



ArcelorMittal

# 2016

## Product catalogue

Heavy Plate Mill - Gijón Works



## Heavy Plate Mill - Gijón Works

- **EN 10025-2:** Structural steel for general application. Pag 1
- **EN 10025-3:** Normalized/normalized rolled weldable fine grain structural steels. Pag 2
- **EN 10025-4:** Thermomechanical weldable fine grain structural steels. Pag 3
- **EN 10025-5:** Structural steel with improved corrosion resistance. Pag 4
- **EN 10028-2:** Steels for boilers and pressure vessels. Pag 5
- **EN 10028-3:** Steels for boilers and pressure vessels. Pag 6
- **EN 10149-2:** Thermomechanical weldable fine grain structural steels Pag 7
- **Shipbuilding:** Steels according to classification societies rules. Pag 8
- **API 5L:** Pipeline steels. Pag 9
- **EN 10225/API2W:** Weldable structural steels for fixed offshore structures. Pag 10
- **ASTM/ASME:** Structural steel for general application. Pag 11
- **ASTM/ASME:** Steels for boilers and pressure vessels Pag 12
- **Feasibility of plates from 10 to 15 t** Pag 13
- **Additional properties** Pag 14

# EN 10025-2

## Structural steel for general application



### Heavy Plate Mill - Gijon Works

Delivery conditions:

- S185
- S235JR/JRC;J0/J0C;J2/J2C
- S275JR/JRC;J0/J0C;J2/J2C
- S355JR/JRC;J0/J0C;J2/J2C;K2/K2C

**Dimensions:** According Table 1  
**Mechanical properties:** According to the standard  
**Chemical composition:**  
 Heat analysis according to the standard  
**Ultrasonic inspection:** According to EN 10160,  
 ASTM A578, ASTM A435, BS 5996

**Tolerances:** According to EN 10029 (other tolerances\*\*)  
**Flatness tolerance:** According to EN 10029 (Class S\*\*)

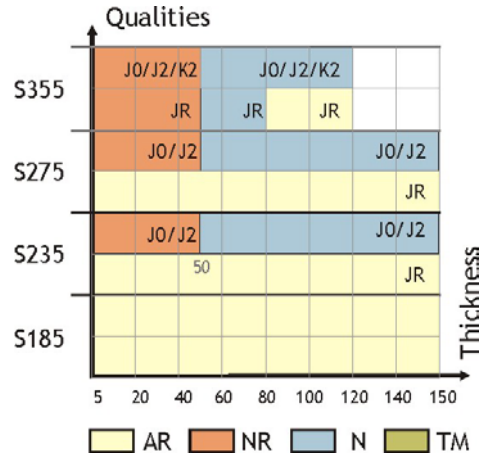
**Additional properties:** Galvanization aptitude, Laser cutting aptitude

**Marking:** By painting and by stamping (Head, tail or head and tail)

**Certificates:** 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

**Additional to the standard (Approval needed by the mill):** Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Weld bend test, Bend test, Product analysis, Grain size

**Surface treatment:** Shot blasting and painting facilities



\*\* Approval needed by the mill

**Table 1.**  
**Dimensions**  
 Max. Weight: 9,7 t

- Length (m)
- Length need approval from the mill

Thickness mm	Width mm																			
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	15	15
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	16
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
40	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
45	15	18	16	16	15	14	13	12	12	11	11	11	11	11	11	11	11	11	11	10
50	13	16	15	14	13	12	12	11	11	10	10	9	9	9	9	9	9	9	9	9
55	12	14	13	13	12	11	11	10	10	9	9	9	9	9	9	9	9	9	9	9
60	11	13	12	12	11	10	10	9	9	8	8	8	8	8	8	8	8	8	8	8
65	10	12	11	11	10	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8
70	9	11	10	10	9	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8
80	8	10	9	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
85	8	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
90	7	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
95	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
100	6	8	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
105	6	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
110	6	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
115	5	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
120	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
125	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
130	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
135	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
140	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
145	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
150	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5



ArcelorMittal España, S.A.,  
Residencia la Granda  
33418 Gaoín (Asturias - España)

07  
0099/CPD/A81/0017

EN 10025-1  
Productos de acero estructural  
laminados en caliente / Hot rolled  
products of structural steels.



# EN 10025-3

Normalized/normalized  
rolled weldable fine grain  
structural steels.



