



Roto Solid

Comprehensive range of door hinges

german made

What does that mean?



The company Roto with headquarters in Leinfelden-Echterdingen near Stuttgart is a German group of companies. Roto has grown robustly – organically and consistently.

Our common values represent an identity that has enabled Roto, as a German company, to become a service leader. The value structure of our company is based on three pillars:

- Continuity, consistency and reliability
- Experience, ambition to succeed and vision
- Knowledge, ability and German engineering skills

As a technological pioneer, Roto develops intelligent product solutions that feature impressively precise technology and long service life.

Production and environmental management as well as logistics, irrespective of the manufacturing country, are based on German values such as reliability, thoroughness and vision.

German precision in design and development as well as quality and process management guarantee that we can provide outstanding performance and high-quality services – worldwide.

The consistent implementation of German values in quality specifications and standards ensures that our partners and customers can place their trust in us. This is “german made”.

Company



The company Roto, based in Leinfelden-Echterdingen near Stuttgart, is a German group of companies that is wholly owned by families descended from the company's founder, Wilhelm Frank.

The group comprises three independent divisions which develop and produce hardware systems, roof windows and stairs for the construction industry and offer sophisticated services relating to windows and doors.

The Roto name has represented an inventive spirit and technological progress in compatible components for the construction industry since 1935.

The Roto Group is active all over the world with an extensive business portfolio and around 5000 employees.

Roto works on the basis of clear management and conduct principles to secure the position of the group as a success story and to ensure continued success.

Roto is inspired by the needs and expectations of customers, whether you are a builder, planner, architect, manufacturer or retailer of windows and doors, or manufacturer or specialist retailer for roofing.

Roto | Window and Door Technology

Worldwide



Europe



Roto Frank Austria GmbH

Kalsdorf (AT)



Roto Frank Belarus

Minsk (BY)



Roto Frank S.A.

Zaventem (BE)



Roto Frank GmbH

Dietikon (CH)



Roto Frank Fenster- und Türtechnologie GmbH

Leinfelden / Velbert (DE)



Roto Frank Estonia

Tallinn (EE)



Roto Frank S.A.

Lliçà de Vall (ES)



Roto Frank Ferrures S.A.S.

Saint-Avoid (FR)



Roto Elzett Certa Kft.

Lövő / Sopron (HU)



Roto Frank Italia

San Donà di Piave (IT)



Roto Frank Lithuania

Vilnius (LT)



Roto Frank Latvijā

Jūrmala (LV)





Roto Frank
Warsaw (PL)



Roto Romania S.R.L.
Bucharest (RO)



Roto Frank Ltd. Sti.
Istanbul (TR)



**Roto Frank Okucia Budowl-
ane Sp. z o.o.**
Kiev (UA)



Asia



**Roto Frank Building Materi-
als Co. Ltd.**
Beijing (CN)



Roto Frank Indonesia
Jakarta (ID)



**Roto Frank Asia – Pacific Li-
aison Office India**
Mumbai (IN)



**Roto Frank Asia-Pacific Pte.
Ltd.**
Singapore (SG)



**Roto Frank Asia-Pacific Pte.
Ltd.**
Hanoi (VN)



America



Roto Frank Latina SA
Buenos Aires (ARG)



Roto Frank Brasil Ltd.
São José (BR)



Fermax Componentes Ltd.
Colombo (BR)



Roto Fasco Canada Inc.
Mississauga, Ontario (CA)



Roto Frank Chile
Santiago (CL)



Roto Frank of America Inc.
Chester (US)



= Sales

= Production / sales



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Roto Solid

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1 Information

1.1 General



INFO

All dimensions stated in millimetres. Other values are specified.

The following markings are used in this document.

1.1.1 Product features

Symbol	Meaning
	Description
	Width
	DIN left / right
	Colour code, standard
	Colour code, Roto
	Colour
	Sash / leaf width
	Sash / leaf height
	Height
	Information
	Length
	Material number
	Groove width
	Surface
	Frame groove



Symbol	Meaning
	Number of screws
	Type of screws
	Distance from centre of shadow gap or pivot point to frame fixing
	Distance from centre of shadow gap or pivot point to leaf fixing
	Security class
	Flatness deviation
	Depth
	Overlap height
	Packaging unit
	Presetting

1.1.2 Abbreviations

Abbreviation	Meaning
CTL	Catalogue
A	Aluminium
BRN	Blind rivet nut
Anod.	Anodising method
SW	Sash / leaf width
SH	Sash / leaf height
H	Timber
H / A	Timber / aluminium
K	PVC
IMO	Installation instructions
Max.	Maximum
met p	Metal-plating
Not sh.	Not shown
OS	Overlap-screwed
powd-c	Powder coating
RS	Rebate-screwed



1.1.3 Material

Symbol	Meaning
Material	
	Timber
	PVC
	Aluminium
	Timber and aluminium
	Timber and PVC
	Timber, PVC and aluminium
	Timber and timber-aluminium

1.1.4 Colours



INFO

The surface is powder-coated unless specified otherwise. For more information, see the chapter entitled "Surfaces" → *from page 13*.

Colour code, standard	Colour code, Roto	Colour
–	R01.1	Natural silver
–	R01.3	Titanium
–	R01.5	Silver
RAL 9007	R01.7	Grey aluminium
RAL 9006	R01.11	White aluminium
–	R01.23	Stainless-steel appearance
RAL 7016	R02.2	Anthracite grey
RAL 7016M	R02.2M	Anthracite grey, matt
RAL 7021	R02.3	Black grey
RAL 9022	R02.14	Pearl light grey
–	R03.2	Brass, polished
–	R03.4	Stainless-steel design
RAL 1036	R03.5	Pearl gold
RAL 8019	R04.1	Grey brown
RAL 8022	R04.4	Black brown
RAL 8077	R04.6	Dark brown
RAL 8017	R04.8	Chocolate brown
RAL 8003	R04.9	Clay brown
–	R05.3	Medium bronze
–	R05.5	Bronze
RAL 9005	R06.2	Jet black
RAL 9005M	R06.2M	Jet black, matt
RAL 9016	R07.2	Traffic white
RAL 9001	R07.3	Cream
RAL 1015	R07.5	Light ivory
R00.0	Untreated	Uncoated
SP. COL.	SP. COL.	Special colour



Other RAL colours are available upon request.

Colour examples



INFO

Colours may deviate in the illustration.

1.1.5 Surfaces

Anodising method (anod.)

A surface technology process for creating an oxidic protective layer on aluminium through anodic oxidation. Through conversion of the top metal layer, this produces a thin oxide layer of 5 to 25 micrometers which protects deeper layers from corrosion as long as there are no gaps in this layer, for example due to mechanical damage.

Powder coating (powd-c)

With the powder coating, an electrically charged powder cloud is firstly created. The charged particles are transported to the workpiece surface. This is where they accumulate, electrostatically adhere and form the powder coating layer. When the workpiece is then heated, the paint particles of the powder coating melt to form a homogeneous surface.

The powder coating is made up of polyester resin powder with a quality suitable for facades. Steel components are galvanised and blue passivated before coating. The coating thickness is 70 to 120 µm on the visible surfaces. Before the coating procedure, all components are additionally degreased and pickled in a multi-metal pretreatment system, where a conversion layer is also applied. This greatly improves the corrosion resistance.

Metal-plating (met p)

Electroplated metallic top layer for an especially decorative appearance and corrosion protection.

The vacuum metallising process involves applying a thin layer of metal to the surface of the workpiece in a vacuum chamber. The metal is vaporised under vacuum conditions for this purpose. The metal particles are evenly deposited over the prepared surface and form a sealed reflective layer. The vacuum metallising process takes place in a system under high vacuum in order to ensure a particularly pure, highly adhesive coating. A protective coating is then applied to the metal-plated surface. This protects the layer against mechanical impacts and corrosion.

1.1.6 Packaging

Individual packaging

- Packaging unit: 1 piece
1 hinge per carton
- Including mounting material and accessories

Industrial packaging

- Packaging unit: 24 pcs
24 hinges per carton
- The industrial packaging is specifically optimised for the separate production of the frame and leaf on two production lines. The individual components of the door hinges are packaged separately in inlays, depending on whether they are for the frame or leaf. The required quantity of mounting material and accessories is supplied separately in bags or boxes.
- The inlays and accessory bags can be removed from the outer carton individually and distributed across the different production lines. One outer carton contains all of the components required for 24 hinges.



1.1.7 Copyright protection

The contents of this document are copyright-protected. This content can be used when working with the hardware. Any other use is not permitted without written permission of the manufacturer.

1.2 Roto Solid

Comprehensive range of door hinges

With its Roto Solid range, Roto offers a wide array of door hinges – from cost-effective hinges for back doors and lightweight main doors through to dynamic hinges for very heavy and frequently accessed main entrance doors. Tailored to specific applications and made from high-quality materials, Roto Solid door hinges offer outstanding performance characteristics and high durability. Country-specific solutions complete the product range.

Combination of design, comfort and security

When it comes to appearance, with the Roto Solid range, Roto offers a wide selection for fulfilling individual design requirements. From a three-part butt hinge and a small screw-on hinge, through to a concealed hinge, many different versions are available.



Roto Solid B

Butt hinges for doors



Roto Solid S

Screw-on hinges for doors



Roto Solid C

Concealed hinges for doors

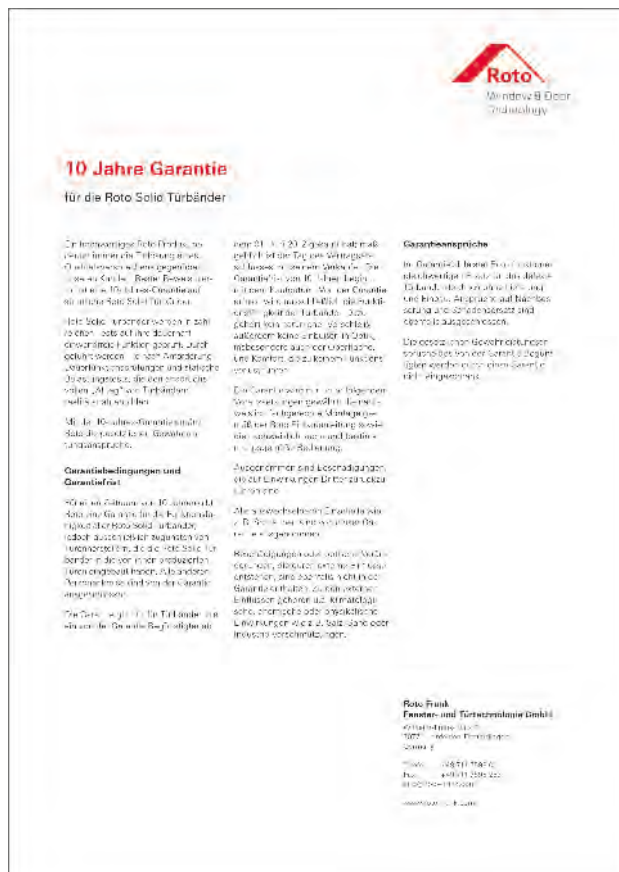
1.2.1 Product overview

Product	Max. leaf weight	Door material				Door opening		Certification			Hinge grade	SKG**	RC	
		K	H	H / A	A	Inward opening	Outward opening	CE	UKCA					
Roto Solid B – Butt hinges														
218 P	80 kg	■	–	–		■	■		■	■	11	–	–	→ from page 65
318 P	120 kg	■	■	■		■	■		■	■	11	–	–	→ from page 76
222 P	120 kg	■	■	■		■	■		■	■	13	■	RC 2	→ from page 89
322 P	160 kg	■	■	■		■	■		■	■	12	■	RC 2	→ from page 101
224 A	120 kg	–	–	–		■	■		■	■	12	–	–	→ from page 114
324 A	160 kg	–	–	–		■	■		■	■	12	–	–	→ from page 118
130 R	120 kg	–	–	–		■	■		–	–	–	–	–	→ from page 122
Roto Solid S – Screw-on hinges														
PS 23	80 kg	■	■	–		–	■		■	■	13	–	–	→ from page 141
89 NN	80 kg	■	■	–		–	■		■	■	11	–	–	→ from page 162
89 NN-SR	80 kg	■	■	–		–	■		■	■	11	–	–	→ from page 168
80 ATB	100 kg	–	–	–		■	■		■	–	12	–	–	→ from page 208
150 P	110 kg	■	■	–		–	■		■	■	11	–	–	→ from page 156
PS 27	120 kg	■	■	–		–	■		■	■	13	■	–	→ from page 147
105 NN	120 kg	■	■	–		–	■		■	■	13	■	–	→ from page 173
105 NN-SR	120 kg	■	■	–		–	■		■	■	13	■	–	→ from page 180
118 D	150 kg	■	■	–		–	■		■	–	11	■	–	→ from page 202
117 NN	160 kg	■	■	–		–	■		■	–	12	■	–	→ from page 185
117 H	160 kg	■	–	–		–	–		■	–	12	■	–	→ from page 190
118 Z	160 kg	■	■	–		–	■		–	–	–	■	–	→ from page 196
120 ATB	160 kg	–	■	■		■	■		■	–	14	–	–	→ from page 219
Roto Solid C – Concealed hinges														
C7.140	140 kg	–	–	–		■	■		■	■	10	■	RC 2	→ from page 239

■ = applicable

1.2.2 Ten-year warranty

The toughest testing requirements that Roto places on its products have a significant impact on the durability of the hardware. The systematic quality checks with the most stringent testing requirements ensure that each individual Roto Solid component meets our quality standards. Only this exemplary quality management allows us to set a pioneering standard: the ten-year performance warranty for our partners – that's our benchmark.



1.2.3 Limitation of liability

All information and instructions contained in this document have been compiled in consideration of the applicable standards and regulations, the latest developments in technology and many years of knowledge and experience.

The hardware manufacturer assumes no liability for damage caused by:

- Failure to comply with this document and all product-specific documents and other applicable directives (see the chapters entitled "Security" and "Stipulated use").
- Improper use / misuse (see the chapters entitled "Security" and "Stipulated use").
- Insufficient invitation to tender, non-compliance with installation specifications and non-compliance with the application diagrams (where available).
- Increased contamination.

Claims made by third parties against the hardware manufacturer on account of damage resulting from misuse or failure to comply with the obligation to give instructions on the part of hardware dealers, window, door and balcony door manufacturers and building element dealers or the builder are passed on accordingly.

The obligations agreed in the delivery contract, the general terms and conditions, the hardware manufacturer's terms and conditions of delivery and the legal provisions applicable when the contract was concluded shall apply.

The warranty only covers original Roto components.

We reserve the right to make technical changes as part of improvement to performance characteristics and further development.

1.2.4 Product liability guidelines

In accordance with the German Product Liability Act (Produkthaftungsgesetz), Roto as a manufacturer is liable for ensuring that its products offer the expected level of safety and security after being presented. In this regard, the following specifications, as well as the content and information in the additional referenced documents, must be observed. Failure to observe these discharges Roto from its liability.

Product information

Roto door hinges are hardware components for vertically installed doors made from timber, PVC or aluminium and their associated combinations of materials. They are used to carry out opening and closing movements and/or locking processes on doors. The mounting material supplied must strictly be used.

When installing hardware components in aluminium profiles, Roto recommends using mounting material which is made from stainless steel or has a zinc flake coating. Contact corrosion may occur if different mounting material is used.

Products used in harsh, corrosive environments are special hardware components; they may only be used after prior consultation with Roto.

Stipulated use

Stipulated use is only adhered to if

- The hinge system has been chosen by an expert and has been put together correctly from permissible door hinges, mounting systems and accessories (e.g. packing plates, hinge retaining mechanisms),
- The information, instructions and notes contained in these guidelines, this catalogue and other technical documents are observed,
- The applicable mandatory legal provisions and standards are complied with,
- The door hinge is installed by experts, taking into account the information, instructions and notes provided by Roto, and
- The maintenance and care instructions are followed.

The length of time for which a product remains fit for use depends on

- How often it is used,
- The way in which it is used,
- Surroundings
- And care.

A door hinge must be replaced if, despite maintenance and care work being carried out, the function can no longer be guaranteed or if the surface poses a risk of injury.

The door hinges are not suitable for adapting to shape changes and changes to the sealing closure as a result of temperature differences or changes to the building.

The specific hardware as a whole (hinge system) must be put together from genuine Roto parts by experts. If third-party parts are also used, Roto assumes no liability for any resultant malfunctions or damage.

Doors for wet rooms and for use in environments with aggressive, corrosive constituents in the air require special hardware.

Misuse (incorrect handling or handling contrary to the stipulated use)

If the stipulated use is not complied with, this constitutes misuse or incorrect use of the product, which discharges Roto from its liability.

This applies to the following cases in particular:

- The introduction of external and/or unsuitable objects into the locking area prevents the product from operating properly,
- Obstacles are introduced into the opening area,
- The surface is damaged by sharp objects,
- A reaction with foreign substances (e.g. adhesive, acids, etc.) causes damage to the surface,
- Door hinges have been installed or after-treated (e.g. painted over) in such a way that they no longer work properly,
- Loads which are not suitable for the product and exceed normal loading owing to the door's own weight are exerted on the door hinges, e.g. resting the leaf on installed door hinges,
- The required door gap is increased or reduced when readjusting the door hinges or lowering the door,
- Tools or aids which act as a jemmy are used to actuate the door,
- The operating range of the door hinges is exceeded,



- Anyone grips between the door leaf and door frame when closing doors,
- Work is performed or incidents occur which affect functionality (e.g. attempts to break in or out using tools),
- External objects and/or objects not suitable for the door are introduced (e.g. pins from third-party manufacturers or a combination of product parts from third-party manufacturers with those from Roto),
- Work is performed on the door hinge or it is otherwise impaired in such a way that the structure, mode of operation or correct functioning is impacted.

Please refer to the product-specific documents for more information on misuse.

Product maintenance

Ensure that the hardware components and mounting material are fitted correctly so that they function properly.

Maintenance must be performed on all movable parts at least once per year – or more often depending on use.

Hardware systems must be treated with care products recommended by Roto depending on use.

Only cleaning agents which do not contain any corrosive substances should be used. As a general rule, they must never be treated with strong acids or alkalis.

Contamination with mortar and similar materials must always be avoided.

Duty to provide information and issue instructions

The following documents are available to provide information to dealers, planning engineers, architects, advisory institutes, fabricators, builders and users:

- Catalogues and brochures,
- Texts for invitation of tenders,
- Purchasing information,
- Quotation documents,
- Installation, operation and care instructions.

Roto is also on hand to give advice if required.

For selecting Roto hardware systems and for installation, operation and care,

- architects, planning engineers and advisory institutes are obligated to request all of the necessary product information from Roto and to observe this information;
- specialist dealers are obligated to observe the product information and instructions in the documents and, in particular, to request all of the necessary instructions from Roto and to pass these on to the fabricators;
- fabricators are obligated to observe all production information and, in particular, to request operation and care instructions from Roto and to pass these on to the customers and users.

1.3 Storage conditions



Protecting components against dirt and dust

Always keep the containers closed, and always cover open hardware containers or goods stored open (i.e. with a layer of cardboard).

Protecting components against mechanical damage

Only transport and handle the containers using suitable means of transport or conveyance (forklifts, lifting devices and roller belts, etc.). Only stack pallets and cardboard boxes (during transport) to the maximum height specified in the printed instructions on the packaging.

Protecting components against direct moisture and wet

The packaging must remain dry and the components must not get wet. This applies to storage and transport, as well as for unloading and loading procedures. Where appropriate, plastic protective sheets or similar are to be used during outdoor transport (i.e. on-site transport) when raining.

Only store components in suitable closed rooms and not outdoors. Condensation must absolutely be avoided during the entire duration of transport and storage.

If containers nevertheless get wet...

Immediately unpack the components from the wet containers, dry the components and check for damage (signs of corrosion). In any case, repack the usable components when dry with new packaging material



1.4 Sustainability and the environment



The Roto Group mission – We go further

As a reliable partner, we consider sustainability to be a corporate responsibility – for our actions today and their impact on tomorrow.

Alongside measures to reduce greenhouse gas emissions, we create long-lasting benefits for our customers through durable and future-proof products.

We are only able to do this with the support of everyone at Roto. To this end, we count on a pleasant working environment where every member of staff feels appreciated, laying the foundations for continuous development of the group.

Products

The Roto Group creates a sense of trust and security by developing products with a clear material composition and by ensuring it uses materials that do not have any adverse effects on people or the environment. It goes without saying that Roto fulfils legal requirements, such as those according to REACH and RoHS, and is guided by the stipulations of the German Supply Chain Due Diligence Act (LkSG).

Production processes

We follow LEAN principles and aim to minimise the use of resources in production.

Disposal

The materials used in the hardware can be disposed as mixed scrap so that it can be separated and recycled.

Packaging

The majority of the packaging we use is recyclable, stackable and made from reinforced cardboard, as well as reusable packaging, such as Schäfer boxes, glitterboxes and Euro pallets.

In rare cases, we also use steel or PVC strapping, PE film, timber support frames, single-use timber pallets, cable ties and elastomer cord.

Returning packaging material

Our packaging with the Interzero® logo is accepted free of charge by every Interzero® disposal partner. The directory of your local disposal partners can be requested nationwide from headquarters of Interzero® Circular Solution Germany GmbH in Cologne using the following telephone number: +49 2203 9147-1500 .

The Roto Interzero® number is 243766.

Further development

Roto regularly reviews other options for optimising its processes with regard to legal requirements and internal standards. Follow us on our homepage:





1.5 Certifications

1.5.1 Durability (CE)

in accordance with EN 1935:2002

1.5.1.1 Definition of hinge grades

Classification of door hinges in accordance with EN 1935:2002 (CE classification)

European standard EN 1935:2002 governs the requirements for single-axis screw-on hinges and hinges with fixed pins for use in escape routes.

When using door hinges in escape routes, the leaf weight must be taken into consideration according to the certified hinge grade.

For door hinges located in escape routes in accordance with EN 1935:2002, always use at least three or more hinges.



Classification key

Item	Description	Picto-graph	Class	Meaning
1	Category of use		1	Light duty: hinges for doors or windows in living areas which are used infrequently, are handled very carefully and pose minimal risk of accidents or misuse.
			2	Medium duty: hinges for doors in living areas and buildings where public access is limited, which are used at average frequency, are handled carefully and pose moderate risk of accidents or misuse.
			3	Heavy duty: hinges for doors in public buildings which are used very frequently, are not handled carefully and pose a high risk of accidents or misuse.
			4	Severe duty: hinges for doors which are frequently subjected to intensive use, and for burglar inhibiting doors.
2	Durability		3	10,000 cycles (window hinges)
			4	25,000 cycles (window and door hinges)
			7	200,000 cycles (door hinges)
3	Test door mass		0	10 kg
			1	20 kg
			2	40 kg
			3	60 kg
			4	80 kg
			5	100 kg
			6	120 kg
			7	160 kg
4	Suitability for use on fire / smoke doors		0	Not suitable for fire / smoke resistance door assemblies.
			1	Suitable for fire / smoke resistance door assemblies in accordance with EN 1634-1.
5	Safety		1	All hinges must meet the essential requirements for safety in use. This is why only one grade (grade 1) is stipulated.
6	Corrosion resistance		0	No defined corrosion resistance
			1	Mild corrosion resistance
			2	Moderate corrosion resistance
			3	High corrosion resistance
			4	Very high corrosion resistance
			4*	Unusually high corrosion resistance (corresponding to EN 1670:2002 class 5)
7	Security		0	Not suitable for burglar-resistant door assemblies.
			1	Suitable for burglar-resistant door assemblies.
8	Hinge grade (combination of the three classes category of usage, durability and test door mass)		4	Category of duty = 2
				Durability = 7
				Test door mass = 1
			7	Category of duty = 2
				Durability = 7
				Test door mass = 2
			10	Category of duty = 2
				Durability = 7
				Test door mass = 3
			11	Category of use = 3
				Durability = 7
				Test door mass = 4
			12	Category of duty = 4
				Durability = 7
				Test door mass = 5
			13	Category of duty = 4
				Durability = 7
				Test door mass = 6
			14	Category of duty = 4
				Durability = 7
				Test door mass = 7



Example classification

Roto Solid S | PS 27



	4	7	6	0	1	4*	1	13
Description	Category of use	Durability	Test door mass	Suitability for use on fire / smoke doors	Safety	Corrosion resistance	Security	Hinge grade
Meaning	Severe duty	200,000 cycles	120 kg	Not suitable for fire / smoke resistance door assemblies (EN 1634-1)	All hinges must meet the essential requirements for safety in use.	Unusually high corrosion resistance Additional testing has proved that the requirements of class 5 in accordance with EN 1670:2007 are met.	Suitable for burglar-resistant door assemblies.	Severe duty, 200,00 cycles, 120 kg.

1.5.1.2 Roto Solid B

218 P, 318 P, 222 P, 322 P, 224 A, 324 A (CEP_357)

Zertifikat zur Bescheinigung der Leistungsbeständigkeit		ift ROSENHEIM
Zertifikatsnummer: 0757-CPR-229IFT-7031575-3-6		
Gemäß der Verordnung (EU) Nr. 305/2011 des Europäischen Parlaments und des Rates vom 9. März 2011 (Bauproduktenverordnung oder CPR) gilt dieses Zertifikat für das Bauprodukt Türbänder Roto Solid B 224 A; 324 A; 218 P OS; 318 P OS; 218 P RS; 318 P RS; 222 P OS; 322 P OS; 222 P RS; 322 P RS gemäß der Zusammenstellung in Anlage 1 Leistungsstufen und -klassen: gemäß der Zusammenstellung in Anlage 1 Verwendungszweck: zur Verwendung an Türen in Flucht- und Rettungswege ohne Anforderungen an den Rauch- und Brandschutz in Verkehr gebracht unter dem Namen(e) der Marke von: ROTO FRANK AUSTRIA GmbH Lapp-Finze-Str. 21, AT-8401 Kalsdorf bei Graz Herstellungsort(e): ROTO FRANK AUSTRIA GmbH Lapp-Finze-Str. 21, AT-8401 Kalsdorf bei Graz Roto Frank Fenster- und Türtechnologie GmbH Eintrachtstrasse 95, D-42551 Velbert Notifizierte Stelle (Bauverfahren): 0757		Grundlage(n): EN 1935:2002-02/AC:2003-12 
Dieses Zertifikat bestätigt, dass alle Bestimmungen in Bezug auf die Bewertung und Überprüfung der Leistungsbeständigkeit, die im Anhang ZA der Norm(en) EN 1935 : 2002 beschrieben werden, unter System 1 für die in diesem Zertifikat aufgeführten Leistungen angewandt werden und dass die vom Hersteller durchgeführte werkseigene Produktionskontrolle bewertet wurde, um die Leistungsbeständigkeit des Bauprodukts sicherzustellen. Dieses Zertifikat wurde erstmalig am 10.05.2021 ausgestellt und besitzt Gültigkeit bis zum 09.05.2027, solange weder die harmonisierten Norm, das Bauprodukt, der AVCP-Methoden, noch die Herstellungsbedingungen im Herstellungsbetrieb wesentlich geändert werden, sofern sie nicht durch die notifizierte Produktzertifizierungsstelle ausgesetzt oder zurückgezogen wird. Die Verwendung dieses Zertifikats und die Kennzeichnung der Produkte ist an den bestehenden Zertifizierungs- und Überwachungsvertrag mit dem ift Rosenheim Nr. 229IFT 7031575 gebunden.		
<i>Pascal Geiger</i> Pascal Geiger Stv. Leitung Produktzertifizierung ift Rosenheim 16.10.2024 		 www.ec.europa.eu Identitäts-Check  www.ift-rosenheim.de/ ift-zertifiziert ID: D99-EF0D5
ift Rosenheim GmbH Theodor-Geist-Str. 15a D-83024 Rosenheim Kontakt: Tel. +49 89 31 281-0 Fax +49 89 31 281-255 www.ift-rosenheim.de Prüfung und Zertifizierung – EN ISO/IEC 17025 Inspektion – EN ISO/IEC 17020 Zertifizierung Produkte – EN ISO/IEC 17065 Zertifizierung Managementsysteme – EN ISO/IEC 17021 Akkreditiert nach DIN EN ISO 9001 		

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com

Zertifikat zur Bescheinigung der Leistungsbeständigkeit

Zertifikatsnummer: 0757-CPR-229IFT-7031575-1-6

Gemäß der Verordnung (EU) Nr. 305/2011 des Europäischen Parlaments und des Rates vom 9. März 2011 (Bauproduktenverordnung oder CPR) gilt dieses Zertifikat für das Bauprodukt

Grundlage(n):

EN 1365:2002 02/AC:2005-12

Türbänder

**Roto Solid S PS 27, Roto Solid S PS 23,
Roto Solid S 150 P, Roto Solid S 89 NN,
Roto Solid S 89 NN-SR, Roto Solid S 105 NN,
Roto Solid S 105 NN-SR**

gemäß der Zusammenstellung in Anlage 1

gemäß der Zusammenstellung in Anlage 1

zur Verwendung an Türen in Flucht- und Rettungswegen ohne Anforderungen an den Rauch- und Brandschutz

ROTO-FRANK AUSTRIA GmbH

Lapp-Finze-Str. 21, AT-8401 Kalsdorf bei Graz

ROTO-FRANK AUSTRIA GmbH

Lapp-Finze-Str. 21, AT-8401 Kalsdorf bei Graz

0757

Dieses Zertifikat bestätigt, dass alle Bestimmungen in Bezug auf die Bewertung und Überprüfung der Leistungsbeständigkeit, die im Anhang ZA der Norm(en)

EN 1335 : 2002

beschrieben werden; unter System 1 für die in diesem Zertifikat aufgeführten Leistungen angewandt werden und dass die vom Hersteller durchgeführte werkseigene Produktionskontrolle bewertet wurde, um die Leistungsbeständigkeit des Bauprodukts sicherzustellen.

Dieses Zertifikat wurde erstmalig am 09.07.2008 ausgestellt und besitzt Gültigkeit bis zum 07.08.2025, solange wieder die harmonisierte Norm, das Bauprodukt, der AVCP-Methoden, noch die Herstellungsbedingungen im Herstellungsbetrieb wesentlich geändert werden, sofern sie nicht durch die notifizierte Produktzertifizierungsstelle ausgesetzt oder zurückgezogen wird.

Die Verwendung dieses Zertifikats und die Kennzeichnung der Produkte ist an den bestehenden Zertifizierungs- und Überwachungsvertrag mit dem ift Rosenheim Nr. 229EG 7031575 gebunden.

Christian Kehrer

Christian Kehrer
Leiter der notifizierte
Produktzertifizierungsstelle
ift Rosenheim
08.08.2022

www.ec.europa.eu

Identitäts-Check

www.ift-rosenheim.de
ift-rosenheim
ID: AB7-SC5FE

Vertrag-Nr. 0757-123456789

ift Rosenheim GmbH
Türbänder-Abt. 1
Türbänder-Abt. 2

0757-0757
Tel: +49 8061 261-0
Fax: +49 8061 261-223
www.ift-rosenheim.de

Produktions- und Montage - EN 1335:2002
1335:2002 - EN 1335:2002
Zertifizierung - EN 1335:2002
Zertifizierung - EN 1335:2002

Produkt-Nr. 0757
Produkt-Nr. 0757

Dakks
Dakks
Dakks

CTL_88_EN_v7 · 01 / 2026 · 25

117 H, 117 NN (CEP_166)

Gütegemeinschaft Schlösser und Beschläge e.V.
PIV Prüfinstitut Schlösser und Beschläge Velbert
Zertifizierungsstelle: Wallstraße 41 - D 42551 Velbert
Leitung Zertifizierungsstelle: Andrea Horsthemke (B. Eng.)
Geschäftsführung: Gütegemeinschaft Schlösser und Beschläge e.V.; Dipl.-Ing. Stephan Schmidt
T.: +49 (0)2051/ 9506-5 • F.: +49 (0)2051/ 9506-69
info@piv-velbert.de • Es gelten unsere AGB unter: www.piv-velbert.de



NB 1309

Zertifikat der Leistungsbeständigkeit

1309 - CPR - 0147
(Version: 02)

In Übereinstimmung mit der EU-Verordnung Nr. 305/2011 des Europäischen Parlaments und des Rates vom 9. März 2011 (Bauproduktenverordnung oder CPR) gilt dieses Zertifikat für das Bauprodukt

Einachsiges Türband
117 H / 117 NN
Artikelnummer: 604642
Weitere Artikel-Nm.: siehe Produktmatrix

Ausführung: 2-teiliges Aufschraubband für Türen

auf den Markt gebracht unter dem Namen oder der Handelsmarke von

Roto Frank Fenster- und Türtechnologie GmbH
Wilhelm-Frank-Platz 1
D-70771 Leinfelden-Echterdingen

und produziert in der Produktionsstätte

D-42551 Velbert
Eintrachtstr. 95

Dieses Zertifikat bescheinigt, dass alle Bestimmungen zur Bewertung und Überprüfung der Leistungsbeständigkeit laut der Beschreibung in Anhang ZA der Norm

EN 1935:2002/AC:2003

im Rahmen des Systems 1 für die Leistung laut den Angaben in diesem Zertifikat angewendet werden, und dass

die Leistung des Bauprodukts als beständig bleibend bewertet wird.

Produkt Klassifizierungsschlüssel

4	7	5	0	1	4	1	12
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- Eignung für die Verwendung an Türen im Rettungsweg

Dieses Zertifikat wurde erstmals am **20. Mai 2011** ausgestellt und bleibt gültig, bis entweder die harmonisierte Norm, das Bauprodukt, das System zur Bewertung und Überprüfung der Leistungsbeständigkeit oder die Produktionsbedingungen im Werk wesentlich verändert werden, oder bis das Zertifikat von der benannten Zertifizierungsstelle ausgesetzt oder zurückgenommen wird.

D-Velbert, 12. Dezember 2025

Dieses Zertifikat hat insgesamt 3 Seiten und ersetzt das Zertifikat Nr. 1309-CPR-0147, 10.04.2014.



Deutsches Institut für Zertifizierung
D-ZE-11024-01-00



Gregor Rohling, Dipl.-Ing. PIV CERT
Stellv. Leiter der Zertifizierungsstelle

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com.



118 D (CEP_170)

Gütegemeinschaft Schlösser und Beschläge e.V.
PIV Prüfinstitut Schlösser und Beschläge Velbert
Zertifizierungsstelle - Wallstraße 41 - D 42551 Velbert
Leitung Zertifizierungsstelle: Andrea Horsthemke (B. Eng.)
Geschäftsführung Gütegemeinschaft Schlösser und Beschläge e.V.: Dipl.-Ing. Stephan Schmidt
Telefon: +49 (0)2051/ 9506-5 - Fax : +49 (0)2051/ 9506-69
Mail: info@piv-velbert.de - Es gelten unsere AGB unter: www.piv-velbert.de


NB 1309

Zertifikat der Leistungsbeständigkeit

1309 - CPR - 0168
(Version: 02)

In Übereinstimmung mit der EU-Verordnung Nr. 305/2011 des Europäischen Parlaments und des Rates vom 9. März 2011 (Bauproduktenverordnung oder CPR) gilt dieses Zertifikat für das Bauprodukt

Einachsiges Türband
118 D
Artikelnummer: 544312
Weitere Artikel-Nrn.: siehe Produktmatrix
Ausführung: 3-teiliges Aufschraubband für Türen

auf den Markt gebracht unter dem Namen oder der Handelsmarke von

Roto Frank Fenster- und Türtechnologie GmbH
Wilhelm-Frank-Platz 1
D-70771 Leinfelden-Echterdingen

und produziert in der Produktionsstätte

D-42551 Velbert
Eintrachtstr. 95

Dieses Zertifikat bescheinigt, dass alle Bestimmungen zur Bewertung und Überprüfung der Leistungsbeständigkeit laut der Beschreibung in Anhang ZA der Norm

EN 1935:2002/AC:2003

im Rahmen des Systems 1 für die Leistung laut den Angaben in diesem Zertifikat angewendet werden, und dass

die Leistung des Bauprodukts als beständig bleibend bewertet wird.

Produkt Klassifizierungsschlüssel

3	7	4	0	1	4(5*)	0	11
---	---	---	---	---	-------	---	----

- Eignung für die Verwendung an Türen in Rettungswegen
- Position 6*: Klasse 5 gemäß EN 1670:2007

Dieses Zertifikat wurde erstmals am **09. Januar 2012** ausgestellt und bleibt gültig, bis entweder die harmonisierte Norm, das Bauprodukt, das System zur Bewertung und Überprüfung der Leistungsbeständigkeit oder die Produktionsbedingungen im Werk wesentlich verändert werden, oder bis das Zertifikat von der benannten Zertifizierungsstelle ausgesetzt oder zurückgenommen wird.

D-Velbert, 08. November 2024

Dieses Zertifikat hat insgesamt 3 Seiten
und ersetzt das Zertifikat Nr. 1309-CPR-0168,
vom 24.02.2014.




G. Röhl
Gregor Röhl, Dipl.-Ing. (FH)
Stellv. Leiter der Zertifizierungsstelle

PIV 03/2024

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com.

80 ATB (CEP_150)



PIV Prüfinstitut Schlösser und Beschläge Velbert
Wallstraße 41 – D 42551 Velbert
Institutsleitung: Rainer Ehle, Dipl.-Ing.
Tel 0049-(0)2051-9506 5
Fax 0049-(0)2051-9506 69
Mail: piv.velbert@t-online.de


1309

Zertifikat der Leistungsbeständigkeit

Certificate of constancy of performance

1309 - CPR - 0107

Gemäß der Verordnung (EU) Nr. 305/2011 des Europäischen Parlaments und des Rates vom 09. März 2011 (Bauproduktenverordnung – CPR), gilt dieses Zertifikat für das Bauprodukt

Einachsiges Türband
80 ATB
Artikelnummer: 548314
Weitere Artikel-Nrn.: siehe Produktmatrix

Ausführung: 2-teiliges Aufschraubband für Türen

hergestellt durch oder für

ROTO FRANK AG
Wilhelm-Frank-Platz 1
70771 Leinfelden-Echterdingen

und erzeugt im Herstellwerk:

Eintrachtstr. 95
42551 Velbert

Dieses Zertifikat bescheinigt, dass alle Vorschriften über die Bewertung und Überprüfung der Leistungsbeständigkeit und die Leistungen beschrieben im Anhang ZA der harmonisierten Norm

EN 1935:2002

entsprechend System 1 angewendet werden und dass das Bauprodukt alle darin vorgeschriebenen Anforderungen erfüllt.

Produkt Klassifizierungsschlüssel

4	7	5	0	1	4(5*)	1	12
----------	----------	----------	----------	----------	--------------	----------	-----------

- Eignung für die Verwendung an Fluchttüren
- *Pos. 6: Klasse 5 gemäß EN 1670:2007

Dieses Zertifikat wurde erstmals am **14.04.2009** ausgestellt und bleibt gültig, solange sich die in der harmonisierten Norm genannten Prüfverfahren und/oder Anforderungen der werkseigenen Produktionskontrolle zur Bewertung der Leistung der Merkmale nicht ändern und das Produkt und die Herstellbedingungen im Werk nicht wesentlich geändert werden.

Velbert, 14.04.2014

Dieses Zertifikat hat insgesamt 2 Seiten.

Stempel Zertifizierungsstelle:




Rainer Ehle, Dipl.-Ing.
Leiter der Zertifizierungsstelle

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com.



120 ATB (CEP_154)

	PIV Prüfinstitut Schlösser und Beschläge Velbert Wallstraße 41 – D 42551 Velbert Institutleitung: Rainer Ehle, Dipl.-Ing. Tel. 0049-(0)2051-9506 5 Fax 0049-(0)2051-9506 69 Mail: piv.velbert@t-online.de	 1309					
Zertifikat der Leistungsbeständigkeit Certificate of constancy of performance							
1309 - CPR - 0077							
Gemäß der Verordnung (EU) Nr. 305/2011 des Europäischen Parlaments und des Rates vom 09. März 2011 (Bauproduktenverordnung – CPR), gilt dieses Zertifikat für das Bauprodukt							
Einachsiges Türband 120 ATB Artikelnummer: 548410 Weitere Artikel-Nrn.: siehe Produktmatrix							
Ausführung: 3-teiliges Aufschraubband für Türen hergestellt durch oder für ROTO FRANK AG Wilhelm-Frank-Platz 1 70771 Leinfelden-Echterdingen und erzeugt im Herstellwerk Eintrachtstr. 95 42551 Velbert							
Dieses Zertifikat bescheinigt, dass alle Vorschriften über die Bewertung und Überprüfung der Leistungsbeständigkeit und die Leistungen beschrieben im Anhang ZA der harmonisierten Norm							
EN 1935:2002							
entsprechend System 1 angewendet werden und dass das Bauprodukt alle darin vorgeschriebenen Anforderungen erfüllt.							
Produkt Klassifizierungsschlüssel							
4	7	7	0	1	4(5*)	1	14
- Eignung für die Verwendung an Fluchttüren - *Pos. 6: Klasse 5 gemäß EN 1670:2007							
Dieses Zertifikat wurde erstmals am 11.10.2007 ausgestellt und bleibt gültig, solange sich die in der harmonisierten Norm genannten Prüfverfahren und/oder Anforderungen der werkseigenen Produktionskontrolle zur Bewertung der Leistung der Merkmale nicht ändern und das Produkt und die Herstellbedingungen im Werk nicht wesentlich geändert werden.							
Velbert, 14.04.2014		Stempel Zertifizierungsstelle 		 Rainer Ehle, Dipl.-Ing. Leiter der Zertifizierungsstelle			
Dieses Zertifikat hat insgesamt 2 Seiten.							

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com.

1.5.1.4 Roto Solid C

C7.140 (CEP_317)

Zertifikat zur Bescheinigung der Leistungsbeständigkeit		ift ROSENHEIM
Zertifikatsnummer: 0757-CPR-229IFT-7031575-2-2		
Gemäß der Verordnung (EU) Nr. 305/2011 des Europäischen Parlaments und des Rates vom 9. März 2011 (Bauproduktenverordnung oder CPR) gilt dieses Zertifikat für das Bauprodukt Türbänder Handelsname Spezifikation: ROTO SOLID C7.140 gemäß der Zusammenstellung in Anlage 1 Leistungsstufen und -klassen: gemäß der Zusammenstellung in Anlage 1 Verwendungszweck: zur Verwendung an Türen in Flucht- und Rettungswegen ohne Anforderungen an den Rauch- und Brandschutz in Verkehr gebracht unter dem Namen oder der Marke von: ROTO-FRANK AUSTRIA GmbH Lapp-Finze-Str. 21, AT-8401 Kalsdorf bei Graz Herstellungsmethode: ROTO-FRANK AUSTRIA GmbH Lapp-Finze-Str. 21, AT-8401 Kalsdorf bei Graz Notifizierte Stelle: 0757		Grundlage(n): EN 1935:2002 02/AC:2003-12 
Dieses Zertifikat bestätigt, dass alle Bestimmungen in Bezug auf die Bewertung und Überprüfung der Leistungsbeständigkeit, die im Anhang ZA der Norm(en) EN 1935 : 2002 beschrieben werden, unter System 1 für die in diesem Zertifikat aufgeführten Leistungen angewandt werden und dass die vom Hersteller durchgeführte werkseigene Produktionskontrolle bewertet wurde, um die Leistungsbeständigkeit des Bauprodukts sicherzustellen. Dieses Zertifikat wurde erstmalig am 08.02.2017 ausgestellt und besitzt Gültigkeit bis zum 07.02.2023, solange weder die harmonisierten Norm, das Bauprodukt, der AVCP-Methoden, noch die Herstellungsbedingungen im Herstellungsbetrieb wesentlich geändert werden, sofern sie nicht durch die notifizierte Produktzertifizierungsstelle ausgesetzt oder zurückgezogen wird. Die Verwendung dieses Zertifikats und die Kennzeichnung der Produkte ist an den bestehenden Zertifizierungs- und Überwachungsvertrag mit dem ift Rosenheim Nr. 229EG 7031575 gebunden.		
Prof. Jörn P. Lass Institutsleiter ift Rosenheim 08.02.2020  	Christian Kehrer Leiter der notifizierte Produktzertifizierungsstelle 	 www.ec.europa.eu  www.ift-rosenheim.de
ift Rosenheim GmbH Kontakt: Tel. +49 8081 261-3 E-Mail: info@ift-rosenheim.de Web: www.ift-rosenheim.de Prüfung und Kalibrierung: EN ISO/IEC 17025 Inspektion: EN ISO/IEC 17020 Zertifizierung: Trazo-Akz - EN ISO/IEC 17065 Zertifizierung Managementsysteme: EN ISO/IEC 17021 IFT Bad Dürk 1037 DAKS		

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com

in accordance with BS EN 1935:2002 / AC:2003

218 P, 318 P, 222 P, 322 P, 224 A, 324 A (CEP 406)

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com

1.5.2.2 Roto Solid S

PS 27, PS 23, 150 P, 89 NN, 89 NN-SR, 105 NN, 105 NN-SR (CEP_405)

bsi. **UKCA**  

UKCA Certificate of Constancy of Performance

This is to certify that: **Roto Frank Austria GmbH**
Lapp-Finze-Straße 21
Kalsdorf
8401
Austria

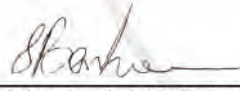
Holds Certificate Number: **0086 CPR 781166**

In respect of:

BS EN 1935:2002/AC:2003 - Building Hardware – Single-Axis Hinges

Door Hinges intended for use on doors in escape routes without requirements for fire resistance and smoke control

In compliance with the Regulation (UK) Statutory Instrument 2019 No 465 of the United Kingdom Parliament (Construction Products (Amendment etc.) (EU Exit) Regulations or CPR), this certificate applies to the above construction product. This certificate attests that all the provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the above standard(s) under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the constancy of performance of the construction product. This certificate was first issued on the date below and will remain valid as long as neither the designated standard, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the approved product certification body.

