



TMK-ARTROM S.A.

Draganesti Str. 30, Slatina, jud. OLT, Romania 230119
Tel: +40 (249) 436862, 434640, 434641
Fax: +40 (249) 434330, 437288
E-mail: office.slatina@tmk-artrom.eu www.tmk-artrom.eu
EUID: ROONRC.J28/9/1991; J28/9/31.01.1991
VAT No. RO 1510210/1992
Subscribed and Paid Share Capital: 291.587.538,34 lei

COUPLING STOCKS

1. Standard

API 5CT, API 5L

2. Used for

Hot rolled tubes used in coupling production.

3. Dimensions

According Tab.1

4. Tolerances

Standard	Outside Diameter	Wall Thickness
API 5 CT	OD<114.3 ±0.79mm OD>=114.3 (+1/-0.5%)OD	on the purchase agreement
API 5L	OD<60.3 +0.4/-0.8 mm 60.3<OD<=168.3 ±0.75% 168.3<OD<=610 ±0.75%	WT<=4 +0.6/-0.5mm 4<WT<25 +15%/-12.5%

TMK EUROPEAN DIVISION Cod: FCU-01, Ed. 3 Rev. 3/2019



API:
5CT-0440
5L-0352

LR:
ISO 9001
ISO 14001
ISO 45001

TUV:
PED/AD-2000 W0/W4
TRD 100/102
Vd TUV

TUV CPR:
EN 10210-1,2
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5. Chemical Composition (%)

Standard	Delivery status	Level	Grade	Mass fraction, based upon heat and product analyses [%] max.															Carbon equivalent max. [%]	
				C	Si	Mn	P	S	V	Nb	Ti	Cu	Ni	Cr	Mo	Al tot	N	B	CEIIW	CEPcm
API 5L	Normalizare sau laminare normalizanta	PSL1	L210 or A	0.22		0.90	0.03	0.03				0.50	0.50	0.50	0.15			0.001		
			L245 or B	0.28		1.20	0.03	0.03	Nb+V+Ti ≤0.15% Nb+V ≤0.06%			0.50	0.50	0.50	0.15			0.001		
			L290 or X42	0.28		1.30	0.03	0.03	Nb+V+Ti ≤0.15%			0.50	0.50	0.50	0.15			0.001		
			L320 or r X46	0.28		1.40	0.03	0.03	Nb+V+Ti ≤0.15%			0.50	0.50	0.50	0.15			0.001		
			L360 or r X52	0.28		1.40	0.03	0.03	Nb+V+Ti ≤0.15%			0.50	0.50	0.50	0.15			0.001		
			L390 or r X56	0.28		1.40	0.03	0.03	Nb+V+Ti ≤0.15%			0.50	0.50	0.50	0.15			0.001		
			L415 or r X60	0.28		1.40	0.03	0.03	Nb+V+Ti ≤0.15%			0.50	0.50	0.50	0.15			0.001		
	L450 or X65	0.28		1.40	0.03	0.03	Nb+V+Ti ≤0.15%			0.50	0.50	0.50	0.15			0.001				
	Normalizare	PSL2	L245N or BN	0.24	0.40	1.20	0.025	0.015	Nb+V ≤0.06%		0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
			L290N or X42N	0.24	0.40	1.20	0.025	0.015	0.06	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
			L320N or X46N	0.24	0.40	1.40	0.025	0.015	0.07	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
			Nb+V+Ti ≤0.15%																	
			L360N or X52N	0.24	0.45	1.40	0.025	0.015	0.10	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
			Nb+V+Ti ≤0.15%																	
L390N or X56N			0.24	0.45	1.40	0.025	0.015	0.10	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25	
Nb+V+Ti ≤0.15%																				
L415N or X60N	0.24	0.45	1.40	0.025	0.015	0.10	0.05	0.04	0.50	0.50	0.50	0.50			0.001	As agree				
Nb+V+Ti ≤0.15%																				

