

THE AXIAL FLEXIBILITY SERIES

STRAUB-FLEX

All pipe materials can be reliably connected with STRAUB-FLEX couplings.



- Outside diameter: 48.3 up to 4064.0 mm
- Temperature: -20°C up to +180°C (STRAUB-FLEX 3.5 + 4 up to +100°C)
- Sealing sleeve: EPDM, NBR, FPM/FKM

STRAUB-FLEX pipe couplings enable pipe connections for practically all conceivable pipe diameters, for the same or different types of pipe materials, various media and temperatures as well as for a wide range of the operating pressure values.

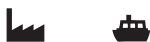
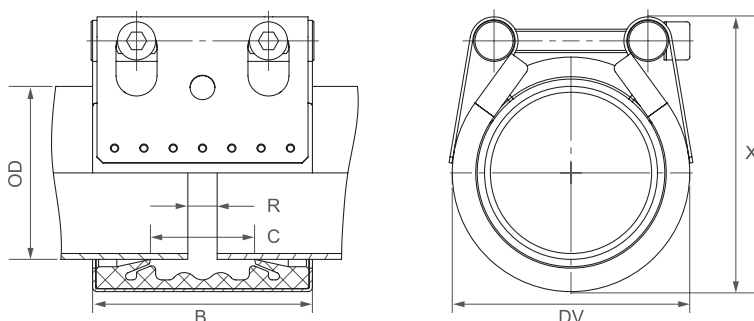
As STRAUB-FLEX pipe couplings cannot axially absorb any forces, the

pipes must be secured axially using appropriate measures on-site such as tie rods, fixed and sliding points, concrete abutments etc.

The sealing sleeve separates the coupling casing from the pipe surface so that sound, vibrations and oscillations are optimally damped.



Components / Materials	W1	W2	W4	W5
Casing		AISI 316 L or similar		AISI 316 L or similar
Bolts		AISI 4135		A4 - 80
Bars		AISI 12L14, galvanised		AISI 316 L or similar
Strip insert (option)		AISI 316 L or similar / PVDF		AISI 316 L or similar / PVDF
Sealing sleeve EPDM	Temp.: -20°C up to +100°C Medium: all qualities of water, waste water, air, solids and chemical products			
Sealing sleeve NBR	Temp.: -20°C up to +80°C Medium: water, gas, oil, fuel and other hydrocarbons			
Sealing sleeve FPM/FKM¹²	Temp.: -20°C up to +180°C Medium: ozone, oxygen, acids, gas, oil and fuel (only with strip insert)			



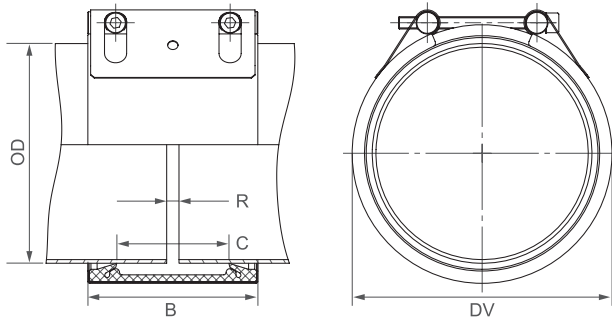
OD [mm]	Clamping range [mm]	PN [bar]	PN [bar]	B [mm]	C [mm]	DV [mm]	X [mm]	R without strip insert [mm]	R with strip insert [mm]	Torque rate [Nm]
48.3 ¹⁰	47.0 - 50.0	25	16	75	35	70	83	5	5 - 15	7.5
54.0 ¹⁰	52.5 - 55.5	25	16	75	35	76	88	5	5 - 15	7.5
57.0 ¹⁰	55.5 - 58.5	25	16	75	35	79	94	5	5 - 15	7.5
60.3	59.0 - 63.0	25	16	75	35	82	95	5	5 - 15	7.5
70.0	69.5 - 71.0	25	16	94	51	95	112	5	5 - 25	7.5
73.0	71.5 - 75.0	25	16	94	51	95	112	5	5 - 25	7.5
76.1	74.5 - 77.5	25	16	94	51	98	119	5	5 - 25	7.5
80.0	79.5 - 81.5	25	16	94	51	106	127	5	5 - 25	7.5
84.0	82.5 - 85.5	25	16	94	51	106	127	5	5 - 25	7.5
88.9	87.5 - 90.5	25	16	94	51	111	132	5	5 - 25	7.5
100.6	99.0 - 102.5	25	16	94	51	123	145	5	5 - 25	7.5
101.6	100.0 - 103.5	25	16	94	51	124	145	5	5 - 25	7.5
104.0	102.5 - 105.5	20	16	94	51	126	146	5	5 - 25	7.5
104.8	103.0 - 106.5	20	16	94	51	127	146	5	5 - 25	7.5
108.0	106.5 - 110.0	20	16	94	51	130	151	5	5 - 25	7.5
114.3	112.5 - 116.0	20	16	94	51	136	160	5	5 - 25	7.5
127.0	125.0 - 129.0	20	16	107	62	149	168	5	5 - 35	10
129.0	127.0 - 131.0	20	16	107	62	151	170	5	5 - 35	10
130.2	128.5 - 132.0	20	16	107	62	152	170	5	5 - 35	10
133.0	131.0 - 135.0	16	16	107	62	155	174	5	5 - 35	10
139.7	138.0 - 141.5	16	16	107	62	162	180	5	5 - 35	10
141.3	139.5 - 143.0	16	16	107	62	163	182	5	5 - 35	10
154.0	152.0 - 156.0	16	16	107	62	176	198	5	5 - 35	10
159.0	157.0 - 161.0	16	16	107	62	181	203	5	5 - 35	10
168.3	166.0 - 170.5	16	16	107	62	190	212	5	5 - 35	10

