After having more than 12 years of experience and expertise, we started our own manufacturing division in 2010. Further, keeping in mind the growing customer needs and to develop better infrastructure, we established a Private Limited company, FABRITEK EQUIPMENTS PVT LTD in 2014, located at MIDC Bhosari, in the heart of Pune district.

We have expertise and are professionally equipped with the latest machinery for Flow Elements like Orifice Meter, Flow Nozzle, Venturi Tube, and Averaging Pilot Tube.

We also design, fabricate and supply Process Tanks, Pressure Vessels, Agitator Tanks/Reaction Vessels, Distillation Column, Shell & Tube Heat Exchanger, Storage Tank, Process Piping, Compressor Base Frame, other custom fabrication in Stainless Steel, Carbon steel and alloy steel, Nickel Alloy material.

We have a team of dedicated workforce & skilled engineers with well laid manufacturing facility spread over 6000 sq. ft. area with material handling facility of 7.5 T. We adhere to Strict Quality Control Procedure and offer High Calibre of workmanship. We worked under Third Party Inspection Agencies like LRIS, BVIS, DNV, SGS, BAXCOUNCIL, TUV, QUEST ASSOCIATES and customer representatives.

We have approved/well known agencies for NDE and special processes like Post weld Heat Treatment, Helium Leak Test etc. Raw material testing like chemical/physical/IGC/NACE etc. is carried out in NABL Accrediated labs in Pune/Mumbai. Non destructive Testing like UT, Eddy Current, RT, Magnetic particle test, Dye penetrant test etc. is done by the approved agency, as per project requirement & approved QAP/ITP.

Approved WPS/PQR/WPQ under witness of TPIA DNV are available for various material combination like SS-SS, CS-CS, CS-SS P11-P11, P11-SS, P22-P22, P22-SS, P91-P91, P91-SS and Duplex Steel material. Execution of orders as per mutually agreed and approved QAP, technical specification and approved drawings w.r.t latest ASME codes.

Mr. Rajesh Talawadekar
Managing Director
ORIFICE PLATE:
An orifice plate is a thin plate with a hole in the middle. It is usually placed in a pipe in which fluid flows. When the fluid reaches the orifice plate, with the hole in the middle, the fluid is forced to converge to go through the small hole; the point of maximum convergence actually occurs shortly downstream of the physical orifice, at the so-called vena contracta point. As it does so, the velocity and the pressure changes. Beyond the vena contracta, the fluid expands and the velocity and pressure change once again. By measuring the difference in fluid pressure between the normal pipe section and at some specific point after orifice plate, the volumetric and mass flow rates can be obtained from Bernoulli’s equation.

CONCENTRIC ORIFICE PLATES:
These are most commonly used for flow measurement. This has special features such as simple structures, high accuracy, and ease of installation and replacement. These plates are recommended for clean liquids, gases & steam flow, when the Reynold number ranges from 10000 to $10^7$.

QUADRANT EDGE ORIFICE PLATE:
The inlet edge of the bore of this orifice plate is rounded to a quarter circle.
This orifice plate is usually used for viscous fluids & Reynolds number between 1500 & 10000.

CONICAL ENTERANCE ORIFICE PLATE:
The inlet edge of bore of this plate is conical in shape. This plate is used for highly viscous fluids with Reynolds number 80 to 1500.
For liquids containing solid particles that are likely to sediment or for vapors likely to deposit water condensate, this orifice plate is used with its eccentric bore bottom flush with the bottom of the piping inside surface so that the sedimentation of such inclusions are avoided. Likewise, for gases or vapors, it may be installed with its eccentric bore top flush with the ID of the piping to avoid stay of gas or vapor in its vicinity.

Segmental orifice plates are most useful where there are substantial entrained water or air and also if there are suspension in the fluids. This avoids build up in front of the orifice plate. The orifice hole is placed at the bottom for gas service and top for liquids.

