



FV SERIES CAST IRON VENTURI TUBE

INTRODUCTION

TRENT FV Series Cast Iron Venturi Tubes are differential pressure producing flow elements that will accurately and repeatedly measure the flow of liquids & gases in fully filled closed pipes. Standard TRENT FV Cast Iron Venturi Tubes are designed to BS1042 with other standards as optional. TRENT FV Cast Iron Venturi Tubes are available in both metric or imperial standards.

APPLICATION

TRENT FV Series Cast Iron Venturi Tubes are designed for the measurement of full pipe flow of water, wastewater, sludge, gases, etc.

DESIGN FEATURES

Sizes:

2 inch and above

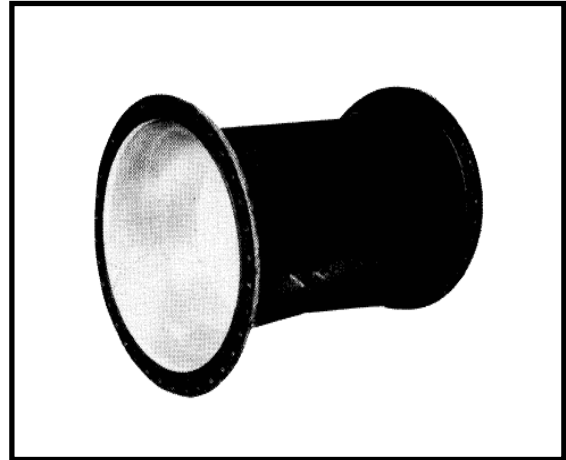
50 mm and above

Materials Of Construction:

High quality grey cast iron body to BS 1452 Grade 220 with bronze throat liner. External surfaces are protected by two coats of epoxy polyamide with black top coat. Internal surfaces are coated with four coats of non-toxic epoxy polyamide with mid-grey top coat.

Hydraulic configuration:

TRENT FV Series Cast Iron Venturi Tubes are designed to operate at minimum head loss and at the same time provide a coefficient of discharge independent of Beta ratio and allow adiabatic expansion to be calculated accurately.



Flow Direction Indication:

An arrow is casted onto the venturi tube body for indication of flow direction.

Flow Data:

Each TRENT FV Series Cast Iron Venturi Tube shall be furnished with a copy of flow data detailing all necessary information.

Calibrated Name Plate Detail:

Each TRENT FV Series Cast Iron Venturi tube is furnished with a calibrated name plate detailing its serial number, throat bore, I.D. and flow rate etc.

Flanges:

Standard to BS 10 Table A, D, E or BS 4504 in PN6,10, 12 & 16 rating.

SPECIFICATIONS

Maximum Working Pressure: 16 bar standard. Higher pressure as optional

Maximum Working Temperature

150 C (320 F) for dry air
60 C (140 F) for liquids

Hydrostatic Test:

Complete tubes are tested on water to flange rated test pressure for a minimum duration of 30 minutes.

Beta Ratio:

From 0.4 to 0.75

Pressure Loss:

The permanent pressure loss of TRENT FV Series Cast Iron Venturi Tube expressed as a percentage of the differential pressure produced is shown in figure 1 Generally, TRENT FV Series Cast Iron Venturi Tubes are designed with pressure loss of less than 12%.

Accuracy:

Within the specified flow range and piping Configuration, the TRENT FV Series cast Iron Venturi Tube will produce measurement Accuracy of +/-1.00%

Overall Length:

Dependent on the pipe bore, Beta ratio and allowable head loss. Overall length of the standard TRENT FV Series Cast Iron Venturi Tubes are available upon requested

INSTALLATION

TRENT FV Series Cast Iron Venturi Tubes can be either horizontally or vertically mounted. General practice requires the pipe to be maintained full and the upstream and downstream mating pipes to be at least 10 times and 5 time respectively clear from any disturbances such as bends, Tee, valves etc.

Standard Accessories:

2 nos. 3/8" ball valves for both upstream and downstream pressure tapping, 2 nos Air Vents for both upstream and Downstream air venting points

OPTIONS

- a) Dry calibration certificate from internationally recognized third party Inspection body for all venture tubes available
- b) Actual Flow calibration for sizes below 8 inch (200mm) diameter available upon request

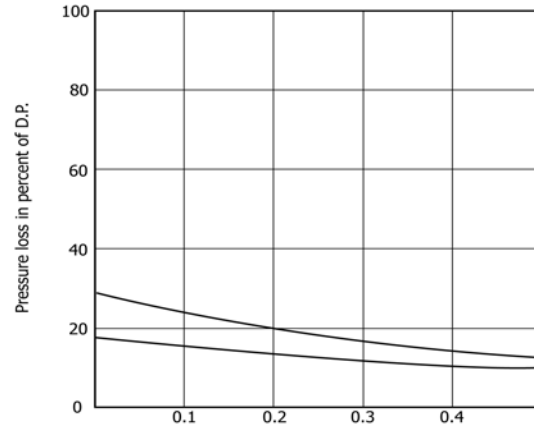


Fig. 1-Pressure loss vs Area Ratio

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Manufactured by :

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