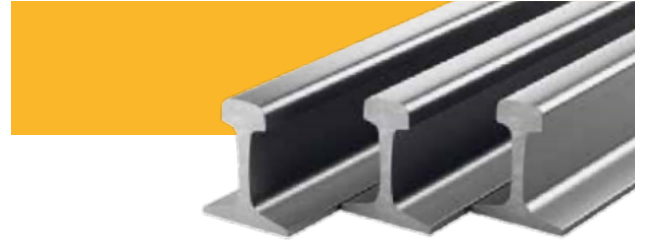




**WAYLAND
TECHNOLOGIES
GROUP**

 **EVRAZ**



Product catalog

Israel



Contents

2020 version

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Color code

Rail type	
OR50	
OR65	New products are marked yellow

www.evraz.com

About EVRAZ

EVRAZ is a vertically-integrated steel and mining company with business operations in Russian Federation, the USA, Canada, the Czech Republic, Israel and Kazakhstan.

EVRAZ is among the top steel producers in the world. A significant portion of the Company's internal consumption of iron ore and coking coal is covered by its mining operations. The Group is listed on the London Stock Exchange and is a constituent of the FTSE 100 Index.

EVRAZ is a leading player at the rail market of the Russian Federation and North America and one of the main manufacturers of railroad wheels, a leading manufacturer of rolled steel for infrastructure projects.

Certificates

High quality of EVRAZ products is proven by numerous certificates.

The complete list of the product and process conformity certificates, certificates of the management systems compliance may be found on the Company representative web-site.

Our Representative in Israel is Wayland Technology & Marketing Ltd.

www.waylandtec.com



No 1

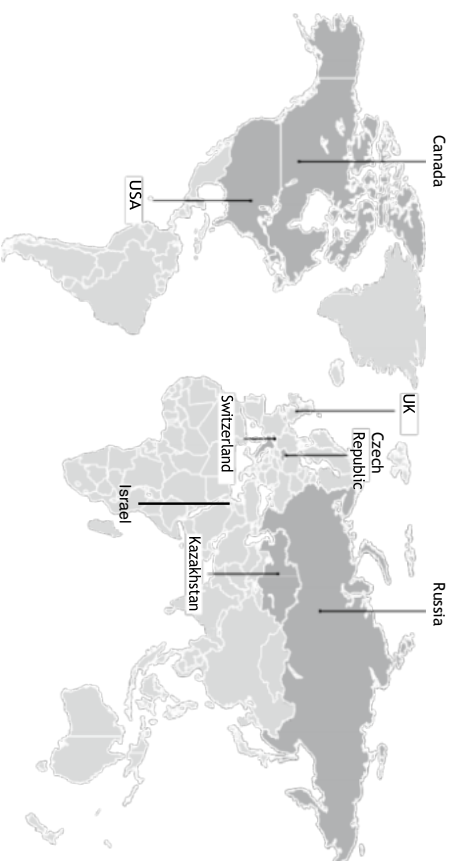
rail manufacturer in the Russian and North American markets

No 1

rolled steel and I-beam manufacturer in the Russian market

No 1

large diameter pipe manufacturer in the Russian and North American markets



Global steelmaking and mining company

- We are among the World's 30 top steel manufacturers
- Key assets in Russia and America
- A constituent of the FTSE-100 Index
- Sales to more than 70 countries worldwide

Minimum costs at all production stages

- Self-coverage in iron ore - 70%, in coal - 221%
- A leader among the coking coal makers in Russia and the World's top 5

Financial and operating highlights (as of 2020 Year-End)

Revenue US\$ million	EBITDA US\$ million	EBITDA margin %	CAPEX ¹ US\$ million
9,754	2,212	22.7	657



Steel

13,630 Kt



Iron ore products

14,205 Kt



Coking coal

20,653 Kt



Steel products²

12,768 Kt



Vanadium slag³

19,533 mtV

¹ Including payments on deferred terms recognised in financing activities;

² Net of re-rolled volumes;

³ In tonnes of pure vanadium.

Construction products

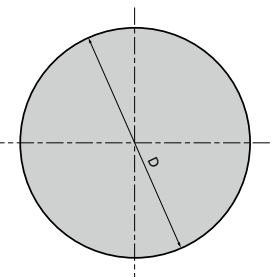
- E/R/A/Z products of high-strength S390 steel are used in unique projects.
- E/R/A/Z is implementing a prefabricated building project.

| Developing steel
| construction



Hot-rolled round steel bars

The products are manufactured at the structural steel plant of EVRAZ ZSMK.



Material and shape specification

Diameter, mm	Chemistry reference document	Technspecs reference document	Supplied lengths, product length, m
6, 6.5; 8; 9; 10; 12 (wire rod)	GOST 1050-2013	GOST 2290-2006 GOST 1050-2013 (3 GP)	Coils up to 830 kg
	GOST 10702-2016	GOST 2290-2006 GOST 10702-2016 (50, 66)	
	GOST 380-2005	GOST 30136-95 (UOI, VO ²)	
	GOST 380-2005	TU 14-1-5282-94 (UOI, VO)	
	GOST 380-2005	TU 14-1-5282-94 (UOI, VO)	
	GOST 380-2005	TU 14-1-5282-94 (UOI, VO)	
10, 12, 14, 16, 18, 19, 20, 21, 22, 23, 24, 25, 26, 30, 32, 33, 34, 36, 38, 40, 42, 43, 46, 48, 50, 52, 54, 56, 60, 63 (long products)	GOST 1050-2013 GOST 10702-2016 GOST 19281-2014 GOST 4543-2016	GOST 2290-2006 GOST 1050-2013 GOST 10702-2016 GOST 19281-2014 GOST 4543-2016	Fixed lengths, fixed length multiples, non-fixed length 6 to 12
	GOST 380-2005	GOST 2290-2006 GOST 1335-2005	
	GOST 1050-2013	TU 14-1-1700-2016 (UOI)	
	GOST 1050-2013	TU 14-1-4782-2018	

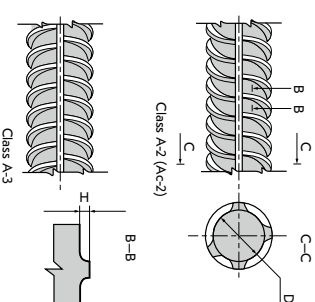
Note:

1. UOI – cooling method (single-step accelerated cooling);
2. VO – natural air cooling corresponding);
3. KK – quality wire rope.

Hot-rolled rebars for reinforced concrete structures

The products are manufactured at the structural steel plant of EVRAZ ZSMK.

The products are intended for reinforcement of normal and pre-stressed concrete structures.



Material and section specification

Diameter, mm	Class	Chemistry reference document ¹	Technspecs reference document ¹	Supplied lengths, product length, m
3 (10) – 6 (19) ²	Gr 40	ASTM A615/A655M GOST 380-2005 (S15ps)	ASTM A615/A655M	Rods, fixed lengths 20, 40 ft
		ASTM A615/A655M GOST 380-2005 (S16ps ³)	ASTM A615/A655M	
3 (10) – 11 (36)	Gr 60	ASTM A615/A655M GOST 380-2005 (S16ps ³)	ASTM A615/A655M	Coils up to 830 kg
6, 8, 10, 12	A1 A240	GOST 5781-82 GOST 34028-2016 (S13hp, S13ps, S13sp)	GOST 5781-82 GOST 34028-2016	
		10, 12, 14, 16, 18, 20, 22, 24, 30, 32, 36, 40	A1 A240	GOST 5781-82 GOST 34028-2016 (S13hp, S13ps, S13sp)
6, 8, 10, 12	A111 A400 A400S	GOST 5781-82 GOST 34028-2016 (Z5G25, 35G3)	GOST 5781-82 GOST 34028-2016	Coils up to 830 kg
		10, 12, 14, 16	A111 A400 A400S	
18, 20, 22, 25, 28, 32, 36, 40	A111 A400 A400S	GOST 5781-82 GOST 34028-2016 (Z5G25, 35G3)	GOST 5781-82 GOST 34028-2016	Rods, fixed lengths: 6 to 12

Wire mill: № 6 to 10¹; mill 250-1; № 8 to 14¹; mill 250-2; № 12 to 28¹; mill 450; № 32 to 40.

Note:

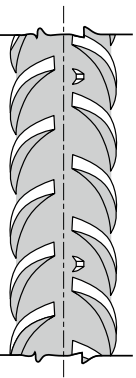
1. Steel grades used are shown in brackets;
2. W/o brackets: diameter in inches; in brackets: that in millimeters;
3. V-microalloyed.

Thermomechanically hardened rebars for reinforced concrete structures

Deformed bars

The products are manufactured at mill 300 of Caspian Steel.

The products are intended for reinforcement of normal and pre-stressed concrete structures.

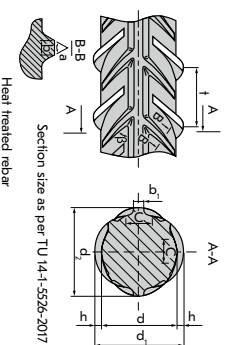


Section size as per GOST 34028-2016

Material and shape specification

Diameter, mm	Class	Chemistry reference document	Technspecs reference document	Supplied lengths, product length, m
10, 12, 14, 16, 18, 20, 22, 25, 28, 32	A500S	GOST 34028-2016	GOST 34028-2016	Fixed lengths: 6 to 120 as rods

The products are manufactured at the structural steel plant of EVRAZ ZSMK.



Heat treated rebar

Material and shape specification

Diameter, mm	Class	Chemistry reference document ¹	Technspecs reference document	Supplied lengths, product length, m
10, 12, 14, 16	A400S	TU 14+5254-2017	TU 14+5254-2017	Rods, fixed lengths: 6 to 120 non-fixed lengths
18, 20, 22, 25, 28, 32, 36, 40	A400S	TU 14+5254-2017	TU 14+5254-2017	Rods, fixed lengths: 6 to 120
10, 12, 14, 16	A400, A400S	GOST 34028-2016	GOST 34028-2016	Rods, fixed lengths: 6 to 120 non-fixed lengths
18, 20, 22, 25, 28	A400, A400S	GOST 34028-2016	GOST 34028-2016	Rods, fixed lengths: 6 to 120
32, 36, 40	A400, A400S	GOST 34028-2016	GOST 34028-2016	Rods, fixed lengths: 6 to 120
8, 10, 12, 14, 16	A500S	TU 14+5254-2017	TU 14+5254-2017	Rods, fixed lengths: 6 to 120 non-fixed lengths
18, 20, 22, 25, 28	A500S	TU 14+5254-2017	TU 14+5254-2017	Rods, fixed lengths: 6 to 120
32, 36, 40	A500S	TU 14+5254-2017	TU 14+5254-2017	Rods, fixed lengths: 6 to 120
8, 10, 12, 14, 16	A500, A500S	GOST 34028-2016	GOST 34028-2016	Rods, fixed lengths: 6 to 120 non-fixed lengths
18, 20, 22, 25, 28	A500, A500S	GOST 34028-2016	GOST 34028-2016	Rods, fixed lengths: 6 to 120
32, 36, 40	A500, A500S	GOST 34028-2016	GOST 34028-2016	Rods, fixed lengths: 6 to 120
10, 12, 14, 16	A500SP	TU 14+5526-2017	TU 14+5526-2017	Rods, fixed lengths: 6 to 120 non-fixed lengths
18, 20, 22, 25, 28, 32, 36, 40	A500SP	TU 14+5526-2017	TU 14+5526-2017	Rods, fixed lengths: 6 to 120

Diameter, mm	Class	Chemistry reference document ¹	Technspecs reference document	Supplied lengths, product length, m
10, 12, 14, 16, 18, 20, 22, 25, 28, 32, 36, 40	A5800S	TU 14+5543-2017	TU 14+5543-2017	Rods, fixed lengths: 6 to 120 non-fixed lengths
10, 12, 16, 20, 25, 32, 40, 50	V500V	BS4449:2005-A3:2016	BS4449:2005-A3:2016	Rods, fixed lengths: 6 to 120
10, 12, 16, 20, 25, 32, 40, 50	V500V	MS 146:2014	MS 146:2014	Rods, fixed lengths: 6 to 120
10, 12, 14, 16, 20, 25, 28, 32, 40	V500V	DIN 4881:2009	DIN 4881:2009	Rods, fixed lengths: 6 to 120
10, 12, 14, 16, 20, 25, 28, 32, 40	V500V	NEN EN 6008-2:008	NEN EN 6008-2:008	Rods, fixed lengths: 6 to 120
10, 12, 14, 16, 18, 20, 22, 25, 28, 32, 40	V500V	ITB-KOT-2017/0052	ITB-KOT-2017/0052	Rods, fixed lengths: 6 to 120
10, 12, 14, 16, 18, 20, 22, 25, 28, 32, 40	V500V	IBDIM-KOT12017/0013	IBDIM-KOT12017/0013	Rods, fixed lengths: 6 to 120
10, 12, 16, 20, 25, 32, 40, 50	V500V	CS2:2012	CS2:2012	Rods, fixed lengths: 6 to 120
10, 12, 14, 16, 18, 20, 22, 25, 28, 32, 36, 40	A600S	TU 14+5645-2017 ²	TU 14+5645-2017	Rods, fixed lengths: 6 to 120
10, 12, 14, 16, 18, 20, 22, 25, 28, 32, 36, 40	A600SP	TU 14+5526-2017	TU 14+5526-2017 ver.2	Rods, fixed lengths: 6 to 120
10, 12, 14, 16, 18	A800	GOST 34028-2016	GOST 34028-2016	Rods, fixed lengths: 6 to 120
10, 12, 14, 16, 18	A1000	GOST 34028-2016	GOST 34028-2016	Rods, fixed lengths: 6 to 120

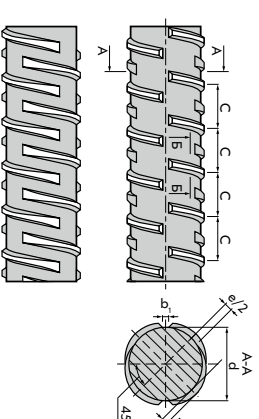
Mill 250-1: № 8 to 14; mill 250-2: № 12 to 28; mill 450: № 32 to 40;

DIN: Germany; NEN: Netherlands; MS: Malaysia; BS: UK; ITB, IBDIM: Poland; CS: Hong Kong.

