GOST 6238-77 CASING AND DRIFTED PIPE WITH NIPPLES FOR GEOLOGICAL PROSPECTING

Casing and drifted pipe with nipples to this standard shall be non-upset seamless products for well drilling and rock sampling. Casing and drifted pipe to this standard shall be of the types given below:

- nipple-free casing with integral joints;
- drifted pipe with nipples for making strings.

For sizes of casing with integral joints see Fig. 1 and Table 1.

For sizes of casing and drifted pipe with nipple connections see Fig. 2 and Table 2.

Tube ovality and wall thickness variations shall leave tube sizes within specified tolerances (mm).

Tube curvature per meter length shall be within the following tolerances:

normal accuracy:

for tubes 33.5 to 89 mm OD: 0.7 mm;

for tubes 108-146 mm OD: 1.0 mm.

improved accuracy:

for tubes 33.5 to 89 mm OD: 0.3 mm;

for tubes 108-146 mm OD: 0.5 mm.

Fig. 1. Casing with pup joint.

Fig. 2. Casing with nipple connection.

Fig. 3. Profile of thread to GOST 6238-77.

¦Level	l — — — — — — — — — — — — — — — — — — —	 D Г	 : +1	 з Г	l — — — — — — — — — — — — — — — — — — —	D2	I I I)3 [+ 1 m pipe	L
accu-	spe-	limit	spe-	limit	spe-	limit	spe-	limit	mass	
racy	sif.	toler.	sif.	toler.	cif.	toler	cif.	toler.	(plain)	
¦Повыш.	 	 ! !		 ! !	 ! !	1			 	1500-
Impr.	33.5	±0.15	3.0	±0.25	32.0	+0.17	29.5	-0.17	2.26	3000
Повыш.										1500-¦
¦Impr.	44	±0.20	3.5	±0.25	42.5	+0.17	40.0	-0.17	3.50	3000
¦Обычн.		1		+0.54	1				1	1500-
Normal	57	±0.45	4.5	-0.36	54.5	+0.50	52.0	-0.50	5.83	4500
¦Повыш.									1	¦1500-¦
¦Impr.	57	±0.25	4.5	±0.36	54.5	+0.20	52.0	-0.20	5.83	4500
¦Обычн.			1	+0.60						1500-
Normal	73	±0.57	5.0	-0.40	70.0	+0.50	67.5	-0.50	8.38	6000
¦Повыш.									1	¦1500-¦
Impr.	73	±0.36	5.0	±0.40	70.0	+0.20	67.5	-0.20	8.38	6000
¦Обычн.		1		+0.60	1				1	1500-¦
Normal	89	±0.70	5.0	-0.40	86.0	+0.50	83.5	-0.50	10.36	6000
Повыш.		1		1	1					1500-
Impr.	89	±0.40	5.0	±0.40	86.0	+0.23	83.5	-0.23	10.36	6000
L	+	+	+	+	+	++			+	+

Table 1 Sizes of casing with integral joints, mm

Notes.

1. Angles of thrust belt, recess etc are guaranteed by those of the cutting tools; they are not checked on finished tubes.

2. Angles of incomplete thread turns are given for reference.

3. On the buyer's request up to 10 % of tubes in a lot shall be multiple to 1500 mm \pm 70 mm.

4. Recess length 11 and that of full-profile inside thread is 40 +2 mm; length of full-profile outside thread is 36 mm;

5. For design purposes steel density is taken to be equal to 7.85 g/cu.cm.

Table 2 Sizes, mm

T	T	T	T]	[
Level	D ;	s	D1	d	D2
of +	-T+	T+	T+	T	+T+
accu- spe-	-¦limit ¦ spe-	limit sp	pe- limit-	spe- ¦limit	spe- limit
racy cif	. toler. cif.	{toler.} ci	if. {toler.}	cif. {toler.	cif. toler.
+	-++	++	++	+	++
Повыш.	1	1			
Impr. 25.	0¦ ±0.10¦ 3.0	{ ±0.25} -		- -	21.7 +0.14
Обычн.		1			
Normal 33.	5¦ ±0.27¦ 3.0	±0.30 33	3.5 ±0.27	24.5 +0.50	30.0 +0.50
Повыш.	1	1			
Impr. 33.	5¦ ±0.15¦ 3.0	{ ±0.25} 33	3.5 ¦ ±0.15¦	24.5 +0.28	30.0 +0.17
Обычн.		1			
Normal; 44	±0.36 3.5	+0.45; 44	4 ; +0.36;	34.0 +0.50	40.5 +0.50
		-0.30			

