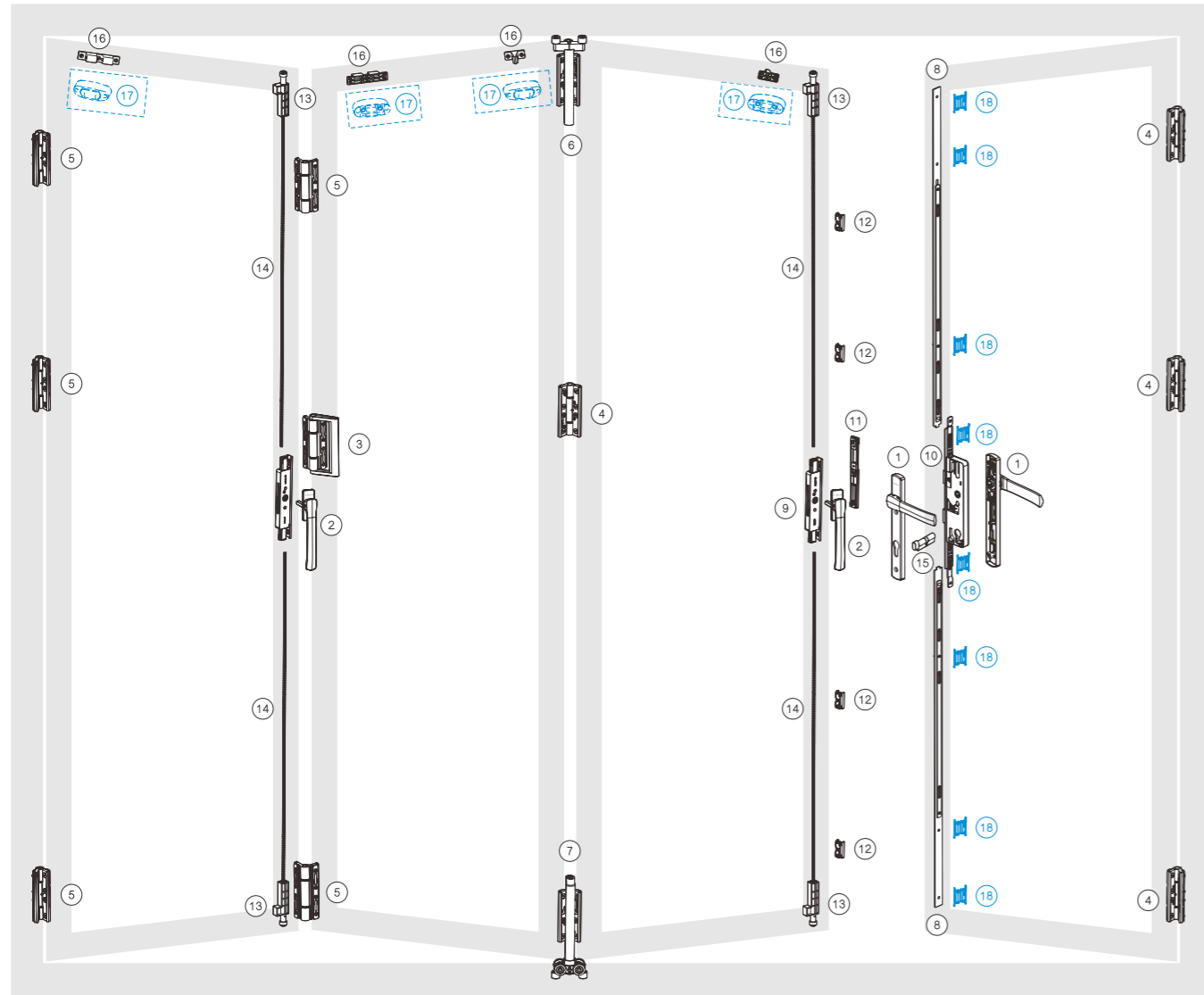
- The rollers are made of high quality stainless steel and special wear-resisting material, with high load-bearing, anti-fracture, longevity and light moving operation force
- Hinge has double anti-burglar function (metal end cover and internal anti-burglar pin) with adjustable and fixed series, which 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) ≤ 120

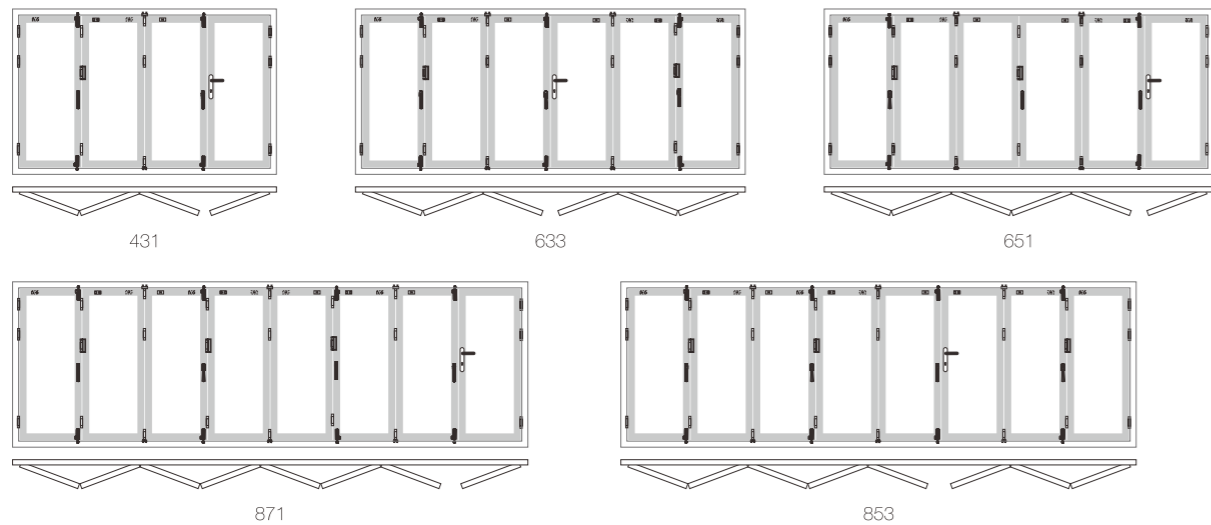


BI-FOLDING DOOR HARDWARE SERIES

431 Configuration



Door Configurations



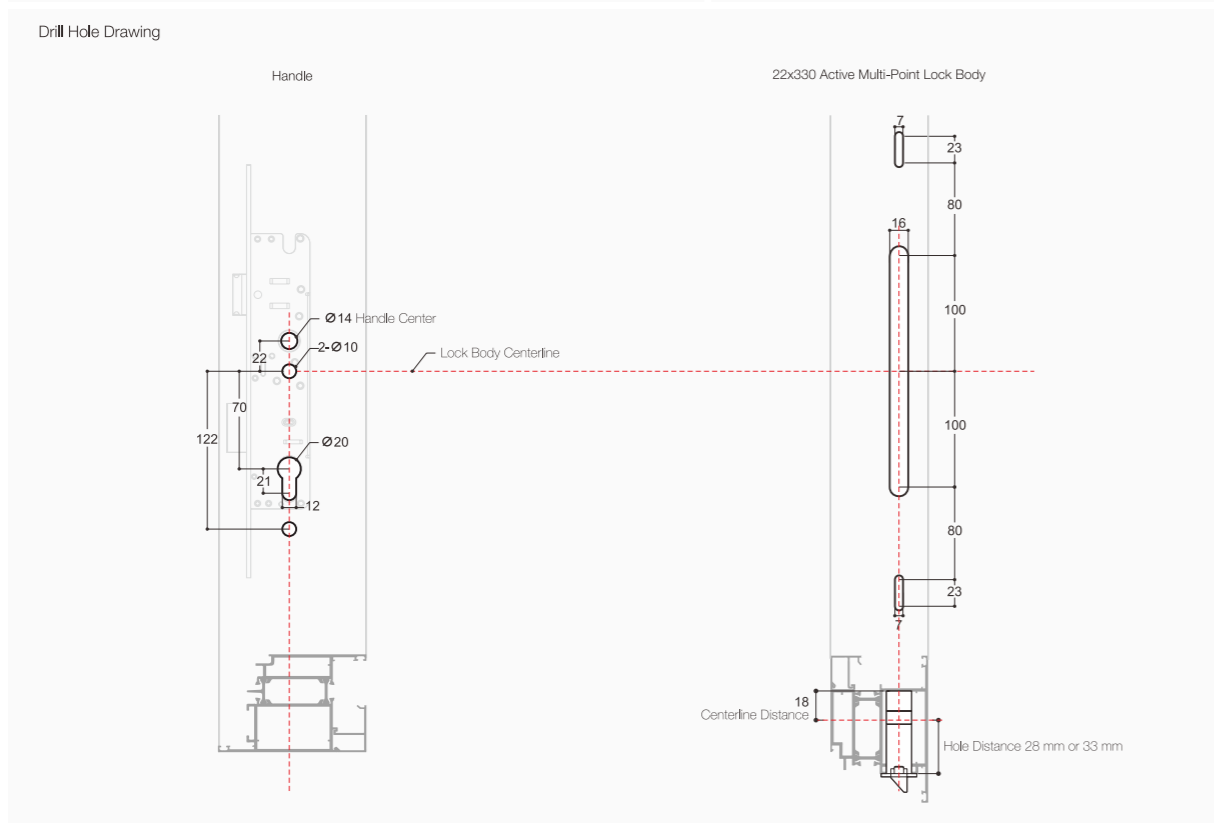
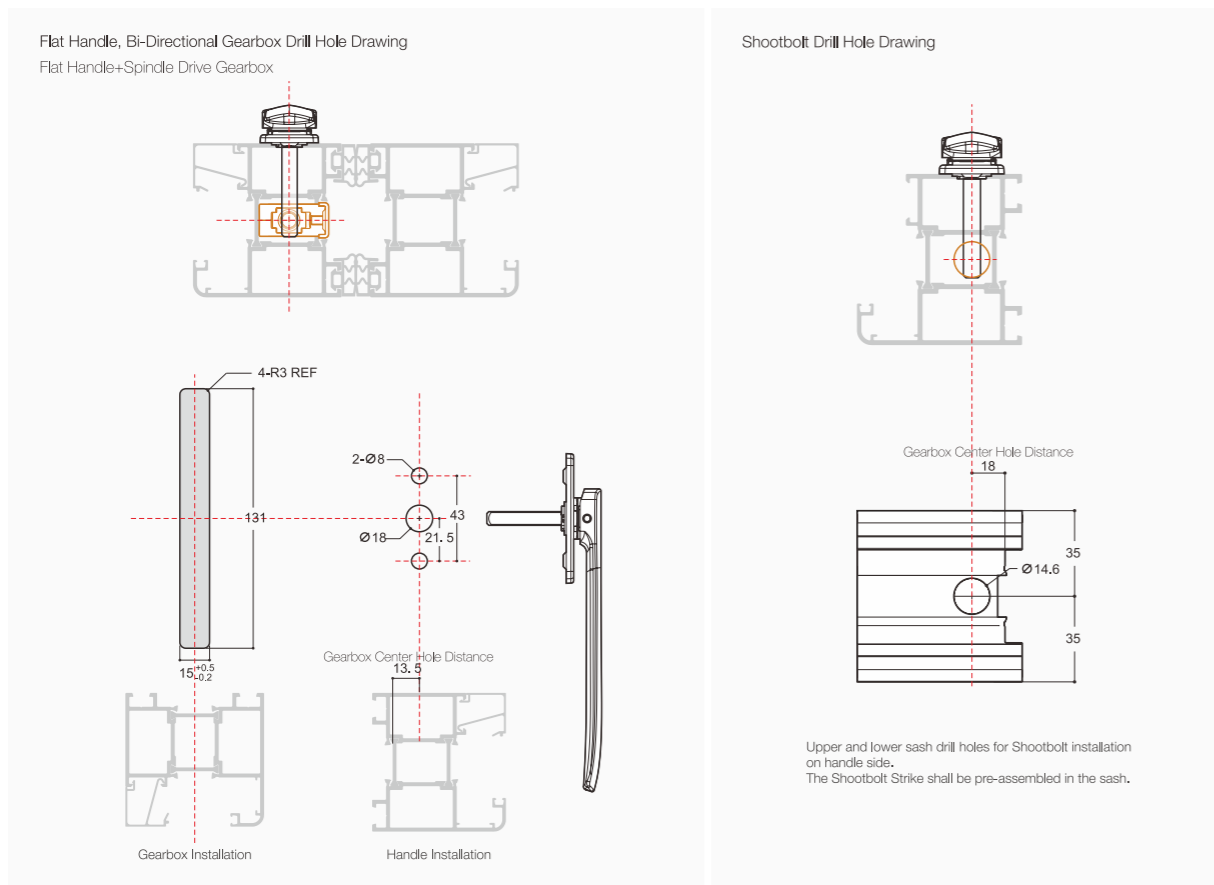
BI-FOLDING DOOR HARDWARE SERIES

Configuration Table

No.	Description	P/N	Qty					Notes	Ref. Page
			431	633	651	871	853		
1	Flat Handle Set (with Cylinder)	G010005	1	1	1	1	1	Casement Sash	P167
2	Flat Handle	G010006 G010007 G010008 G010009	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	P167
3	Fixed Hinge with Handle	G040002	1	2	2	3	3		P168
4	Adjustable Hinge	G040001	4	2	4	4	2		P169
5	Fixed Hinge	G040003	5	10	8	11	13		P169
6	Guide Roller	G050002	1	2	2	3	3		P168
7	Weight Bearing Roller	G050001	1	2	2	3	3		P168
8	Pry-Resistant Espagnolette Bolt with Bearing	G020004 G020002 G020003	2	2	2	2	2	1,200 mm 960 mm 1,080 mm	P166
9	Spindle Drive Gearbox	G020001	2	3	3	4	4		P170
10	Multi-Point Lock Body	D030037	1	1	1	1	1	22x330x33 Multi-Point Lock Body (V2.0, Used with a Steel Transmission Rod)	P195
11	Adjustable Main Strike	G100001 G100002	1	1	1	1	1	Suitable for Thermal Aluminum Profiles Suitable for Non-Thermal Aluminum Profiles	P171
12	Pry-Resistant Keepers	A100116	4	4	4	4	4		P172
13	Shootbolt	G070001	4	6	6	8	8		P170
14	Shootbolt Connecting Rod	G020005 G020007	4	6	6	8	8	L=1500 mm L=2000 mm	P170
15	Cylinder		1	1	1	1	1		P205, P206
16	Adjustable Panel Stop	G080002	2	4	4	6	6		P172
17	Magnetic Panel Stop	G080001	2	4	4	6	6		P172
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	P171
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						Suitable for G010008, M5x45 mm Cross Countersunk Head Self-Tapping Screws	
		G110002						Suitable for G010006, M5x35 mm Cross Countersunk Head Self-Tapping Screws	
		G110003	4	6	6	8	8	Suitable for G010007, M5x40 mm Cross Countersunk Head Self-Tapping Screws	
		G110005					Suitable for G010009, M5x50 mm Cross Countersunk Head Self-Tapping Screws		
21	Handle Screw Pack	D000082	1	1	1	1	1	Suitable for G010005	P189
22	Handle Spindle Screw Pack	D000062	1	1	1	1	1	Suitable for G010005	P188

