EmcoControls

CONSTRUCTION AND DESIGN OF INSTRUMENTS FOR FLOW, LEVEL AND TEMPERATURE

EMCO Rectangular Venturi Tube Welded Sheet, Type FKVR with Weld end Connection

Principle

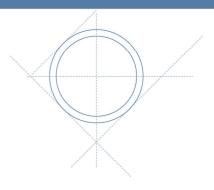
EMCO rectangular venturi tubes are used in air ducts or furnaces as primary elements in flow measurement of gas according to the differential pressure principle. The rectangular venturi tube has single or double plane contraction. The rectangular venturi tube is used where the circular classical venturi tube is impossible or impractical to use.



Construction

Design standards	:	Not standardised – based on private information
Sizes	:	W X H ≤ 1130.000 mm²
Ratio of duct inlet	:	$0,5 \le W/H \le 2,0.$ Ideal = 1
Ratio of throat	:	$0,5 \le w/h \le 2,0$. Ideal = 1
Pressure rating	:	PN 6 - 10, 125 lbs.
Material	:	Carbon steel, AISI 316, others on request
Plate thickness	:	3 – 10 mm depending on size
Mounting style	:	Weld ends according to DIN 2559 Form 1 or ANSI B16.25

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Pressure taps	:	Thread connection 3/8", 1/2" BSP, 1/2" NPT ext.
Max differential pressure	:	250 mbar.
Static pressure-differer pressure ratio		
Accuracy	:	approx. 10 %, 5% for double plane contraction and equivalent β ratios of 0,6 and W/H and w/h equal to 1)
Reynolds No.	:	$2 \times 10^5 \le \text{ReD} \le 2 \times 10^7$
Outlet cone	:	8 - 15°
Pressure loss	:	Depending on outlet cone between 10 – 15 % of the differential pressure measured
Accessories	:	Shut-off valves

