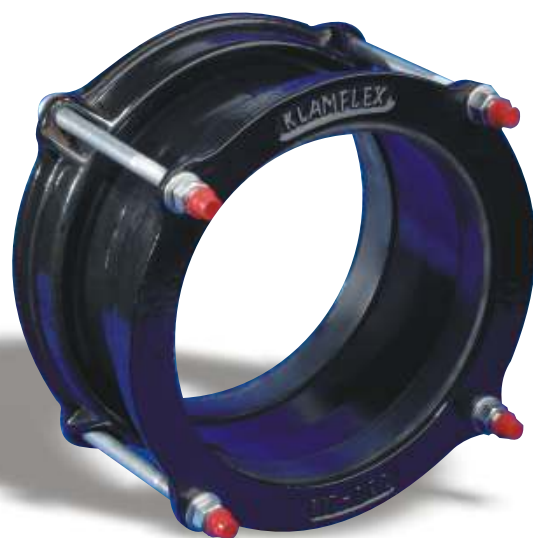


# KLAMFLEX DEDICATED COUPLINGS

- ❑ KLAMFLEX Dedicated Couplings join pipes of the same outside diameter. Couplings up to 324mm OD are delivered pre-assembled. Larger sizes are delivered ready for site assembly on the pipe.
- ❑ KLAMFLEX Couplings can be manufactured to suit both metric and imperial dimensions for Steel, uPVC, Ductile Iron, G.R.P., Fibre Cement, Stainless Steel, Aluminium Alloys and virtually all other rigid pipe materials.
- ❑ Klamflex Couplings can be manufactured with double sleeves to prevent end pull out on HDPE and GRP pipes.
- ❑ The sizes shown in the schedules of dimensions are for guide purposes. KLAMFLEX'S manufacturing methods enable us to supply any size, including non-standard sizes.
- ❑ KLAMFLEX Couplings are pressure rated to the appropriate pipe standards. Working pressure is generally two-thirds of maximum test pressure shown in the schedules of dimensions. These pressures apply to a buried line with adequate thrust blocks or to pipelines above ground anchored at ends and at all changes of direction also secured against side thrusts at each joint.
- ❑ KLAMFLEX Couplings, though capable of accommodating reasonable expansion and contraction, do not mechanically prevent separation of pipe ends subject to end thrust, and this must be prevented by other means. To prevent separation of pipe ends, harness assemblies consisting of lugs for welding to adjacent pipes, and connecting tie rods can be supplied. Pipes must be anchored against end load, particularly when the pipeline is laid above ground. A buried pipeline normally needs anchoring only at abrupt changes in direction and at junctions or stop ends.
- ❑ Gaskets are of a EPDM rubber and are suitable for water and sewerage services, chemicals and dilute acids in the temperature range  $-50^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ . Other sealing materials can be used, increasing temperature range to greater than  $90^{\circ}\text{C}$ . These materials are available on request.

Klamflex Gaskets and Epoxy coatings are certified non toxic for potable water in accordance with BS 6920.



## KLAMFLEX HARNESSED COUPLINGS

One method of preventing pipe separation is the use of a harness assembly, consisting of lugs for welding to steel pipes and restraining tie rods. Cast iron pipes can sometimes be harnessed through the use of additional flanges cast onto the pipe ends.

In most cases we can also supply KLAMFLEX Flange Adaptors complete with harness assembly. Four or more flange bolts are replaced with long tie bolts.

**N.B.** KLAMFLEX Pipe Couplings supply the lugs, nuts, bolts and the couplings/adaptor between coupling and plinth to permit full assembly of all bolts.



## KLAMFLEX ANCHORED COUPLINGS

With brackets welded to the centre sleeve, couplings can be bolted directly to the supporting structure. Brackets are designed to withstand the thrust produced by maximum angularity and will support a 10m long pipe full of water (up to DN 1500mm)

We recommend the use of locating centre registers with anchored couplings to help resist pipe movement. On steep slopes, special consideration should be given to anchorage.

