

Viking Johnson Maxi Range of Couplers and Flange Adaptors

Technical Guide W5.1

The Viking Johnson Maxi Range of couplers, flange adaptors, and end caps provides an easy and reliable jointing method for repairs or new pipe connections.



11.24 | W5.1 VIKING JOHNSON MAXI RANGE COUPLERS FLANGE ADAPTORS

Applications

Pipeline repairs
New installations

Product Attributes

Wide tolerance to connect different pipe materials and sizes
Unbeatable corrosion protection

Approval/Standards

Manufactured to BS EN 14525:2004
Flange drilling to AS4087 Fig.B5
Potable water approved to AS/NZS 4020 and WRAS

Quality

ISO 9001:2008 Quality Management Systems
ISO 14001 Environmental Management Systems

We are the supply partner of choice for New Zealand's civil construction industry, specialising in water and infrastructure based solutions.

HYNDswater

Viking Johnson Maxi Range of universal pipe couplings are designed to accommodate plain ended pipes of various materials with different outside diameters. They connect to a wide variety of pipe materials including Steel, Ductile Iron, PVC, Cast Iron, GRP and Asbestos Cement pipes, amongst others.

Product Range

- MaxiDaptor Flange Adaptors
- MaxiFit Couplers
- Long Sleeved MaxiFit Extra Long Couplers
- MaxiStep Reducing Couplers
- MaxiCap End Caps

Applications

- Pipeline repairs
- Valve installation
- Pump installation

Attributes

- Optimised gasket design for easy insertion and maximum sealing
- Steel components coated with Rilsan Nylon 11 for impact, abrasion and weathering resistance
- Flared end and deep gasket chamber for maximum pipe adjustment
- Captive non-rotating bolt heads require just a single spanner to install
- Unique three bolt design that allows quicker installation thereby reducing trench risk, available in sizes DN65, DN80 and DN100

Note: The Maxi range of products DO NOT resist end load due to the internal pipeline pressure – adequate external restraint must be provided to prevent pipe pull out.

Features

- One bolt / torque size for DN50 – DN300 range
- Up to 34mm tolerance on pipe OD
- Up to 6° angularity for couplings and stepped couplings, 3° for flanged adaptors
- Accommodates a vacuum pressure of up to -0.7 bar

Testing

- 16 bar (water) and 6 bar (gas) maximum working pressure
- Tested at 24 bar (water) and 9 bar (gas)
- Accelerated age tested to verify a 50-year design life

Approvals & Standards

- Flange drilling to AS4087 Fig.B5
- Potable water approved to AS/NZS 4020 and WRAS

Materials

- Body - End Ring, Adaptor Body and Centre Sleeve
 - Ductile Iron to BS EN 1563 Symbol EN GJS-450-10
 - Rolled Steel to BS EN 10025-2 Grade S275 in DN350+ MaxiFit's
- 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 989-1
- Nuts*
 - Steel to BS EN 4190 Grade 4
- Washers
 - Stainless Steel to BS 1449:Part 2 Grade 304 S15
- Coating
 - Sleeve, Adaptor Body and End Ring
 - Rilsan Nylon 11 to WIS 4-52-01 Part 1
 - Bolts & Nuts*
 - Sheraplex to WIS 4-52-03

