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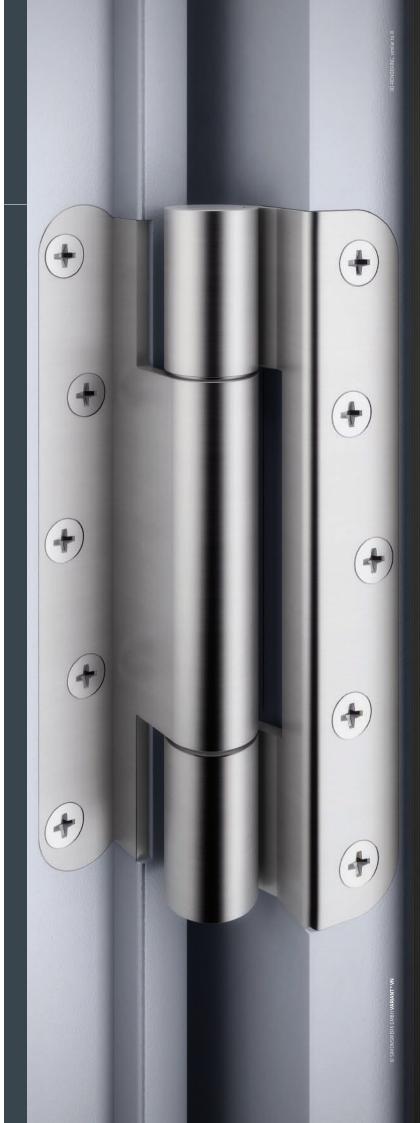
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Transparency in heavy-duty ...

... and residential use

SIMONSWERK INTRODUCTION :

SIMONSWERK - Quality Made in Germany

SIMONSWERK is one of Europe's leading manufacturers and has been developing high-quality hinge systems for doors and windows for around 120 years. The focus for this extensive product range lies in the very latest design and the ultimate in product perfection.

The company's approx. 500 employees are committed to innovative product development and the manufacture and sale of their hinges under the motto "The right hinge for every application". With an extensive product range and many special customer solutions, SIMONSWERK covers almost every area where hinges are required. The company manufactures hinges for applications in wood, aluminium, steel, PVCu and glass. The usage areas include residential, heavy duty, exterior doors, windows and metalworking.

With a subsidiary in Poland and a subsidiary in United Kingdom, SIMONSWERK now serves around 60 foreign markets in Europe, America, Asia and Australia. All over the world, fabricators, dealers and architects increasingly opt for the high-quality hinge systems from SIMONSWERK.

»VARIANT VN« - The proven hinge system for heavy-duty doors

The demands on hinges for heavy duty use are often very diverse and particular. The VARIANT VN hinge system has been developed for use in the heavy duty sector and is characterised by the versatility of its application options.

In addition to maintenance-free slide bearing technology, it can be combined with the large number of receivers from the VARIANT product range to produce the most varied of applications, such as accommodating the receiver in the door leaf for example. Hinges from the VARIANT VN range are suitable for unrestricted use on fire doors. Many of the hinge types are now successfully certified in accordance with the CE directive.

For years, the extensive VARIANT VN range of hinges has provided a multitude of tailored hinge solutions for an almost limitless number of applications.

VN 1939/100

for rebated heavy-duty doors with block frames

Block frame	rebated	up to 100 kg
Technical Details		
Load capacity		100.0 kg
Knuckle length		95.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm



SIMONSWERK VARIANT heavy duty hinge VN 1939/100 for rebated doors with block frames. CE-certified, load capacity 100 kg, knuckle length 95 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	Frame: No. 5 250579 6
	Door: No. 5 250563 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Version available with non removable pin (MSTS).

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

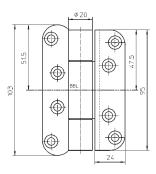
Fire resistance, Smoke resistance

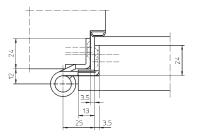






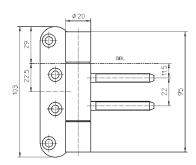


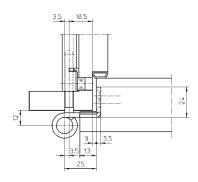












VN 3939/100

for rebated heavy-duty doors with casing frames and block frames

Casing frame	rebated	up to 100 kg
Technical Details		
Load capacity		100.0 kg
Knuckle length		95.0 mm
Knuckle diameter		20.0 mm
Hole/pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 3939/100 for rebated doors with casing or block frames with SIMONSWERK VARIANT hinge pocket of series V 3600, V 3610, V 3630, V 3650 and V 3690 or with block frames with SIMONSWERK VARIANT clamping block V 3604, V 3607 or SIMONSWERK VARIANT clamp V 3605. CE certified, load capacity 100 kg, knuckle length 95 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Combination

