OCTG

TMK provides a wide range of high quality casing and tubing as well as related services for the oil and gas industry. Casing and tubing is available in carbon and alloy grades produced by seamless and ERW methods at Russian and US facilities according to API Spec 5CT.

We utilize the latest technologies throughout our steel and pipe production and finishing processes. All OCTG casing and tubing undergoes ultrasonic and electromagnetic NDT inspection per API Spec 5CT. Pipe ends and couplings are tested using luminescent magnetic fluid. Tensile, flattening and hydrostatic tests are carried out according to specifications and/or upon customer request. Outside pipe surfaces are covered with black lacquer. Threads are covered with compound and protectors.

To operate in the most challenging environments and conditions, we offer TMK Premium Connections. For more information and performance properties, please refer to our Premium Connections catalog.

Tubing Producers

Plant Location	OD	WT	Grades	Method
Sinarsky Tube Works /Russia/	2 3/8 - 4 1/2	0.179" - 0.375"	J55, K55, L80 type1, N80 type 1, N80Q C90, C95, P110	Seamless
Kaztrubprom /Kazakhstan/	2 3/8 - 4 1/2	0.190" - 0.415"	K55, L80, N80, C95, P110	Seamless

Casing Producers

Plant Location	OD	WT	Grades	Method
Volzhsky Pipe Plant /Russia/	7 - 13 3/8	0.352" - 0.595"	J55, K55, M65, L80, N80 type1, N80Q, C90, C95, T95, P110, Q125	Seamless
Seversky Tube Works /Russia/	8 5/8 - 10 3/4	0.352" - 0.595"	J55, K55,L80, N80Q, C95, P110	Seamless
Seversky Tube Works /Russia/	6 5/8 - 20	0.231" - 0.500"	H40, J55, K55	ERW
Sinarsky Pipe Plant /Russia/	4 1/2 - 6 5/8	0.250" - 0.500"	J55, K55, L80 type 1, N80 type1, N80Q, C90, C95, P110, Q125	Seamless
TAGMET /Russia/	4 1/2 - 8 5/8	0.288" - 0.500"	H40, J55, K55, L80 type 1, N80Q, C95, P110	Seamless
Kaztrubprom/Kazakhstan/	4 1/2 - 6 5/8	0.250" - 0.495"	K55, N80, L80, C95, P110	Seamless

* Threading process 5-1/2"-13-3/8" BTC, LTC, STC

Tubing Dimensional Range and Performance Properties 2 3/8 - 2 7/8

Method	Plant	Size O.D.	Weight lb/ft		Grade	Dimensions, in						Performance Properties				
			Threaded & Coupled			Wall Thickness	Inside Diameter	Drift Diameter	Coupling Outside Diameter		Special Clearance	Collapse, psi	Burst, psi			
													Internal Yield Pressure			
			Non-Upset	Upset					Non-Upset	Upset Regular			Plain-end & Non-Upset	Upset Regular	Special Clearance	Integral Joint
S	3	2 3/8	4.00		J55	0.167	2.041	1.947	2.875			7190	6770			
S	3				L80							9980	9840			
S	3				N80							9980	9840			
S	3				C90							10940	11070			
S	3	2 3/8	4.60	4.70	J55	0.19	1.995	1.901	2.875	3.063	2.910	8100	7700	7700	7700	
S	3				L80							11780	11200	11200	11200	
S	3				N80							11780	11200	11200	11200	
S	3				C90							13250	12600	12600	12600	
					T95							13980	13300	13300	13300	
S	3				P110							16130	15400	15400	15400	
S	3	2 3/8	5.80	5.95	L80	0.254	1.867	1.773	2.875	3.063	2.910	15280	14970	14860	11440	
S	3				N80							15280	14970	14860	11440	
S	3				C90							17190	16840	16720	12870	
					T95							18150	17780	17650	13580	
S	3				P110							21010	20590	20430	15730	
S	3	2 7/8	6.40	6.50	J55	0.217	2.441	2.347	3.500	3.668	3.460	7680	7260	7260	7260	
S	3				L80							11170	10570	10570	10570	
S	3				N80							11170	10570	10570	10570	
S	3				C90							12380	11890	11890	11890	
					T95							12940	12550	12550	12550	
S	3				P110							14550	14530	14530	14530	
S	3	2 7/8	7.80	7.90	L80	0.276	2.323	2.229	3.500	3.668	3.460	13890	13440	13440		
S	3				N80							13890	13440	13440		
S	3				C90							15620	15120	15120		
					T95							16490	15960	15960		
S	3				P110							19090	18480	18480		
S	3	2 7/8	8.60	8.70	L80	0.308	2.259	2.165	3.500	3.668	3.460	15300	15000	14940		
S	3				N80							15300	15000	14940		
S	3				C90							17220	16870	16810		
					T95							18170	17810	17740		
S	3				P110							21040	20260	20540		

Method: S - seamless

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties					Recommended Make-up - Thread Tubing					
Tension, lb					Torque, ft x lbs					
Pipe Body Yield Strength	Joint Yield Strength				Non-Upset			Upset		
	Threaded and Coupled									
	Non-Upset	Upset	Special Clearance	Integral Joint	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
63700	41400				610	460	760			
92600	60200				830	620	1040			
92600	60200				830	620	1040			
71700	49400	71700	71700		730	550	910	1290	970	1610
104300	71800	104300	104300		990	740	1240	1760	1320	2200
104300	71800	104300	104300		1020	770	1280	1800	1350	2250
117400	80800	117400	117400		1080	810	1350	1920	1440	2400
123900	85300	123900	123900							
143400	98800	143400	143400		1340	1010	1680	2380	1790	2980
135400	102900	135400	135400		1420	1070	1780	2190	1640	2740
135400	102900	135400	135400		1460	1100	1830	2240	1680	2800
15230	115700	152300	152300		1550	1160	1940	2390	1790	2990
160700	122200	160700	160700							
186100	141500	186100	186100		1930	1450	2410	2960	2220	3700
99700	72500	99700	99700		1050	790	1310	1650	1240	2060
145000	105400	145000	145000		1430	1070	1790	2250	1690	2810
145000	105400	145000	145000		1470	1100	1840	2300	1730	2880
163100	118600	163100	163100		1570	1180	1960	2460	1850	3080
172100	125200	172100	172100							
199300	145000	199300	199300		1940	1460	2430	3050	2290	3810
180300	140700	180300	180300		1910	1430	2390	2710	2030	3390
180300	140700	180300	180300		1960	1470	2450	2770	2080	3460
202900	158300	202900	202900		2090	1570	2610	2970	2230	3710
214100	167100	214100	214100							
247900	193500	247900	247900		2590	1940	3240	3670	2750	4590
198700	159200	198700	193100		2160	1620	2700	2950	2210	2690
198700	159200	198700	193100		2210	1660	2760	3020	2271	3780
223600	179100	223600	217300		2370	1780	2960	3230	2420	4040
236000	189100	236000	229400							
273200	218900	273200	265600		2920	2190	3650	3990	2990	4990