## Heavy Plate Mill - Gijon Works

Delivery conditions:

S275 N; NL  
S355 N; NL  
S420 N; NL  
S460 N; NL

Dimensions: According Table 1

Mechanical properties: According to the standard

Chemical composition:

Heat analysis according to the standard

Ultrasonic inspection: According to EN 10160,

ASTM A578, ASTM A435, BS 5996

Tolerances: According to EN 10029 (other tolerances\*\*)

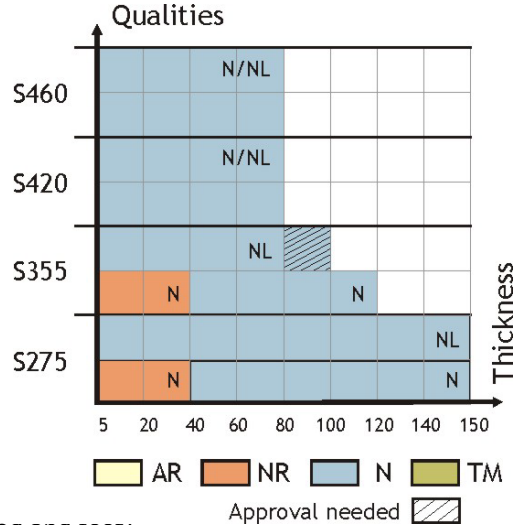
Flatness tolerance: According to EN 10029 (Class S\*\*)

Additional properties: Galvanization aptitude

Marking: By painting and by stamping (Head, foot or head and root)

Certificates: 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

Additional to the standard (Approval needed by the mill ): Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Weld bend test, Bend test, Product analysis, Grain size



**Table 1.  
Dimensions**  
Max. Weight: 9,7 t

Length (m)  
Length need approval from the mill

**\*\* Approval needed by the mill**

Thickness mm	Width mm																			
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	15	15	15
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	16	16
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
40	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
45	15	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
50	13	16	15	14	13	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11
55	12	14	13	13	13	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11
60	11	13	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
65	10	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
70	9	11	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
75	9	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
80	8	10	9	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
85	8	9	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7
90	7	9	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
95	7	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
100	6	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
105	6	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
110	6	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
115	5	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
120	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
125	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
130	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
135	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
140	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
145	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
150	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5



ArcelorMittal España, S.A.  
Residencia la Granda  
33418 Gijón (Asturias - España)  
07  
0099/CP/A81/0017  
EN 10025-3  
Productos de acero estructural  
terminados en caliente / Hot rolled  
products of structural steels.



# EN 10025-4

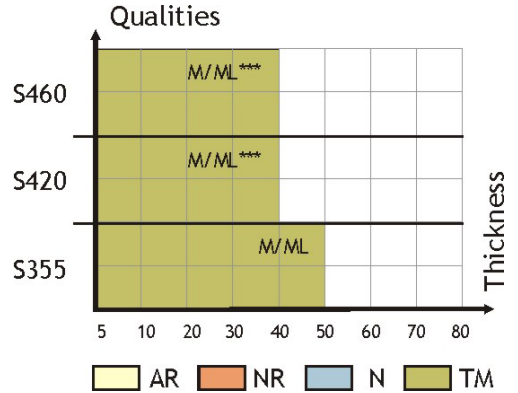
Thermomechanical weldable fine grain structural steels



## Heavy Plate Mill - Gijon Works

Delivery conditions:

S355 M; ML  
S420 M; ML  
S460 M; ML



**Dimensions:** According Table 1  
**Mechanical properties:** According to the standard  
**Chemical composition:**  
Heat analysis according to the standard  
**Ultrasonic inspection:** According to EN 10160,  
ASTM A578, ASTM A435, BS 5996

**Tolerances:** According to EN 10029 (other tolerances\*\*)  
**Flatness tolerance:** According to EN 10029 (Class S\*\*)

**Marking:** By painting and by stamping (Head, foot or head and foot)

**Certificates:** 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

**Additional to the standard (Approval needed by the mill):** Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Weld bend test, Bend test, Product analysis, Grain size

\*\* Approval needed by the mill

\*\*\* Reduced dimensions for thickness over 30mm.

**Table 1.**  
**Dimensions**  
Max. Weight: 9,7 t

Length (m)  
Length need approval from the mill

Thickness mm	Width mm																			
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
40	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
45	15	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
50	13	16	15	14	13	12	12	11	11	10	10	9	9	9	8	8	8	8	7	7



ArcelorMittal España, S.A.,  
Residencia la Granda  
33418 Gozón (Asturias - España)  
07  
0099/CPD/A81/0017  
EN 10025-1  
Productos de acero estructural  
laminados en caliente / Hot rolled  
products of structural steels.

