

# Orific Block Assemblies

## Model NOB

The NOB Series Orifice Block Assemblies are used for comparatively high pressure, small or medium diameter pipe process lines. They are integrally-structured orifice blocks for the corner tap type of differential pressure tapping system. As compared with the NOR Series Assemblies, the NOB Series Assemblies employ less gasket and provide better sealing characteristics.



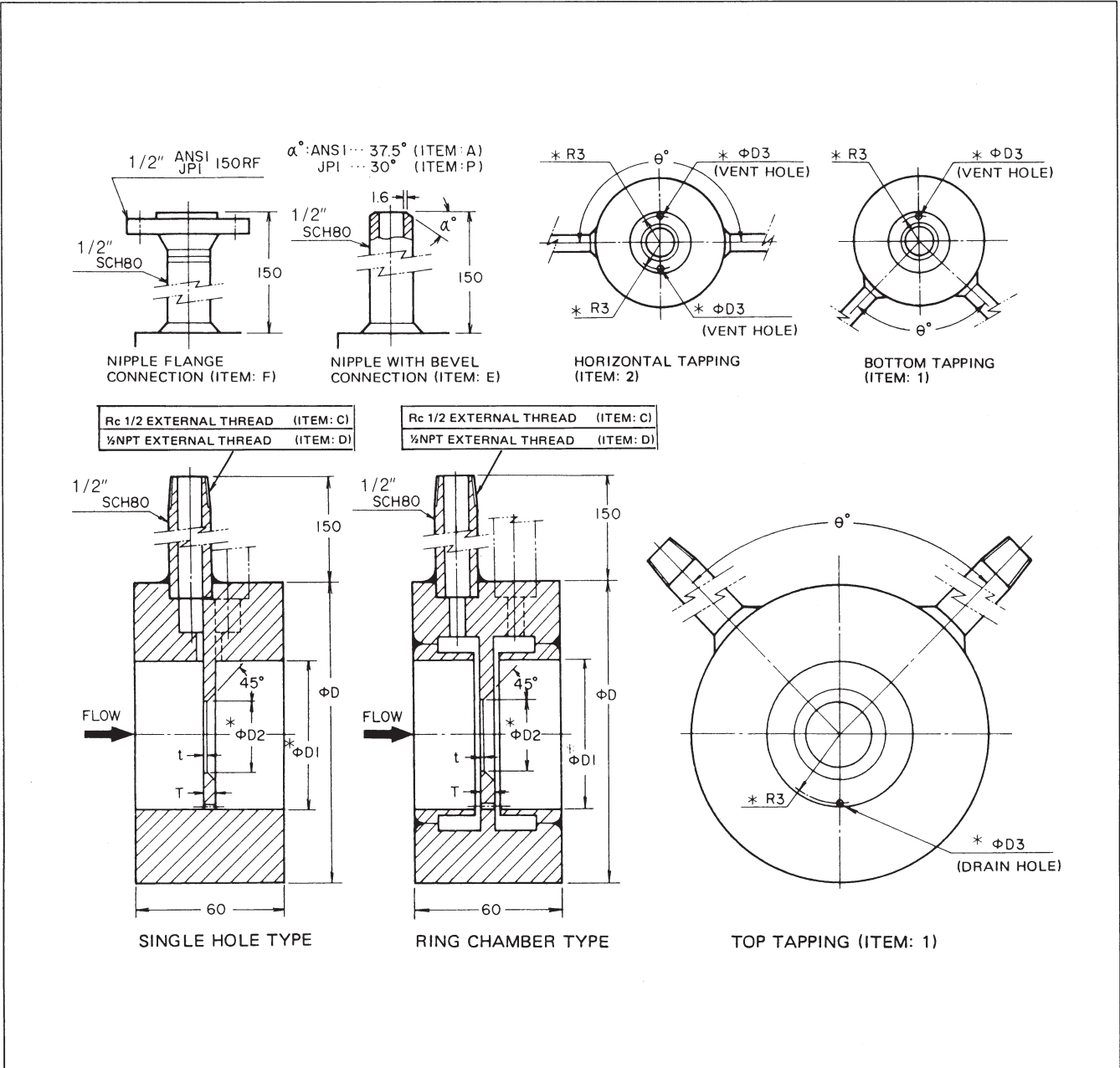
### Standard Specifications

Item	Specifications
<b>Nominal pipe diameter</b>	25 mm (1") to 350 mm (14")
<b>Flange ratings</b>	JIS 30 kgf/cm <sup>2</sup> , ANSI (or JPI) 150, 300, 600 lb
<b>Block material</b>	SUS304, SUS316, or SUS316L
<b>Differential pressure lead pipes</b>	1/2" (15 mm) dia. Sch.80, 150 mm long (The tapping should be in conformity with those shown in the Model Number Table.)
<b>Calculation standards</b>	JIS Z 8762-1969 for pipes of 40 mm (1½") or over ASME for pipes of 25 mm (1") or over

- Notes:
- 1) Applicable pipe thickness is SGP to Sch.80.
  - 2) For the differential pressure tapping angles, refer to the Overall Dimensions Drawings. Tapping directions for liquids should be toward the bottom and those for gases toward the top. Those for steam should be horizontal to avoid thermal shocks and choking which could be caused by drain.