Tubing Dimensional Range and Performance Properties 2 7/8 - 4

Method	Plant	Size O.D.	Weight lb/ft		Grade	Dimensions, in						Performance Properties				
			Threaded & Coupled			Wall Thickness	Inside Diameter	Drift Diameter	Coupling Outside Diameter		Special Clearance	Collapse, psi	Burst, psi			
													Internal Yield Pressure			
			Non-Upset	Upset					Non-Upset	Upset Regular			Plain-end & Non-Upset	Upset Regular	Special Clearance	Integral Joint
		2 7/8	10.50		L80	0.392	2.041	2.091	1.997			18840	19090			
					C90							21200	21470			
					T95							22370	22670			
		2 7/8	11.50		L80	0.440	1995	1901				20740	21430			
					C90							23330	24100			
					T95							24630	25440			
S	3	3 1/2	7.70		J55	0.216	3.068	2.943	4.250			5970	5940			
S	3				L80							7870	8640			
S	3				N80							7870	8640			
S	3				C90							8540	9720			
S	3	3 1/2	9.20	9.30	J55	0.254	2.992	2.867	4.250	4.500	4.180	7400	6990	6990	6990	
S	3				L80							10540	10160	10160	10160	
S	3				N80							10540	10160	10160	10160	
S	3				C90							11570	11430	11430	11430	
					T95							12080	12070	12070	12070	
S	3				P110							13530	13970	13970	13970	
S	3	3 1/2	10.20		J55	0.289	2.922	2.797	4.250			8330	7950			
S	3				L80							12120	11560			
S	3				N80							12120	11560			
S	3				C90							13640	13010			
					T95							14390	13730			
S	3	3 1/2	12.7	12.95	L80	0.375	2.750	2.625	4.250	4.500	4.180	15310	15000	15000		
S	3				N80							15310	15000	15000		
S	3				C90							17220	16880	16880		
					T95							18180	17810	17810		
S	3				P110							21050	20630	20630		
S	3	4	9.50		J55	0.226	3.548	3.423	4.750			5110	5440			
S	3				L80							6590	7910			
S	3				N80							6590	7910			
S	3				C90							7080	8900			

Method: S - seamless

Plant designation:

Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties					Recommended Make-up - Thread Tubing					
Tension, lb					Torque, ft x lbs					
Pipe Body Yield Strength	Joint Yield Strength				Non-Upset			Upset		
	Threaded and Coupled									
	Non-Upset	Upset	Special Clearance	Integral Joint	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
244600										
275200										
290500										
269300										
302900										
319800										
122500	89400				1210	910	1510			
178200	130000				1660	1250	2080			
178200	130000				1700	1280	2130			
	146400				1820	1360	2270			
142500	109200	142500	142500		1480	1110	1850	2280	1710	2850
207200	158900	207200	207200		2030	1520	2540	3030	2270	3790
207200	158900	207200	207200		2070	1550	2590	3200	2400	4000
233100	178700	233100	233100		2220	1970	2780	3430	2570	4290
246000	188700	246000	246000							
284900	218500	284900	284900		2740	2060	3430	4240	3180	5300
160300	127200				1720	1290	2150			
233200	185000				2360	1770	2950			
232000	185000				2410	1810	3010			
242400	208100				2590	1940	3240			
276900	219600									
294600	246200	294600			3140	2360	3930	4200	3150	5250
294600	246200	294600			3210	2410	4010	4290	3220	5360
331400	277000	331400			3440	2580	4300	4610	3460	5760
249800	292400	249800								
405000	338600	405000			4250	3190	5310	5690	4270	7110
147400	99000				1220	920	1530			
214400	144000				1680	1260	2100			
214400	144000				1720	1290	2150			
	162000				1870	1410	2340			

Tubing Dimensional Range and Performance Properties 4 - 4 1/2

Method	Plant	Size O.D.	Weight lb/ft		Grade	Dimensions, in						Performance Properties				
			Threaded & Coupled			Wall Thickness	Inside Diameter	Drift Diameter	Coupling Outside Diameter		Special Clearance	Collapse, psi	Burst, psi			
													Internal Yield Pressure			
			Non-Upset	Upset					Non-Upset	Upset Regular			Plain-end & Non-Upset	Upset Regular	Special Clearance	Integral Joint
S	3	4		11.00	J55	0.262	3.476	3.351		5.000		6590	6300	6300		
S	3				L80							8800	9170	9170		
S	3				N80							8800	9170	9170		
S	3				C90							9590	10320	10320		
					T95							9980	10890	10890		
S	3	4	13.20		L80	0.330	3.340	3.215				12110	11550			
S	3				C90							13620	12990			
					T95							14380	13720			
		4	16.10		L80	0.415	3.170	3.045				14880	14530			
					C90							16740	16340			
					T95							17670	17250			
		4	18.90		L80	0.500	3.000	2.875				17500	17500			
					C90							19690	19690			
					T95							20780	20780			
		4	22,20		L80	0,610	2,780	2,655				20680	21350			
					C90							23260	24020			
					T95							24560	25350			
S	3	4 1/2	12.60	12.75	J55	0.271	3.958	3.833	5.200	5.563		5730	5800	5800		
S	3				L80							7500	8430	8430		
S	3				N80							7500	8430	8430		
S	3				C90							8120	9490	9490		
					T95							8410	10010	10010		
S	3	4 1/2	15.20		L80	0.337	3.826	3.701				11080	10480			
S	3				C90							12220	11800			
					T95							12760	12450			
		4 1/2	17.00		L80	0.380	3.740	.615				12370	11820			
					C90							13920	13300			
					T95							14690	14040			

Method: S - seamless

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties					Recommended Make-up - Thread Tubing					
Tension, lb					Torque, ft x lbs					
Pipe Body Yield Strength	Joint Yield Strength				Non-Upset			Upset		
	Threaded and Coupled									
	Non-Upset	Upset	Special Clearance	Integral Joint	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
169200		169200						2560	1920	3200
246200		246200						3530	2650	4410
246200		246200						3600	2700	4500
276900		276900						3870	2900	4840
292300		292300								
304400										
342500										
361500										
373900										
420700										
444000										
439800										
494800										
522300										
519800										
584700										
617200										
198000	143500	198000			1740	1310	2180	2860	2150	3580
288000	208700	288000			2400	1800	3000	3940	2960	4930
288000	208700	288000			2440	1830	3050	4020	3020	5030
324000	234800	324000			2630	1970	3290	4330	3250	5410
342000	247900	342000								
352600										
396600										
418700										
393400										
442600										
467200										

Casing Dimensional Range and Performance Properties 4 1/2

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C / Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End, psi	Round Thread		Buttress Thread, psi
											Short, psi	Long, psi	
			in	lb/ft		in	in	in	psi				
S, ERW	3	4 1/2	0.250	11.60 11.36	J55	4.000	3.875	5.000	4960	5350	5350	5350	5350
S	3				K55				4960	5350	5350	5350	5350
					M65				5560	6320		6320	6320
S	3				L80				6350	7780		7780	7780
S	3				N80				6350	7780		7780	7780
S	3				C90				6820	8750		8750	8750
S	3				C95				7030	9240		9240	9240
					T95				7030	9240		9240	9240
S	3				P110				7580	10690		10690	10690
S	3,4				L80				8540	9020		9020	9020
S	3,4				N80				8540	9020		9020	9020
S	3,4				C95				9660	10710		10710	10710
S, ERW	3,4				P110				10690	12410		12410	12410
S	3,4	4 1/2	0.337	15.10 15.00	P110	3.826	3.701	5.000	14340	14420		14420	13460
S	3				Q125				15830	16380		16380	15300

Method: S - seamless

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
184	154	162	225	1540	1160	1930	1620	1220	2030
184	170	180	277	1700	1280	2130	1800	1350	2250
217		188	256				1880	1410	2350
167		212	291				2230	1670	2790
267		223	304				2280	1710	2850
300		223	309				2450	1840	3060
317		234	325				2580	1940	3230
317		234	325				2580	1940	3230
367		279	385				3020	2270	3780
307		257	334				2710	2030	3390
307		270	349				2760	2070	3450
364		284	374				3130	2350	3910
422		338	443				3660	2750	4580
485		406	509				4400	3300	5500
551		438	554				4910	3680	6140

