

Pipeline Repair Guide

August 2020

Various products for the quick & easy repairs of leaking or damaged pipes to keep the water flowing.



Applications

Repairs under pressure

Solutions for various forms of damage

Joining different types of pipe

Overcoming misaligned pipes



Pipe Sizing Chart

TABLE 1 Pipe Outside Diameter Sizing Chart

Material	Designation	Standard	Nominal Diameter																										
			50	65	80	100	125	150	175	200	225	250	300	350	375	400	450	500	525	600	675	700	750	800	900	1000	1100	1200	
Ductile Iron (DICI)	International	DIS2531E	66	82	98	118	144	170	222	274	326	378	429	480	532	635	738	790	842	945	1048	1152	1255						
	Class K9 or K12	AS2280		96	122	177	232	259	286	345	426	507	560	667	826														
Glass Reinforced Plastic (GRP)		AS1413		122	177	232	259	286	345	399	426	453	507	560	587	667	747	826	924	1026	1229								
	Class B	AS1742-2		122	177	232	259	286	334	413	492	545	650																
Cast Iron (CICL)	Class C	AS1544		96	122	149	177	203	232	259	286	345	426	507	560	667													
	Class AB	AS1711		96	122	177	232	259	286	334	413	492	572	650															
Asbestos Cement (AC)	Class CD	AS1711		96	122	177	232	259	286	345	426	507	587	667	747	826													
	Imperial (Blue)	AS1477		122	177	232	259	286	345	426	507	560	667																
Polyvinyl Chloride (PVC)	Metric (White)	AS1477		60	75	89	114	140	160	200	225	250	280	315	355	400	450	500	560	630									
	Std. W.T.	AS1579		114	168	219	273	324	356	406	457	508	610	711	762	813, 864	914	1067	1220										
Galvanized Steel	GW1	AS1074		60	76	89	114	140	165																				
Polyethylene (PE 80B or PE100)	SRI3.6 PN12.5 or SDR11 PN16	AS4130		63	75	90	110	140	160	200	250	280	315	355	400	450	500	560	630	710	800	900	1000	1100	1200	1400			
	Class 2-12	AS4058		125	180	225	279	315	362	445	533	616	699	787	870	946	1029	1105, 1270, 1194	1354										
Reinforced Concrete (RC)				51	64	76	102	127	152	203	229																		
Copper (CU)		AS3688																											

The figures in this chart are rounded to the nearest whole number. This should only be used as a guide.

Rapid - Stainless Steel Repair Clamps

Full 316 stainless steel wrap around repair clamps and offtakes offer a high quality repair solution for most common pipe sizes.

Applications

- Pressure and Non Pressure pipelines
- Small breaks in AC or PVC, Ductile & Cast Iron where the pipe still has structural integrity
- Can be installed under pressure
- Simple & easy to fit
- Larger sizes available on request

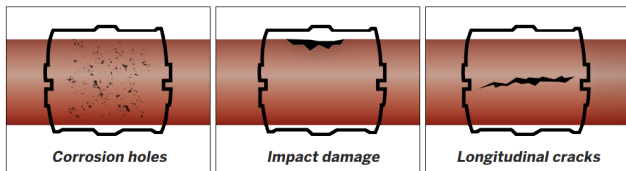


TABLE 2 Rapid - Stainless Steel Repair Clamps

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
CRSS100PVC200	DN100 (110mm-120mm)	200mm	✓				✓	
CRSS100ACPVC200	DN100 (113mm-123mm)	200mm	✓	✓	✓	✓	✓	
CRSS100AC200	DN100 (121mm-130mm)	200mm		✓	✓	✓		
CRSS125PVC200	DN125 (135mm-145mm)	200mm	✓				✓	
CRSS150PVC200	DN150 (151mm-161mm)	200mm					✓	
CRSS150AC200	DN150 (167mm-178mm)	200mm	✓	✓	✓	✓		
CRSS150AC200XL	DN150 (174mm-185mm)	200mm		✓	✓	✓		
CRSS175PVC200	DN175 (196mm-205mm)	200mm					✓	
CRSS200PVC200	DN200 (218mm-228mm)	200mm	✓				✓	
CRSS200AC200	DN200 (229mm-238mm)	300mm		✓	✓	✓		
CRSS225PVC300	DN225 (248mm-257mm)	300mm	✓				✓	
CRSS225AC300	DN225 (255mm-265mm)	300mm	✓	✓	✓	✓		
CRSS250PVC300	DN250 (271mm-281mm)	300mm	✓				✓	
CRSS250AC300	DN250 (281mm-290mm)	300mm		✓	✓	✓		
CRSS300PVC300	DN300 (312mm-322mm)	300mm					✓	
CRSS300AC300	DN300 (343mm-355mm)	300mm		✓	✓	✓		
CRSS375PVC400	DN375 (390mm-410mm)	400mm	✓				✓	
CRSS375AC400	DN375 (410mm-430mm)	400mm		✓	✓	✓		