# EN 10025-5

Structural steel  
with improved  
corrosion resistance

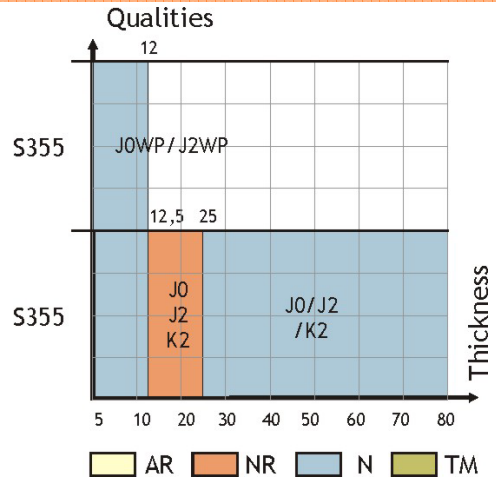


## Heavy Plate Mill - Gijon Works

Delivery conditions:

S235 J0W;J2W  
S355 J0W/;J2W;K2W  
S355 J0WP;J2WP

- Dimensions: According Table 1
- Mechanical properties: According to the standard
- Chemical composition: According to the standard
- Heat analysis according to the standard
- Ultrasonic inspection: According to EN 10160, ASTM A578, ASTM A435, BS 5996
- Tolerances: According to EN 10029 (other tolerances\*\*)
- Flatness tolerance: According to EN 10029 (Class S\*\*)



- Marking: By painting and by stamping (Head, foot or head and foot)
- Certificates: 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available
- Additional to the standard (Approval needed by the mill ): Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Weld bend test, Bend test, Product analysis, Grain size

\*\* Approval needed by the mill

**Table 1.**  
**Dimensions**  
Max. Weight: 9,7 t

- Length (m)
- Length need approval from the mill

Thickness mm	Width mm																												
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300									
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
40	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
45	15	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
50	13	16	15	14	13	12	12	11	11	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
55	12	14	13	13	12	11	11	11	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
60	11	13	12	12	11	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
65	10	12	11	11	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
70	9	11	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
75	9	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
80	8	10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	



ArcelorMittal España, S.A.,  
Residencia la Granda  
33418 Gijón (Asturias - España)  
07  
0099/CPD/A81/0017  
EN 10025-1  
Productos de acero estructural  
terminados en caliente / Hot rolled  
products of structural steels.

# EN 10028-2

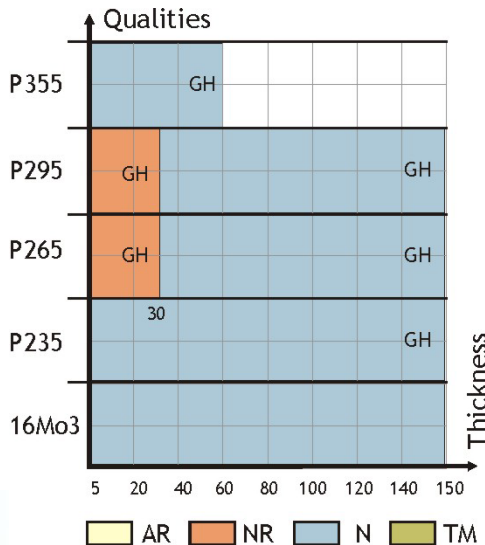
Steels for boilers and pressure vessels



## Heavy Plate Mill - Gijón Works

Delivery conditions:

- P235GH
- P265GH
- P295GH
- P355GH
- 16Mo3\*\*



- Dimensions:** According Table 1
- Mechanical properties:** According to the standard
- Chemical composition:** Heat analysis according to the standard
- Ultrasonic inspection:** According to EN 10160, ASTM A578, ASTM A435, BS 5996
- Tolerances:** According to EN 10029 (other tolerances\*\*)
- Flatness tolerance:** According to EN 10029 (Class S\*\*)
- Additional properties:** Galvanization aptitude
- Marking:** By painting and by stamping (Head, foot or head and foot)
- Certificates:** 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available
- Additional to the standard (Approval needed by the mill):** Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Weld bend test, Bend test, Product analysis, Grain size, HIC (P235GH, P265GH).