For and on behalf of BSI, an Approved Body for the above Regulation (Approved Body Number 0086): 
Shahim Barhom, Group Product Certification Director

First Issued: 2023-04-18 Effective Date: 2023-04-18
Latest Issue: 2023-04-18

 Page: 1 of 4

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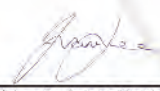
You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com



1.5.2.3 Roto Solid C

C7.140 (CEP_404)

			
Certificate of Constancy of Performance			
This is to certify that:	Roto Frank Austria GmbH Lapp-Finze-Straße 21 Kalsdorf 8401 Austria		
Holds Certificate Number:	CPR 781167		
In respect of:	BS EN 1935:2002/AC:2003 - Building Hardware – Single-Axis Hinges Door Hinges intended for use on doors in escape routes without requirements for fire resistance and smoke control		
In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the above construction product. This certificate attests that all the provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the above standard(s) under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the constancy of performance of the construction product(s). This certificate was first issued on the date below and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.			
For and on behalf of BSI, a Notified Body for the above Regulation (Notified Body Number 0086):	 Frank Lee, Product Certification Technical and Compliance Director		
First Issued: 2023-04-19 Latest Issue: 2023-04-19	Page: 1 of 4		

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You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com

1.5.3 Conformity (QM 343)

in accordance with EN 14351-1:2006 + A2:2016

1.5.3.1 Roto Solid B

218 P, 318 P, 222 P, 322 P, 224 A, 324 A (CEP_378)

Zertifikat / Certificate		ift ROSENHEIM	
Zertifikatsnr. / Certificate No.: 229IFT-7031575-3-2			
Bänder Hinges			
Produkt <i>product</i>	Roto Solid B 224 A, Roto Solid B 324 A, Roto Solid B 218 P OS, Roto Solid B 318 P OS, Roto Solid B 218 P RS, Roto Solid B 318 P RS, Roto Solid B 222 P OS, Roto Solid B 322 P OS, Roto Solid B 222 P RS, Roto Solid B 322 P RS		
Produktfamilien <i>product families</i>	Bandsysteme für Bauelemente nach EN 14351-1:2006 + A2:2016 <i>single-systems for products according to EN 14351-1</i>		
Einsatzbereich <i>field of application</i>	Fenster und Türen aus Holz, Kunststoff, Stahl und Aluminium <i>windows and doors with material of wood, PVC, steel and aluminium</i>		
Hersteller <i>manufacturer</i>	ROTO FRANK AUSTRIA GmbH Lapp-Finze-Str. 21, AT 8401 Kalsdorf bei Graz		
Produktionsstandort <i>production site</i>	ROTO FRANK AUSTRIA GmbH Lapp-Finze-Str. 21, AT 8401 Kalsdorf bei Graz		
Mit diesem Zertifikat wird bescheinigt, dass das benannte Bauprodukt den Anforderungen des zugrundeliegenden ift-Zertifizierungsprogramms in der aktuellen Fassung entspricht. Erstellung von Produktfamilien des aufgeführten Bauproduktes und Überprüfung durch eine akkreditierte Prüfstelle nach EN 1535:2002 und EN 1191:2013 unter Berücksichtigung des maximalen Belastungswertes Einführung und Aufrechterhaltung einer werkseigenen Produktionskontrolle durch den Hersteller Erstinspektion des Werkes und der werkseigenen Produktionskontrolle durch ift-Zert kontinuierliche Fremdüberwachung des Werkes und der werkseigenen Produktionskontrolle durch ift-Zert Dieses Zertifikat wurde erstmals am 05.01.2022 ausgestellt. Die aktuelle Version gilt bis zum 04.01.2027, wenn sich zwischenzeitlich die Festlegungen in der oben angeführten technischen Spezifikation oder die Herstellerbedingungen im Werk oder in der werkseigenen Produktionskontrolle selbst nicht wesentlich verändert haben. Das Zertifikat darf nur unverändert vervielfältigt werden. Alle Änderungen der Voraussetzungen für die Zertifizierung sind dem ift-Zert mit den erforderlichen Nachweisen unverzüglich schriftlich anzugeben. Das Unternehmen ist berechtigt, das benannte Bauprodukt gemäß der ift-Zeichensetzung mit dem ift-Zertifizierungs-Zeichen zu kennzeichnen. Dieses Zertifikat enthält 2 Anlagen.		This certificate attests that the building product mentioned fulfils the requirements of the underlying ift-certification scheme in its current version. compilation of product families of the building product listed and initial type-testing by an accredited testing body as per EN 1535:2002 and EN 1191:2013 considering the maximum value of loading implementation and maintenance of a factory production control by the manufacturer initial inspection of the production site and the factory production control by ift-Zert continuous third-party control of the production site and the factory production control by ift-Zert This certificate was first issued on 05.01.2022. The current version will be valid until 04.01.2027, as long as neither the conditions laid down in the technical specification listed above nor the manufacturing conditions in the production site nor the factory production control itself are modified significantly. The reproduction of the certificate without any change from the original is permitted. Any changes to the prerequisites applicable to certification shall be immediately communicated in writing to ift-Zert accompanied by the necessary evidence. The company is authorized to affix the ift-certified-mark to the building product mentioned according to the ift-rules for use of the ift-certified-mark. This certificate contains 2 annexes.	
ift Rosenheim 22.05.2023 Gültig bis / <i>valid until</i> 04.01.2027 Vertragsnr. / <i>contract no.</i> 229IFT 7031575		Grundlage(n) / ift-Zertifizierungsprogramm für Bänder ift-Zertifizierung QM343:2019-03 EN 1191 EN 12400 318 Klasse 5 Dauerfunktion EN ISO 9227 EN 1670 Klasse 5 Korrosionsschutz ift ZERTIFIZIERT CERTIFIED Identitäts-Check www.ift-rosenheim.de/ ift-zertifiziert ID: 738-75093	

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com



1.5.3.2 Roto Solid S

PS 27, PS 23, 150 P, 89 NN, 89 NN-SR, 105 NN, 105 NN-SR (CEP_325)

Zertifikat / Certificate		ift ROSENHEIM	
Zertifikatsnr. / Certificate No.: 229IFT-7031575-2-2			
Bänder <i>Hinges</i>			
Produkt <i>product</i>	Roto Solid S PS 27, Roto Solid S PS 23, Roto Solid S 150 P, Roto Solid S 89 NN, Roto Solid S 89 NN-SR, Roto Solid S 105 NN, Roto Solid S 105 NN-SR		
Produktfamilien <i>product families</i>	Bandsysteme für Bauelemente nach EN 14351-1:2006 + A2:2016		
Einsatzbereich <i>field of application</i>	Fenster und Türen aus Holz, Kunststoff, Stahl und Aluminium		
Hersteller <i>manufacturer</i>	ROTO-FRANK AUSTRIA GmbH Lasp-Finze-Str. 21, AT 8401 Kalsdorf bei Graz		
Produktionsstandort <i>production site</i>	ROTO-FRANK AUSTRIA GmbH Lasp-Finze-Str. 21, AT 8401 Kalsdorf bei Graz		
Mit diesem Zertifikat wird bescheinigt, dass das benannte Bauelement den Anforderungen des zugrundeliegenden ift-Zertifizierungsprogramms in der aktuellen Fassung entspricht. 1. Erstellung von Produktfamilien des aufgeführten Bauproduktes und Erprobung durch eine akkreditierte Prüfstelle nach EN 1335:2002 und EN 1191:2013 unter Berücksichtigung des maximalen Belastungswertes 2. Einführung und Aufrechterhaltung einer wirksamen Produktionskontrolle durch den Hersteller 3. Erstinspektion des Werkes und der werkseitigen Produktionskontrolle durch ift-Q-Zert 4. kontinuierliche Fremdüberwachung des Werkes und der werkseitigen Produktionskontrolle durch ift-Q-Zert Dieses Zertifikat wurde erstmals am 23.05.2016 ausgestellt und gilt 5 Jahre, wenn sich zwischenzeitlich die Festlegungen in der oben angeführten technischen Spezifikation oder die Herstellungsbedingungen im Werk oder in der werkseitigen Produktionskontrolle selbst nicht wesentlich verändert haben. Das Zertifikat darf nur unverändert vervielfältigt werden. Alle Änderungen der Voraussetzungen für die Zertifizierung sind dem ift-Q-Zert mit den erforderlichen Nachweisen unverzüglich schriftlich anzuzeigen. Das Unternehmen ist berechtigt, das benannte Bauprodukt gemäß der ift-Zertifizierung mit dem ift-Zertifizierungszeichen zu kennzeichnen. Dieses Zertifikat enthält 2 Anlagen		Grundlage(n) / ift-Zertifizierungsprogramm für Bänder Norm / Ausgabe: QM 343, 2018 EN 1191 EN 13400 Klasse 3 EN ISO 9001 EN 1670 Klasse II EN 1335 EN 1191 Klasse 3 EN ISO 9001 EN 1670 Klasse II ift ZERTIFIZIERT www.ift-rosenheim.de	
ift Rosenheim 23.05.2021 Gültig bis: 22.05.2026		Prof. Jörn P. Lass Institutsleiter Director of Institute Vertrag-Nr.: 229IFT 7031575	

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com

1.5.3.3 Roto Solid C

C7.140 (CEP_299)

Zertifikat / Certificate		ift ROSENHEIM	
Zertifikatsnr. / Certificate No.: 229IFT-7031575-1-2			
Bänder <i>Hinges</i>			
Produkt <i>product</i>	ROTO SOLID C7.140		
Produktfamilien <i>product families</i>	Bandsysteme für Bauelemente nach EN 14361-1:2006 + A2:2016 <i>hinge systems for products according to EN 14361-1</i>		
Einsatzbereich <i>field of application</i>	Fenster und Türen aus Holz, Kunststoff, Stahl und Aluminium <i>systems and doors with: material of wood PVC, aluminium</i>		
Hersteller <i>manufacturer</i>	ROTO-FRANK AUSTRIA GmbH Lapp-Finze-Str. 21, AT 8401 Kalsdorf bei Graz		
Produktionsstandort <i>production site</i>	ROTO-FRANK AUSTRIA GmbH Lapp-Finze-Str. 21, AT 8401 Kalsdorf bei Graz		
Mit diesem Zertifikat wird bescheinigt, dass das benannte Bauprodukt den Anforderungen des zugrundeliegenden ift-Zertifizierungsprogramms in der aktuellen Fassung entspricht. Die Erstellung von Produktfamilien des aufgeführten Bauproduktes und Erstprüfung durch eine akkreditierte Prüfstelle nach EN 1535:2002 und EN 1191:2013 unter Berücksichtigung des maximalen Belastungswertes. Einführung und Aufrechterhaltung einer werkseigenen Produktionskontrolle durch den Hersteller. Erstinspektion des Werkes und der werkseigenen Produktionskontrolle durch ift-Q-Zert. kontinuierliche Fremdüberwachung des Werkes und der werkseigenen Produktionskontrolle durch ift-Q-Zert. Dieses Zertifikat wurde erstmals am 02.04.2018 ausgestellt und gilt 5 Jahre, wenn sich zwischenzeitlich die Festlegungen in der oben angeführten technischen Spezifikation oder die Herstellbedingungen in Werk oder in der werkseigenen Produktionskontrolle selbst nicht wesentlich verändert haben. Das Zertifikat darf nur unverändert vervielfältigt werden. Alle Änderungen der Voraussetzungen für die Zertifizierung sind dem ift-Q-Zert mit den erforderlichen Nachweisen unverzüglich schriftlich anzuzeigen. Das Unternehmen ist berechtigt, das benannte Bauprodukt gemäß der ift-Zeichensatzung mit dem ift-zertifiziert-Zeichen zu kennzeichnen. Dieses Zertifikat enthält 2 Anlagen.		This certificate attests that the building product mentioned fulfils the requirements of the underlying ift-certification scheme in its current version. compilation of product families of the building product listed and initial type-testing by an accredited testing body as per EN 1535:2002 and EN 1191:2013 considering the maximum value of loading implementation and maintenance of a factory production control by the manufacturer initial inspection of the production site and the factory production control by ift-Q-Zert continuous third-party control of the production site and the factory production control by ift-Q-Zert This certificate was first issued on 02.04.2018 and will remain valid for 5 years, as long as neither the conditions laid down in the technical specification listed above nor the manufacturing conditions in the production site nor the factory production control itself are modified significantly. The reproduction of the certificate without any change from the original is permitted. Any changes to the prerequisites applicable to certification shall be immediately communicated in writing to ift-Q-Zert accompanied by the necessary evidence. The company is authorized to affix the "ift-certified"-mark to the building product mentioned according to the ift-rules for use of the "ift-certified"-mark. This certificate contains 2 annexes:	
ift Rosenheim 02.04.2021	Christian Kehrer Leiter der ift-Zertifizierungs- und Überwachungsstelle Head of ift Certification and Surveillance	Prof. Jörn P. Lass Institutsleiter Director of Institute	
Gültig bis / Valid until	01.04.2026	16-003802-PR01 vom / since: 07.02.2017	
Vertragsnr. / Contract No.	229IFT 7031575	17-001047-PR01 vom / since: 02.04.2018	
ift Rosenheim GmbH Theodor-Schell-Str. 7-9 D-83059 Rosenheim Contact: Phone: +49 89 31 201 3 Fax: +49 89 31 201 390 www.ift-rosenheim.de Testing and Calibration – EN ISO/IEC 17025 Inspection – EN ISO/IEC 17020 Product Certification – EN ISO/IEC 17065 Certification of Management Systems – EN ISO/IEC 17021 ift ist ein privates Institut ift is a private institute		ift ZERTIFIZIERT CERTIFIED www.ift-rosenheim.de	

You can find the current certificates in the Roto media portal.

www.media.ftt.roto-frank.com

1.5.6 Quality management

The certification in accordance with the international standard DIN EN ISO 9001 certifies that Roto plans, documents and appropriately implements the entire development, production and sales process systematically. Starting with development and design through to quality planning, production and assembly right through to sales and customer service.

The certification is an external indication of the quality awareness practised at Roto:

- Roto's objective is to ensure continuous product and service improvements for the benefit of its customers.
- Roto offers its customers innovative, environmentally friendly and technically sophisticated architectural hardware technology.
- Roto products are supplied punctually worldwide with constant guaranteed quality.
- Roto's comprehensive view regards all business activities – including all the activities within the company – to be the key to achieving long-term corporate success.
- Roto employees are supported in their personal development and fulfil Roto's high quality requirements in their day-to-day work. Their work is performance and goal-oriented.

Certificate		ift ROSENHEIM
Certificate-No.: 791-9004105-1-3		
Subject: Quality Management System DIN EN ISO 9001:2015	Basic: ISO 9001	
Company (Headquarters): Roto Frank Fenster- und Türtechnologie GmbH Wilhelm-Frank Platz 1 DE - 70771 Leinfelden-Echterdingen		
Scope of the headquarters: Development, design, production and sales of window and door technology	Validity: The certificate is valid for three years. During this time the company is surveyed annually. The certificate is only valid in combination with the accompanying certification and surveillance contract. If-Q-Zert shall be informed immediately in writing of all changes to the qualifications for certification and supplied with copies of all resulting new management documents.	
Further sites: see appendix to the certificate	Notes on Publication: The certificate shall only be reproduced unchanged. Regulations for the use of reports are given in the „Allgemeine Bedingungen für die Zertifizierung von Managementsystemen“.	
Source of the rules: This Certificate has been issued on the basis of the rules for sites certification. The higher ranking company (headquarters) is responsible for the maintenance and further development of the management system as well as the control of central tasks.	Identity Check:  www.ift-rosenheim.de/ ift-zertifiziert ID: 265-80042	
Rules for sites certification: During the certification-audit it was demonstrated that the company and all sites listed in this certificate have established and are applying a quality management system in accordance with DIN EN ISO 9001:2015 "Quality Management Systems-Requirements".	Signature:  Christian Kehrer Head of Certification and Surveillance Body ift Rosenheim 18.05.2024	
Initial certification: 18.05.2021 Contract No.: 791 9004105 Valid until: 17.05.2027	Approved Certification body: for Management Systems DIN EN ISO 9001:2015	
ift Rosenheim GmbH Theresien-Quartier 17/3 D-80439 Rosenheim	Contact: Phone: +49 89 257 261-0 Fax: +49 89 257 261-255 info@ift-rosenheim.de	IAF Dakks



1.5.7 International Technology Centre (ITC)

Roto has owned a modern International Technology Centre (ITC) at its Leinfelden headquarters since October 1996. This facility is available for both our own material and product testing as well as for inspecting finished products made by Roto market partners.



The ITC is accredited in accordance with DIN EN ISO / IEC 17025 and has the expertise required to perform tests in areas including mechanical technological testing of facade elements such as windows, doors and hardware, as well as metallic materials.

Achieving accreditation in accordance with DIN EN ISO / IEC 17025 represents the highest distinction for a test institute in the private sector. The requirements for this are an extensive quality management system, trained personnel, high-quality test rigs and measuring instruments, as well as continuous external monitoring by the accreditation authorities.

1.6 Roto Con Orders

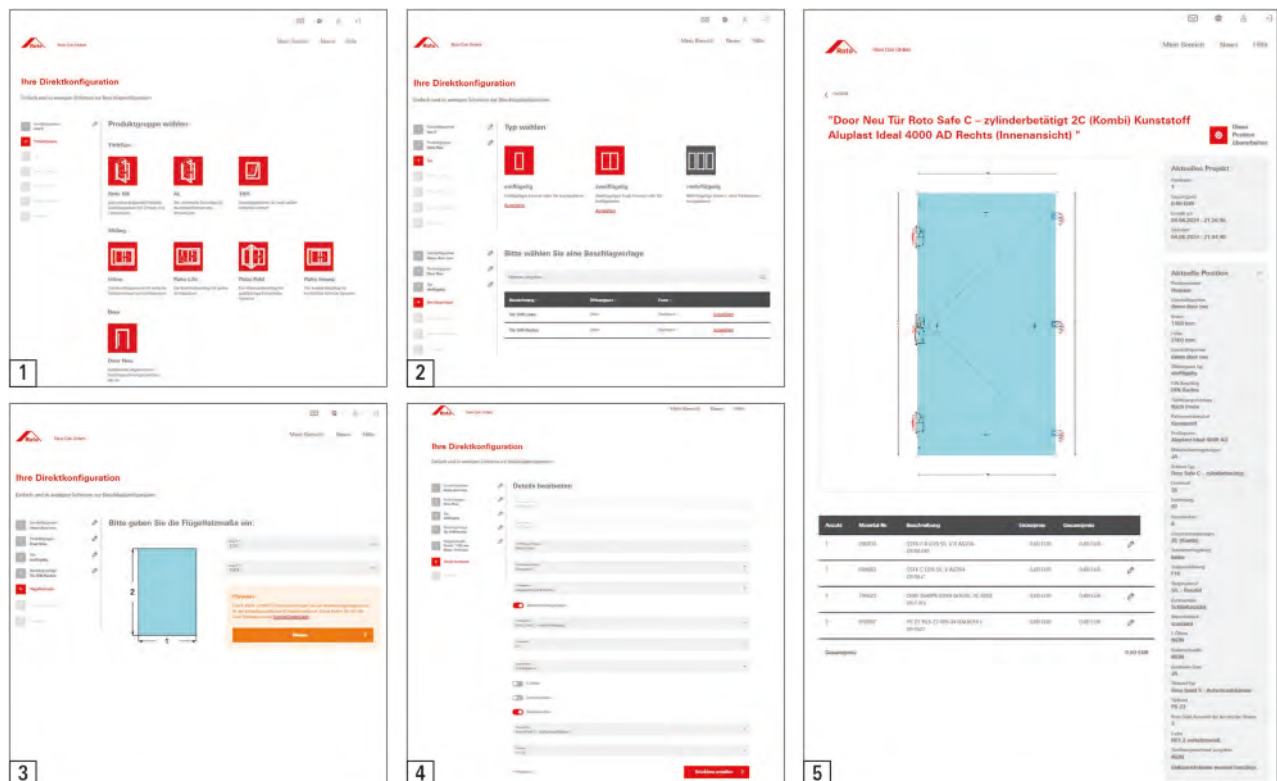


Just four steps for a finished parts list

Roto Con Orders is the perfect solution for window and door manufacturers, and for dealers. This is because with the high-performance online hardware configurator, an individual configuration of window and door hardware can be generated very easily and in an extremely short time – for all common shapes and opening types. Just a few mouse clicks and a couple of numeric entries, and the individual parts list including a technical illustration of the hardware itemising is finished. The list can be changed, adapted or personalised as desired. It can be exported in various data formats, enabling it to be used for individual offers or orders. Benefit from this efficient Roto online tool, save time during configuration, management and ordering – with Roto Con Orders.

Hardware configuration has never been this easy

With intuitive menu guidance, you generate an optimum parts list in just four steps:



1. Selection of the product group
2. Selection of the design template
3. Entry of sizes
4. Individual detailed settings and adaptations

5. **Result:** output of a detailed data sheet with a technical illustration and a complete parts list with editable order numbers, descriptions and individual and total prices.

Intelligent additional functions simplify your processes



Roto Con Orders makes it easy for you to simplify and accelerate your processes. A large number of useful functions are available to help you do this:

- Store your own company addresses and logos in the header of your offers
- Create and manage customer-specific projects
- Generate individual customer hardware templates
- Integrate a discount structure system
- Material master management
- Due to its responsive design, it can be used on all devices such as PCs, tablets, and smartphones

Get started straight away thanks to web-based solution

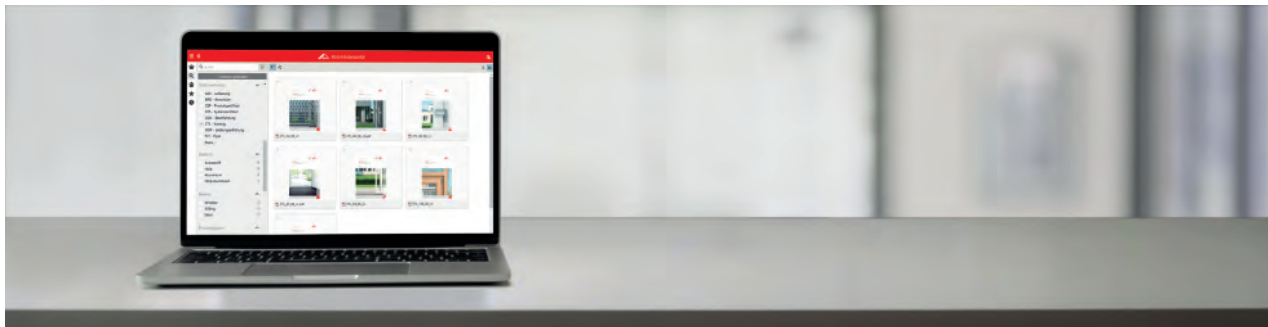
Roto Con Orders is a web-based solution that you can access around the world and around the clock. You only require a computer with a web browser and Internet access for this purpose. To work with the online hardware configurator, please register once with your e-mail address in the portal for dealers and manufacturers at:



www.roto-frank.com



1.7 Roto media portal



Simple and quick

The Roto media portal is where all media is available, such as catalogues, installation instructions, brochures and interactive installation videos. Access to this portal is optimised for PCs, laptops and mobile devices.

The clear user interface and the numerous search options ensure that all available media can be found simply and quickly. Content can be read directly in the Roto media portal or downloaded for later.

The Roto media portal can be accessed via the “Downloads” link in the “Service” main menu item on the Roto website or directly using the links below.



www.roto-frank.com

Media for Roto Solid

This catalogue offers an overview of the Roto Solid product range. All other media relating to Roto Solid can be accessed via the Roto media portal. The links below provide direct access.



www.roto-frank.com | Roto Solid

1.8 Further Roto products

1.8.1 Window

Roto Tilt&Turn – Tilt&Turn hardware systems for windows and balcony doors

Timber, PVC and aluminium for a 16 mm hardware groove



Roto NX | T

The universal hardware system for modern windows and balcony doors for timber profiles



Roto NX | P

The universal hardware system for modern windows and balcony doors for PVC profiles



Roto NX | A16

The universal hardware system for modern windows and balcony doors for aluminium profiles with a 16 mm hardware groove



Roto NX | Power Hinge

The universal hardware system for modern windows and balcony doors for timber profiles



Roto NX | C

The universal hardware system for modern windows and balcony doors for timber and PVC profiles



Roto NX | Designo A16

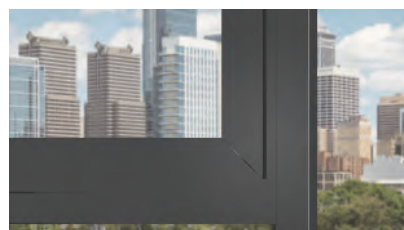
The universal hardware system for modern windows and balcony doors for aluminium profiles with a 16 mm hardware groove

Aluminium



Roto AL

Universal hardware for aluminium windows and balcony doors



Roto AL Designo

Concealed hardware for aesthetic aluminium windows and balcony doors



Roto Outward Opening – Hardware systems for outward opening windows



Roto FS Kempton

Stainless-steel friction stays for outward opening windows



Roto PS Aintree

Parallel stainless-steel friction stays for outward opening windows



Roto FRH Uni

Fully reversible hinges for outward opening windows

1.8.2 Sliding



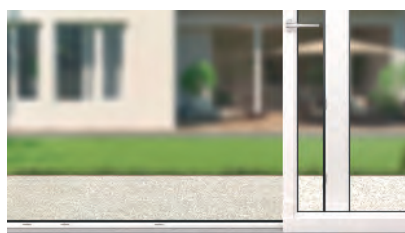
Roto Patio Fold

The robust hardware system for large Fold&Slide elements



Roto Patio Lift

The versatile hardware system for large Lift&Slide elements



Roto Patio Alversa

The universal hardware system for parallel Tilt&Slide elements



Roto Patio Inowa

The smart hardware system for tightly sealed parallel retraction sliding elements



Roto Patio Inline

The reliable hardware system for Parallel Sliding elements



1.8.3 Door

Roto Safe – The modular multipoint locking system for doors



Roto Safe H

Mechanical multipoint lockings for lever-handle-operated doors



Roto Safe C

Mechanical multipoint lockings for cylinder-operated doors



Roto Safe A

Mechanical-automatic multipoint lockings for doors



Roto Safe E

Electromechanical multipoint lockings for doors



Roto Safe P

Mechanical multipoint lockings for escape and panic doors

Roto Solid – Comprehensive range of door hinges



Roto Solid S

Screw-on hinges for doors



Roto Solid B

Butt hinges for doors



Roto Solid C

Concealed hinges for doors

Roto Eifel – Thresholds for doors and balcony doors



Roto Eifel TB

The varied range of thresholds for doors and balcony doors



1.8.4 Equipment

Roto Drive&Control – Electronic components for windows and doors



Roto E-Tec Drive

The concealed drive for windows



Roto E-Tec Control

Wired sensors for security technology and room climate



Roto Com-Tec Sensor

Wireless sensors integrated in hardware for home security

Roto Handles – Handles for all opening types



Roto Swing

The modern handle line



Roto Line

The classic handle line



Roto Samba

The classic yet modern handle line



Roto Freestyle

Solutions for all opening types

Roto Fix&Glazing – Installation and glazing solutions for windows and doors



Roto Glas-Tec

Customised solutions for safe glazing



1.9 Contact

Roto Frank
Fenster- und Türtechnologie GmbH
Wilhelm-Frank-Platz 1
70771 Leinfelden-Echterdingen
Germany
Phone +49 711 7598 0
Fax +49 711 7598 253
info@roto-frank.com
www.roto-frank.com

**General information**

See page 50

Positioning door hinges

See page 51

Load-bearing capacity table

Roto Solid B, Roto Solid S 52

Roto Solid C 53

Door closers

See page 54

Timber profile systems

See page 55

2 Application diagrams

2.1 General information

Functional safety of the door hinges

The following points must be noted in order to ensure the functional safety of the door hinges at all times:

1. Correct installation of hardware components in accordance with the installation instructions.
2. Correct installation of elements during door installation.
3. The door manufacturer must pass the maintenance and operation instructions and the product liability guidelines (if necessary) on to the user.

Profile classification – application ranges

The individual application diagrams must strictly be complied with.

When determining the maximum permitted leaf formats and leaf weights, the values specified by the profile manufacturers and system owners must not be exceeded either.

The maximum permissible leaf weight per door hinge may vary due to profile-related conditions. Other information is available upon request.

Choosing and dimensioning door hinges

The choice of door hinges has a major impact on the functional safety and durability of doors. Alongside the leaf weight, many other factors need to be taken into consideration, including door dimensions, installation location, material and installation quality.

The load placed on a door hinge is often equated with the leaf weight. But various factors may mean that the actual load is much higher.

This is why the following points must be taken into consideration when choosing door hinges:

- Do not exceed the maximum permitted leaf weight of the door hinge.
- Take additional loads resulting from the door dimensions, installation location, usage frequency and door closers into consideration.
- Make sure that a sufficient buffer has been added to the load-bearing capacity for the door hinges.
- Use door hinges with a higher load-bearing capacity for frequently used doors in public buildings – even if this is not strictly necessary based on the leaf weight alone.



2.2 Positioning door hinges

Roto recommends using at least three hinges, depending on the height of the door leaf (for further information, see → *from page 52*). This way, the necessary stability, even weight distribution and smooth movements can be ensured.

Every hinge fulfils a specific role:

- the top hinge, as the leading hinge, ensures that the door leaf is aligned correctly, assisting with smooth opening and closing.
- The central hinge offers stability, counteracts door warping and ensures consistent gasket compression in this area.
- The bottom hinge is the load-bearing hinge. It supports most of the leaf weight.



INFO

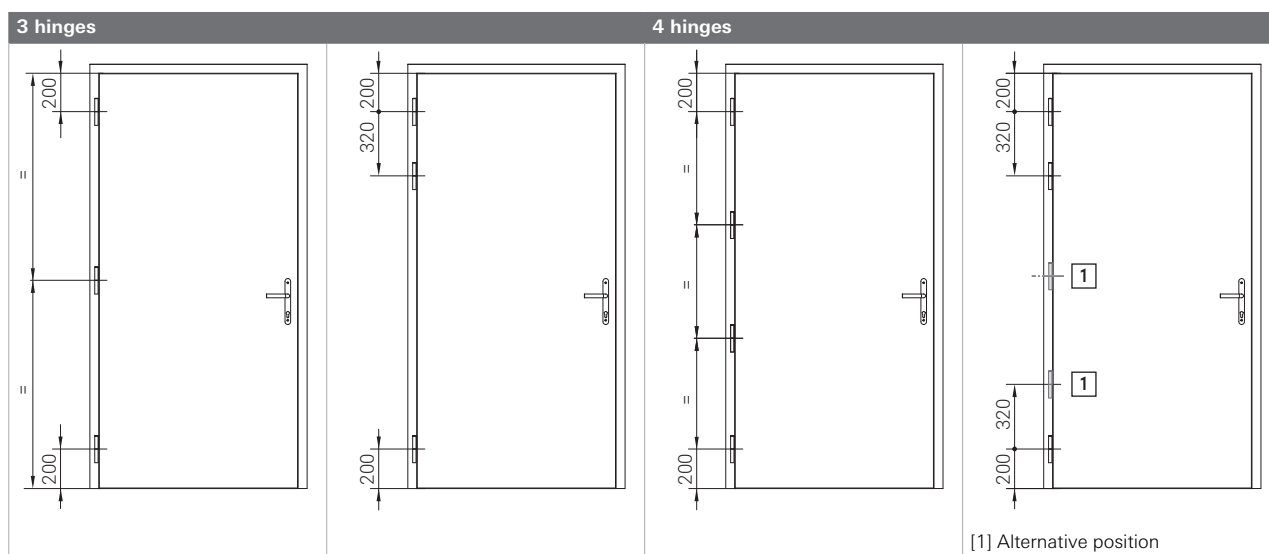
For door hinges located in escape routes in accordance with EN 1935:2002, use at least three or more hinges.

If the hinges are exposed to increased loading, a third hinge should be positioned in the top third, around 320 mm beneath the top hinge. This supports the top hinge, where the main tensile forces occur, and has a positive impact on the load value.

Increased loads occur, for example, in the following cases:

- When a door closer is used → *from page 54*
- In the case of frequently used main entrance doors, e.g. in public spaces such as office buildings, schools, nurseries, etc.
- In the case of unusually wide doors → *from page 52*

Positioning options



2.3 Load-bearing capacity table

In the case of unusually wide doors, an increased bending moment impacts the hinges. This is offset by reducing the maximum permitted leaf weight by the deductible dimensions specified in the table.

2.3.1 Roto Solid B, Roto Solid S

↑ ↓	3000																-6%	-13%												
	2950																-3%	-10%	-16%											
	2900																-7%	-13%	-19%											
	2850															-3%	-10%	-16%	-22%											
	2800															-7%	-13%	-19%	-25%											
	2750															-4%	-10%	-17%	-23%	-28%										
	2700															-7%	-14%	-20%	-26%	-31%										
	2650													-4%	-11%	-17%	-23%	-29%	-34%											
	2600													-7%	-14%	-21%	-27%	-32%	-38%											
	2550												-4%	-11%	-18%	-24%	-30%	-35%	-41%											
	2500												-8%	-15%	-21%	-28%	-33%	-39%	-44%											
	2450												-4%	-12%	-19%	-25%	-31%	-37%	-42%	-47%										
	2400												-8%	-15%	-22%	-29%	-34%	-40%	-45%	-50%										
	2350												-4%	-12%	-19%	-26%	-32%	-38%	-43%	-48%	-53%									
	2300												-8%	-16%	-23%	-30%	-36%	-41%	-47%	-52%	-56%									
	2250												-4%	-13%	-20%	-27%	-33%	-39%	-45%	-50%	-55%	-59%								
	2200												-9%	-17%	-24%	-31%	-37%	-43%	-48%	-53%	-58%	-63%								
	2150												-5%	-13%	-21%	-28%	-35%	-41%	-46%	-52%	-57%	-61%	-66%							
	2100												-9%	-17%	-25%	-32%	-38%	-44%	-50%	-55%	-60%	-65%	-69%							
	2050												-5%	-14%	-22%	-29%	-36%	-42%	-48%	-54%	-59%	-63%	-68%	-72%						
2000												-10%	-18%	-26%	-33%	-40%	-46%	-52%	-57%	-62%	-67%	-71%	-75%							
1950												-5%	-14%	-23%	-30%	-38%	-44%	-50%	-56%	-61%	-66%	-70%	-74%	-78%						
1900												-10%	-19%	-27%	-35%	-42%	-48%	-54%	-59%	-64%	-69%	-73%	-77%	-81%						
1850												-5%	-15%	-24%	-32%	-39%	-46%	-52%	-58%	-63%	-68%	-72%	-77%	-81%	-84%					
1800												-11%	-20%	-29%	-36%	-43%	-50%	-56%	-62%	-67%	-71%	-76%	-80%	-84%	-88%					
	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600													



= min. 4 hinges



= min. 3 hinges



= deductible dimension for unusually wide doors in accordance with EN 1935:2002



INFO

Example of use to determine the maximum permitted leaf weight

Max. load-bearing capacity of door hinge - deductible dimension based on $SH \times SW = \text{max. leaf weight}$

Example: **120 ATB; load-bearing capacity of door hinge_{max.} 160 kg; SH = 2100 mm; SW = 1100 mm**

$160 \text{ kg} - 9\% = \text{max. S.kg } 145.6 \text{ kg}$



2.3.2 Roto Solid C

↑ ↓	3000																-6%	-13%											
	2950																-3%	-10%	-16%										
	2900																-7%	-13%	-19%										
	2850															-3%	-10%	-16%	-22%										
	2800															-7%	-13%	-19%	-25%										
	2750															-4%	-10%	-17%	-23%	-28%									
	2700															-7%	-14%	-20%	-26%	-31%									
	2650															-4%	-11%	-17%	-23%	-29%	-34%								
	2600															-7%	-14%	-21%	-27%	-32%	-38%								
	2550															-4%	-11%	-18%	-24%	-30%	-35%	-41%							
	2500															-8%	-15%	-21%	-28%	-33%	-39%	-44%							
	2450															-4%	-12%	-19%	-25%	-31%	-37%	-42%	-47%						
	2400															-8%	-15%	-22%	-29%	-34%	-40%	-45%	-50%						
	2350															-4%	-12%	-19%	-26%	-32%	-38%	-43%	-48%	-53%					
	2300															-8%	-16%	-23%	-30%	-36%	-41%	-47%	-52%	-56%					
	2250															-4%	-13%	-20%	-27%	-33%	-39%	-45%	-50%	-55%	-59%				
	2200															-9%	-17%	-24%	-31%	-37%	-43%	-48%	-53%	-58%	-63%				
	2150															-5%	-13%	-21%	-28%	-35%	-41%	-46%	-52%	-57%	-61%	-66%			
	2100															-9%	-17%	-25%	-32%	-38%	-44%	-50%	-55%	-60%	-65%	-69%			
	2050															-5%	-14%	-22%	-29%	-36%	-42%	-48%	-54%	-59%	-63%	-68%	-72%		
2000															-10%	-18%	-26%	-33%	-40%	-46%	-52%	-57%	-62%	-67%	-71%	-75%			
1950															-5%	-14%	-23%	-30%	-38%	-44%	-50%	-56%	-61%	-66%	-70%	-74%	-78%		
1900															-10%	-19%	-27%	-35%	-42%	-48%	-54%	-59%	-64%	-69%	-73%	-77%	-81%		
1850															-5%	-15%	-24%	-32%	-39%	-46%	-52%	-58%	-63%	-68%	-72%	-77%	-81%	-84%	
1800															-11%	-20%	-29%	-36%	-43%	-50%	-56%	-62%	-67%	-71%	-76%	-80%	-84%	-88%	
	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600												



-  = min. 4 hinges
-  = min. 3 hinges (max. leaf weight 140 kg)
alternatively, 2 hinges (max. leaf weight 100 kg)
-  = deductible dimension for unusually wide doors in accordance with EN 1935:2002

2.4 Door closers

Door closers place an additional load on the door hinges. This is why the following points must be noted when using a door closer.

1. Use three or more hinges.
2. Position a central hinge in the top third, around 320 mm beneath the top hinge → *from page 51*.
3. Increase the effective door mass depending on the type of door closer:
 - ▶ Door closer without opening damping: +20% effective door mass
 - ▶ Door closer with opening damping or restrictor device: +75% effective door mass
4. We recommend performing a test of long-term functional performance according to DIN EN 1191 with the chosen door hinge and the door closer to be used.



INFO

Only use the door closer with opening damping or restrictor device in conjunction with door hinges from class 12, 13 or 14.

Note EN 1935:2022 Annex E.



2.5 Timber profile systems



INFO

Notes on choosing timber types

When choosing timber types, observe EN 14351-1 and data sheet HO.06 -1 "Timber types for the fenestration industry" published by the German Window and Facade Association (VFF).

The timber should, as a minimum, be equal to the following guideline values for basic density lower limits:

- Coniferous timber: $\geq 0.35 \text{ g/cm}^3$
- Deciduous timber: $\geq 0.45 \text{ g/cm}^3$

Recommendation: generally $\geq 0.45 \text{ g/cm}^3$



Roto Solid B







Profile overview

PVC	60
Timber	61
Aluminium	63

218 P

Accessories	68
Spare parts	68
Jigs for overlap-screwed hinges	70
Jigs for rebate-screwed hinges	72
Drawings	74

318 P

Accessories	80
Spare parts	81
Jigs for overlap-screwed hinges	82
Jigs for rebate-screwed hinges	84
Drawings	86

222 P

Accessories	92
Spare parts	93
Jigs for overlap-screwed hinges	95
Jigs for rebate-screwed hinges	97
Drawings	99

322 P

Accessories	105
Spare parts	107
Jigs for overlap-screwed hinges	108
Jigs for rebate-screwed hinges	110
Drawings	111

224 A

Spare parts	116
Drawings	117

324 A

Spare parts	120
Drawings	121

130 R

Drawings	123
----------	-----

3 Roto Solid B – Butt hinges

3.1 Profile overview

3.1.1 PVC

3.1.1.1 218 P, 222 P, 318 P, 322 P



INFO

The profile systems shown in the overview are a selection of the possible combinations. Other profile systems are available upon request.

Profile system	Version Overlap-screwed	Screw length for overlap-screwed leaf hinge	Version Rebate-screwed	Faceplate version
aluplast IDEAL 4000 AD	I	40	I	–
aluplast IDEAL 7000 AD	I	40	I	–
aluplast IDEAL 8000 MD	I	40	I	–
aluplast energeto neo AD	I	40	I	–
Deceuninck Elegant MD	I	50*	I	–
Deceuninck Zendow#neo AD	–	40	I	–
GEALAN-LINEAR MD	I	40	I	–
GEALAN S 9000 MD	I	50	I	–
KBE 76 AD	I	40	I	F16
	I	40	II	F20
KBE 88 MD	I	40	I	F16
	I	40	II	F20
Kömmerling 76 AD	I	40	I	F16
	I	40	II	F20
Kömmerling 88 MD	I	40	I	F16
	I	40	II	F20
TROCAL 76 AD	I	40	I	F16
	I	40	II	F20
TROCAL 88 MD	I	40	I	F16
	I	40	II	F20
REHAU S969 Synego AD	I	40	I	–
REHAU S980 Geneo MD	I	40	I	–
Salamander bluEvolution 82 AD	I	40	I	F16
	I	40	II	F20
Salamander bluEvolution 82 MD	I	40	II	–
Salamander bluEvolution 92 MD	I	40	I	F16
	I	40	II	F20
Salamander greenEvolution 76 MD	I	40	I	F16
	I	40	II	F20
Salamander Streamline 76 AD	I	40	I	F16
	I	40	II	F20
Schüco SI82 MD	I	40	I	–
Schüco Living 82 AD	I	40	I	–
VEKA SOFTLINE 70 AD	I	40	I	F16
	I	50	III	U24
VEKA SOFTLINE 76 AD	I	50	I	F16
	I	50	III	U24
VEKA SOFTLINE 82 AD	I	40	I	F16
	I	50	III	U24
VEKA SOFTLINE 82 MD	I	40	I	F16
	I	50	III	U24

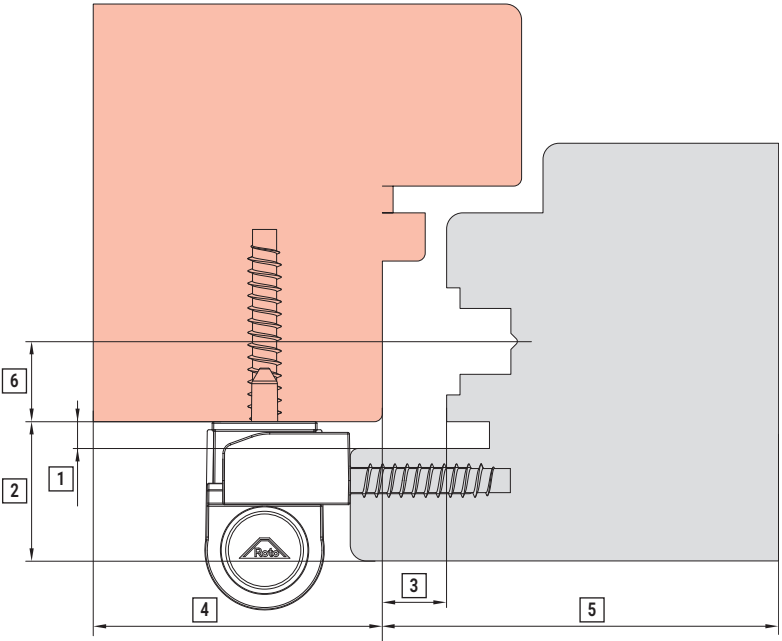
Tab. 3.1: *Depending on the leaf number.



3.1.2 Timber

3.1.2.1 218 P, 222 P, 318 P, 322 P

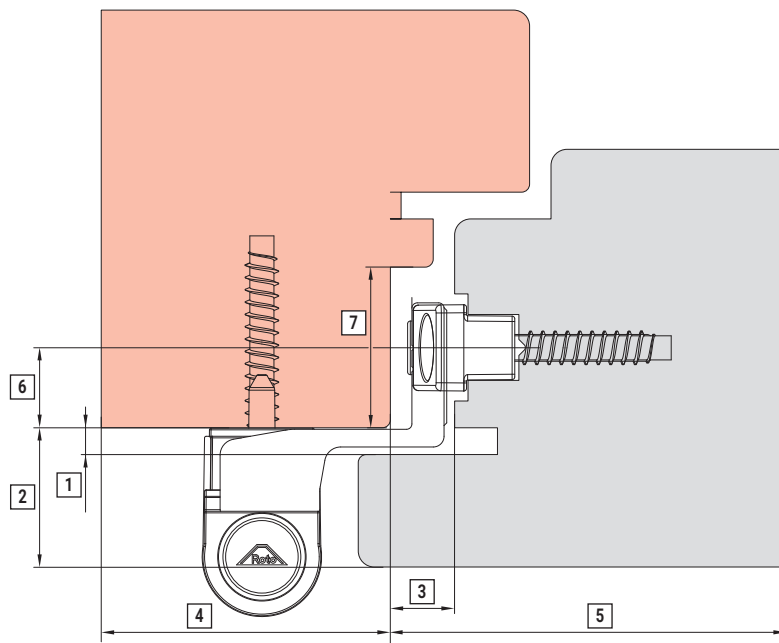
Overlap-screwed



Version I

		218 P / 318 P	222 P / 322 P
[1]	Hinge passage	≤ 5 mm	≤ 5 mm
[2]	Overlap height	≥ 17 mm	≥ 17 mm
[3]	Rebate clearance	–	–
[4]	Frame clearance	≥ 26 mm	≥ 31 mm
[5]	Leaf clearance	≥ 70 mm	≥ 70 mm
[6]	Hardware axis	–	–

Rebate-screwed



Version IV

		218 P / 318 P	222 P / 322 P
[1]	Hinge passage	≥ 3.5 mm	≥ 3.5 mm
[2]	Overlap height	–	–
[3]	Rebate clearance	12 mm	12 mm
[4]	Frame clearance	≥ 26 mm	≥ 31 mm
[5]	Leaf clearance	≥ 70 mm	≥ 70 mm
[6]	Hardware axis	9 – 15 mm	9 – 15 mm
[7]	Rebate depth	≥ 24 mm	≥ 24 mm



INFO

Hardware groove required on the hinge side.

Route out the profile in the area of the gasket if required (e.g. collision between hinge tabs and leaf).



3.1.3 Aluminium

3.1.3.1 218 P, 222 P, 318 P, 322 P

For profile systems with a 16 mm hardware groove



INFO

The profile systems shown in the overview are a selection of the possible combinations. Other profile systems are available upon request.



Profile system	Frame number	Leaf number	Version	
			Overlap-screwed	Rebate-screwed
Aliplast Ecofutural	EF011	EF723	–	IV
Aliplast Star75	RS-D7675	RS-O7884	–	IV
AluK 67FR	U43005	U21322	I	IV
Alumil SMARTIA	S67514	S67972	–	IV
Cortizo COR 70	8132	6624	I	I
	6610	6622		
	7937	6727	–	IV
	7937	6729	I	–
Reynaers CS 86-HI	7937+7966	6729		
	1.080.125	1.080.621	–	IV
Sepalumic 5800	108.0125	108.0621		
	58011	58118	I	IV
Sepalumic 5800 i-process	58070	58122		
		58108	I	–

3.1.3.2 224 A, 324 A

- Frame groove V.01
- Leaf groove: 15 / 20



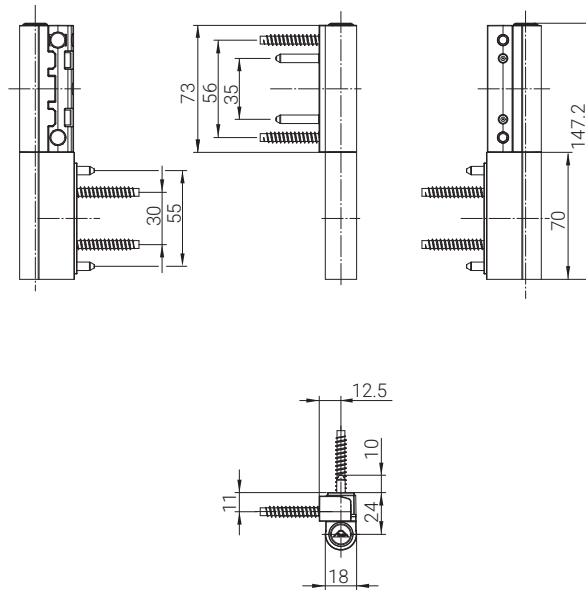
INFO

The profile systems shown in the overview are a selection of the possible combinations. Other profile systems are available upon request.

Profile system	Frame number	Leaf number	Version
ALAS IBERIA ALAS 40	04001	04003	I
ALAS IBERIA ALAS 60	R6063	R6001	I
Aliplast Genesis	GN010	GN023	I
	GN011		
Aliplast Max Light	ML010	ML024	I
Aliplast Superial 75	SP010	SP023	I
	SP011		
Alubin AW-47	47009	47010	I
Alumil M11000	M11010	M11434	I
		M11438	
Aluprof MB-45	K415219X	K430012X	I
		K417805X	
Aluprof MB-86	K518911X	K518961X	I
Cortizo COR 70	Cor-7975	Cor-7926	I
	Cor-7937	Cor-7927	
Cortizo COR 70 Industrial RPT	Cor-8072	Cor-7927	I
Kleidco Icon 70	P 1153	P 1543	I
Kleidco Prime 90	P2193	P2196	I
Ponzio PE40	4015	4052	I
Ponzio WD75THI	375.826H	375.864H	I
Reynaers SL 38 Classic	4030136	4032014	I
Reynaers SL 38 Ferro	4030136	4032314	I
Rotoi FN52D	S12019	S12041	I
Van Beveren B70	02007047	02007053	I
		02007054	



3.2 218 P



Product description

The Roto Solid B | 218 P two-part butt hinge is suitable for entrance doors up to a leaf weight of 80 kg.

Butt hinges are very popular thanks to their slim hinge design. This means that they blend harmoniously into any door. A wide range of colours and different coating methods offer a lot of freedom for an individual design.

A particular highlight is the adjustment mechanism integrated in the hinge roller. It ensures a consistently attractive appearance regardless of the setting, as it prevents gaps and offset outlines.

The rebate-screwed butt hinge is especially suited to doors with panels filling the leaf on both sides and is compatible with hardware grooves of 16, 20 and 24 mm.

The overlap-screwed version ensures ultimate sealing.

Advantages at a glance

- For entrance doors up to max. 80 kg
- Adjustment mechanism integrated in the hinge roller for continuous height, lateral and gasket compression adjustment
- Appearance stays the same regardless of the hinge setting – no offset outlines and no gap formation between the frame and leaf components
- Simple and fast adjustment without unhinging the door
- Installation either in the rebate or overlap
- Consistent, slim butt hinge design with a diameter of 18 mm

Adjustment range

- Laterally adjustable: +3 / -3 mm
- Height adjustable: +4 / -2 mm
- Gasket compression adjustable: +1.5 / -1.5 mm

	3	7	4	0	1	4*	0	11

Product characteristics



Design

- Consistent, slim butt hinge design with a diameter of 18 mm
- Appearance stays the same regardless of the hinge setting
- Available in various RAL colours and metallic surfaces



Security

- Maximum long-term functional performance class tested in accordance with DIN EN 1935 and DIN EN 1191 with 200,000 opening cycles
- Corrosion resistance class 5 in accordance with DIN EN 1670



Efficiency

- Rapid and simple installation in just a few operation steps
- Less work because the hinges are largely preassembled
- Drilling jigs simplify installation
- Door leaf is easy to hinge and unhinge – even with a low door lintel



Adjustment

- Adjustment mechanism integrated in the hinge roller for continuous lateral, height and gasket compression adjustment
- Large adjustment ranges for high tolerance compensation on the installed door
- Simple and fast adjustment without un-hinging the door

Overlap-screwed

							Nº
Version I	Uncoated	R00.0	Roh	–	–	1 Piece(s)	2008016
	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006803
			–	powd-c	Right	1 Piece(s)	2006804
	Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006801
			–	powd-c	Right	1 Piece(s)	2006802
	Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027774
			RAL 7016M	powd-c	Right	1 Piece(s)	2027775
	Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006805
			–	met p	Right	1 Piece(s)	2006806
	Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029037
			RAL 1036	powd-c	Right	1 Piece(s)	2029038
	Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006796
			RAL 8077	powd-c	Right	1 Piece(s)	2006797
	Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006798
			RAL 9005M	powd-c	Right	1 Piece(s)	2006800
	Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006794
			RAL 9016	powd-c	Right	1 Piece(s)	2006795
			RAL 9016	powd-c	Left	24 Piece(s)	2008003
			RAL 9016	powd-c	Right	24 Piece(s)	2008009
	Special colour	SF	SF	–	Left	1 Piece(s)	2006807
			SF	–	Right	1 Piece(s)	2006808



INFO

The scope of delivery includes:

- Screws per hinge: 4x 6.3 x 40

For other screw lengths, → *from page 68*



Rebate-screwed

								Nº
Version I	16	Uncoated	R00.0	Roh	Uncoated	–	1 Piece(s)	2008017
		Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006799
				–	powd-c	Right	1 Piece(s)	2006587
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006777
				–	powd-c	Right	1 Piece(s)	2006788
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027776
				RAL 7016M	powd-c	Right	1 Piece(s)	2027777
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006598
				–	met p	Right	1 Piece(s)	2006609
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029039
Version I				RAL 1036	powd-c	Right	1 Piece(s)	2029040
Version I		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006733
				RAL 8077	powd-c	Right	1 Piece(s)	2006744
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006755
				RAL 9005M	powd-c	Right	1 Piece(s)	2006766
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006585
				RAL 9016	powd-c	Right	1 Piece(s)	2006697
				RAL 9016	powd-c	Left	24 Piece(s)	2008010
				RAL 9016	powd-c	Right	24 Piece(s)	2008011
		Special colour	SF	SF	–	Left	1 Piece(s)	2006620
				SF	–	Right	1 Piece(s)	2006631
Version II	20	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006741
				–	powd-c	Right	1 Piece(s)	2006742
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006739
				–	powd-c	Right	1 Piece(s)	2006740
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027778
				RAL 7016M	powd-c	Right	1 Piece(s)	2027779
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006743
				–	met p	Right	1 Piece(s)	2006745
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029041
				RAL 1036	powd-c	Right	1 Piece(s)	2029042
Version II		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006735
				RAL 8077	powd-c	Right	1 Piece(s)	2006736
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006737
				RAL 9005M	powd-c	Right	1 Piece(s)	2006738
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006732
				RAL 9016	powd-c	Right	1 Piece(s)	2006734
		Special colour	SF	SF	–	Left	1 Piece(s)	2006746
				SF	–	Right	1 Piece(s)	2006747
Version III	24	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006772
				–	powd-c	Right	1 Piece(s)	2006773
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006770
				–	powd-c	Right	1 Piece(s)	2006771
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027780
				RAL 7016M	powd-c	Right	1 Piece(s)	2027781
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006774
				–	met p	Right	1 Piece(s)	2006775
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029043
				RAL 1036	powd-c	Right	1 Piece(s)	2029044
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006765
				RAL 8077	powd-c	Right	1 Piece(s)	2006767
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006768
				RAL 9005M	powd-c	Right	1 Piece(s)	2006769
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006763
				RAL 9016	powd-c	Right	1 Piece(s)	2006764
		Special colour	SF	SF	–	Left	1 Piece(s)	2006776
				SF	–	Right	1 Piece(s)	2006778





INFO

The scope of delivery includes:

- Screws per hinge: 4x 6.3 x 40

For other screw lengths, → *from page 68*

3.2.1 Accessories

3.2.1.1 Screws



INFO

Screw lengths are profile-related.

			Nº
Fixing screw	6,3x40	48 Piece(s)	2010148
	6,3x50	48 Piece(s)	2010149
	6,3x60	48 Piece(s)	2010150

3.2.2 Spare parts

Cover cap



			Nº
Cover cap	Black	24 Piece(s)	2010130
	White	24 Piece(s)	2010131

Screw cover

for overlap-screwed hinges



			Nº
Screw cover	Black	48 Piece(s)	2028877
	White	48 Piece(s)	2028878

Threaded pin



			Nº
Threaded pin	M6x5	48 Piece(s)	2010151



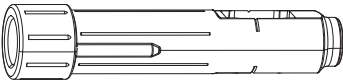
Leaf bush



			Nº
Leaf bush	Black	24 Piece(s)	2029071
	White	24 Piece(s)	2029070



Frame bush



			Nº
Frame bush	Black	24 Piece(s)	2029075
	White	24 Piece(s)	2029074

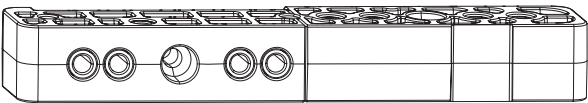
3.2.3 Jigs for overlap-screwed hinges

By combining the Universal drilling jig with the right additional components, the frame and leaf can be drilled either together or separately.

Combination

	Drilling jig	Telescopic rod set	Stop set	Stop set
	Universal		Leaf	Frame
Drilled together	1	–	–	–
Drilled together with telescopic rod	Max. 3	1	–	–
Drilled separately (only for overlap width of 20 mm)	1	–	1	1
Drilled separately with telescopic rod	–	–	–	–

Universal drilling jig



		Nº
Drilling jig Universal 218P	1 Piece(s)	2027667

Telescopic rod set

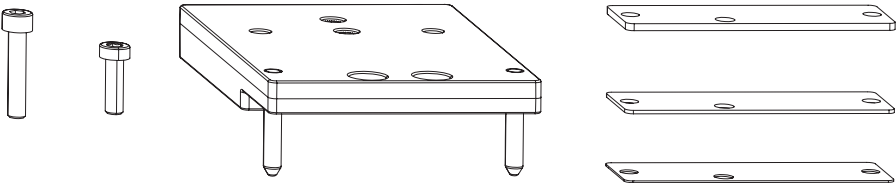


Telescopic rod set (overlap-screwed), consisting of: 1 telescopic rod, 3 cylinder screws, 12 spacer plates (2 mm), 6 spacer plates (1 mm), 3 spacer plates (0.5 mm), 1 installation instructions

			Nº
Telescopic rod set, overlap-screwed	Left	1 Set(s)	2028941
	Right	1 Set(s)	2028942

Stop set for leaf

Only for drilling the leaf and frame separately.