Casing Dimensional Range and Performance Properties 5

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C / Weight Plain End	Grade	Dimensions, in				Performance Properties				
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi				
										Minimum Internal Yield Pressure				
										Plain End, psi	Round Thread		Buttress Thread, psi	
											Short, psi	Long, psi		
			in	lb/ft		in	in	in	psi					
S	3	5	0.253	13.00 12.84	J55	4.494	4.369	5.563	4140	4870	4870	4870	4870	
S	3				K55				4140	4870	4870	4870	4870	
					M65				4590	5760	5760	5760	5760	
S	3,4	5	0.296	15.00 14.88	J55	4.408	4.283	5.563	5560	5700	5700	5700	5700	
S	3,4				K55				5560	5700	5700	5700	5700	
					M65				6280	6730		6730	6730	
S	3,4				L80				7250	8290		8290	8290	
S	3,4				N80				7250	8290		8290	8290	
S	3				C90				7830	9320		9320	9320	
S	3,4				C95				8110	9840		9840	9840	
					T95				8110	9840		9840	9840	
S	3,4				P110				8850	11400		11400	11400	
		5	0.362	18.00 17.95	M65	4.276	4.151	5.563	8730	8240		8240	8240	
S	3,4				L80				10500	10140		10140	9910	
S	3,4				N80				10500	10140		10140	9910	
S	3				C90				11520	11400		11400	11150	
S	3,4				C95				12030	12040		12040	11770	
					T95				12030	12040		12040	11770	
S	3,4				P110				13470	13940		13940	13620	
S	3,4				Q125				14820	15840		15840	15840	
		5	0.437	21.40 21.32	M65	4.126	4.001	5.563	10370	9940		9940	9910	
S	4				L80				12760	12240		10810	9910	
S	4				N80				12760	12240		10810	9910	
					C90				14360	13770		12170	11150	
S	4				C95				15150	14530		12840	11770	
					T95				15150	14530		12840	11770	
S	4				P110				17550	16820		14870	13620	
S	4				Q125				19940	19120		16900	15480	
S	4	5	0.478	23.20 23.11	L80	4.044	3.919	5.563	13830	13380		10810	9910	
S	4				N80				13830	13380		10810	9910	
					C90				15560	15060		12170	11150	
S	4				C95				16430	15890		12840	11770	
					T95				16430	15890		12840	11770	
S	4				P110				19020	18400		14870	13620	
S	4	5	0.500	24.10 24.05	L80	4	3.875	5.563	14400	14000		10810	9910	
S	4				N80				14400	14000		10810	9910	
					C90				16200	15750		12170	11150	
S	4				C95				17100	16630		12840	11770	
					T95				17100	16630		12840	11770	
S	4				P110				19800	19250		14870	13620	

Method: S - seamless

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
208	169	182	252	1690	1270	2110	1820	1370	2280
208	186	201	309	1860	1400	2330	2010	1510	2510
245	196	212	288	1960	1470	2450	2120	1590	2650
241	207	223	293	2070	1550	2590	2230	1670	2790
241	228	246	359	2280	1710	2850	2460	1850	3080
284		259	334				2590	1940	3240
350		295	379				3080	2310	3850
350		311	396				3140	2360	3930
394		311	404				3380	2540	4230
416		326	424				3560	2670	4450
416		326	424				3560	2670	4450
481		388	503				4170	3130	5210
343		331	402				3310	2480	4140
422		376	457				3930	2950	4910
422		396	477				4000	3000	5000
475		395	487				4310	3230	5390
501		416	512				4550	3410	5690
501		416	512				4550	3410	5690
580		495	606				5310	3980	6640
659		535	661				5930	4450	7410
407		409	478				4090	3070	5110
501		466	510				4860	3650	6080
501		490	536				4950	3710	6190
564		490	536				5340	4010	6680
595		515	563				5620	4220	7030
595		515	563				5620	4220	7030
689		613	671				6580	4940	8230
783		662	724				7340	5510	9180
543		513	510				5350	4010	6690
543		540	536				5450	4090	6810
611		540	536				5880	4410	7350
645		567	563				6200	4650	7750
645		567	563				6200	4650	7750
747		675	671				7250	5440	9060
565		538	510				5610	4210	7010
565		567	536				5720	4290	7150
636		567	536				6170	4630	7710
672		595	563				6500	4880	8130
672		595	563				6500	4880	8130
778		708	671				7600	5700	9500

Casing Dimensional Range and Performance Properties 5 1/2

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C / Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End, psi	Round Thread		Buttress Thread, psi
											Short, psi	Long, psi	
			in	lb/ft		in	in	in	psi				
S	3				J55				3120	4270	4270		
S	3				K55				3120	4270	4270		
S	3				M65				3360	5050	5050		
S	3	5 1/2	0.275	15.50	J55	4.950	4.825	6.050	4040	4810	4810	4810	4810
S	3			15.36	K55				4040	4810	4810	4810	4810
					M65				4470	5690	5690	5690	5690
S	3,4	5 1/2	0.304	17.00	J55	4.892	4.767	6.050	4910	5320	5320	5320	5320
S	3,4			16.89	K55				4910	5320	5320	5320	5320
					M65				5510	6290		6290	6290
S, ERW	3,4				L80				6290	7740		7740	7740
S, ERW	3,4				N80				6290	7740		7740	7740
S	3				C90				6740	8710		8710	8710
S	3,4				C95				6940	9190		9190	9190
					T95				6940	9190		9190	9190
S	3,4				P110				7480	10640		10640	10640
					M65				7540	7470		7470	7470
S	3,4				L80				8830	9190		9190	8990
S	3,4				N80				8830	9190		9190	8990
S	3				C90				9630	10340		10340	10120
S	3,4				C95				10020	10910		10910	10680
					T95				10020	10910		10910	10680
S	3,4				P110*				11100	12640		12640	12360
		5 1/2	0.415	23.00	M65	4.670	4.545	6.050	9070	8580		8580	8580
S	3,4			22.56	L80				11160	10560		9880	8990
S	3,4				N80				11160	10560		9880	8990
S	3				C90				12380	11880		11100	10120
S	3,4				C95				12930	12540		11730	10680
					T95				12930	12540		11730	10680
S	3,4				P110				14540	14530		13580	12360
S	3				Q125				16060	16510		15430	14050
		5 1/2	0.500	26.80	C90	4.500	4.375		14880	14320			
				26.73	T95				15700	15100			
		5 1/2	0.562	29.70	C90	4.376	4.251		16510	16090			
				26.67	T95				17430	16990			
		5 1/2	0.625	32.6	C90	4.250	4.125		18130	17900			
				32.57	T95				19140	18890			

Method: S - seamless

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
222	172			1720	1290	2150			
222	189			1890	1420	2360			
262	200			2000	1500	2500			
248	202	217	300	2020	1520	2530	2170	1630	2410
248	222	239	366	2220	1670	2780	2390	1790	2880
293	235	253	342	2350	1760	2940	2530	1900	3160
273	229	247	329	2290	1720	2860	2470	1850	3090
273	252	272	402	2520	1890	3150	2720	2040	3400
323		287	376				2870	2150	3590
397		338	428				3410	2560	4260
397		348	446				3480	2610	4350
447		356	456				3750	2810	4690
471		374	480				3960	2970	4950
471		374	480				3960	2970	4950
546		445	568				4620	3470	5780
379		353	442				3530	2650	4410
466		416	503				4200	3150	5250
446		428	524				4280	3210	5350
525		438	536				4620	3470	5780
554		460	563				4870	3650	6090
554		460	563				4870	3650	6090
641		548	667				5690	4270	7110
431		415	503				4150	3110	5190
530		489	551				4930	3700	6160
530		502	580				5020	3770	6280
597		514	580				5430	4070	6790
630		540	609				5720	4290	7150
630		540	609				5720	4290	7150
729		643	725				6680	5010	8350
829		694	783				7470	5600	9340
707									
746									
785									
828									
861									
909									

