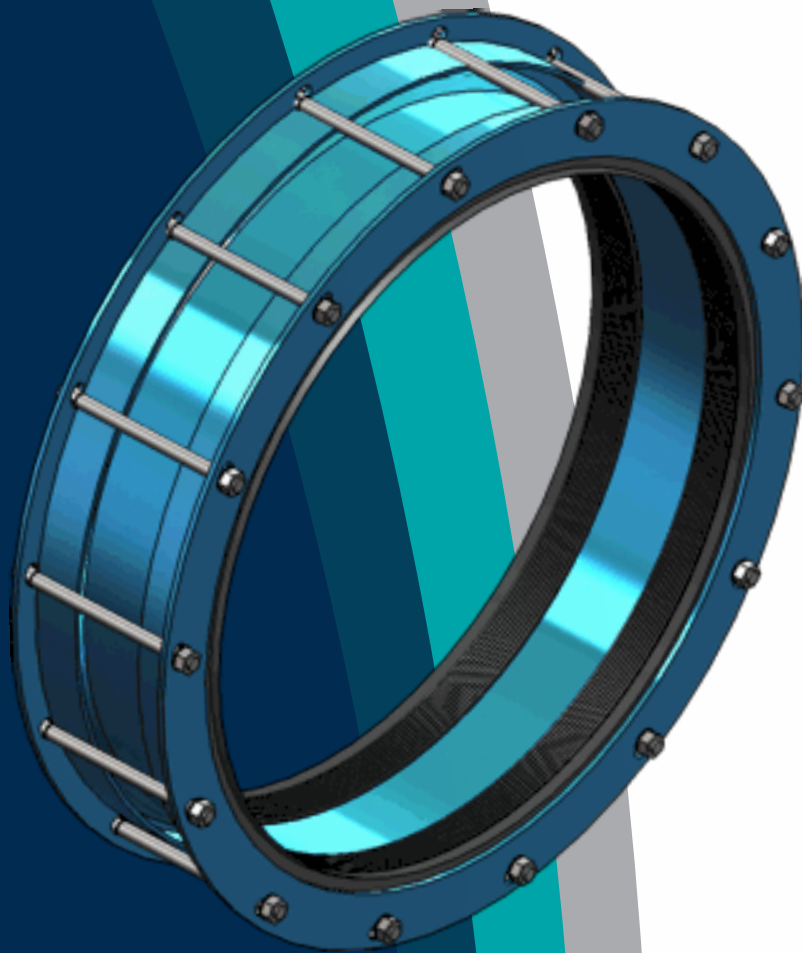


TECHNICAL DATA

WIDE RANGE
MECHANICAL COUPLINGS



LEVEL4BEE
CONTRIBUTOR



AFRILOK
AFRICA'S COUPLING

GLOSSARY OF TERMS USED

The following abbreviations are used in this brochure:

OD Pipe outside diameter

NB Nominal bore

DN Nominal diameter, in millimetres

PN Nominal pressure, in bar

CI Grey cast iron

DI Ductile iron

PE Polyethylene

MDPE Medium density polyethylene (PE80)

HDPE High density polyethylene (PE100)

AC Asbestos cement

GRP Glass reinforced plastics

uPVC Unplasticised polyvinyl chloride

PVC-u Metric uPVC pipe (including Molecular Oriented and Impact Modified)

EPDM Ethylene propylene diene monomer

PCD Pitch circle diameter

AFRILOK PROFILE

Afrilok is a designer and manufacturer of pipe connection product. Its founders have been involved in the pipe connection industry for more than 20 years. This combined experience is utilised to develop innovative solutions for all role players in the pipe industry.

Our mission is to respond to the needs of our customers by providing superior service and high quality, innovative pipe products at market leading prices.

Afrilok offers a full range of pipe products including wide range couplings, flange adapters, dedicated couplings, stepped couplings, saddles, dismantling joints and other pipe connection products.

Afrilok' staff draw upon several decades of highly specialised experience, and often work with the customer to provide economic solutions which will fit into any project.

Afrilok offers a complete and cost-effective solution to many pipeline installation challenges.

