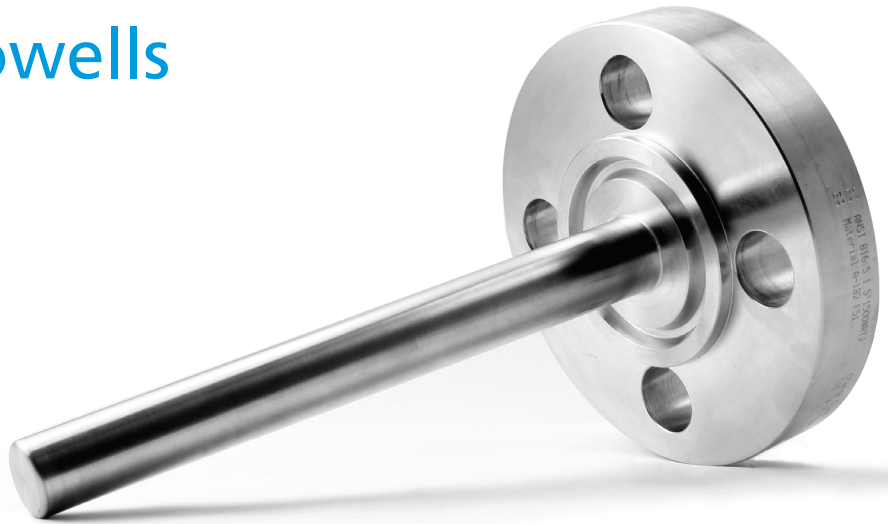


Autek Thermowells



INSTRUMENTATION

Rev 1.04

Autek Thermowells

-designed and manufactured to meet strict industry standards, safety guidelines and user expectations

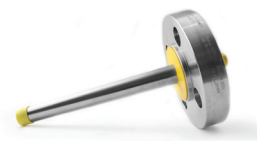
Autek have a large stock of forged material according to NORSEK and TR2000 requirements to support our customers with quick delivery time for offshore projects.

Benefits

- Short delivery time
- Manufactured to suit customer application
- Frequency calculation according to ASME PTC 19.3 TW 2010
- Materials from NORSEK M650 approved suppliers
- Welding according to NORSEK M601 and/or TR1826

Options

- Exotic materials for demanding services – Duplex, Super Duplex, Titanium, 6MO (M650)
- High pressure solutions
- Material certificate, PMI report
- Pressure test certificate
- Weld Procedure Qualification Certificate
- Welder Qualification Certificate
- 2D or 3D drawing
- 3D STEP format
- Temperature sensor and transmitter



accurate measurement
perfected from design to manufacturing



DESIGN & ASSEMBLING



ENGINEERING



INSTRUMENTATION



SERVICE

Thermowells

Autek Thermowells meet all requirements according to NORSOK and Statoil TR. Autek AS is certified according to ISO 9001:2008 and has procedures to meet customer's requirement to offshore deliveries. Autek can supply the following items for a complete temperature measurement solution;

- Temperature sensor and transmitter
- Calibrated sensor or system calibration with transmitter
- NORSOK documentation according customer requirement

Design

- Welded flange on bar
- Machined out of bar
- Machined from forged material
- Standard instrument connection is 1/2" NPT

Flange Standards

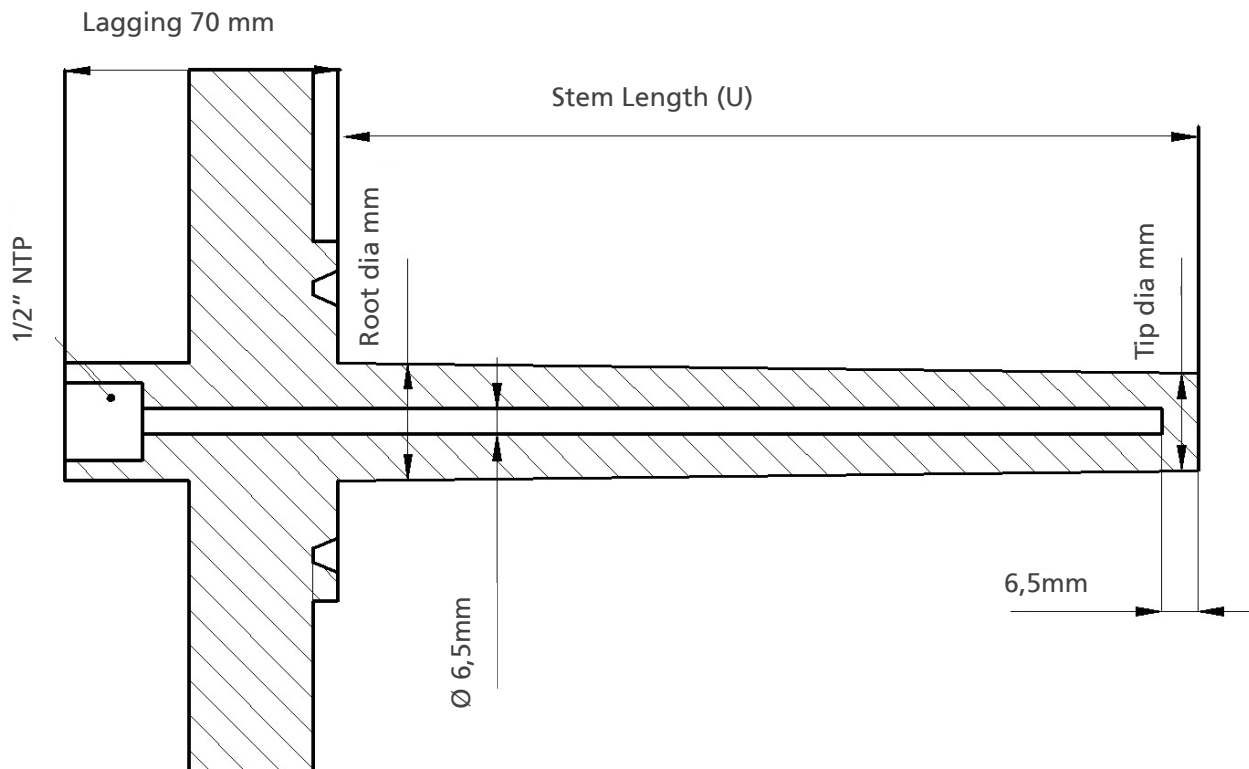
- ASME B16.5, DIN
- HUB
- API
- CF (L-005)
- Slip on

