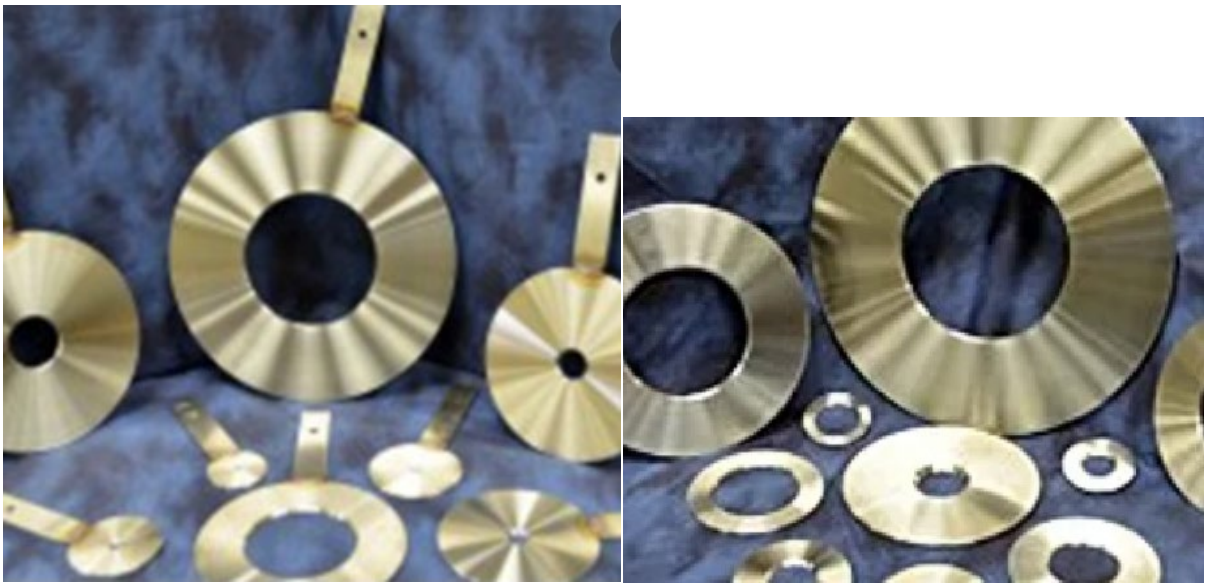
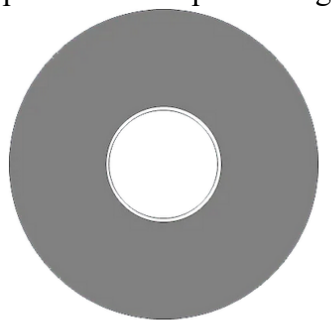
Orifice Plate Options

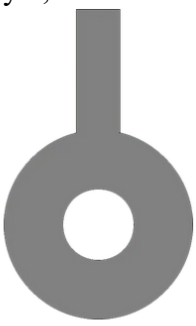


An orifice plate is a device used for measuring flow rate, for reducing pressure, or for restricting flow. Either a volumetric or mass flow rate may be determined, depending on the calculation associated with the orifice plate. It uses the same principle as a Venturi nozzle, namely Bernoulli's principle which states that there is a relationship between the pressure of the fluid and the velocity of the fluid. When the velocity increases, the pressure decreases and vice versa.

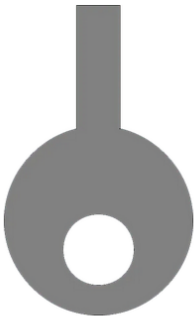
Here at Precision Flow, we consider quality to be the most important factor in producing orifice plates. Orifice plates range in size, type, style, and material.



