

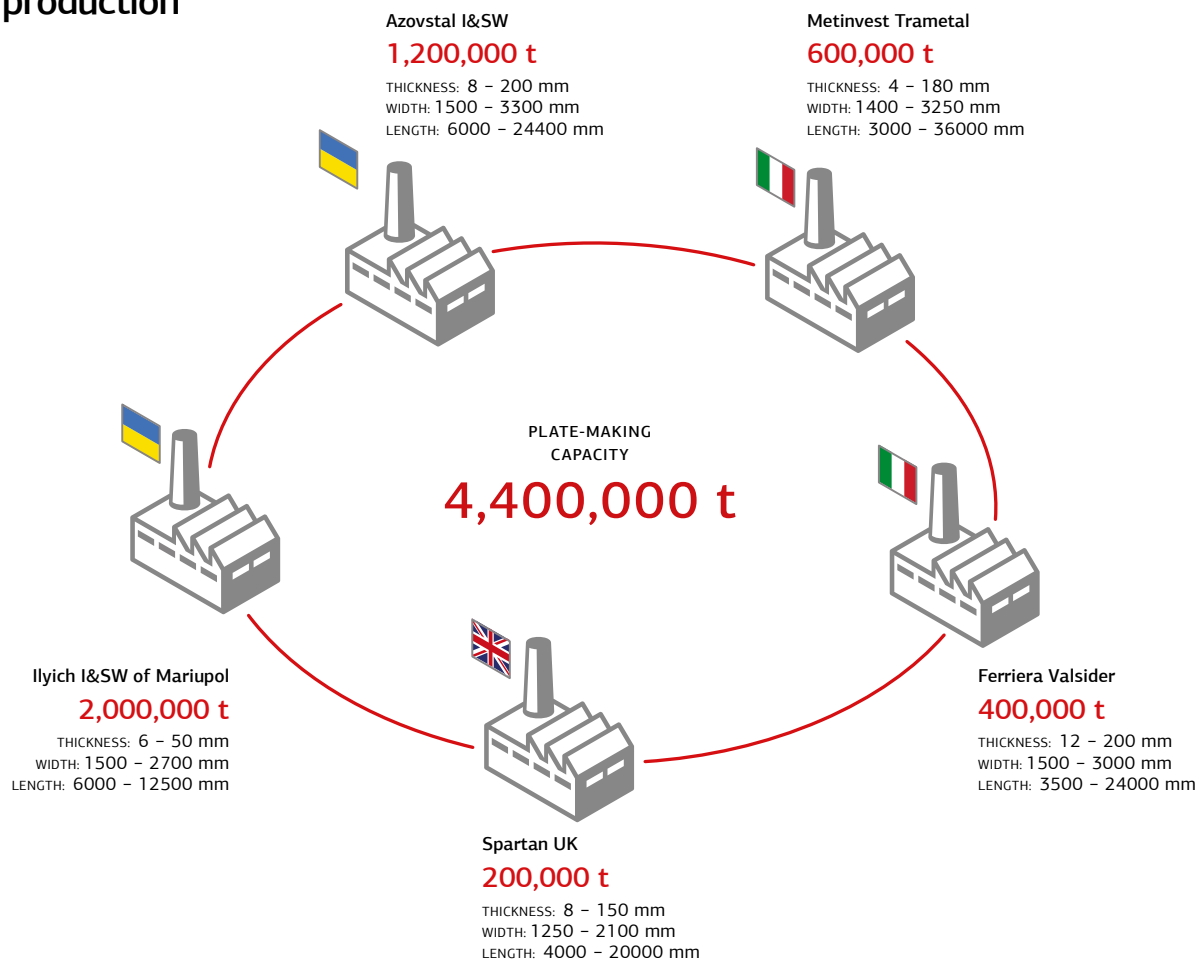
# Plates catalogue



**METINVEST**

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## Plate production



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### According to European standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Non-alloy structural steels	EN 10025-2	S185	4-180	1500-3150	4000-25000	35 max
		S235JR, J0, J2	4-180	1500-3150	4000-25000	35 max
		S275JR, J0, J2	4-180	1500-3150	4000-25000	35 max
		S355JR, J0, J2, K2	4-180	1500-3150	4000-25000	35 max
		E295	4-180	1500-3150	4000-25000	35 max
Normalized / normalizing rolled fine-grained structural steels	EN 10025-3	S275N	4-150	1500-3150	4000-25000	30 max
		S275NL	4-150	1500-3150	4000-25000	30 max
		S355N	4-150	1500-3150	4000-25000	30 max
		S355NL	4-150	1500-3150	4000-25000	30 max
		S420N, NL	8-100	1500-3150	4000-25000	20 max
		S460N, NL	8-100	1500-3150	4000-25000	20 max
Structural steels with improved atmospheric corrosion resistance	EN 10025-5	S355J0W, S355J2W, S355K2W	5-100	1500-3150	4000-25000	20 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts

## METINVEST'S PRODUCTION IN EUROPE

**CONSTRUCTION AND  
GENERAL INDUSTRY**

### According to American standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Carbon structural steel	ASTM A36/A36M	A36/A36M	4-150	1500-3150	4000-25000	30 max
	ASME SA36/SA36M	SA36/ SA36M	4-150	1500-3150	4000-25000	30 max
Carbon steel plates of structural quality for general application	ASTM A283/A283M	C, D	4-150	1500-3150	4000-25000	30 max
	ASME SA283/283M	C, D	4-150	1500-3150	4000-25000	30 max
High-strength low-alloy structural steel	ASME SA572/SA572M	50	4-100	1500-3150	4000-25000	20 max
		55	5-50	1500-3150	4000-25000	14 max
		60	8-32	1500-3150	4000-25000	14 max
Structural carbon steel plates of improved toughness	ASME SA573/SA573M	58, 65, 70	4-40	1500-3150	4000-25000	14 max
	ASTM A573/A573M	58, 65, 70	4-40	1500-3150	4000-25000	14 max
High-strength low-alloy structural steel	ASME SA588/SA588M	A, B	4-80	1500-3150	4000-25000	16 max
	ASTM A588/A588M	A, B	4-80	1500-3150	4000-25000	16 max
Normalized high-strength low-alloy structural steel plates	ASME SA633/SA633M	A, C, D	4-100	1500-3150	4000-25000	20 max
		E	8-100	1500-3150	4000-25000	20 max
	ASTM A633/A633M	A, C, D	4-100	1500-3150	4000-25000	20 max
		E	8-100	1500-3150	4000-25000	20 max
Carbon and high-strength low-alloy structural steel for bridges	ASME SA709/SA709M	50 type1, type 2	4-100	1500-3150	4000-25000	20 max
		50W type A, type B	5-80	1500-3150	4000-25000	16 max
	ASTM A709/A709M	50 type1, type 2	4-100	1500-3150	4000-25000	20 max
		50W type A, type B	5-80	1500-3150	4000-25000	16 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts

## According to European standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Non-alloy structural steels	EN 10025-2	S235JR, JO, J2	6-200	1500-3200	6000-12500	10,5 max
		S275JR, JO, J2	6-200	1500-3200	6000-12500	10,5 max
		S355JR, JO, J2, K2	6-200	1500-3200	6000-12500	10,5 max
Normalized / normalizing rolled fine-grained structural steels	EN 10025-3	S275N, NL	6-200	1500-3200	6000-12500	10,5 max
		S355N, NL	6-200	1500-3200	6000-12500	10,5 max
		S420N, NL	6-100	1500-3200	6000-12500	10,5 max
		S460N, NL	6-100	1500-3200	6000-12500	10,5 max
Thermomechanically rolled fine-grained structural steels	EN 10025-4	S275M, ML	6-50	1500-3200	6000-12500	10,5 max
		S355M, ML	6-50	1500-3200	6000-12500	10,5 max
		S420M, ML	6-50	1500-3200	6000-12500	10,5 max
		S460M, ML	6-50	1500-3200	6000-12500	10,5 max
Structural steels with improved atmospheric corrosion resistance	EN 10025-5	S235J0W, J2W	6-130	1500-3200	6000-12500	10,5 max
		S355J0W, S355J2W, S355K2W	6-130	1500-3200	6000-12500	10,5 max
Fine-grained structural steels, quenched and tempered	EN 10025-6	S690Q, QL, QL1	8-100	1500-3200	6000-12200	10,5 max
		S890Q	8-25	1500-3200	6000-12200	10,5 max
Non-alloy structural steels	EN 10025 + A1:1993	S235JR, JRG1, JRG2, JO, J2G3, J2G4	6-200	1500-3200	6000-12500	10,5 max
		S275JR, JRG1, JRG2, JO, J2G3, J2G4	6-200	1500-3200	6000-12500	10,5 max
		S355JR, JRG2, JO, J2G3, J2G4, K2G3, K2G4	6-200	1500-3200	6000-12500	10,5 max
Structural steels for general applications	DIN 17100	St 33, St 37-2, St 37-3, RSt 37-2, USt 37-2, St 44-2, St 44-3, St 52-3	6-200	1500-3200	6000-12500	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts  
For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

