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www.Vortab.com

Vortab

Flow Conditioners

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Block No. 1 2 3 4 5 6 7 8 9 10 11

INSTRUCTIONS: To order Vortab, please fill in each numbered block above by selecting required codes from the corresponding categories below. Use of any "W" or "*" Codes requires prior approval from Vortab. Once you have made all selections, contact a Vortab representative for price and delivery information. Contact Vortab on the availability of other options and special applications. Final acceptance of the part number is subject to Vortab's approval.

Code	[BLOCKS 1 - 3] Model											
VIS	VIS Insertion Sleeve For use inside pipes or round ducts from 1 inches to 48 inches in diameter; standard length is 3 inside diameters.											
VMR	VMR Meter Run For connection to piping from 2 inches to 24 inches in diameter; standard length is 7 nominal diameters; 2 inch size with flow element connection and flanged process connections are 8 nominal pipe diameters											
VSR	VSR Short Run For connection to piping from 2 inches to 24 inches in diameter; standard length is 3 nominal diameters											
VEL	VEL 90° Long Radius Elbow For connection to piping from 1 inches to 36 inches in diameter											
VFK	Field Kit For assembly and installation inside round pipes or ducts from 36 inches to 96 inches in diameter or size											
Code	Code	Code	Code	[BLOCKS 4 - 7] Pipe or Duct Size								
BLOCK 4	BLOCK 5	BLOCK 6	BLOCK 7									
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>For VIS In Boxes 4 through 7, enter the inside diameter from 00.87 inch to 48.00 inches</p> <p>For VMR, VSR and VEL² In Boxes 4 and 5, enter the nominal pipe size in inches</p> <p><u>VMR and VSR</u> Carbon steel = 08 to 24 inches Stainless steel = 02 to 24 inches</p> <p><u>VEL</u> Carbon steel = 01 to 36 inches Stainless steel = 01 to 36 inches</p> <p>In Boxes 6 and 7, enter the pipe schedule code: <table border="0"> <tr> <td><u>Schedule</u></td> <td><u>Code</u></td> </tr> <tr> <td>STD</td> <td>= 00</td> </tr> <tr> <td>10</td> <td>= S1</td> </tr> <tr> <td>80</td> <td>= S8</td> </tr> </table> </p> <p>For VFK In Boxes 4 through 7, enter the inside diameter in inches (XX.XX)</p>	<u>Schedule</u>	<u>Code</u>	STD	= 00	10	= S1	80	= S8
<u>Schedule</u>	<u>Code</u>											
STD	= 00											
10	= S1											
80	= S8											
<p><i>For VIS and VFK: Enter all dimensions in inches; dimensions must be rounded down to the nearest 0.01 inch</i></p> <p><i>Divide millimeters by 25.4 to convert to inches</i></p>												
Code	[BLOCK 8] All Welded Material of Construction											
1	Carbon steel – For VIS Model with inside diameter greater than 4.51 inches – For VMR or VSR Model with nominal pipe size 8 inches or larger – For VEL and VFK Models, all pipe sizes											
2	316 stainless steel – For all Vortab models											
3	316 stainless steel body with carbon steel flanges – For VMR and VSR models only <i>Codes 5 or 6 must be selected in Box 9; Codes 6 or 8 must be selected in Box 10 when a flow element is required</i>											
4	Hastelloy C-276 – For VIS or VFK models only											
*	Other ¹											