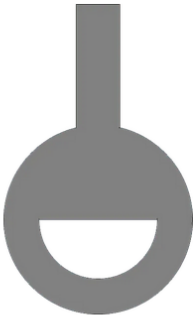
Universal Orifice Plate



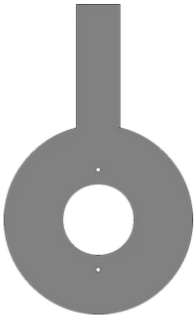
Concentric Orifice Plate



Eccentric Orifice Plate



Segmental Orifice Plate



Vented and/or Drained Orifice Plate

UNIVERSAL ORIFICE PLATES

UNIVERSAL ORIFICE PLATES ARE THE MOST ECONOMICAL STYLE OF PLATE AVAILABLE BECAUSE OF LOW INITIAL COST, LESS MAINTENANCE, LESS STORAGE REQUIRED, PLUS THE NECESSITY OF STOCKING PLATES FOR VARIOUS PRESSURE RATINGS IS ELIMINATED. UNIVERSAL ORIFICE PLATES ARE INTERCHANGEABLE WITH MANY TYPES OF PLATE HOLDERS.

THREE TYPES OF SEALING UNITS (DUAL SEALS, TEFLON SEALS, METAL SEALS) ARE AVAILABLE FOR USE WITH THE UNIVERSAL ORIFICE PLATES.

REMOVABLE SEALS ARE STANDARD FROM 2” TO 10” SIZES, BUT ARE ALSO AVAILABLE IN LARGER SIZES.

DIMENSIONS & WEIGHTS—

LINE SIZE A PLATE O.D.	B PLATE THICKNESS	BLANK WEIGHT (LBS)
2” 2.437	1/8	.17
3” 3.437	1/8	.34
4” 4.406	1/8	.55
6” 6.437	1/8	1.18
8” 8.437	1/4	4.06
10” 10.687	1/4	6.41
12” 12.593	1/4	9.61
14” 14.000	3/8	11.91
16” 16.000	3/8	22.69
18” 18.000	3/8	28.72
20” 20.000	3/8	35.24
24” 24.000	1/2	66.70
26” 26.000	1/2	79.52
30” 30.000	1/2	105.08

“DVS”

“DVS” ORIFICE PLATES INCLUDE A SYNTHETIC RUBBER SEALING UNIT BONDED TO BOTH SIDES OF THE PLATE FOR A NON-METALLIC SEAL IN THE ORIFICE FITTING BODY SEATS. PLATE O.D. (“A” DIMENSION), SHOWN ON THE CHART TO THE RIGHT, INCLUDES THE RUBBER SEAL.

LINE SIZE A	PLATE O.D. B	PLATE THICKNESS	BLANK WEIGHT (LBS)
12”	13.079	1/4	9.61
12”	13.079	3/8	15.50
14”	14.563	1/4	11.91
16”	16.563	3/8	22.69
18”	18.563	3/8	28.72
20”	20.563	3/8	35.24
24”	24.500	1/2	66.70
26”	26.750	1/2	79.52
30”	30.750	1/2	105.08

WHEN ORDERING, PLEASE SPECIFY:

- LINE SIZE
- TYPE OF MATERIAL
- ORIFICE DIAMETER
- THICKNESS
- QUANTITY

PADDLE TYPE ORIFICE PLATES

PADDLE TYPE ORIFICE PLATES ARE USED WITH ORIFICE FLANGE UNIONS.

CIRCULAR DISCS ARE MACHINED WITH THE SAME PROCESS

AS UNIVERSAL
TYPE PLATES. NEXT, HANDLES ARE ATTACHED CAREFULLY BY HELIARC
WELDING, AND ARE THEN SANDED TO A POLISHED FINISH. PLATE IS THEN
STAMPED ON THE INLET SIDE WITH THE LINE SIZE, FLANGE RATING, ORIFICE
DIAMETER, AND TYPE OF MATERIAL.