Afrilok pipe connection products offers the following

- Only coupling with 100% South African content
- Size range extends from DN50 to DN800
- High performance gaskets extruded to ensure lifelong sealing.
- No threading, bevelling, welding or flanging.
- Joins almost all types of pipes, valves or meters.

Quick, easy and accurate assembly: only a spanner and a torque wrench needed.

- Unrivalled technical advice and backup
- Reduced or no need for on-site fabrication.

THE AFRILOK CONCEPT

Afrilok Couplings are available as a wide range (Afrilok Widefit) or dedicated coupling.

An Afrilok Coupling comprises the following:

- Centre sleeve
- Two end rings.
- Wedge-shaped elastomeric gaskets
- Captive Oval Cup Bolts
-

When the bolts are tightened using a single spanner because of the captive oval cup bolt used, the end rings are drawn together. This compresses the gaskets, which are located between the end rings and the centre sleeve, onto the surface of the pipe. This forms a leak-proof seal that can accommodate pipes of different diameters.

Afrilok coupling are used to connect plain-ended pipes, and removes the need for costly and time-consuming pipe end preparation. Afrilok couplings can absorb expansion and contraction which occurs in pipelines as a result of temperature fluctuations, without the need for special expansion joints . It can also accommodate angular deflection that allows for pipeline movement or ground settlement.

AFRILOK COUPLINGS ARE MANUFACTURED FROM 100% SOUTH AFRICAN MATERIALS: NO IMPORTED MATERIALS USED



TECHNICAL OVERVIEW

Application

Afrilok Couplings are designed to connect plain ended pipes to each other. The wide range tolerance of these couplings also allow for pipes of different materials to be connected, as it accommodates differing outside diameters for each nominal bore. This reduces the stockholding required to accommodate varying outside diameters. These couplings can be used in water, sewer and gas pipelines.

Pressure Rating

Afrilok Couplings up to 600mm are designed for a standard working pressure of 16 bar, and a test pressure of 24 bar. Larger pressure ratings can be accommodated upon request.

Temperature

Afrilok Couplings can be used in applications of between -40°C and 90°C, but are not recommended for use in heating systems

Location

Above or below ground, subject to certain limitations according to product type and pipe material. Factories or any other pipe installation such as pump stations or treatment plants.

Range

Afrilok Couplings are available from 50mm to 600mm. Larger sizes can be accommodated upon request.

Angular Deflection

For pipe sizes between 50mm and 450mm:

- Angular deflections of up to 6 degrees.
- Inclination 1:10

For pipe sizes between 500 to 600mm:

- Angular deflection of up to 5 degrees.
- Inclination 1:12

Lateral Displacement

Couplings are not designed to accommodate lateral displacement, and proper pipe alignment is critical for a successful coupling installation.

Pipe End Preparation

In order to ensure proper sealing and operation of an Afrilok Coupling, the pipe ends must be properly prepared to ensure that the pipe is smooth, clean, without grooves, weld beads or other protrusions or irregularities. This must be for a distance of at least 100mm for nominal bores up to 250mm, and 160mm for nominal bores above 250mm. Also ensure that the pipe is properly round as site handling often leads to pipe ovality

Pipe Setting Gap

For couplings up to 250mm nominal bore, a minimum setting gap of 16mm will be required. The setting gap may not exceed 32mm.

For couplings between 300mm and 600mm nominal bore, a minimum setting gap of 20mm will be required. The setting gap may not exceed 40mm.

Expansion and Contraction

The gasket on Afrilok Couplings allows for a significant amount of pipe movement due to thermal expansion and contraction. Up to 9mm of movement can be accommodated on a mechanical coupling without affecting sealing performance.