Note:

1. Steel grades to be agreed with the customer;
2. V - and Nb-microalloyed.

Helical/twisted rebars with four-rowed cross ribs



The products are manufactured at the structural steel plant of EVRAZ ZSMK.

The products have a better bond with concrete and are intended for reinforcing reinforced concrete structures for various purposes.

Material and shape specification

Diameter, mm	Class	Chemistry reference document	Technspecs reference document	Supplied lengths, product length, m
10, 12, 14, 16, 18, 20, 22, 25, 28, 32, 36, 40	A4500SP	GOST 34028-2016	TU 2410.62-311-0575/06-2019	Rods, fixed lengths: 6 to 120 non-fixed lengths
16, 18, 20, 22, 25, 28, 32, 36, 40	A5300SP	GOST 34028-2016	TU 2410.62-311-0575/06-2019	Rods, fixed lengths: 6 to 120 complete with a connection sleeve as agreed with the customer

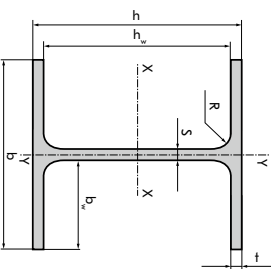
I-beams

The products are manufactured at EVRAZ NTMK and EVRAZ ZSMK.

Parallel flange I-beams (GOST R 57837-2017)

The products are manufactured at the I-beam plant of EVRAZ NTMK and at the medium section mill 450 of EVRAZ ZSMK.

- X-Y references:
 I — moment of inertia;
 W — section modulus;
 S — static moment (half section);
 i — radius of gyration/inertia.



ZSMK section mix

Section code	Profile dimensions, mm						Cross sectional area, F, cm ²	1m weight, kg	X-Y references								
	h	b	s	t	h ₁	b ₁			I _x , cm ⁴	W _x , cm ³	S _x , cm ³	i _x , cm	I _y , cm ⁴	W _y , cm ³	S _y , cm ³	i _y , cm	
10B1	100	55	41	5.7	88.6	25.45	7	10.32	81	171.01	34.2	19.7	4.07	15.92	5.79	4.57	1.24
12B1	117.6	64	3.8	5.1	107.4	30.1	7	11.03	8.7	257.36	43.8	24.94	4.83	22.39	7	5.49	1.42
12B2	120	64	4.4	6.3	107.4	29.8	7	13.21	10.4	317.75	53	30.36	4.90	27.67	8.65	6.79	1.45
14B1	137.4	73	3.8	5.6	126.2	34.6	7	13.39	10.5	434.86	63.3	35.8	5.70	36.42	9.98	7.76	1.65
14B2	140	73	4.7	6.9	126.2	34.15	7	16.43	12.9	541.22	77.3	44.17	5.74	44.92	12.31	9.62	1.65
16B1	157	82	4	5.9	145.2	39	9	16.18	12.7	689.28	87.8	49.55	6.53	54.43	13.27	10.35	1.83
16B2	160	82	5	7.4	145.2	38.5	9	20.09	15.8	869.29	108.7	61.93	6.58	68.31	16.66	13.05	1.84
14B0*	139.4	73	3.8	6.6	126.2	34.6	7	14.85	11.66	504.8	72.40	40.85	5.83	42.9	11.80	9.10	1.70
16B0*	158.8	82	4.2	6.8	145.2	38.9	9	17.94	14.09	786.4	99.04	55.90	6.62	62.7	15.30	11.90	1.87
18B1	177	91	4.3	6.5	164	43.35	9	19.58	15.4	1062.74	120.1	67.66	7.37	81.89	18	13.98	2.05
18B2	180	91	5.3	8	164	42.85	9	23.95	18.8	1316.96	146.3	83.21	7.42	100.85	22.16	17.3	2.05

Type B: Normal I-beams

Note:
 1. I-beams 14B0 and 16B0 — U 0925-299-0075766.

NTMK section mix

Section code	Profile dimensions, mm						Cross sectional area, F, cm ²	1m weight, kg	X-Y references								
	h	b	s	t	h ₁	b ₁			I _x , cm ⁴	W _x , cm ³	S _x , cm ³	i _x , mm	I _y , cm ⁴	W _y , cm ³	S _y , cm ³	i _y , mm	
20B1	200	100	5.5	8	184	47.25	11	27.6	21.30	1844.26	184.40	104.73	82.41	133.91	26.78	20.97	22.21
20B2	203	101	6.5	9.5	184	47.25	11	32.19	25.30	2288.49	218.60	124.99	83.02	163.93	32.46	23.50	22.57
20B3	208	102	8	12	184	47	11	40.24	31.60	2852.62	274.30	158.46	84.20	213.50	41.86	33.02	23.03
25B1	248	124	5	8	232	59.50	12	32.68	25.70	3537.11	285.30	199.68	104.04	254.85	41.11	31.80	27.93
25B2	250	125	6	9	232	59.50	12	37.66	29.60	4051.73	324.10	182.93	103.73	293.83	47.02	36.55	27.93
25B3	255	126	7.5	11.5	232	59.25	12	47.62	37.40	5238.6	410.80	233.88	104.88	384.79	61.08	47.67	28.43
25B4	260	127	9	14	232	59	12	57.68	45.30	6448.01	498.50	288.25	106	480.06	75.60	59.24	28.85
30B1	298	149	5.5	8	282	71.75	13	40.80	32	6318.22	424	237.53	124.44	442	59.33	45.88	32.91
30B2	300	150	6.5	9	282	71.75	13	46.78	36.70	7209.26	480.60	271.06	124.14	507.53	67.67	52.56	32.94
30B3	305	151	8	11.5	282	71.50	13	58.24	46.10	9254.82	606.90	344.37	125.52	664.88	87.67	63.31	33.57
30B4	310	152	9.5	14	282	71.25	13	70.80	55.60	11381.41	734.30	419.40	126.79	822.27	108.21	84.60	34.08
35B1	346	174	6	9	328	84	14	52.68	41.40	11094.49	641.30	358.09	145.12	791.54	90.98	70.11	38.76
35B2	350	175	7	11	328	84	14	63.14	49.60	13589.01	774.80	433.96	146.54	984.34	112.50	86.79	39.48
35B3	355	176	8.5	13.5	328	83.75	14	77.08	60.50	16797.02	946.30	533.54	147.62	1229.36	139.70	108.13	39.94
35B4	361	177	10	16.5	328	83.50	14	92.89	72.90	20719.71	1142.90	657.07	149.35	1528.90	172.76	134.02	40.57
40B1	396	199	7	11	374	96	16	72.16	56.60	20108.83	1101.10	563.93	166.56	1471.74	145.44	111.97	44.78
40B2	400	200	8	13	374	96	16	84.12	66	23704.43	1185.20	663.13	167.87	1726.39	173.64	133.82	45.43
40B3	406	201	9.5	16	374	95.75	16	102.05	80.10	29332.45	1445.90	813.38	169.60	2169.89	215.91	166.74	46.11
45B1	446	199	8	12	422	95.50	18	84.30	66.20	28697.35	1288.90	725.06	184.50	1580.02	158.80	123.29	43.29
45B2	450	200	9	14	422	95.50	18	96.76	76	33450.76	1488.30	839.53	182.93	1871.57	182.16	145.46	43.98
45B3	456	201	10.5	17	422	95.25	18	115.43	90.60	40710.41	1785.50	1012.55	187.80	2307.62	229.61	178.81	44.71
45B4	462	202	12	20	422	95	18	134.22	105.40	48197.42	2088.50	1188.50	189.50	2756.66	272.94	213.01	45.32
50B1	492	199	8.8	12	468	95.10	20	92.38	72.50	36844.89	1497.60	853.45	199.70	1581.06	158.99	124.86	41.38
50B2	496	199	9	14	468	95	20	101.27	79.50	41869.08	1688.30	957.23	203.33	1844.89	185.42	144.88	42.68
50B3	500	200	10	16	468	95	20	114.23	89.70	47846.06	1913.80	1087.59	204.66	2140.79	214.08	167.48	43.29
50B4	508	200	12	20	468	94.50	20	139.99	109.90	59595.57	2360.40	1348.82	206.94	2717.85	270.43	212.23	44.06
50B5	516	202	15	24	468	93.50	20	170.99	133.90	73345.26	2842.80	1642.68	207.35	3315.53	328.27	260.04	44.09
55B1	543	220	9.5	13.5	516	105.25	24	113.36	89	55677.42	2050.70	1164.94	221.62	2405.54	218.69	171.67	46.06
55B2	547	220	10	15.5	516	105	24	124.74	97.90	62784.45	2395.60	1301.49	224.34	2761.34	251.03	196.56	47.05
55B3	553	221	12	18.5	516	104.50	24	148.63	116.70	75321.22	2724.10	1554.49	225.11	3342.92	302.53	229.79	47.42
55B4	560	222	14	22	516	104	24	174.86	137.30	89907.11	3211	1842.20	226.75	4032.05	363.25	286.76	48.02
60B1	596	199	10	15	566	94.50	22	120.45	94.60	68715.90	2305.90	1325.36	238.85	1979.66	198.96	157.64	40.54
60B2	600	200	11	17	566	94.50	22	134.41	105.50	77632.25	2587.70	1489.56	240.32	2278.16	228.82	180.22	41.17
60B3	604	201	12.5	19	566	94.25	22	151.28	118.80	87472.10	2896.40	1635.38	240.46	2586.62	257.38	205.28	41.35
60B4	612	202	15	23	566	93.50	22	181.97	142.90	106509.50	3480.70	2036.68	241.93	3182.62	315.11	233.12	41.82
70B1	691	260	12	15.5	660	124	24	164.74	129.30	125922.20	3644.60	2094.79	276.47	4557.55	350.57	276.64	52.60
70B2	697	260	13	18.5	660	123.5	24	183.64	146.7	14701.94	4186.63	2392.68	281.87	5437.68	418.28	328.41	54.41
70B3	702	261	14.5	21	660	123.25	24	210.26	165.10	167085.07	4760.30	2736.06	281.89	6248.49	478.81	378.10	54.51
70B4	710	262	17	25	660	123.50	24	248.14	194.80	199699.98	5624.80	3249.28	283.67	7331.6	574.90	456.29	55.09