- N.B.**
1. Harness rods are not normally used with anchored couplings.
  2. Anchor brackets are not designed to withstand the full longitudinal or lateral forces produced by internal pressure.
  3. Ensure that sufficient clearance is allowed between coupling and plinth to permit full assembly of all bolts.

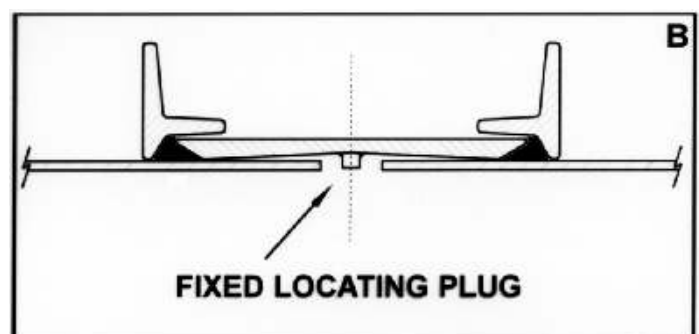
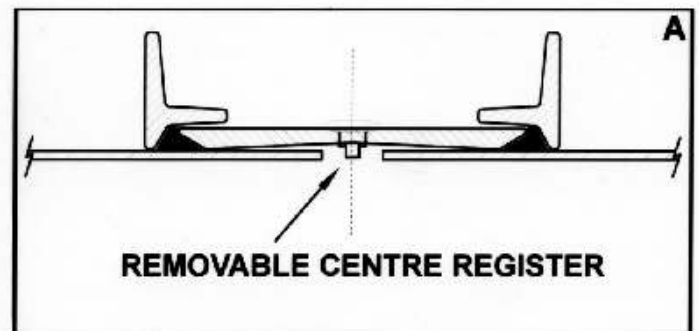


## KLAMFLEX CENTRE REGISTER

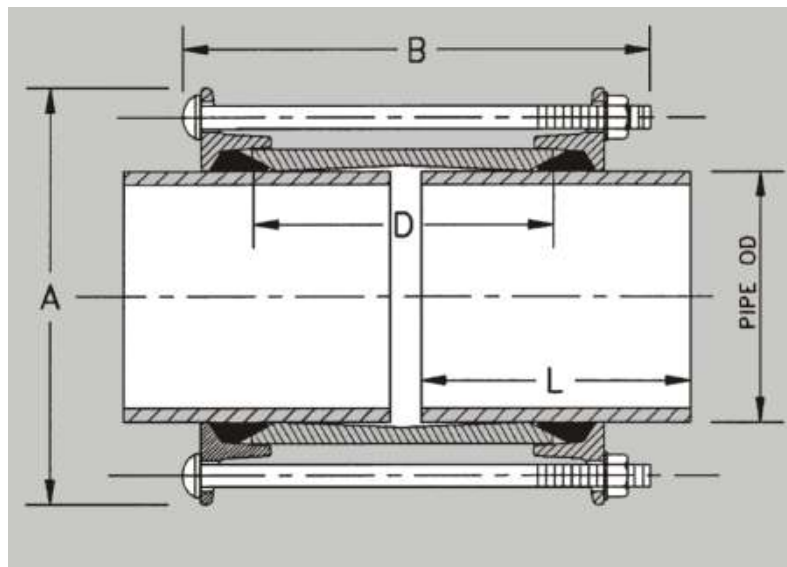
The centre sleeve can be supplied with or without internal centre register studs. The registers provide a locating stop to centre the coupling which facilitates the laying of long pipe runs. Centre registers also prevent the possibility of the coupling creeping at positions where there are continual axial movements. Couplings without centre register are necessary for fitting closing lengths on a pipeline, or for withdrawing any particular length for cleaning or inspection. Locating plugs may be fitted to couplings to act as removable centre registers, thus providing the advantage of both types.