\*\* Approval needed by the mill



Table 1. Dimensions Max. Weight: 9,7 t

- Length (m)
- Length need approval from the mill

Thickness mm	Width mm																			
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	15	15	15
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	16	16
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	16
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	16
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	16	15
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16	15
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	15	14
28	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16	16	15	15	14	13
29	18	18	18	18	18	18	18	18	18	18	18	18	17	16	16	15	14	14	13	12
30	18	18	18	18	18	18	18	18	18	18	18	18	17	16	16	15	14	14	13	12
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
40	16	18	18	18	18	18	16	16	15	14	13	13	12	12	11	11	10	10	9	9
45	15	18	16	16	16	15	14	13	12	12	12	11	11	10	10	10	9	9	8	8
50	13	16	15	14	13	12	12	12	11	11	10	10	9	9	8	8	8	8	7	7
55	12	14	13	13	12	11	11	10	10	9	9	8	8	7	7	7	7	7	6	6
60	11	13	12	12	12	11	10	10	9	9	8	8	8	7	7	7	7	7	6	6
65	10	12	11	11	10	9	9	8	8	8	7	7	7	6	6	6	6	6	5	5
70	9	11	10	10	9	9	8	8	8	7	7	7	6	6	6	6	6	5	5	5
75	9	10	10	9	9	8	8	7	7	7	6	6	6	6	6	5	5	5	5	5
80	8	10	9	9	8	8	7	7	6	6	6	6	6	6	5	5	5	5	5	4
85	8	9	8	8	8	7	7	6	6	6	6	6	5	5	5	5	5	5	4	4
90	7	9	8	8	7	7	6	6	6	5	5	5	5	5	5	5	4	4	4	4
95	7	8	8	7	7	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4
100	6	8	7	7	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4
105	6	7	7	6	6	6	5	5	5	5	5	4	4	4	4	4	4	4	4	4
110	6	7	6	6	6	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4
115	5	7	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4
120	5	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
125	5	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
130	5	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4
135	5	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4
140	4	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
145	4	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
150	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

# EN 10028-3

Steels for boilers and pressure vessels

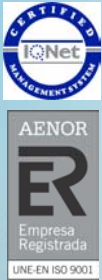
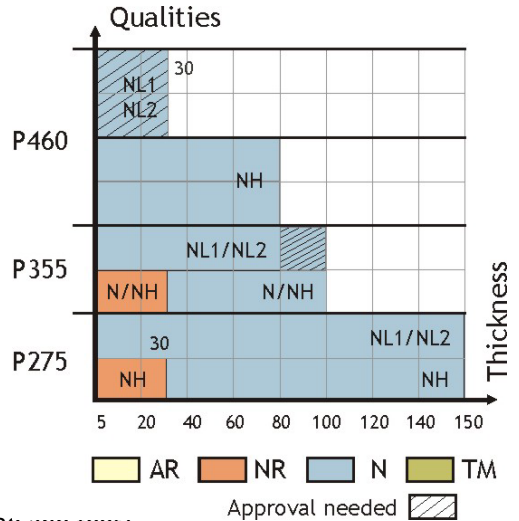


## Heavy Plate Mill - Gijón Works

Delivery conditions:

- P275 NH; NL1; NL2
- P355 N; NH; NL1; NL2
- P460 NH

Dimensions: According Table 1  
 Mechanical properties: According to the standard  
 Chemical composition:  
 Heat analysis according to the standard  
 Ultrasonic inspection: According to EN 10160,  
 ASTM A578, ASTM A435, BS 5996  
 Tolerances: According to EN 10029 (other tolerances\*\*)  
 Flatness tolerance: According to EN 10029 (Class S\*\*)  
 Additional properties: Galvanization aptitude  
 Marking: By painting and by stamping (Head, foot or heau and 10000)  
 Certificates: 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available  
 Additional to the standard (Approval needed by the mill ): Ceq, Charpy temperature and energy,  
 Z-Test, Hot tensile test, Hardness, PWHT, Weld bend test, Bend test, Product analysis, Grain size.



**Table 1. Dimensions**  
 Max. Weight: 9,7 t

- Length (m)
- Length need approval from the mill

Thickness mm	Width mm																			
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	15	15	15
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	16	16
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	17
40	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
45	15	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
50	13	16	15	14	13	12	12	12	11	11	10	10	9	9	8	8	8	8	8	8
55	12	14	13	13	12	12	12	11	11	10	10	9	9	8	8	8	8	8	8	8
60	11	13	12	12	11	11	10	10	9	9	8	8	8	7	7	7	7	7	7	7
65	10	12	11	11	10	9	9	8	8	8	7	7	7	6	6	6	6	6	6	6
70	9	11	10	10	9	9	8	8	8	7	7	7	6	6	6	6	6	6	6	6
75	9	10	10	9	9	8	8	7	7	7	6	6	6	6	6	6	6	6	6	6
80	8	10	9	9	8	8	7	7	6	6	6	6	6	6	6	6	6	6	6	6
85	8	9	8	8	8	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6
90	7	9	8	8	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6
95	7	8	8	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
100	6	8	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
105	6	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
110	6	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
115	5	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
120	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
125	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
130	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
135	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
140	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
145	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
150	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

