

NORMACLAMP® – Hose Clamps

NORMACLAMP® S/SP –
Sealing clamps (NORMACLAMP® S) to DIN 3017, Retaining clamps (NORMACLAMP® SP) to DIN 3016

Thanks to their robust clamping brackets with metric bolts the clamping force offered by NORMACLAMP® S/SP is very high. We recommend the two-part version for applications submitted to extreme pressure and tensile loads.

Short description of technical features



1 Strong clamping brackets
= high clamping force
= optimum sealing

2 Bridge
= optimum hose protection

3 Robust band with rounded edges
(from band width 20 mm)
= prevention of injuries and damage to the hose




Materials

W1	W2	W3	W4	W5
x			x*	x

* For band width 30 mm on demand

NORMACLAMP® – Hose Clamps

Bolts

	Zy	Sz	Sk
			
Band width 5 mm	M 2 x 12		
Band width 7 mm	M 3 x 16		
Band width 9 mm	M 4 x 22		
Band width 12 mm		M 5 x 25	
Band width 15 mm		M 6 x 30	
Band width 20 mm		M 8 x 40	
Band width 25 mm			M 10 x 45
Band width 30 mm			M 12 x 65

The following band widths will be supplied with special screws on request:
 Band width 9 mm – Thumbscrew
 Band width 12 mm – Eye screw
 Band width 25 mm – Eye screw

Static torques to DIN 3017-2

Band width (mm) b₁	Static tightening torque	Static test torque
	Nm	Nm
7	0.5	0.6
9	1.2	1.5
12	1.5	1.8
15	4	4.8
20	12	14.5
25	30	36
30	70	84

The advantages at a glance

- High clamping force
- Optimal clamping force distribution
- Available with optional angles, consoles or brackets
- Available with optional rubber sleeve for vibration damping and protection against creeping water

NORMACLAMP® – Hose Clamps

Clamp Types

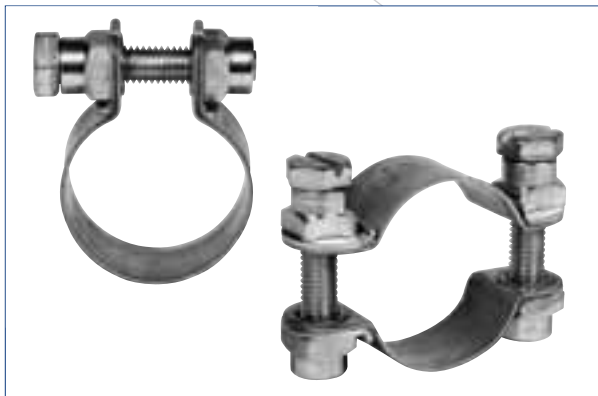


NORMACLAMP® S

Hose sealing clamps are used to seal rubber and plastic hoses as well as rubber sleeves on pipe ends or connecting spigots.

Larger diameters can be connected without problems using two-part clamps.

Sizes are stepped up in 1 mm intervals.



NORMACLAMP® SP

Retaining clamps are suitable for clamping containers, pipes and cables.



NORMACLAMP® SPGU

Clamps with rubber profile are available from band width 9 mm. They are suitable for use when vibration damping or protection against creeping water is required.

NORMACLAMP® – Hose Clamps

Technical features

Corrosion resistance

Material	Corrosion resistance in salt spray testing
W1	Min. 72 h
W4	Min. 240 h
W5	Min. 400 h

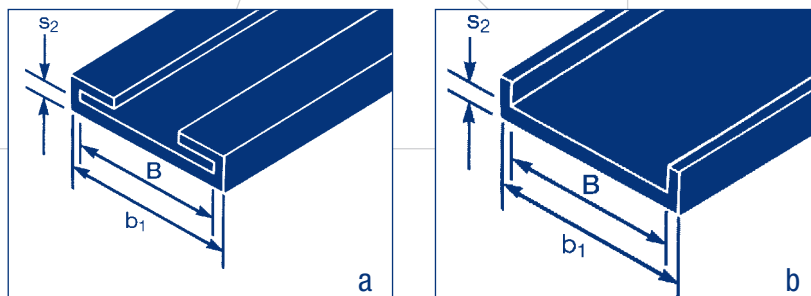
Band width b_1 (mm)	Min. dia- meter (mm)	Material thickness (mm)						Rubber profile (mm)	
		S			SP			SPGU	
		W1	W4	W5	W1	W4	W5	b_1	s_2
5	5	0.2	–	–	0.2	–	–	–	–
7	6	0.3 / 0.4	–	0.4	0.4	–	0.4	–	–
9	9	0.4	–	0.4	0.6	–	0.4	12.5	1
12	12	0.5	–	0.5	0.7	–	0.5	15	1.2
15	20	0.6	–	0.6	0.8	–	0.6	18.5	1.5
20	25	1.0	–	0.8	(up to \varnothing 47) 1.0 (from \varnothing 48) 1.25	–	0.8	25	2
25	50**	1.25	–	1.0	1.25/1.5	–	1	31	3
30	80	2.5	–	–	2.5	–	–	36	3
30	100*	–	2.5	–	–	2.5	–	36	3

* Material W4 \varnothing 100 – 150 only available as two-part version

** SPGU = 40

NORMACLAMP® – Hose Clamps

Rubber profiles



Depending on the profile type (a or b) the rubber profiles are available either in Silicone or EPDM material.