RTJ holder with plate is used when the orifice plate is used at high pressure & high temperature. When normal gaskets cannot be used due to more pressure-temperature, RTJ gaskets are used for leak prevention. These are available in oval or octal shapes. The Orifice Plate is Universal type and fitted on the RTJ holder with the help of screws. The RTJ holder material is selected such that it will be softer than the flange. The plate material will be as per process requirement.

Carrier ring type construction is used facilitate pressure taps, when it is not possible to drill taps on flanges. This construction is used below 2" line size, but not restricted. Carrier ring can be Male-Female type OR one piece construction. Single piece construction is chosen when direct mounting of DPT is required. Also for bigger sizes, single piece carrier is more cost effective.
TECHNICAL SPECIFICATION:

- Size of PIPE & Schedule.
- Size of Flange/Type/Rating/Schedule/Standard.
- Gasket: CAF / SS Spiral Wound + CAF / PTFE / PVC / Rubber, Other materials as per special request.
- Stud / Nut: ASTM A193 Gr. B7/ASTM A194 Gr.2H, B7M/2HM, A193 B16/A194 Gr. 4
- Flanges: ANSI B-16.36/B16.5/AWWA/ASME B16.47/ IS 6392 / BS 10 etc.
- Orifice Plate Types: Square edge concentric, Quadrant edges, Conical entrance, Eccentric, segmental, Restriction.
- Pressure Tappings: Flange Taps / Corner Taps / Radius taps
- Materials:
  Flanges: Carbon Steel, Low Temperature Carbon Steel, Chrome Moly Steels, Stainless Steel, Duplex, Super Duplex, 6 Mo, Monel, Hastelloy, Incolloy 825, PVC, PP, PVDF.
  Orifice Plate: Stainless Steel, Duplex, Super Duplex, Monel, Hastelloy, Inconel etc.
RESTRICTION ORIFICE PLATE:

SINGLE STAGE

The restriction orifice plates are used for reducing fluid pressure. When the required pressure is dropped with only one plate, it is called as single stage restriction. This plate is similar to the Square edged Concentric plate, except that the bevel is not provided for restriction orifice. Since the purpose is to drop the pressure & not to reduce pressure loss, the plate thickness is calculated based on the required pressure drop across the plate.

MULTISTAGE RESTRICTION ORIFICE PLATE ASSEMBLY:

This is the next version of single stage restriction orifice plate. When the pressure is dropped across the orifice plate, the velocity is increased by large.

For gas service, when the drop is nearer to 50% or more, this velocity approaches the velocity of sound or becomes more than that of sound velocity. The point at which the velocity is equal to the sound velocity, is called as Sonic condition.

The sonic condition is not favourable for process line, since it creates noise & vibrations. Also, more velocity causes erosion of plate bore.

To avoid all these, the pressure is dropped in number of plates arranged in series. The assembly of all these plates combined, is called as multistage restriction orifice plate assembly.

For liquid service, sonic condition is replaced by cavitation/flash phenomenon. When the pressure line falls below the vapour pressure of the fluid, cavitation starts. The cavitation is harmful for the piping and instruments fitted after the orifice plate.

For liquids, the deciding factor for the requirement of multistage is cavitation index. To avoid cavitation, the index is maintained below 2. i.e. the pressure is dropped in such a way that the cavitation index for each plate is below 2.
FLOW ELEMENTS - Orifice Plate Assembly

ORIFICE PLATE WITH METER RUN:
When the orifice plate assembly is supplied with piping spool on upstream & downstream, the complete assembly is called as Meter run Assembly. The orifice assembly can be any one type as defined in earlier pages.

Meter Runs are supplied as a complete unit to ensure the necessary straight pipe lengths are available for the maximum accuracy. They can be supplied with temperature tapping if required. For gas application where maximum accuracy is desired the meter run is supplied with flow straightener with honed pipe at inlet side as per AGA standard.

