

REP.

Repair.

Flexible couplings for pipe repair.



REP 2



BECAUSE CONNECTING MATTERS



Index

Rep

flexible
couplings for
pipe repair

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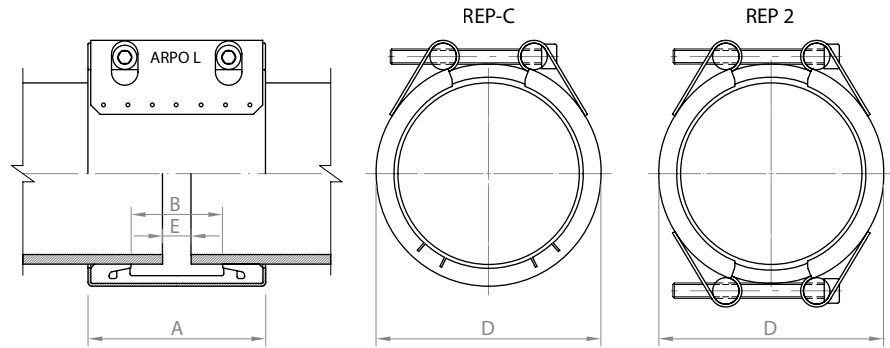
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Nominal width 95

Series IBXC - IBXR

To ensure correct operation, Fitting instructions must be respected.

Test pressure = 1.5 x PS



	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing			304 L	1.4307	304 L	1.4307	316 L	1.4404
Bolts			1035	1.0501	304	1.4301	316	1.4401
Bars			1045	1.0503	304 L	1.4307	316 L	1.4404
Inner steel band (Lock)			304 L	1.4307	304 L	1.4307	316 L	1.4404

Sealing gasket: EPDM / NBR / Silicone

OD mm	Range		Pressure PS bar	Dimensions					Bolts	
	IBXC mm	IBXR mm		A mm	B mm	D mm	E ¹ mm	E ² mm	Diam.	Tor. Nm
48,3	47 - 49		45	78	31	68	5	15	M 8	7
54,0	53 - 55		45	78	31	74	5	15	M 8	7
57,0	56 - 58		40	78	31	77	5	15	M 8	7
60,3	59 - 61	57 - 64	40	78	31	80	5	15	M 8	7
63,0	62 - 65	60 - 64	40	78	31	84	5	15	M 8	7
66,0		64 - 68	40	94	45	88	5	15	M 8	7
69,0		67 - 72	30	94	45	92	5	15	M 8	7
76,1	74 - 77	74 - 78	30	94	45	99	5	15	M 8	7
84,0	82 - 85	80 - 86	30	94	45	107	5	15	M 8	7
88,9	87 - 91	87 - 93	30	95	45	113	5	15	M 8	7
94,0		90 - 96	30	95	45	116	5	15	M 8	7
104,0	102 - 106	98 - 106	30	95	45	128	5	15	M 8	10
108,0	107 - 111	107 - 111	30	95	45	133	5	15	M 8	10
114,3	112 - 117	110 - 116	30	95	45	139	5	15	M 8	10
125,0	124 - 127	118 - 125	20	95	45	149	5	15	M 8	10
129,0	127 - 131	125 - 131	20	95	45	153	5	15	M 8	10
133,0	131 - 136	131 - 136	20	95	45	158	5	15	M 8	10
139,7	137 - 142	137 - 144	20	95	45	164	5	15	M 8	10
154,0	152 - 156	147 - 156	20	95	45	178	5	15	M 8	10
159,0	156 - 161	156 - 162	20	95	45	183	5	15	M 8	10
168,3	166 - 171	166 - 171	20	95	45	193	5	15	M 8	10

E¹ Permitted gaps without internal band E² Permitted gaps with internal band PS Working pressure OD Outside Diameter Tor. Torque Value

