

Our order No.: (A08) 2103561      Your order No.: (A07) 45539      Order registration date: 22.12.2022      Date of dispatch: 28.02.2023 B

## Material requirements and customer information

<b>Product:</b> <small>(A03)</small> Plate	<b>Steel standard and grade:</b> <small>(B02)</small> EN10025-2:2019 S355K2+N	<b>Surface tolerance:</b> EN 10163-2 B3
<b>Delivery condition:</b> <small>(B04)</small> Furnace normalized (N)		<b>Length tolerance:</b> EN 10029 Table 3
<b>Customer name and address</b> <small>(A06)</small>	<b>Certificate address</b>	<b>Width tolerance:</b> EN 10029 Table 2
4002	4002001	<b>Thickness tolerance:</b> EN 10029 Class B
FEON OY	FEON OY	<b>Flatness tolerance:</b> EN 10029 Table 4 Class N
Teollisuuskatu 33	Finland	
00510 Helsinki		
Finland	certificates@feon.fi;janne.myllynen@feon.fi;a.faktarauskas@eu.nlmk.com	

### Supplementary information: (C04)

Fully Killed and Fine Grain  
 Plates <= 25mm are Normalised at 900°C for 3 minutes.  
 Plates > 25mm are Normalised at 900°C for 5 minutes.

**Visual examination and dimensional checking: Satisfactory. The results of tests performed are in compliance with the requirements.** (Z01)

## Details of supplied materials dimensions, weights and pieces

Heat/Slab <small>(B07)</small>	Plate No. <small>(B06)</small>	Item	Thickness mm <small>(B09)</small>	Width mm <small>(B10)</small>	Length mm <small>(B11)</small>	Pieces <small>(B08)</small>	Gross kg <small>(B12)</small>	Hard stamp	Stamp location	Customer remark <small>(B99)</small>
63388J3	4170E	1	12.0	2000	6000	3	3 390	S355K2+N	Head	45539
63398D3	3104E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539
63398D2	3105E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539
63398D1	3106E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539
63388E4	3152E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539
63388E3	3153E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539
63397H3	3154E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539
63397H2	3155E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539
63397H1	3156E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539

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Heat/Slab <small>(B07)</small>	Plate No. <small>(B06)</small>	Item	Thickness mm <small>(B09)</small>	Width mm <small>(B10)</small>	Length mm <small>(B11)</small>	Pieces <small>(B08)</small>	Gross kg <small>(B12)</small>	Hard stamp	Stamp location	Customer remark <small>(B99)</small>
63397E5	4159E	4	20.0	2000	6000	3	5 652	S355K2+N	Head	45539
63388I4	4233E	4	20.0	2000	6000	3	5 652	S355K2+N	Head	45539
63413E4	5094E	4	20.0	2000	6000	3	5 652	S355K2+N	Head	45539
63410H3	5288E	4	20.0	2000	6000	4	7 536	S355K2+N	Head	45539
63410F4	5314E	4	20.0	2000	6000	2	3 768	S355K2+N	Head	45539
63388G2	3114E	6	25.0	2000	6000	4	9 420	S355K2+N	Head	45539
63388G1	3115E	6	25.0	2000	6000	4	9 420	S355K2+N	Head	45539
63397D3	4180E	6	25.0	2000	6000	3	7 065	S355K2+N	Head	45539
63388I2	3108E	7	30.0	2000	6000	3	8 478	S355K2+N	Head	45539
63388B3	3109E	7	30.0	2000	6000	3	8 478	S355K2+N	Head	45539
63388C3	3118E	7	30.0	2000	6000	3	8 478	S355K2+N	Head	45539
63388F3	3150E	7	30.0	2000	6000	3	8 478	S355K2+N	Head	45539
63388F2	3151E	7	30.0	2000	6000	3	8 478	S355K2+N	Head	45539
63388C1	3816E	7	30.0	2000	6000	2	5 652	S355K2+N	Head	45539
63388I1	4171E	7	30.0	2000	6000	2	5 652	S355K2+N	Head	45539
63388G3	4235E	7	30.0	2000	6000	2	5 652	S355K2+N	Head	45539
63388F1	4237E	7	30.0	2000	6000	2	5 652	S355K2+N	Head	45539
63388C4	4242E	7	30.0	2000	6000	2	5 652	S355K2+N	Head	45539
63224G3	4841E	7	30.0	2000	6000	2	5 652	S355K2+N	Head	45539
63398D4	4140E	22	12.0	2500	6000	4	5 652	S355K2+N	Head	45539
63397D4	4193E	22	12.0	2500	6000	4	5 652	S355K2+N	Head	45539
63397B2	4998E	23	20.0	2500	6000	1	2 355	S355K2+N	Head	45539
63388I3	3107E	24	25.0	2500	6000	3	8 832	S355K2+N	Head	45539
63388A2	3112E	24	25.0	2500	6000	3	8 832	S355K2+N	Head	45539
63388J2	3116E	24	25.0	2500	6000	3	8 832	S355K2+N	Head	45539
63166G2	3020E	26	10.0	2500	8000	1	1 570	S355K2+N	Head	45539
63397D5	4196E	26	10.0	2500	8000	1	1 570	S355K2+N	Head	45539

