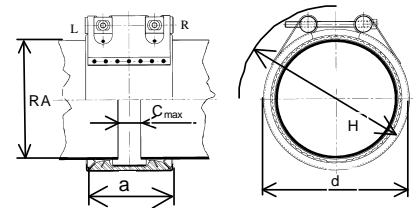


+GF+ Flex E (DN25 - DN150)

Axial non-restraint Pipe Coupling for use with virtually all pipe materials

Available in **W2** or **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM -30°C to +125°C and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max.})

Pipe OD → Ø ← mm	OD _{min} - OD _{max} (mm)	PN ^{1.)} (bar)	WP _{max} ^{2.)} (bar)	Dimensions				Locking Bolts			Weight (kg)
				a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
26.9	26.5 - 27.5	16	48	47	3	50	70	M8	6	3	0.32
28.0	27.5 - 28.5	16	48	47	3	50	70	M8	6	3	0.32
30.0	29.5 - 30.6	16	48	47	3	50	70	M8	6	3	0.32
33.7	33.0 - 34.3	16	48	47	3	55	75	M8	6	3	0.32
35.0	34.5 - 35.6	16	48	63	8	55	75	M8	6	5	0.43
38.0	37.5 - 38.6	16	48	63	8	60	80	M8	6	5	0.43
42.4	41.7 - 43.0	16	48	63	8	65	85	M8	6	5	0.44
44.5	44.0 - 45.1	16	40	63	8	65	85	M8	6	5	0.46
48.3	47.6 - 48.9	16	40	63	8	70	90	M8	6	5	0.47
54.0	53.3 - 54.6	16	40	78	17	75	95	M8	6	5	0.61
57.0	56.3 - 57.7	16	40	78	17	80	100	M8	6	5	0.62
60.3	59.5 - 61.0	16	40	78	17	80	100	M8	6	5	0.63
73.0	72.1 - 73.8	16	36	98	25	95	115	M10	8	10	1.25
76.1	75.2 - 77.0	16	36	98	25	100	120	M10	8	10	1.25
78.0	77.1 - 78.9	16	32	98	25	100	120	M10	8	10	1.25
84.0	83.0 - 85.0	16	32	98	25	105	125	M10	8	7.5	1.27
88.9	88.0 - 89.8	16	32	98	25	110	130	M10	8	7.5	1.29
98.0	96.9 - 99.0	16	30	98	25	120	145	M10	8	10	1.45
101.6	100.4 - 102.8	16	30	98	25	125	145	M10	8	10	1.45
104.0	102.8 - 106.1	16	30	98	25	125	145	M10	8	10	1.43
108.0	106.8 - 109.2	16	30	98	25	130	150	M10	8	10	1.46
110.0	108.9 - 111.2	16	30	98	25	130	150	M10	8	10	1.46
114.3	113.0 - 115.5	16	30	98	25	135	155	M10	8	12.5	1.5
118.0	116.6 - 119.2	16	30	98	25	140	160	M10	8	12.5	1.52
129.0	127.6 - 131.1	16	30	113	35	155	185	M12	10	17.5	2.22
133.0	131.5 - 134.4	16	30	113	35	160	190	M12	10	17.5	2.24
139.7	138.1 - 141.6	16	30	113	35	165	195	M12	10	22.5	2.26
141.3	139.6 - 142.8	16	30	113	35	170	200	M12	10	25	2.26
144.0	142.4 - 145.5	16	30	113	35	170	200	M12	10	25	2.26
154.0	152.3 - 156.1	16	25	113	35	180	210	M12	10	30	2.44
159.0	157.3 - 160.7	16	25	113	35	185	215	M12	10	30	2.53
168.3	166.5 - 170.1	16	25	113	35	195	225	M12	10	30	2.58
170.0	168.2 - 171.9	16	25	113	35	195	225	M12	10	30	2.58

References

Subject to technical changes

- 1.) **PN** (Nominal Pressure) for ship building maximum allowable working pressure based on a factor of safety ≥ 4 .
- 2.) **WP** (maximum working pressure)

+GF+ Flex E (DN > DN150)

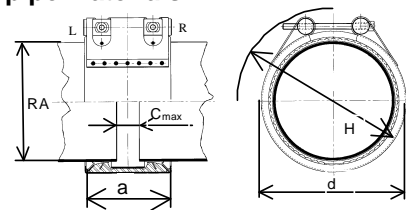
Axial non-restraint Pipe Coupling for use with virtually all pipe materials

Available in **W2** or **W5** material

Seal: EPDM or NBR

Operating Temperatures: EPDM and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (MAWP or WP_{max.})



All couplings [≥] 800 mm in 2-part design

Pipe OD →∅← (mm)	OD _{min} - OD _{max} (mm)	MAWP ¹⁾ (bar)	WP _{max} ²⁾ (bar)	Dimensions				Locking Bolts			Weight (kg)
				a (mm)	C (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
180.0	178 - 182	13.7	21.9	139	35	210	240	M12	10	25	3.3
193.7	192 - 196	13.7	21.9	139	35	235	270	M12	10	25	3.5
206.0	202 - 208	13.7	21.9	139	35	240	270	M12	10	25	3.8
219.1	216 - 221	13.7	21.9	139	35	250	280	M12	10	25	3.9
225.0	222 - 227	12	19.2	139	35	255	285	M12	10	25	4.0
229.9	228 - 232	12	19.2	139	35	255	285	M12	10	25	4.0
244.5	242 - 247	12	19.2	139	35	275	305	M12	10	25	4.2
254.0	250 - 256	12	19.2	139	35	285	315	M12	10	25	4.3
267.0	264 - 269	12	19.2	139	35	300	330	M12	10	25	4.5
273.0	270 - 275	12	19.2	139	35	305	335	M12	10	25	4.6
306.0	302 - 308	9	14.4	139	35	335	370	M12	10	25	4.8
323.9	320 - 327	9	14.4	139	35	355	385	M12	10	25	5.1
326.0	322 - 329	9	14.4	139	35	355	390	M12	10	25	5.1
355.6	352 - 359	9	14.4	139	35	385	420	M12	10	25	5.2
406.4	402 - 410	7.5	12	139	35	435	470	M12	10	25	5.8
429.0	426 - 431	5.5	8.8	139	35	460	490	M12	10	40	6.0
442.0	439 - 444	5.5	8.8	139	35	475	505	M12	10	40	6.2
457.2	454 - 459	5.5	8.8	139	35	490	520	M12	10	40	6.5
508.0	505 - 510	5.5	8.8	139	35	540	570	M12	10	40	7.2
531.0	528 - 534	5.0	8.0	139	35	560	595	M12	10	40	7.9
558.8	556 - 562	5.0	8.0	139	35	590	640	M12	10	40	8.5
609.6	606 - 613	3.5	5.6	139	35	630	670	M12	10	35	7.8
634.0	631 - 637	3.5	5.6	139	35	665	695	M12	10	35	8.0
711.2	707 - 715	3.5	5.6	139	35	740	775	M12	10	35	8.9
762.0	758 - 766	3.0	4.8	139	35	795	825	M12	10	40	9.2
812.8	808 - 817	3.0	4.8	139	35	845	875	M12	10	40	9.9
914.4	909 - 919	2	3.2	139	35	945	975	M12	10	50	10.1
1016.0	1013-1019	2	3.2	139	35	1045	1080	M12	10	50	11.3
1117.5	1114-1120	2	3.2	139	35	1150	1180	M12	10	50	12.4
1219.2	1216-1222	2	3.2	139	35	1250	1280	M12	10	50	13.6