## METINVEST'S PRODUCTION IN UKRAINE

**CONSTRUCTION AND  
GENERAL INDUSTRY**

### According to American standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Carbon structural steel	ASTM A36/A36M	A36/A36M	6-200	1500-3200	6000-12500	10,5 max
	ASME SA36/SA36M	SA36	6-200	1500-3200	6000-12500	10,5 max
Carbon steel plates of structural quality for general application	ASTM A283/A283M	A, B, C, D	6-200	1500-3200	6000-12500	10,5 max
	ASME SA283/283M	D	6-200	1500-3200	6000-12500	10,5 max
Quenched and tempered alloy steel plate	ASTM A514/A514M	B	8-31,8	1500-3200	6000-12500	10,5 max
		F	8-65	1500-3200	6000-12500	10,5 max
		H	8-50,8	1500-3200	6000-12500	10,5 max
		Q	8-152,4	1500-3200	6000-12500	10,5 max
High-strength low-alloy structural steel	ASTM A572/A572M	42	6-150	1500-3200	6000-12500	10,5 max
		50	6-100	1500-3200	6000-12500	10,5 max
		55	6-50	1500-3200	6000-12500	10,5 max
		60	6-32	1500-3200	6000-12500	10,5 max
		65	6-32	1500-3200	6000-12500	10,5 max
Structural carbon steel plates of improved toughness	ASTM A573/A573M	58, 65, 70	6-40	1500-3200	6000-12500	10,5 max
High-strength low-alloy structural steel	ASTM A588/A588M	A, B	6-200	1500-3200	6000-12500	10,5 max
		K	6-50	1500-2700	6000-12500	8,7 max
Normalized high-strength low-alloy structural steel plates	ASTM A633/A633M	A	8-50	1500-3200	6000-12200	10,5 max
Carbon and high-strength low-alloy structural steel for bridges	ASTM A709/A709M	36, 50, 50W	6-100	1500-3200	6000-12500	10,5 max
Carbon steel plate, furnished to chemical composition requirements	ASTM A830/A830M	1045	8-200	1500-3200	6000-12200	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts  
For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

## CIS Standard

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Rolled plate from carbon steel of general quality	GOST 14637	St2ps, St2sp, St3ps, St3sp, St3Gps, St3Gsp, St4ps, St4sp, St5ps, St5sp, St5Gps	6-200	1500-3200	6000-12500	10,5 max
Rolled plates of structural quality steel	GOST 1577	08, 10, 15, 20, 25, 30, 35, 40, 45, 50, 65G, 20H, 40H	6-200	1500-3200	6000-12500	10,5 max
Rolled steel with increased strength	GOST 19281	09G2S, 09G2SD, 09G2D, 10G2S, 14G2, 15GF, 16GS, 17GS, 17G1S, 16G2AF and other	6-200	1500-3200	6000-12500	10,5 max
Structural steel rolled products	GOST 27772	S235, S245, S255, S275, S345, S345K, S390, S390K, C440	6-200	1500-3200	6000-12500	10,5 max
Structural alloy steel	GOST 4543	30HGSA	8-200	1500-3200	6000-12200	10,5 max
Low-alloyed structural rolled products for bridge building	GOST 6713	16D	8-60	1500-3200	6000-12200	10,5 max
		15HSND	8-50	1500-3200	6000-12200	10,5 max
		10HSND	8-40	1500-3200	6000-12200	10,5 max
High strength low-alloyed steel plates	TU 5.961-11650-97	AB2-M (12HN3M)	8-35	2000-3200	6000-10000	10,5 max
Low-alloyed steel plates with improved weldability and cold resistance	TU 14-1-4083-86	13GS, 13GS-U, 13G1S-U, 08G2BT-U, 09G2FB, 10G2FB	8-50	1500-3200	6000-11800	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts  
For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.



## METINVEST'S PRODUCTION IN UKRAINE

**CONSTRUCTION AND  
GENERAL INDUSTRY**

### Other Standard

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Structural steel for general application	CSA-G 40.21	260W (33W), 260WT (33WT), 300W (44W), 300WT (44WT), 350W (50W), 350WT (50WT), 380W (55W), 380WT (55WT), 400W (60W), 400WT (60WT)	6-100	1500-3200	6000-12500	10,5 max
	JIS G 3101	SS330, SS400, SS490, SS540	6-200	1500-3200	6000-12500	10,5 max
Rolled steels for welded structure	JIS G 3106	SM400A, SM400B	6-150	1500-3200	6000-12500	10,5 max
	JIS G 3106	SM400C	6-100	1500-3200	6000-12500	10,5 max
	JIS G 3106	SM490A, SM490B	6-150	1500-3200	6000-12500	10,5 max
	JIS G 3106	SM490C	6-50	1500-2700	6000-12500	8,7 max
	JIS G 3106	SM490YA, SM490YB	8-100	1500-3200	6000-12200	10,5 max
Common structural steel plate	JIS G 3136	SH490B	8-50	1500-3200	6000-12200	10,5 max
Structural steel	IRA M- IAS U500-42	F-24	8-150	1500-3200	6000-12200	10,5 max
Hot rolled medium and high tensile structural steel	IS 2062	FE410WB	8-120	1500-3200	6000-12200	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts  
For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

### According to European standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Non-alloy and alloy steels with specified elevated temperature properties	EN 10028 - 2	P235GH, P265GH, P295GH, P355GH	4-120	1500-3150	4000-25000	25 max
		16Mo3	5-100	1500-3150	4000-25000	20 max
		13CrMo4-5	8-80	1500-3150	4000-25000	16 max
Weldable normalized fine grain steels	EN 10028 - 2	P275NH, P275NL1, P275NL2, P355N, P355NH, P355NL1, P355NL2	4-120	1500-3150	4000-25000	25 max
		P460NH, P460NL1, P460NL2	8-100	1500-3150	4000-25000	20 max
Nickel alloy steels with specified low temperature properties	EN 10028 - 4	13MnNi6-3	8-40	1500-3150	4000-25000	14 max
		12Ni14	8-50	1500-3150	4000-25000	14 max
Weldable fine grain steel for dangerous product transportation	NF A36 - 215	P440HJ4	8-20	1500-3150	4000-25000	12 max
		P460HJ2	8-16	1500-3150	4000-25000	10 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts

### According to American standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Pressure vessel alloy steel plates	ASTM/ASME- PED (Cert.3.1 - 3.2)	D, E	8-60	1500-3150	4000-25000	14 max
		D, E (+S5)	8-60	1500-3150	4000-25000	14 max
Pressure vessel carbon steel plates		A, B, C	4-50	1500-3150	4000-25000	14 max
		A, B, C (+S5)	4-50	1500-3150	4000-25000	14 max
Pressure vessel manganese-silicon carbon steel plates		A	5-80	1500-3150	4000-25000	16 max
		A (+S5)	5-80	1500-3150	4000-25000	16 max
Pressure vessel alloy steel plates		Grade 11 Cl.1, Grade 11 Cl.2, Grade 12 Cl.1, Grade 12 Cl.2	8-80	1500-3150	4000-25000	16 max
Pressure vessel carbon steel plates		55, 60, 65, 70	4-90	1500-3150	4000-25000	18 max
		55, 60, 65, 70 (+S5)	4-90	1500-3150	4000-25000	18 max
Pressure vessel heat-treated carbon-manganese-silicon steel plates		Class 1	4-80	1500-3150	4000-25000	16 max
		Class 1 (+S5)	4-80	1500-3150	4000-25000	16 max
Pressure vessel carbon-manganese-silicon steel plates		A, B, C	4-50	1500-3150	4000-25000	16 max
		A, B, C (+S5)	4-50	1500-3150	4000-25000	16 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts

### According to European standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Non-alloy and alloy steels with specified elevated temperature properties	EN 10028-2	P235GH, P265GH, P295GH, P355GH, 16Mo3	6-130	1500-3200	6000-12500	10,5 max
Weldable normalized fine grain steels	EN 10028-3	P275NH, P275NL1, P355N, P355NH	6-130	1500-3200	6000-12500	10,5 max
		P275NL2, P355NL1, P355NL2	6-100	1500-3200	6000-12500	10,5 max
		P460NH, P460NL1	8-50	1500-3200	6000-12200	10,5 max
Weldable thermomechanically rolled fine grain steels	EN 10028-5	P355M, P355ML, P355ML2, P420M, P420ML, P420ML2, P460M, P460ML, P460ML2,	8-50	1500-3200	6000-12200	10,5 max
Steels for simple pressure vessels	EN 10207	P235S, P265S, P275SL	8-60	1500-3200	6000-12200	10,5 max
Steels for pressure purposes	BS 1501-1	151-430A, 151-430B, 161-430A, 161-430B, 223-490A, 223-490B, 224-460A, 224-460B, 224-490A, 224-490B	8-150	1500-3200	6000-12200	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts.  
For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

### According to American standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Pressure vessel alloy steel plates	ASME SA202/SA202M	A, B	8-50	1500-3200	6000-12200	10,5 max
Pressure vessel carbon steel plates	ASME SA285/SA285M	A, B, C	6-50	1500-3200	6000-12500	10,5 max
	ASTM A285/A285M	A, B, C	6-50	1500-3200	6000-12500	10,5 max
Pressure vessel manganese-silicon carbon steel plates	ASTM A299/A299M	A	8-135	1500-3200	6000-12200	10,5 max
Pressure vessel carbon steel plates	ASME SA515/SA515M	60, 65, 70	6-135	1500-3200	6000-12500	10,5 max
	ASTM A515/A515M	60, 65, 70	6-135	1500-3200	6000-12500	10,5 max
	ASME SA516/SA516M	55, 60, 65, 70	6-135	1500-3200	6000-12500	10,5 max
Pressure vessel quenched and tempered alloy steel plates	ASTM A517/A517M	B	8-32	1500-3200	6000-12200	10,5 max
		F	8-65	1500-3200	6000-12200	10,5 max
		Q	8-135	1500-3200	6000-12200	10,5 max
Pressure vessel heat-treated carbon-manganese-silicon steel plates	ASME SA537/SA537M	Class 1	8-50	1500-3200	6000-12200	10,5 max
		Class 2	8-130	1500-3200	6000-12200	10,5 max
		Class 3	8-130	1500-3200	6000-12200	10,5 max
Pressure vessel carbon steel plates	ASME SA516/SA516M	55, 60, 65, 70	6-135	1500-3200	6000-12500	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts.  
For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

### According to CIS standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Carbon, low-alloy and alloy steel plates for boilers and pressure vessels	GOST 5520	15K, 16K, 18K, 20K	6-60	1500-3200	6000-12500	10,5 max
		22K	25-70	1500-3200	6000-12500	10,5 max
		09G2S, 16GS, 10G2S1, 12HM	6-135	1500-3200	6000-12500	10,5 max
		17GS, 17G1S	6-50	1500-3200	6000-12500	10,5 max
		10H2M	8-50	1500-3200	6000-12500	10,5 max
		14HGS	8-10	1500-3200	6000-12500	10,5 max
Steel plates for gas and petrochemical industry	TU 14-1-4853-90	20UCh	8-135	1500-3200	6000-12200	10,5 max
Low-alloyed steel plates for pressure vessels	TU 14-1-5065-2006	09G2SUCh	8-50	1500-3200	6000-12200	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts.  
For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

