

Ductile iron pipe fitting for water pipeline



Universal Coupling(wide range)



Art. No.: VJ1601

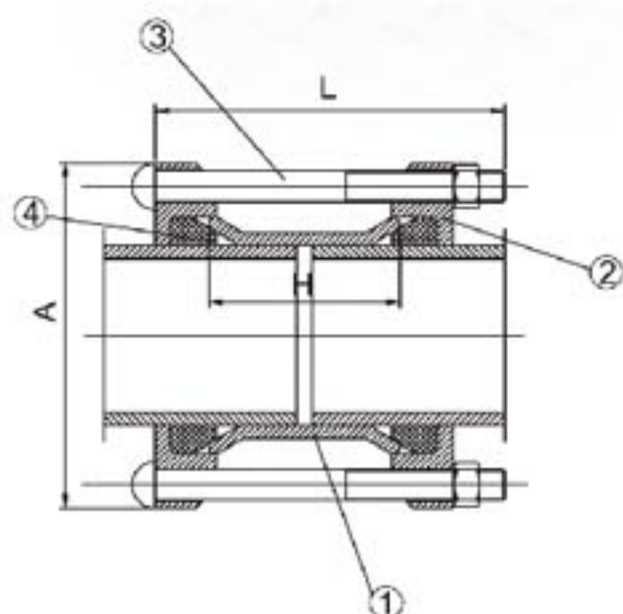
No.	Reference	Material	Standard
1	Sleeve	Steel/ductile Iron	S235/EN1563
2	End Ring	Ductile Iron GGG450-10	EN1563
3	Bolt And Nut	Steel 8.8 Dacromet/Zincd	ISO898-1
4	Gasket	EPDM/NBR	EN681-1
5	Coating	FBE/Rilsan Nylon	EN14901

Universal Flange Adaptor(wide range)

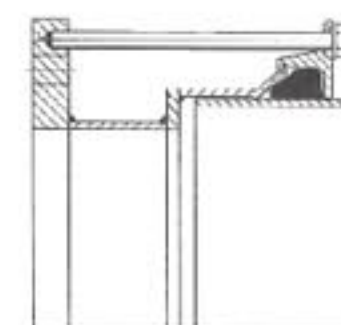
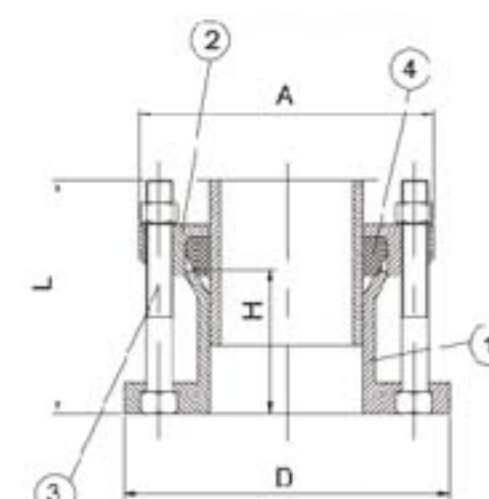


Art. No.: VJ1602

No.	Reference	Material	Standard
1	Body	Ductile Iron GGG450-10	EN1563
2	End Ring	Ductile Iron GGG450-10	EN1563
3	Bolt And Nut	Steel 8.8 Dacromet/Zincd	ISO 898-1
4	Gasket	EPDM/NBR	EN681-1
5	Coating	FBE/Rilsan Nylon	EN14901



Pipe	Range	Bolt		A	H	Weight	Pipe to fit					
Norm		L	No.	mm	mm	kgs	DI	ST	PVC	AC	CI	GRP
DN40	48–60	M12 x 170	2	150	98	2.4		★	▲			+
DN50	59–72	M12 x 170	2/4	156	98	2.5		★	▲	◆	○	+
DN65	72–85	M12 x 170	2/4	174	98	3.2		★	▲		○	+
DN80	88–103	M12 x 180	4	185	98	4.0	●	★	▲	◆	○	+
* DN100	96–116	M12 x 180	4	205	98	4.5	●	★	▲	◆		
* DN100	108–120	M12 x 190	4	210	98	4.6	●	★	▲			
DN100	105–125	M12 x 190	4	210	98	4.6	●	★	▲	◆	○	
DN100	109–128	M12 x 180	4	218	98	4.8	●	★	▲	◆	○	+
DN125	132–146	M12 x 180	4	240	98	6.1		★				+
DN125	138–153	M12 x 180	4	246	98	6.2		★	▲		○	+
* DN150	158–172	M12 x 200	4	275	105	7.0	●	★	▲			
* DN150	155–175	M12 x 200	4	275	105	7.0	●	★	▲			
DN150	159–182	M12 x 200	4	280	110	7.2	●	★	▲	◆	○	+
DN175	192–210	M12 x 210	4	312	130	8.0		★			○	
* DN200	198–225	M12 x 210	4	320	130	9.5	●	★	▲		○	+
DN200	218–235	M12 x 220	4/6	328	130	10.0	●	★	▲	◆	○	+
DN225	242–262	M12 x 220	6	360	130	12.0		★	▲	◆	○	
DN250	250–267	M12 x 220	6	368	130	14.0			▲	◆	○	
DN250	250–274	M12 x 220	6	370	130	14.0	●	★	▲	◆	○	+
DN250	272–289	M12 x 220	6	382	130	14.0	●	★	▲	◆	○	+
DN300	315–332	M12 x 220	6	430	130	16.5	●	★	▲			+
DN300	322–339	M12 x 220	6	435	130	16.0	●	★		◆	○	+
DN350	340–360	M12 x 220	6/8	455	130	20.0		★	▲	◆	○	
DN350	351–378	M14 x 230	8	510	130	23.0	●	★	▲	◆		+
DN350	374–391	M14 x 230	8	520	130	24.0	●			◆		
DN400	390–410	M14 x 220	8	530	130	25.0		★	▲	◆		
* DN400	398–430	M14 x 270	8	560	140	26.0	●	★	▲	◆	○	+
DN400	417–437	M14 x 240	8	555	130	28.0	●			◆	○	+
DN400	425–442	M14 x 240	8	560	130	28.0	●				○	+
DN450	450–463	M14 x 270	8	585	130	30.0		★	▲	◆	○	
* DN450	455–475	M14 x 270	10	600	130	32.0		★		◆		
DN450	476–500	M14 x 270	10	620	130	36.0	●		▲	◆	○	
Dn500	500–508	M16 x 270	10	620	130	38.0		★	▲	◆	○	
* Dn500	500–533	M14 x 280	10	680	140	39.0	●	★	▲			+
Dn500	526–546	M14 x 270	10	663	130	40.0	●			◆	○	+
Dn600	600–630	M14 x 270	10	725	130	47.0		★	▲	◆	○	
* Dn600	608–636	M14 x 270	10	740	130	48.0	●	★	▲			+
DN600	630–650	M14 x 270	10	745	130	50.0	●		▲		○	
* DN700	710–739	M16 x 280	12	875	155	70.0	●	★	▲		○	+
* DN800	816–842	M16 x 330	12	986	180	80.0	●			◆	○	+



Pipe	Range	Pressure	Bolt		A	D	H	Weight	Pipe to fit					
Flange		Flange	L	No.	mm	mm	mm	kgs	DI	ST	PVC	AC	CI	GRP
DN40	48-60	PN10/16	M12 x 130	2	150	150	80	2.8	★	▲				+
DN50	59-72	PN10/16	M12 x 130	2	156	165	80	3.0	★	▲	◆		○	+
DN65	72-85	PN10/16	M12 x 130	2	174	190	80	3.9	★	▲			○	+
DN80	88-103	PN10/16	M12 x 130	4	185	200	80	4.8	●	★	▲	◆	○	+
DN100	96-116	PN10/16	M12 x 130	4	205	220	80	5.0	●	★	▲	◆		
DN100	108-120	PN10/16	M12 x 130	4	210	220	80	5.3	●	★	▲			
DN100	105-125	PN10/16	M12 x 130	4	210	220	80	5.3	●	★	▲	◆	○	
DN100	109-128	PN10/16	M12 x 130	4	218	220	80	5.5	●	★		◆	○	+
DN125	132-146	PN10/16	M12 x 140	4	240	250	80	6.5		★				+
DN125	138-153	PN10/16	M12 x 140	4	246	250	80	6.6		★	▲		○	+
DN150	158-172	PN10/16	M12 x 140	4	275	285	80	7.5	●	★	▲			
DN150	155-175	PN10/16	M12 x 140	4	275	285	80	7.5	●	★	▲			
DN150	159-182	PN10/16	M12 x 140	4	280	285	80	7.6	●	★	▲	◆	○	+
DN175	192-210	PN10/16	M12 x 140	4	312	340	80	11.0		★	▲		○	
DN200	192-210	PN10/16	M12 x 140	4	312	340	80	11.2		★	▲		○	
DN200	198-225	PN10/16	M12 x 140	4	320	340	80	12.0	●	★	▲		○	+
DN200	218-235	PN10/16	M12 x 140	4	328	340	80	10.6	●	★	▲	◆	○	+
DN250	242-262	PN10/16	M12 x 140	6	360	400	85	14.0		★		◆	○	
DN250	250-267	PN10/16	M12 x 140	6	368	400	85	14.5			▲	◆	○	
DN250	250-274	PN10/16	M12 x 150	6	370	400	85	14.8	●	★	▲	◆	○	+
DN250	272-289	PN10/16	M12 x 150	6	382	400	85	14.9	●	★	▲	◆	○	+
DN300	315-332	PN10/16	M12 x 150	6	430	455	85	17.9	●	★	▲			+
DN300	322-339	PN10/16	M12 x 150	6	435	455	85	17.0	●	★		◆	○	+
DN300	340-360	PN16	-M12 x170	6	455	455	85	35.0		★	▲	◆	○	
DN350	340-360	PN10/16	M14 x 190	8	455	520	115	28.0		★	▲	◆	○	
DN350	351-378	PN10/16	M14 x 170	8	510	520	108	28.0	●	★	▲	◆		+
DN350	374-391	PN10/16	M14 x 180	8	520	520	108	30.4	●			◆		
DN400	390-410	PN10/16	M14 x 150	8	530	580	108	33.5		★	▲	◆		
DN400	398-430	PN10/16	M14 x 210	8	560	580	108	34.0	●	★	▲	◆	○	+
DN400	417-437	PN10/16	M14 x 180	8	555	580	108	35.0	●			◆	○	+
DN400	425-442	PN10/16	M14 x 180	8	560	580	108	34.1	●				○	+
DN400	450-463	PN16	-M14 x180	8	585	580	108	40.0		★	▲	◆	○	
DN450	455-475	PN10/16	M14 x 180	10	600	640	108	32.0		★		◆		
DN450	476-500	PN10/16	M14 x 180	10	620	640	108	34.0	●		▲	◆	○	
DN500	500-508	PN10/16	M14 x 180	10	620	715	114	49.5		★	▲	◆	○	
DN500	500-533	PN10/16	M14 x 210	10	680	715	124	50.0	●	★	▲			+
DN500	526-546	PN10/16	M14 x 180	10	663	715	114	49.0	●			◆	○	+
DN600	600-630	PN10/16	M14 x 180	10	725	840	114	60.0		★	▲	◆	○	
DN600	608-636	PN10/16	M14 x 200	10	740	840	130	78.2	●	★	▲			+
DN600	630-650	PN10/16	M14 x 180	10	745	840	118	66.5	●	★	▲		○	
DN700	710-739	PN10/16	M16 x 180	12	875	910	114	72.0	●	★			○	+
DN800	816-842	PN10/16	M16 x 230	12	986	1025	128	120				◆	○	+

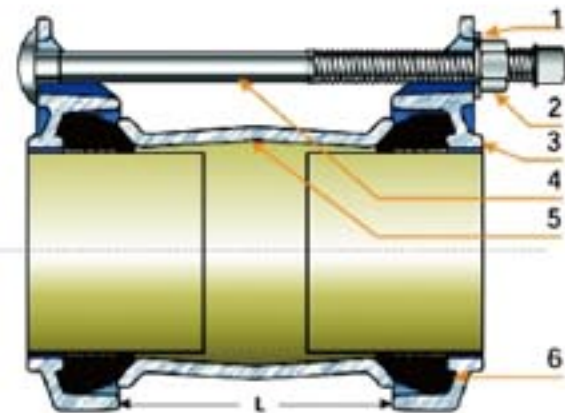
Note: 1. "★" New developed range 2.Flange drilling PN25 and Ansi C150 available.