Type B: Normal I-beams

Section code	Profile dimensions, mm						Cross sectional area, F, cm ²	1 m weight, kg	X-Y references								
	h	b	s	t	h _u	b _u			I _y , cm ⁴	W _y , cm ³	S _y , cm ³	I _x , mm	I _x , cm ⁴	W _x , cm ³	S _x , cm ³	I _y , mm	
Type SH: H-beams																	
20SH0	190	149	5	7	176	72	13	3111	24,42	2,079,60	218,90	12,097	81,76	386,62	51,90	397,79	36,25
20SH1	194	150	6	9	176	72	13	39,01	30,60	2,689,74	277,30	15,428	83,04	507,6	67,62	51,85	34,06
20SH2	199	151	7,5	11,5	176	71,75	13	49,38	38,80	3,502,14	352	198,01	84,21	661,25	87,58	67,27	34,59
20SH3	204	152	9	14	176	71,50	13	59,85	47	4,362,01	427,70	243,18	85,37	821,37	108,08	83,18	37,05
22SH0	240	174	6	9	222	84	16	46,84	36,80	4,981,13	415,0	229,64	103,13	791,75	91,01	69,84	41,11
22SH1	244	175	7	11	222	84	16	56,24	44,20	6,121,23	501,70	279,19	104,33	984,48	112,51	86,36	41,84
22SH2	249	176	8,5	13,5	222	83,75	16	68,59	53,80	7,624,69	612,40	343,94	105,44	1,229,33	139,70	107,41	42,34
22SH3	256	177	10,5	17	222	83,25	16	83,69	67,30	9,989,49	769,20	436,06	107,05	1,575,20	179,99	137,18	42,88
22SH4	264	182	13	21	222	84,50	16	107,50	84,40	12,751,44	966	556,26	108,91	2,164,49	222,58	179,70	44,37
22SH5	274	184	16	26	222	84	16	133,40	104,70	16,478,26	1,202,80	703,59	111,14	2,710,17	294,58	228,44	45,07
22SH6	286	186	19	32	222	83,50	16	163,42	128,30	21,287,68	1,488,70	884,76	114,13	3,448,57	370,81	288,22	45,94
30SH0	290	199	7	10	270	96	18	61,48	48,30	9,429,75	650,30	360,60	123,85	1,363,69	132,27	101,70	46,27
30SH1	294	200	8	12	270	96	18	72,38	56,80	11,338,50	771,30	429,51	125,62	1,603,43	160,33	122,28	47,06
30SH2	300	201	9	15	270	96	18	87,38	68,60	14,209,66	947,30	529,86	127,52	2,093,43	202,40	155,42	48,25
30SH3	306	203	11	18	270	96	18	105,56	82,90	17,455,33	1,140,90	644,63	128,59	2,515,46	247,83	190,85	48,82
35SH1	334	249	8	11	312	120,50	20	83,17	65,30	17,070,05	1,024,40	565,71	143,42	2,834,62	277,68	174,45	58,38
35SH2	340	250	9	14	312	120,50	20	101,51	79,70	21,656,50	1,275,10	706,03	144,13	3,650,97	292,08	223,45	59,97
35SH3	347	252	11	17,5	312	120,50	20	125,95	98,90	27,553,21	1,587	886,41	147,86	4,674,90	371,02	284,26	60,92
35SH4	354	254	13	21	312	120,50	20	150,67	118,30	33,692,45	1,903,50	1,072,31	149,54	5,745,80	452,43	347,18	61,75
40SH1	383	299	9,5	12,5	358	144,75	22	112,91	88,60	30,554,32	1,995,50	880,73	164,50	5,760,77	372,98	286,54	70,27
40SH2	390	300	10	16	358	145	22	135,95	106,70	38,674,10	1,983,30	1,093,97	168,66	7,207,77	480,52	345,33	72,81
40SH3	397	302	12	19,5	358	145	22	164,89	129,40	47,846,38	2,410,40	1,389,96	170,34	8,962,48	593,54	453,33	73,72
40SH4	406	304	14,5	24	358	144,75	22	201,98	158,60	60,070,10	2,960,90	1,662	172,51	11,253,74	740,38	566,43	74,64
40SH5	418	309	17,5	30	358	145,75	22	252,2	198	77,867,23	3,725,7	2,114,9	175,71	14,776,27	956,39	732,65	76,54
40SH6	430	311	21	36	358	145	22	303,25	238,1	96,432,24	4,485,2	2,578,21	178,32	18,006,35	1,163,11	893,43	77,23
40SH7	446	313	25	44	358	144	22	369,09	289,7	122,543,61	5,495,2	3,204,85	182,21	22,547,07	1,440,71	1,109,25	78,16
42SH10	434	299	10	15	404	144,50	24	135,04	106	46,794,17	2,156,40	1,192,24	186,15	6,692,40	447,65	342,87	70,40
42SH11	440	300	11	18	404	144,50	24	151,28	123,60	56,069,13	2,548,60	1,412,44	188,75	8,111,31	540,75	419,80	71,79
42SH12	446	302	13	21	404	144,50	24	184,30	144,70	66,379,08	2,976,60	1,641,51	189,78	9,655,62	639,44	490,29	72,38
42SH13	452	304	15	24	404	144,50	24	211,46	166	77,050,83	3,409,30	1,915,99	190,88	11,283,33	740,68	590,04	72,97
42SH14	458	304	17	28	404	144,50	26	245,52	194,20	90,366,76	2,504,80	1,995,56	203,67	6,763,81	450,92	340,62	68,18
42SH15	462	300	11	15	452	144,50	26	145,52	114,20	60,366,76	2,504,80	1,995,56	203,67	6,763,81	450,92	340,62	68,18
42SH16	468	300	14,5	17,5	452	142,75	26	176,34	138,40	71,863,01	2,951,50	1,666,63	201,87	7,897,76	526,52	409,42	66,92
42SH17	487	300	14,5	17,5	452	142,75	26	176,34	138,40	71,863,01	2,951,50	1,666,63	201,87	7,897,76	526,52	409,42	66,92
42SH18	493	300	15,5	20,5	452	142,25	26	198,86	156,10	83,437,9	3,384,90	1,972,66	204,83	9,293,05	616,74	478,76	68,21
42SH19	499	300	16,5	23,5	452	141,75	26	221,38	173,80	95,277,99	3,881,70	2,161,40	207,45	10,604,77	706,98	584,21	69,21
42SH20	508	302	19	28	452	141,50	26	260,80	204,70	114,699,83	4,526	2,578,55	209,95	12,894,50	833,94	666,27	70,31
42SH21	508	302	12	17	548	144	28	174,49	137	102,709,98	5,599,60	1,981,30	242,62	7,669,85	511,32	396,49	66,30
42SH22	514	300	16	20,5	548	142	28	217,41	170,70	126,933,28	4,285	2,483,84	240,92	9,029,23	617,28	483,58	66,23
42SH23	514	300	18	24,5	548	141	28	252,37	198,10	150,033,52	5,026,50	2,888,77	243,40	11,009,15	737,94	585,58	65,26
42SH24	505	300	20	28,5	548	140	28	287,33	225,60	174,450,48	5,767	3,305,39	246,40	12,881,17	858,74	624,12	66,96
60SH5	616	302	23	34	548	139,50	28	338,13	265,40	210,467,04	6,833,40	3,941,46	249,49	15,686,68	1,038,85	877,44	68,11

Section code	Profile dimensions, mm						Cross sectional area, F, cm ²	1 m weight, kg	X-Y references								
	h	b	s	t	h _u	b _u			I _y , cm ⁴	W _y , cm ³	S _y , cm ³	I _x , mm	I _x , cm ⁴	W _x , cm ³	S _x , cm ³	I _y , mm	
Type K: Column beams (UC)																	
70SH1	692	300	13	20	652	143,50	28	211,49	166	172,424,05	4,983,40	2,884,39	285,53	9,024,74	601,65	468,06	65,32
70SH2	698	300	15	23	652	142,50	28	242,53	190,40	198,779,77	5,695,70	3,233,41	286,29	10,382,92	692,19	540,47	64,43
70SH3	707	300	18	27,5	652	141	28	289,09	226,90	239,027,10	6,761,60	3,867,02	287,54	12,424,20	828,28	650,29	65,56
70SH4	715	300	20,5	31,5	652	139,75	28	329,29	258,60	275,127,07	7,695,90	4,426,46	289,01	14,095,21	949,47	748,55	65,76
70SH5	725	300	23	36,5	652	138,50	28	375,69	294,90	397,807,96	8,821,60	5,099,30	291,75	16,514,18	1,100,95	870,34	66,30
Type K: Column beams (UC)																	
15K1	147	149	6	8,5	130	71,50	11	34,17	26,80	1,666,76	186	103,63	63,25	469,21	62,98	48,05	37,06
15K2	150	150	7	10	130	71,50	11	40,14	31,50	1,641,33	288,80	123,04	63,95	563,28	75,10	57,36	37,46
15K3	155	151	8,5	12,5	130	71,25	11	49,84	39,10	2,171,61	272,20	155,69	65,18	708,46	95,16	72,78	37,97
15K4	160	152	10	15	130	71	11	59,64	46,80	2,629,16	328,60	189,67	66,40	879,66	115,74	88,65	38,41
15K5	166	153	12	18	130	70,50	11	71,72	56,30	3,291,43	396,60	232,39	67,74	1,077,13	140,80	108,12	38,75
20K1	196	199	6,5	10	176	96,25	13	52,69	41,40	3,846,06	397,50	216,41	85,44	1,314,47	132,11	100,38	49,95
20K2	200	200	8	12	176	96	13	63,53	49,90	4,715,63	471,60	262,75	86,15	1,601,53	160,15	121,91	50,21
20K3	204	201	9	14	176	96	13	73,57	57,80	5,602,48	549,30	308,35	87,26	1,986,76	188,73	143,72	50,78
20K4	210	201	10,5	17	176	95,25	13	88,27	69,30	6,962,62	663,10	376,57	88,81	2,303,39	229,21	174,72	51,09
20K5	214	202	12	19	176	95	13	99,33	78	7,970,40	744,90	426,8					

Section code	Profile dimensions, mm							Cross sectional area, F, cm ²	1 m weight, kg	X-Y references							
	h	b	s	t	h _n	b _n	R			I _x , cm ⁴	W _x , cm ³	S _x , cm ³	I _y , mm	W _y , cm ³	S _y , cm ³	I _y , mm	
30K13	350	362	24	40	270	169	18	36718	280.40	74,36.59	4,25010	2,48131	144.30	316,6384	1,749.38	1,332.11	94.15
35K1	342	348	10	15	312	169	20	13903	10910	31,24791	1,827.40	1,00117	149.92	10,542.21	605.87	459.67	87.08
35K1.5	346	349	11	17	312	169	20	15641	12280	35,711.23	2,004.20	1,135.84	1510	12,051.44	690.63	528.08	87.78
35K2	330	350	12	19	312	169	20	17287	136.50	40,29510	2,302.60	1,277.61	152.23	13,955.82	776.33	589.29	88.39
35K4	335	351	13.5	21.5	312	168.75	20	196.48	154.20	46,29307	2,604.60	1,448.66	153.39	15,506.81	883.58	674.25	88.84
35K5	365	353	16.5	26.5	312	168.25	20	242	190	58,66744	3,214.70	1,810.04	155.70	19,445.30	1101.72	838.34	89.64
40K1	394	398	11	18	358	193.50	22	186.61	146.70	56,145.31	2,850	1,599.22	173.36	18,922.62	930.89	720.40	100.64
40K2	400	400	13	21	358	193.50	22	218.69	171.70	66,621.41	3,331.10	1,836.23	174.54	22,412.67	1,120.63	849.93	102.23
40K3	406	408	16	24	358	193.50	22	254.87	200.10	78,039.22	3,844.30	2,139.84	174.98	26,200.19	1,300.26	988.59	103.39
40K4	414	405	18	28	358	193.50	22	293.39	231.90	92,771.14	4,481.70	2,593.15	177.22	31,026.87	1,532.19	1,165.56	102.49
40K4.5	420	403	20	31	358	191.50	22	325.61	255.60	103,62970	4,934.80	2,786.46	178.40	33,850.06	1,679.90	1,279.67	101.96
40K5	429	400	23	35.5	358	188.50	22	370.49	290.80	120,290.27	5,607.90	3,198.49	180.19	37,944.87	1,895.74	1,447.08	101.16

Type S: Beaming piles

13S1	126.5	114	9	9	108.5	52.50	12	31.52	24.74	838.38	132.55	76.71	51.57	223.59	39.23	30.78	26.63
20S1	200	204	12	12	176	96	13	71.53	56.20	4,982.30	498.20	282.75	83.46	1,701.70	166.83	128.66	48.77
25S1	244	252	11	11	222	120.50	16	82.06	64.40	8,786.78	720.20	402.51	103.48	2,938.35	233.20	178.99	59.84
25S2	250	255	14	14	222	120.50	16	104.68	82.20	11,483.65	916.70	519.31	104.74	3,876.72	304.06	234.19	60.86
30S1	294	302	12	12	270	145	18	107.66	84.50	16,864.20	1,147.20	638.55	123.6	5,515.22	365.28	279.87	71.58
30S2	300	305	15	15	270	145	18	134.78	105.80	21,538.21	1,435.70	806.84	126.40	7,014.76	465.89	336.04	72.60
32S1	326.7	319.7	24.8	24.8	271	147.45	15.2	229.28	180	40,972.83	2,508.30	1,448.25	136.38	13,546.38	874.44	636.56	76.87
32S2	339	325.7	30.3	30.4	271	147.70	15.2	283.97	222.90	52,689.77	3,119.20	1,826.55	133.23	17,576.76	1,079.32	839.85	78.67
35S1	338	351	13	13	312	169	20	135.25	106.20	28,190.34	1,668.10	925.69	144.37	9,379.76	534.46	408.88	83.28
35S2	344	354	16	16	312	169	20	166.63	130.80	35,330.38	2,084.10	1,149.60	145.61	11,846.30	669.28	513.39	84.32
35S3	330	357	19	19	312	169	20	198.37	155.70	42,796.14	2,445.50	1,379.79	146.88	14,433.12	808.38	621.86	85.30
40S1	388	402	15	15	358	193.50	22	178.45	140.10	48,965.17	2,524	1,401.07	165.65	16,263.38	808.87	618.66	95.45
40S2	394	405	18	18	358	193.50	22	214.39	168.30	59,715.15	3,031.10	1,695.05	166.89	19,951.19	985.44	755.50	96.48
40S3	400	408	21	21	358	193.50	22	250.69	196.80	70,888.09	3,544.40	1,996.23	168.16	23,809.27	1,167.12	896.87	97.45

