

W-Tec 3D+

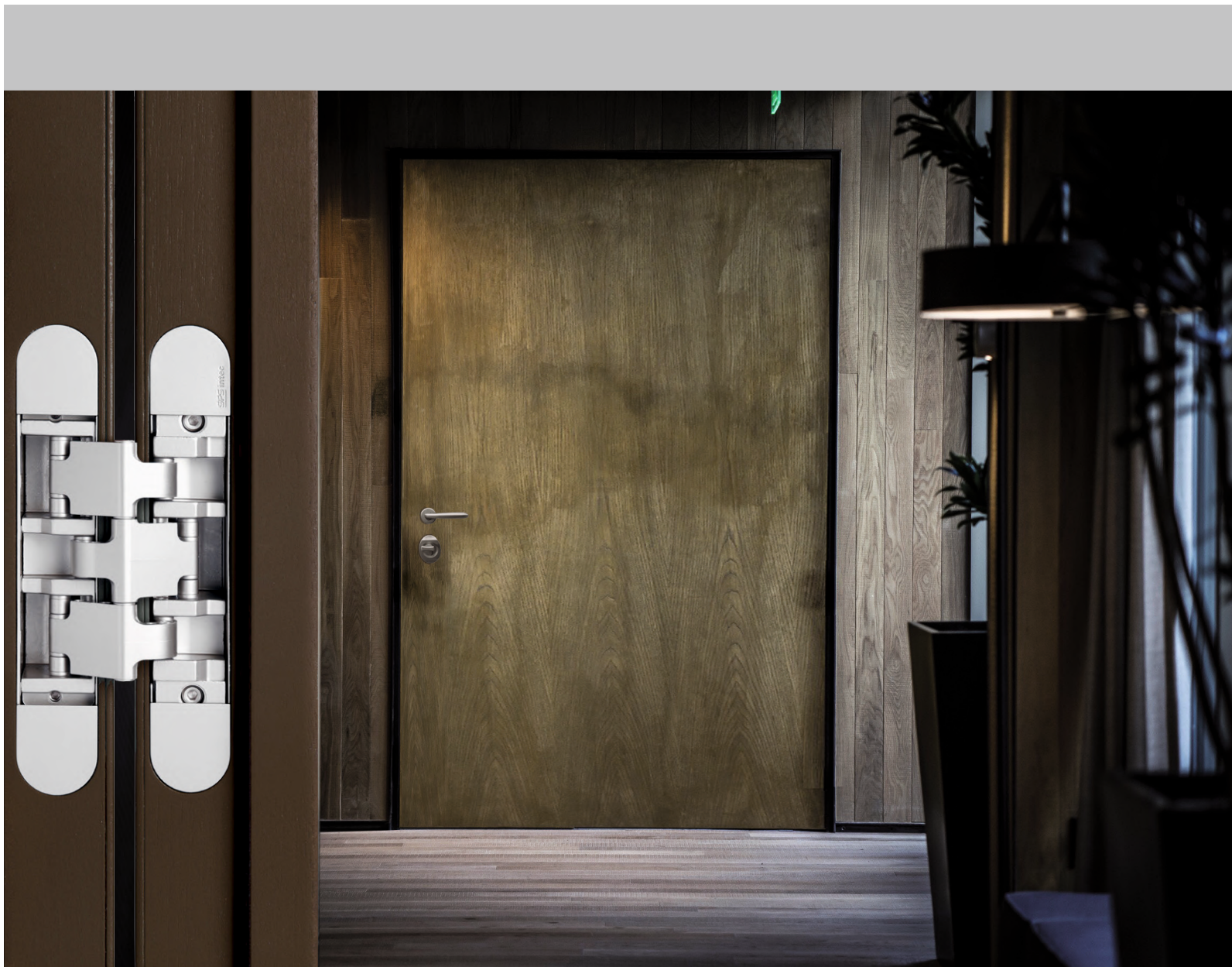
The concealed hinge -
durable and easy
to install

W-Tec 3Ds

The slim and robust
concealed hinge also
for narrow profiles

W-Tec 3DL

The massive, stable,
safe, invisible hinge





The SFS group has been in business for more than 50 years. During this time it has continually evolved, becoming even more adaptable to the demands of the markets. From 2013 the activities of the Group have been divided into three segments and each segment offers its services and products under four different brands. The common goal is always the same: to create benefits for the customers.