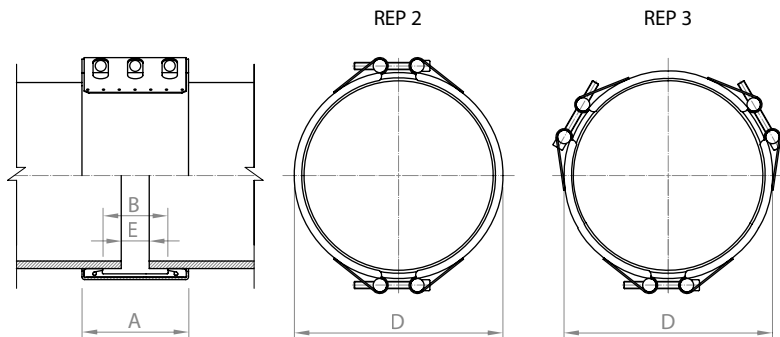
OD mm	Maximum diameter difference		Maximum angular deflection		Maximum misalignment		Maximum crack width	
	IBXC	IBXR	IBXC	IBXR	IBXC	IBXR	IBXC	IBXR
	mm		degrees		mm		mm	
48,3	0,5	-	4,0	-	1,0	-	20	
54 - 69	1,0	2,0	4,0	4,0	1,0	1,0	20	
76,1 - 104	1,5	3,0	4,0	4,0	1,0	1,0	35	
108 - 154	2,5	3,0	4,0	4,0	1,0	1,0	35	
159 - 168,3	2,5	3,0	4,0	4,0	2,0	2,0	35	

See page 7 (Permitted tolerances)

Nominal width 140

Series IBYR to IFYR IBY3 to IFY3

To ensure correct operation, Fitting instructions must be respected.
Test pressure = 1.5 x PS



	IBYR IBY3	ICYR ICY3	IDYR IDY3	IEYR IEY3	IFYR IFY3
	mm	mm	mm	mm	mm
A	139	140	141	142	144
B	86	86	86	86	86
D	DE + 23	DE + 24	DE + 25	DE + 26	DE + 28
E¹	10	10	10	10	10
E²	35	35	35	35	35

	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing			304 L	1.4307	304 L	1.4307	316 L	1.4404
Bolts			1035	1.0501	304	1.4301	316	1.4401
Bars			1045	1.0503	304 L	1.4307	316 L	1.4404
Inner steel band (Lock)			304 L	1.4307	304 L	1.4307	316 L	1.4404

Sealing gasket: EPDM / NBR / Silicone

DN	IBYR - IBY3			ICYR - ICY3			IDYR - IDY3			IEYR - IEY3			IFYR - IFY3		
	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm
150	23	M 10	20	30	M 10	20									
200	18	M 10	20	24	M 10	20	30	M 10	20						
250	15	M 10	20	19	M 10	20	24	M 10	20						
300	12	M 10	25	16	M 10	20	20	M 10	20						
350	11	M 10	30	14	M 10	20	18	M 10	20	21	M 10	20	28	M 12	25
400	9	M 10	30	13	M 10	20	16	M 10	20	19	M 10	20	25	M 12	25
450	8	M 10	25	11	M 10	25	14	M 10	25	17	M 12	30	22	M 12	30
500	8	M 10	30	10	M 10	25	13	M 10	25	15	M 12	30	20	M 12	35
550	7	M 10	30	9	M 10	30	12	M 10	30	14	M 12	35	19	M 12	35
600	6	M 10	30	9	M 10	30	11	M 10	30	13	M 12	35	17	M 12	35
650	6	M 10	35	8	M 10	35	10	M 12	40	12	M 12	45	16	M 12	45
700	6	M 10	40	7	M 10	35	9	M 12	45	11	M 12	45	15	M 12	45
750	5	M 10	40	7	M 10	40				10	M 12	45	14	M 16	60
800	5	M 10	40	6	M 12	50				10	M 12	50	13	M 16	70
850	5	M 10	45	6	M 12	60				9	M 12	60	12	M 16	70
900				6	M 12	60				9	M 12	60	12	M 16	80
950				5	M 12	60				8	M 12	60	11	M 16	80
1000				5	M 12	70				8	M 12	70	10	M 16	90
1100				5	M 12	70				7	M 16	90	9	M 16	90
1200				4	M 12	80				7	M 16	100	9	M 16	100

Nominal diameter serve as guidance of the pressure scale. Measures in between DN range can be manufactured.

