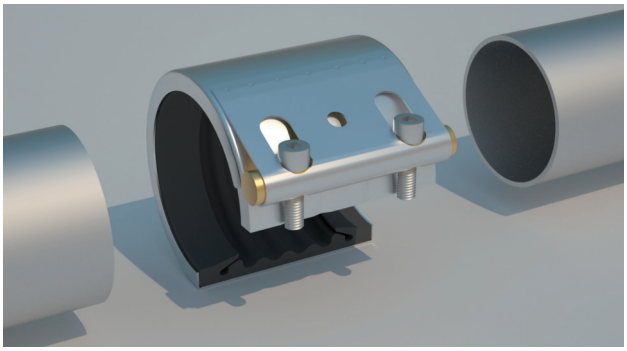
STRAUB-FLEX

The flexible – connection and compensator in one

STRAUB-FLEX is the axially flexible coupling for all pipe materials. This type of coupling not only connects pipes, it simultaneously compensates the axial movement, giving a significant added value to the coupling. STRAUB-FLEX absorbs noise and vibrations optimally.



Sectional view

Working pressure up to 16 / 25 bar
Outside diameters 48.3 up to 4064 mm
(available for all pipes from 172 mm up to 4064 mm)
Temperature range -20°C up to +180°C

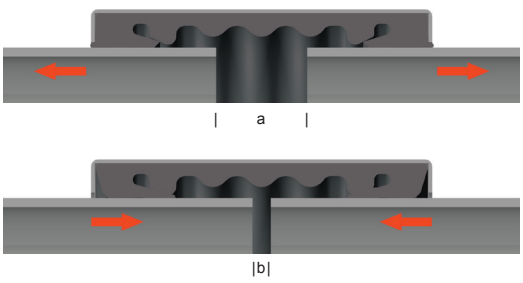
Example for ordering:
STRAUB-FLEX 1L 76.1 mm, EPDM/SS

STRAUB-FLEX used as a compensator on unstable ground

For the installation of an adapter piece

Compensation of axial movement

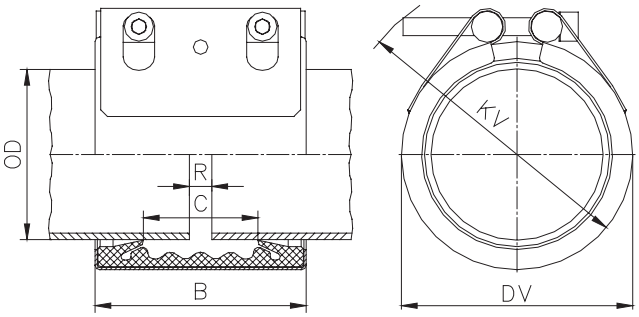
Max. axial movement	
STRAUB-type	**Δl (a-b)** [mm]
FLEX 1 / OPEN-FLEX 1	5
FLEX 2 / OPEN-FLEX 2	10
FLEX 3 / OPEN-FLEX 3	15
FLEX 3.5 / OPEN-FLEX 3.5	15
FLEX 4 / OPEN-FLEX 4	20



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 [2]	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 M...
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
101.6	**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**	**136**	**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
159.0	157.0 - 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, see page 43

[2] FPM / FKM only available in STRAUB-OPEN-FLEX version, see page 30

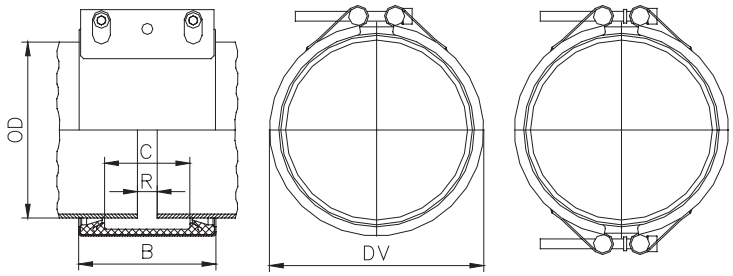
For IPS sizes in bold see page 54 for actual OD

Typing errors may occur. Technical details are subject to change

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	Clamping range	Working pressure PS [bar]						Torque rate [Nm]					
OD [mm]	[mm]	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

Remarks:
- Follow fitting / disassembly instructions
- Available in one- or two-piece version
- 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, see page 43
- L-, LS- and LU-version in W2 or W5
- LV(LDX)-version in W5
- H- and XS-version in W1

