

Straub-Flex Pipe Connectors

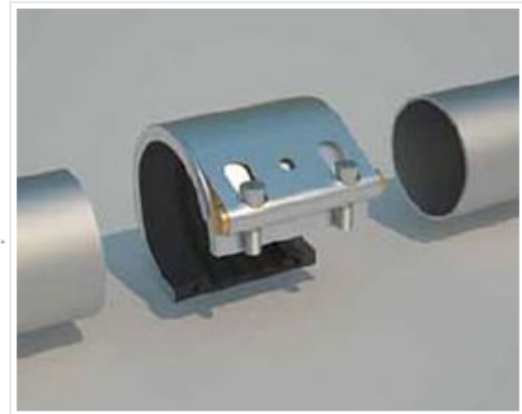
The Straub-Flex is a range of axially flexible pipe couplings suitable for all pipe materials.

Versatile - connection and compensator in one.

The multifunctional, axially flexible pipe coupling for all pipe materials. For water supply, sewage treatment, mining, industrial plants, power plants and shipbuilding.

Straub-Flex absorbs noise, vibrations, and small amounts of expansion and contraction.

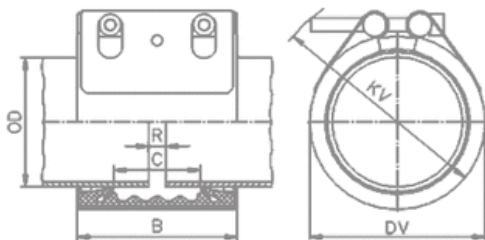
Straub-Flex ranges from 47mm to 4064mm clamping ability.



STRAUB-FLEX 1L Ø 48.3 - 168.3 mm

Components / Materials	W1	W2	W4	W5
Casing		AISI 304 / 316 L		AISI 316 L / 316 Ti
Bolts		AISI 4135		A4 - 80
Bars		AISI 12 L 14, galvanised		AISI 316 L
Strip insert (option)		AISI 316 L / PVDF		AISI 316 L / 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 / FKM *	Temp.: -20°C up to +180°C	Medium: ozone, oxygen, acids, gas, oil and fuel (only with strip insert)



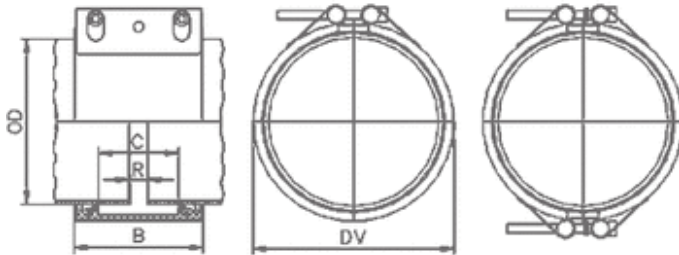
OD [mm]	Clamping range [mm]	PS [bar]	B [mm]	C [mm]	DV [mm]	KV [mm]	R without strip insert [mm]	R with strip insert [mm]	Torque rate [Nm]	Allen head [mm]	Thread [mm]
48.3 ²	47.0 - 49.5	25.0	75	35	70	85	5	15	7.5	6	8
54.0 ²	52.5 - 55.5	25.0	75	35	76	90	5	15	7.5	6	8
57.0 ²	55.5 - 58.5	25.0	75	35	79	95	5	15	7.5	6	8
60.3	59.0 - 61.5	25.0	75	35	82	95	5	15	7.5	6	8
73.0	71.5 - 74.5	25.0	94	51	95	117	5	25	7.5	6	8
76.1	74.5 - 77.5	25.0	94	51	98	122	5	25	7.5	6	8
84.0	82.5 - 85.5	24.0	94	51	106	127	5	25	7.5	6	8
88.9	87.5 - 90.5	24.0	94	51	111	132	5	25	7.5	6	8
100.6	99.0 - 102.5	23.0	94	51	123	147	5	25	7.5	6	8
101.8	100.0 - 103.5	23.0	94	51	124	147	5	25	7.5	6	8
104.0	102.5 - 105.5	22.0	94	51	126	147	5	25	7.5	6	8
104.8	103.0 - 106.5	22.0	94	51	127	147	5	25	7.5	6	8
108.0	106.5 - 109.5	22.0	94	51	130	152	5	25	7.5	6	8
114.3	112.5 - 116.0	21.0	94	51	138	157	5	25	7.5	6	8
127.0	125.0 - 129.0	19.0	107	62	149	165	5	35	10	8	10
129.0	127.0 - 131.0	18.0	107	62	151	165	5	35	10	8	10
130.2	128.5 - 132.0	18.0	107	62	152	165	5	35	10	8	10
133.0	131.0 - 135.0	16.0	107	62	155	170	5	35	10	8	10
139.7	138.0 - 141.5	16.0	107	62	162	175	5	35	10	8	10
141.3	139.5 - 143.0	16.0	107	62	163	180	5	35	10	8	10
154.0	152.0 - 156.0	16.0	107	62	176	190	5	35	10	8	10
169.0	167.0 - 161.0	16.0	107	62	181	195	5	35	10	8	10
168.3	166.0 - 170.5	16.0	107	62	190	205	5	35	10	8	10