Viking Johnson - Easi Repair Clamps

Viking Johnson EasiTap and EasiClamp couplers are a comprehensive range of world class, permanent, under pressure repair and tapping solutions.

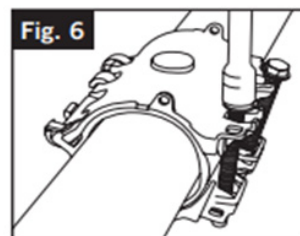
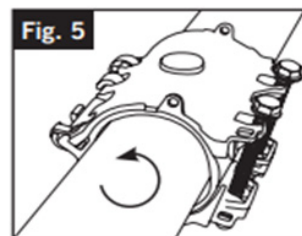
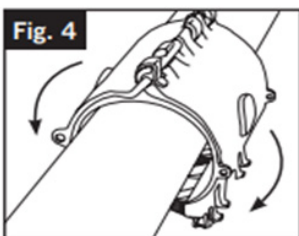
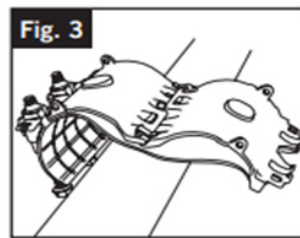
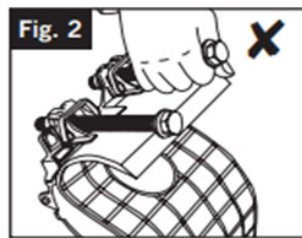
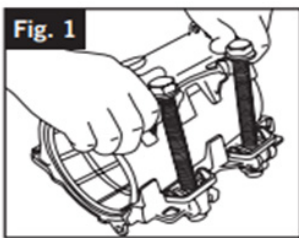
Applications

- Pressure and Non Pressure pipelines
- Permanent leak tight seal on circumferential or longitudinal cracks
- Particularly useful in difficult access areas
- Can be installed under pressure
- Enables easy repair in conditions where other pipes are in close proximity



TABLE 3 Viking Johnson - Easi Clamps

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
EC100	DN100 (115mm-125.6mm)	200mm			✓	✓		
EC100T50	DN100 (115mm-125.6mm) Tapped 50mm	200mm		✓	✓	✓		
EC125	DN125 (141mm-153.9mm)	200mm						
EC150	DN150 (166mm-181.2mm)	200mm	✓	✓	✓	✓		
EC150T50	DN150 (166mm-181.2mm) Tapped 50mm	200mm	✓		✓	✓		
EC175	DN175 (200mm-210mm)	200mm					✓	
EC200	DN200 (216.5mm-226mm)	200mm	✓				✓	
EC200T50S	DN200 (216.5mm-226mm) Tapped 50mm	200mm	✓				✓	
EC200T50	DN200 (230.1mm-243.6mm) Tapped 50mm	200mm		✓	✓	✓		
EC200L	DN200 (230mm-243.5mm)	200mm		✓	✓	✓		
EC225	DN225 (243mm-267mm)	212mm	✓	✓	✓	✓	✓	
EC225T50	DN225 (243mm-267mm) Tapped 50mm	212mm	✓	✓	✓	✓	✓	
EC250	DN250 (269mm-294mm)	250mm	✓	✓	✓	✓	✓	
EC250T50	DN250 (269mm-294mm) Tapped 50mm	250mm	✓	✓	✓	✓	✓	
EC300	DN300 (323mm-349mm)	300mm	✓	✓	✓	✓		
EC300T50	DN300 (323mm-349mm) Tapped 50mm	300mm	✓	✓	✓	✓		



R2M - CQuick Encapsulation Collars

CQuick encapsulation collars offer a quick, light and viable solution to making an under-pressure permanent repair of leaking AC collars, CI/DI socket spigot and any other leak which falls within the OD tolerance.