Type DB: Additional I-beams

20DB1	207	133	58	8.4	190.2	63.60	7.6	33.87	26.60	2,380.37	249.30	139.48	87.28	329.79	49.39	38.06	31.20
20DB2	210	134	6.4	10.2	189.6	63.80	7.6	39.97	31.40	3,137	298.80	167.61	88.60	409.58	61.13	46.88	31.20
23DB1	251	146	6	8.6	233.8	70	7.6	39.64	31.0	4,395.18	350.20	196.03	105.30	446.61	61.18	47	33.10
25DB2	256	146	6.3	10.9	234.2	69.85	7.6	47.08	37	5,232.69	431.50	241.08	108.32	566.99	77.53	59.37	33.10
25DB3	260	147	7.2	12.7	234.6	69.90	7.6	54.73	43	6,554.72	504.20	283.24	109.44	673.24	91.60	70.26	34.07
25DB4	268	146	6.1	9.1	239.8	69.95	7.6	41.70	32.70	4,887.50	378.90	212.12	108.27	472.58	64.74	49.73	33.67
25DB5	262	147	6.6	11.2	239.6	70.20	7.6	49.24	38.70	6,007.11	458.60	256.75	110.45	593.66	80.77	61.93	34.72
25DB6	266	148	7.6	13	240	70.20	7.6	57.22	44.90	7,080.81	534.40	301.04	111.46	703.43	95.06	73.06	35.06
30DB1	309	102	6	8.9	291.2	48	7.6	36.12	28.40	5,426.36	351.20	203.38	122.52	198.06	30.99	24.58	20.92
30DB2	313	102	6.6	10.8	291.4	47.70	7.6	41.76	32.80	6,446.06	415.10	240.08	124.76	191.85	37.62	28.80	21.43
30DB3	310	165	5.8	9.7	290.6	79.60	8.9	49.54	38.90	8,544.97	551.30	306.41	131.33	726.88	88.11	67.41	38.30
30DB4	313	166	6.6	11.2	290.6	79.70	8.9	57.04	44.80	9,960.39	636.50	355.10	132.14	854.77	102.98	78.92	38.71

Section code	Profile dimensions, mm							Cross sectional area, F, cm ²	1 m weight, kg	X-Y references							
	h	b	s	t	h _n	b _n	R			I _x , cm ⁴	W _x , cm ³	S _x , cm ³	I _y , mm	W _y , cm ³	S _y , cm ³	I _y , mm	
30DB5	317	167	7.6	13.2	290.6	79.70	8.9	66.85	52.50	11,937.01	749.10	419.95	133.27	1,025.95	122.87	94.33	39.17
30DB6	303	165	6	10.2	282.6	79.50	8.9	51.30	40.30	8,477.69	595.60	311.02	128.56	764.36	92.65	70.87	38.60
30DB7	307	166	6.7	11.8	283.4	79.65	8.9	58.84	46.20	9,942.92	647.80	361.13	129.99	900.53	108.50	83.06	39.12
30DB8	310	167	7.8	13.5	282.6	79.55	8.9	66.76	54	11,668.10	752.80	422.55	130.26	1,064.87	127.53	97.93	39.35
30DB9	349	127	5.8	8.5	332	60.50	10.2	41.74	32.80	8,267.33	473.80	271.01	140.74	291.06	45.83	35.90	26.40
30DB2	335	128	6.5	10.7	331.6	60.60	10.2	49.84	39.10	10,240.24	580.20	331.05	143.34	375.06	58.60	45.83	27.43
30DB3	332	171	6.9	9.8	332.4	82.05	10.2	57.34	45	12,166.36	691.30	399.35	145.66	877.94	95.67	73.87	37.77
30DB4	335	171	7.2	11.6	331.8	81.90	10.2	64.45	50.60	14,130.93	794.10	446.97	148.07	968.08	113.23	87.21	38.76
30DB5	338	172	7.9	13.1	331.8	82.05	10.2	72.17	56.70	16,051.94	896.80	504.99	149.14	1,112.72	129.39	99.75	39.27
30DB6	363	173.2	9.1	15.7	331.6	82.5	10.2	88.45	67.10	19,414.43	1,069.70	604.58	150.73	1,362.07	157.28	121.48	39.92
30DB7	333	254	9.5	16.4	320.2	122.25	16	115.93	91	26,754.31	1,515.80	840.04	151.92	4,483.14	353	269.04	62.19
30DB8	357	255	10.5	18.3	320.4	122.25	16	129.17	101.40	30,209.80	1,692.40	942.22	152.95	5,062.32	397.04	302.87	62.60
30DB9	360	256	11.4	19.9	320.2	122.20	16	140.59	101.40	33,133.98	1,841.90	1,029.60	153.57	5,570.48	433.19	332.26	62.95
35DB10	363	257	13	21.7	319.6	122	16	152.28	121.90	36,998.33	2,016.40	1,134.85	153.52	6,147.42	478.40	364.17	62.92
40DB1	399	140	6.4	8.8	381.4	66.80	10.2	49.94	39.20	12,656.64	634.40	365.15	159.19	403.59	57.66	43.32	28.43
40DB2	403	140	7	11.2	380.6	66.50	10.2	58.90	46.20	15,570.06	777.70	442.32	162.97	516.53	73.38	57.47	29.53
40DB3	403	177	7.5	10.9	381.2	84.75	10.2	68.07	53.40	18,616.44	923.70	522.88	165.36	1,009.08	114.02	88.32	38.50
40DB4	407	178	7.7	12.8	381.4	85.15	10.2	75.83	59.50	21,585.78	1,060.70	597.50	168.72	1,204.97	135.39	104.49	39.86
40DB5	410	179	8.8	14.4	381.2	85.10	10.2	83.99	62.50	24,557.50	1,197.90	678.10	168.99	1,379.08	154.09	119.34	40.05
40DB6	413	180	9.7	16	381	85.15	10.2	92.45	74.90	27,495.01	1,312.50	756.09	169.72	1,558.38	173.18	134.40	40.41
40DB7	417	181	10.9	18.2	380.6	85.05	10.2	108.26	85	31,537.51	1,501.60	862.63	170.68	1,803.35	199.27	155.06	40.81
45DB1	450	152	7.6	10.8	428.4	72.20	10.2	66.28	52	21,267.2	943	544.31	178.91	1,781.9	83.43	65.75	30.93
45DB2	455	153	8	13.3	428.4	72.20	10.2	75.86	59.60	25,498.98	1,120.80	644.40	183.34	2,061.13	104.07	81.54	32.39
45DB3	459	154	9.1	15.4	423.2	72.45	10.2	87.29	68.50	29,698.29	1,294	744.05	184.45	2,400.55	122.15	96.04	32.83
45DB4	462	154.4	9.6	17													

Section code	Profile dimensions, mm						Cross sectional area, F, cm ²	1 m weight, kg	X-Y references								
	h	b	s	t	h _w	b _w			R	I _x , cm ⁴	W _x , cm ³	S _x , cm ³	I _y , mm	W _y , cm ³	S _y , cm ³	I _y , mm	
60DB5	612	229	119	19,6	572,8	108,55	12,7	159,32	125,10	98,55648	3,22020	1,83714	248,70	3,93213	343,42	26,71	49,68
60DB6	617	230	131	22,2	572,6	108,45	12,7	178,52	140,10	111,9715	3,629,50	2,075,04	250,45	4,593,82	392,51	306,53	50,28

Type DK: Additional Column beams (UC)

15DK1	152	152	5,8	6,6	138,8	73,10	7,6	28,61	22,50	1,23115	159,60	88,58	65,12	386,64	50,87	38,82	36,76
15DK2	157	153	6,6	9,3	138,4	73,20	7,6	38,09	29,90	1,72251	219,40	122,56	67,25	555,61	72,63	55,30	38,19
15DK3	162	154	8,1	11,6	138,8	72,95	7,6	47,47	37,30	2,22767	275	155,52	68,51	706,89	91,80	70,06	38,59
20DK1	203	203	7,2	11	181	97,90	10,2	58,59	46	4,54570	447,90	247,79	88,09	1,534,57	151,19	114,76	51,8
20DK2	206	204	7,9	12,6	180,8	98,05	10,2	66,58	52,30	5,27237	519,0	284,77	88,99	1,783,95	174,90	132,78	51,76
20DK3	210	205	9,1	14,2	181,6	97,95	10,2	75,64	59,40	6,114	582,30	326,45	89,91	2,040,50	199,07	151,37	51,94
20DK4	216	206	10,2	17,4	181,2	97,90	10,2	91,06	71,50	7,66228	709,50	401,74	91,73	2,597,25	246,33	182,28	52,78
20DK5	222	209	13	20,6	180,8	98	10,2	110,51	86,80	9,47187	853,30	490,61	92,58	3,138,43	300,33	229,17	53,29
20DK6	229	210	14,5	23,7	181,6	97,75	10,2	126,77	99,50	11,32882	989,40	574,62	94,53	3,663,55	348,91	266,49	53,76
25DK1	253	254	8,6	14,2	224,6	122,70	12,7	92,84	72,90	11,274,05	891,20	492,46	110,20	3,880,25	305,53	231,60	64,65
25DK2	256	256	9,4	15,6	224,8	122,80	12,7	102,08	80,10	12,56716	981,80	545,12	110,96	4,353,58	338,32	256,60	65,01
25DK3	260	256	10,7	17,3	225,4	122,65	12,7	114,08	89,60	14,25392	1,096,50	62,99	111,78	4,840,24	378,18	287,24	65,14
25DK4	264,0	257,0	11,9	19,6	224,8	122,55	12,7	128,88	101,20	16,36903	1,240,10	698,30	112,70	5,549,34	431,86	328,23	65,62

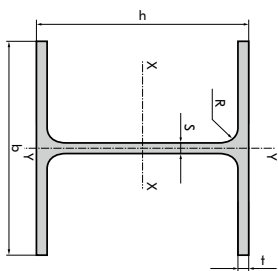
Material and shape specification

Section reference document	Steel code		Chemistry reference document	Techspecs reference document	Supplied lengths, product length, m	Manufacturer
	class	grade				
GOST R 57837-2017	—	S13sp	GOST 380-2005	GOST R 57837-2017	Fixed lengths: 6.0 to 24.0 in 0.1 m increments; non-fixed lengths	EVRAZ NTMK
	—	S255, S345, S355, S390	GOST Z7772-2015			
	345, 355, 375, 390, 440	—	GOST 19281-2014			
	S255B, S345B, S355B, S390B, S440B	—	GOST R 57837-2017			
GOST R 57837-2017	345	10HSND	GOST 19281-2014	By agreement	GOST 19281-2014	EVRAZ NTMK
	—	15HSND	GOST R 55374-2012			
	—	14HGND	GOST R 55374-2012			
	—	S13sp, S13sp	GOST 380-2005			
GOST R 57837-2017	345	09G2S	GOST 19281-2014	By agreement	GOST R 57837-2017	EVRAZ ZSMK
	—	S235, S245, S255, S345	GOST Z7772-2015			
	—	—	GOST R 57837-2017			
	S248B, S255B, S255B-1, S245B	—	GOST R 57837-2017			
GOST R 55374-2012	345, S345	15HSND	GOST 19281-2014	By agreement	GOST 19281-2014	EVRAZ ZSMK
	—	—	GOST R 55374-2012			
GOST R 55374-2012	345	14HGND	GOST R 55374-2012	By agreement	GOST R 55374-2012	EVRAZ ZSMK
	—	—	GOST R 55374-2012			

Parallel flange I-beams (ASTM A6/A6M, TU 24107-016-00186269-2017)

The products are manufactured at the H-beam plant of EVRAZ NTMK.

