



# PVC-0 CLASS 500

ORIENTED PVC PIPES FOR HIGH PRESSURE FLUID CONVEYANCE

# BENEFITS OF ORIENTED PIPES

## AS AN INSTALLER

### LOWER BUYING COST

FLOKING PVC-O is nearly 10% more economical than metal pipes of the same pressure class.

### ASSURED QUALITY

The orientation process requires stringent quality norms to be followed for the raw material or the does not orient during the manufacturing process. This ensures an internal quality check.

### LONG LIFE-SPAN

PVC-O pipes have a life of over 50 years so you can "FIT & FORGET" the pipe. This will save replacement costs too as the pipe can remain underground / over-ground for longer periods of time.

## AS A USER

### LOWER PUMPING

PVC-O pipes are smooth and its thinner walls result in higher amount of water flow and up to 30% savings in electricity used to run the water pump. Easier flow also increases the pump's lifespan.

### NO MAINTENANCE

Oriented pipes are strong and corrosion free and require no maintenance. This is also a great saving in terms of staffing maintenance manpower.

### EASY REPAIRS

Incase of a rare occurrence of a breakage, the section of damaged pipes can be cut out and a similar sized bit of PVC-O can be fitted using couplers. FLOKING pipes are compatible with a wide range of fittings.

## AND MORE...

### DO MORE PROJECTS IN THE SAME TIME

Time saved on one PVC-O project can be used to install another line. This total time savings in using PVC-O results in you being able to take on more projects in a given time than with any other piping material.

### PROJECT ONCE DONE, DONE

The strength and longevity that PVC-O pipes offer will ensure that no re-do is needed for any project done using our pipes as they are completely FIT & FORGET.

### IMMEDIATE SUPPLY

PVC-O pipes are manufactured in a state of the art factory using advanced machinery and manufacturing techniques. The usual waiting period for supply ranges from a week to ten days.

## TIME SAVINGS

With PVC-O you can install nearly 3kms / day. A unique push-jointing system and light weight of the pipe ensures work completion before time. This savings in project time saves money on labour and heavy equipment.

## COST SAVINGS

The lower cost of pipe, quicker installation time, lesser labour requirement on site and long life of the pipe result in large savings over conventional pipe materials. These savings are realised in installation itself.

## FULLY RECYCLEABLE

In the end of its life cycle, PVC-O can be fully powdered and re-used for less critical applications without much effort or pollution. So waste management issues arising from a old project are very easy to handle.

## FOOD GRADE

PVC-O pipes are food grade and remain so over their entire life. Due to low drag co-efficient, bacterial sedimentation and corrosion also do not take place. This ensures whatever is pumped in, is what's pumped out without any changes.

## HOMOGENOUS SPIGOT

The high quality EPDM rubber ring offered in FLOKING pipes is industry leading in terms of life and integrity and offers a water tight seal rated to the same pressure rating as the pipe itself. It's spigot end is also fully manufactured with the pipe itself.

## STORE ANYWHERE

Due to the layered structure of PVC-O pipes, sunlight affects only the top layer and the rest of the pipe wall remains unaffected. This quality enables oriented pipes to be stored even outdoors.

# BENEFITS WHILE BUYING

UP TO **10%**



## ASSURED QUALITY

The FLOKING orientation process is such that any sub-standard raw material mix put through the system will cause the pipe to break during the orientation process itself. This ensures the best pipe for you.

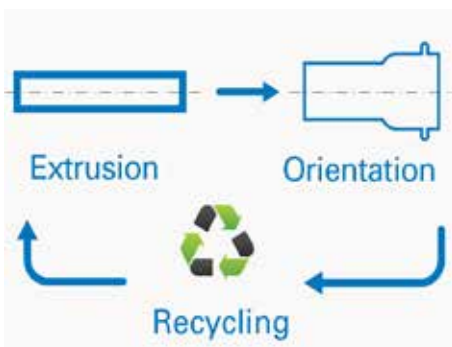
- > State-of-the-art plant that's entirely automated
- > High-stress orientation process ensures best pipes



## ECONOMICALLY SENSIBLE

FLOKING PVC-O pipe offer a range of savings in its entire life cycle starting with the purchase price. The purchase price of PVC-O pipes are highly competitive with other high pressure piping materials in the market.

- > Highly price competitive product
- > Savings offered over the entire product life cycle exceed others
- > Intergrated socket with high quality water tight EPDM rubber ring



## GREEN PRODUCT

FLOKING is environmentally responsible and the PVC-O process generates zero waste. The entire process is also noise free and energy efficient so you get a green product from DAY 1.

- > Zero wastage
- > Zero harmful emissions
- > Efficient manufacturing
- > Organic stabilizers that don't contain any heavy metals



## IMMEDIATE AVAILIBLITY

FLOKING manages the activity of manufacturing effectivley to ensure that all orders are met with the same enthusiasm. This ensures much shorter waiting periods in comparison to other high pressure pipes.

