



CERTIFICATE NUMBER
STML-0260476-1

ISSUING OFFICE
Rotterdam Materials Eng

CERTIFICATE OF STEEL MILLS FACILITY AND PROCESS APPROVAL

This is to certify that a representative of ABS did, at the request of

AKTIENGESELLSCHAFT DER DILLINGER HUETTENWERKE

WERKSTRASSE 1, D-66763 DILLINGEN, Germany

attend its facilities as indicated in the ABS City Hamburg Port port office survey report number 6898188 dated 25 April 2025 in order to carry out a survey of the facilities and associated quality procedures. The facility is considered capable of manufacturing

Plate and Semi-finished product components for marine applications

in accordance with the ABS Approval letter (Reference WO0539498), ABS Rules, designated standards and ABS approved drawings. The approval is valid till 12 March 2030 subject to adherence to relevant ABS Rules and Survey requirements.

Marcus Cridland
Chief Metallurgist, ABS

ISSUE DATE: 01 May 2026
EXPIRY DATE: 12 March 2030

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, Guides, standards or other criteria of ABS as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a full description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of ABS who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



CERTIFICATE NUMBER
PVML-0539498

ISSUING OFFICE
Rotterdam Materials Eng

CERTIFICATE OF PRESSURE VESSEL PLATES FACILITY AND PROCESS APPROVAL

This is to certify that a representative of ABS did, at the request of

AKTIENGESELLSCHAFT DER DILLINGER HUETTENWERKE

WERKSTRASSE 1, D-66763 DILLINGEN, Germany

attend its facilities as indicated in the ABS City Hamburg Port port office survey report number 6898188 dated 25 April 2025 in order to carry out a survey of the facilities and associated quality procedures. The facility is considered capable of manufacturing

Plate components for marine applications

in accordance with the ABS Approval letter (Reference WO0539498), ABS Rules, designated standards and ABS approved drawings. The approval is valid till 12 March 2030 subject to adherence to relevant ABS Rules and Survey requirements.

Marcus Cridland
Chief Metallurgist, ABS

ISSUE DATE: 01 May 2026
EXPIRY DATE: 12 March 2030

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CERTIFICATE NUMBER
QA-6898188

ISSUING OFFICE
No office Found

CERTIFICATE OF QUALITY ASSURANCE SYSTEM APPROVAL

This is to certify that a representative of ABS did, at the request of

AKTIENGESELLSCHAFT DER DILLINGER HUETTENWERKE

WERKSTRASSE 1, D-66763 DILLINGEN, Germany

attend its facilities as indicated in the ABS Hamburg Port port office survey report number 6898188 dated 25 April 2025, in order to carry out an audit of the quality system procedures and that the system is considered in compliance with the ABS Quality Assurance Program. This Certificate covers

ABS Approved Products

and is valid till 12 March 2030 subject to adherence to relevant ABS Rules, Survey requirements, periodic audits and annual facility quality audits by an ABS representative.

Marcus Cridland
Chief Metallurgist, ABS

ISSUE DATE: 01 May 2026
EXPIRY DATE: 12 March 2030

FIRST ANNUAL
AUDIT:

SECOND ANNUAL
AUDIT:

THIRD ANNUAL
AUDIT:

FOURTH ANNUAL
AUDIT:

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. This Certificate is a representation only that the structure, item of material, equipment, machinery or any other item covered by this Certificate has met one or more of the Rules, Guides, standards or other criteria of ABS as of the date of issue. Parties are advised to review the Rules for the scope and conditions of classification and to review the survey records for a full description of any restrictions or limitation on the vessel's service or surveys. The validity, applicability and interpretation of this Certificate is governed by the Rules and standards of ABS who shall remain the sole judge thereof. Nothing contained in this Certificate or in any notation made in contemplation of this Certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied.



Work Order - WO0539498
Forge Facility Approval
Certificate No. STML-0260476-1; PVML-0539498;
QA-6898188

Attention: AKTIENGESELLSCHAFT DER DILLINGER HUETTENWERKE (WCN:
064618)

The documents shown in the attached list are reviewed in accordance with the applicable requirements of the following and the facility is considered approved to manufacture products for hull/ machinery application as outlined in the process/product approval.

