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 woule 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.

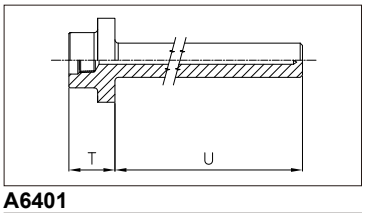
■ Bore size
Almost any installation uses several type of temperature measuring instruments.
The selection of a standard bore diameter can produce extreme flexibility within the plant.

■ 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



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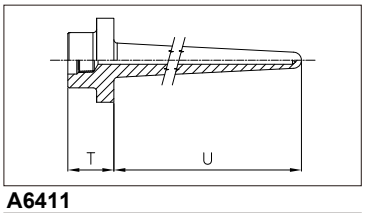

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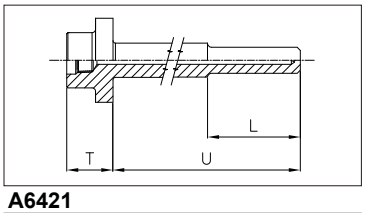

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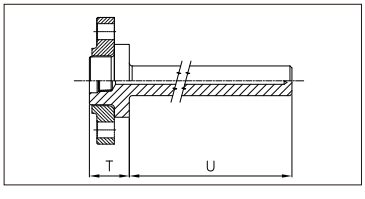

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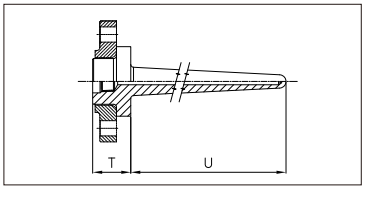

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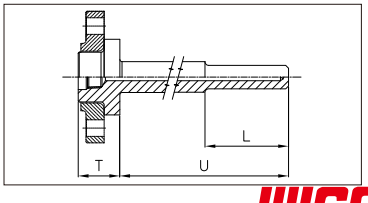


1. Base model

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	**23**	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	**23**	A182F321
JX	Inconel 600	**ZX**	Others
KX	Hastelloy-C	**XX**	Not applicable
LX	Monel		

4. Internal connection

0	½" NPT
1	½" PT
2	½" 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	1½"
F	2"
Z	Other

8. Flange class, sealing face

AC	150 Lb RF	**DI**	PN25 RF
AF	300 Lb RF	**DO**	PN40 RF
AJ	600 Lb RF	**AV**	600 Lb RTJ
AS	900 Lb RF	**AW**	900 Lb RTJ
AU	2,500 Lb RF (Not available 1½" and DN)	**AX**	1,500 Lb RTJ
		AY	2,500 Lb RTJ (Not available 1½" and DN)
AT	1,500 Lb RF		
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

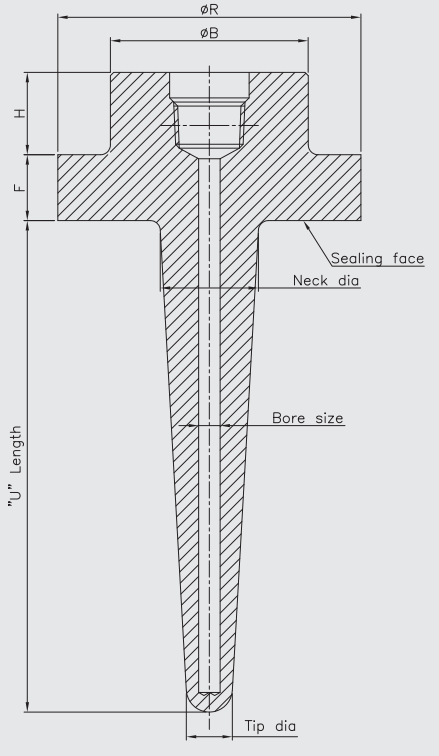
0	None
1	Plug and chain (304SS)
2	Plug and chain (316SS)

Note : Actual length shall be specified.