E¹ Permitted gaps without internal band E² Permitted gaps with internal band PS Working pressure DN Nominal Diameter OD Outside Diameter Tor. Torque Value

OD	Maximum diameter difference		Maximum angular deflection	Maximum misalignment	Maximum crack width
	2 locks	3 locks			
mm	mm	mm	degrees	mm	mm
150 - 250	5,0	6,0	2,0	2,0	50
250 - 500	5,0	6,0	2,0	3,0	50
500 - 1200	6,0	7,0	2,0	3,0	50

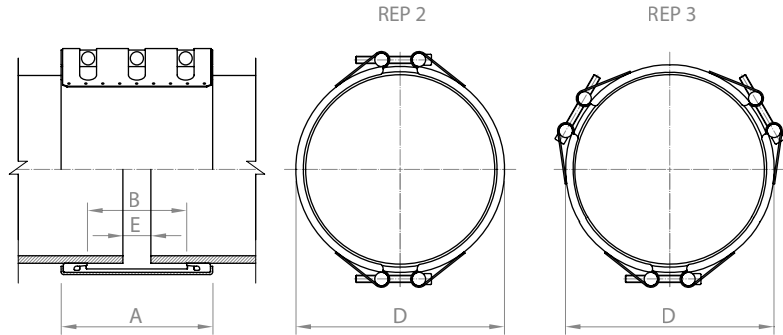
See page 7 (Permitted tolerances)

Nominal width 200

Series IBZR to IHFZR IBZ3 to IHFZ3

To ensure correct operation, Fitting instructions must be respected.

Test pressure = 1.5 x PS



	IBZR IBZ3	ICZR ICZ3	IDZR IDZ3	IEZR IEZ3	IFZR IFZ3	IGZR IGZ3	IHFZR IHFZ3
	mm	mm	mm	mm	mm	mm	mm
A	199	200	201	202	204	206	204
B	142	142	142	142	142	142	142
D	DE+23	DE+24	DE+25	DE+26	DE+28	DE+30	DE+52
E ¹	15	15	15	15	15	15	15
E ²	60	60	60	60	60	60	60

	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing			304 L	1.4307	304 L	1.4307	316 L	1.4404
Bolts			1035	1.0501	304	1.4301	316	1.4401
Bars			1045	1.0503	304 L	1.4307	316 L	1.4404
Inner steel band (Lock)			304 L	1.4307	304 L	1.4307	316 L	1.4404

Sealing gasket: EPDM / NBR / Silicone

DN mm	IBZR - IBZ3			ICZR - ICZ3			IDZR - IDZ3			IEZR - IEZ3			IFZR - IFZ3			IGZR - IGZ3			IHFZR - IHFZ3		
	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm
150	23	M 12	20	30	M 12	20															
200	18	M 12	25	24	M 12	25	30	M 12	20												
250	15	M 12	25	19	M 12	25	24	M 12	20												
300	12	M 12	30	16	M 12	30	20	M 12	20												
350	11	M 12	35	14	M 12	30	18	M 12	25	21	M 12	25	28	M 16	30						
400	9	M 12	35	13	M 12	25	16	M 12	30	19	M 12	25	25	M 16	60						
450	8	M 12	45	11	M 12	30	14	M 12	30	17	M 12	30	22	M 16	40						
500	8	M 12	45	10	M 12	35	13	M 12	35	15	M 12	30	20	M 16	40						
550	7	M 12	35	9	M 12	35	12	M 12	35	14	M 16	45	19	M 16	45						
600	6	M 12	35	9	M 12	35	11	M 12	40	13	M 16	50	17	M 16	50	21	M 20	60	27	M 20	70
650	6	M 12	40	8	M 12	45	10	M 12	45	12	M 16	60	16	M 16	60	20	M 20	70	25	M 20	70
700	6	M 12	45	7	M 12	45	9	M 12	45	11	M 16	60	15	M 16	60	18	M 20	70	23	M 20	80
750	5	M 12	45	7	M 12	45				10	M 16	60	14	M 16	60	17	M 20	80	22	M 20	80
800	5	M 12	50	6	M 12	50				10	M 16	70	13	M 16	70	16	M 20	90	20	M 20	90
850	5	M 12	60	6	M 12	60				9	M 16	70	12	M 16	70	15	M 20	90	19	M 20	90
900				6	M 12	60				9	M 16	80	12	M 16	80	14	M 20	100	18	M 20	100
950				5	M 12	60				8	M 16	80	11	M 16	80	14	M 20	100	17	M 20	100
1000				5	M 12	70				8	M 16	90	10	M 16	90	13	M 20	120	16	M 20	120
1100				5	M 16	90				7	M 16	90	9	M 16	90	12	M 20	120	15	M 20	120
1200				4	M 16	100				7	M 16	100	9	M 16	100	11	M 20	140	14	M 20	140
1300										6	M 16	120	8	M 16	120	10	M 20	140	13	M 20	140
1400										6	M 16	120	7	M 16	120	9	M 20	160	12	M 20	160
1500										5	M 16	140	7	M 16	140	9	M 20	160	11	M 20	160
1600										5	M 16	140	7	M 20	180	8	M 20	180	10	M 20	180
1700										5	M 16	140	6	M 20	180	8	M 20	180	10	M 20	180
1800										4	M 16	160	6	M 20	200	7	M 20	200	9	M 20	200
1900										4	M 16	160	6	M 20	200	7	M 20	200	9	M 20	200
2000										4	M 16	180	5	M 20	200	7	M 20	220	8	M 20	200