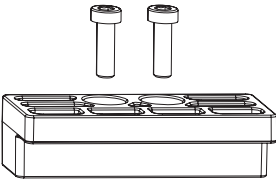
Set, consisting of: 1 stop for leaf (overlap-screwed), 2 cylinder screws, 4 spacer plates (2 mm), 2 spacer plates (1 mm), 1 spacer plate (0.5 mm)

		Nº
Stop set for leaf	1 Set(s)	2027672



Stop set for frame

Only for drilling the leaf and frame separately.



		Nº
Stop set for frame	1 Set(s)	2027673



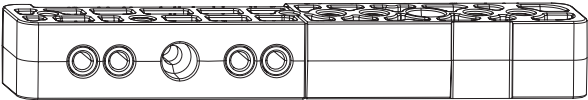
3.2.4 Jigs for rebate-screwed hinges

By combining the Universal drilling jig with the right additional components, the frame and leaf can be drilled either together or separately.

Combination

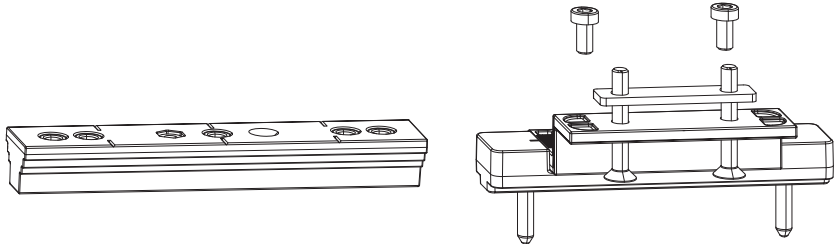
	Drilling jig Universal	Leaf drilling jig set	Telescopic rod set	Stop set Frame
Drilled together	1	1	–	–
Drilled together with telescopic rod	Max. 3	–	1	–
Drilled separately (only for overlap width of 20 mm)	1	1	–	1
Drilled separately with telescopic rod	–	–	–	–

Universal drilling jig



		Nº
Drilling jig Universal 218P	1 Piece(s)	2027667

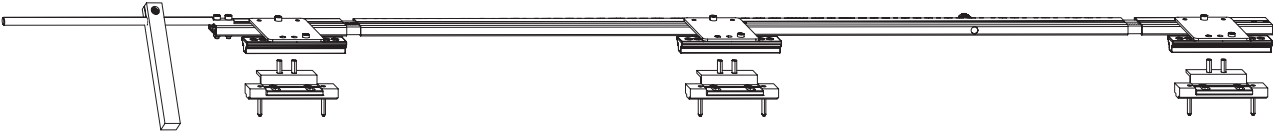
Leaf drilling jig set for rebate-screwed hinges



Leaf drilling jig set, consisting of: 1 leaf drilling jig for drill holes in the hardware groove, 1 adapter for frame holes with Universal drilling jig, 2 countersunk screws, 2 cylinder screws

		Nº
Leaf drilling jig set for rebate-screwed hinges	1 Set(s)	2027671

Telescopic rod set



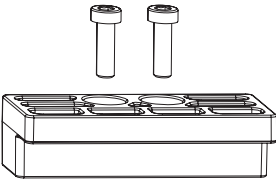
Telescopic rod set (rebate-screwed), consisting of: 1 telescopic rod incl. leaf drilling jigs, 3 adapters for frame holes, 1 installation instructions

			Nº
Telescopic rod set, rebate-screwed	Left	1 Set(s)	2028939
	Right	1 Set(s)	2028940



Stop set for frame

Only for drilling the leaf and frame separately.



		Nº
Stop set for frame	1 Set(s)	2027673



3.2.5 Drawings

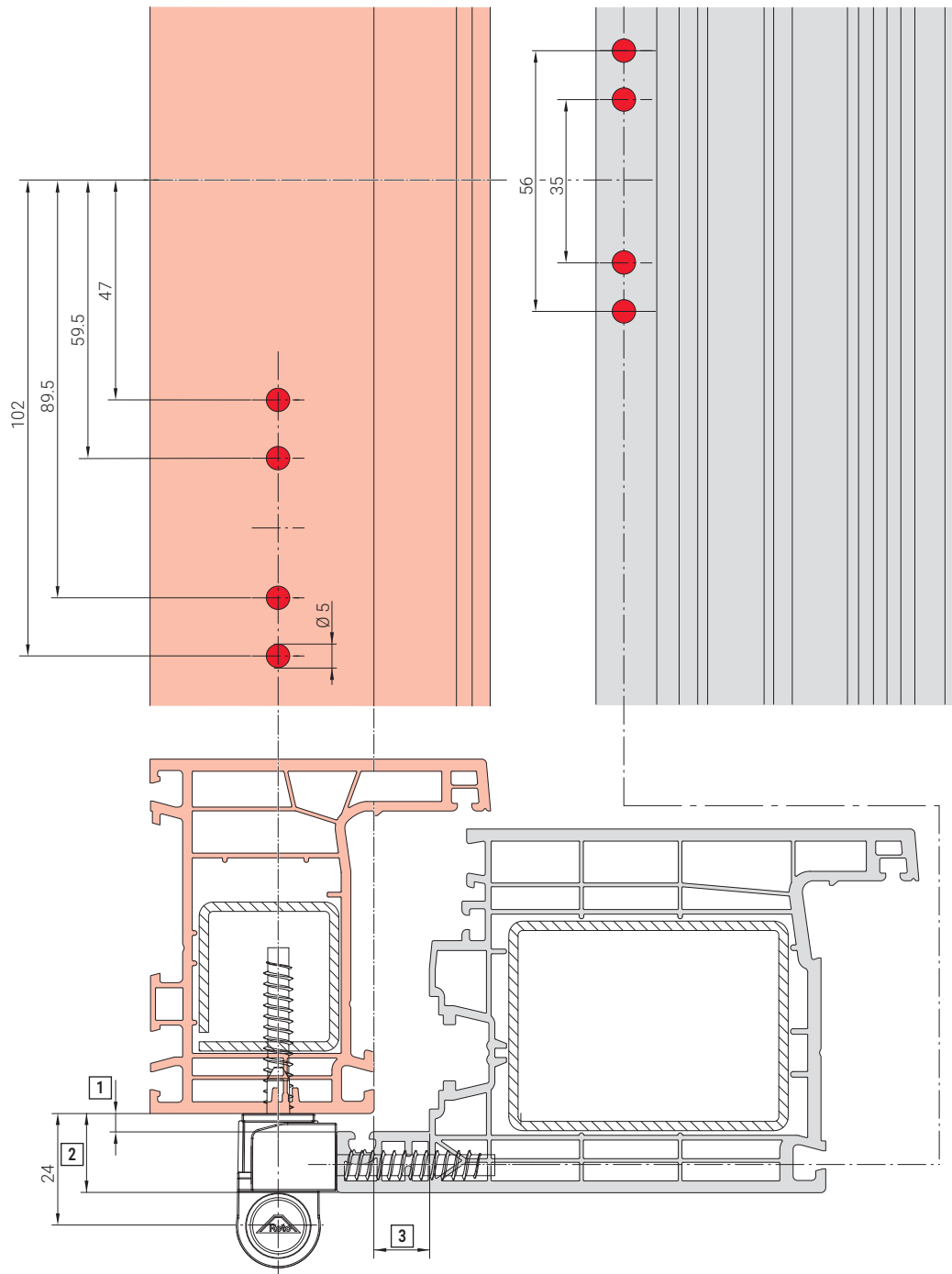
3.2.5.1 Drilling pattern



INFO

Example diagram. Drilling patterns are profile-related (available upon request).

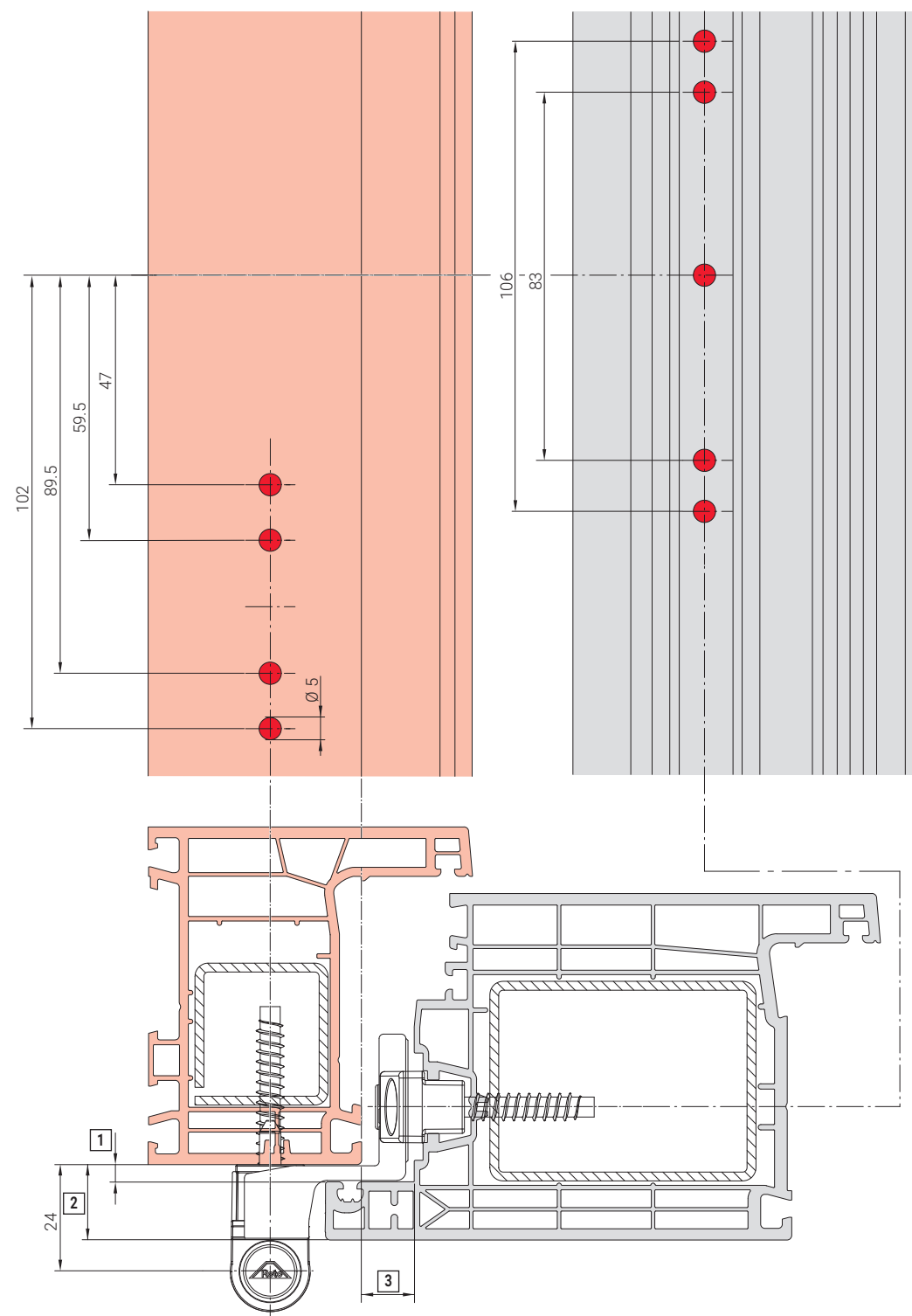
Overlap-screwed



- [1] Hinge passage
- [2] Overlap height ≥ 16.5 mm
- [3] Rebate clearance

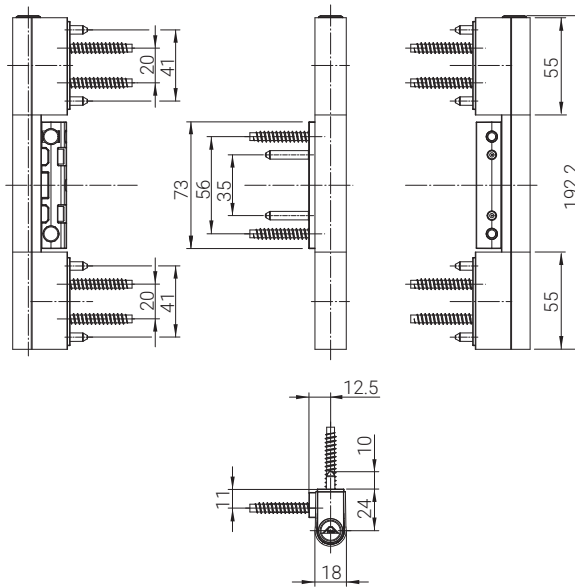


Rebate-screwed



- [1] Hinge passage ≥ 3.5 mm
- [2] Overlap height
- [3] Rebate clearance

3.3 318 P



Product description

The Roto Solid B | 318 P three-part butt hinge is suitable for entrance doors up to a leaf weight of 120 kg.

Butt hinges are very popular thanks to their slim hinge design. This means that they blend harmoniously into any door. A wide range of colours and different coating methods offer a lot of freedom for an individual design.

Alongside the visual advantages, Roto Solid B | 318 P also impresses during installation and adjustment.

A particular highlight is the adjustment mechanism integrated in the hinge roller. It ensures a consistently attractive appearance regardless of the setting, as it prevents gaps and offset outlines.

The rebate-screwed butt hinge is especially suited to doors with panels overlapping the leaf on both sides and is compatible with hardware grooves of 16, 20 and 24 mm. The overlap-screwed version offers ultimate sealing.

Advantages at a glance

- For entrance doors up to max. 120 kg
- Adjustment mechanism integrated in the hinge roller for continuous height, lateral and gasket compression adjustment
- Appearance stays the same regardless of the hinge setting – no offset outlines and no gap formation between the frame and leaf components
- Simple and fast adjustment without unhinging the door
- Installation either in the rebate or overlap
- Consistent, slim butt hinge design with a diameter of 18 mm

Adjustment range

- Laterally adjustable: +3 / -3 mm
- Height adjustable: +4 / -2 mm
- Gasket compression adjustable: +1.5 / -1.5 mm

CE								
	3	7	4	0	1	4*	0	11



Product characteristics



Design

- Consistent, slim butt hinge design with a diameter of 18 mm
- Appearance stays the same regardless of the hinge setting
- Available in various RAL colours and metallic surfaces



Security

- Maximum long-term functional performance class tested in accordance with DIN EN 1935 with 200,000 opening cycles
- Corrosion resistance class 5 in accordance with DIN EN 1670



Efficiency

- Rapid and simple installation in just a few operation steps
- Less work because the hinges are largely preassembled
- Drilling jigs simplify installation
- Door leaf is easy to hinge and unhinge – even with a low door lintel



Adjustment

- Adjustment mechanism integrated in the hinge roller for continuous lateral, height and gasket compression adjustment
- Large adjustment ranges for high tolerance compensation on the installed door
- Simple and fast adjustment without un-hinging the door



Overlap-screwed

								Nº
Version I	Uncoated	R00.0	Roh	–	powd-c	–	1 Piece(s)	2008018
	Natural silver	R01.1	–	–	powd-c	Left	1 Piece(s)	2006595
			–	–	powd-c	Right	1 Piece(s)	2006596
	Stainless steel appearance	R01.23	–	–	powd-c	Left	1 Piece(s)	2006593
			–	–	powd-c	Right	1 Piece(s)	2006594
	Anthracite grey, matt	R02.2M	RAL 7016M	–	powd-c	Left	1 Piece(s)	2027782
			RAL 7016M	–	powd-c	Right	1 Piece(s)	2027783
	Brass, polished	R03.2	–	–	met p	Left	1 Piece(s)	2006597
			–	–	met p	Right	1 Piece(s)	2006599
	Pearl gold	R03.5	RAL 1036	–	powd-c	Left	1 Piece(s)	2029045
			RAL 1036	–	powd-c	Right	1 Piece(s)	2029046
	Dark brown	R04.6	RAL 8077	–	powd-c	Left	1 Piece(s)	2006589
			RAL 8077	–	powd-c	Right	1 Piece(s)	2006590
	Jet black, matt	R06.2M	RAL 9005M	–	powd-c	Left	1 Piece(s)	2006591
			RAL 9005M	–	powd-c	Right	1 Piece(s)	2006592
	Traffic white	R07.2	RAL 9016	–	powd-c	Left	1 Piece(s)	2006809
			RAL 9016	–	powd-c	Right	1 Piece(s)	2006588
			RAL 9016	–	powd-c	Left	24 Piece(s)	2008012
			RAL 9016	–	powd-c	Right	24 Piece(s)	2008013
	Special colour	SF	SF	–	–	Left	1 Piece(s)	2006600
			SF	–	–	Right	1 Piece(s)	2006601



INFO

The scope of delivery includes:

- Screws per hinge: 6x 6.3 x 40

For other screw lengths, → *from page 68*

Rebate-screwed

								Nº
Version I	16	Uncoated	R00.0	Roh	–	–	1 Piece(s)	2008019
		Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006726
			R01.1	–	powd-c	Right	1 Piece(s)	2006727
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006709
			R01.23	–	powd-c	Right	1 Piece(s)	2006720
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027784
			R02.2M	RAL 7016M	powd-c	Right	1 Piece(s)	2027785
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006728
			R03.2	–	met p	Right	1 Piece(s)	2006729
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029047
			R03.5	RAL 1036	powd-c	Right	1 Piece(s)	2029048
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006664
			R04.6	RAL 8077	powd-c	Right	1 Piece(s)	2006675
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006686
			R06.2M	RAL 9005M	powd-c	Right	1 Piece(s)	2006698
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006642
			R07.2	RAL 9016	powd-c	Right	1 Piece(s)	2006653
			R07.2	RAL 9016	powd-c	Left	24 Piece(s)	2008014
			R07.2	RAL 9016	powd-c	Right	24 Piece(s)	2008015
		Special colour	SF	SF	–	Left	1 Piece(s)	2006730
			SF	SF	–	Right	1 Piece(s)	2006731
Version II	20	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006757
			R01.1	–	powd-c	Right	1 Piece(s)	2006758
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006754
			R01.23	–	powd-c	Right	1 Piece(s)	2006756
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027786
			R02.2M	RAL 7016M	powd-c	Right	1 Piece(s)	2027787
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006759
			R03.2	–	met p	Right	1 Piece(s)	2006760
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029049
			R03.5	RAL 1036	powd-c	Right	1 Piece(s)	2029050
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006750
			R04.6	RAL 8077	powd-c	Right	1 Piece(s)	2006751
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006752
			R06.2M	RAL 9005M	powd-c	Right	1 Piece(s)	2006753
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006748
			R07.2	RAL 9016	powd-c	Right	1 Piece(s)	2006749
		Special colour	SF	SF	–	Left	1 Piece(s)	2006761
			SF	SF	–	Right	1 Piece(s)	2006762
Version III	24	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006787
			R01.1	–	powd-c	Right	1 Piece(s)	2006789
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006785
			R01.23	–	powd-c	Right	1 Piece(s)	2006786
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027788
			R02.2M	RAL 7016M	powd-c	Right	1 Piece(s)	2027789
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006790
			R03.2	–	met p	Right	1 Piece(s)	2006791
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029051
			R03.5	RAL 1036	powd-c	Right	1 Piece(s)	2029052
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006781
			R04.6	RAL 8077	powd-c	Right	1 Piece(s)	2006782
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006783
			R06.2M	RAL 9005M	powd-c	Right	1 Piece(s)	2006784
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006779
			R07.2	RAL 9016	powd-c	Right	1 Piece(s)	2006780
		Special colour	SF	SF	–	Left	1 Piece(s)	2006792
			SF	SF	–	Right	1 Piece(s)	2006793



								Nº
Version IV	16	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2028879
			R01.1	–	powd-c	Right	1 Piece(s)	2028880
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2028883
			R01.23	–	powd-c	Right	1 Piece(s)	2028884
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2028985
			R04.6	RAL 8077	powd-c	Right	1 Piece(s)	2028986
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2028983
			R06.2M	RAL 9005M	powd-c	Right	1 Piece(s)	2028984
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2028981
			R07.2	RAL 9016	powd-c	Right	1 Piece(s)	2028982
		Special colour	SF	SF	–	Left	1 Piece(s)	2028993
			SF	SF	–	Right	1 Piece(s)	2028994



INFO

The scope of delivery includes:

- Screws per hinge: 6x 6.3 x 40

For other screw lengths, → *from page 68*

3.3.1 Accessories

3.3.1.1 Screws



INFO

Screw lengths are profile-related.

				Nº
Fixing screw		6,3x40	48 Piece(s)	2010148
		6,3x50	48 Piece(s)	2010149
		6,3x60	48 Piece(s)	2010150

3.3.1.2 Leaf hinge cover sleeve (extended on one side)

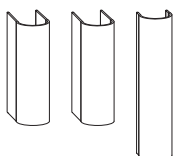
The extended side completely covers the lateral adjustment mechanics on the leaf hinge but reduces the lateral adjustment to +3 / -2 mm.



						Nº
Cover sleeve	Untreated	R00.0	Roh	Uncoated	6 Piece(s)	2051852
	Natural silver	R01.1	–	powd-c	6 Piece(s)	2027216
	Stainless steel appearance	R01.23	–	powd-c	6 Piece(s)	2027217
	Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	6 Piece(s)	2027220
	Brass, polished	R03.2	–	met p	6 Piece(s)	2027218
	Dark brown	R04.6	RAL 8077	powd-c	6 Piece(s)	2027214
	Jet black	R06.2	RAL 9005	powd-c	6 Piece(s)	2027215
	Traffic white	R07.2	RAL 9016	powd-c	6 Piece(s)	2027173
	Special colour	SF	SF	–	6 Piece(s)	2027219

3.3.1.3 Cover sleeve set

For a flexible colour scheme in conjunction with a coated butt hinge basic body.



Cover sleeve set, consisting of: 2 frame hinge cover sleeves, 1 leaf hinge cover sleeve (Standard)

						Nº
Cover sleeve set	Untreated	R00.0	Roh	Uncoated	1 Set(s)	2051940



3.3.2 Spare parts

Cover cap



			Nº
Cover cap	Black	24 Piece(s)	2010130
	White	24 Piece(s)	2010131

Screw cover

for overlap-screwed hinges



			Nº
Screw cover	Black	48 Piece(s)	2028877
	White	48 Piece(s)	2028878

Threaded pin



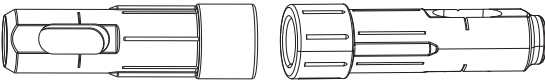
			Nº
Threaded pin	M6x5	48 Piece(s)	2010151

Leaf bush



			Nº
Leaf bush	Black	24 Piece(s)	2029071
	White	24 Piece(s)	2029070

Frame bush



			Nº
Top frame bush	Black	24 Piece(s)	2029078
Bottom frame bush	Black	24 Piece(s)	2029079
Top frame bush	White	24 Piece(s)	2029076
Bottom frame bush	White	24 Piece(s)	2029077

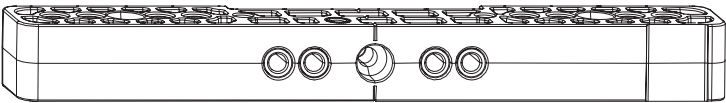
3.3.3 Jigs for overlap-screwed hinges

By combining the Universal drilling jig with the right additional components, the frame and leaf can be drilled either together or separately.

Combination

	Drilling jig	Telescopic rod set	Stop set	Stop set
	Universal		Leaf	Frame
Drilled together	1	–	–	–
Drilled together with telescopic rod	Max. 3	1	–	–
Drilled separately (only for overlap width of 20 mm)	1	–	1	1
Drilled separately with telescopic rod	–	–	–	–

Universal drilling jig



		Nº
Drilling jig Universal 318P	1 Piece(s)	2027669

Telescopic rod set

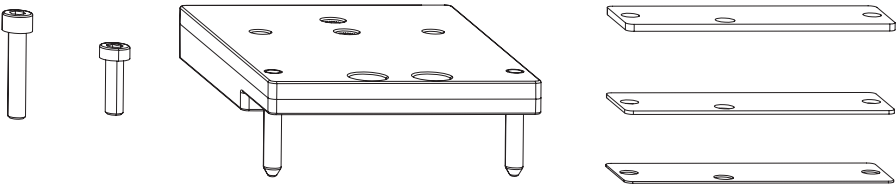


Telescopic rod set (overlap-screwed), consisting of: 1 telescopic rod, 3 cylinder screws, 12 spacer plates (2 mm), 6 spacer plates (1 mm), 3 spacer plates (0.5 mm), 1 installation instructions

			Nº
Telescopic rod set, overlap-screwed	Left	1 Set(s)	2028941
	Right	1 Set(s)	2028942

Stop set for leaf

Only for drilling the leaf and frame separately.



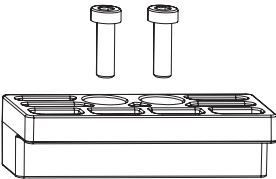
Set, consisting of: 1 stop for leaf (overlap-screwed), 2 cylinder screws, 4 spacer plates (2 mm), 2 spacer plates (1 mm), 1 spacer plate (0.5 mm)

		Nº
Stop set for leaf	1 Set(s)	2027672



Stop set for frame

Only for drilling the leaf and frame separately.



		Nº
Stop set for frame	1 Set(s)	2027673



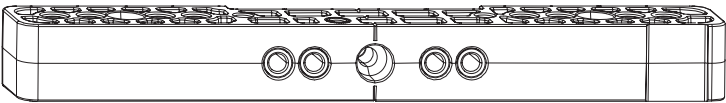
3.3.4 Jigs for rebate-screwed hinges

By combining the Universal drilling jig with the right additional components, the frame and leaf can be drilled either together or separately.

Combination

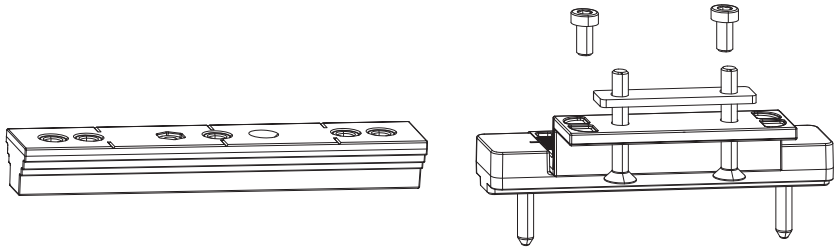
	Drilling jig Universal	Leaf drilling jig set	Telescopic rod set	Stop set Frame
Drilled together	1	1	–	–
Drilled together with telescopic rod	Max. 3	–	1	–
Drilled separately (only for overlap width of 20 mm)	1	1	–	1
Drilled separately with telescopic rod	–	–	–	–

Universal drilling jig



		Nº
Drilling jig Universal 318P	1 Piece(s)	2027669

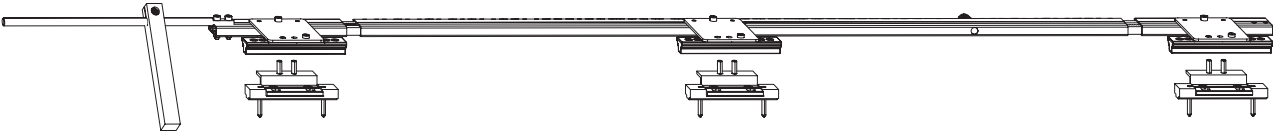
Leaf drilling jig set for rebate-screwed hinges



Leaf drilling jig set, consisting of: 1 leaf drilling jig for drill holes in the hardware groove, 1 adapter for frame holes with Universal drilling jig, 2 countersunk screws, 2 cylinder screws

		Nº
Leaf drilling jig set for rebate-screwed hinges	1 Set(s)	2027671

Telescopic rod set



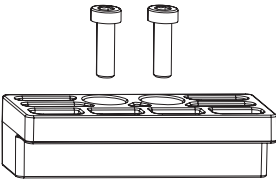
Telescopic rod set (rebate-screwed), consisting of: 1 telescopic rod incl. leaf drilling jigs, 3 adapters for frame holes, 1 installation instructions

			Nº
Telescopic rod set, rebate-screwed	Left	1 Set(s)	2028939
	Right	1 Set(s)	2028940



Stop set for frame

Only for drilling the leaf and frame separately.



		Nº
Stop set for frame	1 Set(s)	2027673



3.3.5 Drawings

3.3.5.1 Drilling pattern



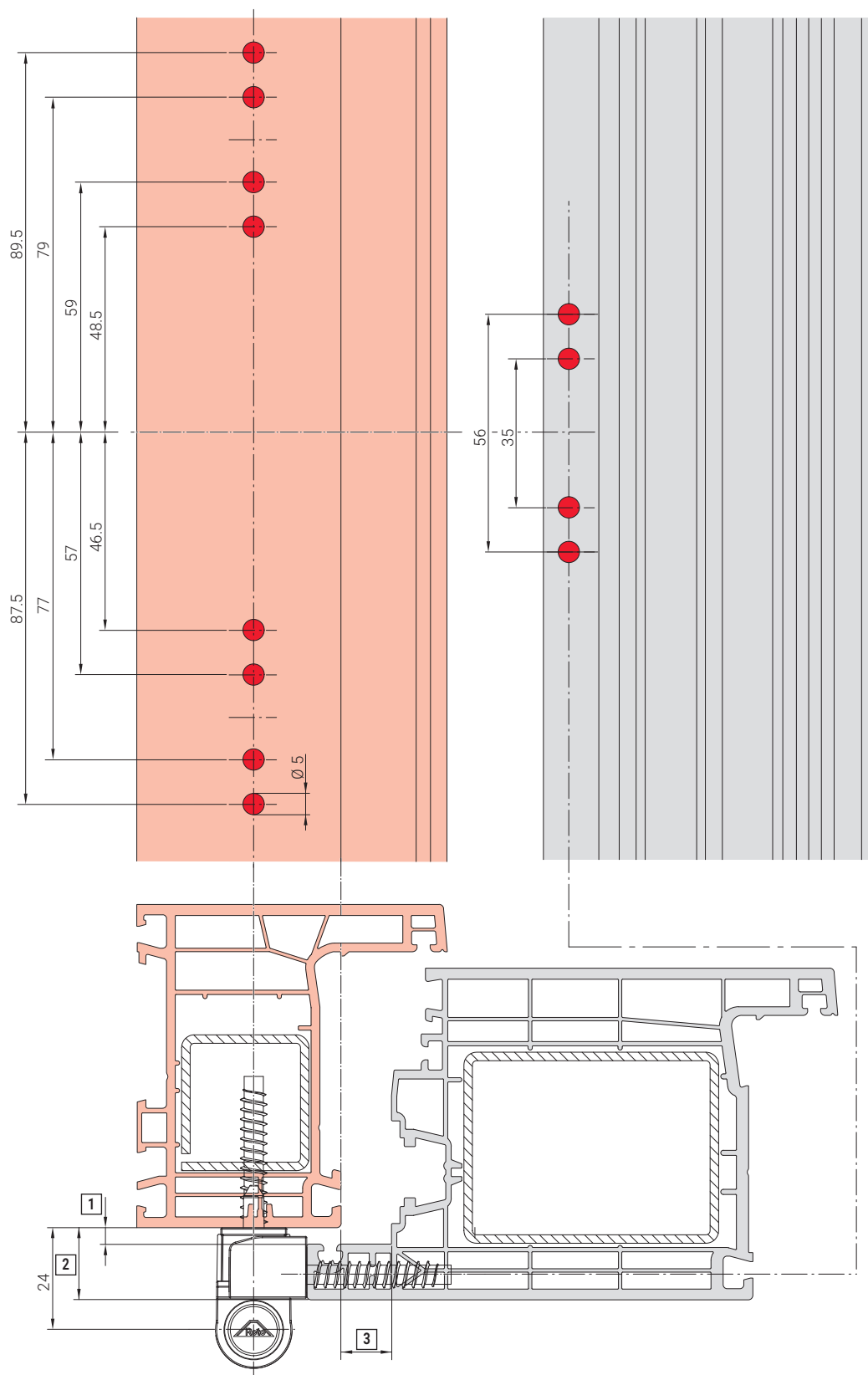
INFO

Example diagram. Drilling patterns are profile-related (available upon request).



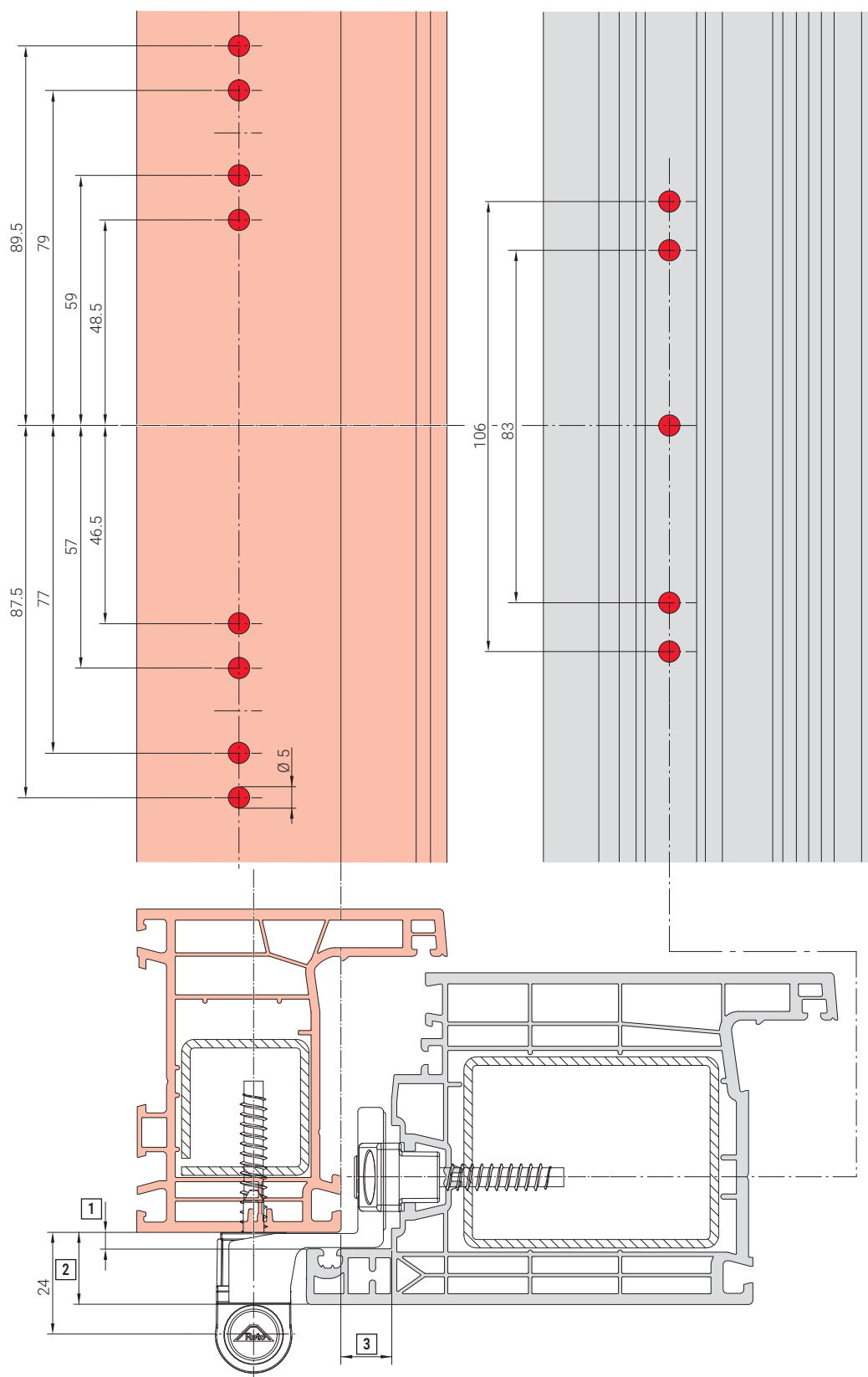


Overlap-screwed



- [1] Hinge passage
- [2] Overlap height ≥ 16.5 mm
- [3] Rebate clearance

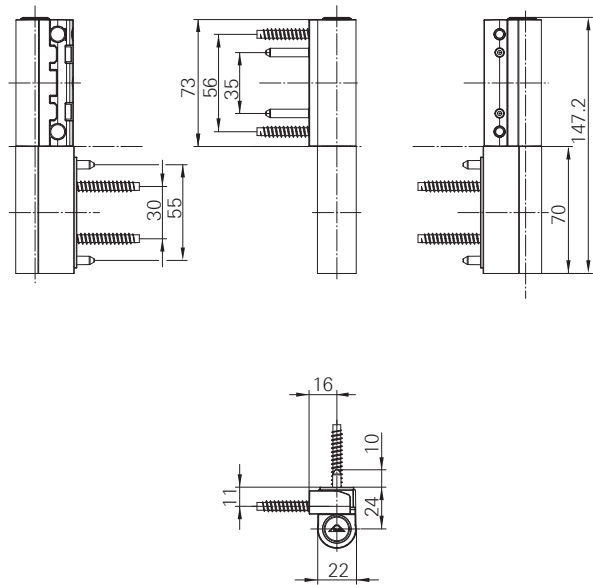
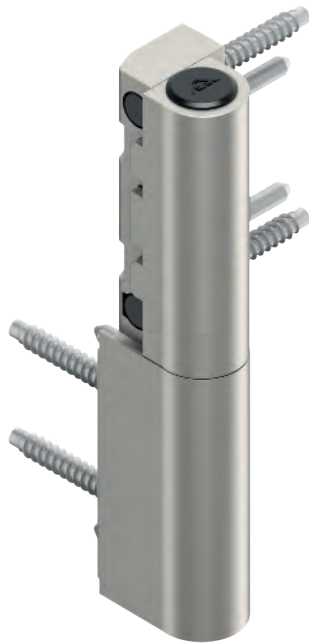
Rebate-screwed



- [1] Hinge passage ≥ 3.5 mm
- [2] Overlap height
- [3] Rebate clearance



3.4 222 P



Product description

The Roto Solid B | 222 P two-part butt hinge is suitable for entrance doors up to a leaf weight of 120 kg.

Butt hinges are very popular thanks to their slim hinge design. This means that they blend harmoniously into any door. A wide range of colours and different coating methods offer a lot of freedom for an individual design.

Alongside the visual advantages, Roto Solid B | 222 P also impresses during installation and adjustment.

A particular highlight is the adjustment mechanism integrated in the hinge roller. It ensures a consistently attractive appearance regardless of the setting, as it prevents gaps and offset outlines.

The rebate-screwed butt hinge is especially suited to doors with panels overlapping the leaf on both sides and is compatible with hardware grooves of 16, 20 and 24 mm. The overlap-screwed version offers ultimate sealing.



Advantages at a glance

- For entrance doors up to max. 120 kg
- Adjustment mechanism integrated in the hinge roller for continuous height, lateral and gasket compression adjustment
- Appearance stays the same regardless of the hinge setting – no offset outlines and no gap formation between the frame and leaf components
- Simple and fast adjustment without unhinging the door
- Installation either in the rebate or overlap
- Consistent, slim butt hinge design with a diameter of 22 mm

Adjustment range

- Laterally adjustable: +3 / -3 mm
- Height adjustable: +4 / -2 mm
- Gasket compression adjustable: +1.5 / -1.5 mm

CE								
	4	7	6	0	1	4*	1	13

Product characteristics



Design

- Consistent, slim butt hinge design with a diameter of 22 mm
- Appearance stays the same regardless of the hinge setting
- Available in various RAL colours and metallic surfaces



Security

- Can be used in burglar inhibiting doors in accordance with RC 2
- Maximum long-term functional performance class tested in accordance with DIN EN 1935 with 200,000 opening cycles
- Corrosion resistance class 5 in accordance with DIN EN 1670
- SKG**-compatible with hinge retaining mechanism



Efficiency

- Rapid and simple installation in just a few operation steps
- Less work because the hinges are largely preassembled
- Drilling jigs simplify installation
- Door leaf is easy to hinge and unhinge – even with a low door lintel



Adjustment

- Adjustment mechanism integrated in the hinge roller for continuous lateral, height and gasket compression adjustment
- Large adjustment ranges for high tolerance compensation on the installed door
- Simple and fast adjustment without unhinging the door

Overlap-screwed

							Nº
Version I	Uncoated	R00.0	Roh	–	–	1 Piece(s)	2021181
	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006704
			–	powd-c	Right	1 Piece(s)	2006705
			–	powd-c	Left	24 Piece(s)	2028869
			–	powd-c	Right	24 Piece(s)	2028870
	Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006702
			–	powd-c	Right	1 Piece(s)	2006703
			–	powd-c	Left	24 Piece(s)	2028836
			–	powd-c	Right	24 Piece(s)	2028837
	Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027790
			RAL 7016M	powd-c	Right	1 Piece(s)	2027791
	Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006706
			–	met p	Right	1 Piece(s)	2006707
	Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029053
			RAL 1036	powd-c	Right	1 Piece(s)	2029054
	Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006696
			RAL 8077	powd-c	Right	1 Piece(s)	2006699
			RAL 8077	powd-c	Left	24 Piece(s)	2028908
			RAL 8077	powd-c	Right	24 Piece(s)	2028909
	Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006700
			RAL 9005M	powd-c	Right	1 Piece(s)	2006701
	Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006694
			RAL 9016	powd-c	Right	1 Piece(s)	2006695
			RAL 9016	powd-c	Left	24 Piece(s)	2020973
			RAL 9016	powd-c	Right	24 Piece(s)	2020974
	Special colour	SF	SF	–	Left	1 Piece(s)	2006708
			SF	–	Right	1 Piece(s)	2006710



INFO

The scope of delivery includes:

- Screws per hinge: 4x 6.3 x 40

For other screw lengths, → *from page 92*

Rebate-screwed

								Nº
Version I	16	Uncoated	R00.0	Roh	–	–	1 Piece(s)	2021182
		Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006611
				–	powd-c	Right	1 Piece(s)	2006612
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006608
				–	powd-c	Right	1 Piece(s)	2006610
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027792
				RAL 7016M	powd-c	Right	1 Piece(s)	2027793
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006613
				–	met p	Right	1 Piece(s)	2006614
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029055
				RAL 1036	powd-c	Right	1 Piece(s)	2029056
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006604
				RAL 8077	powd-c	Right	1 Piece(s)	2006605
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006606
				RAL 9005M	powd-c	Right	1 Piece(s)	2006607
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006602
				RAL 9016	powd-c	Right	1 Piece(s)	2006603
				RAL 9016	powd-c	Left	24 Piece(s)	2020975
				RAL 9016	powd-c	Right	24 Piece(s)	2020976
		Special colour	SF	SF	–	Left	1 Piece(s)	2006615
				SF	–	Right	1 Piece(s)	2006616
Version II	20	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006641
				–	powd-c	Right	1 Piece(s)	2006643
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006639
				–	powd-c	Right	1 Piece(s)	2006640
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027794
				RAL 7016M	powd-c	Right	1 Piece(s)	2027795
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006644
				–	met p	Right	1 Piece(s)	2006645
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029057
				RAL 1036	powd-c	Right	1 Piece(s)	2029058
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006635
				RAL 8077	powd-c	Right	1 Piece(s)	2006636
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006637
				RAL 9005M	powd-c	Right	1 Piece(s)	2006638
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006633
				RAL 9016	powd-c	Right	1 Piece(s)	2006634
		Special colour	SF	SF	–	Left	1 Piece(s)	2006646
				SF	–	Right	1 Piece(s)	2006647

								Nº
Version III	24	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006672
				–	powd-c	Right	1 Piece(s)	2006673
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006670
				–	powd-c	Right	1 Piece(s)	2006671
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027796
				RAL 7016M	powd-c	Right	1 Piece(s)	2027797
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006674
				–	met p	Right	1 Piece(s)	2006676
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029059
				RAL 1036	powd-c	Right	1 Piece(s)	2029060
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006666
				RAL 8077	powd-c	Right	1 Piece(s)	2006667
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006668
				RAL 9005M	powd-c	Right	1 Piece(s)	2006669
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006663
				RAL 9016	powd-c	Right	1 Piece(s)	2006665
		Special colour	SF	SF	–	Left	1 Piece(s)	2006677
				SF	–	Right	1 Piece(s)	2006678
Version IV	16	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2047259
				–	powd-c	Right	1 Piece(s)	2047280
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2047257
				RAL 9005M	powd-c	Right	1 Piece(s)	2047258
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2047255
				RAL 9016	powd-c	Right	1 Piece(s)	2047256
		Special colour	SF	SF	–	Left	1 Piece(s)	2047281
				SF	–	Right	1 Piece(s)	2047282



INFO

The scope of delivery includes:

- Screws per hinge: 4x 6.3 x 40

For other screw lengths, → *from page 92*

3.4.1 Accessories

3.4.1.1 Screws



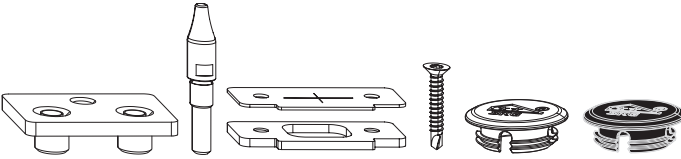
INFO

Screw lengths are profile-related.

			Nº
Fixing screw	6,3x40	48 Piece(s)	2010148
	6,3x50	48 Piece(s)	2010149
	6,3x60	48 Piece(s)	2010150

3.4.1.2 Hinge retaining mechanism set

For use in burglar inhibiting doors



Hinge retaining mechanism set, consisting of: 1 leaf mounting plate, 1 safety pin, 1 frame counter plate, 1 frame cover plate, 4 countersunk self-tapping screws, black SKG cover cap, white SKG cover cap

			Nº
Hinge retaining mechanism set	For 16 and 20 hardware grooves	1 Set(s)	2029102
	For 24 hardware groove	1 Set(s)	2030512



INFO

Use one hinge retaining mechanism set per hinge.

SKG** certification only in conjunction with hinge retaining mechanism.

3.4.2 Spare parts

Cover cap



			Nº
Cover cap	Black	24 Piece(s)	2010146
	White	24 Piece(s)	2010147

Screw cover

for overlap-screwed hinges



			Nº
Screw cover	Black	48 Piece(s)	2028877
	White	48 Piece(s)	2028878

Threaded pin



			Nº
Threaded pin	M6x5	48 Piece(s)	2010151

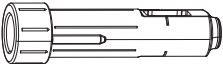
Leaf bush



Roto Solid B – Butt hinges
222 P
Spare parts

			Nº
Leaf bush	Black	24 Piece(s)	2029073
	White	24 Piece(s)	2029072

Frame bush



			Nº
Frame bush	Black	24 Piece(s)	2029081
	White	24 Piece(s)	2029080



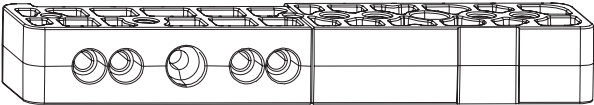
3.4.3 Jigs for overlap-screwed hinges

By combining the Universal drilling jig with the right additional components, the frame and leaf can be drilled either together or separately.

Combination

	Drilling jig Universal	Telescopic rod set	Stop set Leaf	Stop set Frame
Drilled together	1	–	–	–
Drilled together with telescopic rod	Max. 3	1	–	–
Drilled separately (only for overlap width of 20 mm)	1	–	1	1
Drilled separately with telescopic rod	–	–	–	–

Universal drilling jig



			Nº
Drilling jig Universal 222P		1 Piece(s)	2027668

Telescopic rod set

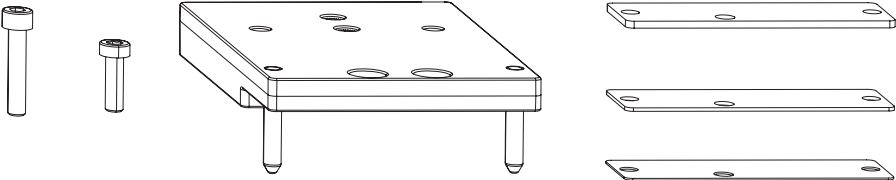


Telescopic rod set (overlap-screwed), consisting of: 1 telescopic rod, 3 cylinder screws, 12 spacer plates (2 mm), 6 spacer plates (1 mm), 3 spacer plates (0.5 mm), 1 installation instructions

			Nº
Telescopic rod set, overlap-screwed	Left	1 Set(s)	2028941
	Right	1 Set(s)	2028942

Stop set for leaf

Only for drilling the leaf and frame separately.



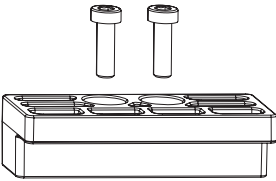
Set, consisting of: 1 stop for leaf (overlap-screwed), 2 cylinder screws, 4 spacer plates (2 mm), 2 spacer plates (1 mm), 1 spacer plate (0.5 mm)

			Nº
Stop set for leaf		1 Set(s)	2027672

Roto Solid B – Butt hinges
222 P
Jigs for overlap-screwed hinges

Stop set for frame

Only for drilling the leaf and frame separately.



		Nº
Stop set for frame	1 Set(s)	2027673



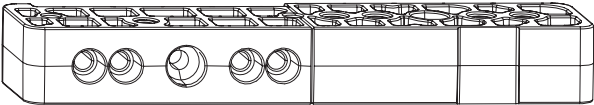
3.4.4 Jigs for rebate-screwed hinges

By combining the Universal drilling jig with the right additional components, the frame and leaf can be drilled either together or separately.

Combination

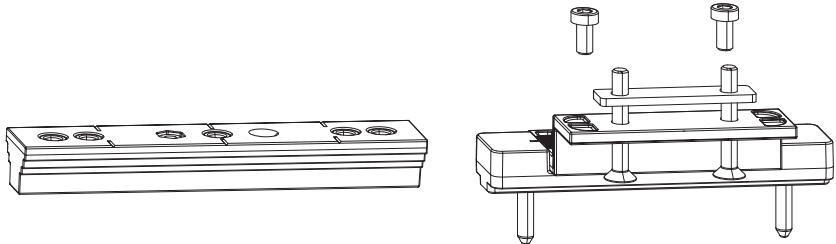
	Drilling jig Universal	Leaf drilling jig set	Telescopic rod set	Stop set Frame
Drilled together	1	1	–	–
Drilled together with telescopic rod	Max. 3	–	1	–
Drilled separately (only for overlap width of 20 mm)	1	1	–	1
Drilled separately with telescopic rod	–	–	–	–

Universal drilling jig



		Nº
Drilling jig Universal 222P	1 Piece(s)	2027668

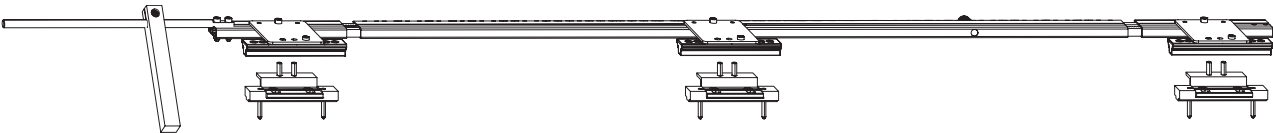
Leaf drilling jig set for rebate-screwed hinges



Leaf drilling jig set, consisting of: 1 leaf drilling jig for drill holes in the hardware groove, 1 adapter for frame holes with Universal drilling jig, 2 countersunk screws, 2 cylinder screws

		Nº
Leaf drilling jig set for rebate-screwed hinges	1 Set(s)	2027671

Telescopic rod set



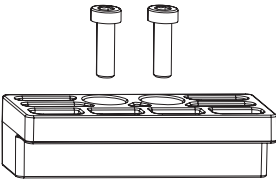
Telescopic rod set (rebate-screwed), consisting of: 1 telescopic rod incl. leaf drilling jigs, 3 adapters for frame holes, 1 installation instructions

			Nº
Telescopic rod set, rebate-screwed	Left	1 Set(s)	2028939
	Right	1 Set(s)	2028940

Roto Solid B – Butt hinges
222 P
Jigs for rebate-screwed hinges

Stop set for frame

Only for drilling the leaf and frame separately.