AFRILOK
CONNECTING AFRICA'S PIPES

Mechanical Couplings Technical Data



MATERIAL SPECIFICATIONS

1. End Rings

Mild Steel to BS EN 10025:2004 or Grade CQ

2. Sleeve

Mild Steel to BS EN 10025:2004 or Grade CQ

3. Rubber Gasket

EPDM Grade E to BS 2494 1990 or SANS974 Related ISO4633

4. Bolts

Steel to BS970 Grade 070

DN50 to DN150: M12 x 170 Bolts and Nuts

DN175 to DN300: M12 x 210 Bolts and Nuts

DN300/2 to DN600/2: M12 x 260 Bolts and Nuts

Studs are of oval cup design to enable one-handed tightening

Bolts are hot dipped galvanised to SANS763

5. Coating

Fusion Bonded Epoxy to SABS 1217 to a minimum thickness of 250 microns

6. SABS Standard

Afrilok couplings are manufactured to SABS 1808-2: 2017

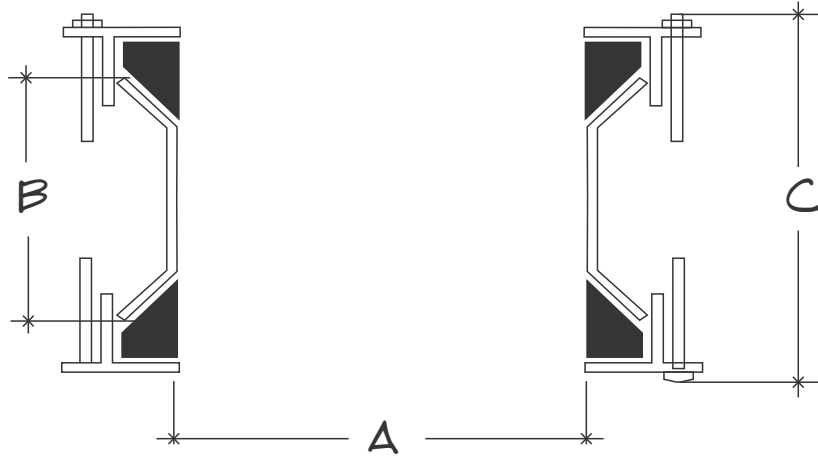


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Mechanical Couplings Technical Data



DIMENSIONS



Coupling Code	A Coupling ID	Coupling Range	B Sleeve Length	C Coupling Height	Gasket Section	Fasteners	Approx Mass
COU0050	74.5	58 - 72	105	170	Small	4 - M12 x 170	3.9
COU0050/2	81.8	59 - 78	105	170	Small	4 - M12 x 170	3.9
COU0080	101.5	83 - 98	105	170	Small	4 - M12 x 170	4.7
COU0080/2	106.4	88 - 104	105	170	Small	4 - M12 x 170	4.7
COU0100	121.5	108 - 118	105	170	Small	4 - M12 x 170	5.6
COU0100/2	131.8	109 - 128	105	170	Small	4 - M12 x 170	5.6
COU0125	156.6	139 - 153	105	170	Small	4 - M12 x 170	6.5
COU0150	173.5	156 - 170	105	170	Small	4 - M12 x 170	7
COU0150/2	191	160 - 180	130	170	Medium	4 - M12 x 210	7.2
COU0150/3	196	170 - 193	130	170	Medium	4 - M12 x 210	7.8
COU0175	207.5	193 - 207	130	210	Medium	4 - M12 x 210	9
COU0200	236	219 - 232	130	210	Medium	4 - M12 x 210	10.8
COU0225	253	239 - 250	130	210	Medium	6 - M12 x 210	12.2
COU0225/2	271	257 - 267	130	210	Medium	6 - M12 x 210	13.3
COU0250	289	273 - 286	130	210	Medium	6 - M12 x 210	16.2
COU250/2	308	290 - 304	130	210	Medium	6 - M12 x 210	16.4
COU0275	321	302 - 318	130	210	Medium	6 - M12 x 210	17.3