Tech codes
EVRAZ NTMK
(rus)



Section code	As per ASTM A6/ AdM in: inch/ millimeter/ kilogram	code	Profile dimensions, mm			Section area, A, mm	1 m weight, kg	X-Y references							
			profile depth, h	flange width, b	web thickness, s			flange thickness, t	I _x , cm ⁴	W _x , cm ³	S _x , cm ³	I _y , cm	I _y , cm ⁴	W _y , cm ³	I _y , cm
WB<15	W150<22.5	15K1A	152	152	5,8	6,6	28,6	22,5	1,213	160	89	7	387	51	3,7
WB<20	W150<28,8	15K2A	157	153	6,6	9,3	37,9	29,8	1,723	219	123	7	556	73	3,8
WB<25	W150<37,1	15K3A	162	154	8,1	11,6	47,4	37,1	2,228	275	156	7	707	92	3,9
WB<18	W200<26,6	20D1A	207	133	5,8	8,4	33,9	26,6	2,880	249	139	9	330	50	3,1
WB<21	W200<31,3	20D2A	210	134	6,4	10,2	39,7	31,3	3,137	299	168	9	410	61	3,2
WB<31	W200<46,1	20K2A	203	203	7,2	11,0	58,9	46,1	4,546	448	248	9	1,535	151	5,1
WB<35	W200<52	20K3A	206	204	7,9	12,6	66,5	52	5,272	512	285	9	1,784	175	5,2
WB<40	W200<59	20K4A	210	205	9,1	14,2	75,5	59	6,114	582	326	9	2,040	199	5,2
WB<48	W200<71	20K5A	216	206	10,2	17,4	91,0	71	7,662	709	402	9	2,537	246	5,3
WB<58	W200<86	20K6A	222	209	13,0	20,6	110,0	86	9,472	833	491	9	3,188	300	5,3
WB<67	W200<100	20K7A	229	210	14,5	23,7	127,0	100	11,329	989	575	9	3,664	349	5,4
WB<22	W250<32,7	25D2A	228	146	6,1	9,1	41,9	32,7	4,888	379	212	11	473	65	3,4
WB<26	W250<38,5	25D3A	262	147	6,6	11,2	49,1	38,5	6,007	459	257	11	594	81	3,5
WB<30	W250<44,8	25D4A	266	148	7,6	13,0	57,0	44,8	7,108	534	301	11	703	95	3,5
WB<49	W250<73	25K1A	253	254	8,6	14,2	92,9	73	11,274	891	492	11	3,880	306	6,5
WB<54	W250<80	25K2A	256	255	9,4	15,6	102,0	80	12,567	982	545	11	4,314	338	6,5
WB<60	W250<101	25K4A	264	257	11,9	19,6	129,0	101	16,369	1,240	698	11	5,549	432	6,6
WB<77	W250<115	25K5A	269	259	13,5	22,1	146,0	115	18,937	1,408	799	11	6,405	495	6,6
WB<88	W250<131	25K6A	275	261	15,4	25,1	167,0	131	22,149	1,611	923	12	7,446	571	6,7
WB<100	W250<149	25K7A	282	263	17,3	28,4	190,0	149	25,932	1,839	1,064	12	8,622	656	6,7
WB<112	W250<167	25K8A	289	265	19,2	31,8	212,0	167	30,015	2,077	1,213	12	9,879	746	6,8
WB<124	W310<28,3	31U3A	309	102	6,0	8,9	35,9	28,3	5,427	351	203	12	158	31	2,1
WB<22	W310<32,7	31U4A	313	102	6,6	10,8	41,8	32,7	6,496	415	240	12	192	38	2,1
WB<26	W310<38,7	31B1A	310	165	5,8	9,7	49,4	38,7	8,545	551	306	13	277	88	3,8
WB<30	W310<44,5	31B2A	313	166	6,6	11,2	56,7	44,5	9,961	636	355	13	355	103	3,9
WB<35	W310<52	31B3A	317	167	7,6	13,2	66,5	52	11,873	749	420	13	456	123	3,9
WB<42	W360<32,9	36U1A	349	127	5,8	8,5	41,9	32,9	8,268	474	271	14	291	46	2,6

Section code	Profile dimensions, mm					Section area, A, mm	1 m weight, kg	I _x , cm ⁴	W _x , cm ³	S _x , cm ³	I _y , cm	I _y , cm ⁴	W _y , cm ³	I _z , cm	
	as per ASTM A6/ A6M in: inchi/ foot	code	profile depth, h	flange width, b	web thickness, s										flange thickness, t
W14-26	W360-39	36UZA	353	128	6,5	10,7	496	39	10,241	580	331	14	375	59	2,7
W14-30	W360-44,6	36B1A	352	171	6,9	9,8	571	44,6	12,167	691	389	15	818	96	3,8
W14-34	W360-51	36B2A	355	171	7,2	11,6	64,5	51	14,131	796	447	15	968	113	3,9
W14-38	W360-58	36B3A	358	172	7,9	13,1	72,3	58	16,052	897	505	15	1,113	129	3,9
W14-61	W360-91	36SH1A	353	254	9,5	16,4	115,0	91	26,755	1,516	840	15	4,483	353	6,2
W14-68	W360-101	36SH2A	357	235	10,5	18,3	129,0	101	30,211	1,692	942	15	5,062	397	6,3
W14-74	W360-110	36SH3A	360	256	11,4	19,9	141,0	110	33,555	1,842	1,030	15	5,707	435	6,3
W14-82	W360-122	36SH4A	363	257	13,0	21,7	155,0	122	36,599	2,016	1,135	15	6,147	478	6,3
W16-26	W410-38,8	41U1A	399	140	6,4	8,8	49,5	38,8	12,657	634	365	16	4,004	58	2,9
W16-31	W410-46,1	41U2A	403	140	7,0	11,2	58,8	46,1	15,571	773	442	16	514	73	3
W16-36	W410-53	41B1A	403	177	7,5	10,9	68,4	53	18,614	924	523	16	1,009	114	3,8
W16-40	W410-60	41B2A	407	178	7,7	12,8	76,1	60	21,586	1,061	598	17	1,205	135	4
W16-45	W410-67	41B3A	410	179	8,8	14,4	85,8	67	24,558	1,198	678	17	1,379	154	4
W16-50	W410-75	41B4A	413	180	9,7	16,0	94,8	75	27,496	1,332	756	17	1,559	173	4,1
W16-57	W410-85	41B5A	417	181	10,9	18,2	108,0	85	31,538	1,513	863	17	1,803	199	4,1
W18-35	W460-52	46U1A	450	152	7,6	10,8	66,5	52	21,217	943	544	18	634	83	3,1
W18-40	W460-60	46U2A	455	153	8,0	13,3	76,1	60	25,500	1,121	642	18	796	104	3,2
W18-46	W460-68	46U3A	459	154	9,1	15,4	87,1	68	29,699	1,294	744	18	941	122	3,3
W18-50	W460-74	46B1A	457	190	9,0	14,5	94,8	74	33,263	1,456	825	19	1,661	175	4,2
W18-55	W460-82	46B2A	460	191	9,9	16,0	105,0	82	37,005	1,609	915	19	1,862	195	4,2
W18-60	W460-89	46B3A	463	192	10,5	17,7	114,0	89	40,953	1,769	1,006	19	2,093	218	4,3
W18-65	W460-97	46B4A	466	193	11,4	19,0	123,0	97	44,506	1,910	1,090	19	2,282	237	4,3
W18-71	W460-106	46B5A	469	194	12,6	20,6	134,0	106	48,826	2,082	1,194	19	2,515	259	4,3
W21-48	W530-72	53B1A	524	207	9,0	10,9	91,8	72	40,060	1,529	880	21	1,615	156	4,2
W21-55	W530-82	53B2A	528	209	9,5	13,3	105,0	82	47,659	1,805	1,031	21	2,028	194	4,4
W21-62	W530-92	53B3A	533	209	10,2	15,6	118,0	92	55,248	2,073	1,182	22	2,379	228	4,5
W21-68	W530-101	53B4A	537	210	10,9	17,4	129,0	101	61,704	2,298	1,310	22	2,692	256	4,6
W21-73	W530-109	53B5A	539	211	11,6	18,8	139,0	109	66,733	2,476	1,413	22	2,951	280	4,6
W21-83	W530-123	53B6A	544	212	13,1	21,2	157,0	123	76,084	2,797	1,604	22	3,377	319	4,6
W21-93	W530-138	53B7A	549	214	14,7	23,6	176,0	138	86,086	3,156	1,807	22	3,870	362	4,7
W24-55	W610-82	61U1A	599	178	10,0	12,8	105,0	82	55,981	1,869	1,098	23	1,209	136	3,4
W24-62	W610-92	61U2A	603	179	10,9	15,0	117,0	92	64,631	2,144	1,256	24	1,441	161	3,5
W24-68	W610-101	61B1A	603	228	10,5	14,9	130,0	101	76,575	2,540	1,454	24	2,950	259	4,8
W24-76	W610-113	61B2A	608	228	11,2	17,3	145,0	113	87,767	2,887	1,649	25	3,425	300	4,9
W24-84	W610-125	61B3A	612	229	11,9	19,6	159,0	125	98,757	3,227	1,841	25	3,932	343	5
W24-94	W610-140	61B4A	617	230	13,1	22,2	179,0	140	112,91	3,637	2,079	25	4,514	393	5
W24-103	W610-153	61B5A	623	229	14,0	24,9	196,0	153	125,355	4,024	2,304	25	4,999	437	5,1
HP10-42	HP250-62	25K1AS	246	256	10,5	10,7	80,0	62	8,775	713	397	10	2,995	234	6,1
HP12-53	HP310-79	31K1AS	299	306	11,0	11,0	100,0	79	16,320	1,092	605	13	5,258	344	7,3
HP12-74	HP310-110	31K3AS	308	310	15,4	15,5	141,0	110	23,707	1,539	865	13	7,707	497	7,4

Note: Tolerances of shape, dimensions and weight: as per ASTM A6/A6M.

Product length

PO specified lengths	Fixed lengths																
	foot	20	25	30	32	35	38	40	43	45	48	50	53	55	58	60	65
Product length	m	6,1	7,6	9,2	9,8	10,7	11,6	12,2	13,1	13,7	14,6	15,2	16,2	16,8	17,7	18,3	19,8

Note: I-beams can be ordered in lengths 6 to 24 m with the increments of 0,1 m.

Grade mix

Steel code	Chemistry reference document	Technispecs reference document
(A36)	ASTM A36/A36M	ASTM A36/A36M, ASTM A6/A6M
50	ASTM A572/A572M	ASTM A572/A572M, ASTM A6/A6M
(A992)	ASTM A992/A992M	ASTM A992/A992M, ASTM A6/A6M
44W, 50W	CSA G40.21	CSA G40.21, ASTM A6/A6M
50	ASTM A572/A572M, ASTM A992/A992M, CSA G40.21	ASTM A572/A572M, ASTM A992/A992M, CSA G40.21, ASTM A6/A6M

ASTM and CSA standards regulating the I-beam supplies

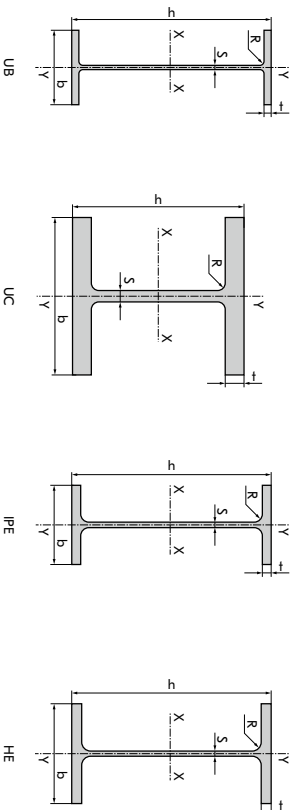
Designation of a reference document	Name of a reference
ASTM A6/A6M	Technical specification on rolled rods, sheets, sections, sheet piles of structural steel
ASTM A36/A36M	Technical specification on structural carbon steel
ASTM A572/A572M	Technical specification on sections of HSLA Nb- and V-alloyed structural steel
ASTM A992/A992M	Technical specification on rolled sections from structural steel
CSA G40.21	High quality structural steel

Note: Respective standard with its latest edition year to be specified in PO.

Parallel flange I-beams (BS EN 10365, TU 24107-016-00186269-2017)

The products are manufactured at the H-beam plant of
EVRAZ NTMK.

Tech codes
EVRAZ NTMK
(rus)



Section code	code	Profile dimensions, mm				kg	I_x, cm^4	W_x, cm^3	S_x, cm^2	I_y, cm^4	I_p, cm^4	W_y, cm^3	I_y, cm^4
		section depth, h	flange width, b	web thickness, s	flange thickness, t								

Universal beams UB

UB 234x146x31	2SD1V	251.4	146.1	6.0	8.6	7.6	31.1	4,414	351	797	11	448	61	3.4
UB 234x146x37	2SD2V	256	146.4	6.3	10.9	7.6	37	5,537	433	242	11	571	78	3.5
UB 234x146x43	2SD3V	259.6	147.3	7.2	12.7	7.6	43	6,544	504	283	11	677	92	3.5
UB 305x102x28	3U2V	308.7	101.8	6.0	8.8	7.6	28.2	5,366	348	201	12	155	31	2.1
UB 305x102x33	3U3V	312.7	102.4	6.6	10.8	7.6	32.8	6,502	416	240	12	194	38	2.2
UB 305x165x40	3B1V	303.4	165	6.0	10.2	8.9	40.3	8,503	561	312	13	764	93	3.9
UB 305x165x46	3B2V	306.6	165.7	6.7	11.8	8.9	46.1	9,899	646	360	13	896	108	3.9
UB 305x165x54	3B3V	310.4	166.9	7.9	13.7	8.9	54	11,696	754	423	13	1,063	127	3.9
UB 336x127x33	36U1V	349	125.4	6.0	8.5	10.2	33.1	8,230	473	271	14	280	45	2.6
UB 336x127x39	36U2V	353.4	126	6.6	10.7	10.2	39.1	10,172	576	329	14	358	57	2.7
UB 336x171x45	36B1V	351.4	171.1	7.0	9.7	10.2	45	12,066	687	387	15	811	95	3.8
UB 336x171x51	36B2V	355	171.5	7.4	11.5	10.2	51	14,136	796	448	15	968	113	3.9
UB 336x171x57	36B3V	358	172.2	8.1	13.0	10.2	57	16,039	896	505	15	1,108	129	3.9
UB 336x171x67	36B4V	363.4	173.2	9.1	15.7	10.2	67.1	19,463	1,071	605	15	1,362	157	4
UB 406x140x39	41U1V	398	141.6	6.4	8.6	10.2	39	12,509	629	362	16	410	58	2.9
UB 406x140x46	41U2V	403.2	142.2	6.8	11.2	10.2	46	15,686	778	444	16	538	76	3
UB 406x178x54	41B1V	402.6	177.7	7.7	10.9	10.2	54.1	18,723	930	527	16	1,021	115	3.8
UB 406x178x60	41B2V	406.4	179	7.9	12.8	10.2	60.1	21,597	1,063	600	17	1,203	135	4
UB 406x178x67	41B3V	409.4	178.8	8.8	14.3	10.2	67.1	24,331	1,189	673	17	1,365	153	4

