



BITimpex Anstalt LTD

Metal Catalogue





About us

Partners' trust, consumers' recognition!

Company BITimpex Energy LTD, was founded in 2006 merged the traditions, spirit of leadership and innovations. Company BITimpex Energy LTD is rapidly growing steel producer. Steel is used throughout our production from serial houses up to the most complex structures. Our products are used in the construction of stadiums, modern terminals at airports and certified in accordance with the national standards of Ukraine and sold in more than 20 countries. Exceptional quality and strength properties of our rolled metal products allow you to use it in all climatic zones of the world, including for the construction in seismic areas is particularly important the reliability of steel structures.

Our main goal is to win the trust of our customers. For us it means to deliver the highest quality products, to ensure the highest quality services, and above all, to listen and hear our customers. We constantly improve production processes and quality control of the product, its packaging and transportation, building its own sales network in order to get closer to the end consumer.

Company BITimpex Energy LTD has large reserves of raw materials and an efficient distribution system. It has representative offices in Russian Federation and the United Arab Emirates.

We highly value each customer and appreciate your choice of BITimpex Energy LTD products.

The Company produces the metal products according to the international and national standards:

DSTU 3760:2006 (Russian Federation),

GOST 5781-82 (International standard),

GOST 10884-94 (International standard),

STO ASChM 7-93 (Russian Federation),

GOST P 52544-2006 (Russian Federation),

STB 1704-2006, 1704-2012 (Belarus),

TU U 27.1-23365425-652:2010,

DIN 488 (Germany),

BS 4449:1997 (Great Britain),

BS 4449:2005 (Great Britain),

ASTM A615, ASTM A706 (USA),

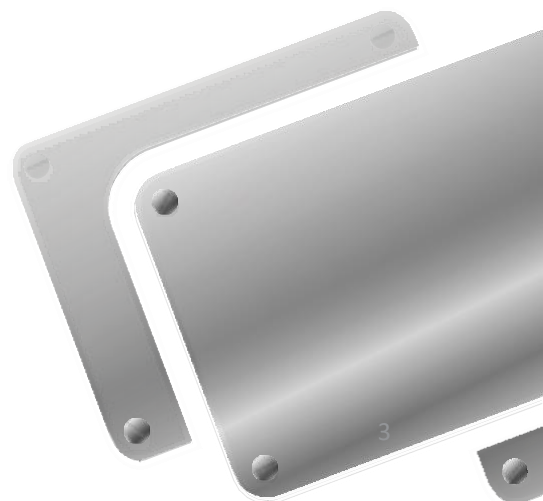
STAS 438/1 (Romania),

SI 4466 (Israel),

NT 26.05 (Tunisia),

CAN/CSA-G30.18-M92 (Canada),

ISO 6935 2:2007





MILL BAR

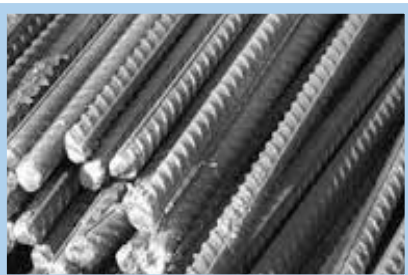
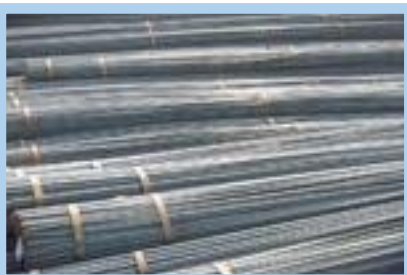
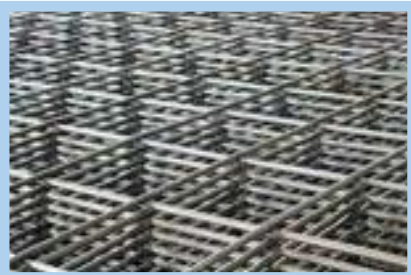
Reinforcement

Reinforcement is a type of long products, namely hot-rolled steel round and smooth periodic profile is used for the reinforcement of both conventional and prestressed structures using iron and concrete. The strength of each concrete structure depends on the valves used, so the quality of supplied valves, we pay special attention.

With the increasing growth of construction, which contributes to the emergence of new materials and technologies allow not only to reduce the level of costs and shorten the time of erection of structures, but also ensure the quality of construction.



REINFORCEMENT



ROLLED PRODUCTS FOR REINFORCEMENT OF FERROCONCRETE STRUCTURES

(General specification: product mix, standard dimensions and weight)

DSTU 3760:2006 (Russian Federation)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area in mm ²			
5,5	23,8	0,187	± 8,0	-
6,0	28,3	0,222		-
8,0	50,3	0,395		387
10,0	78,5	0,617	+5,0/-6,0	255
12,0	113,0	0,888		177
14,0	154,0	1,210		130
16,0	201,0	1,580	± 4,5	100
18,0	254,0	2,000		79
20,0	314,0	2,470		64
22,0	380,0	2,980		53
25,0	491,0	3,850		41
28,0	616,0	4,830		32
32,0	804,0	6,310		25

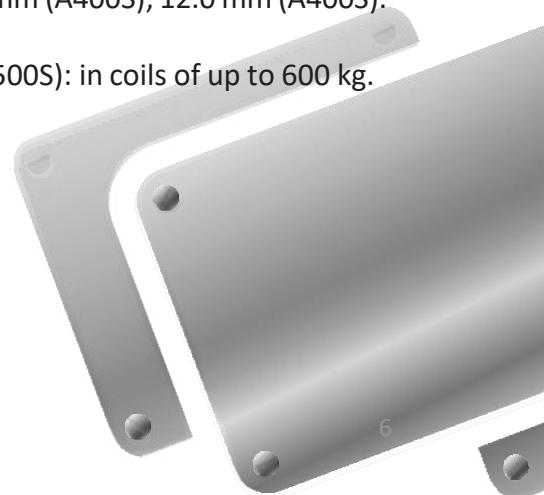
*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).

Mechanical properties

Strength grade	Yield strength, σ_T , N/mm ²	Tensile strength, σ_B , N/mm ²	Elongation, δ_5 , %	Radius for bend test, degrees
	minimum			
A240C	240	370	25	180
A400C	400	500	16	90
A500C	500	600	14	90
A800	800	1000	8	45
A1000	1000	1250	7	45

Products delivery:

- nominal dimension of 8.0 to 32.0 mm: cut length (A240S from 10 to 32 mm);
- nominal diameter of 5.5 - 32.0 mm (A240S); 8.0 mm (A400S); 10.0 mm (A400S); 12.0 mm (A400S): in coils of 1100 – 2100 kg;
- nominal diameter of 8.0 mm (A400S, A500S); 10.0 mm (A400S, A500S): in coils of up to 600 kg.



GOST 5781-82 (International standard)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area in cm ²			
8	0,503	0,395	+9,0/-7,0	383
10	0,785	0,617		255
12	1,131	0,888		177
14	1,540	1,210	+5,0/-6,0	130
16	2,010	1,580		101
18	2,540	2,000		80
20	3,140	2,470	+3,0/-5,0	64
22	3,800	2,980		53
25	4,910	3,850		41
28	6,160	4,830		33
32	8,040	6,310	+3,0/-4,0	25

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).

Mechanical properties

Strength grade	Yield strength, σ_T , N/mm ²	Tensile strength, σ_B , N/mm ²	Elongation, δ_5 , %	Cold bend, degrees
	minimum			
A-III(A400)	390	590	14	90

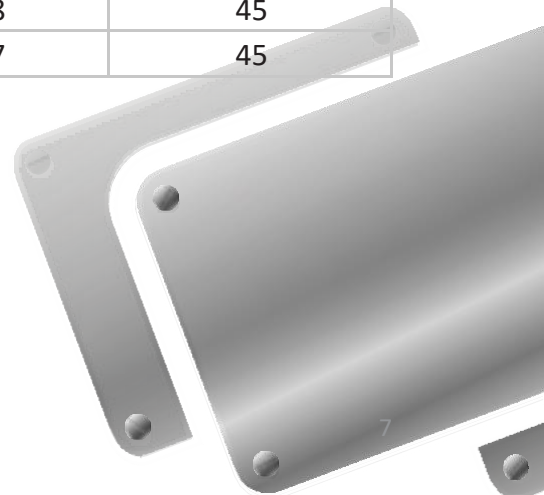
GOST 10884-94 (International standard)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area in cm ²			
10	0,785	0,617	+5,0/-6,0	255
12	1,131	0,888		177
14	1,540	1,210		130

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).

Mechanical properties

Strength grade	Yield strength, σ_T , N/mm ²	Tensile strength, σ_B , N/mm ²	Elongation, δ_5 , %	Radius for bend test, degrees
	minimum			
At800	800	1000	8	45
At1000	1000	1250	7	45



STO ASCHM 7-93 (Russian Federation)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area in mm ²			
8	50,3	0,395	± 8	387
10	78,3	0,617	± 5	255
12	113	0,888		177
14	154	1,21		130
16	201	1,58	± 4	100
18	254	2,00		79
20	314	2,47		64
22	380	2,98		53
25	491	3,85		41
28	616	4,83		32
32	804	6,31		25

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).

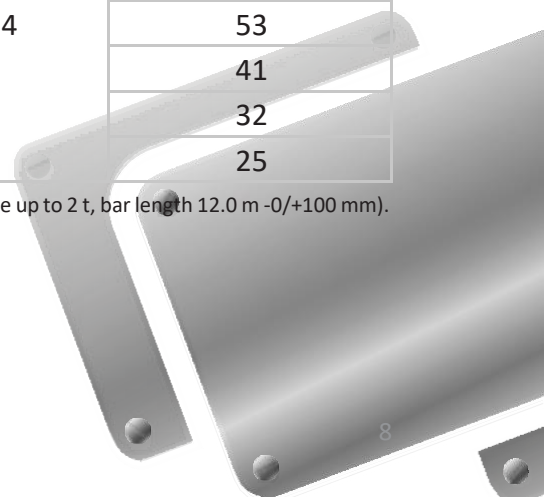
Mechanical properties

Strength grade	Yield strength, σ_T , N/mm ²	Tensile strength, σ_B , N/mm ²	Elongation, δ_5 , %	Radius for bend test, degrees
	minimum			
A400S	400	500	16	160-180
A500S	500	600	14	

GOST R 52544-2006 (Russian Federation)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area in mm ²			
8	50,3	0,395	± 8	387
10	78,5	0,616	± 5	255
12	131,1	0,888		177
14	153,9	1,208		130
16	201,1	1,578	± 4	100
18	254,5	1,998		79
20	314,2	2,466		64
22	380,1	2,984		53
25	490,9	3,853		41
28	615,8	4,834		32
32	804,2	6,313		25

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).



Mechanical properties

Strength grade	Yield strength, σ_T , N/mm ²	Tensile strength, σ_B , N/mm ²	Elongation, δ_5 , %	Radius for bend test, degrees
	minimum			
A500S	500	600	14	90

STB 1704-2006, 1704-2012 (Belarus)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area in mm ²			
8	50,3	0,395	± 4,5	400
10	78,5	0,617		256
12	113,0	0,888		178
14	154,0	1,208		130
16	201,0	1,578		100
18	254,5	2,000		79
20	314,0	2,466		64
22	380,1	2,984		53
25	491,0	3,853		41
28	616,0	4,833		32
32	804,0	6,313		25

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).

Mechanical properties

Strength grade	Yield strength, R_e , MPa	Ratio, R_m / R_e	Elongation, δ_5 , %	Radius for bend test, degrees
	minimum			
S500	500	1,08	14	90

TU U 27.1-23365425-652:2010 Rolled steel

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area in mm ²		
20,0	314,0	2,470	± 4,5
22,0	380,0	2,980	
25,0	491,0	3,850	

*To confirm the technical feasibility the customer has to provide the nut as a reference for geometry (to screw the rolled steel with the control nut together).

Mechanical properties

Steel grade	Yield point, σ_T , N/mm ²	Tensile strength, σ_B , N/mm ²	Total percentage elongation at maximum force, δ_{max} , %	Percentage elongation after fracture, δ_5 , %
	minimum			
A400sh	400	500	8	20
A500sh	500	620		

DIN 488-2-1984 (Germany)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	**Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area in mm ²			
*8	0,503	0,395	± 4,0	402
10	0,785	0,617		257
12	1,13	0,888		178
14	1,54	1,21		131
16	2,01	1,58		100
20	3,14	2,47		64
25	4,91	3,85		41
28	6,16	4,83		32

*Coils of up to 600 kg can be manufactured.

**Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle of up to 2 t, cut length of 12.0 m -0/+100 mm).

Mechanical properties

Strength grade	Yield strength, Re, N/mm ²	Ratio, Rm, N/mm ²	Elongation, A5, %	Radius for bend test, degrees
	minimum			
BSt 500 S	500	550	10	90/20

DIN 488-2-2009 (Germany)

Nominal dimensions		Tolerance, %	Weight (mass) per unit of length, kg/m nominal
Diameter, dH, mm	Cross-sectional area, FH, mm ²		
8	50,3	+6,0/-4,0	0,395
10	78,5		0,617
12	113		0,888
14	113		1,210
16	201		1,580
20	314		2,470
25	491		3,850
28	616		4,830
32	804		6,310

Mechanical properties

Steel grade	Yield strength, Re, N/mm ²	Ratio, Rm / Re	Elongation, Agt, %	Radius for bend test, degrees
	minimum			
B500B	500	1,08	5	90/20



BS 4449:1997 (Great Britain)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area, mm ²			
8	50,3	0,395	± 6,5	392
10	78,5	0,616		251
12	113,1	0,888		178
16	201,1	1,579	± 4,5	100
20	314,2	2,466		64
25	490,9	3,854		41
32	804,2	6,313		25

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).

Mechanical properties

Steel grade	Yield strength, Re, N/mm ²	Ratio, Rm / Re	Elongation, A5, %	Total elongation at maximum force, Agt, %	Radius for rebend test, degrees
		minimum			
460B	460	1,08	14	5	45/23

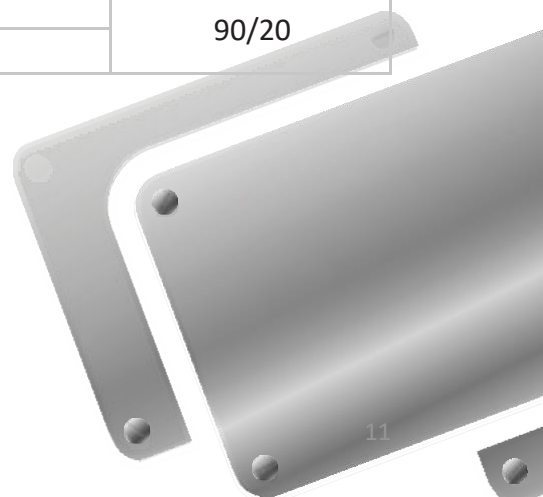
BS 4449:2005 (Great Britain)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	Tolerance, %	*Minimal number of bars in a bundle, pcs.
Diameter, mm	Cross-sectional area, mm ²			
8	50,3	0,395	± 6,0	394
10	78,5	0,617		256
12	113,0	0,888		178
16	201,0	1,580	± 4,5	100
20	314,0	2,470		64
25	491,0	3,850		41
32	804,0	6,310		25

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle of up to 2 t, cut length of 12.0 m -0/+100 mm).

Mechanical properties

Steel grade	Yield strength, Re, N/mm ²	Ratio, Rm / Re	Total elongation at maximum force, Agt, %	Radius for rebend test, degrees
B500B	500	1,08	5,0	90/20
B500C	500	≥1,15<1,35	7,5	



ASTM A615-07 (USA)

Bar designation		Nominal dimensions		Mass (weight) per unit of length, kg/m	** Minimal number of bars in a bundle, pcs
#	No	Diameter, mm	Cross-sectional area, mm ²		
3*	[10]	9,5	71	0,560	295
4	[13]	12,7	129	0,994	166
5	[16]	15,9	199	1,552	107
6	[19]	19,1	284	2,235	74
7	[22]	22,2	387	3,042	54
8	[25]	25,4	510	3,973	42
9	[29]	28,7	645	5,060	33
10	[32]	32,3	819	6,404	26

*Coils of up to 600 kg can be manufactured.

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle of up to 2 t, cut length of 12.0 m -0/+100 mm).

Mechanical properties

Bar designation	Strength grade	Yield strength, pound/inch ² [MPa]	Tensile strength, pound/inch ² [MPa]	Elongation, %	Radius for bend test, degrees
		minimum			
3	Grade 40 [280]	40000 [300]	60000 [420]	11	180
4, 5				12	
6				12	
3, 4, 5, 6	Grade 60 [420]	60000 [420]	90000 [620]	9	
7, 8				8	
9, 10				7	

SI 4466-3-1993 (Israel)

Nominal diameter, mm	Nominal weight (mass) per unit of length, kg/m	Tolerances, %	*Minimal number of bars in a bundle, pcs
8	0,395	+ 4,5/- 2,5	400
10	0,617		256
12	0,888	+ 3,5/- 2,5	179
14	1,21		131
16	1,58		101
18	2,00		79
20	2,47		64
22	2,98		53
25	3,85		41
28	4,83		33
32	6,31		25

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 mm -0/+100 mm).

Mechanical properties

Grade	Yield strength, f_{yk} , MPa	Tensile strength, f_{tk} , MPa	Elongation, ϵ_{sk} , %	Ratio, f_{tk}/f_{yk}	Radius for rebend test, degrees
		minimum			
S 400	400-520	500	12	1,25	90/20

STAS 438/1-89 (Romania)

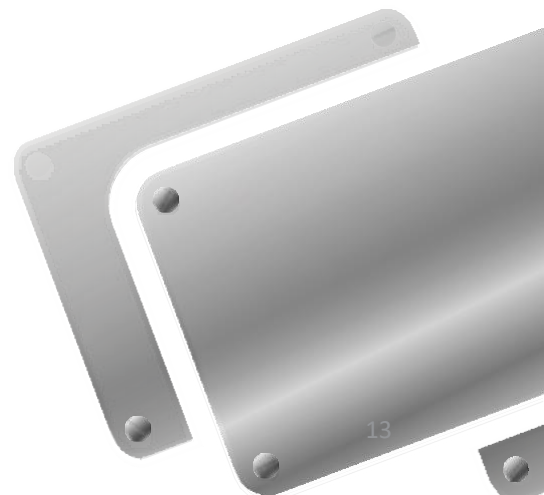
Diameter, mm	Nominal dimensions		Cross-sectional area, cm ²	Mass (weight) per unit of length, kg/m	* Minimal number of bars in a bundle, pcs	
	Tolerances, mm					
	OB 37	PC 52				
6	± 0,3	-	0,283	0,222	-	
7		-	0,385	0,302	-	
8		+ 0,30/- 0,50		0,503	0,395	387
10			0,785	0,617	248	
12			1,130	0,888	177	
14			1,540	1,210	130	
16			2,010	1,580	99	
18	+ 0,3 - 0,5	+ 0,40/- 0,50		2,540	1,990	79
20				3,140	2,470	63
22				3,800	2,984	52
25				4,910	3,850	40
28				6,160	4,840	32
32	+ 0,5 - 0,8	+ 0,40/- 0,75	8,040	6,310	24	

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).

Mechanical properties

Steel grade	Nominal diameter, mm	Yield strength, R_e , N/mm ²	Tensile strength, R_m , N/mm ²	Elongation, A_5 , %	Radius for bend test, degrees
		minimum			
OB 37	6-12	255	360	25	180
	14-32	235			
PC 52	14	355	510	20	
	16-28	345			
	32	335			

Note: reinforcing steel bars PC 52 of 8, 10 and 12 mm can be manufactured in coils.



NT 26.05 (1983) (Tunisia)

Nominal dimensions		Nominal weight (mass) per unit of length, kg/m	*Minimal number of bars in a bundle, pcs
Diameter, mm	Cross-sectional area, mm ²		
8	50,3	0,395	389
10	78,5	0,617	256
12	113	0,888	178
14	154	1,208	130
16	201	1,578	100
20	314	2,466	64
25	491	3,854	41
32	804	6,313	25

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length 12.0 m -0/+100 mm).

Mechanical properties (grade 40)

Nominal diameter, mm	Yield strength, Re, N/mm ²	Tensile strength, Rm, N/mm ²	Elongation, A5, %	Radius for bend test, degrees
	minimum			
≤ 20	410	490	14	180
>20	390			

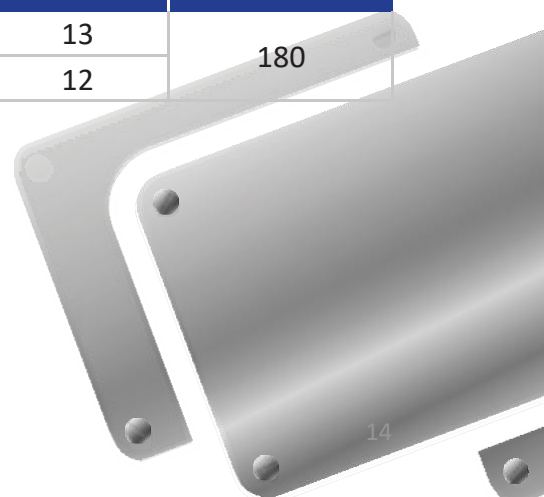
CAN/CSA-G30.18-M92 (Canada)

Bar designation	Nominal dimensions		Weight (mass) per unit of length, kg/m	Tolerances, %	*Minimal number of bars in a bundle, pcs
	Diameter, mm	Cross-sectional area in mm ²			
10	11,3	100	0,785	-6	201
15	16,0	200	1,570		100
20	19,5	300	2,355		67
25	25,2	500	3,925		40
30	29,9	700	5,495		28

*Upon agreement with the customer, minimal number of bars in the bundle can be ensured (bundle up to 2 t, bar length of 12.0 . -0/+100 mm).

Mechanical properties (grade 400W)

Bar designation	Yield strength, MPa	Tensile strength, MPa	Ratio of tensile strength to yield strength	Elongation, %	Radius for bend test, degrees
		minimum			
10, 15, 20, 25	400-525	540	1,15	13	180
30				12	



ISO 6935 2:2007

Nominal dimensions of the bar		Mass (weight) of 1 running meter of the bar (linear density), kg/m			Tolerances, (close), %	*Minimal number of bars in a bundle, pcs
Diameter, d _n , mm	Cross-sectional area, in mm ²	Nominal	Minimum	Maximum		
8	50,3	0,395	0,365	0,425	±7,5	420
10	78,5	0,617	0,583	0,651	±5,5	270
12	113	0,888	0,839	0,937		190
14	154	1,21	1,156	1,264	±4,5	14
16	201	1,58	1,509	1,651		16
20	314	2,47	2,359	2,581		20
25	491	3,85	3,715	3,985	±3,5	25
28	616	4,84	4,671	5,009		28
32	804	6,31	6,089	6,531		32

*Minimal number of bars in the bundle can be ensured (bundle of up to 2 t, cut length of the bar is 12.0 m -0/+100 mm).

Mechanical properties

Class (grade, category)	Yield strength, (Re), MPa,	Ration of ultimate strength to yield strength, R _m /Re	Elongation after fracture (AS), %	Elongation at maximum force (A _{gt}), %
	In limits or minimum			
1	2	3	4	5
B500BWR	500	1,08	14	5,0





MILL BAR

Wire rod

Wire rod refers to widely used in construction material. Galvanized steel wire rod has been applied in an electrician. There are also wire rods, construction wire rod, rebar rod. Wire rod is the raw material for the manufacture of telegraph wires, cables and construction, and related materials for many other structures, is indispensable in the production of wire rod and various industries like welding wire. It is also widely used in the production of wire rod mesh reinforcement concrete products and fittings directly. The primary purpose of hauling rod is the wire. Wire rod - is affordable and high-quality material for the consumer.

The most expensive is the production of wire rod 5mm due to the complicated production processes, and more fiscal rod 8mm. due to the addition of the alloying elements (such as manganese), but the improved mechanical and chemical properties rod. Depending on the diameter of wire rod and steel grade from which it is made varies cost.

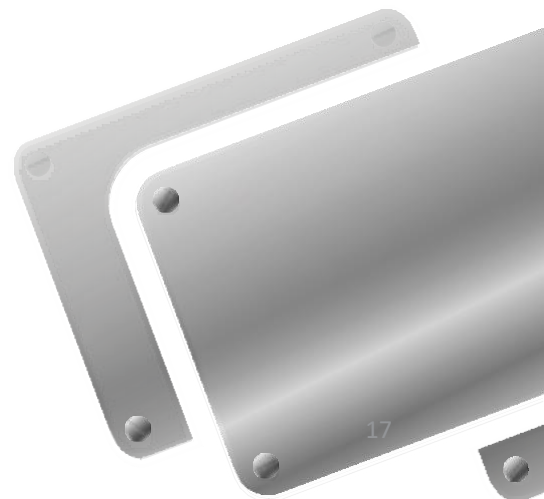
Wire rod is made in different diameters: 5 mm, 6 mm, 6.5 mm, 8 mm, 10 mm, 12 mm, 14 mm, 16 mm, 18 mm, 20 mm, rod 22 mm, 24 mm, 26 mm, 28 mm, etc.

