

## UPVC Electrical and Telecommunication Cable Conduit

Table 10 shows the range of UPVC pipes for use as underground electrical and telecommunication cable ducts including those passing underneath the roads-direct buried (DB) or encasement or encasement buried (EB). For consideration of pipes of other dimensions our Technical Sales Department may be consulted. Specify Class EB or DB when ordering.

**TABLE 10 : DIMENSIONS BASED ON DIN 16873, 16875, SSA 14**

Nominal Outside Diameter, mm	50	63	75	90	110*	125	140	160*	200	225
Class : EB Nominal wall Thickness, mm	1.8	1.9	2.2	2.7	3.2*	3.7	4.1	4.7*	5.9	6.6
Class : DB Nominal wall Thickness, mm	2.4	3.0	3.6	4.3	5.3*	6.0	6.7	7.7*	9.6	10.8

## PVC Fabricated Fittings

For PVC ducts for Telecommunications and Electrical Power Systems

### COUPLINGS (FABRICATED)

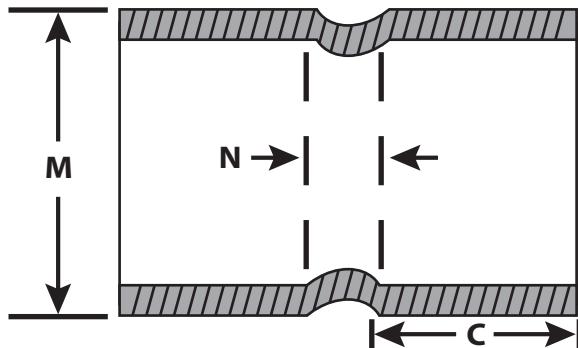
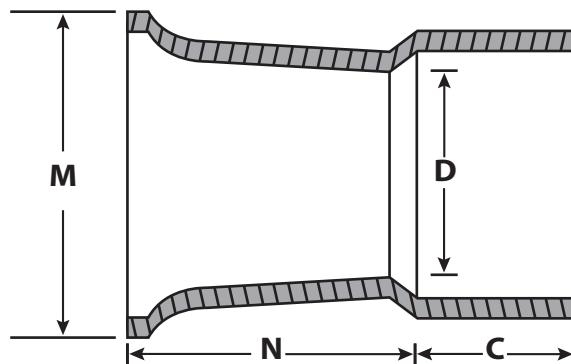


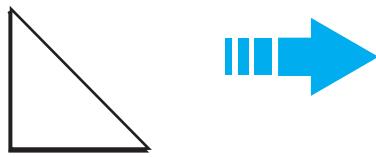
Table 11.1

Trade Size	63	90	110	140	160
N. Minimum	2.4	2.8	2.8	3.6	3.6
C. Minimum	30	40	45	55	70

### SOCKET END BELL (FABRICATED) Table 11.2



Trade Size	63	90	110	140	160
N. Minimum	70.6	74.6	76.2	108.0	125
C. Minimum	30	40	45	55	70



: Color, Grey  
: Conduits and Ducts to American Standards, Please refer to our catalogue "Publication P7"

## Pipe Lengths and Joints

Al-Rajhi pipes are available in nominal total standard lengths of 6 meters. Other lengths can be supplied by arrangement.

Al-Rajhi pipes are supplied with various joint systems.

### 1 : Plain End / Chamfered end. (Fig. 4a)

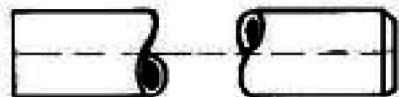
Plain Ended (P/E) pipe for use with separate Couplings; Ring Seal, Solvent (Adhesive) Weld or Special Fittings. Pipe can also be supplied with both ends chamfered (D/C) if requested, in full length. Proper Chamfering is important to facilitate the easy insertion of the spigot end into socket without any damage lengths of 6 meters.

### 2 : Plain Solvent Weld Joint (Fig. 4b)

Plain socket (P/S) Solvent Weld Joints, Pipes are supplied with an integral plain socket preformed in our factory. They are jointed using the recommended solvent adhesive supplied by Al-Rajhi and using the techniques specified on Page 16, 17 and 18.

### 3 : Rubber ring seal joint (Push fit joint) (Fig. 4c)

Rubber ring joints (R/J). Pipes are supplied with integral grooved socket at one end incorporating elastomeric sealing ring. Al-Rajhi manufacture the world wide known Anger joint system, the Anger joint sockets are made with locally wall thickened pipe. In these joints, the rubber ring seal is so designed that the sealing power increases with the rise in internal pressure in the pipeline. For jointing procedure refer to page 18.



**Fig 4a**

(a) Plain End/Chamfered End



**Fig 4b**

(a) Plain Socket Solvent Weld Joints

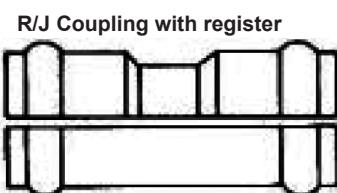


**Fig 4c**

(a) Anger Joint

## Couplings

### Fig 5a



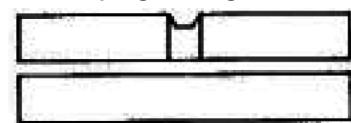
R/J Coupling with register



R/J Coupling without register

### Fig 5b

P/S Coupling with register



P/S Coupling without register

### 1 : Coupling with / without register

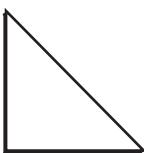
Couplings with double ring seals or solvent weld joints are supplied by Al-Rajhi for jointing plain ended pipes or when pipes are jointed to required length. These couplings may either be with register or without register, the latter type being used for repair or alteration work in the existing lines. For specific dimensions refer to page 34, Table 16.

### 2 : Special adaptor Coupling

A range of special adaptor couplings are available for connecting UPVC pipe of different standards (e.g. 6" ASTM or BS UPVC pipe to 160mm O.D., SSA or DIN UPVC Pipe).

### 3 : Flange Adaptor Socketed

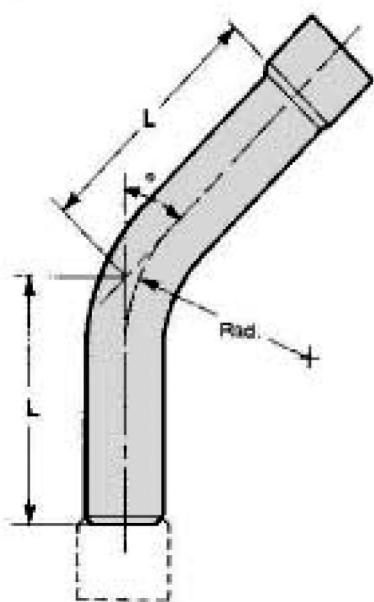
Flange holes drilled according to customer's requirements.



## Fabricated Drawn Radius Bend (Solvent Weld Joint)

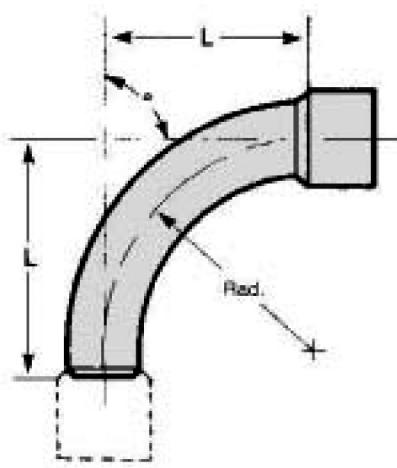
Drawn Radius Bend are produced from normal wall thickness pipe.

Fig. 18a



Single Socket  
or Double socket  
to be specified.

Fig. 18b



Single Socket  
or Double socket  
to be specified.

TABLE 14 :

Pipe O.D. mm	Radius mm	11 1/4'	22 1/2'	45'	90'
		L.mm	L.mm	L.mm	L.mm
16	56	100	115	126	170
20	70	100	115	135	170
25	88	100	115	145	180
32	112	100	115	150	190
40	140	110	125	170	220
50	175	175	180	225	350
63	221	240	260	300	420
75	263	260	285	350	470
90	315	350	390	460	600
110	385	370	400	500	690
140	490	390	410	570	760
160	560	400	420	600	1000
200	712	480	540	760	1150
225	786	590	610	840	1240

Dimensions stated above are indicative. Detailed specification for design purposes should be obtained from our Technical Sales Department. Bends for sizes 250mm and above with solvent weld joint consult our Sales Department.

## Fabricated Drawn Radius Bends (Rubber Seal Ring Joint)

Drawn Radius Bends are produced from thickened wall pipe.

Fig. 19a

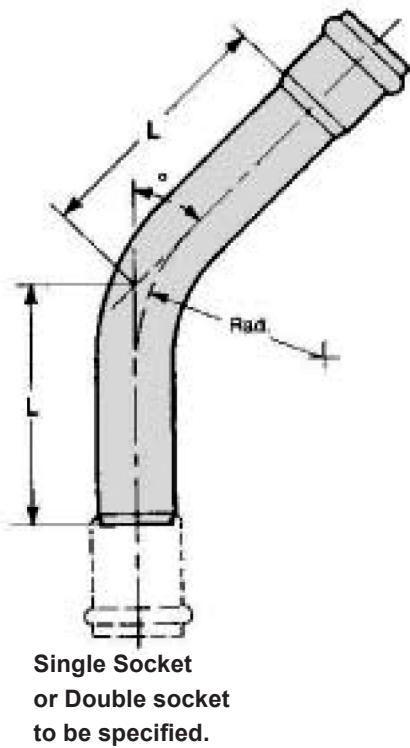


Fig. 19b

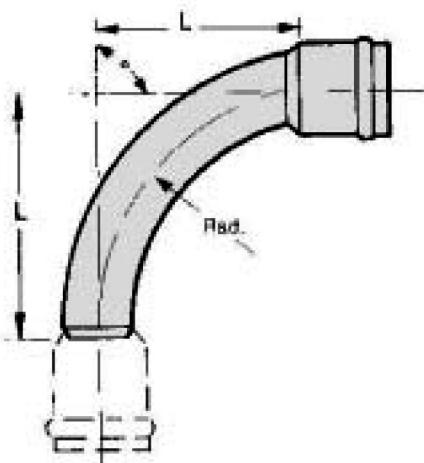


TABLE 15 :

Pipe O.D. mm	Radius mm	11 1/4°	22 1/2°	45°	90°
		L.mm	L.mm	L.mm	L.mm
63	221	240			
"	"		260		
"	"			300	
"	"				420
75	263	260			
"	"		285		
"	"			350	
"	"				470
90	315	350			
"	"		390		
"	"			480	
"	"				600
110	385	370			
"	"		400		
"	"			500	
"	"				600
140	490	390			
"	"		410		
"	"			570	
"	"				760
160	560	400			
"	"		420		
"	"			600	
"	"				1000
200	712	480			
"	"		540		
"	"			760	
"	"				1150
225	788	590			
"	"		610		
"	"			840	
"	"				1240
250	852	680			
"	"		730		
"	"			850	
"	"				1350
280	980	700			
"	"		830		
"	"			1040	
"	"				1610
315	1103	810			
"	"		910		
"	"			1050	
"	"				1690

Note : Bends of other Angles or radius to special order.

Dimensions stated above are indicative. Detailed specification for design purpose should be obtained from our Technical Sales Department.

## Fabricated Couplings

Fig. 20a

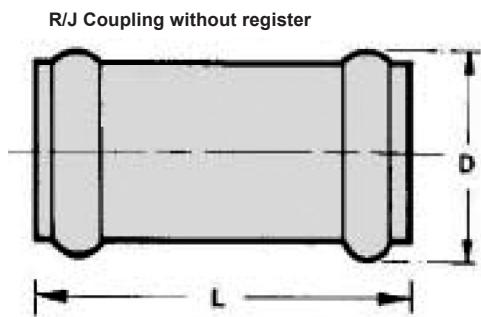


Fig. 20b

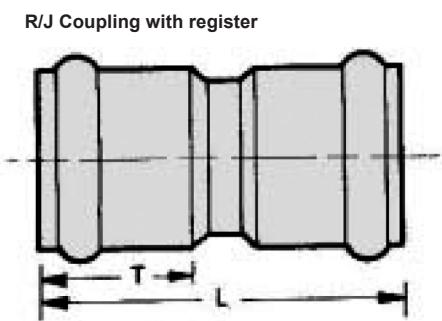


Fig. 20c

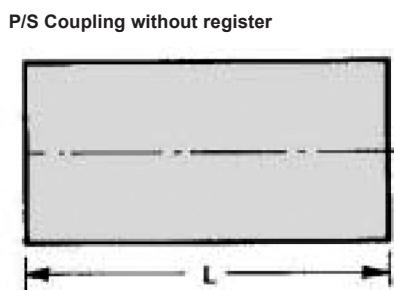


Fig. 20d

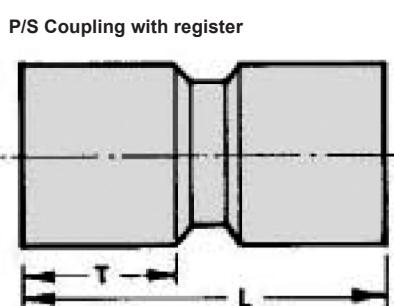


TABLE 16:

Dimensions for Couplings

Pipe	R/J Coupling			P/S Coupling		
	O.D. mm	L.mm	D.mm	T.mm	L.mm	
16					56	25
20					58	27
25					66	30
32					74	34
40					94	39
50					96	45
63	240	90	100	126	53	
75	250	105	103	140	60	
90	270	125	111	160	69	
110	290	150	116	185	81	
140	330	192	125	230	99	
160	350	211	135	250	111	
200	375	247	144	300	135	
225	430	290	154	360	150	
250	445	310	162	380	165	
280	495	360	172	425	183	
315	545	403	185	478	204	
355	568	434	194	520	224	
400	612	485	205	570	246	

Dimensions stated above are indicative, Detailed specification for design purposes should be obtained from our Technical Sales Department.