Casing Dimensional Range and Performance Properties 5 1/2 - 7

Meth-od	Plant	Size O.D.	Wall Thickness	Weight-T&C Weight Plain End	Grade	Dimensions, in			Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi		
										Minimum Internal Yield Pressure		
										Plain End,	Round Thread	Buttress Thread,
											Short,	Long,
			in	lb/ft		in	in	in	psi	psi	psi	psi	psi
		5 1/2	0.687	35.30	C90	4.126	4.001		19680	19670			
				35.35	T95				20770	20770			
		5 1/2	0.750	38.00	C90	4.000	3.875		21200	21480			
				38.08	T95				22380	22670			
		5 1/2	0.812	40.50	C90	3.876	3.751		22650	23250			
				40.69	T95				23910	24540			
		5 1/2	0.875	43.10	C90	3.750	3.625		24080	25060			
				43.26	T95				25420	26450			
S, ERW	4,2w	6 5/8	0.288	20.00	H40	6.049	5.924	7.390	2520	3040	3040		
S, ERW	3,4,1,2w			19.51	J55				2970	4180	4180	4180	4180
S, ERW	3,4,1,2w				K55				2970	4180	4180	4180	4180
S	1				M65				3190	4940	4940	4940	4940
S	3,4,1	6 5/8	0.352	24.00	J55	5.921	5.796	7.390	4560	5110	5110	5110	5110
S	3,4,1			23.60	K55				4560	5110	5110	5110	5110
S	1				M65				5080	6040		6040	6040
S	3,4,1				L80				5760	7440		7440	7440
S	3,4,1				N80				5760	7440		7440	7440
S	3,1				C90				6140	8370		8370	8370
S	3,4,1				C95				6310	8830		8830	8830
S	1				T95				6310	8830		8830	8830
S	3,4,1				P110				6730	10230		10230	10230
S	1	6 5/8	0.417	28.00	M65	5.791	5.666	7.390	7010	7160		7160	7160
S	3,4,1			27.67	L80				8170	8810		8810	8810
S	3,4,1				N80				8170	8810		8810	8810
S	3,1				C90				8880	9910		9910	9910
S	3,4,1				C95				9220	10460		10460	10460
S	1				T95				9220	10460		10460	10460
S	3,4,1				P110				10160	12120		12120	12120
S	3,4,1	6 5/8	0.475	32.00	L80	5.675	5.550	7.390	10320	10040		10040	9820
S	3,4,1			31.23	N80				10320	10040		10040	9820
S	3,1				C90				11330	11290		11290	11050
S	3,4,1				C95				11820	11920		11920	11660
S	1				T95				11820	11920		11920	11660
S	3,4,1				P110				13220	13800		13800	13500
S	3,1				Q125				14540	15680		15680	15340
S, ERW	2w	7	0.231	17.00	H40	6.538	6.413	7.656	1420	2310	2310		
S, ERW	2w	7	0.272	20.00	H40	6.456	6.331	7.656	1970	2720	2720		
S, ERW	2w			19.56	J55				2270	3740	3740		
S, ERW	2w				K55				2270	3740	3740		
S, ERW	C,W				I65*				2480	4420	4420	4420	4420
					M65				2480	4420	4420		

Method: S - seamless; ERW - electric resistance welded

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
935									
987									
1007									
1063									
1076									
1136									
1144									
1208									
229	184			1840	1380	2300			
315	245	266	374	2450	1840	3060	2660	2000	3330
315	267	290	453	2670	2000	3340	2900	2180	3630
373	285	309	428	2850	2140	3560	3090	2320	3860
382	314	340	453	3140	2360	3930	3400	2550	4250
382	342	372	548	3420	2570	4280	3720	2790	4650
451		396	518				3960	2970	4950
555		473	592				4730	3550	5910
555		481	615				4810	3610	6010
624		520	633				5210	3910	6510
659		546	665				5490	4120	6860
659		546	665				5490	4120	6860
763		641	786				6410	4810	8010
529		483	607				4830	3620	6040
651		576	693				5760	4320	7200
651		586	721				5860	4400	7330
732		633	742				6350	4760	7940
773		665	780				6690	5020	8360
773		665	780				6690	5020	8360
895		781	922				7810	5860	9760
734		666	783				6660	5000	8330
734		678	814				6780	5090	8480
826		732	837				7340	5510	9180
872		769	880				7740	5810	9680
872		769	880				7740	5810	9680
1010		904	1040				9040	6780	11300
1147		989	1138				10110	7580	12640
196	122			1220	920	1530			
230	176			1760	1320	2200			
316	234			2340	1760	2930			
316	254			2540	1910	3180			
374	262			2620	1970	3280	2880	2160	3600
374	273			2730	2050	3410			

Casing Dimensional Range and Performance Properties 7

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End, psi	Round Thread		Buttress Thread, psi
											Short, psi	Long, psi	
			in	lb/ft		in	in	in	psi				
S, ERW	4,1,2w	7	0.317	23.00 22.65	J55	6.366	6.241	7.656	3720	4360	4360	4360	4360
S, ERW	4,1,2w				K55				3270	4360	4360	4360	4360
					I65*				3540	5150		5150	5150
S	1				M65				3540	5150		5150	5150
S	4,1				L80				3830	6340		6340	6340
S	4,1				N80				3830	6340		6340	6340
S	1				C90				4030	7130		7130	7130
S	4,1				C95				4140	7530		7530	7530
S	1				T95				4140	7530		7530	7530
S	4,1,	7	0.362	26.00 25.69	J55	6.276	6.151	7.656	4330	4980	4980	4980	4980
S	4,1				K55				4330	4980	4980	4980	4980
					I65*				4810	5880		5880	5880
S	1				M65				4810	5880		5880	5880
S	4,1				L80				5410	7240		7240	7240
S	4,1				N80				5410	7240		7240	7240
					HC-L80*				7000	7240		7240	7240
S	1				C90				5740	8150		8150	8150
S	4,1				C95				5890	8600		8600	8600
S	1				T95				5890	8600		8600	8600
S	4,1				P110				6230	9960		9960	9960
		7	0.408	29.00 28.76	I65*	6.184	6.059	7.656	6100	6630		6630	6630
S	1				M65				6100	6630		6630	6630
S	4,1				L80				7030	8160		8160	8160
S	4,1				N80				7030	8160		8160	8160
					HC-L80*				7720	8160		8160	8160
S	1				C90				7580	9180		9180	9180
S	4,1				C95				7840	9690		9690	9690
S	1				T95				7840	9690		9690	9690
S	4,1				P110				8530	11220		11220	11220
S	1	7	0.453	32.00 31.7	M65	6.094	5.969 6.000	7.656	7360	7360		7360	7360
S	4,1				L80				8600	9060		9060	8460
S	4,1				N80				8600	9060		9060	8460
S	1				C90				9380	10190		10190	9520
S	4,1				C95				9740	10760		10760	10050
S	1				T95				9740	10760		10760	10050
S	4,1				P110				10780	12460		12460	11640

Method: S - seamless; ERW - electric resistance welded

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
366	284	313	432	2840	2130	3550	3130	2350	3910
366	309	341	522	3090	2320	3860	3410	2560	4260
433		350	450				3500	2630	4380
433		364	494				3640	2730	4550
532		435	565				4350	3260	5440
532		442	588				4420	3320	5530
599		479	605				4790	3590	5990
632		505	636				5050	3790	6310
632		505	636				5050	3790	6310
415	334	367	490	3340	2510	4180	3670	2750	4590
415	364	401	592	3640	2730	4550	4010	3010	5010
491		411	510				4110	3080	5140
491		428	561				4280	3210	5350
604		511	641				5110	3830	6390
604		519	667				5190	3890	6490
604		511	641				5110	3830	6390
679		563	687				5630	4220	7040
717		593	722				5930	4550	7410
717		593	722				5930	4550	7410
830		693	853				6930	5200	8660
549		473	571				4730	3550	5910
549		492	628				4920	3690	6150
676		587	718				5870	4480	7460
676		597	746				5970	4400	7340
676		587	718				5870	4400	7340
760		648	768				6480	4860	8100
803		683	808				6830	5120	8540
803		683	808				6830	5120	8540
929		797	955				7970	5980	9960
606		554	692				5540	4160	9630
745		661	791				6610	4960	8260
745		672	823				6720	5040	8400
839		729	847				7290	5470	9110
885		768	891				7680	5760	9600
885		768	891				7680	5760	9600
1025		897	1053				8970	6730	11210

