



### **HIGH STRENGTH COLUMN PIPES**



## **PIPING SOLUTION FOR BORE WELLS**

www.ajaypipes.com

## About Us

Ajay Pipes is part of an over 50 year old organization, a leader in plumbing & drainage solutions offering complete range of piping products for internal and external use. The company offers advance engineered, value added and superior quality products through its multi-locational manufacturing, nationwide dealer network and support team.

Mission

"To ensure customer service and satisfaction by providing high quality plastic piping solutions through a ubiquitous distribution network, spreading product awareness and constantly improving manufacturing and operational efficiencies through systems and result oriented, competent manpower resources thereby creating sustained value for all our customers and stakeholders while maintaining high ethical standards"

### Core Values

- O Invest in Quality of People First
- O Go the Last Mile for the Customer
- O Focus on Innovation and Speed
- O Run Lean and Unbureaucratic
- O Improve Performance every single day
- O Act Honestly, with Integrity and Citizenship
- O Work Hard, Oriented to Results, yet have fun

The company has been the pioneer in

- O UPVC pipe manufacturing
- O Reinforced suction Hose
- O Reinforced Layflat Hose
- O UPVC Corrugated pipes
- O Handpumps

### Infrastructure

- O Factories at Dehradun, Pune and Delhi
- O Certified ISO 9001, ISO 14001 and OHSAS 18001
- O Pipes manufactured using latest twin screw technology
- O Fittings using advanced injection molding technique
- O 11 Warehouses in different parts of the country
- O Well equipped Tool rooms
- O Full equipped laboratories and development facilities
- O 500+ strong distribution network
- O Trained sales force

### Other Divisions

- O Handpumps Screen and Casing pipes
- O Reliefline products O Tubelight Fixtures
- O Mainline electrical power outlet system
- O Customised extruded profiles







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DEHRADUN PLANT

# Ajay Manufacturers Complete Range of:



Complete Solution For Hot And Cold Water Plumbing

### **FEATURES AND BENEFITS**

- 25% Higher Performance
- Proven hot water performance upto 93°C
- The only NSF Certified CPVC Pipes and Fittings.
   Manufactured from imported environment friendly virgin high performance CPVC
- Compounds
- Safe for drinking water and human health
- Exceptional all weather corrosion resistance
- No scaling or pitting maintains flow
- Microbial resistance
- Self extinguishing
- UV resistance
- Low thermal expansion
- High impact resistance
- Fast and Easy installation
- Consistent and reliable jointing
- Cost effective

### **RANGE AVAILABE**

CPVC Pipes – SDR 11 – ½" to 2" CPVC Pipes – SDR 13.5 – ½" to 2" CPVC Pipes – SCH 40 – 2-1/2" to 8" CPVC Pipes – SCH 80 – 2-1/2" to 8"

Fittings – SDR 11 - 1/2" to 2"
Fittings – SCH 80 - 2-1/2" to 8"
Fittings – SCH 40 - 2-1/2" to 4"
Ball Valves, Unions & Flanges
Solvents & Primers

### FEATURES AND BENEFITS

- Manufactured from environment friendly virgin UPVC Compounds
- Lead free material does not affect water quality for human health
- Does not corrode
- Does not support scaling even in hard water conditions.
- High strength.
- All weather UV resistance.
- Does not support combustion.
- Good impact resistance.
- Fast and Easy installation
- Consistent and reliable jointing
- Stringent quality control
- Cost effective with very low lifetime ownership cost
- Ajay Greenline is fully compatible with cold water plumbing system

### **RANGE AVAILABE**

UPVC Pipes – SCH 40 - 1/2" to 8" UPVC Pipes – SCH 80 - 1/2" to 8"

Fittings – SCH 80 - 1/2" to 8" Fittings – SCH 40 - 2 1/2" to 4" Ball Valves, Unions & Flanges Solvents & Primers







Complete Solution For Cold Water Plumbing

# Ajay Manufacturers Complete Range of:







**Complete Solution For** Soil Waste And Rain Water Drainage

### FEATURES AND BENEFITS

- Quick and Easy Installation due to Light weight pipes and Fittings.
- Leak proof joints.
- Maintenance free systems .
- All pipe and fittings in strict compliance to standards.
- Available in Ring fit jointing & solvent fit jointing systems
- Full range of pipe and fittings
- Pipe manufactured using latest twin screw technology and fittings using latest injection molding technology.
- Corrosion and rust proof.
- Chemical resistant (Specially to most household
- High flow rate with smooth and no scaling or depositions.

