

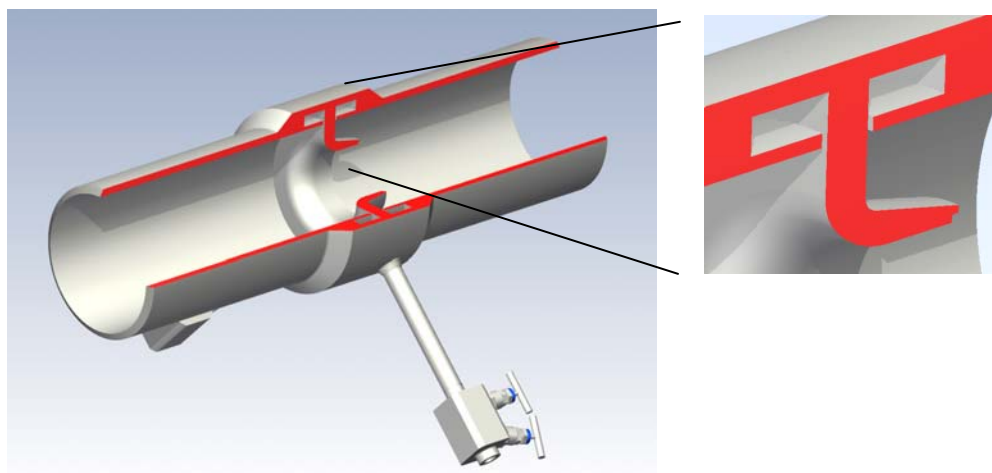
EMCO ISA 1932 Nozzle with Carrier Rings Series DRS in all Welded Construction

Principle

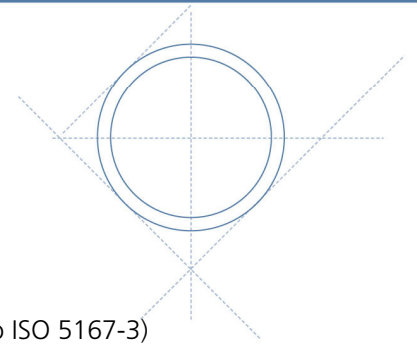
EMCO ISA 1932 nozzles are used as primary elements in flow measurement of steam, liquid, and gas according to the differential pressure principle.

Construction

| | |
|----------------------------------|--|
| Design and calculation standards | : ISO 5167-3 and DIN 19215 |
| Sizes | : DN 50 - 1000 according to DIN 2402 |
| Pressure rating | : PN 10 - 400, 150 - 2500 lbs |
| β (d/D) | : $0.3 < \beta < 0.8$ |
| Material | : Carbon steel P250GH, AISI 316, 16Mo3, 13CrMo4-5, 10CrMo9-10, WB 36, X20CrMoV121, P91, P92, other materials on request. |
| Mounting style | : Weld ends according to DIN 2559 or ANSI B16.25 |
| Pressure taps | : 12 mm, 21.3 mm, 24 mm, 26.9mm, 3/8", 1/2" BSP, 1/2" NPT |
| Tap lengths | : 150 mm, others on request. |
| Tap location | : At least 45° apart. For steam flow in a horizontal pipe : 180°. To be stated with order. |
| Accuracy | : 0,8 % (according to ISO 5167) |
| Pressure loss | : Depending on β , for β equal to 0,6 : ca. 60 % of the differential pressure measured |



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Technical Data

Accuracy : 0,8 % for $\beta < 0,6$, $(2\beta - 0,4)$ % for $\beta > 0,6$ (according to ISO 5167-3)

Pressure loss : Depending on β , for β equal to 0,6 : ca. 60 % of the differential pressure measured

Limits for Re. No. : $2 \times 10^4 < ReD < 1 \times 10^7$ according to ISO 5167-3

Accessories

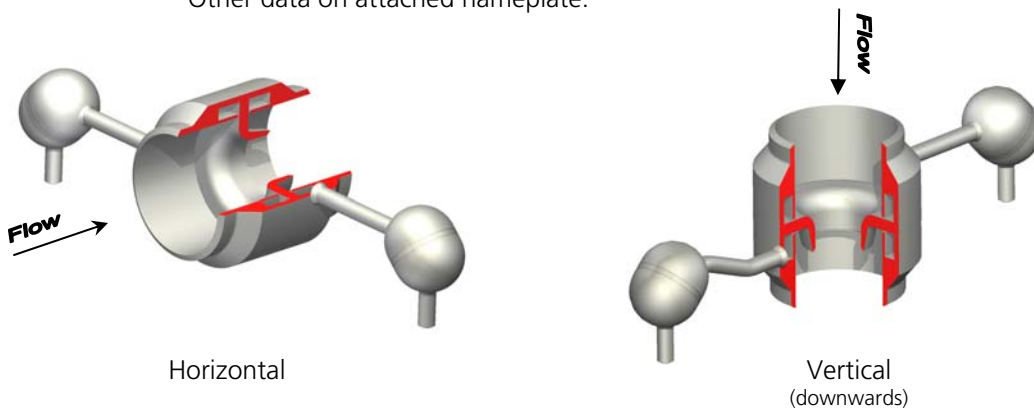
Shut-off valves and condensing chambers for steam flow measurement

Dimensions

| DN | Ø Inner pipe | Upstream length ISO 5167 | Total length ISO 5167 | Upstream length DIN 19215 | Total length DIN 19215 |
|-------|--------------|-----------------------------|--------------------------|------------------------------|---------------------------|
| 50 | 45 - 57 | 115 | 230 | 150 | 250 |
| 65 | 58 - 72 | 145 | 290 | 180 | 300 |
| 80 | 73 - 90 | 180 | 360 | 230 | 350 |
| 100 | 91 - 112 | 225 | 450 | 280 | 400 |
| 125 | 113 - 137 | 275 | 550 | 350 | 500 |
| 150 | 138 - 162 | 325 | 650 | 400 | 600 |
| (175) | 163 - 187 | 375 | 750 | 470 | 700 |
| 200 | 188 - 225 | 450 | 900 | 570 | 800 |
| 250 | 226 - 275 | 550 | 1100 | 690 | 1000 |
| 300 | 276 - 325 | 650 | 1300 | 820 | 1200 |
| 350 | 326 - 375 | 750 | 1500 | 950 | 1400 |
| 400 | 376 - 425 | 850 | 1700 | 1050 | 1500 |
| 450 | 426 - 475 | 950 | 1900 | 1200 | 1700 |
| 500 | 476 - 550 | 1100 | 2200 | 1370 | 2000 |
| 600 | 551 - 650 | 1300 | 2600 | 1500 | 2000 |
| 700 | 651 - 750 | 1500 | 3000 | 1500 | 2000 |
| 800 | 751 - 850 | 1700 | 3400 | 1500 | 2000 |
| 900 | 851 - 950 | 1900 | 3800 | 1500 | 2000 |
| 1000 | 951 - 1100 | 2200 | 4400 | 1500 | 2000 |

All dimensions in mm

Marking : Main tube marked with flow direction. Taps with "+" and "-".
Other data on attached nameplate.



Horizontal

Vertical
(downwards)

EMCO ISA 1932 nozzle with condensing chambers
for steam flow measurement in a horizontal or vertical pipe line.