			Nº
Stop set for frame		1 Set(s)	2027673



3.4.5 Drawings

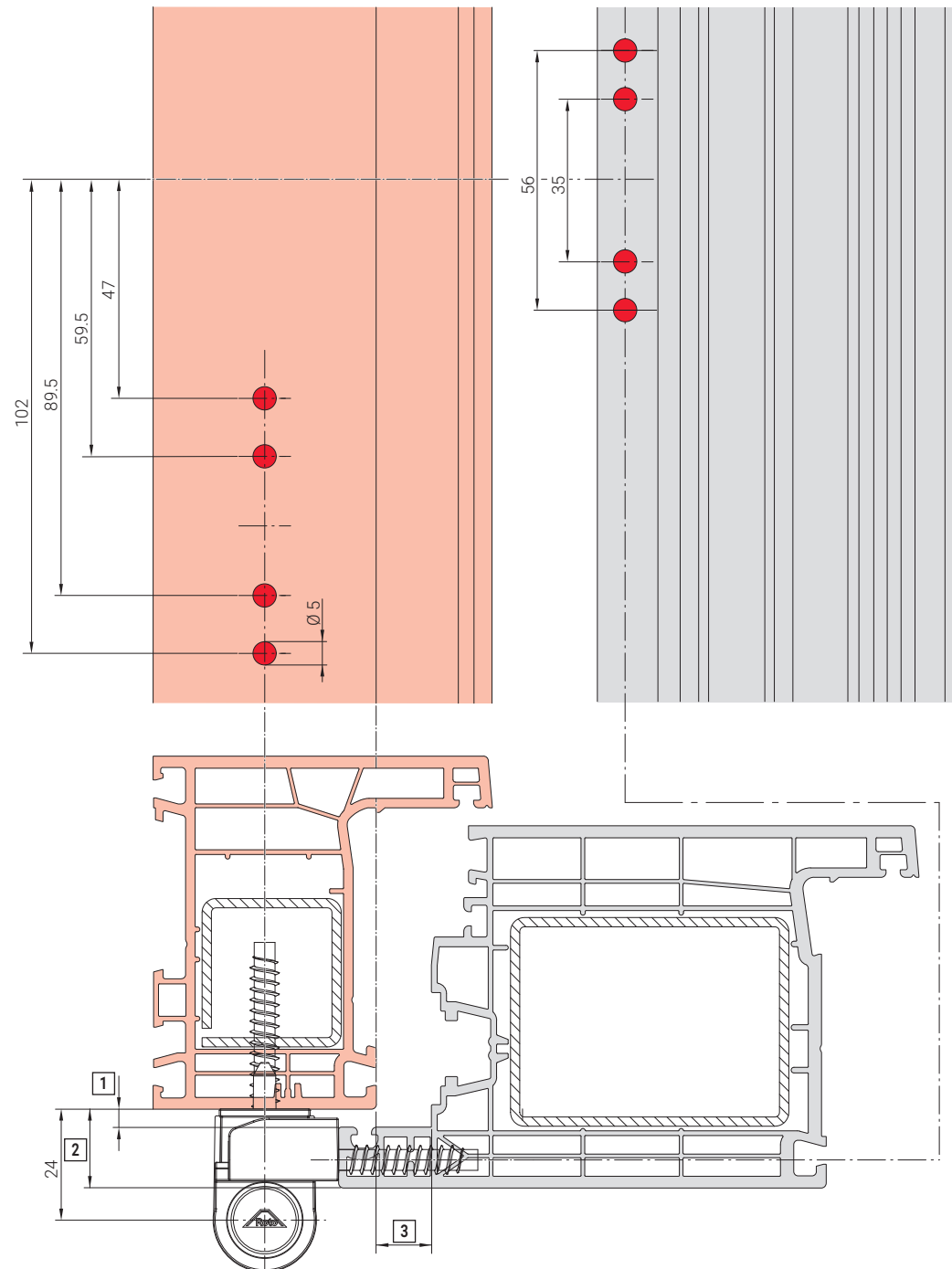
3.4.5.1 Drilling pattern



INFO

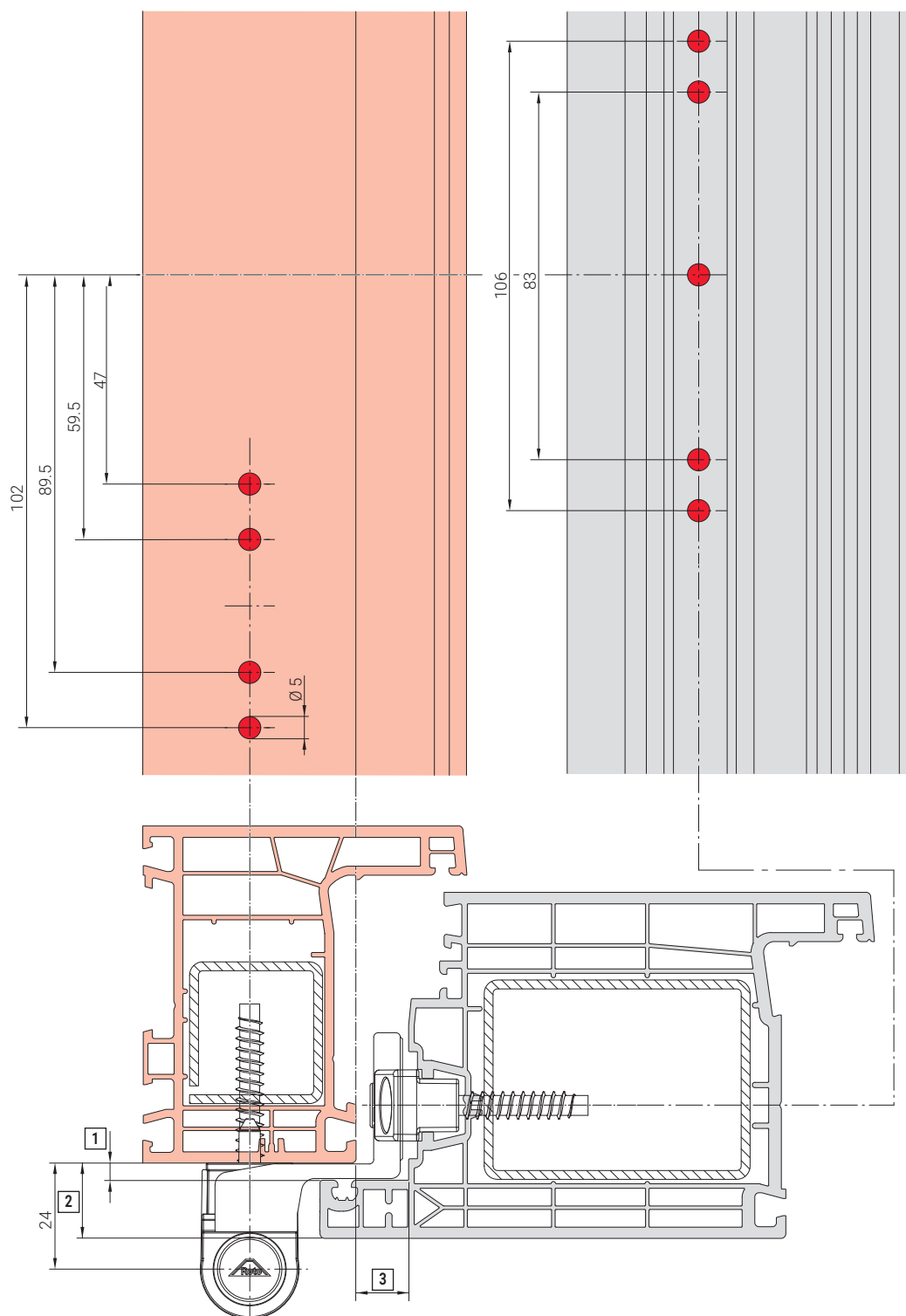
Example diagram. Drilling patterns are profile-related (available upon request).

Overlap-screwed



- [1] Hinge passage
- [2] Overlap height ≥ 16.5 mm
- [3] Rebate clearance

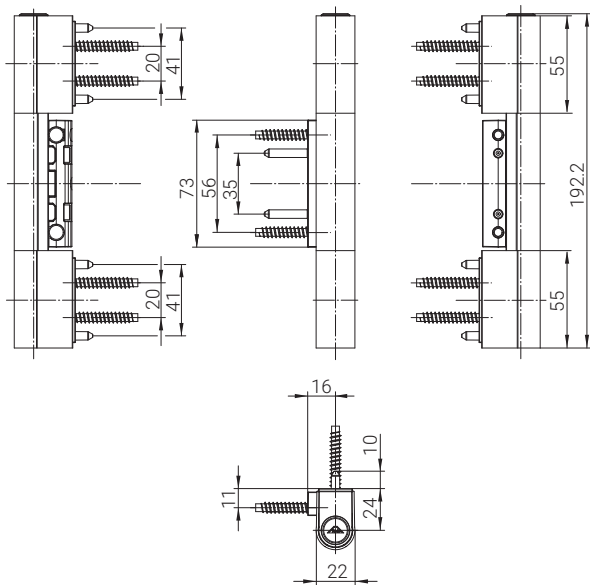
Rebate-screwed



- [1] Hinge passage ≥ 3.5 mm
- [2] Overlap height
- [3] Rebate clearance



3.5 322 P



Product description

The Roto Solid B | 322 P three-part butt hinge is suitable for entrance doors up to a leaf weight of 160 kg.

Butt hinges are very popular thanks to their slim hinge design. This means that they blend harmoniously into any door. A wide range of colours and different coating methods offer a lot of freedom for an individual design.

Alongside the visual advantages, Roto Solid B | 322 P also impresses during installation and adjustment.

A particular highlight is the adjustment mechanism integrated in the hinge roller. It ensures a consistently attractive appearance regardless of the setting, as it prevents gaps and offset outlines.

The rebate-screwed butt hinge is especially suited to doors with panels overlapping the leaf on both sides and is compatible with hardware grooves of 16, 20 and 24 mm. The overlap-screwed version offers ultimate sealing.



Advantages at a glance

- For entrance doors up to max. 160 kg
- Adjustment mechanism integrated in the hinge roller for continuous height, lateral and gasket compression adjustment
- Appearance stays the same regardless of the hinge setting – no offset outlines and no gap formation between the frame and leaf components
- Simple and fast adjustment without unhinging the door
- Installation either in the rebate or overlap
- Consistent, slim butt hinge design with a diameter of 22 mm

Adjustment range

- Laterally adjustable: +3 / -3 mm
- Height adjustable: +4 / -2 mm
- Gasket compression adjustable: +1.5 / -1.5 mm

	CE	3	7	4	0	1	4*	0	11
RS									
OS									

Product characteristics



Design

- Consistent, slim butt hinge design with a diameter of 22 mm
- Appearance stays the same regardless of the hinge setting
- Available in various RAL colours and metallic surfaces



Security

- Can be used in burglar inhibiting doors in accordance with RC 2
- Maximum long-term functional performance class tested in accordance with DIN EN 1935 with 200,000 opening cycles
- Corrosion resistance class 5 in accordance with DIN EN 1670
- SKG**-compatible with hinge retaining mechanism



Efficiency

- Rapid and simple installation in just a few operation steps
- Less work because the hinges are largely preassembled
- Drilling jigs simplify installation
- Door leaf is easy to hinge and unhinge – even with a low door lintel



Adjustment

- Adjustment mechanism integrated in the hinge roller for continuous lateral, height and gasket compression adjustment
- Large adjustment ranges for high tolerance compensation on the installed door
- Simple and fast adjustment without unhinging the door

Overlap-screwed

							Nº
Version I	Uncoated	R00.0	Roh	–	–	1 Piece(s)	2021183
	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006719
			–	powd-c	Right	1 Piece(s)	2006721
	Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006717
			–	powd-c	Right	1 Piece(s)	2006718
			–	powd-c	Left	24 Piece(s)	2028874
			–	powd-c	Right	24 Piece(s)	2028875
	Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027798
			RAL 7016M	powd-c	Right	1 Piece(s)	2027799
	Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006722
			–	met p	Right	1 Piece(s)	2006723
	Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029061
			RAL 1036	powd-c	Right	1 Piece(s)	2029062
	Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006713
			RAL 8077	powd-c	Right	1 Piece(s)	2006714
	Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006715
			RAL 9005M	powd-c	Right	1 Piece(s)	2006716
	Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006711
			RAL 9016	powd-c	Right	1 Piece(s)	2006712
			RAL 9016	powd-c	Left	24 Piece(s)	2020977
			RAL 9016	powd-c	Right	24 Piece(s)	2020978
	Special colour	SF	SF	–	Left	1 Piece(s)	2006724
			SF	–	Right	1 Piece(s)	2006725
Version II	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2044399
			–	powd-c	Right	1 Piece(s)	2044400
	Bronze	R05.5	–	powd-c	Left	1 Piece(s)	2044403
			–	powd-c	Right	1 Piece(s)	2044404
	Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2044401
			RAL 9016	powd-c	Right	1 Piece(s)	2044402
	Special colour	SF	SF	–	Left	1 Piece(s)	2044405
			SF	–	Right	1 Piece(s)	2044406



INFO

The scope of delivery includes:

- Screws per hinge: 6x 6.3 x 40

For other screw lengths, → *from page 92*

Rebate-screwed

								Nº
Version I	16	Uncoated	R00.0	Roh	–	–	1 Piece(s)	2021184
		Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006626
				–	powd-c	Right	1 Piece(s)	2006627
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006624
				–	powd-c	Right	1 Piece(s)	2006625
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027800
				RAL 7016M	powd-c	Right	1 Piece(s)	2027801
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006628
				–	met p	Right	1 Piece(s)	2006629
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029063
				RAL 1036	powd-c	Right	1 Piece(s)	2029064
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006619
				RAL 8077	powd-c	Right	1 Piece(s)	2006621
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006622
				RAL 9005M	powd-c	Right	1 Piece(s)	2006623
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006617
				RAL 9016	powd-c	Right	1 Piece(s)	2006618
				RAL 9016	powd-c	Left	24 Piece(s)	2020979
				RAL 9016	powd-c	Right	24 Piece(s)	2020980
		Special colour	SF	SF	–	Left	1 Piece(s)	2006630
				SF	–	Right	1 Piece(s)	2006632
Version II	20	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006657
				–	powd-c	Right	1 Piece(s)	2006658
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006655
				–	powd-c	Right	1 Piece(s)	2006656
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027802
				RAL 7016M	powd-c	Right	1 Piece(s)	2027803
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006659
				–	met p	Right	1 Piece(s)	2006660
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029065
				RAL 1036	powd-c	Right	1 Piece(s)	2029066
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006650
				RAL 8077	powd-c	Right	1 Piece(s)	2006651
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006652
				RAL 9005M	powd-c	Right	1 Piece(s)	2006654
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006648
				RAL 9016	powd-c	Right	1 Piece(s)	2006649
		Special colour	SF	SF	–	Left	1 Piece(s)	2006661
				SF	–	Right	1 Piece(s)	2006662

								Nº
Version III	24	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2006688
				–	powd-c	Right	1 Piece(s)	2006689
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2006685
				–	powd-c	Right	1 Piece(s)	2006687
		Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	Left	1 Piece(s)	2027804
				RAL 7016M	powd-c	Left	1 Piece(s)	2027805
		Brass, polished	R03.2	–	met p	Left	1 Piece(s)	2006690
				–	met p	Right	1 Piece(s)	2006691
		Pearl gold	R03.5	RAL 1036	powd-c	Left	1 Piece(s)	2029067
				RAL 1036	powd-c	Right	1 Piece(s)	2029068
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2006681
				RAL 8077	powd-c	Right	1 Piece(s)	2006682
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2006683
				RAL 9005M	powd-c	Right	1 Piece(s)	2006684
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2006679
				RAL 9016	powd-c	Right	1 Piece(s)	2006680
		Special colour	SF	SF	–	Left	1 Piece(s)	2006692
				SF	–	Right	1 Piece(s)	2006693
Version IV	16	Natural silver	R01.1	–	powd-c	Left	1 Piece(s)	2028881
				–	powd-c	Right	1 Piece(s)	2028882
		Stainless steel appearance	R01.23	–	powd-c	Left	1 Piece(s)	2028885
				–	powd-c	Right	1 Piece(s)	2028886
		Dark brown	R04.6	RAL 8077	powd-c	Left	1 Piece(s)	2028991
				RAL 8077	powd-c	Right	1 Piece(s)	2028992
		Jet black, matt	R06.2M	RAL 9005M	powd-c	Left	1 Piece(s)	2028989
				RAL 9005M	powd-c	Right	1 Piece(s)	2028990
		Traffic white	R07.2	RAL 9016	powd-c	Left	1 Piece(s)	2028987
				RAL 9016	powd-c	Right	1 Piece(s)	2028988
		Special colour	SF	SF	–	Left	1 Piece(s)	2028995
				SF	–	Right	1 Piece(s)	2028996



INFO

The scope of delivery includes:

- Screws per hinge: 6x 6.3 x 40

For other screw lengths, → *from page 92*



3.5.1 Accessories

3.5.1.1 Screws



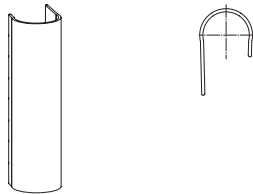
INFO

Screw lengths are profile-related.

			Nº
Fixing screw	6,3x40	48 Piece(s)	2010148
	6,3x50	48 Piece(s)	2010149
	6,3x60	48 Piece(s)	2010150

3.5.1.2 Leaf hinge cover sleeve (extended on one side)

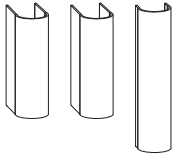
The extended side completely covers the lateral adjustment mechanics on the leaf hinge but reduces the lateral adjustment to +3 / -2 mm.



						Nº
Cover sleeve	Untreated	R00.0	Roh	Uncoated	6 Piece(s)	2051853
	Natural silver	R01.1	–	powd-c	6 Piece(s)	2027224
	Stainless steel appearance	R01.23	–	powd-c	6 Piece(s)	2027225
	Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	6 Piece(s)	2027228
	Brass, polished	R03.2	–	met p	6 Piece(s)	2027226
	Dark brown	R04.6	RAL 8077	powd-c	6 Piece(s)	2027222
	Jet black	R06.2	RAL 9005	powd-c	6 Piece(s)	2027223
	Traffic white	R07.2	RAL 9016	powd-c	6 Piece(s)	2027221
	Special colour	SF	SF	–	6 Piece(s)	2027227

3.5.1.3 Cover sleeve set

For a flexible colour scheme in conjunction with a coated butt hinge basic body.

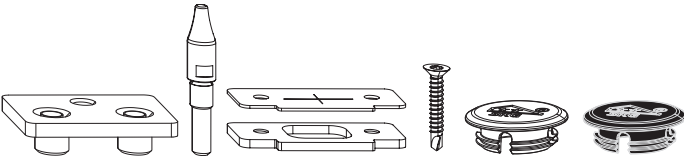


Cover sleeve set, consisting of: 2 frame hinge cover sleeves, 1 leaf hinge cover sleeve (Standard)

						Nº
Cover sleeve set	Untreated	R00.0	Roh	Uncoated	1 Set(s)	2049499

3.5.1.4 Hinge retaining mechanism set

For use in burglar inhibiting doors



Hinge retaining mechanism set, consisting of: 1 leaf mounting plate, 1 safety pin, 1 frame counter plate, 1 frame cover plate, 4 countersunk self-tapping screws, black SKG cover cap, white SKG cover cap

			Nº
Hinge retaining mechanism set	For 16 and 20 hardware grooves	1 Set(s)	2029102
	For 24 hardware groove	1 Set(s)	2030512



INFO

Use one hinge retaining mechanism set per hinge.
SKG** certification only in conjunction with hinge retaining mechanism.



3.5.2 Spare parts

Cover cap



			Nº
Cover cap	Black	24 Piece(s)	2010146
	White	24 Piece(s)	2010147

Screw cover

for overlap-screwed hinges



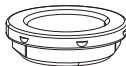
			Nº
Screw cover	Black	48 Piece(s)	2028877
	White	48 Piece(s)	2028878

Threaded pin



			Nº
Threaded pin	M6x5	48 Piece(s)	2010151

Leaf bush



			Nº
Leaf bush	Black	24 Piece(s)	2029073
	White	24 Piece(s)	2029072

Frame bush



			Nº
Top frame bush	Black	24 Piece(s)	2029084
Bottom frame bush	Black	24 Piece(s)	2029085
Top frame bush	White	24 Piece(s)	2029082
Bottom frame bush	White	24 Piece(s)	2029083

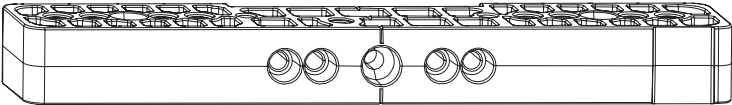
3.5.3 Jigs for overlap-screwed hinges

By combining the Universal drilling jig with the right additional components, the frame and leaf can be drilled either together or separately.

Combination

	Drilling jig	Telescopic rod set	Stop set	Stop set
	Universal		Leaf	Frame
Drilled together	1	–	–	–
Drilled together with telescopic rod	Max. 3	1	–	–
Drilled separately (only for overlap width of 20 mm)	1	–	1	1
Drilled separately with telescopic rod	–	–	–	–

Universal drilling jig



		Nº
Drilling jig Universal 322P	1 Piece(s)	2027670

Telescopic rod set

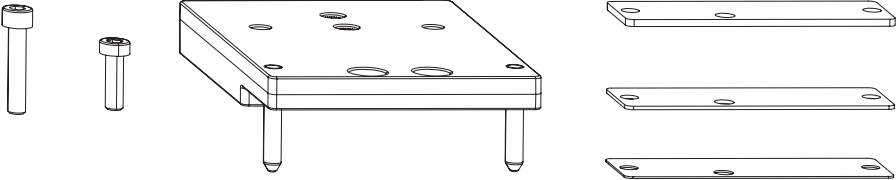


Telescopic rod set (overlap-screwed), consisting of: 1 telescopic rod, 3 cylinder screws, 12 spacer plates (2 mm), 6 spacer plates (1 mm), 3 spacer plates (0.5 mm), 1 installation instructions

			Nº
Telescopic rod set, overlap-screwed	Left	1 Set(s)	2028941
	Right	1 Set(s)	2028942

Stop set for leaf

Only for drilling the leaf and frame separately.



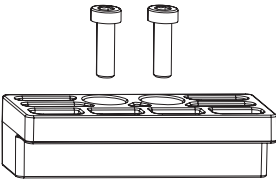
Set, consisting of: 1 stop for leaf (overlap-screwed), 2 cylinder screws, 4 spacer plates (2 mm), 2 spacer plates (1 mm), 1 spacer plate (0.5 mm)

		Nº
Stop set for leaf	1 Set(s)	2027672



Stop set for frame

Only for drilling the leaf and frame separately.



		Nº
Stop set for frame	1 Set(s)	2027673



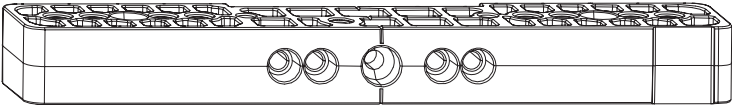
3.5.4 Jigs for rebate-screwed hinges

By combining the Universal drilling jig with the right additional components, the frame and leaf can be drilled either together or separately.

Combination

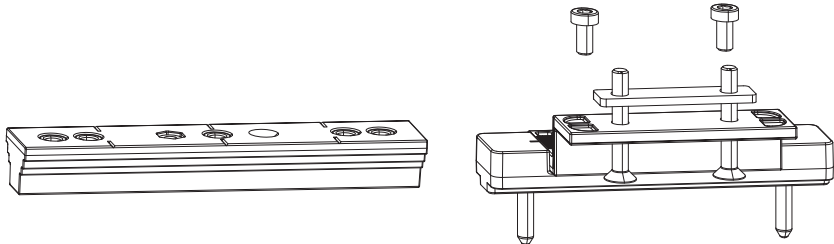
	Drilling jig Universal	Leaf drilling jig set	Telescopic rod set	Stop set Frame
Drilled together	1	1	–	–
Drilled together with telescopic rod	Max. 3	–	1	–
Drilled separately (only for overlap width of 20 mm)	1	1	–	1
Drilled separately with telescopic rod	–	–	–	–

Universal drilling jig



		Nº
Drilling jig Universal 322P	1 Piece(s)	2027670

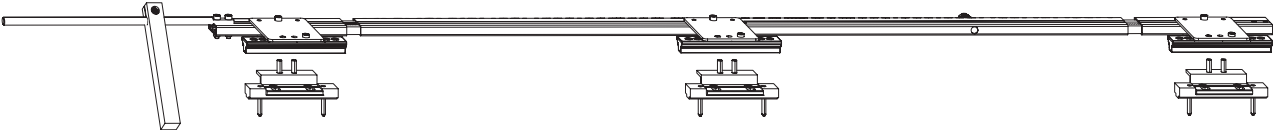
Leaf drilling jig set for rebate-screwed hinges



Leaf drilling jig set, consisting of: 1 leaf drilling jig for drill holes in the hardware groove, 1 adapter for frame holes with Universal drilling jig, 2 countersunk screws, 2 cylinder screws

		Nº
Leaf drilling jig set for rebate-screwed hinges	1 Set(s)	2027671

Telescopic rod set



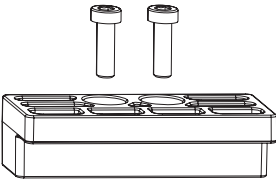
Telescopic rod set (rebate-screwed), consisting of: 1 telescopic rod incl. leaf drilling jigs, 3 adapters for frame holes, 1 installation instructions

			Nº
Telescopic rod set, rebate-screwed	Left	1 Set(s)	2028939
	Right	1 Set(s)	2028940



Stop set for frame

Only for drilling the leaf and frame separately.



		Nº
Stop set for frame	1 Set(s)	2027673



3.5.5 Drawings

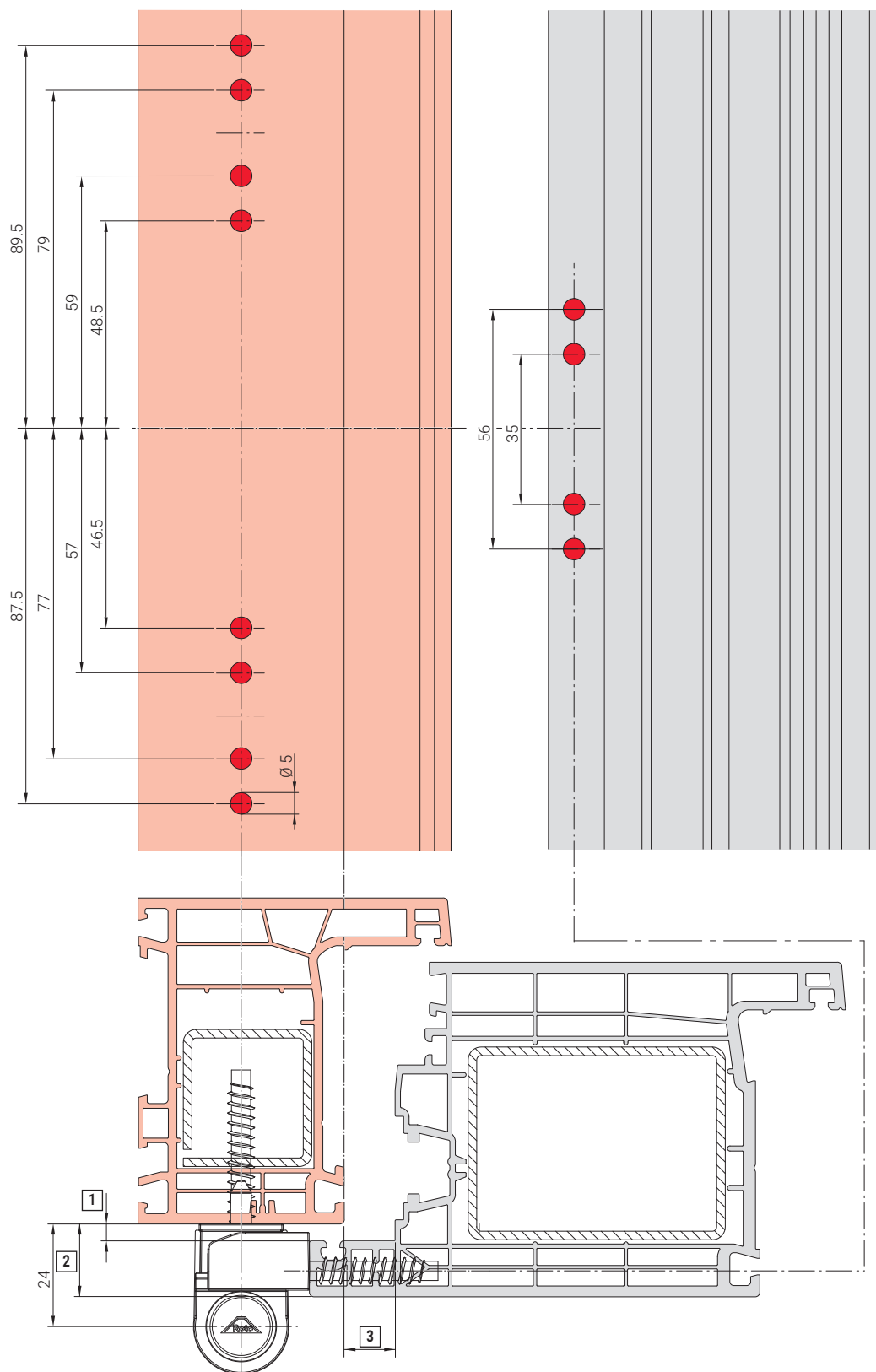
3.5.5.1 Drilling pattern



INFO

Example diagram. Drilling patterns are profile-related (available upon request).

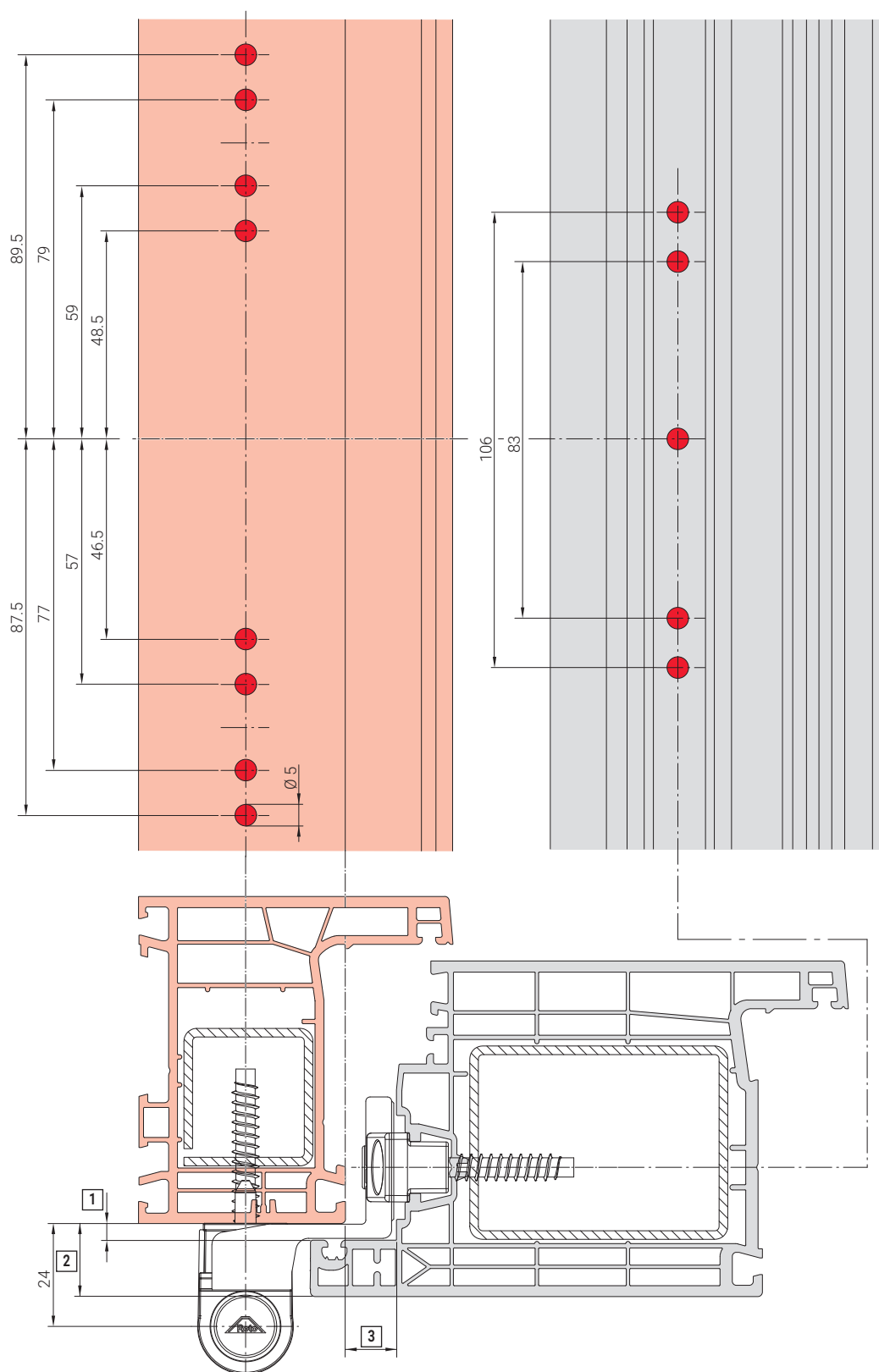
Overlap-screwed



- [1] Hinge passage
- [2] Overlap height ≥ 16.5 mm
- [3] Rebate clearance



Rebate-screwed

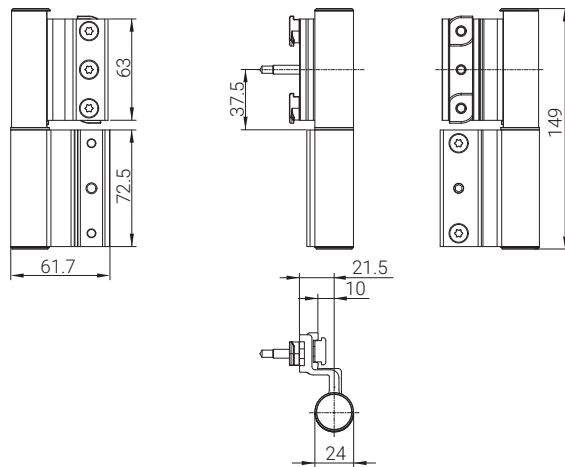


[1] Hinge passage ≥ 3.5 mm

[2] Overlap height

[3] Rebate clearance

3.6 224 A



Product description

The Roto Solid B | 224 A two-part clamp hinge with the look of a butt hinge is the ideal solution for aluminium main doors, back doors and balcony doors up to a leaf weight of 120 kg.

The butt hinges not only integrate seamlessly into a door in terms of their appearance. Installation is also straightforward and fast, requiring just a few operation steps. Simply place the clamping components into the groove and screw them to the hinge – that's it! The efficient clamping technology means that no drilling or routing is required.

For exact alignment of the door, the Roto Solid B | 224 A is easy to adjust with precision. Height and lateral adjustment is performed when the door is closed. The standout feature are the adjustment mechanisms integrated into the hinge roller. They ensure an attractive appearance from all angles, without offset outlines or gaps in the hinge roller – regardless of the setting.

Advantages at a glance

- For doors up to max. 120 kg
- Attractive butt hinge design from all angles with a diameter of 24 mm
- Appearance stays the same regardless of the hinge setting – no offset outlines, no gap formation
- Efficient installation thanks to clamping technology
- Custom adaptation of the mounting to the system-specific groove on aluminium profiles

Adjustment range

- Laterally adjustable: +2.2 / -2.2 mm
- Height adjustable: +5 / -1 mm
- Gasket compression adjustable: -1 mm

CE								
	4	7	5	0	1	4*	1	12



Product characteristics



Design

- Attractive butt hinge design with a diameter of 24 mm
- Appearance stays the same regardless of the hinge setting – no offset outlines, no gap formation
- Wide range of RAL colours and electrolytically anodised surfaces
- Untreated surfaces for custom coating



Security

- Can be used in burglar inhibiting doors
- Optional locking screw on the leaf hinge for added stability
- 200,000 opening cycles tested in accordance with DIN EN 1191 for long-term functional safety
- Corrosion-resistant surface in accordance with DIN EN 1670 class 5



Efficiency

- Simple and rapid installation in just a few operation steps
- Reduced installation times thanks to clamping technology
- No drilling or routing required in the profile
- Can be used on the right or left for reduced logistics and administrative outlay



Adjustment

- Linear height and lateral adjustment for simple and precise alignment of the door
- Height adjustment and lateral adjustment when the door is closed for instant visual inspection and check of the adjustment
- Same tools used for all adjustment work



Comfort

- Requires no maintenance thanks to high-quality self-lubricating synthetic bush
- Height adjustable and laterally adjustable without unhinging the door leaf

Clamp hinge for profiles with 15 / 20 hardware groove

Version I	V.01	Uncoated	R00.0	Roh	–	1 Piece(s)	2009928
		Natural silver	R01.1	–	anod.	1 Piece(s)	2009924
		Grey brown	R04.1	RAL 8019	powd-c	1 Piece(s)	2009927
		Jet black, matt	R06.2M	RAL 9005M	powd-c	1 Piece(s)	2009926
		Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	2009925
		Special colour	SF	SF	–	1 Piece(s)	2009929



INFO

The mounting of the butt hinges is individually adapted to the groove on an aluminium profile. System-specific versions are developed in cooperation between system suppliers and Roto hinge specialists.

3.6.1 Spare parts

3.6.1.1 Cover cap set



Cover cap set, consisting of: 1 top cover cap with logo, 1 bottom cover cap

			Nº
Cover cap set	White	24 Set(s)	2010133
	Black	24 Set(s)	2010132

3.6.1.2 Spacer ring



			Nº
Spacer ring	Black	24 Piece(s)	2010144
	White	24 Piece(s)	2010145



3.6.2 Drawings

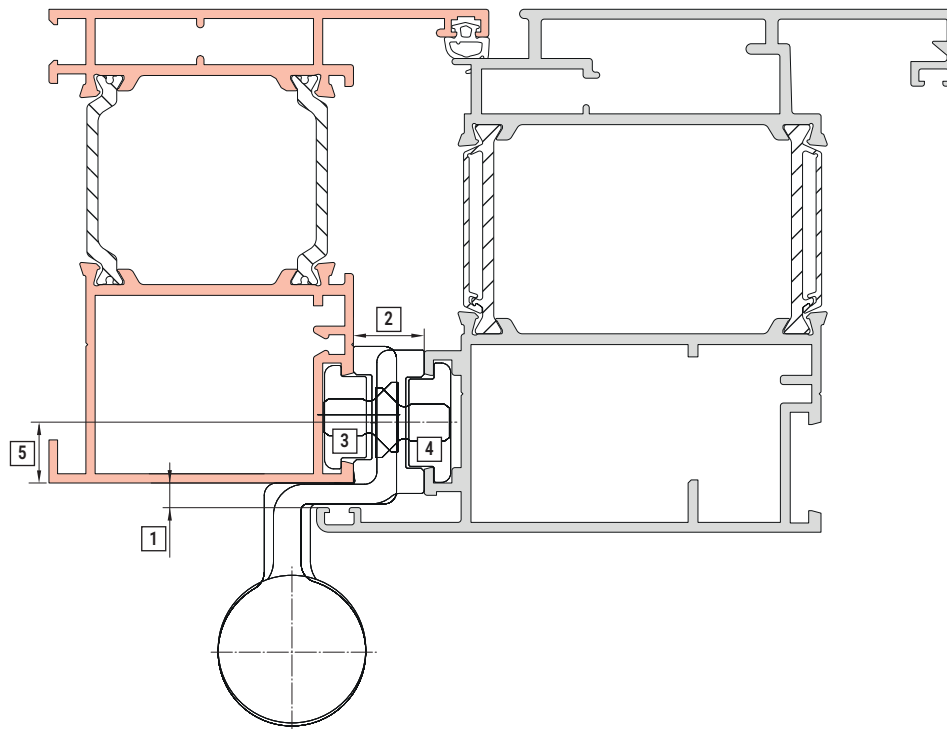
3.6.2.1 Installation drawings



INFO

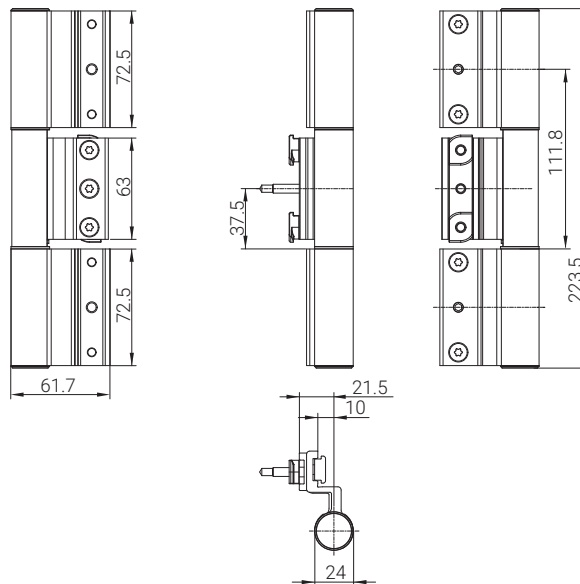
Installation examples for specific profile systems are available upon request.

Version I



- [1] Hinge passage ≥ 3.5
- [2] Rebate clearance = 11.5
- [3] Frame groove = V.01
- [4] Leaf groove = 15 / 20
- [5] Hardware axis = 10

3.7 324 A



Product description

The Roto Solid B | 324 A three part clamp hinge with the look of a butt hinge is the ideal solution for aluminium main doors, back doors and balcony doors up to a leaf weight of 160 kg.

The butt hinges not only integrate seamlessly into a door in terms of their appearance. Installation is also straightforward and fast, requiring just a few operation steps. Simply place the clamping components into the groove and screw them to the hinge – that's it! The efficient clamping technology means that no drilling or routing is required.

For exact alignment of the door, the Roto Solid B | 324 A is easy to adjust with precision. Height and lateral adjustment is performed when the door is closed. The standout feature are the adjustment mechanisms integrated into the hinge roller. They ensure an attractive appearance from all angles, without offset outlines or gaps in the hinge roller – regardless of the setting.

Advantages at a glance

- For doors up to max. 160 kg
- Attractive butt hinge design from all angles with a diameter of 24 mm
- Appearance stays the same regardless of the hinge setting – no offset outlines, no gap formation
- Efficient installation thanks to clamping technology
- Custom adaptation of the mounting to the system-specific groove on aluminium profiles

Adjustment range

- Laterally adjustable: +2.2 / -2.2 mm
- Height adjustable: +5 / -1 mm
- Gasket compression adjustable: -1 mm

CE								
	4	7	5	0	1	4*	1	12



Product characteristics



Design

- Attractive butt hinge design with a diameter of 24 mm
- Appearance stays the same regardless of the hinge setting – no offset outlines, no gap formation
- Wide range of RAL colours and electrolytically anodised surfaces
- Untreated surfaces for custom coating



Security

- Can be used in burglar inhibiting doors
- Optional locking screw on the leaf hinge for added stability
- 200,000 opening cycles tested in accordance with DIN EN 1191 for long-term functional safety
- Corrosion-resistant surface in accordance with DIN EN 1670 class 5



Efficiency

- Simple and rapid installation in just a few operation steps
- Reduced installation times thanks to clamping technology
- No drilling or routing required in the profile
- Can be used on the right or left for reduced logistics and administrative outlay



Adjustment

- Linear height and lateral adjustment for simple and precise alignment of the door
- Height adjustment and lateral adjustment when the door is closed for instant visual inspection and check of the adjustment
- Same tools used for all adjustment work



Comfort

- Requires no maintenance thanks to high-quality self-lubricating synthetic bush
- Height adjustable and laterally adjustable without unhinging the door leaf

Clamp hinge for profiles with 15 / 20 hardware groove

						Nº
Version I	Uncoated	R00.0	Roh	–	1 Piece(s)	2009934
	Natural silver	R01.1	–	anod.	1 Piece(s)	2009930
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	2009931
	Jet black, matt	R06.2M	RAL 9005M	powd-c	1 Piece(s)	2009932
	Grey brown	R04.1	RAL 8019	powd-c	1 Piece(s)	2009933
	Special colour	SF	SF	–	1 Piece(s)	2009935



INFO

The mounting of the butt hinges is individually adapted to the groove on an aluminium profile. System-specific versions are developed in cooperation between system suppliers and Roto hinge specialists.

3.7.1 Spare parts

3.7.1.1 Cover cap set



Cover cap set, consisting of: 1 top cover cap with logo, 1 bottom cover cap

			Nº
Cover cap set	Black	24 Set(s)	2010152
	White	24 Set(s)	2010153

3.7.1.2 Spacer ring



			Nº
Spacer ring	Black	24 Piece(s)	2010144
	White	24 Piece(s)	2010145



3.7.2 Drawings

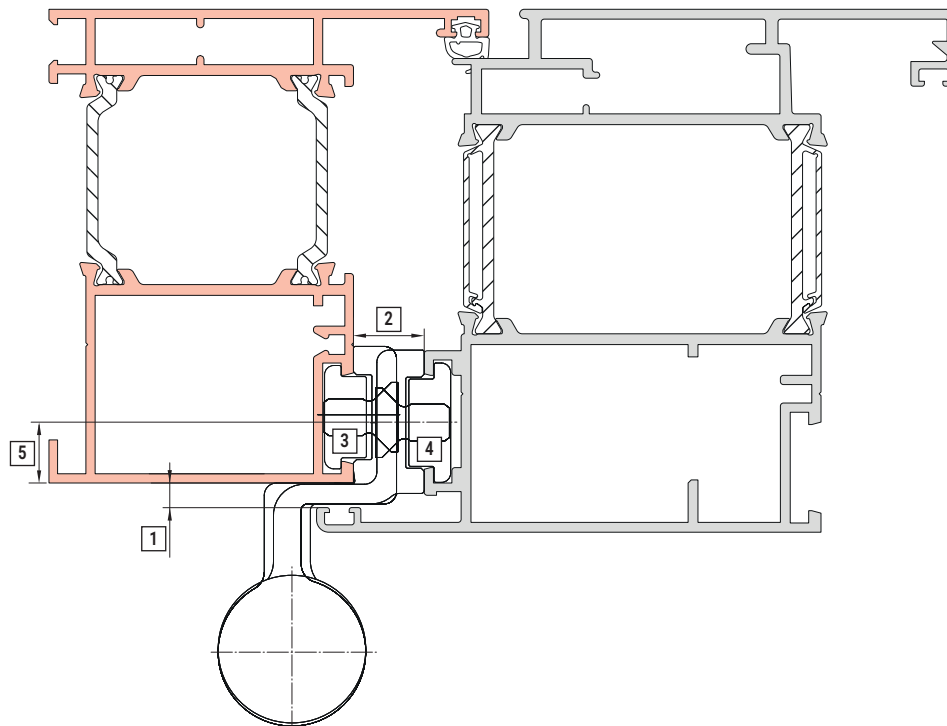
3.7.2.1 Installation drawings



INFO

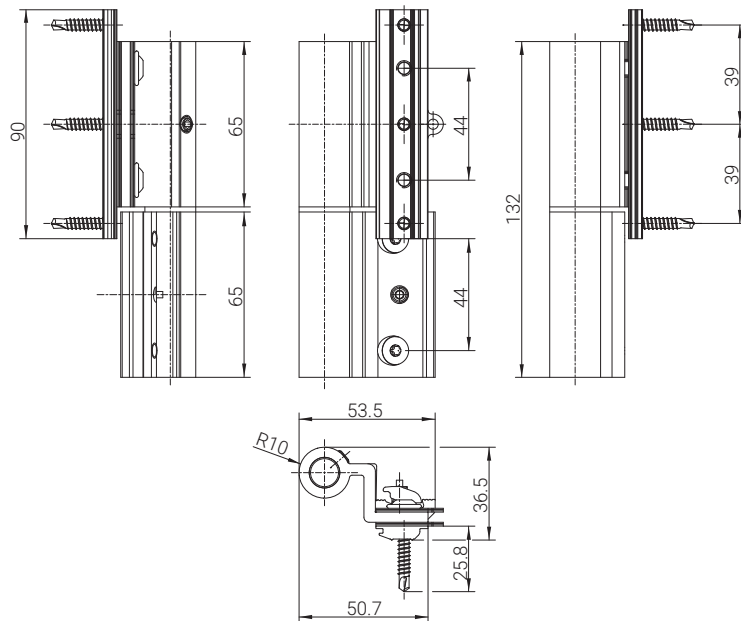
Installation examples for specific profile systems are available upon request.

Version I



- [1] Hinge passage ≥ 3.5
- [2] Rebate clearance = 11.5
- [3] Frame groove = V.01
- [4] Leaf groove = 15 / 20
- [5] Hardware axis = 10

3.8 130 R



Product description

The Roto Solid B | 130 R two-part, clampable butt hinge is suitable for aluminium main doors, back doors and balcony doors up to a sash weight of 120 kg.

Butt hinges are in demand in door construction and are enjoying increasing popularity. Not only the appearance is crucial, but the functionality and stability too.

Roto Solid B | 130 R combines the visual advantages of a butt hinge with the benefits of a clamp hinge.

Advantages at a glance

- For aluminium main doors, back doors and balcony doors up to max. 120 kg
- Can be used in various recessed profiles with 15/20 Euro-groove and V.01 frame groove
- Suitable for inward and outward opening doors

Adjustment range

- Laterally adjustable: +1.5 / -1.5 mm

Product characteristics



Design

- Slimline butt hinge design
- Available in various RAL colours and electrolytically anodised surfaces
- Custom coating of unpainted hinges possible at the window and door manufacturer



Comfort

- Certified service life of 200,000 opening cycles in accordance with DIN EN 1935
- Axis pin made of stainless steel supports durability
- Maintenance-free thanks to high-quality self-lubricating bearing bush



Efficiency

- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Simple and rapid installation thanks to clampable frame component and screw-on leaf component
- Standardised drilling diameter additionally streamlines production



Adjustment

- Simple alignment of the shadow gap using packing plates



						Nº
Version II	Uncoated	R00.0	Roh	–	1 Piece(s)	834113
	Natural silver	R01.1	–	anod.	1 Piece(s)	816570
	Silver	R01.5	–	powd-c	1 Piece(s)	834669
	Grey brown	R04.1	RAL 8019	powd-c	1 Piece(s)	816569
	Jet black	R06.2	RAL 9005	powd-c	1 Piece(s)	816568
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	816000

3.8.1 Drawings

3.8.1.1 Installation drawings

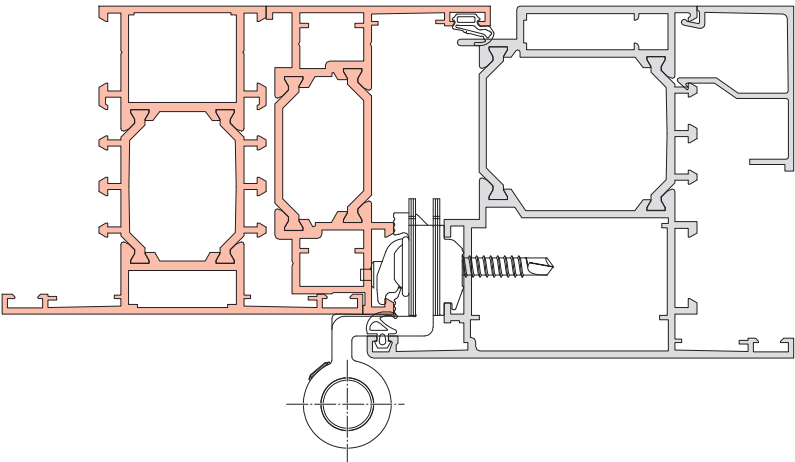


INFO

Installation examples for the aforementioned versions are shown here.
Installation examples for specific profile systems are available upon request.

Version II

Sapa Avantis 70



Roto Solid S







Profile overview

PVC	129
Timber	135
Aluminium	137

PS 23

Accessories	144
Spare parts	145
Jigs	145
Drawings	146

PS 27

Accessories	151
Spare parts / individual parts	152
Jigs	154
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150 P

Accessories	158
Spare parts	159
Jigs	160
Drawings	161

89 NN

Accessories	164
Spare parts	164
Jigs	166
Drawings	167

89 NN-SR

Accessories	170
Spare parts	170
Jigs	171
Drawings	172

105 NN

Accessories	177
Spare parts	177
Jigs	178
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105 NN-SR

Accessories	182
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117 NN

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117 H

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118 Z

Accessories	198
Spare parts	199
Jig	200
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118 D

Accessories	204
Spare parts	205
Jig	206
Drawings	207

80 ATB

Accessories	212
Spare parts	215
Jigs	216
Drawings	217

120 ATB

Accessories	222
Spare parts	226
Jigs	226
Drawings	228



4 Roto Solid S – Screw-on hinges

4.1 Profile overview

4.1.1 PVC

4.1.1.1 PS 23, PS 27, 150 P



INFO

The profile systems shown in the overview are a selection of the possible combinations. Other profile systems are available upon request.