In the **Engineered Components** segment, we act as a development and manufacturing partner for precision cold formed components, special fasteners and assemblies. Under the brand **SFS intec**, we mainly deal with the automotive industry and general industrial sectors. Under the brand **Unisteel** we serve customers in the electronics industry.

The **Fastening Systems** segment operates as an innovation and solutions provider for application-optimized fastening systems and hinges.

the concealed hinge - durable and easy to install



Under the brand **SFS intec**, we serve the construction industry and under the brand **GESIPA**, the automotive industry, trade and other general industrial application segments.

In **Distribution & Logistics** segment we are in our home market of Switzerland under the brand, **SFS unimarket**. We stand out as a reliable supply and logistics partner for trade, crafts and industry. The product range includes fasteners, tools, hardware and building supplies.

Over 7000 employees are ready to assist customers in more than 70 sites spread over 25 countries.

SFS intec S.p.A in Pordenone produces hinges for doors and windows for the SFS sites worldwide.

W-Tec 3D+

Stability and durability.

The unique 7 axis kinematic mechanism, the carefully chosen materials for the three levers that carry the weight of the door, offer maximum efficiency and stability over time.

There is no need to intervene once the door has been mounted and set. The particular kinematic mechanism keeps the door straight and prevents elliptical movement when opening and closing. Thanks to this feature, there is minimal wear and tear, even when heavy weights are used.

The adjustments are all independent from each other. Once assembled, the hinge can easily be set by one person thanks to the innovative adjustments.

Available in three versions, they can be applied on all frames: solid wood, coated or steel with the appropriate accessories.

The top of the range versions for heavy doors W-Tec 3D+ 100 and 160 are interchangeable. This feature allows the user to always mill frames and doors with the same sizes, being able to choose the hinge most suitable to the weight and use of the door as required to replace at the last minute.

SFS intec turn ideas into reality

the slim and robust concealed hinge also for narrow profiles



W-Tec 3Ds

The demand for doors suitable for environments characterised by a simple design has been constantly increasing, as well as the tendency to use profiles so thin that they blend perfectly into the environment. W-Tec 3Ds is the ideal hinge for this type of application.

W-Tec 3Ds is a variant of the W-Tec 3D+ range and, just like all the hinges in this range, is extremely stable thanks to its 7-axis internal mechanism.

W-Tec 3Ds features two mechanical height and horizontal adjustments of ± 3 mm and manual depth adjustment ± 1 mm. All adjustments are independent from each other.

The W-Tec 3Ds hinge with minimum overall dimensions both on the sash and on the frame can be mounted on profiles from 24mm.

It also fully meets the demand of door manufacturers to be able to use a single product for flush applications and so-called rebated flush fit applications.



W-Tec 3DL hinge - It's massive, stable, safe yet invisible

Designers are continually demanding ever higher performance from extremely heavy doors. To meet these requirements, SFS has developed its concealed hinge range to include the W-Tec 3DL.

The W-Tec 3DL hinge combines superior technical values to meet higher resistance and safety standards with an ultra-modern design. Thanks to its internal 7-axis mechanism and the special shape of its exceptionally strong levers, the W-Tec 3DL is totally stable and secure.

The W-Tec 3DL is ± 3 mm adjustable laterally and in height and ± 1 mm adjustable in gasket pressure. To facilitate door assembly, the frame can be fixed separately with the hinge case already applied.

SFS intec turn ideas into reality

W-Tec 3D+

the concealed hinge designed to be durable and easy to use in any context

The W-Tec 3D+ hinge is an SFS intec product, guaranteeing quality thanks to strict controls both in the manufacturing process and in tests performed on the hinge itself.

SFS intec is also available to offer solutions tailored to specific customer needs.