## METINVEST'S PRODUCTION IN EUROPE

MECHANICAL  
ENGINEERING

### According to European standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Unalloyed steels for quenching and tempering	EN 10083-2	C40, C45, C40E, C45E, C50E	8-150	1500-3150	4000-25000	35 max
Alloyed steels for quenching and tempering	EN 10083-3	20MnB5, 30MnB5, 38MnB5, 27Mn-CrB5, 33MnCrB5, 39MnCrB6, 34CrMo4, 42CrMo4	7-50	1500-3150	4000-20000	18 max
Case hardening steels	EN 10084	16MnCr5, 20MnCr5	8-150	1500-3150	4000-25000	34 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts

## METINVEST'S PRODUCTION IN UKRAINE

### According to European and American standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Thermomechanically rolled steels for cold forming	EN 10149-2	S315MC, S355MC, S420MC, S460MC	6-20*	1500-3200	6000-12500	10,5 max
		S500MC, S550MC, S600MC	6-16*	1500-3200	6000-12500	10,5 max
Unalloyed steels for quenching and tempering	EN 10083-2	C45	6-200	1500-3200	6000-12500	10,5 max
Alloyed steels for quenching and tempering	EN 10083-3	20MnB5, 30MnB5, 38MnB5, 27Mn-CrB5, 33MnCrB5, 39MnCrB6, 42CrMo4	6-100	1500-3200	6000-12500	10,5 max
Steels for quenching and tempering	DIN 17200	C45, Ck45	8-200	1500-3200	6000-12200	10,5 max
Carbon steels for general application	SAE J 403	G10120/1012, G10200/1020, G10210/1021, G10450/1045	8-150	1500-3200	6000-12200	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts. For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

\* Production of TMCP plates with thickness over specified by EN 10149-2 should be agreed during contract conclusion

### According to CIS standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Spring steel	GOST 14959	65, 70, 65G	6-100	1500-3200	6000-12500	10,5 max
Steel plates for engineering	TU U 27.1-26416904-201-2010	25HGSR	8-40	1500-3200	6000-12200	10,5 max
Steel plates for engineering	TU 14-1-5517-2005	16H2GSB	8-40	1500-3200	6000-12200	10,5 max
Steel plates for engineering	Technical requirements (TT) with customer	16HGMFTR	8-60	1500-3200	6000-12200	10,5 max
Steel plates for engineering	TU 5.961-11650-97	AB2-M (12HN3M)	8-35	1500-3200	6000-12200	10,5 max
Steel plates for engineering	TU U 27.1-26416904-150-2005	06GB, 06GBD, 06G2BD	8-50	1500-3200	6000-12200	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts.  
For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.



## METINVEST'S PRODUCTION IN EUROPE

PIPELINE,  
OFFSHORE & ENERGY

### According to European and American standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Weldable structural steels for fixed offshore structures	EN 10225	S355G2+N	5-20	1500-3150	4000-25000	10 max
		S355G3+N	5-40	1500-3150	4000-25000	14 max
Structural steel plate for offshore structures	API Specification 2H	42, 50	5-80	1500-3150	4000-25000	16 max
High-Strength Low-Alloy Steel for Fittings	ASTM A860	WPHY 42, WPHY 46, WPHY 52	4-100	1500-3150	4000-25000	20 max
		WPHY 60	8-60	1500-3150	4000-25000	14 max
		WPHY 65	8-60	1500-3150	4000-25000	14 max
		WPHY 70	8-50	1500-3150	4000-25000	14 max
	MSS SP75	WPHY 42, WPHY 46, WPHY 52	4-100	1500-3150	4000-25000	20 max
		WPHY 60	8-60	1500-3150	4000-25000	14 max
		WPHY 65	8-60	1500-3150	4000-25000	14 max
		WPHY 70	8-50	1500-3150	4000-25000	14 max
Plates for welded pipes production	Technical requirements for the supply of plates ANSI/API 5L	B/L245NB; X42/L290NB; X46; X52/L360NB	4-100	1500-3150	4000-25000	20 max
		X60/L415QB	8-60	1500-3150	4000-25000	14 max
		X65/L450QB	8-60	1500-3150	4000-25000	14 max
		X70/L485QB	8-50	1500-3150	4000-25000	14 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts

## According to European standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Plates for welded pipes production	EN 10208-1	L210GA - L360GA	9-32*	1500-3200	6000-12200	10,5 max
	EN 10208-2	L245NB - L415NB, L245MB - L485MB	9-32*	1500-3200	6000-12200	10,5 max
Weldable structural steels for fixed offshore structures	EN 10225	S355G2+N, S355G5+M	8-20	1500-3200	6000-12200	10,5 max
		S355G3+N, S355G6+M	8-40	1500-3200	6000-12200	10,5 max
		S355G7+N, S355G8+N, S355G9+N, S355G10+N	8-150	1500-3200	6000-12200	10,5 max
Weldable structural steels for fixed offshore structures	EN 10225	S355G7+M, S355G8+M, S355G9+M, S355G10+M, S420G1+M, S420G2+M, S460G1+M, S460G2+M	8-50	1500-3200	6000-12200	10,5 max
Weldable structural steels for fixed offshore structures	EN 10225	S420G1+Q, S420G2+Q, S460G1+Q, S460G2+Q	8-100	1500-3200	6000-12200	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts. For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