Remarks:

- Follow fitting / disassembly instructions
- PS = Working pressure considering the application loads
Test pressure = PS x 1.5 (for example industry, water supply etc.)
Burst pressure = approx. PS x 2
- Strip inserts are required for special applications

STRAUB-FLEX 2 Ø 172.0 - 2032.0 mm

Components / Materials	W1	W2	W4 (only for L-version)	W5
Casing	AISI A106, hot-dip galv.	AISI 316 L / 316 TI	AISI 304	AISI 316 L / 316 TI / S32101 (LDX)
Bolts	AISI 4135	AISI 4135	AISI 316 L	A4 - 80
Bars	AISI 12 L 14, galvanised	AISI 12 L 14, galvanised	AISI 316 L	AISI 316 L
Strip insert (option)	AISI 316 L / HDPE	AISI 316 L / HDPE	AISI 316 L / HDPE	AISI 316 L / 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 / FKM	Temp.: -20°C up to +180°C Medium: ozone, oxygen, acids, gas, oil and fuel (only with strip insert)			



B	Width of pipe coupling: FLEX 2 L = 138 mm FLEX 2 LS = 139 mm FLEX 2 LU = 141 mm FLEX 2 LV = 141 mm FLEX 2 H = 142 mm FLEX 2 XS = 148 mm
DV	Outside diameter of the coupling installed = OD+27 mm
C	Distance between sealing lips = 91 mm
R _{max}	Distance between pipe ends with strip insert = 35 mm Distance between pipe ends without strip insert = 10 mm

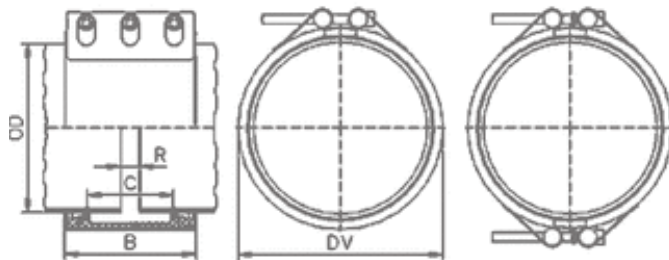
Pipe OD [mm]	Clamping range [mm]	Working pressure PS [bar]							Torque rate [Nm]					
		L	LS	LU	LV (LDX)	H	XS	L	LS	LU	LV (LDX)	H	XS	
172.0	170 - 174	13.0							10					
180.0	178 - 182	12.0	16.5	25.0				10	15	30				
200.0	198 - 202	11.0	15.0	25.0				10	15	30				
219.1	217 - 222	10.0	13.5	25.0				10	15	30				
250.0	248 - 253	9.0	12.0	24.0				10	15	30				
267.0	264 - 270	8.0	11.0	22.5				15	15	30				
273.0	270 - 276	8.0	11.0	22.0	25.0	25.0	25.0	15	15	30	40	30	110	
304.0	301 - 307	7.0	10.0	19.5	25.0	25.0	25.0	15	20	30	40	30	110	
323.9	321 - 327	7.0	9.5	18.5	25.0	25.0	25.0	15	20	30	40	30	110	
355.6	353 - 358	6.0	8.5	17.0	25.0	25.0	25.0	15	20	30	40	30	110	
406.4	404 - 409	5.5	7.5	15.0	25.0	22.0	25.0	20	20	30	50	40	120	
457.2	454 - 460	5.0	6.5	13.0	25.0	19.0	25.0	20	20	40	50	40	120	
508.0	505 - 511	4.5	6.0	12.0	24.0	17.0	25.0	20	25	40	60	40	120	
558.8	556 - 562	4.0	5.5	10.5	22.0	16.0	25.0	25	25	40	60	50	140	
609.6	606 - 613	3.5	5.0	10.0	20.0	14.0	25.0	25	25	40	60	50	140	
711.2	708 - 715		4.0	8.5	17.0	12.0	25.0		30	50	70	50	140	
762.0	758 - 766		4.0	8.0	16.0	12.0	23.5		30	50	70	60	160	
812.8	809 - 817		3.5	7.5	15.0	11.0	22.0		30	50	70	60	160	
914.4	910 - 918		3.5	6.5	13.0	10.0	20.0		35	60	80	60	160	
1016.0	1012 - 1020		3.0	6.0	11.0	9.0	18.0		35	60	80	70	160	
1117.6	1114 - 1122		2.5	5.5	10.0	8.0	16.0		40	60	80	70	180	
1219.2	1215 - 1224		2.5	5.0	9.0	7.0	15.0		40	60	90	70	180	
1320.8	1316 - 1325		2.5	4.5	8.5	7.0	15.0		40	60	90	70	180	
1422.4	1418 - 1427		2.0	4.0	8.0	6.0	14.0		40	60	90	70	180	
1524.0	1519 - 1529		2.0	4.0	8.0	6.0	14.0		40	60	90	80	200	
1600.0	1595 - 1605		2.0	4.0	7.5	6.0	13.0		40	60	90	80	200	
1625.6	1621 - 1631			3.0	7.0	6.0	13.0			80	100	85	200	
1727.2	1722 - 1732			3.0	6.5	5.5	12.0			80	100	90	200	
1828.8	1824 - 1834			2.5	6.0	5.0	11.0			90	110	95	220	
1930.4	1925 - 1935			2.0	6.0	4.5	10.0			100	120	100	220	
2032.0	2027 - 2037			2.0	5.5	4.0	10.0			100	120	110	240	