# Overall Dimensions

(Unit: mm)



# JIS30K

(Unit: mm)

Item	Nominal pipe diameter inch (mm)	OD of orifice block D	Orifice		$\Delta P$ tapping angle ( $\theta^\circ$ )		Differential pressure tapping system
			Plate thickness T	Edge thickness t	Top or bottom (Item 1)	Horizontal (Item: 2)	
025	1 (25)	79	2	0.4	170	180	Ring chamber type
040	1 1/2 (40)	100	2	0.5	150	180	
050	2 (50)	114	2	0.5	90	180	
065	2 1/2 (65)	140	3	1	90	180	
080	3 (80)	150	3	1	90	180	
090	3 1/2 (90)	163	3	1	90	180	
100	4 (100)	173	4	1.5	90	180	
125	5 (125)	208	4	1.5	90	180	
150	6 (150)	251	4	1.5	120	180	
200	8 (200)	296	5	3	120	180	
250	10 (250)	360	8	3	120	180	Single hole type
300	12 (300)	420	8	3	90	180	
350	14 (350)	465	10	3	90	180	

**ANSI (or JPI) 150RF**

(Unit: mm)

Item	Nominal pipe diameter inch (mm)	OD of orifice block D	Orifice		$\Delta P$ tapping angle ( $\theta^\circ$ )		Differential pressure tapping system
			Plate thickness T	Edge thickness t	Top or bottom (Item: 1)	Horizontal (Item: 2)	
025	1 (25)	67	2	0.4	170	180	Ring chamber type
040	1 1/2 (40)	86	2	0.5	150	180	
050	2 (50)	105	2	0.5	150	180	
065	2 1/2 (65)	124	3	1	150	180	
080	3 (80)	137	3	1	90	180	
090	3 1/2 (90)	162	3	1	90	180	
100	4 (100)	175	4	1.5	90	180	
125	5 (125)	197	4	1.5	90	180	
150	6 (150)	222	4	1.5	90	180	
200	8 (200)	279	5	3	90	180	
250	10 (250)	340	8	3	120	180	Single hole type
300	12 (300)	410	8	3	120	180	
350	14 (350)	451	10	3	120	180	

**ANSI (or JPI) 300RF**

(Unit: mm)

Item	Nominal pipe diameter inch (mm)	OD of orifice block D	Orifice		$\Delta P$ tapping angle ( $\theta^\circ$ )		Differential pressure tapping system
			Plate thickness T	Edge thickness t	Top or bottom (Item: 1)	Horizontal (Item: 2)	
025	1 (25)	73	2	0.4	170	180	Ring chamber type
040	1 1/2 (40)	95	2	0.5	150	180	
050	2 (50)	111	2	0.5	90	180	
065	2 1/2 (65)	130	3	1	90	180	
080	3 (80)	149	3	1	90	180	
090	3 1/2 (90)	165	3	1	90	180	
100	4 (100)	181	4	1.5	90	180	
125	5 (125)	216	4	1.5	90	180	
150	6 (150)	251	4	1.5	120	180	
200	8 (200)	308	5	3	120	180	
250	10 (250)	362	8	3	90	180	Single hole type
300	12 (300)	422	8	3	90	180	
350	14 (350)	486	10	3	108	180	

**ANSI (or JPI) 600RF**

((Unit: mm))

Item	Nominal pipe diameter inch (mm)	OD of orifice block D	Orifice		$\Delta P$ tapping angle ( $\theta^\circ$ )		Differential pressure tapping system
			Plate thickness T	Edge thickness t	Top or bottom (Item: 1)	Horizontal (Item: 2)	
025	1 (25)	73	2	0.4	170	180	Ring chamber type
040	1 1/2 (40)	95	2	0.5	150	180	
050	2 (50)	111	2	0.5	90	180	
065	2 1/2 (65)	130	3	1	90	180	
080	3 (80)	149	3	1	90	180	
090	3 1/2 (90)	162	3	1	90	180	
100	4 (100)	194	4	1.5	90	180	
125	5 (125)	241	4	1.5	90	180	
150	6 (150)	267	4	1.5	120	180	
200	8 (200)	320	5	3	120	180	
250	10 (250)	400	8	3	90	180	Single hole type
300	12 (300)	457	8	3	108	180	
350	14 (350)	492	10	3	108	180	

## Model Number Table

Basic Model No.	Selections						Description
	I	II	III	IV	V	VI	
	Specifica- tion	Pressure rating	Nominal pipe diameter	Block material	Differential pressure tapping connection	Differential pressure tapping direction	
NOB							Orifice block assembly
	— J	030					JIS30KRF
	— A	150					ANSI 150RF
		300					ANSI 300RF
		600					ANSI 600RF
	— P	150					JPI 150RF
		300					JPI 300RF
		600					JPI 600RF
			025				Pipe size 25 mm (1")
			040				Pipe size 40 mm (1½")
			050				Pipe size 50 mm (2")
			065				Pipe size 65 mm (2½")
			080				Pipe size 80 mm (3")
			090				Pipe size 90 mm (3½")
			100				Pipe size 100 mm (4")
			125				Pipe size 125 mm (5")
			150				Pipe size 150 mm (6")
			200				Pipe size 200 mm (8")
			250				Pipe size 250 mm (10")
			300				Pipe size 300 mm (12")
			350				Pipe size 350 mm (14")
				2			SUS316
				7			SUS304
				8			SUS316L
					C		Nipple Rc 1/2 external thread
					D		Nipple with ½NPT external thread
					E		Nipple with bevel
					F		With nipple flange
						1	Top or bottom tapping
						2	Horizontal tapping

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