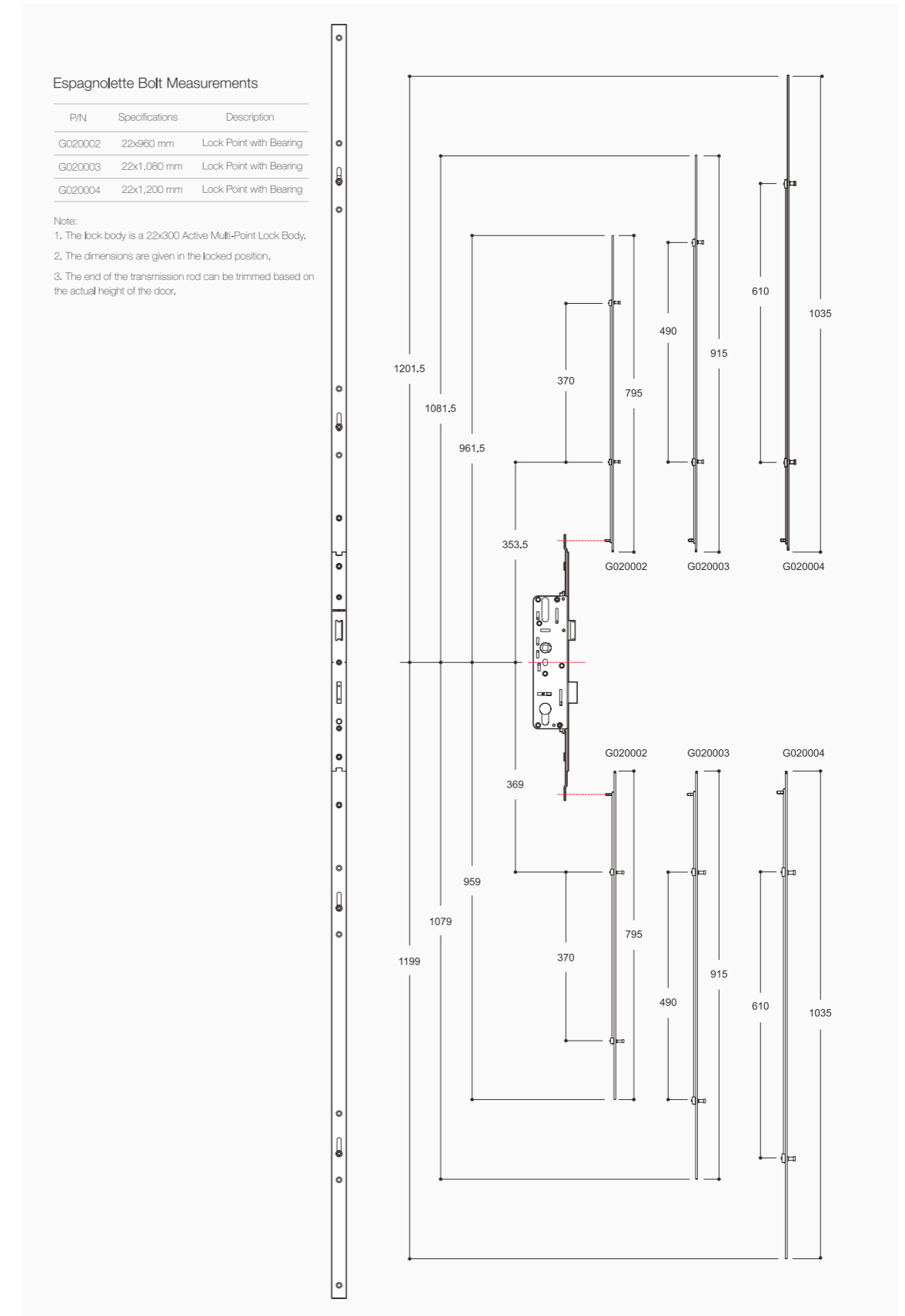


PROFILE AND DRILLING REQUIREMENTS



ESPAGNOLETTE BOLT SELECTION

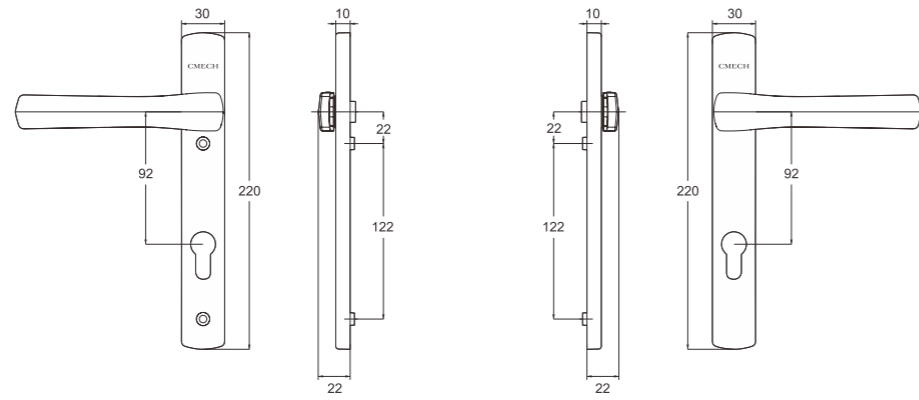
(For a 22x330 Active Multi-Point Lock Body)



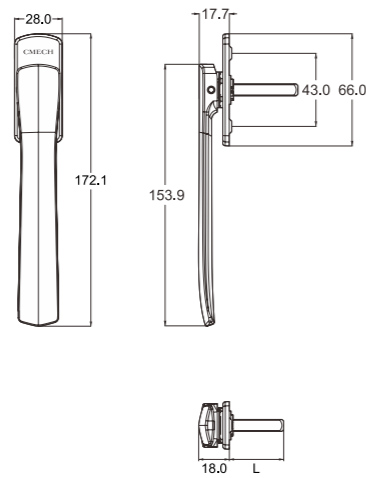


HANDLE SELECTIONS

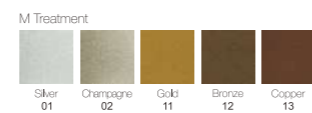
FLAT HANDLE SET
G010005



FLAT HANDLE

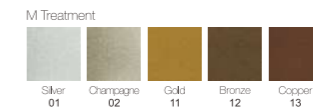
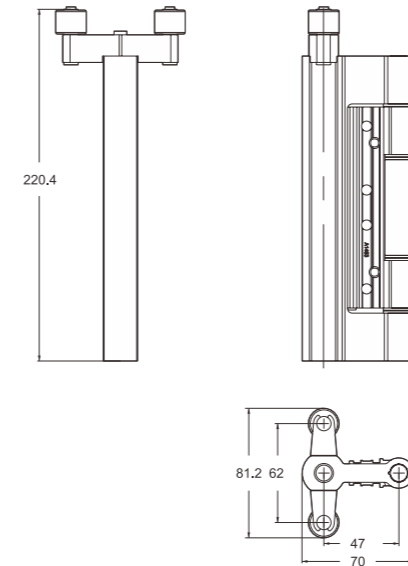


P/N	L
G010006-	32
G010007-	37
G010008-	42
G010009-	47

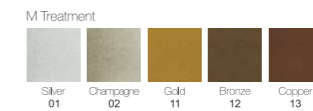
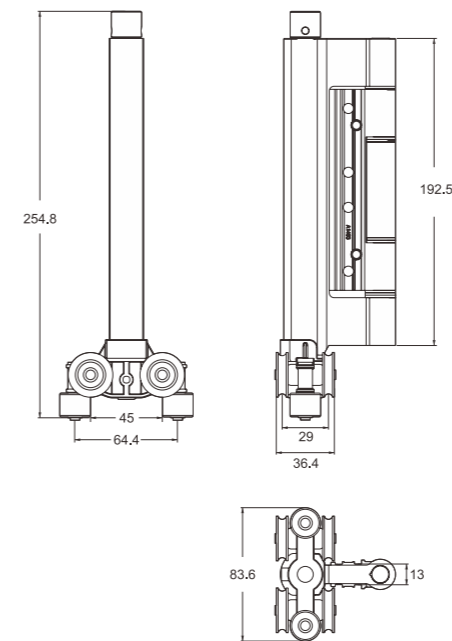


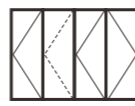
HINGES

G050002
Guide Roller



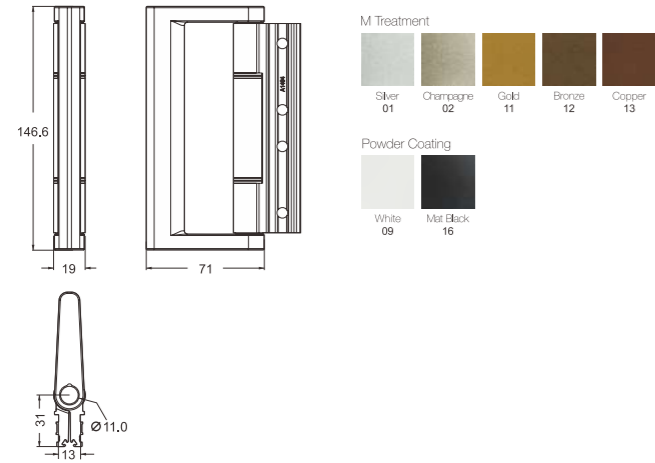
G050001
Weight Bearing Roller



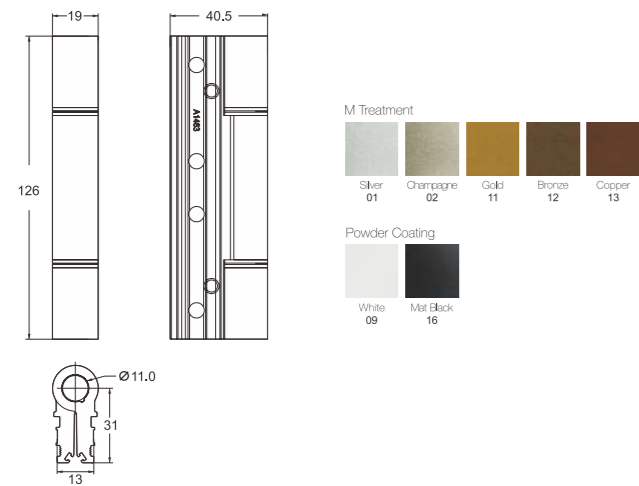


HINGES

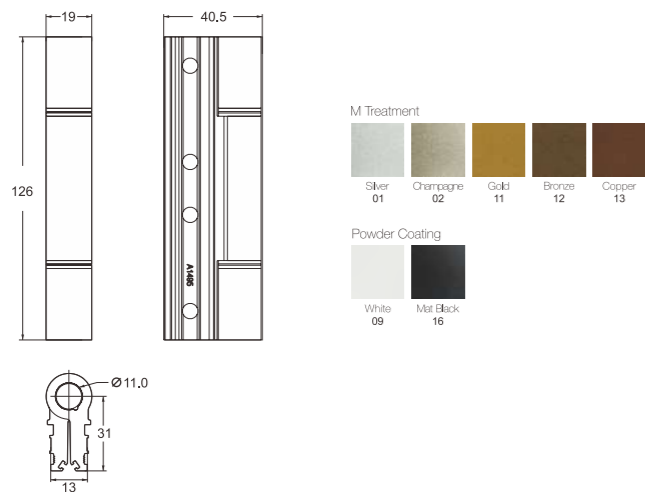
G040002
Fixed Hinge with Handle



G040001
Adjustable Hinge

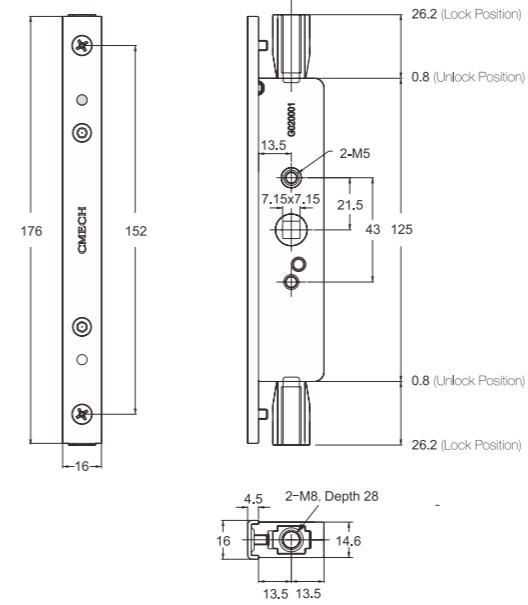


G040003
Fixed Hinge

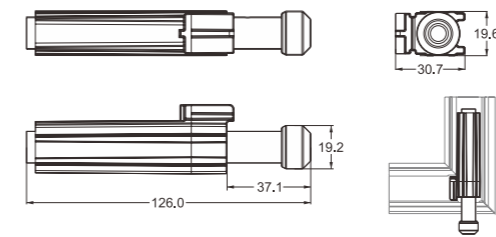


SHOOT BOLT

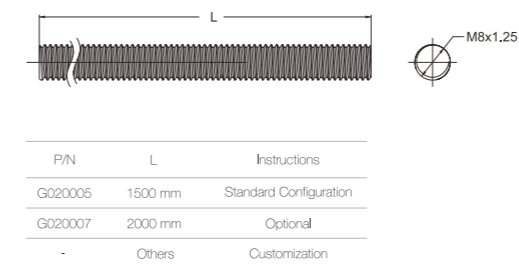
G020001
Spindle Drive Gearbox



G070001
Shootbolt



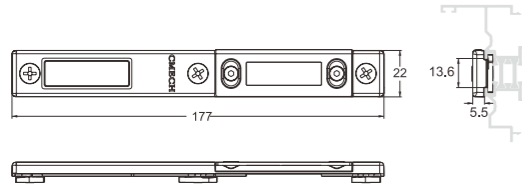
Shootbolt Connecting Rod



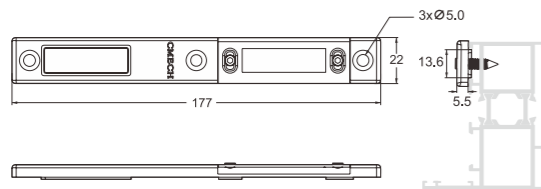


LOCKING HARDWARE

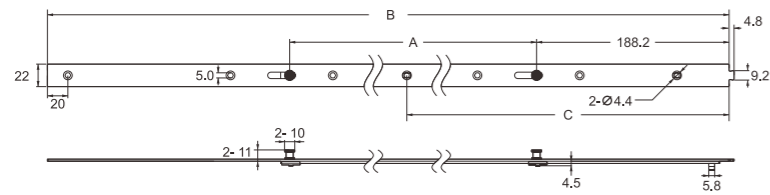
G100001
Adjustable Main Strike
(Suitable for Thermal Aluminum Profiles, Supplied Screw Pack)



G100002
Adjustable Main Strike
(Suitable for Non-Thermal Aluminum Profiles, Supplied Screw Pack)

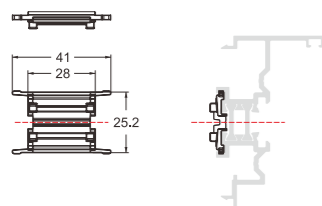


Pry-Resistant Espagnolette Bolt with Bearing



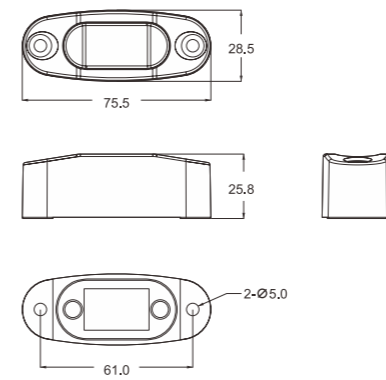
P/N	Specifications			Instructions
	A	B	C	
G020002	370 mm	795 mm	-	304SS
G020003	490 mm	915 mm	441 mm	304SS
G020004	610 mm	1,035 mm	501 mm	304SS