When there is a complex rod manufacturers, the consumer has the choice of the manufacturer. The main principle of the production of wire rod - a continuous casting. Hot rolled wire rod is made of 6mm diameter., 6.5 mm., 8mm., And 10 mm .. The main requirement for wire rod that would de-coiled coils were not confused. Delivery in coils of wire rod carried out. Before use, be sure to check the recommended wire rod mechanical characteristics as wire rod is different in chemical composition.

WIRE ROD



Low-carbone wire rod
GOST 3282-74



Wire rod

Type of wire rod	Standard
Commercial-quality carbon steel wire rod	DSTU 2770-94 (GOST 30136-95)
Carbon steel wire rod of round section	SOU MPP 77.140-236:2008
Steel wire rod of rope grade	DSTU 3683-98
Carbon steel wire rod for wire drawing	ASTM A 510M
Low-alloy and alloy steel wire rod for manufacturing of the welding wire	TU 14-15-345-94, TU 14-15-346-94, TU U 27.1-4-548- 2003, TU U 27.1-24432974-020:2010

Commercial-quality carbon steel wire rod DSTU 2770-94 (GOST 30136-95)

Limit deviation:

- for diameter +0.3/- 0.5 mm
- for out-of-roundness max. 50% of the limit deviations sum

Reference chemical composition

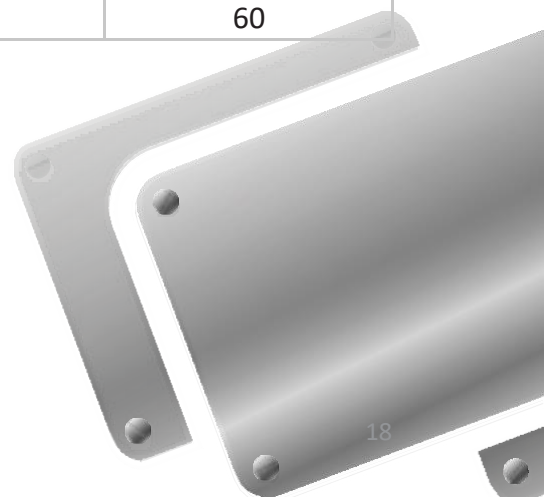
Steel grade	Mass content of elements, %							
	C	Mn	Si	S	P	Cr	Ni	Cu
St1kp	0,06-0,12	0,25-0,50	max 0,05	0,05	0,04	0,03	0,03	0,03
*St1ps	0,06-0,12	0,25-0,50	0,05-0,15					
St2kp	0,09-0,15	0,25-0,50	max 0,05					
*St2ps	0,09-0,15	0,25-0,50	0,05-0,15					
St3kp	0,14-0,22	0,30-0,60	max 0,05					
*St3ps	0,14-0,22	0,40-0,65	0,05-0,15					

The manufacturer guarantees drawing to 2.6 mm from wire rod \varnothing 5.5-6.5 mm.

*Products can be manufactured of continuous cast billets.

Mechanical properties

Steel grade	Tensile strength, N/mm ² , max		Reduction of area, %, min	
	Diameter, mm / weight of coil, kg		Diameter, mm / weight of coil, kg	
	5,5-8,0 / max 600	5,5-14,0/1100-2100	5,5-8,0 / max 600	5,5-14,0/1100-2100
St1kp	420	470	68	66
St1ps	420	470	68	66
St2kp	420	470	60	60
St2ps	420	470	60	60
St3kp	490	540	60	60
St3ps	490	540	60	60



Carbon steel wire rod of round section SOU MPP 77.140-236:2008

Limit deviation:

- for diameter ± 0.4 mm
- for out-of-roundness max. 0.60 mm

Reference chemical composition

Steel grade	Mass content of elements, %							
	C	Mn	Si	S max	P max	Cr max	Ni max	Cu max
*SAE1006	max 0,08	0,25-0,45	*	0,05	0,04	0,15	0,15	0,3
*SAE1008	max 0,10	0,30-0,50	*					
*SAE1010	0,08-0,13	0,30-0,60	*					
*SAE1012	0,10-0,15	0,30-0,60	*					
SAE1013	0,11-0,16	0,50-0,80	*					
SAE1015	0,13-0,18	0,30-0,60	*					
SAE1016	0,13-0,18	0,60-0,90	*					
SAE1017	0,15-0,20	0,30-0,60	*					
*SAE1018	0,15-0,20	0,60-0,90	*					
SAE1019	0,15-0,20	0,70-0,1	*					
SAE1020	0,18-0,23	0,30-0,60	*					
SAE1021	0,18-0,23	0,60-0,90	*					
SAE1022	0,18-0,23	0,70-1,0	*					
SAE1023	0,20-0,25	0,30-0,60	*			-	-	-

Si content is defined upon agreement with the customer. The manufacturer guarantees drawing to 2.6 mm from wire rod $\varnothing\varnothing$ 5.5-6.5 mm made of SAE1006 and SAE1008.

*Products can be manufactured of continuous cast billets.

Mechanical properties (with Si content of 0,05 % max)

Steel grade	Tensile strength, N/mm ² , max		Reduction of area, %, min	
	Diameter, mm / weight of coil, kg		Diameter, mm / weight of coil, kg	
	5,5-8,0 / max 600	5,5-14,0/1100-2100	5,5-8,0 / max 600	5,5-14,0/1100-2100
SAE1006	400	420	23	22
SAE1008	410	430	22	22
SAE1010	430	450	21	21
SAE1012	440	460	20	20
SAE1013	-	470	-	19
SAE1015	-	490	-	18
SAE1016	-	500	-	17
SAE1017	-	510	-	17
SAE1018	-	520	-	17
SAE1020	-	530	-	16
SAE1022	-	540	-	16
SAE1023	-	550	-	16

Upon agreement with the customer wire rod can be manufactured with other chemical composition and mechanical properties.

Steel wire rod for ropes DSTU 3683-98 and similar products as per ASTM A 510M

Limit deviation:

- for diameter +0.3/- 0.5 mm;
- for out-of-roundness max. 50% of the limit deviations sum.

Reference chemical composition DSTU 3683-98

Steel grade	Mass content of elements, %										
	C	Mn	Si	S	P	S+P	Cr	Ni	Cu	N	As
50	0,47-0,55	0,40-0,70	0,25-0,45	0,03	0,03	0,055	0,1	0,1	0,15	0,008	0,08
55	0,52-0,60	0,40-0,70	0,25-0,45	0,03	0,03	0,055	0,1	0,1	0,15	0,008	0,08
60	0,57-0,65	0,40-0,70	0,25-0,45	0,03	0,03	0,055	0,1	0,1	0,15	0,008	0,08
65	0,62-0,70	0,40-0,70	0,25-0,45	0,03	0,03	0,055	0,1	0,1	0,15	0,008	0,08
*70	0,67-0,75	0,40-0,70	0,25-0,45	0,03	0,03	0,055	0,1	0,1	0,15	0,008	0,08

*Products can be manufactured of continuous cast billets (with Si content of 0.17-0.25).

Reference chemical composition ASTM A 510M

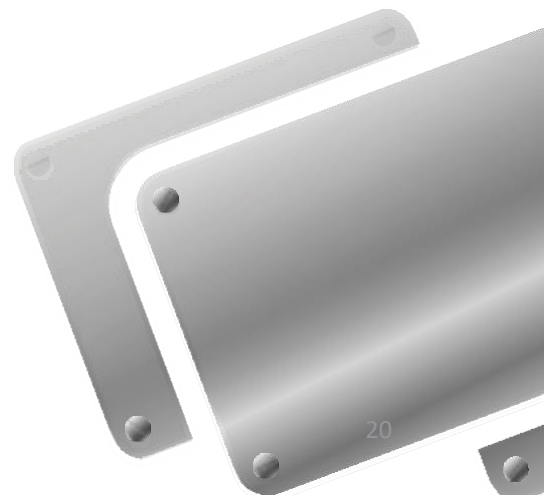
Steel grade	Mass content of elements, %				
	C	Mn	Si	S	P
SAE1055	0,50-0,60	0,60-0,90	*	0,05	0,04
SAE1060	0,55-0,65	0,60-0,90	*	0,05	0,04
SAE1065	0,60-0,70	0,60-0,90	*	0,05	0,04
*SAE1070	0,65-0,75	0,60-0,90	*	0,05	0,04

Si content is defined upon agreement with the customer within the range:

- max 0,05%
- max 0,10%
- 0.10 – 0.20%
- 0.15 – 0.35%

Values of the mechanical properties are to be agreed with the customer.

*Products can be manufactured of continuous cast billets (with Si content of 0.17-0.25).



Low-alloy and alloy steel wire rod for manufacturing of the welding wire
TU 14-15-345-94, TU 14-15-346-94, TU U 27.1-4-548-2003,
TU U 27.1-24432974-020:2010

Limit deviation:

- for diameter +0.3/- 0.5 mm
- for out-of-roundness max. 50% of the limit deviations sum

Reference chemical composition


Steel grade	Mass content of elements, %									
	C	Mn	Si	S	P	Cr	Ni	Cu	Al	Zr
			max							
Sv08	max 0,1	0,35-0,60	0,03	0,04	0,04	0,15	0,3	0,25	0,01	-
Sv08A	max 0,1	0,35-0,60	0,03	0,03	0,03	0,12	0,25	0,25	0,01	-
Sv08G1NMA	0,09	1,0-1,50	0,20-0,45	0,015	0,02	0,3	0,5-0,7	0,25	0,05	-
*Sv08G2S	0,05-0,11	1,80-2,10	0,70-0,95	0,025	0,03	0,2	0,25	0,25	0,05	-
Sv08G2SC	0,05-0,12	1,60-2,10	0,70-1,0	0,025	0,03	0,2	0,25	0,25	-	0,1
Sv08GA	max 0,1	0,80-1,10	0,06	0,025	0,03	0,1	0,25	0,25	-	-
Sv-07HM	0,05-0,09	0,30-0,55	0,12-0,40	0,030	0,025	0,75-1,15	0,30	0,25	-	-
Sv-07G		0,70-1,00	0,06			0,1	0,25	0,25	-	-
Sv-09HM	0,07-0,11	0,35-0,65	0,12-0,35	0,030	0,025	0,2	0,90-1,25	0,25	-	-

*Products can be manufactured of continuous cast billets.

Mechanical properties

Steel grade	Tensile strength, N/mm ² , minimum	Reduction of area, % minimum
Sv08	420	60
Sv08A	420	60
Sv08G1HMA	850	48
Sv08G2S	690	48
Sv08G2SC	850	48
Sv08GA	735	48
Sv-07HM		
Sv-07G		
Sv-09HM		





MILL BAR

Round steel bars

Round steel is one of the most applicable materials for the production. Round steel is very hot in demand; its use is so widespread that the product range of steel can be found in everyday life and in many areas. Parts made from Round steel apply heavy aerospace industry. Round steel can rightly be called a universal material.

Round steel as a form of long products made of steel according to GOST 2590-88: ordinary - ST3, ST2, ST5 and so on, low-alloy st09G2S, st15HSND etc., as of the structural steel St10, St20, st35, ST45 , st40H, st30hgsa etc. as the square of steel wheels are divided on the accuracy of hire: normal precision and high precision - calibrated circle.

The main area of use can be considered as a Round steel construction. Round steel 3 is used in the production of fences, for reinforcement in structures, ligaments for reinforcement of columns, etc.

Round steel of low-alloy (09G2S etc.) It is increasingly used in regions with a low temperature. But in general, the scope of the terms of Article 3 have almost identical. Due to the presence of alloy elements of the circle often used for ground pipelines. For these purposes, use galvanized circular it is more efficient and durable in use.

To produce a critical structures and durable goods used Round steel of structural steel (round steel 10 steel 20, steel 35, steel 45, steel 40, steel, 40Cr steel 30KhGSA). The properties of the structural steel allow carrying out additional heat treatment and quenching, etc., that allows to give more flexibility and hardness.

When coiling springs used in machinery used circles of spring steel. In the most important structures it is recommended to use the circle alloyed and high. Lap steel tool (R6M5, U8, U8A, etc.) applicable in the manufacture of cutting tools.

In the decorative member and employs a circle of stainless steel.

Round steel manufactured in bars:

- measured length;
- multiple dimensional length;
- random lengths.

Round steel, carbon and low alloy steel produced in length from 2m to 12m. The circle of high-quality carbon and alloy steel made from 2m to 6m., Stainless steel from 1m to 6m.