Code	[BLOCK 9] Process Connection
0	None See Figure 1 – For VIS or VFK only
1	Retaining wafer at inlet See Figure 2 – For VIS only
2	Retaining wafer at outlet – For VIS only
3	Butt weld preparation See Figures 4, 7, 9, 10 – For VMR, VSR and VEL only
4	Male NPT See Figures 3 and 7 – For VMR, VSR and VEL only with 2 inch schedule STD or schedule 80 pipe sizes ANSI flanges³ (See Figures 5, 6, 8) – For VMR, VSR and VEL only Flange size is determined by the Codes selected in Boxes 4 and 5; materials of construction are determined by the Codes selected in Box 8
5	150 lb
6	300 lb
*	Other ¹
Code	[BLOCK 10] Flow Element Connection
0	For all Vortab models None Standard
1	For VMR only 3/4 inch female NPT
2	1 inch female NPT
3	1 1/4 inch female NPT
4	1 1/4 inch male NPT See Figure 5 1 1/2 inch ANSI flange ³ See Figure 4
5	150 lb stainless steel
6	150 lb carbon steel
7	300 lb stainless steel
8	300 lb carbon steel
*	Other ¹
Code	[BLOCK 11] Identification Tag ⁴
0	None VIS only
1	For VMR, VSR and VEL only Adhesive label
2	Adhesive label and stainless steel tag
*	Other ¹

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Notes

- Describe the desired pipe schedule, material of construction, process connection, flow element connection, or identification tag. Contact Vortab for availability, pricing, and delivery.
- VMR, VSR and VEL use standard wall thickness pipe (STD). For pipe sizes from 2 inches to 10 inches, STD pipe is equivalent to schedule 40 or 40S pipe. For pipe sizes from 12 inches to 36 inches, STD pipe has a 0.375 inch [9.5 mm] wall thickness.
- All flanges are raised face and phonographic serrated. VMR and VSR Models use slip-on flanges. VEL Model uses welding neck flanges.
- Stainless steel tag must not exceed 5 lines with 18 characters per line.

Figure 1. VIS without retaining wafer

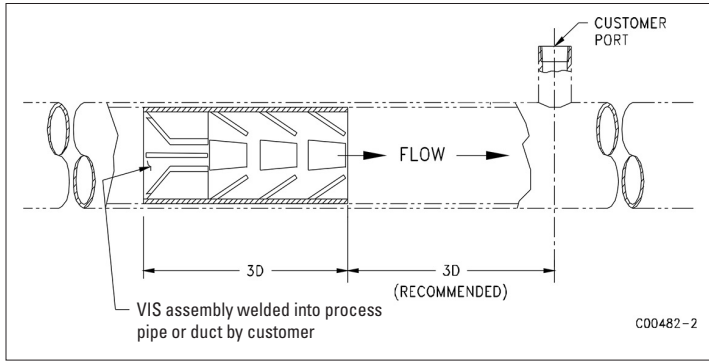


Figure 2. VIS with retaining wafer at inlet

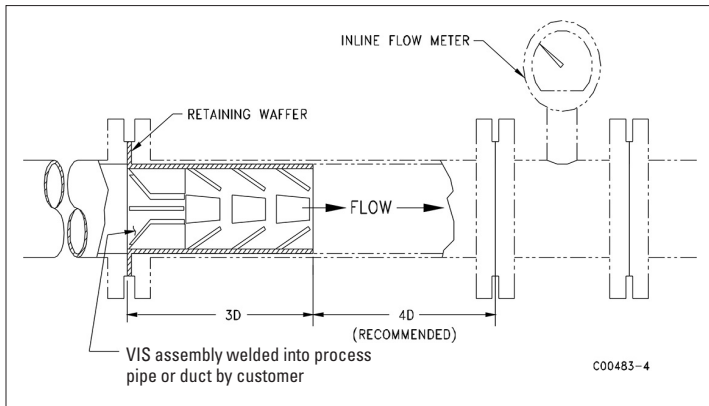


Figure 3. VMR with male NPT process connections and no flow element connection

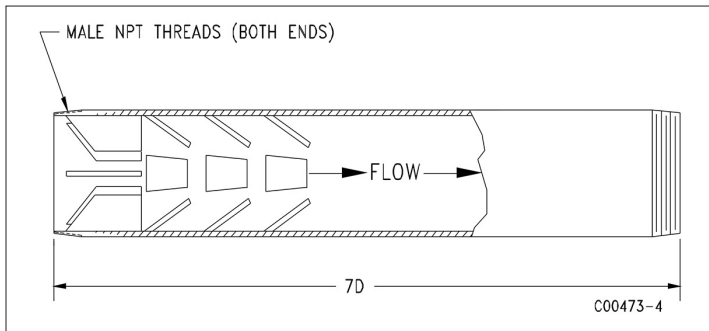


Figure 4. VMR with butt weld preparation process connections and flanged flow element connection

