

# FIX

FLEXIBLE COUPLINGS FOR PIPE CONNECTIONS WITH  
**AXIAL RESTRAINT**



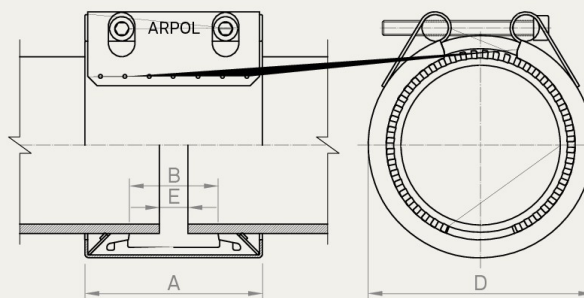
FIX-M



FIX-U

# FOR STEEL PIPE

## Series FIX-L



	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing					304 L	1.4307	316 L	1.4404
Bolts					304	1.4301	316	1.4401
Bars					304 L	1.4307	316 L	1.4404
Inner Steel Bridge (Lock)					304 L	1.4307	316 L	1.4404
Anchoring ring					302	1.4310	302	1.4310

Sealing gasket: EPDM / NBR / Silicone

OD	Range	Pressure		Dimensions					Bolts	
		PN bar	PS bar	A mm	B mm	D mm	E <sup>1</sup> mm	E <sup>2</sup> mm	Diam.	Tor. Nm
48.3	47.8 - 48.9	16	35	78	31	68	5	15	M 8	15
54.0	53.5 - 54.5	16	30	78	31	74	5	15	M 8	15
57.0	56.4 - 57.6	16	30	78	31	77	5	15	M 8	15
60.3	59.7 - 60.9	16	30	78	31	80	5	15	M 8	15
76.1	75.3 - 76.9	16	20	94	45	96	5	15	M 8	15
88.9	88.0 - 89.8	16	20	94	45	112	5	15	M 8	15
108.0	106.9 - 109.1	16	19	94	45	131	5	15	M 8	20
114.3	113.2 - 115.4	16	23	95	45	137	5	15	M 8	20
133.0	131.7 - 134.3	16	18	95	45	156	5	15	M 10	20
139.7	138.3 - 141.1	16	16	95	45	163	5	15	M 10	25
154.0	152.4 - 155.6	14	15	95	45	178	5	15	M 10	25
159.0	157.4 - 160.6	14	15	95	45	183	5	15	M 10	30
168.3	166.6 - 170.0	13	14	95	45	191	5	15	M 10	30
219.1	216.9 - 221.3		10	141	86	251	15	35	M 12	50
244.5	242.0 - 247.0		5,5	141	86	276	15	35	M 12	50
267.0	264.5 - 269.5		5	141	86	299	15	35	M 12	50
273.0	270.5 - 275.5		4,5	141	86	305	15	35	M 12	50
323.9	320.5 - 327.0		3	141	86	356	15	35	M 12	50
355.6	352.0 - 359.0		2,5	141	86	387	15	35	M 12	50
406,4	402.5 - 410.5		2	141	86	438	15	35	M 12	60
457,0	452.5 - 460.5		2	141	86	489	15	35	M 12	60
508,0	503.5 - 511.5		1,5	141	86	540	15	35	M 12	60
558,0	554.5 - 562.5		1,5	141	86	590	15	35	M 12	60
609,0	605.0 - 613.0		1	141	86	641	15	35	M 12	60

E<sup>1</sup> Permitted gaps without internal band E<sup>2</sup> Permitted gaps with internal band Tor. Torque Value

PN Nominal pressure for shipbuilding industry with safety factor ≥ 4 PS Working pressure OD Outside diameter

OD	Maximum diameter difference	Maximum angular deflection	Maximum misalignment
mm	mm	degrees	mm
48	0,5	4,0	1,0
54 - 60	1,0	4,0	1,0
76 - 104	1,5	4,0	1,0
108 - 154	2,5	4,0	1,0
159 - 219	2,5	2,0	2,0
244 - 609	2,5	2,0	3,0

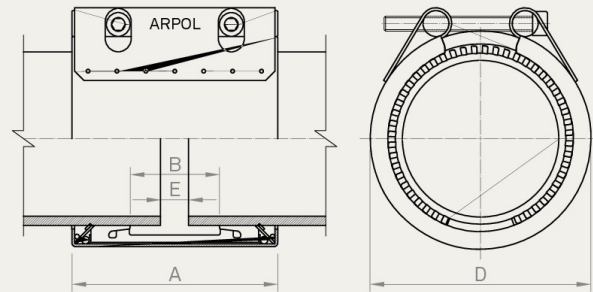
See page 5 (Permitted tolerances)

For the correct operation of the coupling, fitting instructions must be respected.