Universal Coupling(Ultra Range)



Art. No.: AVK2601

No.	Part.	Material	Standard
1	Washer	Steel 8.8 Dacromet/Zincd	ISO898-2
2	Nut	Steel 8.8 Dacromet/Zincd	EN1563
3	End Ring	Ductile iron GGG450-10	ISO898-1
4	Bolt	Steel 8.8 Dacromet/Zincd	EN1563
5	Sleeve	Ductile iron/Steel	EN168-1
6	Gasket	EPDM	55-65NM



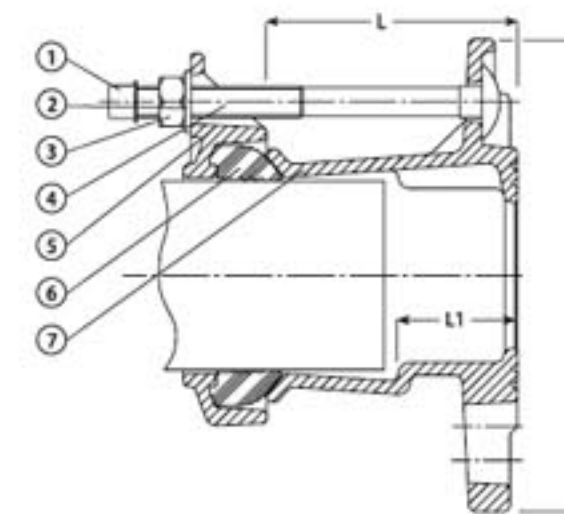
Pipe	Range	Bolt		L	Weight
Norm	min.-max.	L2	Q`TY	mm	Kgs
DN40	46-63	M12 x 180	2	100	2.9
DN50	57-74	M12 x 190	4	100	2.9
DN65	68-84	M12 x 190	4	100	3.9
DN80	84-105	M12 x 200	4	100	4.9
DN100	99-119	M12 x 190	4	100	5.2
DN100	109-133	M12 x 200	4	100	5.5
DN125	133-157	M12 x 190	4	100	6.5
DN150	157-182	M12 x 210	4	115	7.5
DN150	177-201	M12 x 210	4	115	9.0
DN200	194-215	M12 x 210	4	115	9.4
DN200	218-244	M12 x 245	4	140	11.3
DN225	242-268	M12 x 230	6	140	13.4
DN250	266-291	M12 x 250	6	160	15.5
DN250	280-305	M12 x 250	6	160	14.6
DN300	302-327	M12 x 250	6	160	16.4
DN300	324-350	M12 x 270	6	160	16.5
DN350	352-378	M16 x 240	8	160	19.9
DN350	372-396	M16 x 240	8	160	20.3
DN350	386-410	M16 x 240	8	160	21.1
DN400	410-436	M14 x 260	8	160	21.8
DN400	436-462	M14 x 280	8	160	23.5
DN300	314-349	-M14 x 280	6	160	20.0
DN600	615-649	M14 x 320	10	160	50.0
Special range for Dedicated Pipes.					
Dn500	500-508	M14 x 250	10	130	38.0
Dn500	560-570	M14 x 250	10	130	55.0
Dn500	580-590	M14 x 250	10	130	55.0
Dn650	662-679	M14 x 270	10	130	70.0
Dn700	700-716	M16 x 270	12	155	97.5
Dn800	800-816	M16 x 280	12	180	105.0
Dn1000	1000-1016	M16 x 310	14	180	157.5
Dn1200	1215-1230	M16 x 330	16	180	301.0

Universal Flange Adaptor(Ultra Range)

Art. No.: AVK2603

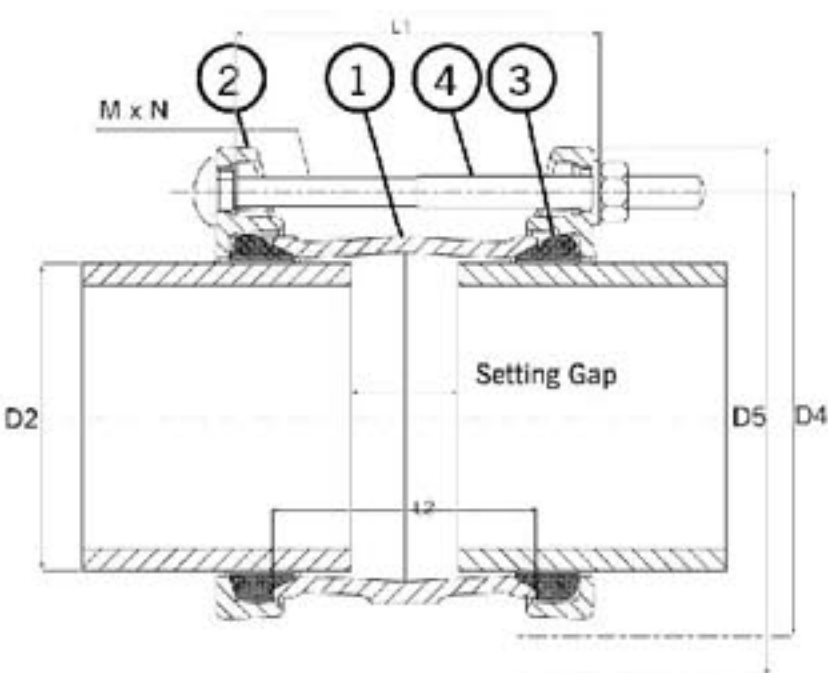


No.	Part.	Material	Standard
1	Cap	Plastic	
2	Washer	Steel 8.8 Dacromet/Zincd	
3	Nut	Steel 8.8 Dacromet/Zincd	ISO898-2
4	Bolt	Steel 8.8 Dacromet/Zincd	ISO898-1
5	End ring	Ductile iron GGG450-10	EN1563
6	Gasket	EPDM	EN168-1
7	Flange body	Ductile iron GGG450-10	EN1563
8	Bolt Torque	M12	55-65NM
		M14/M16	95-110NM
9	Pressure	Water	16BAR
		GAS	6BAR



Pipe	Range	Pressure	Bolt		L	D	Weight
Flange		Flange	L2	Q`TY	mm	mm	Kgs
DN40	46-63	PN10/16	M12 x 140	2	99	150	3.8
DN50	57-74	PN10/16	M12 x 140	4	99	165	3.9
DN65	68-84	PN10/16	M12 x 150	4	99	190	4.1
DN80	84-105	PN10/16	M12 x 150	4	99	210	4.2
DN100	99-119	PN10/16	M12 x 150	4	100	220	5.0
DN100	109-133	PN10/16	M12 x 150	4	100	220	5.3
DN125	133-157	PN10/16	M12 x 160	4	100	250	5.6
DN150	157-182	PN10/16	M12 x 150	4	101	285	5.8
DN150	177-201	PN10/16	M12 x 170	4	101	285	8.7
DN200	194-215	PN10/16	M12 x 190	4	116	340	8.3
DN200	218-244	PN10/16	M12 x 170	4	116	340	8.3
DN225	242-268	PN10/16	M12 x 170	6	109	400	9.3
DN250	266-291	PN10/16	M12 x 160	6	112	400	10.4
DN250	280-305	PN10/16	M12 x 170	6	117	400	11.3
DN300	302-327	PN10/16	M12 x 190	6	117	455	12.4
DN300	324-350	PN10/16	M12 x 200	6	119	455	19.9
DN350	352-378	PN10/16	M16 x 240	8	119	520	18.8
DN350	372-396	PN10/16	M16 x 240	8	119	520	18.5
DN350	386-410	PN10/16	M14 x 210	8	120	520	22.4
DN400	410-436	PN10/16	M14 x 230	8	120	580	24.0
DN400	436-462	PN16	-M14 x 170	8	120	580	28.5
Dn300	314-349	PN10/16	M12 x 200	6	119	455	25.0
Special range for Dedicated Pipes.							
Dn500	500-508	PN10/16	M14 x 180-	10	120	715	60.0
Dn500	560-570	PN16	-M14 x 180	10	150	715	70.5
Dn500	580-590	PN16	-M14 x 180	10	150	715	71.5
Dn700	700-716	PN16	-M16 x 180	12	115	910	90.0
Dn800	800-816	PN16	-M16 x 180	12	115	1025	140.0
Dn1000	1000-1016	PN10/16	-M16 x 190	14	118	1255	200.0
Dn1200	1215-1230	PN10/16	M16 x 180-	16	135	1485	300.0

Flexible Coupling For Ductile Iron Pipe(Dedicated)



NO.	PART NAME	MATERIAL
1	End Ring	Ductile Iron GGG450-10
2	Sleeve	Ductile Iron GGG450-10
3	Gasket	EPDM/NBR
4	Bolts	Steel 8.8 Dacromet/Zincd

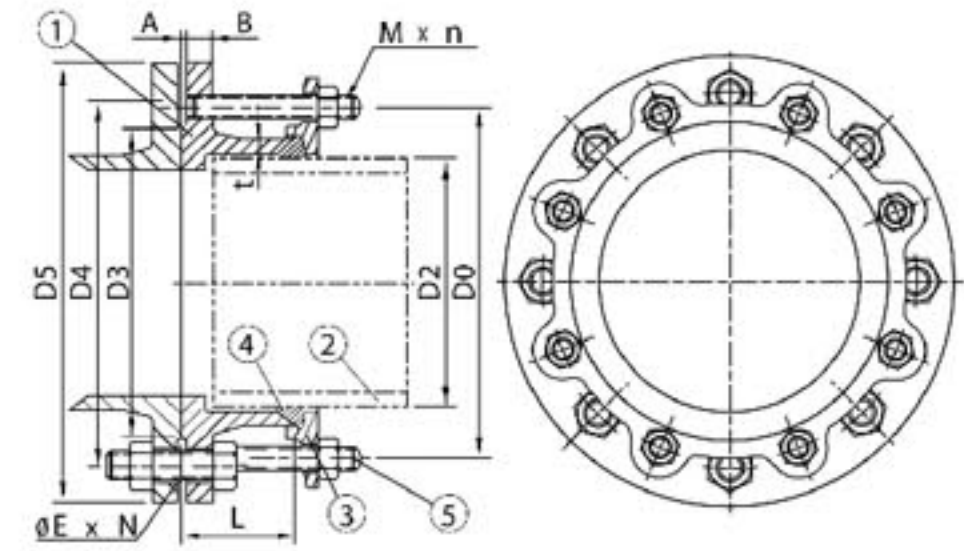
Art. No.:WD3610

DN	D2	D4	D5	L1	L2	t	M	N	W (Kg)
80	98	169	198	178	102	7.0	12	4	6.4
100	118	189	218	178	102	7.5	12	4	7.0
125	144	215	244	178	102	7.5	12	4	9.1
150	170	241	270	178	102	8.0	12	4	11.2
200	222	293	322	178	102	8.5	12	6	15.0
250	274	345	374	178	102	9.0	12	6	21.5
300	326	397	426	178	102	10.0	12	6	23.1
350	378	458	491	262	152	10.5	16	8	36.4
400	429	509	542	262	152	11.0	16	8	42.4
450	480	556	589	262	152	11.5	16	10	50.7
500	532	608	641	262	152	12.0	16	10	54.6
600	635	711	744	262	152	13.5	16	10	74.1
700	738	814	847	262	152	14.5	16	12	97.5
800	842	918	951	262	152	16.0	16	12	105.0
900	945	1031	1064	278	178	17.0	16	14	147.0
1000	1048	1134	1167	278	178	18.0	16	14	157.5
1100	1152	1245	1278	290	178	19.5	16	16	272.0
1200	1255	1348	1381	290	178	20.5	16	16	301.0
1400	1462	1555	1588	290	178	23.0	16	18	406.0
1500	1565	1658	1691	290	178	24.0	16	18	443.2
1600	1668	1761	1794	290	178	25.5	16	20	480.0
1800	1875	1974	2007	437	254	28.0	20	22	640.0
2000	2082	2187	2220	437	254	30.0	20	24	860.0

Note: Dedicated Couplings for PVC/PE, Cast Iron, Steel, GRP, AC pipe are available.

