

# Ceresist Ceramic Orifice Plates

## Benefits at a Glance

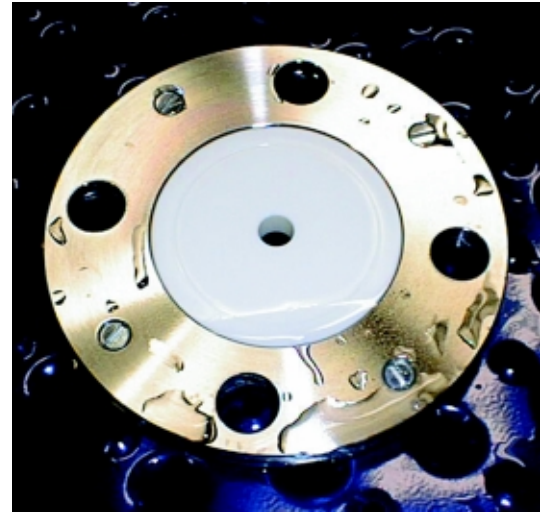
- Extremely resistant to wear, erosion and abrasion
- Virtually inert to the corrosive effects of acids and alkalis
- Only the ceramic insert is wetted by the process media
- Durable stainless steel housing ensures protection against harsh atmospheric environments
- Interchangeable and replaceable ceramic inserts are cost-effective
- Simple design allows rapid maintenance, minimal down-time
- Wide operating parameters allow use of standard product in a multitude of applications
- Quick delivery - standard units and reorders typically ship from stock
- Broad range of sizes and bores
- Custom configurations available

## Pressure and Velocity Reducing Orifice Plates for Severe Service

Truly unique in design, the **OP Series** ceramic orifice plates feature a solid 99.5% purity alumina ceramic insert enclosed in durable stainless steel 304 housing. Since ceramic is the only wetted component in the process, this allows the ceramic orifice plates to be:

**Abrasion and Wear Resistant:** 99.5% alumina ceramic is more than 7 times harder than stainless steel, and 2½ times harder than Stellite®. This allows the use of the ceramic orifice plate in erosive services that would otherwise diminish the useful service life of conventional pressure-reducing devices. The thick, solid-ceramic insert assures dependable, long-term service without frequent replacement and the need to inspect the bore integrity.

**Corrosion Resistant:** 99.5% alumina is inert to, and does not interact with, almost all organic and inorganic chemicals used in manufacturing processes. It is fully compatible with a wide range of chemicals, and can even withstand highly corrosive fluids at elevated temperatures with no damaging effects.



**Unaffected by Cavitation:** Ceramic orifice plates may also be used in high differential pressure and high velocity services without suffering the damaging effects of cavitation.

Additionally, they are ideal for reducing the pressure, velocity and cavitation that would otherwise damage more expensive, harder to replace valves and critical flow elements.

**Ceramic orifice plates offer tremendous savings when considering less component replacement due to wear and abrasion.**

## Replaceable Ceramic Inserts

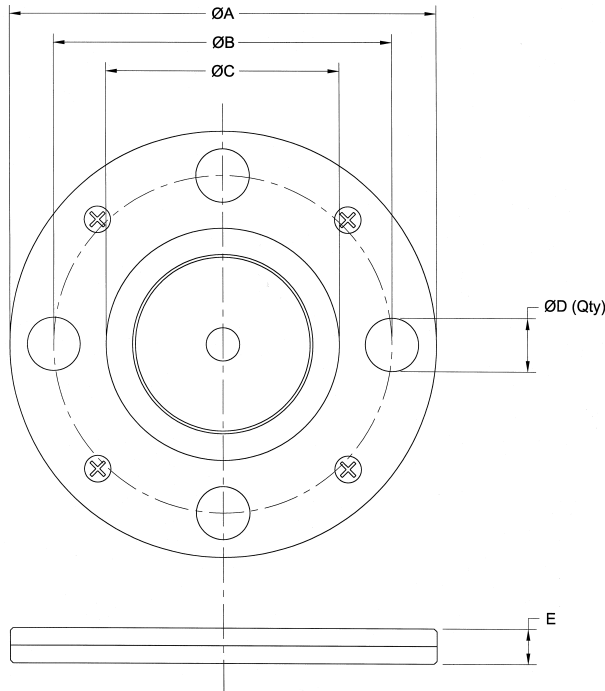
The unique and innovative design of the **OP Series** ceramic orifice plates allows the end-user to quickly dismantle and replace the ceramic inserts. This cost-effective and intuitive design eliminates the need to purchase new assemblies, does not require special tools, does not demand cumbersome assembly or alignment methods, and may be completely refurbished and reinstalled into the process line in minutes, saving costly labor and down-time.