\* For thickness over 22 mm producer's approval is required

## According to American standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Plates for welded pipes production	Technical requirements for the supply of plates ANSI/API 5L	BM/L245M; X42/L290; X46/L320; X52/L360; X56/L390; X60/L415; X65/L450; X70/L485; X80/L555	9-32*	1500-3200	5800-12200	10,5 max
Structural steel plate for offshore structures	API Specification 2H	42, 50	8-50	1500-3200	6000-12200	10,5 max
Quenched and tempered steel plates for offshore structures	API Specification 2Y	50, 60	8-50	1500-3200	6000-12200	10,5 max

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts. For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

\* For thickness over 22 mm producer's approval is required

## METINVEST'S PRODUCTION IN EUROPE

PIPELINE,  
OFFSHORE & ENERGY

### According to CIS standards

PRODUCT	STANDARD	STEEL GRADES	THICKNESS, MM	WIDTH, MM	LENGTH, MM	WEIGHT, T
Plates for welded pipes production	TU 14-1-1921-76	12G2S	8-11	1500-3300	6000-12200	10,5 max
		17GS, 17G1S	8-11	1500-3300	6000-12200	10,5 max
	TU 14-1-1950-2004	17G1SU	8-17,5	1500-3300	6000-12200	10,5 max
		6G2SAF	8,5-10,5	1500-3300	6000-12200	10,5 max
	TU 14-1-3636-96	13GS, 13GS-U, 13G1S-U, 13G1SB-U	8-22	1500-3300	11500-11800	10,5 max
	TU 14-1-3978-96	09G2FB	9,5-22	1500-3300	11500-11900	10,5 max
	TU 14-1-4034-96	10G2FB	8-22	1500-3300	11500-11800	10,5 max
	TU 14-1-4083-86	13GS, 13GS-U, 13G1S-U, 09G2FB, 10G2FB, 10G2FBU, 10G2T, 10G2BT, 09G2BT, 10G2BU	8-50	1500-3300	6000-11800	10,5 max
	TU 14-1-4627-96	10G2FBU	8-32	1500-3300	11500-11800	10,5 max
	TU 14-1-5293-95	10G2FB	8-22	1500-3300	11500-11900	10,5 max
	TU 14-1-5339-96	10G2FBU	16-60	1600-3200	6000-11800	10,5 max
	TU 14-1-5346-97	13GS, 13G1S-U	8-12	1500-2500	5900-11800	10,5 max
	TU 14-1-5351-97	X70 (K60)	9-30*	2000-3300	11500-12200	10,5 max
	TU 14-1-5364-98	X65, X70	10-22	1830-3200	11300-11600	10,5 max
	TU 14-1-5443-2002	08G1B	8-22	1500-3300	6000-12200	10,5 max
	TU 14-1-5477-2004	13G1S-U	10-20	1550-2530	11500-12000	10,5 max
		17G1S-U	8-16	1550-2530	11500-12000	10,5 max
	TU 14-1-5514-2005	07GBF-U	14-32	1500-3300	6000-12200	10,5 max
	TU 14-1-5515-2005	05G2BU	20	2500-2650	18800-24300	10,5 max
	TU 14-1-5523-2005	X46, X52, X56, X60, K52	10-30*	1500-3300	11550-11650	10,5 max
TU 14-1-5527-2006	06G1NMFBD	15-40	1500-3300	6000-12000	10,5 max	
TU 14-1-5540-2006	07GBF-U, 08GBF-U	12-32	1520-3300	11500-12200	10,5 max	

Dimensions, technical requirements and weight of flat products should be agreed during the conclusion of contracts. For plates with thickness 135-200 mm mechanical properties should be agreed during the conclusion of contract.

\* For thickness over 22 mm producer's approval is required

AR - as rolled    CR - control rolled    N - normalized    NR - normalized rolling    Q&amp;T - quenched and tempered    TMCP - termomechanically rolled