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## Details of supplied materials dimensions, weights and pieces

Heat/Slab <small>(B07)</small>	Plate No. <small>(B06)</small>	Item	Thickness mm <small>(B09)</small>	Width mm <small>(B10)</small>	Length mm <small>(B11)</small>	Pieces <small>(B08)</small>	Gross kg <small>(B12)</small>	Hard stamp	Stamp location	Customer remark <small>(B99)</small>
63432J6	2238E	27	16.0	2450	12000	1	3 693	S355K2+N	Head	45539
63388E2	4238E	28	30.0	2450	12000	1	6 924	S355K2+N	Head	45539
63388E1	4240E	28	30.0	2450	12000	1	6 924	S355K2+N	Head	45539
						111	254 981			

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## Chemical composition (heat analysis) all results in %

Heat No. <small>(B07)</small>	C	Mn	Si	P	S	Cr	Cu	Ni	Mo	Al	Nb	V	Ti	N	B
Set values:	min.		0.15							0.020					
	max.	0.20	1.60	0.25	0.025	0.025	0.290	0.400	0.400	0.080	0.100	0.060	0.100	0.050	0.0120 0.0008
63166	0.15	1.41	0.18	0.009	0.003	0.017	0.015	0.013	0.002	0.041	0.019	0.001	0.001	0.0033	0.0001
63224	0.17	1.51	0.20	0.010	0.007	0.029	0.038	0.018	0.002	0.044	0.041	0.002	0.002	0.0050	0.0001
63388	0.15	1.48	0.19	0.016	0.002	0.017	0.017	0.009	0.001	0.035	0.043	0.002	0.002	0.0046	0.0002
63397	0.15	1.45	0.19	0.014	0.002	0.019	0.010	0.010	0.001	0.038	0.046	0.001	0.002	0.0042	0.0001
63398	0.15	1.46	0.19	0.015	0.002	0.016	0.026	0.008	0.001	0.044	0.044	0.001	0.002	0.0038	0.0002
63410	0.17	1.47	0.21	0.014	0.005	0.033	0.026	0.015	0.002	0.045	0.042	0.002	0.002	0.0036	0.0003
63413	0.17	1.54	0.19	0.010	0.003	0.021	0.013	0.007	0.001	0.044	0.044	0.002	0.002	0.0046	0.0002
63432	0.15	1.46	0.20	0.015	0.004	0.020	0.020	0.010	0.000	0.030	0.039	0.005	0.002	0.0032	0.0003

## Heat No. (B07) CEV Remark (C70)

Set values:	min.	
	max.	0.45
63166	0.39	1 3 4 6
63224	0.43	1 3 4 6
63388	0.40	1 3 4 6
63397	0.40	1 3 4 6
63398	0.40	1 3 4 6
63410	0.42	1 3 4 6
63413	0.44	1 3 4 6
63432	0.40	1 3 6

### Supplementary information (C99)

$$CEV = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$$

1 = Basic Oxygen Steel, 2 = Electric Arc Furnace, 3 = Ladle Refined, 4 = Calcium Treated, 5 = Vacuum Degassed, 6 = Continuous Cast, 7 = Ingot

