

# Wedge 563™

2 3/8" TO 13 5/8"



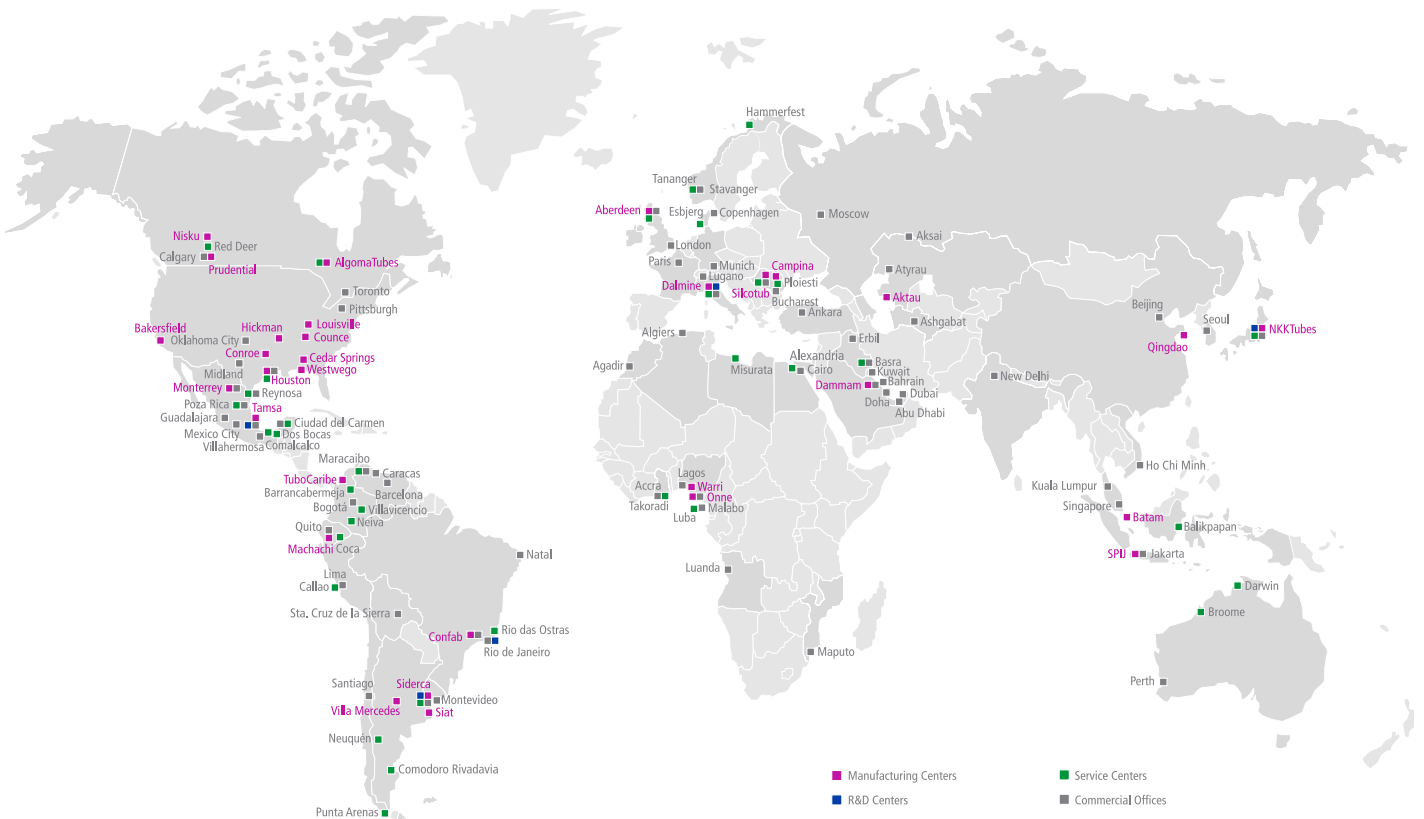


# TenarisHydril

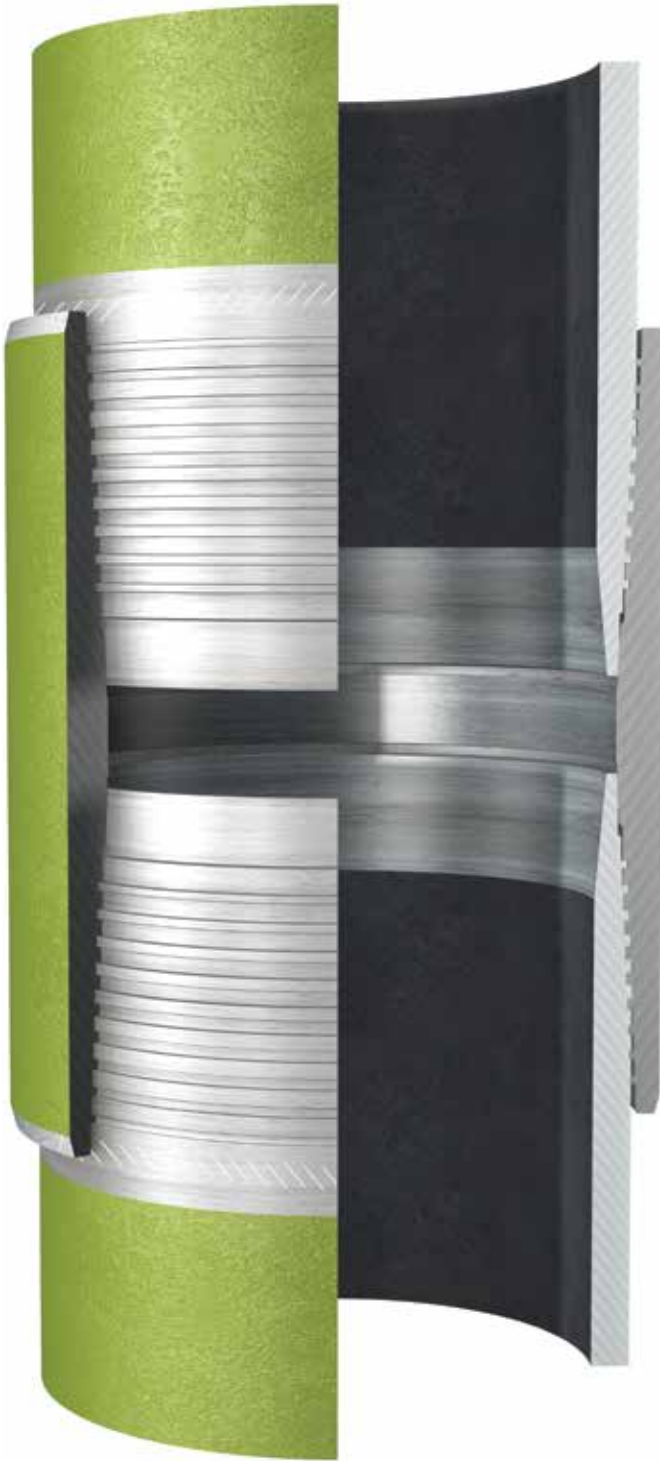
TenarisHydril offers outstanding premium connection design and technology worldwide. With a comprehensive range of high performance products backed by an extensive global field service network and licensed threading shops, we develop solutions to meet the needs of ever more demanding E&P environments.

TenarisHydril premium connections are supplied and supported by Tenaris, the leading manufacturer and supplier of steel tubes and integrated tubular services to the world's energy industry.

For further information please visit our website at [www.tenaris.com](http://www.tenaris.com).



# Wedge 563™ Casing main attributes



## SIZE AVAILABILITY

5" TO 13 5/8"

## FEATURES

- 100% ratings in tension and compression provided by the dovetail threads.
- 100% collapse rated thread seal created by full form contact of the dovetail threads.
- Wedge 563™ is interchangeable with Wedge 533™ and Wedge 553™.

