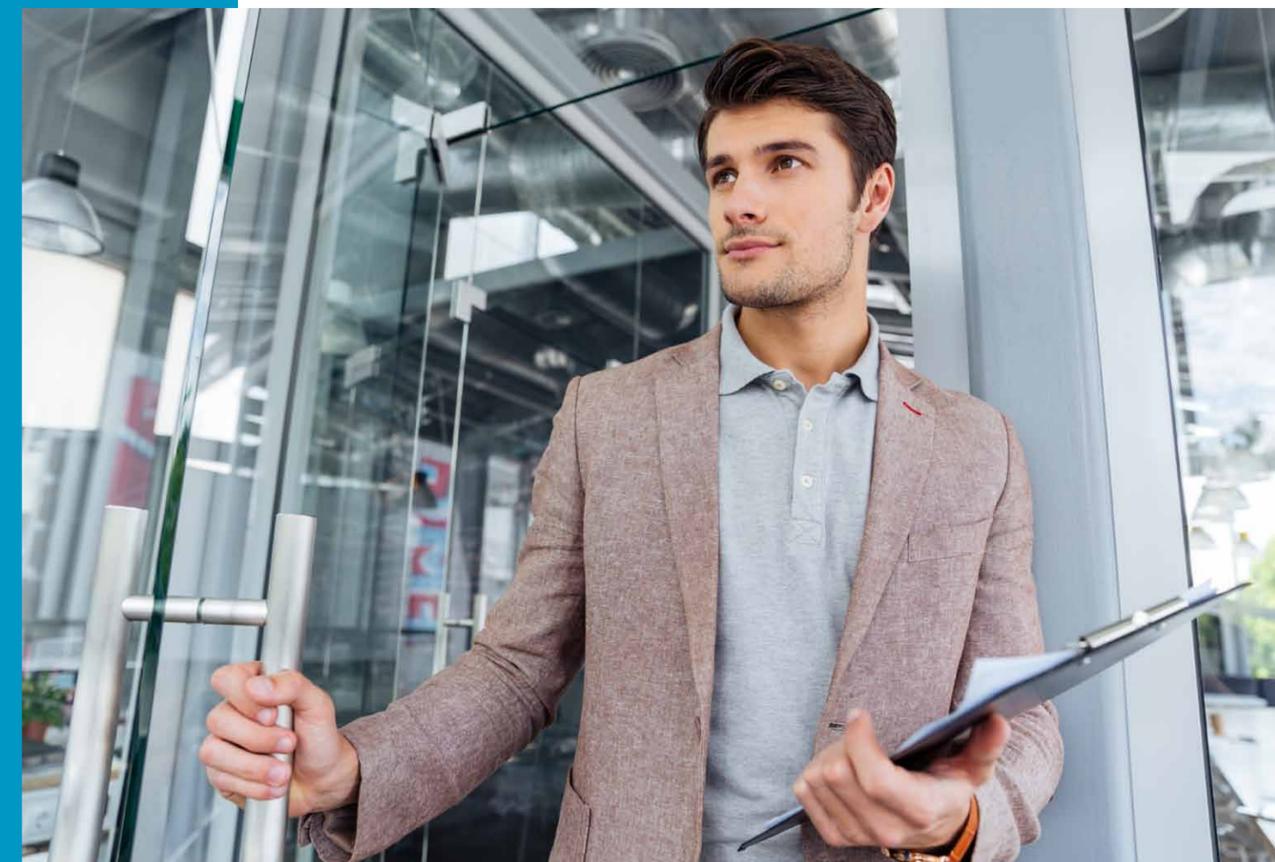




**CLEARLY MEETS ALL  
YOUR GLASS HARDWARE NEEDS.**



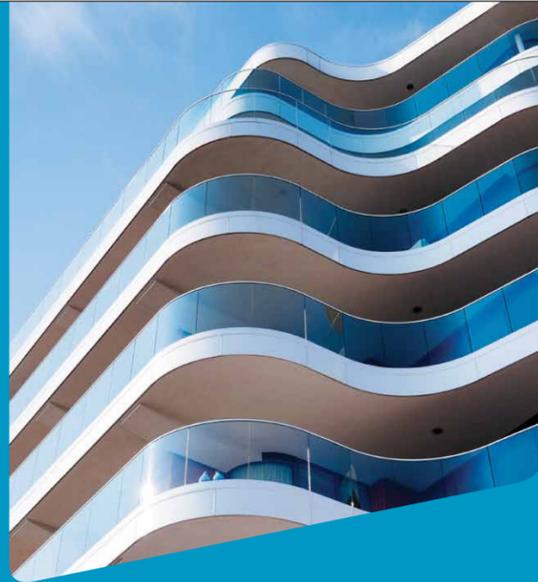
**COMPLETE GLASS SOLUTIONS  
FROM SAINT-GOBAIN.**

#wellbeinginlivingspaces



**Saint-Gobain India Private  
Limited - Glass Business**

Level 7,  
Sigapi Aachi Building,  
18/3 Rukmani  
Lakshmiipathy Road,  
Egmore, Chennai - 600 008,  
Tamil Nadu.  
Ph: + 91-44-4593 6000  
Fax: +91-44-4593 6008  
feedback@sgghardware.com  
<http://in.saint-gobain-glass.com>  
Toll Free No: 1800 1021 215



THE FUTURE OF GLASS.  
SINCE 1665.



**Saint-Gobain - Going beyond building spaces, for making the world a better home.**

Saint-Gobain, a world leader in the habitat and construction markets, designs, manufactures and distributes high-performance, innovative building materials across the globe. Saint-Gobain's materials and solutions are designed for the well-being of each of us and the future of all.

They provide comfort, high performance and safety, meeting the challenges of sustainable construction, effective resource management and climate change.

## OUR HERITAGE



One of the top 100 global innovators over the last 10 years



Commitment: carbon neutrality by 2050



World or European leader in most of our businesses

Founded more than  
**355**  
YEARS AGO

Over  
**167,000**  
employees representing more than 110 nationalities

Located in  
**72**  
COUNTRIES

Around  
**800**  
manufacturing facilities worldwide

Sales in 2020  
**€38.1BN**

More than  
**3,500**  
sales outlets

## OUR ORGANIZATION

-  Southern Europe, Middle-East, Africa
-  Northern Europe
-  Americas
-  Asia-Pacific

## OUR WORLD-CLASS RESEARCH AND INNOVATION RECOGNIZED INNOVATION CAPABILITIES



8 Saint-Gobain Research (SGR) cross-business R&D centers



2,100 marketing people



1 out of 4 products sold today by Saint-Gobain did not exist 5 years ago



Over 100 development centers



Over 3,600 researchers



Over 400 patents filed each year



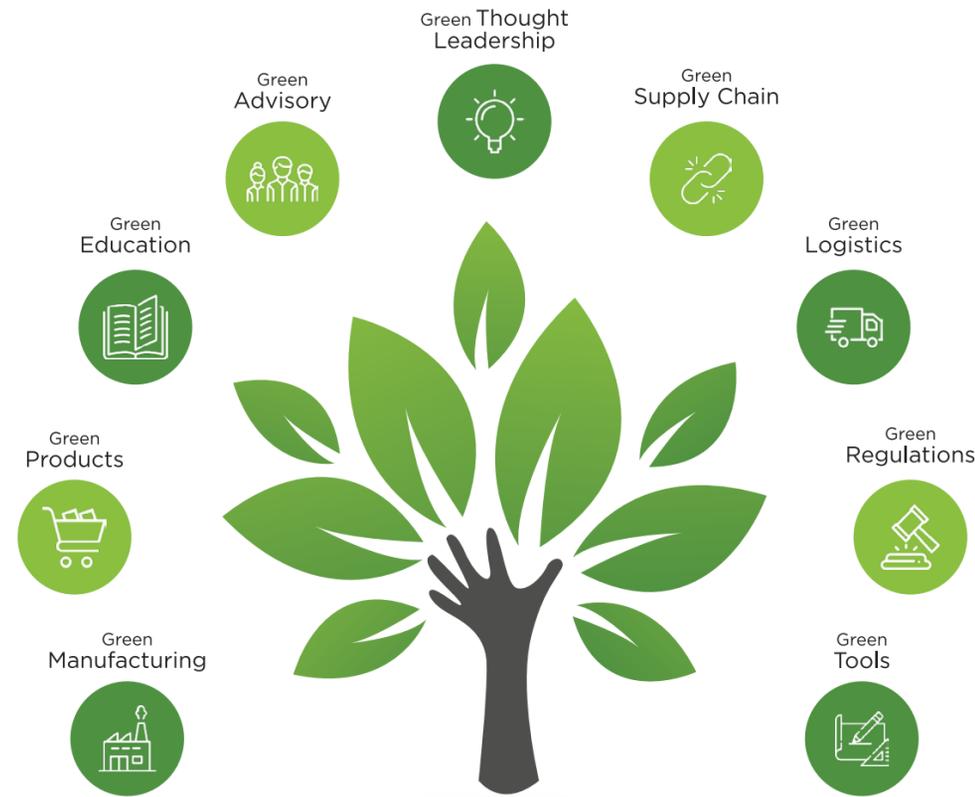
ONE OF THE MOST INNOVATIVE GROUPS IN THE WORLD  
Top 100 global innovator 2021



# SUSTAINABILITY

## 2050 NET ZERO CARBON

At Saint-Gobain, we work hard to help create an economy with as little environmental impact as possible. By 2025, we have committed to reducing our CO2 emissions by 20%, our non-recovered waste by 50%, our industrial water emissions by 80%, and reach net-zero emissions by 2050, as per 1.5°C scenarios.