G120001
Espagnolette Bolt Back Plate

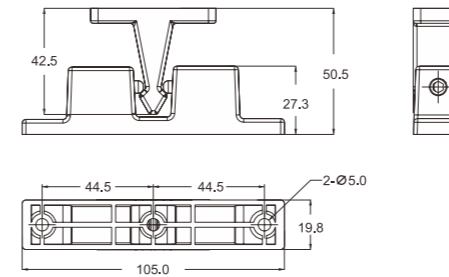


PANEL STOP

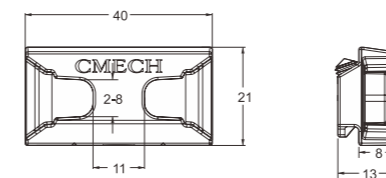
G080001
Magnetic Panel Stop



G080002
Adjustable Panel Stop



A100116
Pry-Resistant Keepers



Hinged Door Hardware

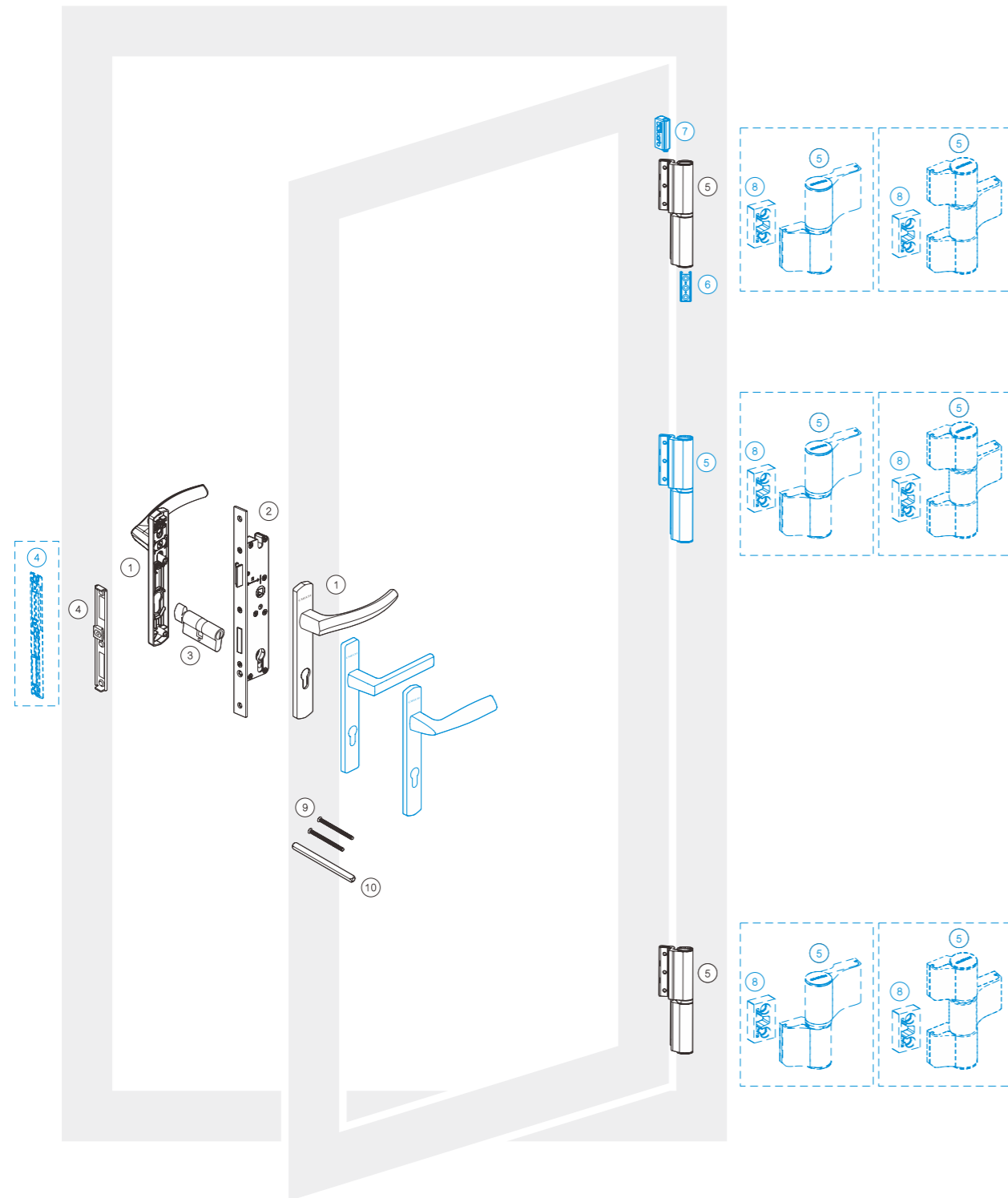


- The handles are available in many styles and colors
- Three axis adjustable hinges
- No tools are required to change the orientation of the lock, making it quick and convenient

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



HINGED DOOR HARDWARE SERIES
Single-Panel with Single-Point Lock Configuration



HINGED DOOR HARDWARE SERIES
Configuration Table - Single-Panel with Single-Point Lock

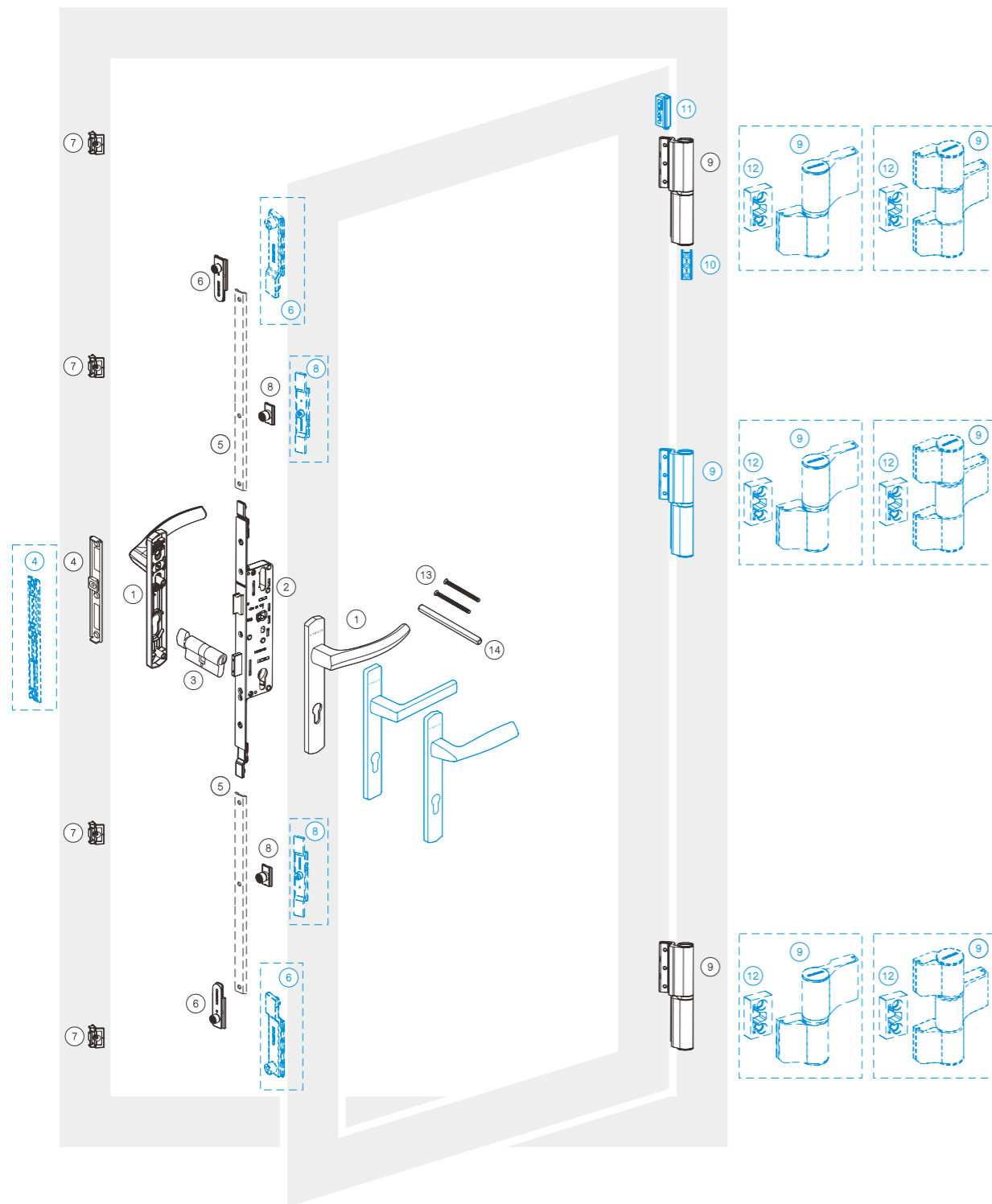
No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type D)	D010133 D010433 D010233 D010134 D010434 D010234	1	New York Handle with Cylinder Berlin Handle with Cylinder Kohn Handle with Cylinder New York Handle without Cylinder Berlin Handle without Cylinder Kohn Handle without Cylinder	P190, P191, P192, P193, P194
2	Lock Body	D030021 D030022	1	Lock Distance: 28 mm, Plate: 22x300 mm Lock Distance: 33 mm, Plate: 22x300 mm	P195
3	Cylinder		1		P205, P206
4	Adjustable Strike	D100012 G100001 G100002	1		P171, P198
5	120 kg Hinge 140 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge	D040017 D040003 D040013 D040014 D040015	2-3	With Standard Clamping Block Load-bearing:120 kg 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	P200, P201, P202, P203, P204
6	Anti Slide Clamping Block	D000049	1	Suitable for 120 kg Hinge	P199
7	Sash Height Adjusting Block	D000007	1	Suitable for 120 kg Reinforced Hinge	P199
8	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket 8x40 mm Gasket 8.5x40 mm Gasket 10x40 mm Gasket 11x40 mm Gasket	P199
9	Handle Screw Pack		1		P189
10	Spindle Screw Pack		1		P188

*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

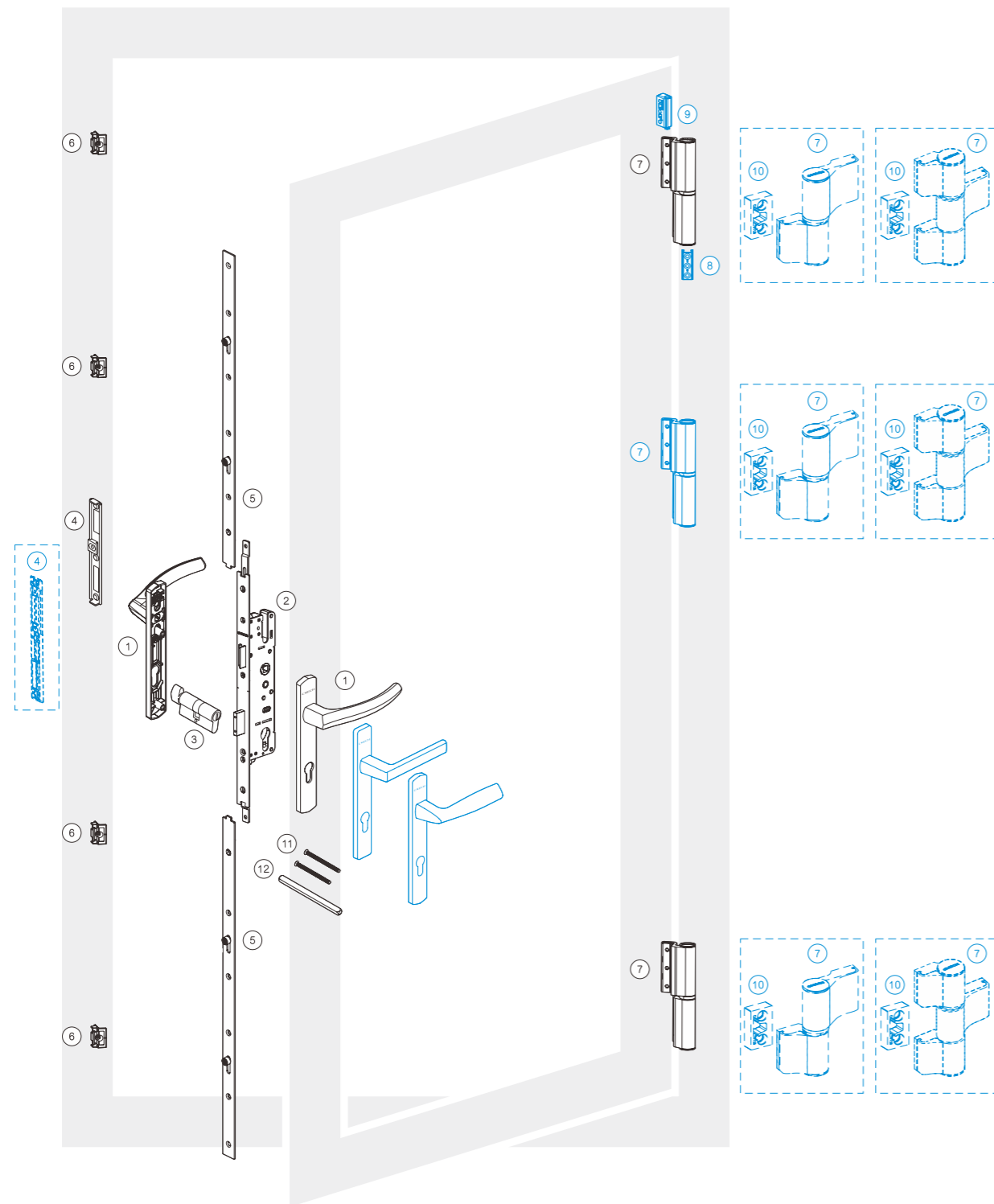
No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type D)	D010133 D010433 D010233 D010134 D010434 D010234	1	New York Handle with Cylinder Berlin Handle with Cylinder Koln Handle with Cylinder New York Handle without Cylinder Berlin Handle without Cylinder Koln Handle without Cylinder	P190, P191, P192, P193, P194
2	Lock Body	D030038 D030039	1	Lock Distance: 28 mm, Plate: 22x395 mm Lock Distance: 33 mm, Plate: 22x395 mm	P196
3	Cylinder		1		P205, P206
4	Adjustable Strike	D100012 G100001 G100002	1		P171, P198
5	Connecting Strip			Provided by Customer or Cmech	
6	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	P86, P88, P89
7	Keeper	A100101 A100122	2-4	Pry-Resistant Keeper	P90
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	P86, P88, P89
9	120 kg Hinge 140 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge	D040017 D040003 D040013 D040014 D040015	2-3	With Standard Clamping Block Load-bearing:120 kg 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	P200, P201, P202, P203, P204
10	Anti Slide Clamping Block	D000049	1	Suitable for 120 kg Hinge	P199
11	Sash Height Adjusting Block	D000007	1	Suitable for 120 kg Reinforced Hinge	P199
12	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket 8x40 mm Gasket 8.5x40 mm Gasket 10x40 mm Gasket 11x40 mm Gasket	P199
13	Handle Screw Pack		1		P189
14	Spindle Screw Pack		1		P188