KLAMFLEX Centre registers are used in couplings above ground where there may be a tendency for the coupling to creep e.g. on an incline.

KLAMFLEX Centre registers are of two types: **A** (from 350mm) removable, used where the coupling can be moved along the pipe to allow the pipe to be inspected, and **B** (all sizes) fixed, used where there is no need to remove couplings.



Where locating plugs are used, the setting gap should be increased by 9,5mm for sizes up to 324mm and 12.5mm for sizes above 324mm OD to avoid contact with the plugs.



## KLAMFLEX DEDICATED COUPLINGS DUCTILE IRON PIPE ISO 2531:1991 BS 4772:1988

FOR 10 & 16 BAR WORKING PRESSURE

NOM BORE	PIPE OD	TOLERANCE ON PIPE OD FOR PREPARED END		MINIMUM PIPE END PREPARED LENGTH	OD OF ENDRING	COUPLING LENGTH	SLEEVE WIDTH	STANDARD TEST PRESSURE AT:		APPROX. MASS
								10 bar working pressure	16 bar working pressure	
(mm)	(mm)	(mm)	(mm)	L (mm)	A (mm)	B (mm)	D (mm)			(kg)
80	98	+1.0	-3.0	100	158	178	102	15	24	3.6
100	118	+1.0	-3.0	100	200	178	102	15	24	4.4
125	141	+1.0	-3.0	100	220	178	102	15	24	6.1
150	170	+1.0	-3.0	100	260	178	102	15	24	6
200	222	+1.0	-3.5	100	308	178	102	15	24	7.9
250	274	+1.0	-3.5	100	364	178	102	15	24	10.6
300	326	+1.0	-3.5	100	414	178	102	15	24	11.7
350	378	+1.0	-3.5	150	480	262	178	15	24	29.4
400	429	+1.0	-4.0	150	531	262	178	15	24	33.7
450	480	+1.0	-4.0	150	582	262	178	15	24	37
500	532	+1.0	-4.0	150	634	262	178	15	24	41.3
600	635	+1.0	-4.5	150	737	262	178	15	24	47.9
700	738	+1.0	-4.5	150	840	262	178	15	24	56.4
800	842	+1.0	-4.5	150	944	262	178	15	24	64
900	945	+1.0	-5.0	150	1047	262	178	15	24	70.6
1000	1048	+1.0	-5.0	150	1150	262	178	15	24	78.3
1100	1152	+1.0	-6.0	150	1268	262	178	15	24	115
1200	1255	+1.0	-6.0	150	1371	262	178	15	24	124.9
1400	1468	+1.0	-6.0	150	1578	262	178	15	24	144.2
1600	1668	+1.0	-6.0	150	1784	262	178	15	24	164.3
1800	1875	+1.0	-6.0	150/ 300	1989	262/ 450	178/356	15	24	TBA
2000	2082	+1.0	-6.0	150/ 300	2196	262/ 450	178/ 356	15		TBA

FOR COUPLINGS OF 25 AND 40 BAR WORKING PRESSURE PLEASE CONTACT KLAMFLEX

THE ABOVE TABLE INCLUDES SAMPLES OF THE SIZES AVAILABLE, PLEASE CONTACT KLAMFLEX FOR ANY OTHER SIZES UP TO 3500mm.