Test pressure = 1.5 x PS / PN

## FOR STEEL PIPE

### Series FIX-M



	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing					304 L	1.4307	316 L	1.4404
Bolts					304	1.4301	316	1.4401
Bars					304 L	1.4307	316 L	1.4404
Inner Steel Bridge (Lock)					304 L	1.4307	316 L	1.4404
Anchoring ring					302	1.4310	302	1.4310

Sealing gasket: EPDM / NBR / Silicone

OD	Range	Pressure		Dimensions					Bolts	
		PN bar	PS bar	A mm	B mm	D mm	E <sup>1</sup> mm	E <sup>2</sup> mm	Diam.	Tor. Nm
48.3	47.8 - 48.9	16	40	93	31	72	5	15	M 8	20
54.0	53.5 - 54.5	16	35	93	31	82	5	15	M 8	25
57.0	56.4 - 57.6	16	35	93	31	85	5	15	M 8	25
60.3	59.7 - 60.9	16	35	93	31	88	5	15	M 8	25
76.1	75.3 - 76.9	16	22	111	45	104	5	15	M 8	35
88.9	88.0 - 89.8	16	22	111	45	119	5	15	M 10	35
108.0	106.9 - 109.1	16	21	111	45	141	5	15	M 10	35
114.3	113.2 - 115.4	16	25	112	45	174	5	15	M 10	35
133.0	131.7 - 134.3	16	19	112	45	167	5	15	M 10	35
139.7	138.3 - 141.1	16	18	112	45	184	5	15	M 10	35
154.0	152.4 - 155.6	16	18	113	45	188	5	15	M 10	35
159.0	157.4 - 160.6	16	18	113	45	193	5	15	M 10	35
168.3	166.6 - 170.0	16	18	113	45	202	5	15	M 10	35
219.1	216.9 - 221.3	16	16	142	86	255	15	35	M 12	65
244.5	242.0 - 247.0	9	142	86	280	15	35	M 12	65	
267.0	264.5 - 269.5	8	142	86	303	15	35	M 12	65	
273.0	270.5 - 275.5	8	142	86	309	15	35	M 12	65	
323.9	320.5 - 327.0	6	142	86	360	15	35	M 12	65	
355.6	352.0 - 359.0	6	142	86	391	15	35	M 12	65	
406.4	402.5 - 410.5	5	142	86	441	15	35	M 12	65	

E<sup>1</sup> Permitted gaps without internal band E<sup>2</sup> Permitted gaps with internal band Tor. Torque Value

PN Nominal pressure for shipbuilding industry with safety factor ≥ 4 PS Working pressure OD Outside diameter

OD	Maximum diameter difference	Maximum angular deflection	Maximum misalignment
mm	mm	degrees	mm
48	0,5	4,0	1,0
54 - 60	1,0	4,0	1,0
76 - 104	1,5	4,0	1,0
108 - 154	2,5	4,0	1,0
159 - 219	2,5	2,0	2,0
244 - 406	2,5	2,0	3,0

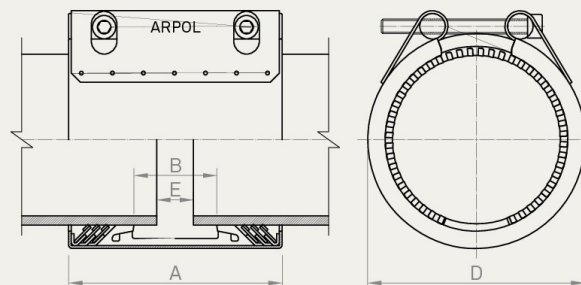
See page 5 (Permitted tolerances)

For the correct operation of the coupling, fitting instructions must be respected.

Test pressure = 1.5 x PS / PN

## FOR POLYETHYLENE AND PVC PIPE

### Series FIX-U



It is necessary to place an inner ring inside the PE or PVC pipe to stiffen it and prevent the deformation and reduction of pipe diameters caused by temperature differentials.