PVC

Flange Adaptor For Ductile Iron Pipe(Dedicated)



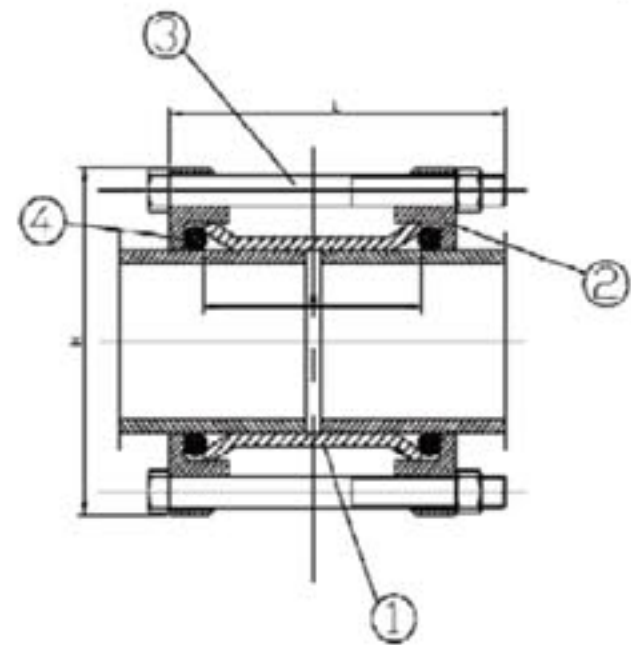
NO.	PART NAME	MATERIAL
1	Body	Ductile Iron GGG400-10
2	Pipe	Ductile Iron GGG450-10
3	End Ring	Ductile Iron GGG450-10
4	Gasket	EPDM/NBR
5	Bolts	STEEL ZINCED/DACRO

Art. No.: WD3620

DN	D2	D3	D4	D5	Do	L	t	A	B	φ E	N	M	n	W (Kg)
80	98	132	160	200	166	73	7.0	3	16.0	19	8	M12	4	5.6
100	118	156	180	220	187	76	7.5	3	16.0	19	8	M12	4	7.2
125	144	184	210	250	210	76	7.5	3	16.0	19	8	M12	4	8.6
150	170	211	240	285	240	76	8.0	3	16.0	23	8	M12	4	7.0
200	222	266	295	340	295	76	8.5	3	17.0	23	12	M12	6	10.0
250	274	319	355	400	355	90	9.0	3	19.0	28	12	M12	6	13.5
300	326	370	410	455	410	90	10.0	4	20.5	28	12	M12	6	16.5
350	378	429	470	520	470	110	10.5	4	22.5	28	16	M16	8	30.0
400	429	480	525	580	525	110	11.0	4	24.0	31	16	M16	8	40.0
450	480	544	585	640	585	110	11.5	4	26.0	31	20	M16	10	42.0
500	532	609	650	715	650	115	12.0	4	27.5	34	20	M16	10	65.0
600	635	720	770	840	770	115	13.5	5	31.0	37	20	M16	10	85.0
700	738	794	840	910	840	115	14.5	5	34.5	37	24	M16	12	90.0
800	842	901	950	1025	950	115	16.0	5	38.0	40	24	M16	12	116.0
900	945	1001	1050	1125	1050	115	17.0	5	41.5	40	28	M16	14	138.0
1000	1048	1112	1170	1255	1170	115	18.0	5	45.0	43	28	M16	14	179.0
1100	1152	1215	1270	1355	1270	130	19.5	5	48.5	43	32	M16	16	195.0
1200	1255	1328	1390	1485	1390	130	20.5	5	52.0	49	32	M16	16	250.0
1400	1462	1530	1590	1685	1590	130	23.0	5	55.0	49	36	M16	18	320.0
1500	1565	1640	1710	1820	1710	130	24.0	5	57.5	56	36	M16	18	400.0
1600	1668	1750	1820	1930	1820	190	25.5	5	60.0	56	40	M16	20	460.0
1800	1875	1950	2020	2130	2020	190	28.0	5	65.0	56	44	M20	22	600.0
2000	2082	2150	2230	2345	2230	190	30.0	5	70.0	62	48	M20	24	800.0

Note: Flange drilling as BS4504-PN16(PN10/25/40 available)

Gibault Joint for PVC Pipes



Pressure: PN10/PN16
Field: Water and Irrigation
Coating: Epoxy FBE/Bitumen



No.	Reference	Material
1	Sleeve	Ductile iron/Grey iron
2	End Ring	Ductile iron/Grey iron
3	Bolt & Nut	Steel Zincd/Dacromet
4	Gasket	EPDM/NBR

Art. No.: WD7610

BOLT			A	H	WEIGHT
SIZE	L	QITY	MM	MM	KGS
DE63	M10 x 160	2	147	90	1.5
DE75	M10 x 160	2	149	90	1.7
DE90	M10 x 170	2	164	100	2.0
DE110	M10 x 180	3	184	100	2.8
DE125	M12 x 180	3	199	100	3.4
DE140	M12 x 200	3	214	116	3.9
DE160	M12 x 210	3	234	130	5.5
DE180	M12 x 220	3	254	140	7.0
DE200	M12 x 230	3	274	150	8.5
DE250	M14 x 250	3	341	155	12.5
DE315	M14 x 260	4	406	170	18.0
DE400	M14 x 280	6	495	180	20.0
DE500	M14 x 280	8	592	180	24.0

Stopped flange adaptor for PVC/PE pipe

Stopper material:Ductile with Dacromet

Pressure:DN10/16

Size:DN63-315



Art. No.: WD7620

Flange adaptor for PVC pipe

Material:GGG100-10 with FBE coating

Pressure:DN10/16

Size:DN63-315



Art. No.: WD7630

Stepped Coupling(wide range/dedicated)



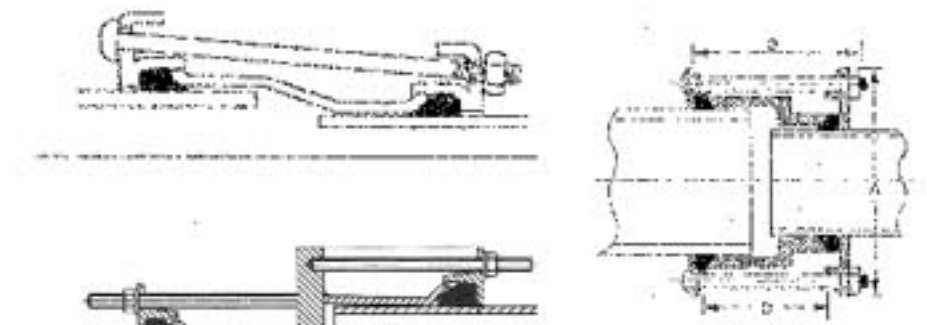
Art. No.: VJ4610

NOMINAL BORE (mm)	NOMINAL BORE (mm)	APPROX. MASS(kg)
50/65	59-72/72-85	2.6
65/80	72-85/88-103	3.0
80/100	88-103/109-128	4.6
100/125	109-128/138-153	5.2
125/150	138-153/159-182	6.4
150/175	159-182/192-210	7.2
175/200	192-210/218-238	12.4
200/250	218-235/250-267	16.8
250/250+	242-262/272-289	22.4
250/300	272-289/315-332	30.0
*200/250	190-230/215-258	20.0

Wide Range Sizes: DN50-600

Dedicated type sizes: DN80-1200

Max. Pressure: 16 Bar



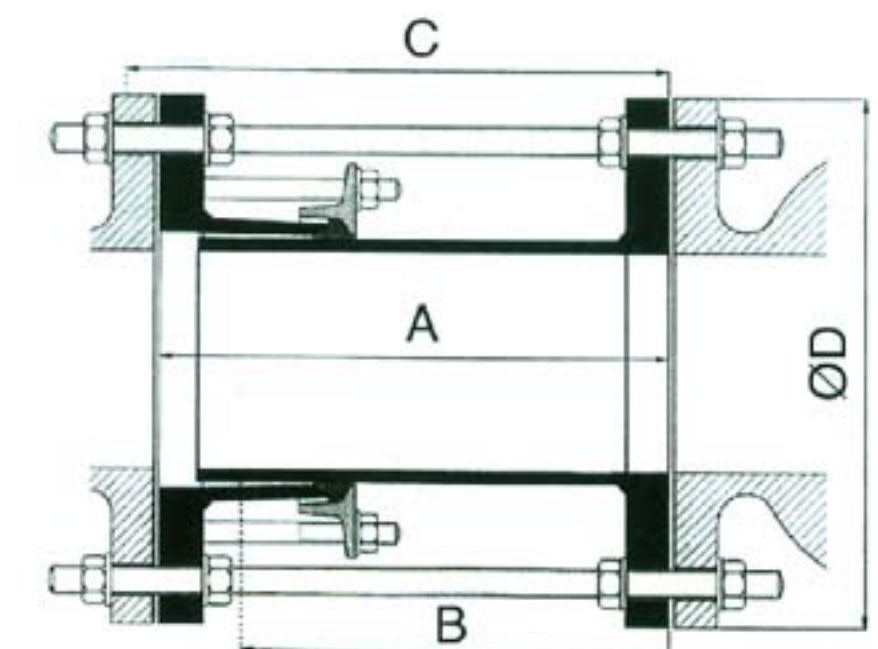
Dismantling joint VJ type

Pressure:PN10, PN16, PN25, PN40

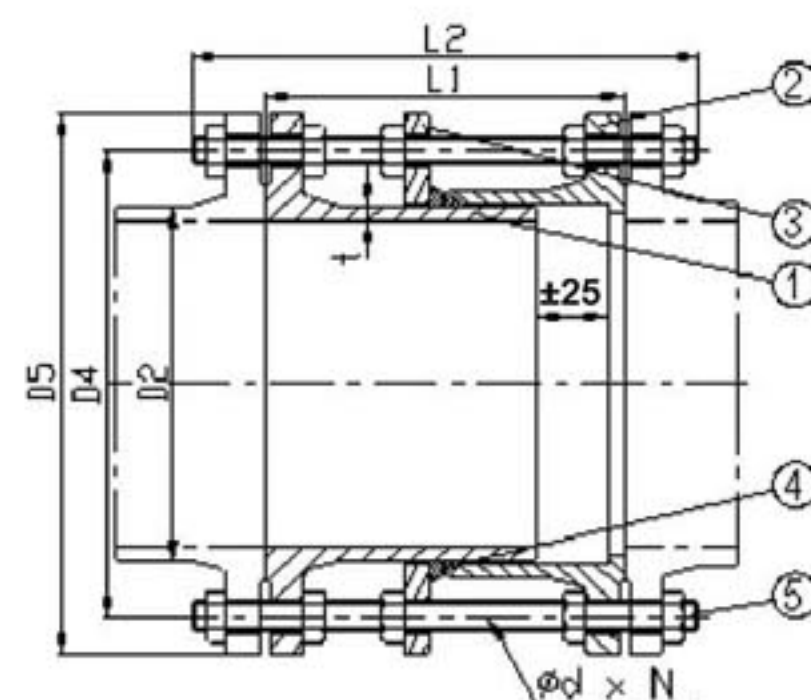
Material:Ductile iron or fabricated Carbon steel

Size:DN50-DN600

Art. No.: VJ5610



Dismantling Joint rigid type Flange drilled to PN10

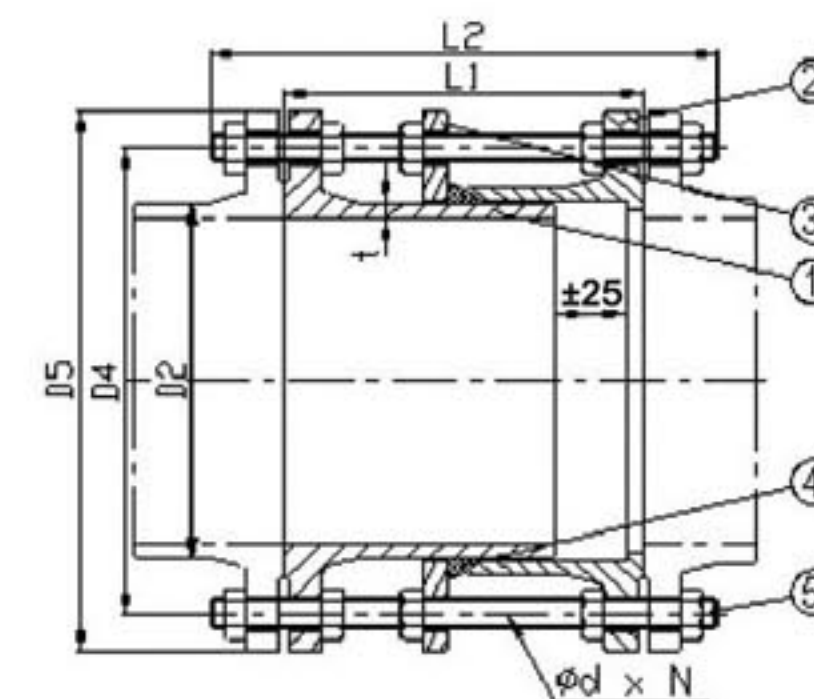


NO.	PART NAME	MATERIAL
1	Flange Spigot	Ductile Iron GGG400-10
2	Flange Body	Ductile Iron GGG400-10
3	Retainer	Ductile Iron GGG400-10
4	Gasket	EPDM/NBR
5	Tie Rod	Steel Zincd/Dacromet

Art. No.: WD8610

DN	D2	D4	D5	L1	L2	d(Φ)	N	t	W(Kg)
50	62	125	165	180	330	M16	4	6.0	8.0
65	78	145	185	180	330	M16	4	6.0	12.0
80	98	160	200	200	340	M16	8	7.0	16.0
100	118	180	220	200	340	M16	8	7.5	19.0
125	144	210	250	200	340	M16	8	7.5	20.0
150	170	240	285	200	340	M20	8	8.0	29.0
200	222	295	340	220	350	M20	8	8.5	37.0
250	274	350	400	230	370	M20	12	9.0	51.0
300	326	400	455	230	390	M20	12	10.0	63.0
350	378	460	505	260	400	M20	16	10.5	83.0
400	429	515	565	260	420	M24	16	11.0	100.0
450	480	565	615	270	435	M24	20	11.5	125.0
500	532	620	670	280	440	M24	20	12.0	132.0
600	635	725	780	300	460	M27	20	13.5	185.0
700	738	840	895	300	480	M27	24	14.5	226.0
800	842	950	1015	320	500	M30	24	16.0	305.0
900	945	1050	1115	320	500	M30	28	17.0	375.0
1000	1048	1160	1230	340	545	M33	28	18.0	425.0
1100	1152	1270	1340	350	545	M33	32	19.5	600.0
1200	1255	1380	1455	360	580	M36	32	20.5	651.0
1400	1462	1590	1675	390	680	M39	36	23.0	917.0
1500	1565	1700	1785	410	680	M39	36	24.0	1200.0
1600	1668	1820	1915	420	700	M45	40	25.5	1285.0
1800	1875	2020	2115	440	720	M45	44	28.0	2050.0
2000	2082	2230	2325	460	720	M45	48	30.0	2500.0