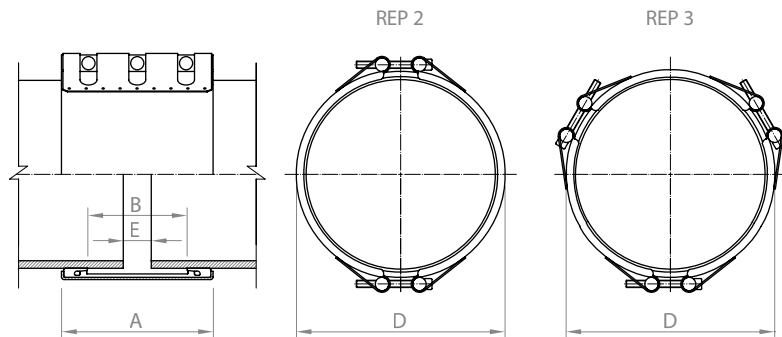
Nominal diameter serve as guidance of the pressure scale. Measures in between DN range can be manufactured.

E¹ Permitted gaps without internal band E² Permitted gaps with internal band PS Working pressure DN Nominal Diameter OD Outside Diameter Tor. Torque Value

OD	Maximum diameter difference				Maximum angular deflection		Maximum misalignment		Maximum crack width
	2 locks	3 locks	2 locks	3 locks	IBZR-IGZR	IHFZR	IBZR-IGZR	IHFZR	
	IBZR-IGZR	IBZ3-IGZ3	IHFZR	IHFZ3	IBZ3-IGZ3	IHFZ3	IBZ3-IGZ3	IHFZ3	
mm	mm	mm	mm	degrees	degrees	mm	mm	mm	
150 - 250	5,0	7,0			2,0		2,0		100
250 - 500	5,0	7,0			2,0		2,0		100
500 - 1500	6,0	8,0	3,0	4,0	2,0	1,0	3,0	2,0	100
1500 - 2000	6,0	8,0	3,0	4,0	1,0	1,0	3,0	2,0	100

See page 7 (Permitted tolerances)

Please enquire about diameters above 2000 mm.



Coated nominal width 200

Serie AGZR - AGZ3

To ensure correct operation, Fitting instructions must be respected.
Test pressure = 1.5 x PS

AGZR - AGZ3	
mm	
A	206
B	142
D	DE + 30
E ¹	15
E ²	60

	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing	1024	1.0570						
Bolts	1035 / 304	1.0501 / 1.4301						
Bars	1045 / 304 L	1.0503 / 1.4307						
Inner steel band (Lock)	304 L	1.4307						

Sealing gasket: EPDM / NBR / Silicone

DN	AGZR - AGZ3		
	PS bar	Diam.	Tor. Nm
600	29	M20	60
650	27	M20	70
700	25	M20	80
750	23	M20	80
800	22	M20	90
850	21	M20	90
900	19	M20	100
950	18	M20	100
1000	18	M20	120
1100	16	M20	120
1200	15	M20	140
1300	14	M20	140
1400	13	M20	160
1500	12	M20	160
1600	11	M20	180
1700	10	M20	150
1800	10	M20	200
1900	9	M20	200
2000	9	M20	220

Nominal diameter serve as guidance of the pressure scale. All measures within the DN range are manufactured.

E¹ Permitted gaps without internal band E² Permitted gaps with internal band PS Working pressure DN Nominal Diameter OD Outside Diameter Tor. Torque Value

Please enquire
about diameters
above 2000 mm.