Casing Dimensional Range and Performance Properties 7 - 7 5/8

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End, psi	Round Thread		Buttress Thread, psi
											Short, psi	Long, psi	
			in	lb/ft		in	in	in	psi				
S	4,1	7	0.498	35.00 34.60	L80	6.004	5.879	7.656	10180	9960		9240	8460
S	4,1				N80				10180	9960		9240	8460
S	1				C90				11170	11210		10390	9620
S	4,1				C95				11650	11830		10970	10050
S	1				T95				11650	11830		10970	10050
S	4,1				P110				13030	13700		12700	11640
S	1				Q125				14310	15560		14430	13220
S	1	7	0.540	38.00 34.61	L80	5.920	5.795	7.656	11390	10800		9240	8460
S	1				N80				11390	10800		9240	8460
S	1				C90				12810	12150		10390	9520
S	1				C95				13430	12830		10970	10050
S	1				T95				13430	12830		10970	10050
S	1				P110				15130	14850		12700	11640
S	1				Q125				16740	16880		14430	13220
S	1	7	0.625	42.70 42.59	C90	5.750	5.625	15450	14640	14060			
S	1				T95				15450	14840			
S	1	7	0.687	46.40 46.36	C90	5.626	5.501		15930	15460			
S	1				T95				16820	16320			
S	1	7	0.750	50.10 50.11	C90	5.500	5.375		17220	16880			
S	4,1				T95				18180	17810			
		7	0.812	53.60 53.71	C90	5.376	5.251		18460	18270			
					T95				19480	19290			
		7	0.875	57.1 57.29	C90	5.250	5.125		19690	19690			
					T95				20780	20780			
ERW	2w	7 5/8	0.300	24	H40	7.025	6.900	8.500	2030	2750	2750		
S, ERW	4,2w	7 5/8	0.328	26.40 25.59	J55	6.969	6.844	8.500	2900	4140	4140	4140	4140
S, ERW	4,2w				K55				2900	4140	4140	4140	4140
					M65				3100	4890	4890	4890	4890
S	4				L80				3400	6020		6020	6020
S	4				N80				3400	6020		6020	6020
					C90				3610	6780		6780	6780
S	4				C95				3710	7150		7150	7150
					T95				3710	7150		7150	7150
		7 5/8	0.375	29.70 29.06	M65	6.875	6.750	8.500	4310	5590		5590	5590
S	4				L80				4790	6890		6890	6890
S	4				N80				4790	6890		6890	6890
					C90				5030	7750		7750	7750
S	4				C95				5130	8180		8180	8180
					T95				5130	8180		8180	8180
S	4				P110				5350	9470		9470	9470

Method: S - seamless; ERW - electric resistance welded

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
814		734	832						
814		746	876						
916		809	876						
966		853	920						
966		853	920						
1119		996	1095						
1272		1106	1183						
877		801	832						
877		814	876						
986		883	876						
1041		931	920						
1041		931	920						
1206		1087	1095						
1370		1207	1183						
1127									
1189									
1226									
1294									
1325									
1399									
1421									
1500									
1515									
1600									
276	212			2120	1590	2650			
414	315	346	483	3150	2360	3940	3460	2600	4330
414	342	377	581	3420	2570	4280	3770	2830	4710
489	368	404	554	3680	2760	4600	4040	3030	5050
602		482	635				4820	3620	6030
602		490	659				4900	3680	6130
677		532	681				5320	3990	6650
714		560	716				5600	4200	7000
714		560	716				5600	4200	7000
555		474	629				4740	3560	5930
683		567	721				5670	4250	7090
683		575	749				5750	4310	7190
769		625	773				6250	4690	7810
811		659	813				6590	4940	8240
811		659	813				6590	4940	8240
940		769	960				7690	5770	9610

Casing Dimensional Range and Performance Properties 7 5/8 - 7 3/4

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C Weight Plain End	Grade	Dimensions, in			Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi		
										Minimum Internal Yield Pressure		
										Plain End,	Round Thread	Buttress Thread,
											Short,	Long,
			in	lb/ft		in	in	in	psi	psi	psi	psi	psi
		7 5/8	0.430	33.70 33.07	M65	6.765	6.640	8.500	5730	6410		6410	6410
S	4				L80				6560	7900		7900	7900
S	4				N80				6560	7900		7900	7900
					C90				7050	8880		8880	8880
S	4				C95				7280	9380		9380	9380
					T95				7280	9380		9380	9380
S	4				P110				7870	10860		10860	10860
S	4	7 5/8	0.500	39.00 38.08	L80	6.625	6.500	8.500	8820	9180		9180	9180
S	4				N80				8820	9180		9180	9180
					C90				9620	10330		10330	10330
S	4				C95				10000	10900		10900	10900
					T95				10000	10900		10900	10900
S	4				P110				11080	12620		12620	12620
					Q125				12060	14340		14340	14340
S	1,4	7 5/8	0.562	42.80 42.43	L80	6.501	6.376	8.500	10810	10320		10320	9790
					N80				10810	10320		10320	9790
					C90				11890	11610		11610	11610
					C95				12410	12250		12250	11620
					T95				12410	12250		12250	11620
					P110				13930	14190		14190	13460
					Q125				15350	16120		16120	15290
S	1,4	7 5/8	0.595	45.30 44.71	L80	6.435	6.310	8.500	11510	10920		10490	9790
					N80				11510	10920		10490	9790
					C90				12950	12290		11810	11010
					C95				13670	12970		12460	11620
					T95				13670	12970		12460	11620
					P110				15430	15020		14430	13460
					Q125				17090	17070		16400	15290
S	1,4	7 5/8	0.625	47.10 46.77	L80	6.375	6.250	8.500	12040	11480		10490	9790
					N80				12040	11480		10490	9790
					C90				13540	12910		11810	11010
					C95				14300	13630		12460	11620
					T95				14300	13630		12460	11620
					P110				16550	15780		14430	13460
					Q125				18700	17930		16400	15290
S	1,4	7 5/8	0.687	51.20 50.95	C90	6.251	6.126		14760	14190			
					T95				15580	14980			
S	1,4	7 5/8	0.750	55.30 55.12	C90	6.125	6.000		15960	15490			
					T95				16850	16350			
S	1,4	7 3/4	0.595	46.10 45.51	L80	6.560	6.435 6.500		11340	10750			
					N80				11340	10750			
					C90				12750	12090			
					C95				13320	12760			
					T95				13320	12760			
					P110				15000	14780			
					Q125				16590	16790			