Dismantling Joint rigid type Flange drilled to PN16



NO.	PART NAME	MATERIAL
1	Flange Spigot	Ductile Iron GGG400-10
2	Flange Body	Ductile Iron GGG400-10
3	Retainer	Ductile Iron GGG400-10
4	Gasket	EPDM/NBR
5	Tie Rod	Steel Zincd/Dacromet

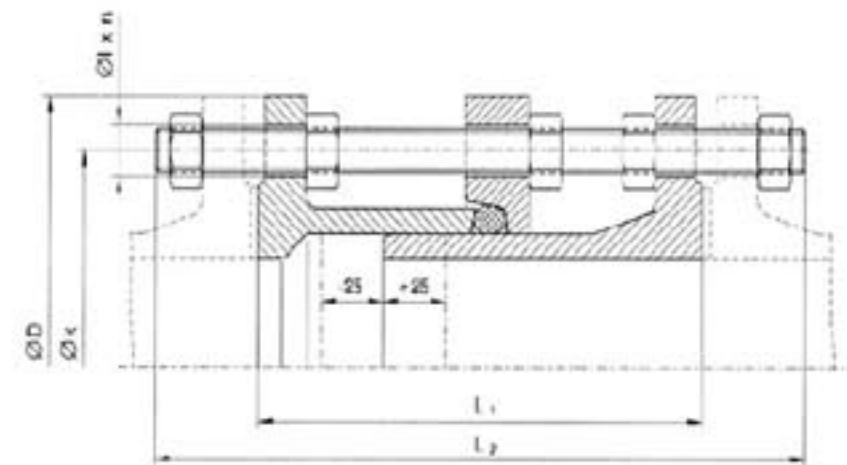
Art. No.: WD8616

DN	D2	D4	D5	L1	L2	d(Φ)	N	t	W(Kg)
50	62	125	165	180	330	M16	4	6.0	8.0
65	78	145	185	180	330	M16	4	6.0	12.0
80	98	160	200	200	340	M16	8	7.0	16.0
100	118	180	220	200	340	M16	8	7.5	19.0
125	144	210	250	200	340	M16	8	7.5	20.0
150	170	240	285	200	340	M20	8	8.0	29.0
200	222	295	340	220	350	M20	12	8.5	41.0
250	274	355	400	230	380	M24	12	9.0	58.0
300	326	410	455	230	400	M24	12	10.0	70.0
350	378	470	520	260	410	M24	16	10.5	93.0
400	429	525	580	260	430	M27	16	11.0	120.0
450	480	585	640	270	450	M27	20	11.5	150.0
500	532	650	715	280	460	M30	20	12.0	200.0
600	635	770	840	300	500	M33	20	13.5	279.0
700	738	840	910	300	500	M33	24	14.5	280.0
800	842	950	1025	320	530	M36	24	16.0	385.0
900	945	1050	1125	320	530	M36	28	17.0	460.0
1000	1048	1170	1255	340	570	M39	28	18.0	580.0
1100	1152	1270	1355	350	570	M39	32	19.5	700.0
1200	1255	1390	1485	360	620	M45	32	20.5	860.0
1400	1462	1590	1685	400	680	M45	36	23.0	1020.0
1500	1565	1710	1820	400	700	M52	36	24.0	1400.0
1600	1668	1820	1930	440	750	M52	40	25.5	1600.0
1800	1875	2020	2130	440	750	M52	44	28.0	2100.0
2000	2082	2230	2345	460	750	M56	48	30.0	2650.0

Dismantling Joint Class PN25

Art. No.: WD8625

DN	D	k	n	l	L1	L2	Gewicht Weight
mm	mm	mm		mm	mm	mm	kg
80	200	160	8	19	200	340	25
100	235	190	8	23	200	340	29
125	270	220	8	28	200	340	36
150	300	250	8	28	200	350	49
200	360	310	12	28	220	370	73
250	425	370	12	31	230	390	106
300	485	430	16	31	245	410	130
350	555	490	16	34	250	430	180
400	620	550	16	37	260	460	223
450	670	600	20	37	275	480	266
500	730	660	20	37	280	480	340
600	845	770	20	40	305	530	465
700	960	875	24	43	305	540	515
800	1085	990	24	49	330	590	672
900	1185	1090	28	49	330	600	767
1000	1320	1210	28	56	350	640	1008
1200	1530	1420	32	56	380	680	1500

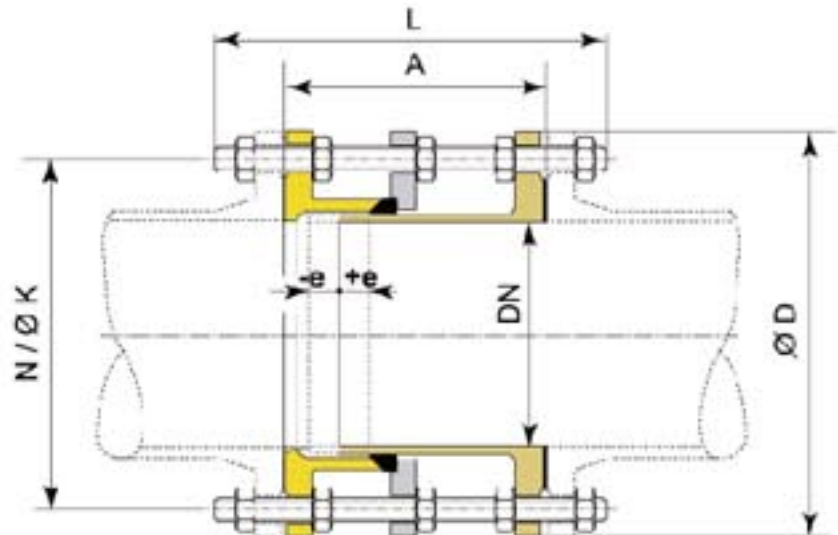


Dismantling Joint Class PN40

Art. No.: WD8640

DN	D	k	n	l	L1	L2	Gewicht Weight
mm	mm	mm		mm	mm	mm	kg
80	200	160	8	19	230	380	29
100	235	190	8	23	240	390	35
125	270	220	8	28	240	390	43
150	300	250	8	28	250	400	56
200	375	320	12	31	250	400	96
250	450	385	12	34	270	440	132
300	515	450	16	34	270	440	169
350	580	510	16	37	290	460	241
400	660	585	16	40	300	500	289
450	685	610	20	40	300	500	380
500	755	670	20	43	320	510	452
600	890	795	20	49	340	550	588
700	995	900	24	49	380	570	635
800	1140	1030	24	56	380	620	842
900	1250	1140	28	56	380	620	946
1000	1360	1250	28	56	420	670	1450
1200	1575	1460	32	62	450	720	1665

Dismantling Joint with 25% tie Bars(50% tie bar available)



Art. No.: WD8600

DN	Tie Bars φ d x Length	Flange	Number of tie bar	A	B (A-25)	C (A+25)	φ D	Weight(kg.)
DN50	M16 x 330	PN10/16	4	180	155	205	185	8.3
DN65	M16 x 330	PN10/16	4	180	155	205	185	9.3
DN80	M16 x 340	PN10/16	4	200	175	225	210	10.8
DN100	M16 x 340	PN10/16	4	200	175	225	230	21.1
DN125	M16 x 340	PN10/16	4	200	175	225	285	14.5
DN150	M20 x 340	PN10/16	4	200	175	225	285	21.0
DN200	M20 x 350	PN10	4	220	195	245	340	26.9
DN250	M20 x 370	PN10	4	220	195	245	340	27.4
DN250	M24 x 380	PN16	4	230	205	255	406	33.8
DN300	M20 x 390	PN10	4	230	205	255	445	39.1
DN300	M24 x 400	PN16	4	230	205	255	460	46.8
DN350	M20 x 400	PN10	4	250	225	275	505	67.7
DN350	M24 x 410	PN16	4	250	225	275	520	73.7
DN400	M24 x 420	PN10	4	250	225	275	565	80.3
DN400	M27 x 430	PN16	4	250	225	275	580	87.5
DN450	M24 x 435	PN10	5	270	245	295	615	89.7
DN450	M27 x 450	PN16	5	270	245	295	640	102.0
DN500	M24 x 440	PN10	5	280	255	305	670	100.0
DN500	M30 x 460	PN16	5	280	255	305	715	123.0
DN600	M27 x 460	PN10	5	300	275	325	780	124.0
DN600	M33 x 500	PN16	5	300	275	325	840	159.0
DN700	M27 x 480	PN10	6	300	275	325	895	151.0
DN700	M33 x 500	PN16	6	300	275	325	910	167.0
DN800	M30 x 500	PN10	6	320	295	345	1015	184.0
DN800	M36 x 530	PN16	6	320	295	345	1025	199.0
DN900	M30 x 300	PN10	7	320	295	345	1115	205.0
DN900	M36 x 530	PN16	7	320	295	345	1125	223.0
DN1000	M33 x 545	PN10	7	340	315	365	1230	271.0
DN1000	M39 x 570	PN16	7	340	315	365	1255	300.0
DN1100	M33 x 545	PN10	8	350	325	375	1340	371.0
DN1100	M39 x 570	PN16	8	350	325	375	1355	440.0
DN1200	M36 x 580	PN10	8	360	335	385	1455	448.0
DN1200	M45 x 620	PN16	8	360	335	385	1485	508.0
DN1300	M39 x 600	PN10	8	360	335	385	1575	500.0
DN1300	M45 x 650	PN16	8	360	335	385	1585	558.0
DN1400	M39 x 650	PN10	9	380	355	385	1675	547.0
DN1400	M45 x 680	PN16	9	380	355	385	1685	602.0
DN1500	M39 x 650	PN10	9	400	375	425	1785	748.0
DN1500	M52 x 680	PN16	9	400	375	425	1820	858.0
DN1600	M45 x 700	PN10	10	420	395	445	1915	947.0
DN1600	M52 x 750	PN16	10	420	395	445	1930	1111.0
DN1800	M45 x 700	PN10	11	440	415	465	2115	1176.0
DN1800	M52 x 750	PN16	11	440	415	465	2130	1363.0
DN2000	M45 x 700	PN10	12	460	435	485	2325	1400.0
DN2000	M56 x 750	PN16	12	460	435	485	2345	1700.0

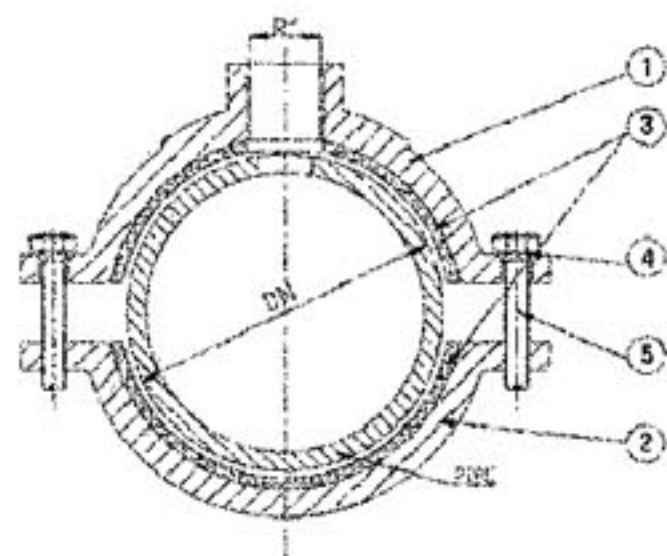
Ductile iron Saddle for PVC/PE pipe



NO	REFERENCE	MATERIAL	STANDARD
1	Body	GGG450-10	EN1563
2	Cover	GGG450-10	EN1563
3	Gasket	EPDM/NBR	EN681
4	Washer	SS A2-70	
5	Bolt	SS A2-70	

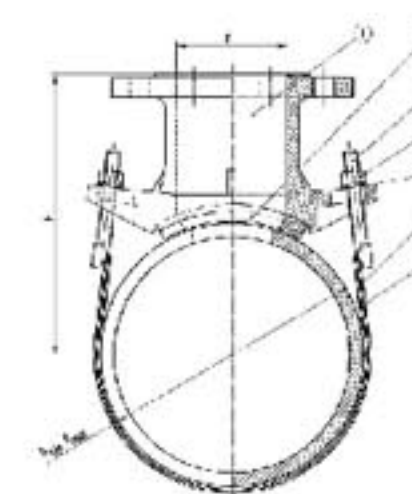
Art. No.: WD4120

Weight Pipe	R"	3/4"	1"	1-1/4"	1-1/2"	2"
DN50	1.35	1.35	1.35	1.35		
DN63	2.00	2.00	2.00	2.00	2.00	2.00
DN75	2.35	2.35	2.35	2.35	2.35	2.35
DN90	2.50	2.50	2.50	2.50	2.50	2.50
DN110	3.80	3.80	3.80	3.80	3.80	3.80
DN125	4.70	4.70	4.70	4.70	4.70	4.70
DN140	5.70	5.70	5.70	5.70	5.70	5.70
DN160	6.15	6.15	6.15	6.15	6.15	6.15
DN180	8.70	8.70	8.70	8.70	8.70	8.70
DN200	9.80	9.80	9.80	9.80	9.80	9.80
DN225	13.50	13.50	13.50	13.50	13.50	13.50
DN250	15.00	15.00	15.00	15.00	15.00	15.00
DN315	19.00	19.00	19.00	19.00	19.00	19.00



Universal saddle with outlet thread/flange

- Ductile iron GGG-40 epoxy coated outlet flange.
- EPDM gasket according to UNE EN 681/1.
- Mechanical insertion of the gasket in order to guarantee major watertightness.