References

Subject to technical changes

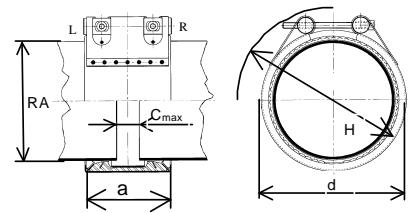
- 1.) **MAWP (Maximum Allowable Working Pressure)** for ship building maximum allowable working pressure based on a factor of safety ≥ 4 .
- 2.) **WP (maximum working pressure)**

From d 180 mm all sizes are available on request

+GF+ Flex(DN > DN150)

Axial non-restraint Pipe Coupling for use with virtually all pipe materials

Available in **W2** or **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (MAWP or WP_{max.})

All couplings ³ 800 mm in 2-part design !

Pipe OD →∅← (mm)	OD _{min} - OD _{max} (mm)	MAWP ^{1.)} (bar)	WP _{max} ^{2.)} (bar)	Dimensions				Locking Bolts			Weight (kg)
				a (mm)	C (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
180.0	178 - 182	21.5	34.4	141	35	210	240	M12	10	35	4.6
193.7	192 - 196	21.5	34.4	141	35	225	270	M12	10	35	4.7
206.0	204 - 208	21.5	34.4	141	35	240	270	M12	10	35	4.9
219.1	216 - 221	21.5	34.4	141	35	250	280	M12	10	35	5.1
225.0	222 - 227	17.0	27.2	141	35	255	285	M12	10	35	5.2
229.9	228 - 232	17.0	27.2	141	35	255	285	M12	10	35	5.3
244.5	242 - 247	17.0	27.2	141	35	275	305	M12	10	35	5.7
254.0	250 - 256	17.0	27.2	141	35	285	315	M12	10	35	5.9
267.0	264 - 269	17.0	27.2	141	35	300	330	M12	10	35	6.2
273.0	270 - 275	17.0	27.2	141	35	305	335	M12	10	35	6.4
306.0	302 - 308	15	24	141	35	335	370	M12	10	35	6.7
323.9	320 - 327	15	24	141	35	355	385	M12	10	35	6.9
326.0	322 - 329	13.2	21.1	141	35	355	390	M12	10	35	7.0
355.6	352 - 359	13.2	21.1	141	35	385	420	M12	10	35	7.4
406.4	402 - 410	12.3	19.7	141	35	435	470	M12	10	35	8.0
429.0	426 - 431	7.5	12	141	35	460	490	M12	10	40	8.2
442.0	439 - 444	7.5	12	141	35	475	505	M12	10	40	8.4
457.2	454 - 459	7.5	12	141	35	490	520	M12	10	40	8.5
508.0	505 - 510	7.5	12	141	35	540	570	M12	10	40	9.4
531.0	528 - 534	7.5	12	141	35	560	595	M12	10	50	9.8
558.8	556 - 562	7.5	12	141	35	590	640	M12	10	40	10.3
609.6	606 - 613	5.0	8.0	141	35	630	670	M12	10	40	10.9
634.0	631 - 637	5	8.0	141	35	665	695	M12	10	45	11.2
711.2	707 - 715	5	8.0	141	35	740	775	M12	10	45	12.2
762.0	758 - 766	4.5	7.2	141	35	795	825	M12	10	45	12.6
812.8	808 - 817	4.5	7.2	141	35	845	875	M12	10	45	13.4
914.4	909 - 919	3.3	5.3	141	35	945	975	M12	10	50	14.2
1016.0	1013-1019	3.3	5.3	141	35	1045	1080	M12	10	50	15.8
1117.5	1114-1120	3.3	5.3	141	35	1150	1180	M12	10	50	17.3
1219.2	1216-1222	3.3	5.3	141	35	1250	1280	M12	10	50	18.9

References

Subject to technical changes

1.) MAWP (Maximum Allowable Working Pressure)

for ship building maximum allowable working pressure based on a factor of safety ≥ 4.

2.) WP (maximum working pressure)

From d 180 mm all sizes are available on request

+GF+ FLEX U

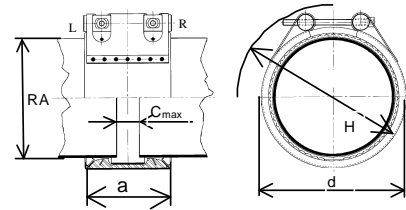
Axial non-restraint Pipe Coupling for use with virtually all pipe materials

Available in **W5**,
W2 on request

Seal: EPDM or NBR

Operating Temperatures: EPDM and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max}.)



All couplings ³ 800 mm in 2-part design !