Section code	code	Profile dimensions, mm				kg	I_x, cm^4	W_x, cm^3	S_x, cm^2	I_y, cm^4	I_p, cm^4	W_y, cm^3	I_y, cm^4
		section depth, h	flange width, b	web thickness, s	flange thickness, t								

UB 406x178x74	41B4V	412.8	179.5	9.5	16.0	10.2	74.2	27,310	1323	750	17	1,545	172	4
UB 457x152x52	46U1V	449.8	152.4	7.6	10.9	10.2	52.3	21,370	950	548	18	645	85	3.1
UB 457x152x60	46U2V	454.6	152.9	8.1	13.3	10.2	59.8	25,501	1,122	644	18	795	104	3.2
UB 457x152x67	46U3V	458	153.8	9.0	15.0	10.2	67.2	28,927	1,263	727	18	913	119	3.3
UB 457x152x74	46U4V	462	154.4	9.6	17.0	10.2	74.2	32,675	1,414	813	19	1,046	136	3.3
UB 457x152x82	46U5V	465.8	155.3	10.5	18.9	10.2	82.1	36,599	1,571	906	19	1,184	153	3.4
UB 457x191x67	46B1V	453.4	189.9	8.5	12.7	10.2	67.1	29,381	1,296	736	19	1,452	153	4.1
UB 457x191x74	46B2V	457	190.4	9.0	14.5	10.2	74.3	33,320	1,458	826	19	1,671	176	4.2
UB 457x191x82	46B3V	460	191.3	9.9	16.0	10.2	82	37,052	1,611	916	19	1,871	196	4.2
UB 457x191x89	46B4V	463.4	191.9	10.5	17.7	10.2	89.3	41,016	1,770	1,007	19	2,089	218	4.3
UB 457x191x98	46B5V	467.2	192.8	11.4	19.6	10.2	98.3	45,728	1,958	1,116	19	2,347	243	4.3
UB 533x210x82	53B2V	528.3	208.8	9.6	13.2	12.7	82.2	47,541	1,800	1,029	21	2,007	192	4.4
UB 533x210x92	53B3V	533.1	209.3	10.1	15.6	12.7	92.1	55,229	2,072	1,180	22	2,389	228	4.5
UB 533x210x101	53B4V	536.7	210	10.8	17.4	12.7	101	61,550	2,293	1,306	22	2,692	256	4.6
UB 533x210x109	53B5V	539.5	210.8	11.6	18.8	12.7	109	66,824	2,477	1,414	22	2,943	279	4.6
UB 533x210x122	53B6V	544.5	211.9	12.7	21.3	12.7	122	76,044	2,793	1,598	22	3,387	320	4.7
UB 610x229x101	61B1V	602.6	227.6	10.5	14.8	12.7	101.2	75,782	2,515	1,441	24	2,915	256	4.8
UB 610x229x113	61B2V	607.6	228.2	11.3	17.3	12.7	113	87,321	2,824	1,640	25	3,434	301	4.9
UB 610x229x125	61B3V	612.2	229	11.9	19.6	12.7	125.1	98,612	3,222	1,838	25	3,932	343	5
UB 610x229x140	61B4V	617.2	230.2	13.1	22.1	12.7	139.9	111,779	3,622	2,071	25	4,505	391	5

Universal beams UC

UC 152x152x23	15KV	152.4	152.2	5.8	6.8	7.6	23	1,250	164	91	7	400	53	3.7
UC 152x152x30	15KV	157.6	152.9	6.5	9.4	7.6	30	1,748	222	124	7	560	73	3.8
UC 152x152x37	15KV	161.8	154.4	8	11.5	7.6	37	2,211	273	154	7	706	91	3.9
UC 203x203x46	20KV	203.2	203.6	7.2	11	10.2	46.1	4,568	450	249	9	1,548	152	5.1
UC 203x203x52	20KV	206.2	204.3	7.9	12.5	10.2	52	5,299	510	284	9	1,778	174	5.2
UC 203x203x60	20KV	209.6	205.8	9.4	14.2	10.2	60	6,125	584	328	9	2,065	201	5.2
UC 203x203x71	20KV	215.8	206.4	10	17.3	10.2	71	7,618	706	399	9	2,537	246	5.3
UC 203x203x86	20KV	222.2	209.1	12.7	20.5	10.2	86.1	9,449	850	488	9	3,127	299	5.3
UC 234x234x73	23KV	254.1	254.6	8.6	14.2	12.7	73.1	11,407	898	496	11	3,908	307	6.5
UC 234x234x89	23KV	260.3	256.3	10.8	17.3	12.7	88.9	14,268	1,096	612	11	4,857	379	6.5
UC 234x234x107	23KV	266.7	258.8	12.3	20.5	12.7	107.1	17,511	1,313	742	11	5,927	458	6.6
UC 234x234x132	23KV	276.3	261.3	15.3	25.3	12.7	132	22,529	1,631	935	12	7,331	576	6.7
UC 234x234x167	23KV	289.1	265.2	19.2	31.7	12.7	167.1	29,998	2,075	1,212	12	9,870	744	6.8

Type IPE

IPE 200	20B3V	200	100	5.6	8.5	12	22.4	1,943	194	110	8	142	28	2.2
IPE 200 O	20B4V	202	102	6.2	9.5	12	25.1	2,211	219	125	8	169	33	2.3
IPE 300 A	30B1V	297	150	6.1	9.2	15	36.5	7,714	483	271	12	519	69	3.3

Section code as per BS EN 10365	code	Profile dimensions, mm				1 m weight, kg	I _y , cm ⁴	W _y , cm ³	S _y , cm ³	I _x , cm	I _y , cm ⁴	W _x , cm ³	I _x , cm	
		section depth, h	flange width, b	web thickness, s	flange thickness, t									radius, R
IPE 300	30B2V	300	150	71	10,7	15	42,2	8,357	557	314	12	604	80	3,3
IPE 300 O	30B3V	304	152	8	12,7	15	49,3	9,995	658	372	13	746	98	3,4
IPE 450 A	45B1V	447	190	7,6	13,1	21	67,2	29,761	1,332	747	19	1,502	159	4,2
IPE 450	45B2V	450	190	9,4	14,6	21	77,6	33,745	1,500	891	18	1,675	176	4,1
IPE 450 O	45B3V	456	192	11	17,6	21	92,4	40,926	1,795	1,023	19	2,085	217	4,2
IPE 450 A	45B4V	460	194	12,4	19,6	21	103,6	46,203	2,009	1,151	19	2,396	247	4,3
IPE 500 V	50B1V	497	200	8,4	14,5	21	79,4	42,937	1,728	973	21	1,939	194	4,4
IPE 500 O	50B2V	500	200	10,2	16	21	90,7	48,202	1,928	1,097	20	2,141	214	4,3
IPE 500 V	50B3V	506	202	12	19	21	107	57,781	2,284	1,307	21	2,621	260	4,4
IPE 500 O	50B4V	514	204	14,2	23	21	129	70,723	2,752	1,584	21	3,271	321	4,5
IPE 550 A	55B1V	547	210	9	15,7	24	92,1	59,984	2,193	1,237	23	2,431	232	4,6
IPE 550 O	55B2V	550	210	11,1	17,2	24	106	67,122	2,441	1,394	22	2,667	254	4,5
IPE 550 O	55B3V	556	212	12,7	20,2	24	123	79,162	2,848	1,632	23	3,223	304	4,5
IPE 550 V	55B4V	566	216	17,1	25,2	24	159	102,344	3,616	2,103	23	4,264	395	4,6

Type HE

Section code as per BS EN 10365	code	Profile dimensions, mm				1 m weight, kg	I _y , cm ⁴	W _y , cm ³	S _y , cm ³	I _x , cm	I _y , cm ⁴	W _x , cm ³	I _x , cm	
		section depth, h	flange width, b	web thickness, s	flange thickness, t									radius, R
HE 180 AA	18KV	167	180	5	7,5	15	28,7	1,967	236	129	7	750	81	4,5
HE 180 A	18K2V	171	180	6	9,5	15	35,5	2,510	294	162	7	924	103	4,5
HE 180 B	18K3V	180	180	8,5	14	15	51,2	3,831	426	241	8	1,363	151	4,6
HE 180 C	18K4V	190	183	11,5	19	15	69,8	5,543	583	338	8	1,944	212	4,7
HE 180 M	18K5V	200	186	14,5	24	15	88,9	7,483	748	442	8	2,580	277	4,8
HE 200 AA	20KV	186	200	5,5	8	18	34,6	2,944	317	174	8	1,068	107	4,9
HE 200 A	20K1V	190	200	6,5	10	18	42,3	3,692	389	215	8	1,335	134	5
HE 200 B	20K2V	200	200	9	15	18	61,3	5,696	570	321	9	2,009	200	5,1
HE 200 C	20K4V	210	203	12	20	18	81,9	8,029	765	440	9	2,794	275	5,2
HE 200 M	20K5V	220	206	15	25	18	103	10,642	967	568	9	3,651	354	5,3
HE 240 AA	24KV	244	260	6,5	9,5	24	54,1	7,981	654	357	11	2,787	214	6,4
HE 240 A	24K2V	250	260	7,5	12,5	24	68,2	10,455	836	460	11	3,667	282	6,5
HE 240 B	24K3V	260	260	10	17,5	24	93	14,920	1,148	642	11	5,134	395	6,6
HE 300 AA	30KV	283	300	7,5	10,5	27	69,8	13,804	976	533	12	4,732	315	7,3
HE 300 A	30K2V	290	300	8,5	14	27	88,3	18,264	1,260	692	13	6,308	421	7,5
HE 300 B	30K3V	300	300	11	19	27	117	25,166	1,678	934	13	8,561	571	7,6
HE 300 C	30K4V	320	305	16	29	27	177	40,951	2,559	1,463	13	13,735	901	7,8
HE 300 AA	30KV	301	300	8	11	27	74,2	16,448	1,093	598	13	4,957	330	7,2
HE 320 A	32KV	310	300	9	15,5	27	97,6	22,929	1,479	814	14	6,984	466	7,5
HE 320 B	32K2V	320	300	11,5	20,5	27	127	30,824	1,927	1,075	14	9,237	666	7,6
HE 320 C	32K4V	340	305	16	30,5	27	186	48,711	2,865	1,637	14	14,445	947	7,8
HE 400 AA	40SHV	378	300	9,5	13	27	92,4	31,254	1,654	912	16	5,860	391	7,1
HE 400 A	40SH2V	390	300	11	19	27	125	45,071	2,311	1,281	17	8,562	571	7,3

Section code as per BS EN 10365	code	Profile dimensions, mm				1 m weight, kg	I _y , cm ⁴	W _y , cm ³	S _y , cm ³	I _x , cm	I _y , cm ⁴	W _x , cm ³	I _x , cm	
		section depth, h	flange width, b	web thickness, s	flange thickness, t									radius, R
HE 400 B	40SHV	400	300	13,5	24	27	155	57,682	2,884	1,616	17	10,817	721	7,4
HE 450 AA	45SHV	425	300	10	13,5	27	97,7	41,891	1,971	1,092	18	6,086	406	6,9
HE 450 A	45SH2V	440	300	11,5	21	27	140	63,725	2,897	1,608	19	9,464	631	7,3
HE 450 B	45SH3V	450	300	14	26	27	171	79,891	3,551	1,991	19	11,720	781	7,3
HE 500 AA	50SHV	472	300	10,5	14	27	107	54,647	2,316	1,288	20	6,312	421	6,8
HE 500 A	50SH2V	490	300	12	23	27	155	86,979	3,550	1,975	21	10,865	691	7,2
HE 500 B	50SH3V	500	300	14,5	28	27	187	107,180	4,287	2,407	21	12,622	841	7,3
HE 600 A	60SHV	571	300	12	15,5	27	129	91,899	3,218	1,812	24	6,992	466	6,5
HE 600 AA	60SH2V	590	300	13	25	27	178	141,215	4,787	2,675	25	11,270	751	7,1
HE 600 B	60SH3V	600	300	15,5	30	27	212	171,048	5,702	3,213	25	13,529	902	7,1

Note:

Tolerances of shape, dimensions and weight: as per BS EN 10034.