Profile system	Door hinge	Presetting	Overlap area
aluplast energeto neo	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	42	
aluplast IDEAL 4000	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	41	
aluplast IDEAL 7000	PS 27	42	23 – 26.5
aluplast IDEAL 8000	PS 27	42	20 – 23.5
Deceuninck Arcade	PS 23	34	20 – 23.5
	PS 27	42	
	150 P	41	
Deceuninck Elegant	PS 23	34	14 – 17.5*
	PS 27	42	17 – 20.5*
	150 P	41	20 – 23.5*
Deceuninck Zendow#neo	PS 23	31	20 – 23.5
	PS 27	42	
	150 P	39	
GEALAN-KONTUR	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	42	
GEALAN-LINEAR	PS 23	34	14 – 17.5
	PS 27	42	
	150 P	41	
GEALAN S 3000	PS 23	34	14 – 17.5
	PS 27	42	
	150 P	40	
GEALAN S 8000 IQ	PS 23	34	14 – 17.5
	PS 27	42	
	150 P	39	
GEALAN S 9000	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	39	
KBE 70	PS 23	34	20 – 23.5
	PS 27	39	
	150 P	39	
KBE 76 Kömmerling 76 TROCAL 76	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	42	
KBE 88 Kömmerling 88 TROCAL 88	PS 23	34	20 – 23.5
	PS 27	42	
	150 P	41	
Kömmerling 88 Plus	PS 27	42	23 – 26.5

Profile system	Door hinge	Presetting	Overlap area
REHAU ARTEVO	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	39	
REHAU S730 Basic Design	PS 23	34	17 – 20.5
	PS 27	39	
	150 P	40	
REHAU S799 Brillant Design	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	40	
REHAU S969 Synego	PS 23	34	20 – 23.5
	PS 27	42	
	150 P	39	
REHAU S980 Geneo	PS 27	42	23 – 26.5
Salamander bluEvolution 82	PS 23	34	20 – 23.5
	PS 27	42	
	150 P	41	
Salamander bluEvolution 92	PS 23	34	20 – 23.5
	PS 27	42	
	150 P	41	
Salamander greenEvolution 76	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	42	
Salamander proEvolution 72	PS 23	34	17 – 20.5
	PS 27	39	
	150 P	42	
Schüco CT70	PS 23	34	20 – 23.5
	PS 27	39	
	150 P	39	
Schüco LivIng 82	PS 23	34	20 – 23.5
	PS 27	42	
	150 P	42	
VEKA SOFTLINE 70	PS 23	34	17 – 20.5
	PS 27	39	
	150 P	39	
VEKA SOFTLINE 76	PS 23	34	17 – 20.5
	PS 27	39	
	150 P	39	
VEKA SOFTLINE 82	PS 23	34	17 – 20.5
	PS 27	42	
	150 P	40	

Tab. 4.1: *Depending on the overlap height resulting from the selected frame / leaf combination.



4.1.1.2 89 NN, 89 NN-SR, 105 NN, 105 NN-SR, 117 NN, 118 Z, 118 D



INFO

The profile systems shown in the overview are a selection of the possible combinations. Other profile systems are available upon request.

Profile system	Door hinge	Presetting	Overlap area
aluplast energeto neo	89 NN	32	16.5 – 19
	105 NN	37	
	89 NN-SR	31	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	15 – 17.5
aluplast IDEAL 4000	89 NN	32	19 – 21.5
	105 NN	37	
	89 NN-SR	32	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	18 – 20.5
aluplast IDEAL 7000	105 NN	37	23 – 25.5
	117 NN	42	
	118 D / 118 Z	30.5	
aluplast IDEAL 8000	105 NN	37	23 – 25.5
	117 NN	42	
	118 D / 118 Z	33.5	
Deceuninck Arcade	89 NN	32	21.5 – 24
	105 NN	37	21 – 23.5
	117 NN	42	
	118 D / 118 Z	30.5	
Deceuninck Eforte	89 NN	32	21.5 – 24
	105 NN	37	
	117 NN	42	
	118 D / 118 Z	30.5	
Deceuninck Elegant	89 NN	32	16.5 – 19*
	105 NN	37	21.5 – 24*
	89 NN-SR	27	16.5 – 19*
	105 NN-SR	37	
	117 NN	42	16.5 – 19*
			19 – 21.5*
			21 – 23.5*
Deceuninck Zendow#neo	118 D / 118 Z	30.5	17.5 – 20*
		32**	20 – 22.5*
			17.5 – 20
	89 NN	32	
GEALAN-KONTUR	105 NN	37	17.5 – 20
	89 NN-SR	27	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	
	89 NN	32	
GEALAN-LINEAR	105 NN		16.5 – 19
	89 NN-SR	27	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	
	89 NN	32	
	105 NN		15 – 17.5



Roto Solid S – Screw-on hinges
Profile overview
PVC



Profile system	Door hinge	Presetting	Overlap area
GEALAN S 3000	105 NN	37	16.5 – 19
	89 NN-SR	32	
	105 NN-SR		
	117 NN	42	
	118 D / 118 Z	30.5	
GEALAN S 8000 IQ	89 NN	32	16.5 – 19
	105 NN	37	
	89 NN-SR	32	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	
GEALAN S 9000	89 NN	32	17.5 – 20
	105 NN	37	
	89 NN-SR	27	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	
KBE 70	89 NN	32	19 – 21.5
	105 NN	37	
	89 NN-SR	32	
	105 NN-SR		
	117 NN	42	
	118 D / 118 Z	30.5	
KBE 76 Kömmerling 76 TROCAL 76	89 NN	32	17.5 – 20
	105 NN	37	
	89 NN-SR	32	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	
KBE 88 Kömmerling 88 TROCAL 88	89 NN	32	21.5 – 24
	105 NN	37	
	117 NN	42	
	118 D / 118 Z	30.5	
Kömmerling 88 Plus	89 NN	32	23 – 25.5
	105 NN	32	
	117 NN	42	
	118 D / 118 Z	33.5	
REHAU ARTEVO	89 NN	32	16.5 – 19
	105 NN	37	
	89 NN-SR	27	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	
REHAU S730 Basic Design	89 NN	32	16.5 – 19
	105 NN	37	
	105 NN-SR	32	
	117 NN	42	
	118 D / 118 Z	30.5	
REHAU S799 Brillant Design	89 NN	32	19 – 21.5
	105 NN	37	
	89 NN-SR	32	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	
REHAU S969 Synego	89 NN	32	19 – 21.5
	105 NN	37	
	89 NN-SR	32	
	105 NN-SR		
	117 NN	42	
	118 D / 118 Z	30.5	



Profile system	Door hinge	Presetting	Overlap area
REHAU S980 Geneo	105 NN	37	23 – 25.5
	117 NN	42	24 – 26.5
	118 D / 118 Z	30.5	23 – 25.5
Salamander bluEvolution 82	89 NN	32	21.5 – 24
	105 NN	37	
	117 NN	42	19 – 21.5
	118 D / 118 Z	30.5	
Salamander bluEvolution 92	89 NN	32	21.5 – 24
	105 NN	37	
	117 NN	42	21 – 23.5
	118 D / 118 Z	30.5	20 – 22.5
Salamander greenEvolution	89 NN	32	16.5 – 19
	105 NN	37	
	89 NN-SR	27	
	105 NN-SR	37	
	117 NN	42	15.5 – 19
	118 D / 118 Z	30.5	17.5 – 20
Salamander proEvolution 72	89 NN	32	16.5 – 19
	105 NN	37	
	89 NN-SR	32	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	17.5 – 20
Schüco CT70	89 NN	32	19 – 21.5
	105 NN	37	
	105 NN-SR	32	
	117 NN	45	
	118 D / 118 Z	30.5	
Schüco LivIng 82	89 NN	32	19 – 21.5
	105 NN	37	
	89 NN-SR	27	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	
VEKA SOFTLINE 70	89 NN	32	19 – 21.5
	105 NN	37	
	89 NN-SR	32	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	18 – 20.5
VEKA SOFTLINE 76	89 NN	27	17.5 – 20
	105 NN	37	
	89 NN-SR	27	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	18 – 20.5
VEKA SOFTLINE 82	89 NN	32	19 – 21.5
	105 NN	37	
	89 NN-SR	27	
	105 NN-SR	37	
	117 NN	42	
	118 D / 118 Z	30.5	18 – 20.5

Tab. 4.1: *Depending on the overlap height resulting from the selected frame / leaf combination.

Tab. 4.1: **Presetting depends on the leaf profile. See profile assessment.

4.1.1.3 117 H


INFO

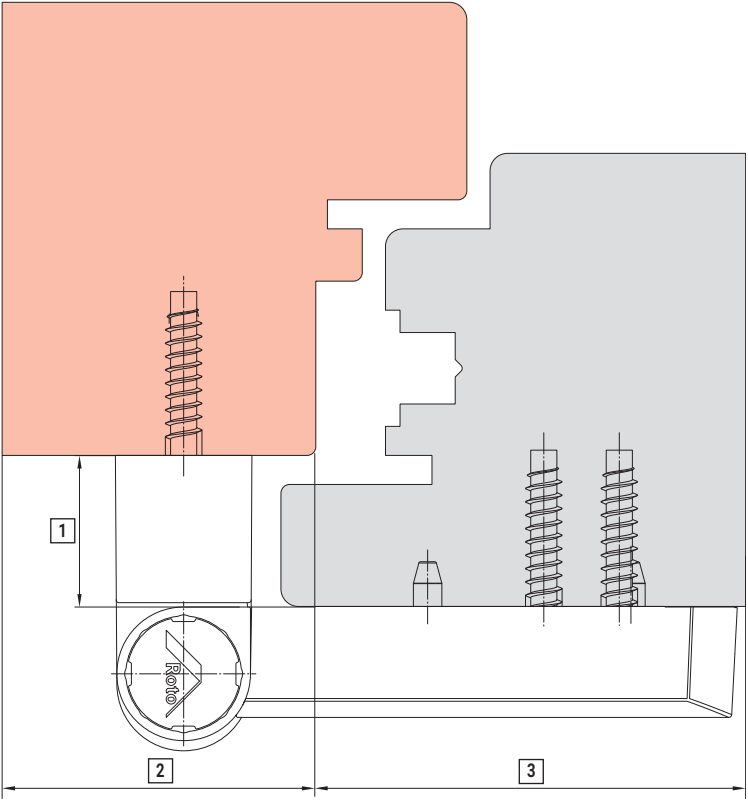
The profile systems shown in the overview are a selection of the possible combinations. Other profile systems are available upon request.

Profile system	Frame number	Leaf number	Presetting	Overlap area
aluplast IDEAL 4000	140x55	140x35	45	-7.75 – -9.25
aluplast IDEAL 7000	170x55	170x31	40	-2.75 – -4.25
	170x55	170x35	45	-2.75 – -4.25
	170x53	170x31		
	170x53	170x35	50	
	170x54			
Deceuninck Elegant	5136	5116	45	-9.75 – -11.25
	5138	5713		-6.25 – -7.75
	5139			
	5140			
	5145			
GEALAN S 8000 IQ	8016	8042	45	-6.25 – -7.75
	8018	8078		
	8021	8042		
	8023			
	8307			
GEALAN S 9000	6802	6027	45	-7.75 – -9.25
	6804	6067		
	6806	6027		
	6807	6033		
	6809			
	6808	6027		
	6820	6027		
	6842			
KBE 76	76108	76205	45	-6.25 – -7.75
Kömmerling 76	76109			
TROCAL 76				
REHAU S969 Synego	1539045	1537305	45	-2.75 – -4.25
VEKA SOFTLINE 82	101.332	105.381	45	-6.25 – -7.75
	101.333	103.346		
	102.336	105.381		
	102.331			



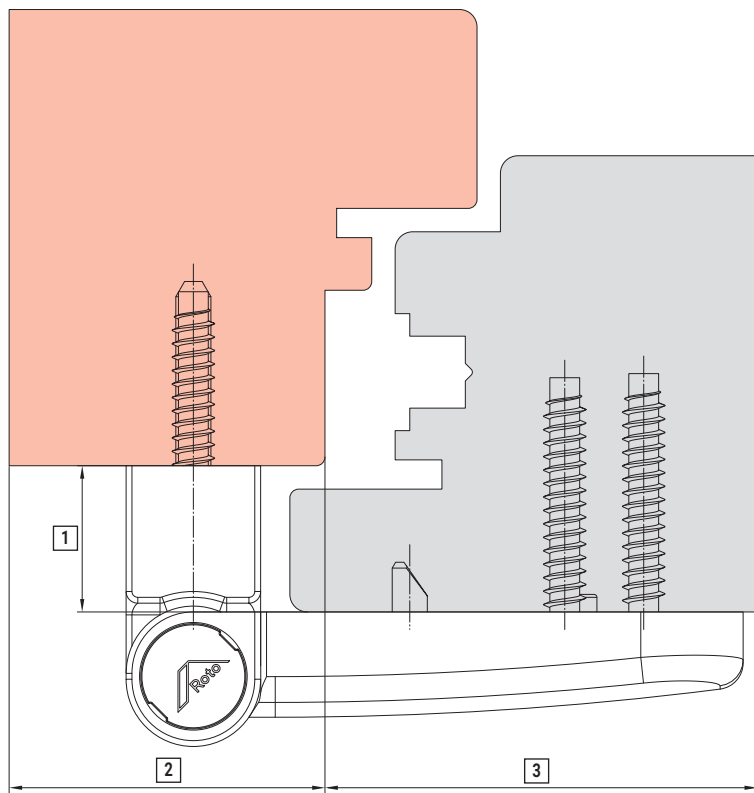
4.1.2 Timber

4.1.2.1 PS 23, PS 27, 150 P



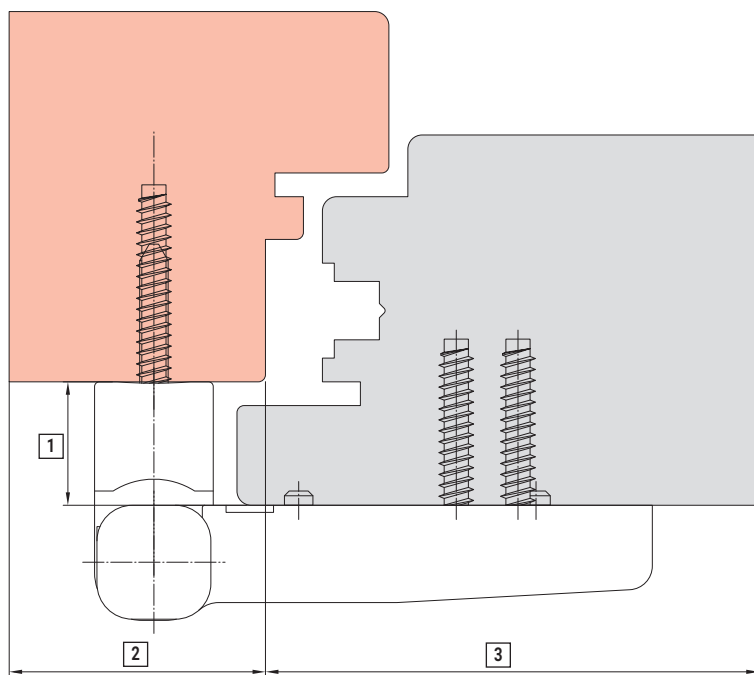
		PS 23	PS 27	150 P
[1]	Overlap height	–	–	–
[2]	Frame clearance	≥ 33	≥ 33	≥ 33
[3]	Leaf clearance	≥ 66	≥ 82	≥ 75

4.1.2.2 89 NN, 89 NN-SR, 105 NN, 105 NN-SR



		89 NN	89 NN-SR	105 NN	105 NN-SR
[1]	Overlap height	–	–	–	–
[2]	Frame clearance	≥ 33	≥ 24	≥ 33	≥ 24
[3]	Leaf clearance	≥ 66	≥ 66	≥ 82	≥ 82

4.1.2.3 117 NN, 118 D, 118 Z



		117 NN	118 D	118 Z
[1]	Overlap height	–	–	–
[2]	Frame clearance	≥ 33	≥ 34	≥ 34
[3]	Leaf clearance	≥ 91	≥ 91	≥ 91



4.1.3 Aluminium

4.1.3.1 80 ATB, 120 ATB



INFO

The profile systems shown in the overview are a selection of the possible combinations. Other profile systems are available upon request.

Profile system	Frame number	Leaf number	Flatness deviation	Screw for Direct mounting	Backing plate
AKOTHERM AT 600	2802	2878	89	–	23.4 x 8.25
	2879				
	2875	2878	62.5	–	23.4 x 8.25
AKOTHERM AT 740 SI	1418	1426	62.5	8 x 63	–
		1437			
	1422	1427	62.5	8 x 63	–
	1425	1420	62.5	8 x 63	–
		1427	62.5	8 x 63	–
	1426	1428	62.5	8 x 68	–
	1430	1437	84	8 x 63	–
	1437				
	1502	1417	62.5	–	23.4 x 8.25
		1427			
		1436	62.5	8 x 63	–
		2502	89	–	23.4 x 8.25
Aliplast Ecofutural	EF414	EF425	62.5	8 x 63	–
Aliplast Econoline	EL014X	EL024X	62.5	–	23.4 x 8.25
Aliplast Imperial	IP014	IP025	62.5	8 x 63	23.4 x 8.25
	IP015	IP024	62.5	–	23.4 x 8.25
	IP218	IP220	62.5	–	23.4 x 8.25
	IP814	IP825	62.5	–	–
Aliplast Superial	SP014	SP025	62.5	8 x 63	23.4 x 8.25
AluK Triton	P-03-A010	P-03-A214	62.5	8 x 63	–
Alumil M11000	M11010	M11438	62.5	8 x 63	–
	M11014	M11082	62.5	–	23.4 x 8.25
	M11066				
	M11086	M11082	62.5	8 x 63	–
	M11088	M11084	62.5	8 x 63	–
	M11586	M11582	62.5	8 x 63	–
		M11636			
	M15078	M15182	62.5	–	23.4 x 8.25
	M62514	M11082	62.5	–	23.4 x 8.25
	M62518	M11134	62.5	–	23.4 x 8.25
Aluprof MB-45	K413914X	K413916X	62.5	–	21.5 x 15.5
		K415225X	62.5	–	21.5 x 15.5
		K415226X			
	K415219X	K413915X	62.5	–	21.5 x 15.5
		K4139156			
	K430034X	K430035X	62.5	–	21.5 x 15.5
		K430036X			
Aluprof MB-59S	K58154X	K518168X	67.5	–	23.4 x 8.25

Roto Solid S – Screw-on hinges
Profile overview
Aluminium

Profile system	Frame number	Leaf number	Flatness deviation	Screw for Direct mounting	Backing plate	
Aluprof MB-60	008052d	008083d	62.5	–	23.4 x 8.25	
	008055d					
	K518055X	K518083X K518337X	62.5	8 x 63	–	
	K518056X	K518084X K518338X	62.5	8 x 63	–	
	K518387X	K518390X	62.5	8 x 63	–	
Aluprof MB-70	K520012X	K520140X K520158X K520162X	62.5	8 x 63	–	
		K520142X K520156X K520160X K520162X	84	8 x 73	–	
	K520130X	K520158X K520162X	62.5	8 x 63	–	
	K520131X	K520156X K520160X K520162X	62.5	8 x 63	–	
	Aluprof MB-86	K518055X	K518083X	62.5	8 x 63	–
		K518056X	K518084X			
		K518105X	K518114X			
		K518106X	K518115X			
K518612X		K518740X				
	K518730X	K518740X	62.5	8 x 63	–	
		K518744X K518748X K518758X K518762X	62.5	8 x 63	–	
	K518731X	K518762X	62.5	8 x 68	–	
Aluron AS 52	p1401XX	p1403XX	62.5	–	23.4 x 8.25	
	p14052XX	p1404XX				
GUTMANN GWD 050n	252102	250280	62.5	–	23.4 x 8.25	
	252112					
	252180					
	462805					
	462806					
	252102	252102	84	–	23.4 x 8.25	
	252112					
	462807					
	252302	252280	62.5	–	23.4 x 8.25	
	252112	252281				
	252180					
	462806					
252102	252281	84	–	23.4 x 8.25		
252302						
252382						

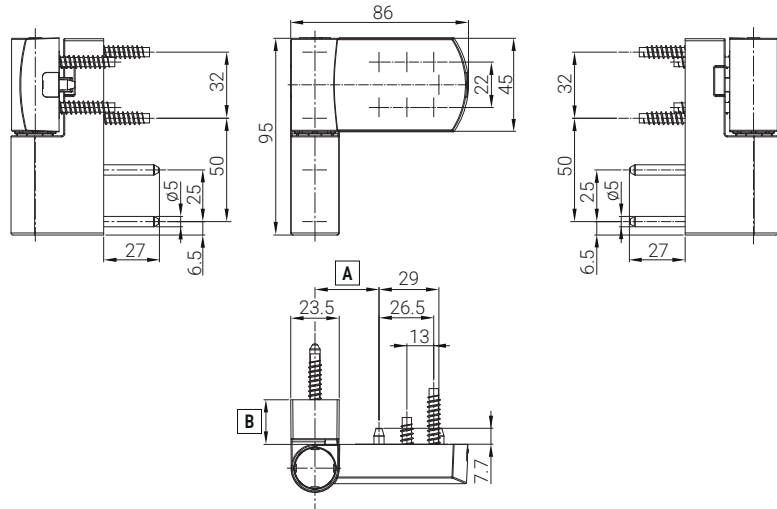


Profile system	Frame number	Leaf number	Flatness deviation	Screw for Direct mounting	Backing plate
GUTMANN GWD 070n	270102	270280	62.5	–	23.4 x 8.25
	270180				
	460805				
	270180	270280	62.5	8 x 63	–
	270302	270280	62.5	8 x 63	–
	270102	270181	89	8 x 63	–
	270302				
	270382				
GUTMANN GWD 080n	270180	270282	62.5	–	23.4 x 8.25
	280180	280281	62.5	8 x 63	–
heroal D 65	9358	9381	62.5	–	23.4 x 8.25
	9380				
	9383				
	9333	9491	62.5	8 x 68	–
	9380				
	9379				
	14023	9491	62.5	8 x 68	–
	14059				
heroal D 72	21680	21681	62.5	8 x 63	–
	21780	21765			
	21080	19541			
		21081	62.5	8 x 68	–
	21079	21604			
	21680	21601			
	22023				
	22039				
	22040				
heroal D 92	23060-02	23081	62.5	8 x 68	–
HUECK A72	572160	572260	62.5	–	23.4 x 8.25
	572161	572261			
	76410	76402			
HUECK Lambda DS 090	B840002	B842200	62.5	8 x 63	–
	B842000	B842201			
		B842205 B842206			
Ponzio PE68	6762	6765	62.5	8 x 63	–
Ponzio PE78N	7848	7865	62.5	8 x 73	–
	7562	7564	62.5	8 x 63	–
Reynaers CS 68	50869	51014	62.5	–	23.4 x 8.25
			78	–	23.4 x 8.25
	50028		89	–	21.5 x 15.5
	50114				
	50120				
	50028				
	50125				
	50898	51026	62.5	–	21.5 x 15.5
	005.0454	005.3026	89	–	21.5 x 15.5
Reynaers CS 77	005.2027				
	008.0469.XX	008.2014.XX	62.5	8 x 63	–
	008.1898.XX	008.2026.XX	62.5	8 x 63	–
	108.0898	108.0026	62.5	8 x 63	–
	108.0869	108.1014	62.5	8 x 68	–

Profile system	Frame number	Leaf number	Flatness deviation	Screw for Direct mounting	Backing plate
Schüco ADS 65	362080	362170	62.5	–	21.5 x 15.5
	361000	362200	62.5	–	21.5 x 15.5
	362100		62.5	–	21.5 x 15.5
	362100		67.5	–	–
	364010		67.5	–	21.5 x 15.5
Schüco ADS 70	358170	395530	62.5	8 x 63	–
		395540			
	372200	372310	62.5	8 x 63	–
	372220	372310	62.5	8 x 63	–
		395440	62.5	8 x 63	–
	372240	395570	62.5	8 x 68	–
Schüco ADS 75.SI	372540	372610	62.5	8 x 63	–
	371190	371280	62.5	8 x 63	–
		371210	62.5	8 x 63	–
	381870	395700	62.5	8 x 63	–
		381960	62.5	8 x 63	–
		381980	62.5	8 x 63	–
Yawal TM 77HI	1.814.067	1.824.078	62.5	–	23.4 x 8.25
		1.824.084			
Yawal TM 77HI Prestige	14.14067.x	14.24080.x	78	–	23.4 x 8.25



4.2 PS 23



[A] Presetting
[B] Overlap height



Product description

The Roto Solid S | PS 23 two-part screw-on hinge is suitable for timber and PVC entrance doors up to a sash weight of 80 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 80 kg
- With proven anti-lifting device to prevent unauthorised unhinging and jemmying
- Rapid and simple installation thanks to a high level of preassembly
- Wide selection of colours

Adjustment range

- Laterally adjustable:
 - Presetting 31: +10 / -5 mm
 - Presetting 34: +7 / -5 mm
- Height adjustable: +5 / -1 mm
- Gasket compression adjustable: +1 / -1 mm
- Additional gasket compression adjustment of +0.75 / -0.75 mm by turning the eccentric frame hinge bush

CE								
	3	7	4	0	1	4*	0	11

Product characteristics



Design

- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush



Efficiency

- Rapid and simple installation thanks to a high level of preassembly
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment when fully assembled without undoing the fixing
- Readjustment is simple and can be carried out by just one person
- With additional gasket compression adjustment



Security

- With proven anti-lifting device to prevent unauthorised unhinging and jemmying
- Sash hinge cover specially secured to prevent removal

Presetting 31

					Nº
14 – 17.5	Natural silver	R01.1	–	1 Piece(s)	2028260
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009369
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042583
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492519
	Jet black, matt	R06.2M	RAL 9005M	1 Piece(s)	782925
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492520
	Special colour	SF	SF	1 Piece(s)	494618
17 – 20.5	Uncoated	R00.0	Roh	1 Piece(s)	492523
	Natural silver	R01.1	–	1 Piece(s)	2028258
	Titanium	R01.3	–	1 Piece(s)	623572
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009371
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053617
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042589
	Black brown	R04.4	RAL 8022	1 Piece(s)	834579
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492556
	Jet black, matt	R06.2M	RAL 9005M	1 Piece(s)	2006368
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492558
			RAL 9016	24 Piece(s)	492559
	Special colour	SF	SF	1 Piece(s)	494621
18.5 – 22	Stainless steel appearance	R01.23	–	1 Piece(s)	2009373
	Dark brown	R04.6	RAL 8077	1 Piece(s)	796376
	Traffic white	R07.2	RAL 9016	1 Piece(s)	796377
	Special colour	SF	SF	1 Piece(s)	2004688
20 – 23.5	Natural silver	R01.1	–	1 Piece(s)	2028261
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009375
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042590
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492567
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492568
	Special colour	SF	SF	1 Piece(s)	494623



INFO

The scope of delivery includes:

- Screws per hinge with overlap height of 14 – 17.5: 2x 6.3 x 26 and 4x 6.3 x 40
- Screws per hinge with overlap height of 17 – 20.5: 2x 6.3 x 26 and 4x 6.3 x 50
- Screws per hinge with overlap height of 18.5 – 22: 2x 6.3 x 26 and 4x 6.3 x 50
- Screws per hinge with overlap height of 20 – 23.5: 2x 6.3 x 26 and 4x 6.3 x 50

For other screw lengths, → *from page 145*

Presetting 34

					Nº
14 – 17.5	Stainless steel appearance	R01.23	–	1 Piece(s)	2009370
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492521
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492522
	Special colour	SF	SF	1 Piece(s)	494619
17 – 20.5	Titanium	R01.3	–	1 Piece(s)	619180
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009372
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492563
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492564
			RAL 9016	24 Piece(s)	535327
	Special colour	SF	SF	1 Piece(s)	494622
18.5 – 22	Stainless steel appearance	R01.23	–	1 Piece(s)	2009374
	Dark brown	R04.6	RAL 8077	1 Piece(s)	810936
	Traffic white	R07.2	RAL 9016	1 Piece(s)	810937
	Special colour	SF	SF	1 Piece(s)	2004694
20 – 23.5	Uncoated	R00.0	Roh	1 Piece(s)	492569
	Natural silver	R01.1	–	1 Piece(s)	2028259
	Titanium	R01.3	–	1 Piece(s)	824835
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009376
	Dark brown	R04.6	RAL 8077	1 Piece(s)	836591
	Jet black	R06.2	RAL 9005	1 Piece(s)	824836
	Traffic white	R07.2	RAL 9016	1 Piece(s)	836590
	Special colour	SF	SF	1 Piece(s)	494625



INFO

The scope of delivery includes:

- Screws per hinge with overlap height of 14 – 17.5: 2x 6.3 x 26 and 4x 6.3 x 40
- Screws per hinge with overlap height of 17 – 20.5: 2x 6.3 x 26 and 4x 6.3 x 50
- Screws per hinge with overlap height of 18.5 – 22: 2x 6.3 x 26 and 4x 6.3 x 50
- Screws per hinge with overlap height of 20 – 23.5: 2x 6.3 x 26 and 4x 6.3 x 50

For other screw lengths, → *from page 145*

4.2.1 Accessories

4.2.1.1 Retaining screw

				Nº
Retaining screw	DIN 7500 M	M3x12	1000 Piece(s)	628899

4.2.1.2 Packing plates



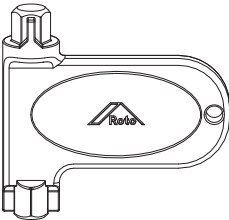
			Nº
1.5	Black	100 Piece(s)	445214
	White	100 Piece(s)	445213



INFO

Use a maximum of 1 packing plate per hinge.

4.2.1.3 Adjustment key



		Nº
Gasket compression adjustment key	1 Piece(s)	535285



4.2.2 Spare parts

Cover cap set



Cover cap set, consisting of: 1 side cover, 1 cover cap

			Nº
Cover cap set	Black	24 Set(s)	450378
	White	24 Set(s)	450377

Fixing screw

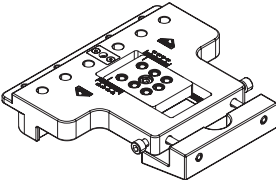


INFO
Screw lengths are profile-related.

			Nº
Fixing screw	6,3x26	48 Piece(s)	450380
	6,3x40	48 Piece(s)	450381
		1000 Piece(s)	628901
	6,3x50	48 Piece(s)	450382
		1000 Piece(s)	628902
	6,3x60	1000 Piece(s)	821342

4.2.3 Jigs

Drilling jig



		Nº
Drilling jig PS 23	1 Piece(s)	447048

Telescopic jig

Preassembled with 3 drilling jigs

		Nº
Telescopic jig PS 23	1 Piece(s)	447051

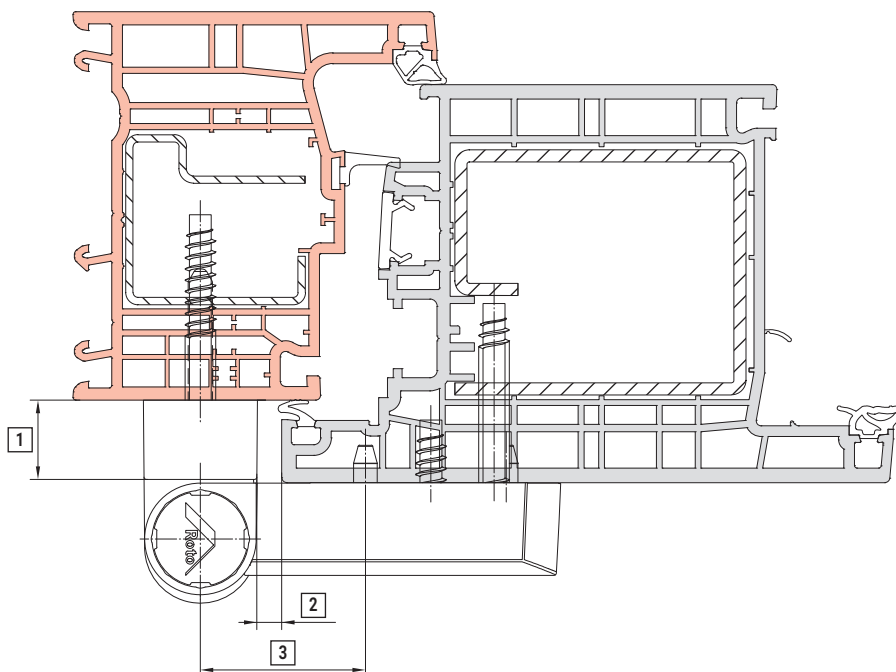
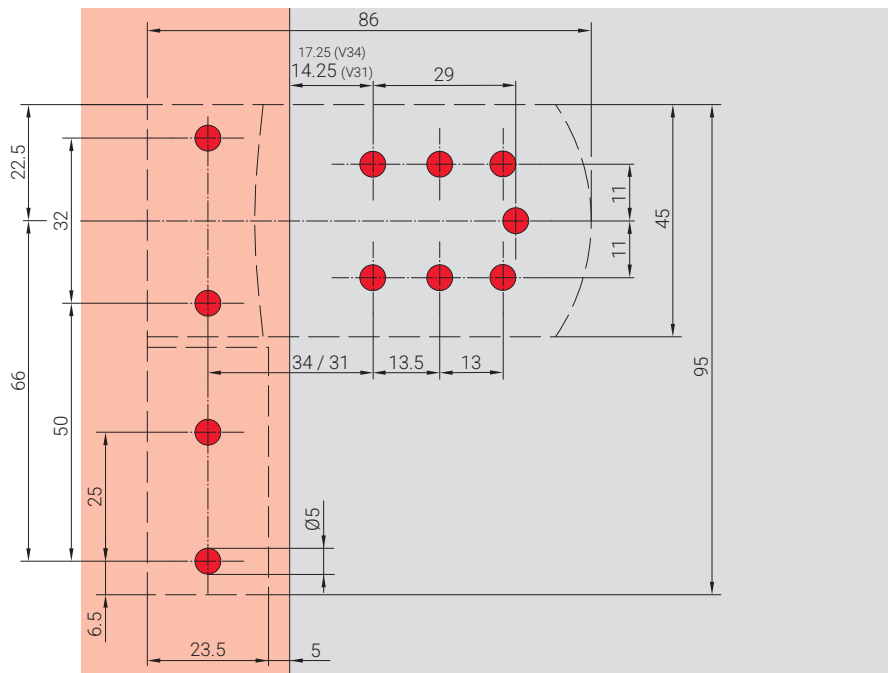
4.2.4 Drawings

4.2.4.1 Drilling pattern



INFO

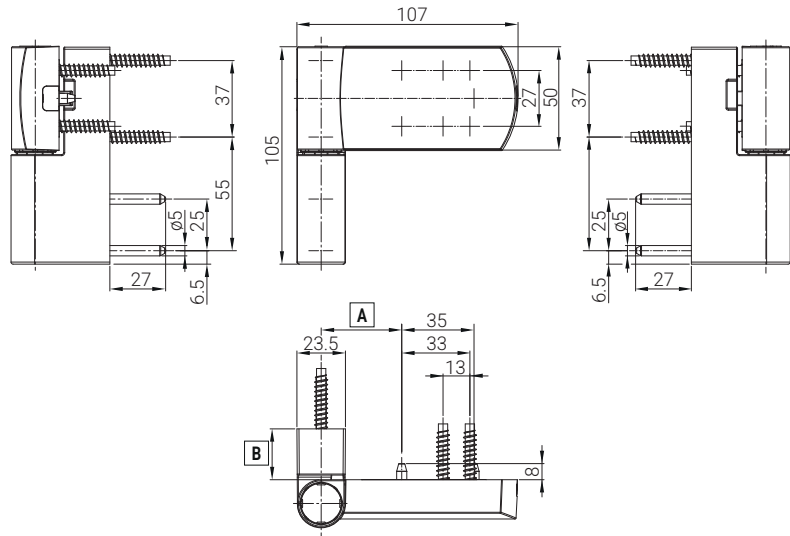
Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf = 5
- [3] Presetting



4.3 PS 27



[A] Presetting
[B] Overlap height



Product description

The Roto Solid S | PS 27 two-part screw-on hinge is suitable for timber and PVC entrance doors up to a sash weight of 120 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 120 kg
- With proven anti-lifting device to prevent unauthorised unhinging and jemmying
- Rapid and simple installation thanks to a high level of preassembly
- Wide selection of colours

Adjustment range

- Laterally adjustable:
 - Presetting 39: +10 / -5 mm
 - Presetting 42: +7 / -5 mm
- Height adjustable: +5 / -1 mm
- Gasket compression adjustable: +1 / -1 mm
- Additional gasket compression adjustment of +0.75 / -0.75 mm by turning the eccentric frame hinge bush



CE								
	4	7	6	0	1	4*	1	13

Product characteristics



Design

- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush



Efficiency

- Rapid and simple installation thanks to a high level of preassembly
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment when fully assembled without undoing the fixing
- Readjustment is simple and can be carried out by just one person
- With additional gasket compression adjustment



Security

- With proven anti-lifting device to prevent unauthorised unhinging and jemmying
- SKG**-compatible with retrofit set
- Sash hinge cover specially secured to prevent removal

Presetting 39

					Nº
14 – 17.5	Titanium	R01.3	–	1 Piece(s)	641937
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009377
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053618
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492574
	Bronze	R05.5	–	1 Piece(s)	896509
	Jet black	R06.2	RAL 9005	1 Piece(s)	784711
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492575
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042591
	Special colour	SF	SF	1 Piece(s)	494626
17 – 20.5	Natural silver	R01.1	–	1 Piece(s)	2028265
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009379
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053619
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492582
	Jet black	R06.2	RAL 9005	1 Piece(s)	782926
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492584
	Cream	R07.3	RAL 9001	1 Piece(s)	492583
	Special colour	SF	SF	1 Piece(s)	494628
18.5 – 22	Stainless steel appearance	R01.23	–	1 Piece(s)	2009382
	Dark brown	R04.6	RAL 8077	1 Piece(s)	810941
	Traffic white	R07.2	RAL 9016	1 Piece(s)	810940
	Special colour	SF	SF	1 Piece(s)	2004695
20 – 23.5	Uncoated	R00.0	Roh	1 Piece(s)	492592
	Natural silver	R01.1	–	1 Piece(s)	2028263
	Titanium	R01.3	–	1 Piece(s)	641884
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009387
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053626
	Medium bronze	R05.3	–	1 Piece(s)	641905
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492594
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492596
	Special colour	SF	SF	1 Piece(s)	494630



					Nº
23 – 26.5	Stainless steel appearance	R01.23	–	1 Piece(s)	2009389
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492607
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492608
	Special colour	SF	SF	1 Piece(s)	494632



INFO

The scope of delivery includes:

- Screws per hinge with overlap height of 14 – 17.5: 6x 6.3 x 40
- Screws per hinge with overlap height of 17 – 20.5: 4x 6.3 x 40 and 2x 6.3 x 50
- Screws per hinge with overlap height of 18.5 – 22: 6x 6.3 x 50
- Screws per hinge with overlap height of 20 – 23.5: 4x 6.3 x 40 and 2x 6.3 x 50
- Screws per hinge with overlap height of 23 – 26.5: 6x 6.3 x 50

For other screw lengths, → *from page 152*

Presetting 42

					Nº
14 – 17.5	Uncoated	R00.0	Roh	1 Piece(s)	553486
	Natural silver	R01.1	–	1 Piece(s)	2028262
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009378
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042592
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492578
	Medium bronze	R05.3	–	1 Piece(s)	572597
	Jet black, matt	R06.2M	RAL 9005M	1 Piece(s)	2050518
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492579
	Special colour	SF	SF	1 Piece(s)	494627
17 – 20.5	Uncoated	R00.0	Roh	1 Piece(s)	492585
	Natural silver	R01.1	–	1 Piece(s)	2028266
	Titanium	R01.3	–	1 Piece(s)	619466
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009380
			–	24 Piece(s)	2009381
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053625
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042593
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492588
	Medium bronze	R05.3	–	1 Piece(s)	572598
	Bronze	R05.5	–	1 Piece(s)	896506
	Jet black	R06.2	RAL 9005	1 Piece(s)	493929
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492589
			RAL 9016	24 Piece(s)	492590
	Special colour	SF	SF	1 Piece(s)	494629
	Natural silver	R01.1	–	1 Piece(s)	2028871
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009385
			–	24 Piece(s)	2009386
18.5 – 22	Dark brown	R04.6	RAL 8077	1 Piece(s)	796373
	Traffic white	R07.2	RAL 9016	1 Piece(s)	796374
			RAL 9016	24 Piece(s)	810944
	Special colour	SF	SF	1 Piece(s)	2004696

					Nº
20 – 23.5	Uncoated	R00.0	Roh	1 Piece(s)	492598
	Natural silver	R01.1	–	1 Piece(s)	2028264
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009388
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053627
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042594
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492600
	Medium bronze	R05.3	–	1 Piece(s)	572599
	Bronze	R05.5	–	1 Piece(s)	896507
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492603
			RAL 9016	24 Piece(s)	492604
	Cream	R07.3	RAL 9001	1 Piece(s)	492602
	Special colour	SF	SF	1 Piece(s)	494631
23 – 26.5	Uncoated	R00.0	Roh	1 Piece(s)	493132
	Natural silver	R01.1	–	1 Piece(s)	2028267
	Titanium	R01.3	–	1 Piece(s)	2051487
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009390
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053628
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042595
	Dark brown	R04.6	RAL 8077	1 Piece(s)	492610
	Bronze	R05.5	–	1 Piece(s)	896508
	Jet black	R06.2	RAL 9005	1 Piece(s)	796004
	Traffic white	R07.2	RAL 9016	1 Piece(s)	492611
			RAL 9016	24 Piece(s)	620902
	Special colour	SF	SF	1 Piece(s)	494633



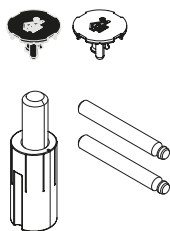
INFO

The scope of delivery includes:

- Screws per hinge with overlap height of 14 – 17.5: 6x 6.3 x 40
- Screws per hinge with overlap height of 17 – 20.5: 4x 6.3 x 40 and 2x 6.3 x 50
- Screws per hinge with overlap height of 18.5 – 22: 4x 6.3 x 40 and 2x 6.3 x 50
- Screws per hinge with overlap height of 20 – 23.5: 4x 6.3 x 40 and 2x 6.3 x 50
- Screws per hinge with overlap height of 23 – 26.5: 6x 6.3 x 50

For other screw lengths, → *from page 152*

SKG** retrofit set



SKG** retrofit set, consisting of: 1 black cover cap, 1 white cover cap, 1 tapered bush, 2 locking pins

		Nº
SKG** retrofit set PS 27	1 Set(s)	862477



4.3.1 Accessories

4.3.1.1 Retaining screw

				Nº
Retaining screw	DIN 7500 M	M3x12	1000 Piece(s)	628899

4.3.1.2 Locking pin



			Nº
Locking pin	SKG **	100 Piece(s)	224749



4.3.1.3 Packing plates



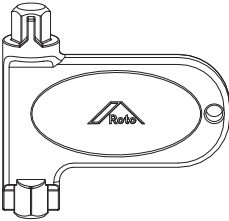
			Nº
1.5	Black	100 Piece(s)	445226
	White	100 Piece(s)	445225



INFO

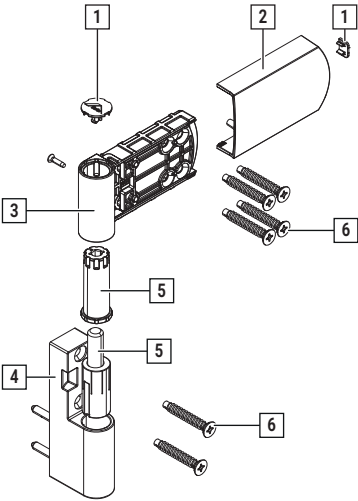
Use a maximum of 1 packing plate per hinge.

4.3.1.4 Adjustment key



		Nº
Gasket compression adjustment key	1 Piece(s)	535285

4.3.2 Spare parts / individual parts



- [1] Cover cap set
- [2] Sash hinge cover
- [3] Sash hinge
- [4] Frame hinge
- [5] Pin module set
- [6] Fixing screw

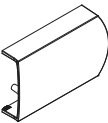
[1] Cover cap set



Cover cap set, consisting of: 1 side cover, 1 cover cap

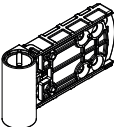
			Nº
Cover cap set	Black	24 Set(s)	450378
	White	24 Set(s)	450377

[2] Sash hinge cover



					Nº
Sash hinge cover	RAL 8077	R04.6	Dark brown	12 Piece(s)	601425
	RAL 9016	R07.2	Traffic white	12 Piece(s)	601424

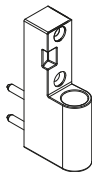
[3] Sash hinge



					Nº
Sash hinge	Traffic white	R07.2	RAL 9016	6 Piece(s)	601434



[4] Frame hinge



						Nº
Frame hinge	Traffic white	R07.2	RAL 9016	14 – 17.5	6 Piece(s)	601426
				17 – 20.5	6 Piece(s)	601428
				18.5 – 22	6 Piece(s)	810948
				20 – 23.5	6 Piece(s)	601430



[5] Pin module set



Pin module set, consisting of: 1 pin module, 1 sash hinge bush

			Nº
Pin module set	Black	24 Piece(s)	492613
	White	24 Piece(s)	492612

[6] Fixing screw

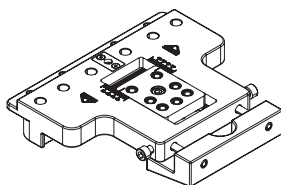


INFO
Screw lengths are profile-related.

			Nº
Fixing screw	6,3x26	48 Piece(s)	450380
	6,3x40	48 Piece(s)	450381
		1000 Piece(s)	628901
	6,3x50	48 Piece(s)	450382
		1000 Piece(s)	628902
	6,3x60	1000 Piece(s)	821342

4.3.3 Jigs

Drilling jig



		Nº
Drilling jig PS 27	1 Piece(s)	447050

Telescopic jig

Preassembled with 3 drilling jigs

		Nº
Telescopic jig PS 27	1 Piece(s)	447052



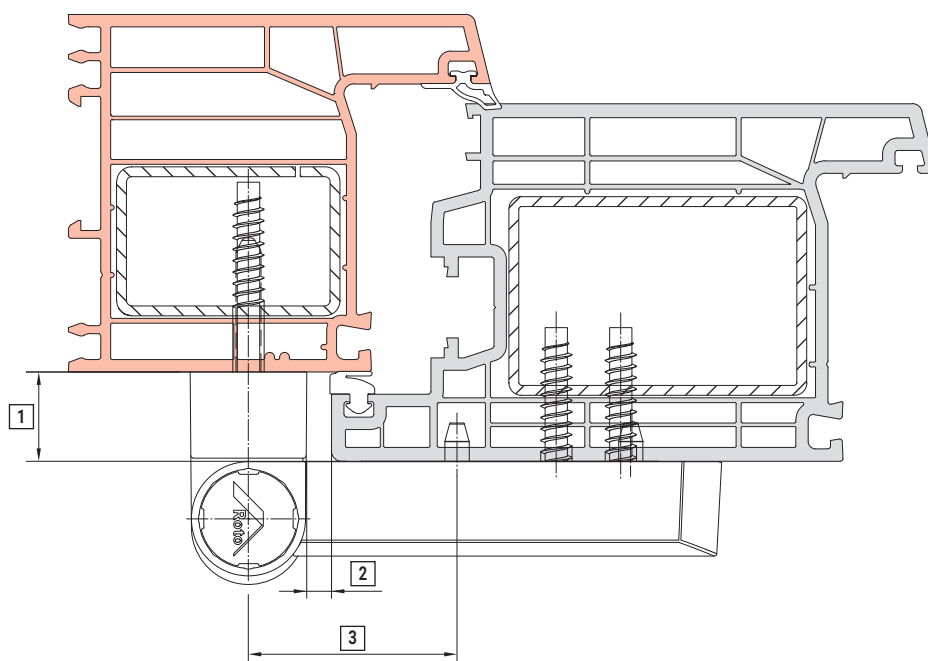
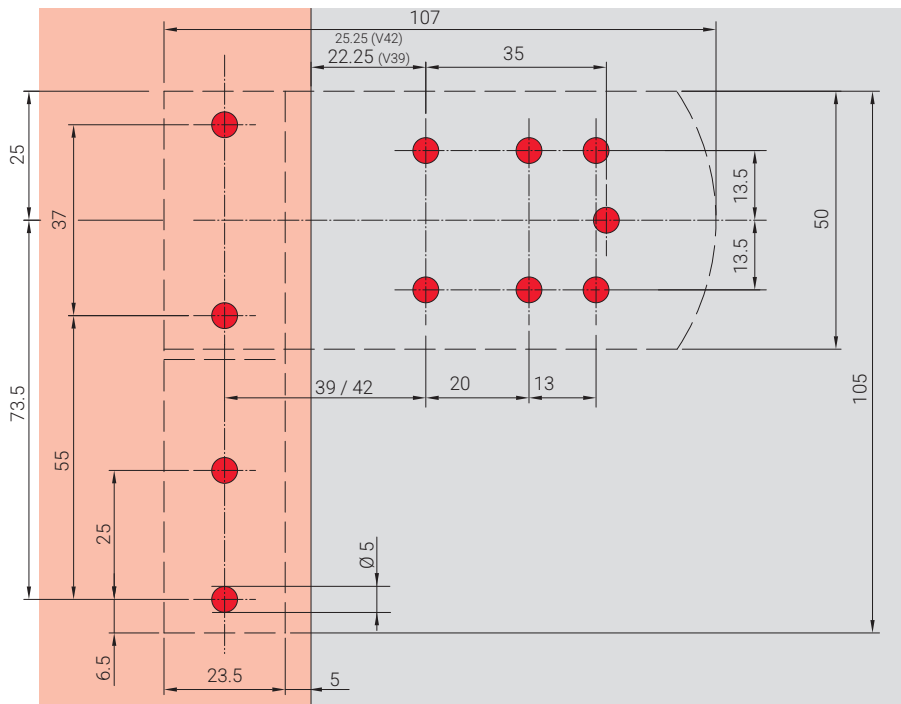
4.3.4 Drawings

4.3.4.1 Drilling pattern



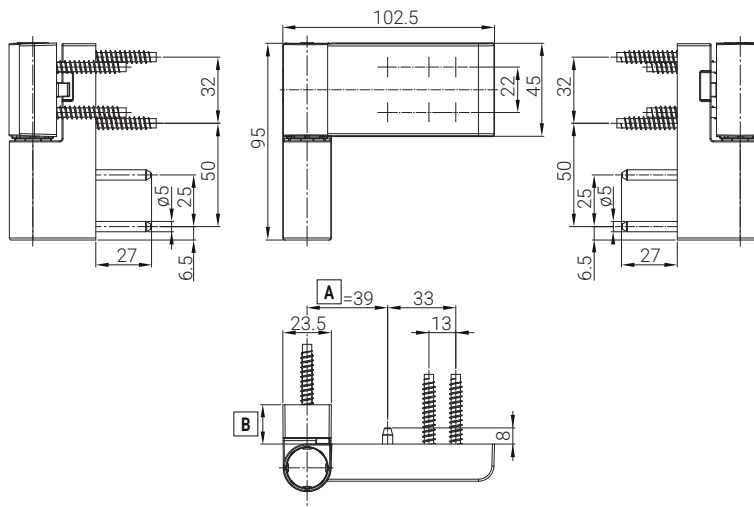
INFO

Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf = 5
- [3] Presetting

4.4 150 P



[A] Presetting

[B] Overlap height



Product description

The Roto Solid S | 150 P two-part screw-on hinge is suitable for timber and PVC entrance doors up to a sash weight of 110 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 110 kg
- With proven anti-lifting device to prevent unauthorised unhinging and jemmying
- Simple installation in just a few operation steps
- Wide selection of colours

Adjustment range

- Laterally adjustable: +5 / -5 mm
- Height adjustable: +5 / -1 mm
- Gasket compression adjustable: +1 / -1 mm
- Additional gasket compression adjustment of +0.75 / -0.75 mm by turning the eccentric frame hinge bush

CE								
	3	7	4	0	1	4*	0	11



Product characteristics



Design

- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush



Efficiency

- Simple installation in just a few operation steps
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment when fully assembled without undoing the fixing
- Readjustment is simple and can be carried out by just one person
- With additional gasket compression adjustment



Security

- With proven anti-lifting device to prevent unauthorised unhinging and jemmying
- Sash hinge cover specially secured to prevent removal



					Nº
14 – 17.5	Untreated	R00.0	Roh	1 Piece(s)	833781
	Natural silver	R01.1	–	1 Piece(s)	2028271
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009354
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053629
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042596
	Dark brown	R04.6	RAL 8077	1 Piece(s)	738097
	Jet black	R06.2	RAL 9005	1 Piece(s)	799873
	Traffic white	R07.2	RAL 9016	1 Piece(s)	738083
	Special colour	SF	SF	1 Piece(s)	2006556
17 – 20.5	Untreated	R00.0	Roh	1 Piece(s)	833782
			Roh	24 Piece(s)	2049997
	Natural silver	R01.1	–	1 Piece(s)	2028269
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009355
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053630
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042597
	Black brown	R04.4	RAL 8022	1 Piece(s)	738123
	Dark brown	R04.6	RAL 8077	1 Piece(s)	738096
	Chocolate brown	R04.8	RAL 8017	1 Piece(s)	738114
	Clay brown	R04.9	RAL 8003	1 Piece(s)	738116
	Bronze	R05.5	–	1 Piece(s)	771408
	Jet black	R06.2	RAL 9005	1 Piece(s)	861941
	Traffic white	R07.2	RAL 9016	1 Piece(s)	738084
	Cream	R07.3	RAL 9001	1 Piece(s)	738109
	Special colour	SF	SF	1 Piece(s)	2006557

					Nº
20 – 23.5	Natural silver	R01.1	–	1 Piece(s)	2028270
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009356
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053631
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042598
	Black brown	R04.4	RAL 8022	1 Piece(s)	738118
	Dark brown	R04.6	RAL 8077	1 Piece(s)	738098
	Chocolate brown	R04.8	RAL 8017	1 Piece(s)	738102
	Clay brown	R04.9	RAL 8003	1 Piece(s)	738117
	Bronze	R05.5	–	1 Piece(s)	771409
	Jet black	R06.2	RAL 9005	1 Piece(s)	861942
	Traffic white	R07.2	RAL 9016	1 Piece(s)	738095
	Cream	R07.3	RAL 9001	1 Piece(s)	738110
	Special colour	SF	SF	1 Piece(s)	2006558



INFO

The scope of delivery includes:

- Screws per hinge with overlap height of 14 – 17.5: 6x 6.3 x 40
- Screws per hinge with overlap height of ≥ 17: 4x 6.3 x 40 and 2x 6.3 x 50

4.4.1 Accessories

4.4.1.1 Packing plates



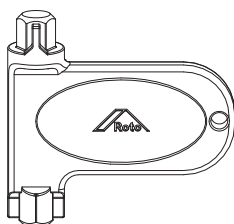
			Nº
1.5	Black	100 Piece(s)	445214
	White	100 Piece(s)	445213



INFO

Use a maximum of 1 packing plate per hinge.