STRAUB produces custom made couplings from 172.0 up to 2032.0 mm

STRAUB-FLEX 3 Ø 219.1 - 4064.0 mm

Components / Materials	W1	W2	W4	W5
Casing	AISI A106, hot-dip galv.	AISI 316 L / 316 Ti		AISI 316 L / 316 Ti / S32101 (LDX)
Bolts	AISI 4135	AISI 4135		A4 - 80
Bars	AISI 12 L 14, galvanised	AISI 12 L 14, galvanised		AISI 316 L
Strip insert (option)	AISI 316 L / HDPE	AISI 316 L / HDPE		AISI 316 L / 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)



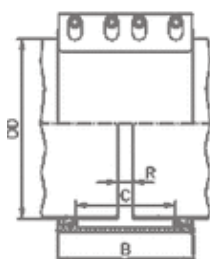
- B Width of pipe coupling:
 FLEX 3 LS = 210 mm
 FLEX 3 LV = 211 mm
 FLEX 3 H = 212 mm
 FLEX 3 X = 218 mm
- DV Outside diameter of the coupling installed = OD+38 mm
- C Distance between sealing lips = 127 mm
- R_{min} Distance between pipe ends with strip insert = 60 mm
 Distance between pipe ends without strip insert = 15 mm

Pipe OD [mm]	Clamping range [mm]	Working pressure PS [bar]				Torque rate (Nm)			
		LS	LV (LDX)	H	X	LS	LV (LDX)	H	X
219.1	216 - 222	18.0				40			
250.0	247 - 253	16.0				40			
267.0	264 - 270	15.0				40			
273.0	270 - 276	15.0				40			
304.0	301 - 307	13.0				40			
323.9	321 - 327	13.0	25.0	25.0		40	70	60	
355.6	352 - 358	12.0	25.0	25.0		40	70	60	
406.4	403 - 409	10.0	25.0	25.0		40	70	60	
457.2	454 - 460	9.0	25.0	24.0		40	70	60	
508.0	504 - 512	8.0	23.0	22.0		40	70	60	
558.8	555 - 562	7.0	21.0	20.0	25.0	40	70	60	90
608.6	606 - 613	6.5	19.0	17.0	25.0	40	70	60	90
711.2	707 - 715	5.5	16.0	15.0	25.0	40	70	60	90
762.0	758 - 766	5.0	15.0	14.0	25.0	40	70	60	90
812.8	809 - 817	5.0	14.5	13.0	25.0	50	70	60	110
914.4	910 - 918	4.5	12.5	11.5	23.0	50	80	80	110
1016.0	1012 - 1020	4.0	11.0	10.5	20.0	50	80	80	125
1117.6	1113 - 1122	3.5	10.0	9.5	18.0	50	80	80	125
1219.2	1215 - 1224	3.5	9.0	8.5	17.0	50	90	100	140
1320.8	1316 - 1325	3.0	9.0	8.0	16.0	50	90	100	140
1422.4	1418 - 1427	3.0	8.0	7.5	15.0	60	90	100	160
1524.0	1519 - 1529	2.5	8.0	7.0	14.0	60	90	100	160
1600.0	1595 - 1605	2.5	7.5	6.5	13.5	60	90	110	160
1625.6	1621 - 1631	2.5	7.0	6.5	13.0	60	100	120	180
1727.2	1722 - 1732	2.5	7.0	6.0	12.0	60	100	120	180
1828.8	1824 - 1834	2.0	6.0	5.5	11.0	60	110	120	200
1930.4	1925 - 1935	2.0	6.0	5.5	11.0	60	120	140	200
2032.0	2027 - 2037	2.0	5.5	5.0	10.0	60	120	140	220
