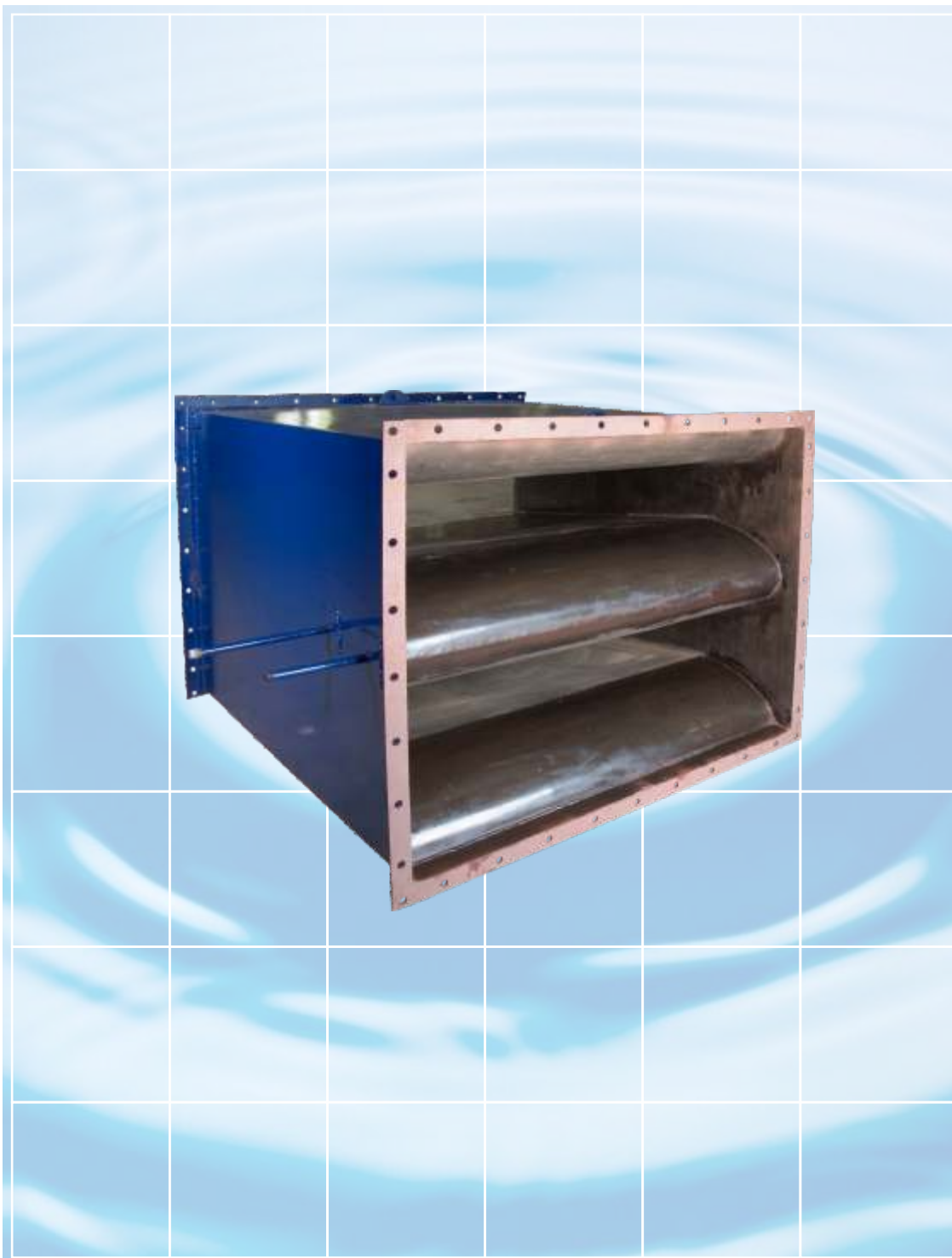




## AEROFOIL



**EUREKA  
INDUSTRIAL  
EQUIPMENTS  
PVT. LTD.**

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## DESCRIPTION:

Aerofoil is specially designed to measure flow through square/rectangular duct, where other flow meters like orifice, flow nozzle, venturi etc. cannot be used.