GRADE*	THICKNESS, MM	ITALIAN REGISTER	LLOYDS REGISTER	GERMANISHER LLOYDS	DET NORSKE VERITAS	DNV-GL	BUREAU VERITAS		
A, B	6 - ≤20	AR, NR	AR, NR, TMCP	AR, CR	AR (up to 30mm), NR	NR (8 mm and up), CR (8 mm and up)	AR, NR, TMCP		
	≥20 - ≤25		NR, TMCP					NR	
	≥25 - ≤40				N				N
	≥40 - ≤50	-	N	-					
	≥50 - ≤90					-	-	-	
≥90 - 100									
D	6 - ≤20	AR, NR	AR, NR, TMCP	CR	NR, N	CR (8 mm and up), NR (8 mm and up)	NR, TMCP		
	≥20 - ≤25		NR, TMCP			CR, N		CR/NR (up to 35mm), N (35-40mm)	
	≥25 - ≤40	AR, NR, N		-	-		NR, TMCP, N		
	≥40 - ≤50	N	-	-	N				
E	6 - ≤20	N (8 mm and up), TMCP	N (8 mm and up), TMCP	N (8 mm and up), TMCP	TMCP	N (8 mm and up)	N (8 mm and up), TMCP		
	≥20 - ≤25		-					-	-
	≥25 - ≤40								
	≥40 - ≤50	-	-	-					
	≥50 - ≤90								
A32, AH32	6 - ≤20	NR (8 mm and up), TMCP	AR, NR (8 mm and up), TMCP	CR (8 mm and up), TMCP	NR (8 mm and up), TMCP	CR (8 mm and up), NR	NR (8 mm and up), TMCP		
	≥20 - ≤25		NR, TMCP					N, TMCP	N
	≥25 - ≤40	N, TMCP		-	-	-			
	≥40 - ≤50	N	-	-	-				
	≥50 - ≤100								
D32, DH32	6 - ≤20	NR (8 mm and up), TMCP	AR, NR (8 mm and up), TMCP	CR (8 mm and up), TMCP	NR (8 mm and up), TMCP	CR (8 mm and up), NR (8 mm and up)	NR (8 mm and up), TMCP		
	≥20 - ≤25		NR, TMCP					N, TMCP	N
	≥25 - ≤40	-		-	-				
	≥40 - ≤50								
E32, EH32	6 - ≤20	N (8 mm and up), TMCP	N (8 mm and up), TMCP	N (8 mm and up), TMCP	N (8 mm and up), TMCP	N (8 mm and up)	N (8 mm and up), TMCP		
	≥20 - ≤25		-					-	-
	≥25 - ≤40			-	-	-			
	≥40 - ≤50								
A36, AH36	6 - ≤20	NR (8 mm and up), TMCP	AR, NR (8 mm and up), TMCP	CR (8 mm and up), TMCP	NR (8 mm and up), TMCP	CR (8 mm and up), NR (8 mm and up)	NR (8 mm and up), TMCP		
	≥20 - ≤25		NR, TMCP					N, TMCP	N
	≥25 - ≤40	-		-	-				
	≥40 - ≤50		-			-	-		
	≥50 - ≤100								
E36, EH36	6 - ≤20	N (8 mm and up), TMCP	N (8 mm and up), TMCP	N (8 mm and up), TMCP	N (8 mm and up), TMCP	N (8 mm and up)	N (8 mm and up), TMCP		
	≥20 - ≤25		-					-	-
	≥25 - ≤40			-	-	-			
	≥40 - ≤50	-	-				-		
	≥50 - ≤62								
D36, DH36	6 - ≤20	NR (8 mm and up), TMCP	AR, NR(8 mm and up), TMCP	CR (8 mm and up), TMCP	NR (8 mm and up), TMCP	CR (8 mm and up), NR (8 mm and up)	NR (8 mm and up), TMCP		
	≥20 - ≤25		NR, TMCP					N, TMCP	N
	≥25 - ≤40	-		-	-				
	≥40 - ≤50		-			-	-		
	≥50 - ≤62								
A40, D40, E40, AH40, EH40, DH40	6 - ≤42	TMCP	QT (8 mm and up)	-	TMCP, QT (8 mm and up)	QT (8 mm and up)	-		
	≥42 - ≤50				TMCP	-			
F40	6 - ≤42	-	-	-	QT (8 mm and up)	QT (8 mm and up)	-		

\* Z test available on request (for thickness min 15 mm)