*Flat Handle is Available



HINGED DOOR HARDWARE SERIES

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



HINGED DOOR HARDWARE SERIES

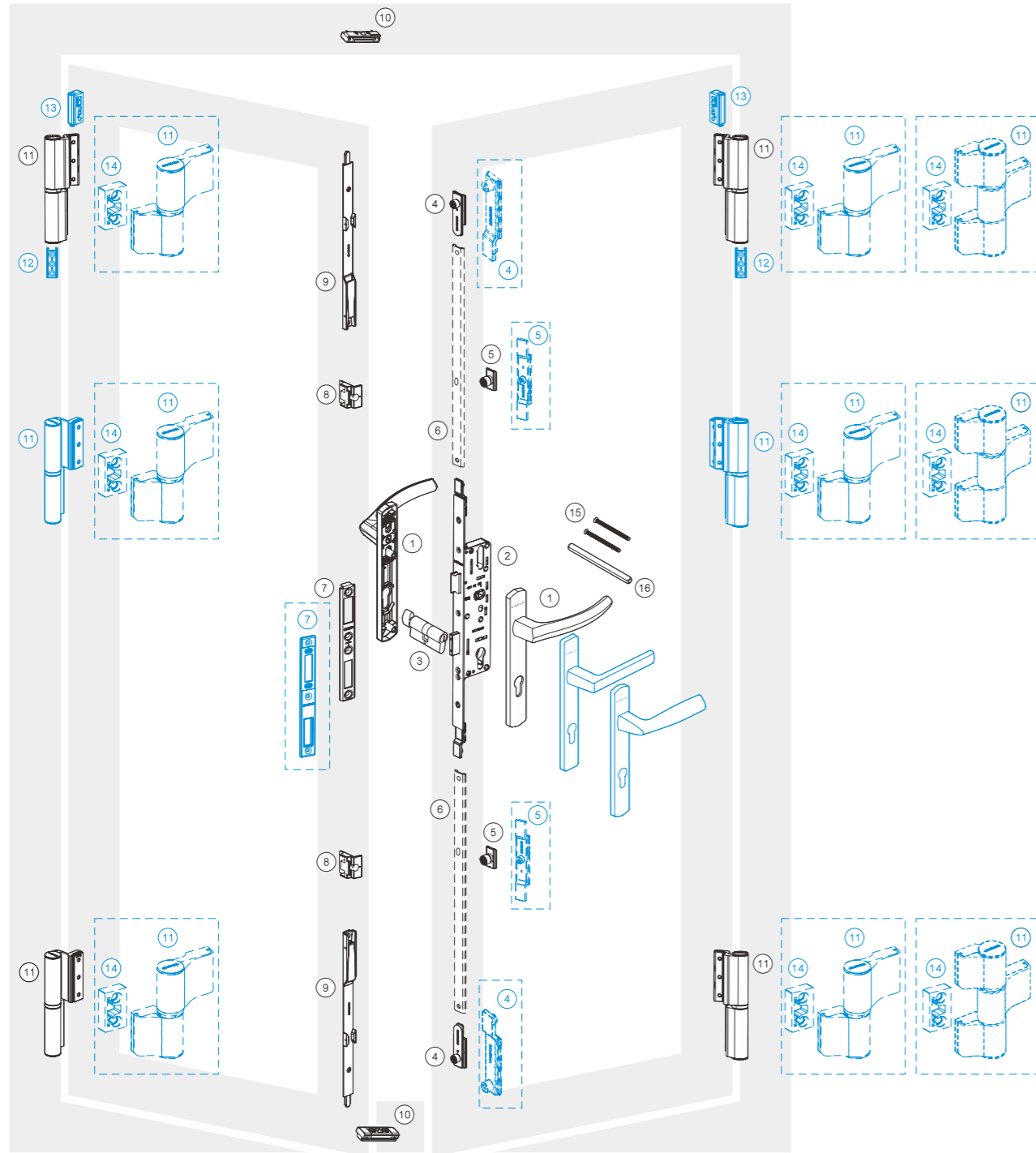
Configuration Table - Single-Panel with Multi-Point Lock + Espagnolette Bolt

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type D)	D010133 D010433 D010233 D010134 D010434 D010234	1	New York Handle with Cylinder Berlin Handle with Cylinder Koln Handle with Cylinder New York Handle without Cylinder Berlin Handle without Cylinder Koln Handle without Cylinder	P190, P191, P192, P193, P194
2	Lock Body	D030036 D030037	1	Lock Distance: 28 mm, Plate: 22x330 mm Lock Distance: 33 mm, Plate: 22x330 mm	P195
3	Cylinder		1		P205, P206
4	Adjustable Strike	D100012 G100001 G100002	1		P171, P198
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	P197
6	Keeper	A100101 A100122	2-4	Pry-Resistant Keeper	P90
7	120 kg Hinge 140 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge	D040017 D040003 D040013 D040014 D040015	2-3	With Standard Clamping Block Load-bearing:120 kg 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	P200, P201, P202, P203, P204
8	Anti Slide Clamping Block	D000049	1	Suitable for 120 kg Hinge	P199
9	Sash Height Adjusting Block	D000007	1	Suitable for 120 kg Hinge and 120 kg Reinforced Hinge	P199
10	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket 8x40 mm Gasket 8.5x40 mm Gasket 10x40 mm Gasket 11x40 mm Gasket	P199
11	Handle Screw Pack		1		P189
12	Spindle Screw Pack		1		P188

*Flat Handle is Available



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



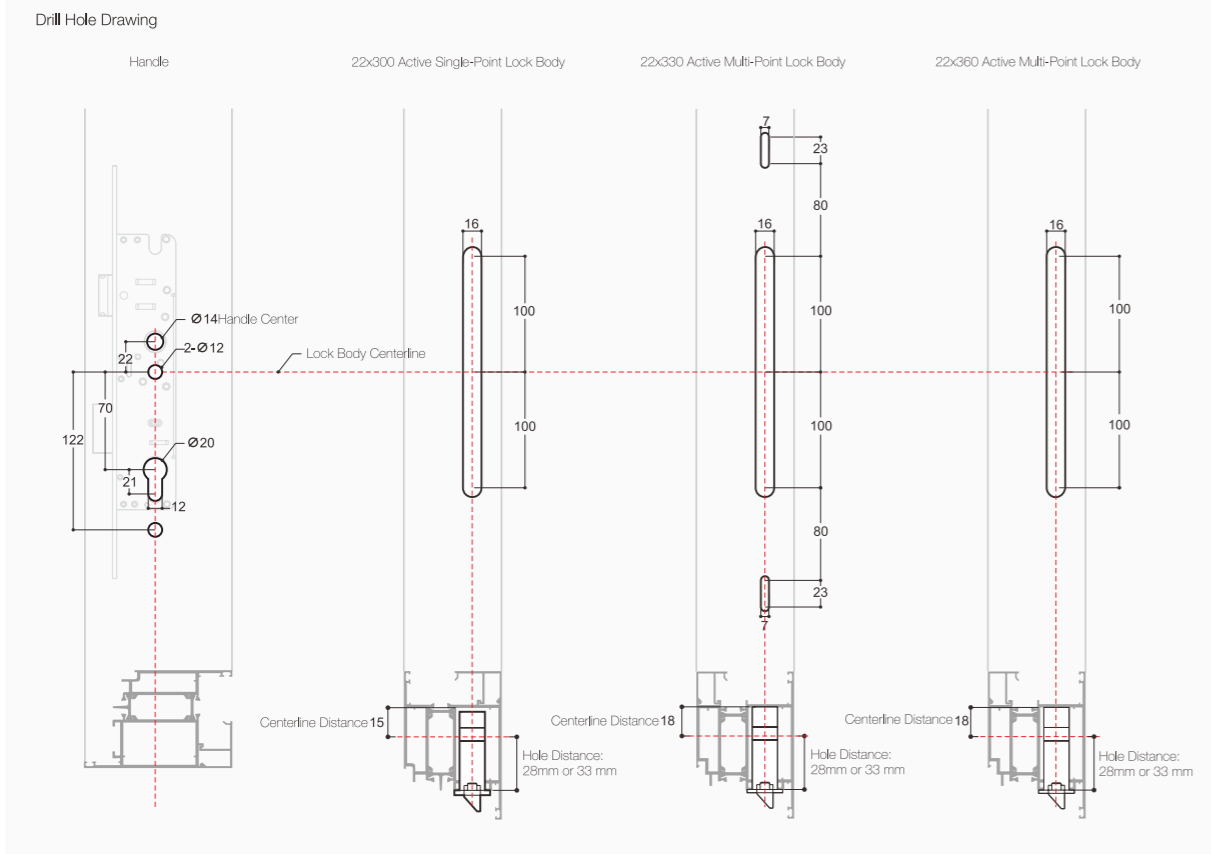
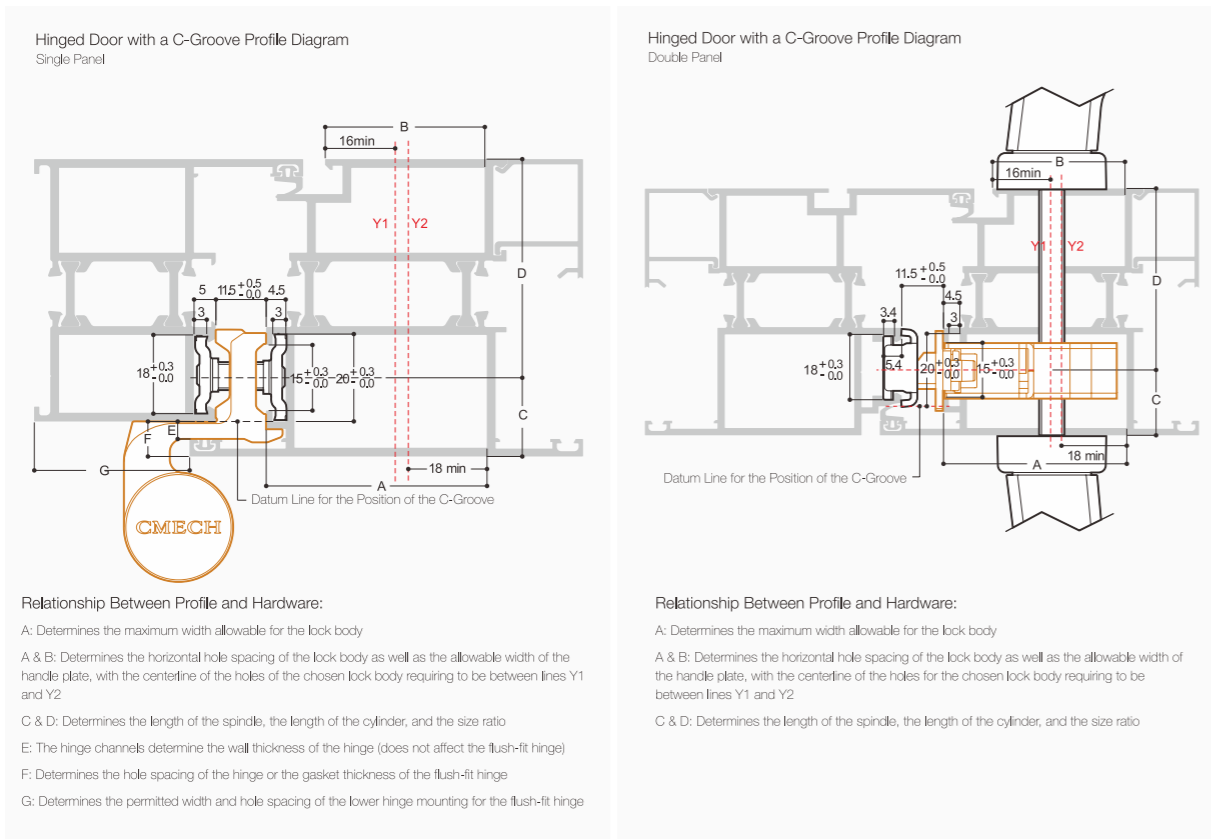
HINGED DOOR HARDWARE SERIES
Configuration Table - Double-Panel with Multi-Point Lock + Connecting Strip

No.	Description	P/N	Qty	Notes	Ref. Page
1	Spindle Drive Handle (Type D)	D010133 D010433 D010233 D010134 D010434 D010234	1	New York Handle with Cylinder Berlin Handle with Cylinder Köln Handle with Cylinder New York Handle without Cylinder Berlin Handle without Cylinder Köln Handle without Cylinder	P190, P191, P192, P193, P194
2	Lock Body	D030038 D030039	1	Lock Distance: 28 mm, Plate: 22x395 mm Lock Distance: 33 mm, Plate: 22x395 mm	P196
3	Cylinder		1		P205, P206
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	P86, P88, P89
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 G100001 G100002	1		P171, P198
8	Keeper	A100101 A100116	2-4	Pry-Resistant Keeper	P90
9	Shootbolt	D070006	2	Manual	P198
10	Shootbolt Bracket	D070003 D070004 D070007	2	For a C-Groove Pitch of 6.0 mm For a C-Groove Pitch of 5.0 mm For a Grooveless Frame Profile	P198
11	120 kg Hinge 120 kg Hinge 140 kg Flush-Fit Hinge 140 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge 180 kg Flush-Fit Hinge	D040017 D040018 D040003 D040013 D040014 D040015	2-3	With Standard Clamping Block Load-bearing: 120 kg(Left) With Standard Clamping Block 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	P200, P201, P202, P203, P204
12	Anti Slide Clamping Block	D000049	2	Suitable for 120 kg Hinge	P199
13	Sash Height Adjusting Block	D000007	2	Suitable for 120 kg Hinge and 120 kg Reinforced Hinge	P199
12	Flush-Fit Hinge Gasket	D140001 D140002 D140003 D140004 D140005	2-3	7x40 mm Gasket 8x40 mm Gasket 8.5x40 mm Gasket 10x40 mm Gasket 11x40 mm Gasket	P199
13	Handle Screw Pack		1		P189
14	Spindle Screw Pack		1		P188