ANSI-304 stainless steel Strap



Saddle range for flange head type

Art. No.: WD3210

DN	Main Pipe	PN	Bands No.
40	80/1000	10-16	2
50	80/700	10-16	2
60/65	100/700	10-16	2
80	125/700	10-16	2
100	150/500	10-16	2
125	200/600	10-16	2
150	300/500	10-16	3
150	500/900	10-16	3

Saddle range for thread head type

Art. No.: WD3200

Main Pipe	Saddle 3 Size(mm)		
OD Range(mm)	50-200	100-300	150-400
60-77	●		
77-95	●		
98-119	●		
125-135	●	●	
139-160	●	●	
150-180	●	●	
170-195	●	●	
200-230		●	●
230-250		●	●
250-280		●	●
285-315		●	●
315-340		●	●
355-380		●	●
385-410			●
410-435			●
Tapping thread	1/2-1"	1/2-2"	1-3"



Saddle with flange outlet for PVC/PE pipe

Material:GGG450-10

Coating: FBE/Painting

Size:DE63-315

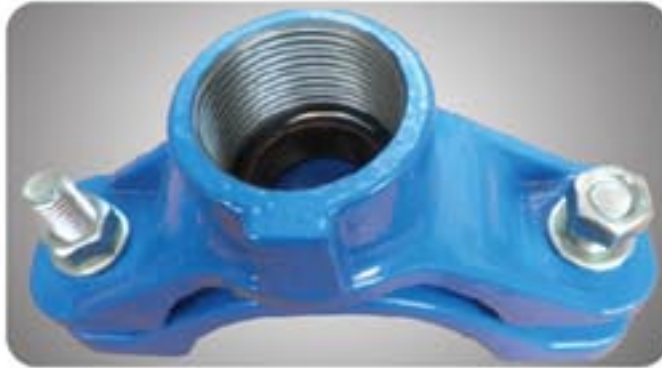
Pressure: PN10/PN16

Art. No.: WD4130

Quick Saddle for PVC pipes



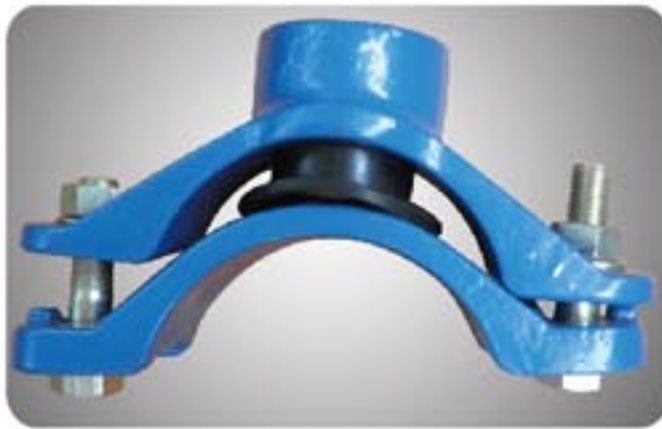
Saddle Clamp for Ductile iron pipes



Specification:

No.	Part	Material
1	Upper Body	GGG450-10
2	Lower Body	GGG450-10
3	Gasket	EPDM
4	Gasket support	Brass Ms58
5	Bolt/nuts	Steel Zincd

Art. No.: WD4710



Main Pipe DN	Thread Outlet	Ductile iron OD	Asbestos cement Max. OD
80	3/4"-1"-1 1/4"-1 1/2"	98	96
100	1"-1 1/4"-1 1/2"-2"	118	122
125	1"-1 1/4"-1 1/2"-2"	144	148
150	1"-1 1/4"-1 1/2"-2"	170	174
175	1"-1 1/4"-1 1/2"-2"	195	199
200	1"-1 1/4"-1 1/2"-2"	222	226
250	1"-1 1/4"-1 1/2"-2 1/2"-3"	274	278
300	1"-1 1/4"-1 1/2"-2 1/2"-3"	326	330

Saddle for PVC pipes

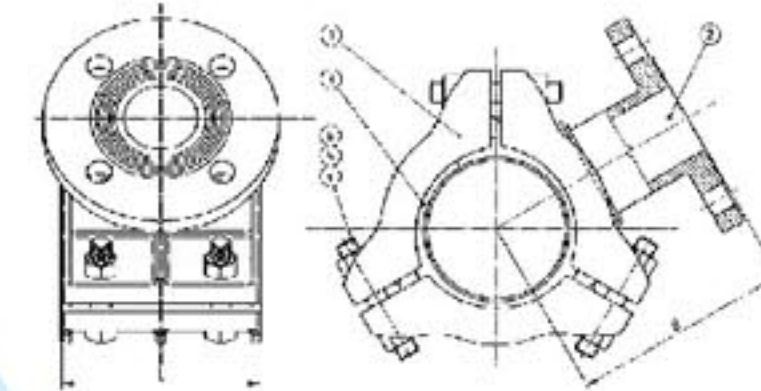


Pressure: PN10/PN16
Material: Grey iron GG20
Coating: Epoxy FBE/Bitumen
Field: Water and Irrigation

Art. No.: WD4720

Main Pipe DN	Thread Outlet
40	3/4"
40	1"
50	3/4"-1"
63	3/4"-1"
75	3/4"-1"
75	1 1/4"-1 1/2"
90	3/4"-1"
90	1 1/4"-1 1/2"
110	3/4"-1"-1 1/4"-1 1/2"
110	2"-2 1/2"-3"
125	3/4"-1"-1 1/4"-1 1/2"
125	2"-2 1/2"-3"
140	3/4"-1"-1 1/4"-1 1/2"
140	2"-2 1/2"-3"
160	3/4"-1"-1 1/4"-1 1/2"
160	2"-2 1/2"-3"
180	1"-1 1/4"-1 1/2"
180	2"-2 1/2"-3"
200	1"-1 1/4"-1 1/2"
200	2"-2 1/2"-3"
250	1"-1 1/4"-1 1/2"
250	2"-2 1/2"-3"
315	2"-2 1/2"-3"

Triple Tapping Saddle

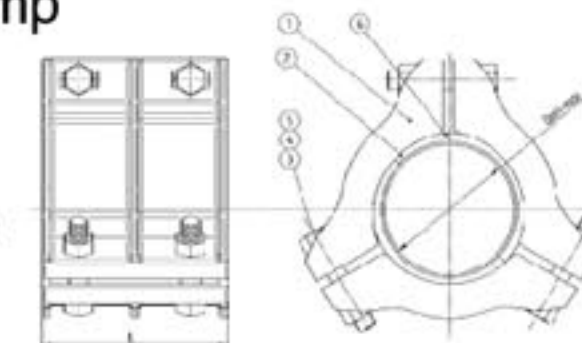


Art. No.: WD4810

DN	Diameter [mm] min. - max.	Weight [kg]	Bolts	Length [mm] L	Flange DN	H [mm]
80	87 - 106	14,50	6xM16	170	50-60	1/2 D+190
100	108 - 126	16,50	6xM16	170	50-80	1/2 D+190
125	135 - 160	24,00	6xM16	185	50-100	1/2 D+190
150	159 - 184	25,00	6xM16	220	50-125	1/2 D+190
175	190 - 220	26,00	9xM16	275	50-150	1/2 D+190
200	210 - 240	31,00	9xM16	275	50-150	1/2 D+190
225	240 - 255	32,00	9xM16	280	50-150	1/2 D+190
250	250 - 288	68,00	9xM20	365	50-150	1/2 D+190
275	290 - 312	75,00	9xM20	365	50-150	1/2 D+190
300	312-345 or 302-335	82,00	12XM20	420	50-150	1/2 D+190
350	360-390 or 350-380	100,00	12XM20	425	50-150	1/2 D+190
400	410-460 or 400-450	117,00	12XM20	430	50-150	1/2 D+190
450	460-510 or 450-500	125,00	12XM20	420	50-200	1/2 D+190
500	510-570 or 500-560	140,00	12XM20	420	50-200	1/2 D+190
550	570-620 or 560-610	145,00	12XM20	420	50-200	1/2 D+190
600	620-680 or 610-670	150,00	12XM20	420	50-200	1/2 D+190
700	730-800 or 720-790	170,00	12XM20	420	50-200	1/2 D+190
800	810-860 or 800-850	190,00	12XM20	420	50-200	1/2 D+190

Universal Triple repair clamp

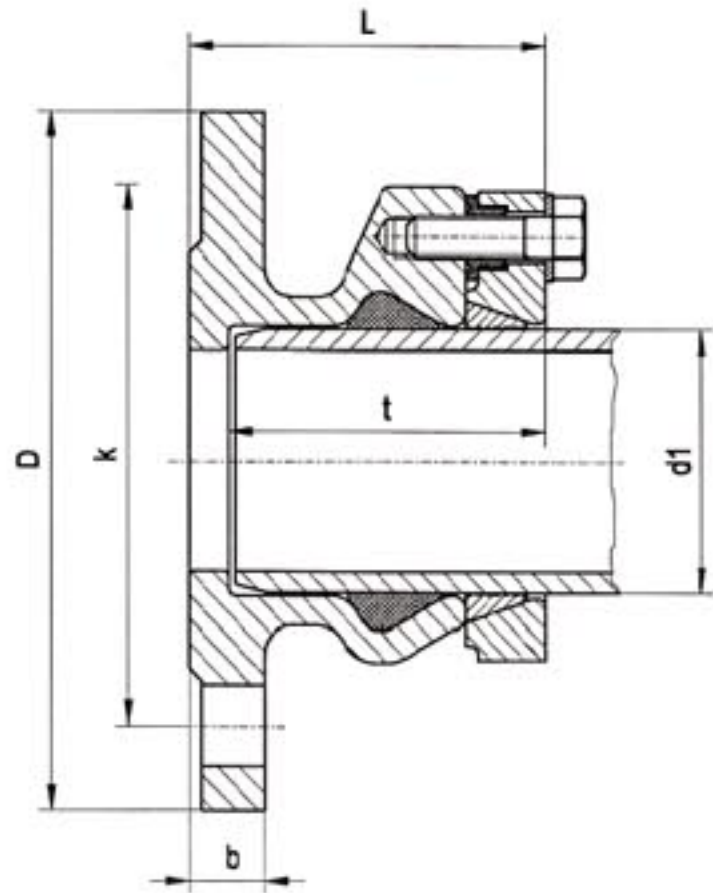
- USE:
 - Connections and repair pipes made of various materials.
- MATERIALS:
 - 1 - body - ductile cast iron protected with epoxy powder coating,
 - 2 - gasket - EPDM or NBR rubber,



Art. No.: WD4820

DN	Diameter [mm] min. - max.	Weight [kg]	Bolts	Length [mm] L
60	65 - 82	8,00	6xM12	140
80	87 - 106	9,50	6xM16	170
100	108 - 126	11,50	6xM16	170
125	135 - 160	19,00	6xM16	185
150	159 - 184	18,00	6xM16	220
175	190 - 220	20,00	9xM16	275
200	210 - 240	23,00	9xM16	275
225	240 - 255	24,00	9xM16	280
250	250 - 288	60,00	9xM20	365
275	290 - 312	65,00	9xM20	365
300	312-345 or 302-335	72,00	12XM20	420
350	360-390 or 350-380	90,00	12XM20	425
400	410-460 or 400-450	107,00	12XM20	430
450	460-510 or 450-500	115,00	12XM20	420
500	510-570 or 500-560	130,00	12XM20	420
550	570-620 or 560-610	135,00	12XM20	420
600	620-680 or 610-670	140,00	12XM20	420
700	730-800 or 720-790	160,00	12XM20	420
800	810-860 or 800-850	180,00	12XM20	420