### RANGE AVAILABE

SWR Pipe - Solvent Fit and Ring Fit Size: 75 mm, 90mm, 110 mm, 160 mm

AGRI Pipe - 20mm, 25mm, 32 mm, 40 mm, 50mm, 63 mm, 75 mm, 90 mm, 110 mm, 140mm, 160 mm, 180mm, 200 mm, 225mm, 250mm, 315mm

SWR Fittings - Solvent Fit and Ring Fit Type: 75 mm, 110 mm, 160 mm

AGRI Fittings - 40 mm, 50 mm, 63 mm, 75 mm, 90 mm, 110 mm,

WC & Pan Connectors

Wash Basin & Sink Bottle Traps & P-Traps

Air Admittance Valves Aerator

### **FEATURES AND BENEFITS**

- Freedom from leakage
- Long life
- O Anti-rodent
- O Easy transportation, light in weight and easy to
- O Fast and easy installation, even in wet conditions
- O Resistance to abrasion, smooth bore pipe with longer intervals between joints reduces the risk of blockage
- O Resistance to high temperatures (40°C @ constant flow and 60°C @ short-term flow)
- O Good Impact resistance
- Guaranteed stiffness

### **RANGE AVAILABE**

PIPES - Foam Core Type Class - SN 2/SN 4/SN 8 Size - 110/160/200/250/315 Fitment - Ring Fit & Solvent Fit **FITTINGS** 

Class - SN 4

Size - 110/160/200/250/315

Fitment - Ring Fit & Solvent Fit

**VALVES & TRAPS** 

Non-Return Valve –110 & 160

Bottle Gully Trap – 110

Low Back & Long Body P-Trap - 110 Swivel Adapter - 110 & 160

INSPECTION CHAMBERS WITH

**ACCESSORIES** Size - 315 & 450

Type: Multi – Inlet Universal

Shaft - Riser Pipe

Frame & Cover - Circular Type A

End Plugs - 110 & 160







**Complete Solution For Underground Drainage** 

# Why **Ajay Deepline**UPVC Column Pipes?

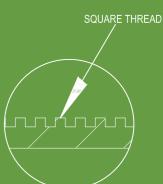
- · Ajay is the oldest piping manufacturer in India with
  - a. Advanced Manufacturing technology
  - b. Sophisticated labs for both incoming and in-process material testing and quality assurance
  - c. Stringent quality control for consistent defective free product
- Ajay Deepline Column Pipes are made from virgin high strength UPVC Compound. Special formulations ensure high strength, high pressure bearing capability and high impact strength
- Ajay Deepline Column Pipes are being used in many countries across the world successfully and is an ideal replacement for Gland HDPE pipes
- Incorporates special square threads which coupled with high impact formulation ensures high strength an resists cracking
- Incorporate the novel Screw-Lock system which provides extra protection for pump
- · Very easy installation
- Incorporates Rubber O-rings that prevent water leakage an help absorbs pumb vibration
- Maintenance free system

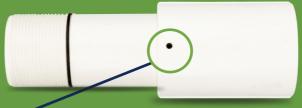


# Highlights of Ajay Deepline

### • SQUARE THREADS:

Ajay uses advanced fully automated precision CNC machines for making threads. Special square thread of Ajay Deepline Column pipes are designed to bear maximum load. These pipes can be assembled and disassembled very easily & quickly.





### SCREW LOCK:

Ajay provide unique screw locking system which eliminates the chances of coupler loosening and slipping of column during dismantling process.

### MANUFACTURING TECHNIQUE:

Ajay use special "THICK and THIN" technique to make pipes thicker in the threading section. This technique provides much higher strength to the pipe at lower cost.

### FORMULATION:

Ajay Deepline Column pipes are made with unique designed formulation to enhance internal hydrostatic pressure and vertical tensile load on the pipe due to water column and pump weight respectively.

### HIGH PRESSURE ORIENTATION:

High Pressure orientation during column pipe extrusion: Ajay follows a unique High Pressure orientation technique, which gives higher drop impact and notch impact strength to the pipes.

### • DUAL FUNCTION:

Ajay Deepline Column Pipe on one hand withstand the pump delivery pressure and on the other hand the top most pipe bears the load of the entire column filled with water and pump.

The bottom most pipes gets subjected to highest internal hydrostatic pressures required to pump the water out of the riser pipe and raise it to the required storage level.

# Benefits of Deepline Column Pipes & Applications

### **Benefits of Deepline Column Pipes**

- Manufactured from environment friendly virgin UPVC Compounds.
- High Tensile
- Non Corrosive
- · High Impact resistance
- Rigid
- Low installation cost. Relatively cheaper than conventional GI/ERW pipes.
- High surface finish increases flow rate and reduces pressure loss.
- EPDM 'O' rings are used for joints to ensure 100% leak proof joint and also absorbs jerks when the pump is switch on or off.
- · Very long life
- · Light weight
- Better water output (upto 30% more) due to lower C-factor
- No scaling and electrolytic deposition
- Power saving due to much lower friction

### **Applications of Deepline Column Pipes**

- Water rising for submersible and jet pump for irrigation, domestic, industrial mining, chemical distribution.
- A good substitute for MS, ERW, GI, HDPE & SS Column pipes.
- Ajay Deepline Column Pipes are nearly inert towards corrosion, chemical reaction and erosion. Hence, it is ideally suited for long term use in salty, sandy and chemically aggressive water.