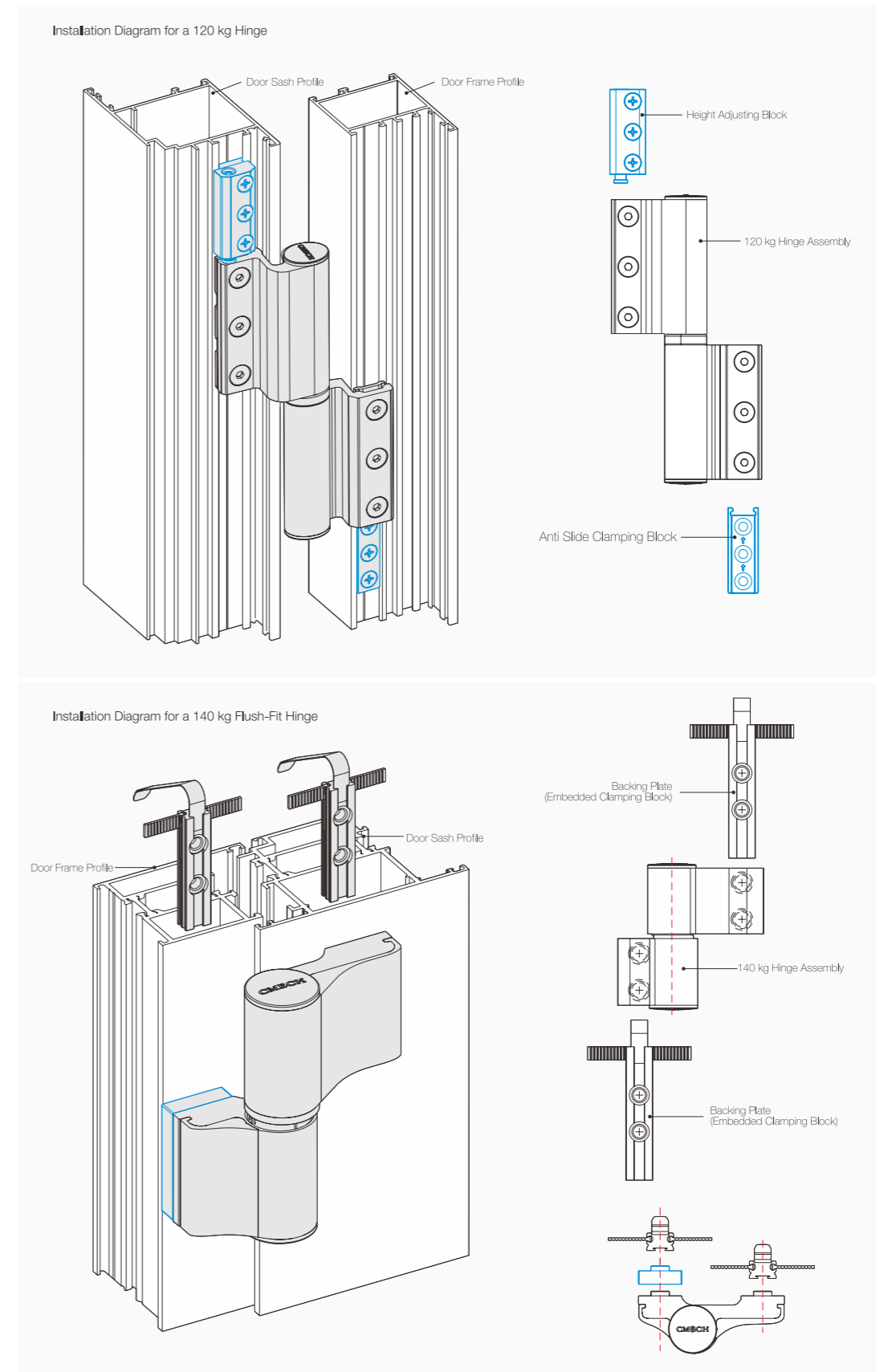
*Flat Handle is Available



HINGED DOOR PROFILE AND DRILLING REQUIREMENTS

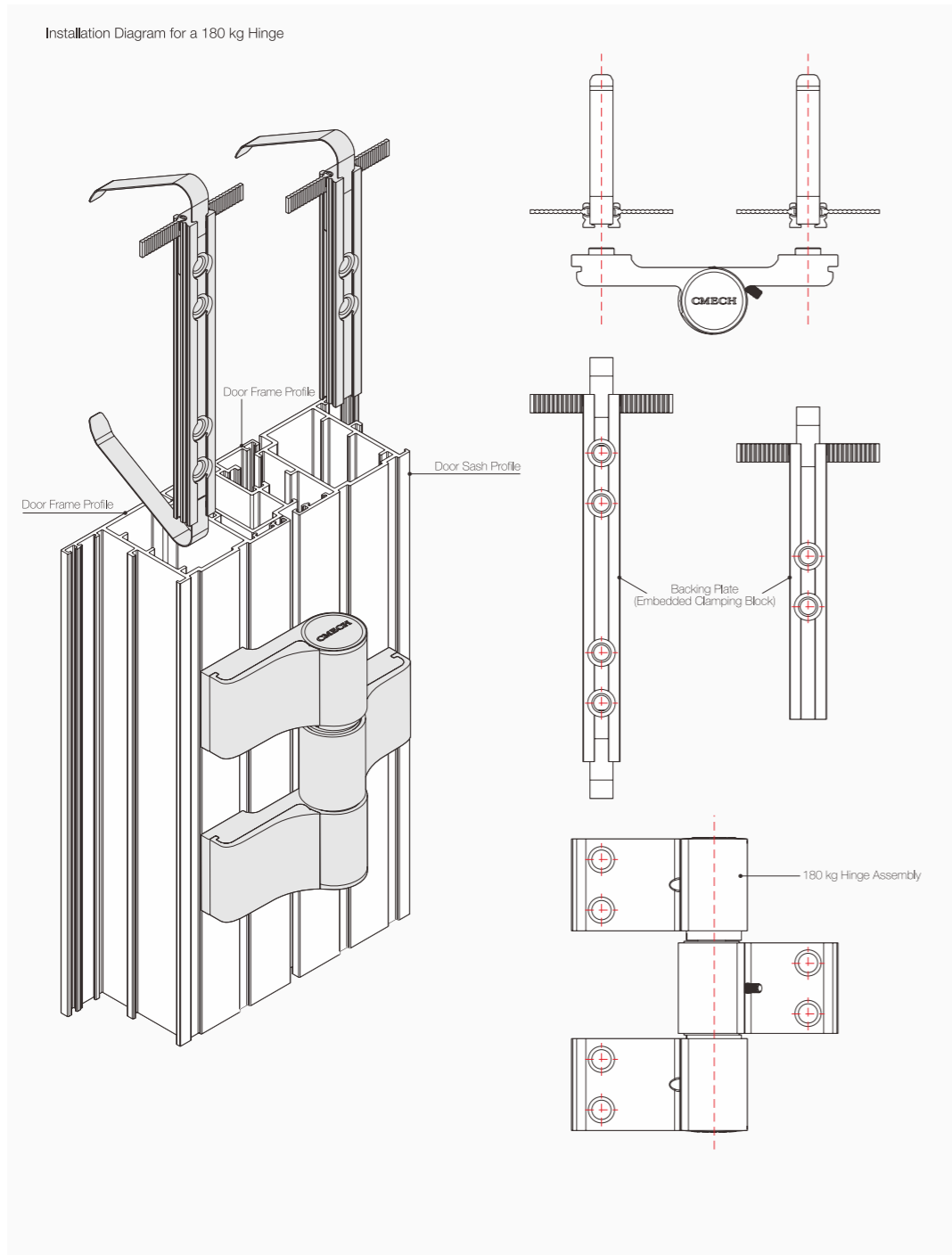


HINGE INSTALLATION INSTRUCTIONS





HINGE INSTALLATION INSTRUCTIONS



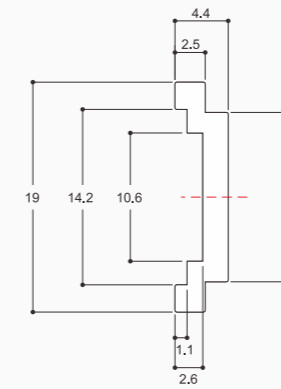
CONNECTING STRIP CUTTING AND DRILLING INSTRUCTIONS

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

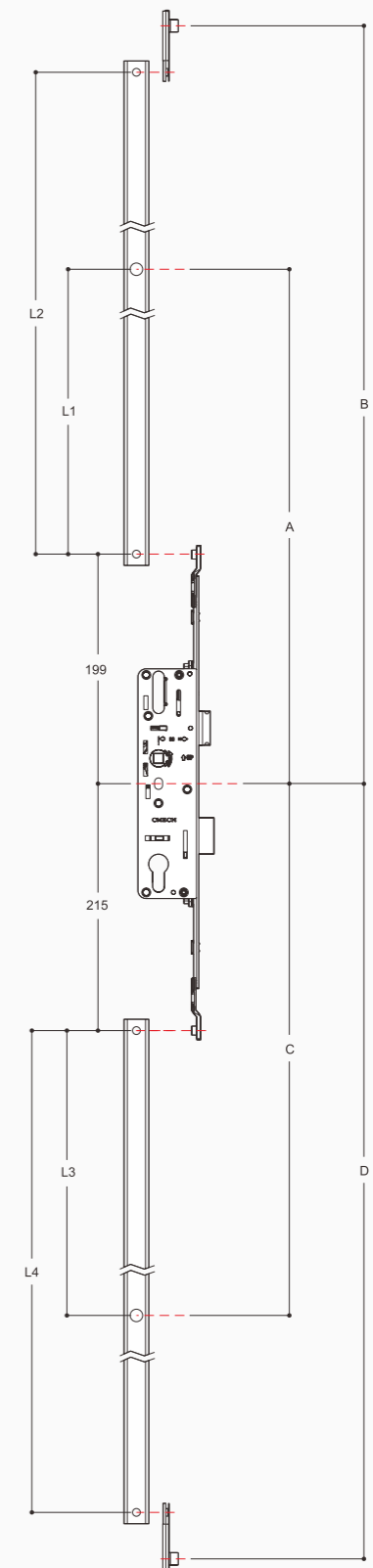
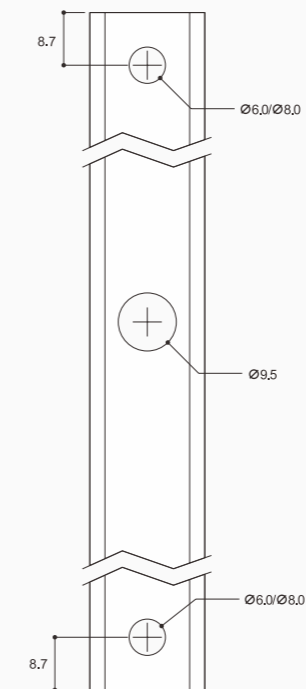
1. Dimensions for Aluminum Connecting Strip

- 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





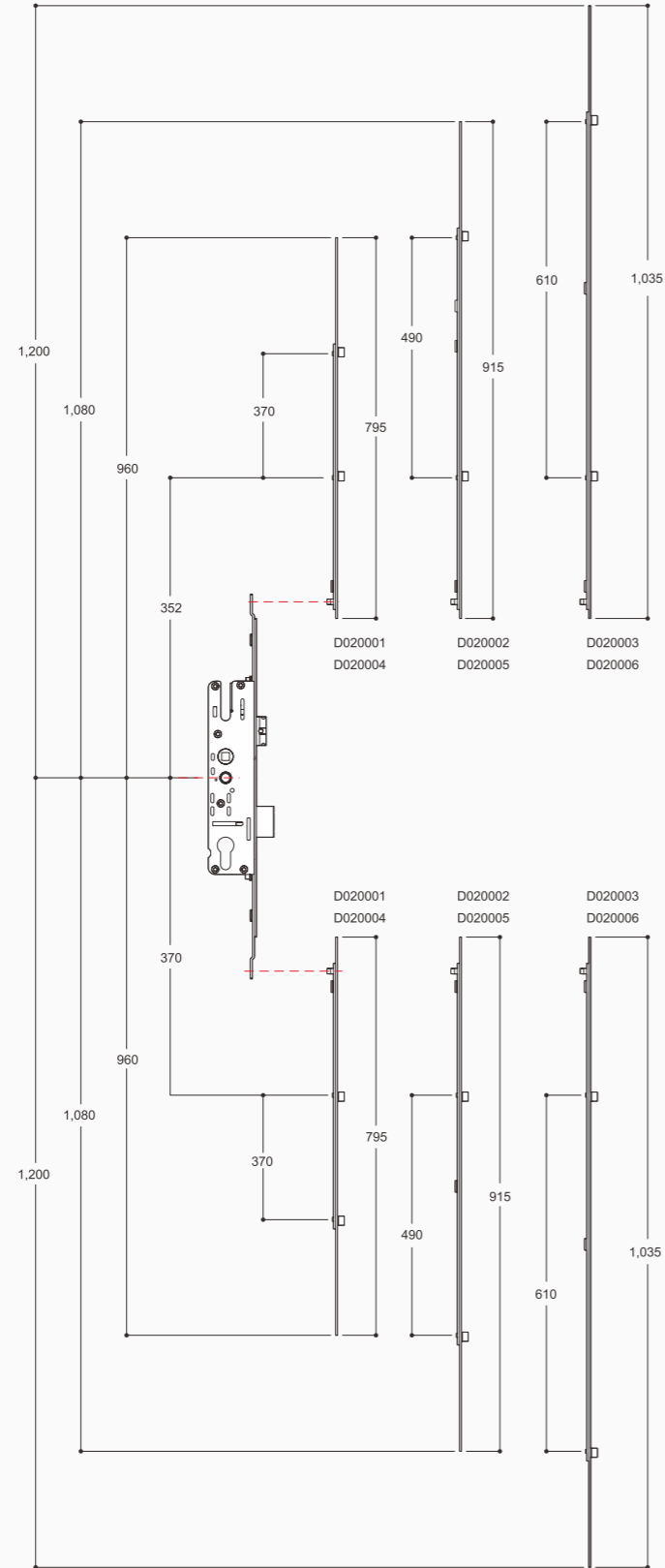
ESPAGNOLETTE BOLT SELECTION

(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:
- The lock body is a 22x300 Active Multi-Point Lock Body.
 - The dimensions are given in the locked position.
 - The end of the transmission rod can be trimmed based on the actual height of the door.
 - The P/Ns only represent different transmission rod materials. The installation measurements remain the same.



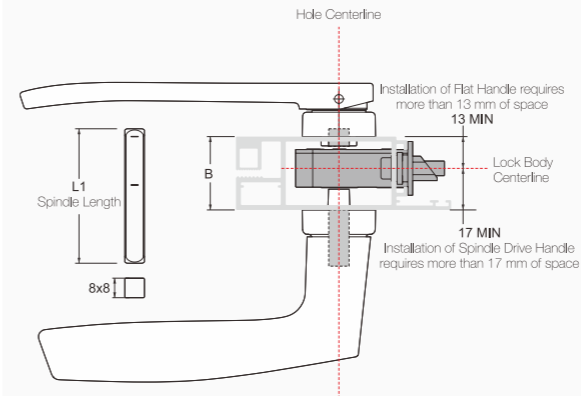
SPINDLE SELECTION

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



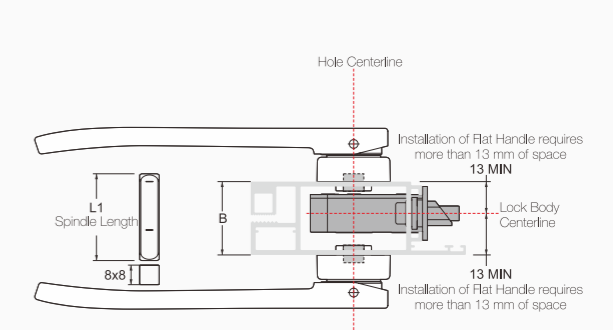
Formula for Calculating the Spindle Length:

A. Flat handle matched with Spindle Drive Handle



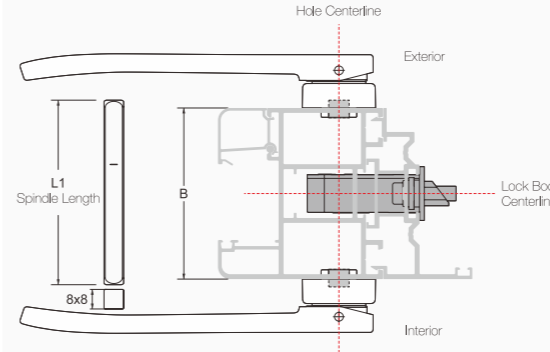
Formula for Calculating the Spindle Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 $L1 = B + 23$
 L1 Size Range: +0.5, -2.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.

B. Flat Handle matched with Flat Handle



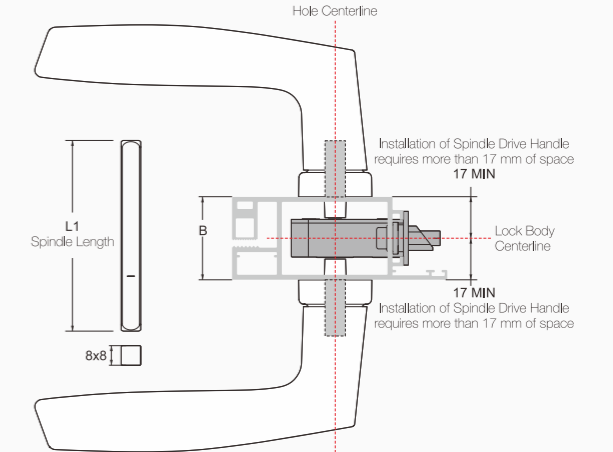
Formula for Calculating the Spindle Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 $L1 = B + 5.5$
 L1 Size Range: +0.5, -2.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.

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



Formula for Calculating the Spindle Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 $L1 = B + 5.5$
 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.

D. Spindle Drive Handle matched with Spindle Drive Handle

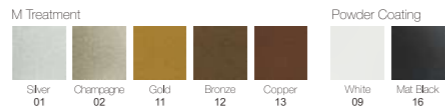
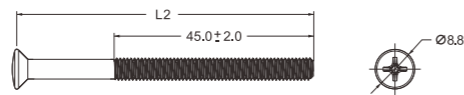


Formula for Calculating the Spindle Length:
 B --- Profile Sash Thickness
 L1 --- Spindle Length
 $L1 = B + 40$
 L1 Size Range: +1.5, -4.0
 Select the required lengths of the standard parts according to the Size L1.
 If unavailable, they will need to be customized.



