

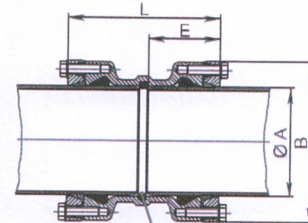
SYSTEM 2000

Fittings for PE and PVC pipes

hawle

Ø pipe A	L	E	B	Weight
63	171	80	124	3,6
75	175	82	138	4,3
90	181	85	152	5,8
110	181	85	172	6,5
125	185	87	193	8,2
140	197	93	210	9,0
160	221	105	236	12,0
180	241	113	258	19,0
200	261	125	284	24,0
225	265	128	314	28,0
250	300	145	347	34,0
280	306	148	376	40,5
315	358	174	422	62,5
355	464	237	472	98,0

Connector No. 0430

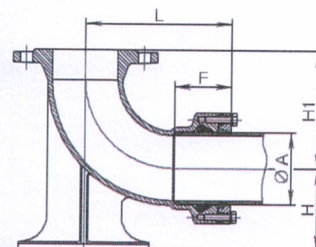


Caution! When using as coupling valve: **remove stop ring** and steeply chamfer pipe (see assembly instructions)

Order No.	MOP (PN)	Dimension Ø pipe A													
		63	75	90	110	125	140	160	180	200	225	250	280	315	355
0430	16														

DN	Ø pipe A	L	E	H	H1	Weight
80	90	210	85	110	165	12,7
80	110	223	85	110	165	14,2
100	110	223	85	125	180	16,0

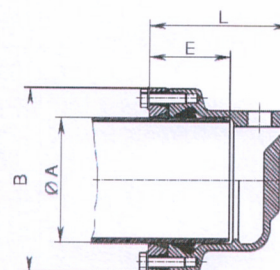
Duck foot bend No. 5045



Order No.	MOP (PN)	Dimension/DN Ø pipe A		
		80 90	80 110	100 110
5045	16			

Ø pipe A	L	E	B	Weight
63	106	80	124	2,7
75	138	82	138	3,2
90	141	85	152	4,6
110	159	85	172	6,4
125	162	87	193	6,1
140	169	93	210	7,7
160	180	105	236	8,6
180	192	113	258	11,7
200	203	125	284	14,5
225	207	128	314	16,5
250	225	145	347	20,5
280	228	148	376	25,0
315	254	174	422	33,5

End cap No. 8075



Optionally with or without axial or radial thread outlet 1" - 2"

Order No.	MOP (PN)	Dimension Ø pipe A													
		63	75	90	110	125	140	160	180	200	225	250	280	315	
8075	16														

F 4/2

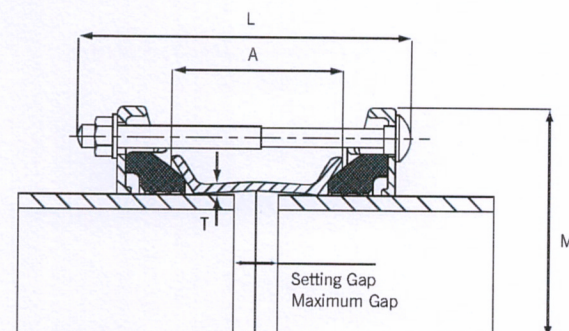


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MaxiFit & MaxiFit Xtra Couplings & End Caps

Specifications

Working Pressure = 16bar (water)
6bar (gas)



Coupling

Coupling - Standard Sleeve (MaxiFit)