Load capacity	W-Tec 3D+ 60	W-Tec 3D+ 100	W-Tec 3D+ 160
2 hinges	50 kg	80 kg	140 kg
3 hinges	60 kg	100 kg	160 kg

- independent adjustments possible by a single person
- adjustable in height, laterally and gasket pressure
- new 7-axis kinematic mechanism
- 3 levers always keep the mechanism aligned
- the levers are independent from each other
- individual levers transfer the weight in an innovative way
- material for the levers was chosen for maximum performance
- hinge stable over time
- no need for intervention once mounted and set
- perfectly perpendicular functionality minimises wear and tear
- door hinge ranges up to 60 kg, 100 kg and 160 kg
- symmetrical milling with two depths
- simple independent adjustments
- various finishes
- milling devices available



W-Tec 3D+ 60

the concealed hinge designed to support doors weighing up to 60 kg.

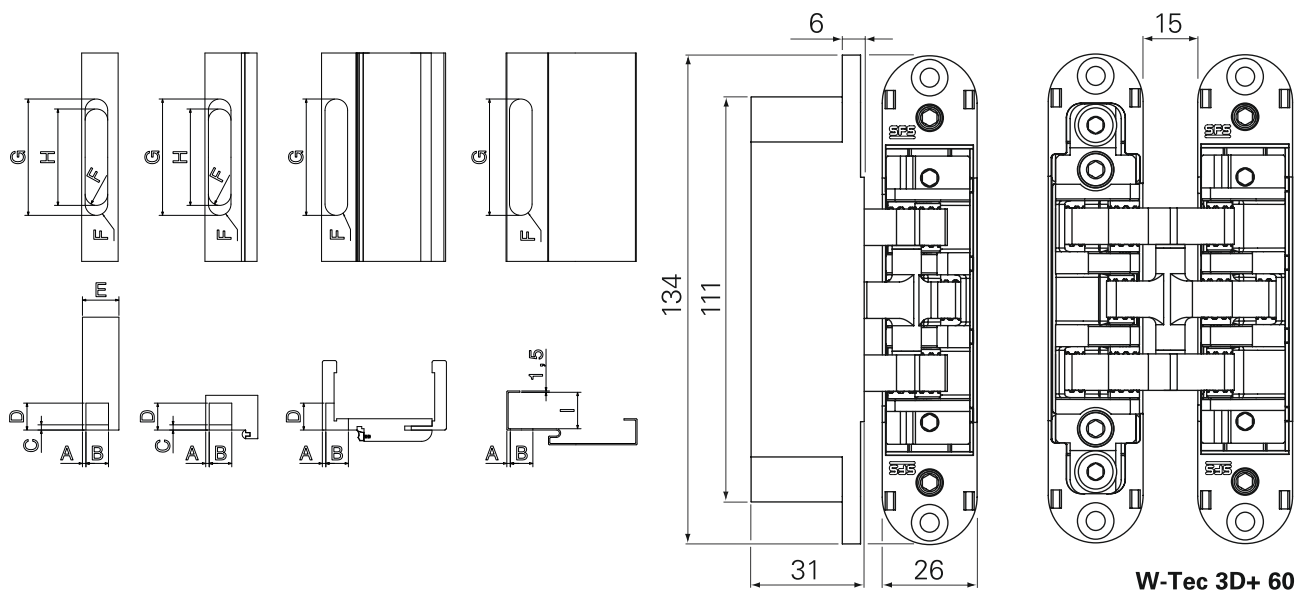


Load capacity	W-Tec 3D+ 60
2 hinges	50 kg
3 hinges	60 kg

Ref.	W-Tec 3D+ 60
A	4
B	26
C	6
D	31
E	Min. 34
F	13
G	134
H	111
I	Min. 35

Hinge order code	Finish
1428632 W-Tec 3D+ 60	Matt Chrome
1407864 W-Tec 3D+ 60	Black RAL 9005

Material: Zamak and steel
 Cycles tested: 2,00,000 Cycles
 Door weight: 60 Kg



W-Tec 3D+ 100

the concealed hinge designed to support doors weighing up to 100 kg.

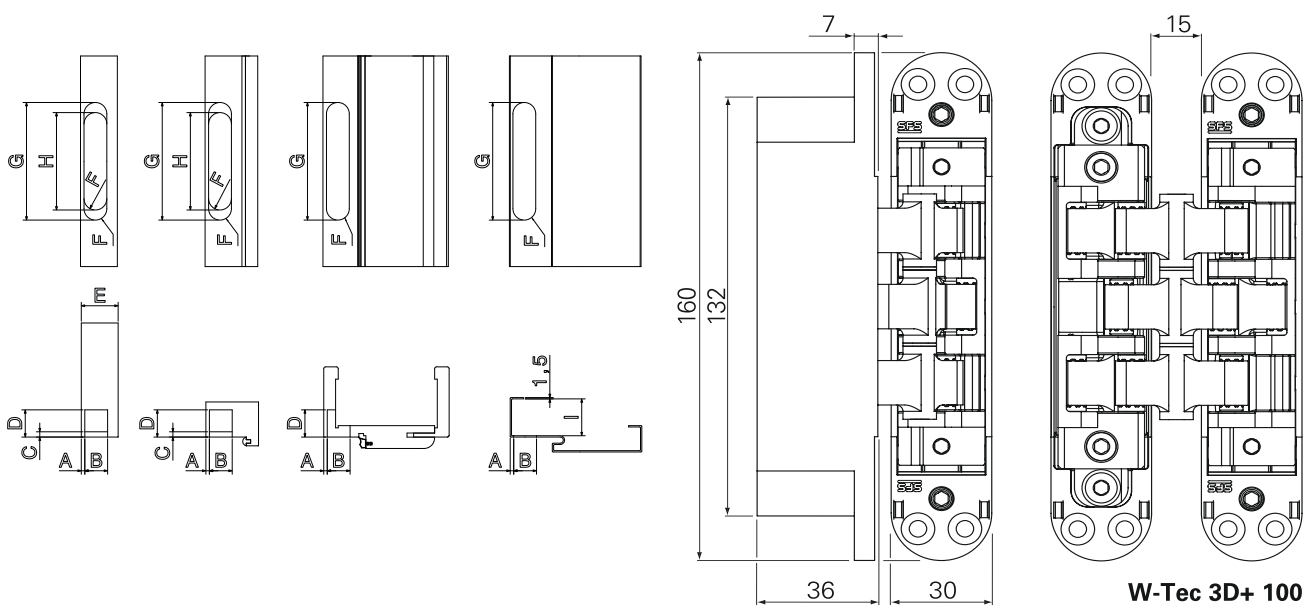


Load capacity	W-Tec 3D+ 100
2 hinges	80 kg
3 hinges	100 kg

Ref.	W-Tec 3D+ 100
A	4
B	30
C	7
D	36
E	Min. 38
F	15
G	160
H	132
I	Min. 40

Hinge order code	Finish
1428633 W-Tec 3D+ 100	Matt Chrome
1383906 W-Tec 3D+ 100	Light Bronze - Antique
1407865 W-Tec 3D+ 100	Black
1361254 W-Tec 3D+ 100	Brassed - Bright Gold

Material: Zamak and steel
 Cycles tested: 2,00,000 Cycles
 Door weight: 100 Kg



W-Tec 3D+ 160

the concealed hinge designed to support doors weighing up to 160 kg.

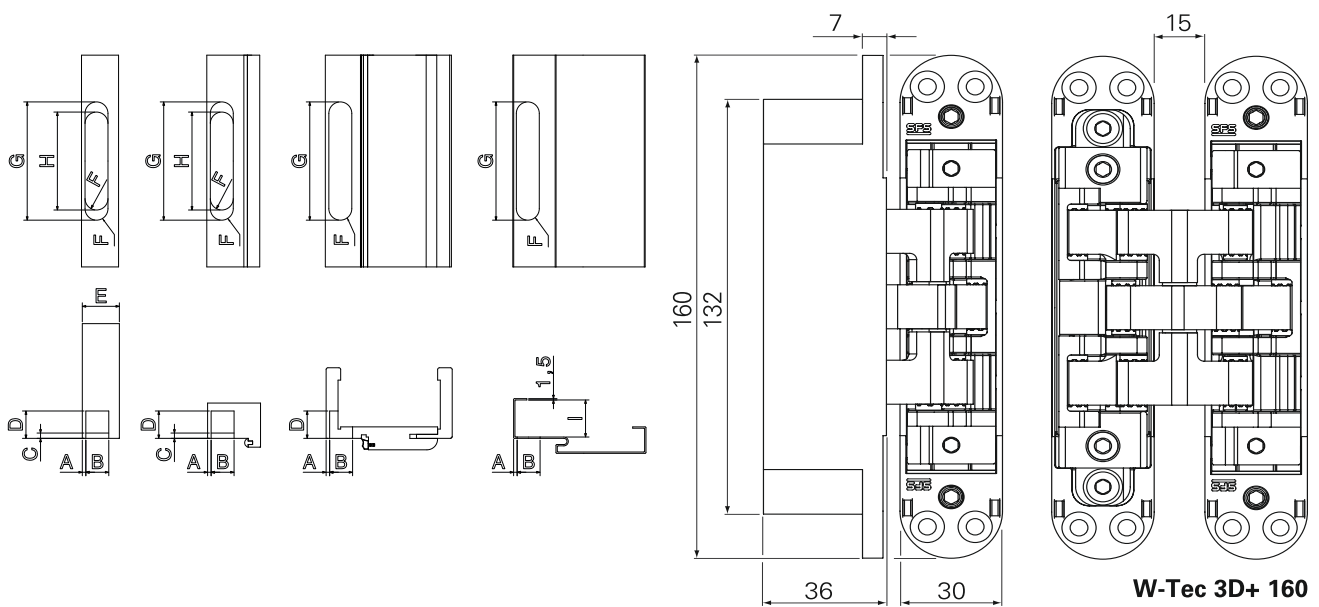


Load capacity	W-Tec 3D+ 160
2 hinges	140 kg
3 hinges	160 kg

Ref.	W-Tec 3D+ 160
A	4
B	30
C	7
D	36
E	Min. 38
F	15
G	160
H	132
I	Min. 40

Hinge order code	Finish
1428631 W-Tec 3D+ 160	Matt Chrome
1544451 W-Tec 3D+ 160	Black

Material: Zamak and steel
 Cycles tested: 2,00,000 Cycles
 Door weight: 160 Kg



W-Tec 3D+ 160

W-Tec 3DL

New

the concealed hinge designed to support doors weighing up to 200 kg.

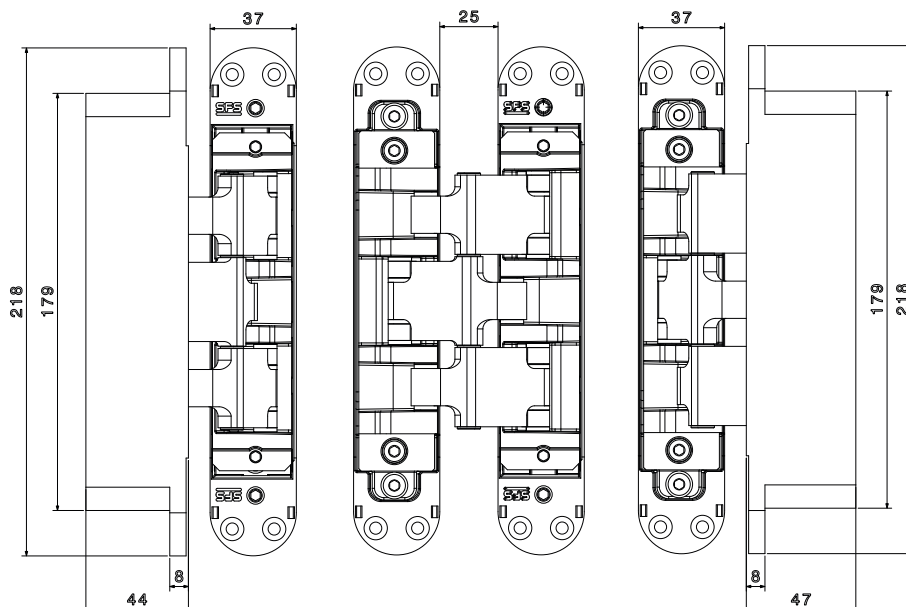


- Stable thanks to the new internal 7-axis mechanism
- Easy adjustments all independent and mechanical
- Applicable to different profile thicknesses
- Wide range of colours on request
- For timber, steel and cover frames
- Milling templates available
- Load capacity up to 200 kg. with 2 hinges