**SAINT-GOBAIN**  
SMART GREEN

## LEADING THE BUILDING MATERIALS SEGMENT IN INDIA



HIGH-PERFORMANCE GLOBAL SOLUTIONS



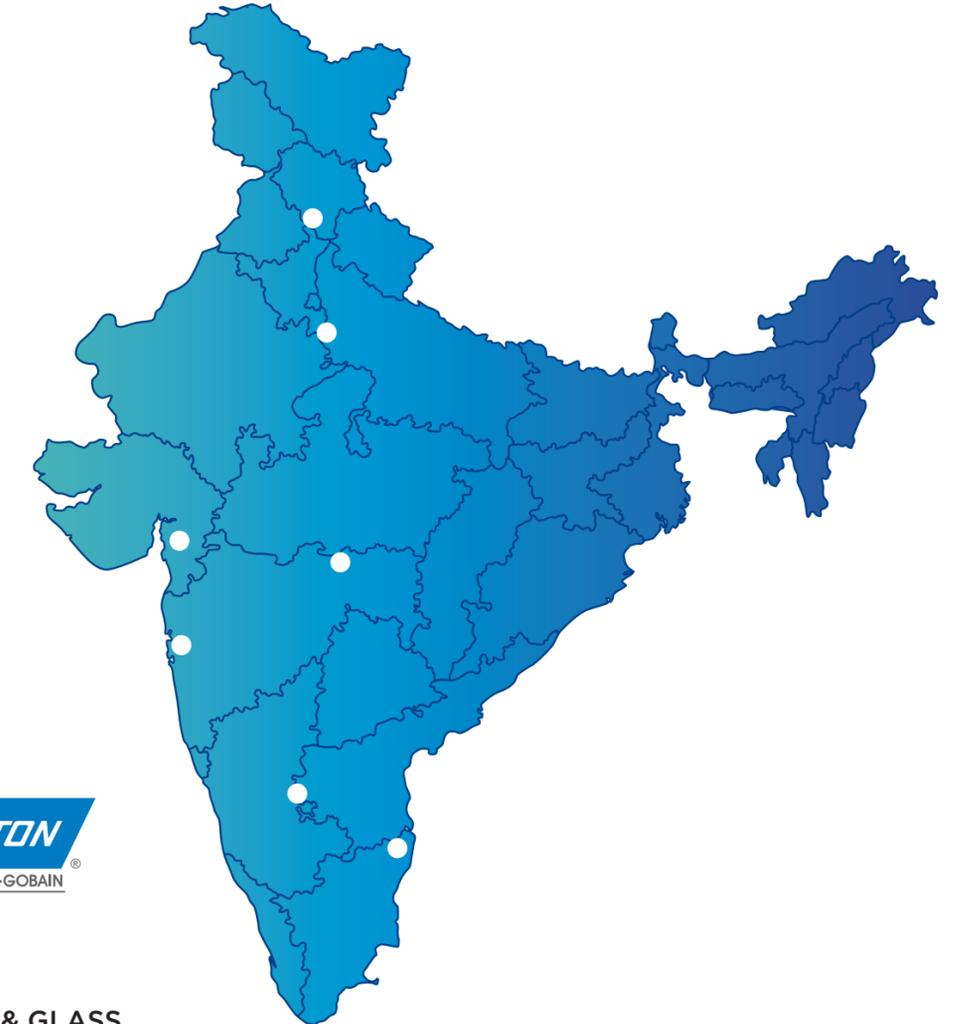
13,767 + EMPLOYEES



22 MANUFACTURING SITES ACROSS INDIA



INVESTMENT IN INDIA OVER INR 9022 CR



### MAJOR ENTITIES:



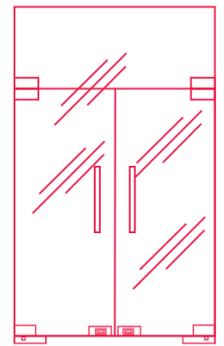
### REGIONAL BUSINESSES - GLASS & GLASS SOLUTIONS:



PRESENTING GLASS  
HARDWARE SOLUTIONS

# GLASS DOOR FITTINGS

WORLD-CLASS  
INNOVATION  
GREET'S GREAT  
QUALITY AND  
PERFORMANCE





## TOUGHENED GLASS ASSEMBLIES

Saint-Gobain offers solutions for glass door applications where clear toughened glass, floor springs, patch fittings and pull handles are available from a single source.

### NOW COME AS A SOLUTION



FLOOR SPRINGS



PATCH FITTINGS



PULL HANDLES

### FINISHES AVAILABLE FOR ENTIRE RANGE

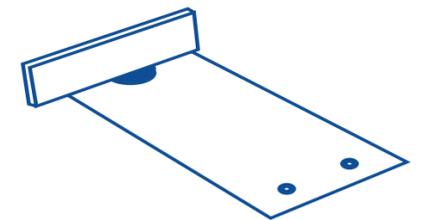
- SATIN STAINLESS STEEL
- POLISHED STAINLESS STEEL
- MATT BLACK

**20** Lakhs  
Twenty Lakh  
cycles tested



# FLOOR SPRINGS

ENJOY EASY  
ACCESS AND  
ENDURING  
DURABILITY





## SGF 665



SGF 665 heavy-duty floor springs are designed to provide endless durability with ANSI Grade 1 (2 million cycles) tested

**Scope of application:**

Single or double action doors

**In compliance with:**

ANSI A 156.4 Grade 1 & UL listed

**Characteristics:**

Cam action mechanism

Size 2-4 power adjustable spring strength

Weight carrying capacity - 150kgs

Comes inclusive of spring, cement box, cover plate, screw driver and fixing accessories



**20** Lakhs  
Twenty Lakh  
cycles tested

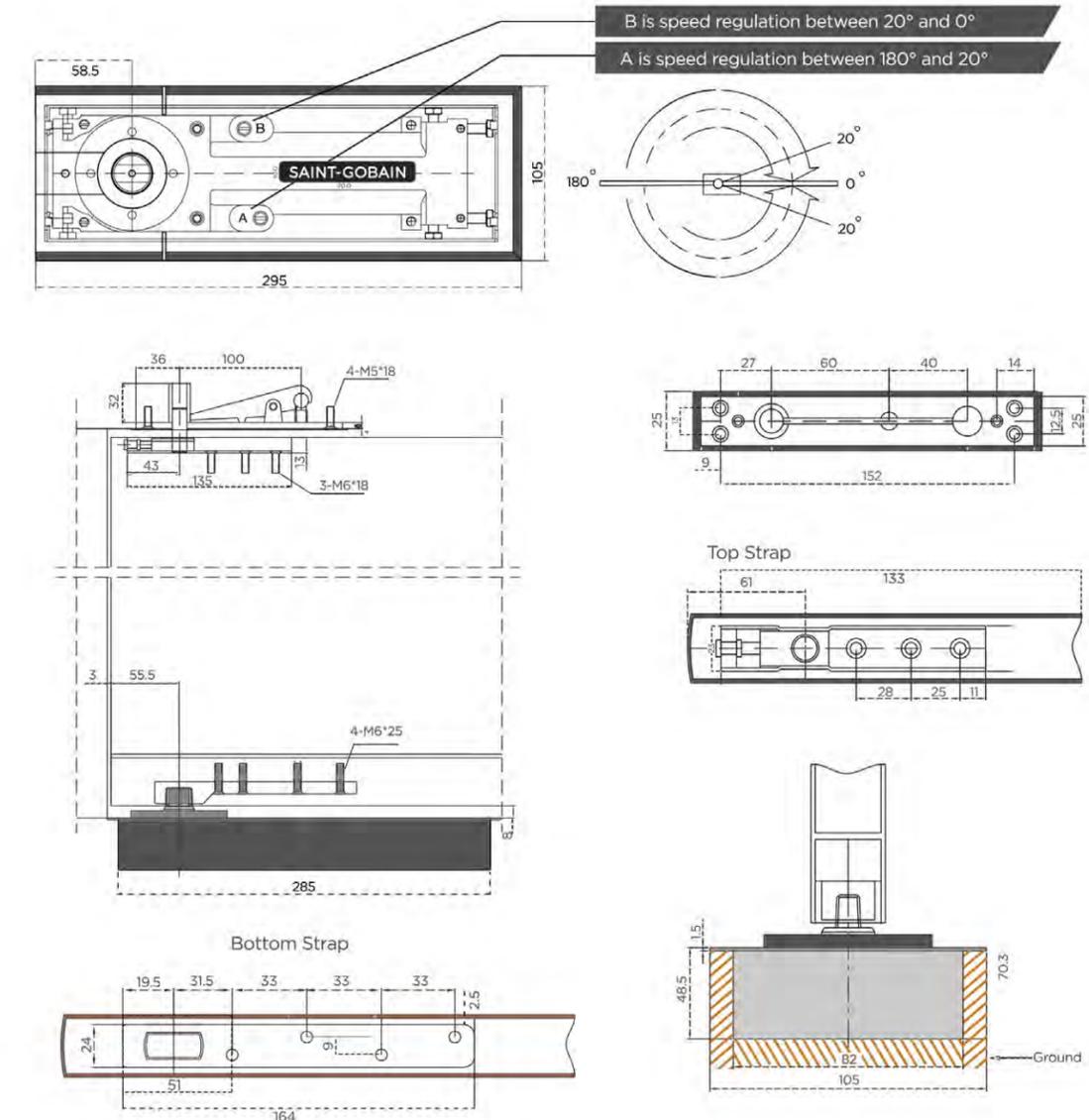


## TECHNICAL PARAMETERS

Spring Size	Power Adjustable 2-4
Maximum Door Weight	150kgs
Maximum Door Width	1100mm
Maximum Opening Angle	180°
Dimensions	275 x 82 x 48.5mm
Cover Plate Dimensions	295 x 105 x 1.5mm
Closing Speed Adjustable	Yes, 180° - 20°
Latching Speed Adjustable	Yes, 20° - 0°

## TECHNICAL DRAWING

SGF 665 Double action floor spring.



