

# **AGRICULTURE**PIPES & FITTINGS



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# AGRICULTURE PIPES

PVC-U Pipes for agriculture & potable water supply are manufactured in a wide range of sizes and pressure classes. Their primary use is agricultural; main lines, branch lines for sprinkler and drip irrigation. They are available in two types of joints – Selfit (solvent cement joint) & Ringfit (rubber ring joint). These pipes are superior to conventional C.I., D.I. and R.C.C. pipes and offer the following advantages: lightweight, easy transportation and installation, high flow rate, high resistance to chemicals and corrosion ensuring an extended product life.

# SELFIT PVC-U PIPES

(Conforming to IS 4985)

One end of this pipe is self-socketed and the other is plain. This allows for a snug fit, without the use of any couplers. The strong solvent cement joint is permanent and trouble-free. This eliminates the inconvenience of loose couplers and thereby saves both time and cost.

## DIMENSIONS OF SELFIT PVC-U PIPES

	Moan (	Outside					V	WALL TH	IICKNES	S				
Nominal Outside Diameter		neter	Cla: 0.25		:			ass 3 Cla MPa 0.8		ss 4 MPa	Cla 1.0 I		Clas 1.25	,
Diameter	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
20	20.0	20.3	-	-	-	-	-	-	-	-	1.1	1.5	1.4	1.8
25	25.0	25.3	-	-	-	-	-	-	1.2	1.6	1.4	1.8	1.7	2.1
32	32.0	32.3	-	-	-	-	-	-	1.5	1.9	1.8	2.2	2.2	2.7
40	40.0	40.3	-	-	-	-	1.4	1.8	1.8	2.2	2.2	2.7	2.8	3.3
50	50.0	50.3	-	-	-	-	1.7	2.1	2.3	2.8	2.8	3.3	3.4	4.0
63	63.0	63.3	-	-	1.5	1.9	2.2	2.7	2.8	3.3	3.5	4.1	4.3	5.0
75	75.0	75.3	-	-	1.8	2.2	2.6	3.1	3.4	4.0	4.2	4.9	5.1	5.9
90	90.0	90.3	1.3	1.7	2.1	2.6	3.1	3.7	4.0	4.6	5.0	5.7	6.1	7.1
110	110.0	110.4	1.6	2.0	2.5	3.0	3.7	4.3	4.9	5.6	6.1	7.1	7.5	8.7
125	125.0	125.4	1.8	2.2	2.9	3.4	4.3	5.0	5.6	6.4	6.9	8.0	8.5	9.8
140	140.0	140.5	2.0	2.4	3.2	3.8	4.8	5.5	6.3	7.3	7.7	8.9	9.5	11.0
160	160.0	160.5	2.3	2.8	3.7	4.3	5.4	6.2	7.2	8.3	8.8	10.2	10.9	12.6
180	180.0	180.6	2.6	3.1	4.2	4.9	6.1	7.1	8.0	9.2	9.9	11.4	12.2	14.1
200	200.0	200.6	2.9	3.4	4.6	5.3	6.8	7.9	8.9	10.3	11.0	12.7	13.6	15.7
225	225.0	225.7	3.3	3.9	5.2	6.0	7.6	8.8	10.0	11.5	12.4	14.3	15.3	17.6
250	250.0	250.8	3.6	4.2	5.7	6.5	8.5	9.8	11.2	12.9	13.8	15.9	17.0	19.6
280	280.0	280.9	4.1	4.8	6.4	7.4	9.5	11.0	12.5	14.4	15.4	17.8	19.0	21.9
315	315.0	316.0	4.6	5.3	7.2	8.3	10.7	12.4	14.0	16.1	17.3	19.9	21.4	24.7
355	355.0	356.1	5.1	5.9	8.1	9.4	12.0	13.8	15.8	18.2	19.6	22.6	24.1	27.8
400	400.0	401.2	5.8	6.7	9.1	10.5	13.5	15.6	17.8	20.5	22.0	25.3	27.2	31.3

