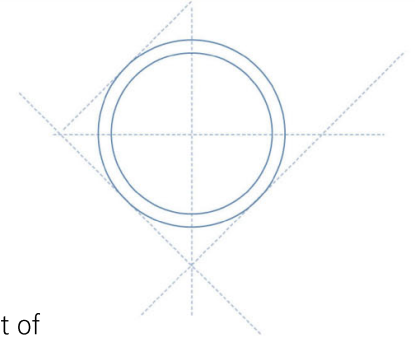


## EMCOWEDGE Type EWF Wedge Meter, A Differential Pressure Producer

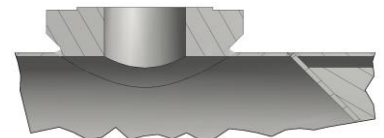


### Principle

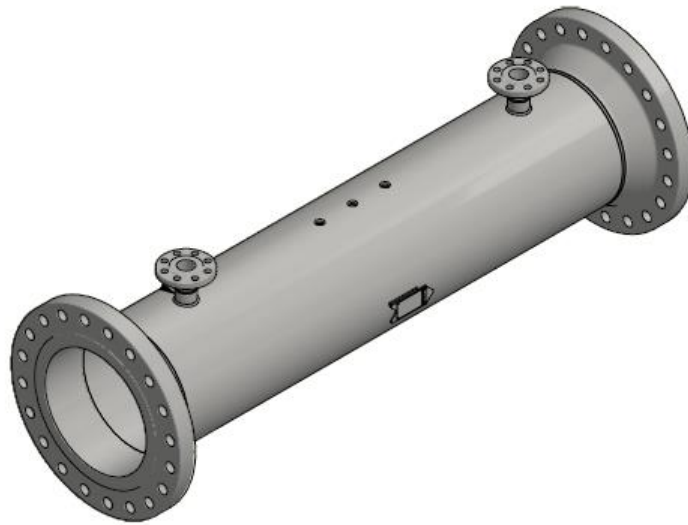
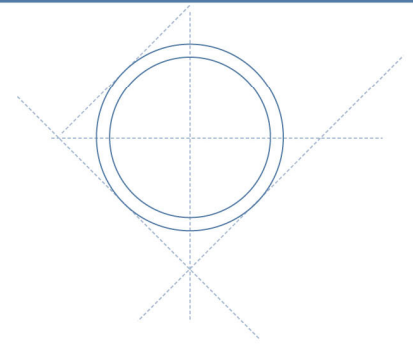
EMCOWEDGE is used as primary element in ISO standardised flow measurement of liquid, gas and steam according to the differential pressure principle.

### Construction

- Design and calculation standards : ISO 5167-6, EN, PED 97/23 EC, ANSI/ASME and RW Miller
- Sizes : DN 50 - 600 2" – 24", larger sizes upon request.
- Pressure rating : PN 10 - 400, 150 - 2500 lbs
- Material : Carbon steel P235GH, P250GH, P265GH, A105N, A106 Gr. B, A350 Gr. LF2, A335 Gr. P5 and P9, AISI 316, Duplex, Super Duplex, 6Mo, heat-resisting steels, other materials on request including internal hard facing by cladding.
- Material wedge : As pipe material above including optional cladding of hard alloy materials. Solid wedge according to ISO 5167-6.
- Mounting style : Flanges connection according to ISO, DIN or ANSI
- Pressure taps : DN 25, DN 50 and DN 80, 1", 2" and 3" or small size tapings : 4 – 10 mm, Standard is 1 set of tapings. Optional 2 or 3 sets of tapings available. Close coupled tapings (studed outlet) with reduced tapping volume. Special flanges for chemical seals.
- Flange facing : Flat or raised face according to DIN 2526 or flat, raised face or ring type joint according to ANSI B16.5
- Element ratio (h/D) : 0,2, 0,3, 0,4, 0,5 and 0,6 ( $\beta$  between 0,377 and 0,791) according to ISO 5167-6.
- Discharge coefficient C : 0,77 – 0,09 x  $\beta$ . In accordance with ISO 5167-6 applicable for sizes 50mm  $\leq$  D  $\leq$  600mm
- $\beta$ -range : 0,377  $\leq$   $\beta$   $\leq$  0,791 (0,2  $\leq$  h/D  $\leq$  0,6)
- Dp calculation : measured h and D of finished product shall be used in the calculation.
- Permanent pres. loss : Max. (1,09 – 0,79 x 0,377) x  $\Delta p$   
Min. (1,09 – 0,79 x 0,791) x  $\Delta p$