Remarks:

- Follow fitting instructions
- PN () = working pressure considering the application loads
Test pressure = PN () x 1.5 (for example industry, water supply etc.)
Burst pressure = approx. PN () x 2
- PN () = nominal pressure, includes four times safety factor (e.g. shipbuilding)
- Strip inserts are optional accessories (see page 87)
- Additional sealing sleeves, pressure and temperature ranges on request

¹⁰ FPM/FKM only available as STRAUB-OPEN-FLEX

Components / Materials	W1	W2	W4	W5
Casing	S355MC, hot-dip galvanised	AISI 316 L or similar		AISI 316 L or similar
Bolts	AISI 4135	AISI 4135		A4 - 80
Bars	AISI 12L14, galvanised	AISI 12L14, galvanised		AISI 316 L or similar
Strip insert (option)	AISI 316 L or similar / HDPE	AISI 316 L or similar / HDPE		AISI 316 L or similar / HDPE
Sealing sleeve EPDM	Temp.: -20°C up to +100°C Medium: all qualities of water, waste water, air, solids and chemical products			
Sealing sleeve NBR	Temp.: -20°C up to +80°C Medium: water, gas, oil, fuel and other hydrocarbons			
Sealing sleeve FPM/FKM	Temp.: -20°C up to +180°C Medium: ozone, oxygen, acids, gas, oil and fuel (only with strip insert)			



B ⇔ 138 up to 148 mm
 DV ⇔ OD + 27 mm
 C ⇔ 91 mm
 R with strip insert ⇔ 35 mm
 R without strip insert ⇔ 10 mm

	W2 or W5
	W1, W2 or W5
	W1 or W5
	only in W1 available

OD [mm]	Clamping range [mm]	PN					PN [bar]	
		2.5	6	10	16	20		25
172.0	170 - 174							Pressure rates according to type approval
180.0	178 - 182							
200.0	198 - 202							
219.1	217 - 222							
250.0	248 - 253							
267.0	264 - 270							
273.0	270 - 276							
304.0	301 - 307							
323.9	321 - 327							
355.6	353 - 358							
406.4	404 - 409							
457.2	454 - 460							
508.0	505 - 511							
558.8	556 - 562							
609.6	606 - 613							
711.2	708 - 715							
762.0	758 - 766							
812.8	809 - 817							
914.4	910 - 918							
1016.0	1012 - 1020							
1117.6	1114 - 1122							
1219.2	1215 - 1224							
1320.8	1316 - 1325							
1422.4	1418 - 1427							
1524.0	1519 - 1529							
1600.0	1595 - 1605							
1625.6	1621 - 1631							
1727.2	1722 - 1732							
1828.8	1824 - 1834							
1930.4	1925 - 1935							
2032.0	2027 - 2037							