# METINVEST'S PRODUCTION IN UKRAINE

## SHIPBUILDING PLATE

GRADE*	THICKNESS, MM	AMERICAN BUREAU OF SHIPPING	RUSSIAN SHIPPING REGISTER	RUSSIAN RIVER SHIPPING REGISTER	REGISTER OF UKRAINIAN SHIPPING	NIPPON KAIJI KYOKAI	INDIAN REGISTER
A, B	6 - ≤20	AR, CR, TMCP	AR, CR, NR, TMCP	CR, NR	AR, CR, NR	AR	AR, CR, TMCP (up to 30mm)
	≥20 - ≤25				AR, CR, NR, N		
	≥25 - ≤40						
	≥40 - ≤50					AR, CR	
	≥50 - ≤90	-	-	-	-	-	-
≥90 - 100	-	-	-	-	-	-	
D	6 - ≤20	CR, TMCP	AR (max 35mm), CR, NR, TMCP	CR, NR	CR, NR	CR	CR/TMCP (max. 30mm), N (8 mm and up)
	≥20 - ≤25				CR, NR, N		
	≥25 - ≤40						
	≥40 - ≤50	CR, TMCP, N	CR, NR, TMCP	-	-	N	
	≥50 - ≤90	-	-	-	-	-	-
E	6 - ≤20	N (8 mm and up), TMCP	N (8 mm and up), TMCP	TMCP	N (8 mm and up), TMCP	N (8 mm and up)	TMCP (max. 30mm)
	≥20 - ≤25						
	≥25 - ≤40	TMCP	-	-	-	-	-
	≥40 - ≤50	-	-	-	-	-	-
	≥50 - ≤90	-	-	-	-	-	-
A32, AH32	6 - ≤20	CR (8 mm and up), TMCP	CR (8 mm and up), TMCP	TMCP	CR (8 mm and up), TMCP	CR (8 mm and up)	N (8 mm and up), TMCP
	≥20 - ≤25				N, TMCP		
	≥25 - ≤40						
	≥40 - ≤50	N, TMCP	-	-	-	N	-
	≥50 - ≤100	-	-	-	-	-	-
D32, DH32	6 - ≤20	CR (8 mm and up), TMCP	CR (8 mm and up), TMCP	TMCP	CR (8 mm and up), TMCP	CR (8 mm and up)	N (8 mm and up), TMCP
	≥20 - ≤25				N, TMCP		
	≥25 - ≤40						
	≥40 - ≤50	N, TMCP	-	-	-	N	-
E32, EH32	6 - ≤20	N (8 mm and up), TMCP	N (8 mm and up), TMCP	TMCP	N (8 mm and up), TMCP	N (8 mm and up)	N (8 mm and up), TMCP (max. 30mm)
	≥20 - ≤25						
	≥25 - ≤40						
	≥40 - ≤50					N	
A36, AH36	6 - ≤20	CR (8 mm and up), TMCP	CR(8 mm and up), TMCP	TMCP	CR (8 mm and up), TMCP	CR (8 mm and up)	N (8 mm and up), TMCP
	≥20 - ≤25				N, TMCP		
	≥25 - ≤40						
	≥40 - ≤50	N, TMCP	-	-	-	N	-
	≥50 - ≤100	-	-	-	-	-	-
E36, EH36	6 - ≤20	N (8 mm and up), TMCP	N (8 mm and up), TMCP	TMCP	N (8 mm and up), TMCP	N (8 mm and up)	N (8 mm and up), TMCP (max. 30mm)
	≥20 - ≤25						
	≥25 - ≤40						
	≥40 - ≤50					N	
≥50 - ≤62	-	-	-	-	-	-	
D36, DH36	6 - ≤20	CR(8 mm and up), TMCP	CR (8 mm and up), TMCP	TMCP	CR (8 mm and up), TMCP	CR (8 mm and up)	N (8 mm and up), TMCP
	≥20 - ≤25				N, TMCP		
	≥25 - ≤40						
	≥40 - ≤50	N, TMCP	-	-	-	N	-
	≥50 - ≤62	-	-	-	-	-	-
A40, D40, E40, AH40, EH40, DH40	6 - ≤42	-	TMCP, QT (8 mm and up)	TMCP	TMCP	-	-
	≥42 - ≤50	-	-	-	-	-	-
F40	6 - ≤42	-	-	-	-	-	-

\* Z test available on request (for thickness min 15 mm)

AR - as rolled CR - control rolled N - normalized

GRADE**	THICKNESS, MM	ITALIAN REGISTER (RINA)	LLOYDS REGISTER (LR)	GERMANISHER LLOYDS (GL)	DET NORSKE VERITAS (DNV)	BUREAU VERITAS (BV)	AMERICAN BUREAU OF SHIPPING (ABS)
A, AH32*, AH36*	4 - ≤8	AR, N	AR, N	AR, N	AR, N	AR, N	AR, N
	≥8 - ≤35	AR, CR, N	AR, N	AR, CR, N	AR, N, CR	AR, CR, N	AR, CR, N
	≥35 - ≤40	CR, N	N	CR, N	N, CR	CR, N	CR, N
	≥40 - ≤50	N		N		N	N
	≥50 - 60	N		N	N	N	-
B	4 - ≤8	AR, N	N	AR, N	AR, N	AR, N	AR, N
	≥8 - ≤35	AR, CR, N		AR, CR, N	AR, N, CR	AR, CR, N	AR, CR, N
	≥35 - ≤40	CR, N		CR, N	N, CR	CR, N	CR, N
	≥40 - ≤50	N		N		N	N
	≥50 - 60	N		N	N	N	-
D, DH32, DH36	4 - ≤8	N	N	N	N	N	N
	≥8 - ≤35	CR, N		CR, N	AR (25 mm), CR, N	CR, N	CR, N
	≥35 - ≤40	CR, N		CR, N	CR, N	CR, N	CR, N
	≥40 - ≤50	N		N		N	N
	≥50 - 60	N		N	N	N	-
E	4 - ≤50	N	N	N	-	N	N
	≥50 - 60	-	N	N	-	-	-
EH32, EH36	4 - ≤50	N	N	N	N	N	N
	≥50 - 60	-	N	N	-	-	-
AH27S	4 - ≤25	-	AR, N	-	AR, N	-	-
	≥25 - 60	-	N	-	N	-	-
DH27S	4-60	-	N	-	N	-	-
EH27S	4-60	-	N	-	-	-	-
FH32, FH36	5-35	N	-	-	-	-	-
510LF	8-35	N	-	-	-	-	-

\* AR only up to 25 mm

\*\* Z test available on request (for thickness min 15 mm)



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