Nominal Size (mm)	Size Range (mm)		Diameter (mm)	Overall Length (mm)	Sleeve Length x Thickness (A) x (T)	Setting Gap (mm)		Bolts No. - Dia x Length	Gasket Mould No.	Weight (kg)	MaxiCap Available	Maximum Threaded Outlet	MaxiFit Plus Available
	Min	Max				Min	Max						
DN40	47.9	59.5	149.5	190.0	100.0 x 4.5	20.0	40.0	2-M12 x 180	1637	3.1			
DN50	57.0	74.0	154.5	190.0	95.0 x 4.5	20.0	40.0	4-M12 x 180	12392/1	3.0	✓	1"	✓
DN65	63.0	85.0	173.5	190.0	95.0 x 4.5	20.0	40.0	4-M12 x 180	12392/2	3.6	✓	1"	✓
DN80	85.0	107.0	195.5	190.0	95.0 x 4.5	20.0	40.0	4-M12 x 180	12392/3	4.1	✓	2"	✓
DN100	107.0	132.0	224.5	190.0	95.0 x 4.5	20.0	40.0	4-M12 x 180	12392/4	5.0	✓	2"	✓
DN125	132.0	158.0	254.5	190.0	95.0 x 5.0	20.0	40.0	4-M12 x 180	12392/6	6.1	✓	2"	✓
DN150	158.0	184.0	280.5	190.0	95.0 x 5.0	20.0	40.0	4-M12 x 180	12392/7	7.0	✓	2"	✓
DN175	189.0	212.0	306.5	230.0	130.0 x 5.0	25.0	50.0	4-M12 x 220	12392/9	9.4	✓	2"	
DN200	218.0	244.0	342.5	230.0	130.0 x 5.0	25.0	50.0	4-M12 x 220	12392/10	10.9	✓	2"	
DN225	243.0	269.0	367.5	230.0	130.0 x 5.0	25.0	50.0	6-M12 x 220	12392/11	12.4	✓	2"	
DN250	266.0	295.0	399.5	230.0	130.0 x 5.0	25.0	50.0	6-M12 x 220	12392/12	14.6	✓	2"	
DN300	315.0	349.0	462.5	230.0	130.0 x 5.0	25.0	50.0	8-M12 x 220	12392/14	19.4	✓	2"	

Coupling - Long Sleeve (MaxiFit Xtra)

DN50	57.0	74.0	154.5	285.0	200.0 x 5.5	20.0	140.0	4-M12 x 275	12392/1	4.6	✓	1"	
DN65	63.0	85.0	173.5	285.0	190.0 x 5.5	20.0	130.0	4-M12 x 275	12392/2	5.2	✓	1"	
DN80	85.0	107.0	195.5	285.0	200.0 x 5.5	20.0	140.0	4-M12 x 275	12392/3	6.3	✓	2"	
DN100	107.0	132.0	224.5	285.0	190.0 x 5.5	20.0	130.0	4-M12 x 275	12392/4	7.2	✓	2"	
DN125	132.0	158.0	254.5	285.0	190.0 x 6.0	20.0	130.0	4-M12 x 275	12392/6	9.0	✓	2"	
DN150	158.0	184.0	280.5	285.0	190.0 x 6.0	20.0	130.0	4-M12 x 275	12392/7	10.3	✓	2"	
DN175	189.0	212.0	306.5	285.0	190.0 x 6.0	25.0	110.0	4-M12 x 275	12392/9	12.1	✓	2"	
DN200	218.0	244.0	342.5	285.0	190.0 x 6.0	25.0	110.0	4-M12 x 275	12392/10	14.1	✓	2"	
DN225	243.0	269.0	367.5	350.0	250.0 x 6.0	25.0	165.0	6-M12 x 340	12392/11	18.6	✓	2"	
DN250	266.0	295.0	399.5	350.0	250.0 x 6.0	25.0	165.0	6-M12 x 340	12392/12	21.4	✓	2"	
DN300	315.0	349.0	462.5	350.0	240.0 x 6.0	25.0	155.0	8-M12 x 340	12392/14	27.0	✓	2"	

