

# UPVC RISING MAIN FOR SUBMERSIBLE PUMPS

## Features

- **High-quality processing:** To ensure high durability, Vinyl column pipes have a bi-axially orientated extrusion which provides a high tensile strength to the pipes
- **Polyvinyl Chloride:** The Vinyl column pipes are made out of Polyvinyl Chloride to ensure toughness to the pipes, keeping them lightweight at the same time
- **Explicit operating parameters:** Keeping efficient functioning in mind, the pipes are manufactured using carbide coated screw tooling. In addition to this, pipes are annealed to ensure longevity.
- **Adaptable design:** Pipes are manufactured for high pressure application. Pipe wall thickness is optimised for use at the appropriate pressure. Pipe wall thickness is increased at the threaded ends to ensure that thread is strong enough to take the mechanical load of pump, water and pipe weight.
- **High tensile strength:** UPVC has a high tensile strength and the wall thickness ensures that load carrying is suitable for high mechanical strength for heavy pumps and water weight loading, as well as pressure generated by the pump.
- **Torque:** Pipes have been developed to absorb full torque provided by the pump motor. Pipe joints were developed to remain fixed while motor is running at full torque, resulting in longevity.
- **Safe and suitable for huge depths:** These UPVC vinyl column pipes have been designed specially for extensive depths of up to 430m.



## Benefits

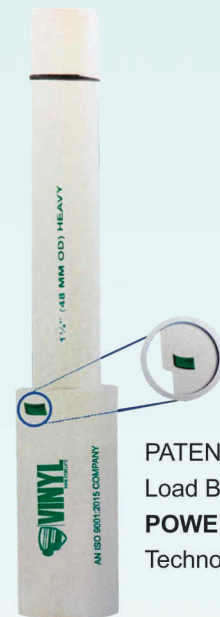
- 100% resistance to corrosion
- Zero maintenance cost
- 5 x high durability
- 60% more cost effective compared to steel rising mains
- 60% lighter compared to steel rising mains
- 77% more energy efficient
- 100% free from leakage

Available from 25mm to 150mm  
Suitable up to 43 bar and 430m

# 100%

LOAD PROOF | LEAKPROOF | TWIST PROOF  
TORQUE PROOF | FAIL PROOF

\*T&C's apply



PATENT PENDING  
Load Bearing  
**POWER LOCK**  
Technology



**QUALITY • AVAILABILITY • SERVICE • INNOVATION • COST**



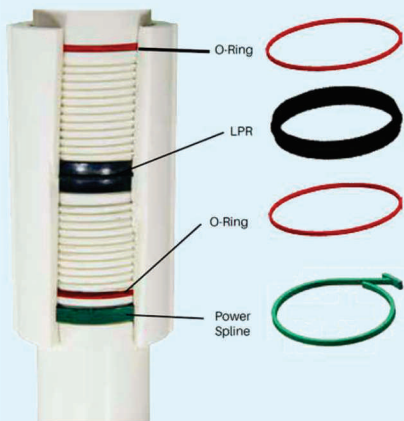
# Why Vinyl UPVC Rising Mains stand out?

Vinyl column pipes are a top-notch solution to all your water management needs. We offer a host of innovative benefits that gives us an extra edge over other pipes. From a one-of-a-kind power lock feature to unique wall information, Vinyl promises many features that are rarely found in other pipes.

**Power Lock** - The Vinyl column pipes are installed with a power lock feature which is absent in steel or iron pipes. This power lock is made with an aerospace engineering plastic grade and works as a restraining agent between pipes and coupling. Keeping in mind the ease of installation, it has been designed to keep the pipes 100% load proof.

Such a power lock feature also keeps the pipe free from any kind of leakage or twisting. All these features together contribute to making this power lock a very indispensable feature.

**Stress-free pipe** - one of the most striking features of these column pipes is that they are stress-free. The UPVC undergoes various processes and tests under high temperature to provide its users with guaranteed stress-free pipes.



Vinyl UPVC Rising Mains	Similar UPVC Rising Mains	Galvanized Rising Mains	HDPE Rising Mains
Vinyl power lock is square and therefore absorbs more load and torque	Power lock is circular and does not absorb the load nor torque efficiently, which leads to slippage and thread damage	No power lock feature	No power lock feature
Vinyl coupler has 4 sealing points: 2 x O-rings, 1 x LPR and 1 x power lock. These 4 points ensure 100% leak proof rising mains	Only 2 sealing points by means of O-rings. These O-rings can wear out over time and cannot assure 100% leak proof pipes for long	Galvanized rising mains leak at the sockets and threads	HDPE rising mains have only 1 sealing point by means of an O-Ring situated in the HDPE male adaptor
Vinyl rising mains have a unique LPR, which is square and robust, ensuring 100% seal	No LPR	No LPR	No LPR
Risings mains are rigid	Rising mains are rigid	Rising mains are rigid	HDPE rising mains are soft and flexible, and over time lose their shape with a heavy pump set, which will cause the rising mains to fail
Square threads ensure high load carrying capabilities and do not rust	Square threads ensure high load carrying capabilities and do not rust	Threads are prone to rust and rising mains need to be re-threaded after 3-5 years due to absence of galvanization on threads	No threads can be formed on the rising mains due to softness, therefore requiring male adaptors
Water discharge is 10-30% more, due to internal smooth surface and low friction	Water discharge is 10-30% more, due to internal smooth surface and low friction	Internal surface is rough which can cause high friction loss especially with build-up inside the rising mains	Internal surface not as smooth as Vinyl UPVC rising mains
Rising mains are light in weight and can be handled very easily, also reducing installation time	Rising mains are light in weight and can be handled very easily, also reducing installation time	Galvanized rising mains are heavy and require a lot of effort to install, resulting in longer installation time as well as longer downtime, when pipes need to be replaced	Rising mains become hard and cannot be rolled back into a coil during removal