**High Strength** 



**Money Saving** 



Long Lasting Trouble free



TYPE OF TEST	STANDARD
Hydrostatic Pressure Test	As per IS 4985
Impact Strength	As per IS 4985
Tensile Strength	As per IS 12818
Joint Pressure Test	As per IS 12235

# Technical Details

### SPECIFICATION FOR AJAY DEEPLINE COLUMN PIPES FOR SUBMERSIBLE PUMPS

Size & Type Nominal Dia.(Inch/mm)		ness in mm. Barrel Min/Max	Outer OD (mm) Min/Max	Effective Length (mm)	Thick Portion Length of Both Side (mm)
<b>1" (ND 25mm)</b> V4-12.5 (Bell Type) V4-15 (Bell Type) Standard (Bell Type)	3.65 – 4.55 3.65 – 4.55 4.85 – 6.05	1.60 - 2.50 1.90 - 2.80 3.10 - 3.95	32.6 - 33.2 32.6 - 33.2 32.6 - 33.2	3050 ± 10mm 3050 ± 10mm 3050 ± 10mm	120 - 120 200 - 200 200 - 200
<b>1" (ND 25mm)</b> V4-12.5 (Socket Type) V4-15 (Socket Type) Standard (Socket Type)	3.95 - 4.80 4.00 - 5.00 5.20 - 6.10	1.60 - 2.50 1.90 - 2.80 3.10 - 3.95	32.6 - 33.2 32.6 - 33.2 32.6 - 33.2	2998 ± 3mm 2998 ± 3mm 2998 ± 3mm	120 - 120 200 - 200 200 - 200
1-1/4" (ND 32mm) V4-12.5 (Bell Type) V4-15 (Bell Type) Standard (Bell Type) Heavy (Bell Type)	4.10 - 5.00 4.10 - 5.00 5.05 - 6.00 6.25 - 7.35	2.00 - 3.00 2.40 - 3.15 3.35 - 4.15 4.55 - 5.45	41.5 - 42.2 41.5 - 42.2 41.5 - 42.2 41.5 - 42.2	3050 ± 10mm 3050 ± 10mm 3050 ± 10mm 3050 ± 10mm	120 - 120 200 - 200 200 - 200 200 - 200
1-1/4" (ND 32mm) V4-12.5 (Socket Type) V4-15 (Socket Type) Standard (Socket Type) Heavy (Socket Type)	4.30 – 5.40 4.50 – 5.40 5.45 – 6.45 6.65 – 7.45	2.00 - 3.00 2.40 - 3.15 3.35 - 4.15 4.55 - 5.45	41.5 - 42.2 41.5 - 42.2 41.5 - 42.2 41.5 - 42.2	2998 ± 3mm 2998 ± 3mm 2998 ± 3mm 2998 ± 3mm	120 - 120 200 - 200 200 - 200 200 - 200
<b>1-1/2" (ND 40mm)</b> V4-12.5 (Bell Type) V4-15 (Bell Type) Standard (Bell Type) Heavy (Bell Type)	4.55 – 5.45 4.55 – 5.45 5.75 – 6.65 7.00 – 7.90	2.30 - 3.10 2.75 - 3.65 3.95 - 4.85 5.20 - 6.10	47.5 – 48.2 47.5 – 48.2 47.5 – 48.2 47.5 – 48.2	3050 ± 10mm 3050 ± 10mm 3050 ± 10mm 3050 ± 10mm	120 - 120 200 - 200 200 - 200 200 - 200
1-1/2" (ND 40mm) V4-12.5 (Socket Type) V4-15 (Socket Type) Standard (Socket Type) Heavy (Socket Type)	4.60 – 5.50 4.85 – 5.75 6.05 – 7.25 7.30 – 8.60	2.30 - 3.10 2.75 - 3.65 3.95 - 4.85 5.20 - 6.10	47.5 - 48.2 47.5 - 48.2 47.5 - 48.2 47.5 - 48.2	2998 ± 3mm 2998 ± 3mm 2998 ± 3mm 2998 ± 3mm	120 - 120 200 - 200 200 - 200 200 - 200
<b>2" (ND 50mm)</b> Medium Standard Heavy	5.10 - 6.30 6.40 - 7.90 7.80 - 9.70	2.60 - 3.40 3.90 - 5.00 5.30 - 6.60	59.5 - 60.2 59.5 - 60.2 59.5 - 60.2	2998 ± 3mm 2998 ± 3mm 2998 ± 3mm	200 - 200
<b>2-1/2" (ND 65mm)</b> Medium Standard Heavy	5.10 - 6.30 6.50 - 8.00 9.00 - 10.70	2.60 - 3.40 4.00 - 5.10 6.30 - 7.60	74.5 - 75.2 74.5 - 75.2 74.5 - 75.2	2998 ± 3mm 2998 ± 3mm 2998 ± 3mm	200 - 200
<b>3" (ND 80mm)</b> Medium Standard Heavy	5.70 - 7.10 7.50 - 9.00 9.80 - 11.90	3.20 - 4.10 5.00 - 6.40 7.30 - 9.00	87.5 - 88.2 87.5 - 88.2 87.5 - 88.2	2998 ± 3mm 2998 ± 3mm 2998 ± 3mm	200 - 200
<b>4" (ND 100mm)</b> Medium Standard Heavy	6.30 - 7.60 8.20 - 9.80 12.20 - 14.30	3.80 - 5.00 5.70 - 7.20 9.40 - 11.50	112.5 - 113.2 112.5 - 113.2 112.5 - 113.2	2998 ± 3mm 2998 ± 3mm 2998 ± 3mm	200 - 200