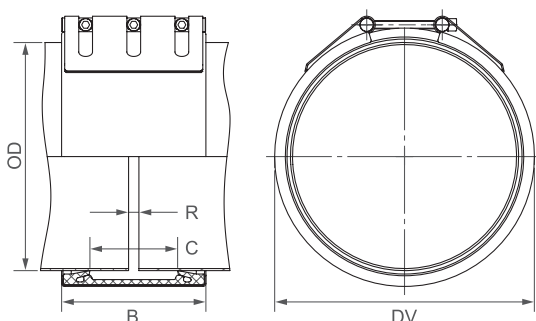
CONTINUOUSLY VARIABLE INTERMEDIATE SIZES FROM 172.0 TO 2032.0 mm ARE AVAILABLE

Remarks:

- Follow fitting instructions
- PN () = working pressure considering the application loads
 Test pressure = PN () x 1.5 (for example industry, water supply etc.)
 Burst pressure = approx. PN () x 2
 PN () = nominal pressure, includes four times safety factor (e.g. shipbuilding)
- Strip inserts are optional accessories (see page 87)
- Additional sealing sleeves, pressure and temperature ranges on request

⇨ Bigger diameters are available as STRAUB-OPEN-FLEX, see page 60 to 65

Components / Materials	W1	W2	W4	W5
Casing	S355MC, hot-dip galvanised	AISI 316 L or similar		AISI 316 L or similar
Bolts	AISI 4135	AISI 4135		A4 - 80
Bars	AISI 12L14, galvanised	AISI 12L14, galvanised		AISI 316 L or similar
Strip insert (option)	AISI 316 L or similar / HDPE	AISI 316 L or similar / HDPE		AISI 316 L or similar / HDPE
Sealing sleeve EPDM	Temp.: -20°C up to +100°C Medium: all qualities of water, waste water, air, solids and chemical products			
Sealing sleeve NBR	Temp.: -20°C up to +80°C Medium: water, gas, oil, fuel and other hydrocarbons			
Sealing sleeve FPM/FKM (on request)	Temp.: -20°C up to +180°C Medium: ozone, oxygen, acids, gas, oil and fuel (only with strip insert)			



B ⇄ 210 up to 218 mm
 DV ⇄ OD + 38 mm
 C ⇄ 127 mm
 R with strip insert ⇄ 60 mm
 R without strip insert ⇄ 15 mm

	W2 or W5
	W1, W2 or W5
	W1 or W5
	only in W1 available



OD [mm]	Clamping range [mm]	PN					
		2.5	6	10	16	20	25
219.1	216 - 222						
250.0	247 - 253						
267.0	264 - 270						
273.0	270 - 276						
304.0	301 - 307						
323.9	321 - 327						
355.6	352 - 358						
406.4	403 - 409						
457.2	454 - 460						
508.0	504 - 512						
558.8	555 - 562						
609.6	606 - 613						
711.2	707 - 715						
762.0	758 - 766						
812.8	809 - 817						
914.4	910 - 918						
1016.0	1012 - 1020						
1117.6	1113 - 1122						
1219.2	1215 - 1224						
1320.8	1316 - 1325						
1422.4	1418 - 1427						
1524.0	1519 - 1529						
1600.0	1595 - 1605						
1625.6	1621 - 1631						
1727.2	1722 - 1732						
1828.8	1824 - 1834						
1930.4	1925 - 1935						
2032.0	2027 - 2037						

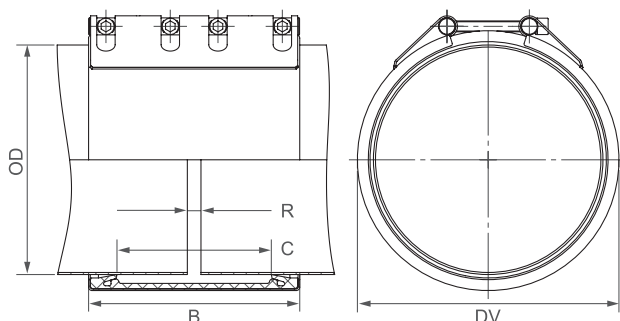
CONTINUOUSLY VARIABLE INTERMEDIATE SIZES FROM 219.1 TO 2032.0 mm ARE AVAILABLE

Remarks:

- Follow fitting instructions
- PN = working pressure considering the application loads
 Test pressure = PN x 1.5 (for example industry, water supply etc.)
 Burst pressure = approx. PN x 2
- Strip inserts are optional accessories (see page 87)
- Additional sealing sleeves, pressure and temperature ranges on request