Pipe OD →∅← (mm)	OD _{min} - OD _{max} (mm)	PN ^{1.)} (bar)	WP _{max} ^{2.)} (bar)	Dimensions				Locking Bolts			Weight (kg)
				a (mm)	C (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
326.0	320 - 329	16.5	21.5	211	65	370	410	M16	14	30	12.0
406.4	402 - 410	13.5	17.0	211	65	450	490	M16	14	35	13.8
429.0	426 - 431	12.5	16.0	211	65	470	510	M16	14	35	14.4
457.2	454 - 459	12.0	15.0	211	65	500	540	M16	14	35	15.0
508.0	505 - 510	10.5	13.5	211	65	550	590	M16	14	35	16.2
532.0	499 - 534	10.0	13.0	211	65	575	615	M16	14	35	16.8
558.8	556 - 562	9.5	12.5	211	65	600	640	M16	14	35	17.5
609.6	606 - 613	9.0	11.5	211	65	650	690	M16	14	40	18.6
634.0	631 - 637	8.5	11.0	211	65	675	715	M16	14	40	19.1
711.2	707 - 715	7.5	9.5	211	65	755	795	M16	14	40	20.7
762.0	758 - 766	7.0	9.0	211	65	805	845	M16	14	40	21.9
812.8	808 - 817	6.5	8.5	211	65	855	895	M16	14	45	23.2
914.4	909 - 919	6.0	7.5	211	65	955	995	M16	14	45	25.5
1016.0	1013 - 1019	5.0	6.5	211	65	1060	1100	M16	14	50	27.8
1117.5	1114 - 1120	4.5	6.0	211	65	1160	1200	M16	14	50	30.0
1219.2	1216 - 1222	4.0	5.5	211	65	1260	1300	M16	14	55	32.4
1320.8	1314 - 1328	3.0	4.0	211	65	1365	1405	M16	14	55	39.2
1422.4	1415 - 1430	3.0	4.0	211	65	1465	1505	M16	14	60	41.6
1524.0	1516 - 1532	2.5	3.5	211	65	1565	1605	M16	14	60	44.0
1625.6	1617 - 1634	2.5	3.0	211	65	1670	1710	M16	14	70	46.4
1727.2	1718 - 1736	2.0	2.5	211	65	1770	1810	M16	14	70	48.8
1828.8	1819 - 1838	2.0	2.5	211	65	1870	1910	M16	14	80	51.2
1930.4	1920 - 1940	2.0	2.5	211	65	1975	2015	M16	14	80	53.6
2032.0	2021 - 2042	1.5	2.0	211	65	2075	2115	M16	14	90	56.0

References

Subject to technical changes

1.) PN (Nominal Pressure)

for ship building maximum allowable working pressure based on a factor of safety ≥ 4.

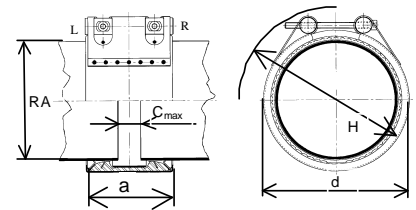
2.) WP (maximum working pressure)

From d 180 mm all sizes are available on request

+GF+ Grip (DN25 – DN150)

Axial restraint Pipe Coupling for use with metal pipes

Available in **W2** or **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM -30°C to +125°C and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (MAWP or $W_{max.}$)

Pipe OD → Ø ← (mm)	OD _{min} - OD _{max} (mm)	PN ^{1.)} (bar)	WP _{max} ^{3.)} (bar)	FA _{max} ^{2.)} at Operation Pressure (kN)	Dimensions				Locking Bolts			Weight (kg)
					a (mm)	C _{max} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
26.9	26.5 - 27.5	16	64	1.36	47	3	50	70	M8	6	10	0.4
28.0	27.5 - 28.5	16	64	1.47	47	3	50	70	M8	6	10	0.4
30.0	29.5 - 30.6	16	64	1.69	47	3	50	70	M8	6	10	0.4
33.7	33.0 - 34.3	16	64	2.14	47	3	55	75	M8	6	10	0.4
35.0	34.5 - 35.6	16	40	2.30	63	8	55	75	M8	6	15	0.54
38.0	37.5 - 38.6	16	40	2.72	63	8	60	80	M8	6	15	0.54
42.4	41.7 - 43.0	16	40	3.38	63	8	65	85	M8	6	15	0.55
44.5	44.0 - 45.1	16	40	3.73	63	8	65	85	M8	6	15	0.56
48.3	47.6 - 48.9	16	40	4.39	63	8	70	90	M8	6	15	0.58
54.0	53.3 - 54.6	16	40	5.49	78	17	75	95	M8	6	15	0.75
57.0	56.3 - 57.7	16	40	6.12	78	17	80	100	M8	6	20	0.76
60.3	59.5 - 61.0	16	40	6.85	78	17	80	100	M8	6	20	0.77
73.0	72.1 - 73.8	16	36	10.0	98	25	95	115	M10	8	30	1.4
76.1	75.2 - 77.0	16	36	10.9	98	25	100	120	M10	8	30	1.4
78.0	77.1 - 78.9	16	36	11.5	98	25	100	120	M10	8	30	1.4
84.0	83.0 - 85.0	16	32	13.3	98	25	105	125	M10	8	30	1.46
88.9	88.0 - 89.8	16	32	14.9	98	25	110	130	M10	8	30	1.48
98.0	96.9 - 99.0	16	30	18.1	98	25	120	145	M10	8	30	1.6
101.6	100.4 - 102.8	16	30	19.4	98	25	125	145	M10	8	30	1.6
104.0	102.8 - 106.1	16	30	20.4	98	25	125	145	M10	8	30	1.63
108.0	106.8 - 109.2	16	30	22.0	98	25	130	150	M10	8	30	1.65
110.0	108.8 - 111.2	16	30	22.7	98	25	130	150	M10	8	30	1.65
114.3	113.0 - 115.5	16	30	24.6	98	25	135	155	M10	8	40	1.7
118.0	116.6 - 119.2	16	30	26.2	98	25	140	160	M10	8	40	1.72
129.0	127.6 - 131.1	16	30	31.4	115	35	155	185	M12	10	50	2.41
133.0	131.5 - 134.4	16	30	33.3	115	35	160	190	M12	10	50	2.44
139.7	138.1 - 141.6	16	30	36.8	115	35	165	195	M12	10	50	2.45
141.3	139.6 - 142.8	16	30	37.6	115	35	170	200	M12	10	50	2.45
144.0	142.4 - 145.5	16	30	39.0	115	35	170	200	M12	10	50	2.45
154.0	152.3 - 156.1	16	20	44.7	115	35	180	210	M12	10	60	2.64
159.0	157.3 - 160.7	16	20	47.6	115	35	185	215	M12	10	60	2.69
168.3	166.5 - 170.1	16	20	53.4	115	35	195	225	M12	10	60	2.75
170.0	168.2 - 171.9	16	20	54.4	115	35	195	225	M12	10	60	2.75

References

Subject to technical changes

1.) PN (Nominal Pressure)

for ship building maximum allowable working pressure based on a factor of safety ≥ 4 .

