

Vanstone type thermowell

Model : A640 series

Spec. sheet no. AD06-05

Service intended

Vanstone type thermowell is produced without any welding process by processing the whole round bar.

Since it does not involve any welding process, it is used when high pressure, high velocity fluid and corrosive process media such as penetrating gas exist, and serving to isolate and protect from any leakage.

The required flange is not standard and can be provided as an optional extra.



Standard features

Selection of thermowell

■ Material

In general, the thermowell material chosen for the installation is governed mainly by the corrosion condition the thermowell will face. Recommended material for various services are given in the corrosion table.

Occasionally, the material consideration is one of strength rather than corrosion. For example, a stainless steel thermowell may be required for a high pressure water service where otherwise a brass thermowell would be satisfactory from a corrosion standpoint.

■ Insertion

The distance from the end of the well to the underside of the thread or other connection means (Designated as "U") is the insertion length.

■ Tapered or straight type

Tapered type thermowells provide greater stiffness for the same sensitivity. The higher strength to weight ratio gives these thermowells higher natural frequency than for equivalent length straight type thermowells, thus permitting operation at higher fluid velocity.

■ Bore size

Almost any installation uses several type of temperature measuring instruments.

The selection of a standard bore diameter can produce extreme flexibility within the plant.

■ Option

Wake frequency calculations in accordance with ASME PTC 19.3

WISE Inc. offers this as an engineering service.

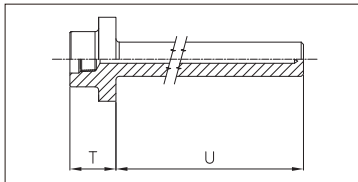
■ Standard "T" length

Well size 1½" or DN40 : 40 mm

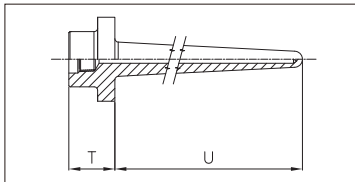
2" or DN50 : 45 mm

Structure

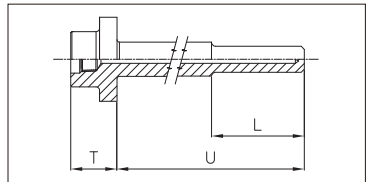
A6400



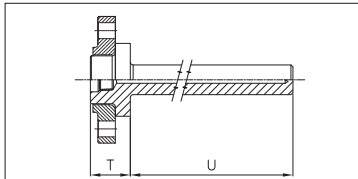
A6410



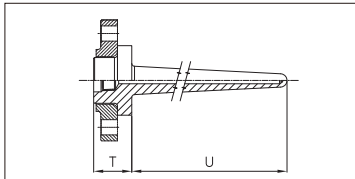
A6420



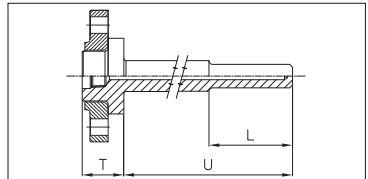
A6401



A6411



A6421



1. Base model

A6400	Straight bar stock
A6401	Straight bar stock with flange
A6410	Tapered bar stock
A6411	Tapered bar stock with flange
A6420	Stepped bar stock
A6421	Stepped bar stock with flange

2. Material of well

BX	304SS	LX	Monel
CX	316SS	MX	Titanium
DX	304L SS	OX	A182F316
EX	316L SS	TX	Incoloy-800
FX	310SS	VX	A182F91
GX	321SS	WX	A105
IX	A182F304	YX	A182F11
JX	Inconel 600	Z3	A182F321
KX	Hastelloy-C	ZX	Others

3. Material of flanged

BX	304SS	MX	Titanium
CX	316SS	OX	A182F316
DX	304L SS	TX	Incoloy-800
EX	316L SS	VX	A182F91
FX	310SS	WX	A105
GX	321SS	YX	A182F11
IX	A182F304	Z3	A182F321
JX	Inconel 600	ZX	Others
KX	Hastelloy-C	XX	Not applicable
LX	Monel		

4. Internal connection

0	1/2" NPT
1	1/2" PT
2	1/2" PF

5. Tip outer diameter / Bore size (mm)

A	14 / 7	K	19 / 9
B	14 / 9	L	19 / 10
C	16 / 7	M	19 / 12
D	16 / 9	N	21 / 10
E	16 / 10	O	14 / 8
F	17 / 7	P	16 / 8
G	17 / 9	Q	17 / 8
H	17 / 10	R	19 / 8
I	17 / 12	S	21 / 8
J	19 / 7		