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## Tensile testing

Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

Heat/slab <small>(B07)</small>	Plate ID <small>(B06)</small>	Thickness mm	Shape <small>(C10)</small>	Loc. <small>(C01)</small>	Dir. <small>(C02)</small>	Yield MPa <small>(C11)</small>	Yield type	UTS Rm MPa <small>(C12)</small>	Elong. type	Elongation % <small>(C13)</small>	Yield/UTS
63432J6	2238E-1-1	16.0	R	H	T	361	REH	500	A5	35	0.72
63166G2	3020E-2-1	10.0	R	H	T	380	REH	508	A5	39	0.75
63398D3	3104E-1-1	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D3	3104E-1-2	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D3	3104E-2-1	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D3	3104E-2-2	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D2	3105E-1-1	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D2	3105E-1-2	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D2	3105E-2-1	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D2	3105E-2-2	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D1	3106E-1-1	20.0	R	H	T	366	REH	509	A5	34	0.72
63398D1	3106E-1-2	20.0	R	H	T	366	REH	509	A5	34	0.72
63398D1	3106E-2-1	20.0	R	H	T	366	REH	508	A5	35	0.72
63398D1	3106E-2-2	20.0	R	H	T	366	REH	509	A5	34	0.72
63388I3	3107E-1-1	25.0	R	H	T	365	REH	503	A5	31	0.73
63388I3	3107E-1-2	25.0	R	H	T	365	REH	503	A5	31	0.73
63388I3	3107E-1-3	25.0	R	H	T	365	REH	503	A5	31	0.73
63388I2	3108E-1-1	30.0	R	H	T	363	REH	510	A5	36	0.71
63388I2	3108E-1-2	30.0	R	H	T	363	REH	510	A5	36	0.71
63388I2	3108E-1-3	30.0	R	H	T	363	REH	510	A5	36	0.71
63388B3	3109E-1-1	30.0	R	H	T	365	REH	503	A5	31	0.73
63388B3	3109E-1-2	30.0	R	H	T	365	REH	503	A5	31	0.73
63388B3	3109E-1-3	30.0	R	H	T	365	REH	503	A5	31	0.73
63388A2	3112E-1-1	25.0	R	H	T	363	REH	510	A5	36	0.71
63388A2	3112E-1-2	25.0	R	H	T	363	REH	510	A5	36	0.71

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63388A2	3112E-1-3	25.0	R	H	T	363	REH	510	A5	36	0.71
63388G2	3114E-1-1	25.0	R	H	T	353	REH	509	A5	32	0.69
63388G2	3114E-1-2	25.0	R	H	T	353	REH	509	A5	32	0.69
63388G2	3114E-2-1	25.0	R	H	T	353	REH	509	A5	32	0.69
63388G2	3114E-2-2	25.0	R	H	T	353	REH	509	A5	32	0.69
63388G1	3115E-1-1	25.0	R	H	T	353	REH	509	A5	32	0.69
63388G1	3115E-1-2	25.0	R	H	T	353	REH	509	A5	32	0.69
63388G1	3115E-2-1	25.0	R	H	T	353	REH	509	A5	32	0.69
63388G1	3115E-2-2	25.0	R	H	T	353	REH	509	A5	32	0.69
63388J2	3116E-1-1	25.0	R	H	T	362	REH	504	A5	33	0.72
63388J2	3116E-1-2	25.0	R	H	T	363	REH	510	A5	36	0.71
63388J2	3116E-1-3	25.0	R	H	T	363	REH	510	A5	36	0.71
63388C3	3118E-1-1	30.0	R	H	T	362	REH	504	A5	33	0.72
63388C3	3118E-1-2	30.0	R	H	T	362	REH	504	A5	33	0.72
63388C3	3118E-1-3	30.0	R	H	T	362	REH	504	A5	33	0.72
63388F3	3150E-1-1	30.0	R	H	T	362	REH	504	A5	33	0.72
63388F3	3150E-1-2	30.0	R	H	T	362	REH	504	A5	33	0.72
63388F3	3150E-1-3	30.0	R	H	T	362	REH	504	A5	33	0.72
63388F2	3151E-1-1	30.0	R	H	T	362	REH	504	A5	33	0.72
63388F2	3151E-1-2	30.0	R	H	T	362	REH	504	A5	33	0.72
63388F2	3151E-1-3	30.0	R	H	T	362	REH	504	A5	33	0.72
63388E4	3152E-1-1	20.0	R	H	T	365	REH	503	A5	31	0.73
63388E4	3152E-1-2	20.0	R	H	T	365	REH	503	A5	31	0.73
63388E4	3152E-2-1	20.0	R	H	T	365	REH	503	A5	31	0.73
63388E4	3152E-2-2	20.0	R	H	T	365	REH	503	A5	31	0.73