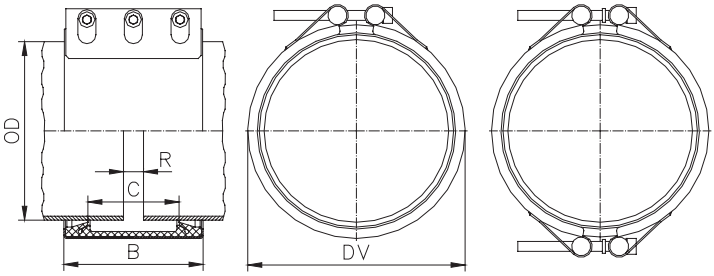
For IPS sizes in bold see page 54 for actual OD

Typing errors may occur. Technical details are subject to change

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

$R_{max.}$ Distance between pipe ends with strip insert = 60 mm
Distance between pipe ends without strip insert = 15 mm

Pipe	Clamping range	Working pressure PS [bar]				Torque rate [Nm]			
OD [mm]	[mm]	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**
609.6	**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[3]	2.5[3]	6.0		160	220	310
3556.0	3548 - 3562		2.0[3]	2.5[3]	5.5		180	230	330
3810.0	3804 - 3816		1.5[3]	2.0[3]	5.0		200	250	340
4064.0	4058 - 4070		1.0[3]	2.0[3]	5.0		210	270	350

STRAUB produces custom made couplings from 219.1 up to 4064.0 mm

Remarks:
- Follow fitting / disassembly instructions
- Available in one- or two-piece version
- 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, see page 43

- LS-version in W2 or W5
- LV(LDX)-version in W5
- H- and X-version in W1

For IPS sizes in bold see page 54 for actual OD

[3] Available in three-piece version only

Typing errors may occur. Technical details are subject to change

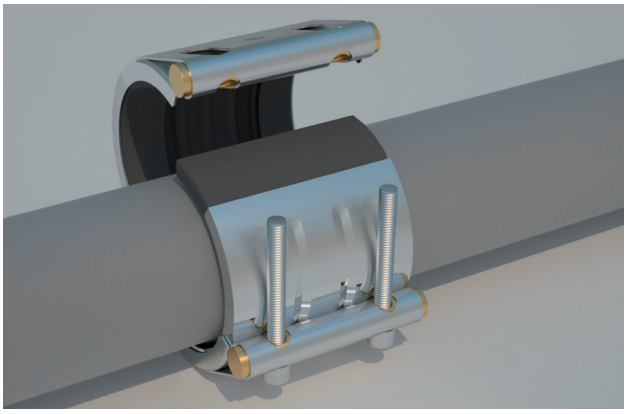
STRAUB-OPEN-FLEX

Opening

The Straub-OPEN-FLEX is available in a number of different versions: hinged, one-piece or two-piece.

The great advantage of STRAUB-OPEN-FLEX is that it can be fitted to existing pipes in situ, without any need to remove and relay the pipes. This makes it the ideal solution for permanent repairs of pipe joints, cracks, etc.

The specifications and properties are the same as the STRAUB-FLEX. For the installation of STRAUB-OPEN-FLEX 1 and 2, the fitting tool is required (see page 44).



Example for ordering:
STRAUB-OPEN-FLEX 1L 76.1 mm, EPDM/SS

STRAUB-OPEN-FLEX 1
hinge design

STRAUB-OPEN-FLEX 2 / 3
two-piece casing design

STRAUB-OPEN-FLEX 2 / 3
slotted design

STRAUB-OPEN-FLEX 3.5 / 4
two-piece casing design

STRAUB-OPEN-FLEX GT

Wrap-around coupling with side outlet

The STRAUB-OPEN-FLEX GT combines all the advantages of the original, with the added benefit of a side outlet. A simple, low-cost solution for a wide range of applications, including venting, sample-taking, measurement points and system extensions. Connection possibilities with threaded fittings and STRAUB couplings.