DIMENSIONS

LINE
SIZE
125
LBS
&
150
LBS
ANSI
250
LBS
&
300
LBS
ANSI
400
LBS
ANSI
600
LBS
ANSI
900
LBS
ANSI
1500
LBS
ANSI
2500
LBS
ANSI
FOR ALL PRESSURE
RATINGS
125-2500 LBS ANSI
HANDLE
DIMENSIONS
PLATE
THICKNESS
A A A A A A A B C D

1/2 1 7/8 2 1/8 2 1/8 2 1/8 2 1/2 2 1/2 2 3/4 4 1 1/8
3/4 2 1/4 2 5/8 2 5/8 2 5/8 2 3/4 2 3/4 3 4 1 1/8
1 2 5/8 2 7/8 2 7/8 2 7/8 3 1/8 3 1/8 3 3/8 4 1 1/8
1 1/4 3 3 1/4 3 1/4 3 1/4 3 1/2 3 1/2 4 1/8 4 1 1/8
1 1/2 3 3/8 3 3/4 3 3/4 3 3/4 3 7/8 3 7/8 4 5/8 4 1 1/8
2 4 1/8 4 3/8 4 3/8 4 3/8 5 5/8 5 5/8 5 3/4 4 1 1/8
2 1/2 4 7/8 5 1/8 5 1/8 5 1/8 6 1/2 6 1/2 6 5/8 4 1 1/4 1/8
3 5 3/8 5 7/8 5 7/8 5 7/8 6 5/8 6 7/8 7 3/4 4 1 1/4 1/8
4 6 7/8 7 1/8 7 7 5/8 8 1/8 8 1/4 9 1/4 4 1 1/4 1/8
5 7 3/4 8 1/2 8 3/8 9 1/2 9 3/4 10 11 5 1 1/2 1/8
6 8 3/4 9 7/8 9 3/4 10 1/2 11 3/8 11 1/8 12 1/2 5 1 1/2 1/8
8 11 12 1/8 12 12 5/8 14 1/8 13 7/8 15 1/4 5 1 1/2 1/8
10 13 3/8 14 1/4 14 1/8 15 3/4 17 1/8 17 1/8 18 3/4 6 1 1/2 1/4
12 16 1/8 16 5/8 16 1/2 18 19 5/8 20 1/2 21 5/8 6 1 1/2 3/8
14 17 3/4 19 1/8 19 19 3/8 20 1/2 22 3/4 — 6 1 1/2 1/4
16 20 1/4 21 1/4 21 1/8 22 1/4 22 5/8 25 1/4 — 6 1 1/2 3/8
18 21 1/2 23 3/8 23 1/4 24 25 27 5/8 — 6 1 1/2 3/8
20 23 3/4 25 5/8 25 3/8 26 3/4 27 3/8 29 5/8 — 6 1 1/2 3/8
22 26 27 3/4 27 1/2 28 7/8 — — — 6 1 1/2 3/8
24 28 1/8 30 3/8 30 1/8 31 32 7/8 35 1/2 — 6 1 1/2 1/2
30 34 5/8 37 5/8 37 1/8 38 1/8 — — — 6 1 1/2 1/2
36 41 1/8 43 7/8 43 7/8 44 3/8 — — — 6 1 1/2 1/2

WEIGHTS

LINE SIZE ANSI CLASS
125 & 150
ANSI CLASS
250 & 300
ANSI CLASS
600
ANSI CLASS
900
PLATE
THICKNESS
1/2 0.09 0.12 0.12 0.12 1/8
3/4 0.16 0.21 0.21 0.21 1/8
1 0.31 0.36 0.36 0.42 1/8
1 1/2 0.43 0.52 0.52 0.56 1/8
2 0.59 0.66 0.66 1.03 1/8
3 0.93 1.10 1.10 1.37 1/8
4 1.46 1.57 1.78 2.01 1/8
6 2.34 2.94 3.33 3.87 1/8
8 7.22 8.72 9.46 11.78 1/4
10 10.37 11.73 14.25 16.79 1/4
12 14.92 15.84 18.52 21.95 3/8
14 18.01 20.86 21.40 23.92 1/4
16 35.03 38.52 42.18 43.61 3/8
18 35.60 47.37 49.95 54.20 3/8
20 48.81 56.81 61.88 64.86 3/8
24 90.94 106.12 110.52 125.20 1/2

WHEN ORDERING, PLEASE

SPECIFY:

- LINE SIZE
- TYPE OF MATERIAL
- FLANGE ANSI RATING
- ORIFICE DIAMETER
- THICKNESS
- QUANTITY