Helical strake type thermowell
Model : A650 series

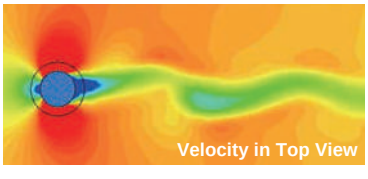
Spec. sheet no. AD06-06

Service intended

Thermowell is manufactured and calculated according to ASME PTC 19.3 TW-2016 to protect it from the loads of the flux. If the calculated value is not appropriate, then shorten the length of the Thermowell, and increase the root and the tip diameter of the Thermowell to change the outcome value, or try to change the structure by installing the support collar on the Thermowell. However, these changes have its own limits.
A650 Series could reduce the amplitude of oscillation by 70 %, and reduce the danger of breakage of Thermowell by VIV (Vortex Induced Vibration). Furthermore, because it reduces the loads on the Thermowell, it makes the installation possible without installing the support collar and without the change of Nozzle.

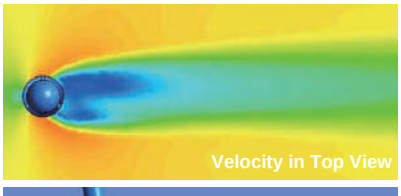
Description

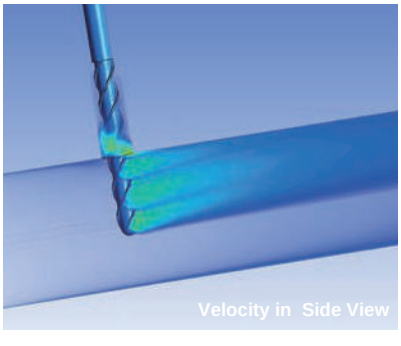
Standard type thermowell



The oscillation of vortices which is caused by VIV can be found around the Thermowell. If the vortex shedding frequency approaches to the natural frequency, then the resonance could cause the breakage of the Thermowell.

A6500 type thermowell





By comparing the standard Thermowell with A650 Series, the noticeable decrease of the vortices could be found around the A650 Series. Furthermore, it could reduce the chance of breakage of the Thermowell which is caused by VIV.

1. Base model

A6510	Flanged Type Thermowell
A6520	Vanstone Type Thermowell
A6530	Socket Type Thermowell

2. Material of well

BX	304SS
CX	316SS
DX	304L SS
EX	316L SS
FX	310SS
ZX	Others

3. Material of flanged

BX	304SS
CX	316SS
DX	304L SS
EX	316L SS
FX	310SS
ZX	Others

4. Internal connection

0	½" NPT
1	½" PT
2	½" PF

5. Tip outer diameter / Bore size (mm)

E0	20 / 7	**E1**	20 / 9

6. Flange size

C	1" (25A)	**G**	2½" (65A)
D	1¼" (32A)	**H**	3" (80A)
E	1½" (40A)	**I**	4" (100A)
F	2" (50A)	**Z**	Other

7. Process connection type

DA	PN10 RF	**AW**	900 Lb RTJ
DB	PN16 RF	**AT**	1,500 Lb RF
AE	150 Lb FF	**AX**	1,500 Lb RTJ
AC	150 Lb RF	**AU**	2,500 Lb RF
AD	150 Lb RFSF	**AY**	2,500 Lb RTJ
AH	300 Lb FF	**KN**	10K FF
AF	300 Lb RF	**KL**	10K RF
AG	300 Lb RFSF	**KM**	10K RFSF
DI	PN25 RF	**KR**	20K FF
AJ	600 Lb RF	**KP**	20K RF
AK	600 Lb RFSF	**KQ**	20K RFSF
AV	600 Lb RTJ	**DO**	PN40 RF
AS	900 Lb RF	**ZZ**	Other

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

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

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

9. "T" length (mm)

0	45
1	50 below
2	50 above

Note : Actual length shall be specified.

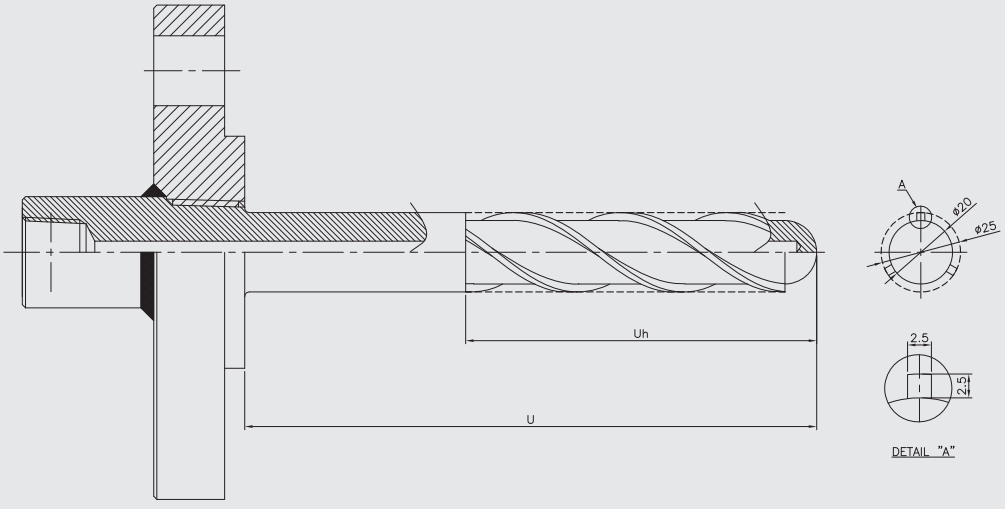
10. Option

0	None
1	Plug and chain (304SS)
2	Plug and chain (316SS)
8	F.P welding (Only flanged type)

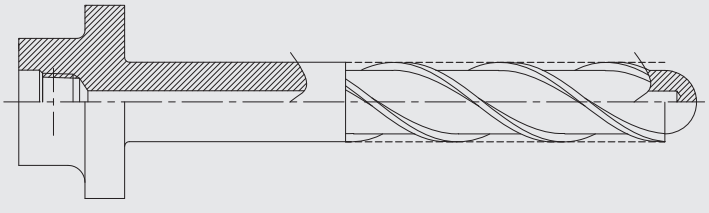
Note : Actual length shall be specified.

1	2	3	4	5	6	7	8	9	10	
A6510	**BX**	**BX**	**0**	**E0**	**C**	**DA**	**3**	**0**	**1**	**Sample ordering code**

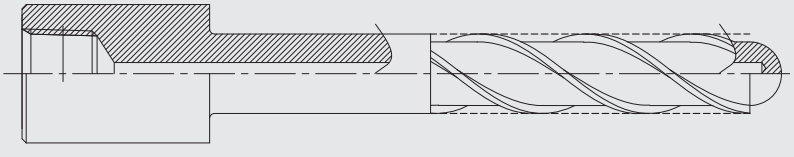
Standard product drawing



FLANGED TYPE



VANSTONE TYPE



SOCKET WELDED TYPE

Memo