Receiver	Block frame	Clamping block V 3604, V 3607
		Clamp V 3605
	Casing frame	Hinge pocket series V 36

See page 22 and following

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	No. 5 250563 5

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

The hinge system can also be used on block frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance







VN 8939/100

for rebated heavy-duty doors with steel frames

Steel frame	rebated	up to 100 kg
		
Technical Details		
Load capacity		100.0 kg
Knuckle length		95.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 8939/100 for rebated doors with steel frames with SIMONSWERK VARIANT hinge pocket V 8600 or V 8610. CE certified, load capacity 100 kg, knuckle length 95 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Combination

Receiver	Hinge pocket V 8600, V 8610
See page 22 and following	

Installation Tools

lig	Universal milling frame
Template for universal milling frame	No. 5 250563 5
Dotailed information at www handsystems com	

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

Please consider DIN reference.

Page 32 contains detailed information about the load capacity stated above.

Functional range

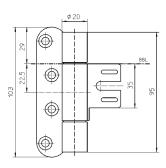
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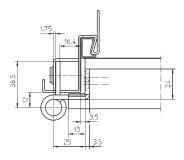




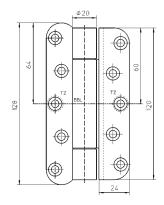


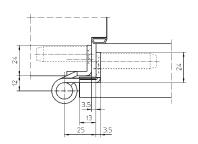












VN 1939/120

for rebated heavy-duty doors with block frames

Block frame	rebated	up to 120 kg
Technical Details		
Load capacity		120.0 kg
Knuckle length		120.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 1939/120 for rebated doors with block frames. CE-certified, load capacity 120 kg, knuckle length 120 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	Frame: No. 5 250574 6
	Door: No. 5 250564 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge leaf is recommended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance







VN 1939/160

for rebated heavy-duty doors with block frames

Block frame	rebated	up to 160 kg
Technical Details		
Load capacity		160.0 kg
Knuckle length		160.0 mm
Knuckle diameter		22.5 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm



SIMONSWERK VARIANT heavy duty hinge VN 1939/160 for rebated doors with block frames. CE-certified, load capacity 160 kg, knuckle length 160 mm, knuckle diameter 22.5 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	Frame: No. 5 250559 6
	Door: No. 5 250560 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge is recommended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

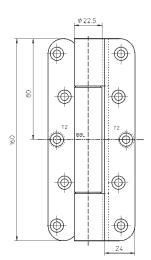
Fire resistance, Smoke resistance

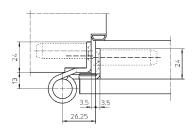




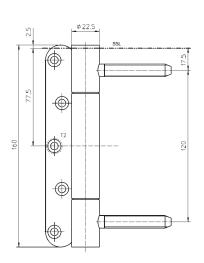


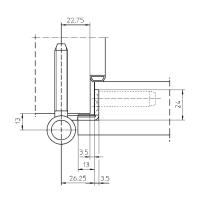












VN 3838/160

for rebated heavy-duty doors with block frames

Technical Details Load capacity Knuckle length	
Knuckle length	
	160.0 kg
	160.0 mm
Knuckle diameter	22.5 mm
Hole / pin diameter	10.0 mm
Material thickness	3.5 mm
Cutter diameter	24.0 mm
Screw length	5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 3838/160 for rebated doors with block frames. CE-certified, load capacity 160 kg, knuckle length 160 mm, knuckle diameter 22.5 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Installation Tools	
Jig	Universal milling frame
	Plug-on drilling jig VN 3800/160
	Serial drilling jig VN 3800/160
Template for universal milling frame	No. 5 250560 5
Detailed information at www handsysteme com	

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge is recomended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance







VN 2828/100

for rebated flush heavy-duty doors with block frames

Block frame	rebated flush	up to 80 kg
Technical Details		
Load capacity		80.0 kg
Knuckle length		95.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 2828/100 for rebated flush doors with block frames. CE-certified, load capacity 80 kg, knuckle length 95 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

mstanation roots	
Jig	Universal milling frame
Template for universal milling frame	No. 5 250566 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

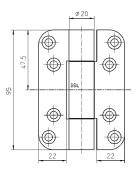
Fire resistance, Smoke resistance

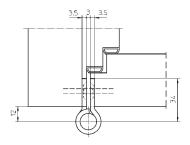




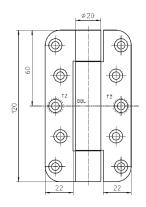


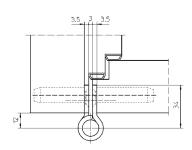












VN 2828/120

for rebated flush heavy-duty doors with block frames

Block frame	rebated flush	up to 100 kg
Technical Details		
Load capacity		100.0 kg
Knuckle length		120.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 2828/120 for rebated flush doors with block frames. CE-certified, load capacity 100 kg, knuckle length 120 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	No. 5 250562 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge leaf is recommended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance







VN 5959/120 N

for rebated flush heavy-duty doors with block frames

Block frame	rebated flush	up to 100 kg
Technical Details		
Load capacity		100.0 kg
Knuckle length		120.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm



SIMONSWERK VARIANT heavy duty hinge VN 5959/120 N for rebated flush doors with block frames. CE-certified, load capacity 100 kg, knuckle length 120 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

lia	Universal milling frame
Jig	Offiversal fillilling frame
Template for universal milling frame	Frame: No. 5 250576 6
	Door: No. 5 250575 6

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge leaf is recommended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

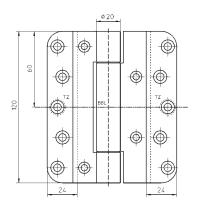
Fire resistance, Smoke resistance

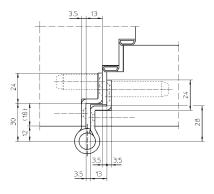




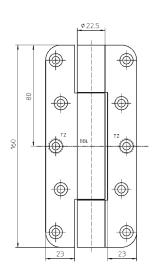


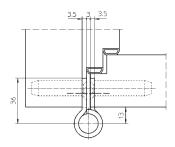












VN 2828/160

for rebated flush heavy-duty doors with block frames

Block frame	rebated flush	up to 120 kg
Technical Details		
Load capacity		120.0 kg
Knuckle length		160.0 mm
Knuckle diameter		22.5 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 2828/160 for rebated flush doors with block frames. CE-certified, load capacity 120 kg, knuckle length 160 mm, knuckle diameter 22.5 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	No. 5 250561 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge leaf is recommended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance







VN 5959/160 N

for rebated flush heavy-duty doors with block frames

Block frame	rebated flush	up to 120 kg
Technical Details		
Load capacity		120.0 kg
Knuckle length		160.0 mm
Knuckle diameter		22.5 mm
Hole/pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm



SIMONSWERK VARIANT heavy duty hinge VN 5959/160 N for rebated flush doors with block frames. CE-certified, load capacity 120 kg, knuckle length 160 mm, knuckle diameter 22.5 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	Frame: No. 5 250578 6
	Door: No. 5 250577 6

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge leaf is recommended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance

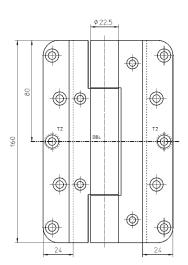


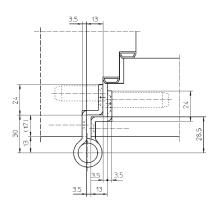




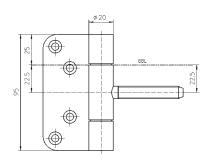


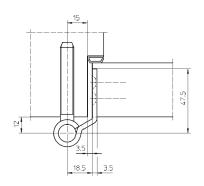












VN 3849/100

for unrebated heavy-duty doors with block frames

Block frame	unrebated	up to 80 kg
Technical Details		
Load capacity		80.0 kg
Knuckle length		95.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 3849/100 for unrebated doors with block frames. CE-certified, load capacity 80 kg, knuckle length 95 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	No. 5 250565 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

 $Fire\ resistance, Smoke\ resistance$







VN 2929/100

for unrebated heavy-duty doors with block frames

Block frame	unrebated	up to 100 kg
Technical Details		
Load capacity		100.0 kg
Knuckle length		95.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm



SIMONSWERK VARIANT heavy duty hinge VN 2929/100 for unrebated doors with block frames. CE-certified, load capacity 100 kg, knuckle length 95 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

mstanation roots	
Jig	Universal milling frame
Template for universal milling frame	No. 5 250565 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

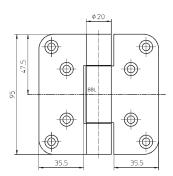
Fire resistance, Smoke resistance

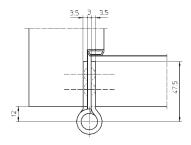




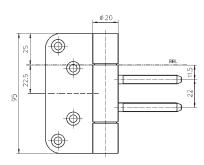


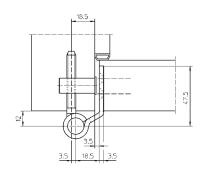












VN 3949/100

for unrebated heavy-duty doors with block frames

Block frame	unrebated	up to 100 kg
Technical Details		
Load capacity		100.0 kg
Knuckle length		95.0 mm
Knuckle diameter		20.0 mm
Hole/pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 3949/100 for unrebated doors with block frames with SIMONSWERK VARIANT clamping block V 3604 or SIMONSWERK VARIANT clamp V 3605. CE-certified, load capacity 100 kg, knuckle length 95 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Combination