Materials & Relevant Standards

End Ring and Adaptor Body/Centre Sleeve

Ductile Iron to BS EN 1563 Symbol EN GJS-450-10

Gasket

EPDM compound Grade E to BS EN 681-1, Type WA, WC

Nitrile compound to Grade G BS EN 682, Type G

Tee Bolts/Bolts

Steel to BS EN ISO 898-1 Property Class 4.8

Bolt Torque/Spanner

Bolt torque 55-65Nm, Spanner size A/F 19mm

Bolts

Standard - Steel to BS EN ISO 898-1: property class 4.8

Option - Stainless Steel to BS EN ISO 3506-1: grade A4 property class 50

Nuts/Washers

Nuts

Standard - Steel to BS EN 4190 Grade 4

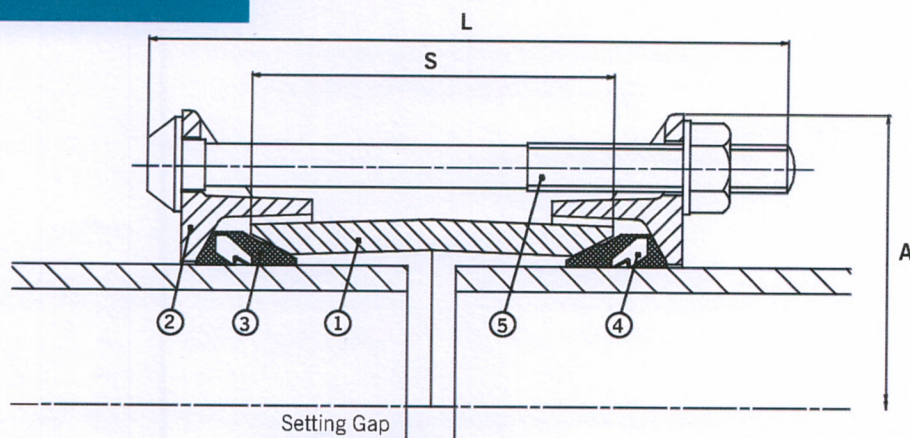
Option - Stainless Steel to BS EN ISO 3506-2: grade A4 property class 80

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FlexLock Coupling

Specifications

- 1) Sleeve
- 2) End Ring
- 3) Gasket
- 4) Gripper Teeth
- 5) Bolt



FlexLock Couplings

Pipe Nom	Pipe OD (mm)	Pipe Material	Bolt Size No. - Dia x Length	Overall Length (L)	End Ring OD (A)	Sleeve Length x Thickness (mm) (S)	Setting Gap		Working Pressure (bar)		Gasket Mould	Coupling Weight (kg)
							Min	Max	Water	Gas		
DN50/2"	60.3	Steel	2-M12 x 145	157	135	80 x 5.5	15	30	16	6	1375	2.7
DN65/2.5"	76.1/77	Steel	2-M12 x 160	170	152	100 x 6.0	20	40	16	6	1394	3.2
DN80/3"	88.9	Steel	4-M12 x 160	170	163	100 x 6.0	20	40	16	6	1382	4.2
DN80/3"	98.0	Ductile Iron	4-M12 x 195	203	181	115 x 6.4	20	40	16	6	1630	5.2
DN100/4"	114.3	Steel	4-M12 x 170	188	195	100 x 6.0	20	40	16	6	1367	6.1
DN100/4"	118	Ductile Iron	4-M12 x 195	203	200	115 x 6.4	20	40	16	6	1618	5.6
DN150/6"	165.1	Steel	6-M12 x 170	188	254	100 x 7.2	20	40	16	6	1369	9.2
DN150/6"	168.3	Steel	6-M12 x 170	188	256	100 x 7.2	20	40	16	6	1369	9.3
DN150/6"	170	Ductile Iron	6-M12 x 170	178	256	100 x 7.2	20	40	16	6	1369	9.2
DN200/8"	219.1	Steel	8-M12 x 170	188	310	100 x 7.2	20	40	16	6	1370	11.9
DN200/8"	222	Ductile Iron	6-M16 x 195	206	316	115 x 6.4	20	40	16	6	1631	12.0
DN250/10"	273.0	Steel	12-M16 x 275	286	376	178 x 8.5	20	40	10	6	1737	32.2
DN250/10"	274	Ductile Iron	12-M16 x 275	286	376	178 x 8.5	20	40	10	6	1737	32.2
DN300/12"	323.9	Steel	12-M16 x 275	286	436	178 x 6.0	20	40	10	6	7667/8	33.7
DN300/12"	326	Ductile Iron	12-M16 x 275	286	436	178 x 6.0	20	40	10	6	7667/8	33.7