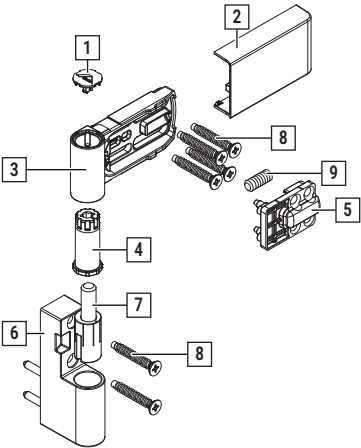
4.4.1.2 Adjustment key



		Nº
Gasket compression adjustment key	1 Piece(s)	535285



4.4.2 Spare parts



- [1] Cover cap
- [2] Leaf hinge cover
- [3] Leaf hinge
- [4] Leaf hinge bush
- [5] Adjusting carriage
- [6] Frame hinge
- [7] Pin module
- [8] Fixing screw
- [9] Threaded pin

[1] Cover cap set



Cover cap set, consisting of: 1 side cover (not required for 150 P), 1 cover cap

			Nº
Cover cap set	Black	24 Set(s)	450378
	White	24 Set(s)	450377

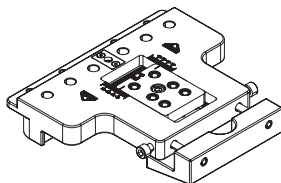
[8] Fixing screw



			Nº
Fixing screw	6,3x40	48 Piece(s)	450381
		1000 Piece(s)	628901
	6,3x50	48 Piece(s)	450382
		1000 Piece(s)	628902

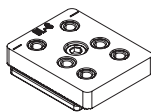
4.4.3 Jigs

Drilling jig



		Nº
Drilling jig 150 P	1 Piece(s)	628066

Conversion kit for drilling jig PS 23 / PS 27



		Nº
Drilling jig conversion kit	1 Piece(s)	628878



INFO

This can be used to convert a drilling jig for PS 23 / PS 27 to a drilling jig for 150 P → *from page 145,*
→ *from page 154.*

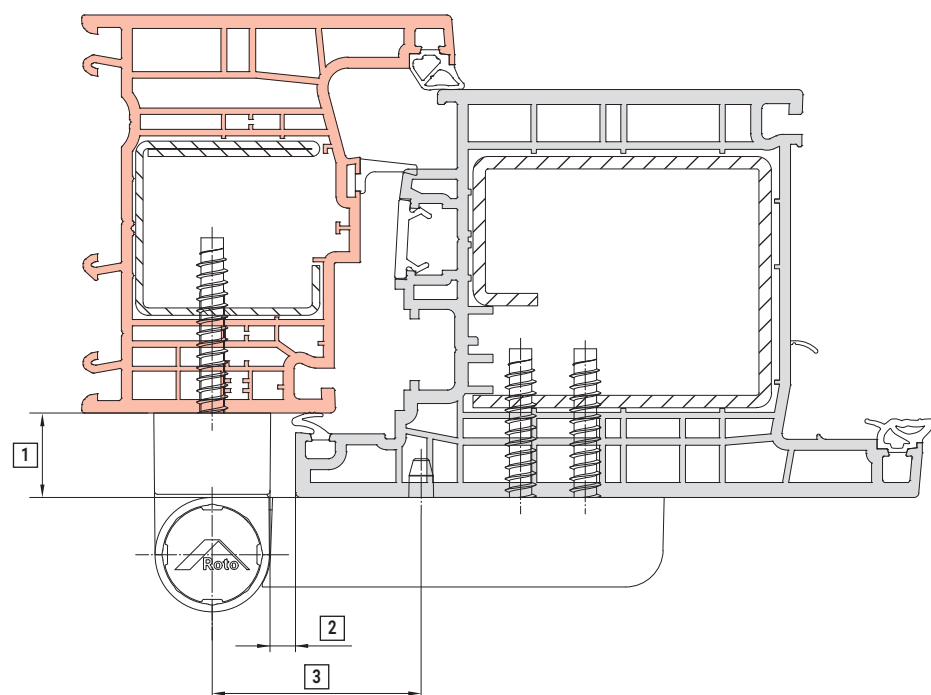
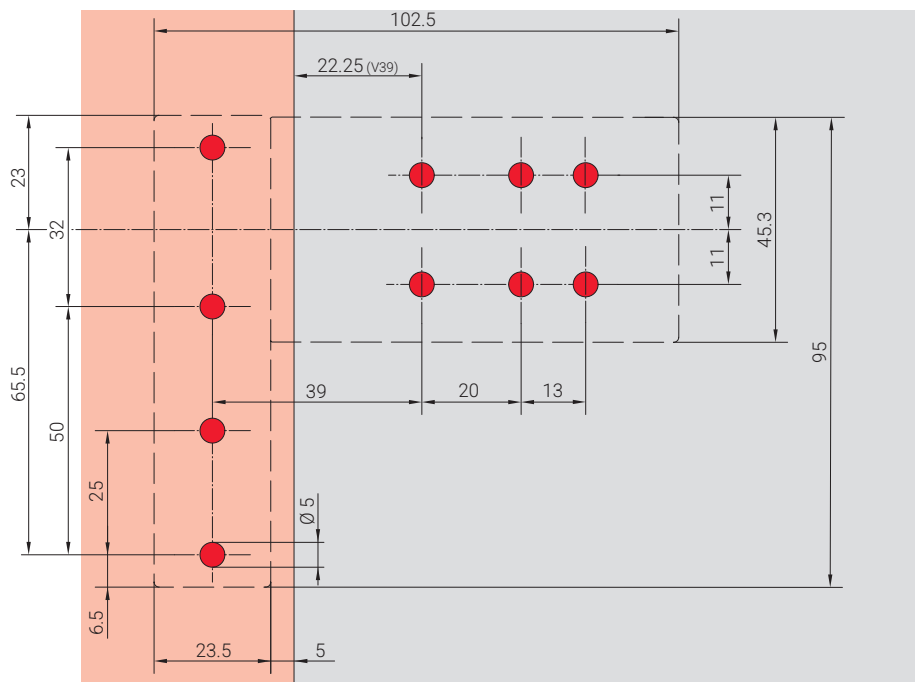
4.4.4 Drawings

4.4.4.1 Drilling pattern



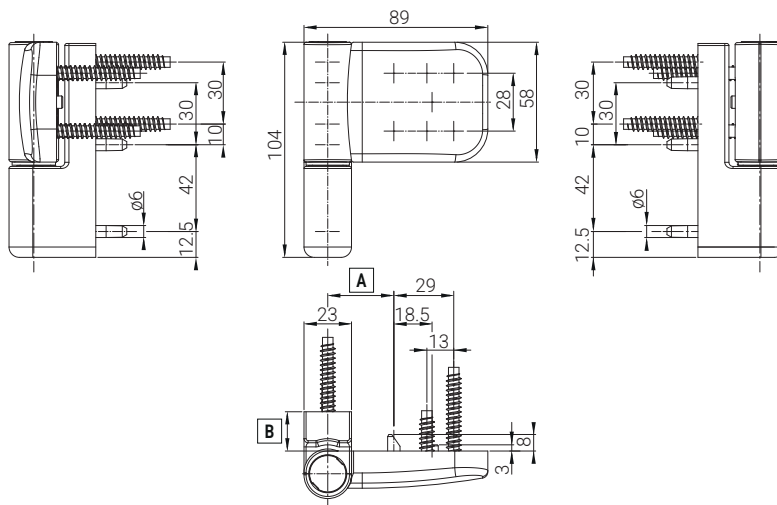
INFO

Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf = 5
- [3] Presetting

4.5 89 NN



[A] Presetting

[B] Overlap height



Product description

The Roto Solid S | 89 NN two-part screw-on hinge is suitable for timber and PVC entrance doors up to a sash weight of 80 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 80 kg
- Rapid and simple installation thanks to a high level of preassembly
- Wide selection of colours
- Additional version available for renovation profiles and profiles with narrow visible widths

Adjustment range

- Laterally adjustable: +10 / -5 mm
- Height adjustable: +5 mm
- Gasket compression adjustable: +0.75 / -0.75 mm
- Additional gasket compression adjustment of +0.5 / -0.5 mm by turning the eccentric frame hinge bush

CE								
	3	7	4	0	1	4*	0	11



Product characteristics



Design

- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush



Efficiency

- Rapid and simple installation thanks to a high level of preassembly
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment when fully assembled without undoing the fixing
- Readjustment is simple and can be carried out by just one person
- With additional gasket compression adjustment



Security

- Sash hinge bush specially secured to prevent removal



Presetting 32

					Nº
14 – 16.5	Stainless steel appearance	R01.23	–	1 Piece(s)	2009357
	Dark brown	R04.6	RAL 8077	1 Piece(s)	544684
	Traffic white	R07.2	RAL 9016	1 Piece(s)	551171
	Special colour	SF	SF	1 Piece(s)	622490
16.5 – 19	White aluminium	R01.11	RAL 9006	1 Piece(s)	545988
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009359
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042599
	Black brown	R04.4	RAL 8022	1 Piece(s)	890940
	Dark brown	R04.6	RAL 8077	1 Piece(s)	544612
			RAL 8077	24 Piece(s)	544711
	Chocolate brown	R04.8	RAL 8017	1 Piece(s)	890874
	Clay brown	R04.9	RAL 8003	1 Piece(s)	890941
	Traffic white	R07.2	RAL 9016	1 Piece(s)	544611
			RAL 9016	24 Piece(s)	544710
	Special colour	SF	SF	1 Piece(s)	622493
17.5 – 20	Stainless steel appearance	R01.23	–	1 Piece(s)	2009360
	Dark brown	R04.6	RAL 8077	1 Piece(s)	546367
	Traffic white	R07.2	RAL 9016	1 Piece(s)	546366
	Special colour	SF	SF	1 Piece(s)	622494
19 – 21.5	Natural silver	R01.1	–	1 Piece(s)	2028272
	White aluminium	R01.11	RAL 9006	1 Piece(s)	545630
	Grey aluminium	R01.7	RAL 9007	1 Piece(s)	545771
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009361
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042600
	Grey brown	R04.1	RAL 8019	1 Piece(s)	545189
	Dark brown	R04.6	RAL 8077	1 Piece(s)	544686
			RAL 8077	24 Piece(s)	546028
	Clay brown	R04.9	RAL 8003	1 Piece(s)	546034
	Traffic white	R07.2	RAL 9016	1 Piece(s)	544685
			RAL 9016	24 Piece(s)	546026
	Special colour	SF	SF	1 Piece(s)	622495
			SF	24 Piece(s)	638691

Roto Solid S – Screw-on hinges

89 NN

Accessories

					Nº
21.5 – 24	White aluminium	R01.11	RAL 9006	1 Piece(s)	546928
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009362
	Dark brown	R04.6	RAL 8077	1 Piece(s)	544675
	Traffic white	R07.2	RAL 9016	1 Piece(s)	544674
	Special colour	SF	SF	1 Piece(s)	622496
23 – 25.5	Stainless steel appearance	R01.23	–	1 Piece(s)	2009363
	Dark brown	R04.6	RAL 8077	1 Piece(s)	545132
	Traffic white	R07.2	RAL 9016	1 Piece(s)	546930
	Special colour	SF	SF	1 Piece(s)	622497



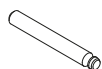
INFO

The scope of delivery includes:

- Screws per hinge: 2x 7.3 x 30 and 4x 7.3 x 50

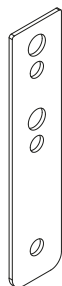
4.5.1 Accessories

4.5.1.1 Locking pin



			Nº
Locking pin	T30 hexalobular socket	100 Piece(s)	825049

4.5.1.2 Packing plates



			Nº
1.5	Black	24 Piece(s)	546045
	White	24 Piece(s)	546044

4.5.2 Spare parts

Cover cap



			Nº
Cover cap	Black	24 Piece(s)	736467
	White	24 Piece(s)	764520



Sash hinge cover fixing



			Nº
Sash hinge cover fixing	M6x10	100 Piece(s)	823911

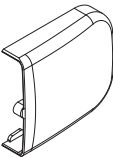
Fixing screws



				Nº
Fixing screw	T30 hexalobular socket	7,3x30	48 Piece(s)	825063
		7,3x50	48 Piece(s)	823912
		7,3x70	48 Piece(s)	896729



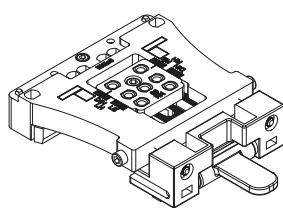
Sash hinge cover



					Nº
Sash hinge cover	Traffic white	R07.2	RAL 9016	1 Piece(s)	764518

4.5.3 Jigs

Drilling jig



			Nº
Drilling jig 89 NN	32	1 Piece(s)	544283

Telescopic jig

Preassembled with 3 drilling jigs



			Nº
Telescopic jig 89 NN	32	1 Piece(s)	2043406



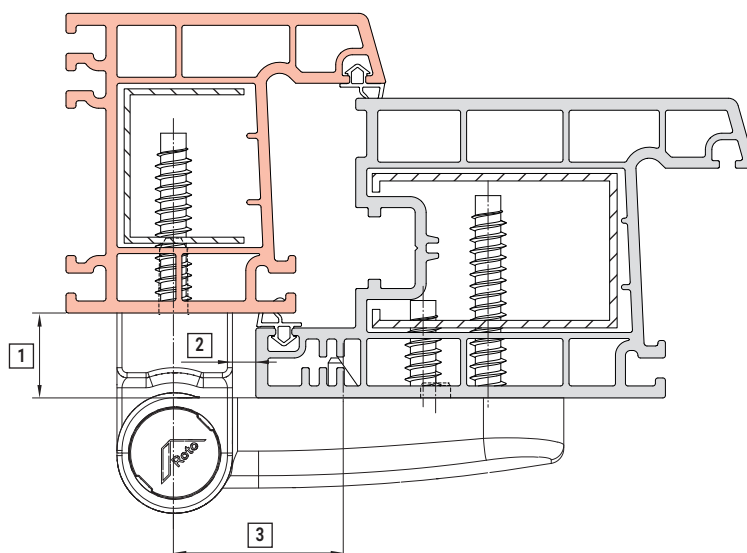
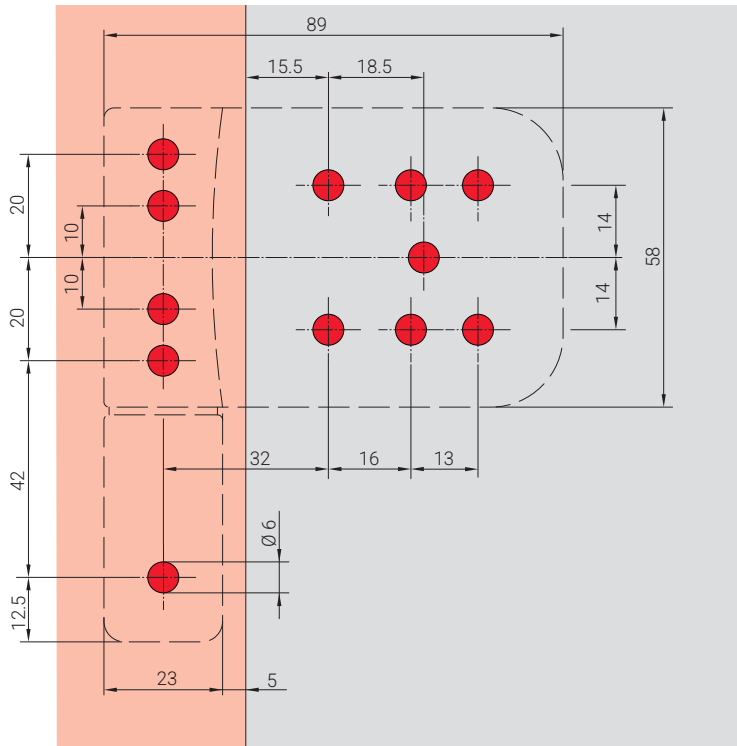
4.5.4 Drawings

4.5.4.1 Drilling pattern



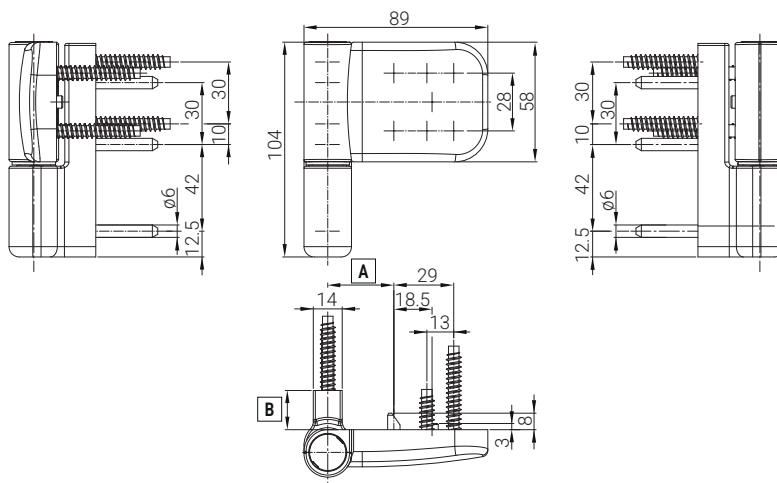
INFO

Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf = 5
- [3] Presetting

4.6 89 NN-SR



[A] Presetting

[B] Overlap height



Product description

The Roto Solid S | 89 NN-SR two-part screw-on hinge is suitable for timber and PVC entrance doors up to a sash weight of 80 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 80 kg
- Rapid and simple installation thanks to a high level of preassembly
- Wide selection of colours
- Especially suited to profiles with narrow visible widths / renovation profiles

Adjustment range

- Laterally adjustable: +10 / -5 mm
- Height adjustable: +5 mm
- Gasket compression adjustable: +0.75 / -0.75 mm
- Additional gasket compression adjustment of +0.5 / -0.5 mm by turning the eccentric frame hinge bush

CE								
	3	7	4	0	1	4*	0	11



Product characteristics



Design

- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush



Efficiency

- Rapid and simple installation thanks to a high level of preassembly
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment when fully assembled without undoing the fixing
- Readjustment is simple and can be carried out by just one person
- With additional gasket compression adjustment



Security

- Sash hinge bush specially secured to prevent removal

Presetting 32

					Nº
14 – 16.5	Stainless steel appearance	R01.23	–	1 Piece(s)	2009364
	Traffic white	R07.2	RAL 9016	1 Piece(s)	546310
	Special colour	SF	SF	1 Piece(s)	622487
15.5 – 18	Stainless steel appearance	R01.23	–	1 Piece(s)	2009365
	Traffic white	R07.2	RAL 9016	24 Piece(s)	547684
	Special colour	SF	SF	1 Piece(s)	631018
16.5 – 19	Dark brown	R04.6	RAL 8077	1 Piece(s)	546999
	Clay brown	R04.9	RAL 8003	1 Piece(s)	546500
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009366
	Traffic white	R07.2	RAL 9016	1 Piece(s)	547001
	Special colour	SF	SF	1 Piece(s)	622488
17.5 – 20	Stainless steel appearance	R01.23	–	1 Piece(s)	2009367
	Traffic white	R07.2	RAL 9016	1 Piece(s)	570568
	Special colour	SF	SF	1 Piece(s)	631019
19 – 21.5	Stainless steel appearance	R01.23	–	1 Piece(s)	2009368
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053632
	Dark brown	R04.6	RAL 8077	1 Piece(s)	546975
	Clay brown	R04.9	RAL 8003	1 Piece(s)	546699
	Traffic white	R07.2	RAL 9016	1 Piece(s)	546415
	Special colour	SF	SF	1 Piece(s)	622489



INFO

The scope of delivery includes:

- Screws per hinge: 2x 7.3 x 30 and 4x 7.3 x 50

4.6.1 Accessories

4.6.1.1 Locking pin



			Nº
Locking pin	T30 hexalobular socket	100 Piece(s)	825049

4.6.2 Spare parts

Cover cap



			Nº
Cover cap	Black	24 Piece(s)	736467
	White	24 Piece(s)	764520

Leaf hinge cover fixing



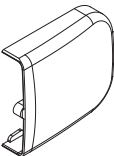
			Nº
Sash hinge cover fixing	M6x10	100 Piece(s)	823911

Fixing screws



				Nº
Fixing screw	T30 hexalobular socket	7,3x30	48 Piece(s)	825063
		7,3x50	48 Piece(s)	823912
		7,3x70	48 Piece(s)	896729

Leaf hinge cover

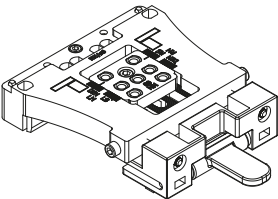


					Nº
Sash hinge cover	Traffic white	R07.2	RAL 9016	1 Piece(s)	764518



4.6.3 Jigs

Drilling jig



			Nº
Drilling jig 89 NN-SR	32	1 Piece(s)	547532



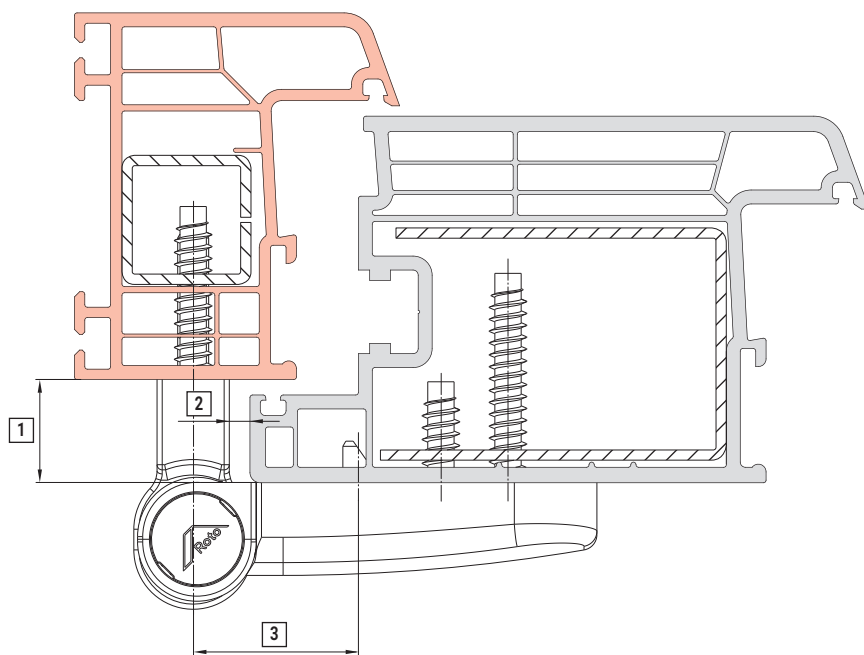
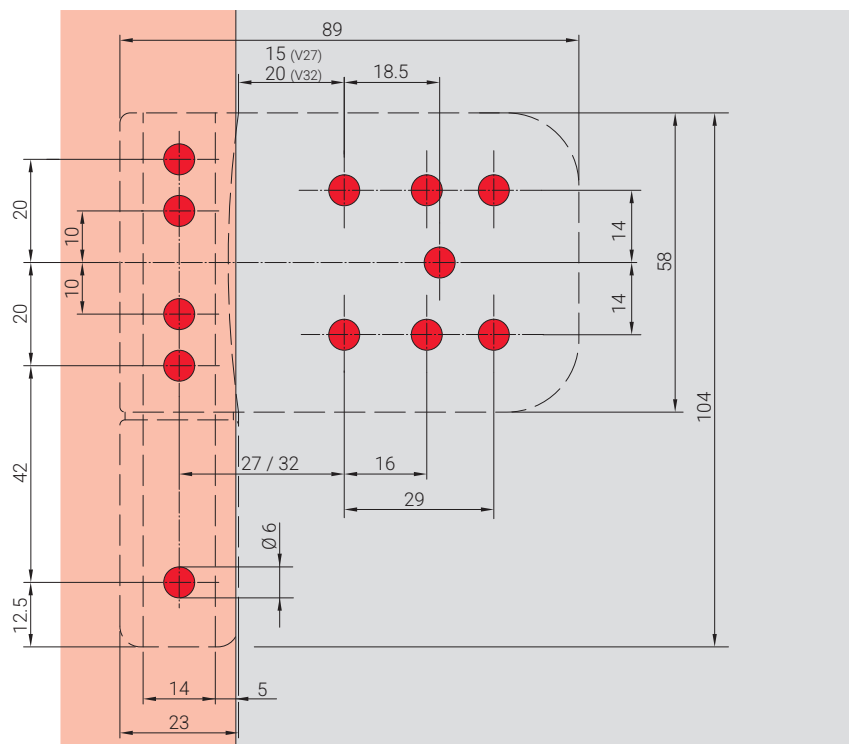
4.6.4 Drawings

4.6.4.1 Drilling pattern



INFO

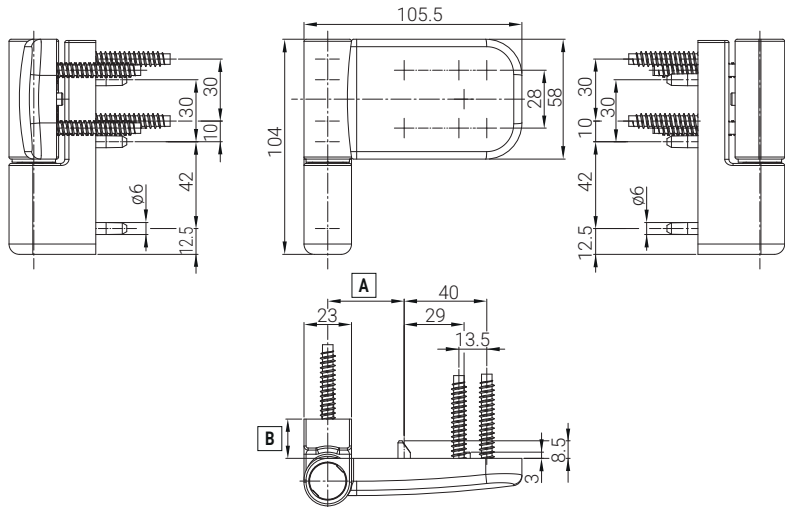
Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf = 5
- [3] Presetting



4.7 105 NN



[A] Presetting
[B] Overlap height



Product description

The Roto Solid S | 105 NN two-part screw-on hinge is suitable for timber and PVC entrance doors up to a sash weight of 120 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 120 kg
- Rapid and simple installation thanks to a high level of preassembly
- Wide selection of colours
- Additional version available for renovation profiles and profiles with narrow visible widths

Adjustment range

- Laterally adjustable: +10 / -5 mm
- Height adjustable: +5 mm
- Gasket compression adjustable: +0.75 / -0.75 mm
- Additional gasket compression adjustment of +0.75 / -0.75 mm by turning the eccentric frame hinge bush



CE								
	4	7	6	0	1	4*	0	13

Product characteristics



Design

- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush



Efficiency

- Rapid and simple installation thanks to a high level of preassembly
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment when fully assembled without undoing the fixing
- Readjustment is simple and can be carried out by just one person
- With additional gasket compression adjustment



Security

- SKG**-compatible with retrofit set
- Sash hinge bush specially secured to prevent removal

Presetting 32

					Nº
16.5 – 19	White aluminium	R01.11	RAL 9006	1 Piece(s)	543684
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009341
	Dark brown	R04.6	RAL 8077	1 Piece(s)	543739
	Traffic white	R07.2	RAL 9016	1 Piece(s)	542591
19 – 21.5	White aluminium	R01.11	RAL 9006	1 Piece(s)	543685
			RAL 9006	24 Piece(s)	547730
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009345
	Dark brown	R04.6	RAL 8077	1 Piece(s)	543746
	Traffic white	R07.2	RAL 9016	1 Piece(s)	543701
			RAL 9016	24 Piece(s)	543804



INFO

The scope of delivery includes:

- Screws per hinge: 6x 7.3 x 50

For other screw lengths, → *from page 177*

Presetting 37

					Nº
14 – 16.5	White aluminium	R01.11	RAL 9006	1 Piece(s)	546919
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009339
	Dark brown	R04.6	RAL 8077	1 Piece(s)	543991
	Traffic white	R07.2	RAL 9016	1 Piece(s)	551129
	Special colour	SF	SF	1 Piece(s)	622456



					Nº
16.5 – 19	Uncoated	R00.0	Roh	1 Piece(s)	545035
			Roh	24 Piece(s)	616043
	Natural silver	R01.1	–	1 Piece(s)	2028152
	Grey aluminium	R01.7	RAL 9007	1 Piece(s)	639812
	White aluminium	R01.11	RAL 9006	1 Piece(s)	543814
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009342
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053633
	Anthracite grey, matt	R02.2M	RAL 7016M	1 Piece(s)	551226
	Black grey	R02.3	RAL 7021	24 Piece(s)	544330
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042601
	Dark brown	R04.6	RAL 8077	1 Piece(s)	543601
			RAL 8077	24 Piece(s)	543709
	Clay brown	R04.9	RAL 8003	1 Piece(s)	544206
	Bronze	R05.5	–	1 Piece(s)	771394
	Jet black	R06.2	RAL 9005	1 Piece(s)	544240
	Traffic white	R07.2	RAL 9016	1 Piece(s)	551120
			RAL 9016	24 Piece(s)	543656
	Cream	R07.3	RAL 9001	1 Piece(s)	551169
			RAL 9001	24 Piece(s)	544791
	Special colour	SF	SF	1 Piece(s)	622458
17.5 – 20	White aluminium	R01.11	RAL 9006	1 Piece(s)	546960
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009344
	Dark brown	R04.6	RAL 8077	1 Piece(s)	551241
			RAL 8077	24 Piece(s)	551209
	Traffic white	R07.2	RAL 9016	1 Piece(s)	546365
			RAL 9016	24 Piece(s)	545995
	Special colour	SF	SF	1 Piece(s)	622459
19 – 21.5	Uncoated	R00.0	Roh	1 Piece(s)	545036
			Roh	24 Piece(s)	613107
	Natural silver	R01.1	–	1 Piece(s)	2028153
			–	24 Piece(s)	2028876
	Grey aluminium	R01.7	RAL 9007	1 Piece(s)	545765
	White aluminium	R01.11	RAL 9006	1 Piece(s)	543852
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009346
			–	24 Piece(s)	2009347
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053634
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042602
	Grey brown	R04.1	RAL 8019	24 Piece(s)	545472
	Bronze	R05.5	–	1 Piece(s)	771405
	Dark brown	R04.6	RAL 8077	1 Piece(s)	543789
			RAL 8077	24 Piece(s)	543755
	Clay brown	R04.9	RAL 8003	1 Piece(s)	547756
			RAL 8003	24 Piece(s)	545477
	Jet black	R06.2	RAL 9005	1 Piece(s)	893490
	Traffic white	R07.2	RAL 9016	1 Piece(s)	543788
			RAL 9016	24 Piece(s)	543786
	Cream	R07.3	RAL 9001	1 Piece(s)	545555
			RAL 9001	24 Piece(s)	545847
	Special colour	SF	SF	1 Piece(s)	622460

					Nº
21.5 – 24	Uncoated	R00.0	Roh	1 Piece(s)	623696
			Roh	24 Piece(s)	2044979
	White aluminium	R01.11	RAL 9006	1 Piece(s)	546921
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009348
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053635
	Black grey	R02.3	RAL 7021	24 Piece(s)	2029030
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042603
	Dark brown	R04.6	RAL 8077	1 Piece(s)	544546
			RAL 8077	24 Piece(s)	544547
	Bronze	R05.5	–	1 Piece(s)	771406
	Jet black	R06.2	RAL 9005	1 Piece(s)	894793
	Traffic white	R07.2	RAL 9016	1 Piece(s)	544545
			RAL 9016	24 Piece(s)	544548
	Special colour	SF	SF	1 Piece(s)	622461
23 – 25.5	Natural silver	R01.1	–	1 Piece(s)	2028254
	White aluminium	R01.11	RAL 9006	1 Piece(s)	545164
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009349
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	861441
	Dark brown	R04.6	RAL 8077	1 Piece(s)	545161
	Jet black	R06.2	RAL 9005	1 Piece(s)	899185
	Traffic white	R07.2	RAL 9016	1 Piece(s)	545160
			RAL 9016	24 Piece(s)	545166
	Special colour	SF	SF	1 Piece(s)	622462



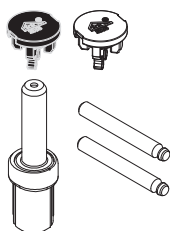
INFO

The scope of delivery includes:

- Screws per hinge: 6x 7.3 x 50

For other screw lengths, → *from page 177*

SKG** retrofit set



SKG** retrofit set, consisting of: 1 black cover cap, 1 white cover cap, 1 hardened axis module, 2 locking pins

		Nº
SKG** retrofit set 105 NN	1 Set(s)	2028893



4.7.1 Accessories

4.7.1.1 Locking pin



			Nº
Locking pin	T30 hexalobular socket	100 Piece(s)	825049

4.7.1.2 Packing plates



			Nº
1.5	Black	24 Piece(s)	546045
	White	24 Piece(s)	546044

4.7.2 Spare parts

Cover cap



			Nº
Cover cap	Black	24 Piece(s)	736467
	White	24 Piece(s)	764520

Leaf hinge cover fixing



			Nº
Sash hinge cover fixing	M6x10	100 Piece(s)	823911

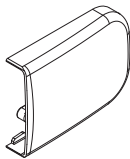
Fixing screw



				Nº
Fixing screw	T30 hexalobular socket	7,3x30	48 Piece(s)	825063
		7,3x50	48 Piece(s)	823912
		7,3x70	48 Piece(s)	896729



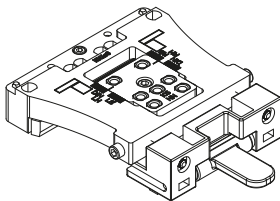
Leaf hinge cover



					
Sash hinge cover	Traffic white	R07.2	RAL 9016	1 Piece(s)	764513

4.7.3 Jigs

Drilling jig



			
Drilling jig 105 NN	32	1 Piece(s)	541189
	37	1 Piece(s)	544518

Telescopic jig

Preassembled with 3 drilling jigs



			
Telescopic jig 105 NN	37	1 Piece(s)	2043405



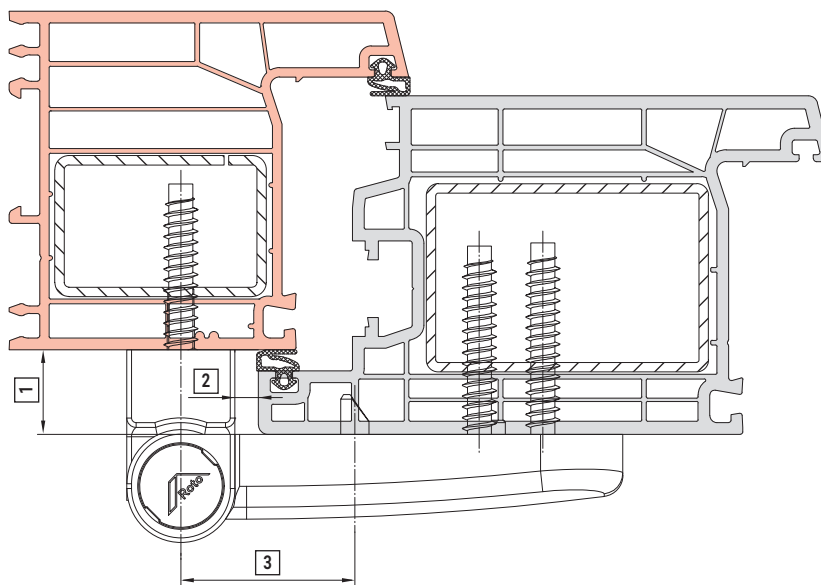
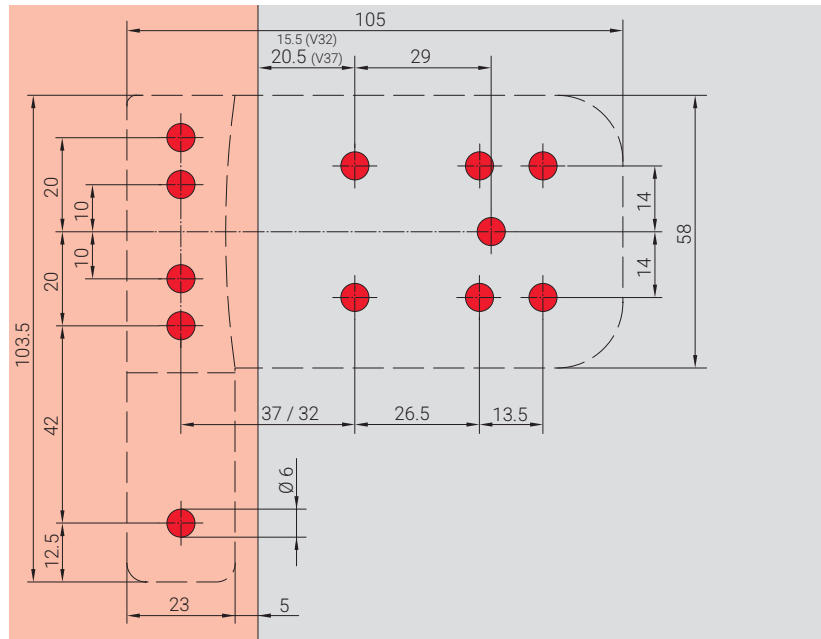
4.7.4 Drawings

4.7.4.1 Drilling pattern



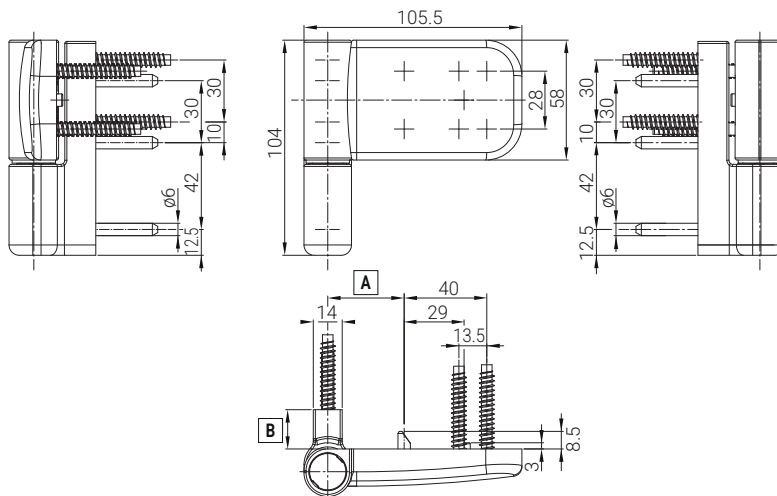
INFO

Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf = 5
- [3] Presetting

4.8 105 NN-SR



[A] Presetting

[B] Overlap height



Product description

The Roto Solid S | 105 NN-SR two-part screw-on hinge is suitable for timber and PVC entrance doors up to a sash weight of 120 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces makes an individual colour design possible – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 120 kg
- Rapid and simple installation thanks to a high level of preassembly
- Wide selection of colours
- Especially suited to profiles with narrow visible widths / renovation profiles

Adjustment range

- Laterally adjustable: +10 / -5 mm
- Height adjustable: +5 mm
- Gasket compression adjustable: +0.75 / -0.75 mm
- Additional gasket compression adjustment of +0.75 / -0.75 mm by turning the eccentric frame hinge bush

CE								
	4	7	6	0	1	4*	0	13



Product characteristics



Design

- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush



Efficiency

- Rapid and simple installation thanks to a high level of preassembly
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment when fully assembled without undoing the fixing
- Readjustment is simple and can be carried out by just one person



Security

- Sash hinge bush specially secured to prevent removal

Presetting 32

					Nº
17.5 – 20	Stainless steel appearance	R01.23	–	1 Piece(s)	2009351
	Grey brown	R04.1	RAL 8019	24 Piece(s)	729191
	Traffic white	R07.2	RAL 9016	1 Piece(s)	549647
			RAL 9016	24 Piece(s)	729190
	Special colour	SF	SF	1 Piece(s)	637183
19 – 21.5	Traffic white	R07.2	RAL 9016	1 Piece(s)	2032095
	Special colour	SF	SF	1 Piece(s)	2032096



INFO

The scope of delivery includes:

- Screws per hinge: 6x 7.3 x 50

For other screw lengths, → *from page 182*

Presetting 37

					Nº
14 – 16.5	Stainless steel appearance	R01.23	–	1 Piece(s)	2009350
	Traffic white	R07.2	RAL 9016	1 Piece(s)	547058
	Special colour	SF	SF	1 Piece(s)	622463
16.5 – 19	Natural silver	R01.1	–	1 Piece(s)	2028256
	Stainless steel appearance	R01.23	–	1 Piece(s)	897115
	Anthracite grey	R02.2	RAL 7016	1 Piece(s)	2053636
	Pearl gold	R03.5	RAL 1036	1 Piece(s)	2042604
	Dark brown	R04.6	RAL 8077	1 Piece(s)	546424
	Clay brown	R04.9	RAL 8003	1 Piece(s)	810461
	Jet black	R06.2	RAL 9005	1 Piece(s)	2005917
	Traffic white	R07.2	RAL 9016	1 Piece(s)	546311
	Cream	R07.3	RAL 9001	1 Piece(s)	2005915
	Special colour	SF	SF	1 Piece(s)	622464

					Nº
17.5 – 20	Stainless steel appearance	R01.23	–	1 Piece(s)	2009352
	Special colour	SF	SF	1 Piece(s)	631032
19 – 21.5	Natural silver	R01.1	–	1 Piece(s)	2028255
	White aluminium	R01.11	RAL 9006	1 Piece(s)	546974
	Stainless steel appearance	R01.23	–	1 Piece(s)	2009353
	Dark brown	R04.6	RAL 8077	1 Piece(s)	546538
	Traffic white	R07.2	RAL 9016	1 Piece(s)	546402
	Cream	R07.3	RAL 9001	1 Piece(s)	549191
	Special colour	SF	SF	1 Piece(s)	622486



INFO

The scope of delivery includes:

- Screws per hinge: 6x 7.3 x 50

For other screw lengths, → *from page 182*

4.8.1 Accessories

4.8.1.1 Locking pin



			Nº
Locking pin	T30 hexalobular socket	100 Piece(s)	825049

4.8.2 Spare parts

Cover cap



			Nº
Cover cap	Black	24 Piece(s)	736467
	White	24 Piece(s)	764520

Leaf hinge cover fixing



			Nº
Sash hinge cover fixing	M6x10	100 Piece(s)	823911

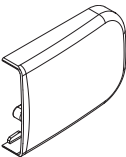


Fixing screw



				Nº
Fixing screw	T30 hexalobular socket	7,3x30	48 Piece(s)	825063
		7,3x50	48 Piece(s)	823912
		7,3x70	48 Piece(s)	896729

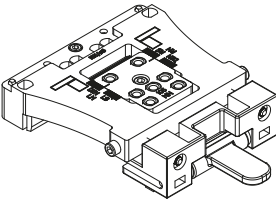
Leaf hinge cover



					Nº
Sash hinge cover	Traffic white	R07.2	RAL 9016	1 Piece(s)	764513

4.8.3 Jigs

Drilling jig



			Nº
Drilling jig 105 NN-SR	37	1 Piece(s)	547530

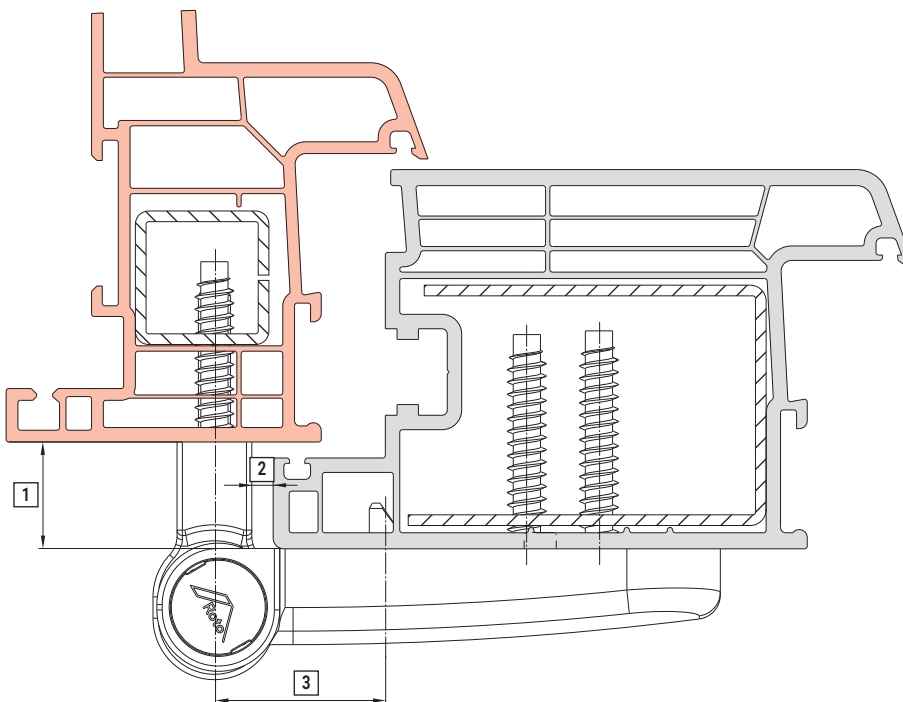
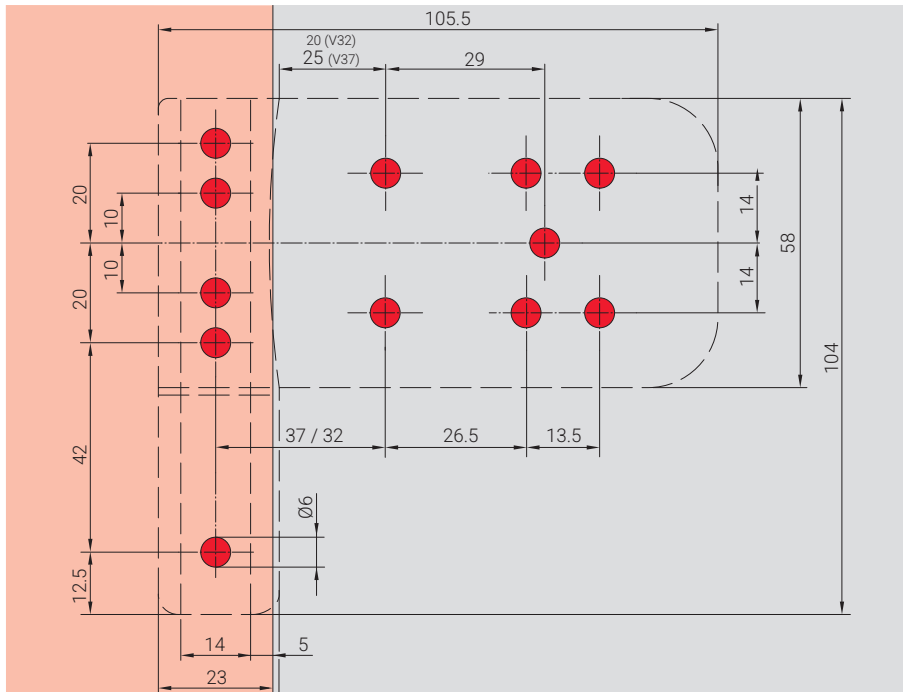
4.8.4 Drawings

4.8.4.1 Drilling pattern

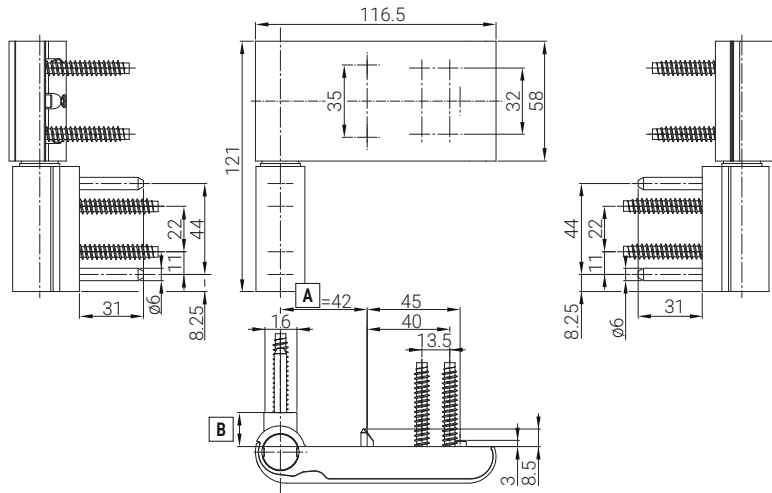


INFO

Example diagram. Drilling patterns are profile-related (available upon request).