Receive	er		Clamping block V 3604
			Clamp V 3605
_	2.7	1.6.11	·

See page 22 and following

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	No. 5 250565 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance







VN 8849/100

for unrebated heavy-duty doors with steel frames

Steel frame	unrebated	up to 100 kg
Technical Details		
Load capacity		100.0 kg
Knuckle length		95.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm



SIMONSWERK VARIANT heavy duty hinge VN 8849/100 for unrebated doors with steel frames with SIMONSWERK VARIANT receiver V 8600 or V 8610. CE certified, load capacity 100 kg, knuckle length 95 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Combination

Receiver	Hinge pocket V 8600, V 8610
See page 22 and following	

Installation Tools

mstanation room	
Jig	Universal milling frame
Template for universal milling frame	No. 5 250565 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

Please consider DIN reference.

Page 32 contains detailed information about the load capacity stated above.

Functional range

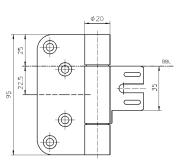
 $\label{eq:fire resistance} \textit{Fire resistance}, \textit{Smoke resistance}$

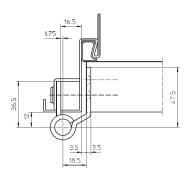




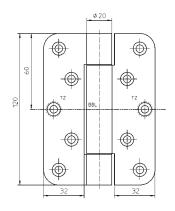


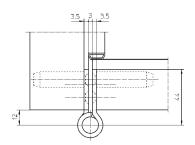












VN 2929/120

for unrebated heavy-duty doors with block frames

Block frame	unrebated	up to 120 kg
Technical Details		
Load capacity		120.0 kg
Knuckle length		120.0 mm
Knuckle diameter		20.0 mm
Hole / pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 2929/120 for unrebated doors with block frames. CE-certified, load capacity 120 kg, knuckle length 120 mm, knuckle diameter 20 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	No. 5 250354 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge leaf is recommended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance







VN 2927/160 Planum

with reduced, slim knuckle for unrebated heavy-duty doors with block frames

Block frame	unrebated	up to 160 kg
Technical Details		
Load capacity		160.0 kg
Knuckle length		160.0 mm
Knuckle diameter		15.0 mm
Material thickness		3.0 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm



Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 2927/160 Planum with reduced, slim knuckle for unrebated doors with block frames with three-dimensionally adjustable SIMONSWERK receiver UK 3D. CE-certified, load capacity 160 kg, knuckle length 160 mm, knuckle diameter 15 mm, right hand and left hand applicable. Internal, fixed hinge pin, concealed, maintenance-free axial-radial slide bearings. Finish...

Combination

Receiver	UK 3D
	UK 3D T30
see page 30 and following	

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	Frame: No. 5 250353 5
	Door: No. 5 250358 6

Detailed information at www.bandsysteme.com

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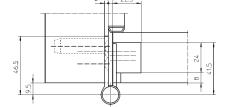
Finish

See page 34 for the range of finishes.

Note

Adapted for the installation of doors within the project sector the slimline, diameter-reduced hinge knuckle is ideal for slim, recessed frame facings. A reinforcing dowel 12.0x50.0 mm per hinge is recommended when the door is subject to heavy usage. The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.



Functional range

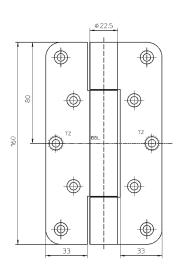
Fire resistance, Smoke resistance

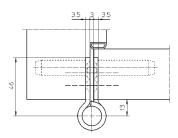












VN 2929/160

for unrebated heavy-duty doors with block frames

Block frame	unrebated	up to 160 kg
Technical Details		
Load capacity		160.0 kg
Knuckle length		160.0 mm
Knuckle diameter		22.5 mm
Hole/pin diameter		10.0 mm
Material thickness		3.5 mm
Cutter diameter		24.0 mm
Screw length		5.0x50.0 mm

Descriptive Text

SIMONSWERK VARIANT heavy duty hinge VN 2929/160 for unrebated doors with block frames. CE-certified, load capacity 160 kg, knuckle length 160 mm, knuckle diameter 22.5 mm, right hand and left hand applicable. Internal, torsion-proof pin, concealed, maintenance-free, generously dimensioned axial-radial slide bearings. Finish...

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	No. 5 250353 5

Detailed information at www.bandsysteme.com

Finish

See page 34 for the range of finishes.

Note

Version available with non removable pin (MSTS).

A reinforcing dowel 12.0x50.0 mm per hinge leaf is recommended when the door is subject to heavy usage.

The hinge system can also be used on blind frames.

Page 32 contains detailed information about the load capacity stated above.

