

# *PVC Conduit Pipes & Fittings*



### *Introduction:*

Poly Vinyl-Chloride (PVC) is a plastic product which has matchless versatility. It effectively replaces wood, paper and metal in several applications. As such plastic pipes have been progressively replacing conventional pipes like G.I., Cast Iron, Asbestos, Cement or Stone-ware for a number of important and uses. Among the various types of plastic pipes which are commonly used for such applications PVC pipes are the most widely used all over the world on account of their most favourable balance of properties. PVC pipes are light in weight, rates for use under pressure, easy to install, low frictional loss, low on maintenance cost, and have low frictional loss. Rigid PVC pipes have wide variety of uses in fields like city/town/rural water supply scheme, spray irrigation, deep tube well schemes and land drainage schemes.

### *Market Snapshot:*

PVC pipes are used for a variety of purposes e.g. water supply schemes, spray irrigation, deep tube well schemes and land drainage schemes. PVC slotted and corrugated pipes are ideal systems for drainages of water from land where water logging is inevitable. It is widely used by various utility services now-a-days too. The major consumer of PVC pipes are the Public Health Engineering Department (PHED) and Irrigation Departments. Besides these two, it is used by the Municipal Corporations, Tea estates as well as in N.E. Region. The usage of PVC pipes also depends upon the size of these pipes too. It is manufactured in different sizes having innumerable usage value.

The World Bank has recently given top priority in rural water supply in developing and underdeveloped countries. India has also received large amounts from World Bank aid for Rural Water Supply Schemes. However, due to the acute shortage of appliances including pipes this money could not be utilized to a large extent in our country. Thus, PVC/HDPE pipe manufacturing industry has received higher priority. The requirement of PVC pipes in Northern Region is around 150,000 MT out of which the requirement in J&K is more than 30% and the demand has increased remarkably after Sep, 07-2014 floods.

### *Economics:*

Capital Cost	₹ 28.00 Lakhs
a) Land	Owned/Leased
b) Building	₹ 10.00 Lakhs
c) Machinery/Equipment	₹ 18.00 Lakhs
Operational Cost (per month)	₹ 11.00 Lakhs
<b>Total Cost</b>	<b>₹ 39.00 Lakhs</b>

## ***Dos & Don'ts:***

### ***Do***

1. Select the location where availability of power, input and market access is ensured.
2. Survey the markets before jumping into this venture so that the risk can be minimized.
3. Make sure to obtain NOC from PCB before starting the venture.
4. Ensure natural ventilation in production premises to avoid use of electricity (for lighting) during day hours.

### ***Don't***

1. Start the plant without PCB Clearance Certificate.
2. Start the plant without BIS-ISI Certification

## ***Opportunities & Challenges:***

### ***Opportunities:***

1. Huge Gap between demand & Supply at all the cities, towns and villages.
2. Huge Export market at disposal.

### ***Challenges:***

1. Tough competition from Local and National players.
2. High investments involved.

## ***Check List:***

### ***1. Land***

- *Area:* 6000 sq.ft (owned/leased)
- *Nature:* Non-residential area preferably Industrial Estate.

### ***2. Building***

- Processing shed : 3000 sq ft.
- Finished goods shed : 40 X 30 sq ft.
- Raw material shed : 30 X 30 sq ft.
- Washroom : 10 X 10 sq ft.

### ***3. Machinery & Equipment***

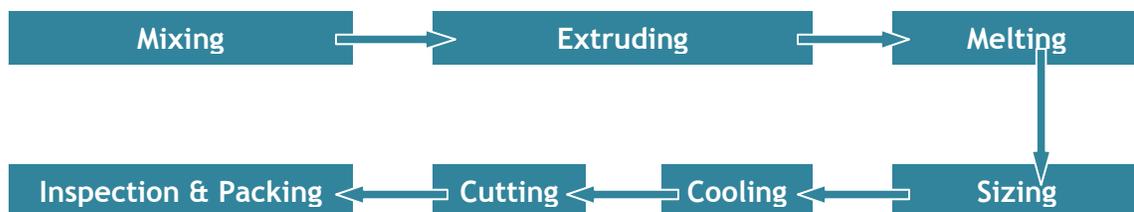
The major equipment in the plant includes:

1. Rigid PVC Pipe Plant (for pipes-90 and 110mm diameter) - 1 No.
2. High Speed Mixer (capacity-100 Kgs) with controls and cooling arrangement - 1 No.
3. Heavy Duty Scrap Grinder - 1 No.
4. Injection Moulding (with dies)- 1 No.
5. Overhead Water Tank - 1 No
6. Air Compressor-2 HP - 1 No.
7. Pipe Storage Racks - 10 Nos.

#### 4. Plant Specifications

- a) Production Capacity : 12.50 MT/month
- b) Operational hours : 8 Hours/day
- c) Operational days : 25 Days/month
- d) Raw Material Requirement : PVC Resin(Main Component)- 12.50 MT/month  
: DOP(Dioctyl Phthalate)- 0.60 MT/month  
: Stabilizer- 0.30 MT/month  
: Processing Acids- 0.10 MT/month  
: Colourant- 0.059 MT/month  
: Filler- 0.85 MT/month  
: Water- 38 Kilolitres/month
- e) Power Requirements : 25 KW Connected load

#### 5. Process Flow Chart



#### 6. Money

- Check various financial schemes at JKEDI.

#### 7. Suppliers

- Machinery (from registered dealers outside the state)

#### 8. Buyers

- Govt. departments (PHE, I&FC, PWD, JKSIDCO, SICOP etc.)
- Private real estate builders.
- Industrialists.
- Civil contractors.
- Households.
- Defence supplies.

#### Relevant Government Departments:

- Bureau of Indian Standards (BIS) - For ISI Certification
- J&K State Pollution Control Board (JKSPCB)- For NOC
- J&K SIDCO- For Land Allotment.
- J&K Power Development Deptt.(PDD)- For Electricity Connection
- J&K Public Health Engineering Deptt.(PHE)- For Water Connection
- Concerned District Industries Centre(DIC)- For SSI Registration

*Disclaimer:* Users of this document should not solely rely on the information contained here and are advised to consult domain experts prior to the start of their venture based on the identified market opportunity.