2.) FA_{max.} = external max. force + internal pressure (PN/MAWP)/ resp. max. internal pressure without force on the pipe ends

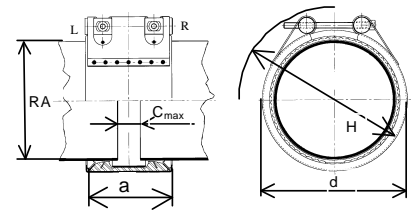
tested on C- steel pipe $F [kN] = (AD^2 [mm^2] \times p / 4) \times P [bar] / 1000$

3.) WP (maximum working pressure)

+GF+ Grip (DN > DN150)

Axial restraint Pipe Coupling for use with metal pipes

Available in **W2** or **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (MAWP or WP_{max.})

All couplings ³ 800 mm in 2-part design !

Pipe OD → Ø ← (mm)	OD _{min} - OD _{max} (mm)	MAWP ^{1.)} (bar)	WP _{max} ^{3.)} (bar)	FA _{max} ^{2.)} at Operation Pressure (kN)	Dimensions				Locking Bolts			Weight (kg)
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
193.7	192 - 196	16	24	70.7	142	35	210	240	M16	14	150	5.7
206.0	202 - 208	16	22	79.9	142	35	235	270	M16	14	150	6.1
219.1	216 - 221	16	20	90.4	142	35	240	270	M16	14	150	6.5
225.0	222 - 228	13	21	77.5	142	35	250	280	M16	14	150	6.6
229.9	228 - 232	11.5	18	71.4	142	35	255	285	M16	14	150	6.8
244.5	242 - 247	11.5	18	80.7	142	35	275	305	M16	14	150	7.2
254.0	250 - 256	10.5	17	79.5	142	35	285	315	M16	14	150	7.5
267.0	264 - 269	10.5	17	87.5	142	35	300	330	M16	14	150	7.9
273.0	270 - 275	10	16	87.8	142	35	305	335	M16	14	180	8.0
306.0	301 - 308	8.0	13	88.2	142	35	335	370	M16	14	180	9.0
323.9	320 - 327	7.0	11	86.4	142	35	355	385	M16	14	180	9.5
326.0	322 - 329	7.0	11	87.6	142	35	355	390	M16	14	180	9.6
355.6	352 - 359	5.5	9.0	81.4	142	35	385	420	M16	14	180	10.5
406.4	402 - 410	4.5	7.2	86.9	142	35	435	470	M16	14	180	12.0
429.0	426 - 431	4.5	7.2	96.8	142	35	460	490	M16	14	180	12.7
442.0	439 - 444	3.5	5.6	80.5	142	35	475	505	M16	14	180	13.1
457.2	454 - 459	3.5	5.6	85.3	142	35	490	520	M16	14	180	13.5
508.0	505 - 510	3.5	5.6	105.3	142	35	540	570	M16	14	200	15.0
531.0	528 - 534	3.5	5.6	115.1	142	35	560	595	M16	14	200	15.7
558.8	556 - 562	3.0	4.8	110.3	142	35	590	640	M16	14	200	16.5
609.6	606 - 613	3.0	4.8	131.3	142	35	630	670	M16	14	200	18.0
634.0	631 - 637	3.0	4.8	142	142	35	665	695	M16	14	200	18.7
711.2	710 - 712	2.5	4.0	146.9	142	35	745	775	M16	14	200	21.0

References

Subject to technical changes

1.) MAWP (Maximum Allowable Working Pressure)

for ship building maximum allowable working pressure based on a factor of safety ≥ 4.

2.) FA_{max.} = external max. force + internal pressure (PN/MAWP) / resp. max. internal pressure without force on the pipe ends

tested on C- steel pipe $F [kN] = (AD^2 [mm^2] \times p / 4) \times P [bar] / 10000$

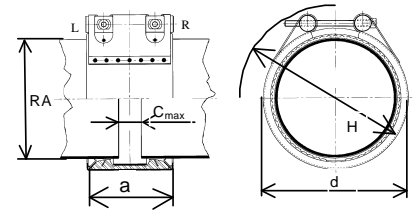
3.) WP (maximum working pressure)

From d 180 mm all sizes are available on request

+GF+ Grip E (DN25 – DN150)

Axial restraint Pipe Coupling for use with metal pipes

Available in **W2** or **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM -30°C to +125°C and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max.})

Pipe OD →∅← (mm)	OD _{min} - OD _{max} (mm)	PN ^{1.)} (bar)	WP _{max.} ^{3.)} (bar)	FA _{max.} ^{2.)} at Operation Pressure (kN)	Dimensions				Locking Bolts			Weight (kg)
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
26.9	26.5 - 27.5	16	64	1.36	47	3	50	70	M8	6	10	0.32
28.0	27.5 - 28.5	16	64	1.47	47	3	50	70	M8	6	10	0.32
30.0	29.5 - 30.6	16	64	1.69	47	3	50	70	M8	6	10	0.32
33.7	33.0 - 34.3	16	64	2.14	47	3	55	75	M8	6	10	0.32
35.0	34.5 - 35.6	16	40	2.30	63	8	55	75	M8	6	15	0.43
38.0	37.5 - 38.6	16	40	2.72	63	8	60	80	M8	6	15	0.43
42.4	41.7 - 43.0	16	40	3.38	63	8	65	85	M8	6	15	0.44
44.5	44.0 - 45.1	16	40	3.73	63	8	65	85	M8	6	15	0.46
48.3	47.6 - 48.9	16	40	4.39	63	8	70	90	M8	6	15	0.47
54.0	53.3 - 54.6	16	40	5.49	78	17	75	95	M8	6	15	0.61
57.0	56.3 - 57.7	16	40	6.12	78	17	80	100	M8	6	20	0.62
60.3	59.5 - 61.0	16	40	6.85	78	17	80	100	M8	6	20	0.63
73.0	72.1 - 73.8	16	36	10.0	98	25	95	115	M10	8	30	1.25
76.1	75.2 - 77.0	16	36	10.9	98	25	100	120	M10	8	30	1.25
78.0	77.1 - 78.9	16	36	11.5	98	25	100	120	M10	8	30	1.25
84.0	83.0 - 85.0	16	32	13.3	98	25	105	125	M10	8	30	1.27
88.9	88.0 - 89.8	16	32	14.9	98	25	110	130	M10	8	30	1.29
98.0	96.9 - 99.0	16	30	18.1	98	25	120	145	M10	8	30	1.45
101.6	100.4 - 102.8	16	30	19.4	98	25	125	145	M10	8	30	1.45
104.0	102.8 - 106.1	16	30	20.4	98	25	125	145	M10	8	30	1.43
108.0	106.8 - 109.2	16	30	22.0	98	25	130	150	M10	8	30	1.46
110.0	108.8 - 111.2	16	30	22.7	98	25	130	150	M10	8	30	1.46
114.3	113.0 - 115.5	16	30	24.6	98	25	135	155	M10	8	40	1.5
118.0	116.6 - 119.2	16	30	26.2	98	25	140	160	M10	8	40	1.52
129.0	127.6 - 131.1	16	30	31.4	113	35	155	185	M12	10	50	2.22
133.0	131.5 - 134.4	16	30	33.3	113	35	160	190	M12	10	50	2.24
139.7	138.1 - 141.6	16	30	36.8	113	35	165	195	M12	10	50	2.26
141.3	139.6 - 142.8	16	30	37.6	113	35	170	200	M12	10	50	2.26
144.0	142.4 - 145.5	16	30	39.0	113	35	170	200	M12	10	50	2.26
154.0	152.3 - 156.1	16	20	44.7	113	35	180	210	M12	10	60	2.44
159.0	157.3 - 160.7	16	20	47.6	113	35	185	215	M12	10	60	2.53
168.3	166.5 - 170.1	16	20	53.4	113	35	195	225	M12	10	60	2.58
170.0	168.2 - 171.9	16	20	54.4	113	35	195	225	M12	10	60	2.58