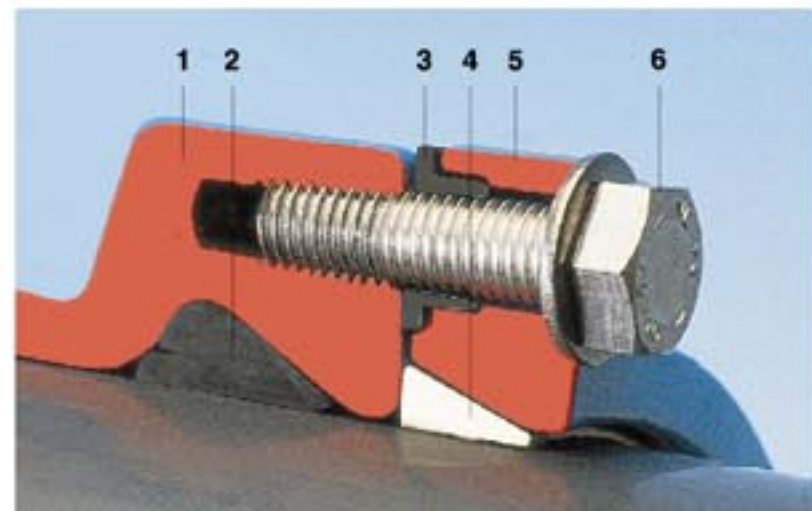
Restrained flange adaptor for HDPE/PVC pipes



Art. No.: HAWL2000

Specification:

No.	Part	Material
1	Body	GGG450-10
2	Lip seal	EPDM
3	Spacer bush	PE
4	Grip ring	Brass Ms58
5	Lock ring	GGG450-10
6	Bolts	Stainless Steel

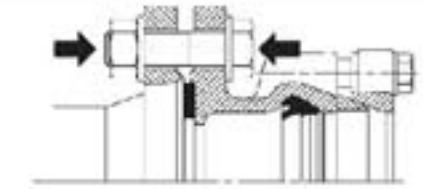


Size	Pipe Ø	Dimensions					Weight
DN mm	d1 mm	D mm	k mm	b mm	l mm	t mm	kg
50	63	165	125	19	90	80	3.6
60	63	175	135	19	90	80	3.8
60	75	175	138	19	92	82	4.0
65	63	185	148	19	90	80	4.3
65	75	185	145	19	92	82	4.3
80	75	200	160	19	92	82	5.0
80	90	200	160	19	95	85	5.5
100	90	220	180	19	95	85	6.8
100	110	220	180	19	95	85	6.2
100	125	220	180	19	97	87	7.0
125	110	250	210	19	95	85	7.8
125	125	250	210	19	97	87	8.2
125	140	250	210	19	103	93	8.5
150	140	285	240	19	103	93	11.3
150	160	285	240	19	115	105	10.5
150	180	285	240	19	125	115	11.6
200	200	340	295	20	135	125	18.0
200	225	340	295	20	138	128	16.0
250	250	400	350	22	155	145	22.0
250	280	400	350	22	158	148	29.0
300	315	455	400	24.5	185	175	44.0

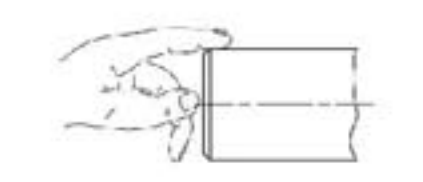
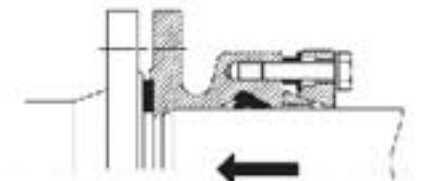
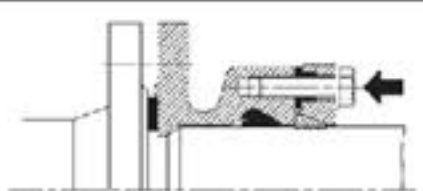
Note: Above flanges are PN10, flange PN16 are available.

Assembly Instructions:

For flange adaptors: bolt the flange to the mating flange first.


Chamfer the pipe
use lubricant
(see page M 5/2)
Do not use oil!

φ D	A	B
63-40	2.5	10
160-180	4	16
200-225	5	20
250-315	7	25
355-450	9	35


Push the pipe to the end of the socket.
For thinwalled PE-pipes (up to 3 mm wall thickness)
and low internal pressure we recommend using a
support liner

Tighten the lock ring bolts crosswise until lock ring is
tight on bushes.


Tensile Testing:

The following maximum tensile loads have been established.

Test data: HAWEL test laboratory tensile testing machine
HDPE pipe (PE 80) DIN 8075-ONORM B 5172 PN10 (Gas PN 4)
Data established by use of a support liner and under 0 bar internal
pressure. Room temperature: 23°C
Speed of tensile test (mm/min.): 0,1 x the free pipe length (L)

This table shows the maximum end load capacity of a sustem 2000
connection, compared with the effective theoretical loads in a PE
pipeline with 10 bar.

A SYSTEM2000 connection provides a safety factor of 4 to 6 times!



*1 kN = 100 kp

Pipe φ mm	Theoretical tensile load - (kN*) at 10 bar internal pressure	Max. tensile load established in tests- (kN*)
63	3.15	20
75	4.42	28
90	6.37	38
110	9.50	56
125	12.27	63
140	15.40	66
160	20.10	98
180	25.45	130
200	31.40	145
225	39.80	453
250	49.10	233
280	61.60	215
315	77.80	270

Coupling

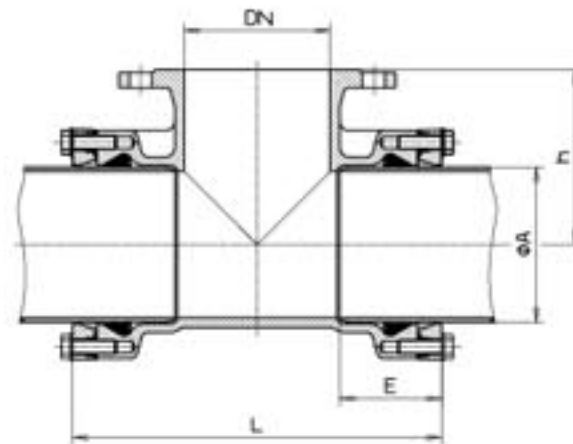


Pipe Ø A mm	L	E	B	Weight kg
63	171	80	124	3,2
75	175	82	138	4,0
90	181	85	152	5,4
110	181	85	172	6,4
125	185	87	193	7,8
140	197	93	210	9,0
160	221	105	236	12,0
180	241	113	258	14,5
200	261	125	284	21,5
225	265	128	314	26,0
250	300	145	347	33,0
280	306	148	376	38,5
315	358	174	422	58,5
355	464	237	472	96,0

Double Socket

Tee with flanged branch

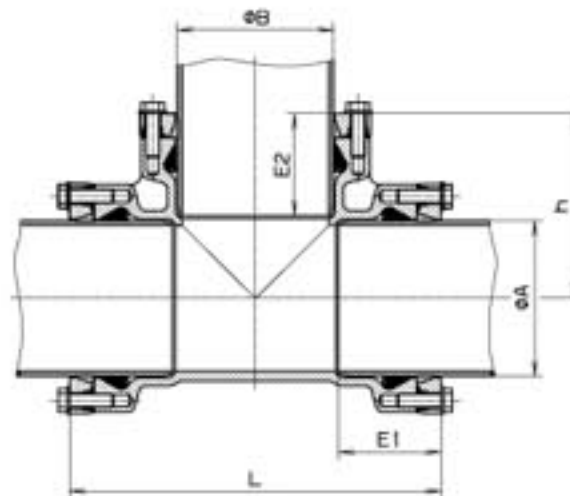
equal and reducing



Ø A mm	DN	L	E	h	Weight kg
63	50	236	83	100	8,0
75	65	250	85	110	9,0
90	80	268	85	140	11,0
	50	240	85	150	10,0
110	80	270	85	150	11,5
	100	290	85	150	12,0
125	80	274	87	160	14,0
	100	294	87	160	14,0
140	80	288	93	170	15,0
	100	308	93	170	15,5
	125	334	93	170	16,0
160	80	300	105	180	16,5
	100	320	105	180	17,0
	150	380	105	180	20,0
180	80	310	113	200	23,0
	150	415	113	200	31,0
200	200	480	130	220	47,0
	80	356	130	220	33,5
225	100	376	130	220	33,0
	200	488	130	230	55,0

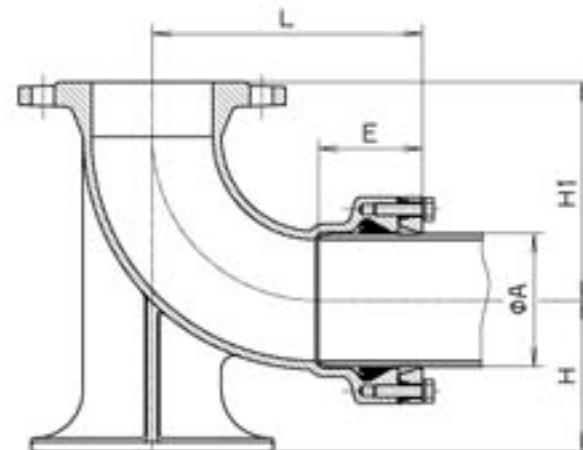
All Socket Tee

equal and reducing



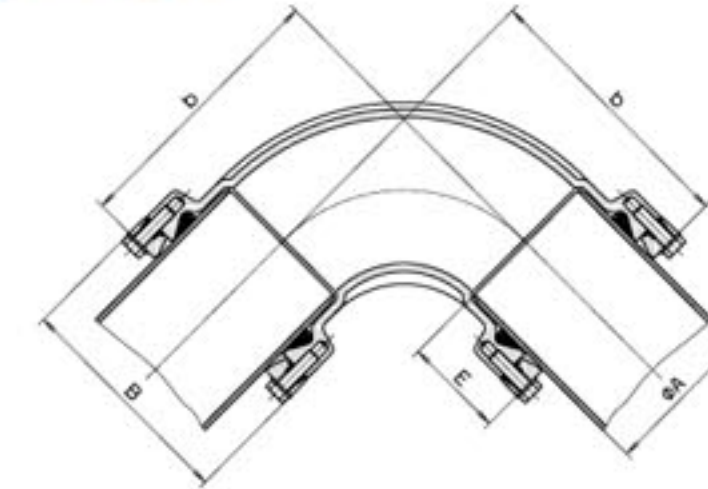
Ø A mm	Ø B mm	L	E 1	E 2	h	Weight kg
63	63	236	83	83	118	6,0
75	75	250	85	85	125	7,7
90	90	268	85	85	134	9,0
	63	240	85	80	140	7,7
110	90	270	85	85	145	8,9
	110	290	85	85	145	9,2
	90	274	87	85	150	10,4
125	110	294	97	85	150	10,7
	125	306	90	90	153	15,0
	90	288	93	85	157,5	12,2
140	110	305	93	85	160	12,5
	140	344	96	96	167	19,0
	90	310	105	85	170	14,0
160	110	330	105	85	170	14,5
	160	380	105	105	190	16,5
	125	360	113	87	180	24,0
180	180	415	113	113	207,5	29,0
200	200	460	128	128	230	35,0
	90	356	128	85	200	29,5
225	110	376	128	128	200	30,0
	225	488	130	130	244	55,0

Duck Foot Bend



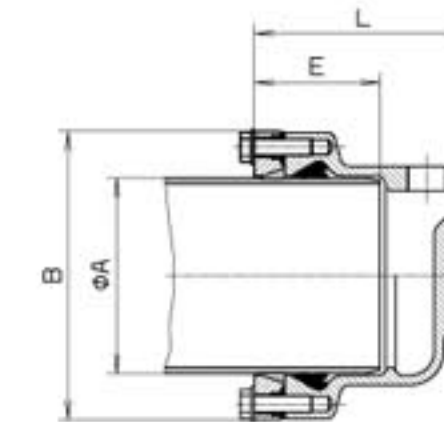
DN	Pipe Ø mm	L	E	H	H 1	Weight kg
80	90	210	85	110	165	12,7
100	110	223	85	125	180	16,0

Bend



Pipe Ø mm	b				t	B	Weight kg			
	90°	45°	30°	11°			90°	45°	30°	11°
63	153	112			80	124	4,2	3,7		
75	170	120			82	138	5,5	4,5		
90	188	129	115	98	85	152	7,1	6,4	6,0	5,7
110	213	140	122	100	85	172	9,2	7,5	7,3	6,6
125	240	153			87	193	11,7	9,9		
140	246	159			93	210	15,0	12,3		
160	283	181	155		105	236	19,5	16,0	16,0	
180	293	191			113	258	24,0	19,5		
200	353	221			125	284	37,5	30,0		
225	355	224			128	314	43,0	39,0		
250	427	263			145	347	57,0	43,5		
280	430	266			148	376	69,0	55,0		
315	506	313			174	422	101,0	67,0		

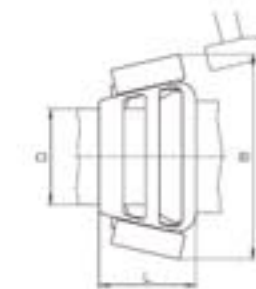
End Cap



Pipe Ø mm	L	E	B	Weight kg
63	106	80	124	2,7
75	138	82	138	3,2
90	141	85	152	4,5
110	159	85	172	5,8
125	162	87	193	6,1
140	169	93	210	7,4
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

No. 1254 Restraint Clamp (Socket to Pipe)

Size: DE63-315



No. 1254 Restraint Clamp

The Restraint Clamp for all PVC pipes and sockets. The 2-part body can be assembled onto an existing pipeline. If required it can be dismantled and reused.