Functional range

Fire resistance, Smoke resistance



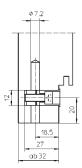




VARIANT V 3604/18,5
Clamping block for block frames and blind frames

VARIANT V	Block frame	Clamping block
Technical Details		
Cutter diameter		12.0 mm
Combination		
Hinge	VARIANT VN	VN 3949/100
		VN 3939/100
		VN 3939/100 FD
		VN 3939/100 FV
		VN 3939/100 FV FD
		VN 3938/160
		VN 3938/160 FD





Installation Tools

Serial routing jig clamping block VARIANT V 3604 Jig Drilling/routing jig VARIANT V 3604

Detailed information at www.bandsysteme.com

Finish

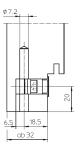
Galvanised, yellow galvanised

VARIANT V 3605

Clamp for block frames and blind frames

VARIANT V	Block frame	Clamp
Technical Details		
Cutter diameter		12.0 mm
Combination		
Hinge	VARIANT VN	See V 3604/18.5





Installation Tools

Drilling/routing jig VARIANT V 3605

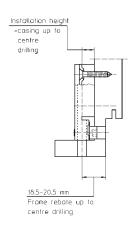
Detailed information at www.bandsysteme.com

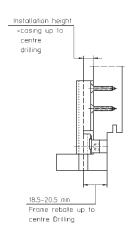
Finish

Galvanised

Rebate hole drilling jig VARIANT V







VARIANT V 3600 series

Hinge pocket for timber frames

VARIANT V	Casing frame	Hinge pocket
Combination		
Hinge	VARIANT VN	VN 3939/100, VN 3939/100 FD
		VN 3939/100 FV, VN 3939/100 FV FD
		VN 3938/160, VN 3938/160 FD
Accessories		Cover cap 10 mm
Installation Tools		
Jig		Serial drilling jig VARIANT V metal pocket
		Plastic drilling jig VARIANT V

Detailed information at www.bandsysteme.com

Types

V 3600/9.8 (Installation height 9.8 mm) Hinge pocket V 3601/5,8 (Installation height 5.8 mm), V 3603/7.8 (Installation height 7.8 mm)

Detailed information on model variants at www.bandsysteme.com

VARIANT V 3610 series

Hinge pocket for timber frames

VARIANT V	Casing frame	Hinge pocket
Combination		
Hinge	VARIANT VN	See series V 3600
Accessories		Reinforcing plate V 3610
		Cover cap 10 mm

See series V 3600 Jig

Types

Hinge pocket V 3611/5.8 (Installation height 5.8 mm), V 3612/7.8 (Installation height 7.8 mm) V 3613/8.8 (Installation height 8.8 mm), V 3614/9.8 (Installation height 9.8 mm)

Detailed information on model variants at www.bandsysteme.com

Finish

Galvanised

Note

Hinge pockets are individually specified according to reference height and tube lenghts, upon request. The clamping system matches with the frame parts VARIANT by exactly coordinated dovetailing. Only this combination guarantees a high clamping effect and pull-out strength. Please specify frame-line width when ordering jigs.

VARIANT V 3630 series

Hinge pocket for timber frames

VARIANT V	Casing frame	Hinge pocket
Combination		
Hinge	VARIANT VN	VN 3939/100
		VN 3939/100 FD
		VN 3939/100 FV
		VN 3939/100 FV FD
		VN 3938/160
		VN 3938/160 FD
Accessories		Cover cap 10 mm
Installation Tools		
lig		Plastic drilling jig VARIANT V

Jig Rebate hole drilling jig VARIANT V Serial drilling jig VARIANT plastic pocket

Detailed information at www.bandsysteme.com

Types

Hinge pocket	V 3630/5.0-14.5
	(Installation height 5.0 mm, tube length 14.5 mm)
	V 3631/5.8-14.5
	(Installation height 5.8 mm, tube length 14.5 mm)
	V 3632/6.8-14.5
	(Installation height 6.8 mm, tube length 14.5 mm)
	V 3633/7.8-14.5
	(Installation height 7.8 mm, tube length 14.5 mm)

Detailed information on model variants at www.bandsysteme.com

Finish

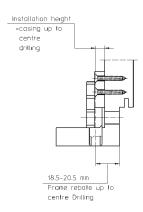
Jet black

Hinge pockets are individually specified according to reference height and tube lenghts, upon request. The clamping system matches with the frame parts VARIANTby exactly coordinated dovetailing. Only this combination guarantees a high clamping effect and pull-out strength. Please specify frame-line width when ordering jigs.