References

Subject to technical changes

1.) PN (Nominal Pressure)

for ship building maximum allowable working pressure based on a factor of safety ≥ 4 .

2.) FA_{max.} = external max. force + internal pressure (PN/MAWP) / resp. max. internal pressure without force on the pipe ends

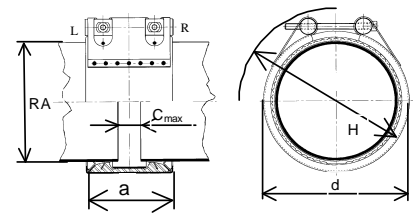
tested on C- steel pipe $F \text{ [kN]} = (AD^2 \text{ [mm}^2] \times p / 4) \times P \text{ [bar]} / 10000$

3.) WP (maximum working pressure)

+GF+ Grip E (DN > DN150)

Axial restraint Pipe Coupling for use with metal pipes

Available in **W2** or **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (MAWP or WP_{max.})

All couplings ³ 800 mm in 2-part design !

Pipe OD → Ø ← (mm)	OD _{min} - OD _{max} (mm)	MAWP ^{1.)} (bar)	WP _{max} ^{3.)} (bar)	FA _{max} ^{2.)} at Operation Pressure (kN)	Dimensions				Locking Bolts			Weight (kg)
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
193.7	192 - 196	10	16	44.2	141	35	210	240	M16	14	100	4.2
206.0	202 - 208	10	16	50	141	35	235	270	M16	14	100	4.6
219.1	216 - 221	10	16	56.5	141	35	240	270	M16	14	100	5.1
225.0	222 - 228	10	16	59.6	141	35	250	280	M16	14	100	5.0
229.9	228 - 232	10	16	61.7	141	35	255	285	M16	14	100	5.1
244.5	242 - 247	5.5	8.8	38.7	141	35	275	305	M16	14	100	5.2
254.0	250 - 256	5.5	8.8	41.8	141	35	285	315	M16	14	100	5.5
267.0	264 - 269	5.5	8.8	46.2	141	35	300	330	M16	14	100	5.6
273.0	270 - 275	5.5	8.8	48.3	141	35	305	335	M16	14	100	5.8
306.0	302 - 308	5.5	8.8	60.6	141	35	335	370	M16	14	120	6.0
323.9	320 - 327	3	4.8	37.1	141	35	355	385	M16	14	120	6.1
326.0	322 - 329	3	4.8	37.6	141	35	355	390	M16	14	120	6.2
355.6	352 - 359	2.7	4.3	40.2	141	35	385	420	M16	14	120	6.6
406.4	402 - 410	2.5	4.0	48.6	141	35	435	470	M16	14	120	7.1
429.0	426 - 431	2.5	4.0	54.2	141	35	460	490	M16	14	120	7.3
442.0	439 - 444	2.5	4.0	57.5	141	35	475	505	M16	14	140	7.6
457.2	454 - 459	2.5	4.0	61.5	141	35	490	520	M16	14	140	8.2
508.0	505 - 510	2.0	3.2	60.8	141	35	540	570	M16	14	140	8.8
531.0	528 - 534	1.5	2.4	49.8	141	35	560	595	M16	14	140	9.6
558.8	556 - 562	1.5	2.4	55.2	141	35	590	620	M16	14	140	10.6
609.6	606 - 613	1.0	1.6	43.8	141	35	630	670	M16	14	140	10.9

References

Subject to technical changes

1.) MAWP (Maximum Allowable Working Pressure)

for ship building maximum allowable working pressure based on a factor of safety ≥ 4.

2.) FA_{max.} = external max. force + internal pressure (PN/MAWP) / resp. max. internal pressure without force on the pipe ends

tested on C- steel pipe $F [kN] = (AD^2 [mm^2] \times p / 4) \times P [bar] / 10000$

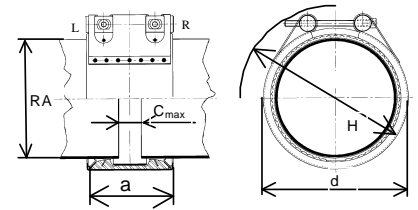
3.) WP (maximum working pressure)

From d 180 mm all sizes are available on request

+GF+ Combi Grip / Combi Grip E (DN40 – DN150)

Axial restraint Pipe Coupling for use with plastic/metal pipes

Available in **W2** or **W5** material (E version only in W5)



Seal: EPDM or NBR

Operating Temperatures: EPDM -30°C to +125°C and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max.})