The grip ring is self tightening within its tapered seating. The design of the teeth avoids cutting into the pipe resulting in the highest gripping force without pipe damage. Wedge fastening on both sides. Hammer the wedges until the clamp is tightly closed.

No. 9240 Split Collar (Pipe to Pipe)

Size: DE90-200



No. 9240 Split Collar

Restraint connection for 2 spigot ends: can also be used as a repair coupling. The teeth of the grip ring do not abrade the pipe; it is not necessary to chamfer the pipe. For thick walled PE pipes and for joining PE pipes to PVC pipes. For thin walled PE pipes support liners should be used.

Tensile Resistant Coupling for HDPE/PVC pipes



Art. No.: AVK6210

No.	Parts Name	Material
1	Flange Body	GGG450-10
2	Sealing Ring	EPDM+Brass
3	End Ring	GGG450-10
4	Bolts	Dacromet Coated Steel
5	Washer	Dacromet Coated Steel
6	Nuts	Dacromet Coated Steel
7	Cap	Plastic

OD PE/ PVC	Bolt	L mm	Weight Kilos
63	2	88	3.5
75	2	88	4.2
90	2	88	4.7
110	4	88	6.5
125	4	88	8.0
140	4	88	9.0
160	4	88	9.8
180	4	88	10.2
200	4	110	15.5
225	4	110	19.5
250	6	110	28.0
280	6	110	30.0
315	6	168	45.0

Note:

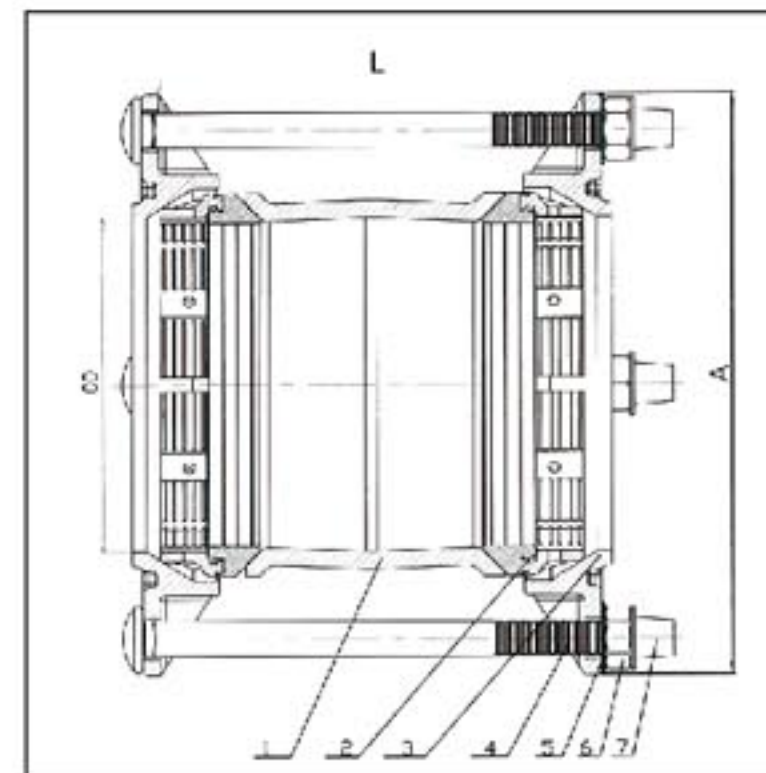
1. Internal Support Bush is not Required for use on PVC pipe.
2. Internal Support bush is not required for use on PE pipe with a pipe size below pipe DN90mm
3. Internal support bush is strongly recommended for use on PE pipe With nominal pipe size above DN 90mm due to the flexibility of Polyethylene pipe.

When internal support bush is used.	Polyethylene pipe Type			
	MDPE		HDPE	
	SDR11	SDR17	SDR11	SDR 17
DN90-180mm	Type 1	Type 1	Type 2	Type 1
Over DN180mm	Type 2	Type 2	Type 2	Type 2

Deflection and pullout: BS EN 12842:2000

Type 1 end load restraint:
The pipe will fail before the fitting.

Type 2 end load restraint:
The fitting will restrain up to its maximum working pressure.



Tensile Resistant Flange Adaptors for HDPE/PVC pipes



Art. No.: AVK6230

Flange DN mm	OD PE/ PVC	D mm	Bolt	L mm	Weight Kilos
50	50	165	2 x M12	125	3.7
50/60/65	63	180	2 x M12	125	4.4
60/65	75	185	2 x M12	125	4.5
80	90	200	2 x M12	125	4.7
100	110	220	2 x M12	125	6.6
125	125	250	2 x M12	125	6.8
125	140	250	4 x M12	125	6.9
150	160	285	4 x M12	125	8.3
150	180	340	4 x M12	125	9.0
200	200	340	4 x M12	125	14.1
200	225	340	4 x M12	175	15.1
250	250	405	6 x M12	175	24.5
250	280	405	6 x M12	175	25.0
300	315	460	6 x M12	175	28.6

AVK6230 restrained flange adaptor, is a tensile resistant flange adaptor for PE and PVC pipes, it contains an end load resistant mechanism, that grips and seals onto PVC & PE Pipes to prevent the pipe pull off from the pipe system. Its suitable for use with water, drainage, sewage ... pipe systems, and the maximum working temperature is 80 °C.

No.	Parts Name	Material
1	Flange Body	GGG450-10
2	Sealing Ring	EPDM+Brass
3	End Ring	GGG450-10
4	Bolts	Dacromet Coated Steel
5	Washer	Dacromet Coated Steel
6	Nuts	Dacromet Coated Steel
7	Cap	Plastic

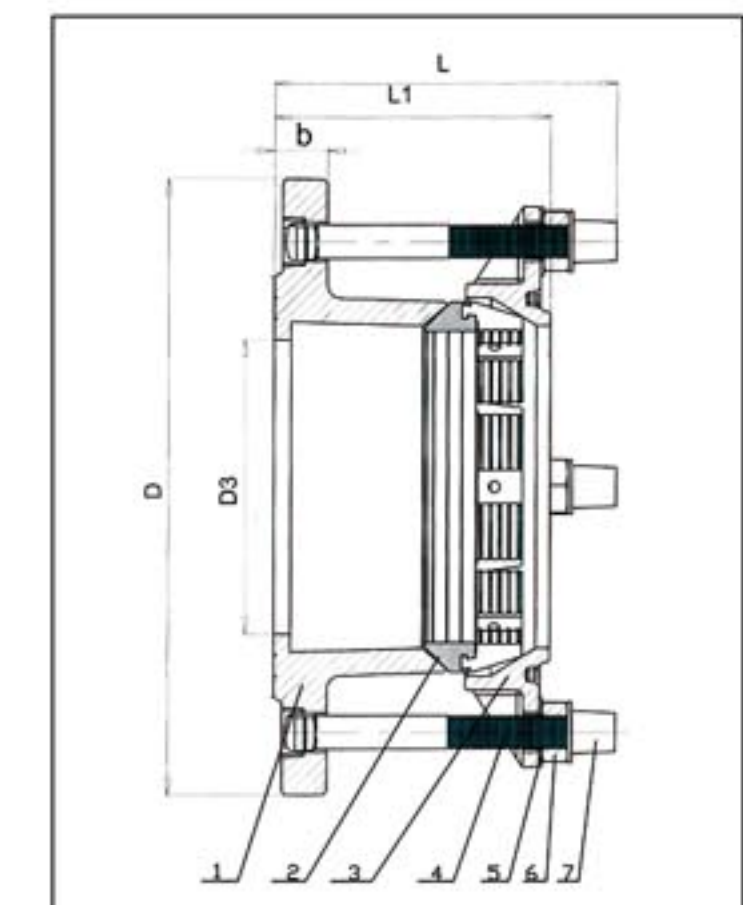


Standards & Tests

Coating: Body WIS 4-52-	All Materials: WRC/WRAS Approved
Bolt Sets: WIS 4-52-03	Water: 1.5 x PN

Deflection & Pullout: BS EN 12842:2000

Note: Allow for a total angular deflection of 3.5° per socket.



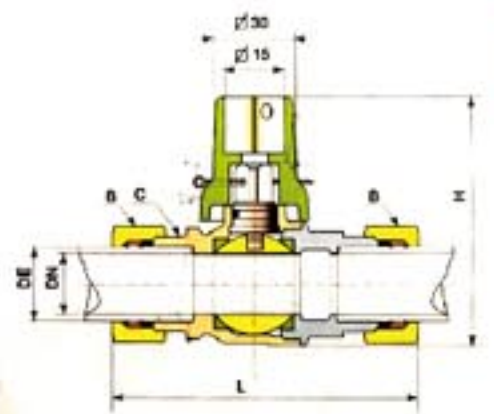
Compression fitting for PE pipe



Compression Ball valve for PE pipes



Art. No.: WD9210
 Type: Tensile Resistant screw type
 Material: Brass/Bronze
 Size: Dn25-50



DN	B on faces	H	L	Mass
mm	mm	mm	mm	kg
20	36	102	135	1.1
25	46	112	135	1.5
32	55	120	137	1.9
40	65	132	146	2.8



Straight male
 Size
 20×1/2"
 25×3/4"
 32×1/2"
 20×1"
 40×1 1/4"
 50×1 1/2"
 63×2"



Straight double
 Size
 20×20
 25×25
 32×32
 40×40
 50×50
 63×63



Elbow female
 Size
 20×1/2"
 25×3/4"
 32×1"
 40×1 1/4"
 50×1 1/2"
 63×2"



Wallplate elbow female
 Size
 20×1/2"
 25×3/4"
 32×1"



Tee female
 Size
 20×1/2"×20
 25×3/4"×25
 32×1"×33
 40×1 1/4"×40
 50×1 1/2"×50
 63×2"×63



Straight female
 Size
 20×1/2"
 25×3/4"
 32×3/4"
 32×1"
 40×1 1/4"
 50×1 1/2"
 63×2"



Elbow male
 Size
 20×1/2"
 25×3/4"
 32×3/4"
 32×1"
 40×1 1/4"
 50×1 1/2"
 63×2"



Elbow double
 Size
 20×20
 25×25
 32×32
 40×40
 50×50
 63×63

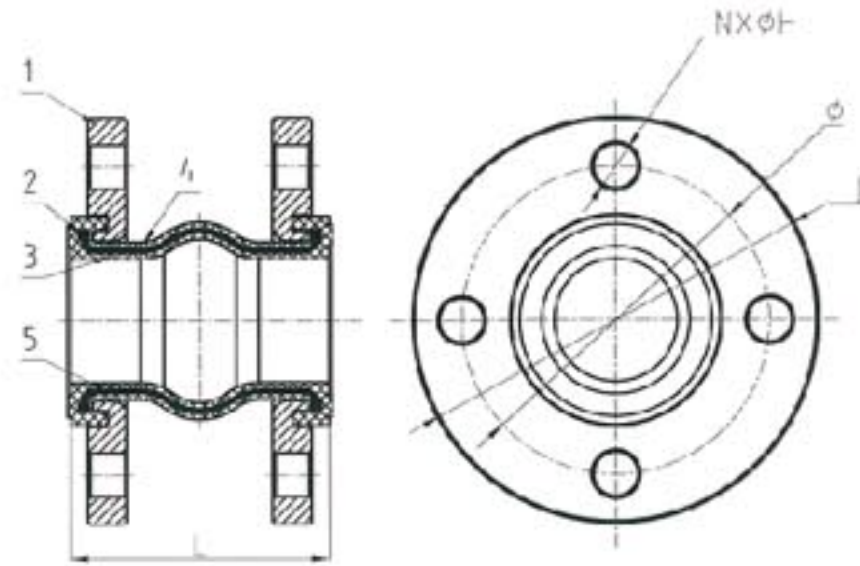


Tee male
 Size
 20×1/2"×20
 25×3/4"×25
 32×1"×33
 40×1 1/4"×40
 50×1 1/2"×50
 63×2"×63



Equal tee
 Size
 20×20×20
 25×25×25
 32×32×32
 40×40×40
 50×50×50
 63×63×63

Flexible Rubber Joint (Single Sphere)



Specification

Working pressure(Bar)	10	16	25
Burst Pressure(Bar)	30	48	55
Vacuum(mmHg)	400	650	750

Material Specification

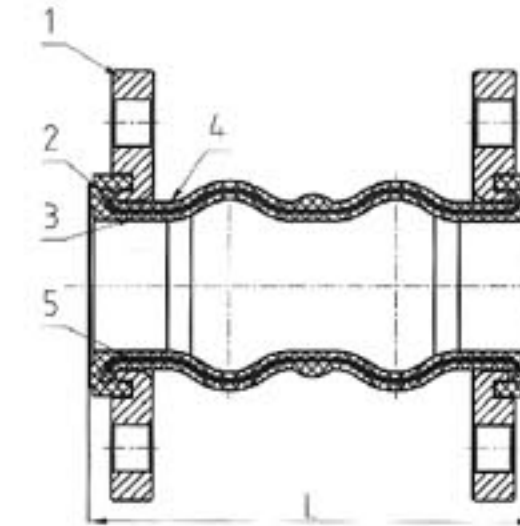
Part No.	Part	Standard Specification
1	Flange	Galvanized Carbon Steel
2	Reinforcing Ring	Carbon Steel
3	Rubber(Inner)	EPDM
4	Rubber(Outer)	EPDM
5	Reinforcing Fabric	Nylon Fabric

