

# ORIFICE PLATES

Orifice Plate manufactured by us is quality controlled from the selection of new material to the packaging of the finished product.

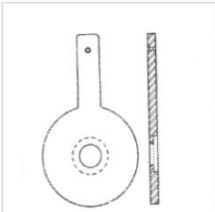
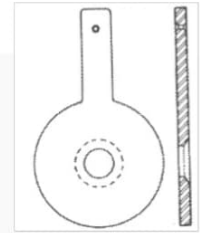
- **EDGES:** Sharp & square, will not reflect a beam of light when viewed without magnification.
- **BORE:** Orifice bore tolerance strictly in accordance with A.G.A, Asme, ISO5167, ISA and BS standards.
- **FLANGE MATERIAL:** CARBON STEEL A105/ASTMA182/SS304/SS316/SS16L/ALLOY STEEL OTHER MATERIAL ON REQUEST.
- **ORIFICE PLATE:** SS304/SS306/SS316L/PVC ETC OTHER MATERIAL ON REQUEST.
- **STUDS & NUTS:** ASTM A193 GR.B7/A194GR.2H/SS OTHER MATERIAL ON REQUEST.
- **GASKETS:** CAF/PTFE/SPIRAL WOUND/NEOPRENE/NON-ASSBESTOS OTHER MATERIAL ON REQUEST



## ORIFICE PLATE GUIDE

### CONCENTRIC ORIFICE PLATE

The bore and bevel is the standard method of limiting the plate edge thickness. The bevel is machined at a 45° angle to the desired edge thickness. Unless otherwise specified, plates will be bevelled to 1/50 of the line I.D. or 1/8 of the orifice bore, minimum governing.

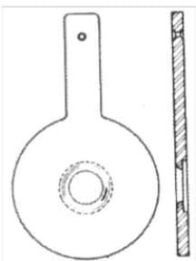
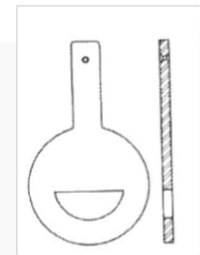


### BORE AND COUNTER BORE

The Bore and Counter bore is a special method in limiting the plate edge thickness. Instead of beveling at the normal 45°, the plate is counter bored to the desired edge thickness.

### SEGMENTAL

Segmentally bored orifice plates are provided for measurements where solids are entrained in a gas or liquid flow stream. The circular portion of the bore is inscribed within a circle which is normally 98% of the pipe diameter. The segmental opening may be placed either at the top or bottom of the pipe. Industries using these bores include sewage treatment, steel, chemical, water conditioning, paper and petrochemical



### ECCENTRIC

Eccentrically bored plates are plates with the orifice off-center, or eccentric, as opposed to concentric. The bore of the eccentric orifice is normally inscribed in a circle which is 98% of the pipe diameter, so that solids or slurries may pass through. Eccentric orifice plates are used in many industries including heavy and light chemicals, steel, paper, atomic and petrochemicals.

### QUARTER ROUND

The Quarter-Round, or Quadrant bore, is an orifice with the inlet edge rounded. The radius of the quarter-circle bore is a function of the orifice-to-pipe ratio ( $d/D$ ). Thickness at the throat is equal to the radius. This bore is specifically designed for fluids of high viscosity, such as heavy crude's, syrups and slurries. Quarter-Round bores are recommended for viscous flows having Reynolds Numbers below 100,000.