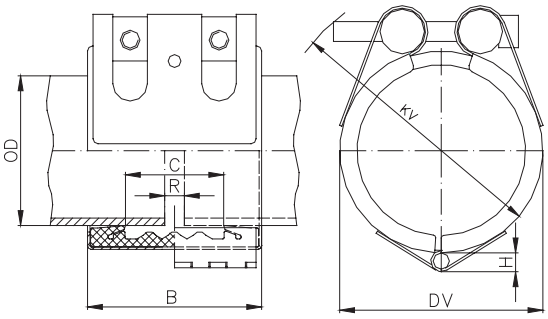
- Available for all STRAUB-OPEN-FLEX 1 from 73.0 mm, STRAUB-OPEN-FLEX 2, 3, 3.5 and 4

(STRAUB-METAL-GRIP GT see page 10)

STRAUB-OPEN-FLEX 1L Ø 48.3 - 168.3 mm

Components / Materials	W1	W2	W4	W5
Casing		AISI 316 L / 316 TI		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 from 180 mm HDPE		AISI 316 L / PVDF from 180 mm 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)



Height (H):

OD	48.3 - 60.3:	7.0 mm
OD	73.0 - 114.3:	9.0 mm
OD	127.0 - 168.3:	9.5 mm

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 M...
48.3	**47.0 - 49.5**	**25.0**	**75**	**35**	**70**	**85**	**5**	**15**	**7.5**	**6**	**8**
54.0	52.5 - 55.5	25.0	75	35	76	90	5	15	7.5	6	8
57.0	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**	**10**	**6**	**8**
76.1	**74.5 - 77.5**	**25.0**	**94**	**51**	**98**	**122**	**5**	**25**	**10**	**6**	**8**
84.0	82.5 - 85.5	24.0	94	51	106	127	5	25	10	6	8
88.9	**87.5 - 90.5**	**24.0**	**94**	**51**	**111**	**132**	**5**	**25**	**10**	**6**	**8**
100.6	99.0 - 102.5	23.0	94	51	123	147	5	25	10	6	8
101.6	**100.0 - 103.5**	**23.0**	**94**	**51**	**124**	**147**	**5**	**25**	**10**	**6**	**8**
104.0	102.5 - 105.5	22.0	94	51	126	147	5	25	10	6	8
104.8	103.0 - 106.5	22.0	94	51	127	147	5	25	10	6	8
108.0	106.5 - 109.5	22.0	94	51	130	152	5	25	10	6	8
114.3	**112.5 - 116.0**	**21.0**	**94**	**51**	**136**	**157**	**5**	**25**	**10**	**6**	**8**
118.0	116.0 - 120.0	20.0	94	51	140	162	5	25	10	6	8
127.0	125.0 - 129.0	19.0	107	62	149	165	5	35	12	8	10
129.0	127.0 - 131.0	18.0	107	62	151	165	5	35	12	8	10
130.2	128.5 - 132.0	18.0	107	62	152	165	5	35	12	8	10
133.0	131.0 - 135.0	16.0	107	62	155	170	5	35	12	8	10
139.7	**138.0 - 141.5**	**16.0**	**107**	**62**	**162**	**175**	**5**	**35**	**12**	**8**	**10**
141.3	139.5 - 143.0	16.0	107	62	163	180	5	35	12	8	10
154.0	152.0 - 156.0	16.0	107	62	176	190	5	35	12	8	10
159.0	157.0 - 161.0	16.0	107	62	181	195	5	35	12	8	10
168.3	**166.0 - 170.5**	**16.0**	**107**	**62**	**190**	**205**	**5**	**35**	**12**	**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, see page 43

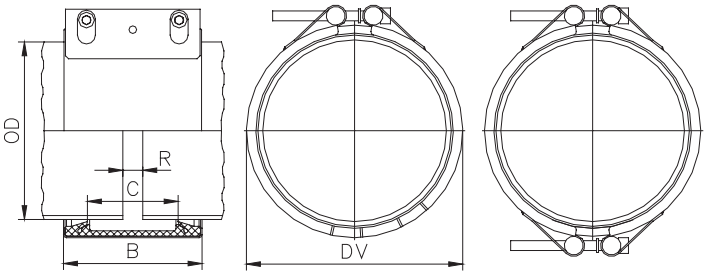
For IPS sizes in bold see page 54 for actual OD