**SOCKET TYPE** 



BELL TYPE

## Load & Pressure Chart

Size & Type Nominal Dia.(Inch/mm)	Ultimate Breaking Load (Kgf)	Safe Pulling Load with Chain Pulley (Kgf)	Safe Allowable Hydrostatic Pressure (Kg/Cm²)	Safe Total Pump Delivery Head (m)
1" (ND 25mm) V4-12.5	850	500	12.5	125
V4-15 Standard	1000 1900	600 1100	15 30	150 300
<b>1-1/4" (ND 32mm)</b> V4-12.5 V4-15 Standard Heavy	1300 1550 2550 3100	800 900 1500 1800	12.5 15 25 35	125 150 250 350
1-1/2" (ND 40mm) V4-12.5 V4-15 Standard Heavy	1700 2000 2950 4050	1000 1200 1700 2350	12.5 15 26 35	125 150 260 350
<b>2" (ND 50mm)</b> Medium Standard Heavy	2450 3600 4700	1450 2100 2800	13 20 27	130 200 270
<b>2-1/2" (ND 65mm)</b> Medium Standard Heavy	3100 4650 7000	1800 2700 4200	10 16 26	100 160 260
<b>3" (ND 80mm)</b> Medium Standard Heavy	4450 6800 9600	2600 4000 5650	11 17 26	110 170 260
<b>4" (ND 100mm)</b> Medium Standard Heavy	6800 10000 15900	4000 5900 9350	10 15 26	100 150 260

# Ajay Deepline Column Pipe Selection

V4-12.5 Kg/cm2	1", 1-1/4" & 1-1/2"	Up to	100mm Sub Pump
V4-15 Kg/cm2	1", 1-1/4" & 1-1/2"	Up to	100mm Sub Pump
	2", 2-1/2" & 3"	Up to	150mm Sub Pump
Medium	3" & 4"	Up to	200mm Sub Pump
	4"	Up to	250mm Sub Pump
	1", 1-1/4" & 1-1/2"	Up to	100mm Sub Pump
Standard	2", 2-1/2" & 3"	Up to	150mm Sub Pump
Standard	3" & 4"	Up to	200mm Sub Pump
	4"	Up to	250mm Sub Pump
	1-1/4", 1-1/2", 2" & 2-1/2"	Up to	100mm Sub Pump
Heavy	3" & 4"	Up to	150mm Sub Pump
	4"	Up to	200mm Sub Pump

**Note:** In the column for every 33ft or 10mtr. above the pump there is pressure drop of 1kg/cm<sup>2</sup>. Hence in deep bore well with high pressure pump two classes of pipe of same size may be used to save cost. Heavy pipe may be attached directly to the pump and after some height and loss of delivery pressure, standard pipe may be used.

