

Wedge Type Flow Meter



Wedge Meter for measuring Low Velocity Flow
or High Viscosity Fluids
as a Differential Pressure Devices

Wedge type Differential Pressure Producer

Series SWFM

✓ Principle

SWFM Segmental Wedges are used as primary elements in flow measurement of steam, liquid and gas according to the differential pressure principle.

✓ Construction

Design standards : 3M EN, PED 97/23 EC, ANSI/ASME and R. W. Miller Handbook

Sizes : DN 50 - 900 or 2 – 36 Inch

Bore/diameter (β) : It is known as H/D or Unblocked Height/ Inner pipe diameter

Element ratio (H/D)
: 0.2, 0.3, 0.4 and 0.5 (0.4 is usual).

Pressure rating : PN 10 - 640, 150 - 2500 lbs., ISO PN 20 –420

Material : Stainless Steel (Especially AISI 316 and other types), Carbon Steel, Monel, Inconel, Super Duplex, 6Mo and others on request.

Mounting style : But Weld ends according to DIN 2559 or ANSI B16.25, Flanges acc. to DIN, or ANSI B16.5 standards.

Pressure taps : But Weld ends \varnothing 21.3 mm, 26.9 mm, thread connection 3/8", 1/2" BSP, 1/2" NPT, Or any other type on request.

Tappings : Single pressure tappings or 4x2 tappings each arranged with an external annular ring to equalize the reporting pressure.

✓ Technical Data

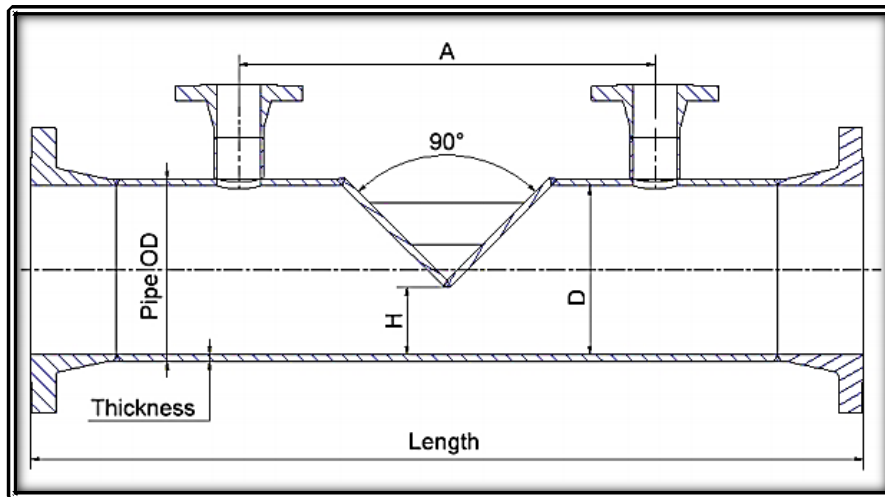
Accuracy : $\pm 4.5\%$ for non-calibrated devices.

Repeatability : $\pm 0.2\%$

Pressure loss : 40 % of measured differential pressure with ratio H/D 0,4

Limits for Re. No. : $Re > 500$

Typical Draft :



Installation

Requirement : down to $5 \times D$ for Up-stream and $2 \times D$ for Down-stream

Advantages : Very suitable for viscous liquids.
Not sensitive to solid particles in the fluid. Bi-directional flow possible.
For very low Reynolds Nos.
Suitable for erosive fluids.
No risk of clogging.
Self-cleaning.

Accessories : Shut-off valves and condensing chambers for steam flow.

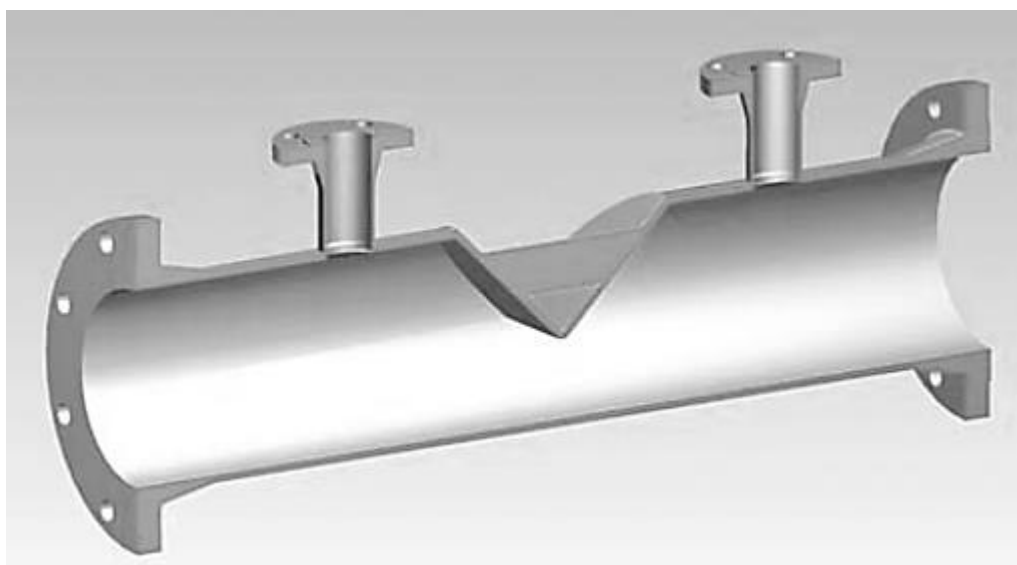
End Connections: Flange Connection ANSI ASME B 16.5



✓ **Dimensions**

DN/Inch	A	Length 150-600 lbs	Length 900-1500 lbs	Length PN16-100	Length PN160-250
50/2"	300	770	770	500	500
65	334	810	810	550	550
80/3"	372	880	880	600	600
100/4"	422	900	940	850	800
125/5"	476	980	1060	920	700
150/6"	528	1030	1140	990	900
200/8"	604	1140	1300	1100	1000
250/10"	694	1270	1470	1220	1100
300/12"	784	1370	1620	1340	1200
350/14"	836	1440	1690	1410	1300
400/16"	914	1540	1810	1510	1400
18"	1004	1640	1930	-	1500
500/20"	1108	1760	2090	1660	1600
600/24"	1248	1930	2330	1770	1800
700/28"	1390	2130	-	1910	2000
750/30"	1468	2240	-	1990	2100
800/32"	1544	2340	-	2090	2200
900/36"	1678	2520	-	2240	2400

All dimensions are in mm



Some Sample of Wedge Type Flow Meter:

