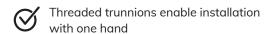




NORMACONNECT® V QRC

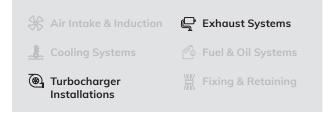


Unique quick release closure for rapid assembly



Lightweight connection compared to bolted joint

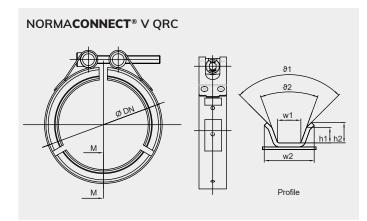
Adaptable to flanges which are slightly out of tolerance





V-BAND CLAMPS





Applications

The V QRC Clamps are used in different segments of exhaust systems as well as turbocharger installations and offer excellent corrosion resistance properties.

Material						
Group:	W3	W4	W5			
Band & profile:	1.4510	1.4301	1.4571			
Screw:		A2-70/A4-80				
Trunnions:		1.4305				

			Packaging			Profile o	limensio	าร	
Part number	Description	Ø DN (mm)	quantity (pcs)	w1 (mm)	w2 (mm)	h1 (mm)	h2 (mm)	91	9 2
NORMA CONNECT ®	V QRC					<u>'</u>	•		
06330580077	V-QRC 077 096	77	100	6.6	-	4.7	-	40°	-
06330578077	V-QRC 077 869	77	100	8.2	17.0	4.0	-	40°	-
06330579080	V-QRC 080 897	80	50	4.5	13.6	5.8	7.5	40°	70°
06330577080	V-QRC 080 2-0121	80	50	8.7	-	5.8	7.6	40°	90°
06332633082	V-QRC 082 0885	82	50	4.3	13.6	4	7.0	40°	-
06330576085	V-QRC 085 908	85	50	9.0	-	7.0	-	40°	-
06330575097	V-QRC 097 099	97	50	7.9	-	5.2	-	40°	-
06333633098	V-QRC 098 917	98	50	8.8	-	5.4	7.5	40°	90°
06330574103	V-QRC 103 097	103	50	6.5	-	3.6	5.05	40°	90°
06332633108	V-QRC 108 0884	108	50	13.6	-	4.0	7.0	40°	-
06334633112	V-QRC 112 015/P	112	30	6.5	-	7.8	-	40°	-
06332633115	V-QRC 115 933	115	50	7.9	-	5.4	7.8	40°	90°
06330571124	V-QRC 124 094	124	50	6.5	-	4.6	-	40°	-
06334633131	V-QRC 131 110/N4	131	50	6.5	20.0	7.2	-	40°	-
06334633135	V-QRC 135 015/P	135	50	6.5	-	7.8	-	40°	-
06331633143	V-QRC 143 101.D4	143	30	7.9	-	5.8	7.5	40°	90°
06334633145	V-QRC 145 015/P	145	50	6.5	-	7.8	-	40°	-
06334633146	V-QRC 155 110/N4	146	25	6.5	20.0	7.2	-	40°	-
06330572152	V-QRC 152 009	152	35	9.2	-	6.8	-	40°	-
06331633152	V-QRC 152 124/B5	152	30	7.9	-	5.8	7.0	40°	90°
06334633155	V-QRC 155 015/P	155	25	6.5	-	7.8	-	40°	-
06332633179	V-QRC 179 101 D4	179	50	7.9	-	5.3	7.5	40°	90°
06331633185	V-QRC 185 124/B5	185	30	7.9	-	5.8	7.5	40°	90°
06324632317	V-QRC 317	317	30	7.9	-	5.8	7.5	40°	90°
NORMA CONNECT ®	V STC (with solid trunnion	closure)							
06322632219	V-STC 219 101	219	30	7.9	-	5.8	7.5	40°	90°
06324632404	V-STC 404 P 015	404	40	6.5	-	7.8	-	40°	-





Do you have questions or require a personal consultation?

Feel free to contact our Automotive Aftermarket Team! Hotline +44 1635 574 005
Visit our website for more information about our Automotive Aftermarket products: norma-aftermarket.com





- Cover band
 - optimum distribution of clamping forces
- Closure
- 3 profile segments
 - ease of assembly



The SVS STC-type closure is a cost effective alternative to conventional T-bolt closures.

Profile clamp with cover band

The NORMACONNECT® V profile clamps are reliable and time-effective connection elements for industrial and automotive use. They are made to customer requirements and can be supplied with various profiles, band widths and closure types.