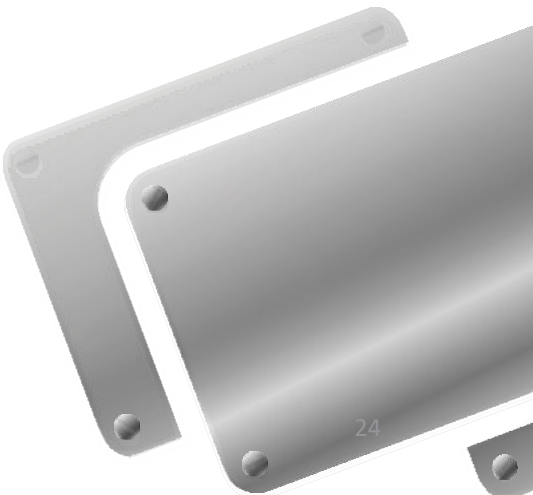
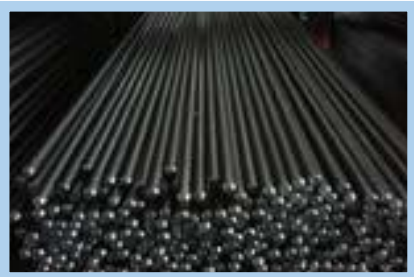
The stock wheels are galvanized coils from 6 to 12 mm and rods from 6 to 40mm. Galvanized circle used for grounding, for lightning, as strong pieces to design and create railway fasteners. We have the ability to order galvanized round steel of different diameters and in the required quantities. Prices of galvanized round steel agreed depending on the volume and timing of the required products. If the thickness exceeds the range of 12 mm, then hot-dip galvanizing is performed by the method and the coating thickness is 150 microns.

Dimensions: $\emptyset\emptyset$ 10-32 mm

Tolerances: for \emptyset 26-30 mm + 0.3 / -0.7 mm; \emptyset 31-32 mm to 0.4 / 0.7 mm



HOT-ROOLED ROUND STEEL BARS



Product mix and standard dimensions

Diameter, mm	Limit deviation, mm	Bar straightness tolerance, %, max
5,5-19	+0,3...-0,5	0,5 % of the length
20-25	+0,4...-0,5	
26-29	+0,3...-0,7	
30-32	+0,4...-0,7	

Mechanical properties (DSTU 4484:2005/GOST 535-2005)

Steel grade	Ultimate tensile strength, N/mm ² , minimum	Yield strength, N/ mm ² , minimum	Percentage elongation, %, minimum	Cold bend test at 180°	Impact strength
St3kp	360	235	27	+	+
St3ps	370	245	26	+	+
St5ps	490	285	20	+	+

Packaging:

- $\varnothing\varnothing$ 10-32 mm – in bundles up to 5 t, 6 to 12 m long (-100/+100 mm)
- $\varnothing\varnothing$ 5.5-14 mm – in coils of 1100-2100 kg
- $\varnothing\varnothing$ 14-32 mm - in coils of 1100-2100 kg





MILL BAR

Wire

Steel wire

Steel wire - metal product, which is used as a proper material for the production of the majority of steel products used on a daily basis, and as a raw material for production. With the increased pace of construction steel wire material is not replaceable for the speedy execution of many works. The popularity of steel wire purchased due to their properties and economy. There is different wire diameter (measured in mm.), the composition of steel and intended use. The material from which the wire is made, a direct effect on the cost. The most expensive wire manufactured from stainless steel and wire aisi 12X18H10T, but they are the most durable.

Galvanized wire

Galvanized Wire is one of the popular products of metallurgical industry. Galvanized wire is widely used in construction and in everyday life. Like the black wire galvanized applied: in the production of reinforced concrete structures, the manufacture of cables and ropes, galvanized grids, drills, springs, nails, electric

wires and electrodes. The wire is used not only for linking and welding, as it is often used for the construction of fences, employees' protection against illegal entry.

Galvanized Wire is a lengthy metal product in the form thread or cord. Produced wire technology consistently drawing the material through tapered holes. Steel, copper, aluminum, titanium, nickel, zinc and other materials and alloys used for the manufacture of wire. The wires are made of two metals or alloys, which are called - bimetallic, if several components - polymetallic.

GALVANIZED STEEL WIRE ANNEALING



HOT ROLLED GALVANIZED WIRE





MILL BAR

Hot rolled square billet

Hot rolled square billet TU U 27.1-00190319-1307-2003

The development of industrial and civil construction affects the growth of various categories of long products. Not spared this trend and square steel billet. The use of steel square billet marked so in the domestic sphere. The method allows the production of square steel long products make this a regular geometric shape. It is this contrast allows a square steel is actively used in the production of forged products (lattices and fences), various ornaments.

HOT ROLLED SQUARE BILLET



Nominal dimensions and estimated mass of one running meter

Dimension, mm	Limit deviation along square side, mm	Difference between the length of the diagonals, mm	Mass of one running meter, kg	Cutting angle max, mm	Billet straightness tolerance, max, length %	Billet twist, max, degrees
150x150	± 5,0	7,0	173,65	8,0	1,5	18,0
130x130	± 5,0	7,0	129,69			
125x125	± 4,0	5,6	120,47			

Nominal dimensions and estimated

Steel grade	Mass content of elements, %							
	C	Mn	Si	S	P	Cr	Ni	Cu
				max				
St3ps	0,14-0,22	0,40-0,65	0,05-0,15	0,05	0,04	0,3	0,3	0,3
St5ps	0,28-0,37	0,50-0,80	0,05-0,15	0,05	0,04	0,3	0,3	0,3
St3Gps	0,14-0,22	0,80-1,10	0,05-0,15	0,05	0,04	0,3	0,3	0,3
St5Gps	0,22-0,30	0,80-1,20	0,05-0,15	0,05	0,04	0,3	0,3	0,3
SAE1006	max 0,08	0,25-0,40	*	0,05	0,04	0,15	0,15	0,3
SAE1008	max 0,10	0,30-0,50	*	0,05	0,04	0,15	0,15	0,3

Si content is defined in range:

- max 0,05%
- max 0,10%
- 0,10-0,20%
- 0,15-0,35%

Upon the agreement with the customer the chemical composition can be adjusted as well as the billets can be manufactured of other steel grades.

Packaging: in bulk, up to 12 000 mm long (+0/200). Upon the agreement with the customer the packaging in bundle is possible.

Marking: by stamping the billet face.





MILL BAR

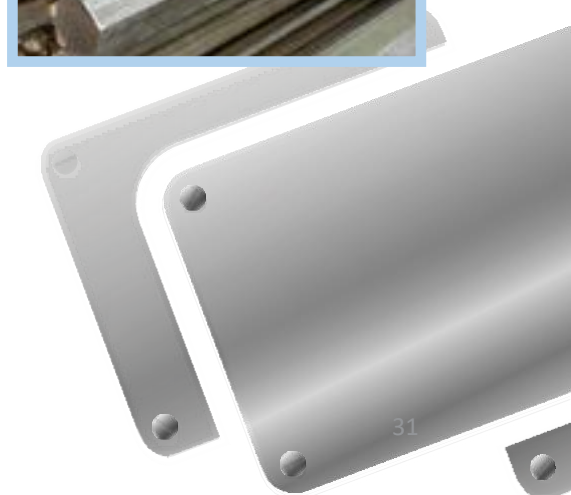
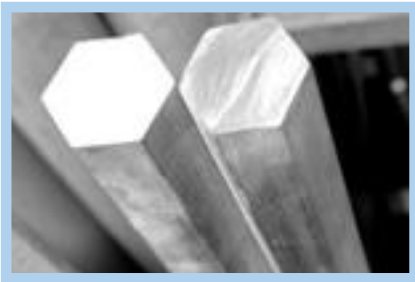
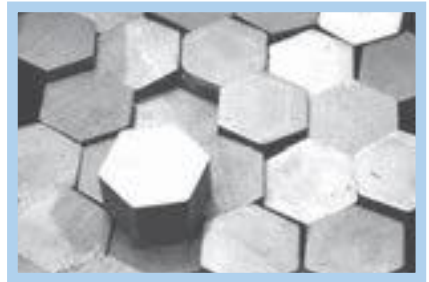
Hot-rolled hexagonal billet

Hexagon is a detail that is needed when dealing with fasteners and mechanisms, ie for construction purposes. It rolled steel, which has a hexagonal cross section. The diameter of the inscribed circle at the same time is eight hundred millimeters.

The hexagon is made of carbon steel (unalloyed tool) on the state standard 1435-99. This calibrated hexagons hot. If guided by the GOST 2879-88, taken as a raw high-alloy steel or carbon steel, alloy hot-rolled. Standard 8560-78 regulates the production of hexagons, section size ranging from three to one hundred millimeters. For them take steel grade is called "ST45". If the product is marked with this marking such as kalibr.15 ST45 L = 12 GOST 8560-78, this calibrated hexagon has a length of twelve meters, made from steel grade and the forty-fifth the size of its cross section - fifteen millimeters. Each product that has passed all stages of inspections must have the mark of qualifying parameters.

Classification of hexagons. A hex may differ from each other in such parameters as: 1) the appointment of Allen (depending on the brand of the steel that goes into its production); 2) as intended, but depending on the percentage of nickel, copper and chromium in the alloy); 3) chemical composition of the hexagon

(hex or just high quality); 4) type post-processing hexagon (cold drawing processing pressure (hot) or cold machining type); 5) state of the material of the hexagon (cold-worked subjected to / not subjected to heat treatment); 6) by type of finish and the quality of the surface of the hexagon (calibrated, hot-forged); 7) accuracy rolling hexagon (normal or high accuracy); 8) the length of the hexagon (unmeasured, dimensional, multiple-dimensional) - from two to six meters. However, the buyer may demand to receive the rental length and a half to twelve meters.





MILL BAR

Steel strips

Hot-rolled steel strips GOST 103-76

Steel strips are another kind of universal high-quality metal. Steel strip can be used as raw materials for production, such as a corner, bent channel, and as a separate material in the manufacture of structures, the same strip and rolled strip steel used in the manufacture of springs, cutting tools, and construction needs.

Today, the trend of construction is such that the most part of the project implemented with hardware, which is not rarely used metal strip and rolled strip. Often the band steel strips and used for decorative purposes, as decoration of buildings. Covering strip steel corrosion material (e.g., paint) starting material is more durable and strong.

Metal strips corresponds to GOST 103-76, gauge the width of 4.5 mm to 56 mm and a thickness of 36 mm. Strip steel is produced by hot rolling of steel strip carbon st3 through rolling mills, also made of alloyed steel strip. Hot-rolled strip produced high and normal accuracy of 3 to 10 m.

Strips are made by metal cutting or cutting sheets and rolls on the strip. Strips of steel billets for production of welded tubes and strips. Strips of metal GOST 535-88 varietal refers to the structural shapes.

In coordination with the consumer probably manufacturing metal strips and intermediate widths and thickness.

Blunting angles metal strips of thickness less than 0.2 but not more than 3 mm. Metal strips are produced:

- measured length;
- multiple dimensional length;
- random lengths.

Tolerances on length of steel strips dimensional and multiple dimensional length should not exceed:

- 30 mm - for steel hot rolled strip up to 4 m;
- 50 mm - for steel hot strip length St. 4 to 6 m;
- 70 mm - for steel hot strip length St. 6 m;
- 200 mm - for a steel hot strip produced with mills shtripsovyh.

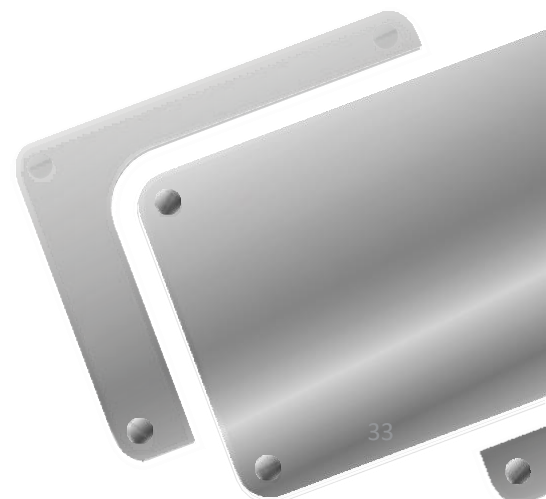
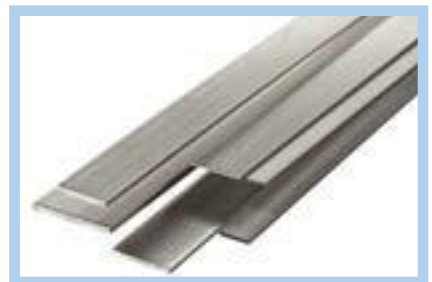
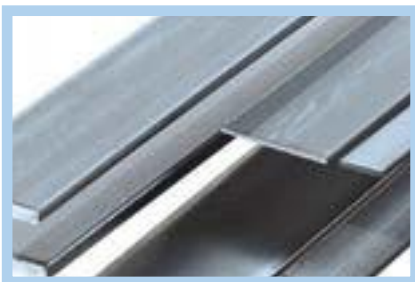
Upon request strip steel of up to 30- 20 mm can be produced in rolls.

Camber steel strip should not exceed:

- 0.2% of the length - for bands 1 class;
- 0.5% of the length - for bands 2 class.