	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing					304 L	1.4307	316 L	1.4404
Bolts					304	1.4301	316	1.4401
Bars					304 L	1.4307	316 L	1.4404
Inner Steel Bridge (Lock)					304 L	1.4307	316 L	1.4404
Anchoring ring					302	1.4310	316 L	1.4404

Sealing gasket: EPDM / NBR / Blue silicone

OD	Range	Pressure		ΔT max			Max axial load			Dimensions				Bolts		
		PS bar		°C			kN			A mm	B mm	D mm	E mm	Diam.	Tor. Nm	
mm	mm			PS6	PS10	PS16	PS6	PS10	PS16							
63	62,0 - 64,0	10	16		40	30		7,5	9,5	99	31	85	5	M8	10	
75	74,0 - 76,0	10	16		40	30		10,6	13,5	117	31	97	5	M8	10	
90	89,0 - 91,0	10	16		40	30		15,2	19,4	117	31	112	5	M8	15	
110	108,0 - 111,0	10	16		40	30		22,7	29,0	117	45	132	5	M10	15	
125	123,0 - 126,0	10	16		40	30		29,4	37,5	118	45	149	5	M10	15	
140	138,0 - 142,0	10	16		40	30		36,9	47,0	118	45	164	5	M10	15	
160	158,0 - 162,0	10	16		40	30		48,1	61,4	118	45	184	5	M10	15	
180	178,0 - 182,0	6	10	16	40	20	15	40,6	43,3	51,5	201	95	217	10	M12	30
200	198,0 - 203,0	6	10	16	40	20	15	50,2	53,4	63,6	201	95	237	10	M12	30
225	222,0 - 227,0	6	10	16	40	20	15	63,5	67,6	80,4	201	95	262	10	M12	30
250	247,0 - 253,0	6	10	16	40	20	15	78,4	83,4	99,3	201	95	287	10	M12	40
280	277,0 - 283,0	6	10	16	40	20	15	98,4	104,7	124,6	201	95	317	10	M12	40
315	311,0 - 317,0	6	10		40	20		124,5	132,5		201	95	352	10	M12	40
355	351,0 - 357,0	6	10		40	20		158,1	168,3		201	95	392	10	M16	50
400	396,0 - 402,0	6	10		40	15		200,8	192,0		201	95	437	10	M16	50

E Permitted gaps PS Working pressure OD Outside diameter ΔT Differential of the minimum and maximum temperature of the pipeline Tor. Torque Value

OD	Maximum diameter difference	Maximum angular deflection	Maximum misalignment
mm	mm	degrees	mm
63	1,0	4,0	1,0
75 - 90	1,5	4,0	1,0
110 - 140	2,5	4,0	1,0
160 - 225	2,5	2,0	2,0
250 - 400	2,5	2,0	3,0

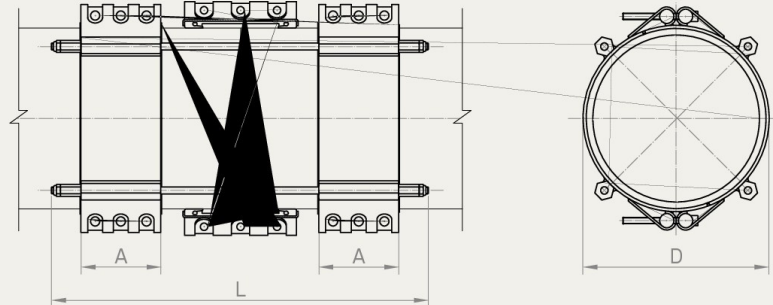
See page 5 (Permitted tolerances)

For the correct operation of the coupling, fitting instructions must be respected.

Test pressure = 1,25 x PS

## FOR POLYETHYLENE PIPE

### Series MULTI-FIX



It is necessary to place an inner ring inside the PE pipe to stiffen it and prevent the deformation and reduction of pipe diameters caused by temperature differentials.

This anchoring set requires a specialized installation process, please see the fitting instruction before choosing this product.