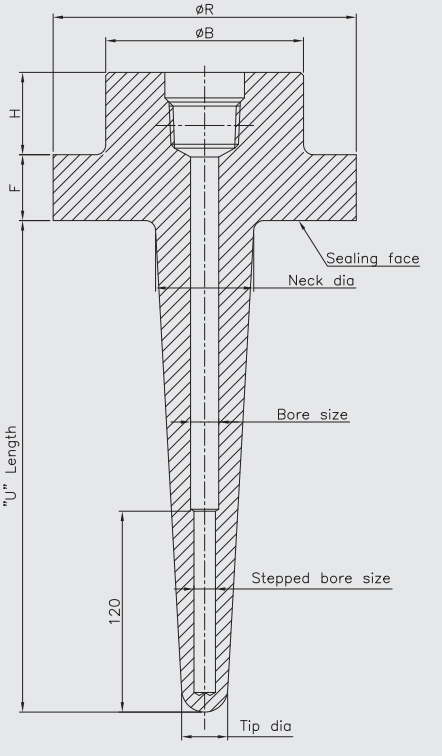
1	2	3	4	5	6	7	8	9	10	
A6400	**BX**	**BX**	**0**	**A**	**B**	**C**	**AC**	**1**	**1**	**Sample ordering code**

Standard product drawing

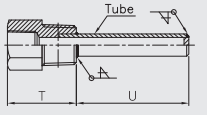
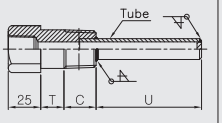
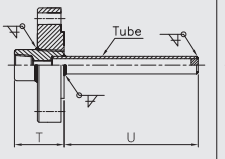
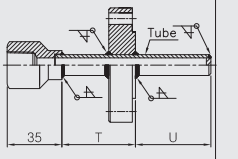
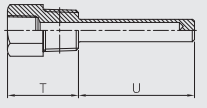
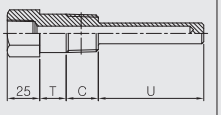
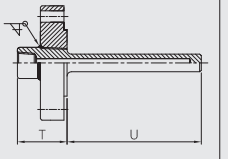
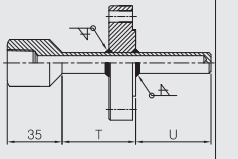
Straight bore type



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 staraight type				
	A5000	A5001	A5100	A5101
Bar stock staraight type				
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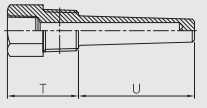
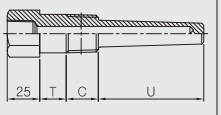
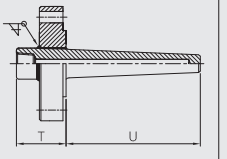
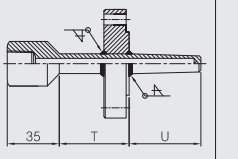
Bar stock taper type				
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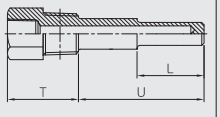
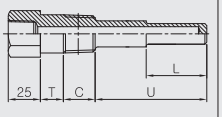
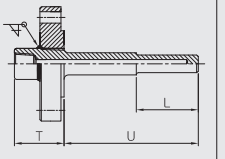
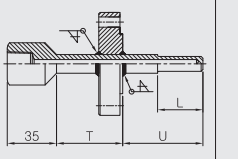
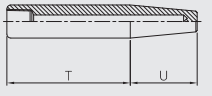
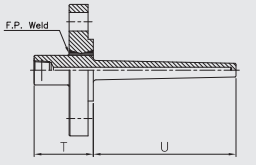
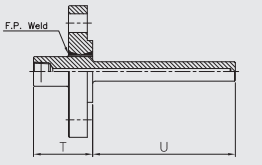
Bar stock step type				
	A6020	A6021	A6120	A6121

		Full penetration welding flange type	
Bar stock weld in type			
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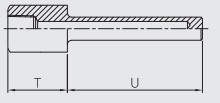
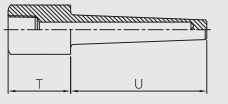
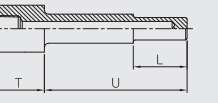
Bar stock socket weld type			
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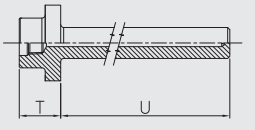
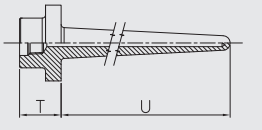
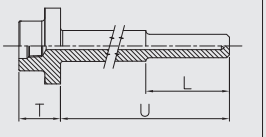
Bar stock vanstone flange			
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