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	Calire si revenire	PSL2	L245Q or BQ	0.18	0.45	1.40	0.025	0.015	0.05	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
			L290Q or X42Q	0.18	0.45	1.40	0.025	0.015	0.05	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
			L320Q or X46Q	0.18	0.45	1.40	0.025	0.015	0.05	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
			L360Q or X52Q	0.18	0.45	1.50	0.025	0.015	0.05	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
			L390Q or X56Q	0.18	0.45	1.50	0.025	0.015	0.07	0.05	0.04	0.50	0.30	0.30	0.15			0.001	0.43	0.25
									Nb+V+Ti≤0.15%											
			L415Q or X60Q	0.18	0.45	1.70	0.025	0.015	Nb+V+Ti≤0.15%			0.50	0.50	0.50	0.50			0.001	0.43	0.25
			L450Q or X65Q	0.18	0.45	1.70	0.025	0.015	Nb+V+Ti≤0.15%			0.50	0.50	0.50	0.50			0.001	0.43	0.25
	L485Q or X70Q	0.18	0.45	1.80	0.025	0.015	Nb+V+Ti≤0.15%			0.50	0.50	0.50	0.50			0.001	0.43	0.25		
	Anexa H Normalizare	PSL2	L245NS or BNS	0.14	0.40	1.35	0.02	0.003	Nb+V≤0.06%		0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.36	0.19
									Nb+V+Ti≤0.15%											
			L290NS or X42NS	0.14	0.40	1.35	0.02	0.003	0.05	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.36	0.19
			L320NS or X46NS	0.14	0.40	1.40	0.02	0.003	0.07	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.38	0.20
									Nb+V+Ti≤0.15%											
	L360NS or X52NS	0.16	0.45	1.65	0.02	0.003	0.10	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.43	0.22		
							Nb+V+Ti≤0.15%													
	Anexa H Calire si revenire	PSL2	L245QS or BQS	0.14	0.40	1.35	0.02	0.003	0.04	0.04	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.34	0.19
			L290QS or X42QS	0.14	0.40	1.35	0.02	0.003	0.04	0.04	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.34	0.19
			L320QS or X46QS	0.15	0.45	1.40	0.02	0.003	0.05	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.36	0.20
			L360QS or X52QS	0.16	0.45	1.65	0.02	0.003	0.07	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.39	0.20
									Nb+V+Ti≤0.15%											
L390QS or	0.16	0.45	1.65	0.02	0.003	0.07	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.40	0.21			

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			X56QS							Nb+V+Ti≤0.15%											
			L415QS or X60QS	0.16	0.45	1.65	0.02	0.003		0.08	0.05	0.04	0.35	0.50	0.50	0.50	0.06	0.012	0.0005	0.41	0.22
			L450QS or X65QS	0.16	0.45	1.65	0.02	0.003		Nb+V+Ti≤0.15%			0.35	0.50	0.50	0.50	0.06	0.012	0.0005	0.42	0.22

Standard	Level	Grade	Mass Fraction [%]																			
			C		Mn		Mo		Cr		Ni	Cu	P	S	Si							
			min	max	min	max	min	max	min	max	max	max	max	max	max							
API 5CT	PSL1	H40											0.030	0.030								
		R95		0.45		1.90								0.030	0.030					0.45		
		C110		0.35		1.20	0.25	1.00	0.40	1.50	0.99			0.020	0.005							
		T95(1)		0.35		1.20	0.25	0.85	0.40	1.50	0.99			0.020	0.010							
	PSL2	J55												0.030	0.030							
		K55												0.030	0.030							
		L80(1)		0.43		1.90						0.25	0.35	0.030	0.030					0.45		
		N80(1)												0.030	0.030							
		N80(Q)												0.030	0.030							
		P110												0.030	0.030							
Q125		0.35		1.35		0.85		1.50	0.99			0.020	0.010									