B = Band width of the clamp
b₁ = Width in mm
s₂ = Material thickness in mm

Material Properties of Different Rubber Types

Properties	Silicone	EPDM
Tensile strength [N/mm ²]	8.5	min. 8
Breaking elongation [%]	420	350
Shore Hardness A	70 ± 5	70 ± 5
Temperature [°C]	-60 ° to +170 °	-40 ° to +120 °
Resistance:		
Weather & Ozone	Good	Very good
Ageing & Sun cracks	Very good	Very good
Petrol	Average	Not resistant
Oils & greases	Good	Not resistant
Alcohols	Good	Good
Acids	Average	Good
Alkalis	Average	Good

Applications in the automotive industry

NORMACLAMP® S/SP/SPGU are especially suitable for use in commercial vehicles, e.g. :

- Retaining rubber and plastic hoses (NORMACLAMP® S)
- Retaining rubber sleeves on pipe ends or hose connectors (NORMACLAMP® S)
- Clamping and retaining containers, generators, pipes and cables (NORMACLAMP® S/SP)

Also, NORMACLAMP® S are being used by the automotive industry for the fastening of airbags. Safety parts of this kind are submitted to 100% testing.

NORMACLAMP® – Hose Clamps

Survey of sizes, band widths & materials NORMACLAMP® S

Dia- meter in mm	Band width							W1	W5*
	5 mm Zy	7 mm Zy	9 mm Zy	12 mm Sz	15 mm Sz	20 mm Sz	25 mm Sk		
up to 9	X							X	X
up to 10		X	X					X	X
from 15			X	X	X			X	X
up to 20			X	X	X			X	X
up to 28				X	X			X	X
up to 30			X		X			X	X
from 36			X		X	X		X	X
up to 40			X		X	X		X	X
up to 50			X		X	X	X	X	X
up to 60			X		X	X	X	X	X
up to 70			X		X	X	X	X	X
up to 75			X					X	X
up to 80					X	X	X	X	X
up to 90					X	X	X	X	X
up to 100					X	X	X	X	X
up to 110						X	X	X	X
up to 120						X	X	X	X
up to 130						X		X	X
up to 140						X		X	X
up to 150						X		X	X
up to 160						X		X	X
up to 170						X		X	X
up to 180						X		X	X
up to 190						X		X	X
up to 200						X		X	X

* except for band width 5 mm

Sizes are increased in 1 mm steps.

NORMACLAMP® – Hose Clamps

Survey of sizes, band widths & materials NORMACLAMP® SP

Dia- meter in mm	Band width							W1	W5*
	5 mm Zy	7 mm Zy	9 mm Zy	12 mm Sz	15 mm Sz	20 mm Sz	25 mm Sk		
up to 9	X							X	X
up to 10		X	X					X	X
from 15			X	X	X			X	X
up to 20			X	X	X			X	X
up to 28				X	X			X	X
up to 30			X		X			X	X
from 36			X		X	X		X	X
up to 40			X		X	X		X	X
up to 50			X		X	X	X	X	X
up to 60			X		X	X	X	X	X
up to 70			X		X	X	X	X	X
up to 75			X					X	X
up to 80					X	X	X	X	X
up to 90					X	X	X	X	X
up to 100					X	X	X	X	X
up to 110						X	X	X	X
up to 120						X	X	X	X
up to 130						X		X	X
up to 140						X		X	X
up to 150						X		X	X
up to 160						X		X	X
up to 170						X		X	X
up to 180						X		X	X
up to 190						X		X	X
up to 200						X		X	X

* except for band width 5 mm

Sizes are increased in 1 mm steps.

NORMACLAMP® – Hose Clamps

Survey of sizes, band widths & materials NORMACLAMP® SPGU

Dia- meter in mm	Band width			W1	W5
	15 mm Sz	20 mm Sz	25 mm Sk		
up to 20	X			X	X
up to 30	X			X	X
from 36		X		X	X
up to 40	X	X		X	X
up to 50	X	X	X	X	X
up to 60	X	X	X	X	X
up to 70	X	X	X	X	X
up to 75	X	X	X	X	X
up to 80	X	X	X	X	X
up to 90	X	X	X	X	X
up to 100	X	X	X	X	X
up to 110		X	X	X	X
up to 120		X	X	X	X
up to 130		X			
up to 140		X			
up to 150		X			
up to 160		X			
up to 170		X			
up to 180		X			
up to 190		X			
up to 200		X			

Sizes are increased in 1 mm steps.

Enquiries and ordering:

When making enquiries or placing orders please indicate as follows:

	1. Type	2. Clamping Range	3. Band width	4. Material	5. Bolt	6. Parts
Example	S	6/	7	W1	Zy	1-part

For NORMACLAMP® SPGU please state the required rubber material – if there is a choice.