OD	Maximum diameter difference		Maximum crack width
	2 locks	3 locks	
mm	mm	mm	mm
500 - 1500	6,0	8,0	100
1500 - 2000	6,0	8,0	100

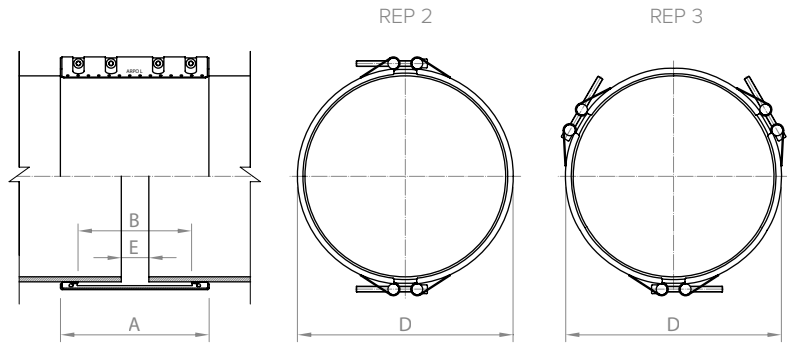
See page 7 (Permitted tolerances)

Nominal width 300

Series IBWR to IHGWR IBW3 to IHGW3

To ensure correct operation, Fitting instructions must be respected.

Test pressure = 1.5 x PS



	IBWR IBW3	ICWR ICW3	IDWR IDW3	IEWR IEW3	IFWR IFW3	IGWR IGW3	IHWR IHW3	IHGWR IHGW3
	mm	mm	mm	mm	mm	mm	mm	mm
A	294	295	296	297	299	301	299	301
B	230	230	230	230	230	230	230	230
D	DE+23	DE+24	DE+25	DE+26	DE+28	DE+30	DE+52	DE+56
E¹	15	15	15	15	15	15	15	15
E²	80	80	80	80	80	80	80	80

	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing			304 L	1.4307	304 L	1.4307	316 L	1.4404
Bolts			1035	1.0501	304	1.4301	316	1.4401
Bars			1045	1.0503	304 L	1.4307	316 L	1.4404
Inner steel band (Lock)			304 L	1.4307	304 L	1.4307	316 L	1.4404

Sealing gasket: EPDM

DN	IBWR - IBW3			ICWR - ICW3			IDWR - IDW3			IEWR - IEW3			IFWR - IFW3			IGWR - IGW3			IHW3 - IHW3			IHGWR - IHGW3		
mm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm	PS bar	Diam.	Tor. Nm
300	12	M 12	15	16	M 12	15	20	M 12	15															
350	11	M 12	20	14	M 12	20	18	M 12	20	21	M 16	25	28	M 16	25									
400	9	M 12	20	13	M 12	20	16	M 12	20	19	M 16	30	25	M 16	30									
450	8	M 12	25	11	M 12	25	14	M 12	25	17	M 16	30	22	M 16	30									
500	8	M 12	25	10	M 12	25	13	M 12	25	15	M 16	35	20	M 16	35									
550	7	M 12	30	9	M 12	30	12	M 12	25	14	M 16	35	19	M 16	35									
600	6	M 12	30	9	M 12	30	11	M 12	30	13	M 16	40	17	M 16	40	21	M 20	40	27	M 20	60	34	M 24	60
650	6	M 12	30	8	M 12	30	10	M 12	30	12	M 16	45	16	M 16	45	20	M 20	60	25	M 20	60	32	M 24	60
700	6	M 12	35	7	M 12	35	9	M 12	30	11	M 16	45	15	M 16	45	18	M 20	60	23	M 20	70	29	M 24	80
750	5	M 12	35	7	M 12	35				10	M 16	50	14	M 16	50	17	M 20	60	22	M 20	70	27	M 24	80
800	5	M 12	35	6	M 12	40				10	M 16	50	13	M 16	50	16	M 20	70	20	M 20	70	26	M 24	90
850				6	M 12	45				9	M 16	60	12	M 16	60	15	M 20	70	19	M 20	80	24	M 24	90
900				6	M 12	45				9	M 16	60	12	M 16	60	14	M 20	70	18	M 20	80	23	M 24	100
950										8	M 16	60	11	M 16	60	14	M 20	80	17	M 20	90	22	M 24	100
1000										8	M 16	70	10	M 16	70	13	M 20	80	16	M 20	90	21	M 24	120
1100										7	M 16	70	9	M 16	70	12	M 20	90	15	M 20	100	19	M 24	120
1200										7	M 16	80	9	M 20	100	11	M 20	100	14	M 20	120	17	M 24	140
1300										6	M 16	80	8	M 20	100	10	M 20	100	13	M 20	120	16	M 24	140
1400										6	M 16	90	7	M 20	120	9	M 20	120	12	M 20	120	15	M 24	160
1500										5	M 16	100	7	M 20	120	9	M 20	120	11	M 20	140	14	M 24	160
1600										5	M 16	100	7	M 20	140	8	M 20	140	10	M 20	140	13	M 24	180
1700										5	M 20	140	6	M 20	140	8	M 20	140	10	M 20	160	12	M 24	180
1800										4	M 20	140	6	M 20	140	7	M 20	140	9	M 20	160	12	M 24	200
1900										4	M 20	160	6	M 20	160	7	M 20	160	9	M 20	180	11	M 24	200
2000										4	M 20	160	5	M 20	160	7	M 20	160	8	M 20	180	11	M 24	220