Carrier ring type meter run is used where the tapping on flange is to be avoided or not possible. e.g. with PVC/PP flanges.
- Standard Lengths 1000 mm. Other lengths on request.
- Standard Tappings 1/2" NPT female (two nos. per flange) others on request.

Materials
Pipe: Carbon Steel, Low Temperature Carbon Steel, Chrome Moly Steels, Stainless Steel, Duplex, Super Duplex, 6 Mo, Monel, Hastelloy, Inconel etc.
Bolts, nuts and gaskets to suit individual applications.

INTEGRAL METER RUN ASSEMBLY:
This type of assembly is specially constructed for direct mounting of DP transmitter. The maximum size available for this type is 1.5".

For the construction of this, specially designed integral blocks are used, the shape of which is made suitable for DPT mounting. The plate is made to suit the integral blocks.

Integral MRA uses a corner tapping arrangement, hence the accuracy is better than the conventional type meter run. Additionally, this arrangement reduces the losses through leakage, since there are no leakage points.

But, as the DPT is mounted directly on the meter run, this can be used upto 120deg maximum only.
Sizes available: 1/2" to 1.5"
Materials available: CS, SS304, SS316
Pressure rating: up to 600#
DESCRIPTION:
FEPL's flow nozzle is a flow measurement device which used for measurement of high velocity flow, such as high pressure steam. It can also be used with other fluids such as water, air or other gases.

The rounded profile is particularly useful when the steam contains particles which damage the edges of the flow element which doesn't happen due to the smooth profile. Thus the product life is increased.

The typical profile of this device offers a smooth passage to the fluid which leads to the lesser pressure drop and thus more efficiency.

SALIENT FEATURES:
- Best suitable for measurement of high pressure high temperature high velocity steam measurement.
- Smooth profile and rigid structure makes the assembly extremely stable.
- Free from leakage (when provided in weldin type assembly).
- Zero maintenance since no moving parts.
- Repeatability: 0.3%
- Less straight lengths requirement.

DESIGN & MANUFACTURING STANDARD:
- ISO-5167 part III
- ASME PTC-19.5
- ASME PTC-6

MATERIALS:
Selection based on temperature and process conditions. Typically used materials are:
- Element: SA.182 F316/ SA182 F11 / SA182 F22 / SA182 F91
- Pipe: SA.106Gr. B / SA335 P11 / SA335 P22 / SA.335P91
- Flange material: SA105 / SA182F11 / SA182F22 / SA182 F91
CLASSIFICATION:
The flow nozzle can be classified as follows

- **BASED ON ELEMENT**
  - Long Radius High Beta
  - Long Radius Low beta
  - ISA 1932

- **BASED ON MOUNTING**
  - Weldin type
  - Flanged type
  - Holding ring type

- **BASED IN APPLICATIONS**
  - Used in high accuracy area of turbine steam flow measurement
    - Flanged type with throat tap nozzle
      - (as per PTC-6 standard) with accuracy in a tune of 0.25%.

**LONG RADIUS HIGH BETA TYPE NOZZLE:**

This type of nozzle uses an elliptical profile. The quarter portion of the ellipse is used to form the nozzle profile. This is a commonly used nozzle type with an uncertainty of 2% irrespective of beta ratio. This can be offered in all the 03 mounting classifications.

- Size limits: 50 mm to 630 mm
- Beta Ratio: 0.2 to 0.8
- Reynolds Number: $10^4$ to $10^7$
- Pressure tapping: $D - D/2$

A Weldin type assembly typically with a pipe length 750 mm on upstream side and 250 mm on downstream side.

Flanged type assembly can be supplied with or without spool piece as per requirement.
**FLOW NOZZLE ASSEMBLY**

**ISA 1932 TYPE NOZZLE:**
The profile of this type of nozzle is formed with the intersection of 2 circles. This gives an estimated uncertainty of 0.8% to 1.2%, depending on the beta ratio. This can be offered in all the 03 mounting classifications. But this has certain manufacturing limitations to use with weldin type, when the line size is small.