Multiple bore-size inserts may be purchased to fine-tune flow conditions, compensate for adjustments or changes in the control loop, or can simply be discarded and replaced with a new insert when the original has performed its usable service life.

Inexpensive ceramic inserts are readily available in a variety of sizes, bores, or ceramic materials to suit each process or fluid. Typically in stock, delivery for either spare replacement ceramic inserts or whole assemblies is rapid, eliminating the need to stock locally.



Dimensions

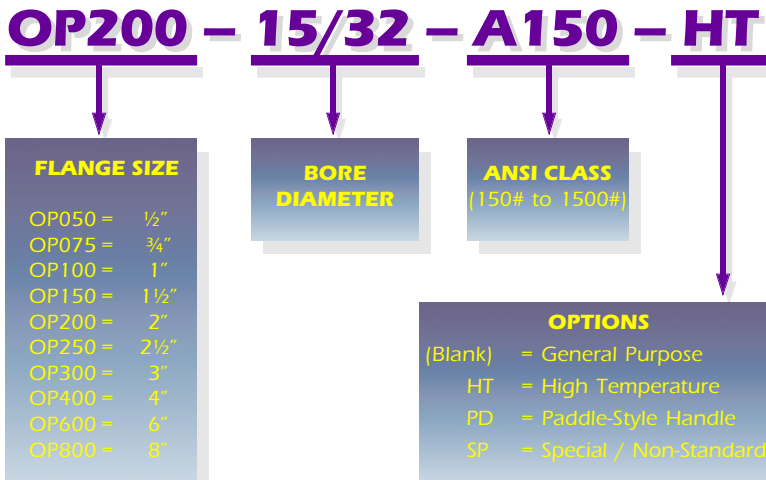


Size	Ø A	Ø B	Ø C	Ø D (Qty)	E
½" (ANSI 150)	3.50	2.38	0.94	0.63 (4)	½"
½" (ANSI 300)	3.75	2.63	0.94	0.63 (4)	½"
½" (ANSI 400)	3.75	2.63	0.94	0.63 (4)	½"
½" (ANSI 600)	3.75	2.63	0.94	0.63 (4)	½"
½" (ANSI 900)	4.75	3.25	0.94	0.88 (4)	½"
½" (ANSI 1500)	4.75	3.25	0.94	0.88 (4)	½"
¾" (ANSI 150)	3.88	2.75	0.94	0.63 (4)	¾"
¾" (ANSI 300)	4.63	3.25	0.94	0.75 (4)	¾"
¾" (ANSI 400)	4.63	3.25	0.94	0.75 (4)	¾"
¾" (ANSI 600)	4.63	3.25	0.94	0.75 (4)	¾"
¾" (ANSI 900)	5.13	3.50	0.94	0.88 (4)	¾"
¾" (ANSI 1500)	5.13	3.50	0.94	0.88 (4)	¾"
1" (ANSI 150)	4.25	3.13	1.73	0.63 (4)	1"
1" (ANSI 300)	4.88	3.50	1.73	0.75 (4)	1"
1" (ANSI 400)	4.88	3.50	1.73	0.75 (4)	1"
1" (ANSI 600)	4.88	3.50	1.73	0.75 (4)	1"
1" (ANSI 900)	5.88	4.00	1.73	1.00 (4)	1"
1" (ANSI 1500)	5.88	4.00	1.73	1.00 (4)	1"
1½" (ANSI 150)	5.00	3.88	1.73	0.63 (4)	1½"
1½" (ANSI 300)	6.13	4.50	1.73	0.88 (4)	1½"
1½" (ANSI 400)	6.13	4.50	1.73	0.88 (4)	1½"
1½" (ANSI 600)	6.13	4.50	1.73	0.88 (4)	1½"
1½" (ANSI 900)	7.00	4.88	1.73	1.13 (4)	1½"
1½" (ANSI 1500)	7.00	4.88	1.73	1.13 (4)	1½"
2" (ANSI 150)	6.00	4.75	3.23	0.75 (4)	2"
