



## Premium Quality Steel Plate





**As a market-leading steel plate mill, Liberty Steel Dalzell has an established history of engineering outstanding heavy steel plate.**



The mill has vast experience manufacturing and distributing quality steel plate products worldwide to all major construction projects. Underpinned by outstanding and certified quality management systems, Liberty Steel Dalzell has the knowledge and experience working with customers' on both a commercial and technical basis.

**Industry leading improvement continuity plans ensure customers' needs and wants are met in full and on time.**

We are certified to Lloyds, DNV and ABS standards, further strengthens our focus on the products of quality heavy steel plate.

Our team will support you with professional responses, creative and practical solutions and precise information no matter how big or small the enquiry may be. We work to shared objectives throughout the enquiry and order process providing regular updates.

**Liberty House Group, promotes Green Steel with the vision of producing steel in the UK from locally sourced raw materials and recycling back to the UK economy.**



# Grades

## Structural Steel Plate

Liberty Steel Dazell manufactures steel plate which is used for a variety of applications in the construction industry - such as fabricated and rolled steel at airports, power stations, and alike. Its European grade steels have all the relevant CE marking which make them compliant to the relevant construction codes and requirements, enabling their use in EN 1090 systems.

In addition, Liberty Steel Dalzell is rolling plates for manufacturers of structural hollow sections (SHS), which can also be processed further based on client requirements.

## Normalised Structural Steels

Liberty's normalised steels are produced following the EN Standards and are CPR certified. Carrying the relevant CE markings, these materials are used in more arduous applications in the construction industry - such as bridges.

Liberty Steel Dazell's normalised steels are independently tested to ensure complete compliance with customer's demanding end use.

## Pressure Vessel Steels

A wide range of Pressure Vessel steels are available from Liberty Steel Dalzell. The business supplies predominantly materials compliant to EN 10028 in non-alloy, alloy and normalised grades. These are manufactured and certified in accordance with the Pressure Equipment Directive where required.

Materials for Pressure Vessels, OCGT raw plates and process pipelines are supplied to a variety of specifications and customer requirements, such as ASME, ASTM and API, to name a few.

## Shipbuilding Steels

Liberty Steel Dalzell offers hot rolled plates to national, international and classification society grades to the marine and shipbuilding markets. Plate materials supplied are used in all aspects of maritime transport for vessels as well as infrastructure such as off-shore replenishment vessels and naval defence.

The materials are offered in a range of rolling conditions to be able to provide shipbuilding and fabrication yards with the most appropriate solution for their welding and qualified procedures.

## Off-Shore Steels

Liberty Steel Dalzell has a long established track record in supplying off-shore steels to the energy markets across the globe. With over 2 million tonnes of hot rolled plate already in use in this industry, these plate materials are used for various applications - from exploration to the refinement segments.

Plates made at Liberty Steel Dalzell are made to the highest industry standards and can be supplied with technical and weldability data such as EN 10225 Option 18 for all rolling methods.



General Structural Steel

European	British	German		French	American	
EN10025-2	BS4360	DIN 17100	Workstoff	NFA 35-501	ASTM	SAE
S235 JR(G2)	40(A) B	Rst 37-2	1.0037	E24-2	A284 Gr. C, D, A36	1015
S235 J0	40C	St37-3U	1.0114	E 24-3	-	-
S235J2+N (G3)	40D	St 37-3 N	1.0116	E24-4	-	-
S275 JR	43(A) B	ST 44-2	1.0044	E 28-2	A572 Gr. 42, A573 Gr 70	1020
S 275 J0	43 C	St44-3U	1.0143	E 28-3	-	-
S275 J2+N (G3)	43 D	St 44-3N	1.0144	E 28-4	-	-
S 355 JR	50 B	-	1.0045	E 36-2	A529 Gr 50, 55, A572 Gr. 50, A656 Gr 50,	
A709 Gr 50	-	-	-	-	-	-
S 355 J0	50 C	St 52-3 U	1.0553	E 36-3	-	-
S 355 J2+N (G3)	50 D	St 52-3 N	1.0570	E 36-3	A633 Gr C, D	1024
S 355J2G4*	-	-	1.0577	A52 FP	-	-
S 355K2+N (G3)	50 DD	-	1.0595	E 36-4	-	-
S 355K2G4*	50 EE	-	1.0596	-	-	-

Normalised Structural Steel

European	British	German		French	American	
EN10025-3 (EN 10113)	BS4360	DIN 17102	Workstoff	NFA 35-201	ASTM	SAE
S275N	43DD	StE 285	1.0486	-	A633 A	
S275NL	43EE	TStE285	1.0488	-	-	
S355N	50DD	StE 355	1.0562	E355 R	A633 C	
S355NL	50EE	TStE 355	1.0566	E355 FP	-	
S420N	-	StE 420	1.8902	E420 R	A633 E	
S420NL	-	TStE420	1.8912	E420 FP	-	
S460N	55C	StE 460	1.8905	E460 R	A633 E	
S460NL	55EE	TStE460	1.8915	E460 FP	-	