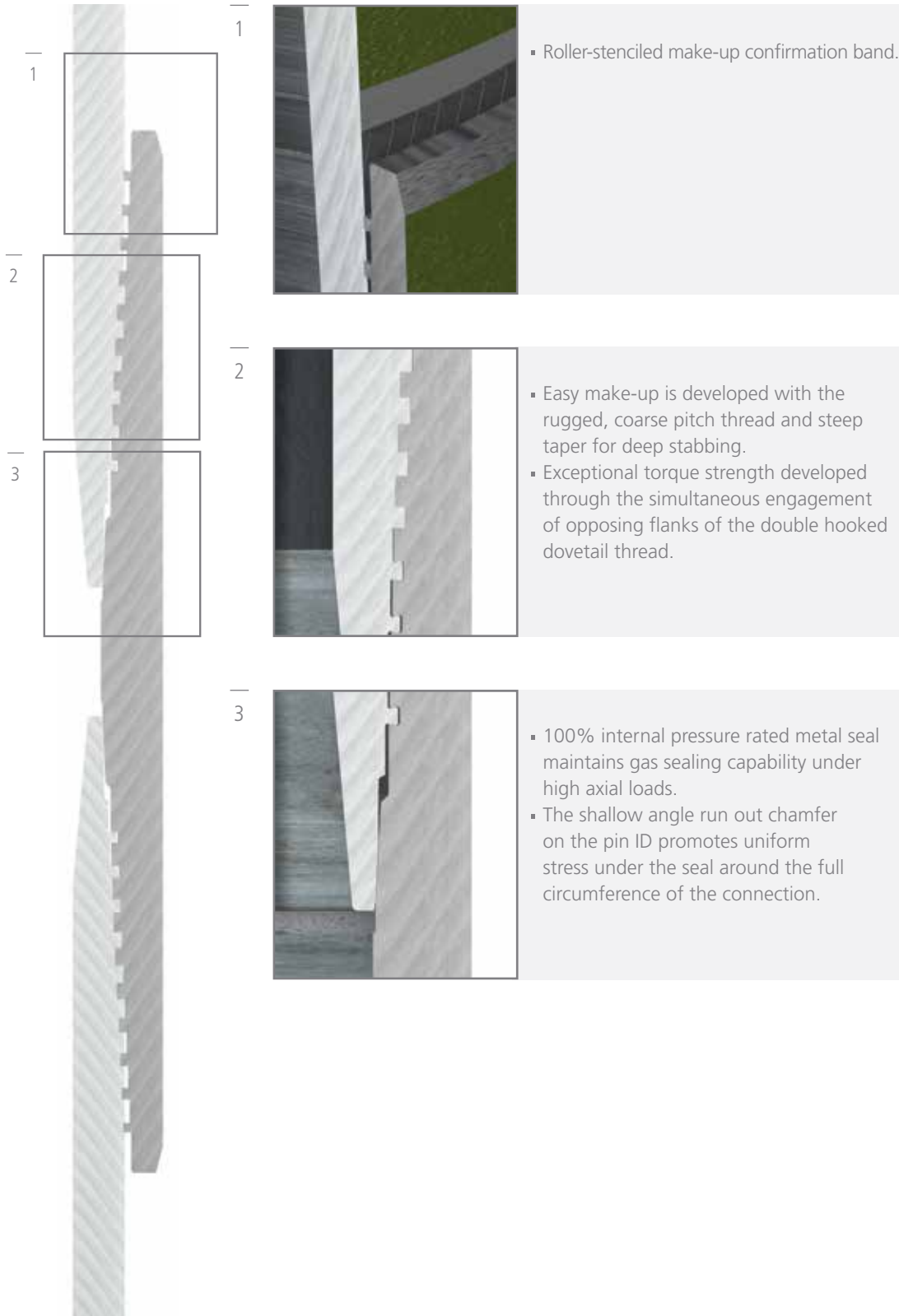
## APPLICATIONS

- HP/HT & Deep Wells
- Deep Water
- Shallow Water
- Casing while Drilling
- Workstring
- Horizontal & extended reach wells
- Shales
- Thermal (SAGD & CSS)
- Corrosion protection & ID coating
- Intermediate casing
- Production casing, tie-backs & liners
- Tubing

## OPTIONS

- Dopeless® technology
- Matched strength
- Recess free bore (RFB)
- CB® ring

# Key features



# Wedge 563™ Tubing main attributes



## SIZE AVAILABILITY

2 3/8" TO 7" (\*)

## FEATURES

- 100% ratings in tension and compression provided by the dovetail threads.
- 100% collapse rated thread seal created by full form contact of the dovetail threads.
- Wedge 563™ is interchangeable with Wedge 533™ and Wedge 553™.

## APPLICATIONS

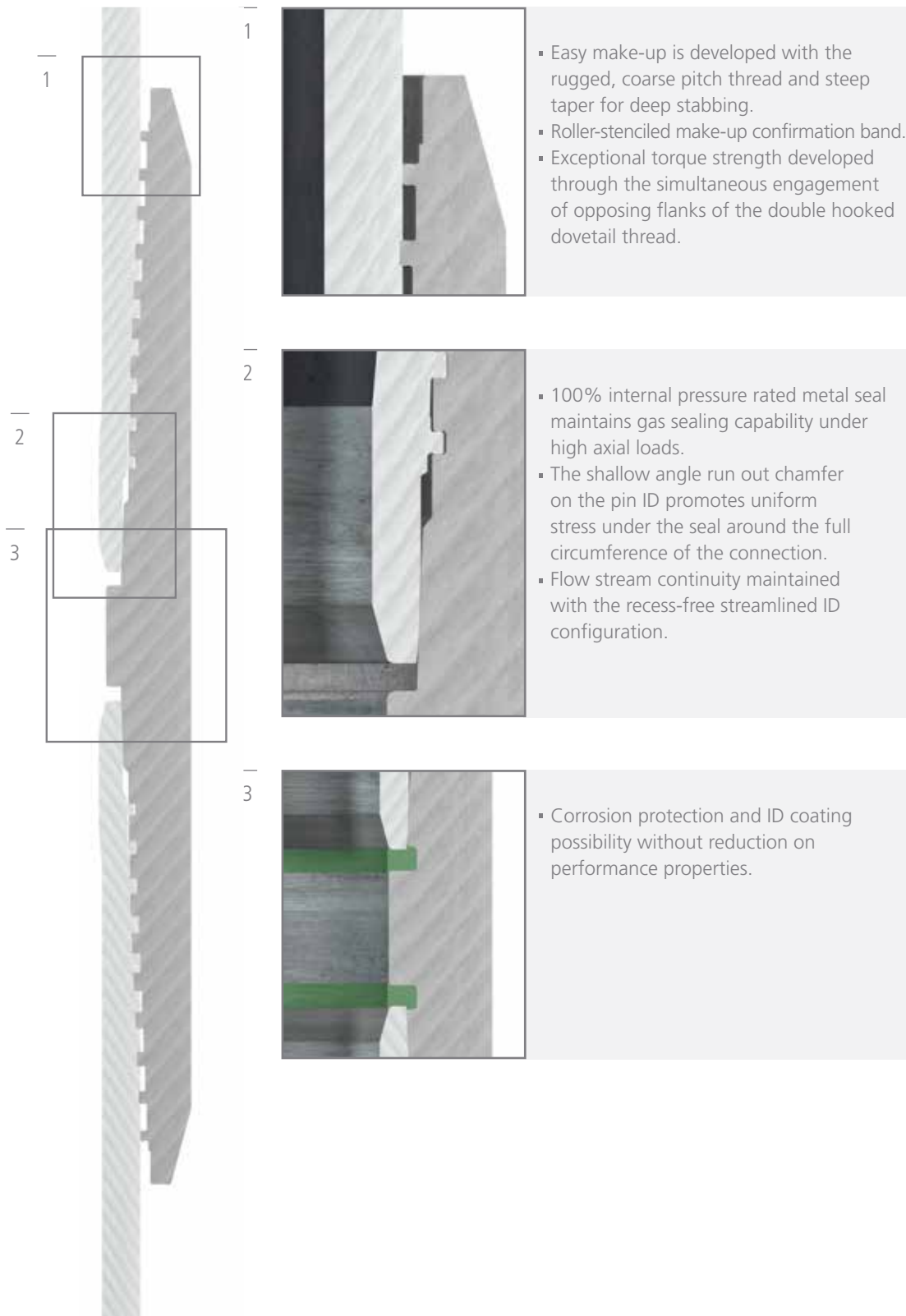
- Workstring
- Corrosion protection & ID coating
- Production tubing

## OPTIONS

- Dopeless® technology
- Matched strength
- CB® ring

(\*) Sizes 2 3/8" to 4 1/2" have a Recess-Free Bore coupling (RFB option) as standard. Sizes 5" to 7" must be specified as RFB option if a Recess-Free Bore coupling is required.

# Key features



# Performance characteristics

The high performance and reliability of the Wedge 563™ design is field-proven and backed by more than 25 years of history, becoming a standard part on many worldwide operations.

## SUPERIOR TORQUE

Torque resistance and capability provide a greater safety margin against unpredictable down-hole torque.

This large safety margin can be seen in a normal torque versus turns make-up graph for this connection. Beyond the normal make-up

torque window, an additional torque capacity is given by the Operating torque value and further apart looms the Yield Torque.

## BENDING

The connection's bending capabilities depend on tension or compression capacity, whichever is less robust. Bending loads produce axial tensile and compressive stresses on opposite sides of the connection. For TenarisHydril Wedge 563™ connections, the bending efficiency is equal to tensile efficiency: 100% of the pipe body for most

### MAKE UP TORQUE VALUES:

Indicate the **minimum** and **maximum** required torque which should be applied to the connection for correct assembly, midway between minimum and maximum should attain, an **optimum** torque.