Art. No.: WD7010

DN Nominal diameter	L Length	Flange thicknessb	No.of bolt n	Bolt hole φ H (mm)	Diameter Bolt hole center (mm)	Axial displacement (mm)		Lateral displacement (mm)	Angle of deflection (α 1+α 2)
						Stretch	Compression		
32	1 1/4	95	4	19	100	6	9	9	15°
40	1 1/2	95	4	19	110	6	10	9	15°
50	2	105	4	19	125	7	10	10	15°
65	2 1/2	115	4	19	145	7	13	11	15°
80	3	135	8	19	160	8	15	12	15°
100	4	150	8	19	180	10	19	13	15°
125	5	165	8	19	210	12	19	13	15°
150	6	180	8	23	240	12	20	14	15°
200	8	210	8	23	295	16	25	22	15°
250	10	230	12	23	350	16	25	22	15°
300	12	245	12	23	400	16	25	22	15°
350	14	255	16	23	460	16	25	22	15°
400	16	255	16	28	515	16	25	22	15°
450	18	255	20	28	565	16	25	22	15°
500	20	255	20	28	620	16	25	22	15°
600	24	260	20	31	725	16	25	22	15°
700	28	320	24	31	840	16	25	22	15°
800	32	340	24	34	950	16	25	22	15°
900	36	370	28	34	1050	16	25	22	15°
1000	40	400	28	37	1160	18	26	24	15°
1200	48	420	32	40	1380	18	26	24	15°

Note: Above flange Comply to DN10, BS4504 DN16 and ANSI drilling also available

Flexible Rubber Joint (Double Sphere)

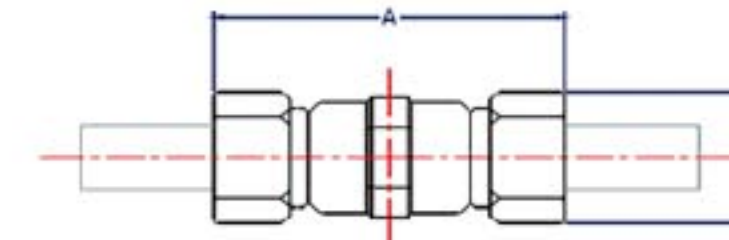


Art. No.: WD7020

DN Nominal diameter	L Length	Flange thicknessb	No.of bolt n	Bolt hole φ H (mm)	Diameter Bolt hole center (mm)	Axial displacement (mm)		Lateral displacement (mm)	Angle of deflection (α 1+α 2)
						Stretch	Compression		
50	2	165	4	19	125	30	50	45	35°
65	2 1/2	175	4	19	145	30	50	45	35°
80	3	175	8	19	160	35	50	45	35°
100	4	225	8	19	180	35	50	40	35°
125	5	225	8	19	210	35	50	40	35°
150	6	225	8	23	240	35	50	40	35°
200	8	325	8	23	295	35	50	40	35°
250	10	325	12	23	350	35	60	35	30°
300	12	325	12	23	400	35	60	35	30°

Compression Couplings

Material: Ductile iron ASTM A536/ Malleable Iron
Rubber: EPDM/NBR(with protected metal end cap)
Coating: Zinc Galvanizing



Art. No.: WD5251

Pipe Size		Steel Pipe OD		Test Pressure		Q'ty/box	Weight		A	D
inch	mm	inch	mm	bar	psi	mm	kg	lbs	mm	mm
1/2	15	0.84	21.3	40	300	21.3	0.45	1.0	105	43
3/4	20	1.05	26.9	40	300	26.9	0.59	1.3	110	49
1	25	1.315	33.7	40	300	33.7	0.70	1.5	115	56
1 1/4	32	1.66	42.4	40	300	42.4	0.90	1.8	120	66
1 1/2	40	1.9	48.3	40	300	48.3	1.00	2.2	125	75
2	50	2.375	60.3	40	300	60.3	1.50	3.3	135	90

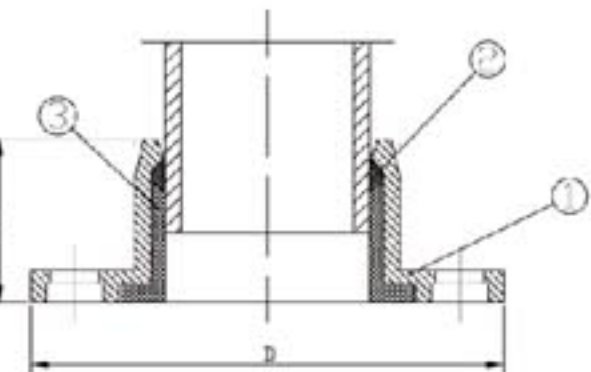
Quick Flange Adaptor for PE/PVC Pipe (and DI pipe)



For PVC pipe



For PE pipe



Art. No.: WD5210

NO	NAME	MAT ERIAL	STANDARD
1	Body	Ductile iron	EN1563
2	Rubber	EPDM/NBR	EN681-1
3	Grip ring	Brass	CuZn36Pb3

PN10/PN16(Multi flange holes)				
Size	Pipe OD	L	D	Weight (kg)
DN40-50	50	50	165	1.7
DN50	63	55	165	1.8
DN60-65	63	55	185	2.4
DN60-65	75	58	185	2.2
DN80	90	60	200	2.8
DN100	110	68	220	4.0
DN125	125	70	250	4.2
DN125	140	75	250	4.1
DN150	160	80	285	6.5
DN200	200	90	340	8.5
DN200	225	93	340	8.0
DN250	250	95	400	12.5
DN300	315	100	455	15.0
DN400	400	120	580	25.0



Major stop flange adaptor



Art. No.: WD5310



Quick adaptor for DI pipes



simple version



anchored version

Art. No.: WD5410

Restrained Joint for PVC Bell Joint

Material:	GGG450-10
Utility:	PVC/UPVC pipes
Size:	DE90-600



Restrained Coupling

Material:	GGG450-10/Steel
Utility:	PVC/PE/Steel pipes
Size:	DN100-1200

Self tapping Saddle with Ferrule strap

Material:	Bronze/Brass/Gunmetal
Utility:	AC/PVC pipe
Size:	DN80-300



Detachable joint

Material:	GGG400-10/GG20
Utility:	AC pipe
Size:	DN80-300

Tapping Sleeves with Flange outlet

Material:	Carbon Steel
Utility:	DI/AC/GRP/CI/PVC pipe
Size:	DN80-1200





Studed Reducer Flange

Standard: ISO2531/EN545
Material: GGG400-10
Size: DN80-300

Uni-Flange

Material: GGG450-10
Utility: Steel/Ductile iron pipe
Size: DN80-300



Loose Flange

Standard: ISO2531/EN545
Material: GGG400-10
Size: DN60-600



Back-up Flange

Utility: Backing flange for use on HDPE
Material: ASTM A536 Grade 65-45-12
Flange: PN10/PN16/Ansi C150
Size: 2"-24"



Surface Boxes and lids

TYPE 4055(31/48/25kg)
TYPE 4056(14.0/11.0kg)
TYPE 4057(8.5/5.5kg)
TYPE 4059(7.0kg)



NOMINAL BORE	STANDARD OUTSIDE DIAMETER																	
	IMPERIAL CAST IRON & ASBESTOS CEMENT (TURNED END) BS1211 (1981) (UT 27" NB) BS78 (1981) BS406 (1966)				STEEL ISO/4200 (1991)						PVC-U		ABS		DUCTILE IRON		GRP	
	CLASS AB ONLY	CLASS CD ONLY	NON STD	SER 1	SER 2	SER 3	SER 3	BS1211 (1981)	BS3605 (1987) & BS3601 (1989) (up to 1000 & BS1200)	AP 9L (2009) & BS1200 (2009) UT 10" NB	BS1205 (1988)	BS1206 (1988)	BS1207 (1970)	BS 1208 (1989), BS 1209 (1989) DN 1000, 2000, 2400, 2800	BS406 (1966) (Typical DN 100)	CLASS 15	CLASS 20	CLASS 25
15				21.3				21.3	21.4	21.4	21.4	21.4						
0.5																		
20				26.9	25.0	25.4		26.9	26.8	26.7	26.8	26.8	26.8					
0.75																		
25				33.7	32.0	30.0	35.0	33.7	33.6	33.4	33.6	33.6	33.6					
1																		
32				42.4	40.0	44.5		42.4	42.3	42.2	42.3	42.3	42.3					
1.25																		
40	55.9	55.9	57.0	48.3	57.0	54.0		48.3	48.3	48.3	48.3	48.3	48.3	56				
1.5	2.20	2.20	2.25															
50	69.1	69.1		60.3	63.5			60.3	60.4	60.3	60.4	60.4	60.4	66				69
2	2.72	2.72																
65	82.3	82.3	82.5	76.1	70.0	73.0		76.1	76.1	73.0		75.2		82				
2.5	3.24	3.24	3.25															
80	95.5	95.5		88.9		82.5		88.9	88.9	88.9	88.9	88.9	88.8	98				96
3	3.76	3.76																
90					101.6			101.6	101.6									
3.5																		
100	121.9	121.9		114.3	127.0	108.0		114.3	114.3	114.3	114.3	114.3	114.3	118				122
4	4.80	4.80																
125	149.9	149.9		139.7	133.0	141.3	152.4	139.7	139.7	141.3	140.2	140.2		144				
5	5.90	5.90																
150	177.3	177.3		168.3		159.0	177.8	165.1	168.3	168.3	168.3	168.3	168.3	170	177			177
6	6.98	6.98																
175	204.7	204.7					193.7		193.7			193.8						
7	8.06	8.06																
200	232.2	232.2		219.1				219.1	219.1	219.1	219.1	219.1	219.1	222	220	232	232	240
8	9.14	9.14																
225	259.1	259.1				244.5		244.5			244.5					259	259	268
9	10.20	10.20																
250	286.0	286.0		273.0				273.0	273.1	273.0	273.0			274	272	286	286	295
10	11.26	11.26																
300	333.8	345.4		323.9				323.9	323.9	323.9	323.9			326	324	334	345	356
12	13.14	13.60																
350	387.0	399.3		355.6				355.6	355.6	355.6	355.5			378	376	392	405	419
14	15.22	15.72																
375	413.0	426.2																
15	16.26	16.78																
400	439.0	453.1		406.4				406.4	406.4	406.4	406.4			429	427	448	463	478
16	17.30	17.84																
450	492.0	506.9		457.0				457.0	457.2	457.2	457.2			480	478	498	515	532
18	19.38	19.96																
500	545.0	560.3		508.0				508.0	508.0	508.0	508.0			532	530	568	586	605
20	21.46	22.06																
525	572.0	587.2																
21	22.50	23.12																
550	598.0	613.7				559.0		559.0	559.0		558.8							
22	23.54	24.16																
600	650.0	667.0		610.0				610.0	609.6	609.6	609.6			635	633	654	672	691
24	25.60	26.26																
650	703.0	720.3				600.0		660.0	660.4									
26	27.66	28.36																
675	729.0	746.8																
27	28.70	29.40																
700	755.0	773.2		711.0	762.0			711.0	711.2					738	718	761	780	801
28	29.72	30.44																
750	807.0	826.0						762.0	762.0							808	830	852
30	31.78	32.52																
800	860.0	879.3		813.0				813.0	812.8					842	820	882	904	915
32	33.84	34.62																
825	886.0	905.8																
33	34.88	35.66																
850	912.0					864.0		864.0	863.6							927	952	977
34	35.92																	
900	964.0	984.5		914.0				914.0	914.4					945	924	970	996	1024
36	37.96	38.76																
1000	1068.0	1090.2		1016.0				1016.0	1016.0					1048	1027			
40	42.06	42.92																
1050	1121.0	1143.0		1067.0	1168.0			1067.0	1066.8									
42	44.12	45.00																
1100	1172.0			1118.0					1117.6					1152	1144			
44	46.16																	
1200	1277.0	1300.5		1219.0				1219.0	1219.2					1255	1228			
48	50.26	51.20																
1300					1321.0				1320.8							1350		
52																		
1400				1422.0				1422.0	1422.4					1462	1449			
56																		
1600				1626.0				1626.0	1625.6					1668	1640			
64																		
1800				1829.0				1829.0	1828.8					1875	1844			
72																		
2000				2032.0				2032.0	2032.0					2082	2048			
80																		

PVC-U & POLYETHYLENE (METRIC) BS ISO 11922-1 (1997)	METRIC PVC-U & PE HAVE A DESIGNATED NOMINAL BORE WHICH IS USUALLY THE SAME AS THE OUTSIDE DIAMETER. QUOTE PIPE CLASS, RATING OR WALL THICKNESS ON ENQUIRIES.																							
	16	20	25	32	40	60	83	75	90	110	125	140	160	180	200	225	250	280	315	355	400	450	500	560