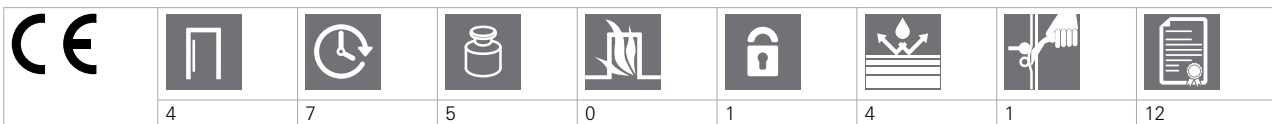
- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf = 5
- [3] Presetting



[B] Overlap height



- Laterally adjustable: +5 / -5 mm
- Height adjustable: +4 / -1 mm
- Gasket compression adjustable: +0.75 / -0.75 mm
- Additional gasket compression adjustment of +0.75 / -0.75 mm by turning the eccentric leaf hinge bush



Product characteristics



Design

- Wide selection of colours
- Powder-coated or anodised surface



Comfort

- Maintenance-free thanks to high-quality self-lubricating PVC bush
- Axis pin can be removed in an upward direction for fast and simple installation and removal of the door



Efficiency

- Simple installation in just a few operation steps
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment can be carried out when fully assembled and by just one person
- Without lateral offset of hinge bodies
- With additional gasket compression adjustment



Security

- SKG**-certified
- Sash hinge cover specially secured to prevent removal

Presetting 42

						Nº
16.5 – 19	Uncoated	R00.0	Roh	–	1 Piece(s)	2038569
	Natural silver	R01.1	E6/C-0	anod.	1 Piece(s)	632532
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	632529
	Cream	R07.3	RAL 9001	powd-c	1 Piece(s)	2038429
	Special colour	SF	SF	–	1 Piece(s)	2041923
18 – 20.5	Natural silver	R01.1	E6/C-0	anod.	1 Piece(s)	729806
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	640147
19 – 21.5	Uncoated	R00.0	Roh	–	1 Piece(s)	2038512
	Natural silver	R01.1	E6/C-0	anod.	1 Piece(s)	729807
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	640149
	Cream	R07.3	RAL 9001	powd-c	1 Piece(s)	2038427
	Special colour	SF	SF	–	1 Piece(s)	2041921
21 – 23.5	Uncoated	R00.0	Roh	–	1 Piece(s)	2038513
	Natural silver	R01.1	E6/C-0	anod.	1 Piece(s)	729809
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	729808
	Cream	R07.3	RAL 9001	powd-c	1 Piece(s)	2038428
	Special colour	SF	SF	–	1 Piece(s)	2041922
23 – 25.5	Natural silver	R01.1	E6/C-0	anod.	1 Piece(s)	729810
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	640150



INFO

The scope of delivery includes:

- Screws per hinge: 6x 7.3 x 50

For other screw lengths, → *from page 187*



4.9.1 Accessories

4.9.1.1 Locking pin



			Nº
Locking pin	T30 hexalobular socket	100 Piece(s)	825049

4.9.2 Spare parts

Top cover cap



			Nº
Cover cap	Black	24 Piece(s)	736468

Bottom cover cap



			Nº
Cover cap	Black	24 Piece(s)	736467

Axis pin fixing



			Nº
Axis pin fixing	M6x8	100 Piece(s)	825047

Sash hinge cover fixing



		Nº
Sash hinge cover fixing	1 Piece(s)	825055

Fixing screw

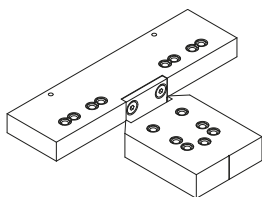


				Nº
Fixing screw	T30 hexalobular socket	7,3x30	48 Piece(s)	825063
		7,3x50	48 Piece(s)	823912
		7,3x70	48 Piece(s)	896729



4.9.3 Jigs

Drilling jig



		Nº
Drilling jig	1 Piece(s)	639924

Telescopic rod



		Nº
Telescopic rod	1 Piece(s)	2043407



INFO

Telescopic rods without drilling jigs.
A maximum of three drilling jigs can be installed per telescopic rod.

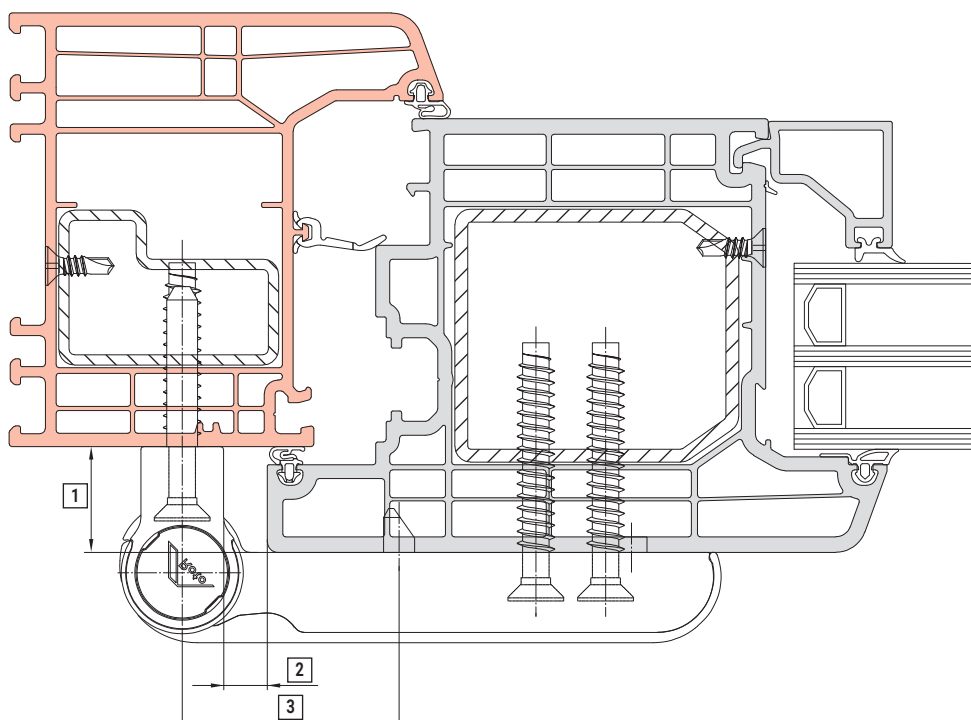
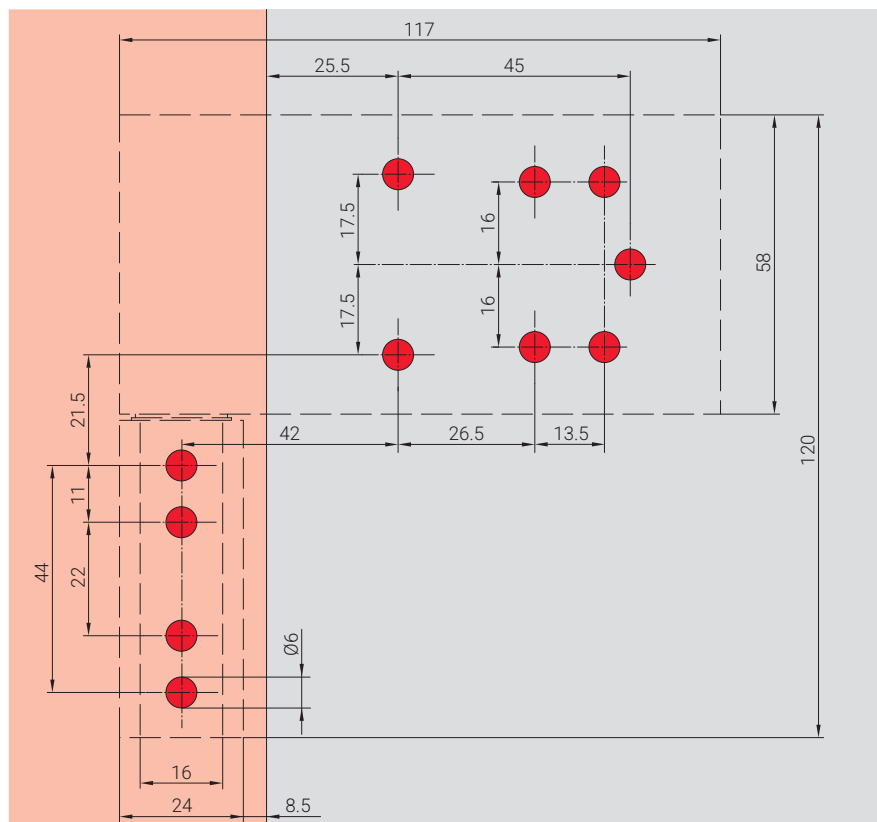
4.9.4 Drawings

4.9.4.1 Drilling pattern



INFO

Example diagram. Drilling patterns are profile-related (available upon request).

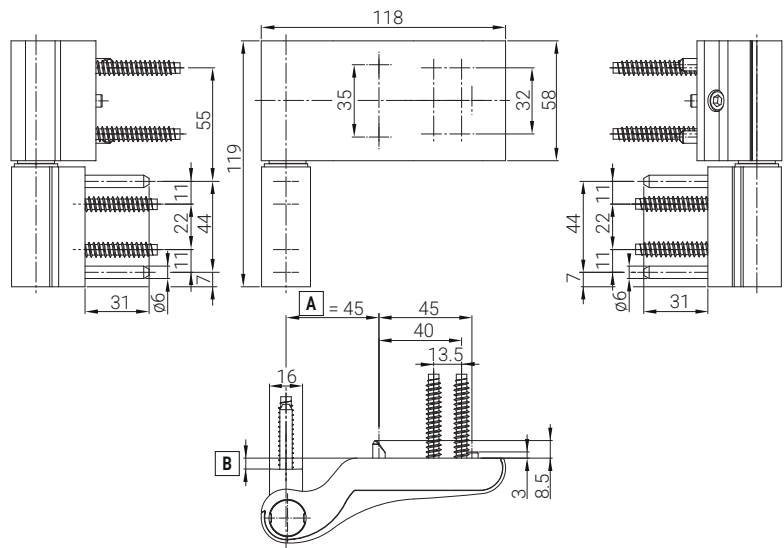


[1] Overlap height

[2] Distance from edge of frame hinge to leaf = 8.5

[3] Presetting

4.10 117 H



[A] Presetting

[B] Overlap height



Product description

The Roto Solid S | 117 H two-part screw-on hinge is ideal for heavy PVC entrance doors up to a sash weight of 160 kg and is specially designed for use in block profiles with negative overlap.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated and anodised surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.



Advantages at a glance

- For outward opening PVC entrance doors up to max. 160 kg
- Specially for block profiles with negative overlap
- Axis pin can be removed in an upward direction for fast and simple installation and removal of the door
- Wide selection of colours thanks to powder-coated and anodised surfaces

Adjustment range

- Laterally adjustable: +5 / -5 mm
- Height adjustable: +4 / -1 mm
- Gasket compression adjustable: +0.75 / -0.75 mm

CE								
	4	7	5	0	1	4	1	12



Product characteristics



Design

- Wide selection of colours
- Powder-coated or anodised surface



Comfort

- Maintenance-free thanks to high-quality self-lubricating PVC bush
- Axis pin can be removed in an upward direction for fast and simple installation and removal of the door



Efficiency

- Simple installation in just a few operation steps
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment when fully assembled
- Readjustment is simple and can be carried out by just one person
- With additional gasket compression adjustment



Security

- SKG**-certified
- Sash hinge cover specially secured to prevent removal



Presetting 45

						Nº
-2.75 – -4.25	Natural silver	R01.1	–	anod.	1 Piece(s)	828441
	Anthracite grey, matt	R02.2M	RAL 7016M	powd-c	1 Piece(s)	2032155
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	828440
	Cream	R07.3	RAL 9001	powd-c	1 Piece(s)	828434
	Special colour	SF	SF	–	1 Piece(s)	862511
-4.5 – -6	Uncoated	R00.0	Roh	–	1 Piece(s)	2038571
	Natural silver	R01.1	–	anod.	1 Piece(s)	616484
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	616482
	Cream	R07.3	RAL 9001	powd-c	1 Piece(s)	604642
	Special colour	SF	SF	–	1 Piece(s)	816599
-6.25 – -7.75	Uncoated	R00.0	Roh	–	1 Piece(s)	2038570
	Natural silver	R01.1	–	anod.	1 Piece(s)	619757
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	619756
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	619755
	Cream	R07.3	RAL 9001	powd-c	1 Piece(s)	619704
	Special colour	SF	SF	–	1 Piece(s)	2003326
-7.75 – -9.25	Natural silver	R01.1	–	anod.	1 Piece(s)	619703
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	619701
	Cream	R07.3	RAL 9001	powd-c	1 Piece(s)	619700
-9.75 – -11.25	Natural silver	R01.1	–	anod.	1 Piece(s)	899407
	Anthracite grey	R02.2	RAL 7016	powd-c	1 Piece(s)	2026838
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	899389
	Cream	R07.3	RAL 9001	powd-c	1 Piece(s)	899405
	Special colour	SF	SF	–	1 Piece(s)	899408



INFO

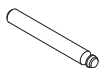
The scope of delivery includes:

- Screws per hinge with overlap height of -2.75 – -4.25: 2x 7.3 x 70 and 4x 7.3 x 50
- Screws per hinge with overlap height of ≤ -4.5: 6x 7.3 x 50

For other screw lengths, → *from page 192*

4.10.1 Accessories

4.10.1.1 Locking pin



			Nº
Locking pin	T30 hexalobular socket	100 Piece(s)	825049

4.10.2 Spare parts

Top cover cap



			Nº
Cover cap	Black	24 Piece(s)	736468

Bottom cover cap



			Nº
Cover cap	Black	24 Piece(s)	736467

Gap cover



			Nº
Gap cover	Black	10 Piece(s)	809568

Axis pin fixing



			Nº
Axis pin fixing	M6x8	100 Piece(s)	825047



Sash hinge cover fixing



		Nº
Sash hinge cover fixing	1 Piece(s)	825055

Fixing screw



				Nº
Fixing screw	T30 hexalobular socket	7,3x30	48 Piece(s)	825063
		7,3x50	48 Piece(s)	823912
		7,3x70	48 Piece(s)	896729



4.10.3 Jigs

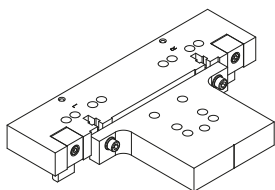


INFO

Order drilling jigs depending on the profile used. Other profile systems are available upon request.

			Drilling jig	Accessory set
aluplast IDEAL 7000	170x53	170x31	838970	–
			893624	
	170x54	170x35	893624	
	170x55		893685	
	170x57		893624	
Deceuninck Elegant	5135	5713	893624	–
	5143			
	5138	5116	899409	
	5139	5713		
	5140			
GEALAN S 8000 IQ	5145			2003353
GEALAN S 9000	8021	8042	617280	–
	8016	8042	617281	
	8307			
REHAU S969 Synego	6802	6842	838970	–
	6804	6027	838969	
	6808	6844	838971	
VEKA SOFTLINE 82	1539005	1537305	2046431	–
	1539045	1537305	893686	
		1537315		
	101.333	103.346	620010	–
	102.331	105.381		

Drilling jig



			Nº
 Drilling jig 117 H	1 Piece(s)		617280
	1 Piece(s)		617281
	1 Piece(s)		620010
	1 Piece(s)		893624
	1 Piece(s)		893685
	1 Piece(s)		893686
	1 Piece(s)		838969
	1 Piece(s)		838970
	1 Piece(s)		838971
	1 Piece(s)		899409

Additional set, profile-related



Additional set, consisting of: 2 spacers, 4 discs

			Nº
 Additional set for drilling jig 117 H	 Deceuninck Elegant	 1 Set(s)	2003353

Telescopic rod



		Nº
 Telescopic rod	 1 Piece(s)	2043407



INFO

Telescopic rods without drilling jigs.

A maximum of three drilling jigs can be installed per telescopic rod.



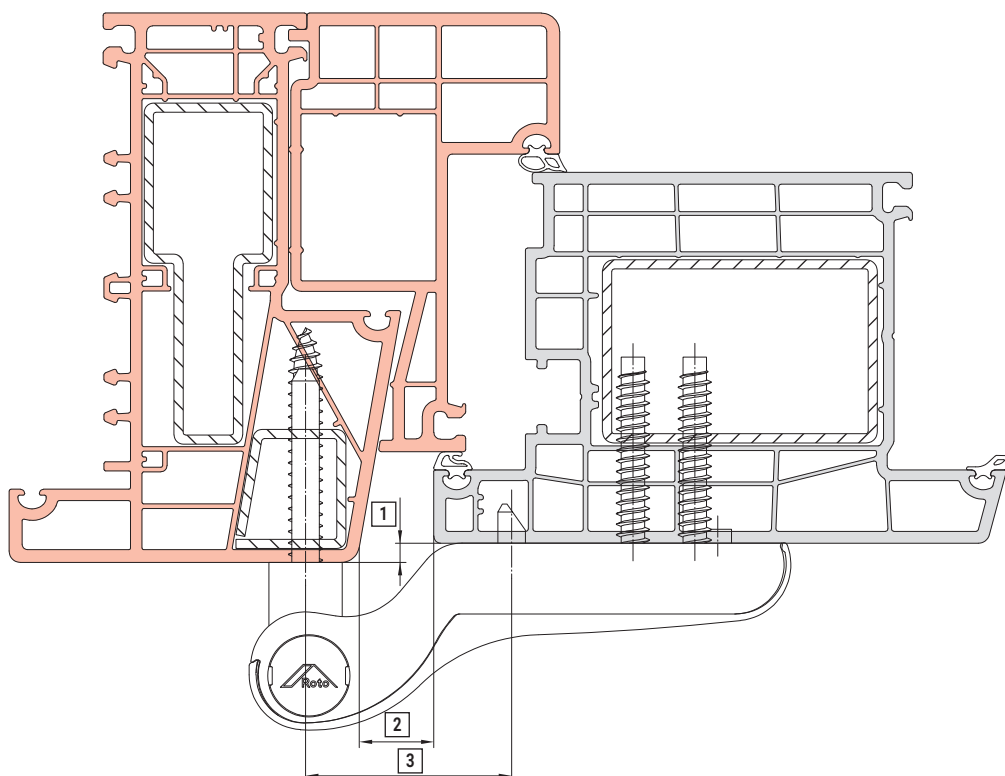
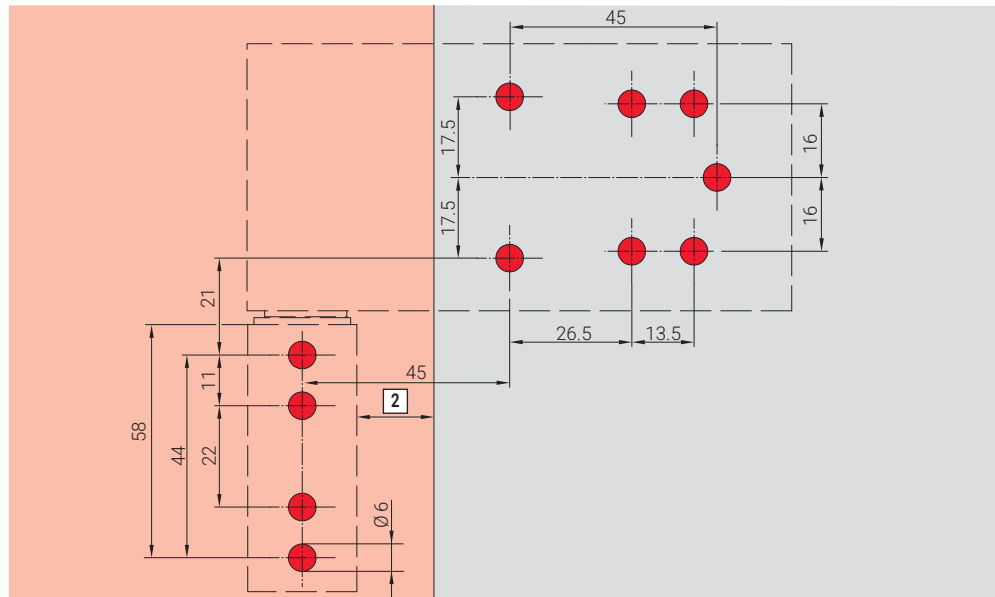
4.10.4 Drawings

4.10.4.1 Drilling pattern



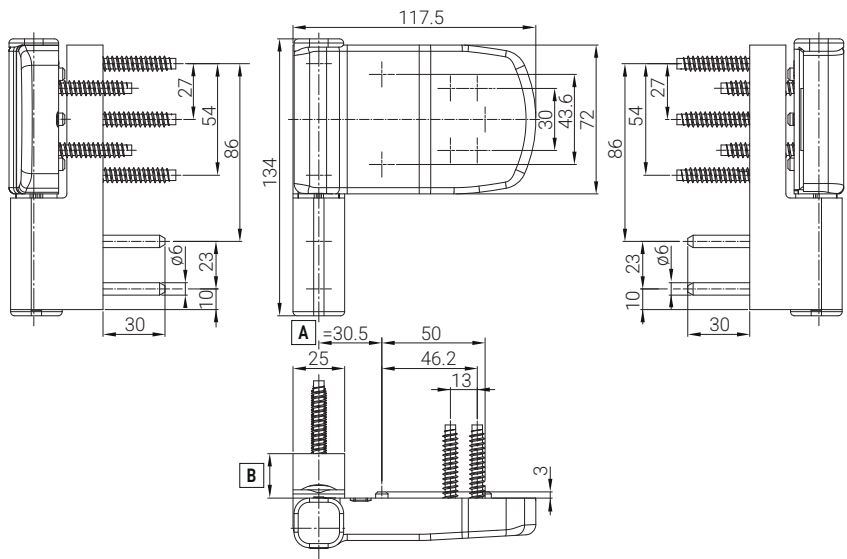
INFO

Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf
- [3] Presetting

4.11 118 Z



[A] Presetting

[B] Overlap height



Product description

The Roto Solid S | 118 Z two-part screw-on hinge is suitable for heavy timber and PVC entrance doors up to a sash weight of 160 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated and anodised surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 160 kg
- Axis pin can be installed and removed in an upward and downward direction, making it ideal when space for installation and removal is limited between leaf and lintel
- Wide selection of colours thanks to powder-coated and anodised surfaces

Adjustment range

- Laterally adjustable: +10 / -5 mm
- Height adjustable: +4 / -4 mm
- Gasket compression adjustable: +0.75 / -0.75 mm
- Additional gasket compression adjustment of +0.5 / -0.5 mm by turning the eccentric leaf hinge bush





Product characteristics



Design

- Wide selection of colours
- Powder-coated or anodised surface



Comfort

- Maintenance-free thanks to high-quality self-lubricating PVC bush
- Axis pin can be installed and removed in an upward and downward direction, making it ideal when space for installation and removal is limited between leaf and lintel



Efficiency

- Simple installation in just a few operation steps
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment can be carried out when fully assembled and by just one person
- Without lateral offset of hinge bodies
- With additional gasket compression adjustment



Security

- SKG**-certified
- Sash hinge cover specially secured to prevent removal

Presetting 30.5

						Nº
15 – 17.5	Natural silver	R01.1	–	anod.	1 Piece(s)	541959
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	541961
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	541962
17.5 – 20	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	541978
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	541979
19 – 21.5	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	547502
20 – 22.5	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	546914
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	551125
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	543842
23 – 25.5	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	546969
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	544539
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	544538



INFO

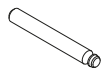
The scope of delivery includes:

- Screws per hinge: 7x 7.3 x 50

For other screw lengths, → *from page 199*

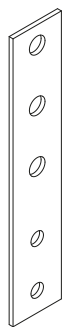
4.11.1 Accessories

4.11.1.1 Locking pin



			Nº
Locking pin	T30 hexalobular socket	100 Piece(s)	825049

4.11.1.2 Packing plates



			Nº
2	Black	10 Piece(s)	809334
	White	10 Piece(s)	809333

4.11.1.3 Adjustment key



		Nº
Gasket compression adjustment key	1 Piece(s)	540621



4.11.2 Spare parts

Top cover cap



			Nº
Cover cap	Black	10 Piece(s)	809946
	White	10 Piece(s)	809947

Bottom cover cap



			Nº
Cover cap	Black	10 Piece(s)	809914
	White	10 Piece(s)	809945

Axis pin fixing



			Nº
Axis pin fixing	M6x8	100 Piece(s)	825047

Fixing screws

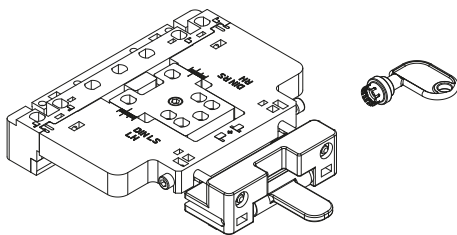


				Nº
Fixing screw	T30 hexalobular socket	7,3x30	48 Piece(s)	825063
		7,3x50	48 Piece(s)	823912
		7,3x70	48 Piece(s)	896729



4.11.3 Jig

Drilling jig



			Nº
Drilling jig 118 D / 118 Z	incl. adjustment key	1 Piece(s)	540603

Telescopic rod



		Nº
Telescopic rod	1 Piece(s)	2043407



INFO

Telescopic rods without drilling jigs.
A maximum of three drilling jigs can be installed per telescopic rod.

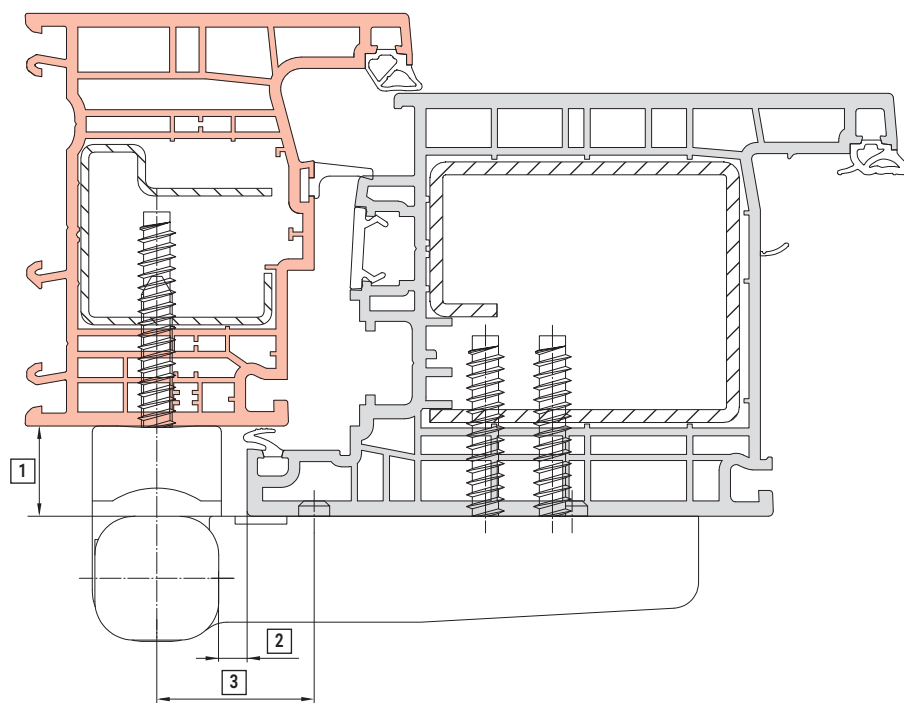
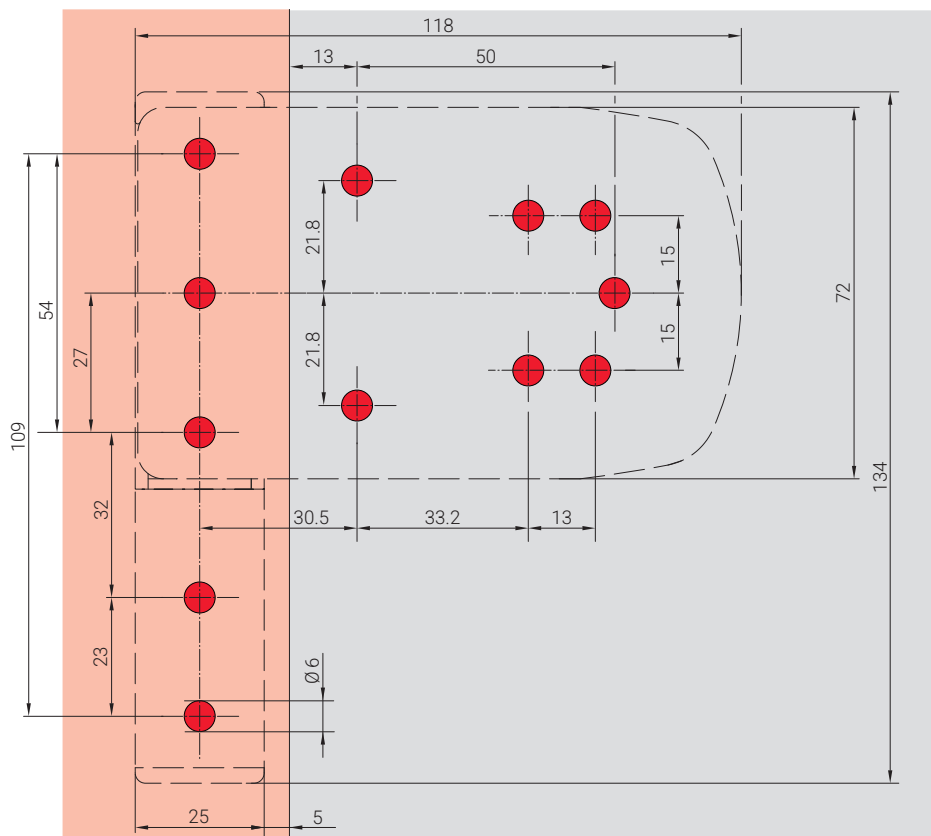
4.11.4 Drawings

4.11.4.1 Drilling pattern



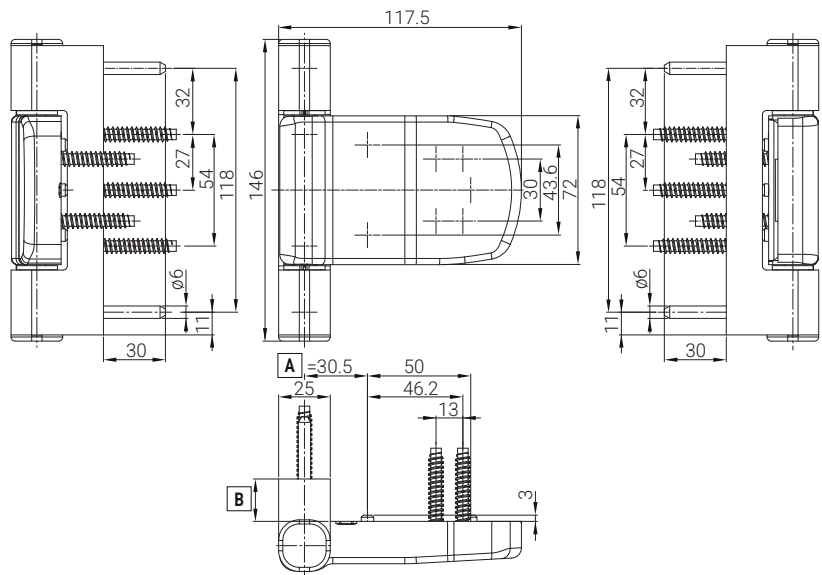
INFO

Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Overlap height
- [2] Distance from edge of frame hinge to leaf
- [3] Presetting

4.12 118 D



[A] Presetting

[B] Overlap height



Product description

The Roto Solid S | 118 D three-part screw-on hinge is suitable for especially large and frequently used timber and PVC entrance doors up to a sash weight of 150 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated and anodised surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For timber and PVC entrance doors up to max. 150 kg
- Axis pin can be installed and removed in an upward and downward direction, making it ideal when space for installation and removal is limited between leaf and lintel
- Wide selection of colours thanks to powder-coated and anodised surfaces

Adjustment range

- Laterally adjustable: +10 / -5 mm
- Height adjustable: +4 / -4 mm
- Gasket compression adjustable: +0.75 / -0.75 mm
- Additional gasket compression adjustment of +0.5 / -0.5 mm by turning the eccentric leaf hinge bushes



CE								
	3	7	4	0	1	4*	0	11



Product characteristics



Design

- Wide selection of colours
- Powder-coated or anodised surface



Comfort

- Maintenance-free thanks to high-quality self-lubricating PVC bush
- Axis pin can be installed and removed in an upward and downward direction, making it ideal when space for installation and removal is limited between leaf and lintel



Efficiency

- Simple installation in just a few operation steps
- Standardised drilling diameter reduces the installation effort
- Can be used on DIN left / DIN right for reduced logistics and administrative outlay
- Corrosion-resistant pin module ensures added durability



Adjustment

- Large adjustment distances ensure that the door works properly over a long time period
- Adjustment can be carried out when fully assembled and by just one person
- Without lateral offset of hinge bodies
- With additional gasket compression adjustment



Security

- SKG**-certified
- Sash hinge cover specially secured to prevent removal

Presetting 30.5

						Nº
12.5 – 15	Natural silver	R01.1	–	anod.	1 Piece(s)	541993
	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	546911
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	541995
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	541996
15 – 17.5	Natural silver	R01.1	–	anod.	1 Piece(s)	542012
	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	545700
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	542014
	Jet black	R06.2	RAL 9005	powd-c	1 Piece(s)	2030729
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	542015
17.5 – 20	Natural silver	R01.1	–	anod.	1 Piece(s)	542029
	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	542031
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	542032
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	542033
19 – 21.5	Natural silver	R01.1	–	anod.	1 Piece(s)	547497
	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	547500
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	547498
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	547496
20 – 22.5	Natural silver	R01.1	–	anod.	1 Piece(s)	546916
	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	546915
	Dark brown	R04.6	RAL 8077	powd-c	1 Piece(s)	544536
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	544311
23 – 25.5	Natural silver	R01.1	–	anod.	1 Piece(s)	546918
	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	546917
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	544312
25 – 27.5	Natural silver	R01.1	–	anod.	1 Piece(s)	624583
	Stainless-steel design	R03.4	–	anod.	1 Piece(s)	624582
	Traffic white	R07.2	RAL 9016	powd-c	1 Piece(s)	624580



INFO

The scope of delivery includes:

- Screws per hinge: 7x 7.3 x 50

For other screw lengths, → *from page 205*

4.12.1 Accessories

4.12.1.1 Locking pin



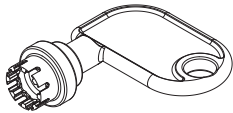
			Nº
Locking pin	T30 hexalobular socket	100 Piece(s)	825049

4.12.1.2 Packing plates



			Nº
1	Black	10 Piece(s)	809559
	White	10 Piece(s)	809558

4.12.1.3 Adjustment key



		Nº
Gasket compression adjustment key	1 Piece(s)	540621



4.12.2 Spare parts

Cover cap



			Nº
Cover cap	Black	10 Piece(s)	809914
	White	10 Piece(s)	809945

Axis pin fixing



			Nº
Axis pin fixing	M6x8	100 Piece(s)	825047

Fixing screw

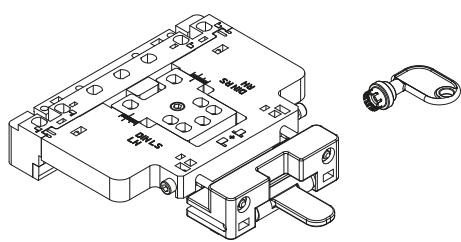


				Nº
Fixing screw	T30 hexalobular socket	7,3x30	48 Piece(s)	825063
		7,3x50	48 Piece(s)	823912
		7,3x70	48 Piece(s)	896729



4.12.3 Jig

Drilling jig



				Nº
	Drilling jig 118 D / 118 Z	incl. adjustment key	1 Piece(s)	540603

Telescopic rod

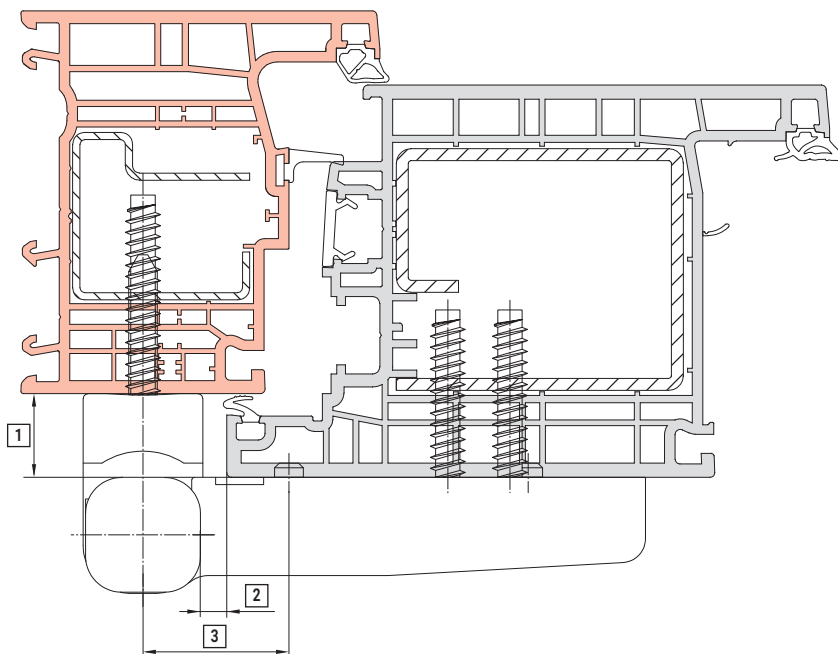


		Nº
Telescopic rod	1 Piece(s)	2043407



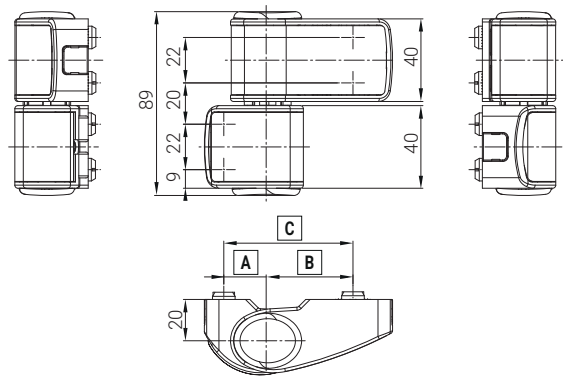
INFO

Telescopic rods without drilling jigs.
A maximum of three drilling jigs can be installed per telescopic rod.



- CTL_88_EN_v7 · 01 / 2026 · 207

4.13 80 ATB



[A] Distance from centre of shadow gap or pivot point to frame fixing

[B] Distance from centre of shadow gap or pivot point to leaf fixing

[C] Flatness deviation



Product description

The Roto Solid S | 80 ATB two-part screw-on hinge is suitable for aluminium entrance doors up to a sash weight of 100 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For aluminium entrance doors up to max. 100 kg
- Suitable for flush and recessed doors
- Three mounting types for all installation situations depending on the profile: direct mounting, backing plates or Linkdrill

Adjustment range

- Laterally adjustable: +3 / -3 mm
- Height adjustable: +3 mm
- Gasket compression adjustable: +0.75 / -0.75 mm

CE								
	4	7	5	0	1	4*	1	12



Product characteristics



Design

- Hinge casing made from die-cast zinc and covers made from extruded aluminium
- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush
- Suitable for flush and recessed doors



Efficiency

- Preassembled on DIN left / DIN right for rapid and simple installation
- Corrosion-resistant pin module ensures added durability



Adjustment

- With integrated adjusting scale
- Adjustment when fully assembled without undoing the fixing and without removing the covers
- Without lateral offset of hinge bodies



Security

- Sash hinge cover specially secured to prevent removal



Mounting types

Profile material	Direct mounting → <i>from page 212</i>	Backing plate → <i>from page 212</i>	Linkdrill II
Aluminium	■	■	–
Timber	–	–	–
Timber / aluminium	–	–	–

■ = possible, – = not possible

Direct mounting



INFO

For special colours, mounting material is not included in the scope of delivery → *from page 212.*

										Nº
62.5	20.5	42	8x63	Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837000	
			8x63	Stainless steel appearance	R01.23	–	Right	6 Piece(s)	837001	
			8x68	Stainless steel appearance	R01.23	–	Left	24 Piece(s)	828124	
			8x68	Stainless steel appearance	R01.23	–	Right	24 Piece(s)	828130	
			8x73	Stainless steel appearance	R01.23	–	Left	24 Piece(s)	828131	
			8x73	Stainless steel appearance	R01.23	–	Right	24 Piece(s)	828132	
			8x63	Dark brown	R04.6	RAL 8077	Left	6 Piece(s)	736014	
			8x63	Dark brown	R04.6	RAL 8077	Right	6 Piece(s)	736028	
			8x63	Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	736026	
			8x63	Traffic white	R07.2	RAL 9016	Right	6 Piece(s)	736030	
			8x73	Traffic white	R07.2	RAL 9016	Left	24 Piece(s)	776239	
			8x73	Traffic white	R07.2	RAL 9016	Right	24 Piece(s)	776240	
			–	Special colour	SF	SF	Left	1 Piece(s)	2005940	
			–	Special colour	SF	SF	Right	1 Piece(s)	2005941	
			8x68	Uncoated	R00.0	Roh	Left	24 Piece(s)	825058	
			8x68	Uncoated	R00.0	Roh	Right	24 Piece(s)	825059	
84	42		8x73	Uncoated	R00.0	Roh	Left	24 Piece(s)	825065	
			8x73	Uncoated	R00.0	Roh	Right	24 Piece(s)	825066	
			8x73	Traffic white	R07.2	RAL 9016	Left	1 Piece(s)	861565	
			8x73	Traffic white	R07.2	RAL 9016	Right	1 Piece(s)	861566	
		–	Special colour	SF	SF	Left	1 Piece(s)	2005942		
		–	Special colour	SF	SF	Right	1 Piece(s)	2005943		



Mounting with a backing plate



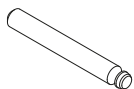
INFO

Mounting material is not included in the scope of delivery → *from page 212.*

								Nº
62.5	20.5	42	Uncoated	R00.0	Roh	–	6 Piece(s)	549472
			White aluminium	R01.11	RAL 9006	Left	6 Piece(s)	548291
					RAL 9006	Right	6 Piece(s)	548295
			Stainless steel appearance	R01.23	–	Left	6 Piece(s)	836998
					–	Right	6 Piece(s)	836999
			Dark brown	R04.6	RAL 8077	Left	6 Piece(s)	548292
					RAL 8077	Right	6 Piece(s)	548296
			Jet black	R06.2	RAL 9005	Left	6 Piece(s)	565485
					RAL 9005	Right	6 Piece(s)	565493
			Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548290
					RAL 9016	Right	6 Piece(s)	548294
			Special colour	SF	SF	Left	1 Piece(s)	2005930
					SF	Right	1 Piece(s)	2005931
67.5	20.5	47	Uncoated	R00.0	Roh	–	6 Piece(s)	810463
			Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837002
					–	Right	6 Piece(s)	837003
			Jet black	R06.2	RAL 9005	Left	6 Piece(s)	619393
					RAL 9005	Right	6 Piece(s)	619400
			Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548298
					RAL 9016	Right	6 Piece(s)	548302
			Special colour	SF	SF	Left	1 Piece(s)	2005932
					SF	Right	1 Piece(s)	2005933
78	20.5	57.5	Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837004
					–	Right	6 Piece(s)	837010
			Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548306
					RAL 9016	Right	6 Piece(s)	548310
			Special colour	SF	SF	Left	1 Piece(s)	2005934
					SF	Right	1 Piece(s)	2005935
84	42	42	Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837011
					–	Right	6 Piece(s)	837012
			Jet black	R06.2	RAL 9005	Left	6 Piece(s)	565525
					RAL 9005	Right	6 Piece(s)	565528
			Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548314
					RAL 9016	Right	6 Piece(s)	548318
			Special colour	SF	SF	Left	1 Piece(s)	2005936
					SF	Right	1 Piece(s)	2005937
94	47	47	Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837026
					–	Right	6 Piece(s)	837027
			Jet black	R06.2	RAL 9005	Left	6 Piece(s)	619404
					RAL 9005	Right	6 Piece(s)	619409
			Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548346
					RAL 9016	Right	6 Piece(s)	548350
			Special colour	SF	SF	Left	1 Piece(s)	2005938
					SF	Right	1 Piece(s)	2005939

4.13.1 Accessories

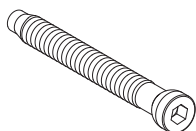
4.13.1.1 Locking pin



		Nº
Locking pin	100 Piece(s)	825056

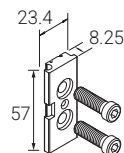
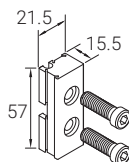
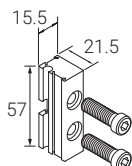
4.13.1.2 Mounting

4.13.1.2.1 Direct mounting



			Nº
63	Silver	48 Piece(s)	771087
68	Black	48 Piece(s)	771088
73	Green	48 Piece(s)	771089

4.13.1.2.2 Backing plate set



				Nº
15.5	21.5	M8x25	1 Set(s)	548484
21.5	15.5	M8x25	1 Set(s)	548945
23.4	8.25	M8x25	1 Set(s)	551296

Contents

Figure	Quantity	Description
	48	Frame and sash hinge backing plate
	96	Fixing screws for backing plates

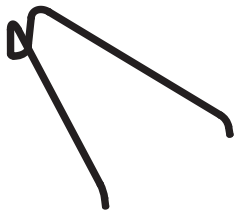


INFO

For further fixing screws, see below.

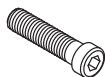


Stainless-steel spring



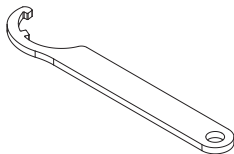
			Nº
Stainless steel spring for use with backing plates		200 Piece(s)	894093

4.13.1.2.3 Fixing screws
for backing plates and Linkdrill II



		Nº
M8x25	48 Piece(s)	547947
M8x40	48 Piece(s)	548512
M8x50	48 Piece(s)	548513

4.13.1.3 Adjustment key



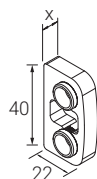
			Nº
Gasket compression adjustment key for 80 ATB, 120 ATB		1 Piece(s)	825046

4.13.1.4 Packing plates



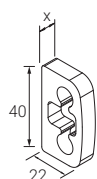
INFO
To support the frame in the case of offset profile combinations.

Packing plates for mounting with backing plates



					Nº
7	Stainless steel appearance	R01.23	–	6 Piece(s)	858503
	Dark brown	R04.6	RAL 8077	6 Piece(s)	548490
	Jet black	R06.2	RAL 9005	6 Piece(s)	568360
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548488
	Special colour	SF	SF	1 Piece(s)	2005960
10	Stainless steel appearance	R01.23	–	6 Piece(s)	858504
	Dark brown	R04.6	RAL 8077	6 Piece(s)	548494
	Jet black	R06.2	RAL 9005	6 Piece(s)	568361
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548492
	Special colour	SF	SF	1 Piece(s)	2005961
12	Stainless steel appearance	R01.23	–	6 Piece(s)	858530
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548496
	Special colour	SF	SF	1 Piece(s)	2005962
14	Stainless steel appearance	R01.23	–	6 Piece(s)	858531
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548500
	Special colour	SF	SF	1 Piece(s)	2005963
16	Special colour	SF	SF	1 Piece(s)	2005964
18	Stainless steel appearance	R01.23	–	6 Piece(s)	858532
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548504
	Special colour	SF	SF	1 Piece(s)	2005965
19	Stainless steel appearance	R01.23	–	6 Piece(s)	858533
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548508
	Special colour	SF	SF	1 Piece(s)	2005966

Packing plates for direct mounting



					Nº
5.7	Stainless steel appearance	R01.23	–	24 Piece(s)	825071
7	White aluminium	R01.11	RAL 9006	6 Piece(s)	764321
	Traffic white	R07.2	RAL 9016	6 Piece(s)	764322
	Special colour	SF	SF	1 Piece(s)	2005967
10	White aluminium	R01.11	RAL 9006	6 Piece(s)	764272
	Stainless steel appearance	R01.23	–	24 Piece(s)	828137
	Traffic white	R07.2	RAL 9016	6 Piece(s)	764273
	Special colour	SF	SF	1 Piece(s)	2005968
14	Stainless steel appearance	R01.23	–	24 Piece(s)	828138



4.13.2 Spare parts

Top / bottom cover cap



			Nº
Cover cap	Black	10 Piece(s)	809562
	White	10 Piece(s)	809565

Side cover cap



			Nº
Cover cap	Black	10 Piece(s)	809563
	White	10 Piece(s)	809564

Axis pin fixing

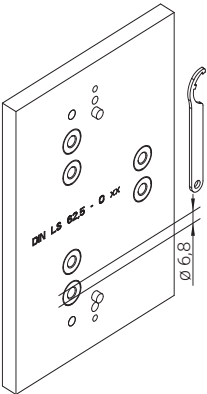


			Nº
Axis pin fixing	M6x8	100 Piece(s)	825047



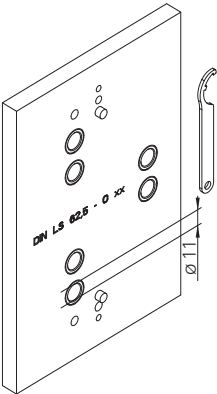
4.13.3 Jigs

Drilling jig for direct mounting



						
Drilling jig direct mounting	incl. gasket compression adjustment key for 80 ATB, 120 ATB	62.5	20.5	42	1 Piece(s)	737661

Drilling jig for backing plate



						
Drilling jig for backing plate	incl. gasket compression adjustment key for 80 ATB, 120 ATB	62.5	20.5	42	1 Piece(s)	547218
		67.5	20.5	47	1 Piece(s)	547223
		78	20.5	57.5	1 Piece(s)	547225
		84	42	42	1 Piece(s)	547227
		94	47	47	1 Piece(s)	547235



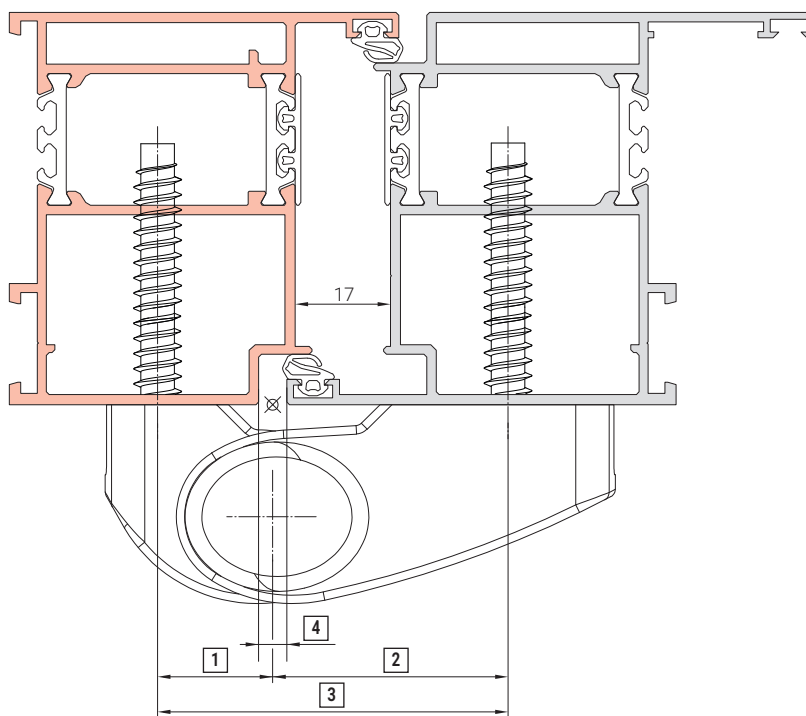
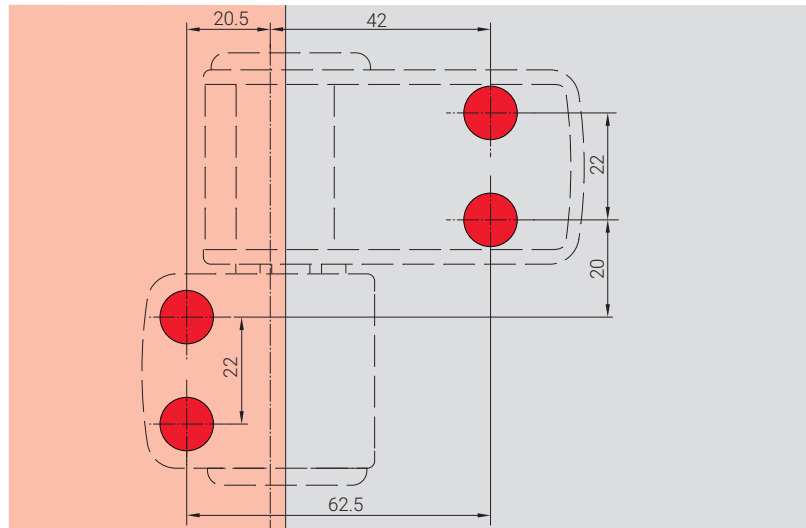
4.13.4 Drawings

4.13.4.1 Drilling pattern



INFO

Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Distance from centre of shadow gap to frame fixing
- [2] Distance from centre of shadow gap to leaf fixing
- [3] Flatness deviation
- [4] Shadow gap

Drilling diameter

- Direct mounting = $\varnothing 6.8$
- Backing plate = $\varnothing 11$

4.13.4.2 Installation drawings

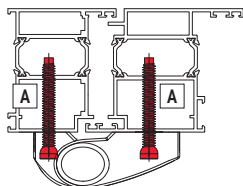


INFO

Installation examples for the aforementioned versions are shown here.