Note: *Stainless steel nuts and bolts available on request



FIG. 1 3 bolt MaxiDaptor Plus



FIG. 2 4 bolt MaxiDaptor

Code	NB (mm)	Pipe OD (mm)	Flange Drilling			Flange OD (mm)	Flange ID (mm)	Overall Length (mm)	Sleeve Length (mm)	Setting Gap (mm)	Bolts No. -Dia x Length	Weight (kg)
			AS4087	EN1092								
			Table D	Table E								
FAGIBMF050N	50	57 - 74			●	164	59	124	75	20-40	4-M12 x 115	3
FAGIBMF080NP*	80	85 - 107			●	203	101	124	75	20-40	3-M12 x 115	4
FAGIBMF100NP*	100	107 - 132	●	●	●	228	121	134	75	20-40	3-M12 x 125	5
FAGIBMF125N	125	132- 158	●	●	●	282	150	134	75	20-40	4-M12 x 125	6
FAGIBMF150N	150	158 - 184	●	●	●	282	173	134	75	20-40	4-M12 x 125	6
FAGIBMF175N	175	189 - 212	●	●	●	337	202	133	75	25-40	4-M12 x 125	8
FAGIBMF200N	200	218 - 244	●		●	338	225	134	75	25-40	4-M12 x 125	8
FAGIBMF225E	225	243 - 269		●	●	402	252	144	85	25-50	6-M12 x 135	11
FAGIBMF250N	250	266 - 295	●		●	399	274	146	85	25-50	8-M12 x 135	13
FAGIBMF250NE	250	266 - 295		●	●	402	277	146	85	25-50	6-M12 x 135	11
FAGIBMF300N	300	315 - 349	●		●	458	329	155	100	25-60	6-M12 x 145	15
FAGIBMF350AAS-S	350	351 - 368	●			525	370	213	120	45-68	6-M12 x 205	29
FAGIBMF350N	350	351 - 368			●	478	300	333	240	165-188	6-M12 x 325	39
FAGIBMF350B	350	394 - 411			●	522	398	303	205	130-153	8-M12 x 290	33
FAGIBMF375AAS-S	375	394 - 411	●			550	414	213	120	45-68	12-M12 x 205	31
FAGIBMF375BAS-S	375	418 - 435	●			550	418	298	205	130-153	12-M12 x 290	36
FAGIBMF400AAS-S	400	394 - 411	●			580	414	220	120	45-68	12-M12 x 205	41
FAGIBMF400BAS-S	400	418 - 435	●			580	437	218	120	45-68	8-M12 x 205	32
FAGIBMF400CAS-S	400	439 - 456	●			580	448	303	205	130-153	12-M12 x 290	39
FAGIBMF400ST	400	418 - 435			●	580	437	218	120	45-68	8-M12 x 205	32
FAGIBMF450AAS-S	450	447 - 464	●			640	466	218	120	45-68	12-M12 x 205	44
FAGIBMF450B	450	487 - 504			●	640	507	218	120	45-68	10-M12 x 205	39
FAGIBMF450BAS-S	450	492 - 509	●			640	511	213	120	45-68	12-M12 x 205	34
FAGIBMF450CAS-S	450	502 - 519	●			640	486	303	205	130-153	12-M12 x 290	53
FAGIBMF450CR	450	502 - 519			●	640	486	303	205	130-153	10-M12 x 290	49
FAGIBMF450N	450	455 - 472			●	640	474	218	120	45-68	10-M12 x 205	43
FAGIBMF500A	500	540 - 557			●	715	559	218	120	45-68	10-M12 x 205	47
FAGIBMF500AAS-S	500	502 - 519	●			705	521	218	120	45-68	8-M12 x 205	51
FAGIBMF500B	500	555 - 572			●	715	550	303	205	130-153	10-M12 x 290	56
FAGIBMF500BAS-S	500	555 - 572	●			705	575	218	120	45-68	16-M12 x 205	46
FAGIBMF500CAS-S	500	582- 599	●			709	550	303	205	130-153	16-M12 x 290	58
FAGIBMF600AAS-S	600	601 - 618	●			825	620	218	120	45-68	16-M12 x 205	68
FAGIBMF600BAS-S	600	618 - 635	●			825	637	216	120	45-68	16-M12 x 205	63
FAGIBMF600CAS-S	600	654 - 671	●			825	673	218	120	45-68	16-M12 x 205	58

Note:

- All flange adaptors rated to PN16
- Flanges in some fittings are slotted to fit multiple drillings
- Refer to Installation instructions for bolt torque information

TABLE 2 MaxiFit Coupler

Product	Code	NB (mm)	OD (mm)	Overall Length (mm)	Sleeve Length (mm)	Setting Gap (mm) min-max	Bolts No.- Dia x Length	Weight (kg)
	GIBMF040N	40	48 - 59	190	100	20 - 40	2-M12 x 180	3
	GIBMF050NP	50	57 - 74	190	95	20 - 40	4-M12 x 180	3
	GIBMF065NP*	65	63 - 85	190	95	20 - 40	3-M12 x 180	4
	GIBMF080NP*	80	85 - 107	190	95	20 - 40	3-M12 x 180	4
	GIBMF100NP*	100	107 - 132	190	95	20 - 40	3-M12 x 180	5
	GIBMF125NP	125	132 - 158	190	95	20 - 40	4-M12 x 180	6
	GIBMF150NP	150	158 - 184	190	95	20 - 40	4-M12 x 180	7
	GIBMF175N	175	189 - 212	230	130	25 - 50	4-M12 x 220	9
	GIBMF200N	200	218 - 244	230	130	25 - 50	4-M12 x 220	11
	GIBMF225N	225	243 - 269	230	130	25 - 50	6-M12 x 220	12
	GIBMF250N	250	266 - 295	230	130	25 - 50	6-M12 x 220	15
	GIBMF300N	300	315 - 349	230	130	25 - 50	8-M12 x 220	19
	GIBMF350N	350	386 - 403	348	243	45-90	8-M12 x 340	33
	GIBMF400N	400	434 - 451	348	243	45-90	10-M12 x 340	37
	GIBMF450A	450	455 - 472	348	243	45-90	10-M12 x 340	39
	GIBMF450B	450	467 - 484	348	243	45-90	10-M12 x 340	39
	GIBMF450N	450	447 - 464	348	243	45-90	10-M12 X 340	38
	GIBMF500	500	582 - 599	348	243	45-90	12-M12 x 340	48
	GIBMF500B	500	546 - 563	348	243	45-90	12-M12 x 340	46
	GIBMF600A	600	601 - 618	348	243	45-90	12-M12 x 340	50
	GIBMF600B	600	613 - 630	348	243	45-90	12-M12 x 340	50
	GIBMF600D	600	645 - 662	348	243	45-90	14-M12 x 340	53
	GIBMF600G	600	675 - 692	348	243	45-90	14-M12 x 340	55
	GIBMF600H	600	689 - 706	348	243	45-90	14-M12 x 340	56
	GIBMF600I	600	695 - 712	348	243	45-90	14-M12 x 340	57