2268.0	2263 - 2273		5.0	4.0	9.0		130	150	240
2540.0	2535 - 2545		4.0	3.5	8.0		140	170	260
2794.0	2789 - 2799		3.5	3.0	7.0		140	180	270
3048.0	3043 - 3053		3.0	3.0	6.5		150	200	290
3302.0	3296 - 3308		2.5 ¹	2.5 ¹	6.0		160	220	310
3556.0	3548 - 3562		2.0 ¹	2.5 ¹	5.5		180	230	330
3810.0	3804 - 3816		1.5 ¹	2.0 ¹	5.0		200	250	340
4064.0	4058 - 4070		1.0 ¹	2.0 ¹	5.0		210	270	350

STRAUB-FLEX / STRAUB-OPEN-FLEX 3.5 Ø 323.9 - 4064.0 mm

Components / Materials	W1	W2	W4	W5
Casing	AISI A106, hot-dip galv.			S32101 (LDX)
Bolts	AISI 4135			A4 - 80
Bars	AISI 12 L 14, galvanised			AISI 316 L
Strip insert	AISI 301 / HDPE			AISI 301 / 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



FLEX to 1219.2 mm



FLEX / OPEN-FLEX

- B Width of pipe coupling:
FLEX / OPEN-FLEX 3.5 LV = 310 mm
FLEX / OPEN-FLEX 3.5 H = 311 mm
- DV Outside diameter of the coupling installed = OD+38 mm
- C Distance between sealing lips = 227 mm
- R_{max} Distance between pipe ends with strip insert = 120 mm
Distance between pipe ends without strip insert = 20 mm

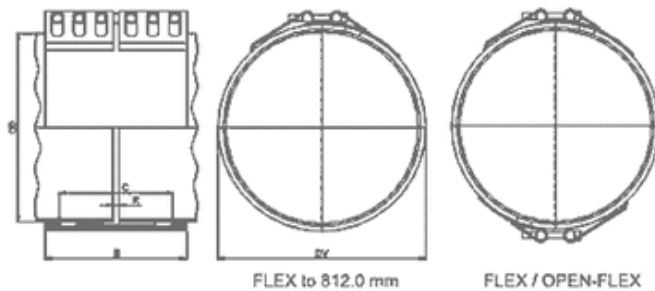
Pipe OD [mm]	Clamping range [mm]	Working pressure PS [bar]		Torque rate [Nm]	
		LV (LDX)	H	LV (LDX)	H
323.9 ³	320 - 327	25.0	25.0	50	50
355.6 ³	352 - 370	25.0	25.0	50	50
406.4 ⁴	402 - 410	25.0	25.0	50	50
457.2 ⁴	453 - 461	25.0	25.0	50	50
508.0 ⁵	504 - 512	23.0	23.0	50	50
558.8 ⁵	555 - 563	21.0	21.0	50	50
609.6 ⁵	605 - 614	19.0	19.0	50	50
655.0 ⁶	651 - 659	17.0	17.0	50	50
711.2 ²	707 - 715	16.0	16.0	50	50
762.0 ³	758 - 766	15.0	15.0	50	50
812.8 ³	809 - 817	14.0	14.0	50	50
914.4 ⁵	910 - 918	12.0	12.0	60	60
1016.0 ⁵	1011 - 1021	11.0	11.0	60	60
1117.6 ⁵	1112 - 1123	10.0	10.0	70	70
1219.2 ³	1214 - 1224	9.0	9.0	80	80
1422.4	1417 - 1427	7.0	8.0	80	80
1524.0	1519 - 1529	7.0	7.5	80	80
1625.0	1620 - 1630	6.0	7.0	90	90
1727.2	1722 - 1732	6.0	6.5	90	90
1828.8	1824 - 1834	5.0	6.0	110	100
1930.4	1925 - 1935	4.5	5.5	110	110
2032.0	2026 - 2038	4.0	5.0	120	120
2268.0	2262 - 2274	3.5	4.5	130	130
2540.0	2534 - 2546	3.0	4.0	140	140
2794.0	1788 - 2800	2.5	3.5	140	140
3048.0	3042 - 3054	2.0	3.0	160	160
3302.0	3296 - 3308	1.5 ³	3.0 ¹	170	170
3556.0	3550 - 3562	1.5 ³	3.0 ¹	180	180
3810.0	3804 - 3816	1.0 ³	2.5 ¹	190	190
4064.0	4058 - 4070	1.0 ³	2.5 ¹	210	210