Installation examples for specific profile systems are available upon request.

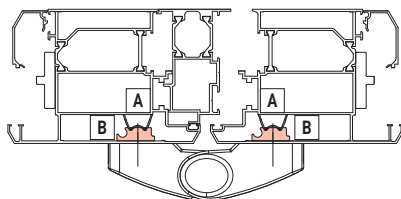
Direct mounting



[A] Fixing screw for direct mounting → *from page 212*

Packing plates, optional (not sh.)

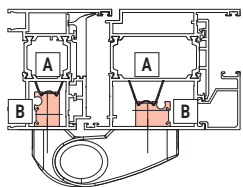
Backing plates



[A] Stainless-steel spring → *from page 212*

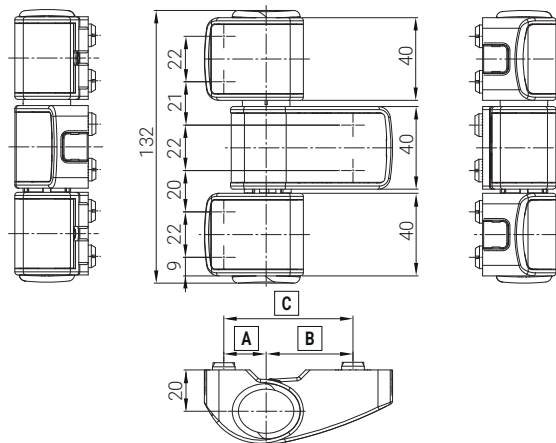
[B] Backing plates → *from page 212*

[C] Packing plates, optional → *from page 213*





4.14 120 ATB



[A] Distance from centre of shadow gap or pivot point to frame fixing
[B] Distance from centre of shadow gap or pivot point to leaf fixing
[C] Flatness deviation



Product description

The Roto Solid S | 120 ATB three-part screw-on hinge is suitable for frequently used aluminium entrance doors up to a sash weight of 160 kg.

Roto Solid S screw-on hinges offer solutions in various different performance categories and design lines.

A wide range of powder-coated surfaces enables an individual colour design – for door hinges which seamlessly blend into the overall appearance of the door.

Large adjustment distances enable custom adaptations on the hinge side that contribute towards the functionality and durability of the door as a whole.

Advantages at a glance

- For aluminium entrance doors up to max. 160 kg
- Suitable for flush and recessed doors
- Three mounting types for all installation situations depending on the profile: direct mounting, backing plates or Linkdrill
- Ideal for frequently used doors in public buildings

Adjustment range

- Laterally adjustable: +3 / -3 mm
- Height adjustable: +3 mm
- Gasket compression adjustable: +0.75 / -0.75 mm

CE								
	4	7	7	0	1	4*	1	14

Product characteristics



Design

- Hinge casing made from die-cast zinc and covers made from extruded aluminium
- Wide selection of colours
- Powder-coated surface



Comfort

- Low-maintenance powder-coated surface
- Maintenance-free thanks to high-quality self-lubricating PVC bush
- Suitable for flush and recessed doors



Efficiency

- Preassembled on DIN left / DIN right for rapid and simple installation
- Corrosion-resistant pin module ensures added durability



Adjustment

- With integrated adjusting scale
- Adjustment when fully assembled without undoing the fixing and without removing the covers
- Without lateral offset of hinge bodies



Security

- Sash hinge cover specially secured to prevent removal

Mounting types

Profile material	Direct mounting → from page 222	Backing plate → from page 223	Linkdrill II
Aluminium	■	■	–
Timber	–	–	■
Timber / aluminium	–	–	■

■ = possible, – = not possible

Direct mounting



INFO

For special colours, mounting material is not included in the scope of delivery → from page 222.

									Nº
62.5	20.5	42	8x63	Stainless steel appearance	R01.23	–	Left	24 Piece(s)	837036
				Stainless steel appearance	R01.23	–	Right	24 Piece(s)	837037
			8x68	Stainless steel appearance	R01.23	–	Left	24 Piece(s)	828133
				Stainless steel appearance	R01.23	–	Right	24 Piece(s)	828134
			8x73	Stainless steel appearance	R01.23	–	Left	24 Piece(s)	828135
				Stainless steel appearance	R01.23	–	Right	24 Piece(s)	828136
			8x63	Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	736008
				Traffic white	R07.2	RAL 9016	Right	6 Piece(s)	736012
			8x73	Traffic white	R07.2	RAL 9016	Left	24 Piece(s)	776239
				Traffic white	R07.2	RAL 9016	Right	24 Piece(s)	776240
			–	Special colour	SF	SF	Left	1 Piece(s)	2005956
				Special colour	SF	SF	Right	1 Piece(s)	2005957
84	42		8x73	Stainless steel appearance	R01.23	–	Left	24 Piece(s)	837049
				Stainless steel appearance	R01.23	–	Right	24 Piece(s)	837055
				Traffic white	R07.2	RAL 9016	Left	24 Piece(s)	775763
				Traffic white	R07.2	RAL 9016	Right	24 Piece(s)	775764
			–	Special colour	SF	SF	Left	1 Piece(s)	2005958
				Special colour	SF	SF	Right	1 Piece(s)	2005959



Mounting with backing plate or Linkdrill II



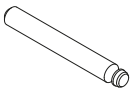
INFO

Mounting material is not included in the scope of delivery → *from page 212.*

								Nº
62.5	20.5	42	Uncoated	R00.0	Roh	Left	24 Piece(s)	2010177
					Roh	Right	24 Piece(s)	2010178
			Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837028
					–	Right	6 Piece(s)	837035
			Jet black	R06.2	RAL 9005	Left	6 Piece(s)	568358
					RAL 9005	Right	6 Piece(s)	568359
			Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548386
					RAL 9016	Right	6 Piece(s)	548390
			Special colour	SF	SF	Left	1 Piece(s)	2005944
					SF	Right	1 Piece(s)	2005945
67.5	20.5	47	Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837038
					–	Right	6 Piece(s)	837039
			Dark brown	R04.6	RAL 8077	Left	6 Piece(s)	548396
					RAL 8077	Right	6 Piece(s)	548400
			Jet black	R06.2	RAL 9005	Left	6 Piece(s)	2002620
					RAL 9005	Right	6 Piece(s)	2002621
		57.5	Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548394
					RAL 9016	Right	6 Piece(s)	548398
			Special colour	SF	SF	Left	1 Piece(s)	2005946
					SF	Left	1 Piece(s)	2005947
78	20.5	57.5	Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837045
					–	Right	6 Piece(s)	837046
			Dark brown	R04.6	RAL 8077	Left	6 Piece(s)	548404
					RAL 8077	Right	6 Piece(s)	548408
			Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548402
					RAL 9016	Right	6 Piece(s)	548406
		42	Special colour	SF	SF	Left	1 Piece(s)	2003977
					SF	Right	1 Piece(s)	2003978
84	42	42	White aluminium	R01.11	RAL 9006	Left	6 Piece(s)	548411
					RAL 9006	Right	6 Piece(s)	548415
			Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837047
					–	Right	6 Piece(s)	837048
			Dark brown	R04.6	RAL 8077	Left	6 Piece(s)	548412
					RAL 8077	Right	6 Piece(s)	548416
		47	Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548410
					RAL 9016	Right	6 Piece(s)	548414
			Special colour	SF	SF	Left	1 Piece(s)	2005950
					SF	Right	1 Piece(s)	2005952
94	47	47	Stainless steel appearance	R01.23	–	Left	6 Piece(s)	837056
					–	Right	6 Piece(s)	837057
			Dark brown	R04.6	RAL 8077	Left	6 Piece(s)	548444
					RAL 8077	Right	6 Piece(s)	548448
			Traffic white	R07.2	RAL 9016	Left	6 Piece(s)	548442
					RAL 9016	Right	6 Piece(s)	548446
			Special colour	SF	SF	Left	1 Piece(s)	2005954
					SF	Right	1 Piece(s)	2005955

4.14.1 Accessories

4.14.1.1 Locking pin

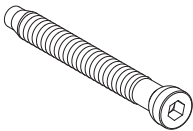


		Nº
Locking pin	100 Piece(s)	825056



4.14.1.2 Mounting

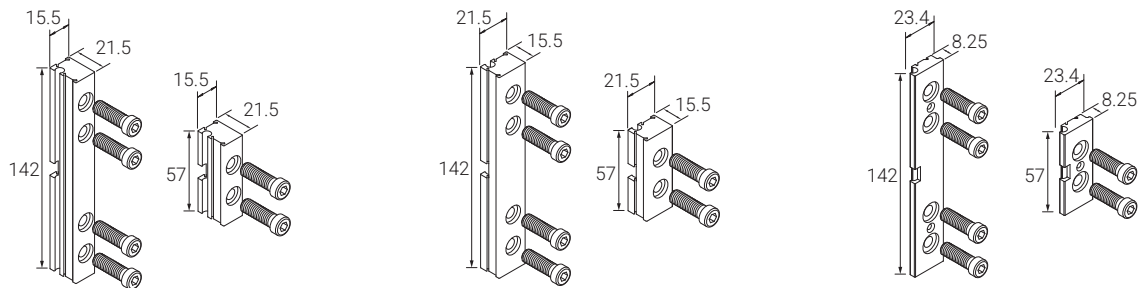
4.14.1.2.1 Direct mounting



			Nº
63	Silver	48 Piece(s)	771087
68	Black	48 Piece(s)	771088
73	Green	48 Piece(s)	771089



4.14.1.2.2 Backing plate set



				Nº
15.5	21.5	M8x25	1 Set(s)	548486
21.5	15.5	M8x25	1 Set(s)	548946
23.4	8.25	M8x25	1 Set(s)	548485

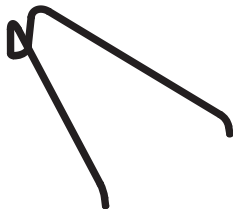
Contents

Figure	Quantity	Description
	24	Frame hinge backing plate
	24	Sash hinge backing plate
	144	Fixing screws for backing plates



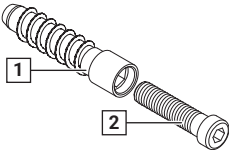
INFO
For further fixing screws, see below.

Stainless-steel spring



		Nº
Stainless steel spring for use with backing plates	200 Piece(s)	894093

4.14.1.2.3 Linkdrill II

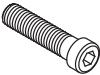


- [1] Linkdrill II
[2] Fixing screw

					Nº
	Link drill II M14x50	with fixing screw	M8x40	48 Piece(s)	548517
	Link drill II M14x63	with fixing screw	M8x40	48 Piece(s)	548518

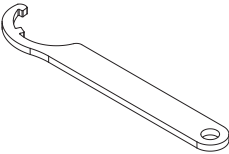
4.14.1.2.4 Fixing screws

for backing plates and Linkdrill II



					Nº
	M8x25		48 Piece(s)		547947
	M8x40		48 Piece(s)		548512
	M8x50		48 Piece(s)		548513

4.14.1.3 Adjustment key



					Nº
	Gasket compression adjustment key for 80 ATB, 120 ATB			1 Piece(s)	825046

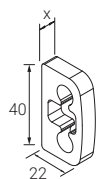
4.14.1.4 Packing plates



INFO
To support the frame in the case of offset profile combinations.

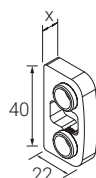


Packing plates for direct mounting



					Nº
5.7	Stainless steel appearance	R01.23	–	24 Piece(s)	825071
7	White aluminium	R01.11	RAL 9006	6 Piece(s)	764321
	Traffic white	R07.2	RAL 9016	6 Piece(s)	764322
	Special colour	SF	SF	1 Piece(s)	2005967
10	White aluminium	R01.11	RAL 9006	6 Piece(s)	764272
	Stainless steel appearance	R01.23	–	24 Piece(s)	828137
	Traffic white	R07.2	RAL 9016	6 Piece(s)	764273
	Special colour	SF	SF	1 Piece(s)	2005968
14	Stainless steel appearance	R01.23	–	24 Piece(s)	828138

Packing plates for mounting with backing plates or Linkdrill II



					Nº
7	Stainless steel appearance	R01.23	–	6 Piece(s)	858503
	Dark brown	R04.6	RAL 8077	6 Piece(s)	548490
	Jet black	R06.2	RAL 9005	6 Piece(s)	568360
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548488
	Special colour	SF	SF	1 Piece(s)	2005960
10	Stainless steel appearance	R01.23	–	6 Piece(s)	858504
	Dark brown	R04.6	RAL 8077	6 Piece(s)	548494
	Jet black	R06.2	RAL 9005	6 Piece(s)	568361
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548492
	Special colour	SF	SF	1 Piece(s)	2005961
12	Stainless steel appearance	R01.23	–	6 Piece(s)	858530
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548496
	Special colour	SF	SF	1 Piece(s)	2005962
14	Stainless steel appearance	R01.23	–	6 Piece(s)	858531
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548500
	Special colour	SF	SF	1 Piece(s)	2005963
16	Special colour	SF	SF	1 Piece(s)	2005964
18	Stainless steel appearance	R01.23	–	6 Piece(s)	858532
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548504
	Special colour	SF	SF	1 Piece(s)	2005965
19	Stainless steel appearance	R01.23	–	6 Piece(s)	858533
	Traffic white	R07.2	RAL 9016	6 Piece(s)	548508
	Special colour	SF	SF	1 Piece(s)	2005966

4.14.2 Spare parts

Top / bottom cover cap



			Nº
Cover cap	Black	10 Piece(s)	809562
	White	10 Piece(s)	809565

Side cover cap



			Nº
Cover cap	Black	10 Piece(s)	809563
	White	10 Piece(s)	809564

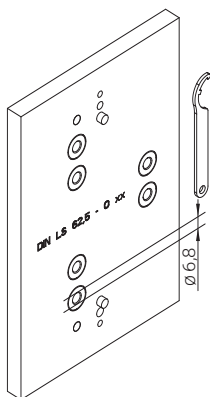
Axis pin fixing



			Nº
Axis pin fixing	M6x8	100 Piece(s)	825047

4.14.3 Jigs

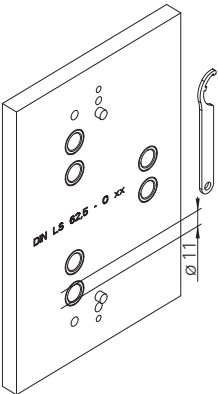
Drilling jig for direct mounting



						Nº
Drilling jig direct mounting	incl. gasket compression adjustment key for 80 ATB, 120 ATB	62.5	20.5	42	1 Piece(s)	737661

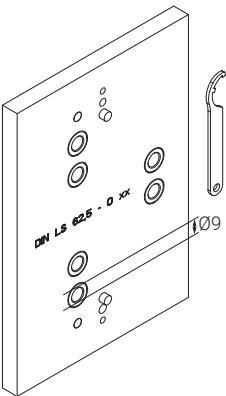


Drilling jig for backing plate



						Nº
		62.5	20.5	42	1 Piece(s)	547218
		67.5	20.5	47	1 Piece(s)	547223
		78	20.5	57.5	1 Piece(s)	547225
		84	42	42	1 Piece(s)	547227
		94	47	47	1 Piece(s)	547235
		Drilling jig for backing plate		incl. gasket compression adjustment key for 80 ATB, 120 ATB		

Drilling jig for Linkdrill II



						Nº		
		Drilling jig for link drill II	incl. gasket compression adjustment key for 80 ATB, 120 ATB	62.5	20.5	42	1 Piece(s)	548751
				67.5	20.5	47	1 Piece(s)	548753
				78	20.5	57.5	1 Piece(s)	548755
				84	42	42	1 Piece(s)	548757
				94	47	47	1 Piece(s)	548765

Linkdrill II step drill



			Nº
Step drill	Ø 9 to Ø 15 mm	1 Piece(s)	544427

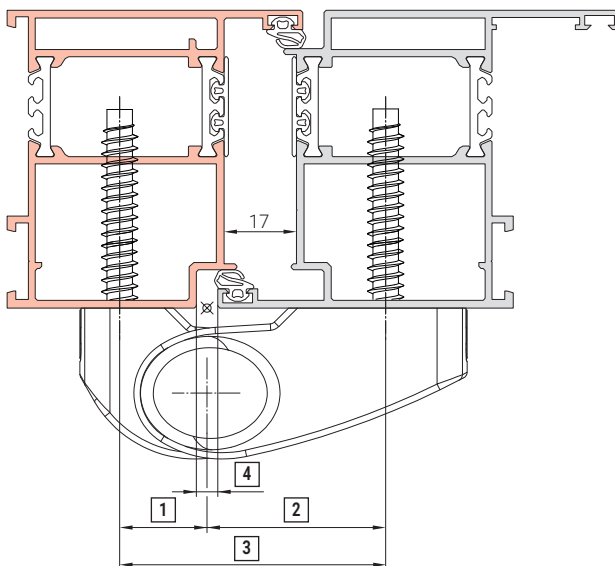
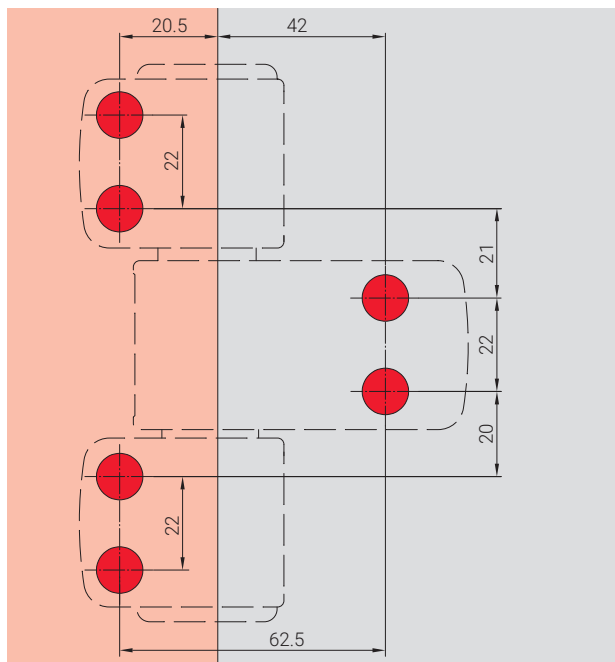
4.14.4 Drawings

4.14.4.1 Drilling pattern



INFO

Example diagram. Drilling patterns are profile-related (available upon request).



- [1] Distance from centre of shadow gap to frame fixing
- [2] Distance from centre of shadow gap to leaf fixing
- [3] Flatness deviation
- [4] Shadow gap

Drilling diameter

- Direct mounting = Ø 6.8
- Backing plate = Ø 11
- Linkdrill II = Ø 9



4.14.4.2 Installation drawings



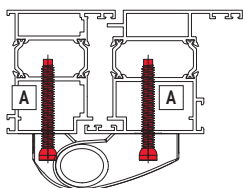
INFO

Installation examples for the aforementioned versions are shown here.

Installation examples for specific profile systems are available upon request.



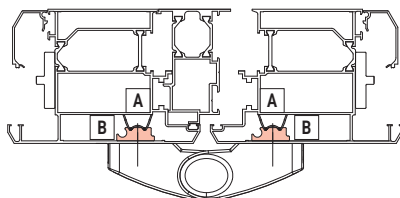
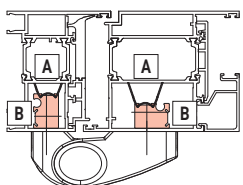
Direct mounting



[A] Fixing screw for direct mounting → *from page 222*

Packing plates, optional (not sh.)

Backing plates



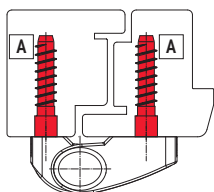
[A] Stainless-steel spring → *from page 223*

[B] Backing plates → *from page 223*

Packing plates, optional (not sh.) → *from page 224*



Linkdrill II

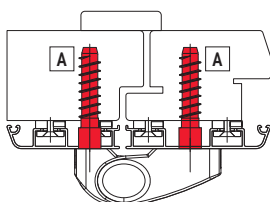


[A] Linkdrill II → *from page 224*

Packing plates, optional (not sh.)



Linkdrill II



[A] Linkdrill II → *from page 224*

Packing plates, optional (not sh.)

Roto Solid C







Profile overview

C7.140 Inward opening doors	234
C7.140 outward opening doors	237

C7.140

Hinges	240
Height adjustment module	241
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5 Roto Solid C – Concealed hinges

5.1 Profile overview

5.1.1 C7.140 | Inward opening doors

Marking	Meaning
RA-BD	Frame hinge → <i>from page 240</i>
FL-BD	Leaf hinge → <i>from page 241</i>
BLT	Hinge tab casing → <i>from page 243</i>
BFP	Mounting plate → <i>from page 244</i>
HVM	Height adjustment module → <i>from page 242</i>
DBS	Direct fixing screw → <i>from page 244</i>
ULP	With 1.5 mm packing plate → <i>from page 244</i>
KOA	With 2 mm bracket adapter → <i>from page 245</i>

Profile system	Frame no.	Leaf no.	RA-BD	FL-BD	BLT	BFP	HVM	ULP	KOA
Aliplast Green Star	GT415	GT1626 GT424	IV	IV	III	–	VII	–	–
Aliplast Imperial 800	IP815	IP824	IV	IV	–	–	VII	–	■
Aliplast Superial	SP815	SP824 SP1826	IV	IV	–	–	VII	–	■
Aliplast Star75	RS415	RS424 RS1626	IV	IV	III	–	VII	–	–
Aliplast Genesis	GN415 + GN455	GN424 GN1624 GN1626	IV	IV	III	–	VII	–	–
		GN424 GN1624 GN1626	IV	IV	III	44 – 55	VII	–	–
		GN424 GN1624 GN1626	IV	IV	III	44 – 55	VII	–	–
AluK Triton	P-03-124R2	P-03-224R2	IV	IV	III	–	VII	–	–
Alumil SD77	S77586	S77582 S77584	IV	IV	–	–	VII	–	–
Alumil SD95	S95016	S95028	IV	IV	–	44 – 55	VII	–	–
Aluprof MB-70	K518105X	K518355X	IV	IV	III	–	VII	–	–
Aluprof MB-86	K518730X	K518740X K718745X K718759X	IV	IV	III	–	VII	–	–
	K718730X	K518740X K718745X K718759X	IV	IV	III	–	VII	–	–
Aluprof MB 104	K519141X	K519161X K519164X K519175X	IV	IV	III	–	VII	–	–
Aluron AS 75P	P2401	P2441 P2451 P2453	IV	IV	–	–	VII	–	–
	P2405	P2441 P2451 P2453	IV	IV	–	44 – 55	VII	–	–
Blyweert Olympia	P-09-124	P-09-B224	IV	IV	III	–	VII	–	–
Feal Termo 65 VS	FT-0257	FT-0250	IV	IV	III	–	VII	–	–
Feal Termo 85 VS	FT-0513F	FT-0561F	IV	IV	–	44 – 55	VII	–	–
	FT-0551F	FT-0563F	IV	IV	–	–	VII	–	–
	FT-0575F	FT-0561F	IV	IV	–	44 – 55	VII	–	–



Profile system	Frame no.	Leaf no.	RA-BD	FL-BD	BLT	BFP	HVM	ULP	KOA
heroal D 72	21080	19541	IV	IV	III	–	VII	–	–
		21081							
		21691							
	21252	21651	IV	IV	III	–	VII	–	–
	21623	21641	IV	IV	III	44 – 55	VII	–	–
	21624	21081	IV	IV	III	55 – 66	VII	–	–
		21645							
		21681							
	21660	21643	IV	IV	III	–	VII	–	–
		21645							
		21645 - H							
		21651							
		21655							
		21681							
	21680	21601	IV	IV	III	–	VII	–	–
		21645 - H							
		21651							
		21655							
		21681							
	21780	21665	IV	IV	III	–	VII	–	–
		21755							
		21765							
	21820	21645	IV	IV	III	–	VII	–	–
		21841							
		21843							
	21823	21645	IV	IV	III	44 – 55	VII	–	–
		21841							
		21843							
	21824	21645	IV	IV	III	55 – 66	VII	–	–
		21841							
		21843							
	21840	21645	IV	IV	III	–	VII	–	–
		21841							
		21843							
	21860	21643	IV	IV	III	–	VII	–	–
		21645							
		21881							
	21863	21645	IV	IV	III	44 – 55	VII	–	–
		21851							
		21881							
	21864	21645	IV	IV	III	55 – 66	VII	–	–
		21851							
		21881							



Profile system	Frame no.	Leaf no.	RA-BD	FL-BD	BLT	BFP	HVM	ULP	KOA
heroal D 72	21880	21645	IV	IV	III	–	VII	–	–
		21851							
		21881							
	22023	21641	IV	IV	III	–	VII	–	–
		21651							
		21665	IV	IV	III	44 – 55	VII	–	–
		21681							
	21645	IV	IV	III	44 – 55	VII	–	–	
	22033	21601	IV	IV	–	–	VII	–	–
	22040								
	22024	21681	IV	IV	III	66 – 77	VII	–	–
	22533	21881	IV	IV	III	–	VII	–	–
	22543	21881	IV	IV	III	–	VII	–	–
29460	29461	IV	IV	III	–	VII	–	–	
29680	19241	IV	IV	III	–	VII	–	–	
	29681								
METRA NC65	nc15662	nc15855	IV	IV	III	–	VII	–	–
		nc15879							
	nc15667	nc15855	IV	IV	III	–	VII	–	–
METRA NC75	nc17662	nc17855	IV	IV	III	–	VII	–	–
		nc17879	IV	IV	III	–	VII	–	–
	nc17667	nc17855	IV	IV	III	–	VII	–	–
METRA NC90	nc13662	nc13855	IV	IV	III	–	VII	–	–
		nc13879							
	nc13667	nc13855	IV	IV	III	–	VII	–	–
Ponzio PE68	6762	6764	IV	IV	III	–	VII	■	–
Ponzio PE78N	7862	7864	IV	IV	III	–	VII	■	–
	7862T	78PR66B	IV	IV	III	–	VII	■	–
		78PR68B							
	7848	78PR66B	IV	IV	III	55 – 66	VII	■	–
		78PR68B							
Reynaers CS77	82014	82026	IV	IV	III	–	VII	–	–
Reynaers MasterLine 8	4080898	4080026	IV	IV	III	–	VII	–	–
Schüco ADS 70.HI	358170	395540	IV	IV	V	44 – 55	II	–	–
		396660					with 63 mm DBS		
	372220-HD	395540	IV	IV	V	44 – 55	II	–	–
396660						with 63 mm DBS			
396670									
Schüco ADS 75.SI	382150	395700	IV	IV	V	44 – 55	II	–	–
							with 63 mm DBS		
	396870	396870	IV	IV	V	44 – 55	II	–	–
							with 63 mm DBS		
381870-HD	395700	IV	IV	V	44 – 55	II	–	–	
	396870					with 63 mm DBS			
	396910	IV	IV	V	–	II	–	–	
	476440					with 63 mm DBS			
Schüco ADS 90.SI	356990	439070	IV	IV	V	–	VII	–	–
	441090	439070	IV	IV	V	44 – 55	II	–	–
						with 63 mm DBS			
Sapa Avantis 70	A7K803	A7V826	X	IV	VI	–	VII	–	–
Yawal TM 62HI	04.14067	04.24078	IV	IV	III	–	VII	–	–
Yawal TM 74 HI	28.14067	28.24078	IV	IV	III	–	VII	–	–



Profile system	Frame no.	Leaf no.	RA-BD	FL-BD	BLT	BFP	HVM	ULP	KOA
Yawal TM 77 HI	18.14067	18.24078	IV	IV	III	–	VII	–	–
	38.14067	38.24554	IV	IV	III	–	VII	–	–
		38.24555							
Yawal TM 102 HI	07.14067	07.24054	IV	IV	III	–	VII	–	–
		07.24055							

5.1.2 C7.140 | outward opening doors

Marking	Meaning
RA-BD	Frame hinge → <i>from page 240</i>
FL-BD	Leaf hinge → <i>from page 241</i>
BLT	Hinge tab casing → <i>from page 243</i>
BF-Set RA	Frame mounting set → <i>from page 246</i>
BF-Set FL	Leaf mounting set → <i>from page 245</i>
HVM	Height adjustment module → <i>from page 242</i>
ADP HVM	Adapter for height adjustment module → <i>from page 242</i>

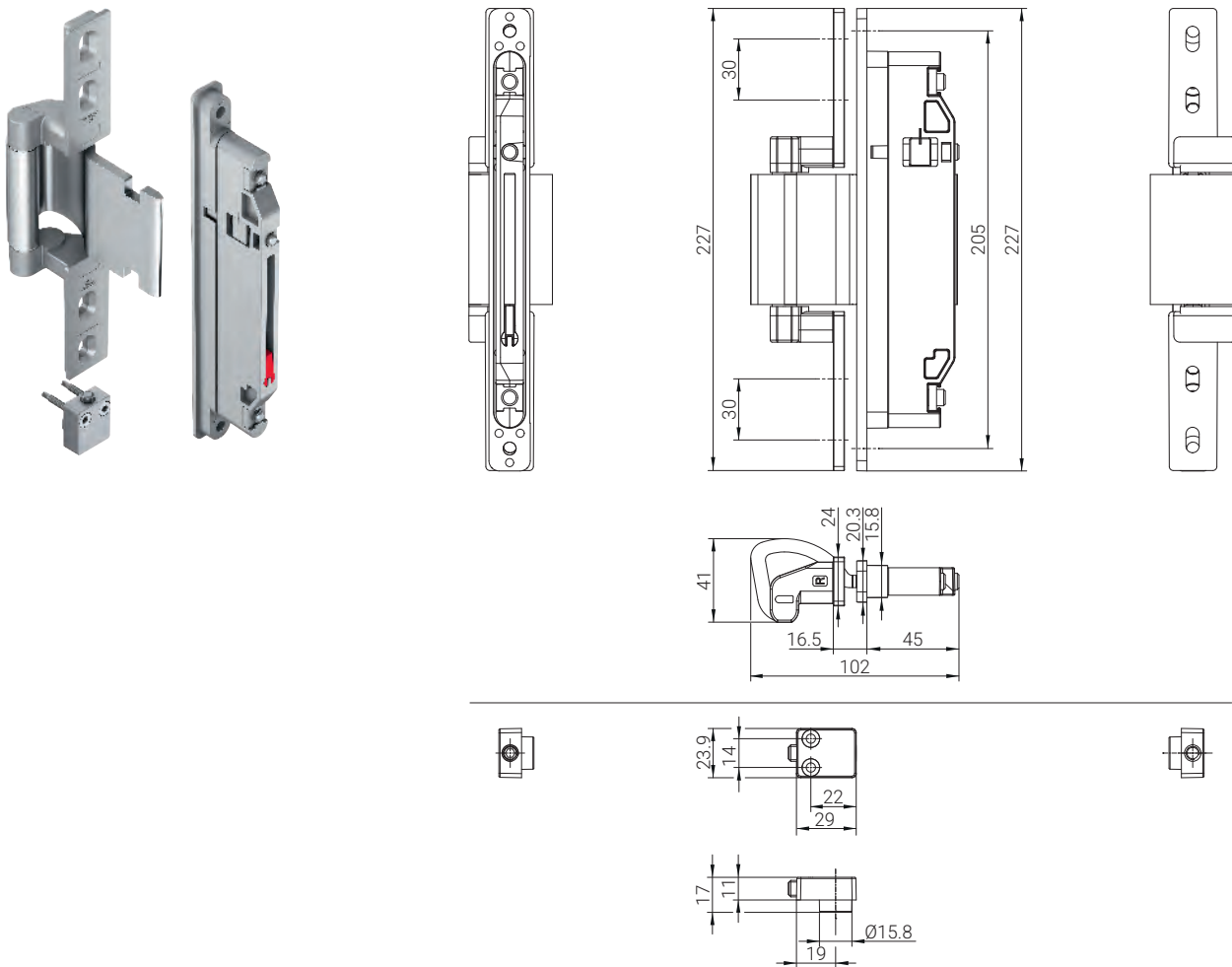


Profile system	Frame no.	Leaf no.	RA-BD	FL-BD	BLT	BF-Set RA	BF-Set FL	HVM	ADP HVM
Alipplast Genesis	GN414	GN425	IV	IV	III	III	I	III	–
		GN428							
		GN1625							
		GN1627							
	GN456	GN425	IV	IV	III	VIII	I	III	–
	+	GN428							
	GN010	GN1625							
	GN456	GN425	IV	IV	III	II	I	III	–
	+	GN428							
	GN011	GN1625							
		GN1627							
Alipplast Genesis	GN456	GN425	IV	IV	III	IX	I	III	–
	+	GN428							
	GN012	GN1625							
	GN456	GN425	IV	IV	III	VIII	I	III	–
	+	GN1625							
	GN030								
	GN456	GN425	IV	IV	III	II	I	III	–
	+	GN1625							
	GN031								
	GN456	GN425	IV	IV	III	IX	I	III	–
	+	GN1625							
	GN032								
AluK Triton	P-03-125R2	P-03-225R2	IV	IV	III	III	II	III	–
Aluprof MB-70	K518106X	K518115X	IV	IV	III	III	II	III	–
Aluprof MB-86	K518612X	K518742X	IV	IV	III	V	I	III	–
		K518746X							
	K518731X	K518742X	IV	IV	III	III	I	III	–
	K518739X	K518746X							
		K518742X	IV	IV	III	V	I	III	–
		K518746X							

Profile system	Frame no.	Leaf no.	RA-BD	FL-BD	BLT	BF-Set RA	BF-Set FL	HVM	ADP HVM
heroal D 72	21079	21682	IV	IV	III	IV	IV	III	–
	21079	21652	IV	IV	III	VII	VI	III	–
	21251	21654							
		21656							
	21666								
	21251	21682	IV	IV	III	VII	III	II	–
Ponzio PE78N	7832	7867	IV	IV	III	II	IV	III	–
	+	7869							
	7848	7865P							
	7832								
	+								
	7856								
Reynaers CS 77	008.0569	008.0414	IV	IV	III	III	XII	III	–
Sapa Avantis 95	A9K083	A9B12	IV	IV	III	VI	III	V	–
Yawal TM 74 HI	28.82050.x	28.24098.x	IV	IV	III	VI	I	III	–
	+								
	08.11052.x								
	28.82050.x	28.24098.x	IV	IV	III	II	I	III	–
	+								
	08.11065.x								
	28.82050.x	28.24098.x	IV	IV	III	IX	I	III	–
	+								
	08.11077.x								
Yawal TM 77 HI	18.82021.x	18.24098.x	IV	IV	III	X	IV	III	–
	+								
	18.11052.x								
	18.82021.x	18.24098.x	IV	IV	III	IV	IV	III	–
	+								
	18.11077.x								
	18.14053.x	18.24098.x	IV	IV	III	III	IV	III	–
Yawal TM 77 HI PRESTIGE	38.82021.x	38.24568.x	IV	IV	III	X	IV	III	–
	+	38.24569.x							
	18.11052.x								
	38.82021.x	38.24568.x	IV	IV	III	V	IV	III	–
	+	38.24569.x							
	18.11065.x								
	38.82021.x	38.24568.x	IV	IV	III	IV	IV	III	–
	+	38.24569.x							
	18.11077.x								
Yawal TM 102 HI	07.82021.x	07.24108.x	IV	IV	III	XII	V	V	■
	+								
	07.11072.x								
	07.14053.x								
	+								
	07.11059.x								
	07.14053.x	07.24108.x	IV	IV	III	XI	V	V	■
Yawal TM 102 HI PRESTIGE	07.82021.x	07.24068.x	IV	IV	III	XII	V	V	■
	+								
	07.11072.x								
	07.14053.x	07.24068.x	IV	IV	III	XI	V	V	■
	07.14053.x	07.24069.x	IV	IV	III	XI	V	V	■



5.2 C7.140



Product description

The Roto Solid C | C7.140 concealed hinge is suitable for aluminium entrance doors up to a sash weight of 140 kg.

An increasing number of homeowners are opting for large aluminium doors thanks to their modern look, sophisticated appearance and durability.

With Roto Solid C, all of these properties can be achieved – it is concealed in the door and ensures that even heavy doors can be moved simply and effortlessly.



Advantages at a glance

- For aluminium entrance doors up to max. 140 kg
- FixClick function developed in-house for mounting the leaf quickly and securely
- Height is adjusted quickly and centrally via a single adjustment point
- Suitable for burglar inhibiting door equipment as per RC 2

Adjustment range

- Laterally adjustable: +3 / -3 mm
- Height adjustable: +4 / -2 mm
- Gasket compression adjustable: +1 / -1 mm

CE								
	2	7	3	0	1	4*	0	10

Product characteristics



Design

- Concealed position accentuates door design and facade
- Neutral colours of black and silver suit all main door colours
- Robust appearance with clear, sleek outlines



Comfort

- Requires no maintenance thanks to self-lubricating bush
- Easy to clean because the mechanics are concealed
- An uninterrupted gasket level prevents heat loss



Efficiency

- FixClick function minimises the work required when mounting the leaf
- Fast and simple height adjustment using a central adjusting screw
- Fewer parts required because the left and right sides are symmetrical, resulting in reduced logistics and administrative outlay
- Sash hinge and frame hinge are packaged separately, reducing the installation time



Adjustment

- Height is adjusted centrally via a single adjustment point
- With hex key

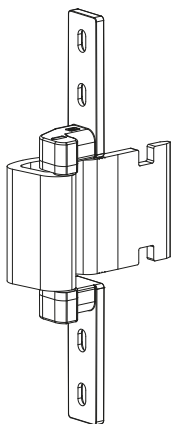


Security

- Long service life tested over 400,000 opening cycles based on DIN EN 1191
- Maximum long-term functional performance class certified in accordance with DIN EN 1935
- Corrosion resistance class 5 in accordance with DIN EN 1670
- Can be used in burglar inhibiting doors in accordance with RC 2 and SKG**

5.2.1 Hinges

5.2.1.1 Frame hinge



					
Version IV	Natural silver	R01.1	–	12 Piece(s)	2005153
	Jet black	R06.2	RAL 9005	12 Piece(s)	828097
Version X	Jet black	R06.2	RAL 9005	12 Piece(s)	836735



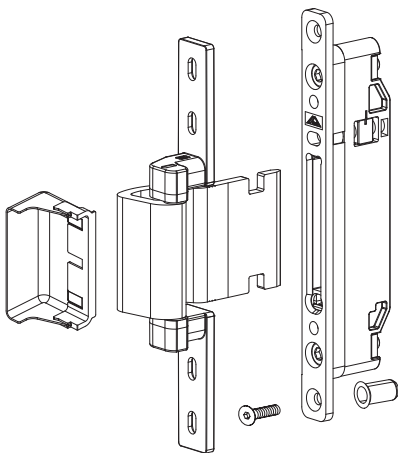
5.2.1.2 Leaf hinge



					Nº
Version IV	Natural silver	R01.1	–	12 Piece(s)	899556
	Jet black	R06.2	RAL 9005	12 Piece(s)	811094



5.2.1.3 C7.140 set



C7.140 set, consisting of: 1 frame hinge, 1 leaf hinge, 1 hinge tab casing, 6 M6 x 25 screws, 6 M6 blind rivet nuts

					Nº
Version IV / Version IV	Natural silver	R01.1	–	1 Set(s)	2005170
	Jet black	R06.2	RAL 9005	1 Set(s)	823273
Version X / Version IV	Jet black	R06.2	RAL 9005	1 Set(s)	2022375

5.2.2 Height adjustment module

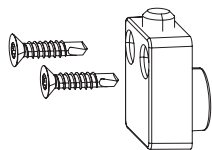


INFO

One height adjustment module is required per door.

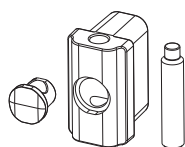
5.2.2.1 Inward opening doors

Version VII



					Nº
Version VII	Natural silver	R01.1	–	1 Piece(s)	2005169
	Jet black	R06.2	RAL 9005	1 Piece(s)	2002642

Version II



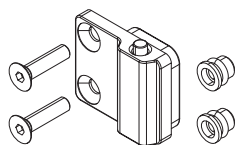
						Nº
Version II	incl. M8 blind rivet nut	Natural silver	R01.1	–	1 Piece(s)	899557
		Jet black	R06.2	RAL 9005	1 Piece(s)	811100



			Nº
Direct fixing screw for height adjustment module version II	48	10 Piece(s)	823847
	63	10 Piece(s)	812473
	73	10 Piece(s)	823274

5.2.2.2 Outward opening doors

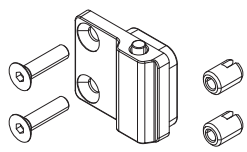
Version III



					Nº
Version III	Natural silver	R01.1	–	1 Piece(s)	2006146
	Jet black	R06.2	RAL 9005	1 Piece(s)	833603

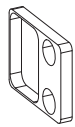


Version V



					Nº
Version V	Natural silver	R01.1	–	1 Piece(s)	2006147
	Jet black	R06.2	RAL 9005	1 Piece(s)	837772

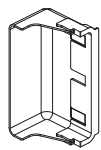
Height adjustment module adapter



		Nº
Height adjustment module adapter	1 Piece(s)	861242

5.2.3 Accessories

Hinge tab casing



					Nº
Version III	Jet black	R06.2	RAL 9005	12 Piece(s)	811102
Version V	Jet black	R06.2	RAL 9005	12 Piece(s)	835434

5.2.4 Installation

5.2.4.1 Inward opening doors

5.2.4.1.1 Blind rivet nut



		Nº
M6 blind rivet nut	250 Piece(s)	821603

5.2.4.1.2 Fixing screw



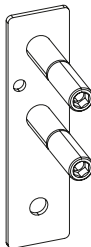
				Nº
Fixing screw 6.3x26	M6x25	Silver	500 Piece(s)	821604
C7.140 screw		Black	500 Piece(s)	821605

5.2.4.1.3 Sash hinge packing plate



		Nº
1.5	12 Piece(s)	811489

5.2.4.1.4 Frame hinge mounting plate



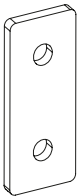
		Nº
44 – 55	1 Piece(s)	834249
55 – 66	1 Piece(s)	834260
66 – 77	1 Piece(s)	834261



INFO

2 mounting plates required per hinge.

5.2.4.1.5 Bracket adapter



		Nº
–	24 Piece(s)	818534



INFO

Placing packers under the frame hinge:
2 bracket adapters required per hinge.

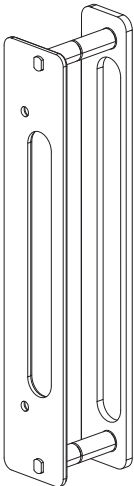
5.2.4.2 Outward opening doors

5.2.4.2.1 Fixing screw



				Nº
Fixing screw 6.3x26	M6x25	Silver	500 Piece(s)	821604
C7.140 screw		Black	500 Piece(s)	821605

5.2.4.2.2 Attachment of sash hinge

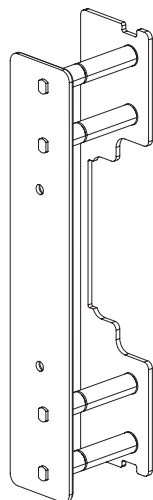


		Nº
Version I	1 Piece(s)	840185
Version II	1 Piece(s)	840186
Version III	1 Piece(s)	840187



			Nº
			
	Version IV	1 Piece(s)	840188
	Version V	1 Piece(s)	861241
	Version VI	1 Piece(s)	894223

5.2.4.2.3 Attachment of frame hinge

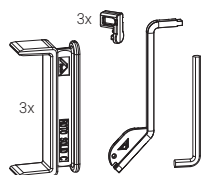


			Nº
			
	Version II	1 Piece(s)	840164
	Version III	1 Piece(s)	840180
	Version IV	1 Piece(s)	840181
	Version V	1 Piece(s)	840182
	Version VI	1 Piece(s)	840183
	Version VII	1 Piece(s)	840184
	Version VIII	1 Piece(s)	858289
	Version IX	1 Piece(s)	858330
	Version X	1 Piece(s)	861218
	Version XI	1 Piece(s)	861219
	Version XII	1 Piece(s)	861240
	Version XIV	1 Piece(s)	894285

5.2.4.3 Installation accessories

Installation set

For hinging and unhinging the leaf.



Installation set, consisting of: 3 locking wedges, 3 anti-lifting devices, 1 combination tool, 1 short arm hex key (6 mm), 1 installation instructions

			Nº
			
	Installation set	1 Set(s)	813631



Locking wedge

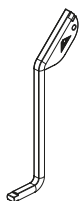
For fixing the hinge tabs in place when hinging the leaf.



		Nº
Locking wedge	1 Piece(s)	796364

Combination tool

Auxiliary tool for hinging and unhinging the leaf.



		Nº
Combination tool	1 Piece(s)	796363

Hex key (short arm)

For lateral and gasket compression adjustment when space is limited in the rebate.



		Nº
6 mm hex key	1 Piece(s)	896087

5.2.5 Spare parts

Anti-lifting device



		Nº
Anti-jemmy device	50 Piece(s)	816922



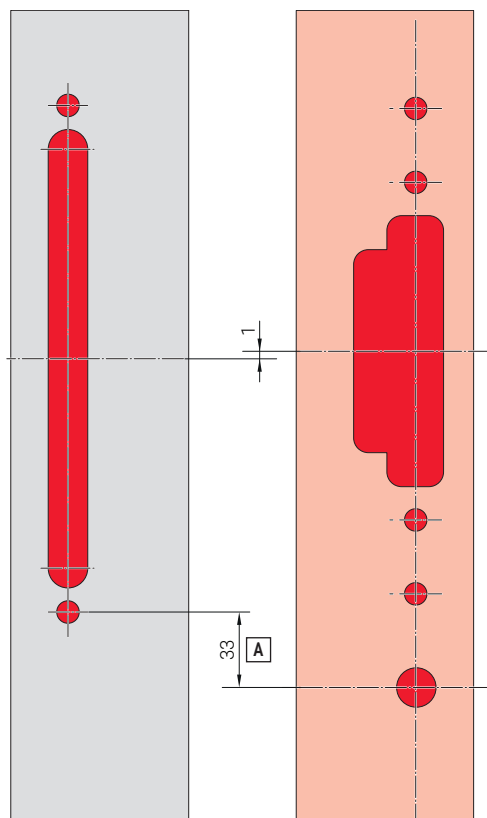
5.2.6 Drawings

5.2.6.1 Drilling pattern



INFO

Example diagram. Drilling patterns are profile-related (available upon request).



[A] Position of sash hinge relative to height adjustment module



Accessories





**Hinge retaining mechanisms**

Universal hinge side retaining mechanism	254
--	-----

Hinge retaining mechanism for butt hinges	255
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Turn restrictor

See page	256
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6 Accessories

6.1 Hinge retaining mechanisms

6.1.1 Universal hinge side retaining mechanism

Hardware groove hinge retaining mechanism



						Nº
Cam for hinge retaining mechanism	Timber PVC Aluminium	F16	Roto Sil	10 Piece(s)	280880	
		F20	Roto Sil	10 Piece(s)	311884	
		U6x24	Roto Sil	10 Piece(s)	780014	

Frame components

					Nº
AS201	–	Roto Sil	50 Piece(s)	390671	
AS202	–	Roto Sil	50 Piece(s)	443514	
AS212	–	Roto Sil	50 Piece(s)	390762	
AS213	–	Roto Sil	50 Piece(s)	390774	
AS215	–	Roto Sil	50 Piece(s)	350566	
AS221	–	Roto Sil	50 Piece(s)	390827	
AS226	–	Roto Sil	50 Piece(s)	780800	
AS237	–	Roto Sil	50 Piece(s)	766113	
	-0.5 mm	Roto Sil	50 Piece(s)	390804	
	-1 mm	Roto Sil	50 Piece(s)	776849	

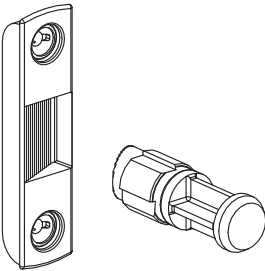


INFO

Frame components are profile-related. For an overview of profile systems, refer to the Roto Safe catalogue for multipoint locks CTL_86.

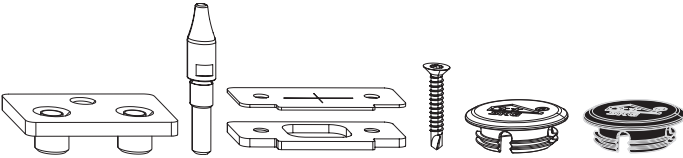


Hinge retaining mechanism, can be routed in



Hinge retaining mechanism set	Timber	10	Roto Sil	10 Piece(s)	Nº	491795

6.1.2 Hinge retaining mechanism for butt hinges



Hinge retaining mechanism set	For 16 and 20 hardware grooves	1 Set(s)	2029102
	For 24 hardware groove	1 Set(s)	2030512



INFO

SKG** certification only in conjunction with 222 P and 322 P butt hinges.

6.2 Turn restrictor



Product description

The concealed Roto Solid turn restrictor for aluminium doors allows for the opening width to be individually restricted. The integrated opening damping ensures that the door is brought to a gentle stop when opened, thereby protecting door hinges, furniture and walls.

The opening angle can be customised up to a maximum of 125° depending on requirements and the installation situation. What's more, the opening angle can be readjusted by up to 15° so that the optimum settings for the opening damping are configured.

Invisibly integrated into the door, the Roto Solid turn restrictor is the elegant alternative to door stops.

Advantages at a glance

- Concealed turn restrictor with integrated opening damping
- Individually adjustable opening width for the door up to max. 125°
- Easy to install and simple to retrofit at any time
- Attractive alternative to a door stop

Product characteristics



Design

- Concealed installation creates pared-back elegance
- Attractive alternative to a door stop
- Can also be used in large doors with leaf weights up to 140 kg



Comfort

- Carefree opening of the door
- Simple adjustment
- Faster order processing as the hinge and turn restrictor are from one provider



Ease of installation

- Simple processing thanks to direct screw fixing and preassembly
- Easy retrofitting is possible
- Opening angle is individually defined



Efficiency

- Parts are symmetrical on the left and right for reduced storage requirements
- Efficient installation thanks to preassembled components
- Cost-effective alternative to an integrated door closer

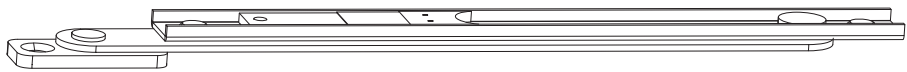


Quality

- Service life tested over 200,000 opening cycles (DIN EN 1191)
- Hinges and walls are protected and more durable thanks to damped stop
- Corrosion resistance in accordance with DIN EN 1670 class 4

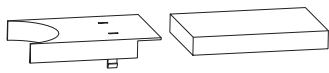


Turn restrictor



				Nº
Turn restrictor	Stainless steel	–	1 Piece(s)	2043527
	RAL 9005	Jet black	1 Piece(s)	2043528

Spare parts



		Nº
Turn restrictor damping set	1 Set(s)	2043529





From a single source.
Optimum hardware systems to meet all challenges.

Window

Hardware systems for windows and balcony doors

Sliding

Hardware systems for large sliding windows and doors

Door

Matching hardware technology everything about doors

Equipment

Additional technology for windows and doors



Contact