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Heat/slab <small>(B07)</small>	Plate ID <small>(B06)</small>	Thickness mm	Shape <small>(C10)</small>	Loc. <small>(C01)</small>	Dir. <small>(C02)</small>	Yield MPa <small>(C11)</small>	Yield type	UTS Rm MPa <small>(C12)</small>	Elong. type	Elongation % <small>(C13)</small>	Yield/UTS
63388E3	3153E-1-1	20.0	R	H	T	365	REH	503	A5	31	0.73
63388E3	3153E-1-2	20.0	R	H	T	365	REH	503	A5	31	0.73
63388E3	3153E-2-1	20.0	R	H	T	365	REH	503	A5	31	0.73
63388E3	3153E-2-2	20.0	R	H	T	365	REH	503	A5	31	0.73
63397H3	3154E-1-1	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H3	3154E-1-2	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H3	3154E-2-1	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H3	3154E-2-2	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H2	3155E-1-1	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H2	3155E-1-2	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H2	3155E-2-1	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H2	3155E-2-2	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H1	3156E-1-1	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H1	3156E-1-2	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H1	3156E-2-1	20.0	R	H	T	374	REH	511	A5	32	0.73
63397H1	3156E-2-2	20.0	R	H	T	374	REH	511	A5	32	0.73
63388C1	3816E-1-1	30.0	R	H	T	363	REH	510	A5	36	0.71
63388C1	3816E-1-2	30.0	R	H	T	363	REH	510	A5	36	0.71
63398D4	4140E-1-1	12.0	R	H	T	386	REH	512	A5	38	0.75
63398D4	4140E-1-2	12.0	R	H	T	386	REH	512	A5	38	0.75
63398D4	4140E-2-1	12.0	R	H	T	386	REH	512	A5	38	0.75
63398D4	4140E-2-2	12.0	R	H	T	386	REH	512	A5	38	0.75
63397E5	4159E-1-1	20.0	R	H	T	368	R02	518	A5	31	0.71
63397E5	4159E-1-2	20.0	R	H	T	368	R02	518	A5	31	0.71
63397E5	4159E-1-3	20.0	R	H	T	368	R02	518	A5	31	0.71

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Heat/slab <small>(B07)</small>	Plate ID <small>(B06)</small>	Thickness mm	Shape <small>(C10)</small>	Loc. <small>(C01)</small>	Dir. <small>(C02)</small>	Yield MPa <small>(C11)</small>	Yield type	UTS Rm MPa <small>(C12)</small>	Elong. type	Elongation % <small>(C13)</small>	Yield/UTS
63388J3	4170E-1-1	12.0	R	H	T	368	REH	497	A5	34	0.74
63388J3	4170E-1-2	12.0	R	H	T	368	REH	497	A5	34	0.74
63388J3	4170E-2-2	12.0	R	H	T	368	REH	497	A5	34	0.74
63388I1	4171E-1-1	30.0	R	H	T	362	REH	504	A5	33	0.72
63388I1	4171E-1-2	30.0	R	H	T	362	REH	504	A5	33	0.72
63397D3	4180E-1-1	25.0	R	H	T	374	REH	511	A5	32	0.73
63397D3	4180E-1-2	25.0	R	H	T	368	R02	518	A5	31	0.71
63397D3	4180E-1-3	25.0	R	H	T	368	R02	518	A5	31	0.71
63397D4	4193E-1-1	12.0	R	H	T	410	REH	526	A5	34	0.78
63397D4	4193E-1-2	12.0	R	H	T	410	REH	526	A5	34	0.78
63397D4	4193E-2-1	12.0	R	H	T	410	REH	526	A5	34	0.78
63397D4	4193E-2-2	12.0	R	H	T	410	REH	526	A5	34	0.78
63397D5	4196E-2-1	10.0	R	H	T	410	REH	526	A5	34	0.78
63388I4	4233E-1-1	20.0	R	H	T	363	REH	510	A5	36	0.71
63388I4	4233E-1-2	20.0	R	H	T	363	REH	510	A5	36	0.71
63388I4	4233E-1-3	20.0	R	H	T	363	REH	510	A5	36	0.71
63388G3	4235E-1-1	30.0	R	H	T	362	REH	504	A5	33	0.72
63388G3	4235E-1-2	30.0	R	H	T	362	REH	504	A5	33	0.72
63388F1	4237E-1-1	30.0	R	H	T	365	REH	503	A5	31	0.73
63388F1	4237E-1-2	30.0	R	H	T	353	REH	509	A5	32	0.69
63388E2	4238E-1-1	30.0	R	H	T	362	REH	504	A5	33	0.72
63388E1	4240E-1-1	30.0	R	H	T	362	REH	504	A5	33	0.72
63388C4	4242E-1-1	30.0	R	H	T	365	REH	503	A5	31	0.73
63388C4	4242E-1-2	30.0	R	H	T	365	REH	503	A5	31	0.73
63224G3	4841E-1-2	30.0	R	H	T	373	R02	520	A5	30	0.72



Our order No.: (A08) 2103561      Your order No.: (A07) 45539      Order registration date: 22.12.2022      Date of dispatch: 28.02.2023 B