Hinge order code	Finish
1558801 W-Tec 3DL VCO	Matt Chrome

Load capacity	W-Tec 3DL
2 hinges	200 Kg

Material: Zamak and steel
 Cycles tested: 2,00,000 Cycles
 Door weight: 200 Kg



W-Tec 3Ds

the slim and robust concealed hinge for narrow profiles

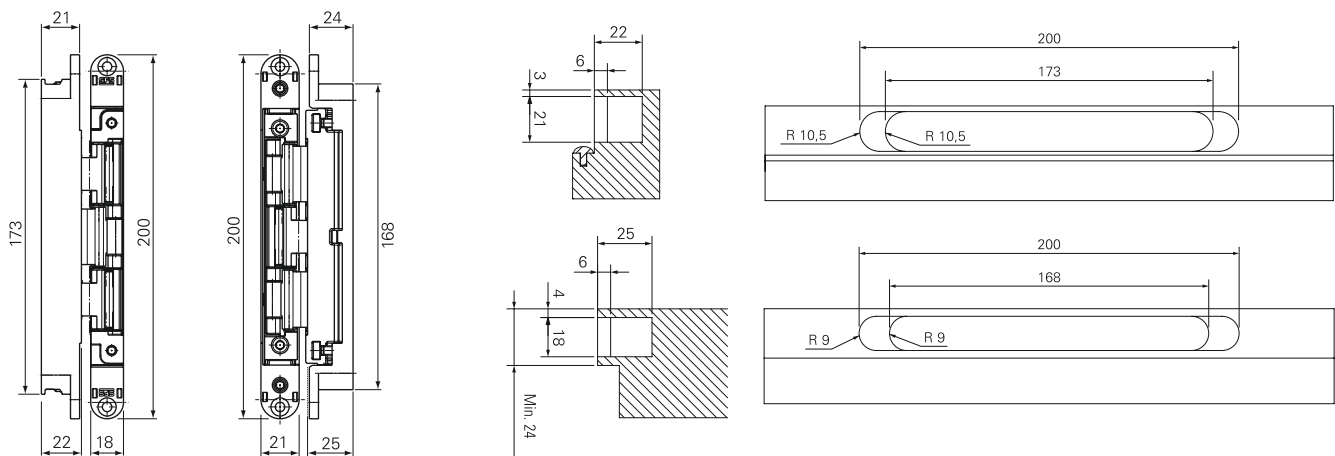


- Stable thanks to the new 7-axis internal mechanism
- Easy adjustments all independent from each other
- Minimal dimensions, especially in depth, for narrow profiles
- Wide range of finishes on request
- For solid or covered wood and steel frames
- Milling jig available
- **Capacity up to 60 kg tested with 2 hinges**

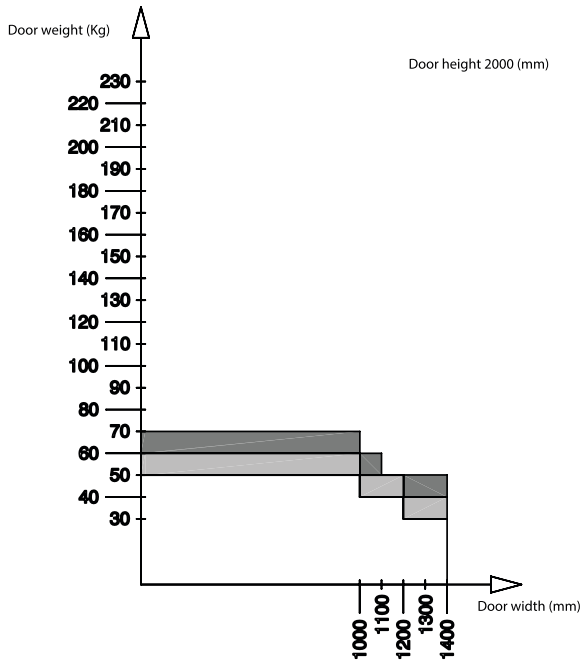
Hinge order code	Finish
1493626 W-Tec 3Ds	Matt Chrome