Advantages at a glance

- Low friction losses
- Robust precision components
- · Consistently high material quality
- · State-of-the-art automated manufacturing
- Highly competitively priced

Applications

- Automotive: Turbocharger catalytic converter connection
- Automotive: Exhaust manifold
- Industry: Bulk material container
- Industry: Bypass filter unit

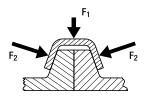
Materials

Code	C	losure	s	Closure	Profile segments/
	STC	QRC	SVS	components	Cover band
W4	•	•	•	Stainless steel	Stainless steel

ISO	DIN	AISI	BS	AFNOR
X5 CrNi 18-10	1.4301	304	304 S 15	Z6 CN 18-09

Product's method of operation

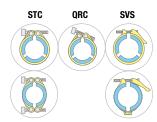
The profile clamp's method of operation is based on the principle of an inclined plane. When the closure bolt is tightened, this exerts circumferential force on the profile segments. The two halves of the flange are pressed together by means of the profile (see diagram below). The circumferential force that is exerted is converted into considerably higher axial force.



All profiles at a glance

Single-part 3 profile segments Available up to diameter 300 mm

Two-part 2 profile segments Available from diameter 200 mm up to 500 mm



Example of flange designs

Use of gasket may be required in some applications. Support and advice on gasket selection can be provided.







QRC/ SVS

QRC



NORMACONNECT® QRC – Single-part design						
		W4 Product No.				
Min. profile type	Profile Ø (mm)	QRC				
4.0b	≥ 89	0615 2043				
5.0a	≥ 82	0615 2032				
5.3b	≥ 110	0615 2078				
6.0a	≥ 125	0615 2004				
6.5a	≥ 130	0615 4015				
6.6b	≥ 100	0615 2031				
7.9b	≥ 100	0615 2099				
9.2a	≥ 100	0615 4009				
10.2a	≥ 130	0615 4081				
14.5a	> 105	0615 4028				

Single-part design • 3 segments • Cover band • Inner profile diameter $\emptyset \le 300$ mm " ... = \emptyset without decimals in mm "

The revolutionary new QRC-type closure offers significant advantages over conventional T-bolt solutions.

Advantages at a glance

- · Rapid closing and opening
- Captive closure components
- Significantly shorter installation
- Closure bolt secured during tightening

Material

W4

SVS



The SVS type includes an over-centre lever which enables manual installation.

Advantages at a glance

- Installation without tools
- Ideal for frequent handling

Material

W4

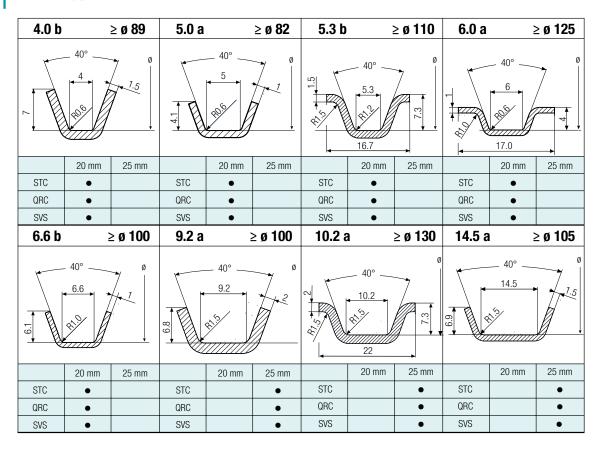
NORMACONNECT® SVS - Single-part design							
Malia anno Sila Anno	Profile (Corres)	W4 Product No.					
Min. profile type	Profile Ø (mm)	SVS					
4.0b	≥ 89	0607 2043					
5.0a	≥ 82	0607 2032					
5.3b	≥ 110	0607 2078					
6.0a	≥ 125	0607 2004					
6.5a	≥ 130	0607 4015					
6.6b	≥ 100	0607 2031					
7.9b	≥ 100	0607 2099					
9.2a	≥ 100	0607 4009					
10.2a	≥ 130	0607 4081					
14.5a	≥ 105	0607 4028					

Single-part design • 3 segments • Cover band • Inner profile diameter $\emptyset \le 300$ mm " ... = \emptyset without decimals in mm "

NORMACONNECT® SVS - Two-part design					
	W4 Product No.				
Min. profile type	SVS				
4.0b	0605 2043				
5.0a	0605 2032				
5.3b	0605 2078				
6.0a	0605 2004				
6.5a	0605 4015				
6.6b	0605 2031				
7.9b	0605 2099				
9.2a	0605 4009				
10.2a	0605 4081				
14.5a	0605 4028				

Two-part version* • 2 segments • No cover band • Inner profile diameter Ø 200 - 500 mm " ... = Ø without decimals in mm "

Profile types



The inner profile diameter can be freely selected in millimeter increments. All profiles can be supplied with a diameter of up to \emptyset 500 mm. Please refer to the relevant profile diagram in the table below to find out the minimum diameter permissible for that profile.