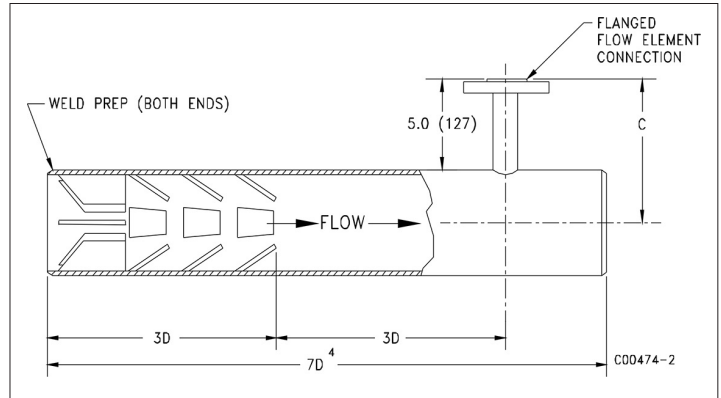


Figure 5. VMR with flanged process connections and male NPT flow element connection

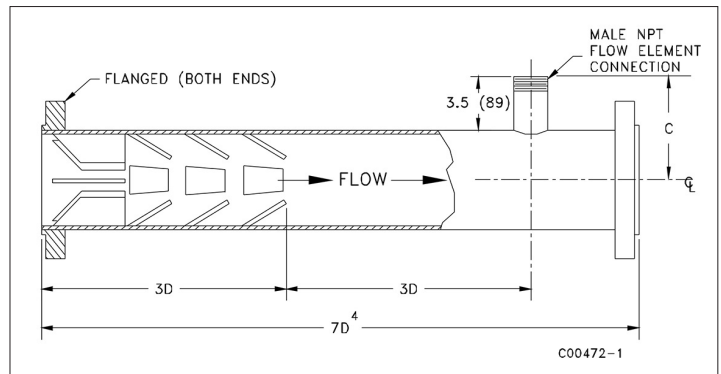


Figure 6. VSR with flanged process connections

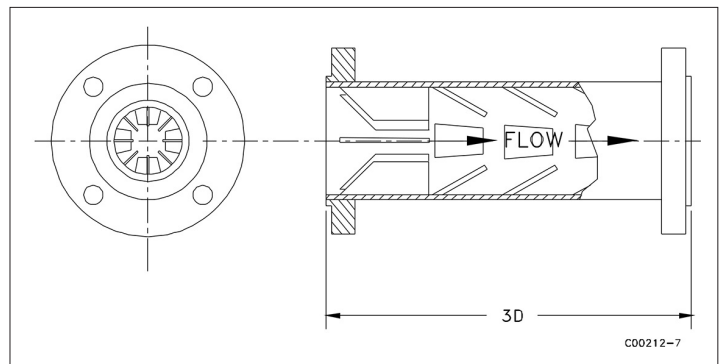


Table A – Flow Element Connections				
VMR Size	For FCI ST Series Flow Meters (U-Length) ³		All Other Instruments (C) ²	
	Threaded	Flanged	Threaded	Flanged
2"			4.69" [119 mm]	6.19" [157 mm]
3"	1" - 6" [25 mm - 152 mm]	1" - 6" [25 mm - 152 mm]	5.25" [133 mm]	6.75" [171 mm]
4"			5.75" [146 mm]	7.25" [184 mm]
6"			6.81" [173 mm]	8.31" [211 mm]
8"			7.81" [198 mm]	9.31" [236 mm]
10"	1" - 12" [25 mm - 305 mm]	1" - 12" [25 mm - 305 mm]	8.87" [225 mm]	10.37" [264 mm]
12"			9.87" [251 mm]	11.37" [289 mm]

