

ORIFICE METER

OM-3/8 OM-1/2 OM-3/4 OM-1
 OM-1 1/4 OM-1 1/2 OM-2 OM-2 1/2
 OM-3 OM-4



●FEATURES

- Very reasonable in price.
- As it is possible to optionally select any required diameter of the orifice depending on the working condition, the Meter is very convenient to use.
- The size of the Meter is reasonably compact to handle. (The dimensions of the both sides of it are equivalent to those of the standard union.)
- It is possible to control both the combustion rate (Input) and the air fuel ratio by attaching the Meter to the gas / air line of each Burner.
- It is possible to prevent any Burner from burning due to overinputting by controlling the gas / air supply rate. (NOTE: The BURNER for LPG is available, too.)
- The Meter will be much contribute to effecting the energy-saving and reducing the quantity of exhaust NOx by controlling the combustion rate of a Burner to be proper at the start-up of the Valve.
- The adjustment of a Burner at the start-up of its operation can be made easily by using the Meter. Specially in case of a Multi-burner, the effect can be obtained more.
- The orifice plate can be replaced with another easily.
- The Meter can be used as a flow rate high cut device, too.

●TOLERANCE

- ±2.5%

●NOTES

- It is advisable to provide a linear part approximately five times as large dimension as the diameter of the pipes before and after the orifice.

●MEASURING METHOD

- (1) Loosen the set screws of the pressure-inspection plugs on the inlet and outlet sides half a round. (Only loosening the screws a little will make it possible to measure the pressure inside the pipe.)
- (2) At the same time, insert the rubber tube of the manometer into the pressure-inspection plugs on the inlet and outlet.
NOTE; In this case, only one side may be applied with the pressure erroneously, causing the water kept in the manometer to be spilled out.
- (3) After finishing the step (2) mentioned above, make the readout after the differential pressure has settled.
- (4) After finishing the measurement, pull out the rubber tube and be sure to fasten the set screws of the pressure-inspection plugs completely.
- (5) In case the fluid to be measured is air or of the same specific gravity as that of air, it is necessary to determine the proper flow rate of the fluid according to the due graph for the relation between the differential pressure of the orifice and the flow rate of the fluid which is shown anywhere between the page 3 thru the page 6.
- (6) In case the specific gravity of the fluid to be measured is different from that of air, determine the flow rate of the fluid through the equation as follows:

$$Q' = Q \times \sqrt{\frac{1}{P}}$$

where: P = Specific gravity of the fluid to be measured. Q = The flow rate determined according to (5).
 Q' = The flow rate required.

- (7) In case the secondary pressure (P2) of the orifice is in excess of 500 mmAq, the required flow rate (Q'') shall be determined through the equation as follows:

$$Q'' = Q \text{ (or } Q') \times \sqrt{P_2}$$

where: P2 = Absolute pressure

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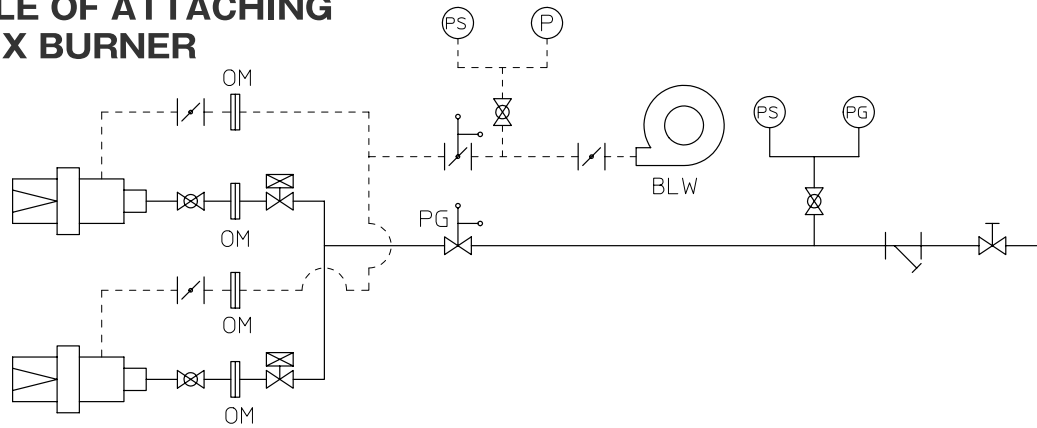
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● AN EXAMPLE OF ATTACHING THE PREMIX BURNER