Size limits: 50 mm to 500 mm  
Beta Ratio: 0.3 to 0.8  
Reynold's Number:  
For beta 0.3 to 0.44 → $7 \times 10^4$ to $10^7$  
For beta 0.44 to 0.8 → $2 \times 10^4$ to $10^7$

Pressure tapping:  
Upstream tap → Corner tap  
Downstream tap → @ 0.15D for beta <0.67 → @ 0.2D for beta >0.67

OR  
Downstream tap → corner tap

A Weldin type assembly typically with a pipe length 750 mm on upstream side and 250 mm on downstream side.

Flanged type assembly can be supplied with or without spool piece as per requirement.

**LONG RADIUS LOW BETA TYPE NOZZLE:**  
This type of nozzle also uses a quarter elliptical profiles. This type of nozzle is used for performance testing of turbines, as per PTC standard. When supplied with the typical assembly as per PTC-6, uncertainty is 0.25%.

Size limits: 50 mm to 630 mm  
Beta Ratio: 0.2 to 0.5  
Reynold's Number: 104 to 107  
Pressure tapping:  
Upstream tap @ D  
Downstream tap Throat tap (through element)
Flow Nozzle Mounted Between Flanges:

Long Radius High Beta, Weldin Type:

ISA 1932, Weldin Type:

Flanged Mounted With Throat Tap As Per PTC-6:
AVERAGING PITOT TUBE (FEPT)

An averaging pitot tube (APT) is a multiport self-averaging flow meter with a design based on the classical Pitot tube concept of fluid flow measurement.

SALIENT FEATURES:
- Averaging Pitot Tube is suitable for clean liquid, gas flow measurement
- Accuracy ± 2 % of actual flow rate
- Repeatability of measurement ± 0.2 %
- Flow rate turndown typically 4:1
- Short upstream and downstream straight pipe lengths
- Long term accuracy unaffected by wear
- Less pressure loss

MODEL SPECIFICATION:
1) FEPT –75R with Ferrule Fitting construction.
   (Sensor size : 25.4 mm)
2) FEPT-75 with flanged construction
   (Sensor size 25.4mm)
3) FEPT-75/76 with Flanged construction & End support
   (Sensor size: 25.4 mm)
4) FEPT-85 with Flanged construction
   (Sensor size: 57.3 mm)
5) FEPT-86 with Flanged construction & End support
   (Sensor size: 57.3 mm)

APT models with flanged end can be supplied with retract mechanism, whenever specified.
Available retract mechanism are :
- Manual Retract mechanism
- Retract mechanism with gear drive
WORKING PRINCIPLE:

Averaging Pitot Tube produces an averaged differential pressure (DP) proportional to the square of the flow rate. The DP output is normally piped to a Differential Pressure Transmitter in order to generate an electrical signal proportional to the flow rate.

For certain applications, the DP Transmitter can be directly mounted on to the APT via an integral 3-way valve manifold.

APT is designed to span the process pipe diameter and comprises four basic components:

- Outer impact tube
- Internal averaging tube
- Low-pressure chamber
- Head

The outer impact tube has a number of pressure sensing holes facing upstream which are positioned at equal annular points in accordance with a log linear distribution.

The total pressures developed at each upstream hole by the impact of the flowing medium are firstly averaged within the outer impact tube and then to a second order (and more accurately) averaged within the internal averaging tube. This pressure is represented at the head as the high pressure component of the DP output.

The low-pressure component is generated from a single sensing hole located on the downstream side of the outer impact tube.

PROFILE SHAPE: An APT has the unique diamond shaped profile enabling better separation point at which the flow lines “break-off” as the fluid passes around the outer impact tube. This feature creates a stable pressure area at the downstream pressure sensing hole thereby maintaining a more constant flow co-efficient K at high velocities enabling a very wide range of flow measurement (turndown). fluid which leads to the lesser pressure drop & thus more efficiency.
APT is NOT suitable for the measurement of 2 phase fluids or when the fluid does not completely fill the cross section of the pipe.
INSTALLATION & LOCATION:
Correct location of averaging pitot tube in the pipe line system is important in order to optimize performance. Flow that is disturbed by upstream configuration such as elbows, T’s and valves may have an adverse effect on accuracy unless APT is located at recommended positions shown in below table.