⇨ Bigger diameters are available as STRAUB-OPEN-FLEX, see page 60 to 65

Components / Materials	W1	W2	W4	W5
Casing	S355MC, hot-dip galvanised			S32101 (LDX)
Bolts	AISI 4135			A4 - 80
Bars	AISI 12L14, galvanised			AISI 316 L or similar
Strip insert	AISI 316 L or similar / HDPE			AISI 316 L or similar / HDPE
Sealing sleeve EPDM	Temp.: -20°C up to +100°C Medium: all qualities of water, waste water, air, solids and chemical products			
Sealing sleeve NBR	Temp.: -20°C up to +80°C Medium: water, gas, oil, fuel and other hydrocarbons			



B ⇨ 310 up to 311 mm
 DV ⇨ OD + 38 mm
 C ⇨ 227 mm
 R with strip insert ⇨ 120 mm
 R without strip insert ⇨ 20 mm

	W1 or W5
	only in W5 available

OD [mm]	Clamping range [mm]	PN					
		2.5	6	10	16	20	25
323.9	320 - 327						
355.6	352 - 370						
406.4	402 - 410						
457.2	453 - 461						
508.0	504 - 512						
558.8	555 - 563						
609.6	605 - 614						
655.0	651 - 659						
711.2	707 - 715						
762.0	758 - 766						
812.8	809 - 817						
914.4	910 - 918						
1016.0	1011 - 1021						
1117.6	1112 - 1123						
1219.2	1214 - 1224						

CONTINUOUSLY VARIABLE INTERMEDIATE SIZES FROM 323.9 TO 1219.2 mm ARE AVAILABLE

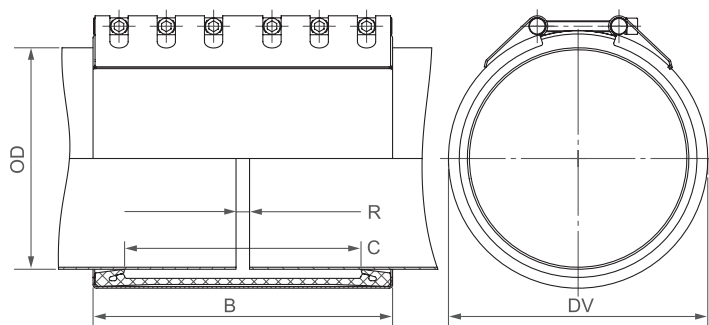
Remarks:

- Follow fitting instructions
- PN = working pressure considering the application loads
 Test pressure = PN x 1.5 (for example industry, water supply etc.)
 Burst pressure = approx. PN x 2
- Strip inserts included
- Additional sealing sleeves, pressure and temperature ranges on request

⇨ Bigger diameters are available as STRAUB-OPEN-FLEX, see page 60 to 65

Components / Materials	W1	W2	W4	W5
Casing	S355MC, hot-dip galvanised			S32101 (LDX)
Bolts	AISI 4135			A4 - 80
Bars	AISI 12L14, galvanised			AISI 316 L or similar
Strip insert	AISI 301 / HDPE			AISI 316 L or similar / HDPE

Sealing sleeve EPDM	Temp.: -20°C up to +100°C			
	Medium: all qualities of water, waste water, air, solids and chemical products			
Sealing sleeve NBR	Temp.: -20°C up to +80°C			
	Medium: water, gas, oil, fuel and other hydrocarbons			



B ⇨ 443 up to 444 mm
 DV ⇨ OD + 48 mm
 C ⇨ 350 mm
 R with strip insert ⇨ 200 mm
 R without strip insert ⇨ 20 mm

	W1 or W5
	only in W5 available

OD [mm]	Clamping range [mm]	PN					
		2.5	6	10	16	20	25
323.9	320 - 327						
355.6	352 - 359						
406.4	403 - 409						
457.2	454 - 460						
508.0	505 - 512						
558.8	555 - 562						
609.6	606 - 613						
655.0	652 - 658						
711.2	707 - 715						
762.0	758 - 766						
812.8	809 - 817						

CONTINUOUSLY VARIABLE INTERMEDIATE SIZES FROM 323.9 TO 812.8 mm ARE AVAILABLE

Remarks:

- Follow fitting instructions
- PN = working pressure considering the application loads
 Test pressure = PN x 1.5 (for example industry, water supply etc.)
 Burst pressure = approx. PN x 2
- Strip inserts included
- Additional sealing sleeves, pressure and temperature ranges on request

⇨ Bigger diameters are available as STRAUB-OPEN-FLEX, see page 60 to 65