- ABS RULES FOR MATERIALS AND WELDING PART 2 (2026)

Please note it is the responsibility of the facility to inform ABS of any changes to the manufacturing parameters and request periodic quality audits or renewal of approval prior to the five-year expiry date.

Refer to attachments, Process/Product Approval; Manufacturer Approval Certificate (STML-0260476 & PVML-0539498); QA Certificate (QA-6898188).

For any clarifications, contact Nikolaos Vrellos at NVrellos@eagle.org.

Very truly yours,

Gareth Burton
Senior Vice President of Engineering

Electronically Signed by: Satya Meruva

Documents List

Drawing No.	Rev. No.	Title	Status
ABS_DH_Approval letter_Di-Rack	-	ABS Approved Products	Filed by ABS for Reference Only
Dillimax-Dillidur Grades	-	Supporting Info	Reviewed
IACS Certification	-	Accreditation	Filed by ABS for Reference Only
Non-ABS Grades	-	Statistical Data	Reviewed
PV Grades	-	Statistical Data	Reviewed

Electronic copies of the documents, appropriately stamped, are available in the ABS MyFreedom™ Client Portal.

Process/Product Approval

Certificate No. STML-0260476-1; PVML-0539498; QA-6898188

Product	Grade	Thickness	Fine Grain Practice	Casting Practice ¹	Delivery condition ¹
Extension of Approval PV Plates					
Plate	ASTM SA-516 Gr. 60/65/70	300 mm	Al / Al+Nb	CC/ IC	N
Plate	ASTM A537-1	101.6	Al / Al+Nb	CC/ IC	N
Steel Making Practice¹: BOF & EAF Deoxidation Practice: Al Killed Heat treatment Facility: In-house Slab Source: Aktiengesellschaft der Dillinger Huettnerwerke (WCN:064618)/ Saarschmiede GmbH Freiformschmiede (WCN:847353)					
Extension of Approval ST Plates					
Plate	Non-ABS S355J2+N (EN 10025-2)	400 mm	Al / Al+Nb	CC/ IC	N (NR)/ AR
Plate	Non-ABS S355NLO (+Z35) (EN 10225-1:2019) / S355G8,9,10+N (EN 10225:2009)	210 mm	Al / Al+Nb	CC/ IC	N (NR)/ AR
Plate	Non-ABS S460QL/QL1 (EN 10025-6)	200	Al+V / Al+Nb	CC/ IC	QT

Product	Grade	Thickness	Fine Grain Practice	Casting Practice ¹	Delivery condition ¹
Plate	Non-ABS S690QL/QL1 (EN 10025-6)	200	Al+Nb	CC/ IC	QT
Plate	Non-ABS S460MLO (EN 10225-1) / S460G2+M (EN 10225)	120 mm	Al+Nb	CC/ IC	TMCP
Plate Offshore/ Shipbuilding	Non-ABS DILLIMAX 690T/E (S690QL1, EN 10025-6)	200	Al+Nb	CC/ IC	QT
Plate Wear resistant	Non-ABS DILLIDUR 450	100 mm	Al+Nb	CC/ IC	QT
Plate	Non-ABS – **DI- RACK™	250 mm	Al	IC	QT
Steel Making Practice¹: BOF & EAF Deoxidation Practice: Al Killed Heat treatment Facility: In-house Slab Source: Aktiengesellschaft der Dillinger Huettnerwerke (WCN:064618)/ Saarschmiede GmbH Freiformschmiede (WCN:847353)					
Previously Approved Grades					
Plate	ABS – AQ*/DQ*/EQ*/FQ 70 Z35	254	Al	IC	Q&T
Steel Making Practice¹: BOF & EAF Deoxidation Practice: Al Killed Heat treatment Facility: In-House					
Plate	Non-ABS – API 2W Gr 50	101.6 mm	Al+Nb+Ti	CC	TMCP
Plate	Non-ABS – API 2W Gr 60	101.6 mm	Al+Nb+Ti	CC	TMCP
Steel Making Practice¹: BOF & EAF Deoxidation Practice: Al Killed Heat treatment Facility: In-House					
Plate	ABS – A*/B	51 mm	Al	CC / IC	AR
Plate	ABS – A*/B*/D	35 mm	Al	CC / IC	AR