	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing					304 L	1.4307	316 L	1.4404
Bolts					304	1.4301	316	1.4401
Bars					304 L	1.4307	316 L	1.4404
Restraining rod					304	1.4301	316	1.4401
Anchoring band					304 L	1.4307	316 L	1.4404

OD mm	Pressure PS bar			ΔT max °C			Max axial load kN			Dimensions						Restraining rod						
	6	10	16	PS6	PS10	PS16	PS6	PS10	PS16	A mm			L mm			D mm	Diam.			Quantity		
										PS6	PS10	PS16	PS6	PS10	PS16		PS6	PS10	PS16	PS6	PS10	PS16
315	6	10	16	40	40	40	125	186	278	140	140	200	645	677	829	326	M12	M16	M16	4	4	4
355	6	10	16	40	40	40	158	237	353	140	140	200	645	677	829	366	M12	M16	M16	4	4	4
400	6	10	16	40	40	40	201	301	500	140	200	200	677	809	829	411	M16	M16	M20	4	4	4
450	6	10	16	40	40	40	254	382	567	140	200	200	677	829	829	461	M16	M20	M20	4	4	6
500	6	10		40	40		314	470		140	200		677	829		511	M16	M20		6	6	
560	6	10		40	40		393	589		140	200		677	829		571	M16	M20		6	6	
630	6	10		40	40		498	746		200	200		829	829		641	M20	M20		6	6	
710	6	10		40	30		633	810		200	200		829	829		722	M20	M20		6	8	
800	6	10		40	25		803	941		200	200		829	829		816	M20	M20		8	8	
900	6	10		40	20		1016	1081		200	200		829	829		916	M20	M20		9	9	
1000	6	10		40	15		1255	1200		200	200		829	829		1016	M24	M24		9	9	

PS Working pressure OD Outside diameter ΔT Differential of the minimum and maximum temperature of the pipeline

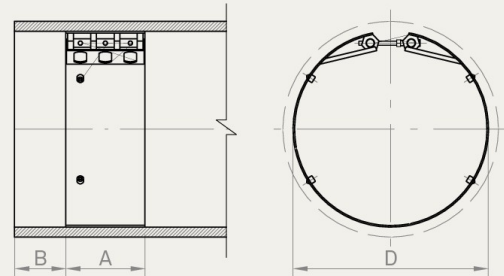
For the correct operation of the coupling, fitting instructions must be respected.

Test pressure = 1,25 x PS

The Arpol MULTI-FIX is the anchoring set only. The sealing coupling in the middle can be an Arpol INSTAL or Arpol REP.

## INSIDE STIFFENER FOR ARPOL MULTI-FIX

### Series MULTI-FIX



It is necessary to place an inner ring inside the PE pipe to stiffen it and prevent the deformation and reduction of pipe diameters caused by temperature differentials.

This anchoring set requires a specialized installation process, please see the fitting instruction before choosing this product.

	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing					304 L	1.4307	316 L	1.4404
Bolts					304	1.4301	316	1.4401
Bars					304 L	1.4307	316 L	1.4404

DE mm	Dimensions						
	A mm			B mm	D mm		
	PS6	PS10	PS16		PS6 / SDR 26	PS10 / SDR 17	PS16 / SDR 11
315	140	140	200	140	291	278	258
355	140	140	200	140	328	313	290
400	140	200	200	140	369	353	327
450	140	200	200	140	415	397	368
500	140	200		140	462	441	
560	140	200		140	517	494	
630	200	200		140	582	556	
710	200	200		140	655	626	
800	200	200		140	738	706	
900	200	200		140	831	794	
1000	200	200		140	923	882	

**OD** Outside diameter **SDR** Standard Dimension Ratio, ratio of outside diameter to wall thickness **PS** MULTI-FIX Working pressure

For the correct operation of the coupling, fitting instructions must be respected.

## APPLICATION

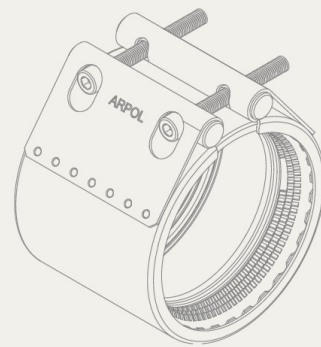
### FIX-U



- Anchoring installation in a polyethylene manhole.



- Anchoring repair of a polyethylene pipe.



### MULTI-FIX



- Anchoring installation of a polyethylene line for a mine water extraction.