Grade mix

Steel code	Chemistry reference document	Technical reference document
S235JR S235JO S235J2		
S275JR S275IR S275J2	DIN EN 10025-2	DIN EN 10025-1
S355JR S355JO S355J2		

Hot-rolled products made of structural steel grades	DIN EN 10025-1	General delivery specifications
Hot-rolled products made of structural steel grades	DIN EN 10025-2	Delivery specifications for non-allowed structural steel grades

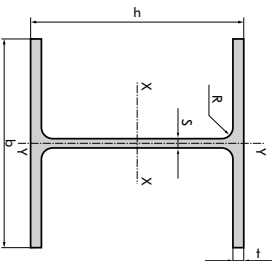
Supplied lengths, product length

PO specified lengths	Fixed lengths
Product lengths	6 to 24 m in 0,1 m increments

Parallel flange I-beams (IIS G 319Z, TU 4107-051-00186269-2020, TU 24107-016-00186269-2017)

The products are manufactured at the H-beam plant of EVRAZ NTMK.

Tech codes
EVRAZ NTMK
(rus)



Section code as per IIS G 319Z	cross section	Code	Profile dimensions, mm				Radius, R	1 m weight, kg	I_x, cm^4	W_x, cm^3	S_x, cm^3	i_x, cm	I_y, cm^4	W_y, cm^3	i_y, cm
			section depth, h	flange width, b	web thickness, s	flange thickness, t									
200×100	200×100	20B15	200	100	5.5	8	11	21.3	184.4	184	105	8	134	27	2.2
250×125	248×124	25B15	248	124	5.8	8	12	25.7	3,537	285	160	10	294	41	2.8
250×125	25B25	25B25	250	125	6	9	12	29.6	4,052	324	183	10	255	47	2.8
300×150	298×149	30B15	298	149	5.5	8	13	32	6,319	424	238	12	442	59	3.3
300×150	300×150	30B25	300	150	6.5	9	13	36.7	7,210	481	271	12	507	68	3.3
350×175	346×174	35B15	346	174	6	9	14	41.4	11,095	641	338	15	791	91	3.9
350×175	350×175	35B25	350	175	7	11	14	49.6	13,560	775	434	15	984	112	3.9
400×200	396×199	40B15	396	199	7	11	16	56.6	20,020	1,011	564	17	1,447	145	4.5
400×200	400×200	40B25	400	200	8	13	16	66	23,706	1,185	663	17	1,736	174	4.5
450×200	446×199	45B15	446	199	8	12	18	66.2	28,699	1,287	725	18	1,580	199	4.3
450×200	450×200	45B25	450	200	9	14	18	76	33,453	1,487	840	19	1,871	187	4.4
500×200	496×199	50B15	496	199	9	14	20	79.5	41,872	1,688	957	20	1,844	185	4.3
500×200	500×200	50B25	500	200	10	16	20	89.7	48,849	1,914	1,088	20	2,140	214	4.3
600×200	596×199	60B15	596	199	10	15	22	94.6	68,721	2,306	1,325	24	1,979	199	4.1
600×200	600×200	60B25	600	200	11	17	22	105.5	77,638	2,588	1,489	24	2,277	228	4.1
200×150	194×150	20SH15	194	150	6	9	13	30.6	2,690	277	154	8	507	68	3.6
250×175	244×175	25SH15	244	175	7	11	16	44.1	6,122	502	279	10	984	112	4.2
300×200	294×200	30SH15	294	200	8	12	18	56.8	11,339	771	430	13	1,603	160	4.7
350×250	340×250	35SH25	340	250	9	14	20	79.7	21,678	1,275	706	15	3,650	292	6
400×300	390×300	40SH25	390	300	10	16	22	106.7	38,676	1,983	1,094	17	7,207	480	7.3
450×300	442×300	45SH15	440	300	11	18	24	123.5	56,072	2,549	1,413	19	8,110	541	7.2
500×300	488×300	50SH15	482	300	11	15	26	144.2	60,371	2,505	1,396	20	6,762	451	6.8
500×300	488×300	50SH25	488	300	11	18	26	128.4	70,956	2,908	1,644	21	8,112	541	7
600×300	582×300	60SH15	582	300	12	17	28	137	102,717	3,530	1,981	24	7,668	511	6.6
600×300	588×300	60SH25	588	300	12	20	28	151.1	118,118	4,018	2,245	25	9,018	601	6.8
700×300	694×302	60SH45	594	302	14	23	28	174.6	137,329	4,624	2,599	25	10,583	701	6.9
700×300	705H15	692	300	13	20	28	166	172,435	4,984	2,815	29	9,023	602	6.5	
700×300	705H25	700	300	13	24	28	184.9	201,501	5,757	3,232	29	10,823	722	6.8	
150×150	150×150	15K15	150	150	7	10	11	31.5	1,641	219	123	6	563	75	3.7
200×200	200×200	20K25	200	200	8	12	13	49.9	4,716	472	263	9	1,601	160	5
250×250	250×250	25K25	250	250	9	14	16	72.4	10,833	887	480	11	3,649	292	6.3
300×300	300×300	30K25	300	300	10	15	18	90.4	20,411	1,361	751	13	6,755	450	7.5
350×350	350×350	35K25	350	350	12	19	20	136.5	40,296	2,303	1,273	15	13,585	776	8.8

Section mix

Section code as per IIS G 319Z	cross section	Code	Profile dimensions, mm				radius, R	1 m weight, kg	I_x, cm^4	W_x, cm^3	S_x, cm^3	i_x, cm	I_y, cm^4	W_y, cm^3	i_y, cm
			section depth, h	flange width, b	web thickness, s	flange thickness, t									
400×400	400×400	40K25	400	400	13	21	22	171.7	66,623	3,331	1,936	17	22,412	1,121	10.1
400×400	414×405	40K45	414	405	18	28	22	231.9	92,773	4,482	2,513	18	31,026	1,532	10.2

Grade mix

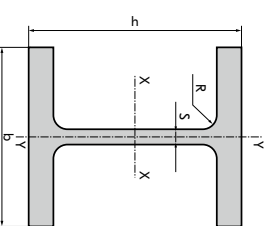
Steel code	Chemistry reference document	Techspecs reference document
S400	IIS G 3101	TU 24107-051-00186269
Rolled steel for general construction		
Dimensions, weights and tolerable variations of hot-rolled steel sections		
I-beams as per IIS G 319Z:2014, Tech codes		
		IIS G 3101
		IIS G 319Z
TU 24107-051-00186269		

Supplied lengths, product length

PO specified lengths	Fixed lengths
Product lengths	6 to 12 m in 0.1 m increments

Column I-beams for tower cranes

The products are manufactured at the H-beam plant of EVRAZ NTMK.



Section mix

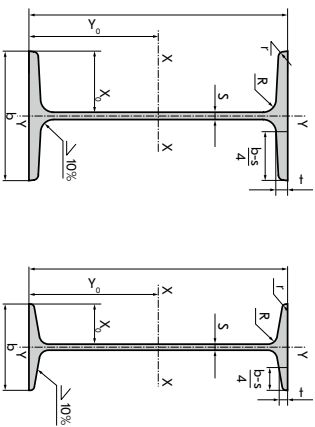
Section code	Profile dimensions, mm				Gross-sectional area, F, cm²	1 m weight, kg	X-Y references						
	h	b	s	t			I_x, cm^4	W_x, cm^3	S_x, cm^3	i_x, cm	I_y, cm^4	W_y, cm^3	i_y, cm
15KR	180.8	152	13.0	21.0	831	65.2	4,444	492	290.5	73	1,233	162	3.85

Material and shape specification

Section reference document	Steel code		Chemistry reference document	Techspecs reference document	Supplied lengths, m
	class	grade			
TU 00186269-217-2018	345 355 375 390	09G25 09G25D 12G2F 12G2FD	GOST 9281-2014	GOST 9281-2014 TU 00186269-217-2018	Fixed lengths: 6.0 to 24.0 0.1-m increments; non-fixed lengths

Inclined-flange I-beams

The products are manufactured at the H-beam plant of EVRAZ NTMK.



Section mix

Section code	Profile dimensions, mm					Cross sectional area, F_x , cm ²	1 m weight, kg	X-Y references						Manufacturer	
	h	b	s	t	R			I_x , cm ⁴	W_x , cm ³	S_x , cm ³	I_y , cm ⁴	W_y , cm ³	S_y , cm ³	I_x , cm ⁴	I_y , cm ⁴
Monorail I-beam as per GOST 19425-74															
24M	240	110	8.2	14.0	11	4	48.7	38.3	4,640	387	223	9.75	276	50.2	2.38
30M	300	130	9.0	15.0	12	6	64.0	50.2	9,500	633	364	12.2	480	79.9	2.74
36M	360	130	9.5	16.0	14	6	73.8	57.9	15,340	852	493	14.4	518	79.7	2.65
45M	450	150	10.5	18.0	16	7	98.8	77.6	31,900	1,420	821	18.0	892	119.0	3.00
I-beam as per TU 24107-044-00186269-2018															
18	180	90	5.1	8.1	9	3.5	23.4	18.4	1,290	143	81.4	7.42	82.6	18.4	1.88

I-beam as per 8239-89

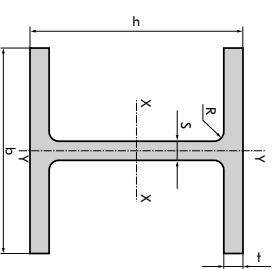
12	120	64	4.8	7.3	7.5	3.0	14.7	11.50	350	58.4	33.7	4.88	27.9	8.72	1.38
14	140	73	4.9	7.5	8.0	3.0	17.4	13.70	572	81.7	46.8	5.73	41.9	11.50	1.55

Material and shape specification

class	Steel code		Chemistry reference document	Techspecs reference document	Supplied lengths, product length, m
	grade	3sp			
—	S255	S345	GOST 27772-2015	GOST 27772-2015	EVRAZ NTMK. Fixed lengths: 8.0, 24.0. In 0.1-m increments; EVRAZ ZSMK. Non-fixed lengths: 6.0 – 12.0. In 0.1-m increments
—	S355	S390	GOST 19281-2014	GOST 19281-2014	
265	09G2S	09G2SD	GOST 19281-2014	GOST 19281-2014	
295	09G2SD	09G2SD	GOST 19281-2014	GOST 19281-2014	
325	09G2SD	09G2SD	GOST 19281-2014	GOST 19281-2014	
345	14HGND	14HGND	GOST 55374-12	GOST 55374-12	
390	10HSND	10HSND	GOST 19281-2014	GOST 19281-2014	

H-Bearing piles (TS 00186269-307-2016)

The products are manufactured at the H-beam plant of EVRAZ NTMK.



Section mix

Section code	Profile dimensions, mm					1 m weight, kg	I_x , cm ⁴	W_x , cm ³	S_x , cm ³	I_y , cm ⁴	W_y , cm ³	I_y , cm ⁴		
	code	section depth, h	flange width, b	web thickness, s	flange thickness, t								radius, R	
30S-30S-180	30S180	326.7	397.7	24.8	24.8	15.2	180	40,973	2,508	1,448	13	13,546	847	77
30S-30S-223	30S223	332.5	325.7	30.3	30.4	15.2	223	52,699	3,119	1,827	14	17,577	1,079	79

Grade mix

Steel code	Chemistry reference document	Techspecs reference document
S235JR, S235J0, S235J2	DIN EN 10025-2	DIN EN 10025-1
S275JR, S275J0, S275J2		
S355JR, S355J0, S355J2		

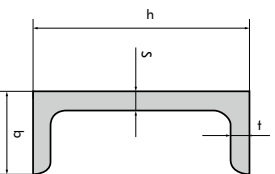
Hot-rolled products made of structural steel grades	DIN EN 10025-1	General delivery specifications
Hot-rolled products made of structural steel grades	DIN EN 10025-2	Delivery specifications for non-alloyed structural steel grades

Supplied lengths, product length

PO specified lengths	Product lengths	Fixed lengths
		6 to 24 m in 0.1 m increments

Channels (GOST 8240-97)

The products are manufactured at the rail and structural steel plant and heavy section plant of EVRAZ NTMK, at the medium section mill 450 of EVRAZ ZSMK.