Camber metal strip is checked when the length of manufactured bands not less than 1 m.

STEEL STRIPS



Hot-rolled steel strips GOST 103-76

Limit deviation by the flat bar width:

- 20 to 60 mm +0.5/-1.0 mm
- 63 mm +0.5/-1.3 mm
- 70-75 mm +0.5/-1.4 mm

Limit deviation by the flat bar thickness:

- 4 to 6 mm +0.3/-0.5 mm at width of 11 to 60 mm
- 6 to 16 mm +0.2/-0.5 mm at width of 63, 65 mm

Product mix and standard dimensions

Width, mm	Thickness (height), mm						
	4	5	6	7	8	10	12
20	+	+					
22			+				
25	+	+	+				
30	+	+	+	+	+	+	
32		+	+				
35	+		+				
40	+	+	+		+	+	
45		+			+		+
50	+	+	+		+		
60	+	+	+		+	+	+
63			+				
65			+				
70		+	+		+	+	
75			+				

*Upon agreement with the customer other thickness of the flat bar is possible.

Mechanical properties (DSTU 4484:2005/GOST 535-2005)

Steel grade	Ultimate tensile strength, N/mm ² , minimum	Yield strength, N/mm ² , minimum	Percentage elongation, %, minimum	Cold bend test at 180°	Impact strength
St3ps	370	245	26	+	+

Packaging: in bundles up to 5 t, length of 6 to 12m (0/+100 mm).



Galvanized steel strips

Galvanized steel strips are most often used for grounding. Implementation of galvanized strips occurs on the actual weight in kilograms or the theoretical weight in meters.

The conversion factor for the steel band:

- 25h4: 1kg = 1.20 m;
- 40h4: 1kg = 0.77 m.

Galvanized strips for grounding usually comes:

- rolls of 50 to 65 kg-size 40hx4, 25hx4mm.
- In the tree lengths from 3 to 6 am-size 40hx4, 25hx4mm.

The main purpose of using strips galvanized by grounding this protection.

Modern living conditions require special attention to the safety of buildings and related projects, such as a pipeline. Using strip galvanized to reduce the effects of natural phenomena. It is no secret that a lightning strike can lead to destructive consequences, failure of equipment in contact with the electric discharge. The use of galvanized strip for installation of equipment to reduce the risk not only the equipment, but also to protect people who may be near the equipment.

Often galvanized strip used in the protection of wires and electric cables which are located in the settlements.

Use of the bands in galvanized pipes greatly increases their service life, as in the process of hot-dip galvanized strip GOST 103-76, output voltage accumulating natural properties, further reducing the corrosion of the metal.

During the construction at a depth of 0.5 meters around the perimeter of the building, a ring made of galvanized strip that allows you to take most of the stress and reduces the risk of possible damage during operation of the building rights.

The technological process of galvanizing the strip takes place in several stages. There are several methods of galvanizing:

- Electroplating;
- Hot-dip galvanized;
- Thermal diffusion.





MILL BAR

Steel channel

Steel channel GOST 19425-74

The standard applies to hot-rolled steel channels used in the automotive industry. Precision rolling special steel sill according to GOST 19425-74: high-precision A and single-precision-B. The length of the sill of special steel from 4 to 13 m. To increase the life of the structure is often used additional corrosion protection: hot-dip galvanizing.

Steel equal channel GOST 8278-83

Steel equal channel has rounded corners on the outside and different from the same hot-thick sill around the perimeter. Brand steel for sill bent st3 ps / ch. Available Channel Formed equilateral GOST 8278-83 measured length of 10m and unmeasured from 4m to 10m. Formed equilateral channels, made of cold-rolled and hot-rolled steel, ordinary quality by rolling mills to roll forming, also can be used for the production of high-quality carbon structural steel and low alloy.

Channel shaped: **U** - sloping shelves internal faces; **P** - parallel-sided shelves; **E** - efficient parallel-sided shelves; **L** - light series with parallel edges of shelves; **C** - Special.

STEEL CHANNEL



Steel Channel



Steel Channel



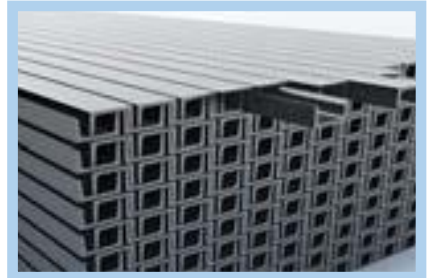
Steel Channel



Steel Channel



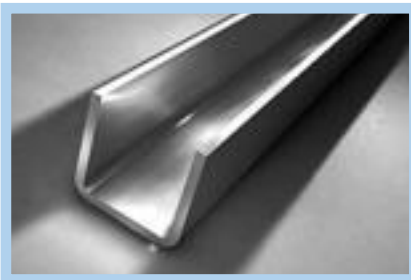
Steel Channel



Steel Channel



U-Channel



Equal Channel



Equal Channel



Equal Channel



Equal Channel



Equal Channel



Equal Channel





MILL BAR

Angle

Small steel hot-rolled angle bar GOST 8509-93, GOST 8510-86, GOST 19772-93, GOST 19771-93

Today it is not possible to build any of the design, construction or building without the use of angle bar: hot, equilateral (GOST 8509-93), hot (hot-rolled) unequal (GOST 8510-86), and cold-equilateral (GOST 19771-93), and cold-unequal (GOST 19772-93) rolled. The main application of angle steel in structures as a load-bearing and for ligament reinforcement and stroke. Often angle steel is used for decorative purposes.

Steels for the production of metal brackets:

- ordinary quality (GOST 380-88) marks: 0 Article, Article 3kp, Art 3br, st5ps,
- the angle of the high-strength steel (GOST 19281-89) steel 09G2S

The most popular of the angle iron steel metal black ordinary quality. From manufactured of angle bar- equilateral metal corner the hottest producers. Scope angle GOST 8509-93 construction of various scales during repair, replace or at summer residents.



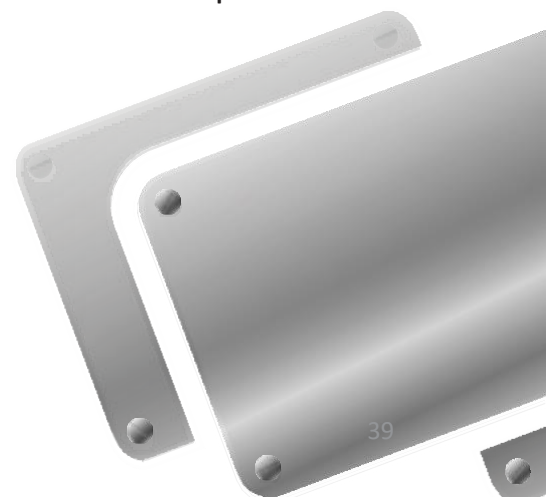
Dimensions of the building angle bar standardized sizes specified flange width and thickness of the shelves in mm. Available Building metal area since the flange width 20mm and 200mm end. With a universal form of steel corner profile allows you to use it in almost all the projects, and the number of designs and products using a steel bracket perhaps the most diverse in comparison with other types of long products.

By rolling precision steel angles are produced of: area of high precision steel and area of steel usual accuracy. Room corner corresponds to the width of the steel shelves, expressed in mm. Along the length of the shelf area of steel distinguished: equal and unequal area. At length equal angles hot shelves around the same cross section. At the angle of unequal length hot shelves and different angle GOST 8510-86 produced a more limited product mix compared with equal angles. Equal and unequal angles made of quality carbon steel GOST 380-94 brands: St0 St3kp, St3sp / ps, low-alloy steel (high strength) GOST 19281-89 brands: 09G2S, 15HSND. Steel angle bar 09G2S (low alloy steel) is recommended for use in the construction and production of certain fixed and variable loads, and in areas with low temperatures. The length of the standard steel brackets: 6 m, 9 m, 10 m, 11.7 m, 12 m. Apart from random length corner from 4 to 12 meters. Mounting brackets are longer than 12 meters are made to order. In the production of dimensional corner allowed, according to GOST, the presence of unmeasured parts of no more than 15% of the total number of islands.

Hot-rolled angle made from hot rolling mills in the blanks. The technology of production of steel angle such that toe sides kept almost without radius outer side. But on the inside radius of the present, which increases the strength of the profile, as a kind of stiffener (optional).

At the angle of a cold-rolled steel at least a limited range of products, as for the production of cold-formed steel angle using a different technology. Produce area of cold steel billets. Using GOST 19771-93 angle usually for decorative purposes, for the manufacture of load-bearing structures not in use. For the production of cold-rolled angle of ordinary steel. Length of cold-rolled angle: 6m, 10m, 12m.

To increase the life of the structure is often used additional corrosion protection: hot-dip galvanizing.



Hot-rolled steel bars (angle steel with equal legs) DSTU 2251-93 (GOST 8509-93)

Product mix and standard dimensions

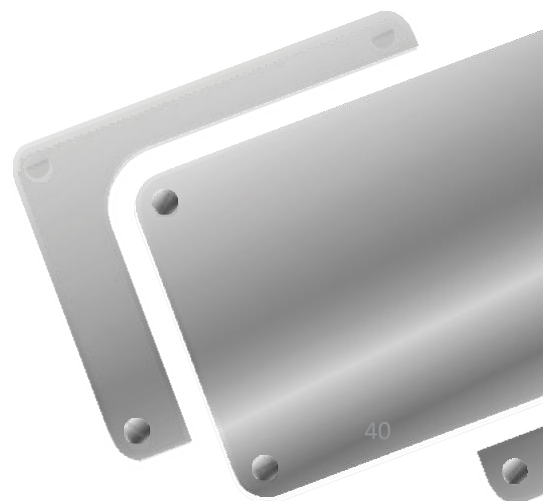
Dimension, mm	Leg thickness, mm					Limit deviation, mm		Out-of-straightness of angle steel bar, % per m
	2,5	3	4	5	6	By leg width	By leg thickness	
20x20			+			+1...-1	+0,3...-0,4	0,4 % of the length
25x25			+					
30x30			+					
32x32		+	+					
35x35		+	+					
40x40		+	+					
45x45			+					
50x50				+				

*Upon agreement with the customer other thickness of the flat bar is possible.

Mechanical properties (DSTU 4484:2005/GOST 535-2005)

Steel grade	Ultimate tensile strength, N/mm ² , minimum	Yield strength, N/mm ² , minimum	Percentage elongation, %, minimum	Cold bend test at 180°	Impact strength
St3ps	370	245	26	+	+
St5ps	490	285	20	+	+

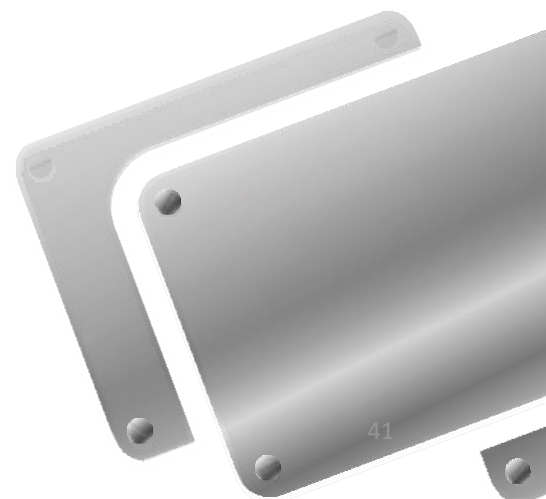
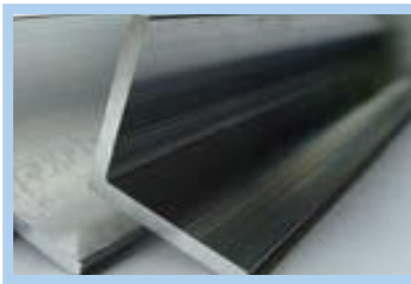
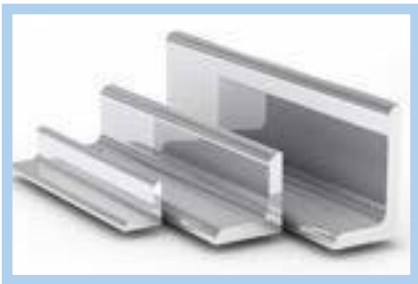
Packaging: fish-bone packing - in bundles up to 5 t, 6 to 12 m (+100 mm).