# KLAMFLEX DEDICATED COUPLINGS

## STEEL PIPES: ISO 2531:1991 BS 4772:1988

FOR 10 & 16 BAR WORKING PRESSURE

NOM BORE (mm)	PIPE OD (mm)	TOLERANCE ON PIPE OD FOR PREPARED END (mm)		MINIMUM PIPE END PREPARED LENGTH L (mm)	OD OF ENDRING A (mm)	COUPLING LENGTH B (mm)	SLEEVE WIDTH D (mm)	STANDARD TEST PRESSURE AT:		APPROX. MASS (kg)
								10 bar working pressure	16 bar working pressure	
50	60.3	+0.8	-0.8	100	134	178	83	15	24	2.2
65	76.1	+0.8	-0.8	100	150	178	102	15	24	2.7
80	88.9	+0.8	-0.8	100	158	178	102	15	24	3.3
100	114.3	+0.8	-0.8	100	174	178	102	15	24	4
125	139.7	+1.6	-0.8	100	220	178	102	15	24	6.1
150	165.1	+1.6	-0.8	100	246	178	102	15	24	5.4
150	168.3	+1.6	-0.8	100	246	178	102	15	24	5.4
200	219.1	+1.6	-0.8	100	308	178	102	15	24	7.9
225	244.5	+1.6	-0.8	100	338	178	102	15	24	10.6
250	267	+1.6	-0.8	100	360	178	102	15	24	11.4
250	273	+1.6	-0.8	100	364	178	102	15	24	10.6
300	323.9	+1.6	-0.8	100	414	178	102	15	24	11.6
350	355.6	+1.6	-1.6	150	458	262	178	15	24	28
400	406.4	+1.6	-1.6	150	509	262	178	15	24	31.3
450	457	+1.6	-1.6	150	559	262	178	15	24	35.5
500	508	+1.6	-1.6	150	610	262	178	15	24	39.6
550	559	+1.6	-1.6	150	661	262	178	15	24	42.9
600	609.6	+1.6	-1.6	150	712	262	178	15	24	46.3
650	660	+1.6	-1.6	150	762	262	178	15	24	49.4
700	711.2	+1.6	-1.6	150	814	262	178	15	24	53.7
750	762	+1.6	-1.6	150	864	262	178	15	24	58
800	812.8	+1.6	-1.6	150	915	262	178	15	24	61.3
850	864	+1.6	-1.6	150	966	262	178	15	24	65.4
900	914.4	+1.6	-1.6	150	1017	262	178	15	24	68.6
950	965	+1.6	-1.6	150	1067	262	178	15	24	72.9
1000	1016	+1.6	-1.6	150	1118	262	178	15	24	76
1050	1067	+1.6	-1.6	150	1169	262	178	15	24	79.4
1100	1118	+1.6	-1.6	150	1220	262	178	15	24	83.6
1200	1219	+1.6	-1.6	150	1335	262	178	15	24	121.8
1200	1235	+1.6	-1.6	150	1351	262	178	15	24	123.2
1400	1420	+1.6	-3	150	1536	262	178	15	24	140.4
1400	1422	+1.6	-3	150	1538	262	178	15	24	140.7
1500	1520	+1.6	-3	150	1636	262	178	15	24	150.2
1600	1620	+3	-3	150	1736	262	178	15	24	160
1600	1626	+3	-3	150	1742	262	178	15	24	160.6
1800	1820	+3	-3	150	1936	262	178	15	24	178.7
1800	1829	+3	-3	150	1945	262	178	15	24	179.4
2000	2020	+3	-3	150/ 300	2134	262/ 450	178/ 356	15		TBA
2100	2120	+3	-3	150/ 300	2234	262/ 450	178/ 356	15		TBA
2200	2230	+3	-3	150/ 300	2344	262/ 450	178/ 356	15		TBA
2400	2440	+3	-3	150/ 300	2554	262/ 450	178/ 356	15		TBA
2700	2740	+3	-3	150/ 300	2854	262/ 450	178/ 356			TBA

FOR COUPLINGS OF 25 AND 40 BAR WORKING PRESSURE PLEASE CONTACT KLAMFLEX

THE ABOVE TABLE INCLUDES SAMPLES OF THE SIZES AVAILABLE, PLEASE CONTACT KLAMFLEX FOR ANY OTHER SIZES UP TO 3500mm.