6. Stepped bore size (mm)

A	None
B	6.5 (Standard)
C	Other

7. Well size for flange

C	1"
E	1 1/2"
F	2"
Z	Other

8. Flange class, sealing face

AC	B16.5 class 150 RF	DI	PN25 RF
AF	B16.5 class 300 RF	DO	PN40 RF
AJ	B16.5 class 600 RF	AV	B16.5 class 600 RTJ
AS	B16.5 class 900 RF	AW	B16.5 class 900 RTJ
AU	B16.5 class 2,500 RF (Not available 1 1/2" and DN)	AX	B16.5 class 1,500 RTJ
AT	B16.5 class 1,500 RF	AY	B16.5 class 2,500 RTJ (Not available 1 1/2" and DN)
DA	PN10 RF	ZZ	Other
DB	PN16 RF	XX	None

9. Insertion length ("U") length (mm)

0	80	6	350	D	800
1	100	7	400	E	900
2	150	8	450	F	1,000
3	200	A	500	Z	Other
4	250	B	600		
5	300	C	700		

Note : Please choose a code of next higher length if applicable length is not.
Actual length shall be specified.

10. Option

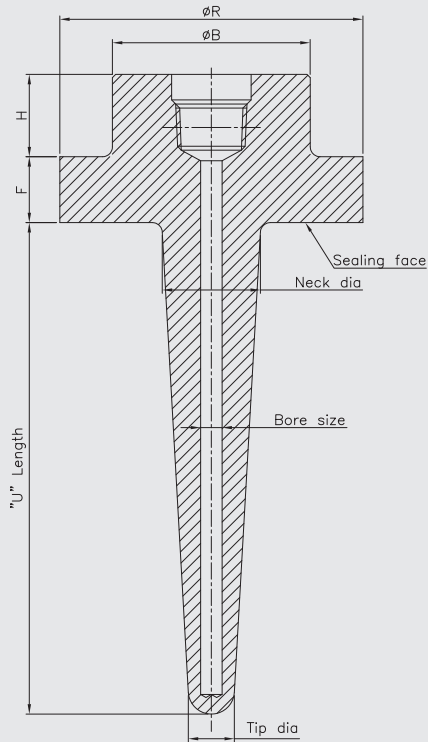
0	None
1	Plug and chain (304SS)
2	Plug and chain (316SS)

Note : Actual length shall be specified.

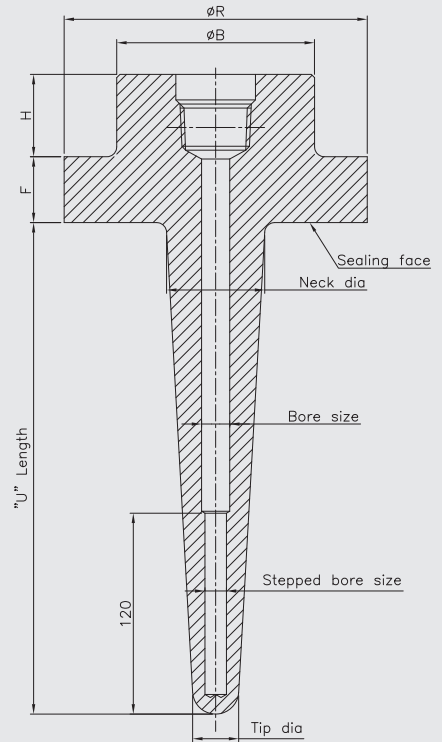
1	2	3	4	5	6	7	8	9	10
A6400	BX	BX	0	A	B	C	AC	1	1

Sample
ordering code

Straight bore type



Stepped bore type



		1"	1 1/2"	2"
	R	51	73	92
	B	33	48	60
	F	15	15	20
H	~ 150lb	25	25	25
	~ 300lb	30	35	35
	~ 600lb	30	35	40
	~ 1500lb	45	45	60
	~ 2500lb	50	65	70

	Thread type		Flange type	
	Plane type	Lag type	Plane type	Lag type
Closed end tube straight type				
	A5000	A5001	A5100	A5101
Bar stock straight type				
	A6000	A6001	A6100	A6101
Bar stock taper type				
	A6010	A6011	A6110	A6111
Bar stock step type				
	A6020	A6021	A6120	A6121
Bar stock weld in type	Full penetration welding flange type			
	A6311	A6230	A6231	
Bar stock socket weld type				
	A6300	A6310	A6320	
Bar stock vanstone flange				
	A6400	A6410	A6420	