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								Nb+V+Ti≤0.15%											
Annex H Quenched and tempered	PSL2	L245QS or BQS	0.14	0.40	1.35	0.02	0.003	0.04	0.04	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.34	0.19
		L290QS or X42QS	0.14	0.40	1.35	0.02	0.003	0.04	0.04	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.34	0.19
		L320QS or X46QS	0.15	0.45	1.40	0.02	0.003	0.05	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.36	0.20
		L360QS or X52QS	0.16	0.45	1.65	0.02	0.003	0.07	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.39	0.20
								Nb+V+Ti≤0.15%											
		L390QS or X56QS	0.16	0.45	1.65	0.02	0.003	0.07	0.05	0.04	0.35	0.30	0.30	0.15	0.06	0.012	0.0005	0.40	0.21
								Nb+V+Ti≤0.15%											
L415QS or X60QS	0.16	0.45	1.65	0.02	0.003	0.08	0.05	0.04	0.35	0.50	0.50	0.50	0.06	0.012	0.0005	0.41	0.22		
						Nb+V+Ti≤0.15%													
L450QS or X65QS	0.16	0.45	1.65	0.02	0.003	0.09	0.05	0.06	0.35	0.50	0.50	0.50	0.06	0.012	0.0005	0.42	0.22		
						Nb+V+Ti≤0.15%													

6. Mechanical Properties

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Standard	Delivery status	Level	Grade	Yield Strength Rt0,5, ksi (MPa) minimum		Tensile Strength Rm, PSI (MPa) minimum		Ratio Rt05 / Rm
				minim	maxim	minim	maxim	
API 5L	Laminare or Laminare normalizanta	PSL1	L210 or A	30500(210)		48600(335)		
			L245 or r B	35500(245)		60200(415)		
			L290 or X42	42100(290)		60200(415)		
			L320 or X46	46400(320)		63100(435)		
			L360 or X52	52200(360)		66700(460)		
			L390 or X56	56600(390)		71100(490)		
			L415 or X60	60200(415)		75400(520)		
			L450 or X65	65300(450)		77600(535)		
	Normalizare	PSL2	L245N or BN	35500(245)	65300(450)	60200(415)	95000(655)	0.93
			L290N or X42N	42100(290)	71800(495)	60200(415)	95000(655)	0.93
			L320N or X46N	46400(320)	76100(525)	63100(435)	95000(655)	0.93
			L360N or X52N	52200(360)	76900(530)	66700(460)	110200(760)	0.93
			L390N or X56N	56600(390)	79000(545)	71100(490)	110200(760)	0.93
			L415N or X60N	60200(415)	81900(565)	75400(520)	110200(760)	0.93
	Calire si Revenire	PSL2	L245Q or BQ	35500(245)	65300(450)	60200(415)	95000(655)	0.93
			L290Q or X42Q	42100(290)	71800(495)	60200(415)	95000(655)	0.93
			L320Q or X46Q	46400(320)	76100(525)	63100(435)	95000(655)	0.93
			L360Q or X52Q	52200(360)	76900(530)	66700(460)	110200(760)	0.93
L390Q or X56Q			56600(390)	79000(545)	71100(490)	110200(760)	0.93	
L415Q or X60Q			60200(415)	81900(565)	75400(520)	110200(760)	0.93	

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	Annex H Normalizare	PSL2	L450Q or X65Q	65300(450)	87000(600)	77600(535)	110200(760)	0.93
			L245NS or BNS	35500(245)	65300(450)	60200(415)	95000(655)	0.93
			L290NS or X42NS	42100(290)	71800(495)	60200(415)	95000(655)	0.93
			L320NS or X46NS	46400(320)	76100(525)	63100(435)	95000(655)	0.93
			L360NS or X52NS	52200(360)	76900(530)	66700(460)	110200(760)	0.93
	Annex H Calire si Revenire	PSL2	L245QS or BQS	35500(245)	65300(450)	60200(415)	95000(655)	0.93
			L290QS or X42QS	42100(290)	71800(495)	60200(415)	95000(655)	0.93
			L320QS or X46QS	46400(320)	76100(525)	63100(435)	95000(655)	0.93
			L360QS or X52QS	52200(360)	76900(530)	66700(460)	110200(760)	0.93
			L390QS or X56QS	56600(390)	79000(545)	71100(490)	110200(760)	0.93
			L415QS or X60QS	60200(415)	81900(565)	75400(520)	110200(760)	0.93
			L450QS or X65QS	65300(450)	87000(600)	77600(535)	110200(760)	0.93