## Friction Head Loss

Approximate friction head loss in meter/100 m

SIZE (Inch)	TVDE					DISCH	IARGE O	F PUMP	(lpm)				
SIZE (IIICII)	TYPE	40	60	80	100	120	150	180	240	300	360	400	500
	V4-12.5	3.08	6.54	11.15	16.85	23.62	35.71	50.05	85.28	128.92	180.70	219.64	332.04
1"	V4-15	3.32	7.05	12.01	18.16	25.45	38.47	53.93	91.88	138.90	194.68	236.63	357.73
	Standard	5.17	10.95	18.65	28.19	39.51	59.74	83.73	142.65	215.65	302.26	367.39	555.40
	V4-12.5	0.89	1.88	3.21	4.86	6.81	10.30	14.43	24.60	37.17	52.10	63.33	95.74
1-1/4"	V4-15	0.97	2.06	3.52	5.32	7.46	11.28	15.81	26.94	40.73	57.09	69.39	104.91
	Standard	1.27	2.69	4.59	6.93	9.72	14.69	20.59	35.09	53.04	74.35	90.37	136.61
	Heavy	1.81	3.84	6.55	9.90	13.87	20.97	29.40	50.08	75.71	106.12	128.99	195.00
	V4-12.5	0.45	0.96	1.64	2.49	3.49	5.27	7.39	12.60	19.05	26.07	32.46	49.07
1-1/2"	V4-15	0.50	1.06	1.80	2.73	3.82	5.78	8.11	13.82	20.89	29.28	35.59	53.80
	Standard	0.67	1.42	2.42	3.65	5.12	7.74	10.85	18.49	27.95	39.17	47.61	71.98
	Heavy	0.92	1.96	3.34	5.05	7.07	10.69	14.99	25.54	38.60	54.11	65.77	99.42
	Medium	0.14	0.30	0.52	0.79	1.10	1.66	2.33	3.97	6.01	8.42	10.23	15.47
2"	Standard	0.18	0.39	0.66	1.00	1.40	2.12	2.97	5.06	7.65	10.73	13.04	19.71
	Heavy	0.24	0.52	0.87	1.32	1.85	2.79	3.91	6.67	10.08	14.13	17.17	25.96
	Medium	0.04	0.09	0.16	0.24	0.33	0.50	0.70	1.19	1.81	2.53	3.08	4.65
2-1/2"	Standard	0.05	0.11	0.19	0.29	0.41	0.61	0.86	1.46	2.21	3.10	3.77	5.70
	Heavy	0.08	0.16	0.27	0.41	0.58	0.88	1.23	2.10	3.17	4.45	5.41	8.17
	Medium	0.02	0.04	0.07	0.11	0.15	0.23	0.32	0.55	0.83	1.17	1.42	2.15
3"	Standard	0.03	0.05	0.09	0.14	0.19	0.29	0.41	0.69	1.04	1.46	1.78	2.69
	Heavy	0.03	0.07	0.12	0.18	0.26	0.39	0.55	0.93	1.41	1.97	2.40	3.63
	Medium	0.01	0.01	0.02	0.03	0.04	0.07	0.09	0.16	0.24	0.36	0.40	0.61
4"	Standard	0.01	0.01	0.02	0.04	0.05	0.08	0.11	0.19	0.28	0.40	0.48	0.73
	Heavy	0.01	0.02	0.04	0.05	0.07	0.11	0.16	0.27	0.41	0.58	0.71	1.07

# Typical Load Chart

Technical comparison of total load on the top pipe and ultimate breaking load of Ajay Deepline STANDARD column pipe.

Note: This is just an indication.

TYPE OF TEST	Wt. of Pipe 500ft (Kg)	Wt. of Water Column in 500ft. (Kg)	Wt. of Pump Maximum (Kg)	Total Wt. (Kg)	Ultimate Breaking Load (Kgf)
1" (ND 25mm)	78	85	100	280	1900
1-1/4" (ND 32mm)	110	147	100	364	2550
1-1/2" (ND 40mm)	146	189	125	469	2950
2" (ND 50mm)	193	321	150	669	3600
2-1/2" (ND 65mm)	249	529	200	984	4650
3" (ND 80mm)	351	717	250	1320	6800
4" (ND 100mm)	528	1216	290	2052	10000

Note: The total wt. of the assembly is considerably reduced due to resilience when immersed in Bore well water.