### OPERATING TORQUE:

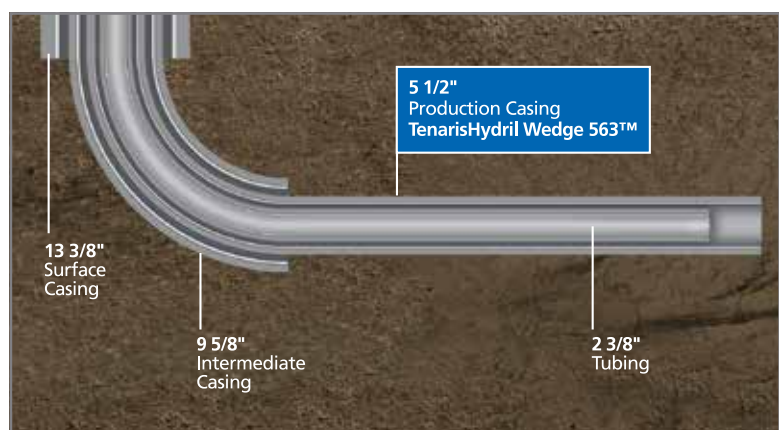
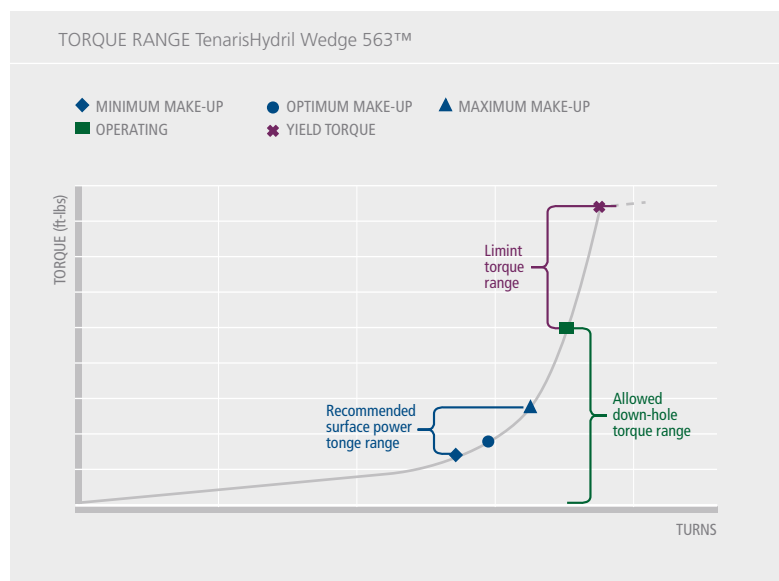
Indicates the maximum torque which can in certain circumstances be applied to the connection down hole.

### YIELD TORQUE:

Indicates the torque at which damage will be inflicted to the connection and should never be approached.

### SHALES APPLICATION

Wedge 563™ connections ensure reliability and operational efficiency in shale operations.





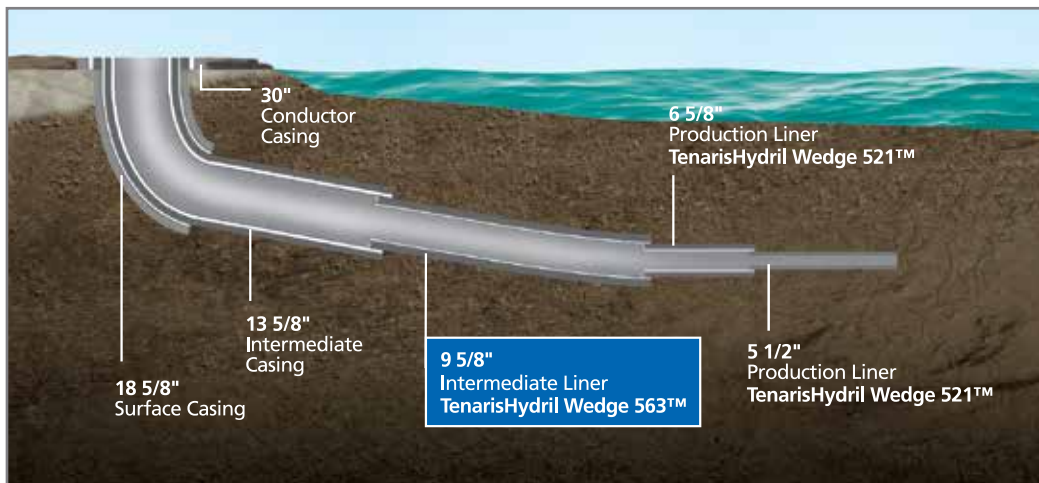
sizes (higher than 95% of the pipe body in all cases).

This benefit is appreciated by operators in shale applications, where ample bending capabilities are required for wells where trajectories with high dogleg severity impose tension and compression stresses onto the tubulars.

#### COMPRESSION

TenarisHydril Wedge 563™ connections offer 100% ratings in tension and in compression, provided by full contact of the dovetail threads.

Such performance under compression is needed when facing demanding horizontal and extended reach wells, where the long laterals require sufficient compression capacity to reach TD successfully, especially when the tubulars are pushed, bent and rotated into place.



**HORIZONTAL AND EXTENDED REACH WELLS APPLICATION:** TenarisHydril Wedge 563™ connections provide the bending and compression capabilities required for horizontal and extended reach well applications - as in this well with a horizontal record displacement (longer than 41500 ft.) in the Russian Federation.

# Thread design

## DOVETAILED-WEDGE THREAD

This design creates the largest possible contact surface area at make-up to provide superior compression and several times the torque strength of most competing technologies. The negative angles of load and stab flanks form a dovetail which mechanically locks the pin and box together. The dovetail and the large thread surface contact area create a more rigid connection, resisting internal movement when subjected to very high bending and compressive loads. Movement after full thread contact is minimized thus reducing the chances for galling. The connection's coarse-pitch threads with parallel crests minimize cross-threading risks.

## CORROSION BARRIER AND RECESS-FREE BORE

When the corrosion barrier (CB<sup>®</sup>) connection option is required for high velocity flow, or

to keep continuity on internally-coated pipes, the TenarisHydril Wedge 563<sup>™</sup> design is the best solution.

This feature is achieved without reducing any performance of the standard connection.

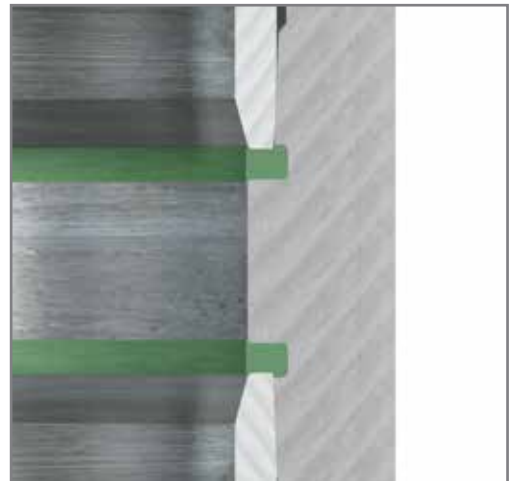
TenarisHydril Wedge 563<sup>™</sup> requires almost no modifications to allocate a CB<sup>®</sup> ring. Using the RFB option, a special groove is allocated at the pin final position without modifying any of the connection performances like compression and bending rating or torque capacity.

This option generates a complete internal flush profile and provides continuity between pipe and coupling on internal coated tubulars.

— TenarisHydril Wedge 563<sup>™</sup> design has a progressive thread width as it moves helically around the pipe.

### CB<sup>®</sup> RING

— TenarisHydril Wedge 563<sup>™</sup> with CB<sup>®</sup> ring provides a solution for continuity without sacrificing performance.

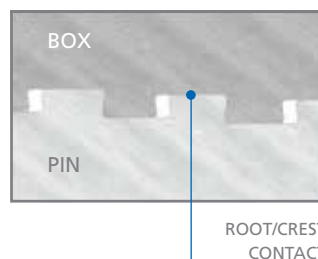


— The dovetail profile helps to mechanically lock the pin and box together, creating a more rigid connection.