**Tensile testing** Tensile tests were performed in accordance with EN 10002/ISO 6892-1 with results as stated below:

Heat/slab <small>(B07)</small>	Plate ID <small>(B06)</small>	Thickness mm	Shape <small>(C10)</small>	Loc. <small>(C01)</small>	Dir. <small>(C02)</small>	Yield MPa <small>(C11)</small>	Yield type	UTS Rm MPa <small>(C12)</small>	Elong. type	Elongation % <small>(C13)</small>	Yield/UTS
63224G3	4841E-1-3	30.0	R	H	T	373	R02	520	A5	30	0.72
63397B2	4998E-2-1	20.0	R	H	T	374	REH	511	A5	32	0.73
63413E4	5094E-1-1	20.0	R	H	T	390	REH	532	A5	33	0.73
63413E4	5094E-1-2	20.0	R	H	T	390	REH	532	A5	33	0.73
63413E4	5094E-1-3	20.0	R	H	T	390	REH	532	A5	33	0.73
63410H3	5288E-1-1	20.0	R	H	T	387	REH	529	A5	34	0.73
63410H3	5288E-1-2	20.0	R	H	T	387	REH	529	A5	34	0.73
63410H3	5288E-2-1	20.0	R	H	T	387	REH	529	A5	34	0.73
63410H3	5288E-2-2	20.0	R	H	T	387	REH	529	A5	34	0.73
63410F4	5314E-1-1	20.0	R	H	T	387	REH	529	A5	34	0.73
63410F4	5314E-1-2	20.0	R	H	T	387	REH	529	A5	34	0.73

**Supplementary Information** (C99)

**Loc.:** (C01) H = head, T = tail

**Dir.:** (C02) T = transversal, L = longitudinal

**Shape:** (C10) Ø = round, R = rectangular

**Original gauge length:** 200 mm

Our order No.: (A08) 2103561      Your order No.: (A07) 45539      Order registration date: 22.12.2022      Date of dispatch: 28.02.2023 B

## Impact testing (A04) Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab <small>(B07)</small>	Plate ID <small>(B06)</small>	Position <small>(C01)</small>	Notch <small>(C40)</small>	Shape <small>(C41)</small>	Loc. <small>(C01)</small>	Dir. <small>(C02)</small>	Temp. °C <small>(C03)</small>	SV J <small>(C42)</small>	SV J <small>(C42)</small>	SV J <small>(C42)</small>	AV J <small>(C43)</small>
63432J6	2238E-1-1	1	CV	10x10	H	L	-20	277	261	251	263
63166G2	3020E-2-1	1	CV	7.5x10	H	L	-20	202	195	197	198
63398D3	3104E-1-1	1	CV	10x10	H	L	-20	243	256	252	250
63398D3	3104E-1-2	1	CV	10x10	H	L	-20	243	256	252	250
63398D3	3104E-2-1	1	CV	10x10	H	L	-20	243	256	252	250
63398D3	3104E-2-2	1	CV	10x10	H	L	-20	243	256	252	250
63398D2	3105E-1-1	1	CV	10x10	H	L	-20	243	256	252	250
63398D2	3105E-1-2	1	CV	10x10	H	L	-20	243	256	252	250
63398D2	3105E-2-1	1	CV	10x10	H	L	-20	243	256	252	250
63398D2	3105E-2-2	1	CV	10x10	H	L	-20	243	256	252	250
63398D1	3106E-1-1	1	CV	10x10	H	L	-20	270	270	231	257
63398D1	3106E-1-2	1	CV	10x10	H	L	-20	270	270	231	257
63398D1	3106E-2-1	1	CV	10x10	H	L	-20	243	256	252	250
63398D1	3106E-2-2	1	CV	10x10	H	L	-20	270	270	231	257
63388I3	3107E-1-1	1	CV	10x10	H	L	-20	284	289	270	281
63388I3	3107E-1-2	1	CV	10x10	H	L	-20	284	289	270	281
63388I3	3107E-1-3	1	CV	10x10	H	L	-20	284	289	270	281
63388I2	3108E-1-1	1	CV	10x10	H	L	-20	258	257	277	264
63388I2	3108E-1-2	1	CV	10x10	H	L	-20	258	257	277	264
63388I2	3108E-1-3	1	CV	10x10	H	L	-20	258	257	277	264
63388B3	3109E-1-1	1	CV	10x10	H	L	-20	284	289	270	281
63388B3	3109E-1-2	1	CV	10x10	H	L	-20	284	289	270	281
63388B3	3109E-1-3	1	CV	10x10	H	L	-20	284	289	270	281
63388A2	3112E-1-1	1	CV	10x10	H	L	-20	258	257	277	264
63388A2	3112E-1-2	1	CV	10x10	H	L	-20	258	257	277	264

Our order No.: (A08) 2103561      Your order No.: (A07) 45539      Order registration date: 22.12.2022      Date of dispatch: 28.02.2023 B