Повыш.					
Impr. 44	±0.20; 3.5	±0.25¦ 44	+ ±0.20; 34.0	+0.34 40.5	+0.17;
Обычн.					
Normal 57	±0.45; 4.5	+0.54 57	+ ±0.45; 46.0	+0.50; 52.5	+0.50;
1		-0.36	1		
Повыш.		1	1		
Impr. 57	±0.25; 4.5	±0.36 57	±0.25; 46.0	+0.34 52.5	+0.20;
¦Обычн.¦	1	1			
Normal; 73	±0.57; 5.0	+0.60 73	±0.57; 62.0	+0.50; 69.0	+0.50;
1	1	-0.40	1		
Повыш.	1	1	1		
Impr. 73	±0.36; 5.0	±0.40¦ 73	+0.36; 62.0	+0.40; 69.0	+0.20;
¦Обычн.¦	1	1	1		
Normal; 89	+ ±0.70; 5.0	+0.60; 89	+0.70; 78.0	+0.50; 85.0	+0.50;
1	1	-0.40			
Повыш.					
Impr. 89	; ±0.40; 5.0	; ±0.40; 89	¦ ±0.40¦ 78.0	+0.40; 85.0	+0.23;
Обычн.					
Normal 108	; ±1.05; 5.0	¦ +0.75¦ 108	¦ ±1.05¦ 95.5	+0.50 103.5	+0.50;
		-0.63			
Повыш.		1	1		
Impr. 108	+ ±0.86; 5,0	¦ ±0.63¦ 108	¦ ±0.86¦ 95.5	+0.46;103.5	+0.23;
¦Обычн.¦		1	1		
Normal 127	¦ ±1.27¦ 5,0	+0.75¦ 127	¦ ±1.27¦114.5	+0.50 122.5	+0.50;
1	1	-0.63	1		
Повыш.	1	1	1		
Impr. 127	±1.02¦ 5.0	±0.63¦ 127	¦ ±1.02¦114.5	+0.46;122.5	+0.26
Обычн.					
Normal 146	±1.46¦ 5.0	+0.75; 146	¦ ±1.46¦134.0	+0.50;141.5	+0.50;
		-0.63			
Повыш.					
Impr. 146	¦ ±1.17¦ 5.0	¦ ±0.63¦ 146	¦ ±1.17¦134.0	+0.46;141.5	+0.26
L+	++	++	++	+++	

| 11 Level D ! D3 Mass, kg of +----+ 12 & 13 +----T----+ {accu- | spe-|speci-|limit |spe-|limit | not lover| L | 1 m | ... 'racy | cif. fied |toler. cif. toler. pipe | +---Повыш. 1500-|Impr. | 25.0| -- | 40 | +2 3000 1.63 | -36 Обычн. . Normal: 33.5; 28.0 ; -0.50; 40 ; 36 2.22 | 0.5 +2 Повыш. 1 !Impr. ! 33.5! 28.0 ! -0.17! 40 ! +2 36 Обычн. 1500-|Normal| 44 | 38.0 | -0.50 | 40 | +2 36 4500 3.50 | 0.7 Повыш. 38.0 | -0.17 40 | Impr. 44 +2 36 Обычн. 1 Normal 57 50.0 -0.50 40 36 5.83 | 1.0 +2 Повыш. |Impr. | 57 | 50.0 | -0.20 | 40 | 36 +2 Обычн. Normal: 73 | 66.5 | -0.50 40 | 8.38 | 1.0 +2 36 Повыш. !Impr. | 73 | 66.5 | -0.20 | 40 | +2 36 Обычн. 1 1 Normal! 89 ! 82.5 ! -0.50! 40 ! +2 36 10.36 | 1.7 1500-Повыш. |Impr. | 89 | 82.5 | -0.23 | 40 | +2 36 6000 Обычн. Normal 108 101.0 -0.50 60 +2 56 12.70 2.4 Повыш. Impr. |108 101.0 | -0.23 60 | +2 56 Обычн. Normal 127 120.0 -0.50 60 +2 56 15.04 2.6 1 1 Повыш. Impr. 127 120.0 | -0.26 60 | +2 56 Обычн. Normal 146 139.0 -0.50 60 +2 | 17.39 | 2.8 56 Повыш. 1. |Impr. |146 |139.0 | -0.26 60 | +2 56 _____

Table 2 (contd.) Sizes, mm

For applicable thread sizes see Fig. 3 and Table 3 and 4.

