Vortex Breaker Thermowell

General Description

The traditional thermowell obstructs the flow, causing large vortices in the wake and increasing the amplitude of the vibrations. For this reason, the shortened thermowell was not inserted sufficiently to satisfy the proper measurement position. nomarlly applied velocity collar to solve the problem however, this method is difficult to install and is not recommended in ASME.

The 'vortex breaker' ensures insertion length for accurate temperature measurements by minimizing the occurrence of the vortex and can be easily installed in existing application without replacement.

Standard Specification Overview

Stem Outdiameter

A wide variety of tube or pipe sizes In a variety of schedules subject to requirements and process conditions.

Material

A wide range of materials are available including 304, 316, 321 stainless steel, 446 Cr-Fe, Carbon Steel, Chromium Steels, Hastelloy C22, C276 and X, Incoloy 800, Inconel 600, Monel 600 and Titanum.

Instrument Connection

Female in NPT, PT, PF or other thread forms.

Process Connection

Connection to the pipe or vessel may be by means of flange All sizes and pressure ratings are available to DIN, BS, ANSI/ASME and KS, JIS or other standards. Flanged connections are now the petrochemical standard for all applications.

Ordering Information for Vortex Breaker Thermowell

● = Standard Products ▲ = Available NA = Not Available

Model	Description			
W0	Vortex Breaker Thermowell			
Code	**Internal thread**			**W0**
F	PF 1/2"			▲
T	PT 1/2"			▲
N	NPT 1/2"			●
X	Others			▲
Code	**Standard Type**			
A	ANSI / ASME			
K	KS / JIS			
D	DIN			
Code	**Process Connection Size**			
	ANSI / ASME	KS / JIS	DIN	
F	1/2"	15	DIN15	
H	3/4"	20	DIN20	
J	1"	25 A	DN 25	
R	1 1/2"	40 A	DN 40	
T	2"	50 A	DN 50	
V	2 1/2"	-	-	
W	3"	80 A	DN 80	
X	Others			
Code	**Flange Rating**			
	ANSI / ASME	KS / JIS	DIN	
1	None	None	None	
2	Class 150	10 K	PN 10	
3	-	-	PN 16	
4	Class 300	20 K	PN 25	
5	Class 600	30 K	PN 40	
6	Class 900	40 K	-	
7	Class 1500	65 K	-	
8	Class 2500	-	-	
X	Others			
Code	**Process Connection Style**			**W0**
N	None			
RF	RFSF (125~250 AARH)			▲
FF	FF			▲
RJ	RTJ			▲
X	Others			▲
Code	**Flange Meterial**			**W0**
1N	None			
4S	304 SS			▲

6S	316/316L SS	●
4L	304 L	▲
6F	A182F316	▲
4F	A182 F304	▲
MO	Monel	▲
HC	Hastelloy C-276	▲
IN	Inconel 600	▲
IC	Incoloy 800	▲
XX	Others	▲

Code	Well Material	WO
4S	304 SS	▲
6S	316/316L SS	●
4L	304L	▲
MO	Monel	▲
HC	Hastelloy C-276	▲
IN	Inconel 600	▲
IC	Incoloy 800	▲
XX	Others	▲

Code	"T" Lagging length (mm)	WO
45	45mm (STD)	●
50	50mm	▲
55	55mm	▲
75	75mm	▲
XX	Others	▲

Code	"U" Insertion Length (mm)	WO
0100	100mm	▲
0150	150mm	▲
0200	200mm	▲
0250	250mm	▲
0300	300mm	▲
ZZZZ	Others	▲

Code	Type	WO
T	Tapered	▲
S	Straight	●
P	Stepped	▲

Code	Bore diameter	WO
07	7mm	●
09	9mm	▲
10	10mm	▲
X	Others	▲

Code	Tip diameter	WO
14	14	▲
16	16	▲
17	17	▲

19	19	▲
XX	Others	▲

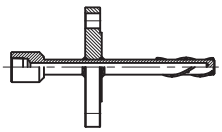
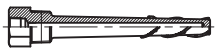
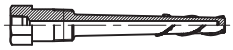
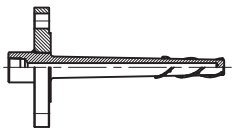
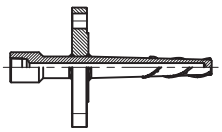
Code	Root diameter	WF
14	14	▲
16	16	▲
17	17	▲
19	19	▲
20	20	▲
21	21	▲
23	23	▲
25	25	▲
XS	Others	▲

Code	Option	WF
0	None	●
A	Chain & Plug (304 SS)	▲
B	Chain & Plug (316 SS)	▲
B	Buffing # 300	▲
H	Helium leak test	▲
D	Dye penetration test	▲
X	X-Ray Inspection	▲
P	hydrastatic pressure test	▲
M	Macro test	▲
FP	Full Penetration Welding	▲
BS	Both Side Welding	▲

Sample Model Selection : WSFJ15RFSSSS450250T0743

* The standard specification and price are subject to change without prior notice

Vortex Breaker Thermowell

	THREAD TYPE		FLANGE TYPE	
	PLANE TYPE	LAG TYPE	PLANE TYPE	LAG TYPE
	WO			
DRILLED BAR STOCK STRAIGHT TYPE				
DRILLED BAR STOCK TAPER TYPE				
DRILLED BAR STOCK WELD TYPE				

HISCO HISCO, INC.
32, Seonyu-ro 43-gil, Yeongdeungpo-gu, Seoul, Korea
T : 82-2-2677-6046 F : 82-2-2672-1873 http://www.hiscoi.com