# Printing & Packaging

### **PACKAGING**

No of pipe packed in each bundle

1" (Bell Type)    V4-12.5   25     V4-15   25     Standard   25     V4-12.5   20     V4-15   20     Standard   20     V4-15   25     Standard   20     V4-15   25     V4-15   25     V4-15   25     V4-15   25     V4-15   25     V4-15   25     V4-15   20     Standard   25     Heavy   15     V4-12.5   20     V4-15   20     Standard   20     Heavy   15     V4-12.5   25     V4-15   25     Standard   20     Heavy   15     V4-12.5   25     V4-15   25     Standard   25     Heavy   15     V4-12.5   20     V4-15   20     Standard   25     Heavy   15     V4-12.5   20     V4-15   20     V4-15   20     Standard   20     Heavy   15     Medium   15     Standard   15     Heavy   10     Medium   10     Standard   10     Heavy   07     Medium   05     Standard   05     Heavy   05     Standard   05     Stan	SIZE (Inch)	CLASS	PIPE QUANTITY/ BUNDLE
Standard   25		V4-12.5	25
1" (Socket Type)    V4-12.5   20	1" (Bell Type)	V4-15	25
1" (Socket Type)    V4-15		Standard	25
Standard   20		V4-12.5	20
1-1/4" (Bell Type)  1-1/4" (Bell Type)  Standard 25 Heavy 15  V4-12.5 20  V4-15 20  Standard 20 Heavy 15  V4-12.5 25  V4-15 20  1-1/2" (Bell Type)  1-1/2" (Bell Type)  V4-12.5 25  V4-15 25  Standard 25 Heavy 15  V4-12.5 25  V4-15 25  Standard 25 Heavy 15  V4-12.5 20  V4-12.5 20  V4-15 20  Standard 25 Heavy 15  V4-12.5 20  V4-15 20  Standard 15 Heavy 15  Medium 15  Standard 15 Heavy 10 Medium 10 Standard 10 Heavy 07 Medium 05 Standard 05 Heavy 05	1" (Socket Type)	V4-15	20
1-1/4" (Bell Type)  Standard  Heavy  15  V4-12.5  20  V4-15  20  V4-15  20  Standard  20  Heavy  15  V4-15  25  Standard  20  Heavy  15  V4-12.5  25  V4-15  25  Standard  25  Heavy  15  V4-15  25  Standard  25  Heavy  15  V4-15  20  Standard  25  Heavy  15  V4-15  20  V4-15  Standard  25  Heavy  15  V4-10  V4-10  Standard  20  Heavy  15  V4-15  20  Standard  10  Heavy  10  Medium  10  Standard  10  Heavy  07  Medium  05  Standard  10  Heavy  07  Medium  05  Standard  10  Heavy  07  Medium  05  Standard  05  Heavy  05		Standard	20
1-1/4" (Bell Type)  Standard  Heavy  15  V4-12.5  20  V4-15  20  Standard  20  Heavy  15  V4-12.5  25  V4-15  25  V4-15  25  Standard  25  Heavy  15  V4-12.5  Standard  25  Heavy  15  V4-15  20  Standard  25  V4-15  Standard  25  Heavy  15  V4-15  20  V4-15  Standard  25  Heavy  15  V4-15  20  V4-15  20  V4-15  20  V4-15  20  V4-15  20  V4-15  20  Standard  20  Heavy  15  Medium  15  Standard  15  Heavy  10  Medium  10  Standard  10  Heavy  07  Medium  05  Standard  10  Heavy  07  Medium  05  Standard  10  Heavy  07  Medium  05  Standard  05  Heavy  05		V4-12.5	25
Heavy 15  V4-12.5 20  V4-15 20  Standard 20  Heavy 15  V4-15 20  Standard 20  Heavy 15  V4-12.5 25  V4-15 25  Standard 25  Heavy 15  V4-15 25  Standard 25  Heavy 15  V4-15 20  1-1/2" (Socket Type)  1-1/2" (Socket Type)  Medium 15  Standard 15  Heavy 10  Medium 10  Standard 10  Heavy 07  Medium 05  Standard 10  Heavy 07		V4-15	25
Heavy   15	1-1/4" (Bell Type)	Standard	25
1-1/4" (Socket Type)  1-1/4" (Socket Type)  1-1/2" (Bell Type)  1-1/2" (Bell Type)  1-1/2" (Socket Type)  1-1/			15
1-1/4" (Socket Type)  Standard 20 Heavy 15  V4-12.5 25  V4-12.5 25  V4-15 25  Standard 25 Heavy 15  V4-12.5 20  V4-15 20  Standard 25 Heavy 15  V4-15 20  V4-15 20  V4-15 20  V4-15 20  V4-15 20  V4-15 20  Standard 20 Heavy 15  Medium 15  Standard 15 Heavy 10  Medium 10  Standard 10 Heavy 07  Medium 05  Standard 05 Heavy 05			20
Standard   20     Heavy   15     V4-12.5   25     V4-15   25     Standard   25     Heavy   15     V4-12.5   20     V4-15   20     V4-15   20     Standard   20     Heavy   15     Wedium   15     Standard   15     Heavy   10     Medium   10     2-1/2"   Standard   10     Heavy   07     Medium   05     Standard   05     Medium   05     Standard   05     Heavy   05     Medium   05     Standard   05     Heavy   05     Standard   05     Standard   05     Heavy   05     Standard   05			20
Heavy 15  V4-12.5 25  V4-15 25  Standard 25  Heavy 15  V4-12.5 20  V4-12.5 20  V4-15 20  V4-15 20  Standard 20  Heavy 15  Wedium 15  Standard 15  Heavy 10  Medium 10  2-1/2"  Medium 10  Standard 10  Heavy 07  Medium 05  Standard 10  Heavy 07	1-1/4" (Socket Type)	Standard	20
1-1/2" (Bell Type)  1-1/2" (Bell Type)  1-1/2" (Bell Type)  1-1/2" (Socket Type)  1-1/2" (Socket Type)  1-1/2" (Socket Type)  2"    Medium			15
1-1/2" (Bell Type)    Standard   25			25
Standard   25   Heavy   15   V4-12.5   20   V4-15   20   Standard   20   Heavy   15   Standard   20   Heavy   15   Standard   15   Standard   15   Heavy   10   Medium   10   Standard   10   Standard   10   Heavy   07   Medium   05   Standard   05   Standard   05   Heavy   05   Standard   05   Standard   05   Heavy   05   Standard   05   Standar	(-1) (-1)		
Heavy 15  V4-12.5 20  V4-15 20  V4-15 20  Standard 20  Heavy 15  Medium 15  Standard 15  Heavy 10  Medium 10  Standard 10  Heavy 07  Medium 05  Standard 10  Heavy 07  Medium 05  Standard 05  Heavy 05	1-1/2" (Bell Type)		25
V4-12.5   20   V4-15   20     V4-15   20     Standard   20   Heavy   15     Standard   15     Standard   15     Heavy   10   Medium   10   Standard   10   Heavy   07   Medium   05   Standard   05   Standard   05   Heavy   05   Standard			15
1-1/2" (Socket Type)  Standard 20 Heavy 15 Medium 15 Standard 15 Heavy 10 Medium 10 Standard 10 Heavy 07 Medium 05 Standard 10 Heavy 07 Medium 05 Standard 05 Heavy 05			20
Standard   20			20
Heavy 15  Medium 15  Standard 15  Heavy 10  Medium 10  Standard 10  Standard 10  Heavy 07  Medium 05  Standard 05  Heavy 05	1-1/2" (Socket Type)	Standard	20
Medium   15			
2"     Standard     15       Heavy     10       Medium     10       Standard     10       Heavy     07       Medium     05       Standard     05       Heavy     05       Heavy     05			
Heavy 10  Medium 10  Standard 10  Heavy 07  Medium 05  Standard 05  Standard 05  Heavy 05	2"		
Medium   10     Standard   10     Heavy   07   Medium   05     Standard   05   Heavy   05   Heavy   05     Heavy   05     Heavy   05     Heavy   05     Heavy   10   Heavy			10
2-1/2"    Standard   10     Heavy   07     Medium   05     Standard   05     Heavy   05			10
Heavy 07  Medium 05  Standard 05  Heavy 05	2-1/2"	Standard	
Medium         05           3"         Standard         05           Heavy         05		Heavy	
Heavy 05	3"		
Heavy 05		Standard	05
Medium   U5	4"	Medium	05
Heavy 03			