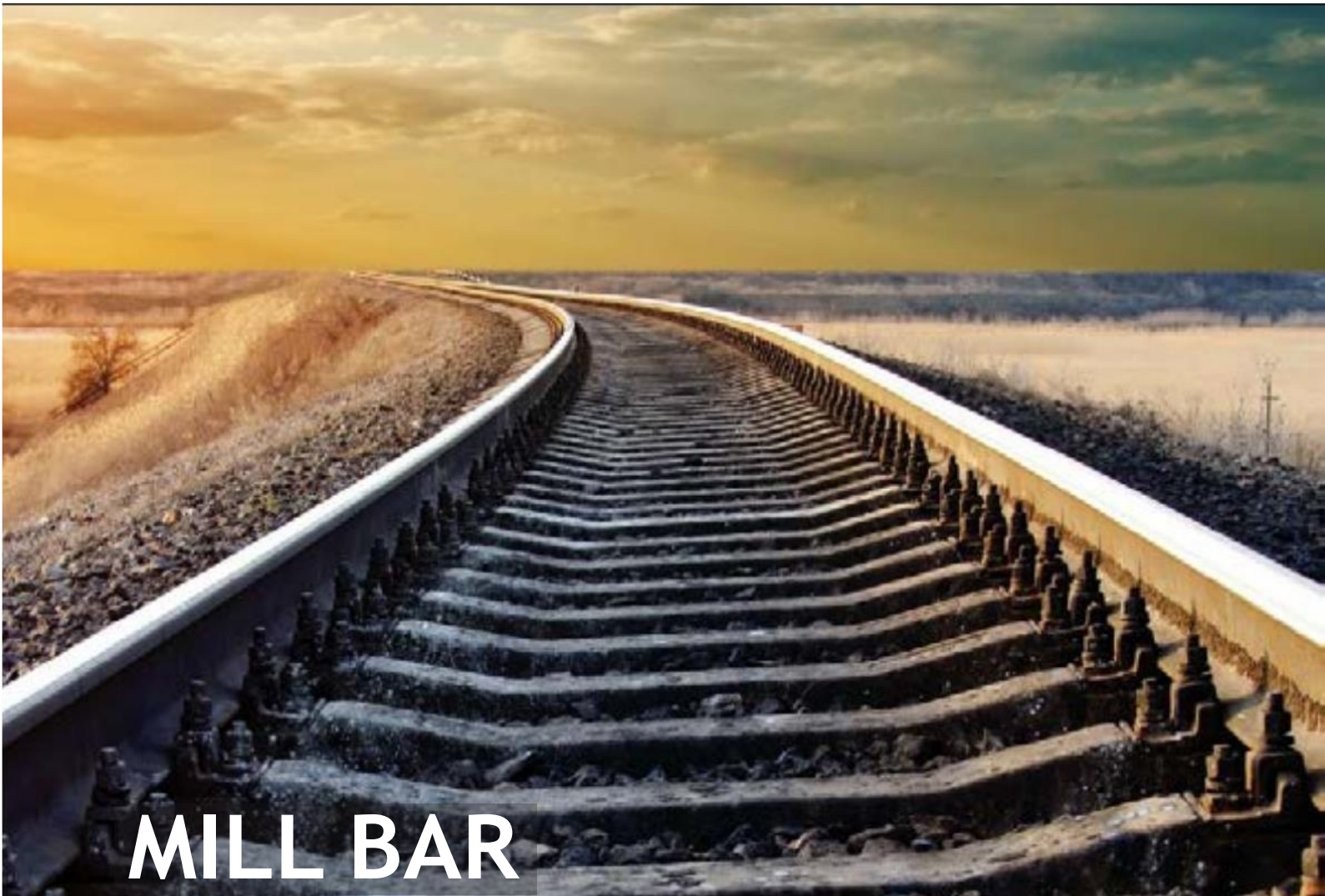


Galvanized hot-rolled steel angle

The main purpose of galvanized steel angle securing the external structures, due to increased resistance to corrosion material. Small hot galvanized widely used in the construction industry, and civil. For example, when covering buildings roofing sheets using galvanized roofing area. Angle galvanized by various methods gives it a modern, aesthetic look, it can be used in the decoration of buildings, premises, not only on the outside but on the inside. In the manufacture of metal structures its frequent use is associated with resistance to corrosion.

GALVANIZED HOT-ROLLED STEEL ANGLE





MILL BAR

Rails

The rails are designed to guide the wheels during their movement of railway vehicles, urban rail transport, specialized staff in mines, quarries, crane equipment and transfer loads directly perceived by the pressure wheels on the underlying elements of the way - sleepers.

Railway rails

Railway rails is the most popular type of rails used for the construction of broad-gauge railway tracks and turnouts manufacturing. Labeling: R50, R65. The standard length of 12.5 and 25 meters. Weight of one meter, is approximately equal to the figure specified in the designation - 50 and 65 kilograms respectively. The design and dimensions of rails according to GOST 7174-75, GOST 8161-75 and GOST 16210-77.

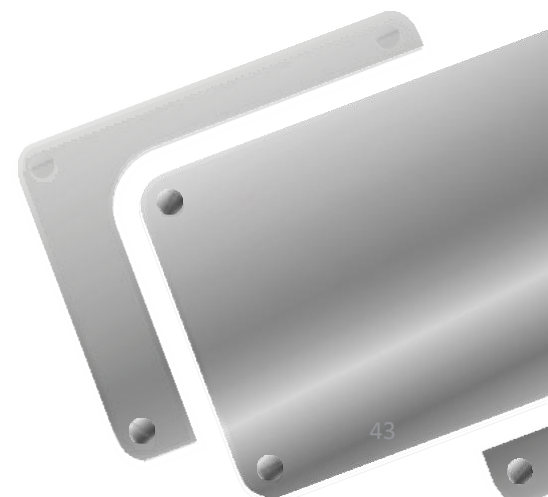


Crane rails

Crane rails is the most massive kind of rail. It is used for the construction of crane runways for cranes. This type of rail is remarkable in that the rails can be installed not only in two rows - a two line path, but in three or four lines, depending on requirements. Marking: KR 50, KR 70 KR 100. Crane rails are manufactured in accordance with GOST 4121-96.

Besides dividing the intended rails are divided according to: quality (thermo strengthening rails); the presence of the bolt holes; method of steel production and others. These characteristics have an impact on the price of the rails.

CRANE RAILS





FLAT PRODUCTS

Cold-rolled steel sheet

**GOST 19904-90, GOST 16523-97) in rolls or sheets
(st.08ps, 08U, 20ps)**

Cold-rolled sheet (GOST 19904-90, GOST 16523-97) in rolls or sheets. (st.08ps, 08U, 20ps). Cold-rolled steel sheet gets its name from the method of manufacture. The main applications of cold-rolled sheet - stamping and bending.

Cold-rolled sheet steel is made in accordance with GOST 19904-74, GOST 16523-97 thickness from 0.35 mm to 5 mm. Cold-rolled sheet steel is most often used in the manufacturing industry- manufacture of materials for further processing such as corrugated, perforated sheet, galvanized sheet and color coated. Sheets Cold is also used as a raw material for the manufacture of metal and profile wall sheets. Cold-rolled sheet steel is used in a variety of industries: shipbuilding, automotive, instrumentation.

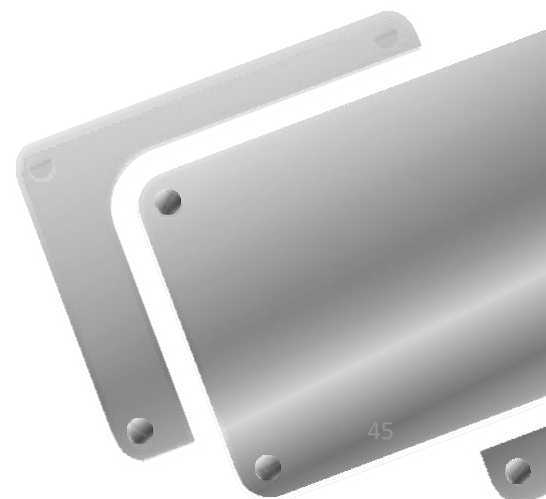
Production of cold-rolled sheet consists of three main stages:

- The first stage is the method of hot rolling is made the roll out.
- The second step consists in etching the hot-rolled sheet steel.
- In the third step the metal reaches the cold rolling mill.
- Next sheet cold-formed into a roll or sheet left.

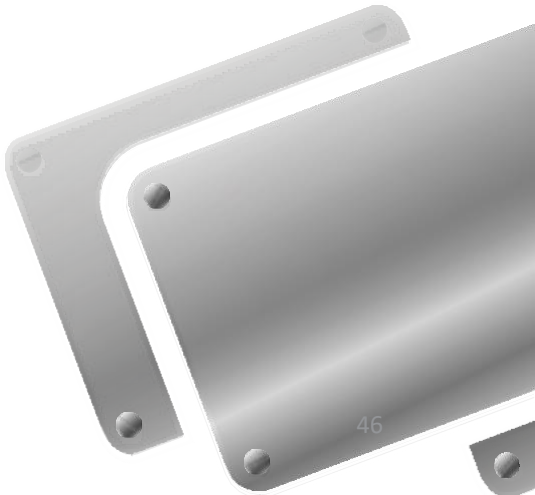
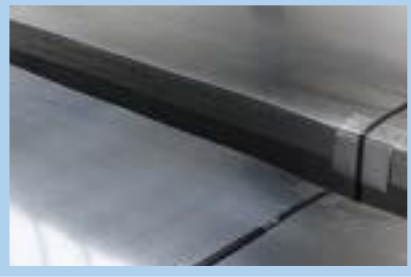
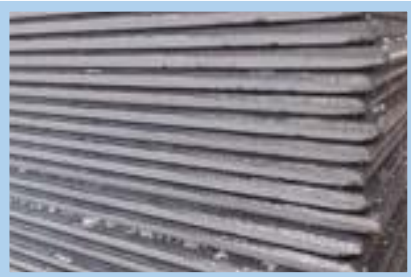
Sheets made of steel grades st.08ps, 08U, 20ps. This product is divided into sheets (with cut edge) and rolls (with edging and trimming edge).

Rolled constructional sheet is divided into:

- Sheets x / general purpose to the construction, manufactured in accordance with GOST 16523-89. Range GOST 19904-74. The chemical composition of the steel shall conform to GOST 1050-88 By standard characteristics is divided into 5 categories. The quality of surface finish is divided into groups I, II, III. By the ability to extract (up to 2 mm thickness) D - deep and N - normal.
- Sheets x / to low carbon quality for cold stamping, manufactured in accordance with GOST 9045-93 up to 3,9mm thick of steel grades: 08U, 08ps, 08kp. Range GOST 19904-74 chemical composition of the steel shall conform to GOST 9045-93. By the ability to extract rent is divided into 4 categories.



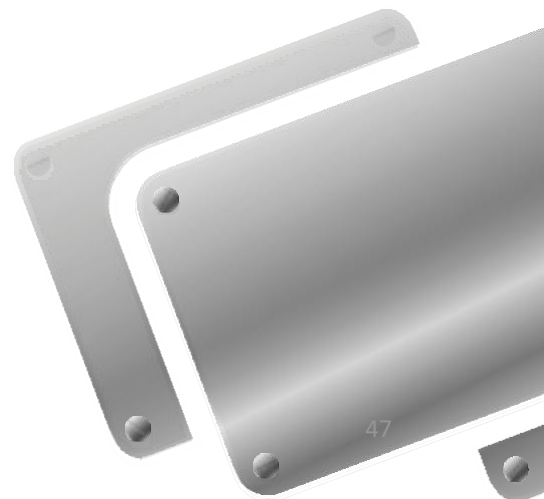
COLD-ROLLED STEEL SHEET



Cold-rolled sheet GOST 19904-74, GOST 9045-93, GOST 16523-97

Cutting sheet weight and gauge

Item, thickness, mm	Nesting layout, mm	Steel
Cold-rolled sheet 0,5	1250x2500	08, 08, 20
Cold-rolled sheet 0,6	1250x2500	08, 08, 20
Cold-rolled sheet 0,7	1250x2500	08, 08, 20
Cold-rolled sheet 0,8	1250x2500	08, 08, 20
Cold-rolled sheet 0,9	1250x2500	08, 08, 20
Cold-rolled sheet 1,0	1250x2500	08, 08, 20
Cold-rolled sheet 1,2	1250x2500	08, 08, 20
Cold-rolled sheet 1,4	1250x2500	08, 08, 20
Cold-rolled sheet 1,5	1250x2500	08, 08, 20
Cold-rolled sheet 1,8	1250x2500	08, 08, 20
Cold-rolled sheet 2,0	11250x2500	08, 08, 20
Cold-rolled sheet 2,5	1250x2500	08, 08, 20
Cold-rolled sheet 3,0	1250x2500	08, 08, 20





FLAT PRODUCTS

Hot-rolled steel sheet

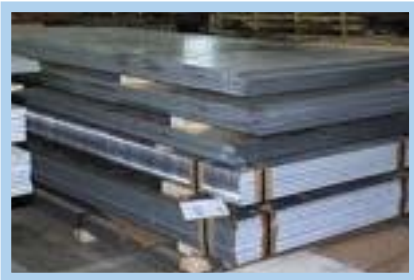
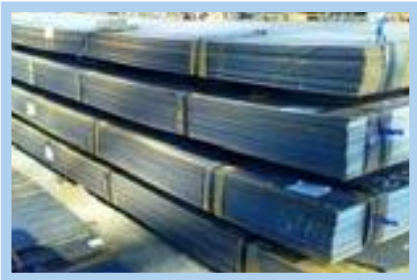
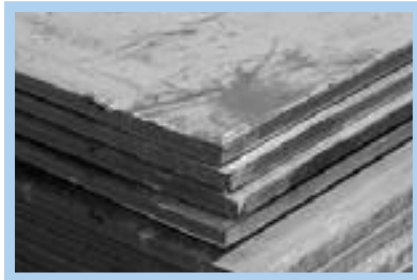
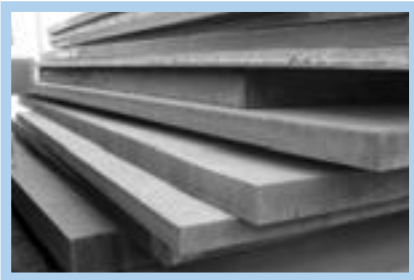
GOST 19903-90, GOST 14637-89 in rolls or sheets

Using the steel sheet is widely used in more than one sector. Constantly growing demand affects producers who are trying to keep up with the market. A large proportion of objects around us is made of sheet metal. Hot-rolled steel sheet has found its application in mechanical engineering, architecture and significant role he still plays in the construction as a separate material. Frequent use of the hot-rolled sheet mix is regarded as an intermediate material.

