



Certificate No:
TAD00001GA

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Well Testing Equipment

with type designation(s)
Transfer Pump Assembly PMP-EAE

Issued to

ETUDES ET PRODUCTIONS SCHLUMBERGER SAS
CLAMART, France

is found to comply with
DNV-OS-E101 – Drilling facilities, Edition July 2021

Application :

Valid for products not subject to DNV classification requirements.

Issued at **Paris** on **2022-05-10**

This Certificate is valid until **2027-05-09** .

for **DNV**

DNV local unit: **Paris Verification**

Approval Engineer: **Georgios Mandrekas**

Bartlomiej Zygmunt Kolosowski
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 281

Revision: 2021-10

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Product description

Electrical transfer pump unit system designed to be used for transfer of liquid from the tank (surge tanks or gauge tanks) to the burner system, within the envelope of a well testing arrangement, as described in the product specification document.

Application/Limitation

This Type Approval certificate is not valid for designs, components, equipment, systems or products which are subject to classification by DNV.

Approved manufacturer: Chaudronnerie Bauloise, Rue André Raimbault, 45130 Baule, France

<u>Design Parameter</u>	<u>Value</u>
Maximum working pressure – Inlet piping (at the pump inlet)	21 barg
Maximum working pressure – Outlet piping (at the pump outlet)	24 barg
Maximum working pressure – Inlet/outlet elbow	100 barg
Minimum ambient design temperature	-20°C
Maximum ambient design temperature	55°C
Fluid temperature limits	-5°C to 80°C
Fluid service	Sour service as per NACE MR0175/ISO 15156

Makers instructions for use and installation to be followed.

Skid evaluation according to DNV 2.7-1 is not included in this Type Approval and assumed to be carried out as a separate approval for those installations where this is required. Ex-certification is not covered by this certificate. Applications where Ex certified equipment is required will in general be subject to case-by-case approval, based on documentation as required in DNV Rules.

Design codes/standards used as references

ASME B31.3, Process Piping (2020)
DNV-OS-D201, Electrical Installations, (2021)

Type Approval documentation

Material specifications

Materials used for piping and fittings are approved as specified on approved drawing 104217479D. Charpy testing shall be conducted at or below the minimum design temperature and shall be in accordance with relevant requirements in DNV-OS-E101.

Fabrication / testing procedures

All pressure containing components shall be subjected to hydrostatic pressure test as per relevant requirements in DNV-OS-E101. The welding and non-destructive examination (NDE) shall be performed according to approved and qualified procedures and operators, in accordance with relevant requirements in DNV-OS-E101.

Marking of product

For traceability the following marking is to be carried out on each product:

- Model name
- Serial No.
- Manufacturers Name or Mark
- Ex marking according to Ex certificate

Other comments



Job Id: **262.1-030933-2**
Certificate No: **TAD00001GA**

A certificate or verification statement of the final product to be issued by the local DNV surveyor following his verification of compliance of used materials, and fabrication/testing procedures as per referenced standard DNV-OS-E101.

Periodical assessment

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>