Sizes - Metric

Table 01

Pipe OD →∅← P M (mm)	Clamping Range OD _{min.} - OD _{max.} P M (mm)	Nominal Press. PN (bar)	WP _{max.} on P (bar)	FA _{max.} ^{1.)} at PN (kN)	Dimensions				Locking Bolts			Weight (kg)			
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)				
40	38.0	39 - 40	37 - 39	16	20	2.0	62	8	60	80	M8	6	15	0.6	0.5
40	42.4	39 - 40	41 - 43	16	20	2.0	62	8	60	80	M8	6	15	0.6	0.5
50	48.3	49 - 50	47 - 49	16	20	3.1	62	8	70	90	M8	6	15	0.6	0.5
63	60.3	62 - 64	59 - 61	16	20	4.9	77	17	85	105	M8	6	20	0.80	0.7
75	76.1	74 - 76	75 - 77	16	20	7.0	98	25	95	115	M10	8	30	1.5	1.3
90	88.9	89 - 91	88 - 90	16	20	10.1	98	25	110	130	M10	8	30	1.6	1.4
110	108.0	108 - 111	107 - 109	16	20	10.1	98	25	110	130	M10	8	40	1.8	1.6
110	114.3	108 - 111	113 - 116	16	20	15.1	98	25	130	150	M10	8	40	1.8	1.6
125	129.0	123 - 126	127 - 131	16	20	19.6	115	25	155	185	M10	8	50	3.2	3.0
140	139.7	138 - 142	138 - 141	16	20	24.6	115	25	170	200	M12	10	50	3.4	3.2
160	159.0	158 - 162	158 - 161	16	20	32.1	115	35	190	210	M12	10	60	3.7	3.5

Subject to technical changes

Sizes - Imperial

Table 02

Pipe OD →∅← P M (mm)	Clamping Range OD _{min.} - OD _{max.} P M (mm)	Nominal Press. PN (bar)	WP _{max.} on P (bar)	FA _{max.} ^{1.)} at PN (kN)	Dimensions				Locking Bolts			Weight (kg)			
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)				
42.4	42.4	41 - 43	41 - 43	16	20	2.2	62	8	65	85	M8	6	15	0.6	0.5
48.3	48.3	47 - 49	47 - 49	16	20	2.9	62	8	70	90	M8	6	15	0.6	0.5
60.3	60.3	59 - 61	59 - 61	16	20	4.5	77	17	80	100	M8	6	20	0.80	0.7
73.0	73.0	72 - 74	72 - 74	16	20	6.6	98	25	95	115	M10	8	30	1.5	1.3
88.9	88.9	88 - 90	88 - 90	16	20	9.9	98	25	110	130	M10	8	30	1.6	1.4
101.3	101.3	100 - 103	100 - 103	16	20	12.8	98	25	125	145	M10	8	40	1.8	1.6
114.3	114.3	113 - 116	113 - 116	16	20	16.4	115	25	135	155	M10	8	40	3.2	3.0
141.3	141.3	139 - 143	139 - 143	16	20	25.0	115	25	175	205	M12	10	50	3.4	3.2
168.3	168.3	166 - 170	166 - 170	16	20	35.5	115	35	200	230	M12	10	60	3.8	3.6

Subject to technical changes

References

P = Plastic pipematerial.

M = Metal pipematerial

1.) **FA_{max.}** = external max. force + internal pressure (PN/MAWP) / resp. max. internal pressure without force on the pipe ends tested on C- steel pipe $F [kN] = (AD^2 [mm^2] \times p / 4) \times P [bar] / 10000$

2.) **WP** (maximum working pressure)

+GF+ Combi Grip (DN > DN150)

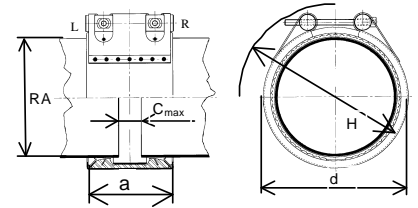
Axial restraint Pipe Coupling for joining plastic pipes with metal pipes

Available in **W2** or **W5** material

Seal: EPDM or NBR

Operating Temperatures: EPDM and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max.})



Sizes - Metric

Table 01

Pipe OD →∅← P M (mm)	Clamping Range OD _{min.} - OD _{max.} P M (mm)		Nominal Press. PN (bar)	WP _{max.} ^{2.)} on P (bar)	FA _{max.} ^{1.)} at PN (kN)	Dimensions				Locking Bolts			Weight (kg)
	a (mm)	C _{max.} (mm)				d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)			
200 - 204.0	198-202	202-206	16	20	50.2	142	35	210	240	M12	10	60	6.3
225 - 219.1	222-227	217-222	10	16	39.7	142	35	230	260	M12	10	80	6.8
250 - 254.0	247-253	251-257	10	15	49.0	142	35	255	285	M12	10	80	7.2
280 - 273.0	277-283	275-276	10	13	61.5	142	35	280	310	M12	10	100	8.5
355 - 355.6	351-359	352-359	6	7	59.3	142	35	310	340	M16	14	120	10.8
400 - 406.4	396-404	402-410	6	7	75.3	142	35	345	375	M16	14	120	11.1

Subject to technical changes

Sizes - Imperial

Table 02

Pipe OD →∅← P M (mm)	Clamping Range OD _{min.} - OD _{max.} P M (mm)		Nominal Press. PN (bar)	WP _{max.} on P (bar)	FA _{max.} ^{1.)} at PN (kN)	Dimensions				Locking Bolts			Weight (kg)
	a (mm)	C _{max.} (mm)				d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)			
219.1 - 219.1	217-222	217-222	16	20	60.2	142	35	230	260	M12	10	60	6.6
273.0 - 273.0	275-276	275-276	10	13	58.5	142	35	280	310	M12	10	100	8.2
323.9 - 323.9	320-327	320-327	6	9	49.4	142	35	355	385	M16	14	100	10.2
355.6 - 355.6	352-359	352-359	6	7	59.5	142	35	310	340	M16	14	120	10.8
406.4 - 406.4	402-410	402-410	6	7	77.7	142	35	345	375	M16	14	120	11.1

References

Subject to technical changes

P = Plastic pipematerial

M = Metal pipematerial

1.) FA_{max.} = external max. force + internal pressure (PN/MAWP) / resp. max. internal pressure without force on the pipe ends tested on C- steel pipe $F [kN] = (AD^2 [mm^2] \times p / 4) \times P [bar] / 10000$

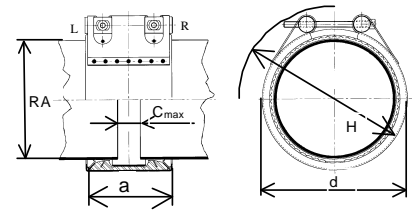
2.) WP(maximum working pressure)

From d 180 mm all sizes are available on request

+GF+ Plast Grip / Plast Grip E (DN40 – DN150)

Axial restraint Pipe Coupling for use with plastic pipes

Available in **W2** or **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM -30°C to +125 and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max.})