Profile clamps can be supplied with cover bands measuring 20 mm or 25 mm in width.

The table above indicates which cover band is suitable for which profile.

Examples of flange structures

Inner profile ø Flange 1			Flange	2		Flange 3				Flange 4					
Gap width	n 1,5				X /////		mw.r.		W 255		riange 4				
Profile type 4.0b	Profile ø (mm) ≥ 100	W (mm) 5.1	H (mm) 7.5	W (mm) 5.1	H (mm) 8	R (mm)	T (mm) 2	W (mm) 5.1	H (mm) 7.5	R (mm) 1	T (mm)	W (mm)	H (mm) ot recom	R (mm) nmended	T (mm)
5.0a	≥ 100	6.1	4.6	6.1	4.6	1.5	1.5	6.1	4.6	1	1	6.1	4.6	1.5	1.5
5.3b	≥ 110	6.4	7.3	6.4	7.8	2	2	6.4	7.3	1.5	1.5	6.4	7.8	2	2
6.0a	≥125	7.1	4	7.1	4	1.5	1.5	No	t recomi	nended		7.1	4	1.5	1.5
6.5a	≥130	7.6	8.3	7.6	8.8	2	2	7.6	8.3	1.5	1.5	7.6	8.8	2	2
6.6b	≥100	7.7	6.6	7.7	6.6	1.5	1.5	7.7	6.6	1.5	1.5	7.7	6.6	1.5	1.5
7.9b	≥100	9	5.7	9	6.2	2	2	9	5.7	1.5	1.5	9	6.2	2	2
9.2a	≥100	10.3	7.3	10.3	7.8	2	2	10.3	7.8	2	2	10.3	7.8	2	2
10.2a	≥130	11.3	7.3	11.3	7.8	2	2	11.3	7.8	2	2	11.3	7.8	2	2
14.5a	≥105	15.6	7.4	15.6	7.9	2	2	15.6	7.9	2	2	N	lot recon	nmended	i
А	Abbreviations: W = overall flange width H = overall flange height R = flange radius T = flange thickness														

Technical information

Profile type	Profile ø (mm)	Performance (stainless steel only)
5.0 a 6.0a 6.6b	≥ 100 ≥ 125 ≥ 100	Profile 1mm 5 bar 4 bar 3 bar 2 bar 1 bar 0 bar 0 bar 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
4.0b 5.3b 7.9b 14.5a	≥ 100 ≥ 110 ≥ 100 ≥ 105	Profile 1.5mm 12 bar 10 bar 8 bar 6 bar 4 bar 2 bar 0 bar 0 bar 2 bar 0
6.5a 9.2a 10.2a	≥ 130 ≥ 100 ≥ 130	20 bar 15 bar 10 bar 5 bar 0 bar 20 C 200 C 400 C

- 1. Determine the application or test pressure.
- 2. Determine the **max. operating temperature** to which the profile clamp will be exposed.

(Note: The profile clamps presented in this catalogue have been designed for a maximum operating temperature of 400°C.)

- 3. Calculate the required inner diameter of the profile as follows: outer flange diameter + 3 mm
- 4. Using the diagrams on the left. Check whether the profile thickness you have selected will be sufficient.

(Note: The result only represents an initial approximation based on static pressures and ideal operating conditions.)

Other factors may come into play, such as:

- Shape of and material used for sealing measures
- Roughness of flange surface
- Operating temperatures
- Bending moments
- Pressure surges/Vibrations
- · Safety requirements

Based on these factors, you may decide that a thicker profile is necessary. The SVS closure is only recommended for low pressures (e.g., vacuum applications).

- The tables below provide information on the tightening torques for the various closure types and bolt sizes.
- 5.1. Recommended tightening torque for STC & QRC-type closures:

Band width	Bolt	Tightening torque
20 mm	M 6	6 Nm
25 mm	M 8	12 Nm

5.2 SVS closing force:

Bolt	Force
M 6	≈ 80 Nm

Example of application:

- Operating pressure: 4 bar (static)
- Temperature: 20 °C
- Profile type: 4.0b
- Profile thickness: 1.5 mm
- Flange diameter: ø 197 mm
- Inner profile diameter: ø 200

Max. permissible pressure at 20 °C:

• 5.4 bar > 4 bar < 0K