Method: S - seamless

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
632		556	716				5560	4170	6950
778		664	820				6640	4980	8300
778		674	852				6740	5060	8430
875		733	880				7330	5500	9160
923		772	925				7720	5790	9650
923		772	925				7720	5790	9650
1069		901	1093				9010	6760	11260
895		786	945				7860	5900	9830
895		798	981				7980	5990	9980
1007		867	1013				8670	6500	10840
1063		914	1065				9140	6860	11430
1063		914	1065				9140	6860	11430
1231		1066	1258				10660	8000	13330
1399		1194	1379				11940	8960	14930
998		891	1053				8910	6680	11140
998		906	1093				9060	6800	11330
1122		984	1129				9840	7380	12300
1185		1037	1187				10370	7780	12960
1185		1037	1187				10370	7780	12960
1372		1210	1402				12100	9080	15130
1559		1355	1536				13550	10160	16940
1051		947	1109				9470	7100	11840
1051		962	1152				9620	7220	12030
1183		1045	1189				10450	7840	13060
1248		1101	1251				11010	8260	13760
1248		1101	1251				11010	8260	13760
1445		1285	1477				12850	9640	16060
1643		1439	1619				14390	10790	17990
1100		997	1160				9970	7480	12460
1100		1013	1205				10130	7600	12660
1237		1100	1239				11000	8250	13750
1306		1159	1301				11590	8690	14490
1306		1159	1301				11590	8690	14490
1512		1353	1545				13530	10150	16910
1718		1515	1673				15150	11360	18940
1348									
1423									
1458									
1539									
1070									
1070									
1204									
1271									
1271									
1471									
1672									

Casing Dimensional Range and Performance Properties 8 5/8

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C / Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End,	Round Thread		Buttress Thread,
											Short,	Long,	
			in	lb/ft		in	in	in	psi	psi	psi	psi	psi
ERW	2w	8 5/8	0.264	24.00 23.6	J55	8.097	7.972	9.625	1370	2950	2950		
ERW	2w				K55				1370	2950	2950		
					M65				1420	3480	3480		
ERW	2w	8 5/8	0.304	27.00 27.04	H40	8.017	7.892	9.625	1610	2470	2470		
ERW	2w				M65				2020	4010	4010		
S, ERW	4,2w	8 5/8	0.352	32.00 31.13	H40	7.921	7.796 7.875	9.625	2200	2860	2860		
S, ERW	4,1,2,2w				J55				2530	3930	3930	3930	3930
S, ERW	4,1,2,2w				K55				2530	3930	3930	3930	3930
					M65				2740	4640	4640	4640	4640
S	4,2	8 5/8	0.400	36.00 35.17	J55	7.825	7.700	9.625	3450	4460	4460	4460	4460
S	4,2				K55				3450	4460	4460	4460	4460
					M65				3760	5280	5280	5280	5280
S	4,2				L80				4100	6490		6490	6490
S	4,2				N80				4100	6490		6490	6490
					C90				4250	7300		7300	7300
S	4,2				C95				4350	7710		7710	7710
					T95				4350	7710		7710	7710
		8 5/8	0.450	40.00 39.33	M65	7.725	7.600 7.625	9.625	4900	5930		5930	5930
S	4,2				L80				5520	7300		7300	7300
S	4,2				N80				5520	7300		7300	7300
					C90				5870	8220		8220	8220
S	4,2				C95				6020	8670		8670	8670
					T95				6020	8670		8670	8670
S	4,2				P110				6390	10040		10040	10040
S	4,2	8 5/8	0.500	44.00 43.43	L80	7.625	7.500	9.625	6950	8120		8120	8120
S	4,2				N80				6950	8120		8120	8120
					C90				7490	9130		9130	9130
S	4,2				C95				7740	9460		9640	9640
					T95				7740	9460		9640	9640
S	4,2				P110				8420	11160		11160	11160
S	2	8 5/8	0.557	49.00 48.04	L80	7.511	7.386	9.625	8570	9040		9040	9040
S	2				N80				8570	9040		9040	9040
					C90				9340	10170		10170	10170
S	2				C95				9700	10740		10740	10740
					T95				9700	10740		10740	10740
	2				P110				10740	12430		12430	12430
					Q125				11660	14130		14130	14130

Method: S - seamless; ERW - electric resistance welded

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
381	244			2440	1830	3050			
381	263			2630	1970	3290			
451	285			2850	2140	3560			
318	233			2330	1750	2910			
437	311			3110	2330	3890			
366	279			2790	2090	3490			
503	372	417	579	3720	2790	4650	4170	3130	5210
503	402	452	690	4020	3020	5030	4520	3390	5650
595	435	487	664	4350	3260	5440	4870	3650	6090
568	434	486	654	4340	3260	5430	4860	3650	6080
568	468	526	780	4680	3510	5850	5260	3950	6580
672	506	567	751	5060	3800	6330	5670	4250	7090
827		678	864				6780	5090	8480
827		688	895				6880	5160	8600
930		749	928				7490	5620	9360
982		789	976				7890	5920	9860
982		789	976				7890	5920	9860
751		649	839				6490	4870	8110
925		776	966				7760	5820	9700
925		788	1001				7880	5910	9850
1040		858	1038				8580	6440	10730
1098		904	1092				9040	6780	11300
1098		904	1092				9040	6780	11300
1271		1055	1288				10550	7910	13190
1021		874	1066				8740	6560	10930
1021		887	1105				8870	6650	11090
1149		965	1146				9650	7240	12060
1212		1017	1206				10170	7630	12710
1212		1017	1206				10170	7630	12710
1404		1186	1423				11860	8900	14830
1129		983	1180				9830	7370	12290
1129		997	1222				9970	7480	12460
1271		1085	1268				10850	8140	13560
1341		1144	1334				11440	8580	14300
1341		1144	1334				11440	8580	14300
1553		1335	1574				13350	10010	16690
1765		1496	1728				14960	11220	18700

Casing Dimensional Range and Performance Properties 9 5/8

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End, psi	Round Thread		Buttress Thread, psi
											Short, psi	Long, psi	
			in	lb/ft		in	in	in	psi				
ERW	2w	9 5/8	0.312	32.3	H40	9.001	8.845	10.625	1370	2270	2270		
ERW	2w	9 5/8	0.352	36.00 34.89	H40	8.921	8.765	10.625	1720	2560	2560		
S, ERW	1,2,2w				J55				2020	3520	3520	3520	3520
S,ERW	1,2,2w				K55				2020	3520	3520	3520	3520
S	1				M65				2190	4160	4160	4160	4160
S, ERW	1,2,2w	9 5/8	0.395	40.00 38.97	J55	8.835	8.679 8.750	10.625	2570	3950	3950	3950	3950
S, ERW	1,2,2w				K55				2570	3950	3950	3950	3950
S	1				M65				2770	4670	4670	4670	4670
S	1,2				L80				3090	5750		5750	5750
S	1,2				N80				3090	5750		5750	5750
S	1				C90				3260	6460		6460	6460
S	1,2				C95				3330	6820		6820	6820
S	1				T95				3330	6820		6820	6820
S	1	9 5/8	0.435	43.50 42.73	M65	8.755	8.599	10.625	3530	5140		5140	5140
S	1,2				L80				3810	6330		6330	6330
S	1,2				N80				3810	6330		6330	6330
S	1				C90				4010	7120		7120	7120
S	1,2				C95				4130	7510		7510	7510
S	1				T95				4130	7510		7510	7510
S	1,2				P110				4420	8700		8700	8700
S	1	9 5/8	0.472	47.00 46.18	M65	8.681	8.525	10.625	4280	5580		5580	5580
S	1,2				L80				4760	6870		6870	6870
S	1,2				N80				4760	6870		6870	6870
S	1				C90				4990	7720		7720	7720
S	1,2				C95				5090	8150		8150	8150
S	1				T95				5090	8150		8150	8150
S	1,2				P110				5300	9440		9440	9440
S	1				Q125				5640	10730		10730	10730
S	1,2	9 5/8	0.545	53.50 52.90	L80	8.535	8.379 8.500	10.625	6620	7930		7930	7930
S	1,2				N80				6620	7930		7930	7930
S	1				C90				7110	8920		8920	8920
S	1,2				C95				7340	9410		9410	9410
S	1				T95				7340	9410		9410	9410
S	1,2				P110				7950	10900		10900	10900
S	1				Q125				8440	12390		12390	12390