Note: * 3 bolt design MaxiFit

TABLE 3 MaxiFitXtra Coupler-Long Sleeve

Product	Code	NB (mm)	Pipe OD (mm)	Diameter (mm)	Overall Length (mm)	Sleeve Length (mm)	Setting Gap min-max (mm)	Bolts No.- Dia x Length	Weight (kg)
	GIBMF050L	50	57 - 74	154	285	200	20-140	4-M12 x 275	5
	GIBMF065L	65	63 - 85	173	285	190	20-130	4-M12 x 275	5
	GIBMF080L	80	85 - 107	195	285	200	20-140	4-M12 x 275	6
	GIBMF100L	100	107 - 132	224	285	190	20-130	4-M12 x 275	7
	GIBMF125L	125	132 - 158	254	285	190	20-130	4-M12 x 275	9
	GIBMF150L	150	158 - 184	280	285	190	20-130	4-M12 x 275	10
	GIBMF200L	200	218 - 244	342	285	190	25-110	4-M12 x 275	14
	GIBMF225L	225	243 - 269	367	350	250	25-165	6-M12 x 340	19
	GIBMF250L	250	266 - 295	399	350	250	25-165	6-M12 x 340	21
	GIBMF300L	300	315 - 349	462	350	240	25-155	8-M12 x 340	27

TABLE 5 MaxiFit Couplers AC-PVC Pipe

Product	Code	NB (mm)	OD (mm)	Fits Pipe Type	Length (mm)	Sleeve Length (mm)	Setting Gap Min-Max (mm)	End Ring Diameter (mm)	Bolts No.- Dia x Length	Weight (kg)
MaxiFit Couplers for AC Pipe 	GIBMFA350	350	375 - 391	AC	348	243	45-90	502	8-M12 x 340	32
	GIBMFA375	375	418 - 435	AC	348	243	45-90	545	8-M12 x 340	35
	GIBMFA400	400	405 - 422	AC	348	243	45-90	532	8-M12 x 340	34
	GIBMFA450	450	476 - 493	AC	348	243	45-90	603	10-M12 x 340	40
	GIBMFA500	500	527 - 545	AC	348	243	45-90	654	12-M12 x 340	44
	GIBMFA600	600	662 - 679	AC	348	243	45-90	789	14-M12 x 340	54

MaxiFit Couplers for PVC Pipe

GIBMFP350	350	351 - 368	PVC	348	243	45-90	478	8-M12 x 340	30
GIBMFP375	375	394 - 411	PVC	348	243	45-90	522	8-M12 x 340	33
GIBMFP450	450	502 - 519	PVC	348	243	45-90	629	10-M12 x 340	42
GIBMFP450N	450	492 - 509	PVC	348	243	45-90	619	10-M12 x 340	41
GIBMFP500	500	555 - 572	PVC	348	243	45-90	683	12-M12 x 340	46

TABLE 4 MaxiFitXtra Coupler-Long Sleeve

Product	Code	NB Small End (mm)	NB Large End (mm)	OD Small End (mm)	OD Large End (mm)	Small & Large End Flange Diameter (mm)	Overall Length (mm)	Sleeve Length (mm)	Setting Gap (mm)	Bolts No.- Dia x Length	Weight (kg)
MaxiStep Reducing Couplers 	GIBMFS050065N	50	65	57 - 74	63 - 85	154-173	210	110	20-40	4-M12 x 200	4
	GIBMFS050080N	50	85	57 - 74	85 - 107	154-195	210	110	20-40	4-M12 x 200	4
	GIBMFS065080N	65	80	63 - 85	85 - 107	173-195	210	110	20-40	4-M12 x 200	4
	GIBMFS080100N	80	100	85 - 107	107 - 132	195-224	210	110	20-40	4-M12 x 200	5
	GIBMFS100125N	100	125	107 - 132	132 - 158	224-254	220	120	20-40	4-M12 x 210	6
	GIBMFS125150N	125	150	132 - 158	158 - 184	254-280	220	120	20-40	4-M12 x 210	7
	GIBMFS150175N	150	175	158 - 184	189 - 212	280-306	230	130	25-50	4-M12 x 220	9
	GIBMFS175200N	175	200	189 - 212	218 - 244	306-342	230	130	25-50	4-M12 x 220	10
	GIBMFS200225N	200	225	218 - 244	243 - 269	342-367	230	130	25-50	6-M12 x 220	12
	GIBMFS225250N	225	250	243 - 269	266 - 295	367-399	230	130	25-50	6-M12 x 220	14
	GIBMFS375	375	400	394 - 411	418 - 435	521-545	348	240	45-90	10-M12 x 340	34
	GIBMFS600630N	600	630	601 - 618	630 - 647	728-757	348	240	45-90	14-M12 x 340	50