All dimensions are in mm.

SGF 665



## SGF 645



SGF 645 heavy-duty floor springs are designed to provide endless durability with ANSI Grade 1 (2 million cycles) tested

**Scope of application:**

Single or double action doors

**In compliance with:**

ANSI A 156.4 Grade 1 & UL listed

**Characteristics:**

Cam action mechanism

Suitable for door widths up to 1000mm

Weight carrying capacity - 100kgs

Comes inclusive of spring, cement box, cover plate, screw driver and fixing accessories.



**20** Lakhs  
Twenty Lakh  
cycles tested

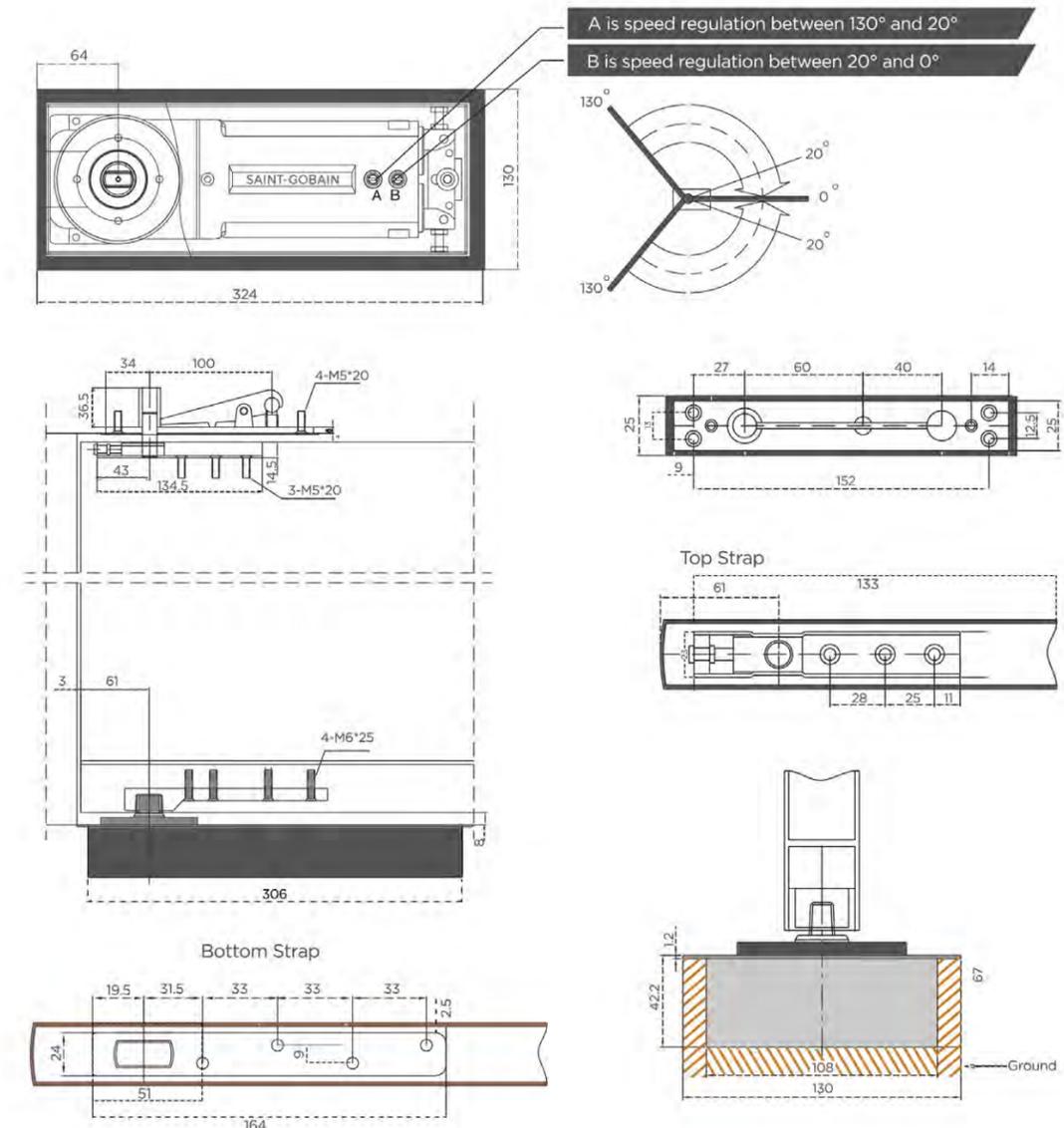


## TECHNICAL PARAMETERS

Spring Size	Size 3
Maximum Door Weight	100kgs
Maximum Door Width	1000mm
Maximum Opening Angle	130°
Dimensions	306 x 108 x 41mm
Cover Plate Dimensions	324 x 130 x 1.2mm
Closing Speed Adjustable	Yes, 130° - 20°
Latching Speed Adjustable	Yes, 20° - 0°

## TECHNICAL DRAWING

SGF 645 Double action floor spring.



All dimensions are in mm.

SGF 645



## SGF 640



SGF 640 Double cylinder floor springs are designed to suit all standard doors. Their robust construction is tested as per ANSI Grade 3 for 500,000 cycles

**Scope of application:**

Single or double action doors

**In compliance with:**

ANSI A 156.4 Grade 3

**Characteristics:**

Cam action mechanism

Suitable for door widths up to 950mm

Weight carrying capacity - 80kgs

Comes inclusive of spring, cement box, cover plate, and fixing accessories.



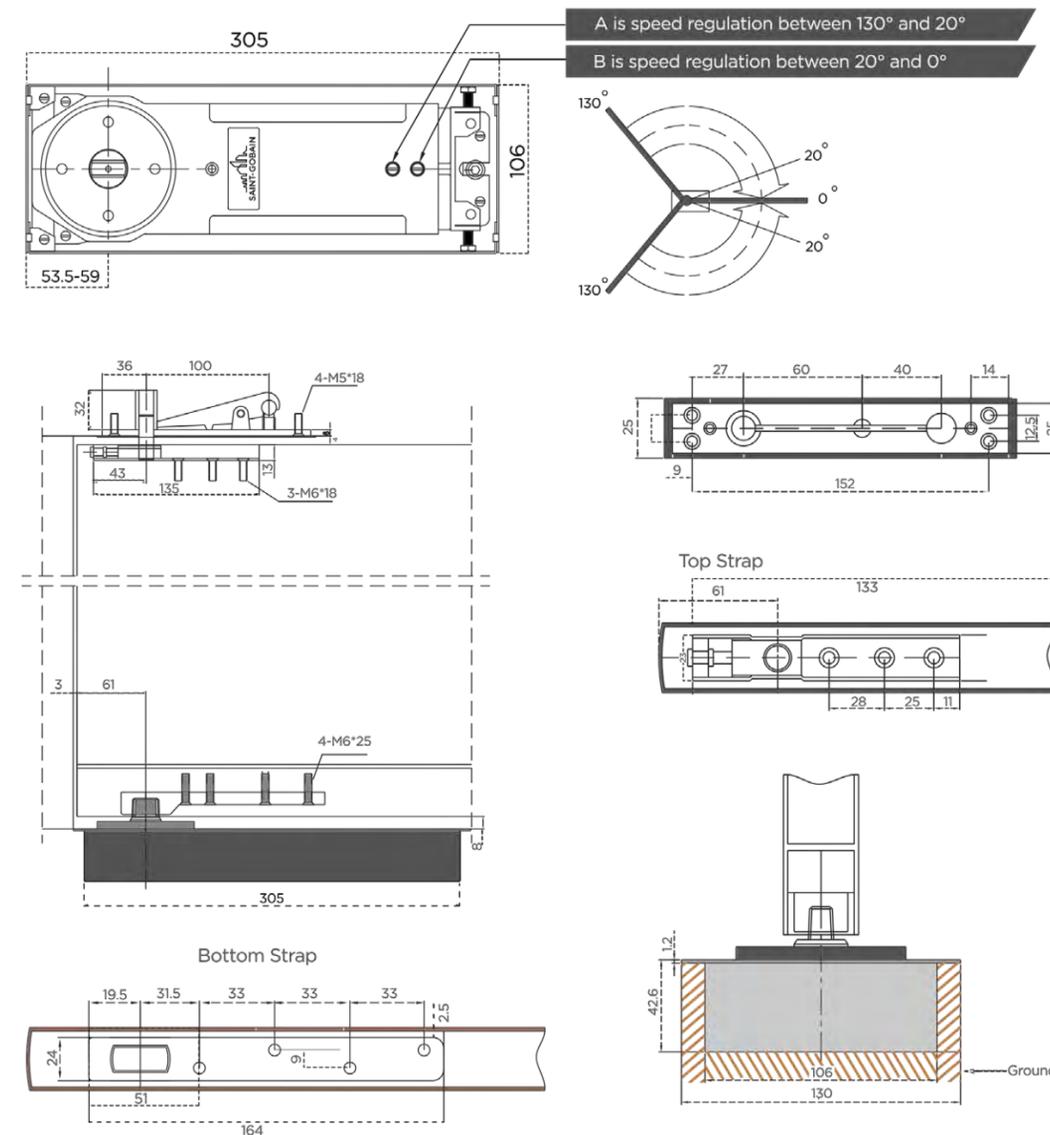
**5** Lakhs  
Five Lakh  
cycles tested

## TECHNICAL PARAMETERS

Spring Size	Size 3
Maximum Door Weight	80kgs
Maximum Door Width	950mm
Maximum Opening Angle	130°
Dimensions	305 x 106 x 41mm
Cover Plate Dimensions	322 x 130 x 1.2mm
Closing Speed Adjustable	Yes, 130° - 20°
Latching Speed Adjustable	Yes, 20° - 0°

## TECHNICAL DRAWING

SGF 640 Double action floor spring.