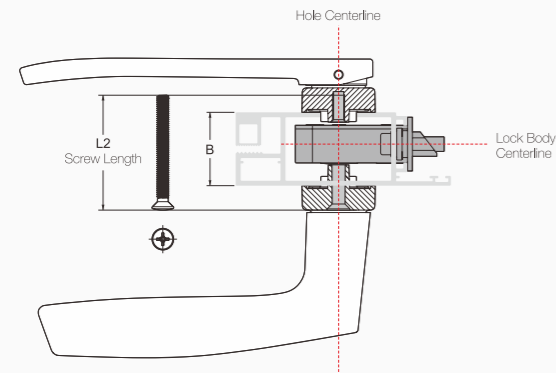
SCREW PACK SELECTION

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



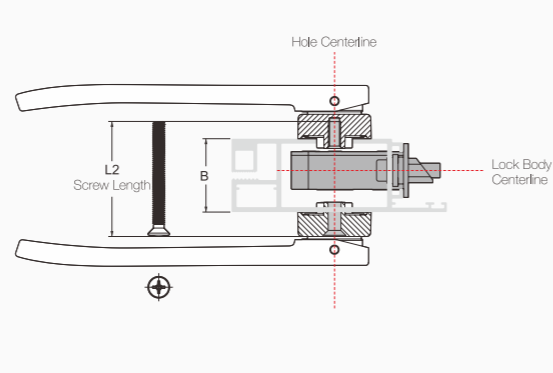
Formula for Calculating the Screw Length:

A. Exterior Flat Handle matched with interior Spindle Drive Handle



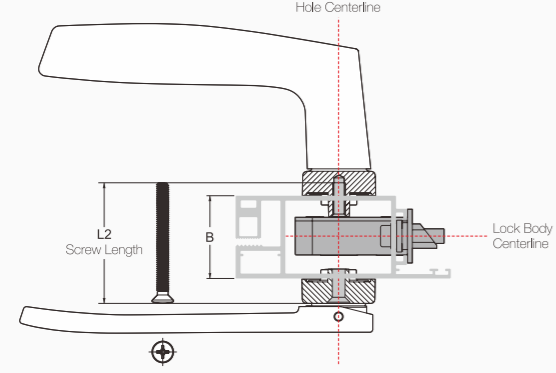
Formula for Calculating the Screw Length:
 B --- Profile Sash Thickness
 L2 --- Screw Length
 $L2 = B + 16.5$
 L2 Size Range: +0.5, -3.0
 Select the required lengths of the standard parts according to the Size L2.
 If unavailable, they will need to be customized.

B. Exterior Flat Handle matched with Interior Flat Handle



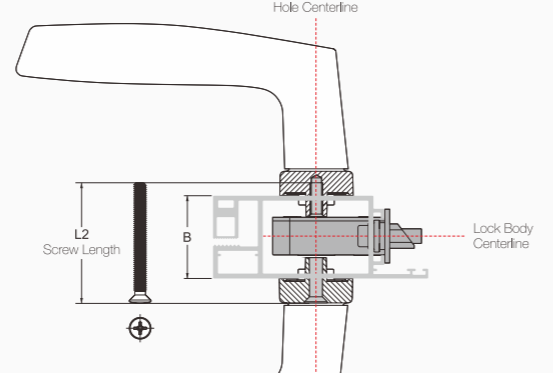
Formula for Calculating the Screw Length:
 B --- Profile Sash Thickness
 L2 --- Screw Length
 $L2 = B + 16.5$
 L2 Size Range: +0.5, -3.0
 Select the required lengths of the standard parts according to the Size L2.
 If unavailable, they will need to be customized.

C. 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



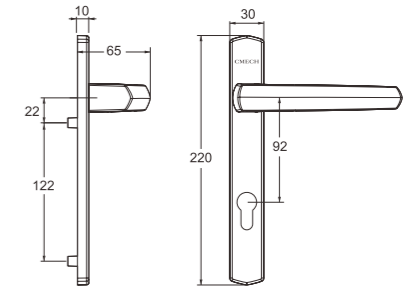
Formula for Calculating the Screw Length:
 B --- Profile Sash Thickness
 L2 --- Screw Length
 $L2 = B + 15$
 L2 Size Range: +0.5, -5.0
 Select the required lengths of the standard parts according to the Size L2.
 If unavailable, they will need to be customized.

HANDLE SELECTIONS

NEW YORK SERIES
Spindle Drive Handle (Type D)



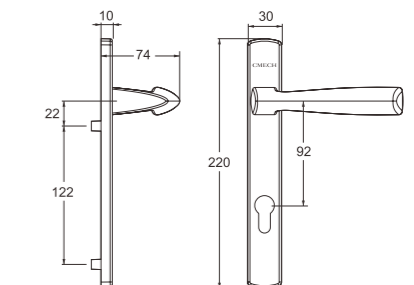
P/N	Description	P/N	Description	P/N	Description
D010133-	With Cylinder	D010129-	Single Side Fixed without Cylinder (Left Handle, Exterior)	D010131-	Single Side Fixed without Cylinder (Right Handle, Exterior)
D010134-	Without Cylinder	D010130-	Single Side Fixed without Cylinder (Right Handle, Interior)	D010132-	Single Side Fixed without Cylinder (Left Handle, Interior)



BERLIN SERIES
Spindle Drive Handle (Type D)



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

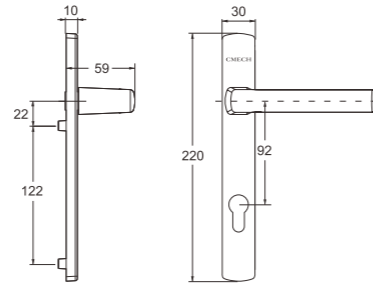
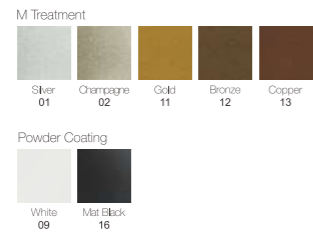
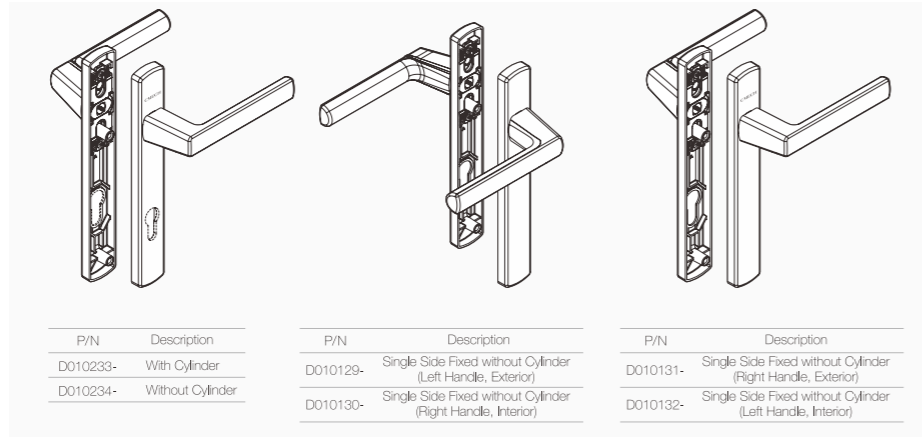




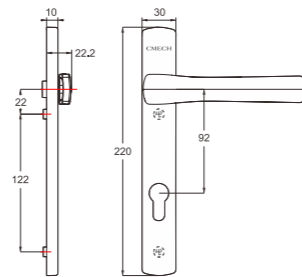
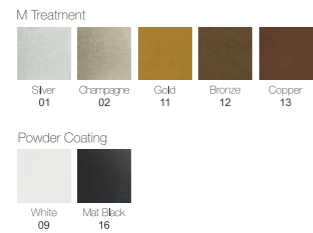
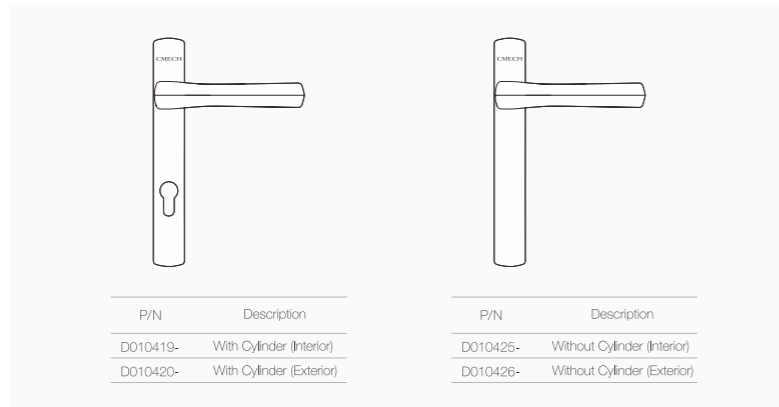
HANDLE SELECTIONS

KOLN SERIES

Spindle Drive Handle (Type D)



FLAT HANDLE



DOOR HANDLES SELECTION TABLE

P/N	Description	Door Handles Selection Table												
		Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Note	
D010127	Fixed without Cylinder (Left Handle)-New York Series	✓												Left Hand Door (Exterior View)
D010128	Fixed without Cylinder (Right Handle)-New York Series		✓											Right Hand Door (Exterior View)
D010129	Fixed without Cylinder (Left Handle, Exterior)-New York Series			✓										Select as Required
D010130	Fixed without Cylinder (Right Handle, Interior)-New York Series				✓									Select as Required
D010131	Fixed without Cylinder (Right Handle, Exterior)-New York Series					✓								Select as Required
D010132	Fixed without Cylinder (Left Handle, Interior)-New York Series						✓							Select as Required
D010133	With Cylinder -New York Series							✓						Hinged Door
D010135	With Cylinder(Interior) -New York Series								✓					Can be Matched with Flat Handle
D010136	With Cylinder(Exterior) -New York Series									✓				Can be Matched with Flat Handle
D010134	Without Cylinder -New York Series										✓			Hinged Door
D010137	Without Cylinder(Interior) -New York Series											Optional		Can be Matched with Flat Handle
D010138	Without Cylinder(Exterior) -New York Series												Optional	Can be Matched with Flat Handle
D010419	With Cylinder (Interior) -Flat Handle													Can be Matched with Hinged Door Handle
D010420	With Cylinder (Exterior) -Flat Handle													Can be Matched with Hinged Door Handle
D010425	Without Cylinder (Interior) -Flat Handle												✓	Can be Matched with Hinged Door Handle
D010426	Without Cylinder (Exterior) -Flat Handle												✓	Can be Matched with Hinged Door Handle



DOOR HANDLES SELECTION TABLE

P/N	Description	Adjustable										Note			
		Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed				
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									✓					Can be Matched with Flat Handle
D010434	Without Cylinder -Berlin Series										✓				Hinged Door
D010437	Without Cylinder(Interior) -Berlin Series											Optional			Can be Matched with Flat Handle
D010438	Without Cylinder(Exterior) -Berlin Series												Optional		Can be Matched with Flat Handle
D010419	With Cylinder (Interior) -Flat Handle													✓	Can be Matched with Hinged Door Handle
D010420	With Cylinder (Exterior) -Flat Handle													✓	Can be Matched with Hinged Door Handle
D010425	Without Cylinder (Interior) -Flat Handle													Optional	Can be Matched with Hinged Door Handle
D010426	Without Cylinder (Exterior) -Flat Handle													Optional	Can be Matched with Hinged Door Handle



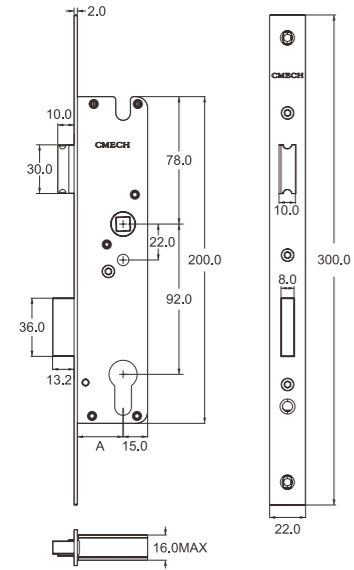
DOOR HANDLES SELECTION TABLE

P/N	Description	Adjustable										Note			
		Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed				
D010227	Fixed without Cylinder (Left Handle)-Koh Series	✓													Left Hand Door (Exterior View)
D010228	Fixed without Cylinder (Right Handle)-Koh Series		✓												Right Hand Door (Exterior View)
D010229	Fixed without Cylinder (Left Handle, Exterior)-Koh Series			✓											Select as Required
D010230	Fixed without Cylinder (Right Handle, Interior)-Koh Series				✓										Select as Required
D010231	Fixed without Cylinder (Right Handle, Exterior)-Koh Series					✓									Select as Required
D010232	Fixed without Cylinder (Left Handle, Interior)-Koh Series						✓								Select as Required
D010233	With Cylinder -Koh Series							✓							Hinged Door
D010235	With Cylinder(Interior) -Koh Series								✓						Can be Matched with Flat Handle
D010236	With Cylinder(Exterior) -Koh Series									✓					Can be Matched with Flat Handle
D010234	Without Cylinder -Koh Series										✓				Hinged Door
D010237	Without Cylinder(Interior) -Koh Series											Optional			Can be Matched with Flat Handle
D010238	Without Cylinder(Exterior) -Koh Series												Optional		Can be Matched with Flat Handle
D010419	With Cylinder (Interior) -Flat Handle													✓	Can be Matched with Hinged Door Handle
D010420	With Cylinder (Exterior) -Flat Handle													✓	Can be Matched with Hinged Door Handle
D010425	Without Cylinder (Interior) -Flat Handle													Optional	Can be Matched with Hinged Door Handle
D010426	Without Cylinder (Exterior) -Flat Handle													Optional	Can be Matched with Hinged Door Handle



LOCK BODIES

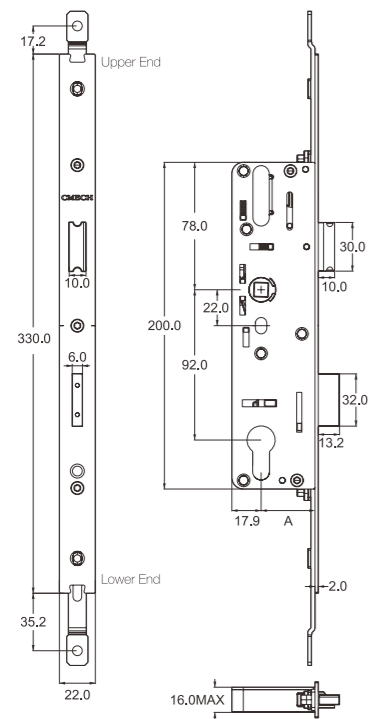
22x300 Active Single-Point Lock Body



Installation & Optional Sizes are Available

P/N	A	Descriptions
D030021	28	Active Single-Point Lock Body 28 mm
D030022	33	Active Single-Point Lock Body 33 mm

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



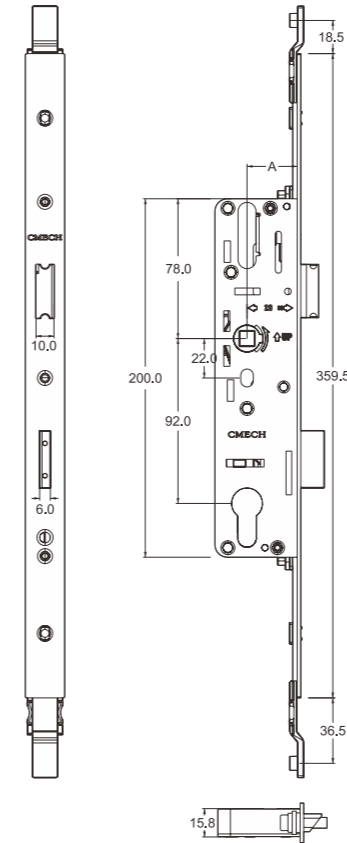
Installation & Optional Sizes are Available

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



LOCK BODIES

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



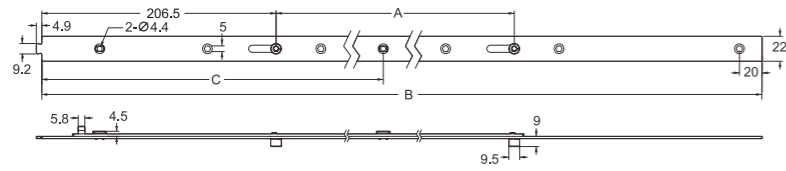
Installation & Optional Sizes are Available