VARIANT V 3650 series

Hinge pocket for timber frames

VARIANT V	Casing frame	Hinge pocket
Combination		
Hinge	VARIANT VN	VN 3939/100
		VN 3939/100 FD
		VN 3939/100 FV
		VN 3939/100 FV FD
		VN 3938/160
		VN 3938/160 FD
Accessories		Cover cap 10 mm

Installation Tools

Jig Plastic drilling jig VARIANT V Rebate hole drilling jig VARIANT V Serial drilling jig VARIANT plastic pocket

Detailed information at www.bandsysteme.com

Types

Hinge pocket V 3653/8.0-13.5

(Installation height 8.0 mm, tube length 13.5 mm) $V\,3653/8.0\text{-}14.5$

(Installation height 8.0 mm, tube length 14.5 mm)

Detailed information on model variants at www.bandsysteme.com

Finish

Jet black

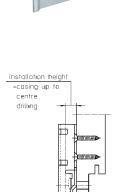
Note

Hinge pockets are individually specified according to reference height and tube lenghts, upon request. The clamping system matches with the frame parts VARIANT by exactly coordinated dovetailing. Only this combination guarantees a high clamping effect and pull-out strength. Please specify frame-line width when ordering jigs.

VARIANT V 3690 series

Hinge pocket for timber frames

Casing frame	Hinge pocket
VARIANT VN	VN 3939/100
	VN 3939/100 FD
	VN 3939/100 FV
	VN 3939/100 FV FD
	VN 3938/160
	VN 3938/160 FD
	Reinforcing plate V 3690
	Cover cap 10 mm
	On request
	Officquest
	V 3692/7.8-14.5
(Installation he	eight 7.8 mm, tube length 14.5 mm)
	V 3693/9.0-16.5
(Installation he	eight 9.0 mm, tube length 16.5 mm)
	VARIANT VN (Installation he





Detailed information on model variants at www.bandsysteme.com

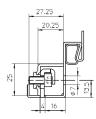
Finish

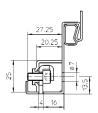
Galvanised

Note

Hinge pockets are individually specified according to reference height and tube lenghts, upon request. The clamping system matches with the frame parts VARIANT by exactly coordinated dovetailing. Only this combination guarantees a high clamping effect and pull-out strength. Please specify frame-line width when ordering jigs.







VARIANT V 8600

weld-in pocket for steel frames

VARIANT V	Steel frame	Hinge pocket
Combination		
Hinge	VARIANT VN	VN 8939/100
		VN 8939/100 FD
		VN 8939/100 FV
		VN 8939/100 FV FD
		VN 8938/160
		VN 8938/160 FD
		VN 8849/100
		VN 8948/160
		VN 8937/160 U 3D
		VN 8938/160 U
		VN 8938/160 U FD
		VN 8947/160 U 3D

Finish

Galvanised

Note

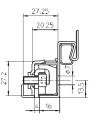
Plaster-proof design with a retractable clamping- and centre piece

VARIANT V 8610

weld-in pocket for steel frames

VARIANT V	Steel frame	Hinge pocket
Combination		
Hinge	VARIANT VN	VN 8939/100
		VN 8939/100 FD
		VN 8939/100 FV
		VN 8939/100 FV FD
		VN 8938/160
		VN 8938/160 FD
		VN 8849/100
		VN 8948/160
		VN 8937/160 U 3D
		VN 8938/160 U
		VN 8938/160 U FD
		VN 8947/160 U 3D



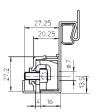


Finish

 ${\sf Galvanised}$

Note

Plaster-proof design with a retractable clamping- and centre piece





0 106 0



GLOBUS UK 3D rebate

for rebated timber doors

GLOBUS		Receiver
Technical Details		
Cutter diameter		24.0 mm

Descriptive Text

SIMONSWERK receiver UK 3D rebated in door leaf for rebated timber doors with SIMONSWERK heavy-duty hinges GLOBUS with three-dimensional adjustment and heavy-duty hinges VARIANT VN 3737/160 3D, VN 8937/160 U 3D. Three-dimensionally, continuously adjustable: Side +/- 3.0 mm, height +/- 2.5 mm, compression +/-1.0 mm. Finish...

Combination

Heavy	duty hinge	VARIANT VN	VN 3737/160 3D
			VN 8937/160 U 3D
		GLOBUS	On request

Installation Tools

Jig	Universal milling frame
Template for universal milling frame	No. 5 250358 6

Detailed information at www.bandsysteme.com

Finish

Galvanised, nickelled, powder coated

GLOBUS UK 3D

for unrebated timber doors

GLOBUS	Receiver
Technical Details	
Cutter diameter	24.0 mm

Descriptive Text

SIMONSWERK receiver UK 3D in door leaf for unrebated timber doors with SIMONSWERK heavy-duty hinges GLOBUS with three-dimensional adjustment and heavy-duty hinges VARIANT VN 2927/160 Planum, VN 3747/160 3D, VN 8947/160 U 3D. Three-dimensionally, continuously adjustable: Side +/- 3.0 mm, height +/- 2.5 mm, compression +/- 1.0 mm. Finish...