Below figures illustrates the distance in multiples of pipe bore “D” between APT and the upstream and downstream disturbances. If an APT is fitted within disturbances less than those shown, then absolute accuracy may be downgraded but repeatability of measurement will still be achieved due to inherent averaging characteristics.

Where it is not possible to provide the specified distances and maximum accuracy is required, the use of a flow straightening spool piece allows for shorter distance.

Recommended Upstream & Downstream Straight Length Distance:

<table>
<thead>
<tr>
<th>Minimum Diameters of Straight Pipe</th>
<th>Upstream Dimensions</th>
<th>Downstream Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without Vanes</td>
<td>With Vanes</td>
</tr>
<tr>
<td></td>
<td>In Plane A</td>
<td>Out of Plane A A’ C C’</td>
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<tr>
<td>8</td>
<td>10</td>
<td>8 4 4</td>
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<tr>
<td>11</td>
<td>16</td>
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<td>23</td>
<td>28</td>
<td>8 4 4</td>
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<td>18</td>
<td>8 4 4</td>
</tr>
<tr>
<td>30</td>
<td>30</td>
<td>8 4 4</td>
</tr>
</tbody>
</table>
ORIENTATION IN PIPE:

An averaging Pitot tube must be installed at right angles to the pipe run and across a pipe diameter within the tolerances as shown in the above figure.

For Liquids & Steam

For Liquids & Gases

For Gases

For Steam
DESCRIPTION:
The name of this product is derived from the venturi effect which states that, the fluid pressure is reduced when the fluid passes through the constricted section of pipe.

Venturi tube can be divided into 04 sections namely
- Inlet cylinder
- Inlet cone or convergent cone
- Throat
- Outlet cone or divergent cone

All these sections when connected together, forms venturi flow meter.

Venturi tubes gives accurate measurement of non-viscous fluids in clean as-well-as dirty fluids, manufactured strictly in accordance with ISO-5167, ASME MFC-3M, BS-1042 etc. For critical measurement applications, wet calibration at reputed flow laboratories can be offered.

The unique geometry of venturi provides a smooth entry as well as smooth exit for the fluid. This causes a less pressure drop across the venturi i.e. the differential pressure is less. Low DP means low permanent pressure loss. Venturi can be used for a wide variety of applications that include air, water, vapor, steam, gas, chemical substances, sludge and slurry applications. Since divergent cone is provided at outlet of venturi, the pressure recovery is very good. Thus it reduces operating costs and also reduces straight length requirement.

Typically the convergent angle is fixed to 21°. Divergent angle can be varied between 7°- 15° without any effect on the pressure loss and discharge coefficient.

Venturi tube is also referred as Classical venturi or Harshell venturi.
CLASSIFICATION:

Venturi tube is broadly classified as truncated or Non truncated venturi.

The venturi is called as Truncated when the outlet cone diameter of the venturi is less than the pipe dimension. When the same is equal to the pipe diameter venturi is called as non truncated type venturi.

The divergent cone can be truncated about 35% of its length without affecting the discharge coefficient.

Further the venturi is classified in 3 basic types, as given below:

- MACHINED TYPE
- FABRICATED TYPE
- AS CAST TYPE

SALIENT FEATURES:

- Specifically useful for low pressure and low pressure drop area.
- Can be used for fluids containing dust of suspended particles.
- Short upstream and downstream length required.
- Low permanent pressure loss & high pressure recovery.

MACHINED TYPE VENTURI:

Machined venturi is manufactured by machining the required profile from a solid forged bar. The sizing and dimensional guidelines are mentioned in ISO-5167 part IV.