Typing errors may occur. Technical details are subject to change

STRAUB-OPEN-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 / 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 Width of pipe coupling:
OPEN-FLEX 2 L = 138 mm
OPEN-FLEX 2 LS = 139 mm
OPEN-FLEX 2 LU = 141 mm
OPEN-FLEX 2 LV = 141 mm
OPEN-FLEX 2 H = 142 mm
OPEN-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	Clamping range	Working pressure PS [bar]						Torque rate [Nm]					
OD [mm]	[mm]	L	LS	LU	LV (LDX)	H	XS	L	LS	LU	LV (LDX)	H	XS
172.0	170 - 174	13.0[4]						10					
180.0	178 - 182	12.0[4]	16.5[4]	25.0				10	15	30			
200.0	198 - 202	11.0[4]	15.0[4]	25.0				10	15	30			
219.1	**217 - 222**	**10.0[4]**	**13.5[4]**	**25.0**				**10**	**15**	**30**			
250.0	248 - 253	9.0[4]	12.0[4]	24.0				10	15	30			
267.0	264 - 270	8.0[4]	11.0[4]	22.5				15	15	30			
273.0	**270 - 276**	**8.0[4]**	**11.0[4]**	**22.0**	**25.0**	**25.0**	**25.0**	**15**	**15**	**30**	**40**	**30**	**110**
304.0	301 - 307	7.0[4]	10.0[4]	19.5	25.0	25.0	25.0	15	20	30	40	30	110
323.9	**321 - 327**	**7.0[4]**	**9.5[4]**	**18.5**	**25.0**	**25.0**	**25.0**	**15**	**20**	**30**	**40**	**30**	**110**
355.6	**353 - 358**	**6.0[4]**	**8.5[4]**	**17.0**	**25.0**	**25.0**	**25.0**	**15**	**20**	**30**	**40**	**30**	**110**
406.4	**404 - 409**	**5.5[4]**	**7.5[4]**	**15.0**	**25.0**	**22.0**	**25.0**	**20**	**20**	**30**	**50**	**40**	**120**
457.2	**454 - 460**	**5.0[4]**	**6.5[4]**	**13.0**	**25.0**	**19.0**	**25.0**	**20**	**20**	**40**	**50**	**40**	**120**
508.0	**505 - 511**	**4.5[4]**	**6.0[4]**	**12.0[4]**	**24.0**	**17.0**	**25.0**	**20**	**25**	**40**	**60**	**40**	**120**
558.8	**556 - 562**	**4.0[4]**	**5.5[4]**	**10.5[4]**	**22.0**	**16.0**	**25.0**	**25**	**25**	**40**	**60**	**50**	**140**
609.6	**606 - 613**	**3.5[4]**	**5.0[4]**	**10.0[4]**	**20.0**	**14.0**	**25.0**	**25**	**25**	**40**	**60**	**50**	**140**
711.2	708 - 715		4.0[4]	8.5[4]	17.0	12.0	25.0		30	50	70	50	140
762.0	758 - 766		4.0[4]	8.0[4]	16.0	12.0	23.5		30	50	70	60	160
812.8	809 - 817		3.5[4]	7.5[4]	15.0	11.0	22.0		30	50	70	60	160
914.4	910 - 918		3.5[4]	6.5[4]	13.0	10.0	20.0		35	60	80	60	160
1016.0	1012 - 1020		3.0[4]	6.0[4]	11.0	9.0	18.0		35	60	80	70	160
1117.6	1114 - 1122		2.5[4]	5.5[4]	10.0	8.0	16.0		40	60	80	70	180
1219.2	1215 - 1224		2.5[4]	5.0[4]	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

Remarks:
- Follow fitting / disassembly instructions
- All STRAUB-OPEN-FLEX 2 available in two-piece version
- 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, see page 43
- L-, LS- and LU-version in W2 or W5
- LV(LDX)-version in W5
- H- and XS-version in W1

[4] One-piece version in slotted design

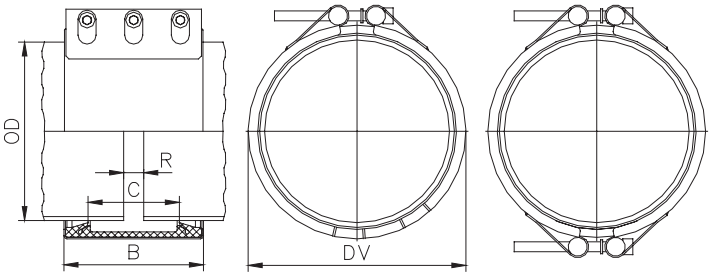
For IPS sizes in bold see page 54 for actual OD

Typing errors may occur. Technical details are subject to change

STRAUB-OPEN-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:
OPEN-FLEX 3 LS = 210 mm
OPEN-FLEX 3 LV = 211 mm
OPEN-FLEX 3 H = 221 mm
OPEN-FLEX 3 X = 218 mm