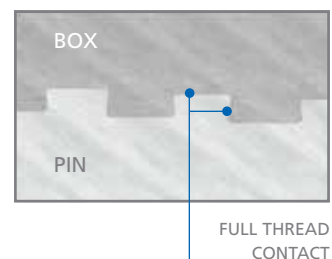
1. STAB



2. HAND-TIGHT



3. POWER-TIGHT



# Technical data table for Wedge 563™ Tubing

# Technical data table - Tubing | 2 3/8" TO 5 1/2"

DESIGNATION		PIPE BODY			COUPLING		CONNECTION INSIDE DIAMETER	MAKE-UP LOSS	TENSILE EFFICIENCY
Size	Nominal Weight	Wall Thickness	Inside Diameter	Standard Drift Diameter	Outside Diameter	Length			
[in.]	[lb/ft]	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	%
<b>2 3/8</b>	4.60	0.190	1.995	1.901	2.875	8.250	1.945	3.640	95.1
	5.10	0.218	1.939	1.845	2.875	8.250	1.889	3.640	100
	5.80	0.254	1.867	1.773	2.875	8.250	1.817	3.640	100
	6.60	0.295	1.785	1.691	2.875	8.250	1.785	3.640	100
	7.35	0.336	1.703	1.609	2.875	8.250	1.703	3.640	100
<b>2 7/8</b>	6.40	0.217	2.441	2.347	3.500	8.250	2.391	3.640	100
	7.80	0.276	2.323	2.229	3.500	8.250	2.273	3.640	100
	8.60	0.308	2.259	2.165	3.500	8.250	2.259	3.640	100
	9.35	0.340	2.195	2.101	3.500	9.250	2.195	4.090	100
	10.50	0.392	2.091	1.997	3.500	9.250	2.091	4.090	100
	11.50	0.440	1.995	1.901	3.500	9.250	1.995	4.090	100
<b>3 1/2</b>	9.20	0.254	2.992	2.867	4.250	8.250	2.942	3.640	100
	10.20	0.289	2.922	2.797	4.250	8.250	2.872	3.640	100
	12.70	0.375	2.750	2.625	4.250	8.250	2.750	3.640	100
	14.30	0.430	2.640	2.515	4.250	10.000	2.640	4.490	100
	15.50	0.476	2.548	2.423	4.250	10.000	2.548	4.490	100
	16.70	0.510	2.480	2.355	4.250	10.000	2.480	4.490	100
	17.00	0.530	2.440	2.315	4.250	10.000	2.440	4.490	100
<b>4</b>	11.00	0.262	3.476	3.351	4.750	8.250	3.426	3.640	100
	11.60	0.286	3.428	3.303	4.750	8.250	3.378	3.640	100
	13.20	0.330	3.340	3.215	4.750	8.250	3.340	3.640	100
	14.80	0.380	3.240	3.115	4.750	9.250	3.240	4.090	100
	16.10	0.415	3.170	3.045	4.750	9.250	3.170	4.090	100
	18.90	0.500	3.000	2.875	4.750	11.500	3.000	5.280	100
	21.10	0.562	2.876	2.751	4.750	11.500	2.876	5.280	100
	22.20	0.610	2.780	2.655	4.750	11.500	2.780	5.280	100
<b>4 1/2</b>	11.60	0.250	4.000	3.875	5.200	8.250	3.950	3.640	100
	12.60	0.271	3.958	3.833	5.200	8.250	3.908	3.640	100
	13.50	0.290	3.920	3.795	5.200	8.250	3.870	3.640	100
	15.20	0.337	3.826	3.701	5.200	9.250	3.826	4.090	100
	16.60	0.375	3.750	3.625	5.200	9.250	3.750	4.090	100
	17.00	0.380	3.740	3.615	5.200	9.250	3.740	4.090	100
	18.90	0.430	3.640	3.515	5.200	9.250	3.640	4.090	100
	21.50	0.500	3.500	3.375	5.200	11.500	3.500	5.280	100
	23.70	0.560	3.380	3.255	5.200	11.500	3.380	5.280	100
26.10	0.630	3.240	3.115	5.300	11.500	3.240	5.280	100	
<b>5</b>	15.00	0.296	4.408	4.283	5.563	9.250	4.358	3.990	100
	18.00	0.362	4.276	4.151	5.563	9.250	4.276	3.990	100
	21.40	0.437	4.126	4.001	5.750	12.000	4.076	5.360	95.9
	23.20	0.478	4.044	3.919	5.750	12.000	4.044	5.360	100
	24.10	0.500	4.000	3.875	5.750	12.000	4.000	5.360	100
<b>5 1/2</b>	15.50	0.275	4.950	4.825	6.050	9.250	4.900	3.990	100
	17.00	0.304	4.892	4.767	6.050	9.250	4.842	3.990	100
	20.00	0.361	4.778	4.653	6.050	9.250	4.778	3.990	100
	23.00	0.415	4.670	4.545	6.050	9.250	4.670	3.990	100
	26.00	0.476	4.548	4.423	6.125	9.750	4.498	4.300	100
	26.80	0.500	4.500	4.375	6.125	9.750	4.450	4.300	100
	28.40	0.530	4.440	4.315	6.125	9.750	4.390	4.300	100
	29.70	0.562	4.376	4.251	6.250	11.250	4.326	5.060	100
	32.60	0.625	4.250	4.125	6.250	11.250	4.250	5.060	100

- Drift diameter displayed are standard. Items marked with \* will pass popular oversize drift (Special Drift).
- ] Interchangeable when bracketed. For make-up torque information, refer to TenarisHydril Running Manual.
- Torque recommendation values available at [www.tenaris.com](http://www.tenaris.com)
- For the MS option, the coupling OD is reduced to the minimum critical area capable of providing the same tensile efficiency as the standard option.

## OPTIONS

COMPRESSION EFFICIENCY	JOINT YIELD STRENGTH						MATCHED STRENGTH
	55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	Outside Diameter
%	x 1000 [lb]						[in.]
100	68	99	112	118	136	155	2.657
100	81	118	133	140	163	185	2.685
100	93	135	152	161	186	212	2.737
100	106	154	174	183	212	241	2.793
100	118	172	194	205	237	269	2.845
100	100	145	163	172	199	227	3.192
100	124	180	203	214	248	282	3.282
100	137	199	224	236	273	311	3.328
100	149	217	244	257	298	339	3.337
100	168	245	275	291	336	382	3.405
100	185	269	303	320	370	421	3.464
100	143	207	233	246	285	324	3.886
100	160	233	262	277	321	364	3.941
100	203	295	331	350	405	460	4.067
100	228	332	373	394	456	518	4.100
100	249	362	407	430	497	565	4.160
100	264	383	431	455	527	599	4.202
100	272	396	445	470	544	618	—
100	169	246	277	292	338	385	4.406
100	184	267	300	317	367	417	4.444
100	209	304	342	362	419	476	4.513
100	238	346	389	411	475	540	4.548
100	257	374	421	444	514	584	4.599
100	302	440	495	522	605	687	4.598
100	334	486	546	577	668	759	4.679
100	357	520	585	617	715	812	—
100	184	267	300	317	367	417	4.891
100	198	288	324	342	396	450	4.926
100	211	307	345	364	422	479	4.958
100	242	353	397	419	485	551	4.992
100	267	389	437	462	535	608	5.051
100	271	394	443	467	541	615	5.058
100	302	440	495	522	605	687	5.133
100	346	503	566	597	691	785	5.114
100	381	555	624	659	763	867	—
100	421	613	689	728	843	957	—
100	241	350	394	416	481	547	5.404
100	290	422	475	501	580	659	—
100	331	480	541	571	661	751	5.507
100	373	543	611	645	747	849	5.568
100	389	565	636	672	778	884	5.600
100	248	361	406	429	497	564	5.873
100	273	397	447	471	546	620	5.921
100	321	466	525	554	641	729	—
100	365	530	597	630	729	829	—
100	413	601	676	714	826	939	6.057
100	432	628	707	746	864	982	—
100	455	662	745	786	910	1034	—
100	480	697	785	828	959	1090	6.085
100	526	766	861	909	1053	1197	6.174



COMPRESSION EFFICIENCY	JOINT YIELD STRENGTH						MATCHED STRENGTH
	55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	Outside Diameter
%	x 1000 [lb]						[in.]
100	382	555	624	659	763	867	7.121
100	447	651	732	773	895	1017	7.227
100	505	734	826	872	1010	1147	—
100	366	532	599	632	732	832	7.449
100	415	604	679	717	830	944	7.525
100	465	676	760	803	929	1056	—
100	512	745	839	885	1025	1165	—
100	559	814	916	966	1119	1272	7.557
100	603	877	986	1041	1206	1370	7.623
100	653	950	1069	1129	1307	1485	—
100	688	1001	1127	1189	1377	1565	—





# Technical data table for Wedge 563™ Casing

# Technical data table - Casing | 5" TO 8 5/8"

DESIGNATION		PIPE BODY			COUPLING		CONNECTION INSIDE DIAMETER	MAKE-UP LOSS	TENSILE EFFICIENCY	
Size	Nominal Weight	Wall Thickness	Inside Diameter	Standard Drift Diameter	Outside Diameter	Length				
[in.]	[lb/ft]	[in.]	[in.]	[in.]	[in.]	[in.]	[in.]	%		
<b>5</b>	13.00	] [	0.253	4.494	4.369	5.563	9.250	4.444	3.990	95.8
	15.00		0.296	4.408	4.283	5.563	9.250	4.358	3.990	100
	18.00		0.362	4.276	4.151	5.563	9.250	4.276	3.990	100
	21.40		0.437	4.126	4.001	5.750	12.000	4.076	5.360	95.9
	23.20		0.478	4.044	3.919	5.750	12.000	4.044	5.360	100
	24.10		0.500	4.000	3.875	5.750	12.000	4.000	5.360	100
	26.70		0.562	3.876	3.751	5.750	12.000	3.876	5.360	100
<b>5 1/2</b>	14.00	] [	0.244	5.012	4.887	6.050	9.250	4.962	3.990	95.4
	15.50		0.275	4.950	4.825	6.050	9.250	4.900	3.990	100
	17.00		0.304	4.892	4.767	6.050	9.250	4.842	3.990	100
	20.00		0.361	4.778	4.653	6.050	9.250	4.778	3.990	100
	23.00		0.415	4.670	4.545	6.050	9.250	4.670	3.990	100
	26.00		0.476	4.548	4.423	6.125	9.750	4.498	4.300	100
	26.80		0.500	4.500	4.375	6.125	9.750	4.450	4.300	100
	28.40		0.530	4.440	4.315	6.125	9.750	4.390	4.300	100
	29.70		0.562	4.376	4.251	6.250	11.250	4.326	5.060	100
	32.60		0.625	4.250	4.125	6.250	11.250	4.250	5.060	100
	<b>6 5/8</b>		20.00	] [	0.288	6.049	5.924	7.390	9.250	5.999
24.00		0.352	5.921		5.796	7.390	9.250	5.871	4.050	100
28.00		0.417	5.791		5.666	7.390	9.250	5.791	4.050	100
32.00		0.475	5.675		5.550	7.390	9.250	5.675	4.050	100
<b>7</b>	20.00	] [	0.272	6.456	6.331	7.656	9.250	6.406	4.050	95.0
	23.00		0.317	6.366	6.241 *	7.656	9.250	6.316	4.050	100
	26.00		0.362	6.276	6.151	7.656	9.250	6.226	4.050	100
	29.00		0.408	6.184	6.059 *	7.656	9.250	6.184	4.050	100
	32.00		0.453	6.094	5.969	7.656	9.250	6.094	4.050	100
	35.00		0.498	6.004	5.879	7.750	11.250	5.954	5.060	100
	38.00		0.540	5.920	5.795	7.750	11.250	5.870	5.060	100
	41.00		0.590	5.820	5.695	7.750	11.250	5.820	5.060	100
	42.70		0.625	5.750	5.625	7.750	11.250	5.750	5.060	100
<b>7 5/8</b>	26.40	] [	0.328	6.969	6.844	8.500	9.250	6.919	4.050	100
	29.70		0.375	6.875	6.750	8.500	9.250	6.875	4.050	100
	33.70		0.430	6.765	6.640	8.500	9.250	6.765	4.050	100
	39.00		0.500	6.625	6.500	8.500	11.250	6.575	5.060	100
	42.80		0.562	6.501	6.376	8.500	11.250	6.501	5.060	100
	45.30		0.595	6.435	6.310	8.500	11.250	6.435	5.060	100
	47.10		0.625	6.375	6.250	8.500	11.250	6.375	5.060	100
	51.20		0.687	6.251	6.126	8.500	13.500	6.251	6.170	95.7
	52.80		0.712	6.201	6.076	8.500	13.500	6.201	6.170	100
	55.30		0.750	6.125	6.000 *	8.500	13.500	6.125	6.170	100
<b>7 3/4</b>	46.10	] [	0.595	6.560	6.435	8.500	11.500	6.560	5.190	100
	48.60		0.640	6.470	6.345 *	8.500	11.500	6.470	5.190	100
<b>8 5/8</b>	32.00	] [	0.352	7.921	7.796	9.625	9.250	7.933	4.050	100
	36.00		0.400	7.825	7.700 *	9.625	9.250	7.825	4.050	100
	40.00		0.450	7.725	7.600	9.625	9.250	7.725	4.050	100
	44.00		0.500	7.625	7.500	9.625	11.250	7.575	5.060	100
	49.00		0.557	7.511	7.386	9.625	11.250	7.511	5.060	100
	52.00		0.595	7.435	7.310	9.625	11.250	7.435	5.060	100
	54.00		0.625	7.375	7.250	9.625	11.250	7.375	5.060	100
	59.60		0.700	7.225	7.100	9.625	13.500	7.225	6.180	100
	61.10		0.719	7.187	7.062	9.625	13.500	7.187	6.180	100
	63.50		0.750	7.125	7.000	9.625	13.500	7.125	6.180	100
	68.10		0.812	7.001	6.876	9.625	13.500	7.001	6.180	100

- Drift diameter displayed are standard. Items marked with \* will pass popular oversize drift (Special Drift).
- ] [ Interchangeable when bracketed. For make-up torque information, refer to TenarisHydril Running Manual.
- Torque recommendation values available at [www.tenaris.com](http://www.tenaris.com)
- For the MS option, the coupling OD is reduced to the minimum critical area capable of providing the same tensile efficiency as the standard option.

## OPTIONS

COMPRESSION EFFICIENCY	JOINT YIELD STRENGTH						MATCHED STRENGTH
	55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	Outside Diameter [in.]
%	x 1000 [lb]						
100	199	289	326	343	398	452	5.332
100	241	350	394	416	481	547	5.404
100	290	422	475	501	580	659	—
100	331	480	541	571	661	751	5.507
100	373	543	611	645	747	849	5.568
100	389	565	636	672	778	884	5.600
100	431	627	705	744	862	979	5.686
100	212	307	346	365	423	481	5.820
100	248	361	406	429	497	564	5.873
100	273	397	447	471	546	620	5.921
100	321	466	525	554	641	729	—
100	365	530	597	630	729	829	—
100	413	601	676	714	826	939	6.057
100	432	628	707	746	864	982	—
100	455	662	745	786	910	1034	—
100	480	697	785	828	959	1090	6.085
100	526	766	861	909	1053	1197	6.174
100	301	439	494	522	604	686	7.012
100	382	555	624	659	763	867	7.121
100	447	651	732	773	895	1017	7.227
100	505	734	826	872	1010	1147	—
100	300	437	491	519	600	683	7.371
100	366	532	599	632	732	832	7.449
100	415	604	679	717	830	944	7.525
100	465	676	760	803	929	1056	—
100	512	745	839	885	1025	1165	—
100	559	814	916	966	1119	1272	7.557
100	603	877	986	1041	1206	1370	7.623
100	653	950	1069	1129	1307	1485	—
100	688	1001	1127	1189	1377	1565	—
100	414	602	677	714	827	940	8.097
100	470	683	769	811	940	1068	8.177
100	535	778	875	923	1069	1215	8.268
100	616	895	1007	1063	1231	1399	8.216
100	686	998	1122	1185	1372	1559	8.315
100	723	1051	1183	1248	1445	1643	8.366
100	756	1100	1237	1306	1512	1718	8.412
100	789	1146	1290	1362	1576	1792	8.336
100	850	1237	1392	1469	1701	1933	8.373
100	891	1296	1458	1539	1782	2025	—
100	736	1070	1204	1271	1471	1672	8.413
100	786	1144	1287	1358	1573	1787	—
100	503	732	823	869	1006	1144	9.143
100	568	827	930	982	1137	1292	9.225
100	636	925	1040	1098	1271	1445	9.309
100	702	1021	1149	1212	1404	1595	9.226
100	776	1129	1271	1341	1553	1765	9.319
100	826	1201	1351	1426	1651	1876	9.379
100	864	1257	1414	1492	1728	1964	9.427
100	959	1394	1569	1656	1917	2179	9.364
100	982	1429	1607	1697	1964	2232	9.393
100	1021	1484	1670	1763	2041	2319	9.440
100	1096	1594	1794	1893	2192	2491	—



## OPTIONS

COMPRESSION EFFICIENCY	JOINT YIELD STRENGTH						MATCHED STRENGTH
	55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	Outside Diameter
%	x 1000 [lb]						[in.]
100	564	820	923	974	1128	1282	10.147
100	630	916	1031	1088	1260	1432	10.222
100	691	1005	1130	1193	1381	1570	10.291
100	746	1086	1222	1289	1493	1697	10.353
100	855	1244	1399	1477	1710	1943	10.474
100	928	1350	1519	1604	1857	2110	10.380
100	949	1380	1552	1639	1897	2156	10.403
100	972	1414	1590	1679	1944	2209	10.428
100	999	1453	1635	1725	1998	2270	—
100	988	1438	1617	1708	1977	2247	—
100	629	915	1029	1086	1258	1429	11.288
100	715	1040	1171	1236	1431	1626	11.376
100	801	1165	1311	1383	1602	1820	11.463
100	877	1276	1435	1515	1754	1993	11.380
100	961	1398	1573	1660	1922	2184	11.465
100	1044	1519	1708	1803	2088	2373	11.549
100	1170	1702	1915	2021	2340	2660	11.630
100	1270	1848	2079	2194	2541	2887	—
100	737	1072	1206	1273	1474	1675	12.299
100	850	1237	1392	1469	1701	1933	12.406
100	951	1384	1557	1643	1903	2162	12.401
100	1035	1505	1693	1788	2070	2352	12.479
100	1123	1634	1838	1940	2246	2552	12.560
100	1189	1729	1945	2053	2377	2702	12.621
100	1257	1829	2058	2172	2515	2858	—
100	1136	1652	1858	1962	2271	2581	—
100	853	1241	1396	1474	1706	1939	13.923
100	962	1399	1574	1661	1924	2186	14.013
100	1069	1556	1750	1847	2139	2431	14.102
100	1142	1661	1869	1973	2284	2596	14.162
100	1219	1773	1994	2105	2438	2770	14.090
100	1282	1865	2098	2215	2565	2914	14.142
100	1341	1951	2195	2317	2682	3048	14.190
100	1377	2003	2253	2378	2754	3129	14.219
100	1232	1791	2015	2126	2463	2799	—
100	1404	2042	2297	2425	2808	3191	14.470



# Torque table for Wedge 563™ Tubing

# Torque table - Tubing | 2 3/8" TO 6 5/8"

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	MAKE UP TORQUE							
			Minimum	Optimum	Maximum (BY SMYS OF STEEL GRADE)					
					55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
[in.]	[lb/ft]	[in.]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]
<b>2 3/8</b>	4.60	0.190	1300	1600	—	2100	2300	2300	2300	2300
	5.10	0.218	1500	1800	—	2100	2400	2500	2600	2600
	5.80	0.254	1700	2000	—	2100	2400	2500	3000	3000
	6.60	0.295	1900	2300	—	—	2400	2500	3000	3300
	7.35	0.336	2200	2600	—	—	—	—	3000	3400
<b>2 7/8</b>	6.40	0.217	1600	1900	2200	2800	2800	2800	2800	2800
	7.80	0.276	2000	2400	—	3200	3500	3500	3500	3500
	8.60	0.308	2100	2500	—	3200	3600	3700	3700	3700
	9.35	0.34	3500	4200	—	4800	5500	5700	6100	6100
	10.50	0.392	4000	4800	—	4800	5500	5700	6700	7000
	11.50	0.44	4500	5400	—	—	5500	5700	6700	7500
<b>3 1/2</b>	9.20	0.254	2400	2900	3300	4200	4200	4200	4200	4200
	10.20	0.289	2700	3200	3300	4700	4700	4700	4700	4700
	12.70	0.375	3300	4000	—	4700	5300	5600	5800	5800
	14.30	0.430	6000	7200	—	7700	8700	9200	10500	10500
	15.50	0.476	6600	7900	—	—	8700	9200	10700	11600
	16.70	0.51	7000	8400	—	—	8700	9200	10700	12100
	17.00	0.53	7400	8900	—	—	—	9200	10700	12100
<b>4</b>	11.00	0.262	2800	3400	4300	4900	4900	4900	4900	4900
	11.60	0.286	3100	3700	4300	5400	5400	5400	5400	5400
	13.20	0.33	3400	4100	4300	6000	6000	6000	6000	6000
	14.80	0.38	5500	6600	6600	9600	9600	9600	9600	9600
	16.10	0.415	6000	7200	—	9600	10500	10500	10500	10500
	18.90	0.5	9100	10900	—	12700	14700	15300	15900	15900
	21.10	0.562	10300	12400	—	12700	14700	15300	17300	18000
	22.20	0.61	11300	13600	—	—	14700	15300	17300	19800
	<b>4 1/2</b>	11.60	0.25	3000	3600	5300	5300	5300	5300	5300
12.60		0.271	3200	3800	5400	5600	5600	5600	5600	5600
13.50		0.290	3500	4200	5400	6100	6100	6100	6100	6100
15.20		0.337	5100	6100	8500	8900	8900	8900	8900	8900
16.60		0.375	5700	6800	8500	10000	10000	10000	10000	10000
17.00		0.38	5800	7000	8500	10200	10200	10200	10200	10200
18.90		0.430	6600	7900	8500	11600	11600	11600	11600	11600
21.50		0.5	10200	12200	—	16000	17900	17900	17900	17900
23.70		0.56	11500	13800	—	16000	18700	19300	20000	20000
26.10		0.63	13000	15600	—	16000	18700	19300	23000	23000
<b>5</b>	15.00	0.296	5500	6600	8200	9600	9600	9600	9600	9600
	18.00	0.362	6500	7800	8200	11400	11400	11400	11400	11400
	21.40	0.437	13900	16700	—	18700	21000	22000	24000	24000
	23.20	0.478	14500	17400	—	18700	21000	22000	25000	25000
	24.10	0.5	15000	18000	—	18700	21000	22000	26000	26000
<b>5 1/2</b>	15.50	0.275	5200	6200	9100	9100	9100	9100	9100	9100
	17.00	0.304	5800	7000	9900	10200	10200	10200	10200	10200
	20.00	0.361	6600	7900	9900	11600	11600	11600	11600	11600
	23.00	0.415	7700	9200	9900	13500	13500	13500	13500	13500
	26.00	0.476	11000	13200	—	18000	19300	19300	19300	19300
	26.80	0.5	12000	14400	—	18000	20000	21000	21000	21000
	28.40	0.53	12500	15000	—	18000	20000	21000	22000	22000
	29.70	0.562	16100	19300	—	23000	26000	27000	28000	28000
	32.60	0.625	17600	21000	—	23000	26000	27000	31000	31000
	<b>6 5/8</b>	24.00	0.352	7500	9000	13100	13100	13100	13100	13100
28.00		0.417	8600	10300	15100	15100	15100	15100	15100	15100
32.00		0.475	9900	11900	16700	17300	17300	17300	17300	17300

- SMYS: Specified Minimum Yield Strength.
- For other unlisted combinations of dimension and SMYS please contact premiumconnections@tenaris.com



OPERATING TORQUE (BY SMYS OF STEEL GRADE)						YIELD TORQUE (BY SMYS OF STEEL GRADE)					
55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]
—	2100	2400	2500	3000	3400	2200	3200	3600	3800	4500	5100
—	2100	2400	2500	3000	3400	2200	3200	3600	3800	4500	5100
—	2100	2400	2500	3000	3400	—	3200	3600	3800	4500	5100
—	—	2400	2500	3000	3400	—	3200	3600	3800	4500	5100
—	—	—	—	3000	3400	—	3200	3600	3800	4500	5100
2200	3200	3600	3800	4400	5000	3300	4800	5400	5700	6600	7500
—	3200	3600	3800	4400	5000	3300	4800	5400	5700	6600	7500
—	3200	3600	3800	4400	5000	3300	4800	5400	5700	6600	7500
—	4800	5500	5700	6700	7500	5000	7200	8200	8600	10000	11300
—	4800	5500	5700	6700	7500	—	7200	8200	8600	10000	11300
—	—	5500	5700	6700	7500	—	7200	8200	8600	10000	11300
3300	4700	5300	5600	6500	7400	4900	7100	8000	8400	9800	11100
3300	4700	5300	5600	6500	7400	4900	7100	8000	8400	9800	11100
—	4700	5300	5600	6500	7400	4900	7100	8000	8400	9800	11100
—	7700	8700	9200	10700	12100	8000	11600	13100	13800	16000	18200
—	—	8700	9200	10700	12100	—	11600	13100	13800	16000	18200
—	—	8700	9200	10700	12100	—	11600	13100	13800	16000	18200
—	—	—	9200	10700	12100	—	11600	13100	13800	16000	18200
4300	6200	7000	7400	8500	9700	6400	9300	10500	11100	12800	14600
4300	6200	7000	7400	8500	9700	6400	9300	10500	11100	12800	14600
4300	6200	7000	7400	8500	9700	6400	9300	10500	11100	12800	14600
6600	9600	10900	11500	13300	15300	9900	14400	16300	17200	19900	23000
—	9600	10900	11500	13300	15300	9900	14400	16300	17200	19900	23000
—	12700	14700	15300	17300	20000	13200	19100	22000	23000	26000	30000
—	12700	14700	15300	17300	20000	—	19100	22000	23000	26000	30000
—	—	14700	15300	17300	20000	—	19100	22000	23000	26000	30000
5400	7900	8900	9400	10900	12300	8100	11900	13300	14100	16300	18500
5400	7900	8900	9400	10900	12300	8100	11900	13300	14100	16300	18500
5400	7900	8900	9400	10900	12300	8100	11900	13300	14100	16300	18500
8500	12300	14000	14700	16700	19300	12700	18500	21000	22000	25000	29000
8500	12300	14000	14700	16700	19300	12700	18500	21000	22000	25000	29000
8500	12300	14000	14700	16700	19300	12700	18500	21000	22000	25000	29000
—	16000	18700	19300	23000	25000	16800	24000	28000	29000	34000	38000
—	16000	18700	19300	23000	25000	16800	24000	28000	29000	34000	38000
—	16000	18700	19300	23000	25000	—	24000	28000	29000	34000	38000
8200	11900	13300	14000	16700	18700	12300	17900	20000	21000	25000	28000
8200	11900	13300	14000	16700	18700	12300	17900	20000	21000	25000	28000
—	18700	21000	22000	26000	29000	19400	28000	32000	33000	39000	44000
—	18700	21000	22000	26000	29000	19400	28000	32000	33000	39000	44000
—	18700	21000	22000	26000	29000	—	28000	32000	33000	39000	44000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
—	18000	20000	21000	25000	28000	18300	27000	30000	32000	37000	42000
—	18000	20000	21000	25000	28000	18300	27000	30000	32000	37000	42000
—	18000	20000	21000	25000	28000	18300	27000	30000	32000	37000	42000
—	23000	26000	27000	31000	36000	24000	34000	39000	41000	47000	54000
—	23000	26000	27000	31000	36000	24000	34000	39000	41000	47000	54000
16700	24000	27000	28000	33000	37000	25000	36000	40000	42000	49000	56000
16700	24000	27000	28000	33000	37000	25000	36000	40000	42000	49000	56000
16700	24000	27000	28000	33000	37000	25000	36000	40000	42000	49000	56000