Depending upon the customer requirement, the end connection can be either BWE or Flanged.

Size limits $\rightarrow$ 50 mm to 250 mm.

Uncertainty in discharge coefficient $\rightarrow$ $\pm$ 1%

ReD $\rightarrow$ $2 \times 10^{-5}$ to $1 \times 10^{-6}$

$\beta$ $\rightarrow$ 0.4 to 0.75

Materials: The venturi can be supplied in any material including plastics. The materials generally used are SA105, SA182F316/L, SA182F304/L, Inconel, Duplex SS, Monel etc.

Venturi upstream pressure tap is located at the mid of inlet cylinder & the downstream pressure tap is located at midpoint of the throat.

When averaging is required, the pressure tapping can be taken through piezometric ring or also called as annular ring. This can be manufactured from forging or can even be fabricated from rolling the pipes, as per requirement.
**FABRICATED TYPE VENTURI:**

This type of venturi is manufactured by bending the sheets into required profile & joining them together.

This type of venturi, is manufactured in different sections named above and then joined together to form a fabricated venturi.

Depending upon the customer requirement, the venturi can be supplied in BWE or flanged end connection. For bigger sizes, since the length increases, venturi can be supplied in truncated form.

- **Size limits**: 250 mm to 1200 mm.
- **Uncertainty in discharge coefficient**: ± 1.5%
- **ReD**: $2 \times 10^5$ to $2 \times 10^6$
- **$\beta$**: 0.4 to 0.7

The basic raw material for this type is in the form of plates / sheets. Generally used material grades can be listed as follows:

- Carbon steel IS2062, SA516Gr. 60/70.
- Stainless Steel SA240Gr. 316, SA240Gr. 304, etc.

(Other materials are also available on request).

When averaging is required, the pressure tapping can be taken through piezometric ring or also called as annular ring.

The ring is fabricated from channel or pipe as per requirement.

**RECTANGULAR VENTURI:**

Rectangular type venturi is used where the flow section is rectangular in shape instead of circular shape.

Based on the construction, this type of venturi is classified as

- Rectangular venturi with single plane contraction
- Rectangular venturi with double plane contraction

The material combination, design will be similar to the Classical venturi tube.

Depending on the piping requirement, venturi can be supplied with flanged end or BWE.
DESCRIPTION:

Aerofoil is specially designed for flow measurement in square/rectangular duct. This is particularly useful for duct, since the other flow elements like orifice, flow nozzle, etc. cannot be used for duct flow measurement.

This consists of aerodynamic shaped foils, which offers a very little resistance to the fluid. The typical profile of Aerofoil, offers a smooth passage to the fluid which leads to the lesser pressure drop and thus more efficiency.

Aerofoil is supplied with flanged end, thus making the installation in the line, very easy.

MANUFACTURING RANGE:

A smallest aerofoil which we offer is of 500 x 500 mm size. For maximum side we can offer any dimension, as per the duct sizes.

SALIENT FEATURES:

- Best suited for duct piping.
- Generally used in a low pressure area.
- Typical application of aerofoil is with air or gas application.
- Restricted for viscous fluids, since it will block the pressure sensing ports of the device.
- Zero maintenance since no moving parts.
- Less straight lengths requirement.

MATERIALS:

Selection based on temperature and process conditions. Typically used materials is Carbon steel : IS 2061 Gr. A / B, SA516 Gr. 60/70.
AEROFOIL

Aerofoil works on the principle of relationship between the flow velocity & the pressure fields in the flow section. Consist of no. of foils, 02 nos. as a standard practice. The shape of each foil is similar to the shape of aircraft wing.

During operation, the fluid is passed between the foils, creating the pressure drop. Pressure sensing ports are placed on the face and backside to sense the upstream & downstream pressure, respectively.

These ports are connected to a two separate header pipe, which then gives out the upstream & downstream pressure. The difference between these gives input for flow rate calculation.