Combination

VARIANT VN VN 29	927/160 Planum
•	VN 3747/160 3D
VI	N 8947/160 U 3D
GLOBUS	On request

Installation Tools

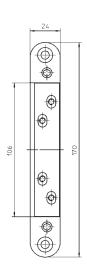
Jig	Universal milling frame
Template for universal milling frame	No. 5 250358 6

Detailed information at www.bandsysteme.com

Finish

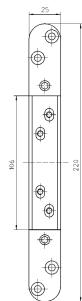
Galvanised, nickelled, satin chromed/F 1, powder coated

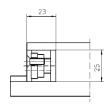


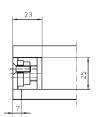












GLOBUS UK 3D T30

for rebated and unrebated fire resistant doors

GLOBUS		Receiver
Technical Details		
Cutter diameter		24.0 mm

Descriptive Text

SIMONSWERK receiver UK 3D T30 in door leaf for rebated and unrebated fire resistant doors with SIMONSWERK heavy-duty hinges GLOBUS with three-dimensional adjustment and heavy-duty hinges VARIANT VN 2927/160 Planum, VN 3737/160 3D, VN 3747/160 3D, VN 8937/160 U 3D, VN 8947/160 U 3D. Three-dimensionally, continuously adjustable: Side +/- 3.0 mm, height +/- 2.5 mm, compression +/- 1.0 mm. Finish...

Combination

Heavy duty hinge	VARIANT VN	VN 2927/160 Planum
		VN 3737/160 3D
		VN 3747/160 3D
		VN 8937/160 U 3D
		VN 8947/160 U 3D
	GLOBUS	On request

Installation Tools

Jig	On request
-----	------------

Finish

Galvanised, nickelled, satin chromed/F 1, powder coated

Functional range

Fire resistance, Smoke resistance

HINGE LOAD CAPACITY

Selection criteria

When selecting or defining a hinge, the load itself is often equated to the door weight. However, due to a number of different factors, the load on the hinge can often be many times more than the door weight.

Even when all these different criteria have been considered, an additional reserve should always be calculated when selecting the hinge.

This is especially relevant in public buildings, where particular loads occur because it's not always possible to calculate the high frequency of opening and usage (schools, housing developments etc.), the hinges should be upgraded by size, even if this is unnecessary based purely on the door weight.

Ultimately a hinge is only as good as its subsequent application. That's why proper fitting and professional installation are absolutely essential. Only hinges that are fixed correctly can fulfil their designated function.

The material strength of the component to be fitted and the force-fit connection to the brickwork or frame is the basis for the respective hinge function. We are happy to help should you have any questions regarding the right hinge selection for a specific case.

Third hinge

In addition to the factors described above, the use of a third hinge can have a significant impact on the load capacity. However, it's important to bear in mind that the stated capacity cannot simply be multiplied by a factor of 1.5. The load capacity can only be influenced positively if a 3rd hinge is used in the upper third. SIMONSWERK recommends that a 3rd hinge is used 370 mm below the top hinge (based on the upper hinge reference line). This will increase the stated load capacity by approx. 30%.

Extra wide doors

SIMONSWERK heavy-duty hinges are generally designed for the stated load capacities. Please note that from a door width of 100 cm, when the hinge spacing remains constant, the load capacities are reduced as a percentage to the extent by which the 100 cm door width is exceeded (e.g. door width of 125 cm = load capacity ./. 25%). An accurate, professional fitting in accordance with the SIMONSWERK installation instructions is always a prerequisite.

The load specifications for SIMONSWERK hinges refer to a maximum door weight, in consideration of the named factors that influence the load on the hinges.

All specifications are based on the following references:

Door leaf size	1000 x 2000 mm
Use of	2 hinges
Hinge spacing	1435 mm

To avoid consequential damage, the following criteria must be considered when selecting a hinge:

Installation site (residential property, public building, school, head office, housing developments etc.)

Element's material type

Frequency of opening

Door dimensions (e.g. extra wide)

Position of the hinges

Installation of the hinges

Outward opening doors (porch)

Door stoppers

Door closers

Wall soffits, etc.

APPLICATION



Reinforcing dowel (TZ)

Depending on the application area, design and door usage, the use of reinforcing dowels may be recommended to stabilise the hinge leaves. Reinforcing dowels relieve the load on the fastening screws and stabilise the hinge leaves in the door leaf hole. Hinges with a height of 160 mm or 120 mm can be fitted with an additional reinforcing dowel in the centre screw hole. The reinforcing dowel should be ordered separately. With a material thickness of 3.0 mm or 3.5 mm, the reinforcing dowel will need to be 12×50 mm (M 5 screw). With a material thickness of 4.0 mm, use a reinforcing dowel of 12×60 mm (M 6 screw).

Rebate seal

For some VN hinges, versions for acoustic seal are available on request.