Nominal diameter serve as guidance of the pressure scale . Measures in between DN range up to 4000 mm can be manufactured..

E¹ Permitted gaps without internal band E² Permitted gaps with internal band PS Working pressure DN Nominal Diameter OD Outside Diameter Tor. Torque Value

OD	Maximum diameter difference				Maximum angular deflection		Maximum misalignment		Maximum crack width
	2 locks		3 locks		IBWR-IGWR	IHW3-IHW3	IBWR-IGWR	IHW3-IHW3	
	IBWR-IGWR	IBW3-IGW3	IHW3-IHW3	IHW3-IHW3					
mm	mm	mm	mm	mm	degrees	degrees	mm	mm	mm
300 - 500	5,0	7,0			2,0		3,0		190
500 - 1500	6,0	8,0	3,0	4,0	2,0	1,0	3,0	2,0	190
1500 - 2000	6,0	8,0	3,0	4,0	1,0	1,0	3,0	2,0	190

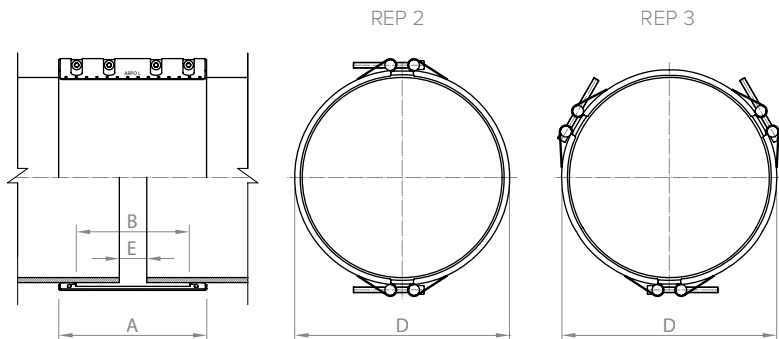
See page 7 (Permitted tolerances)

Please enquire about diameters above 2000 mm.

Coated nominal width 300

Series AGWR - AGW3

To ensure correct operation, Fitting instructions must be respected.
Test pressure = 1.5 x PS



AGWR - AGW3	
mm	
A	301
B	230
D	DE + 30
E ¹	15
E ²	80

	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing	1024	1.0570						
Bolts	1035 / 304	1.0501 / 1.4301						
Bars	1045 / 304 L	1.0503 / 1.4307						
Inner steel band (Lock)	304 L	1.4307						

Sealing gasket: EPDM

DN	AGWR - AGW3		
	PS bar	Diam.	Tor. Nm
600	29	M20	50
650	27	M20	60
700	25	M20	60
750	23	M20	60
800	22	M20	70
850	21	M20	70
900	19	M20	70
950	18	M20	80
1000	18	M20	80
1100	16	M20	90
1200	15	M20	100
1300	14	M20	100
1400	13	M20	120
1500	12	M20	120
1600	11	M20	140
1700	10	M20	140
1800	10	M20	140
1900	9	M20	160
2000	9	M20	160

Nominal diameter serve as guidance of the pressure scale. Measures in between DN range up to 4000 mm can be manufactured.

E¹ Permitted gaps without internal band E² Permitted gaps with internal band PS Working pressure DN Nominal Diameter W diámetro exterior Tor. Torque Value

Please enquire about diameters above 2000 mm.