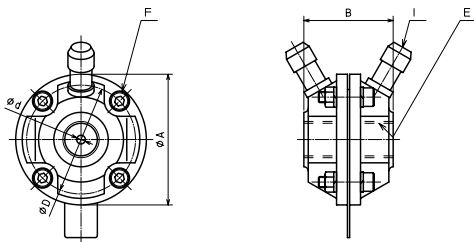


● SPECIFICATIONS

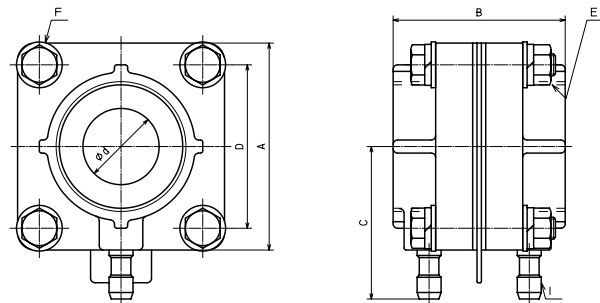
	Dimensions	OM- $\frac{3}{8}$	OM- $\frac{1}{2}$	OM- $\frac{3}{4}$	OM-1	OM-1 $\frac{1}{4}$	OM-1 $\frac{1}{2}$	OM-2	OM-2 $\frac{1}{2}$	OM-3	OM-4
Outside dimensions	A (mm)	60	70	70	70	95	95	95	100	166	190
	B (mm)	41	53	53	53	65	65	65	89	95.5	109.5
	C (mm)	-	57	57	57	70	70	70	75	105	117
	D (mm)	50	50	50	50	75	75	75	75	150	175
Connector diameter	E	PT- $\frac{3}{8}$	PT- $\frac{1}{2}$	PT- $\frac{3}{4}$	PT-1	PT-1 $\frac{1}{4}$	PT-1 $\frac{1}{2}$	PT-2	PT-2 $\frac{1}{2}$	PT-3	PT-4
Set Bolt	F	4-M5	4-M8	4-M8	4-M8	4-M10	4-M10	4-M10	4-M10	8-M12	8-M12
Orifice plate	d (mm)	-	-	-	-	-	-	-	-	-	-
	G (mm)	45	62	62	62	95	95	95	95	138	163
	H (mm)	45	46	46	46	62	62	62	62	105	115
Pressure-inspection plug	I	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$	PT- $\frac{1}{8}$

● OUTER CONFIGURATIONS

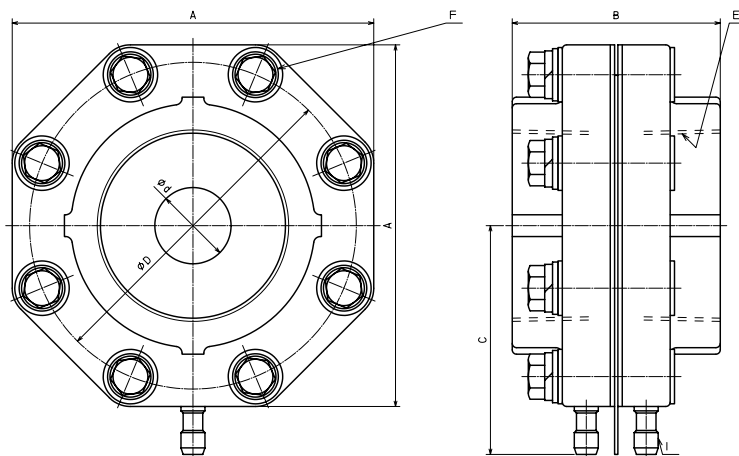
OM- $\frac{3}{8}$



OM- $\frac{1}{2}$ ~ OM-2 $\frac{1}{2}$



OM-3,4



Orifice plate