FlexLock bolt torques: M12 = 55-65Nm M16 = 95-120Nm

Materials & Relevant Standards

Centre Sleeve/End Rings

SG. Iron to BS 1563: Symbol EN-GJS-450-10
or Rolled Steel to: BS EN 10025: Grade S275.

Coupling Body

Ductile Iron to BS EN 1563 EN-GJS-450-10.
or Mild Steel to: BS EN 10025: Grade S275.

Bolts/Nuts/Washers

Bolts - Cold Forged Steel Fasteners to: BS EN ISO898-1:
Property Class 8.8

Nuts - Steel BS EN 20898-2: Property Class 8

Washers - BS 4320 Form B Stainless Steel BS 1449:PT2: Grade 304 S15

Coatings

Body, Centre Sleeve, End Rings are coated in Rilsan Nylon 11 to WIS 4-52-01 Part 1.

Bolts, studs and nuts are Sheraplex coated to WIS 4-52-03.

Gaskets

EPDM compound Grade 'E' to BS EN 681-1 WRAS listed.

Suitable for: water, sewage, many strong and oxidising chemicals and food applications.

Nitrile compound Grade 'G' to BS EN 682-1.

Suitable for: natural gas, petroleum products, low aromatic fuels, compressed air, sewage and drainage.

Stainless Steel teeth in gaskets BS 3146: Part 2 Grade ANC2.

Approvals/Standards

Designed and manufactured under quality management systems to BS EN ISO 9001. They have been tested in accordance with the requirements of WRc Water Bye-laws Scheme and conform to the American Water Works Associations standard AWWA/ANSI C.219 for bolted couplings.

Note: 1) For coated steel pipe the maximum permitted coating thickness is 500µ DFT. This is to ensure the stainless steel teeth properly grip onto the pipe surface to mobilize the end load capability of the products. 2) Due to the surface characteristics of stainless steel pipe, FlexLock grippers are unable to achieve a guaranteed grip on the pipe surface. 3) FlexLock is suitable for use on cold potable water pipelines and has a maximum operating temperature of 40°C.

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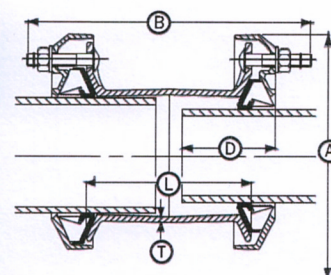
Next Generation UltraGrip Couplings

