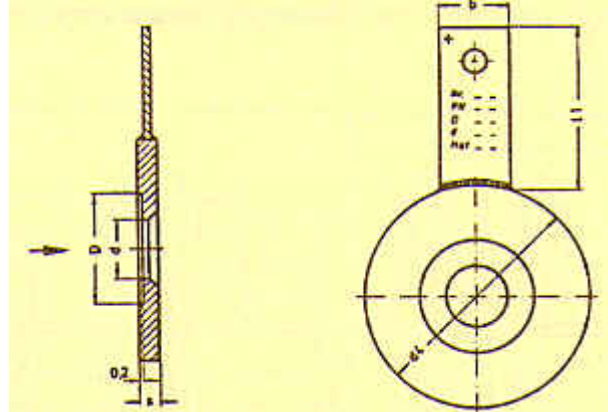


# BLS 100 Orifice plate acc. DIN 19206 or ANSI

## Construction

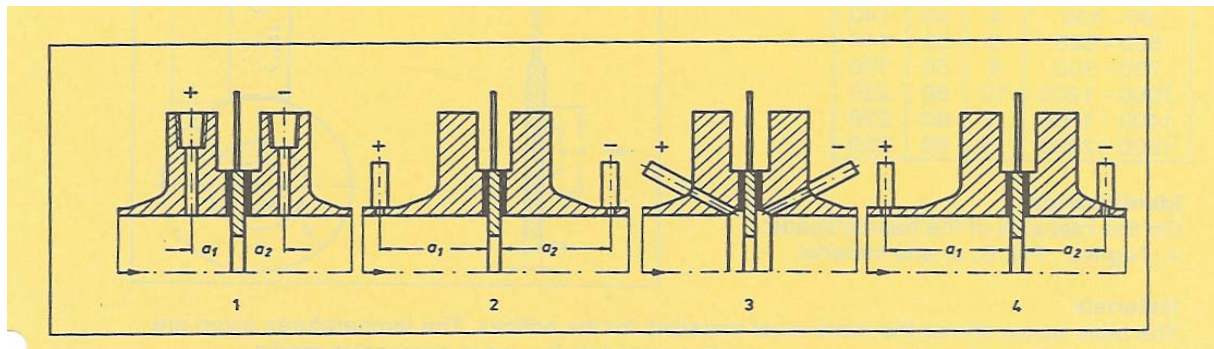
Orifice plate with welded-on handle/spade that can be installed directly between flanges with smooth sealing or tongue or RTJ faces.

Available as a sharp edged, rounded or segmental orifice according to the conditions of use. It can be delivered as single plate or as complete Flange Union with Flanges acc. DIN 19214 or Flanges acc. ANSI B 16.36



## Differential-Pressure measurement

Normally taken through the flange blade, or in the pipeline at distances  $a_1$  and  $a_2$  from the orifice. As these distances have to be taken into consideration when using a correction factor to calculate the orifice, please inform us of the position selected. The following types are available:



### Pressure taps as flange taps (dia. 1)

Flanges with smooth sealing surfaces, PN 10 - PN 100 and DN 50- DN 500 acc. DIN 19214 Part 1 or acc. to ANSI B16.36 (orifice flanges).

### Pressure taps on the pipe (dia. 2)

The taps are in the pipeline. The distances are:  $a_1 = a_2$  or  $a_1 = D$ ;  $a_2 = D/2$ , whereby  $D$  = pipe diameter .

This arrangement should be avoided when  $D$  is less than 200, if the distances  $a_1$  and  $a_2$  are large in proportion to the pipe diameter (max. 0.80).

In this case the correction factor becomes unreliable, and greater deviations in the measurement may occur.

**Pressure taps as flange corner taps (dia. 3)**

This arrangement is almost equivalent to the ISO 15167 corner taps, and is used where making a hole in the flange blade is not possible, (e.g. at PN 6) and pipe line taps must be avoided.

**Pressure taps located to Vena contracta measurement (dia. 4)**

The positive measurement is taken at distance D from the front edge (max), the negative at the point of minimum pressure in the flow profile. Thus it is dependent upon the orifice proportion  $d_2:D_2$  (distance lies between 0.3 – 1D). The highest possible dynamic pressure is achieved in this way.

**Materials**

The table below shows the most usual materials for the orifices. The temperatures given are guidelines. Care should be given to selecting materials for use in aggressive media.

Category	Abbreviation	W. No.	Application °C
Austenitic stainless steel	X10CrNiTi89	1.4541	-190..+500
	X10CrNiMoTi1810	1.4571	- 60..+500
	X10Cr13	1.4006	max. 400
Heat resistant steel	X10CrA17	1.4713	max. 900
Corrosion-proof alloys	Hastelloy B	2.4600	-200..+500
	Hastelloy C	2.4602	-200..+500
	Titanium	3.7035	max. 500
	Monel 400	2.4360	- 80..+500
	Tantal	-	max. 100

**Accessories**

Shut-off valves, condense pots, and manifolds acc. various type sheets. flanges and seals as wen as pressure tape are not provided as standard delivery with an orifice plate, but can be ordered separately.