Method: S - seamless; ERW - electric resistance welded

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
365	254			2540	1910	3180			
410	294			2940	2210	3680			
564	394	453	639	3940	2960	4930	4530	3400	5660
564	423	489	755	4230	3170	5290	4890	3670	6110
667	460	529	734	4600	3450	5750	5290	3970	6610
630	452	520	714	4520	3390	5650	5200	3900	6500
630	486	561	843	4860	3650	6080	5610	4210	7010
744	528	607	820	5280	3960	6600	6070	4550	7590
916		727	947				7270	5450	9090
916		737	979				7370	5530	9210
1031		804	1021				8040	6030	10050
1088		847	1074				8470	6350	10590
1088		847	1074				8470	6350	10590
816		679	899				6790	5090	8490
1005		813	1038				8130	6100	10160
1005		825	1074				8250	6190	10310
1130		899	1119				8990	6740	11240
1193		948	1178				9480	7110	11850
1193		948	1178				9480	7110	11850
1381		1105	1388				11050	8290	13810
882		745	972				7450	5590	9310
1086		893	1122				8930	6700	11160
1086		905	1161				9050	6790	11310
1222		987	1210				9870	7400	12340
1289		1040	1273				10400	7800	13000
1289		1040	1273				10400	7800	13000
1493		1213	1500				12130	9100	15160
1697		1361	1650				13600	10200	17000
1244		1047	1285				10470	7850	13090
1244		1062	1329				10620	7970	13280
1399		1157	1386				11570	8680	14460
1477		1220	1458				12200	9150	15250
1477		1220	1458				12200	9150	15250
1710		1422	1718				14220	10670	17770
1943		1595	1890				15950	11960	19940

Casing Dimensional Range and Performance Properties 9 5/8 - 10 3/4

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End, psi	Round Thread		Buttress Thread, psi
											Short, psi	Long, psi	
			in	lb/ft		in	in	in	psi				
S	1,2	9 5/8	0.595	58.40 57.44	L80	8.435	8.279 8.375	10.625	7890	8650		8650	8650
S	1,2				N80				7890	8650		8650	8650
S	1				C90				8560	9740		9740	9740
S	1,2				C95				8880	10280		10280	10280
S	1				T95				8880	10280		10280	10280
S	1,2				P110				9770	11900		11900	11900
S	1				Q125				10540	13520		13520	13520
		9 5/8	0.609	59.40 58.70	C90	8.407	8.251	10.625	8970	9970			
					T95				9320	10520			
		9 5/8	0.672	64.90 64.32	C90	8.281	8.125	10.625	10800	11000			
					T95				11260	11610			
		9 5/8	0.734	70.30 69.76	C90	8.157	8.001	10.625	12600	12010			
					T95				13170	12680			
		9 5/8	0.797	75.60 75.21	C90	8.031	7.875	10.625	13670	13040			
					T95				14430	13700			
ERW	2w	10 3/4	0.279	32.75	H40	10.192	10.036	11.750	840	1820	1820		
ERW	2w	10 3/4	0.350	40.50 38.91	H40	10.050	9.894	11.750	1390	2280	2280		2280
S, ERW	2,2w				J55				1580	3130	3130		3130
S, ERW	2,2w				K55				1580	3130	3130		3130
					M65				1670	3700	3700		3700
S, ERW	2,2w	10 3/4	0.400	45.50 44.26	J55	9.950	9.794 9.875	11.750	2090	3580	3580		3580
S, ERW	2,2w				K55				2090	3580	3580		3580
					M65				2270	4230	4230		4230
S, ERW	2,2w	10 3/4	0.450	51.00 49.55	J55	9.850	9.694	11.750	2700	4030	4030		4030
S, ERW	2,2w				K55				2700	4030	4030		4030
					M65				2870	4760	4760		4760
S	2				L80				3220	5860	5860		5860
S	2				N80				3220	5860	5860		5860
S	2				C90				3400	6590	6590		6590
					C95				3480	6960	6960		6960
					T95				3480	6960	6960		6960
S	2				P110				3660	8060	8060		8060
		10 3/4	0.495	55.50 54.26	M65	9.760	9.604 9.625	11.750	3690	5240	5240		5240
S	2				L80				4020	6450	6450		6450
S	2				N80				4020	6450	6450		6450
					C90				4160	7250	7250		7250
S	2				C95				4290	7660	7660		7660
					T95				4290	7660	7660		7660
S	2				P110				4610	8860	8860		8860

Method: S - seamless; ERW - electric resistance welded

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
1350		1151	1396				11510	8630	14390
1350		1167	1443				11670	8750	14590
1519		1272	1505				12720	9540	15900
1604		1341	1583				13410	10060	16760
1604		1341	1583				13410	10060	16760
1857		1564	1865				15640	11730	19550
2110		1754	2052				17540	13160	21930
1552									
1639									
1701									
1796									
1845									
1948									
1989									
2100									
367	205			2050	1540	2560			
457	314			3140	2360	3930			
629	420		700	4200	3150	5250			
629	450		819	4500	3380	5630			
743	491		806	4910	3680	6140			
715	493		796	4930	3700	6160			
715	528		931	5280	3960	6600			
845	576		916	5760	4320	7200			
801	565		891	5650	4240	7060			
801	606		1043	6060	4550	7580			
946	661		1026	6610	4960	8260			
1165	794		1190	7940	5960	9930			
1165	804		1228	8040	6030	10050			
1311	879		1287	8790	6590	10990			
1383	927		1354	9270	6950	11590			
1383	927		1354	9270	6950	11590			
1602	1080		1594	10790	8090	13490			
1037	736		1124	7360	5520	9200			
1276	884		1303	8840	6630	11050			
1276	895		1345	8950	6710	11190			
1435	979		1409	9790	7340	12240			
1515	1032		1483	10320	7740	12900			
1515	1032		1483	10320	7740	12900			
1754	1203		1745	12020	9020	15030			

Casing Dimensional Range and Performance Properties 10 3/4 - 11 3/4

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C / Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End, psi	Round Thread		Buttress Thread, psi
											Short, psi	Long, psi	
			in	lb/ft		in	in	in	psi				
		10 3/4	0.545	60.70	C90	9.660	9.504	11.750	5460	7980	7980		7980
				59.45	T95				5580	8430	8430		8430
S	2				P110				5880	9760	9760		9760
					Q125				6070	11090	11090		11090
		10 3/4	0.595	65.70	C90	9.560	9.404	11.750	6760	8720	8720		8720
				64.59	T95				6960	9200	9200		9200
S	2				P110				7500	10650	10650		10650
					Q125				7920	12110	12110		12110
		10 3/4	0.672	73.20	C90	9.406	9.250	11.750	8760	9850			
				72.40	T95				9090	10390			
		10 3/4	0.734	79.20	C90	9.282	9.126	11.750	10370	10750			
				78.59	T95				10800	11350			
		10 3/4	0.797	85.30	C90	9.156	9.000	11.750	12010	11680			
				84.80	T95				12540	12330			
		11 3/4	0.333	42.00	H40	11.084	10.928	12.750	1040	1980	1980		
		11 3/4	0.375	47.00	J55	11.000	10.844	12.750	1510	3070	3070		3070
				45.60	K55				1510	3070	3070		3070
					M65				1590	3630	3630		3630
		11 3/4	0.435	54.00	J55	10.880	10.724	12.750	2070	3560	3560		3560
				52.62	K55				2070	3560	3560		3560
					M65				2250	4210	4210		4210
		11 3/4	0.489	60.00	J55	10.772	10.616 10.625	12.750	2660	4010	4010		4010
				58.87	K55				2660	4010	4010		4010
					M65				2840	4730	4730		4730
					L80				3180	5830	5830		5830
					N80				3180	5830	5830		5830
					C90				3360	6550	6550		6550
					C95				3440	6920	6920		6920
					T95				3440	6920	6920		6920
					P110				3610	8010	8010		8010
					Q125				3680	9100	9100		9100
		11 3/4	0.534	65.00	L80	10.682	10.526 10.625	12.750	3870	6360			
				64.03	N80				3870	6360			
					C90				4060	7160			
					C95				4170	7560			
					T95				4170	7560			
					P110				4480	8750			
					Q125				4690	9940			
		11 3/4	0.582	71.00	L80	10.586	10.430	12.750	4880	6930			
				69.48	N80				4880	6930			
					C90				5130	7800			
					C95				5240	8230			
					T95				5240	8230			
					P110				5470	9530			
					Q125				5760	10840			