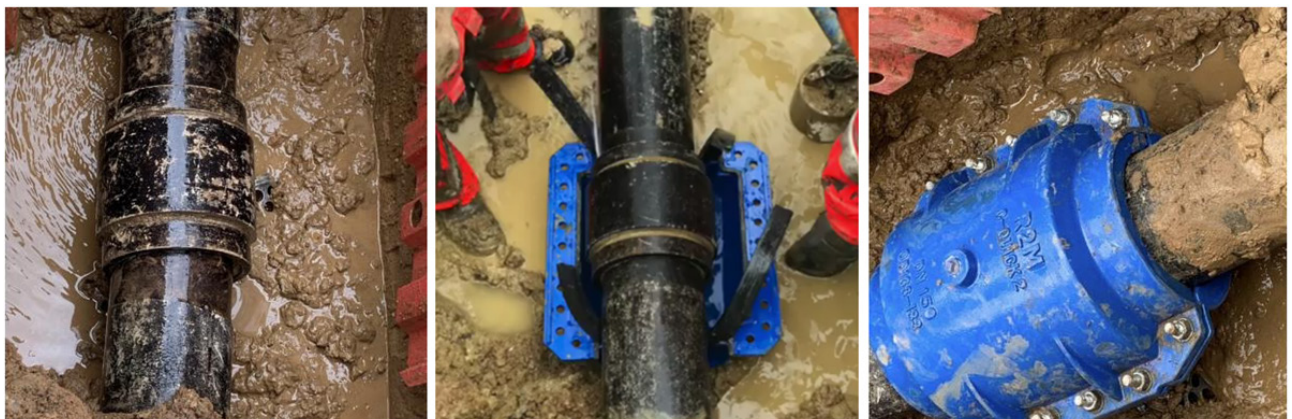
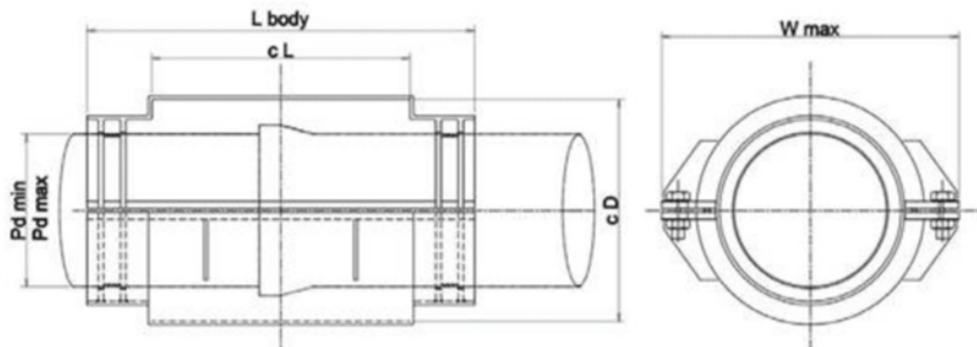
Applications

- Repairs of pipelines under pressure
- Leaking AC Collars, socket/ring joint connections
- Failed EF Couplers
- Leaking gibaults, flanges or repair clamps
- Longitudinal or circumferential cracks



TABLE 4 CQuick Range

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
CRCQUICK2100	DN100 (112-130mm)	430mm	✓	✓	✓	✓	✓	✓
CRCQUICK2150	DN150 (166-183mm)	430mm	✓	✓	✓	✓	✓	✓
CRCQUICK2200	DN200 (220-238mm)	430mm		✓	✓	✓	✓	✓

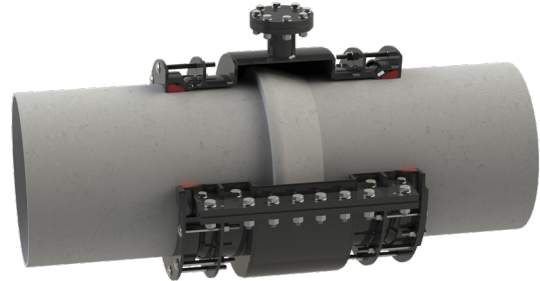


Nova Siria – DuoFit Encapsulation Collars

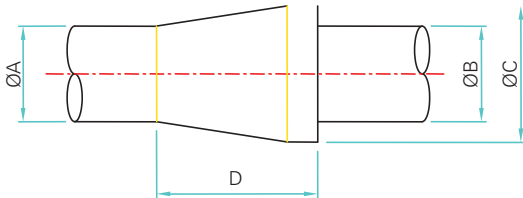
Split-body encapsulation collars for the repair of critical water supply pipelines under pressure. Eliminating the need to 'shut down', enables quick and easy response with little disruption to the public.

Applications

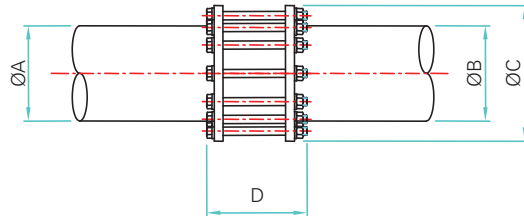
- Repairs of pipelines under pressure
- Leaking AC Collars, socket/ring joint connections
- Failed EF Couplers
- Leaking gibaults, flanges or repair clamps
- Longitudinal or circumferential cracks
- Fully customizable to any situation



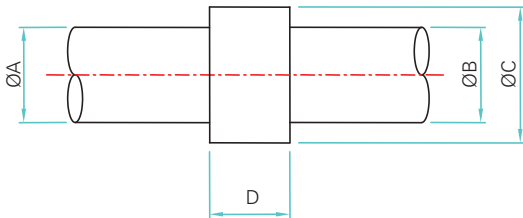
1) Socket to be encapsulated:



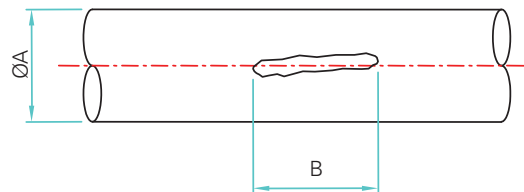
3) Coupling to be encapsulated:



2) Object or clamp to be encapsulated:



4) Plain pipe with crack or hole:



Viking Johnson - Maxifit Coupler

Viking Johnson Maxi Range of universal pipe couplings represents the very latest in mechanical pipe coupling technology.

Applications

- Pressure and Non Pressure pipelines
- Non-restraint couplers
- Suitable for use with AC, PVC, DI/CI, Steel & Concrete
- For use in pairs when the pipe repair requires the broken pipe to be cut out and replaced



TABLE 5 Viking Johnson - Maxifit Couplers

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
GIBMF100NP	DN100 (107mm-132mm)	190mm	✓	✓	✓	✓	✓	
GIBMF100L	DN100 (107mm-132mm) Long Sleeve	285mm	✓	✓	✓	✓	✓	
GIBMF125NP	DN125 (132mm-158mm)	190mm	✓				✓	
GIBMF125L	DN125 (132mm-158mm) Long Sleeve	190mm	✓				✓	
GIBMF150NP	DN150 (158mm-184mm)	190mm	✓	✓	✓	✓	✓	
GIBMF150L	DN150 (158mm-184mm) Long Sleeve	285mm	✓	✓	✓	✓	✓	
GIBMF175N	DN175 (189mm-212mm)	230mm					✓	
GIBMF175L	DN175 (189mm-212mm) Long Sleeve	285mm					✓	
GIBMF200N	DN200 (218mm-244mm)	230mm	✓	✓	✓	✓	✓	
GIBMF200L	DN200 (218mm-244mm) Long Sleeve	285mm	✓	✓	✓	✓	✓	
GIBMF225N	DN225 (243mm-269mm)	230mm	✓	✓	✓	✓	✓	
GIBMF225L	DN225 (243mm-269mm) Long Sleeve	285mm	✓	✓	✓	✓	✓	
GIBMF250N	DN250 (266mm-295mm)	230mm	✓	✓	✓	✓	✓	
GIBMF250L	DN250 (266mm-295mm) Long Sleeve	350mm	✓	✓	✓	✓	✓	
GIBMF300N	DN300 (315mm-349mm)	230mm	✓	✓	✓	✓	✓	
GIBMF300L	DN300 (315mm-349mm) Long Sleeve	350mm	✓	✓	✓	✓	✓	
GIBMFP350	DN350 (351mm-368mm)	348mm	✓				✓	
GIBMFA350	DN350 (374.5mm-391.5)	348mm						
GIBMFP375	DN375 (394.3mm-411.3mm)	348mm	✓				✓	
GIBMFA375	DN375 (418.2mm-435.2mm)	348mm	✓	✓	✓	✓		
GIBMF400N	DN400 (434mm-451mm)	348mm					✓	
GIBMF450N	DN450 (447mm-464mm)	348mm	✓				✓	
GIBMF450B	DN450 (467mm-484mm)	348mm						
GIBMFA450	DN450 (476mm-493mm)	348mm						
GIBMFP450N	DN450 (492mm-509mm)	348mm	✓	✓	✓	✓	✓	
GIBMFP450	DN450 (501.9mm-518.9mm)	348mm	✓	✓	✓	✓		
GIBMFA500	DN500 (527mm-545mm)	348mm						
GIBMFP500	DN500 (555.3mm-572mm)	348mm	✓		✓	✓	✓	
GIBMF500C	DN500 (565mm-582mm)	348mm	✓	✓				
GIBMF500	DN500 (582.2mm-599.2mm)	348mm		✓				
GIBMF600A	DN600 (601mm-618mm)	348mm	✓					
GIBMF600B	DN600 (613mm-630mm)	348mm					✓	
GIBMF600D	DN600 (630mm-647mm)	348mm					✓	
GIBMF600E	DN600 (654mm-671mm)	348mm	✓	✓	✓	✓		
GIBMFA600	DN600 (662mm-679mm)	348mm	✓	✓	✓	✓		
GIBMF600G	DN600 (675mm-692mm)	348mm						
GIBMF600H	DN600 (689mm-706mm)	348mm						
GIBMF600I	DN600 (695mm-712mm)	348mm	✓					

Applications

- Used to overcome large differences in the Pipe outside diameter
- Connecting Series 1 to Series 2 pipes



TABLE 6 Viking Johnson - Maxifit Stepped Couplers

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
GIBMFS100125N	DN100-125 (107-132mm) to (132-158mm)	220mm	✓	✓	✓	✓	✓	
GIBMFS125150N	DN125-150 (132-158mm) to (158-184mm)	220mm	✓	✓	✓	✓	✓	
GIBMFS150175N	DN150-175 (158-184mm) to (189-212mm)	230mm	✓	✓	✓	✓	✓	
GIBMFS175200N	DN175-200 (189-212mm) to (218-244mm)	230mm	✓	✓	✓	✓	✓	
GIBMFS200225N	DN200-225 (218-244mm) to (243-269mm)	230mm	✓	✓	✓	✓	✓	
GIBMFS225250N	DN225-250 (243-269mm) to (266-295mm)	230mm	✓	✓	✓	✓	✓	
GIBMFS375	DN375-375 (394.3mm-411.3mm) to (418.2-435.2)	410mm	✓	✓	✓	✓	✓	



Hawle - System 2000 PE Pipe Couplers

Total restraint for PE (PE 80/100) and PVC pipes up to PN 16.

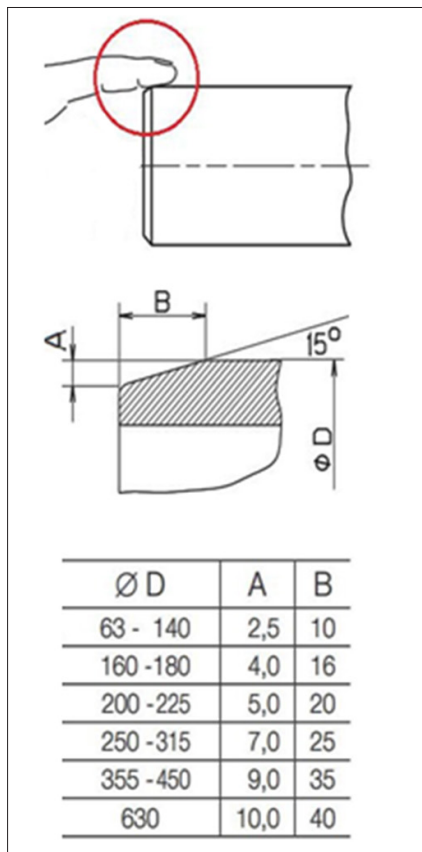
Applications

- System 2000 is a dedicated PE pipe connection system, also suitable for metric PVC pipes where the ODs match
- Full thrust restraint without the need for a support liners on SDR11 through to SDR17
- Ideal for temporary and permanent installations
- No torque wrench required
- Fully reusable



TABLE 7 Hawle - System 2000 PE Pipe Couplers

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
CS2110-C	DN100 (110mm)	181mm						✓
CS2125-C	DN100 (125mm)	185mm						✓
CS2140-C	DN125 (140mm)	197mm					✓	✓
CS2160-C	DN150 (160mm)	221mm					✓	✓
CS2180-C	DN150 (180mm)	241mm						✓
CS2200-C	DN175 (200mm)	261mm					✓	✓
CS2225-C	DN175 (225mm)	265mm					✓	✓
CS2250-C	DN200 (250mm)	300mm					✓	✓
CS2280-C	DN250 (280mm)	306mm					✓	✓
CS2315-C	DN250 (315mm)	358mm					✓	✓



Hawle - Synoflex Couplers

An easy to install quality range of restraint couplings from Hawle. Wide tolerance range to accept most pipe materials with separate torque zones, reversible stainless steel captive fasteners and full end restraint.

Applications

- The Synoflex range connects all common types of pipe
This includes CI/DI, Steel, PE, and PVC
- Fully restrained and provides a simple transition joint when connecting PE to PE and other existing pipes
- 8 degrees of angular deflection per coupler
- When used on PE pipe from SDR 11 to SDR 17, internal support liners are not required
- Reversible bolts for tight spaces



TABLE 8 Hawle - Synoflex Couplers

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
GIBCSYN100	DN100 (104-132mm)	332mm	✓	*	✓	✓	✓	✓
GIBCSYN125	DN125 (131-160mm)	357mm	✓				✓	✓
GIBCSYN150	DN150 (155-192mm)	367mm	✓	*	✓	✓	✓	✓
GIBCSYN200	DN200 (198-230mm)	406mm	✓				✓	✓
GIBCSYN230	DN230 (230-260mm)	429mm	✓	*	✓	✓	✓	✓
GIBCSYN250	DN250 (265-310mm)	441mm	✓	*	✓	✓	✓	✓
GIBCSYN300	DN300 (313-356mm)	460mm	✓	*	✓	✓	✓	✓

TABLE 9 Hawle - Synoflex Stepped Couplers

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
GIBCSYNR10080	DN100-080 (104-132mm) to (85-105mm)	312mm	✓	*	✓	✓	✓	✓
GIBCSYNR125100	DN125-100 (131-160mm) to (104-132mm)	355mm	✓	*	✓	✓	✓	✓
GIBCSYNR150100	DN150-100 (155-192mm) to (104-132mm)	361mm	✓	*	✓	✓	✓	✓
GIBCSYNR150125	DN150-125 (155-192mm) to (131-160mm)	375mm	✓	*	✓	✓	✓	✓
GIBCSYNR200150	DN200-150 (198-230mm) to (155-192mm)	431mm	✓	*	✓	✓	✓	✓
GIBCSYNR225200	DN225-250 (230-260mm) to (198-230mm)	450mm	✓	*	✓	✓	✓	✓
GIBCSYNR250200	DN250-200 (265-310mm) to (198-230mm)	468mm	✓	*	✓	✓	✓	✓

*Due to the physical nature of AC pipes, a fully restrained connection cannot be guaranteed



Nova Siria - MultiGrip Couplers

Large bore, wide tolerance, fully restrained couplers. MultiGrip allows for the easy connection of multiple pipe materials in all weather conditions.