## Torque table - Tubing | 7"

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	MAKE UP TORQUE							
			Minimum	Optimum	Maximum (BY SMYS OF STEEL GRADE)					
					55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
[in.]	[lb/ft]	[in.]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]
<b>7</b>	23.00	0.317	6700	8000	11700	11700	11700	11700	11700	11700
	26.00	0.362	7800	9400	13700	13700	13700	13700	13700	13700
	29.00	0.408	8400	10100	14700	14700	14700	14700	14700	14700
	32.00	0.453	9500	11400	16600	16600	16600	16600	16600	16600
	35.00	0.498	14800	17800	25000	26000	26000	26000	26000	26000
	38.00	0.54	16200	19400	25000	28000	28000	28000	28000	28000
	41.00	0.59	17300	21000	25000	30000	30000	30000	30000	30000
	42.70	0.625	18700	22000	25000	33000	33000	33000	33000	33000

- SMYS: Specified Minimum Yield Strength.
- For other unlisted combinations of dimension and SMYS please contact [premiumconnections@tenaris.com](mailto:premiumconnections@tenaris.com)

OPERATING TORQUE (BY SMYS OF STEEL GRADE)						YIELD TORQUE (BY SMYS OF STEEL GRADE)					
55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
25000	36000	41000	43000	50000	57000	37000	54000	61000	65000	75000	85000
25000	36000	41000	43000	50000	57000	37000	54000	61000	65000	75000	85000
25000	36000	41000	43000	50000	57000	37000	54000	61000	65000	75000	85000
25000	36000	41000	43000	50000	57000	37000	54000	61000	65000	75000	85000



# Torque table for Wedge 563™ Casing

# Torque table - Casing | 5" TO 8 5/8"

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	MAKE UP TORQUE							
			Minimum	Optimum	Maximum (BY SMYS OF STEEL GRADE)					
					55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
[in.]	[lb/ft]	[in.]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]
<b>5</b>	13.00	0.253	4500	5400	7900	7900	7900	7900	7900	7900
	15.00	0.296	5500	6600	8200	9600	9600	9600	9600	9600
	18.00	0.362	6500	7800	8200	11400	11400	11400	11400	11400
	21.40	0.437	13900	16700	—	18700	21000	22000	24000	24000
	23.20	0.478	14500	17400	—	18700	21000	22000	25000	25000
	24.10	0.500	15000	18000	—	18700	21000	22000	26000	26000
	26.70	0.562	15900	19100	—	—	21000	22000	26000	28000
<b>5 1/2</b>	14.00	0.244	4500	5400	7900	7900	7900	7900	7900	7900
	15.50	0.275	5200	6200	9100	9100	9100	9100	9100	9100
	17.00	0.304	5800	7000	9900	10200	10200	10200	10200	10200
	20.00	0.361	6600	7900	9900	11600	11600	11600	11600	11600
	23.00	0.415	7700	9200	9900	13500	13500	13500	13500	13500
	26.00	0.476	11000	13200	—	18000	19300	19300	19300	19300
	26.80	0.500	12000	14400	—	18000	20000	21000	21000	21000
	28.40	0.530	12500	15000	—	18000	20000	21000	22000	22000
	29.70	0.562	16100	19300	—	23000	26000	27000	28000	28000
	32.60	0.625	17600	21000	—	23000	26000	27000	31000	31000
	<b>6 5/8</b>	20.00	0.288	5900	7100	10300	10300	10300	10300	10300
24.00		0.352	7500	9000	13100	13100	13100	13100	13100	13100
28.00		0.417	8600	10300	15100	15100	15100	15100	15100	15100
32.00		0.475	9900	11900	16700	17300	17300	17300	17300	17300
<b>7</b>	20.00	0.272	5600	6700	9800	9800	9800	9800	9800	9800
	23.00	0.317	6700	8000	11700	11700	11700	11700	11700	11700
	26.00	0.362	7800	9400	13700	13700	13700	13700	13700	13700
	29.00	0.408	8400	10100	14700	14700	14700	14700	14700	14700
	32.00	0.453	9500	11400	16600	16600	16600	16600	16600	16600
	35.00	0.498	14800	17800	25000	26000	26000	26000	26000	26000
	38.00	0.540	16200	19400	25000	28000	28000	28000	28000	28000
	41.00	0.590	17300	21000	25000	30000	30000	30000	30000	30000
	42.70	0.625	18700	22000	25000	33000	33000	33000	33000	33000
<b>7 5/8</b>	26.40	0.328	7800	9400	13700	13700	13700	13700	13700	13700
	29.70	0.375	8600	10300	15100	15100	15100	15100	15100	15100
	33.70	0.430	10100	12100	17700	17700	17700	17700	17700	17700
	39.00	0.500	16100	19300	28000	28000	28000	28000	28000	28000
	42.80	0.562	17800	21000	28000	31000	31000	31000	31000	31000
	45.30	0.595	19000	23000	28000	33000	33000	33000	33000	33000
	47.10	0.625	24000	29000	—	41000	42000	42000	42000	42000
	51.20	0.687	28000	34000	37000	49000	49000	49000	49000	49000
	52.80	0.712	28000	34000	37000	49000	49000	49000	49000	49000
	55.30	0.750	28000	34000	37000	49000	49000	49000	49000	49000
	<b>7 3/4</b>	46.10	0.595	25000	30000	33000	44000	44000	44000	44000
48.60		0.640	26000	31000	33000	46000	46000	46000	46000	46000
<b>8 5/8</b>	32.00	0.352	9400	11300	16500	16500	16500	16500	16500	16500
	36.00	0.400	10500	12600	18400	18400	18400	18400	18400	18400
	40.00	0.450	12000	14400	21000	21000	21000	21000	21000	21000
	44.00	0.500	18200	22000	32000	32000	32000	32000	32000	32000
	49.00	0.557	19800	24000	35000	35000	35000	35000	35000	35000
	52.00	0.595	21000	25000	37000	37000	37000	37000	37000	37000
	54.00	0.625	23000	28000	37000	40000	40000	40000	40000	40000
	59.60	0.700	33000	40000	48000	58000	58000	58000	58000	58000
	61.10	0.719	34000	41000	48000	60000	60000	60000	60000	60000
	63.50	0.750	34000	41000	48000	60000	60000	60000	60000	60000
	68.10	0.812	36000	43000	48000	63000	63000	63000	63000	63000

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OPERATING TORQUE (BY SMYS OF STEEL GRADE)						YIELD TORQUE (BY SMYS OF STEEL GRADE)					
55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]
8200	11900	13300	14000	16700	18700	12300	17900	20000	21000	25000	28000
8200	11900	13300	14000	16700	18700	12300	17900	20000	21000	25000	28000
8200	11900	13300	14000	16700	18700	12300	17900	20000	21000	25000	28000
—	18700	21000	22000	26000	29000	19400	28000	32000	33000	39000	44000
—	18700	21000	22000	26000	29000	19400	28000	32000	33000	39000	44000
—	18700	21000	22000	26000	29000	—	28000	32000	33000	39000	44000
—	—	21000	22000	26000	29000	—	28000	32000	33000	39000	44000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
9900	14700	16000	17300	20000	23000	14900	22000	24000	26000	30000	34000
—	18000	20000	21000	25000	28000	18300	27000	30000	32000	37000	42000
—	18000	20000	21000	25000	28000	18300	27000	30000	32000	37000	42000
—	18000	20000	21000	25000	28000	18300	27000	30000	32000	37000	42000
—	23000	26000	27000	31000	36000	24000	34000	39000	41000	47000	54000
—	23000	26000	27000	31000	36000	24000	34000	39000	41000	47000	54000
16700	24000	27000	28000	33000	37000	25000	36000	40000	42000	49000	56000
16700	24000	27000	28000	33000	37000	25000	36000	40000	42000	49000	56000
16700	24000	27000	28000	33000	37000	25000	36000	40000	42000	49000	56000
16700	24000	27000	28000	33000	37000	25000	36000	40000	42000	49000	56000
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
18000	26000	29000	31000	35000	41000	27000	39000	44000	46000	53000	61000
25000	36000	41000	43000	50000	57000	37000	54000	61000	65000	75000	85000
25000	36000	41000	43000	50000	57000	37000	54000	61000	65000	75000	85000
25000	36000	41000	43000	50000	57000	37000	54000	61000	65000	75000	85000
25000	36000	41000	43000	50000	57000	37000	54000	61000	65000	75000	85000
21000	30000	34000	36000	41000	47000	31000	45000	51000	54000	62000	71000
21000	30000	34000	36000	41000	47000	31000	45000	51000	54000	62000	71000
21000	30000	34000	36000	41000	47000	31000	45000	51000	54000	62000	71000
28000	41000	46000	49000	57000	64000	42000	62000	69000	73000	85000	96000
28000	41000	46000	49000	57000	64000	42000	62000	69000	73000	85000	96000
28000	41000	46000	49000	57000	64000	42000	62000	69000	73000	85000	96000
—	41000	46000	49000	57000	64000	42000	62000	69000	73000	85000	96000
37000	54000	61000	64000	75000	85000	56000	81000	91000	96000	112000	127000
37000	54000	61000	64000	75000	85000	56000	81000	91000	96000	112000	127000
37000	54000	61000	64000	75000	85000	56000	81000	91000	96000	112000	127000
33000	47000	53000	57000	65000	74000	49000	71000	80000	85000	98000	111000
33000	47000	53000	57000	65000	74000	49000	71000	80000	85000	98000	111000
27000	40000	45000	47000	55000	63000	41000	60000	67000	71000	82000	94000
27000	40000	45000	47000	55000	63000	41000	60000	67000	71000	82000	94000
27000	40000	45000	47000	55000	63000	41000	60000	67000	71000	82000	94000
37000	53000	60000	63000	74000	84000	55000	80000	90000	95000	111000	126000
37000	53000	60000	63000	74000	84000	55000	80000	90000	95000	111000	126000
37000	53000	60000	63000	74000	84000	55000	80000	90000	95000	111000	126000
37000	53000	60000	63000	74000	84000	55000	80000	90000	95000	111000	126000
48000	70000	79000	83000	97000	110000	72000	105000	118000	125000	145000	165000
48000	70000	79000	83000	97000	110000	72000	105000	118000	125000	145000	165000
48000	70000	79000	83000	97000	110000	72000	105000	118000	125000	145000	165000
48000	70000	79000	83000	97000	110000	72000	105000	118000	125000	145000	165000