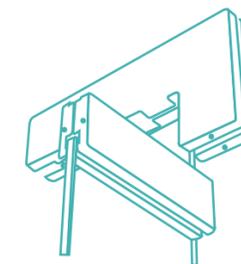


All dimensions are in mm.

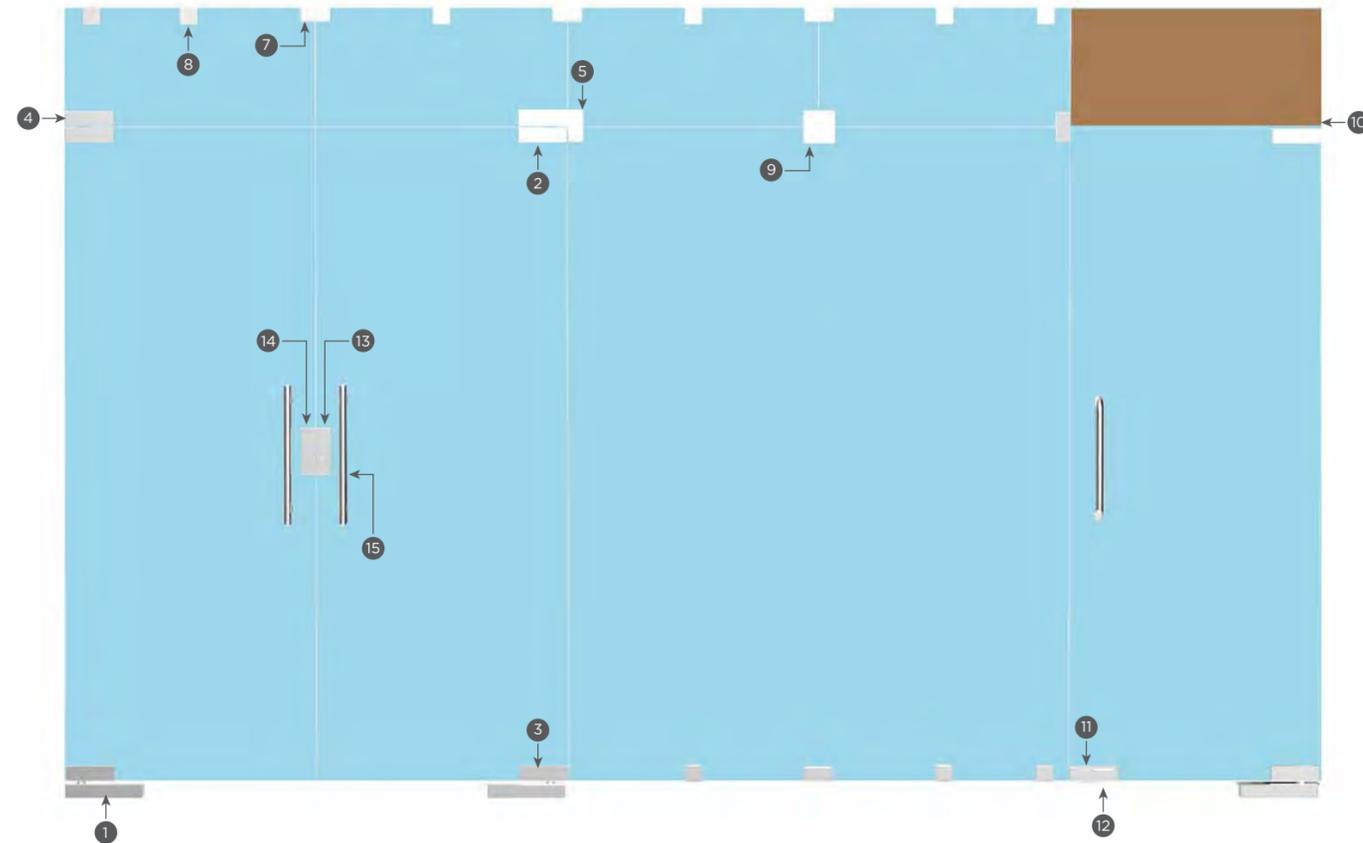
SGF 640

# PATCH FITTINGS

STURDY GLASS  
FITTINGS FOR  
STUNNING GLASS  
INSTALLATIONS



## GLASS DOOR FITTINGS



- |                                  |                                  |
|----------------------------------|----------------------------------|
| 1. Floor spring                  | 8. Corner connector              |
| 2. Top patch                     | 9. Quadruple connector           |
| 3. Bottom patch                  | 10. Top pivot                    |
| 4. Over panel patch              | 11. Corner lock                  |
| 5. Over & side panel patch       | 12. Strike plate for corner lock |
| 6. Over & side panel patch w/fin | 13. Central lock                 |
| 7. Side connector                | 14. Strike box for central lock  |
|                                  | 15. Pull handle                  |