Load capacity	W-Tec 3Ds
2 hinges	60 kg

Material: Zamak and steel
 Cycles tested: 2,00,000 Cycles
 Door weight: 60 Kg

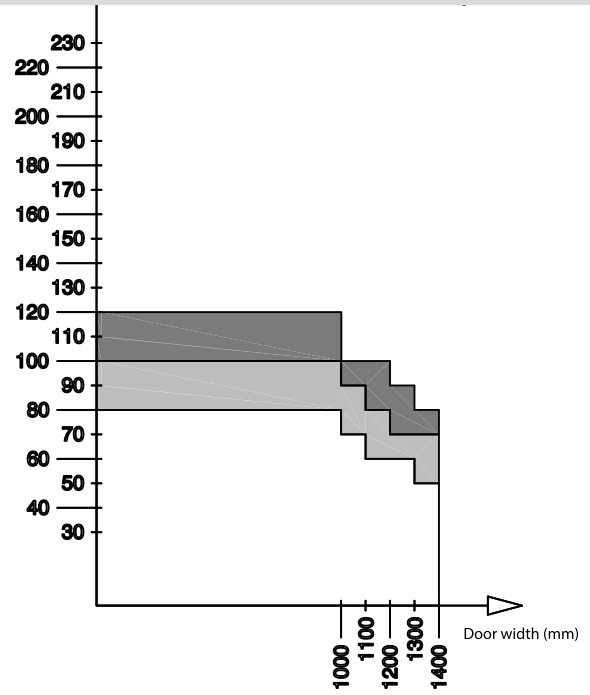


Load capacity values of hinge W-Tec 3D+ 60



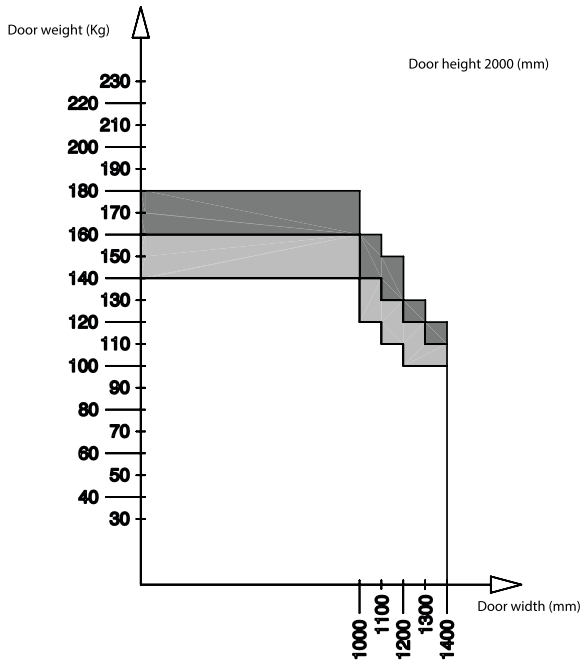
- Applied hinges:
- 2
 - 3
 - 4

Load capacity values of hinge W-Tec 3D+ 100



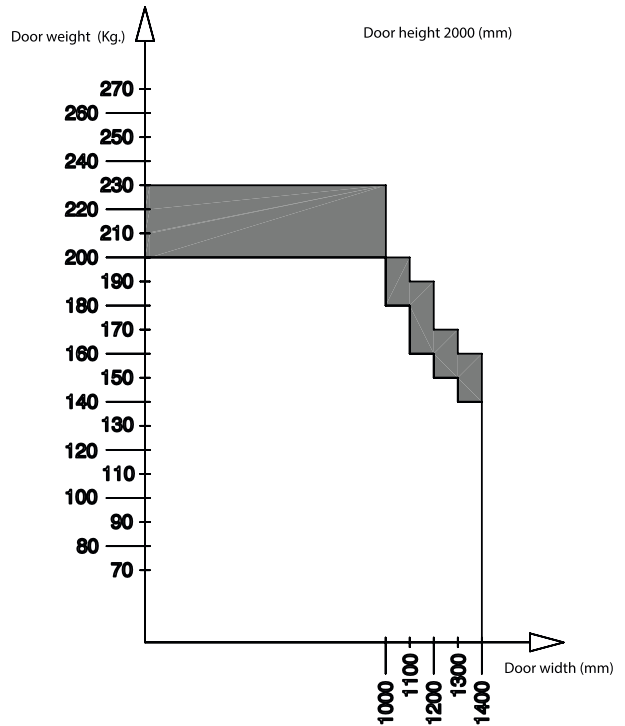
- Applied hinges:
- 2
 - 3
 - 4

Load capacity values of hinge W-Tec 3D+ 160



- Applied hinges:
- 2
 - 3
 - 4

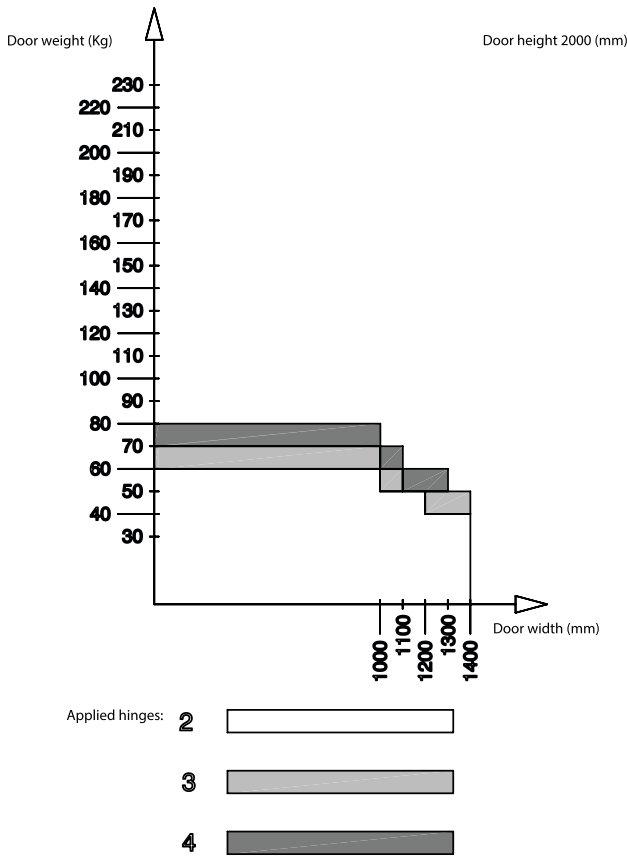
Load capacity values of hinge W-Tec 3DL



- Applied hinges:
- 2
 - 3
 - 4

Load capacity values of hinge W-Tec 3Ds

Load capacity values of hinges by SFS intec



The stated weight capacity value was calculated using a dynamic test carried out according to the RAL standard, involving:

- 200,000 opening movements at 90
- door measuring 2000mm (height) x 1000mm (width)
- 2 fitted hinges

It is important to bear in mind not only the stress due to structural factors (weight and dimensions) but also the external factors to which the system is subjected, as these can affect the weight capacity and life-span of the hinge, for example:

- measurements of the door outside the tolerance ranges (width and/or height)
- place of installation and use of the door (residential buildings, public buildings, schools, nurseries, etc.)
- frequency of opening
- presence of obstacles that prevent opening and/or closing (doorstops, reveals, etc.)
- self-opening/self-closing mechanism
- inward or outward opening of the doors
- weather conditions
- type of door/window material (Wood, PVC-U, aluminum etc.)

Care should be taken to choose the most suitable system, bearing in mind the factors listed above and the following variables:

- number of hinges fitted
- position in which the hinges are fitted
- type of hinges fitted

The essential requirements for ensuring the best performance of a hinge are:

- correct installation of the hinge, its accessories and of the door itself
- stability and correct installation of the frame

Number of hinges to be fitted

In the case of some of the factors listed overleaf, there are formulas for correct calculation of the stress to which the hinges are prone.

Installation of additional hinges.

Additional hinges are usually fitted symmetrically for aesthetic reasons or to ensure pressure on the seal at the center.

In any case, the fitting of additional hinges at the points under greatest stress improves the weight bearing capacity.

For example, if the door is of above standard width, the third hinge should be fitted at an average distance of 300mm from the upper hinge.

Likewise, when there is a door stop on the floor, the additional hinge should be fitted near the lower one.