TABLE 6 MaxiCap End Cap

Product	Code	NB (mm)	OD (mm)
 FIG. 3 End Cap	MaxiCap End Cap		
	GIBMS050N	50	57 - 74
	GIBMS065N	65	63 - 85
	GIBMS080N	80	85 - 107
	GIBMS080T*	80	85 - 107
	GIBMS100N	100	107 - 132
	GIBMS100T*	100	107 - 132
	GIBMS125N	125	132 - 158
	GIBMS125T*	125	132 - 158
	GIBMS150N	150	158 - 184
	GIBMS150T*	150	158 - 184
	GIBMS175N	175	189 - 212
	GIBMS175T*	175	189 - 212
	GIBMS200N	200	218 - 244
	GIBMS200T*	200	218 - 244
	GIBMS225N	225	243 - 269
	GIBMS225T*	225	243 - 269
	GIBMS250N	250	266 - 295
	GIBMS250T*	250	266 - 295
	GIBMS300N	300	315 - 349
	GIBMS300T*	300	315 - 349



FIG. 4 4 Bolt Design

MaxiFit Couplings Installation Instructions



1. Examine the pipe ends and ensure they are round, smooth, free from bulges, dents and score marks and within the outside diameter range given on the coupling label. Weld beads must be ground flush, maintaining correct surface profile. Ensure that pipe ends are free from scale, rust, or any loose debris or other surface defect that may affect coupling performance.
2. Check grade of gasket is suitable for the conveyed medium.
Note: EPDM gaskets are supplied as standard.
3. Align pipe to be laid with pipe already in position, taking care that pipe ends are concentric, adjusting support or trench bed as necessary.
4. To aid installation, mark both pipe ends at a distance equal to or greater than half the overall assembled width of the coupling. Place coupling wholly on one pipe end.

5. Adjust setting gap between pipe ends as necessary (see setting gap information for each product).
6. Using marks made at Step 4, slide the coupling to a central position over the pipe ends and commence bolt-up.
7. Tighten diametrically opposed bolts giving the nuts one or two turns at a time to draw up the end rings evenly. The bolts must be thoroughly tightened to the torque noted on the fitting and in the table below, working around the fitting as many times as necessary. On completion, the radial gap between pipe and fitting should be even all the way round. Rubber may be seen to extrude into the gap.

Notes:

Viking Johnson MaxiFit couplings do not prevent pipe pull out. Adequate external restraint to pipework is essential.

When installing Viking Johnson MaxiFit Couplings on GRP pipe and certain AC pipes a reduced bolt torque may be required.

Product Details			Bolt Details		Recommended Bolt Torque Value	
Range	Product	Nom/OD	Dia.	Spanner Size	Nm	lbf.ft.
MaxiFit	Coupling / FA / Stepped Coupling	40 - 300	M12	A/F 19mm	55 - 65	40 - 50
MaxiFit	Coupling / FA / Stepped Coupling	350 - 600	M12	A/F 19mm	55 - 65	40 - 50
LD Dedicated	Coupling / FA / Stepped Coupling	355 - 914	M12	A/F 19mm	55 - 65	40 - 50
LD Dedicated	Coupling / FA / Stepped Coupling	355 - 914	M16	A/F 24mm	95 - 120	70 - 90
LD Dedicated	Coupling / FA / Stepped Coupling	915 - 1123	M16	A/F 24mm	95 - 120	70 - 90
LD Dedicated	Coupling / FA / Stepped Coupling	1124 & Over	M16	A/F 24mm	95 - 120	70 - 90

Note: Viking Johnson recommends reducing bolt torque for GRP couplings and flange adapters to 50% of the recommended bolt torque that would be required if the fitting was to be used on a Steel pipe.

Branches Nationwide *Support Office & Technical Services* 0800 93 7473

Disclaimer: While every effort has been made to ensure that the information in this document is correct and accurate, users of Hynds product or information within this document must make their own assessment of suitability for their particular application. Product dimensions are nominal only, and should be verified if critical to a particular installation. No warranty is either expressed, implied, or statutory made by Hynds unless expressly stated in any sale and purchase agreement entered into between Hynds and the user.