Applications

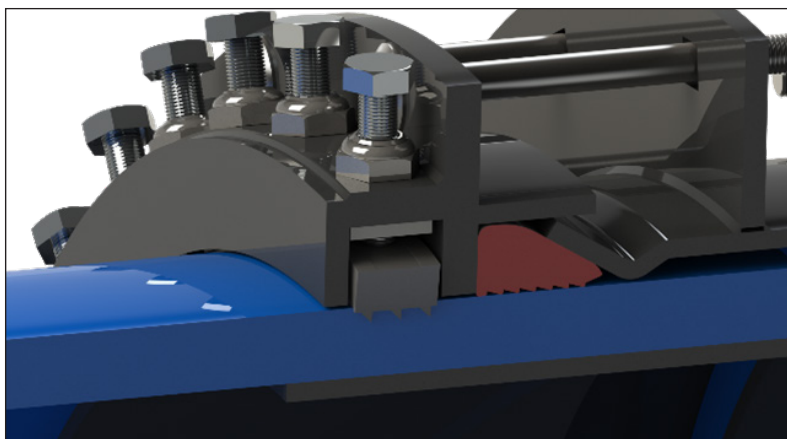
- The MultiGrip range connects all common types of pipe. This includes HDPE, PVC, Steel, AC*, Cast & Ductile Iron
- Fully restrained and provides a simple transition joint when connecting PE to PE and other existing pipes.
- Large 30mm of grip range helps to overcome out-of-round pipes.
- 6° of angular deflection per coupler, makes connecting mis-aligned pipes in the trench easy
- Jointing solution when welding HDPE is impractical or not possible.
- PN16 up to d1500mm
- Larger sizes, stepped couplers and custom versions on request.



TABLE 10 Nova Siria Multigrip Couplers

Code	Description/Range OD	Length	Suitable for use on:					
			Steel	AC	DI/CI	S2 PVC	S1 PVC	PE
GIBNS400	DN400 (397-427mm)	592mm	✓	*	✓	✓	✓	✓
GIBNS450	DN450 (435-465mm)	592mm	✓	*	✓	✓	✓	✓
GIBNS500	DN500 (485-515mm)	592mm	✓	*	✓	✓	✓	✓
GIBNS560	DN560 (545-575mm)	592mm	✓	*	✓	✓	✓	✓
GIBNS630	DN600 (615-645mm)	592mm	✓	*	✓	✓	✓	✓

*Only without grip teeth engaged – non restrained connection



Hawle - Vario Telescopic Pipe Spools for Pipe Misalignment

A flanged telescopic fitting with integral ball and socket joint that allows for adjustable length and installation deflection up to 10 degrees.

Applications

- The Vario is a telescopic pipe spools with a ball & socket joint allowing up to 10 degrees angular deflection
- When locked in place with it's tie-rods, the vario becomes a rigid & restrained part of the pipework
- Used to overcome issues of pipe misalignment and gaps between flanges

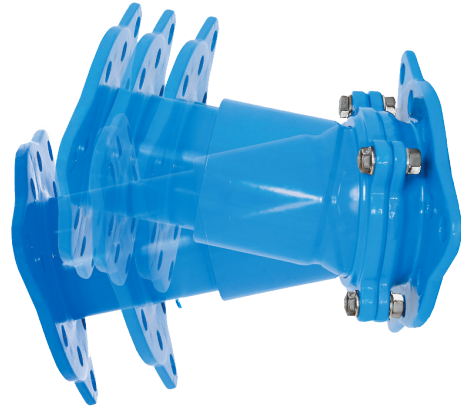


TABLE 11 Hawle - Vario Pipe Spools

Code	Description/Range OD	Length	Suitable for bolting to:
PSDFHV100S	DN100 (150-216mm) Short	150-216mm	Flanges according to AS4087 (Table D)
PSDFHV100L	DN100 (216-350mm) Long	216-350mm	
PSDFHV150S	DN150 (175-250mm) Short	175-250mm	
PSDFHV150L	DN150 (250-408mm) Long	250-408mm	
PSDFHV200S	DN200 (195-292mm) Short	195-292mm	
PSDFHV200L	DN200 (280-462mm) Long	280-462mm	