DV Outside diameter of the coupling installed = OD+38 mm

C Distance between sealing lips = 127 mm

$R_{max.}$ Distance between pipe ends with strip insert = 60 mm
Distance between pipe ends without strip insert = 15 mm

Pipe	Clamping range	Working pressure PS [bar]				Torque rate [Nm]			
OD [mm]	[mm]	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[4]**	**23.0**	**22.0**		**40**	**70**	**60**	
558.8	**555 - 562**	**7.0[4]**	**21.0**	**20.0**	**25.0**	**40**	**70**	**60**	**90**
609.6	**606 - 613**	**6.5[4]**	**19.0**	**17.0**	**25.0**	**40**	**70**	**60**	**90**
711.2	707 - 715	5.5[4]	16.0	15.0	25.0	40	70	60	90
762.0	758 - 766	5.0[4]	15.0	14.0	25.0	40	70	60	90
812.8	809 - 817	5.0[4]	14.5	13.0	25.0	50	70	60	110
914.4	910 - 918	4.5[4]	12.5	11.5	23.0	50	80	80	110
1016.0	1012 - 1020	4.0[4]	11.0	10.5	20.0	50	80	80	125
1117.6	1113 - 1122	3.5[4]	10.0	9.5	18.0	50	80	80	125
1219.2	1215 - 1224	3.5[4]	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[3]	2.5[3]	6.0		160	220	310
3556.0	3548 - 3562		2.0[3]	2.5[3]	5.5		180	230	330
3810.0	3804 - 3816		1.5[3]	2.0[3]	5.0		200	250	340
4064.0	4058 - 4070		1.0[3]	2.0[3]	5.0		210	270	350

STRAUB produces custom made couplings from 219.1 up to 4064.0 mm

Remarks:
- Follow fitting / disassembly instructions
- All STRAUB-OPEN-FLEX 3 available in two-piece version
- 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, see page 43

- LS-version in W2 or W5
- LV(LDX)-version in W5
- H- and X-version in W1

For IPS sizes in bold see page 54 for actual OD

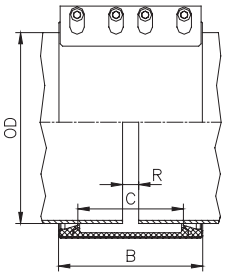
[3] Available in three-piece version only
[4] One-piece version in slotted design

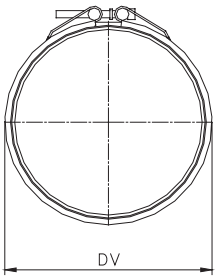
Typing errors may occur. Technical details are subject to change

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

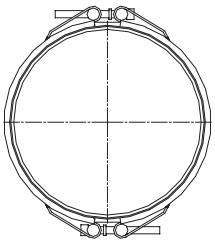
Components / Materials	W1	W2	W4	W5
Casing	AISI A106, hot-dip galv.			S32101 (LDX)
Bolts	AISI 4135			A4 - 80
Bars	AISI 12 L 14, galvanised			AISI 316 L
Strip insert	AISI 301 / HDPE			AISI 301 / HDPE

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] LV (LDX)	Working pressure PS [bar] H	Torque rate [Nm] LV (LDX)	Torque rate [Nm] H
323.9[5]	**320 - 327**	**25.0**	**25.0**	**50**	**50**
355.6[5]	**352 - 370**	**25.0**	**25.0**	**50**	**50**
406.4[5]	**402 - 410**	**25.0**	**25.0**	**50**	**50**
457.2[5]	**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[5]	651 - 659	17.0	17.0	50	50
711.2[5]	707 - 715	16.0	16.0	50	50
762.0[5]	758 - 766	15.0	15.0	50	50
812.8[5]	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[5]	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[3]	170	170
3556.0	3550 - 3562	1.5[3]	3.0[3]	180	180
3810.0	3804 - 3816	1.0[3]	2.5[3]	190	190
4064.0	4058 - 4070	1.0[3]	2.5[3]	210	210
STRAUB produces custom made couplings from 323.9 up to 4064.0 mm					

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 (included), see page 43
- LV(LDX)-version in W5
- H-version in W1

[3] Available in three-piece version only
[5] STRAUB-FLEX available in one-piece version as well

For IPS sizes in bold see page 54 for actual OD

Typing errors may occur. Technical details are subject to change