Supply of hot-rolled steel sheet available in rolls and sheets. Sheet width depends on the manufacturer and thicker, but the basic (standard) dimensions is considered to be a thickness of 0.5 to 3,9mm.- 1250h2500mm., With a thickness of over-4,0mm. 1500h6000mm.

Steel sheet GC produced in accordance with GOST 19903-74, GOST 14637-89. The application rolled sheet steel must take into account the steel grade, which determines the chemical composition.

HOT-ROLLED STEEL SHEET



Hot-rolled steel sheet GOST 19903-74, GOST 14637-89

Cutting sheet weight and gauge

Item, thickness, mm	Nesting layout, mm	Steel
Hot-rolled steel sheet 1,5	1250x2500	3
Hot-rolled steel sheet 2,0	1250x2500	3
Hot-rolled steel sheet 2,5	1250x2500	3
Hot-rolled steel sheet 3,0	1250x2500	3
Hot-rolled steel sheet 3,5	1250x2500	3
Hot-rolled steel sheet 4,0	1500x6000	3
Hot-rolled steel sheet 5,0	1500x6000	3
Hot-rolled steel sheet 6,0	1500x6000	3
Hot-rolled steel sheet 8,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 10,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 12,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 14,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 16,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 18,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 20,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 25,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 30,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 32,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 36,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 40,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 50,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 60,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 70,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 75,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 80,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 90,0	1500x6000, 2000x6000	3
Hot-rolled steel sheet 100,0	1500x6000, 2000x6000	3

Hot-rolled steel sheet also includes:

- low-alloy steel: I09G2, 09G2S, 09G2S-12 17G1S, 17G1SU, 10HSND;
- structural steel: 08 (CP-MS), 10 (CP-MS), 15 (CP-CP) St20 (KP-PS), St25, St30, St35, St40, St45.



FLAT PRODUCTS

Stainless steel sheet

Stainless steel sheet is used not only in construction but also in other areas of production. Stainless sheet used in outdoor advertising, Kitchenware, for the manufacture of equipment in the field of food production, as well as in architecture (to create the entire architectural complexes) and more. The popularity of the sheet due to its many advantages - mostly stainless steel has an aesthetic appearance, has a very long service life, resistance to corrosion, which makes these products more marketable. The sheets are available both imported (AISI304, AISI321, AISI316L, AISI 316Ti, AISI 310S) and domestic production (12X18H10T 08X18H10T, 20X13, 40X13, 14h17N2, 20H23N18). Cutting standard stainless sheets: 1000h2000, 1250h2500, 1500h3000, 1500h6000, depending on the thickness of the sheet distinction (from 0.4 to 3.9 mm) and thick (4 to 160 mm) rolling, and a method for producing (cold-rolled) . There are stainless steel sheets of the food, which is used in the production of many domestic enterprises. (12X18H10T 08X18H10T). Stainless sheet produces high, normal and high accuracy.

Types of surface: matte (1D or-M2B M4B, 2B or M2A-M4A); polished (4N + PE); mirrored (BA + PE); super mirror (8N); grooved (1M); textured (DECO 1: 8: 9: 16).



FLAT PRODUCTS

Galvanized steel sheet

In ancient times, the zinc often also called false silver. But in the age of technology, this metal took in life, perhaps a very significant place. Of particular importance for the application of anti-corrosion properties of zinc discharged. Ever since the discovery of iron held in the life of all peoples to this day the main place, in work and in everyday life. But the properties of iron are such that under the influence of natural factors, it “splits”, and the main task for the debt of time (even today) the most “light” head solve the problem of extending the life of what has already been built or will be put into operation. Timely discovery of zinc as a chemical element is still virtually the main way to protect against corrosion. The development of the metallurgical industry not ignored zinc and as a result we have a galvanized sheet metal. Galvanized sheet produced by coating the surface of zinc in accordance with the process.

Galvanized sheet perhaps the only material that can be applied in virtually all areas of our lives. Galvanized coated (painted sheet) is another kind of galvanized sheet.

Haunted and thought to increase the service life of products. Over the years, the development of sheet steel has become an integral part of the production and life. With the development of the galvanized coating technology significantly increased the possibility of industry and manufacturing, and we see a significant improvement in the quality of life of modern man, which is not the last role played by galvanized steel sheet, galvanized sheet painted (coated).

Galvanized steel demand not only from the producers but also from individuals. Increased attention galvanized sheet deserved thanks to the high strength and durability, thanks to these properties, the demand is not reduced, but rather is constantly growing.

Application of sheet and rolled galvanized virtually limitless. Galvanized sheets are so widely used that it is difficult to imagine what material can replace galvanized steel. At home, on the street and at work we are surrounded by products from galvanized steel. Galvanized steel with polymer coating is a raw material for the production of corrugated board. Galvanized found use in beautification, as a raw material for many products. Machines, tools, doors, fences is not the whole list use galvanized sheet steel. The corrosion resistance of zinc galvanized rolled allowed to occupy a leading position in use.

Galvanized sheet and rolled coil manufactured according to GOST 14918-80 in width from 710 to 1800 mm. inclusive, a thickness of 0.3 mm. to 3 mm. and a length of 400 mm. up to 6000 mm.

The main coated galvanized sheet is considered to be covering the 2nd class without crystallization patterns. What ensures a long service life of galvanized sheet, which is very important for all consumers.

We know that the galvanized steel will remain for a long time leader of the main raw material for producers, but not one kind of new materials to be developed is based on galvanized sheet.

Given the time, which showed that without the use of galvanized sheet, our lives would be different. Zinc can rightly be called “gold” discovery of mankind.

Galvanizing roll manufactured in accordance with GOST 14918, 52246-2004.

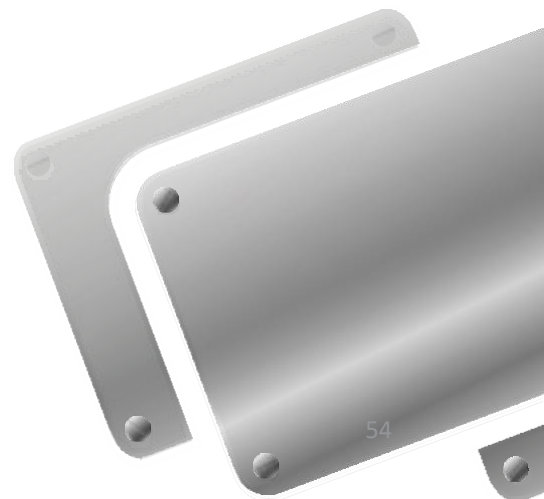
Roll width - standard 1250mm and 1000mm to 1500mm and unconventional. Roll packed galvanized after cutting. Bolt galvanized manufactured in strict accordance with state standards.



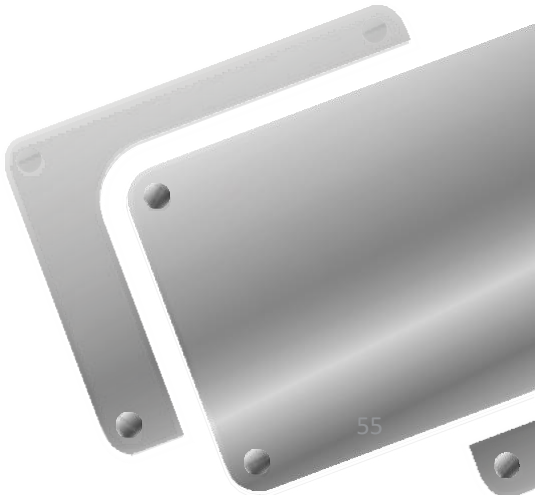
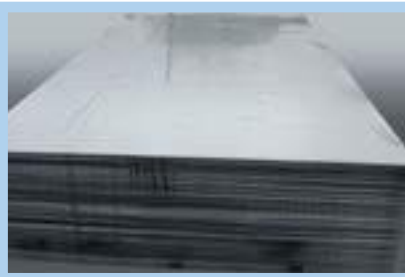
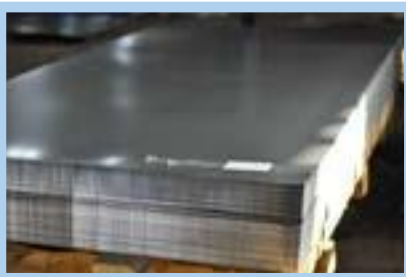
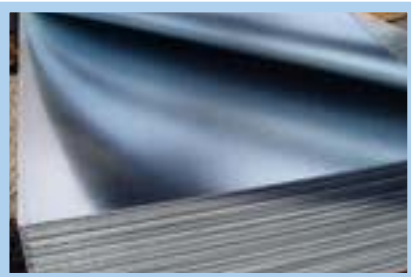
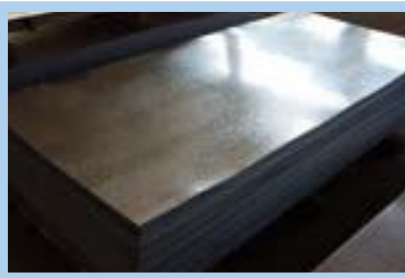
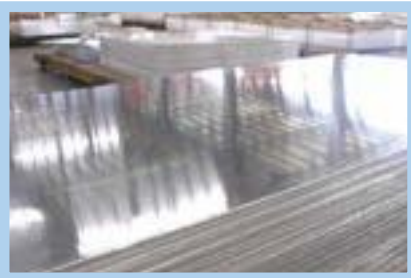
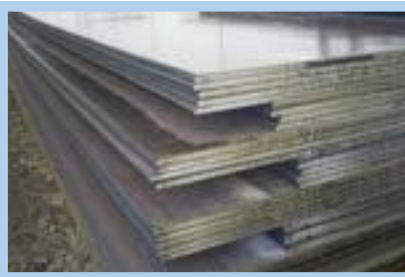
There are groups of galvanized roll:

- Galvanizing first group is labeled HS. Used in the manufacture of cold forming.
- Galvanizing second group is labeled PC. Suitable for subsequent painting.
- Galvanizing third group is labeled HP. It is used for cold forming.
- Galvanizing fourth group is labeled ON. It is a general-purpose steel.

Galvanized steel coil is widely used in various industrial fields. Galvanized coils are used in the manufacture of parts for the automotive industry and in construction, the manufacture of zinc-coated parts for facades connecting the castle. You can buy a roll of galvanized on one square meter of galvanized steel to the whole car. Galvanized steel is used for the manufacture of sandwich panels and manufacture of roofing materials. Bolt galvanized easy to any treatment.