## Impact testing Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab <small>(B07)</small>	Plate ID <small>(B06)</small>	Position <small>(C01)</small>	Notch <small>(C40)</small>	Shape <small>(C41)</small>	Loc. <small>(C01)</small>	Dir. <small>(C02)</small>	Temp. °C <small>(C03)</small>	SV J <small>(C42)</small>	SV J <small>(C42)</small>	SV J <small>(C42)</small>	AV J <small>(C43)</small>
63388A2	3112E-1-3	1	CV	10x10	H	L	-20	258	257	277	264
63388G2	3114E-1-1	1	CV	10x10	H	L	-20	280	293	288	287
63388G2	3114E-1-2	1	CV	10x10	H	L	-20	280	293	288	287
63388G2	3114E-2-1	1	CV	10x10	H	L	-20	280	293	288	287
63388G2	3114E-2-2	1	CV	10x10	H	L	-20	280	293	288	287
63388G1	3115E-1-1	1	CV	10x10	H	L	-20	280	293	288	287
63388G1	3115E-1-2	1	CV	10x10	H	L	-20	280	293	288	287
63388G1	3115E-2-1	1	CV	10x10	H	L	-20	280	293	288	287
63388G1	3115E-2-2	1	CV	10x10	H	L	-20	280	293	288	287
63388J2	3116E-1-1	1	CV	10x10	H	L	-20	243	258	266	256
63388J2	3116E-1-2	1	CV	10x10	H	L	-20	243	258	266	256
63388J2	3116E-1-3	1	CV	10x10	H	L	-20	243	258	266	256
63388C3	3118E-1-1	1	CV	10x10	H	L	-20	243	258	266	256
63388C3	3118E-1-2	1	CV	10x10	H	L	-20	243	258	266	256
63388C3	3118E-1-3	1	CV	10x10	H	L	-20	243	258	266	256
63388F3	3150E-1-1	1	CV	10x10	H	L	-20	243	258	266	256
63388F3	3150E-1-2	1	CV	10x10	H	L	-20	243	258	266	256
63388F3	3150E-1-3	1	CV	10x10	H	L	-20	243	258	266	256
63388F2	3151E-1-1	1	CV	10x10	H	L	-20	243	258	266	256
63388F2	3151E-1-2	1	CV	10x10	H	L	-20	243	258	266	256
63388F2	3151E-1-3	1	CV	10x10	H	L	-20	243	258	266	256
63388E4	3152E-1-1	1	CV	10x10	H	L	-20	280	293	288	287
63388E4	3152E-1-2	1	CV	10x10	H	L	-20	280	293	288	287
63388E4	3152E-2-1	1	CV	10x10	H	L	-20	280	293	288	287
63388E4	3152E-2-2	1	CV	10x10	H	L	-20	280	293	288	287

Our order No.: (A08) 2103561      Your order No.: (A07) 45539      Order registration date: 22.12.2022      Date of dispatch: 28.02.2023 B

## Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab <small>(B07)</small>	Plate ID <small>(B06)</small>	Position <small>(C01)</small>	Notch <small>(C40)</small>	Shape <small>(C41)</small>	Loc. <small>(C01)</small>	Dir. <small>(C02)</small>	Temp. °C <small>(C03)</small>	SV J <small>(C42)</small>	SV J <small>(C42)</small>	SV J <small>(C42)</small>	AV J <small>(C43)</small>
63388E3	3153E-1-1	1	CV	10x10	H	L	-20	280	293	288	287
63388E3	3153E-1-2	1	CV	10x10	H	L	-20	280	293	288	287
63388E3	3153E-2-1	1	CV	10x10	H	L	-20	280	293	288	287
63388E3	3153E-2-2	1	CV	10x10	H	L	-20	280	293	288	287
63397H3	3154E-1-1	1	CV	10x10	H	L	-20	271	276	271	273
63397H3	3154E-1-2	1	CV	10x10	H	L	-20	271	276	271	273
63397H3	3154E-2-1	1	CV	10x10	H	L	-20	271	276	271	273
63397H3	3154E-2-2	1	CV	10x10	H	L	-20	271	276	271	273
63397H2	3155E-1-1	1	CV	10x10	H	L	-20	271	276	271	273
63397H2	3155E-1-2	1	CV	10x10	H	L	-20	271	276	271	273
63397H2	3155E-2-1	1	CV	10x10	H	L	-20	271	276	271	273
63397H2	3155E-2-2	1	CV	10x10	H	L	-20	271	276	271	273
63397H1	3156E-1-1	1	CV	10x10	H	L	-20	271	276	271	273
63397H1	3156E-1-2	1	CV	10x10	H	L	-20	271	276	271	273
63397H1	3156E-2-1	1	CV	10x10	H	L	-20	271	276	271	273
63397H1	3156E-2-2	1	CV	10x10	H	L	-20	271	276	271	273
63388C1	3816E-1-1	1	CV	10x10	H	L	-20	258	257	277	264
63388C1	3816E-1-2	1	CV	10x10	H	L	-20	258	257	277	264
63398D4	4140E-1-1	1	CV	10x10	H	L	-20	277	269	266	271
63398D4	4140E-1-2	1	CV	10x10	H	L	-20	277	269	266	271
63398D4	4140E-2-1	1	CV	10x10	H	L	-20	277	269	266	271
63398D4	4140E-2-2	1	CV	10x10	H	L	-20	277	269	266	271
63397E5	4159E-1-1	1	CV	10x10	H	L	-20	136	116	131	128
63397E5	4159E-1-2	1	CV	10x10	H	L	-20	136	116	131	128
63397E5	4159E-1-3	1	CV	10x10	H	L	-20	136	116	131	128

