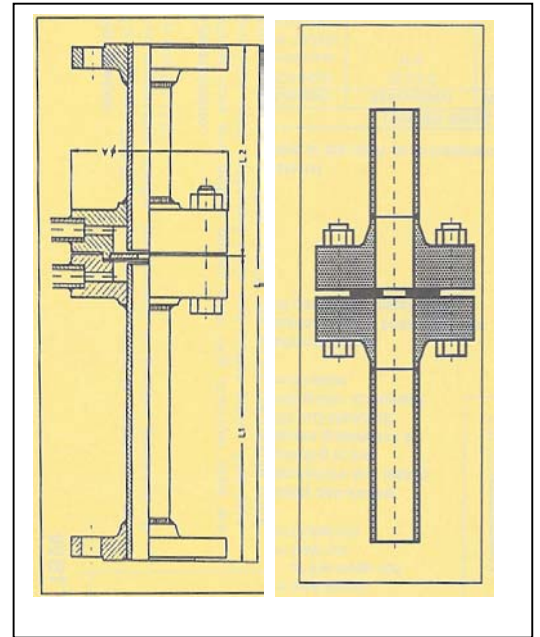


MBL 500 Meter Run

Construction

For small diameters less than DN 50 (2"), meter runs should be used. Meter runs and orifice plates with ring chamber taps are provided with calibrated inlet and outlet pipes. The two-part carrier-ring, to DIN 19205 has an exchangeable plate. This can be supplied as an orifice plate DIN 1952, quarter circle nozzle or as a double cone orifice plate, according to need. In some cases a standard venturi tube can be used. The rings and plate have a flat sealing surface, the material of which is suitable for the medium and conditions prevailing. The meter runs are delivered fully assembled and ready for installation, with welded or flange ends.



Technical details

Nominal pressure: PN 6 (150 lbs) to PN 100 (1500 lbs)

Nominal diameter: DN 10 (1/2U) to DN 200 (8U)

Installation length: See table overleaf

Bore diameter: The calculation will be made by us from the data supplied, considering the relevant standards and regulations.

Calibration: When particular accuracy is required, the calibration can be carried out on a test bend, where by empirical means the flow-rate coefficient "alpha" can be determined

Pressure loss: The remaining pressure loss depends upon the ratio of $d_2 : D_2$, some 30 -80% with orifices and 10 -15% of the dynamic pressure with venturi tubes and is given in the data sheet.

Pressure taps: These are described in sheet A6
Installation: Type MBL 500 F
Between flanges on horizontal, vertical or diagonal pipelines.
(Counter flanges, screws and seals are not normally supplied)
Type MBL 500 E
for welding on horizontal, vertical or diagonal pipelines

Advantages

Taking accurate measurements in small bore pipe runs are often difficult, as the installation itself creates interference. This construction, inlet and outlet pipes forms a ringchamber, and lead to the orifice without obstruction. The use of calibrated pipes allows an exact value for the inner tube diameter and surface, and the range of measurement can be altered by simply exchanging the orifice plate.

Dimensions MBL 500 F/E

L = total length of the meter run

L 1= Inlet run

L2= Outlet run

DN	10	15	20	25	32	40	50
	0,25"	0,5"	0,75"	1"	1,25"	1,5"	2"
L	400	550	700	900	1100	1300	1500
L1	230	380	500	650	800	1000	1200
L2	170	170	200	250	300	300	300
DN	65	80	100	125	150	200	
	2,5"	3"	4"	5"	6"	8"	
L	1600	1800	2200	2700	3200	4000	
L1	1250	1400	1700	2000	2400	2800	
L2	350	400	500	700	800	1000	

Table of the most usual materials

CARRIER RINGS				ORIFICE PLATE			
Category	Abbreviation	W-No.	Applicat.	Category	Abbreviation	W-No.	Applicat.
Common mild steel EN 10025/ EN10028T2	St 37-2	1.0114	-10/+350°C	Stainless steel	X6CrNiTi1810	1.4541	-190/+300°C
	H II	1.0425	-10/+390°C	EN10222-5	X6CrNiMoTi17122	1.4571	-60/+400°C
Carbon steel	C22.8	1.0460	-10/+490°C	Heat resistant steel	X10CrAl7	1.4713	max. 900°C
	Heat resistant steel	15Mo3	1.5415	Corrosion resistant alloys	Hastelloy C	2.4602	max. 400°C
		13CrMo44	1.7335		Titanium	3.7035	max. 300°C
Stainless steel EN10222-5	X6CrNiTi1810	1.4541	-190/+300°C	Monel	2.4360	max. 400°C	
	X6CrNiMoTi17122	1.4571	-60/+400°C	Tantal	Ta	-200/+1800°C	
Plastics	PVC		max. 70°C	PIPES & PRESSURE TAPS			
	PP		max. 90°C	Category	Abbreviation	W-No.	Applicat.
	PE		max. 80°C	Seaml.precision steel tube	St 35	1.0308	-10/+300°C
	PTFE		max. 150°C	Seamless boiler tube	St35.8	1.0305	max. 500°C
PVDF		max. 130°C	15Mo3		1.5415	to 530°C	
Stainl. steel EN10222-5	X6CrNiTi1810	1.4541	-190/+300°C	DIN17175	13CrMo44	1.7335	to 560°C
	X6CrNiMoTi17122	1.4571	-60/+400°C				

Accessories

Shut-off valves, condense pots and chambers, and manifolds acc. various type sheets. Flanges and seals as well are not provided as standard delivery with a meter-run, but can be ordered separately.