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



LOCKING HARDWARE

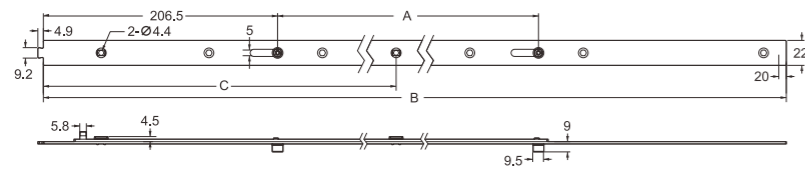
Espagnolette Bolt



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

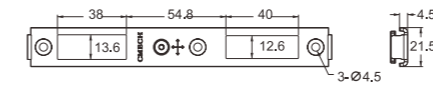


P/N	A	B	C	Material
D020004	370	795	-	304SS
D020005	490	915	441	304SS
D020006	610	1,035	501	304SS

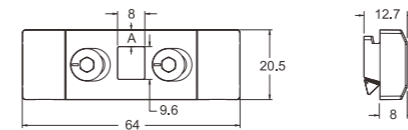


KEEPERS AND OTHER ACCESSORIES

D100012
Adjustable Strike



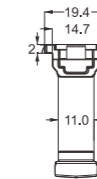
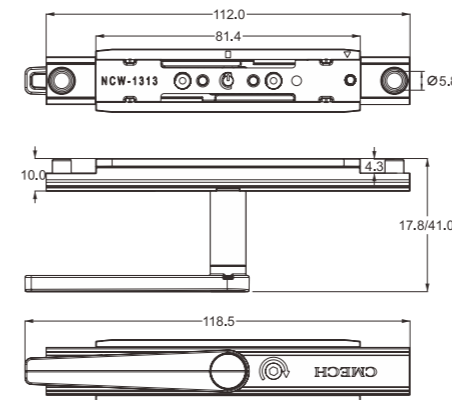
Adjustable Shootbolt Bracket (C-Groove)



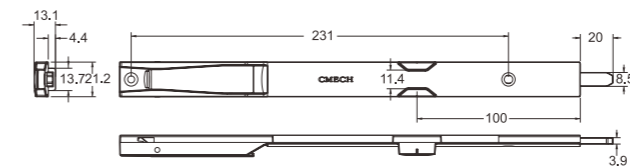
P/N	A
D070003	6 mm
D070004	5 mm



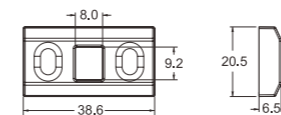
D070010
Bi Directional Shootbolt Connector



D070006
Shootbolt



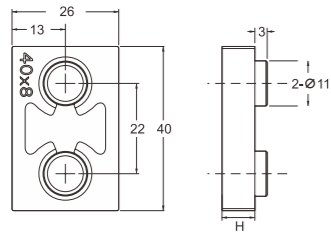
D070007
Shootbolt Bracket (Grooveless)





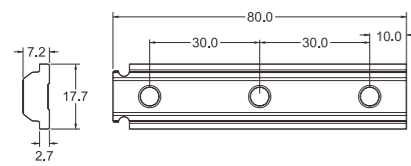
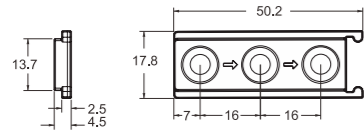
KEEPERS AND OTHER ACCESSORIES

Flush-Fit Hinge Gasket

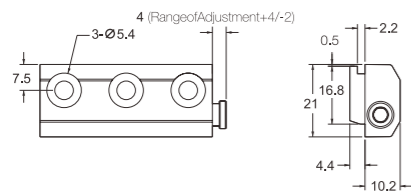


P/N	H	Descriptions
D140001	7	7x40
D140002	8	8x40
D140003	8,5	8,5x40
D140004	10	10x40
D140005	11	11x40

D000049
Anti Slide Clamping Block

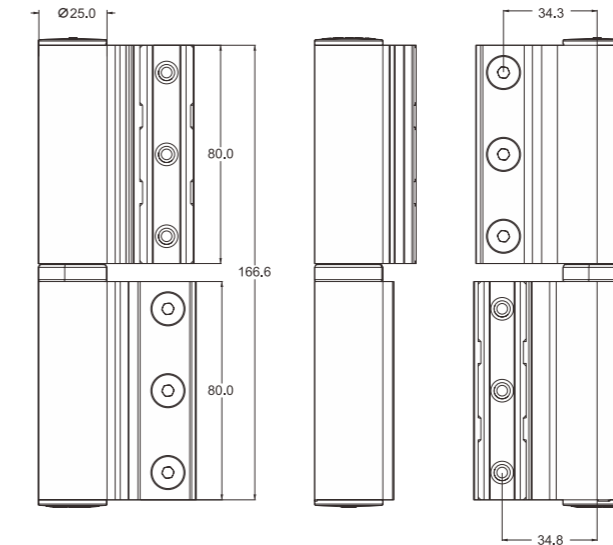


D000007
Sash Height Adjusting Block



HINGES

120 kg Hinge



P/N	Descriptions
D040017-	Left
D040018-	Right

M Treatment

Silver 01	Champagne 02	Gold 11	Bronze 12	Copper 13
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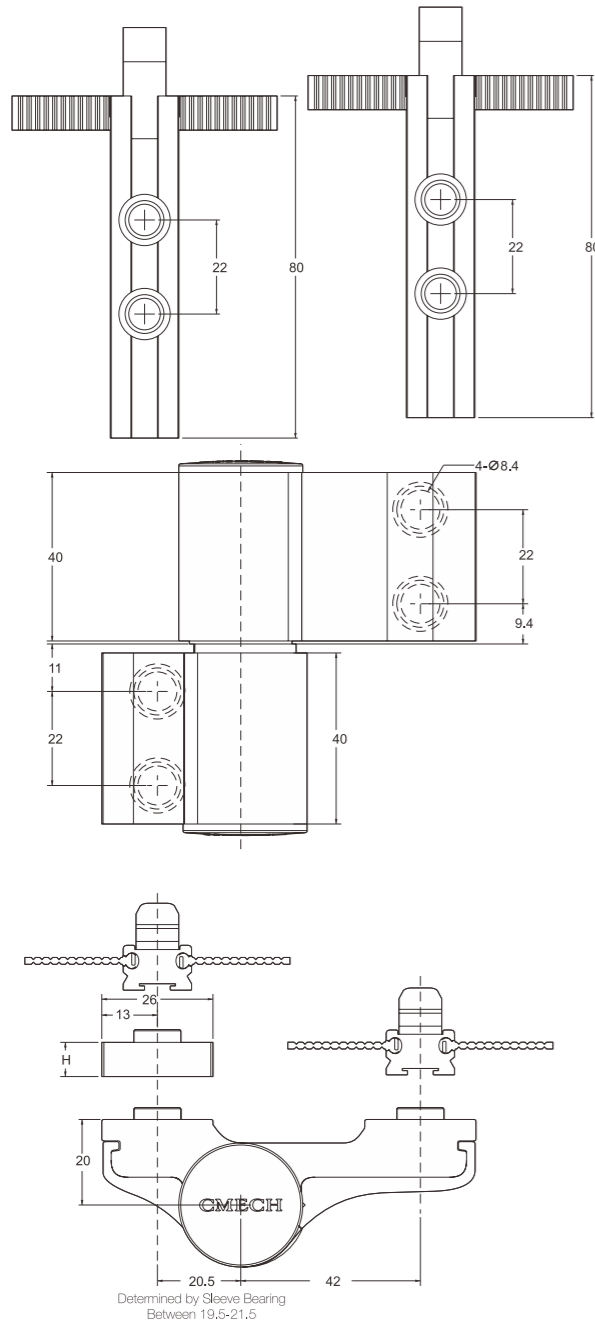
Powder Coating

White 09	Mist Black 16
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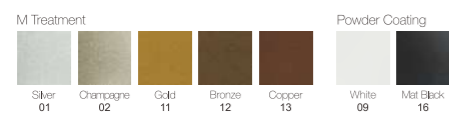


HINGES

140 kg Flush-Fit Hinge

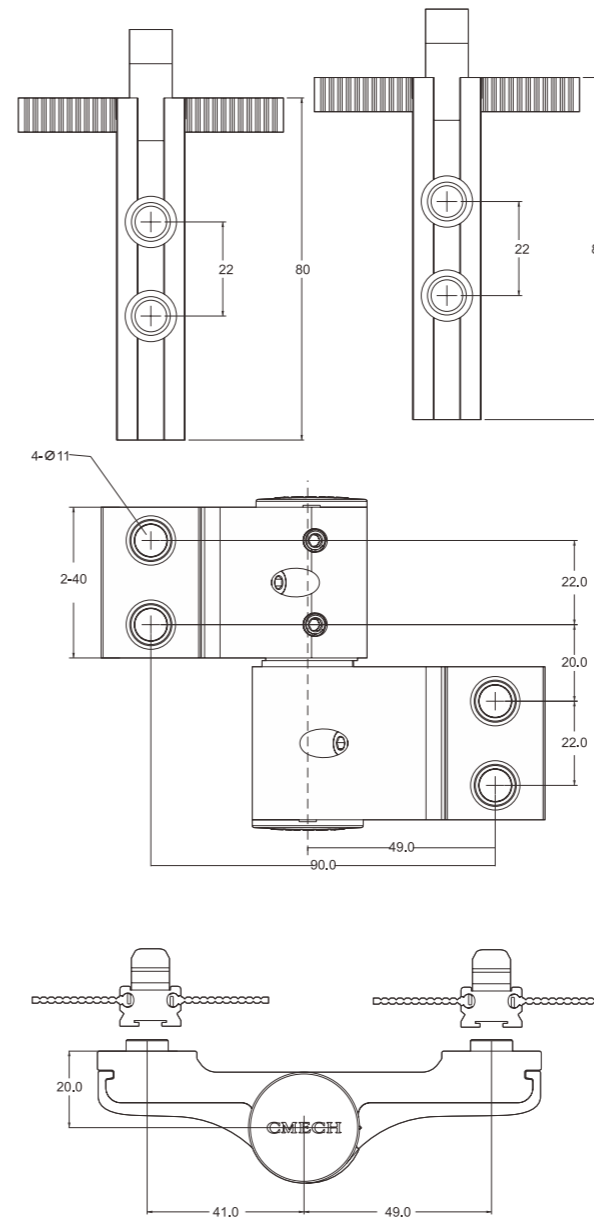


P/N	Description
D040003-	140 kg Flush-Fit Hinge (2 Sections / Centreline Distance 61.5 mm)

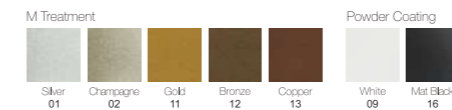


HINGES

140 kg Flush-Fit Hinge



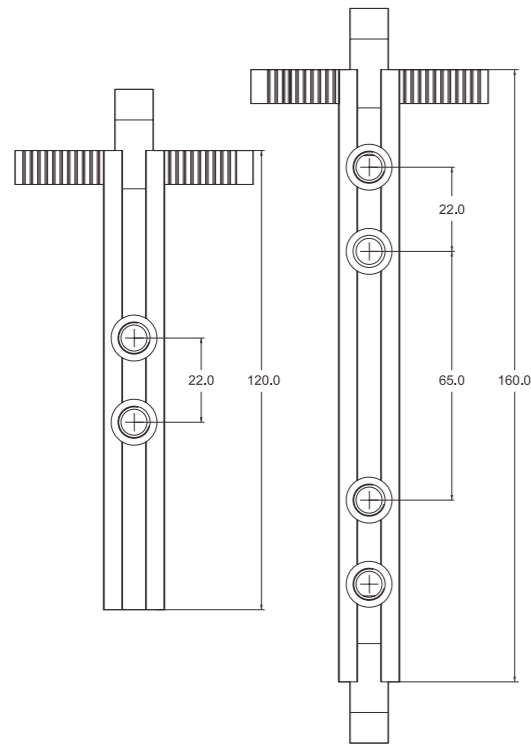
P/N	Description
D040013-	140 kg Flush-Fit Hinge (2 Sections / Centreline Distance 90 mm)



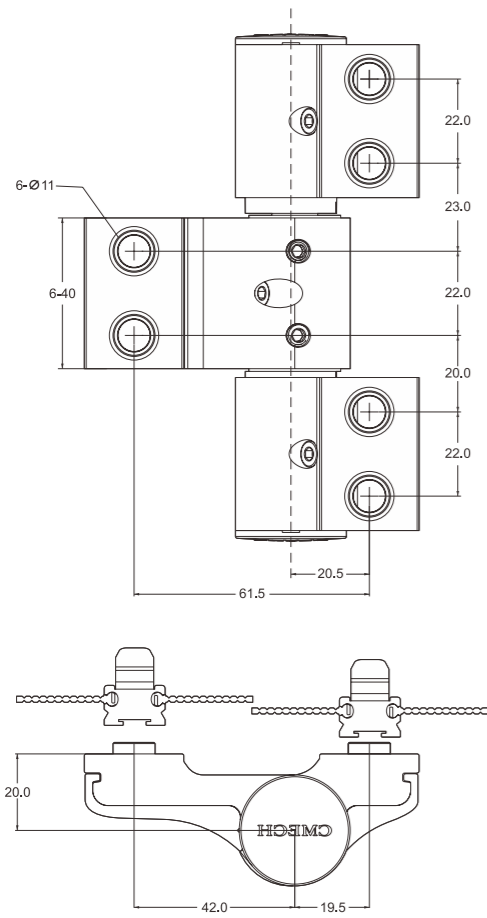
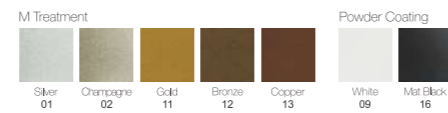


HINGES

180 kg Flush-Fit Hinge

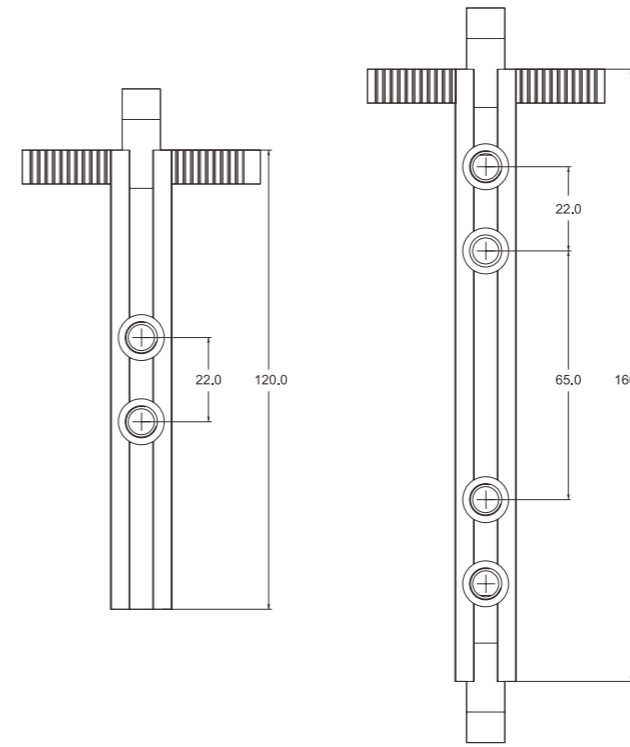


P/N	Description
D040014-	180 kg Flush-Fit Hinge (3 Sections / Centreline Distance 61.5 mm)