Our order No.: (A08) 2103561      Your order No.: (A07) 45539      Order registration date: 22.12.2022      Date of dispatch: 28.02.2023 B

## Impact testing (A01) Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab <small>(B07)</small>	Plate ID <small>(B06)</small>	Position <small>(C01)</small>	Notch <small>(C40)</small>	Shape <small>(C41)</small>	Loc. <small>(C01)</small>	Dir. <small>(C02)</small>	Temp. °C <small>(C03)</small>	SV J <small>(C42)</small>	SV J <small>(C42)</small>	SV J <small>(C42)</small>	AV J <small>(C43)</small>
63388J3	4170E-1-1	1	CV	10x10	H	L	-20	279	242	273	265
63388J3	4170E-1-2	1	CV	10x10	H	L	-20	279	242	273	265
63388J3	4170E-2-2	1	CV	10x10	H	L	-20	279	242	273	265
63388I1	4171E-1-1	1	CV	10x10	H	L	-20	243	258	266	256
63388I1	4171E-1-2	1	CV	10x10	H	L	-20	243	258	266	256
63397D3	4180E-1-1	1	CV	10x10	H	L	-20	271	276	271	273
63397D3	4180E-1-2	1	CV	10x10	H	L	-20	136	116	131	128
63397D3	4180E-1-3	1	CV	10x10	H	L	-20	136	116	131	128
63397D4	4193E-1-1	1	CV	10x10	H	L	-20	271	265	270	269
63397D4	4193E-1-2	1	CV	10x10	H	L	-20	271	265	270	269
63397D4	4193E-2-1	1	CV	10x10	H	L	-20	271	265	270	269
63397D4	4193E-2-2	1	CV	10x10	H	L	-20	271	265	270	269
63397D5	4196E-2-1	1	CV	7.5x10	H	L	-20	193	207	190	197
63388I4	4233E-1-1	1	CV	10x10	H	L	-20	243	258	266	256
63388I4	4233E-1-2	1	CV	10x10	H	L	-20	243	258	266	256
63388I4	4233E-1-3	1	CV	10x10	H	L	-20	243	258	266	256
63388G3	4235E-1-1	1	CV	10x10	H	L	-20	284	289	270	281
63388G3	4235E-1-2	1	CV	10x10	H	L	-20	284	289	270	281
63388F1	4237E-1-1	1	CV	10x10	H	L	-20	284	289	270	281
63388F1	4237E-1-2	1	CV	10x10	H	L	-20	284	289	270	281
63388E2	4238E-1-1	1	CV	10x10	H	L	-20	243	258	266	256
63388E1	4240E-1-1	1	CV	10x10	H	L	-20	284	289	270	281
63388C4	4242E-1-1	1	CV	10x10	H	L	-20	284	289	270	281
63388C4	4242E-1-2	1	CV	10x10	H	L	-20	284	289	270	281
63224G3	4841E-1-2	1	CV	10x10	H	L	-20	216	219	213	216

Our order No.: <sup>(A08)</sup> 2103561

 Your order No.: <sup>(A07)</sup> 45539

Order registration date: 22.12.2022

Date of dispatch: 28.02.2023 B

## Impact testing

Impact tests were performed in accordance with EN 10045/ISO 148-1 with results as stated below:

Heat/slab <sup>(B07)</sup>	Plate ID <sup>(B06)</sup>	Position <sup>(C01)</sup>	Notch <sup>(C40)</sup>	Shape <sup>(C41)</sup>	Loc. <sup>(C01)</sup>	Dir. <sup>(C02)</sup>	Temp. °C <sup>(C03)</sup>	SV J <sup>(C42)</sup>	SV J <sup>(C42)</sup>	SV J <sup>(C42)</sup>	AV J <sup>(C43)</sup>
63224G3	4841E-1-3	1	CV	10x10	H	L	-20	216	219	213	216
63397B2	4998E-2-1	1	CV	10x10	H	L	-20	271	276	271	273
63413E4	5094E-1-1	1	CV	10x10	H	L	-20	210	233	230	224
63413E4	5094E-1-2	1	CV	10x10	H	L	-20	210	233	230	224
63413E4	5094E-1-3	1	CV	10x10	H	L	-20	210	233	230	224
63410H3	5288E-1-1	1	CV	10x10	H	L	-20	241	189	204	211
63410H3	5288E-1-2	1	CV	10x10	H	L	-20	241	189	204	211
63410H3	5288E-2-1	1	CV	10x10	H	L	-20	241	189	204	211
63410H3	5288E-2-2	1	CV	10x10	H	L	-20	241	189	204	211
63410F4	5314E-1-1	1	CV	10x10	H	L	-20	241	189	204	211
63410F4	5314E-1-2	1	CV	10x10	H	L	-20	241	189	204	211

### Supplementary Information <sup>(C99)</sup>

**Position:** <sup>(C01)</sup> 1 = surface, 2 = middle, 3 = 1/3 of thickness, 4 = 1/4 of thickness

**Notch:** <sup>(C40)</sup> CU = Charpy U-notch, CV = Charpy V-notch, CVA = Charpy V-notch (ASTM)

**Loc.:** <sup>(C01)</sup> H = head, T = tail

**Dir.:** <sup>(C02)</sup> T = transversal, L = longitudinal

Our order No.: (A08) 2103561Your order No.: (A07) 45539

Order registration date: 22.12.2022

Date of dispatch: 28.02.2023 B

We hereby certify that the material has been made and tested in accordance with the mentioned specification(s).  
Certified according to Construction Products Regulations (305/2011/EU) by TÜV NORD Systems GmbH (Notified Body Reg. No. 0045).  
For Declaration of Performance please see [www.DanSteel.dk](http://www.DanSteel.dk) and DoP number 010CPR2013-07-01.



TÜV-NORD 0045-CPR-0554

Year of initial inspection: 2005

Intended use: Welded, bolted and riveted structures.

Our products are Cobalt, Gold, Mercury free and are free of radioactive substances and do not exceed the clearing limit value of 100 Bg/kg, which guarantees the compliance with limit values given in the Radiation Protection Ordinance (StrlSchV) for the unrestricted clearance of solid material (StrlSchV Annex III, Section 5) for ferrous nuclides.  
Manufactured in Denmark

## Information description

acc. to EN 10168

### A Commercial transactions and parties involved

- A01 Manufacturer's works
- A02 Type of inspection document
- A03 Document number
- A04 Manufacturer's mark
- A05 Originator of the inspection document
- A06 Customer consignee
- A07 Purchaser's order number and, where applicable, item number
- A08 Manufacturer's works order number
- A09 Customer article number
- A10 to A99 Supplementary information

### B Description of Products

- B01 Product
- B02 Steel designation
- B03 Any supplementary requirements
- B04 Product delivery condition
- B05 Reference (heat) treatment of samples
- B06 Marking of the product
- B07 Identification of the product
- B08 Number of pieces
- B09 to B11 Product dimensions
- B12 Theoretical mass
- B13 Actual mass
- B14 to B99 Supplementary information

### C Inspection

- C00 Identification of the sample
- C01 Location of the sample
- C02 Direction of the test pieces
- C03 Test temperature
- C04 to C09 Supplementary information

- C10 Shape of the test piece
- C11 Yield or proof strength
- C12 Tensile strength
- C13 Elongation after fracture
- C14 to C29 Supplementary information
- C30 Method of test
- C31 Individual values
- C32 Mean value
- C33 to C39 Supplementary information
- C40 Type of test piece
- C41 Width of test piece
- C42 Individual values
- C43 Mean value
- C44 to C49 Supplementary information
- C50 to C69 Supplementary information
- C70 Steelmaking process
- C71 to C92 Chemical composition
- C93 to C99 Supplementary information

### D Other tests

- D01 Marking and identification, surface appearance, shape and dimensional properties
- D02 to D50 Non-destructive tests
- D51 to D99 Supplementary information

### Z Validation

- Z01 Statement of compliance
- Z02 Date of issue and validation
- Z03 Stamp of the inspection representative
- Z04 CE marking
- Z05 to Z99 Supplementary information