Sizes - Metric

Table 01

Pipe OD →∅← (mm)	Clamping Range OD _{min.} - OD _{max.} (mm)	Nominal Press. PN (bar)	WP _{max.} on P (bar)	FA _{max.} ^{1.)} at PN (kN)	Dimensions				Locking Bolts			Weight (kg)	
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)		
40	39.5 - 40.5	16	20	2.0	62	8	60	80	M8	6	15	0.6	0.5
50	49.5 - 50.5	16	20	3.1	62	8	70	90	M8	6	15	0.6	0.5
63	62.0 - 64.0	16	20	4.9	77	17	85	105	M8	6	20	0.80	0.7
75	74.0 - 76.0	16	20	7.0	98	25	95	115	M10	8	30	1.5	1.3
90	89.0 - 91.0	16	20	10.1	98	25	110	130	M10	8	30	1.6	1.4
110	108.5 - 111.5	16	20	15.1	98	25	130	150	M10	8	40	1.8	1.6
125	123.5 - 126.5	16	20	19.6	115	25	155	185	M10	8	40	3.2	3.0
140	138.5 - 141.5	16	20	24.6	115	25	170	200	M12	10	50	3.4	3.2
160	158.0 - 162.0	16	20	32.1	115	35	190	210	M12	10	60	3.7	3.5

Subject to technical changes

Sizes - Imperial

Table 02

Pipe OD →∅← (mm)	Clamping Range OD _{min.} - OD _{max.} (mm)	Nominal Press. PN (bar)	WP _{max.} on P (bar)	FA _{max.} ^{1.)} at PN (kN)	Dimensions				Locking Bolts			Weight (kg)	
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)		
42.4	41.5 - 43.0	16	20	2.2	62	8	65	85	M8	6	15	0.6	0.5
48.3	47.5 - 49.0	16	20	2.9	62	8	70	90	M8	6	15	0.6	0.5
60.3	59.5 - 61.0	16	20	4.5	77	17	80	100	M8	6	20	0.8	0.7
76.1	75.5 - 77.0	16	20	6.6	98	25	95	115	M10	8	30	1.5	1.3
88.9	88.0 - 90.0	16	20	9.9	98	25	110	130	M10	8	30	1.6	1.4
101.3	100.0 - 102.5	16	20	12.8	98	25	125	145	M10	8	40	1.8	1.6
114.3	113.0 - 115.5	16	20	16.4	115	25	135	155	M10	8	40	3.2	3.0
141.3	139.5 - 143.0	16	20	25.0	115	25	175	205	M12	10	50	3.4	3.2
168.3	166.5 - 170.0	16	20	35.5	115	35	200	230	M12	10	60	3.8	3.6

References

Subject to technical changes

P = Plastic pipematerial.

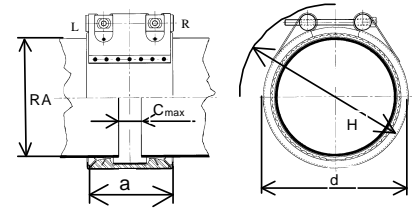
1.) FA_{max.} = external max. force + internal pressure (PN/MAWP) / resp. max. internal pressure without force on the pipe ends tested on C- steel pipe $F [kN] = (AD^2 [mm^2] \times p / 4) \times P [bar] / 10000$

2.) WP(maximum working pressure)

+GF+ Plast Grip (DN > DN150)

Axial restraint Pipe Coupling for use with plastic pipes

Available in **W2** or **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max.})

Sizes - Metric

Table 01

Pipe OD →Ø← (mm)	Clamping Range OD _{min.} - OD _{max.} (mm)	Nomina l Press. PN (bar)	WP _{max.} on P (bar)	FA _{max.} ^{1.)} at PN (kN)	Dimensions				Locking Bolts			Weight (kg)
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
180	178 - 182	16	20	48.3	142	35	210	240	M12	10	60	6.2
200	198 - 202	16	20	50.2	142	35	230	260	M12	10	60	6.6
225	222 - 227	10	16	39.7	142	35	255	285	M12	10	60	7.2
250	247 - 253	10	15	49.0	142	35	280	310	M12	10	80	7.7
280	277 - 283	10	13	61.5	142	35	310	340	M12	10	100	9.0
315	311 - 318	6	9	46.7	142	35	345	375	M16	14	100	10.0
355	351 - 359	6	7	59.3	142	35	385	415	M16	14	120	10.8
400	396 - 404	6	7	75.3	142	35	430	460	M16	14	120	11.1

Subject to technical changes

Sizes - Imperial

Table 02

Pipe OD →Ø← (mm)	Clamping Range OD _{min.} - OD _{max.} (mm)	Nomina l Press. PN (bar)	WP _{max.} on P (bar)	FA _{max.} ^{1.)} at PN (kN)	Dimensions				Locking Bolts			Weight (kg)
					a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
219.1	217 - 222	16	20	60.2	142	35	250	280	M12	10	60	7.0
273.0	275 - 276	10	13	58.5	142	35	305	335	M12	10	100	8.2
323.9	320 - 327	6	9	49.4	142	35	355	385	M16	14	100	10.2
355.6	352 - 359	6	7	59.5	142	35	390	420	M16	14	120	10.8
406.4	402 - 410	6	7	77.7	142	35	440	470	M16	14	120	11.1

References

Subject to technical changes

P = Plastic pipematerial.

1.) FA_{max.} = external max. force + internal pressure (PN/MAWP) / resp. max. internal pressure without force on the pipe ends tested on C- steel pipe $F [kN] = (AD^2 [mm^2] \times p / 4) \times P [bar] / 10000$

From d 180 mm all sizes are available on request

+GF+ Rep E (DN40 – DN150)

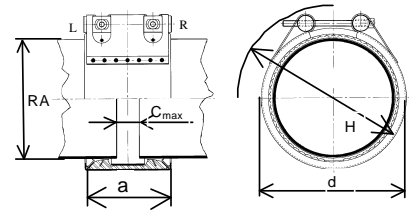
Axial non-restraint Pipe Coupling for use with virtually all pipe materials

Available in **W5** material

Seal: EPDM or NBR

Operating Temperatures: EPDM -30°C to +125°C and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max.})