Standard	Level	Grade	Yield Strength (ksi)		Tensile Strength (ksi)	Total elongation under Load %	Hardness max.		Specified Wall Thickness (In.)	Allowable Hardness Variation
			minim	maxim	minim		HRC	HBW		HRC
API 5CT	PSL1	H40	40	80	60	0.5				
		R95	95	110	105	0.5				
		C110	110	120	115	0.7	30	286	≤0.500 0.501 la 0.749 0.750 la 0.999 ≥1.000	3.0 4.0 5.0 6.0
		T95(1)	95	110	105	0.5	25.4	255	≤0.500 0.501 la 0.749 0.750 la 0.999 ≥1.000	3.0 4.0 5.0 6.0
	PSL2	J55	55	80	75	0.5				

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		K55	55	80	95	0.5				
		L80(1)	80	95	95	0.5	23.0	241		
		N80(1)	80	110	100	0.5				
		N80(Q)	80	110	100	0.5				
		P110	110	140	125	0.6				
		Q125	125	150	135	0.65			≤0.500 0.501 la 0.749 ≥0.750	3.0 4.0 5.0

7. Lengths

Random lengths 4÷8m (13.1÷26.2ft) or fixed length within the random lengths range.

8. Protection

Unprotected.

9. Marking

According to standard or per customer request.

10. Delivery

Bundles up to 4000 kg (8800 lbs).

11. Mill test report

Mill test reports are issued to customer requirements. Usually they comply with DIN 50049, EN 10204.

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12. Quality certified:

LR, API 5CT, API 5L.

Tab.1 Coupling stocks dimensions

UPSET TUBING		
Size Designation	Outside Diameter	
	in	mm
1 8/9	2.500	63.5
2 3/8	3.063	77.8
2 7/8	3.678	93.2
3 1/2	4.500	114.3
4	5.000	127.0
4 1/2	5.563	141.3

NONUPSET TUBING		
Size Designation	Outside Diameter	
	in	mm
2 3/8	2.875	73.0
2 7/8	3.500	88.9
3 1/2	4.250	108.0
4	4.750	120.7
4 1/2	5.200	132.1

TMK EUROPEAN DIVISION Cod: FCU-01, Ed. 3 Rev. 3/2019



API:
5CT-0440
5L-0352

LR:
ISO 9001
ISO 14001
ISO 45001

TUV:
PED/AD-2000 W0/W4
TRD 100/102
Vd TUV

TUV CPR:
EN 10210-1,2
EN 10255

LR
DNV-GL Rules
RINA

LR:
IATF 16949



TMK-ARTROM S.A.

Draganesti Str. 30, Slatina, jud. OLT, Romania 230119
 Tel: +40 (249) 436862, 434640, 434641
 Fax: +40 (249) 434330, 437288
 E-mail: office.slatina@tmk-artrom.eu www.tmk-artrom.eu
 EUID: ROONRC.J28/9/1991; J28/9/31.01.1991
 VAT No. RO 1510210/1992
 Subscribed and Paid Share Capital: 291.587.538,34 lei

Casing		
Size Designation	Outside Diameter	
	in	mm
4 1/2	5.000	127.0
5	5.563	141.3
5 1/2	6.050	153.7
6 5/8	7.390	187.7
7	7.656	194.5
7 5/8	8.500	215.9
8 5/8	9.625	244.48

Line Pipe		
Size Designation	Outside Diameter	
	in	mm
2 3/8	2.875	73.0
2 7/8	3.375	85.7
3 1/2	4.000	101.6
4	4.625	117.5
4 1/2	5.200	132.1
5 9/16	6.296	159.9
6 3/8	7.390	187.7

Note: Wall Thickness according to customer's request.

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