## PATCH FITTING COMPONENTS

### PATCH FITTING FEATURES

#### Material :

Aluminium plates with SS304 Grade covers

#### Door Thickness:

Glass door thickness 10mm - 12mm

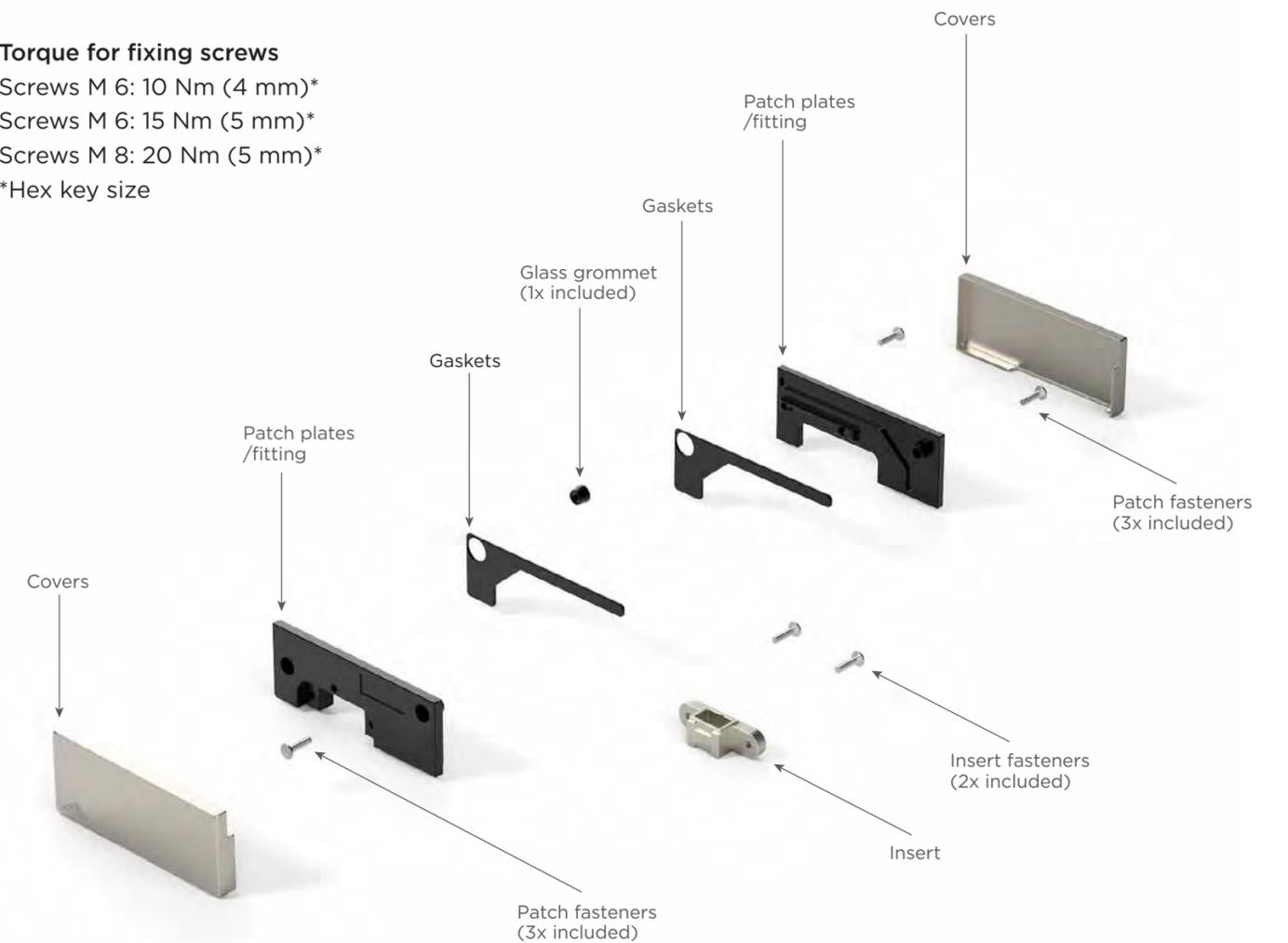
#### Torque for fixing screws

Screws M 6: 10 Nm (4 mm)\*

Screws M 6: 15 Nm (5 mm)\*

Screws M 8: 20 Nm (5 mm)\*

\*Hex key size



**FINISHES AVAILABLE  
FOR ENTIRE RANGE**



**POLISHED STAINLESS STEEL**

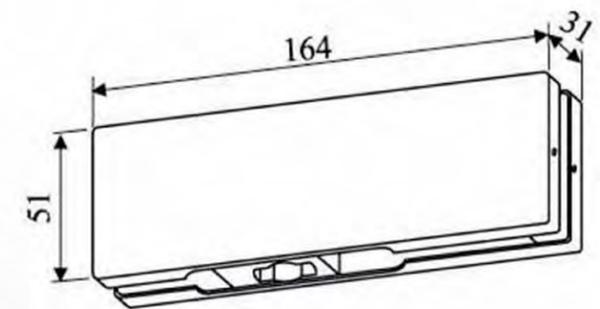


**SATIN STAINLESS STEEL**

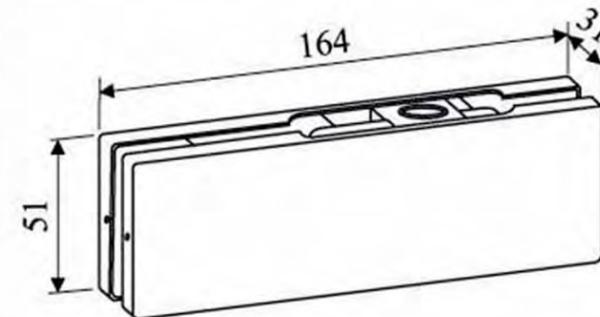


**MATT BLACK**

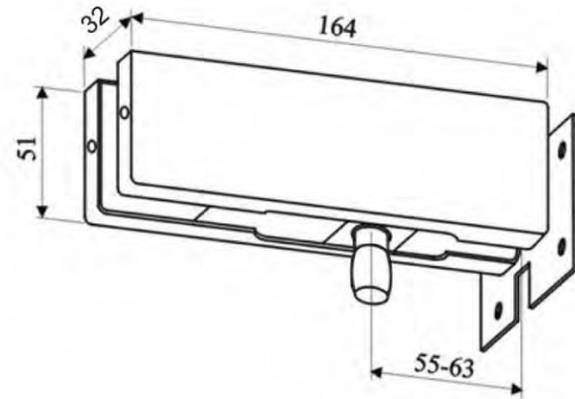
**SGF 201 -  
BOTTOM PATCH**



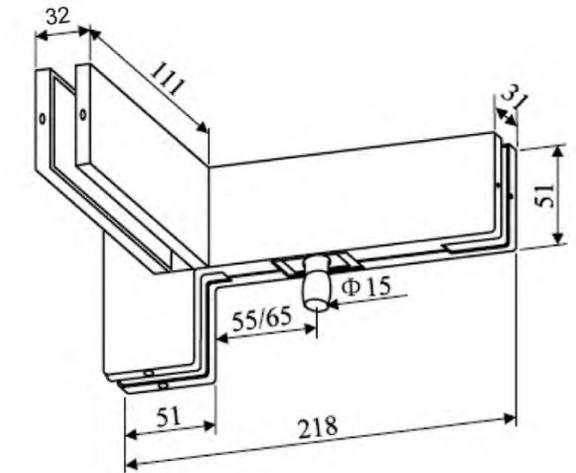
**SGF 202 -  
TOP PATCH**



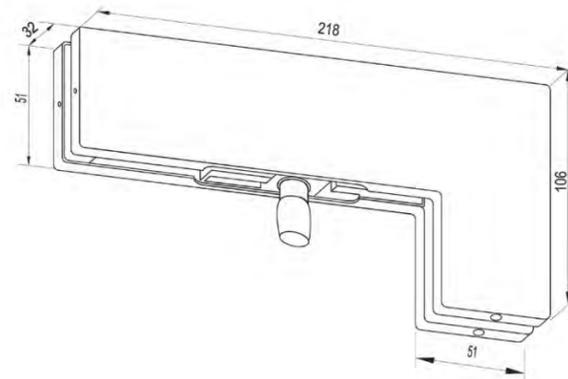
**SGF 203 -  
OVER PANEL PATCH**



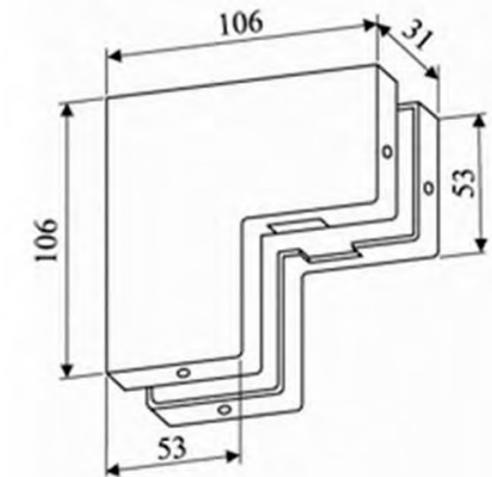
**SGF 205 -  
OVER & SIDE WITH FIN**



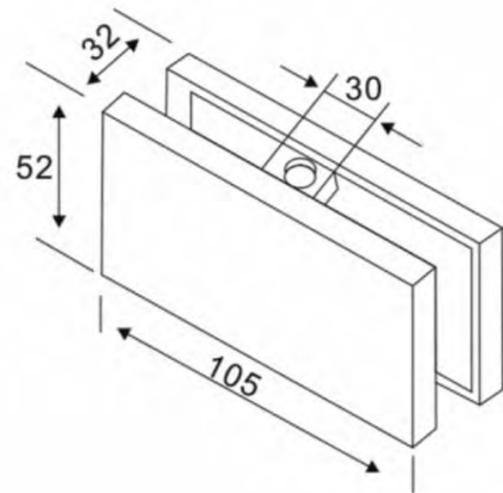
**SGF 204 -  
OVER & SIDE PANEL PATCH**



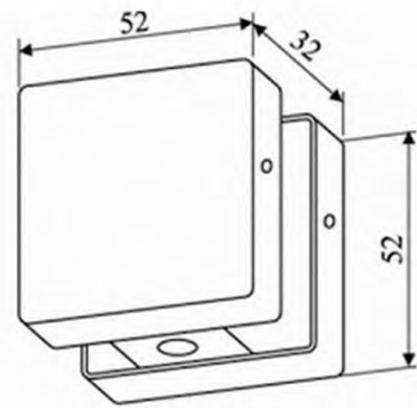
**SGF 206 -  
OVER & SIDE CONNECTOR**



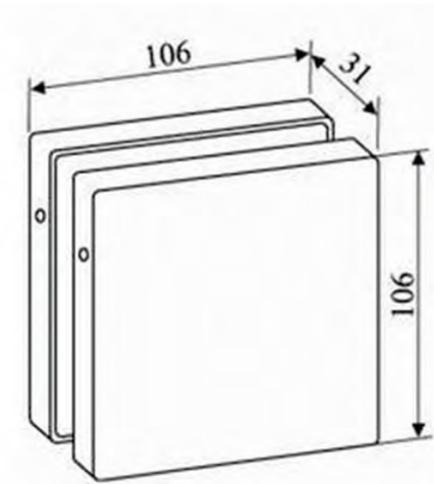