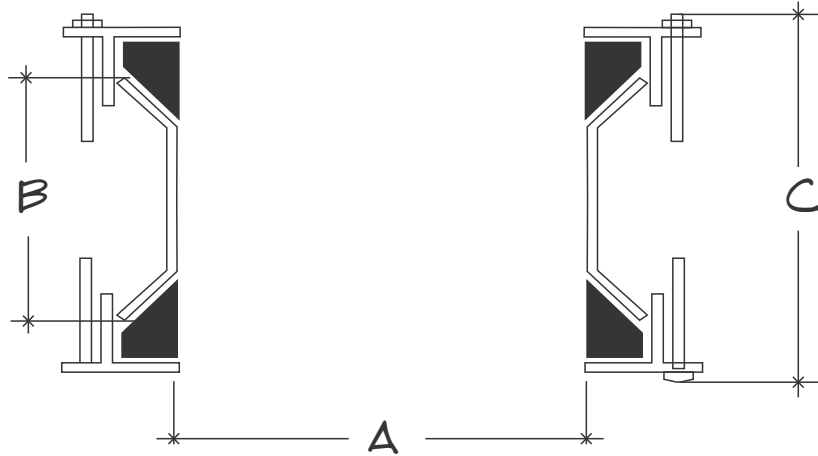


AFRILOK
CONNECTING AFRICA'S PIPES

Mechanical Couplings Technical Data



DIMENSIONS



Coupling Code	A Coupling ID	Coupling Range	B Sleeve Length	C Coupling Height	Gasket Section	Fasteners	Approx Mass
COU0300	330	315 - 328	130	210	Medium	6 - M12 x 210	18.6
COU0300/2	354	340 - 350	160	260	Large	8 - M12 x 260	21.8
COU0300/3	374	360 - 370	160	260	Large	8 - M12 x 260	22.8
COU0350	363	350 - 360	160	260	Large	8 - M12 x 260	23.1
COU0350/2	390	376 - 387	160	260	Large	10 - M12 x 260	24.2
COU0400	410	396 - 406	160	260	Large	10 - M12 x 260	25.5
COU0400/2	421	407 - 417	160	260	Large	10 - M12 x 260	25.8
COU0400/3	440	426 - 436	160	260	Large	10 - M12 x 260	26.6
COU0400/4	449	436 - 446	160	260	Large	10 - M12 x 260	27.6
COU0450	463	450 - 460	160	260	Large	10 - M12 x 260	58.6
COU0450/2	478	464 - 474	160	260	Large	12 - M12 x 260	28.8
COU0450/3	492	478 - 488	160	260	Large	12 - M12 x 260	29.9
COU0450/4	534	524 - 534	160	260	Large	12 - M12 x 260	32.5
COU0500	513	400 - 510	160	260	Large	12 - M12 x 260	32.6
COU0500/2	549	535 - 545	160	260	Large	12 - M12 x 260	33.5
COU0500/3	596	583 - 593	160	260	Large	14 - M12 x 260	34.5
COU0550	575	559 - 571	160	260	Large	14 - M12 x 260	34.5
COU0600	620	606 - 616	160	260	Large	14 - M12 x 260	37.6
COU0600/2	642	629 - 638	160	260	Large	14 - M12 x 260	37.6



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Mechanical Couplings Technical Data

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PIPE APPLICATION CHART

NOMINAL BORE	STEEL	DI	PVC / HDPE	FIBRE CEMENT PIPES							GRP				
				COD	6	12	18	24	30	36	VECTUS				FLOWTITE
											6	10	16	20	
50	60.3		50	69					0						
65	76.1		63	82											
75		98	75	96											
80	88.9		90												
100	114.3	118	110	122											
125	139.7		125	150											
140			140												
150	165.1	170	160	177		168	174	180	188	196					
175	193.7			205											
200	219.1	222	200	232		222	229	239	250	262					
225	244			259											
250	273	274	250	286		274	284	295	304	318	258	258	260	262	
300	324	326	315	345		328	340	353	365	378	309	309	311	314	327
350	356	378	355	426	378	382	396	412	426	440	359	360	363	365	379
400	406	429	400	453	430	436	450	468	484	503	9	410	414	417	413
450	457	480	450	507	483	488	506	524	545	566	459	462	466	470	464
500	508	532	500	560	535	543	560	583	606	629	510	511	517	521	515
525				587											
550	559			614							561	563	569	573	
600	610	635	630	667	638	651	672	699	727	755	612	614	620	624	617



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