



# VAAtitan®-SF

Combines high torque with slim design



# PERFORMANCE IN TUBULARS

Our world is based on high tech seamless pipes that can withstand the toughest conditions, day in, day out. We promise highest performance based on the core values customization, innovation, sustainability and responsibility.



CUSTOMIZATION



INNOVATION

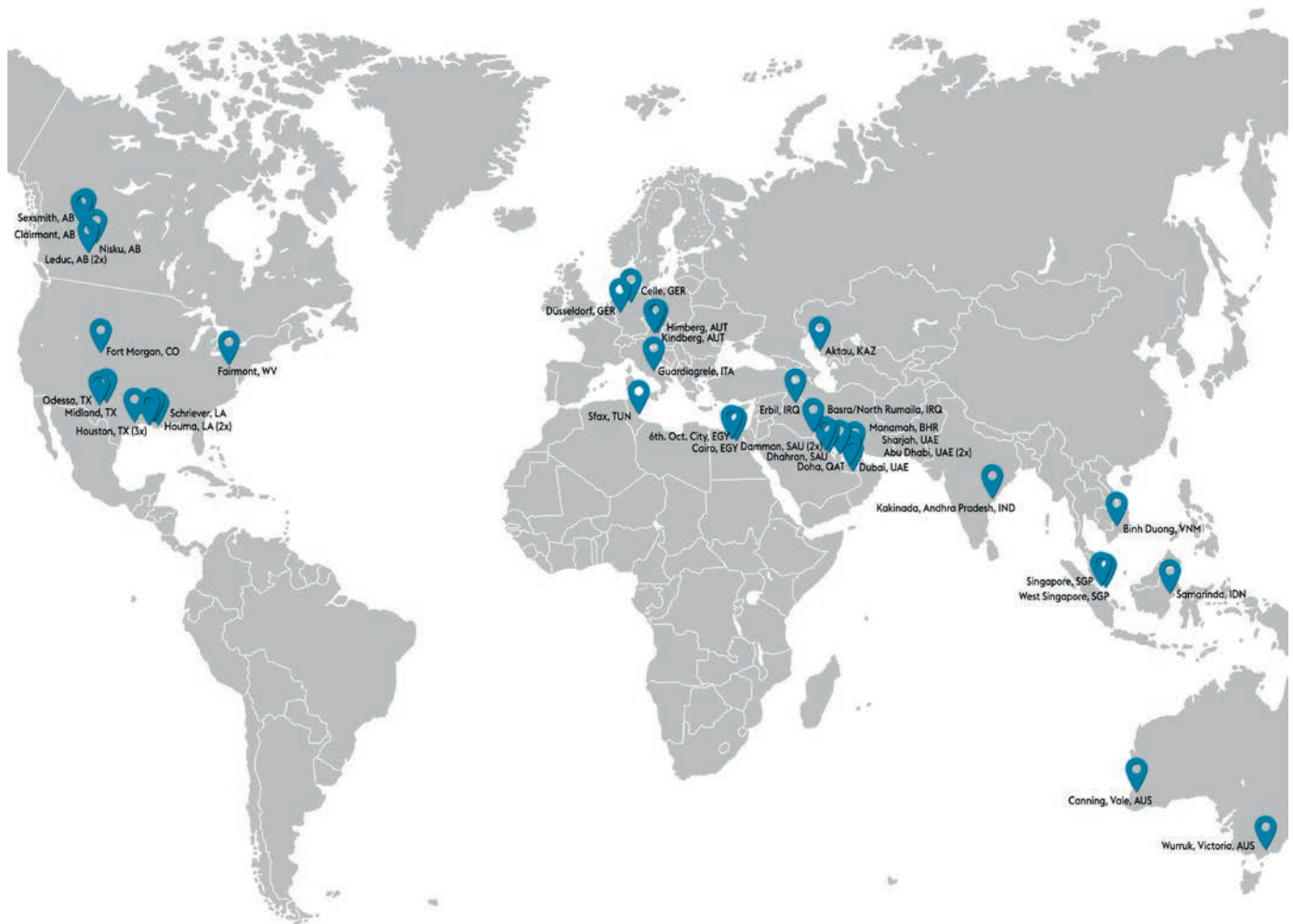


SUSTAINABILITY



RESPONSIBILITY

# PRODUCTION, R&D, SALES LOCATIONS AND LICENSEES



Find your closest contact:  
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# DESIGN CHARACTERISTICS

voestalpine Tubulars Proprietary Connections like VAtitan®-SF offer benefits which are not addressed by the API specification or exceed the API standards.



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## CASING DESIGN

5 ½ inches  
Multifaceted wedge type thread profile  
Two step connection  
6 turns from stab point to final position



## PRODUCT CHARACTERISTICS & CUSTOMER BENEFITS

### ENGINEERED FOR LONG LATERALS

#### » HELPS YOU TO REACH THE TOTAL DEPTH

The connection performance is fit-for-purpose tested for multi-fractured horizontal wells. The testing includes extreme over-torque, fatigue life, and combined loads.