\*\* Approval needed by the mill



# EN 10149-2

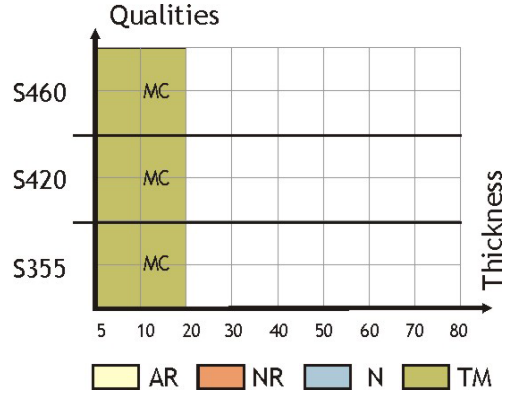
Thermomechanical  
weldable fine grain  
structural steels



## Heavy Plate Mill - Gijon Works

Delivery conditions:

S355 MC  
S420 MC  
S460 MC



**Dimensions:** According Table 1

**Mechanical properties:** According to the standard

**Chemical composition:**

Heat analysis according to the standard

**Ultrasonic inspection:** According to EN 10160,

ASTM A578, ASTM A435, BS 5996

**Tolerances:** According to EN 10029 (other tolerances\*\*)

**Flatness tolerance:** According to EN 10029 (Class S\*\*)

**Marking:** By painting and by stamping (Head, foot or head and foot)

**Certificates:** 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

**Additional to the standard (Approval needed by the mill):** Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Weld bend test, Bend test, Product analysis, Grain size

\*\* Approval needed by the mill

\*\*\* Reduced dimensions for thickness over 30mm.



**Table 1.**  
**Dimensions**  
Max. Weight: 9,7 t

- Length (m)
- Length need approval from the mill



ArcelorMittal España, S.A.,  
Residencia la Granda  
33416 Gozón (Asturias - España)  
07  
0099/CPD/A81/0017  
EN 10025-1  
Productos de acero estructural  
terminados en caliente / Hot rolled  
products of structural steels.

Thickness mm	Width mm																			
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
40	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
45	15	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
50	13	16	15	14	13	12	12	11	11	10	10	9	9	9	8	8	8	8	7	7

## Heavy Plate Mill - Gijón Works

Delivery conditions:

**Grades:** A, B, D, E, AH32, DH32, EH32, FH32, AH36, DH36, EH36, FH36, FH40

### Approvals:

- American Bureau
- Bureau Veritas
- Det Norske Veritas
- Germanischer Lloyd's
- Lloyd's Register
- Nippon Kaiji Kyokai
- Rina

**Dimensions:** According Table 2

**Mechanical properties:** Class societies rules, ASTM A131

**Chemical composition:**

Heat analysis Class societies rules, ASTM A131

**Ultrasonic inspection:** According to EN 10160, ASTM A578.

**Tolerances:** Classification societies rules, ASTM A6

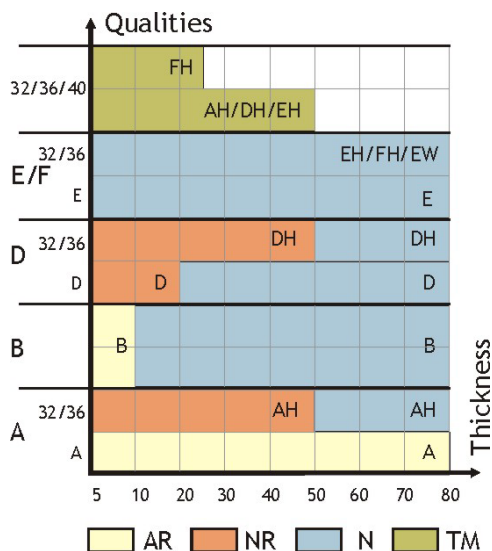
**Flatness tolerance:** Classification societies rules, ASTM A6

**Marking:** By painting and by stamping (Head, foot or head and foot)

**Certificates:** 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

**Additional to the standard (Approval needed by the mill):** Ceq, Charpy temperature and energy, Z-Test, Hardness, PWHT, Bend test, Product analysis, Grain size

**Surface treatment:** Shot blasting and painting facilities.



Classification Society	Normal strength (40 K)				High strength (50 K)					
	A	B	D	E	AH-32	DH-32	EH-32	AH-36	DH-36	EH-36
American Bureau	80	80	80	80	80	80	80	80	80	80
Bureau Veritas	80	80	80	80	80	80	80	80	80	80
Det Norske Veritas	80	80	80	80	80	80	80	80	80	80
Germanischer Lloyd's	80	80	80	80	80	80	80	80	80	80
Lloyd's Register	80	80	80	80	80	80	80	80	80	80
Nippon Kaiji Kyokai	50	50	50	50	50	50	50	50	50	50
RINA	50	50	50	50	50	50	50	50	50	50

Max. Weight: 9,7 t

## Heavy Plate Mill - Gijon Works

Delivery conditions:

Grades: X42, X46, X52, X56, X60, X65, X70 (sweet service)

Dimensions: According Table 3

Mechanical properties: According to the standard

Chemical composition:

Heat analysis according to the standard

Ultrasonic inspection: According to EN 10160, ASTM A578, ASTM A435, BS 5996

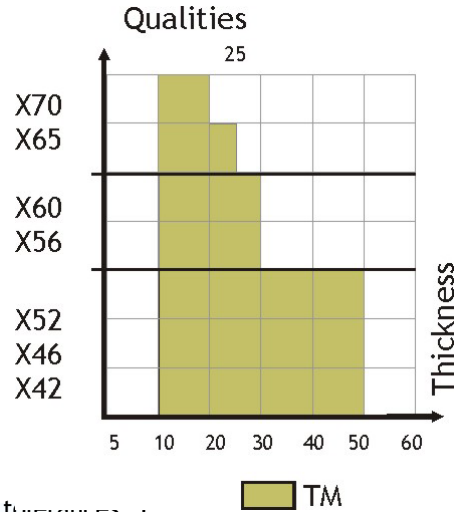
Tolerances: According to ASTM A6, ASTM A20, (other tolerances\*\*)

Flatness tolerance: According to ASTM A6, ASTM A20, (other tolerances ,

Marking: By painting and by stamping (Head, foot or head and foot)

Certificates: 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

Additional to the standard (Approval needed by the mill ): Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, DWTT, Bend test, Product analysis, Grain size.



\*\* Approval needed by the mill



**Table 3.**  
**Dimensions**  
Max. Weight: 9,7 t

Length (m)  
Length need approval from the mill

Thickness mm	Width mm																		
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200
10	15	15	15	15	15	15	15	15	15	15	15	15	15						
11	15	15	15	15	15	15	15	15	15	15	15	15	15						
12	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15				
13	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	
16	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
17	15	15	15	15	15	15	14	15	15	15	15	15	15	15	15	15	15	15	15
18	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
19	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
20	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
21	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
22	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12
23	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12
24	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12	12	12
25	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12	12	12	12	12
26	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12	12	12	12	12
27	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12	12	12	12	12
28	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12	12	12	12	12
29	15	15	15	15	15	15	15	15	15	15	15	15	15	15	12	12	12	12	12
30	15	15	15	15	15	15	15	15	15	15	15	15	15	15	11	11	11	11	11

# EN 10225 /API2W/NORSOK

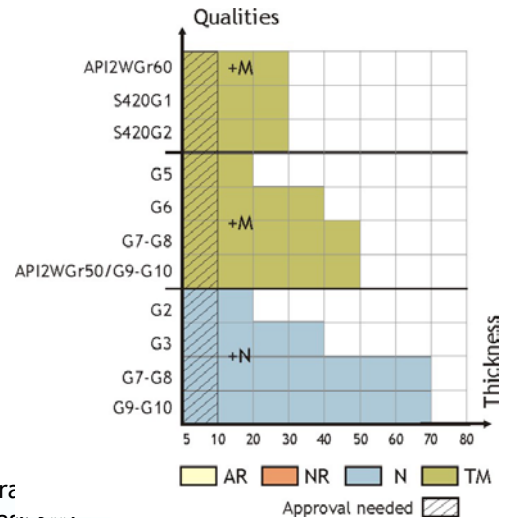
Weldable structural  
steels for fixed  
offshore structures



## Heavy Plate Mill - Gijon Works

Delivery conditions:

S355 G2,+N; G3+N, G5+M, G6+M,  
G7+N/+M, G8+N/+M, G9+N/+M,  
G10+N/+M, API2WGr50, API2WGr60,  
S420 G1+M, S420 G2+M



**Dimensions:** According Table 1

**Mechanical properties:** According to the standard

**Chemical composition:**

Heat analysis according to the standard

**Ultrasonic inspection:** According to EN 10160,

ASTM A578, ASTM A435, BS 5996

**Tolerances:** According to EN 10029/ASTMA6 (other tolerances)

**Flatness tolerance:** According to EN 10225/ASTMA6 (Class B)

**Marking:** By painting and by stamping (Head, foot or head and foot)

**Certificates:** 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

**Additional to the standard (Approval needed by the mill):** Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Bend test, Product analysis, Grain size.