**SGF 207 -  
SIDE CONNECTOR**



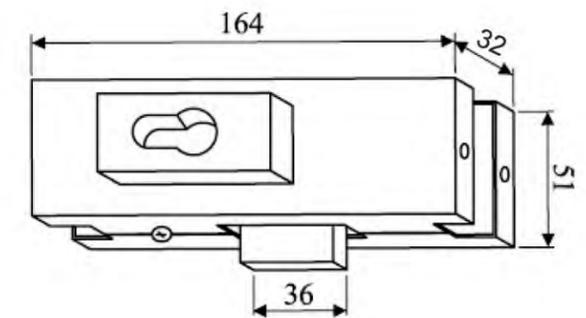
**SGF 208 -  
CORNER CONNECTOR**



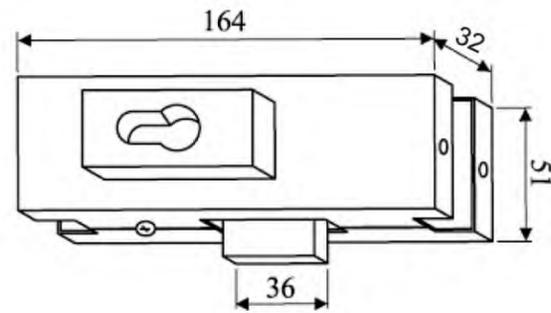
**SGF 210 -  
QUADRUPLE CONNECTOR**



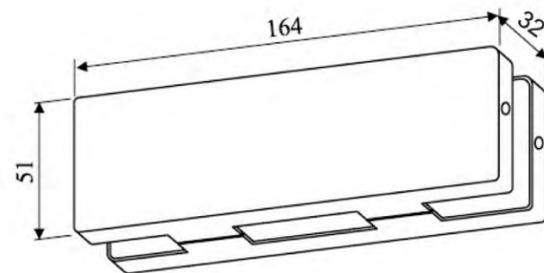
**SGF 211 -  
CORNER LOCK**



**SGF 212 -  
CENTRAL LOCK**



**SGF 213 - STRIKE BOX  
FOR CENTRAL LOCK**



## ACCESSORIES

**SGF 214 -  
TOP PIVOT**



**SGF 215 -  
FLOOR PIVOT BEARING**



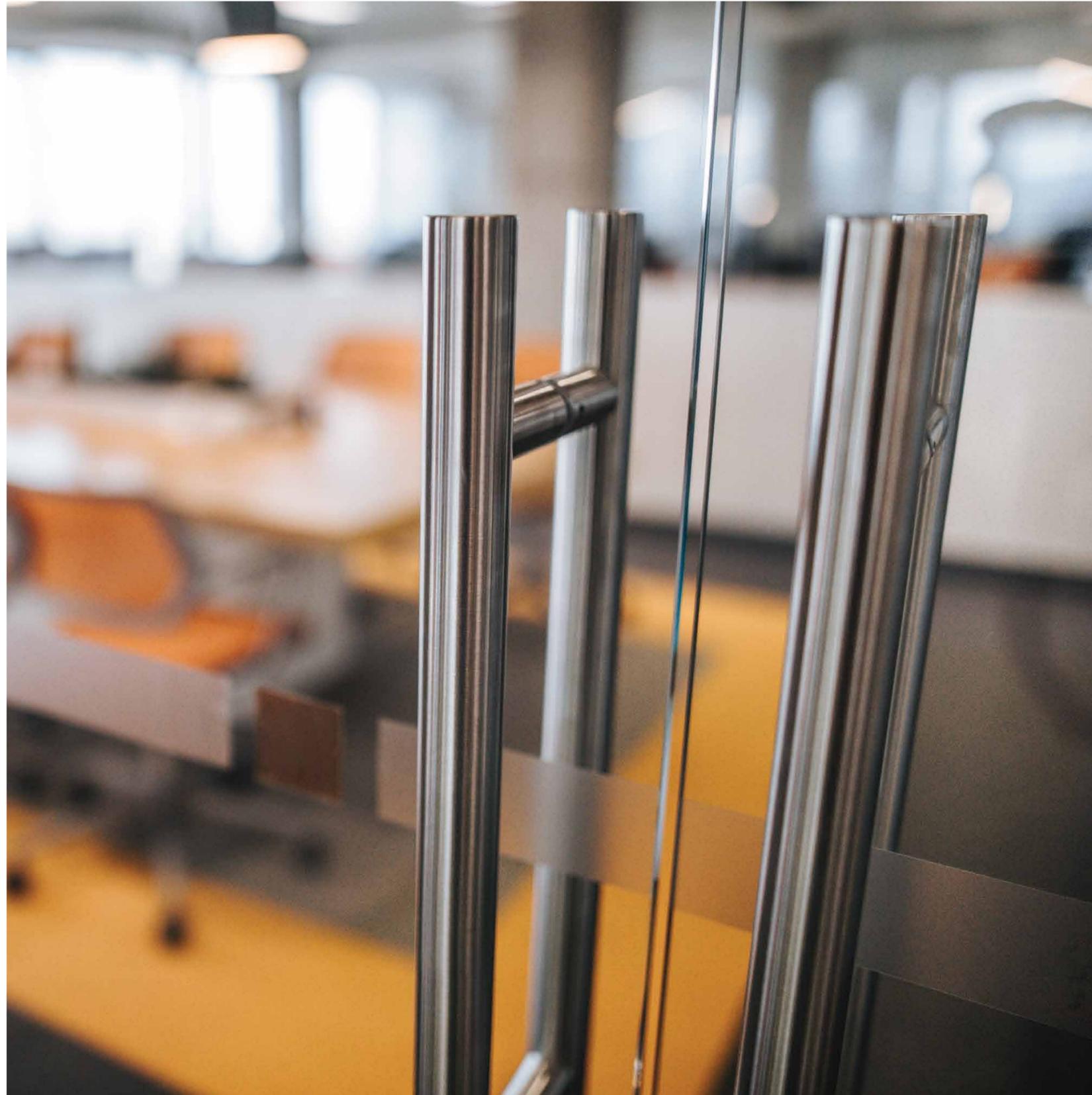
**SGF 216 -  
WOODEN DOOR ACCESSORY**



# PULL HANDLES

OPEN UP A  
WORLD OF  
STRENGTH, STYLE  
AND VERSATILITY





## FEATURES & BENEFITS

### Key features:

- Material : SS304 Grade
- Tubular pull handle
- Premium range - Concealed mounting
- Door thickness  
30mm to 50mm - Timber & metal door  
10mm - 12mm - Glass door
- Spindle - 8mm
- Back-to-back bolting arrangement
- Extended spindles (included)
- Finish SS, PS, MB

### Benefits:



High corrosion  
resistance



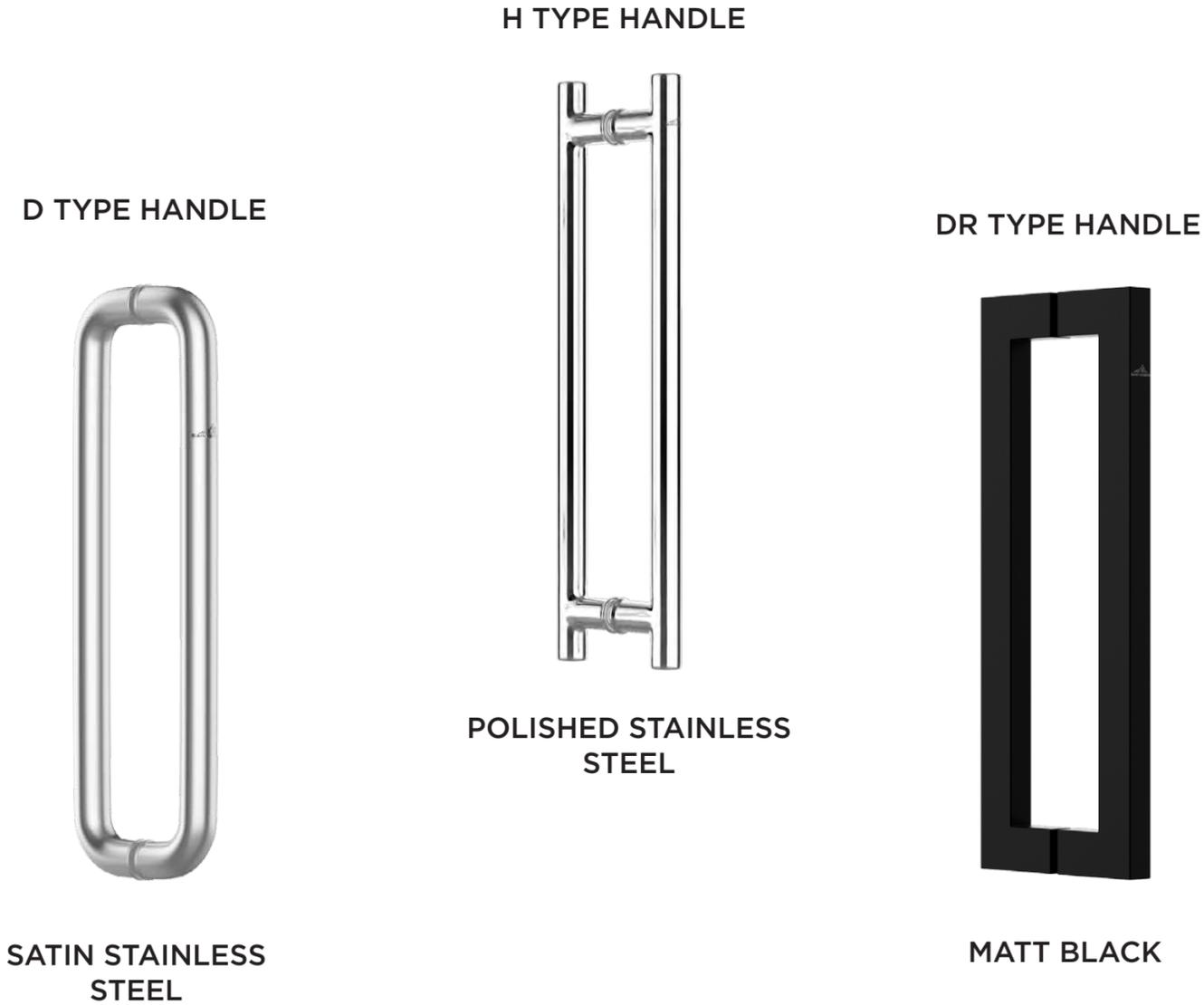
Durability tested in  
accordance with BS8424