Method: S - seamless; ERW - electric resistance welded

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
1573	1089		1544	10890	8170	13610			
1660	1148		1625	11480	8610	14350			
1922	1338		1912	13370	10030	16710			
2184	1503		2109	15020	11270	18790			
1708	1198		1677	11980	8990	14980			
1803	1263		1765	12630	9470	15790			
2088	1472		2077	14710	11030	18390			
2373	1653		2291	16520	12390	20650			
1915									
2021									
2079									
2194									
2243									
2367									
478	307			3070	2300	3840			
737	477		807	4770	3580	5960			
737	509		935	5090	3820	6360			
871	557		931	5570	4180	6960			
850	568		931	5680	4260	7100			
850	606		1079	6060	4550	7580			
1005	664		1074	6640	4980	8300			
951	649		1042	6490	4870	8110			
951	693		1208	6930	5200	8660			
1124	759		1201	7590	5690	9490			
1384	913		1399	9130	6850	11410			
1384	924		1440	9240	6930	11550			
1557	1011		1517	10110	7580	12640			
1643	1066		1596	10660	8000	13330			
1643	1066		1596	10660	8000	13330			
1903	1242		1877	12420	9320	15530			
2162	1396		2074	13960	10470	17450			
1505									
1505									
1693									
1788									
1788									
2070									
2352									
1634									
1634									
1838									
1940									
1940									
2246									
2552									

Casing Dimensional Range and Performance Properties 10 3/4 - 11 3/4

Method	Plant	Size O.D.	Wall Thickness	Weight-T&C / Weight Plain End	Grade	Dimensions, in				Performance Properties			
						Inside Diameter	Drift diameter	Outside Diameter of Coupling	Collapse Pressure	Burst Pressure, psi			
										Minimum Internal Yield Pressure			
										Plain End, psi	Round Thread		Buttress Thread, psi
											Short, psi	Long, psi	
			in	lb/ft		in	in	in	psi				
S,ERW	1,2w	13 3/8	0.380	54.50	J55	12.615	12.459	14.375	1130	2730	2730		2730
S,ERW	1,2w			52.79	K55				1130	2730	2730		2730
S	1				M65				1140	3230	3230		3230
S,ERW	1,2w	13 3/8	0.430	61.00	J55	12.515	12.359	14.375	1540	3090	3090		3090
S,ERW	1,2w			59.50	K55				1540	3090	3090		3090
S	1				M65				1620	3660	3660		3660
S	1	13 3/8	0.480	68.00	J55	12.415	12.259	14.375	1950	3450	3450		3450
S	1			66.17	K55				1950	3450	3450		3450
S	1				M65				2100	4080	4080		4080
S	1				L80				2260	5020	5020		5020
S	1				N80				2260	5020	5020		5020
S	1				C90				2320	5650	5650		5650
S	1				C95				2330	5970	5970		5970
S	1				T95				2330	5970	5970		5970
S	1				P110				2340	6910	6910		6910
S	1	13 3/8	0.514	72.00	L80	12.347	12.191 12.250	14.375	2670	5380	5380		5380
S	1				N80				2670	5380	5380		5380
S	1				C90				2780	6050	6050		6050
S	1				C95				2820	6390	6390		6390
S	1				T95				2820	6390	6390		6390
S	1				P110				2880	7400	7400		7400
S	1				Q125				2880	8410	8410		8410
ERW	2w	16	0.375	65.00	H40	15.250	15.062	17.000	630	1640	1640		1640
ERW	2w	16	0.438	75.00	J55	15.124	14.936	17.000	1020	2630	2630		2630
ERW	2w			72.86	K55				1020	2630	2630		2630
					M65				1020	3110	3110		3110
ERW	2w	20	0.500	106.50	J55	19.000	18.812	21.000	770	2410	2410	2410	2410
ERW	2w			104.23	K55				770	2410	2410	2410	2410

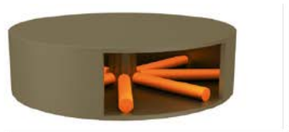
Method: S - seamless; ERW - electric resistance welded

Plant designation:
Russia: 1 – Volzhsky/Smls/; 2 – Seversky/Smls/; 2w – Seversky /ERW/; 3 – Sinarsky/Smls/; 4 – TAGMET/Smls/;

Performance Properties				Recommended Make-up Torque 8-Round - Thread Casing					
Tension, 1000 lbs				Torque, ft-lbs					
Pipe Body	Joint Strength			Short Thread			Long Thread		
Yield Strength	Round Thread		Buttress Thread	Optimum	Minimum	Maximum	Optimum	Minimum	Maximum
	Short	Long							
853	514		909	5140	3860	6430			
853	547		1038	5470	4100	6840			
1008	602		1052	6020	4520	7530			
962	595		1025	5950	4460	7440			
962	633		1170	6330	4750	7910			
1137	697		1185	6970	5230	8710			
1069	675		1140	6750	5060	8440			
1069	718		1300	7180	5390	8980			
1264	791		1318	7910	5930	9890			
1556	952		1545	9520	7140	11900			
1556	963		1585	9630	7220	12040			
1750	1057		1683	10570	7930	13210			
1847	1114		1772	11140	8360	13930			
1847	1114		1772	11140	8360	13930			
2139	1297		2079	12970	9730	16210			
1661	1029		1650	10290	7720	12860			
1661	1040		1693	10400	7800	13000			
1869	1142		1797	11420	8570	14280			
1973	1204		1893	12040	9030	15050			
1973	1204		1893	12040	9030	15050			
2284	1402		2221	14020	10520	17530			
2596	1576		2463	15760	11820	19700			
736	439			4390	3290	5490			
1178	710		1200	7100	5330	8880			
1178	752		1331	7520	5640	9400			
1392	832		1394	8320	6240	10400			
1685	913	1056	1595	9130	6850	11410	10560	7920	13200
1685	959	1113	1683	9590	7190	11990	11130	8350	13910

Seamless Process Flowchart (PQF)

1. Billet heating in circular furnace



2. Cross-rolling piercing

3. Hydrodescaling

4. Elongating

5. Reheating

6. Hydrodescaling

7. Stretch reducing mill

8. Cutting

9. Cooling

10. Batch sawing

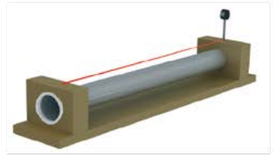
Casing Pipe Finishing Process

1. Control of pipe geometry

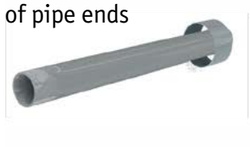
2. Heat treatment

3. Flaw-detecting

4. Geometrics inspection

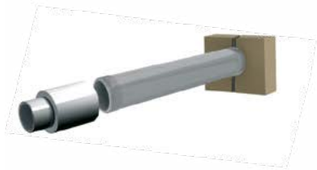


5. Magnetic-fluoroscopic flaw inspection of pipe ends



6. Threading, thread inspection

7. Coupling screw-on and drifting



8. Hydrostatic testing

9. Protectors screw-on

10. Coating application

11. Marking, packing, storage