Pipe OD →Ø← (mm)	OD _{min} - OD _{max} (mm)	Nominal Press. PN (bar)	WP _{max.} ^{1.)} (bar)	Dimensions				Locking Bolts			Weight (kg)
				a (mm)	C _{max.} (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
35.0	34.5 – 35.5	16	48	63	8	55	75	M8	6	5	0.50
38.0	37.5 – 38.6	16	48	63	8	60	80	M8	6	5	0.54
42.4	41.7 - 43.0	16	48	63	8	65	85	M8	6	5	0.55
44.5	44.0 - 45.1	16	40	63	8	65	85	M8	6	5	0.56
48.3	47.6 - 48.9	16	40	63	8	70	90	M8	6	5	0.58
54.0	53.3 - 54.6	16	40	78	17	75	95	M8	6	5	0.75
57.0	56.3 - 57.7	16	40	78	17	80	100	M8	6	5	0.76
60.3	59.5 - 61.0	16	40	78	17	85	100	M8	6	5	0.77
73.0	72.1 - 73.8	16	36	98	25	95	115	M10	8	5	1.4
76.1	75.2 - 77.0	16	36	98	25	100	120	M10	8	5	1.4
78.0	77.1 - 78.9	16	32	98	25	100	120	M10	8	5	1.4
84.0	83.0 - 85.0	16	32	98	25	105	125	M10	8	12	1.46
88.9	88.0 - 89.8	16	32	98	25	110	130	M10	8	12	1.48
98.0xx	96.9 - 99.0	16	30	98	25	120	145	M10	8	15	1.6
101.6	100.4 - 102.8	16	30	98	25	125	145	M10	8	15	1.6
104.0	102.8 - 106.1	16	30	98	25	125	145	M10	8	15	1.63
108.0	106.8 - 109.2	16	30	98	25	130	150	M10	8	15	1.65
110.0	108.8 - 111.2	16	30	98	25	130	150	M10	8	15	1.65
114.3	113.0 - 115.5	16	30	98	25	135	155	M10	8	20	1.7
118.0	116.6 - 119.2	16	30	98	25	140	160	M10	8	20	1.72
129.0	127.6 - 131.1	16	30	113	35	155	185	M12	10	30	2.41
133.0	131.5 - 134.4	16	30	113	35	160	190	M12	10	30	2.44
139.7	138.1 - 141.6	16	30	113	35	165	195	M12	10	35	2.45
141.3	139.6 - 142.8	16	30	113	35	170	200	M12	10	35	2.45
144.0	142.4 - 145.5	16	30	113	35	170	200	M12	10	35	2.45
154.0	152.3 - 156.1	16	25	113	35	180	210	M12	10	50	2.64
159.0	157.3 - 160.7	16	25	113	35	185	215	M12	10	50	2.69
168.3	166.5 - 170.1	16	25	113	35	195	225	M12	10	50	2.75
170.0	168.2 - 171.9	16	25	113	35	195	225	M12	10	50	2.75

References

Subject to technical changes

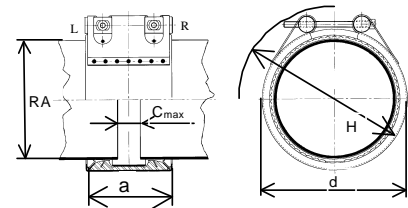
xx = scheduled

1.) **WP**(Maximum working pressure)

+GF+ Rep E (DN > DN150)

Axial non-restraint Pipe Coupling for use with virtually all pipe materials

Available in **W5** material



Seal: EPDM or NBR

Operating Temperatures: EPDM and NBR -20°C to +80°C

Operation Pressure: 1.5 x respective operating pressure (PN or WP_{max.})

All couplings ³ 800 mm in 2-part design !

Pipe OD →∅← (mm)	OD _{min} - OD _{max} (mm)	MAWP ¹⁾ (bar)	WP _{max} ²⁾ (bar)	Dimensions				Locking Bolts			Weight (kg)
				a (mm)	C (mm)	d (mm)	H (mm)	Thread	A/F (mm)	Torque (Nm)	
180.0	178 - 182	13.7	21.9	139	35	210	240	M12	10	25	3.3
193.7	192 - 196	13.7	21.9	139	35	236	270	M12	10	25	3.5
206.0	202 - 208	13.7	21.9	139	35	240	270	M12	10	25	3.8
219.1	216 - 221	13.7	21.9	139	35	250	280	M12	10	25	3.9
225.0	222 - 227	12	19.2	139	35	255	285	M12	10	25	4.0
229.9	228 - 232	12	19.2	139	35	255	285	M12	10	25	4.0
244.5	242 - 247	12	19.2	139	35	275	305	M12	10	25	4.2
254.0	250 - 256	12	19.2	139	35	285	315	M12	10	25	4.3
267.0	264 - 269	12	19.2	139	35	300	330	M12	10	25	4.5
273.0	270 - 275	12	19.2	139	35	305	335	M12	10	25	4.6
306.0	302 - 308	9	14.4	139	35	335	370	M12	10	25	4.8
323.9	320 - 327	9	14.4	139	35	355	385	M12	10	25	5.1
326.0	322 - 329	9	14.4	139	35	355	390	M12	10	25	5.1
355.6	352 - 359	9	14.4	139	35	385	420	M12	10	25	5.2
406.4	402 - 410	7.5	12	139	35	435	470	M12	10	25	5.8
429.0	426 - 431	5.5	8.8	139	35	460	490	M12	10	40	6.0
442.0	439 - 444	5.5	8.8	139	35	475	505	M12	10	40	6.2
457.2	454 - 459	5.5	8.8	139	35	490	520	M12	10	40	6.5
508.0	505 - 510	5.5	8.8	139	35	540	570	M12	10	40	7.2
531.0	528 - 534	5.0	8.0	139	35	560	595	M12	10	40	7.9
558.8	556 - 562	5.0	8.0	139	35	590	640	M12	10	40	8.0
609.6	606 - 613	3.5	5.6	139	35	630	670	M12	10	35	8.2
634.0	631 - 637	3.5	5.6	139	35	665	695	M12	10	35	8.4
711.2	707 - 715	3.5	5.6	139	35	740	775	M12	10	35	8.9
762.0	758 - 766	3.0	4.8	139	35	795	825	M12	10	40	9.2
812.8	808 - 817	3.0	4.8	139	35	845	875	M12	10	40	9.9
914.4	909 - 919	2	3.2	139	35	945	975	M12	10	50	10.1
1016.0	1013-1019	2	3.2	139	35	1045	1'080	M12	10	50	11.3
1117.5	1114-1120	2	3.2	139	35	1150	1'180	M12	10	50	12.4
1219.2	1216-1222	2	3.2	139	35	1250	1'280	M12	10	50	13.6

Subject to technical changes

1.) MAWP (Maximum Allowable Working Pressure)

for ship building maximum allowable working pressure based on a factor of safety ≥ 4.

2.) WP(maximum working pressure)

From d 180 mm all sizes are available on request