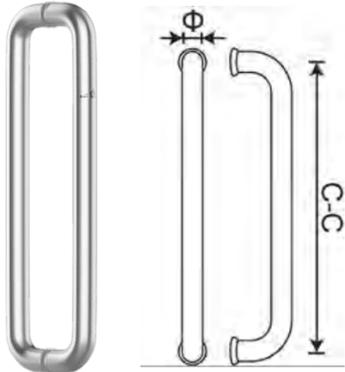
Wide range of designs  
and finishes



**DESIGNS & FINISHES  
AVAILABLE FOR ENTIRE RANGE**

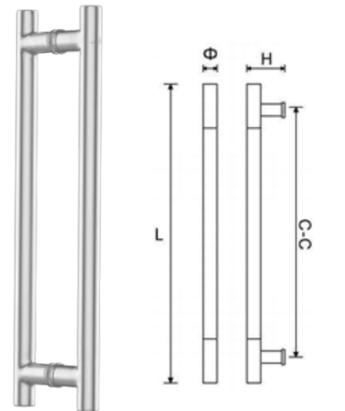


**A RANGE OF SIZES  
TO CHOOSE FROM**



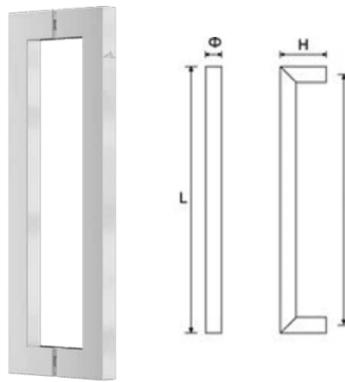
**SGF 111 SERIES - D TYPE HANDLE**

MODEL No.	LENGTH (L)	CENTER TO CENTER (C-C)	DIAMETER (Ø)	PROJECTION (H)
SGF 111 Series	323mm	300mm	22mm	65mm
	475mm	450mm	25mm	65mm



**SGF 121 SERIES - H TYPE HANDLE**

MODEL No.	LENGTH (L)	CENTER TO CENTER (C-C)	DIAMETER (Ø)	PROJECTION (H)
SGF 121 Series	450mm	350mm	25mm	60mm
	600mm	500mm	32mm	72mm
	800mm	700mm	32mm	72mm
	1000mm	850mm	32mm	72mm
	1200mm	1050mm	32mm	72mm



**SGF 131 SERIES - DR TYPE HANDLE**

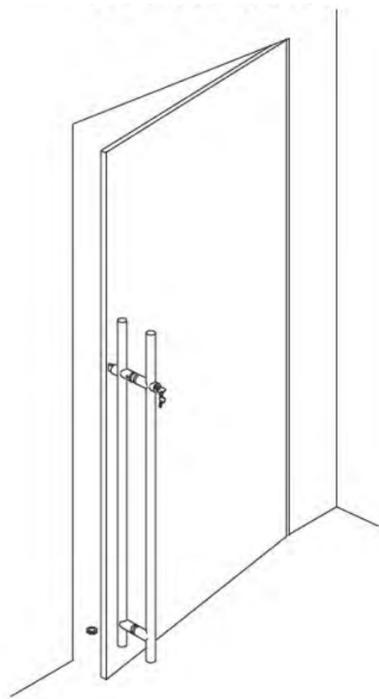
MODEL No.	LENGTH (L)	CENTER TO CENTER (C-C)	SECTION	PROJECTION (H)
SGF 131 Series	490mm	450mm	25x38mm	78mm

## LOCKABLE PULL HANDLES

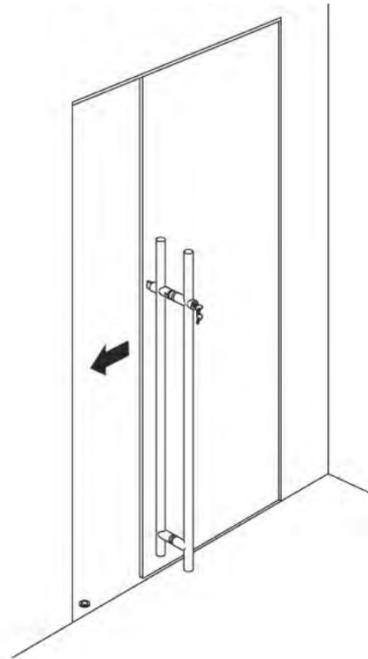
### Features:

- One-side key operation
- Material: SS304 Grade
- Inclusive of dust proof socket
- Supplied with 5 keys
- Finish: satin stainless steel

FOR SWING DOORS

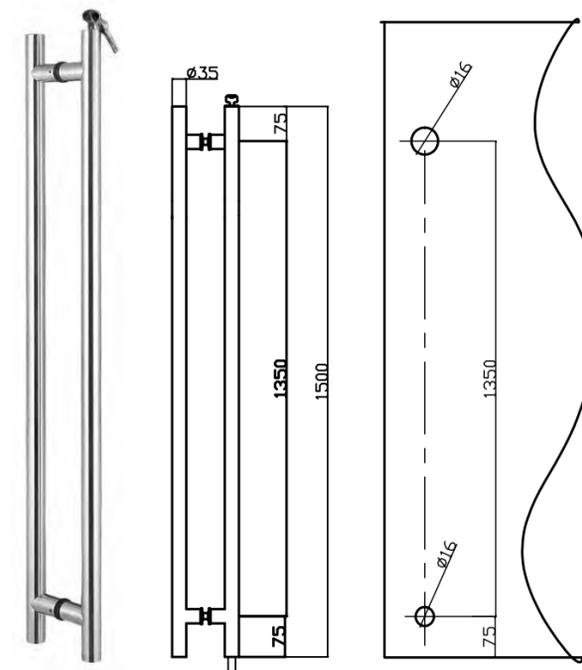


FOR SLIDING DOORS



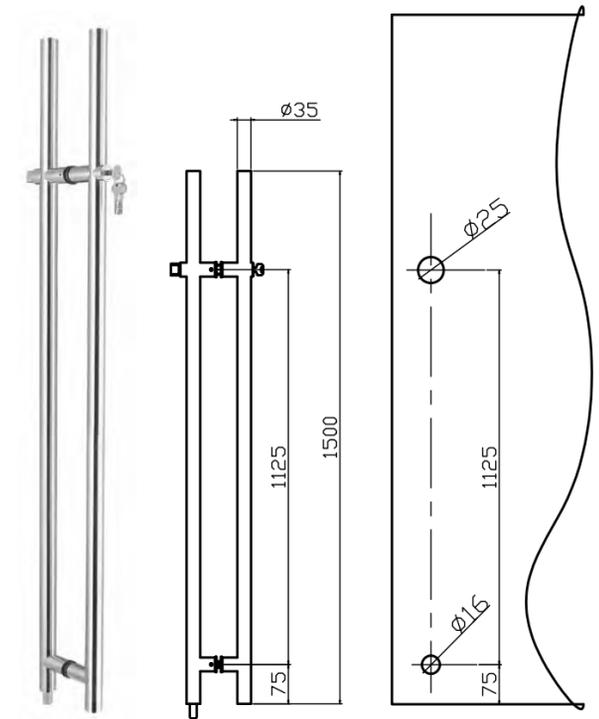
## LOCKABLE PULL HANDLES

SGF 141 -  
LOCKABLE PULL HANDLE  
(EUROPEAN DESIGN)



MODEL No.	LENGTH (L)	CENTER TO CENTER (C-C)	DIAMETER (Ø)
SGF 141	1500mm	1350mm	35mm

SGF 146 -  
LOCKABLE PULL HANDLE  
(STANDARD DESIGN)



MODEL No.	LENGTH (L)	CENTER TO CENTER (C-C)	DIAMETER (Ø)
SGF 146	1500mm	1125mm	35mm

STANDARDS AND  
CLASSIFICATION  
CODE

CONFORMS TO  
GLOBAL STANDARDS -  
IN QUALITY &  
PERFORMANCE



## EUROPEAN STANDARD

BS EN 1154 –  
Standard for controlled  
door closing device

Floor springs tested as per  
EN 1154 are classified according  
to the six-digit coding system

Category of use

Grade 3: For closing doors from  
at least 105° open  
Grade 4: For closing doors from  
180 ° open

Number of test cycles

Grade 8: 500 000 test cycles

Test door mass / size

Door closer power size	Recommended door leaf width max. mm	Test door mass kg
1	<750	20
2	850	40
3	950	60
4	1 100	80
5	1 250	100
6	1 400	120
7	1 600	160

Corrosion resistance

Five grades of corrosion resistance  
are identified according to EN 1670:  
Grade 0: No defined corrosion resistance  
Grade 1: Mild resistance  
Grade 2: Moderate resistance  
Grade 3: High resistance  
Grade 4: Very high resistance

Safety

All door closers are required to satisfy  
the Essential Requirement of safety in use.  
Therefore, only Grade 1 is identified.

Fire behaviour

Grade 0: Not suitable for use on  
fire/smoke door assemblies.  
Grade 1: Suitable for use on fire/smoke  
door assemblies.

## AMERICAN STANDARD

ANSI A156.4 – Door Controlled Devices

Saint-Gobain ensures that their products  
undergo stringent operational and security  
tests. These comply with the standards set by  
the American National Standards Institute  
(ANSI), which has developed durability,  
strength and performance standards for every  
type of door hardware available.