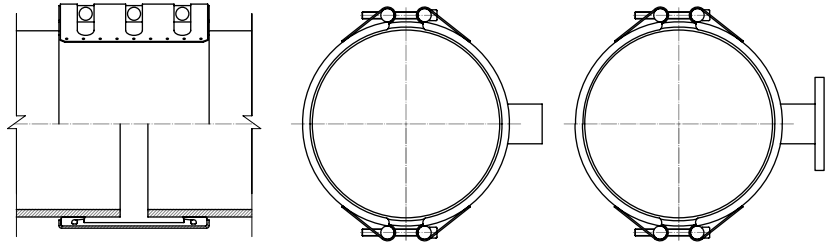
OD	Maximum diameter difference		Maximum angular deflection	Maximum misalignment	Maximum crack width
	2 locks	3 locks			
mm	mm	mm	degrees	mm	mm
500 - 1500	6,0	8,0	2,0	3,0	190
1500 - 2000	6,0	8,0	1,0	3,0	190

See page 7 (Permitted tolerances)

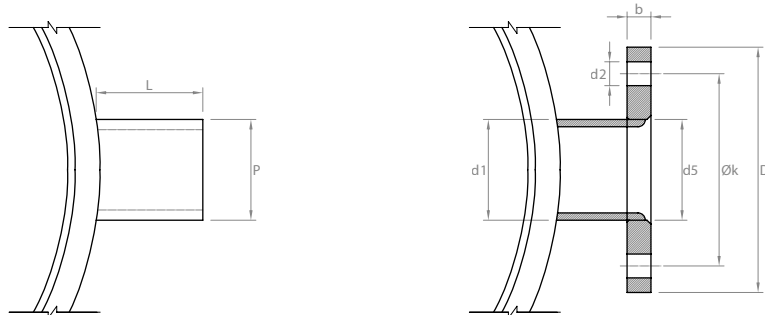
With outlet

Series REP-S

To ensure correct operation, Fitting instructions must be respected.



	Quality W1		Quality W2		Quality W4		Quality W5	
	AISI	DIN	AISI	DIN	AISI	DIN	AISI	DIN
Casing			304 L	1.4307	304 L	1.4307	316 L	1.4404
Bolts			1035	1.0501	304	1.4301	316	1.4401
Bars			1045	1.0503	304 L	1.4307	316 L	1.4404
Inner steel band (Lock)			304 L	1.4307	304 L	1.4307	316 L	1.4404
Outlet thread			316 L	1.4404	316 L	1.4404	316 L	1.4404
Outlet flange			304 L	1.4307	304 L	1.4307	316 L	1.4404



Outlet thread			Outlet flange							Serie Y	Serie Z
DN in	L mm	P mm	DN mm	d1 mm	d2 mm	d5 mm	D mm	b mm	Øk mm	Width 140 mm	Width 200 mm
1	43	39,5	25	33,7	14	34,5	115	16	85	•	•
1 ½	48	54,5	40	48,3	18	49,5	150	16	110	•	•
2	56	66,2	50	60,3	18	61,5	165	18	125	•	•
2 ½	65	82,0	65	76,1	18	77,5	185	18	145	•	•
3	71	95,0	80	88,9	18	90,5	200	20	160	•	•
4	83	121,4	100	114,3	18	116,0	220	20	180	•	•

Available from DN 250 mm

Working pressure up to 10 bar

Thread BSP according to ISO 7/1

Flange according to EN 1092-1-01 PN10

Applications.



1.



5.



2.



6.

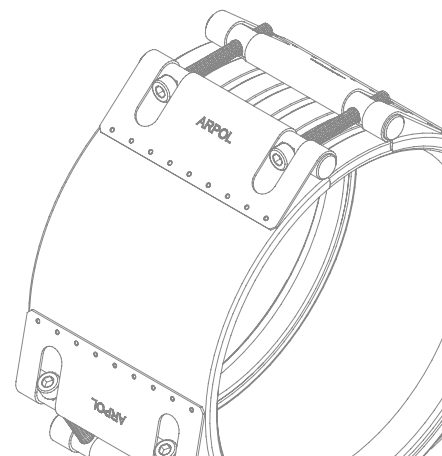


3.



4.

1. GRP pipe repair with a piece of pipe.
2. Underground GRP pipe repair.
3. Stainless steel welding seam repair.
4. Underwater asbestos-cement pipeline repair.
5. Flowmeter installation on an existing pipe with a REP coupling with outlet.
6. Coupling substitution on a DN 2450 mm main irrigation pipe.





REP 3



REP C



REP S