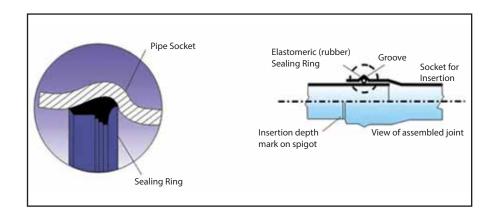
(All dimensions in mm)



# RINGFIT PVC-U PIPES

(Conforming to IS 4985)

This unique range of PVC-U pipes introduced by Finolex for the first time in India is specially designed for higher diameter requirements and eliminates the need for solvent cement. The sealing ring ensures leak-proof joints and easy installation. The entire range comprises sizes from 63 mm to 400 mm diameter, in 4,6,8 and 10 kgf/cm² working pressure classes.



## DIMENSIONS OF RINGFIT PVC-U PIPES

	Mean (	Outside				WALL TH	IICKNESS			
Nominal Outside Diameter		neter	Cla: 0.4	ss 2 MPa		ss 3 MPa		Class 4 0.8 MPa		ss 5 MPa
Diamoto:	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
63	63.0	63.3	1.5	1.9	2.2	2.7	2.8	3.3	3.5	4.1
75	75.0	75.3	1.8	2.2	2.6	3.1	3.4	4.0	4.2	4.9
90	90.0	90.3	2.1	2.6	3.1	3.7	4.0	4.6	5.0	5.7
110	110.0	110.4	2.5	3.0	3.7	4.3	4.9	5.6	6.1	7.1
125	125.0	125.4	2.9	3.4	4.3	5.0	5.6	6.4	6.9	8.0
140	140.0	140.5	3.2	3.8	4.8	5.5	6.3	7.3	7.7	8.9
160	160.0	160.5	3.7	4.3	5.4	6.2	7.2	8.3	8.8	10.2
180	180.0	180.6	4.2	4.9	6.1	7.1	8.0	9.2	9.9	11.4
200	200.0	200.6	4.6	5.3	6.8	7.9	8.9	10.3	11.0	12.7
225	225.0	225.7	5.2	6.0	7.6	8.8	10.0	11.5	12.4	14.3
250	250.0	250.8	5.7	6.5	8.5	9.8	11.2	12.9	13.8	15.9
280	280.0	280.9	6.4	7.4	9.5	11.0	12.5	14.4	15.4	17.8
315	315.0	316.0	7.2	8.3	10.7	12.4	14.0	16.1	17.3	19.9
355	355.0	356.1	8.1	9.4	12.0	13.8	15.8	18.2	19.6	22.6
400	400.0	401.2	9.1	10.5	13.5	15.6	17.8	20.5	22.0	25.3

(All dimensions in mm)



# MOULDED FITTINGS

(As per IS 7834)

### **REDUCER BUSH:**



To reduce the internal diameter of a fitting.

1	25X20	32X25	40X32	50x 40	63x50
		02/120	.07.02	00% 10	
	75x40	75x63	90x75	110x63	110x75
	110x90	160x110	160x140	180x140	180x160
	200x110	200x140	200x160	200x180	-

#### **COUPLER:**



To join two pipes

,					,		,		r		
20	25	32	40	50	63	75	90	110	140	160	_
			L		L		L	I	L		L

## **ELBOW (Plain/Threaded):**



To give a 90° turn to a pipe line. (Not advisable to use on higher diameter pipelines as it tends to restrict flow & increase friction).

20	25	32	40	50	63	75	90	110	140	160	180
200	-	-	-	-	-	-	-	-	-	-	-

### ELBOW (90°) FEMALE THREADED (BRASS INSERT):



To connect male threaded CP/Metal fittings like taps, showers, etc to pipeline.

25 X 1/2"   -   -   -
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# END CAP (Plain/Threaded):



To plug at the end of pipeline. End caps with BSPT (11 TPI) threads are also available in size from 40 mm- 110

20	25	32	40	50	63	75	90	110	140	160	180
200	-	-	-	_	_	-	_	_	-	_	_

# FTA (Female Threaded Adaptor):



To connect PVC pipes & G.I./Metal pipes.