Design Code

- ASME PTC 19.3 TW-2010

Painting

- NORSOK M501
- TR 0042
- Other on request



ORDERING CODES Autek Thermowells

Code	Product		
TWW-	Thermowell welded	TWS-	Thermowell slip on flange
TWF-	Thermowell forged		
Code	Design *1		
P6-	Straight Di 6,5mm	K7-	Tapered Di 7,0mm
P7-	Straight Di 7,0mm	S6-	Stepped Di 6,5mm
K6-	Tapered Di 6,5mm	S7-	Stepped Di 7,0mm
Code	Sensor Support		
R05-	½" BSP F	M20-	M20x1,5 F
N05-	½" NPT F	Z-	Other
Code	Process connection *2		
0,5-	0,5"	1,5-	1,5"
0,75-	0,75"	2-	2"
1-	1"	Specify joint-	HUB
DNXX-	DIN, specify connection	Specify-	Other
Code	Pressure class *2		
0150-	ANSI 150#	1500	ANSI 1500#
0300-	ANSI 300#	2500-	ANSI 2500#
0600-	ANSI 600#	4500-	ANSI 4500#
0900-	ANSI 900#	Specify-	Other
Code	Connection type *3		
FF-	Flat Face	CF-	Compact flange
RF-	Raised face	H-	HUB
RJ-	RTJ	Specify-	Other
Code	Length		
XXXX-	Stem length (U) mm		
Code	Tip diameter		
XX-	Minimum mm for stem		
Code	Root diameter		
XX-	Maximum mm for stem		
Code	Material *4		
CS-	Carbon Steel	TI-	Titan
SS-	SS 316 /316L	I-	Inconel 600
DX-	Duplex (22Cr)	H-	Hastelloy C
SD-	Super Duplex (25Cr)	Specify-	Other
MO-	254 SMO (6MO)		
OPTIONS			
Code	Full penetrated weld		
FPW-	Full penetration welding acc. Norsok M601 and TR1826		
Code	Support Collar		
WXX-	XX= dia mm support collar		
Code	Plug and Chain *5		
PC	316SS Plug and Chain		

TWW- K6- N05- 1,5- 1500- RJ- 0250- 25- 30- SS- FPW- W38- PC

* Notes:

- Standard 6,5mm bore and 6,5mm tip thickness for flanged thermowells
- ANSI flanges as standard. If DIN specify DN and PN.
Example: TWW-K6-N05-DN40-PN250-RJ-0200-25-30-SS
- Joints shall be specified for HUB connection
- All material for offshore deliveries from Norsok M650 approved suppliers
- Standard pressure test is 1,5xFlange rating for 10 minutes internal.
External pressure test available on request acc. Norsok L-004 or other customer specific requirements.
- Thermowells are delivered with plastic plug as standard.

We adjust our products to fit your needs. Contact us for a full list of materials and customization options.

Our Expertise

Since Autek AS was founded in 1986 we have been providing the best possible service and instrumentation to the oil and gas industry. Our extensive experience and close cooperation with our customers, ensures an accurate understanding of their individual needs. Through nearly 30 years, our strategies and high level of expertise have proven to exceed the expectation and meet the requirements set by the onshore and offshore industry. Autek is ISO 9001:2008 certified and qualified by Achilles.



DESIGN & ASSEMBLING

3D design of instruments, systems and complete instrument enclosures to customers specifications



INSTRUMENTATION

Leading provider of instrumentation for the energy industry. Custody-Transfer flowmeters



ENGINEERING

Flow calculations, wake frequency calculations, documentation and complete instrument packages



SERVICE

Offshore certified engineers available for assistance and maintenance on general instrumentation and fiscal ultrasonic flowmeters