Product	Grade	Thickness	Fine Grain Practice	Casting Practice ¹	Delivery condition ¹
Plate	ABS – AH32*/36	51 mm	Al, (Al+Nb)	CC	AR
Plate	ABS – AH*/DH32*/36	35 mm	Al, (Al+Nb)	CC	AR
Steel Making Practice¹: BOF & EAF Deoxidation Practice: Al Killed Heat treatment Facility: N/A					
Plate	ABS – AH*/DH*/EH 32*/36	25 mm	Al, (Al+Nb), (Al+Nb+Ti)	CC	TMCP
Plate	ABS – AH*/DH*/EH40	25 mm	Al, (Al+Nb), (Al+Nb+Ti)	CC	TMCP
Plate	ABS – AH*/DH*/EH*/FH32 */36	100 mm	Al, (Al+Nb), (Al+Nb+Ti)	CC	TMCP+AC
Plate	ABS – AH*/DH*/EH*/FH40	100 mm	Al, (Al+Nb), (Al+Nb+Ti)	CC	TMCP+AC
Plate	ABS – AQ*/DQ*/EQ43 Z35	100 mm	Al, (Al+Nb),	CC / IC	TMCP
Plate	ABS – AQ*/DQ*/EQ47 Z35	80 mm	Al, (Al+Nb)	CC / IC	TMCP
Plate	ABS – AQ*/DQ*/EQ*/FQ51 Z35	70 mm	Al, (Al+Nb)	CC	TMCP
Plate	ABS – A*/B*/D*/E	51 mm	Al, (Al+Nb)	CC / IC	N
Plate	ABS – AH*/DH32*/36 Z35	100 mm	Al, (Al+Nb), (Al+Nb+Ti)	CC / IC	CR
Plate	ABS – AH*/DH*/EH 32*/36 Z35	150 mm	Al, (Al+Nb)	CC / IC	N
Plate	ABS – V-057	51 mm	Al, (Al+Nb)	CC / IC	N
Plate	ABS – AQ*/DQ*/EQ43 Z35	100 mm	Al	CC / IC	Q&T
Plate	ABS – AQ*/DQ*/EQ*/FQ43 Z35	200 mm	Al, (Al+Nb), (Al+V)	CC / IC	Q&T

Product	Grade	Thickness	Fine Grain Practice	Casting Practice ¹	Delivery condition ¹
Plate	ABS – AQ*/DQ*/EQ*/ FQ51 Z35	150 mm	Al	CC / IC	Q&T
Plate	ABS – AQ*/DQ*/ EQ63 Z35	120 mm	Al	CC / IC	Q&T
Steel Making Practice¹: BOF & EAF Deoxidation Practice: Al Killed Heat treatment Facility: In-house					
Plate	ABS – AQ*/DQ*/EQ*/ FQ70 Z35	210 mm	Al	CC / IC	Q&T
Semi-finished product - Plate for chord	EQ70	38.5 mm	Al	CC	N
Slab Supplier: BOF & EAF Deoxidation Practice: Al Killed Heat treatment Facility: In-house					

* Approval of these grades is based on qualification tests carried out on the higher grade.

** Testing in accordance with the ABS Rules is a prerequisite when dual certification of both Non-ABS DI-RACK and ABS EQ70 is requested.

Note 1:

- a. BOF: Basic Oxygen Furnace
- b. EAF: Electric Arc Furnace
- c. CC: Continuous Casting
- d. IC: Ingot Casting
- e. AR: As Rolled
- f. CR: Control Rolled
- g. N: Normalized
- h. TMCP: Thermo-Mechanically Controlled Process
- i. TMCP+AC: Thermo-Mechanically Controlled Process w/Accelerated Cooling
- j. Q&T: Quenched & Tempered
- k. NR: Normalized Rolled