For designing of aerofoil, for rectangular duct, the dimensions are transformed into a similar circular section and performed the sizing. The results are re-transformed back to rectangular dimensions.

Size limits: 500 x 500 mm minimum
Beta Ratio: 0.2 to 0.8
Pressure tapping: Throat taps.
Supplied with flanged end held in the line with fasteners. The flange drilling can be customized.
DESCRIPTION:
In any industry the pipe line contains so many fittings, valves & so many obstructions. The fluid passing through the pipeline gets disturbed after passing through them. For measurement, such disturbed flow is not at all usable. The turbulence/swirl in the flow shall be reduced to acceptable limits before it passes through the instrument. The possible way to achieve this is to provide sufficient straight length or to install flow conditioner before the measuring instrument.

Flow straighterner is a device which removes or significantly reduces swirl in the flow section, caused by various obstructions, fittings, valves etc.

TUBE BUNDLE FLOW STRAIGHTENER:
Tube bundled flow straightener consists of bundle of parallel & tangential tubes fixed together & held rigidly in the pipe.

There should be atleast 19 tubes in a bundle.
The length of tubes shall be 2D-3D, where D = pipe ID.
These tubes shall be joined together to make it an assembly & then inserted in the line.

Flow conditioner is a device which, in addition to meeting the requirement of removing or reducing the swirl, is designed to redistribute the velocity profile.
FLOW CONDITIONER PLATE:
The flow conditioner plate is made up by making number of certain sized holes at PCD defined in ISO 5167.

The plate thickness of the plate shall be maintained between 0.12D & 0.15D. Preferably the thickness is maintained as D/8.

ZANKAR flow conditioner plate consists of 32 number of holes arranged in a symmetrical circular pattern. The diameter & the PCD are a function of pipe ID 'D'.

The pressure loss coefficient of ZANKAR flow conditioner plate is approximately $= 3$

The installation of flow straightner or flow conditioner shall be done on upstream of the flow measuring instrument. The distance to be maintained between the fitting & the flow instrument shall be as guided in ISO 5167.

***For more details please consult Fabritek engineer.
DESCRIPTION:

Condensate pot & seal pot are the same based on the shape & construction. Based on the application, they are classified as mentioned under.

Condensate Pots are used to collect and accumulate condensate and extrinsic particles. Condensate chambers aid in protecting delicate instruments with smaller orifices from becoming damaged or clogged by foreign debris. The bottom connection is used as a drain port to remove condensate. Condensate chambers can also be used to cool very high temperature liquids.

Seal pots are used to provide a liquid seal between the process instrument and gases such as steam. Its function is to keep the liquid level constant in the impulse tubes (sensing lines), while preventing stem or corrosive liquids from reaching the instrument.

Condensate Chambers & Seal Pots are fabricated from seamless pipe. A variety of materials and wall thicknesses are available to meet a customer's design pressure and temperature.

SPECIFICATIONS:

Size: 3" & 4"
Pipe schedule: As per pressure & temperature of flowing fluid.
Length: 300mm (as a standard practice)
Pressure tapping: ½" NPT (F), 04 nos
Dish end: SA234 Gr. WPB, SA234 Gr. WP11, SA234 Gr. WP22.

(*** For any other specifications mentioned above, please consult factory.)

The material of the condensate pot is selected as per the process temperature and the service compatibility.

TESTING & CERTIFICATIONS APPLICABLE:

- Hydro pressure test
- Radiography for butt weld joints.
- Dye-Penetrant test.
- IBR certification
Other Areas of Manufacturing

AGITATOR/REACTION VESSEL
VENT SEPARATOR
LT CHAMBER

COMPRESSOR INTERSTAGE PIPING
PROCESS TANKS
COMPRESSOR BASE FRAME

COMPRESSOR PIPING
DISTILLATION COLUMN
COMPRESSOR INTERSTAGE PIPING - TATA KPO

HOPPER ASSEMBLY
DUMMY CORE FRAME - RIL
DENSITY SKID - ESSAR