Pressure Vessel Steel

European	British	German		French	American	
EN10028-2	BS1501	DIN 17155	Workstoff	NFA 36-205	ASTM	SAE
P235 GH	141, 151, 154, 161, 164-360	HI	1.0345	A37 CP	A285 Gr. A	
P265 GH	141, 151, 161, 164-400	HI1	1.0425	A42 CP	A455	
P295 GH	224-460B LT20	17Mn4	1.0481	A48 CP	A515 70	
P355 GH	-	19Mn6	1.0473	A52 CP	A537 70	
16Mo3	243 B	15Mo3	1.5415	15D3	A204 A	
EN10028-3	BS1501	DIN 17102	Workstoff	NFA 36-205	ASTM	SAE
P275N	224 400A LT20	StE 285	1.0486	-	A516 70	
P275NH	224 400B LT20	WStE 285	1.0487	-	A516 70	
P275NL1	224 400A LT50	TStE 285	1.0488	-	-	
P275NL2	224 400A LT50	EstE 285	1.1104	A510 AP	-	
P355N	225 490A LT20	StE 355	1.0562	A510 AP	A537 C11	
P355NH	225 490B LT20	WStE 355	1.0565	A510 AP	A537 C11	
P355NL1	225 490A LT50	TStE 355	1.0566	A510 AP	-	
P355NL2	225 490A LT50	EstE 355	1.1106	-	-	
P460N	-	StE 460	1.8905	A590 AP	-	
P460NH	-	WStE 460	1.8935	A590 AP	-	
P460NL1	-	TStE 460	1.8915	A590 AP	-	
P460NL2	-	EstE 460	1.8918	-	-	

TMCP

European	British	German		French	American	
EN10025-2	BS4360	DIN 17100	Workstoff	NFA 35-501	ASTM	SAE
S275M	43DD	StE 285	1.0486	-	A633 A	
S275ML	43EE	TStE285	1.0488	-	-	
S355M	50DD	StE 355 TM	1.0562	E355 R	A633 C	
S355ML	50EE	TStE 355 TM	1.0566	E355 FP	-	
S420M	-	StE 420 TM	1.8902	E420 R	A633 E	
S420ML	-	TStE420 TM	1.8912	E420 FP	-	
S460M	55C	StE 460 TM	1.8905	E460 R	A633 E	
S460ML	55EE	TStE460 TM	1.8915	E460 FP	-	

Weathering Steel Equivalents

European	British	German		French	American	
EN10025-2	BS4360	DIN 17100	Workstoff	NFA 35-501	ASTM	SAE
S235J0W	WR40B	-	1.8958	E24W-3	-	
S235J2W	-	WTSt 37-3	1.8961	E24W-4	-	
S355J0W	WR50B	-	1.8959	E36W-B3	A709 50W	
S355J2G1W	WR50C	WTSt 52-3	1.8963	E36W-B4	A709 50W	
S355K2G1W	-	-	1.8966	-	A709 50W	

Shipbuilding Steels

Common	ASTM A131	GOST 5521	JIS G3126	IS 3039	Norske Veritas	Structural Equivalent
A	A	A	SLA 235A		A	S275JR
B	B	B	SLA 235B		B	S275J0
D	D, DS	D	-		D	S275J2G3
E	CS, E		-		E	S275 Imp@-40
AH36	AH36	A32	-		NVA36	S355J0
DH36	DH36	D32	-		NVD36	S355J2G3
EH36	EH36	A36	SLA 360		NVE36	S355 Imp@-40
FH36	-	D36	SLA 360			S355 Imp@-60

Offshore Steel

European	British	German	Norwegian	American
Plates				
EN10225	BS7191	Workstoff	Norsok M-120	API
S355G2	355D	1.8801	-	-
S355G3	355E	1.8802	-	-
S355G5	-	1.8804	-	-
S355G6	-	1.8805	-	-
S355G7	355EM	1.8808	-	2H Gr. 50
S355G8	355EMZ	1.8810	-	2H Gr. 50
S355G9	-	1.8811	Y25 S355N4	-
S355G10	-	1.8813	Y20 S355N4z	-
S420G1	-	1.883	Y35 S420M3	2W/Y Gr. 60
S420G2	-	1.8857	Y30 S420M3z	2W/Y Gr. 60
S460G1	450EM	1.8878	Y45 S460M3	2W/Y Gr. 60
S460G2	450EMZ	1.8887	Y40 S460M3z	2W/Y Gr. 60
Sections				
EN10225	BS7191	Workstoff	Norsok M-120	API
S355G1	355D	1.8814	Y03 S355N1	-
S355G4	355D	1.8803	-	-
S355G11	355EM	1.8806	Y26 S355N3	-
S355G12	355EMZ	1.8809	Y21 S355N3z	-
S420G3	-	1.8851	Y36 S420M3	-
S420G4	-	1.8859	Y31 S420M3z	-
S460G3	-	1.8883	Y46 S460M3	-
S460G4	-	1.8889	Y41 S460M3z	-

Heat Treatable Steel Equivalents

European	British	German		French	American	
EN10137-2	BS4360	DIN SEW090	Workstoff	NF A36-204	ASTM	SAE
S460Q	-	-	1.8908	E460T R	A537 A2	
S460QL	55F	Tste 460V	1.8906	E460T FP		
S500Q	-	StE 500V	1.8924	E500T R		
S500QL	-	TStE500V	1.8909	E500T FP		
S550Q	-	StE 550V	1.8904	E550T R		
S550QL	-	TStE550V	1.8926	E550T FP		
S620Q	-	StE 620V	1.8914	E620T R		
S620QL	55F	TStE620V	1.8927	E620T FP		
S690Q	-	StE 690V	1.8931	E690T R	A514 F	
S690QL	-	TStE690V	1.8928	E690T FP	A709 100	
S890Q	-	-	1.8940	-	-	
S890QL	-	TStE890V	1.8983	-	-	
S960Q	-	-	1.8941	-	-	
S960QL	-	TStE960V	1.8933	E960 T-11	-	

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