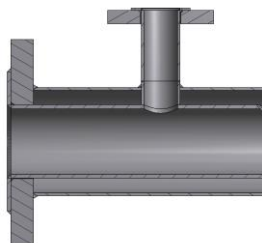


Studed outlet



### EMCOWEDGE With Steam Jacket

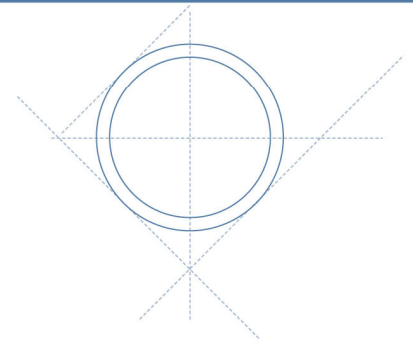
Pipelines carrying highly viscous liquids are often heated by steam tracing. EMCOWEDGE can be delivered with steam tracing for lowering the viscosity for better measuring accuracy. The steam tracing can be delivered in 2 designs: Semi-steam jacket and full steam jacket. The latter is supplied with process flange connection typical 2 pipe sizes larger than the process pipe. See table below. The steam jacket is supplied with 2 steam connections and 1 drain connection



*Steam jacket tapping design.*

### Technical Data

Accuracy	:	+/- 4 % un-calibrated, +/- 0,5 % calibrated. (of discharge coefficient)
Repeatability	:	+/- 0,2 %
Pressure loss	:	$(1,09 - 0,79 \times \beta) \times \Delta P$
Limits for Reynolds No.	:	10.000 – 9.000.000
Installation requirement	:	7 x D up-stream and 6 x D down-stream taken from the end of the disturbance to the centre line of the up-stream tapping and from the centre line of the down-stream tapping to the start of the disturbance according to ISO 5167-6.
Pipe roughness	:	Ra less than $10^{-3} \times D$ for required installation length.

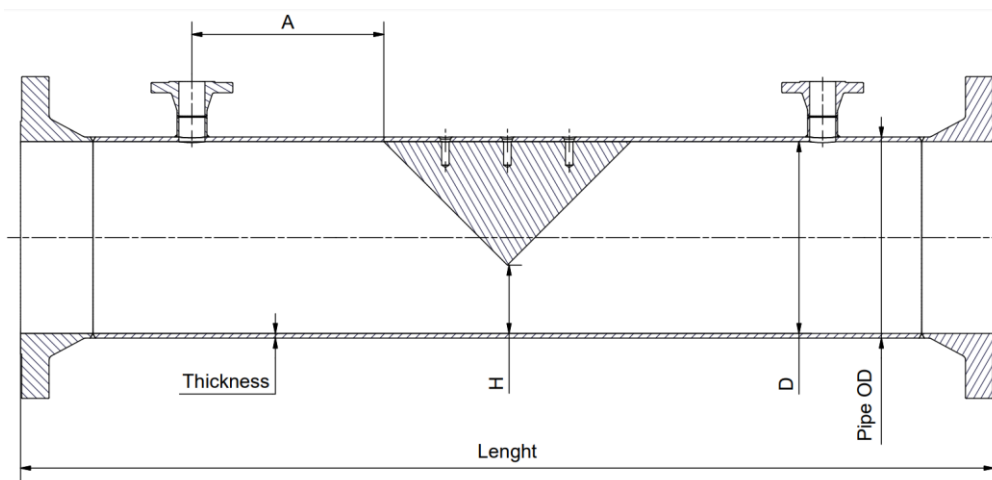


## Advantages

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

## Accessories

Shut-off valves and condensing chambers for steam flow measurement.



Element ratio ( $h/D$ ),  $h$  = wedge gab,  $D$  = inner pipe diameter.

## Dimensions

DN/Inch	Length 150-600 lbs	Length 900-1500 lbs	Length PN16-100	Length PN160-250
50/2"	770	770	500	500
65	810	810	550	550
80/3"	880	880	600	600
100/4"	900	810	850	800
125/5"	980	1060	920	700
150/6"	1030	1140	990	900
200/8"	1140	1300	1100	1000
250/10"	1270	1470	1220	1100
300/12"	1370	1620	1340	1200
350/14"	1440	1690	1410	1300
400/16"	1540	1810	1510	1400
18"	1640	1930	-	1500
500/20"	1760	2090	1660	1600
600/24"	1930	2330	1770	1800

All dimensions in mm