- > High efficiency, systemised production management
- > Shortest waiting period in the industry



## PLAN EFFORTLESSLY

FLOKING PVC-O pipe can be installed in any terrain with ease. Its ability to take on wide ranges of weather and corrosive earth elements makes it simple to design and execute any project.

- > Compatible with a large range of fittings and pipes
- > pH Resistance of 2pH to 12pH
- > Can handle temperatures of up to 45°C



# BENEFITS WHEN INSTALLING

UP TO **30%**

## THE DO ANYTHING PIPE

Crush it, man-handle it, forget it for months under the sun, store it in a pest infested warehouse and do anything else you can come up with. This pipe can be handled carefree.

- > Only one person needed to carry a 6m (20ft) long pipe (up to 200mm)
- > Virtually indestructible thus increasing speed of installation
- > No preparation needed before installation
- > Over 3kms can be laid in one day (with 2 workers and 1 crane)



A	Input	HDPE (PN10)	PVC-O (PN16)	Ductile Iron (K7)
	No of pipes	167 Unit	167 Unit	167 Unit
	No of joints for pipe joining	167 Unit	167 Unit	167 Unit
	No of fitting joints	15 Unit	15 Unit	15 Unit
	Total No of joints	182 Unit	182 Unit	182 Unit
	Cost for lowering of pipe	24.5 Rs/m	24.5 Rs/m	36.2 Rs/m
	Cost for jointing of pipe	360 Rs/joint	0 Rs/joint	135.2 Rs/joint
	Cost of jointing of Specials	360 Rs/joint	0 Rs/joint	135.2 Rs/joint
	Pipe Laying rate	27.5 Minutes/Pipe	6 Minutes/Pipe	17.5 Minutes/Pipe
	Cost/day (Equipment)	7000 Rs/Day	7000 Rs/Day	7000 Rs/Day
	Cost of Material	5086 Rs/M	4216 Rs/M	4464 Rs/M
B	Savings (Installation)			
	Lowering of Pipe	24500 Rs	24500 Rs	36200 Rs
	Jointing of Pipe and Specials	65400 Rs	0 Rs	24561.33 Rs
	Days required for completion of work	10 Days	2 Days	6 Days
	Total Equipment Cost	66840 Rs	14583 Rs	42535 Rs
	Cost (Installation)	156740 Rs	39083 Rs	103296 Rs
	Cost (Material)	5086000 Rs	4216000 Rs	4464000 Rs
C	Power			
	Pump Time	30 hrs	20 hrs	22 hrs
	Pump Power required	173 kW	219 kW	245 kW
	Units Consumed/month	155698 Units	131660 Units	161618 Units
	Cost (Operating Cost)	1401280 Rs	1184937 Rs	1454561 Rs
D	Saving if PVC -O is used	PVC-O vs HDPE		PVC-O vs DI
	Installation cost (A)	117657 Rs		64213 Rs
	Cost of Material (B)	870000 Rs		248000 Rs
	Capital Cost Savings (A + B)	987657 Rs		312213 Rs
	Operating Cost (C)	216344 Rs/month		269625 Rs/month

\* Earthwork costs are not included in this comparison as it is same for all Pipe materials

## A SIMPLE ANALYSIS (200mm)

- Price competitiveness on purchase**
- Handling on site & increased pace of installation**
  - PVC-O pipes are much lighter and need lesser man & machine power
  - PVC-O pipes can be stored anywhere, in any condition
  - PVC-O pipes are less likely to be damaged during installation
  - Push jointing method saves time and increases installation speed
- Long term pumping maintenance cost savings**
  - Lesser maintenance time spent
  - Nearly no repairs across the PVC-O pipe's life
  - Nearly 30% lesser pumping costs and increase in pump life
- Savings on the entire projects rework expenses**
  - Metal pipes need changing every 20 years, PVC-O pipes last 50+ years and eliminate this cost



PVC-O pipes can take bends of up to 20°

# BENEFITS

## POST INSTALLATION (LONG TERM)

UP TO 30%



### OVER 50 YEARS OF SERVICE LIFE

FLOKING PVC-O pipes survive the most challenging conditions with ease and continue to perform like new.

- > FIT & FORGET
- > Rust proof
- > Corrosion Proof from 2pH to 12pH
- > Smooth surfaces prevent bacterial growth & sedimentation
- > Immune from earth elements and dynamics
- > Food grade and neutral material



### NO PIPE FAILURE

FLOKING PVC-O eliminates the need for constant checking drills and emergency maintenance infrastructure. Even severe water hammers do not affect the pipe in anyway.

- > Fit and forget
- > High quality rubber gasket rings and iron fittings
- > Excellent resistance to water hammers and other pressure loads
- > High impact resistance



### NO CORROSION, NO HARMFUL DISCHARGES

FLOKING PVC-O does not leave any harmful chemicals in to the ground or the water being pumped through it. PVC by itself is a non-reactive material and is added with organic additives that truly make the pipe food grade.

- > Non corrosive or rusting
- > Organic stabilizers that don't contain any heavy metals



### SAVING IN PUMPING COST

FLOKING PVC-O saves cost on pumping by up to 30%. Smooth walls and higher cross-section allows for higher quantum of water to pass through freely saving on pump electricity and frequent burn-out costs

- > Smooth inner walls and higher space for water to flow
- > Sudden load impacts are absorbed reducing chances of pump burnout



### 100% RECYCLABLE, EASY DISPOSAL

All FLOKING pipes at every stage of their life cycle are 100% recyclable and reuseable irrespective of the shape they are in, so diposal is easy.

# PRODUCT RANGE

## APPLICATIONS

**HIGH PRESSURE WATER CONVEYANCE**      **SEWAGE**      **WASTE TREATMENT**  
**INDUSTRIAL EFFLUENT PUMPING**      **WATER NETWORKS**      **FIRE-SAFETY NETS**  
**IRRIGATION**      **FOOD PROCESSING UNITS**      **POWER PLANTS**      **SHIPPING**



## PIPE SIZES & PRESSURE CATEGORIES

12.5 bars / 180PSI <b>PN12.5</b> Wall thickness	4 inches <b>110mm</b> 2.2 mm	6 inches <b>160mm</b> 3.2 mm	8 inches <b>200mm</b> 4 mm			
16 bars / 268PSI <b>PN16</b> Wall thickness	4 inches <b>110mm</b> 2.4 mm	6 inches <b>160mm</b> 3.5 mm	8 inches <b>200mm</b> 4.4 mm	10 inches <b>250mm</b> 5.5 mm	12 inches <b>315mm</b> 6.9 mm	16 inches <b>400mm</b> 8.8 mm
25 bars / 360PSI <b>PN25</b> Wall thickness	4 inches <b>110mm</b> 3.8 mm	6 inches <b>160mm</b> 5.5 mm	8 inches <b>200mm</b> 6.9 mm	10 inches <b>250mm</b> 8.6 mm	12 inches <b>315mm</b> 10.8 mm	16 inches <b>400mm</b> 13.7 mm

All values are approximate.



30+ countries use PVC-O pipes and it's the pipe of choice in France and Spain

18 years of successful on-the-field experience

100+ years of service life as per latest research<sup>^</sup>

Morocco's 50°C surface temprature unable to affect underground PVC-O pipes.

3 kms a day installation speed<sup>^^</sup>

<sup>^</sup>Validation of the long life of PVC pipes by Prof. Steven Folkman, Utah State University  
<sup>^^</sup>Up to 250mm PN16 PVC-O pipes in normal field testing, results will vary according to terrain and equipment

- > Product in accordance with ISO:16422 as per CIPET, Chennai
- > Certified by CPHEEO, New Delhi
- > Highly rated in Metro Water tests & Kalpakkam Atomic Energy Township



## LEADERSHIP

Our Managing Director, Mr. Nilesh Modi also heads Modi Industries and has tremendous knowledge of the Pipe Industry. Established in 1984, Modi Industries is engaged in the manufacturing of Casing and Capping and has 4 factories and 10 branches across the country along with 1000+ channel partners across India. The company is the pioneer in Processing ASA material in the country and Producing ASA Random that is used in mobile Antenna Towers.

Mr. Brij Khandelwal brings with him more than 3 decades of experience in the petrochemical industry and also has diversified interests in other sectors. The Electro Group of companies has diversified interests in Polymers, Additives, Constructions, Hotel and Leasing. Mr. Brij Khandelwal is also the founder of Electro Charitable Trust which provides free education to more than 150 school students. He was an Honorary Secretary of Tamil Nadu Plastic Manufacturers Association. He also runs his own public library.

Mr. Ankur Khandelwal is an MBA from S.P. Jain Institute of Management and Research, Mumbai. He is the founder of Electro Hotels Pvt Ltd that owns 'The Village Retreat', a four star resort on East Coast Road, Chennai. He has also founded Independent Initiative, which is a trust that engages in scientific research and social activities.

## THE FUTURE

FLOKING PIPES Pvt.Ltd. is promoted by Modi Industries and Electro Group of Companies, two well established business houses based in Chennai with deep core competencies in manufacturing and marketing respectively. Equipped with groundbreaking technology developed by MOLECOR, Floking Pipes is currently manufacturing PVC-O pipes in a state-of-the-art manufacturing facility at Sri Perambadur, Chennai. The company is headed under the dynamic leadership of Ankur Khandelwal, Brij Khandelwal and Nilesh Modi. The board of Directors of the Company comprises of experienced people who have exposure to a wide spectrum of business activities.



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