## COMMERCIAL SECURITY HARDWARE GRADES

GOOD ★★

ANSI Grade 3 Basic Level (500,000 Cycles)

BETTER ★★★

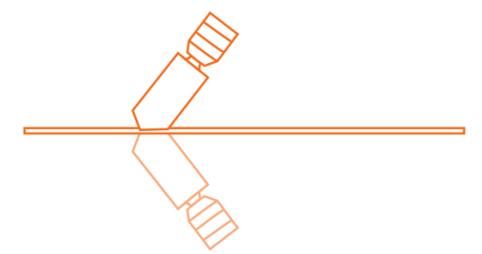
ANSI Grade 2 Intermediate Level (1,000,000 Cycles)

BEST ★★★★★

ANSI Grade 1 Highest Level (2,000,000 Cycles)

# GLASS CUT OUT TEMPLATES

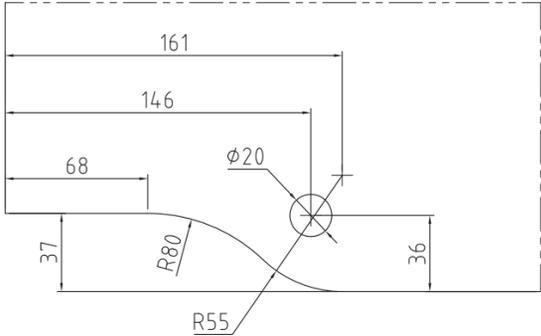
DESIGNED  
FOR THAT  
DREAM FIT



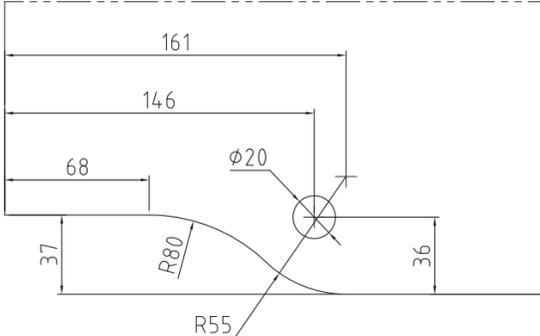


# GLASS CRAFTSMANSHIP AT ITS BEST

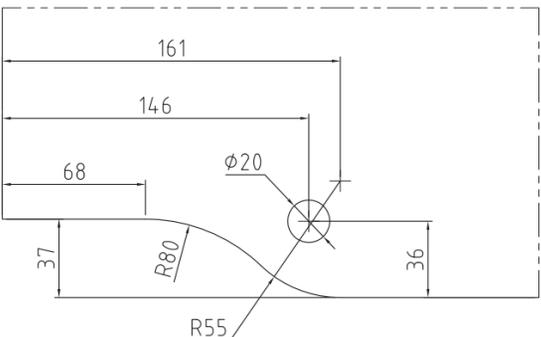
SGF 201 Bottom Patch



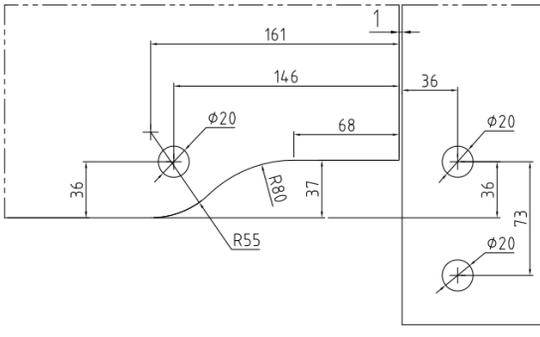
SGF 202 Top Patch



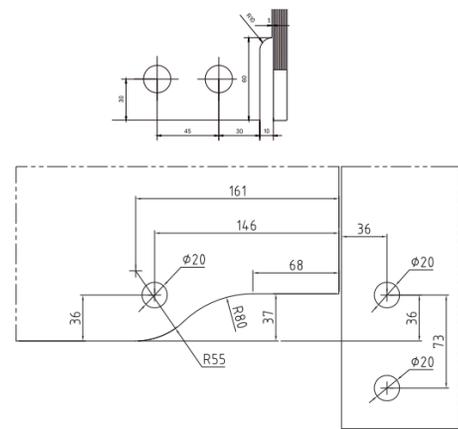
SGF 203 Over Panel Patch



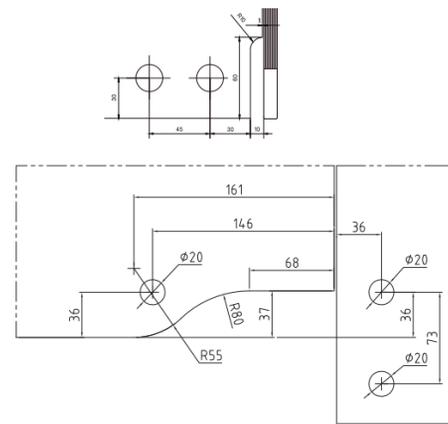
SGF 204 Over & Side Panel Patch



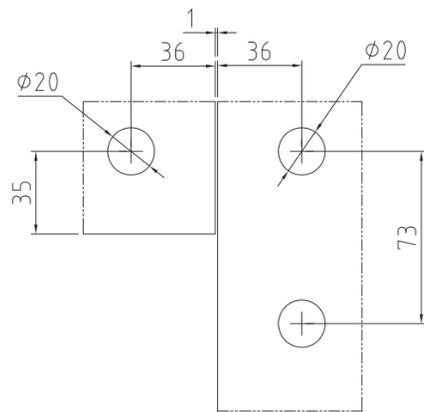
**SGF 205-L Over & Side Panel  
Patch with Fin - LH**



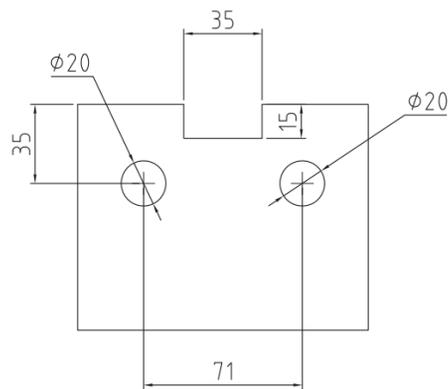
**SGF 205-R Over & Side Panel  
Patch with Fin - RH**



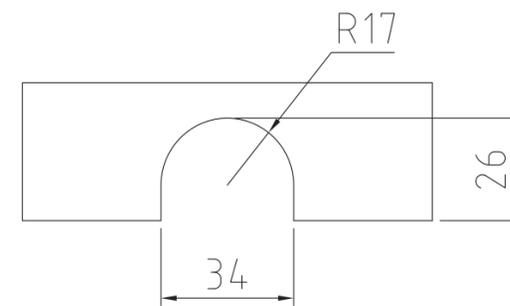
**SGF 206 Over & Side Connector**



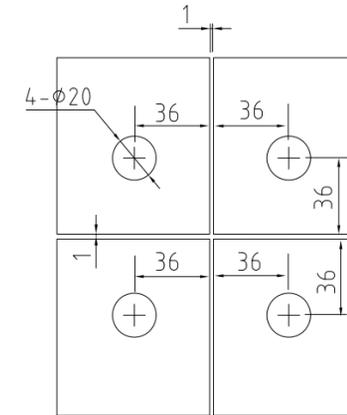
**SGF 207 Side Connector**



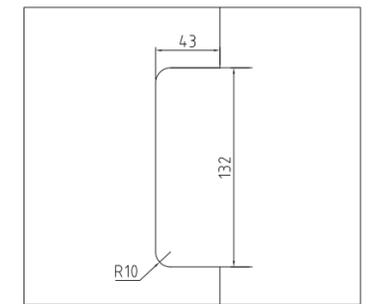
**SGF 208 Corner  
Connector**



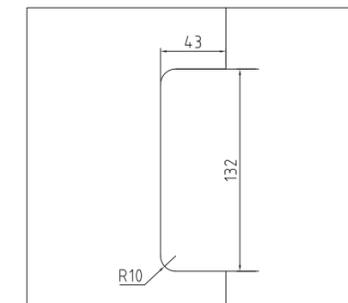
**SGF 210 Quadruple  
Connector**



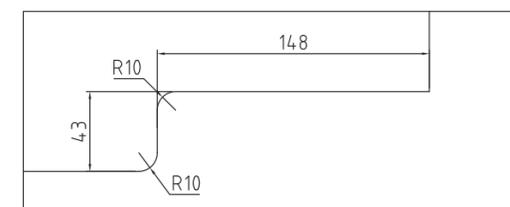
**SGF 212 Central Lock**



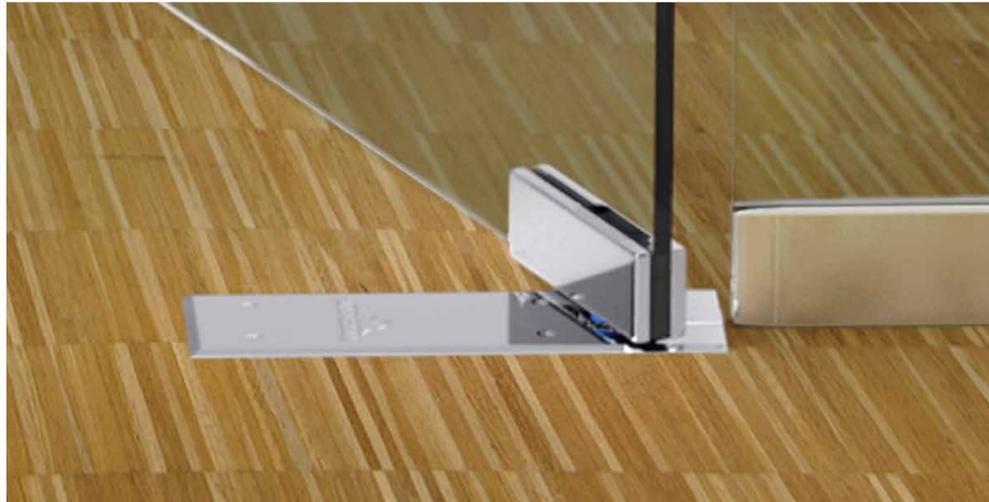
**SGF 213 Strike Box for  
Central Lock**



**SGF 211 Corner Lock**



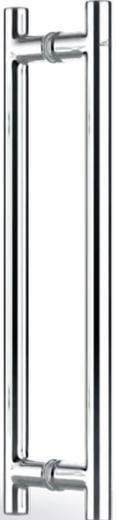
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