### SMOOTH INTERNAL AND EXTERNAL PROFILE

#### » ENSURES YOUR CONNECTION IS NOT THE LIMITATION

With an optimized/minimized outside diameter upset, this semi-flush connection is the perfect solution for slim hole designs, workover strings, liners and tiebacks.

The smooth internal profile minimizes turbulences and provides good conditions for internal pipe coating.

### FAST & EASY MAKE-UP

#### » SAVES RUNNING TIME

The two step connection design ensures easy handling. The deep stabbing increases the efficiency and speed during installation.

### ROTATION DURING CEMENTING

#### » IMPROVES THE QUALITY OF THE CEMENT BOND

The robust connection design further enables high torque rotation during cementing operations, improving the bonding between cement and steel as well as centralizing the casing string in the cement sheath.



## GRADES

VA titan®-SF is available in API standard and proprietary grades. Also tailor-made customer specifications can be fulfilled upon request.

### Our tools in manufacturing the VA series include but are not limited to

- » Steel with special chemical composition
- » Unique melting, refining and casting practices
- » Controlled processes in the pipe rolling, heat treatment, straightening and end finishing operations
- » Tighter tolerances
- » Restricted mechanical properties
- » Special testing and inspection methods

Some of the product names explain the application, e.g. deep well, sour service, low temperature.

#### The applications for other grades are defined as follows:

- » **VA-High Collapse-Series**  
for use in high external pressure environments
- » **VA-Mild Sweet Gas-Series**  
for mildly corrosive environments where – in combination with an adequate inhibition program – a higher corrosion resistance can be expected compared to regular API grades

Specified Minimum Yield Strength [psi]	Grade API Spec 5CT	HIGH COLLAPSE	ENHANCED PROPERTIES
55,000	J55		
	K55		
75,000			
80,000	N80-Q	VA-HC-N80-Q	VA-EP-N80-Q
	L80-1	VA-HC-L80-1	VA-EP-L80-1
	L80-3Cr		
	L80-13Cr		
90,000	C90	VA-HC-C90	VA-EP-C90
95,000	R95	VA-HC-R95	VA-EP-R95
	T95	VA-HC-T95	VA-EP-T95
110,000	C110	VA-HC-C110	VA-EP-C110
	P110	VA-HC-P110	VA-EP-P110
125,000	Q125	VA-HC-Q125	VA-EP-Q125
140,000			
150,000			

On request in combination with:



## PROPRIETARY GRADES – THE VA SERIES

EXTREME PROPERTIES	SOUR SERVICE			DEEP WELL		LOW TEMPERATURE	MILD SWEET GAS	MILD SWEET GAS	SWEET GAS
		with High Collapse	with Enhanced Properties		with High Collapse		Ferrite Pearlite	Quenched & Tempered	
						VA-LT-J55	VA-FP-55-1CR		
						VA-LT-K55			
							VA-FP-75-1CR		
VA-XP-N80-Q						VA-LT-N80-Q	VA-FP-80-1CR	VA-N80-Q-1CR/ VA-N80-Q-3CR	
VA-XP-L80-1						VA-LT-L80-1		VA-L80-1-1CR	
	VA-SS-80	VA-SS-80-HC	VA-SS-80-EP						
VA-XP-C90						VA-LT-C90			
	VA-SS-90	VA-SS-90-HC	VA-SS-90-EP						
VA-XP-R95						VA-LT-R95		VA-R95-1CR/ VA-R95-3CR	
VA-XP-T95						VA-LT-T95			
	VA-SS-95	VA-SS-95-HC	VA-SS-95-EP						VA-95-13CR
						VA-LT-C110			
	VA-SS-110	VA-SS-110-HC	VA-SS-110-EP						
	VA-S-110	VA-S-110-HC	VA-S-110-EP						
VA-XP-P110						VA-LT-P110		VA-P110-1CR/ VA-P110-3CR	VA-110-13CR
VA-XP-Q125-1						VA-LT-Q125-1			
	VA-S-125	VA-S-125-HC	VA-S-125-EP	VA-D-125	VA-D-125-HC				
				VA-D-140	VA-D-140-HC				
				VA-D-150	VA-D-150-HC				

LOW TEMPERATURE

EP/XP

EP/XP

HC

# DIMENSIONS

PIPE OUTSIDE DIAMETER		NOMINAL WEIGHT		WALL THICKNESS		INSIDE DIAMETER		DRIFT DIAMETER	
inch	mm	lb/ft	kg/m	inch	mm	inch	mm	inch	mm
5½	139.70	23.00	33.68	0.415	10.54	4.670	118.62	4.545	115.44

PIPE OUTSIDE DIAMETER		COUPLING OUTSIDE DIAMETER		VOLUME				MAKE UP LOSS	
				DISPLACEMENT		PRODUCTION			
inch	mm	inch	mm	us gal/ft	l/m	us gal/ft	l/m	inch	mm
5½	139.70	5.748	146.00	1.235	15.34	0.890	11.05	5.066	128.67

Further pipe sizes available upon request.