## KLAMFLEX DEDICATED COUPLINGS

### uPVC PIPES: SABS 966:1976 ISO 161:1978

FOR 10 & 16 BAR WORKING PRESSURE

NOM BORE	PIPE OD	TOLERANCE ON PIPE OD FOR PREPARED END		MINIMUM PIPE END PREPARED LENGTH	OD OF ENDRING	COUPLING LENGTH	SLEEVE WIDTH	STANDARD TEST PRESSURE AT:		APPROX. MASS
								10 bar working pressure	16 bar working pressure	
(mm)	(mm)	(mm)		L (mm)	A (mm)	B (mm)	D (mm)			(kg)
100	110	+1.0	-1.0	100	163	178	102	15	24	4.2
140	140	+1.0	-1.0	100	220	178	102	15	24	6.1
160	160	+1.0	-1.0	100	242	178	102	15	24	5.9
175	177.8	+1.0	-1.0	100	267	178	102	15	24	7.5
180	180	+1.0	-1.0	100	267	178	102	15	24	9.6
200	200	+1.0	-1.0	100	289	178	102	15	24	10
225	225	+1.0	-1.0	100	318	178	102	15	24	10.4
250	250	+1.0	-1.0	100	343	178	102	15	24	10.9
280	280	+1.0	-1.0	100	373	178	102	15	24	11.1
315	315	+1.0	-1.0	100	408	178	102	15	24	11.9
400	400	+1.0	-1.0	150	502	262	178	15	24	31
500	500	+1.0	-1.0	150	602	262	178	15	24	39.2

FOR COUPLINGS OF 25 AND 40 BAR WORKING PRESSURE PLEASE CONTACT KLAMFLEX

THE ABOVE TABLE INCLUDES SAMPLES OF THE SIZES AVAILABLE, PLEASE CONTACT KLAMFLEX FOR ANY OTHER SIZES UP TO 2000MM.

## KLAMFLEX DEDICATED COUPLINGS

### FIBRE CEMENT PIPE FOR COD AND CID PIPE: SABS 1223:1985 ISO 160:1980

FOR 10 & 16 BAR WORKING PRESSURE

NOM BORE	PIPE OD	TOLERANCE ON PIPE OD FOR PREPARED END		MINIMUM PIPE END PREPARED LENGTH	OD OF ENDRING	COUPLING LENGTH	SLEEVE WIDTH	STANDARD TEST PRESSURE AT:		APPROX. MASS
								10 bar working pressure	16 bar working pressure	
(mm)	(mm)	(mm)		L (mm)	A (mm)	B (mm)	D (mm)			(kg)
50	96	+0.6	-0.0	100	158	178	102	15	24	3.6
100	122	+0.6	-0.0	100	200	178	102	15	24	4.4
150	168	+0.6	-0.0	100	246	178	102	15	24	5.4
150	177	+0.6	-0.0	100	267	178	102	15	24	6.1
250	286	+0.6	-0.0	100	379	178	102	15	24	12
300	328	+0.6	-0.0	100	421	178	102	15	24	13.9
300	340	+1.0	-0.0	150	442	262	178	15	24	27.1
300	345	+1.0	-0.0	150	442	262	178	15	24	27.5
600	667	+1.0	-0.0	150	769	262	178	15	24	50
600	699	+1.0	-0.0	150	801	262	178	15	24	52.9
600	727	+1.0	-0.0	150	829	262	178	15	24	55.7
600	755	+1.0	-0.0	150	857	262	178	15	24	57.5
1100	1188	+1.2	-0.0	150	1304	262	178	15	24	118.1

FOR COUPLINGS OF 25 AND 40 BAR WORKING PRESSURE PLEASE CONTACT KLAMFLEX

THE ABOVE TABLE INCLUDES SAMPLES OF THE SIZES AVAILABLE, PLEASE CONTACT KLAMFLEX FOR ANY OTHER SIZES UP TO 2000MM.