STRAUB produces custom made couplings from 323.9 up to 4064.0 mm

STRAUB-FLEX / STRAUB-OPEN-FLEX 4 Ø 323.9 - 4064.0 mm

Components / Materials	W1	W2	W4	W5
Casing	AISI A106 , hot-dip galv.			S32101 (LDX)
Bolts	AISI 4135			A4 - 80
Bars	AISI 12 L 14, galvanised			AISI 316 L
Strip insert	AISI 301 / HDPE			AISI 301 / HDPE

Sealing sleeve
EPDM Temp.: -20°C up to +100°C
Medium: all qualities of water, waste water, air, solids and chemical products



- B Width of pipe coupling:
FLEX / OPEN-FLEX 4 LV = 443 mm
FLEX / OPEN-FLEX 4 H = 444 mm
- DV Outside diameter of the coupling installed = OD+48 mm
- C Distance between sealing lips = 350 mm
- R_{max} Distance between pipe ends with strip insert = 200 mm
Distance between pipe ends without strip insert = 20 mm

Pipe OD [mm]	Clamping range [mm]	Working pressure PS [bar]		Torque rate [Nm]	
		LV (LDX)	H	LV (LDX)	H
323.9 ⁴	320 - 327	25.0	25.0	40	40
355.6 ⁴	352 - 359	25.0	25.0	40	40
406.4 ⁴	403 - 409	25.0	25.0	40	40
457.2 ⁴	454 - 460	24.0	25.0	40	40
508.0 ⁴	505 - 512	22.0	23.0	40	40
558.8 ⁴	555 - 562	20.0	21.0	40	40
609.6 ⁴	606 - 613	19.0	19.0	40	40
655.0 ⁴	652 - 658	18.0	18.0	40	40
711.2 ⁴	707 - 715	16.0	17.0	40	40
762.0 ⁴	758 - 766	15.0	16.0	40	40
812.8 ⁴	809 - 817	14.0	14.0	50	50
914.4	910 - 918	12.0	13.0	50	50
1016.0	1012 - 1020	10.0	11.0	60	60
1117.6	1113 - 1122	10.0	10.0	60	60
1219.2	1215 - 1224	9.0	9.0	70	70
1422.4	1418 - 1427	7.0	8.0	70	70
1524.0	1519 - 1529	6.0	7.0	80	80
1625.0	1621 - 1631	6.0	7.0	80	80
1727.2	1722 - 1732	6.0	7.0	90	90
1828.8	1824 - 1834	5.0	6.0	100	100
1930.4	1925 - 1935	5.0	6.0	110	110
2032.0	2027 - 2037	4.0	5.0	120	120
2268.0	2263 - 2273	3.5	4.5	130	130
2540.0	2535 - 2545	3.0	4.0	140	140
2794.0	2798 - 2799	3.0	3.0	140	140
3048.0	3043 - 3053	2.0	3.0	160	160
3302.0	3296 - 3308	2.0 ³	3.0 ³	170	170
3556.0	3548 - 3562	1.5 ³	2.5 ³	180	180
3810.0	3804 - 3816	1.0 ³	2.0 ³	190	190
4064.0	4058 - 4070	1.0 ³	2.0 ³	210	210

STRAUB produces custom made couplings from 323.9 up to 4064.0 mm