Table 3		
Т Параметры резьбы Thread parameters	Номинальные размеры Specified dimensions	
 Шаг (Thread pitch), S, mm Угол наклона боковых сторон профиля /2, град Аngle /2, degrees Рабочая высота витка (Thread turn height), t, mm Ширина витка у вершины (Turn width at the apex): наружной резьбы (outside thread), m, mm внутренней резьбы (inside thread), m1, mm Наименьший зазор по ширине витка, а, MM 	4.000 5 0.750 1.922 1.934	
Minimum gap, a, mm L	0.012	

	T]	[
	Наружная резьба Outside thread				Внутренняя резьба Inside thread				
	(10 r	d1		d'0		d'1		
: D	но-	пред.	но-	пред.	но-	пред.	но-	прел.	
-	мин.	откл.	мин.	откл.	мин.	откл.	мин.	откл.	
1	speci-	limit	speci-	limit	speci-	limit	speci-	limit	
1	fied	toler.	fied	toler.	fied	toler.	fied	toler.	
+	+	+	+						
1									
1		Обсадные	трубы	безниппел	льного сое	динения			
			Casing,	, integral	l joint				
1									
33.5	31.6	-0.100	30.1	-0.100	31.632	+0.140	30.1	+0.100	
44.0	42.0	-0.100	40.5	-0.100	42.032	+0.170	40.5	+0.100	
; 57.0	54.0	-0.120	52.5	-0.120	54.040	+0.200	52.5	+0.120	
; 73.0	69.5	-0.120	68.0	-0.120	69.540	+0.200	68.0	+0.120	
89.0	85.5	-0.140	84.0	-0.140	85.550	+0.230	84.0	+0.140	
Ko	лонковые	и обсадня	ие трубь	и ниппельн	юго соеди	инения и н	иппели в	к ним	
1		Casing	and dri	ifted pipe	e with nip	ples			
1								1	
25.0	21.5		-	-	21.525	+0.140	20.0	+0.084	
33.5	29.8	-0.084	28.3	-0.084	29.825	+0.140	18.3	+0.084	
44.0	40.0	-0.100	38.5	-0.100	40.032	+0.170	38.5	+0.100	
57.0	52.0	-0.120	50.5	-0.120	52.040	+0.200	50.5	+0.120	
73.0	68.5	-0.120	67.0	-0.120	68.540	+0.200	67.0	+0.120	
89.0	84.5	-0.140	83.0	-0.140	84.550	+0.230	83.0	+0.140	
108.0	103.0	-0.140	101.5	-0.140	103.050	+0.230	101.5	+0.140	
127.0	122.0	-0.160	120.5	-0.160	122.060	+0.260	120.5	+0.160	
146.0	141.0	-0.160	139.5	-0.160	141.060	+0.260	139.5	+0.160	
L	+	+	+	+	++		+	+	

Table 4 Sizes, mm

Tube and nipple thread ovality shall not exceed 0.5 mm with half-sum of the maximum and minimum thread diameter measurements shall be within the tolerances specified.

Technical requirements.

Tube surface shall be smooth, without laps, cracks, deep scratches. Indentations, shallow scratches and scale are permissible if they leave the wall thickness within the specified

tolerances.

Tubes and nipples shall be of grades D, K and M. Phosphorus content shall not be over 0.045 %.

For mechanical properties of tube metal see Table 5.

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	T					
Механические свойства Tube metal properties		Норма для стали групп прочности Values for different grades				
	+	д	К	M*		
Предел прочности при растяжении,	1		 			
крс/мм¤, не менее			1			
{ Tensile strength, kg/mmQ, not lower		55	65	85		
Предел текучести, кгс/мм¤, не менее			1			
Yield limit, kg/mmQ, not lower		38	50	75		
Относительное удлинение, %, не менее						
Elongation, %, not lower	1	16	12	12		
* - Трубы из стали группы прочно- * - сти М изготовляют по соглаше- нию сторон.	- Grade agree	M is p ment.	produced on	special ;		

Drifted pipe may have right- hand thread only: nipples and casing shall have both right- and left-hand thread.

Surface roughness shall not exceed 3.2 micrometers with complete coaxiality of the nipple threads. Limit coaxiality of threads shall not exceed 0.6 mm.

A lot of tubes shall consist of one size and grade.

A lot shall comprise not more than 300 tubes.

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