### PIPE PRINTING COLOR

PIPE CLASS	PRINTING COLOR
V4-12.5	Orange
V4-15	Purple
Medium	Orange
Standard	Red
Heavy	Blue

# — Accessories — Details of Column Pipe

ACCESSORIES DETAILS: CI TOP ORDINARY WITHOUT FLANGE

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

ACCESSORIES DETAILS: CI TOP WITH FLANGE SINGLE CLAMP

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

ACCESSORIES DETAILS: CI TOP WITH FLANGE DOUBLE CLAMP

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

ACCESSORIES DETAILS: CI BOTTOM LONG

Size: 2" 2-1/2" 3" 4"

ACCESSORIES DETAILS: CI BOTTOM

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

ACCESSORIES DETAILS: CI BOTTOM WITH FLANGE

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2"

ACCESSORIES DETAILS: SS TOP

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

ACCESSORIES DETAILS: SS BOTTOM

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

# — Accessories — Details of Column Pipe

ACCESSORIES DETAILS: REDUCER BOTTOM

Size: 1-1/4" X 1" 1-1/2" X 1" 1-1/2" X 1-1/4" 2" X 1-1/2"

2-1/2" X 2" 3" X 2-1/2" 4" X 3"

ACCESSORIES DETAILS: EXPANDER BOTTOM

Size: 1" X 1-1/4" 1-1/4" X 1-1/2" 1-1/2" X 2" 2" X 2-1/2"

2-1/2" X 3" 3" X 4"

ACCESSORIES DETAILS: INNER JIG

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

ACCESSORIES DETAILS: OUTER JIG

Size: 1-1/4" 1-1/2" 2" 2-1/2" 3" 4" 4"

ACCESSORIES DETAILS: LOWERING JIG

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

ACCESSORIES DETAILS: PUMP GUARD SET

Size: 1" 1-1/4" 1-1/2" 2" 2-1/2" 3" 4"

### Handling & Storage

- · The pipe must store indoor or ensure that the bundles are covered to prevent exposure to sunlight.
- Maximum stacking height of pipes must be 7 feet.
- · Keep alternate layer of pipes perpendicular to each other.
- Pipe should store on flat & dry surface and must be free from any sharp objects.
- Same diameter pipe with different classes are being stacked together, place heavy pipes below.

## Important Tips

#### PIPE & PUMP SAFEGUARD AGAINST DRY RUNNING

- In place where the bore well yield is less, than after sometime the pump starts running dry which may heat up
  the connected Ajay Deepline column pipe. A correct assessment of bore yield should be done & timer switch
  should be used so that pump shuts off & on automatically after a certain amount of preset time & again gets
  on automatically as per the setting of the timer. This will ensure that water is always in the bore well & pump
  does not run in dry condition.
- During pump dry running the submersible pump gets heated &may damage the first connected Ajay Deepline column pipe. Another way of handling pump dry running is to use 3mtr. Of steel pipe in the bottom connected to the pump so that the heated pump is in contact with steel pipe which will dissipate the heat till the time it reaches the connected column pipe.
- Also the dry running condition may be tackled by installing a hand operated valve at the top of the bore well
  and keeping it partially open so as to limit the water flow that the pump does not get dry.
- Whenever there is a dry running & pump over heating problem then there is a chance of deformation of the
  first pipe connected to the pump only. In case, any other pipe other than the first pipe bulges / deforms then it
  is clear case of high pressure of pumps & wrong selection of pipes.