2" (ANSI 300)	6.50	5.00	3.23	0.75 (8)	2"
2" (ANSI 400)	6.50	5.00	3.23	0.75 (8)	2"
2" (ANSI 600)	6.50	5.00	3.23	0.75 (8)	2"
2" (ANSI 900)	8.50	6.50	3.23	1.00 (8)	2"
2" (ANSI 1500)	8.50	6.50	3.23	1.00 (8)	2"
3" (ANSI 150)	7.50	6.50	4.39	0.75 (4)	¾"
3" (ANSI 300)	8.25	6.63	4.39	0.88 (8)	¾"
3" (ANSI 400)	8.25	6.63	4.39	0.88 (8)	¾"
3" (ANSI 600)	8.25	6.63	4.39	0.88 (8)	¾"
3" (ANSI 900)	9.50	7.50	4.39	1.00 (8)	1"
3" (ANSI 1500)	9.50	7.50	4.39	1.00 (8)	1"
4" (ANSI 150)	9.00	7.50	4.39	0.75 (8)	¾"
4" (ANSI 300)	10.00	7.88	4.39	0.88 (8)	¾"
4" (ANSI 400)	10.00	7.88	4.39	1.00 (8)	1"
4" (ANSI 600)	10.75	8.50	4.39	1.00 (8)	1"
4" (ANSI 900)	13.75	11.00	4.39	1.38 (8)	1"
4" (ANSI 1500)	14.75	11.50	4.39	1.63 (8)	1"
6" (ANSI 150)	11.00	9.50	7.06	0.88 (8)	¾"
6" (ANSI 300)	12.50	10.63	7.06	0.88 (12)	¾"
6" (ANSI 400)	12.50	10.63	7.06	1.00 (12)	1½"
6" (ANSI 600)	14.00	11.50	7.06	1.13 (12)	1½"
6" (ANSI 900)	15.00	12.50	7.06	1.25 (12)	1½"
6" (ANSI 1500)	15.50	12.50	7.06	1.50 (12)	1½"
8" (ANSI 150)	13.50	11.75	8.31	0.88 (8)	¾"
8" (ANSI 300)	15.00	13.00	8.31	1.00 (12)	¾"
8" (ANSI 400)	15.00	13.00	8.31	1.13 (12)	1½"
8" (ANSI 600)	16.50	13.75	8.31	1.25 (12)	1½"
8" (ANSI 900)	18.50	15.50	8.31	1.50 (12)	1½"
8" (ANSI 1500)	19.00	15.50	8.31	1.75 (12)	1½"

Technical Data

- Housing Materials** Stainless Steel 304 (Standard)
- Ceramic Material** 99.5% Purity Alumina (Standard)  
Silicon Carbide (Optional)
- Max. Pressure (Operating and Differential)** 800 psig (ANSI 150# ~ ANSI 300#)  
3,000 psig (ANSI 400# ~ ANSI 1500#)
- Max. Operating Temp.** 500°F (Standard)  
1,100°F (High-Temp Model)

Model Number Designation



Represented By: