



SHAKTI

IRRIGATION





uPVC COLUMN PIPES

FOR SUBMERSIBLE PUMPSET

APPLICATIONS

- Residential : Drainage & rainwater pipes for domestic use
- Industrial : For use in mining & chemical plants
- Agricultural : For irrigation of fields & plants
- Other : Swimming pool, sewage treatment & other public projects

BENEFITS

- Water rising for submersible and jet pump for irrigation, Domestic, Industrial mining, Chemical Distribution.
- A wise replacement for MA, PPR, ERW, GI, HDPE and SS Column Pipes.
- uPVC is nearly inert towards corrosion, Chemical reaction & erosion due to which, it is ideally used in salty, sandy and chemically aggressive water without any effect over the year.
- Installation vertical, Horizontal or Inclined.

RANGE

Outer Diameter : 33 mm to 165 mm
Available in Medium, Standard, Heavy & Super Heavy
Pressure Rating : 15 kg/cm² to 35 kg/cm²





uPVC COLUMN PIPES

SALIENT FEATURES

- ISO 9001-2015 certified
- Non-toxic in every way
- Suitable for depth up to 1200 ft
- Save electricity
- Available in the range of 1 Inch - 6 Inch
- Long lasting
- 25% more discharge as compared to galvanized pipes
- No chance of chemicals getting deposited
- Easy to carry, handle & install
- Very cost-effective

SUPERIOR DESIGN

- High quality finish that ensures unobstructed flow of water.
- Square threads ensure high tensile load capacity.
- Rubber gasket & spigot ends both inside & outside, ensure smooth joining as well as pressure sealing.
- Step ring prevents leakage, tremor & excess tightening to a great extent.
- Sealing ring on the inside ensures that all joints are leak proof, while also eliminating possibility of excess tightening to a great extent.
- Outer ring too, minimises joint leakage as well as excess tightening.
- Pipes are joined by means of coupler which remains locked due to inbuilt locking system.
- Thus, there is always a surety that neither the column pipe will slip & fall out nor the coupler will come out while fitting or removing the pump.
- There is 25% increased water flow due to smooth inside surface, as also ensuring 20% less electricity consumption.
- Clear & visible Shakti Hallmark eliminates any possibility of falling prey to spurious uPVC pipes.

PACKING DETAILS (Nos. of Pipes/ Bundle)

Size	3/2.9 Meter
1"	25
1.25"	20
1.5"	15
2"	10
2.25"	10
2.5"	8
3"	6
4"	4
5"	2
6"	2

Neno	1"	1.25"	1.50"	2"	2.25"	2.50"	3"	4"	5"
	25	20	15	10	10	8	6	4	2

Medium	1"	1.25"	1.50"	2"	2.25"	2.50"	3"	4"	5"
	25	20	15	10	10	8	6	4	2

Standard	1"	1.25"	1.50"	2"	2.25"	2.50"	3"	4"	5"
	25	20	15	10	10	8	6	4	2

Heavy	1"	1.25"	1.50"	2"	2.25"	2.50"	3"	4"	5"	6"
	25	20	15	10	10	8	6	4	2	2

Super Heavy	1"	1.25"	1.50"	2"	2.25"	2.50"	3"	4"	5"
	25	25	20	10	10	10	5	5	3



**INBUILT
LOCKING
SYSTEM**



2.5" (63MM NB) HEAVY
MAXIMUM DELIVERY PRESSURE: 26 kg/cm²

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uPVC COLUMN PIPES

SHORT COUPLER - TECHNICAL DETAILS



Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 33 mm (1") ND: 25 mm				
Medium	900	500	15	130
Standard	1200	700	21	200
Heavy	1650	950	26	240



Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 42 mm (1.25") ND: 32 mm				
Medium	1600	850	15	130
Standard	1700	1000	21	200
Heavy	2550	1500	26	250



Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 48 mm (1.5") ND: 40 mm				
Medium	1900	1100	15	130
Standard	2850	1600	26	250
Heavy	4000	2300	35	350



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Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 60 mm (2") ND: 50 mm				
Medium	3150	1850	15	130
Standard	3600	2100	21	200
Heavy	4700	2800	27	270
Super Heavy	5650	3350	35	350



Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 75 mm (2.5") ND: 65 mm				
Medium	3100	1800	13	100
Standard	4650	2700	18	160
Standard Plus	5100	3000	21	200
Heavy	7000	4200	26	260
Super Heavy	9000	5300	35	350



Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 88 mm (3") ND: 80 mm				
Medium	4450	2600	11	110
Standard	6800	4000	18	170
Standard Plus	7500	4400	21	190
Heavy	9600	5650	26	200
Super Heavy	12400	7300	35	350



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SHORT COUPLER - TECHNICAL DETAILS



Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 113 mm (4") ND: 100 mm				
Medium	6800	4000	10	100
Standard	10000	5900	16	150
Heavy	15900	9350	26	200
Super Heavy	20600	12150	35	350



Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 140 mm (5") ND: 125 mm				
Medium	12200	7750	10	130
Standard	16400	9650	16	160
Heavy	24000	14600	26	230
Super Heavy	30500	18600	35	350



Type & Size OD- Outside Dia. NB- Nominal Bore	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure BAR/KG	Safe Total Pump Delivery Head (mtr.)
OD 165 mm (6") ND: 150 mm				
Heavy	40000	23500	26	260



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uPVC COLUMN PIPES

LONG COUPLER - TECHNICAL DETAILS



Type & Size OD- Outside Dia. ND- Nominal Dia.	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure	Safe Total Pump Delivery
			Bar/Kg	Head (mtr.)
OD 60 mm (2") ND: 50 mm				
Nano	2000	1200	13	90
Medium	3150	1850	15	130
Standard	3600	2100	21	200
Heavy	4700	2800	27	270
Super Heavy	5650	3350	35	350



Type & Size OD- Outside Dia. ND- Nominal Dia.	Ultimate Breaking Load (KG)	Safe Pulling Load with Chain Pulley (KG)	Safe Allowable Hydrostatic Pressure	Safe Total Pump Delivery
			Bar/Kg	Head (mtr.)
OD 75 mm (2.5") ND: 65 mm				
Medium	3100	1800	13	100
Standard	4650	2700	18	160
Heavy	7000	4200	26	260
Super Heavy	9000	5300	35	350



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			Bar/Kg	Head (mtr.)
OD 88 mm (3") ND: 80 mm				
Medium	4450	2600	11	110
Standard	6800	4000	18	170
Standard Plus	7000	4200	21	190
Heavy	9600	5650	26	200
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LONG COUPLER - TECHNICAL DETAILS



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			Bar/Kg	Head (mtr.)
OD 113 mm (4") ND: 100 mm				
Medium	6800	4000	10	100
Standard	10000	5900	16	150
Standard Plus	11500	6000	21	170
Heavy	15900	9350	26	200
Super Heavy	20600	12150	35	350



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			Bar/Kg	Head (mtr.)
OD 165 mm (6") ND: 150 mm				
Heavy	40000	23500	26	260



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uPVC COLUMN PIPES

QUALITY CONTROL PROCEDURES

The pipes and couplers manufactured at Shakti, follow a stringent quality control process in order to supply a defect free system to its users.

Test	Standard
Short Term Hydrostatic Pressure Test	As per IS 4985-1988
Impact Strength	As per IS 4985-2000 Testing done at 6 to 20 times higher than specifications
Tensile Strength	As per IS 12818-1992
Joint Pressure Test	As per IS 12235-2004 Should be one or two times of working pressure (depending on size)
Specific Gravity	As per IS 12818-1992 Between 1.40 - 1.43

INSTALLATION GUIDE

Step 1:

Join the metal connector with submersible pump with the help of a chain wrench.

Step 2:

Before joining the pipes, ensure to clean the threads with clean water.

Step 3:

Before joining the pipes, ensure that the pump guard is installed properly.

Step 4:

Before opening or joining the pipe/adaptor ensure to hold the coupling by hand.

Step 5a/5b:

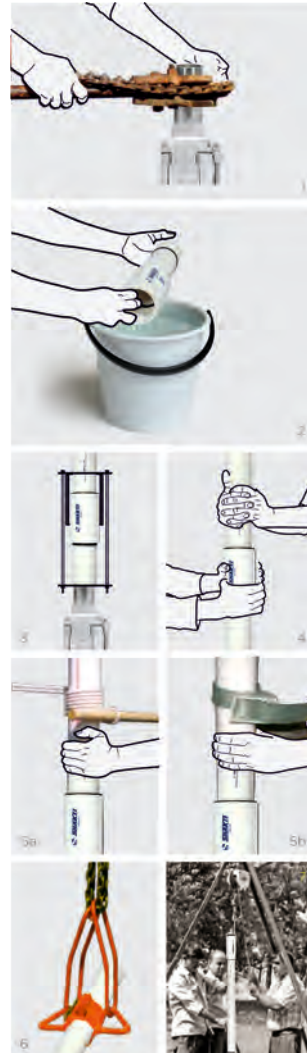
Tighten pipe with hand till half rubber ring is seen. Finally if required, give a last jerk with rope or felt wrench.

Step 6:

At the time of lowering Shakti pipes, place the clamp below the coupler. Clamp the top adaptor with the last pipe.

Step 7:

Lower the pipes with the help of chain pulley.





uPVC COLUMN PIPES

ADAPTER

SS TOP ADAPTER



SS BOTTOM ADAPTER



CI TOP ADAPTER



CI BOTTOM ADAPTER



Available in all sizes from 1 Inch to 6 Inch Column Pipes

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CASING PIPE

APPLICATIONS

- Bore-well Casing, Irrigation, Domestic, Industrial mining, Chemical distribution.
- A wise replacement for MS, ERW, GI, Asbestos and Cement and SS Pipes.
- uPVC is nearly inert towards corrosion, chemical reaction and due to which, it is ideally used in salty, sandy and chemically aggressive water without any effect over the years.

SPECIFICATION

- Maximum installation depth 250m for CM series, and 80m for CS series.
- Installation: Vertical, Horizontal or Inclined

SALIENT FEATURES

- Easy to Handle
- Corrosion Free
- Ultimate Tensile Strength and Impact Strength
- Maximum Yield of Water
- Easy Joining & Installation
- Fire Proof
- Long Life
- Very high collapsible resistance

SPECIAL FEATURES & IDENTITY

- Trapezoidal threaded socket & spigot ends for easy, reliable jointing, long and better strength.
- Surface finish of this pipe is extremely smooth which reduces the hydraulic friction.
- Ribbed screen pipes are used especially when outer surface area of bore-well casing pipe is to be increased. These ribs provide around 25% of additional surface area by virtue of its design. Besides that if hole gravel balls away from the pipe at a distance of about 2 mm.
- This arrangement naturally cleans slits due to vertical flow passage and allows more water to seep in, resulting in higher yield than other plain screen pipes from same bore
- Horizontal Slots to get maximum water yield.

RANGE

Outer Diameter : 110 mm to 225 mm
Colour : Blue & Gray
Available : Slotting, threading & solvent joint





PVC RIGID PIPE

SALIENT FEATURES

- Specification followed : IS : 4985:2000
- Lightweight, easy to transport & install
- Strong, flexible & durable
- High electrical resistance, low thermal conductivity & extremely hygienic
- Saves energy due to smooth inner surface which enables better discharge
- Resistant to chemicals
- Termite proof & UV resistant
- Leak proof
- Negligible algae formation due to low opacity
- Resistant to moisture abrasion & wearing

APPLICATIONS

Agriculture:

- For irrigation purpose in agriculture

Industrial:

- Disposal of chemical effluent & waste
- Acid & slurries transportation
- Salt water handling

Domestic:

- Potable water supply in urban areas

Others:

- Telecommunication cable ducting



RANGE

Outer Diameter / Pressure Rating

90mm to 315 mm OD in 2.5 kgf/cm²

63mm to 315 mm OD in 4.0 kgf/cm²

40mm to 315 mm OD in 6.0 kgf/cm²

20mm to 315 mm OD in 10.0 kgf/cm²





SWR PIPE

INTRODUCTION

Shakti SWR pipes are specially designed and manufactured using high grade raw materials and are an ideal solution for efficient removal of waste without leakage in the drainage system.