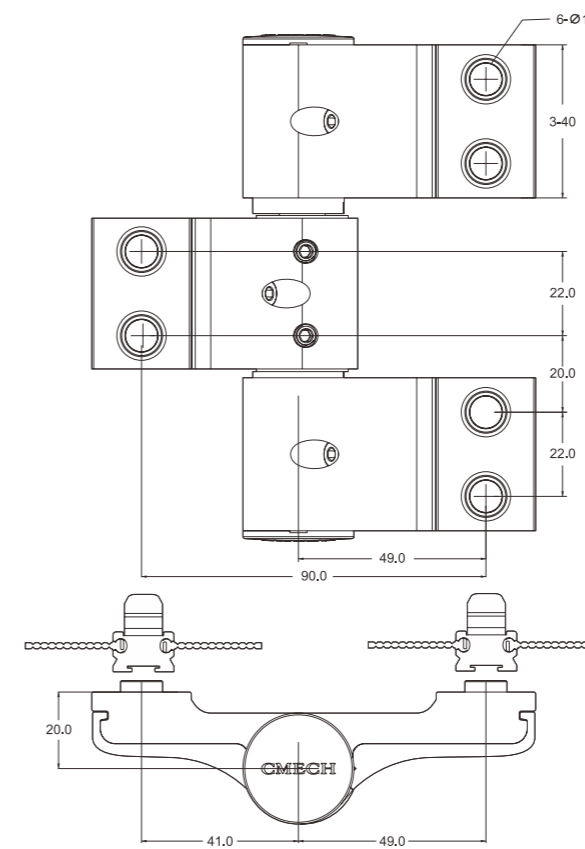
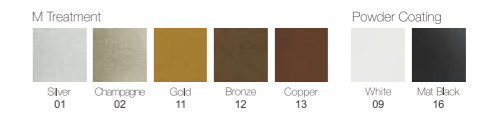


HINGES

180 kg Flush-Fit Hinge

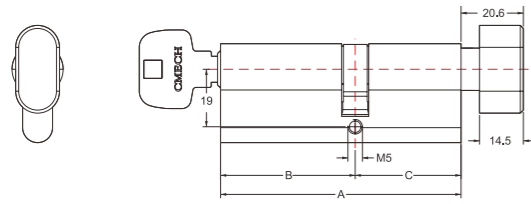


P/N	Description
D040015-	180 kg Flush-Fit Hinge (3 Sections / Centreline Distance 90 mm)



CYLINDERS

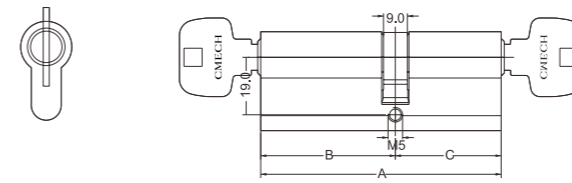
Oval Thumb Turn Brass Cylinder



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	70	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
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	R25 x 35mm	60	35	25
D130167	R50 x 40mm	90	40	50
D130168	R90 x 30mm	120	30	90
D130169	R30 x 90mm	120	90	30
D130170	R85 x 35mm	120	35	85
D130171	R35 x 85mm	120	85	35
D130172	R95 x 30mm	125	30	95
D130173	R30 x 95mm	125	95	30
D130174	R90 x 35mm	125	35	90
D130175	R35 x 90mm	125	90	35
D130113	R30,5 x 40,5 mm	71	30	45
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	R65 x 40 mm	105	40	65
D130154	R45 x 55 mm	100	55	45
D130155	R55 x 45 mm	100	45	55
D130159	R25 x 30 mm	55	30	25
D130160	R30 x 25 mm	55	25	30

CYLINDERS

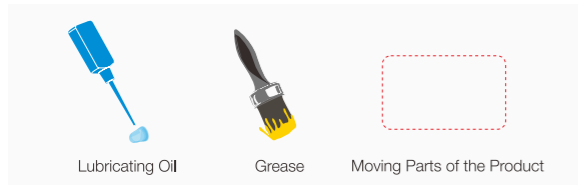
Double-Sided Keyed Brass Cylinder



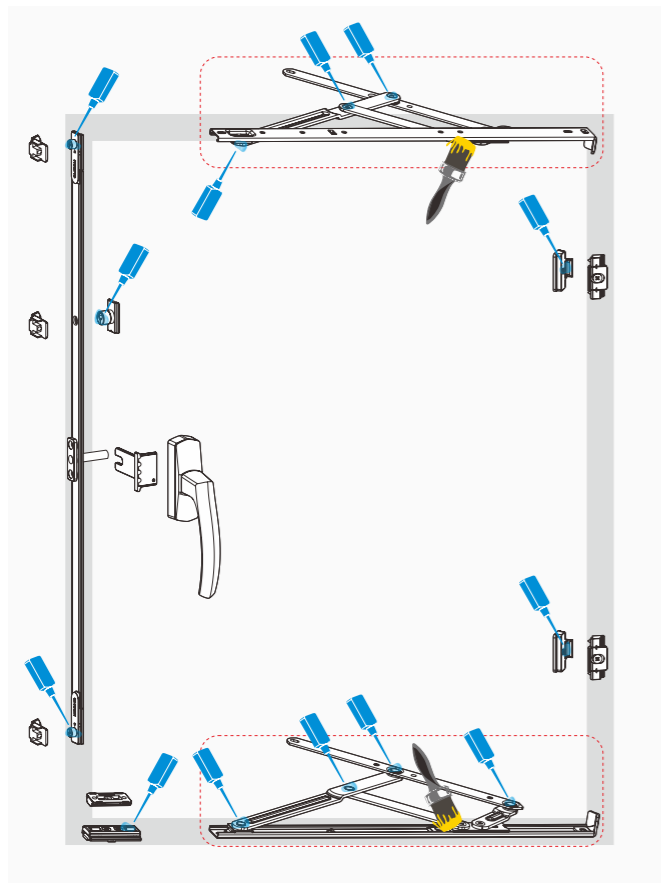
P/N	Description	Specifications		
		A	B	C
D130402	R35,5 x 35,5 mm	71	35,5	35,5
D130409	R30 x 50 mm	80	50	30
D130412	R30 x 55 mm	85	55	30
D130415	R30 x 60 mm	90	60	30
D130418	R45 x 45 mm	90	45	45
D130419	R30 x 65 mm	95	65	30
D130420	R30 x 70 mm	100	70	30
E130403	R40 x 40 mm	80	40	40
F130405	R45 x 35 mm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

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.

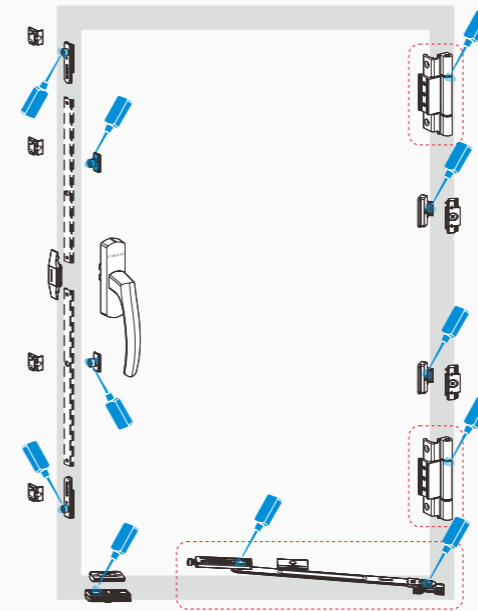


Outswing Casement Window Hardware

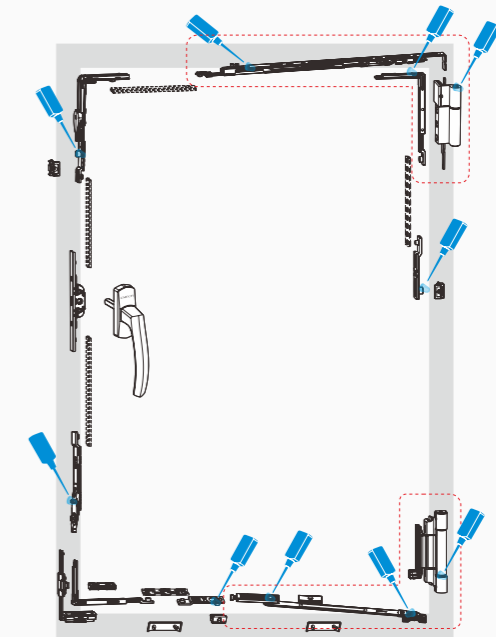


MAINTENANCE

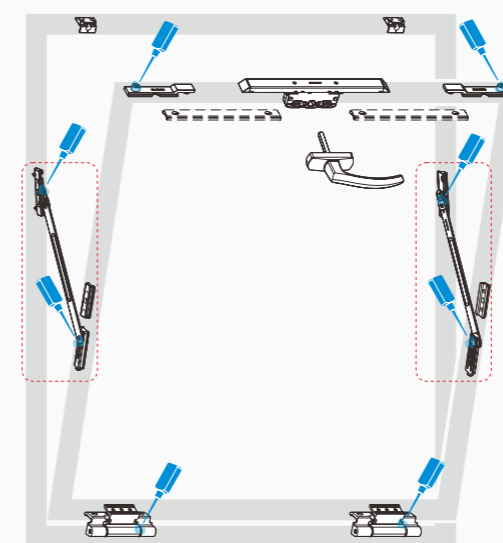
Inswing Casement Window Hardware



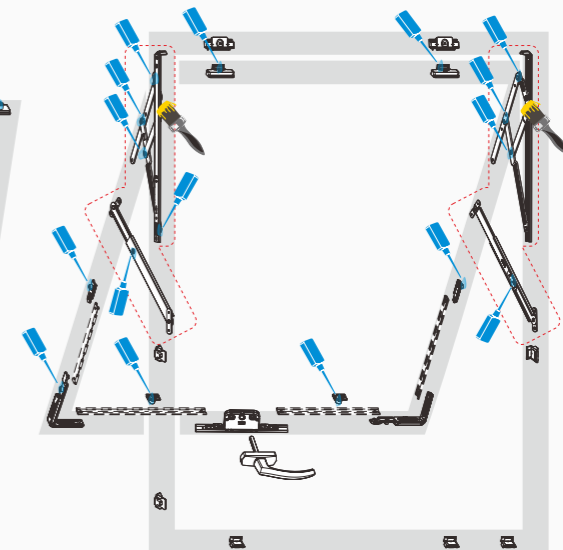
Tilt & Turn Window Hardware



Hopper Window Hardware

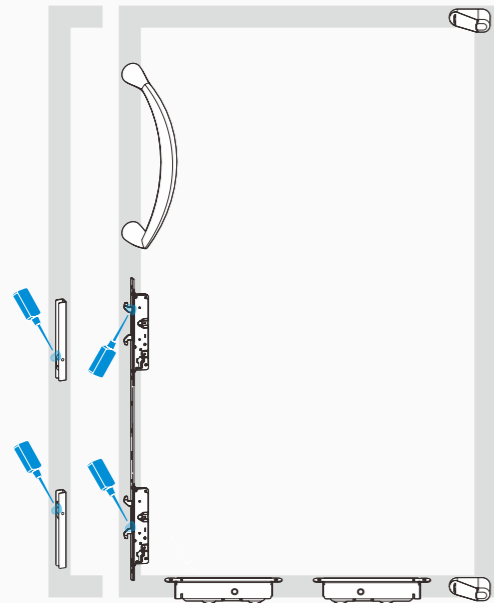


Outswing Awning Window Hardware

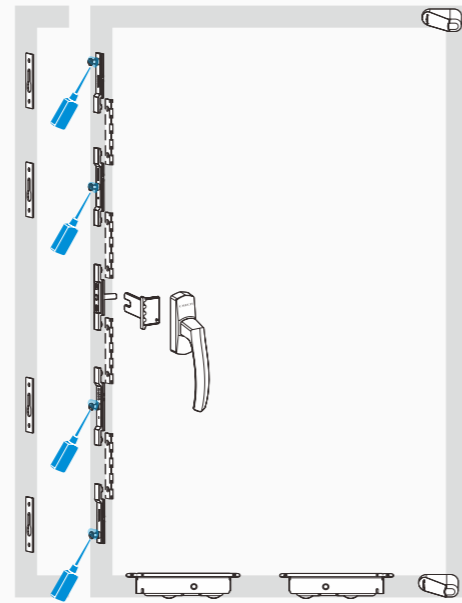


MAINTENANCE

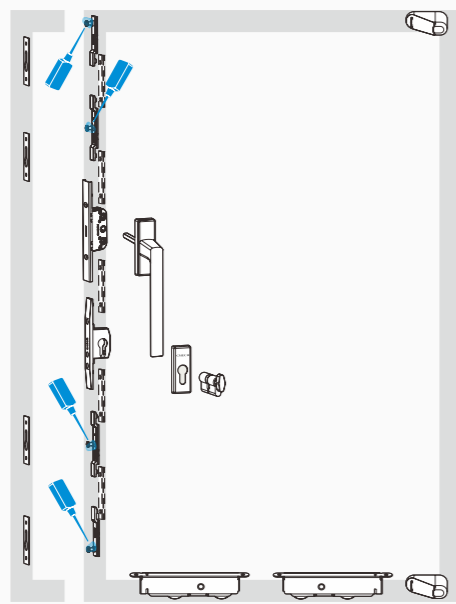
Gliding Door Hardware
London Handle + Hook Lock Configuration



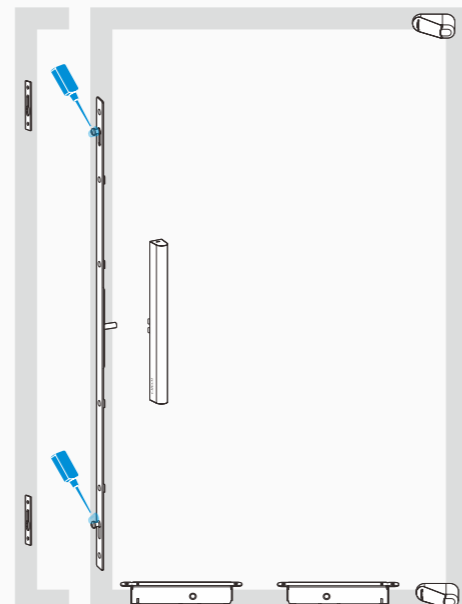
Gliding Door Hardware
T-Drive Configuration



Gliding Door Hardware
Spindle Drive Configuration

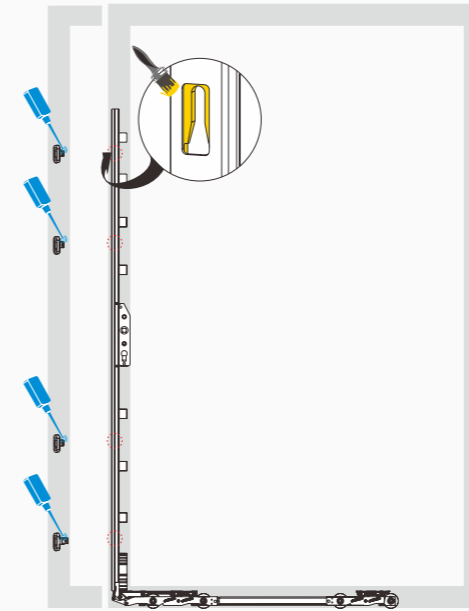


Gliding Door Hardware
Drive Gear Configuration

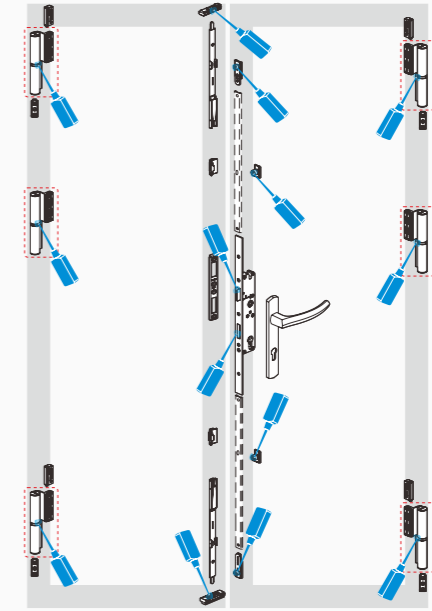


MAINTENANCE

Lift & Slide Door Hardware



Hinged Door Hardware



Bi-Folding Door Hardware



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