# Torque table - Casing | 9 5/8" TO 13 5/8"

SIZE (OD)	NOMINAL WEIGHT	WALL THICKNESS	MAKE UP TORQUE							
			Minimum	Optimum	Maximum (BY SMYS OF STEEL GRADE)					
					55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
[in.]	[lb/ft]	[in.]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]
<b>9 5/8</b>	36.00	0.352	10000	12000	17500	17500	17500	17500	17500	17500
	40.00	0.395	10800	13000	18900	18900	18900	18900	18900	18900
	43.50	0.435	11900	14300	21000	21000	21000	21000	21000	21000
	47.00	0.472	13200	15800	23000	23000	23000	23000	23000	23000
	53.50	0.545	15500	18600	27000	27000	27000	27000	27000	27000
	58.40	0.595	22000	26000	39000	39000	39000	39000	39000	39000
	59.40	0.609	23000	28000	40000	40000	40000	40000	40000	40000
	61.10	0.625	24000	29000	42000	42000	42000	42000	42000	42000
<b>9 7/8</b>	62.80	0.625	24000	29000	42000	42000	42000	42000	42000	42000
	65.10	0.650	24000	29000	42000	42000	42000	42000	42000	42000
<b>10 3/4</b>	40.50	0.350	12200	14600	21000	21000	21000	21000	21000	21000
	45.50	0.400	13500	16200	24000	24000	24000	24000	24000	24000
	51.00	0.450	15500	18600	27000	27000	27000	27000	27000	27000
	55.50	0.495	23000	28000	40000	40000	40000	40000	40000	40000
	60.70	0.545	25000	30000	44000	44000	44000	44000	44000	44000
	65.70	0.595	27000	32000	47000	47000	47000	47000	47000	47000
	73.20	0.672	31000	37000	54000	54000	54000	54000	54000	54000
	79.20	0.734	45000	54000	79000	79000	79000	79000	79000	79000
<b>11 3/4</b>	47.00	0.375	13000	15600	23000	23000	23000	23000	23000	23000
	54.00	0.435	15400	18500	27000	27000	27000	27000	27000	27000
	60.00	0.489	23000	28000	40000	40000	40000	40000	40000	40000
	65.00	0.534	24000	29000	42000	42000	42000	42000	42000	42000
	71.00	0.582	27000	32000	47000	47000	47000	47000	47000	47000
	75.00	0.618	43000	52000	73000	75000	75000	75000	75000	75000
	79.00	0.656	44000	53000	73000	77000	77000	77000	77000	77000
<b>11 7/8</b>	71.80	0.582	27000	32000	47000	47000	47000	47000	47000	47000
<b>13 3/8</b>	54.50	0.380	17400	21000	30000	30000	30000	30000	30000	30000
	61.00	0.430	20000	24000	35000	35000	35000	35000	35000	35000
	68.00	0.480	21000	25000	37000	37000	37000	37000	37000	37000
	72.00	0.514	23000	28000	40000	40000	40000	40000	40000	40000
	77.00	0.550	34000	41000	60000	60000	60000	60000	60000	60000
	80.70	0.580	36000	43000	63000	63000	63000	63000	63000	63000
	85.00	0.608	36000	43000	63000	63000	63000	63000	63000	63000
	86.00	0.625	37000	44000	65000	65000	65000	65000	65000	65000
<b>13 1/2</b>	81.40	0.580	31000	37000	54000	54000	54000	54000	54000	54000
<b>13 5/8</b>	88.20	0.625	37000	44000	65000	65000	65000	65000	65000	65000

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OPERATING TORQUE (BY SMYS OF STEEL GRADE)						YIELD TORQUE (BY SMYS OF STEEL GRADE)					
55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi	55 ksi	80 ksi	90 ksi	95 ksi	110 ksi	125 ksi
[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]	[ft.lb]
34000	50000	56000	59000	69000	78000	51000	75000	84000	89000	103000	117000
34000	50000	56000	59000	69000	78000	51000	75000	84000	89000	103000	117000
34000	50000	56000	59000	69000	78000	51000	75000	84000	89000	103000	117000
34000	50000	56000	59000	69000	78000	51000	75000	84000	89000	103000	117000
34000	50000	56000	59000	69000	78000	51000	75000	84000	89000	103000	117000
47000	69000	77000	81000	94000	107000	71000	103000	116000	122000	141000	161000
47000	69000	77000	81000	94000	107000	71000	103000	116000	122000	141000	161000
47000	69000	77000	81000	94000	107000	71000	103000	116000	122000	141000	161000
50000	73000	81000	86000	99000	113000	75000	109000	122000	129000	149000	170000
50000	73000	81000	86000	99000	113000	75000	109000	122000	129000	149000	170000
47000	69000	77000	81000	95000	107000	71000	103000	116000	122000	142000	161000
47000	69000	77000	81000	95000	107000	71000	103000	116000	122000	142000	161000
47000	69000	77000	81000	95000	107000	71000	103000	116000	122000	142000	161000
66000	97000	109000	115000	133000	151000	99000	145000	163000	172000	199000	226000
66000	97000	109000	115000	133000	151000	99000	145000	163000	172000	199000	226000
66000	97000	109000	115000	133000	151000	99000	145000	163000	172000	199000	226000
66000	97000	109000	115000	133000	151000	99000	145000	163000	172000	199000	226000
83000	120000	135000	143000	165000	188000	124000	180000	203000	214000	248000	282000
56000	82000	92000	97000	113000	128000	84000	123000	138000	146000	169000	192000
56000	82000	92000	97000	113000	128000	84000	123000	138000	146000	169000	192000
73000	107000	121000	127000	147000	167000	110000	161000	181000	191000	221000	251000
73000	107000	121000	127000	147000	167000	110000	161000	181000	191000	221000	251000
73000	107000	121000	127000	147000	167000	110000	161000	181000	191000	221000	251000
73000	107000	121000	127000	147000	167000	110000	161000	181000	191000	221000	251000
73000	107000	121000	127000	147000	167000	110000	161000	181000	191000	221000	251000
75000	109000	123000	130000	151000	171000	113000	164000	185000	195000	226000	257000
86000	125000	141000	149000	172000	195000	129000	188000	211000	223000	258000	293000
86000	125000	141000	149000	172000	195000	129000	188000	211000	223000	258000	293000
86000	125000	141000	149000	172000	195000	129000	188000	211000	223000	258000	293000
86000	125000	141000	149000	172000	195000	129000	188000	211000	223000	258000	293000
115000	167000	187000	198000	229000	260000	172000	250000	281000	297000	344000	390000
115000	167000	187000	198000	229000	260000	172000	250000	281000	297000	344000	390000
115000	167000	187000	198000	229000	260000	172000	250000	281000	297000	344000	390000
115000	167000	187000	198000	229000	260000	172000	250000	281000	297000	344000	390000
111000	162000	182000	192000	223000	253000	167000	243000	273000	288000	334000	379000
119000	173000	195000	205000	238000	270000	178000	259000	292000	308000	357000	405000





# TenarisHydril

For further information on our connections, please visit our website and find:

- Running Manual (general guidelines on handling and care of connections and well installation recommendations)
- Premium Connections Performance Data (connections performance, torque values, geometries and pipe body data)
- Blanking Dimensions
- Threading & Repair Shops locations

For technical assistance, please contact [premiumconnections@tenaris.com](mailto:premiumconnections@tenaris.com)