20 x ½"	25 x ¾"	32 x 1"	40 x 11/4"	50 X 1 ½"
63 X 2"	75 x 2"	75 X 2 ½"	90 X 2"	90 X 2 ½"
90 X 3"	110 X 4"	140 X 5"	160 X 6"	-

#### FTA - FEMALE THREADED ADAPTOR (BRASS INSERT):



To connect male threaded CP/Metal fittings like taps, showers, etc to pipeline.

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	25 7/4/211				
- 1	25 X 1/2	_	_	_	- :
- 1			i	L	·

## MTA (Male Threaded Adaptor):



To connect G. I./Metal pipelines & all types of valves, taps and pumps.

20 x ½	ź" <b>2</b> 5	x ¾" 32	x 1" 40	x 1¼" 50 ½	X 1 ½" (	63 X 2"
75 x 2	½" 90	X 3" 110	X 4" 140	0 X 5" 160	0 X 6"	-

#### **REDUCER:**



To connect a service line to the main line after a tee has been installed.

25X 20	32X 25	40X 32	50X 40	63X 40	63X 50
75X 40	75X63	90X63	90X75	110X 63	110X 75
110X90	140X110	160X110	160X140	_	_

### **SERVICE SADDLE:**



To tap the main line into a small feeder line for domestic purposes. Also used for fixing air valves on the line. Available in outlets of 20 mm (%"), 25 mm (%") & 32 mm (1") in sizes 63, 75, 90, 110 & outlets of 25 mm (¾") to 63 mm (2") in sizes 140 & 160.

63	75	T	90	110	140	160	180	200

#### **TAIL PIECE:**



For accessories that are to be connected by using a flange & spigot joints.

Ī	63		110		200
•		 		 	 

#### TEE:



To take a bypass or a service line from the main line.

20	25	32	40	50	63	75	90	110	140	160	180
200	-	-	-	-	-	-	-	_	-	-	-

### **TEE (BRASS INSERT):**



To connect a male threaded CP/Metal fitting like taps, showers, etc to a pipeline.

25 X 1/2"	_	_	_	_

#### **REDUCING TEE:**



To take a reducing bypass or a service line from the main line.

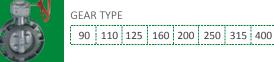
25X20	32X20	32X25	40X20	40X25
40X32	50X20	50X25	50X32	50x 40
63X25	63X32	63x50	75x40	75x 50
75x63	90x 63	90x75	110x63	110x75
110x90	140x90	140x110	160x110	160x140

# **VALVES** (As per ISO 4422)

# **BUTTERFLY VALVE:**



To control and regulate the flow of the fluids.





HANDLE TYPE

			1 1					1	- 1	
63	75	90	110	175 :	160	200	_	_		_
	-J					l	l	/		

# **COUPLER:**



To join two pipes.

63	75	90	110	125	140	160	180
200	225	250	280	315	355	400	-

## **COMPACT BALL VALVE:**



To allow a quick and convenient disconnection of the water supply.

20	25	32	40	50	63	90

## **REPAIR COUPLER:**



To repair the damaged portion of a pipeline.

63	75	90	110	140	160	200
225	250	280	315	355	400	-

## **FOOT VALVE:**



To ensure trouble free flow of water in the desired direction.

90	_	-	-	-	-	-	

#### **REDUCER:**



To connect a service line to the main line.

140 x 110	200 x 160	250 x 200

# FABRICATED FITTINGS (As per IS 10124)

# BEND - 90°:



To give a 90° turn to a pipeline.

32	40	50	63	75	90	110	125	140
160	180	200	225	250	280	315	355	400

#### **TAIL PIECE:**



For accessories that are to be connected by using a flange & spigot joints.

Available in sizes from 250 mm to 400 mm with a pressure rating 6 kgf/cm<sup>2</sup>.

250	280	315	355	400

(Pressure Rating in kgf/cm2)

(All dimensions in mm)



# FEATURES & BENEFITS

## **SELFIT**



Excellent flow characteristics.



Lower installation time and cost.



Non-reactive to acids, alkalis, effluents, salt and minerals



Reduced inventory as the use of couplers is eliminated.



Reduced number of joints results in substantial savings in the labor costs.



Selfit sockets are made with high precision on specially developed machines.



Smooth inner wall minimizes frictional losses and scaling due to precipitation.



Standard length of 6 meters excluding the socket portion. Also available in 5 meters.

#### **RINGFIT**



Convenient & easy installation.



The joints formed are leak-proof.



Jointing can be done in any weather.



Facilitates faster installation, which makes immediate pressure testing and commissioning possible.



The EPDM seal remains intact even in extreme temperature variations as the rubber ring absorbs the linear expansion and contraction.



Corrosion and rust proof which ensures an extended product life.



Deflection of pipes due to soil shifting or land contour can be easily accommodated upto 2° per joint.

# **APPLICATION**

PVC-U pipes are used for conveyance of water in agriculture and allied applications such as:



Tube wells.



Irrigation schemes.



Main lines for sprinkler and drip irrigation.



Bio gas plant.



Potable water supply lines.



Rising main and distribution lines.



# **SOLVENT CEMENT & LUBRICANT**

### **SOLVENT CEMENT**



PVC-U Solvent Cement for Agriculture Applications upto 110 mm (4")

Size	ml	100	250		1000	5000
	Container	Tin	Tin	Tin	Tin	Can

#### **SOLVENT CEMENT**



PVC-U Solvent Cement for High Diameter Agriculture Applications above 110 mm (4")

Size	ml	250	500	1000	5000
	Container	Tin	Tin	Tin	Can

#### **LUBRICANT**



Rubber Lubricant used for installation of Ringfit pipes and fittings.

Cizo	gms	50	100	250	500	1000
Size	Container	ner Plastic Container			ainer	

# REQUIREMENT OF SOLVENT CEMENT FOR JOINTING OF SELFIT PIPES & FITTINGS

The following chart should be used as a guideline to determine one's requirement:

Outside diameter of pipe (mm)	Outside diameter of pipe (inches)	Approx No. of Joints/Ltr. of Finolex Solvent Cement
20	1/2"	300
25	3/4"	250
32	1	225
40	11/4"	175
50	11/2"	130
63	2"	125
75	21/2"	100
90	3"	75
110	4"	50
140	5"	35

Outside diameter of pipe (mm)	Outside diameter of pipe (inches)	Approx No. of Joints/Ltr. of Finolex Solvent Cement	
160	6"	28	
180	7"	25	
200	8"	15	
225	9"	12	
250	10"	9	
280	11"	7	
315	12"	5	
355	14"	3	
400	16"	2	



# **JOINTING**

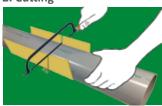
# For Selfit Pipes & Fittings:

#### 1. Measuring





2. Cutting





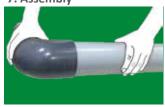
6. Solvent Cement application



4. Cleaning



7. Assembly



# For Ringfit Pipes & Fittings:

## 1. Cleaning



5. Lubricant application



2. Rubber Ring fitment

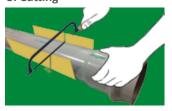


6. Assembly

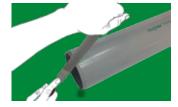


3. Cutting

3. Chamfering



4. Chamfering & Cleaning



# **CERTIFICATIONS & APPROVALS**

- Pipes are manufactured conforming to IS 4985 (Bureau of Indian Standards).
- Fittings are manufactured as per IS 10124 & IS 7834 (Bureau of Indian Standards)
- Approved by MJP (Maharashtra Jeevan Pradhikaran).
- Approved & Tested by Central Institute of Plastics Engineering and Technology (CIPET).
- Approved & Tested by SGS laboratory.

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