Section mix

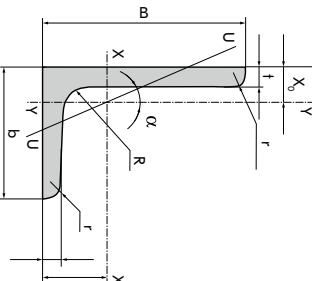
Channel number	Profile dimensions, mm				Cross-sectional area, cm ²	1 m weight, kg	Manufacturer
	h	b	s	t			
Parallel-flange channels							
6SP	65	36	4.4	7.2	7.51	5.9	EVRAZ ZSMK, EVRAZ NTMK
8P	80	40	4.5	7.4	8.98	7.05	
10P	100	46	4.5	7.6	10.9	8.59	
12P	120	52	4.8	7.8	13.3	10.4	
14P	140	58	4.9	8.1	15.6	12.3	
16P	160	64	5	8.5	18.1	14.2	
18P	180	70	5.1	8.7	20.70	16.30	
20P	200	76	5.2	9.0	23.40	18.40	
22P	220	82	5.4	9.5	27.70	21.00	
24P	240	90	5.6	10.0	30.60	24.00	
27P	270	95	6.0	10.5	35.2	27.7	EVRAZ NTMK
30P	300	100	6.5	11.0	40.50	31.8	
40P	400	115	8.0	13.5	61.50	48.3	
Inclined-flange channels							
6SU	65	36	4.4	7.2	7.51	5.9	EVRAZ ZSMK
12U	120	52	4.8	7.8	13.3	10.4	
14U	140	58	4.9	8.1	15.6	12.3	
16U	160	64	5.0	8.4	18.10	14.20	EVRAZ ZSMK, EVRAZ NTMK
16SU	160	68	5.0	9.0	19.50	15.30	
18U	180	70	5.1	8.7	20.70	16.30	EVRAZ NTMK
18SU	180	74	5.1	9.3	22.20	17.40	
20U	200	76	5.2	9.0	23.40	18.40	
24U	240	90	5.6	10.0	30.60	24.00	
27U	270	95	6.0	10.5	35.20	27.70	
30U	300	100	6.5	11.0	40.50	31.80	
40U	400	115	8.0	13.5	61.50	48.30	

Material and shape specification

Section reference document	Steel code		Chemistry reference document	Techniques reference document	Supplied lengths, channel length, m	Manufacturer
	class	grade				
GOST 8240-97	—	S13sp	GOST 535-2005	GOST 535-2005	Fixed lengths, fixed length multiples: 4.2 to 7.0 meters. Non-fixed lengths: lengths over 12 meters is subject to agreement	EVRAZ NTMK
	—	S255 S355 S355 S390	GOST 27772-2015	GOST 27772-2015		
	265, 295, 315, 325, 345, 355, 375, 390	09G2S 09G2SD 12G2F 12G2FD	GOST 19281-2014	GOST 19281-2014 GOST 8240-97		
	345	14HGND15	GOST 55374-12			
	390	15HSND 10HSND	GOST 19281-2014 GOST R 55374-2012			
	345	S13ps, S13sp 09G2S	GOST 380-2005 GOST 19281-2014	GOST 535-2005 GOST 19281-2014		
	—	S235 S245 S255 S345	GOST 27772-2015			
	345, S345	15HSND	GOST 6713-91 GOST 19281-2014 GOST R 55374-2012			
	345	14HGND15	GOST 55374-2012 TU 24-3030575/676-2018	GOST 55374-2012 TU 24-3030575/676-2018		
	—	S245 S255 S345	GOST 27772-2015			

Unequal angles (GOST 8510-86)

The products are manufactured at the heavy section plant of EVRAZ NTMK.



Angle number	Profile dimensions, mm				Cross section area, cm ²	1 m weight, kg	Axial inclination, tg α
	B	b	t	R			
16/10	160	100	10	13.0	25.28	19.85	0.39
			12	13.0	30.04	23.58	0.388
			14	13.0	34.72	27.26	0.385
20/12.5	200	125	11	14.0	34.87	27.37	0.392
			12	14.0	37.89	29.74	0.392
			14	14.0	43.87	34.43	0.390
			16	14.0	49.77	39.07	0.388

Material and shape specification

Section reference document	class	Steel code		Chemistry reference document	Techspecs reference document
		grade	S ¹ 9p		
GOST 8510-86	—	—	S ¹ 9p	GOST 380-2005	GOST 380-2005 GOST 8510-86
			S225	GOST 27772-2015	GOST 8510-86 GOST 27772-2015
			S345		
			S355		
			S390		
GOST 8510-86	—	—	—	GOST 19281-2014	GOST 19281-2014 GOST 8510-86
			S35		
			S375		
			S390		
			S390		

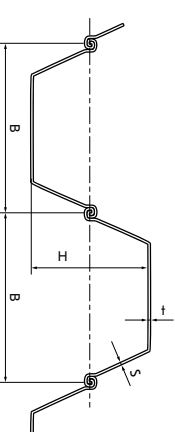
Supplied lengths, product length

Exact length — 6.0 to 8.0 m; exact length multiples; random length.

Sheet piles

The products are manufactured at the H-beam plant of EVRAZ NTMK.

The products are intended to construct hydraulic engineering structures, sea and river quays, man-made island fencing, offshore breakwaters and piers, dry docks and locks, bridge supports, embankments, bank protection and stream deflector cofferdams, retaining and filtration-proof walls, landslide slope protection, temporary/makeshift fencing of pits and other structures.



Section code	Section reference document	cofferdam height, H, mm	distance between the lock centerlines of a sheet pile, B, mm	Profile dimensions			Cross section area, cm ²	1 m weight, kg
				sheet pile flange thickness, S, mm	web thickness, t, mm	height, H, mm		
LS-UM	TU 0925-008-00186269-2016	430	506	11	23	1451	113.8	

Steel chemical composition

Sheet piles are manufactured of steels of the following strength classes:

- 240, 270, 320, 355, S345D as per this technical specification;
- S255, S345 — GOST 27772-2015;
- 345 as per GOST 19281-2014.

In 2011 the companies have mastered manufacturing increased strength sheet piles type LS-UM of class 345 strength steel and higher. Strength class S345D hereunder corresponds to that of S345 as per GOST 27772-2015 with 0.15% to 0.30% of copper as measured in ladle sample.

Strength class	Element mass fraction in ladle sample, %		Element mass fraction in ladle sample, %				
	C	Mn	Si	Al	P	S	N
240	not to exceed 0.20	—	—	—	—	—	—
270	not to exceed 0.24	not to exceed 1.60	not to exceed 0.55	at least 0.02	not to exceed 0.030	not to exceed 0.045	not to exceed 0.012
355	not to exceed 0.15	1.30 to 1.70	not to exceed 0.80	0.02 to 0.06	not to exceed 0.030	not to exceed 0.025	not to exceed 0.012

The sheet piles can be made of increased corrosion resistant steel by copper alloying of classes 320, 355 as per TU 0925-008-00186269-2016:

- high copper 0.20 to 0.35% (320D, 355D);
- ultra high copper 0.35 to 0.35% (320D1, 355D1).

Sheet piles are manufactured from weldable steel, which is ensured by the steel's chemical composition with limited carbon equivalent which must not exceed 0.45%.

Note:

- C_r, N_i, C_u = 0.30%.
- Copper (Cu) in steel of S345D strength class shall be 0.15% to 0.30%.
- Certain amounts of vanadium (V), niobium (Nb), titanium (Ti) may be added to steel to improve its mechanical properties, their weight fractions to be stated in the quality document.
- Symbol “-” means that the percentage of this element is not limited.

Annex. Production facilities

- EVRAZ ZSMK and EVRAZ NTMK go forward with the “Clean Air” national project.
- Upon the launch of blast furnace 6, the EVRAZ NTMK blast furnace complex has become the most advanced and environmentally friendly facility in Russia.



| New technologies for
a better future



EVRAZ NTMK



EVRAZ NTMK is located in the Middle Urals, in Nizhny Tagil, the second largest city in Sverdlovsk region in terms of population and industrial output.

The company operates as a full-scale integrated steelmaker.

The Russia's largest titanium-magnetite ore field along with the in-house blast furnace feedstock dressing factory is the plant's raw materials base.

The most advanced and environmentally friendly blast furnace complex in the Russian Federation includes two effective blast furnaces (BF No. 6 and 7) each capable of putting out 2.55 million tpa of hot metal. The complex is equipped with the effective pulverized coal injection technology to save on natural gas and coke.

Liquid steel is produced at the Basic Oxygen Plant which can make 4,480 K tpa. Steel is produced from vanadium hot metal by a two-phase method where sellable V slag is produced at the first step.

Rolling operations include seven hot rolling mills which manufacture a wide mix of finished products:

- a rail and structural steel mill with a heat treatment plant: railway rails, crane rails, conductor rails for underground railways channels, track shoes (grouters) sections, railcar sections (Z-beam, railcar post, special channels), pipe blanks, round bars, square bars, axle blanks;
- a heavy section mill: channels, angles, railcar post, mine working supports (pit props), R33 rails, R65 fish plate blank, counter-rail angle type SPB50, pipe blanks, round bars, square bars.

- a universal beam mill: general purpose I-beams, H-beams, UC beams, sheet piles, square and rectangular bars, pipe blanks;
- a wheel rolling mill: locomotive and railcar wheels, locomotive wheel centers, wheel blanks;
- a fire mill: railcar wheel fires, machine building rings;
- ball mills SPSH-40-80, SPSH-80-120, SPSH-60-120: grinding balls, diameters 40 to 120 mm.



EVRAZ ZSMK



EVRAZ ZSMK is located in Novokuznetsk and is the largest steelmaker in Siberia.

Since July 1, 2011 ZSMK and NKMK have merged into EVRAZ – Consolidated West Siberian Metallurgical Plant. EVRAZ ZSMK includes the construction steel facility and the rail facility which represent the integrated steelmaking company. In 2018, Evrazruda, which consolidated several mining and dressing companies of the Kemerovo region, has become the mining unit of EVRAZ ZSMK. The company operates as a full-scale integrated steelmaker.

Hot metal is manufactured in three blast furnaces of the total usable volume of 8,000 m³. Blast furnaces №1 and 3: 3,000 m³, blast furnace № 2: 2,000 m³. Each blast furnace is equipped with four stoves.

Steelmaking operations of the construction steel facility comprise two oxygen melt plants, five converters (three 160-t converters and two 350-t converters), bar and slab strand casters and an ingot teeming plant.

The rolling plant of the construction steel plant comprises:

- a breakdown mill (1,250 (square bars, slabs);
- a continuous bar mill (square bars);
- a wire mill 250-t (wire rod, rebars, round bars);
- two light section mills:
 - 250-t (rebars, round bars, angles),
 - 250-2 (rebars, round bars);
- a medium section mill 450 (special interchangeable section type SVP I-beam, channel, monorail beam, angle, round bar, square bar 60 x 60, rebar);
- a steel rolling mill (SPRP): wire, nails and mesh.

EVRAZ ZSMK Rail Mill is the leading manufacturer in terms of rail range in Russia and worldwide. The rail and beam mill produces railway, tram line and underground railway rails, rails for turnouts. Furthermore, ball mills 1 and 2 located on the same premises produce grinding balls of various diameter.

In April 2013 EVRAZ has completed a large-scale revamping project of the rail and beam plant. In fact, a brand new production facility was launched equipped with cutting-edge machinery: a universal rolling mill by SMS MEER, a SES rail head-hardening plant, a KOCH cooling bed, a BRONKS roller straightening plant, a non-destructive test line with several rail test phases, drilling and cutting machines by AIFL, hydraulic presses by GEISMAR.

After revamping EVRAZ ZSMK has become one of the world's most modern rail manufacturers. The integrated steelmaker was the first in Russia and the CIS to master manufacturing of rails up to 100 meters long using the innovative head-hardening process.

The design capacity of the steelmaking operations of the rail facility is 950 K tpa of liquid steel. Liquid steel is produced in an electric steelmaking furnace of the rated capacity of 100 tons; secondary metallurgy: ladle metallurgy furnaces and a VD degasser.



EVRAZ Caspian Steel



EVRAZ Caspian Steel is a manufacturer of light sections. Located in Kostanay, the Republic of Kazakhstan, the investment project was implemented by "Evraz Caspian Steel" LLC, where 65% of the shares belong to EVRAZ, 35% – to JSC "Caspian Group".

The plant was commissioned in December 2013. Its construction took two and a half years. The investments totaled 131 million US dollars.

The design capacity of the rolling mill: 450 K tpa of rebars; steel billets are sourced from EVRAZ ZSMK. The products of the plant are marketed in Kazakhstan and exported to Ukraine, Tajikistan, Kyrgyzstan, etc.).

The plant is based on modern engineering where advanced technologies are used. Siemens SPA, Italy, was the general supplier of equipment for the company. During the project implementation the environmental issues were a special focus. Indeed, there is a zero environmental impact on water bodies.

Product mix of EVRAZ Caspian Steel:

- hot-rolled round steel;
- hot-rolled deformed rebar sections for reinforcement of
- reinforced concrete structures;
- ebars for reinforced concrete structures.

Rebars are manufactured in compliance with the national standards. Product quality is ensured by the latest technological equipment and quality inspection in the testing laboratory of the plant. All products are certified to comply with regulatory documents in the Kostanay branch of JSC "National Center for Expertise and Certification". The company has passed the certification procedure for quality management system ST RK ISO 9001-2009 (ISO 9001: 2008).

The 6S system is in place, which offers the principles of lean production, streamlined procedures, production standards as well as safe work practices.

In 2014 the company was awarded the "Golden Hephaestus" in the category "Project of the Year" of the industry contest of the Republic of Kazakhstan.

In 2016, EVRAZ Caspian Steel was awarded the special "Isker" established by the National Chamber of Entrepreneurs of Kazakhstan. It was awarded to 10 companies of the country; the plant was awarded for the production of steel products.

In 2017, EVRAZ Caspian Steel has won the regional exhibition and contest "The Best Product of Kazakhstan" and took 2nd place in the Kostanay region.

The participants of the republican "The Best Product of Kazakhstan" exhibition and contest became the laureates of the award. In the fall of 2016, EVRAZ Caspian Steel has won the regional stage for a second year in a row.