Notes

- "D" equals the nominal pipe size or diameter and "xD" equals the pipe length in terms of the equivalent number of nominal pipe diameters.
- "C" is the distance from the flow element connection to the centerline of the VMR. Find the dimension of "C" in Table A and use to calculate the length of your insertion flow meter in accordance with the flow meter manufacturer's specified guidelines.
- U-length calculations do not include the additional length required for special flow element connections such as ball valves, extended nozzles, etc.
- 2 inch sizes with a flow element connection and flanged process connections require 8 nominal pipe diameters in length.

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Figure 7. VEL with MNPT or weld preparation process connections

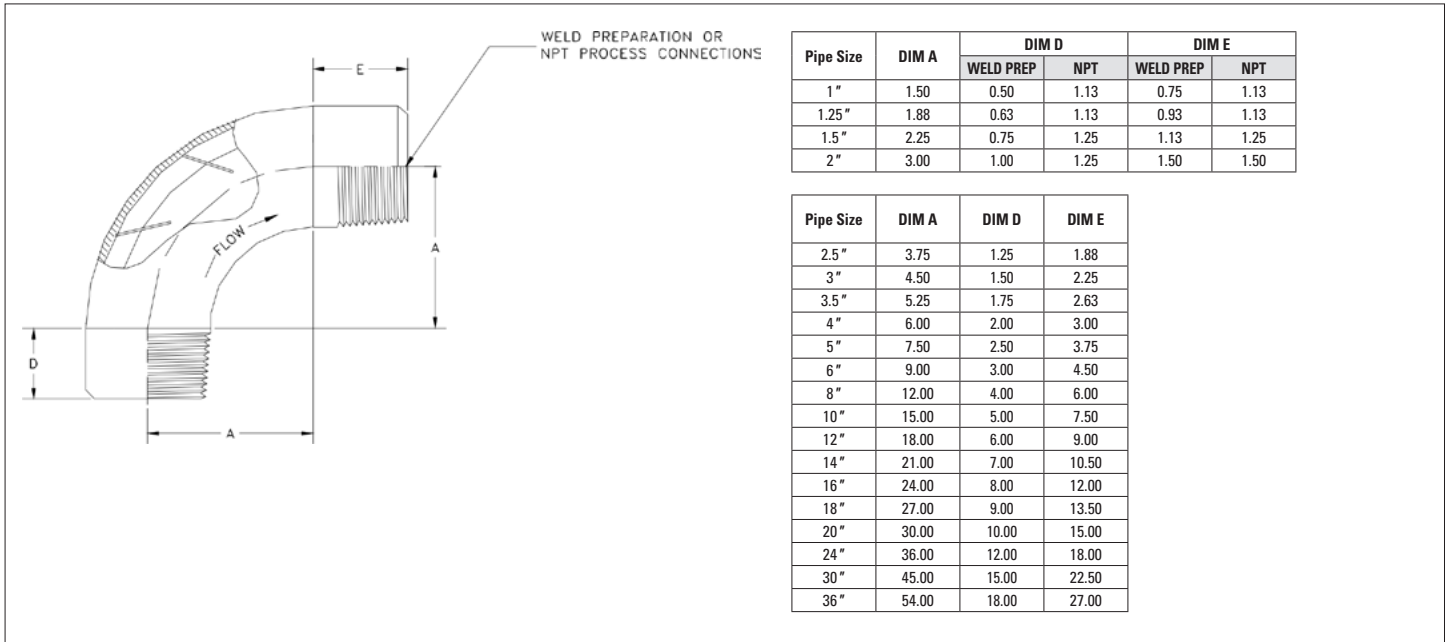


Figure 8. VEL with flanged process connections

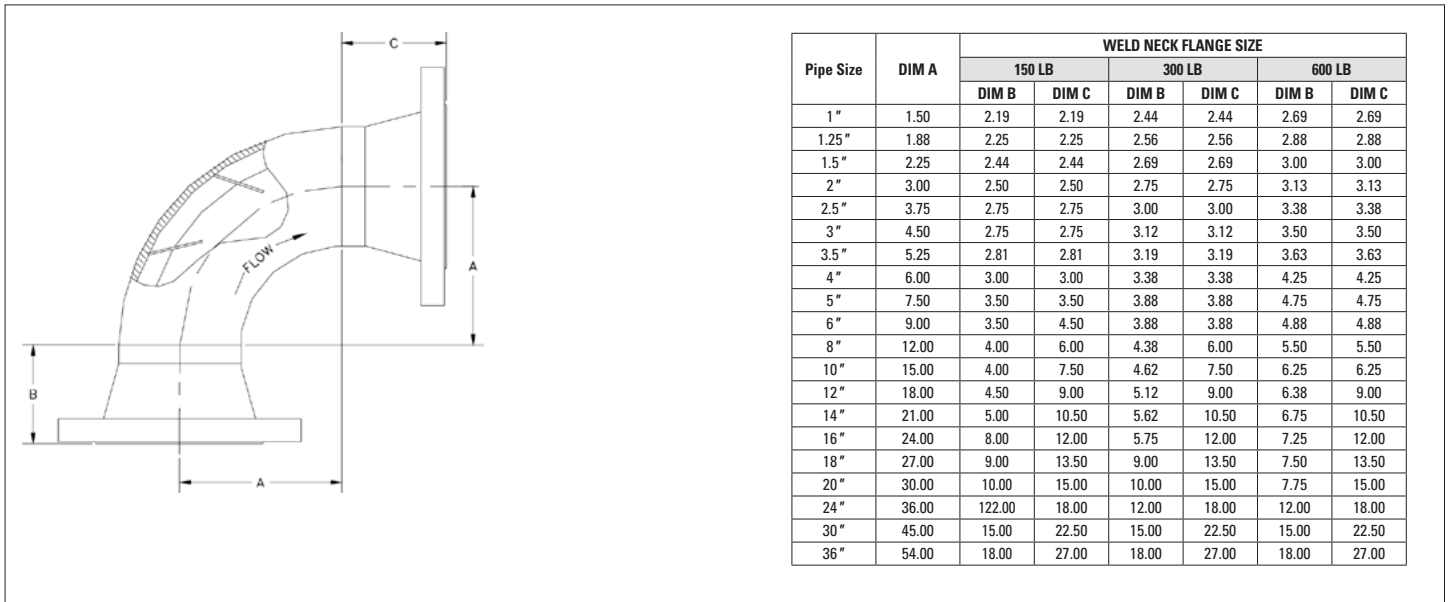


Figure 9. Typical process application

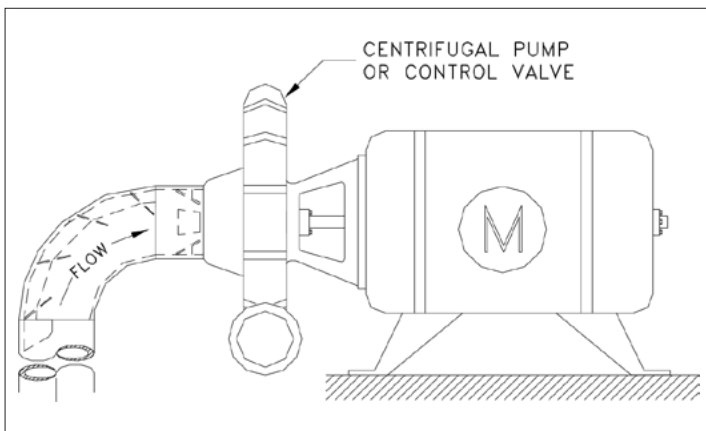


Figure 10. Typical flow meter application