SWR pipes and fittings are used for non-pressure plumbing applications such as transportation of soil, waste and rainwater, non-pressure industrial drainage applications, and waste discharge systems in residential and commercial complexes, resorts, and hospitals. SWR pipes are offered in two primary types; type A for rainwater and vents and type B for soil and waste discharge. Shakti SWR pipes support easy installation as the Integrated Ring pre-fitted in the groove of the socket remains permanently positioned.

The joint is made simply by pushing the spigot end into the socket end, without the use of any Solvent Cement. Shakti lubricant should be used for easy insertion.

The ring forms a leak proof joint and absorbs the linear expansion and contraction, keeping the seal intact.

RANGE

Outer Diameter : 75mm to 160 mm
Pressure Rating : 2.5 kgf/ cm²





HDPE PIPE

FEATURES

- Excellent corrosion and chemical resistance.
- Inert to most acidic and alkaline solutions.
- High flow characteristics.
- Light weight.
- Easy to handle & transport.
- Excellent flexibility combined with strength.
- Good abrasion resistance.
- Smooth inner walls minimises frictional losses.
- Safe for potable water supply.



LENGTH & PACKING

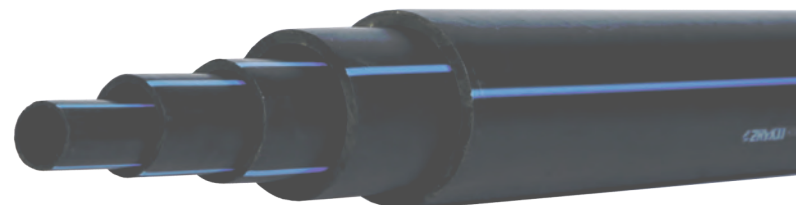
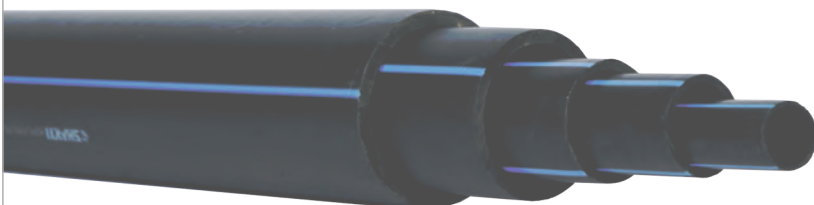
Size Range (MM)	Coil Length (Mtr.)
20-50	100, 200, 500, 1000
63-75	100,200
90-110	50, 100 Straight Length of 6-12 Mtr.
125-500	Straight Length of 6-12 Mtr.

RANGE

Outer Diameter : 25 mm to 500 mm
Grade : PE63, PE80 & PE100
Pressure Rating : PN4, PN6, PN8,
PN10, PN12.5 & PN 16

STANDARD APPLICATION

Application	Grade	Applicable Standard
Potable water mains, house connections	PE 63, PE 80 and PE 100	IS:4984, ISO:4427, DIN 8074/75, AS/NZS 4130
Rural and agricultural pipes	PE 63 and PE 80	IS:17425
HDPE pipes for submersible pumps in coil form	PE 63 and PE 80	IS:4984
Sewerage/Subsoil drainage	PE 80 and PE 100	IS:4984
Coal handling in mines	PE 80 and PE 100	IS:4984
Industrial applications	PE 63, PE 80 and PE 100	IS:4984
ID Pipes for submersible pump	PE 63 and PE 80	Company Standard





SPRINKLER PIPE

APPLICATIONS

Agriculture

- Efficient use of water, fertilizers
- Safety of crops and reduction of soil erosion.

Industrial

- Checking of dust pollution in cement Industries and mining pits.

Other

- Playground and golf course maintenance.
- Land decor and beautification
- Field Irrigation.

FEATURES

- Strong, durable & leak proof
- Light weight and flexible
- Energy saving
- Inert to chemical, corrosion,
- Environmental stress
- Safe - UV stabilizer for protection from
- Sunlight & avoid degradation of materials
- High Quality Grade Pipe & Fittings
- Water Saving
- Long Lasting & Maintenance Free

RANGE

Outer Diameter : 50 mm to 110 mm
Pressure Rating : 2.5, 3.2, 4 & 6 kg/cm²



UNDER THE FLAGSHIP COMPANY SHAKTI PUMPS (INDIA) LIMITED



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