GALVANIZED STEEL SHEET





STAINLESS PRODUCTS

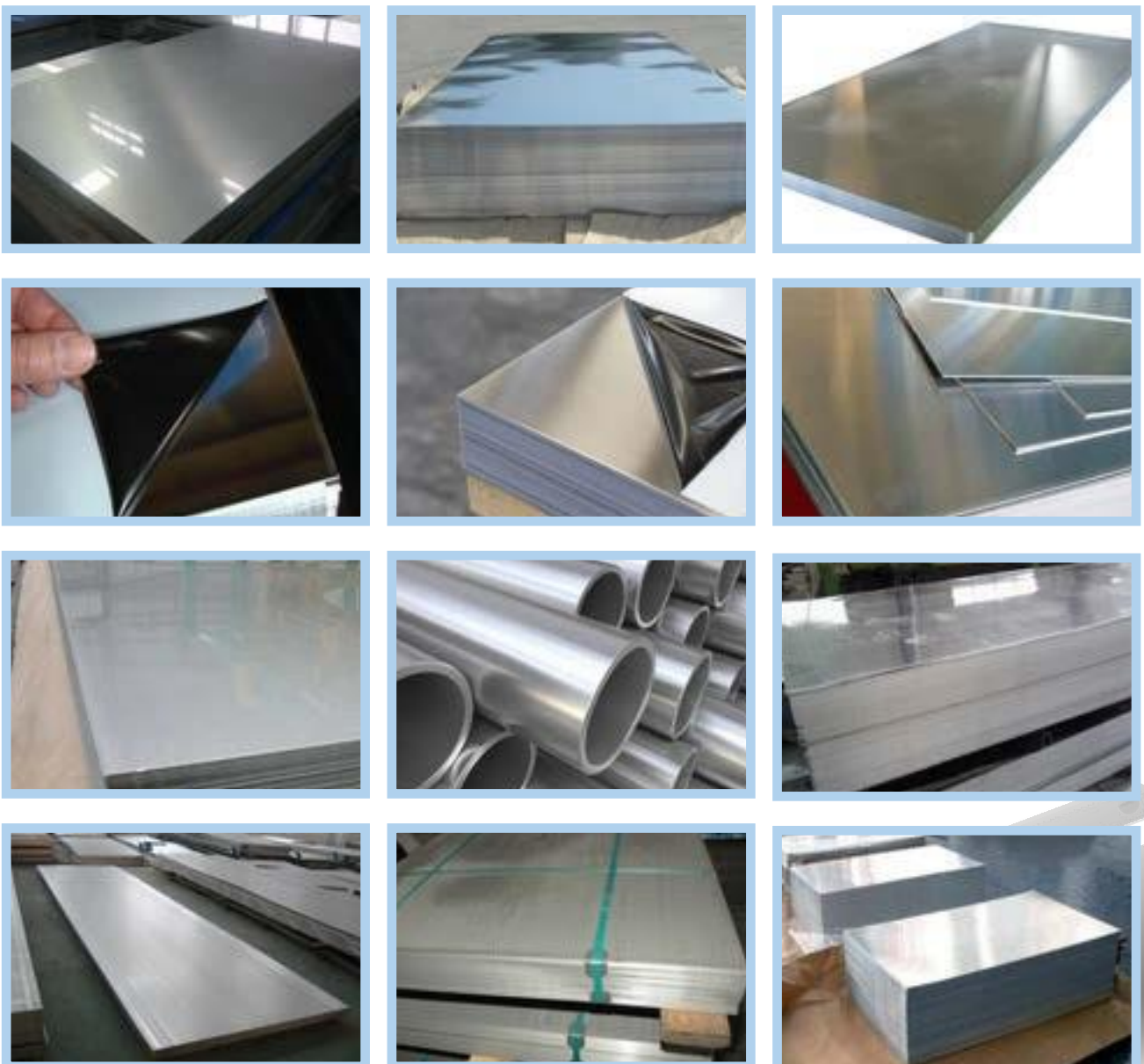
Stainless steel plate

Stainless steel is a complex alloyed steel, resistant to rust in atmospheric conditions and corrosion in harsh environments. Major alloying element of stainless steel - Cr (12-20%); moreover, stainless steel contains elements related to its iron alloys (C, Si, Mn, S, P), as well as elements introduced into the steel to give it the necessary physical and mechanical properties and corrosion resistance (Ni, Mn, Ti, Nb, Co, Mo). The higher the Cr content in the steel the greater its resistance to corrosion; a Cr content exceeding 12% alloys are stainless in normal conditions and slightly aggressive environments, more than 17% - corrosion resistant and more aggressive oxidizing et al. environments, particularly in nitric acid strength of up to 50%.

Corrosion resistance of weathering steel due to the fact that the surface of contact with the environment the chromium alloy is formed thin protective oxide film or the like. Of great importance in this case are: the uniformity of the metal corresponding to the surface condition, the lack of steel tendency to intergranular corrosion. Excessively high voltage parts and cause equipment corrosion cracking in some corrosive environments (particularly in environments

corrosion cracking in some corrosive environments (particularly in environments containing chlorides), and sometimes leads to breakage. The strong acids (sulfuric, hydrochloric, hydrofluoric, phosphorous, and mixtures thereof) show a high corrosion resistance stainless steel complexly and alloys with a high content of Ni with additives of Mo, Cu, Si in various combinations. Moreover, for each specific conditions (temperature and concentration of the media) to select the appropriate grade of stainless steel.

The chemical composition of stainless steel divided into chromium, chromium-nickel (more than 100 marks). The structure chromium weathering steels are classified into martensitic, ferritic and poluferritnye. The best corrosion resistance is chromium martensitic stainless steel type in a polished state. Chromium stainless steels are used as a structural material for valves of hydraulic presses, turbine blades, valves crackers, cutting tools, springs, and household items.





FINE STEEL

Tool steel

Tool steel - alloy or carbon steel intended for the manufacture of cutting and measuring tools, dies of cold and hot deformation, machine parts, experiencing increased wear at moderate dynamic loads.

Tool steel is divided into: tool steel, carbon; tool steel alloy; tool steel, a roller; tool steel die; high-speed tool steel; tool carbon steel.

Tool carbon steel is used for making tools (drills, taps, reamers, files, etc.), Working in a relatively light cutting conditions (low speed, heating temperature of the tool is not above 2000C).

Alloy tool steel - steel, which in the process of alloying in the specified amounts administered special components that provide desired attributes. Such elements called dopants. They can improve the strength and corrosion resistance of the steel and to reduce the risk of becoming brittle. For steel alloying the following chemical elements: manganese (Mn) - T; Silicon (Si) - C; Chromium (Cr) - X; Nickel (Ni) - H; Copper (Cu) - D; nitrogen (N) - A; Vanadium (V) - F; niobium (Nb) - B; tungsten (W) - B; Selenium (Se) - E; cobalt (Co) - R; Beryllium (Be) - A; molybdenum (Mo) - M; Boron (B) - P; titanium (Ti) - T; aluminum (Al) - Yu.

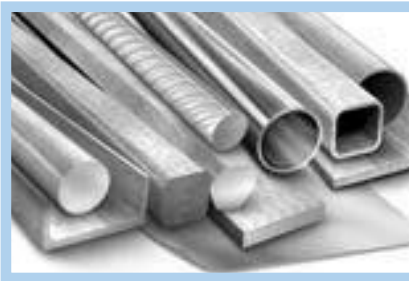
Classification of alloy steels by alloying elements:

- High-alloy - the total weight of the alloying elements more than 10%;
- Medium alloy - the total weight of the alloying element in a 2.5-10%;
- Low alloy - the total weight of the alloying elements up to 2.5%.

Classification of alloy steels by appointment:

I - for the manufacture of a tool used for machining of metals and other materials in the cold condition; II - for the manufacture of a tool used for metal forming at temperatures above 300 ° C.

High-speed tool steel is used to make most often cutting tools. High speed tool steel combines high thermostability (600-6500S depending on the composition and processing) with high hardness, wear resistance (at elevated temperatures) and improved resistance to plastic deformation.





FINE STEEL

Carbon steel

Carbon steel - tool and structural steel that does not contain dopants. Carbon steel is divided into a low-carbon (up to 0.25% carbon) of medium (from 0.25 to 0.6% carbon) and high-carbon (up to 2% carbon).

From conventional steels carbon steel are less content of impurities, a small amount of silicon, magnesium and manganese.

Carbon steel has high strength and high hardness. The quality distinguish carbon steel and structural quality. Quality carbon steel is cold (thin sheet) and hot (style, varietal, Rolled, Rolled, broadband). It issued the following brands: St1kp stations, St1ps, St2kp etc. Indices labeling deciphered as follows: kp boiling, nc semi-killed.

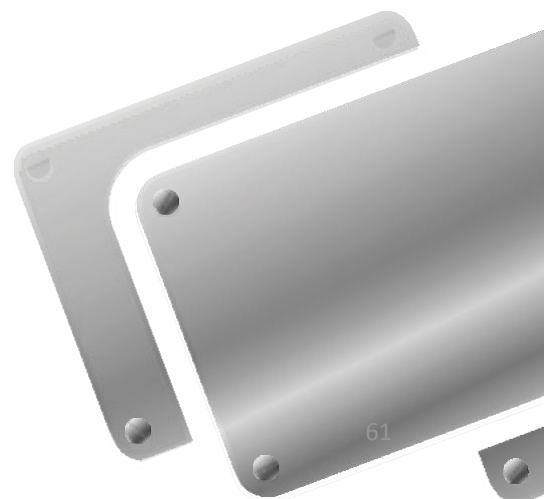
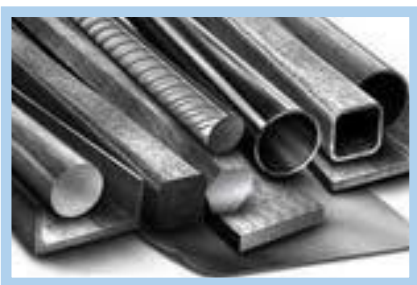
High-quality structural steel - a forged billet and hot rolled to a thickness of 250 mm, silverfish (round rods with a special surface) and calibrated steel. It issued the following brands: 05kp, 08kp, 08ps, 08, 10PP, 10ps, 10, 11kp, 15 ps, etc. The figures indicate the labeling percentage of carbon (in hundredths of a percent). High-quality structural steel is used to manufacture critical parts of mechanisms and machines, punching.

Qualitative steel is of not more than 0.03% phosphorus and sulfur, high not more than 0, 02%.

Carbon steel is a different purpose: designed for statically loaded tool for shock.

For the manufacture of cutting tools with high hardness, test shock (surgical instruments, files, scrapers, dies, drills, measuring tools) are used steel Y10 Y13. These steels exposed to all kinds of heat treatment and containing chromium, is also used for the production of turning tools.

For making the tool exposed to impact loads (axes, saws, woodworking tools, chisels, metal stamps, screwdriver) are used steel U7-U9. They are also subject to any heat treatment method.





FINE STEEL

Tin plated steel

Tin plated steel is a thin, cold-rolled low carbon steel sheet or a tape, both sides coated with pure tin. Thus, tin combines strength and ductility, and corrosion resistance, and ability to solder ability attractive tin.

Production of the steel sheet and subsequent coating with tin are independent from each other processes, thus, steel with any set of properties that allows for the possibility of any tin coating thickness.

The composition of the steel used for the production of tin in a strictly controlled and selected depending on the steel grade and the processing method can be obtained by various types of tin («tempers») with different ductility. Tin has a thickness range from 0,18mm to 0,36mm and the mass surface coating of tin tin (front / rear) are as follows: 2.8 / 2.8; 5.6 / 5.6; 8.4 / 8.4; 2.8 / 5.6; 5.6 / 8.4; 2.8 / 8.4 g / m². Each side of the steel sheet may be coated with a tin layer of different thickness (coating differential) depending on the requirements for the inner and outer surface of the primary end product - tin. A variety of surface finish tin (Bright roughness Ra ≤0,35 microns, Fine Stone with a shiny surface with

improved quality and Ra = 0,25-0,45 microns, Stone with Ra = 0,35-0,6 mm) produced according to from where tin is used. Tinplate is subject to a special regime to stabilize the passivity the surface and improve its adhesion to the varnish. It is also covered by a very thin layer of oil (DOS), compatible with the food, the opportunity to improve its handling. The result of the manufacture of various types of sheet metal is a great choice for the end user.





Contact us



«BITimpex Anstalt» British Virgin Islands

🏠 British Virgin Islands, Tortola Road
Town, P.O. Box 146 Trident Chambers
☎ +44 7367 652684
+44 7366 211175
@ limzpg@gmail.com
🌐 www.bitimpex-zs.com



«BITimpex Anstalt LTD» UAE

🏠 Dubai, United Arab Emirates
☎ +90 542 888 02 30
@ limzpg@gmail.com
🌐 www.bitimpex-zs.com



«BITimpex Anstalt LTD» Switzerland

🏠 Zurich, Switzerland
☎ +357 951 91 119
+41 767 739 030
@ pueblosbit@gmail.com
🌐 www.bitimpex-zs.com



«BITimpex Anstalt LTD» Russia

🏠 Russia
☎ +7495 224 23 27
+7365 229 20 38
@ limzpg@gmail.com
🌐 www.bitimpex-zs.com

Company Bitimpex ANSTALT LTD cooperates with such independent surveyors as Intertek, SGS, Cotecna, UKAS. Company also has certificates of laboratory tests by independent surveyor SGS and the Chamber of Commerce and Industry of Russian Federation.