Specifications

Couplings

► Up to 8° angular deflection

Nom Size	Size Range		Insertion Depth (D)		Dimensions				Bolts		Weight Kg
					Overall		Sleeve				
	Min	Max	Min	Max	A	B	L	T	No-size	Type	
40	43.5	63.5	65	95	168	262	144	7.0	6-M12x70	HRH	5.76
50	48.0	71.0	65	110	178	296	180	5.0	6-M12x70	CSX	6.13
65	63.0	83.7	65	95	189	262	144	7.0	6-M12x70	HRH	6.86
80	85.7	107.0	65	110	212	288	170	7.0	6-M12x70	HRH	8.54
100	107.0	133.2	90	125	280	342	180	7.0	6-M16x93	CSX	13.57
125	132.2	160.2	90	125	305	342	180	6.0	6-M16x93	CSX	14.51
150	158.2	192.2	90	135	339	386	213	6.5	8-M16x93	CSX	20.22
175	192.2	226.9	125	165	403	400	220	6.5	10-M16x93	CSX	33.22
200	218.1	256.0	125	165	432	400	220	6.5	10-M16x93	CSX	35.48
250	266.2	310.0	125	165	476	524	300	8.0	12-M16x120	CSX	52.88
300	315.0	356.0	125	200	522	524	300	8.0	16-M16x120	CSX	63.8
350	352.2	396.0	125	200	577	525	300	7.5	18-M16x120	CSX	74.58
400	398.2	442.0	125	200	623	525	300	7.5	20-M16x120	CSX	82.88
450	448.0	492.0	135	215	713	545	300	7.5	24-M16 x 140	HRH	139.03
500	498.0	552.0	155	215	803	565	300	7.5	18-M20 x 150	HRH	160.42
500	558.0	608.0	155	215	860	565	300	7.5	20-M20 x 150	HRH	175.02
600	604.0	648.0	195	255	900	565	300	7.5	24-M20 x 150	HRH	240.01
600	676.0	726.0	195	255	975	565	300	7.5	28-M20 x 150	HRH	267.38



Working Pressure & Temperature Ratings

Nominal Size	Gripping Product		Flex Product		Operating Temperature
	Gas	Water	Gas	Water	
DN40 to DN300	5bar	16bar	5bar	16bar	-20°C to +30°C
DN350 to DN400	5bar	10bar	5bar	10bar	
DN450 to DN600	N/A	10bar	N/A	10bar	

Notes:

- 1) Site Test Pressure – 1.5 times working pressure.
- 2) Factory Test Pressure – The minimum requirement in European Standards is 1.5 times working pressure plus 5bar (e.g. 29bar for 16bar working pressure).
- 3) All water contact components are approved for use with Potable Water.

Bolt Torque	
	Nm
M12	55 - 70
M16	95 - 120
M20	200 - 225

UltraGrip Product Notes

Gripping product suitable for

Steel/Ductile iron/Grey cast iron/ PE/PVC

Flex product suitable for

Steel/Ductile iron/Grey cast iron/ PVC/Asbestos cement

Support liners – PE and PVC pipes

A close fit support liner is required when used on:

- All PE pipes
- Thin walled PVC pipes

When used on thick walled PVC pipes a support liner is not required.

Please contact Viking Johnson for further details.

Use of restrained couplings on exposed pipework

Above ground exposed pipework is subject to both loads from the internal pressure and those from temperature changes / thermal expansion, which can be substantially higher than those from internal pressure and cannot always be safely determined. For this reason it is recommended that the use of UltraGrip be restricted to buried pipelines, valve chambers and above ground indoor applications and not exposed to direct sunlight or excessive temperature changes (e.g. pump houses).

Materials & Relevant Standards

End Rings, Sleeve

S.G. Iron to BS EN 1563 Symbol EN-GJS-450-10

Gaskets

EPDM: EPDM Compound Grade E to

BS EN 681-1 WA KTW & DVGW approved

NBR: Nitrile Compound EN682 DVGW Approved

Gripper and Carrier

Acetal Copolymer Grade M25 or equivalent

Bolts/Nuts/Washers

Bolts - Stainless steel to BS EN 3506-1 Grade A2

Property Class 80 or 70

Nuts - Stainless Steel to BS EN 3506-2 Grade A4

Property Class 80

Washer - Stainless steel – BS1449:PT2

Grade 304 S15

Coatings

Cast/Metal Components - Rilsan Nylon 11 (Black)

Bolts - Gleitmo Coated (Dry Film Lubricant)

Nuts - Geomet Coated

Approvals

Rilsan Nylon 11 (Black):

WRAS approved for use with potable water

Gasket: WRAS as well as KTW, DVGW

& W270 approvals

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