**Available options:** 1, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 18\*, 19&20

\*TM qualities up to 50mm

\*\* Approval needed by the mill



**Table 1.  
Dimensions**

Max. Weight: 9,7 t

- Length (m)
- Length need approval from the mill

Thickness mm	Width mm																			
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	15	15
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	16
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16	15
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16	15
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16
40	16	18	18	18	18	16	16	15	14	13	13	12	12	11	11	10	10	9	9	9
45	15	18	16	16	15	14	13	12	12	11	11	10	10	10	9	9	9	8	8	8
50	13	16	15	14	13	12	12	11	11	10	10	9	9	8	8	8	8	8	7	7
55	12	14	13	13	12	11	11	10	10	9	9	8	8	8	7	7	7	7	7	6
60	11	13	12	12	11	10	10	9	9	8	8	8	7	7	7	7	7	7	6	6
65	10	12	11	11	10	9	9	8	8	8	8	7	7	7	6	6	6	6	6	5
70	9	11	10	10	9	9	8	8	8	8	7	7	7	6	6	6	6	6	5	5
75	9	10	10	9	9	8	8	7	7	7	7	6	6	6	6	5	5	5	5	5
80	8	10	9	9	8	8	7	7	7	7	6	6	6	6	5	5	5	5	4	4

### Heavy Plate Mill - Gijón Works

Delivery conditions:

- A/SA36 Grade 36
- A/SA283 Grades A, B, C, D
- A/SA572 Grades 42, 50, 55, 60, 65

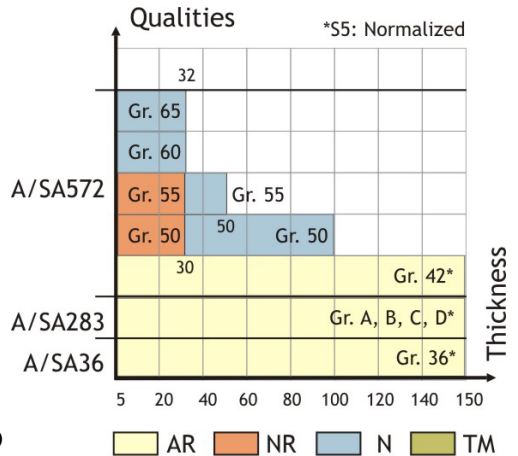
**Dimensions:** According Table 1  
**Mechanical properties:** According to the standard  
**Chemical composition:**  
 Heat analysis according to the standard  
**Ultrasonic inspection:** According to EN 10160,  
 ASTM A578, ASTM A435, BS 5996

**Tolerances:** According to ASTM A6, ASTM A20, EN 10029  
**Flatness tolerance:** According to ASTM A6, ASTM A20, EN 10029

**Marking:** By painting and by stamping (Head, foot or head and foot)

**Certificates:** 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

**Additional to the standard (Approval needed by the mill):** Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Bend test, Product analysis, Grain size.



**Table 1.**  
**Dimensions**  
Max. Weight: 9,7 t

- Length (m)
- Length need approval from the mill

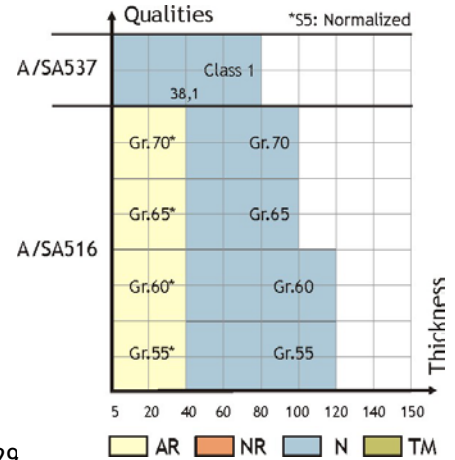


Thickness mm	Width mm																				
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15				
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15				
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15				
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	15	15	15
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	16	16
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
40	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
45	15	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
50	13	16	15	14	13	12	12	11	11	10	10	9	9	9	9	9	9	9	9	9	9
55	12	14	13	13	12	12	11	11	10	10	9	9	9	9	9	9	9	9	9	9	9
60	11	13	12	12	11	10	10	9	9	9	8	8	8	8	8	8	8	8	8	8	8
65	10	12	11	11	10	9	9	8	8	8	7	7	7	7	7	7	7	7	7	7	7
70	9	11	10	10	9	9	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7
75	9	10	10	9	9	8	8	7	7	7	6	6	6	6	6	6	6	6	6	6	6
80	8	10	9	9	8	8	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6
85	8	9	8	8	8	7	7	6	6	6	6	5	5	5	5	5	5	5	5	5	5
90	7	9	8	8	7	7	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5
95	7	8	8	7	7	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5
100	6	8	7	7	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4
105	6	7	7	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4
110	6	7	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
115	5	7	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4
120	5	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4
125	5	6	6	6	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4
130	5	6	6	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
135	5	6	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
140	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
145	4	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
150	4	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

### Heavy Plate Mill - Gijon Works

Delivery conditions:

A/SA 516 Grades: 55, 60, 65, 70  
A/SA 537 Class 1



**Dimensions:** According Table 1

**Mechanical properties:** According to the standard

**Chemical composition:**

Heat or product analysis according to the standard

**Ultrasonic inspection:** According to EN 10160, ASTM A578, ASTM A435, BS 5996

**Tolerances:** According to ASTM A6, ASTM A20, EN 10029

**Flatness tolerance:** According to ASTM A6, ASTM A20, EN 10029

**Marking:** By painting and by stamping (Head, foot or head and foot)

**Certificates:** 3.1 or 3.2 according to EN 10204. Certification of multiple grades is available

**Additional to the standard (Approval needed by the mill):** Ceq, Charpy temperature and energy, Z-Test, Hot tensile test, Hardness, PWHT, Weld bend test, Bend test, Product analysis, Grain size.

**Table 1.**  
**Dimensions**  
Max. Weight: 9,7 t

- Length (m)
- Length need approval from the mill

Thickness mm	Width mm																			
	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
5	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
6	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
7	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	15	15	15
9	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	16	16
10-20	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
21	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
22	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17
23	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	17	16
24	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16	15
25	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	17	16	15
26	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
27	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
28	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
29	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
30	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
35	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
40	16	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
45	15	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
50	13	16	15	14	13	12	12	11	11	10	10	9	9	8	8	8	8	8	8	8
55	12	14	13	13	12	12	11	11	10	10	9	9	8	8	8	8	8	8	8	8
60	11	13	12	12	11	10	10	9	9	8	8	8	8	8	8	8	8	8	8	8
65	10	12	11	11	10	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8
70	9	11	10	10	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8
75	9	10	10	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
80	8	10	9	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
85	8	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
90	7	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
95	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
100	6	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
105	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
110	6	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
115	5	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
120	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

# Feasibility of plates from 10 to 15 t

## Heavy Plate Mill - Gijon Works

**Max Thickness:** 80 mm

**Minimum width:** 2100mm. Other width below 2100mm means reduction in the maximum weight

**Grades structural Steels :** S355 JR, S355J0, S355 J2+N , S355 K2 + N, S355 N, S355 NL, SA516 Gr70, A516Gr70, S355 G7/G8/G9/G10+N, S355 G7/G8/G9/G10+M, API2W

**Additional req:**  $C_{eq} \leq 0,43$

**Surface Quality :** EN10163 Criterias from A1 to B3.

**Ultrasonic Testing:** EN10160 Criterias from S0E0 up to S2E2. Other requirements under consult.

**Z Testing:** Z25 and Z35.

**Bend Test:** Longitudinal or Transversal. Bending radius according to EN standards.

**Weld Bead Bend Test** SEP1390

$S < 0,005 \%$

\*Other properties related to chemistry or mechanical properties must be asked.

**Table 4.**  
**Dimensions**  
Max. Weight: 15 t

□ Length (m)  
■ Length need approval from the mill

Thickness mm	Width mm												
	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300
21	18	18	18	18	18	18	18	18	18	18	18	18	18
22	18	18	18	18	18	18	18	18	18	18	18	18	18
23	18	18	18	18	18	18	18	18	18	18	18	18	18
24	18	18	18	18	18	18	18	18	18	18	18	18	18
25	18	18	18	18	18	18	18	18	18	18	18	18	18
26	18	18	18	18	18	18	18	18	18	18	18	18	18
27	18	18	18	18	18	18	18	18	18	18	18	18	18
28	18	18	18	18	18	18	18	18	18	18	18	18	18
29	18	18	18	18	18	18	18	18	18	18	18	18	18
30	18	18	18	18	18	18	18	18	18	18	18	18	18
35	18	18	18	18	18	18	18	18	18	18	18	17	16
40	18	18	18	18	18	18	18	17	17	16	15	15	14
45	18	18	18	17	17	16	15	15	14	14	13	13	13
50	18	17	16	15	15	14	14	13	13	12	12	12	11
55	16	15	15	14	14	13	13	12	12	11	11	11	10
60	15	14	13	13	12	12	11	11	11	10	10	10	9
65	14	13	12	12	11	11	11	10	10	10	9	9	9
70	13	12	12	11	11	10	10	9	9	9	9	8	8
75	12	11	11	10	10	10	9	9	9	8	8	8	8
80	11	11	10	10	9	9	9	8	8	8	7	7	7

# Additional properties

## Heavy Plate Mill - Gijón Works

UT level / thickness plates range (mm)				
	E0	E1	E2	E3
S0	5-150			
S1		5-100	5-80	5-80
S2			5-80	5-80
S3				5-80

Z test / thickness plates range (mm)			
	15-60	60-80	80-100
Z15			
Z25			
Z35			