## Service Condition

Ajay Deepline column pipe gives best service in bore wells which have full casing or bore wells which are free from loose bolders & stones. In such cases where loose bolders & stones are dominant then full casing or slightly larger bore should be made so that the pump does not get stuck.

Bore collapse problem occurs in some areas & it can also be tackled by giving full casing pipes. This happens in areas with loose soils & slit.

Care should also be taken during drilling of the bore wells that it is vertical straight down without any bend.

Disclaimer: Any Design & Specifications are subject to change without any prior notice.

## **Installation Guidelines**

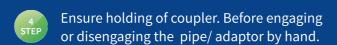




Ensure cleaning of the threads before joining Ajay Deepline Column pipes.

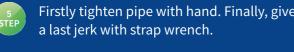


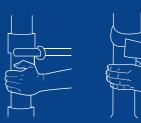
Before joining Ajay Deepline Column pipes, ensure proper installation of pump guard





Firstly tighten pipe with hand. Finally, give





During lowering of Ajay Deepline Column pipes, place the clamp below the coupler. Clamp the top adaptor with the last pipe





## **FAQs**

### Q What is UPVC?

UPVC means unplasticised poly vinyl chloride. Unplasticised gives rigidity to the product. Ajay Deepline Column pipes are made with modified UPVC compound to give very high impact strength and tensile strength. Pipes made of modified compound do not get brittle overlong term use.

### Q What are the benefits of UPVC pipes?

We save on cost of pipes; b) We save on handling time; c) We save on power and get more water up to 30%; d) Working life of pipe is much more.

### Q Why only "Ajay" UPVC pipes?

Ajay Group, the leading UPVC pipe manufacturer in the country since 1968. Ajay has pan India presence with a very well developed distributer, dealer and service network.

### Q Can the pipes take load of pump?

Ajay Deepline column pipes are designed to hold several times the weight of entire column filled with water. All the type of pumps of different sizes has been considered and Ajay Deepline column pipes are made accordingly in the class of Medium, Standard & Heavy.

### Q How to choose from the range of pipes offered?

Right selection of pipes can be made after referring technical leaflets.

### Q Are the pipes breakable?

 $In normal \, handling \, condition \, pipe \, does \, not \, break.$ 

### Q What is the life span of UPVC pipes?

Under proper usage conditions and proper storage away from sunlight the UPVC pipes in India have shown a life span of more than 50 yrs.

## Q How does it effect on the quantity & quality of water?

Yes, we get more water. Over a period of use, the steel pipes get corroded, rusted and the water quality deteriorates. In Ajay pipes since there is no corrosion throughout the depth of column pipe the water quality remains good and fresh forever.

## Q Can UPVC pipe's strength be compared to a steel pipe?

The specific gravity of UPVC is 1.40 to 1.45 gm/cc whereas steel has 8 gm/cc. taking the strength of the material into consideration the pipes are optimally designed to make them light weight without any compromise in its strength.

### Q Does column pipes needs full casing in the bore?

These pipes give best service in bore wells which have full casing or bore wells which are free from loose bolders and stones. In such areas where loose bolders and stones are dominant then full casing or slightly larger bore should be made so that pump does not get stuck.

### Q There is variation in the thickness of pipes. Why?

The pipe thickness has been designed by taking the pump weight, water column weight and pump delivery pressure. The end of the pipes are made thicker so that even after making the threads and removal of material the same pipe thickness remains under the threads so that the strength of the pipe can be maintained equal in end and pipe.

### Q What happens if a bore collapse?

The pump and the pipes can be pulled out only in cases where the pump can be pulled out by applying a force within the ultimate breaking strength of pipe as mentioned in the table. Normally the strength is acceptable. In case of severe bore collapse and bolder problems even steel pipes cannot be retrievable from the bore.

## **FAQs**

### Q Is tripod required for lowering?

Yes, tripod is required specifically for use of column pipes in the installation of pump sets, considering the heavy load requirements. However it is important to note that handling of UPVC pipes is much simpler in comparison of steel pipes.

- Q Any adhesives required during joining of pipes? No solvent or adhesive required.
- Q Can we cut the pipes?

  No, pipes cannot be cut for short length requirement.
- Q Can metal pipe join with UPVC pipe?

Metal pipe can be connected with the pipe UPVC pipe. Recommended to use only Ajay Deepline marked adaptors.

### Q How to tighten the pipes?

The pipe is tightened on the principle of screw system. Tighten the pipe with hand and rope so that the rubber seal fully enters into the coupling pipe. Total description of fitment is provided in company installation booklet.

- Q Do we need extra rope to hold the pipes? No rope is required. Pipe has adequate strength.
- Q Can we re-thread the pipes?
  Under normal use, re-threading of pipe will not be required.
  Special threads cannot be made at site.

### AJAY DEEPLINE PAN INDIA DISTRIBUTION

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