## Vinyl UPVC Rising Mains Approximate Frictional Head Loss/100m

Size	Class	N.D (mm)	Pump discharge in l/min											
			40	60	80	100	120	150	180	240	300	360	400	500
1¼"	Standard	32	1,27	2,69	4,58	6,93	9,71	14,69	20,59	35,08	53,04	74,34	90,36	136,61
	Heavy	32	1,81	3,84	6,54	9,89	13,87	20,97	29,39	50,08	75,71	106,12	128,98	194,99
	Super Heavy	32	2,41	5,08	8,66	13,1	18,36	27,76	38,91	66,31	100,23	140,49	170,76	258,15
1½"	Standard	40	0,66	1,41	2,41	3,65	5,12	7,74	10,85	18,48	27,94	39,17	47,61	71,97
	Heavy	40	0,92	1,95	3,33	5,04	7,07	10,69	14,98	25,53	38,61	54,11	65,76	99,42
	Super Heavy	40	1,19	2,52	4,31	6,51	9,11	13,77	19,31	32,91	49,74	69,72	84,74	128,11
2"	Standard	50	0,18	0,38	0,66	1,01	1,41	2,11	2,97	5,06	7,65	10,72	13,03	19,71
	Heavy	50	0,24	0,51	0,87	1,31	1,84	2,79	3,91	6,66	10,08	14,12	17,17	25,96
	Super Heavy	50	0,31	0,66	1,11	1,69	2,37	3,59	5,02	8,55	12,93	18,13	22,03	33,31
2½"	Standard	65	0,05	0,11	0,19	0,28	0,41	0,61	0,85	1,46	2,21	3,11	3,76	5,69
	Heavy	65	0,07	0,16	0,27	0,41	0,58	0,87	1,23	2,09	3,17	4,44	5,41	8,17
	Super Heavy	65	0,11	0,22	0,37	0,57	0,81	1,21	1,69	2,89	4,37	6,13	7,45	11,26
3"	Standard	80	0,02	0,05	0,09	0,13	0,19	0,28	0,41	0,69	1,04	1,46	1,77	2,68
	Heavy	80	0,03	0,07	0,12	0,18	0,25	0,39	0,54	0,93	1,41	1,97	2,39	3,62
	Super Heavy	80	0,04	0,11	0,17	0,25	0,36	0,54	0,76	1,31	1,98	2,77	3,37	5,11
4"	Standard	100	0,006	0,01	0,02	0,03	0,05	0,07	0,11	0,18	0,28	0,39	0,48	0,73
	Heavy	100	0,009	0,02	0,03	0,05	0,07	0,11	0,16	0,27	0,41	0,58	0,71	1,06
	Super Heavy	100	0,01	0,03	0,05	0,07	0,11	0,16	0,23	0,38	0,58	0,81	0,99	1,49
5"	Standard	125	0,002	0,005	0,009	0,013	0,01	0,02	0,04	0,06	0,11	0,14	0,17	0,26
	Heavy	125	0,003	0,007	0,01	0,02	0,03	0,04	0,05	0,09	0,14	0,21	0,25	0,38
	Super Heavy	125	0,004	0,01	0,02	0,03	0,04	0,05	0,08	0,13	0,21	0,28	0,35	0,53
6"	Heavy	150	0,001	0,003	0,005	0,008	0,01	0,02	0,03	0,04	0,06	0,09	0,11	0,16

## Vinyl UPVC Rising Mains Technical Specifications

Size	Class	N.D (mm)	O.D (mm)	Wall Thickness (mm)	Safe Allowable Hydrostatic Pressure (kg/cm <sup>2</sup> )	Safe Total Pump Head (m)	Safe Pulling Load with Chain Pulley (kg)	Ultimate Breaking Load (kg)	Net Length of Pipe (mm)	Package per Bundle
1¼"	Standard	32	42,2	6,5	25	250	1500	2550	3070	25
	Heavy	32	42,2	7,7	35	350	1700	3100	3100	25
	Super Heavy	32	42,2	8,8	40	400	1850	3500	3100	25
1½"	Standard	40	48,2	6,2	26	260	1700	2950	3070	20
	Heavy	40	48,2	8,7	35	350	2350	4000	3100	20
	Super Heavy	40	48,2	9,7	40	400	2400	4200	3100	20
2"	Standard	50	60,3	6,6	25	250	2100	3600	3090	15
	Heavy	50	60,3	8,3	27	270	2800	4700	3130	10
	Super Heavy	50	60,3	9,5	35	350	3350	5600	3130	10
2½"	Standard	65	75,3	6,6	17	170	2700	4550	3090	10
	Heavy	65	75,3	9,5	26	260	4200	7000	3130	8
	Super Heavy	65	75,3	11,5	35	350	5300	9000	3130	8
3"	Standard	80	88,3	7,6	17	170	4000	6800	3090	5
	Heavy	80	88,3	10,1	26	260	5600	9600	3130	5
	Super Heavy	80	88,3	13	35	350	7200	12400	3130	5
4"	Standard	100	113,3	8,5	15	150	5900	10000	3090	4
	Heavy	100	113,3	12,6	26	260	9200	16000	3130	4
	Super Heavy	100	113,3	16,4	35	350	12000	20600	3130	4
5"	Standard	125	140,3	12	15	150	9650	16000	3110	2
	Heavy	125	140,3	16	22	220	14500	24000	3160	2
	Super Heavy	125	140,3	18,3	30	300	18700	30500	3160	2
6"	Standard	150	168,3	12,8	13	130	16000	25500	3110	2
	Heavy	150	168,3	17	22	220	23500	40000	3160	2



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