All VAtitan®-SF accessories are available on request. The values shown are based on pipe lengths of L = 10.0 m (32.81 ft).  
For further dimensions please check availability in the datasheet generator.  
Blanking dimensions for accessories are available as a download on our website: [www.voestalpine.com/tubulars](http://www.voestalpine.com/tubulars)

# PERFORMANCE PROPERTIES CASING

(METRIC UNITS)

PIPE OUTSIDE DIAMETER		NOMINAL WEIGHT		WALL THICKNESS		GRADE 110			GRADE 125		
						P <sub>i</sub>	P <sub>c</sub>	S <sub>y</sub>	P <sub>i</sub>	P <sub>c</sub>	S <sub>y</sub>
inch	mm	lb/ft	kg/m	inch	mm	MPa			MPa		
5½	139.70	23.00	33.68	0.415	10.54	100.10	100.20	2440	113.80	110.80	2780

P<sub>i</sub> ... internal yield pressure  
P<sub>c</sub> ... collapse resistance  
S<sub>y</sub> ... joint yield strength

Performance properties for proprietary and other grades on request.  
For further details please check the datasheet generator.

(US CUSTOMARY-UNITS)

PIPE OUTSIDE DIAMETER		NOMINAL WEIGHT		WALL THICKNESS		GRADE 110			GRADE 125		
						P <sub>i</sub>	P <sub>c</sub>	S <sub>y</sub>	P <sub>i</sub>	P <sub>c</sub>	S <sub>y</sub>
inch	mm	lb/ft	kg/m	inch	mm	psi			psi		
5½	139.70	23.00	33.68	0.415	10.54	14520	14540	549	16510	16070	624

P<sub>i</sub> ... internal yield pressure  
P<sub>c</sub> ... collapse resistance  
S<sub>y</sub> ... joint yield strength

Performance properties for proprietary and other grades on request.  
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# MAKE-UP TORQUE

## RECOMMENDED OPTIMUM MAKE-UP TORQUE

PIPE OUTSIDE DIAMETER		NOMINAL WEIGHT		WALL THICKNESS		GRADE 110		GRADE 125	
inch	mm	lb/ft	kg/m	inch	mm	Nm	ft.lb	Nm	ft.lb
5½	139.70	23.00	33.68	0.415	10.54	28000	20700	32000	23600

This table shows the values at printing date of this brochure.  
Actual values available in the Datasheet Generator on our website or in the myTubulars App.

Recommended make-up torque using a thread compound with a friction factor of 1.0.

Maximum make-up torque: optimum + 10 %.  
Minimum make-up torque: optimum – 10 %.

In addition to torque, positional make-up is also an important part of the acceptance criteria for make-up.  
Further details are available in the running procedures in the download area of our website [www.voestalpine.com/tubulars](http://www.voestalpine.com/tubulars) and in the myTubulars App.

# YIELD TORQUE

## RECOMMENDED YIELD TORQUE FOR REGULAR COUPLINGS

PIPE OUTSIDE DIAMETER		NOMINAL WEIGHT		WALL THICKNESS		GRADE 110		GRADE 125	
inch	mm	lb/ft	kg/m	inch	mm	Nm	ft.lb	Nm	ft.lb
5½	139.70	23.00	34.38	0.415	10.54	30800	22700	35000	25800

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# SERVICES



myTubulars

## **myTubulars APP** **PRODUCT DATASHEETS,** **FIELD SERVICE AND LICENSEES**

Generate datasheets and load envelopes containing dimension and performance data for products provided by voestalpine Tubulars with our Datasheet Generator. You can quickly and easily check the product application against field requirements in advance also on your tablet or smartphone by using the myTubulars App.

myTubulars is available for all iOS and Android devices for free in the App stores.

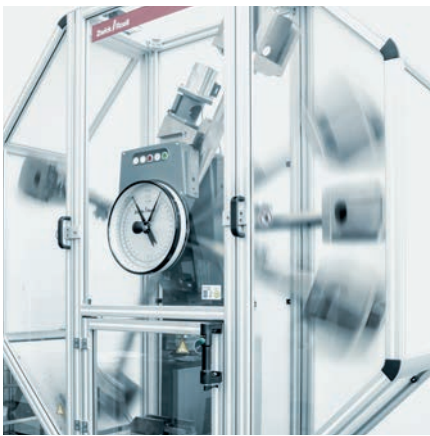
## **GET THE APP!**



Field Service during the installation can be provided upon request. Please visit the Customer Service site on our website [www.voestalpine.com/tubulars](http://www.voestalpine.com/tubulars)

# WHY voestalpine Tubulars?

Support from material and product selection, in-house material and product development, to final product and installation consulting from one source.



PRODUCT DEVELOPMENT



CONNECTION DEVELOPMENT



MATERIAL DEVELOPMENT



PROCESS DEVELOPMENT



TAILOR-MADE SOLUTIONS



FIELD SERVICE

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**voestalpine**

ONE STEP AHEAD.