The name itself explains that, the flow meter uses the Aircraft wing shaped foil obstruction which creates pressure drop. Aerofoil is constructed with at least 02 numbers of foils. The piezometric ring arrangement is connected inside the foil, which gives averaged pressure readings for both HP & LP side. The difference between these two readings will give the DP & in turn the flow reading.

Eureka's AF series is suitable for measuring air & gases flow measurement. The aerodynamic shape offers a smooth passage for the fluid to flow & thus causes a minimum pressure drop. A low differential pressure means low permanent pressure loss.

## APPLICATIONS:

- STEEL PLANT
- SUGAR INDUSTRY
- POWER PLANT

## FEATURES:

- Specially designed for flow measurement in rectangular duct.
- Can be used for fluids containing little amount dust particles.
- Short upstream & downstream length required.
- Less susceptible to erosion.
- Low permanent pressure loss & high pressure recovery.
- No maintenance since no moving parts.
- Supplied with end flanges, hence very easy to install.

## NOMICAL SIZES AVAILABLE:

- Duct sizes 500mm & above.
- For smaller sizes please consult Eureka representative.

## PRESSURE TAPPING:

- Throat taps

## MATERIALS:

Selection based on temperature & process conditions.  
Since the typical application is for air flow measurement, supplied in Carbon steel material.

- Material in the form of plates. E.g. IS2062, SA516Gr.60/70. (others available on request)

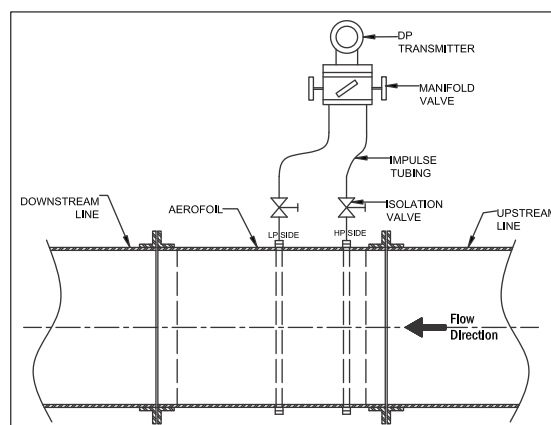
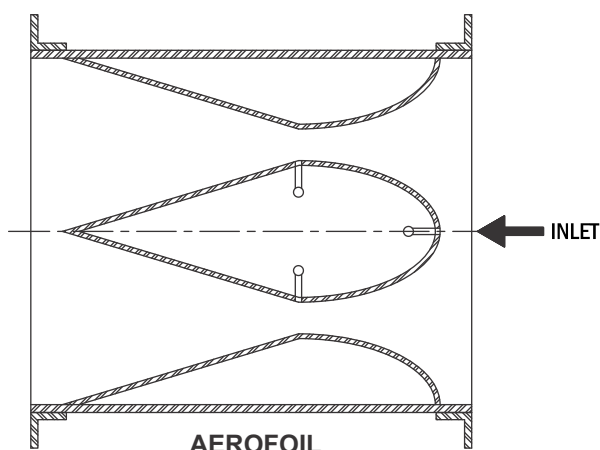
## CONSTRUCTION:

Typically aerofoil is constructed with 02 no. of foils with a smooth profile on upstream side & divergent cone on downstream side. The no of tapping ports are decided upon duct size.

HP sensing ports are drilled on the centerline facing the fluid flow. These ports are then connected to a common pipe inside the duct.

LP sensing ports are ports are drilled on top & bottom part of the foil. Again these ports are connected internally to common pipe.

Both these HP & LP pipe are taken out of aerofoil body to connect to the impulse tubing for further measurement.



AEROFOIL  
Installation  
Schematic  
diagram