Screws

The countersunk screw holes on SIMONSWERK heavy-duty hinges are designed for German chipboard screws. For use in practice we recommend screws (e.g. Spax) with a 4.5–5.0 mm diameter. On hinges with a material thickness of 4 mm, the countersunk holes are designed for a 6 mm screw diameter. The outer fastening screws for the covers in the VARIANT VN series should be at least 6×40 mm.

In general we recommend that screw holes are predrilled to ensure an optimum hold and thereby guarantee the stated load capacities.



Non removable pin (MSTS)

On request, all SIMONSWERK hinges with a continuous hinge pin are also available with a non removable pin, for use on outward opening doors.

Material

SIMONSWERK exclusively uses tested, high-quality materials on all its hinge versions.



Finials for VARIANT VN heavy-duty hinges

SIMONSWERK designer door hinges are showpieces for sophisticated door appearance. Highly successful on interior and exterior doors, they also "wave the flag" in the heavy-duty sector. With basic and soft finials, VARIANT VN heavy-duty hinges in 100 mm and 160 mm sizes are also available in two outstanding designs in high-quality finishes.

APPLICATION

Special designs

If you have special designs and none of the hinges featured in this catalogue are suitable, please send us a dimensioned cross sectional drawing of the component design, if possible on a 1:1 scale – ideally in CAD format, e.g. DXF. SIMONSWERK will quickly check whether any of our hinges can be modified to suit your requirements.

Scale, scaled drawing

All CAD drawings have been produced to scale and are shown on a scale of 1:3 (photo and technical drawing).

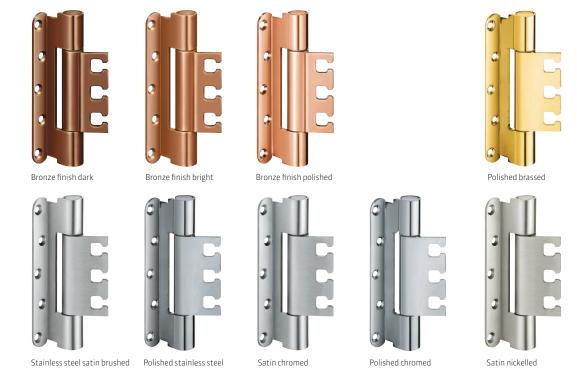
Scale of 1:3 corresponds to 33.3 % (exception: chapter on application technology).

Knuckle

VARIANT heavy-duty hinges are available in the standard dimensions of 160, 120 and 100 mm. The knuckles of the 100 and 120 mm hinges have a 20 mm, the knuckles of the 160 mm hinges a 22.5 mm diameter. There is also one Ø 15 mm version as a filigree alternative for design-oriented door elements.

Finishes for heavy-duty hinges VARIANT VN

A wide range of finishes give planners the ability to match the various hardware components such as handles and hinges. All heavy-duty hinges are available in the "galvanised" version. Stainless steel hinges are also available with PVD coating. Other finishes, in RAL colours for example, are available on request.



APPLICATION

Corrosion protection

When selecting a suitable finish or material, corrosion protection often plays a decisive role alongside the inclusive visual image of the door and hardware. In practice it is important to have both components working in harmony, to maintain a lasting, overall impression.

The main materials and finishes from SIMONSWERK are tested in accordance with the specifications of DIN EN 1670 and are classified as follows:

Stainless steel	Class 4
Stainless steel look (aluminium)	Class 4
Powder coated (coloured)	Class 4
Top zinc	Class 4
Galvanised	Class 3
Polished chromed	Class 2
Satin chromed	Class 1

Class 1 = **24 hour** salt spray test

Class 2 = **48 hour** salt spray test

Class 3 = **96 hour** salt spray test

Class 4 = **240 hour** salt spray test

All other finishes not listed here satisfy only optical requirements.

In damp locations and on components exposed to the elements, we recommend the use of stainless steel hinges only, as this is the only material proved to be corrosion resistant over the long term.

Even stainless steel material can reach its limits under extreme conditions (such as coastal regions, indoor swimming pools, rooms with aggressive air, etc.). Continual maintenance will guard against the onset of light surface and flash rust. Cleaning periods depend on usage and the degree of pollution. Further information on caring for stainless steel material can be found at www.bandsysteme.com.

Specific material usage can improve stainless steel's resistance to corrosion. We would be happy to advise you.

FURTHER BRANDS MADE BY SIMONSWERK

- **SIMONSWERK** TECTUS®
- **SIMONSWERK** VARIANT® VX
- **SIMONSWERK** VARIANT® VG
- **SIMONSWERK** VARIANT® V
- **SIMONSWERK** BAKA®
- **SIMONSWERK** SIKU®
- **SIMONSWERK** ALPRO®

Brochure VARIANT® VN (GB)



04/2011 5 800310 0 00001/1.0

SIMONSWERK do not accept responsibility for misprints and subsequent specification changes although every effort has been made to avoid any errors during preparation of this brochure.

OUR PRODUCT INFORMATION SYSTEM

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