OIL TRANSPORT PUMP DATA SHEET
FOAIE DE DATE POMPA TRANSPORT TITEI

300-P-0001 A/S

Rev. no.	Date Data	Description / Descriere	Prepared / Întocmit	Checked / Verificat	Approved / Aprobat
02	03.2025	Issued for Construction / Emis pentru construire	Mihail Paraschiv	Raduta Daniel	Pahomi Dorin
01	03.2025	Issued for review / Emis pentru verificare	Mihail Paraschiv	Raduta Daniel	Pahomi Dorin

OMV Petrom	**Document Title:**	**OIL TRANSPORT PUMP DATA SHEET FOAIE DE DATE POMPA TRANSPORT TITEI**	
	Doc. No.: TFP3O-D-TUV-R-DS-005		**Rev: 02**
TÜV AUSTRIA ROMANIA PETROSTAR S.A.	**Project Title / Titlul proiectului:** **TANK FARM PARK 3 OARJA/DEPOZIT PARC 3 OARJA**	**Project No.** **ROA032342221457**	**Sheet:** **1 of 6**

Revision No. / Revizia nr.	Reason for Revision / Motivul reviziei	Date / Data
01	Issued for review / Emis pentru revizuire	03.2025
02	Issued for Construction / Emis pentru construire	03.2025

OMV Petrom			Project Title/ Titlu Proiect	TANK FARM PARK 3 OARJA/DEPOZIT PARC 3 OARJA					
TÜV AUSTRIA ROMANIA		PETROSTAR S.A.	Doc. Title / Titlu Doc. :	OIL TRANSPORT PUMP DATA SHEET FOAIE DE DATE POMPA TRANSPORT TITEI					
			Doc. No. / Doc. nr. :	TFP3O-D-TUV-R-DS-005			Rev: 02	3 of 6	

1	Tag No.	**300-P-0001 A/S**			Location / Module	ASSET VALAHIA				
2	Unit				No. Req'd	2				
3	Service	**NET OIL TRANSPORT PUMP**			Operation	○ Continuous	● Stand Alone			
4	Size & Type	**Progressive Cavity Pumps**			Inquiry No.					
5	Design Code	**EN ISO 14847**			Quote No.					
6	Supplier				P.O. No.					
7	Manufacturer				Job No.					
8	Model				Serial No.					
9	Applicable to:	● **PROPOSALS**	○ PURCHASE	☐ AS BUILT						
10	○ **GENERAL INFORMATION (to be completed by purchaser)**									
11	For:				No. of Motors Required	2				
12					Motor Item No.					
13	Site: ASSET VALAHIA				Motor Provided by					
14	Remarks: Automatic start / stop				Motor Mounted by					
15	PID No.: TFP3O-D-TUV-P-XB-004									
16	● **OPERATING CONDITIONS (to be completed by purchaser)**									
17	● Liquid	**On-spec Oil**				Min.	Rated	Max.		
18		Min.	Norm.	Max.	● Capacity (m³/h)		**60**			
19	● Pumping Temperature (°C)	**+5**	**+35**	**+45**	● Discharge pressure (bag)		**35**			
20	● Specific Gravity (kg/m³)		**878.2**		● Suction Pressure (barg)		**0.1**			
21	● Vapor Pressure (mbara)				● Other condition (m³/h)					
22	● Viscosity (cP)		**17.24**		● NPSH available (mcl)		**2,2**			
23	● Site Temperature (°C)				● Differential pressure (bar)	**Max.**	**34.9**			
24	Normal Maximum +40 Minimum -26.0				● Hydraulic Power (kW)	**Rated**	**79**			
25	● Hazardous Area Classification				○ Special Starting Conditions					
26	Zone **2** Gas Group **IIA** Temp. Class **T3**									
27	● Unusual Conditions:				Location ○ Indoor ○ Heated					
28	○ Dust ○ Fumes ○ Salt Atmosphere ○ Others				● Outdoor ○ Unheated					
29	● Corossion/ Erossion caused by:									
30	● Maximum suspended particle Max. Size									
31	○ pH Value ○ Corrosive Chemical									
32	○ H_2S Content ○ Abrasive Class									
33	○ Chlorine Content ○ Sulfur Content									
34	■ **PERFORMANCE (to be completed by manufacturer)**									
35	At Rated Conditions:									
36	☐ Capacity (m³/h)				☐ Mechanical Efficiency [%]					
37	☐ Speed (rpm)				☐ Brake kW @ maximum viscosity					
38	■ NPSH required (m)				☐ Brake kW @ relief valve setting					
39	☐ Displacement (m³/h)				☐ Maximum allowable speed (rpm)					
40	☐ Volumetric Efficiency [%]				☐ Minimum allowable speed (rpm)					
41										
42										
43										
44										
45										
46										
47										
48										
49										
50										

OMV Petrom / TÜV AUSTRIA ROMANIA / PETROSTAR S.A.	Project Title/ Titlu Proiect	TANK FARM PARK 3 OARJA/DEPOZIT PARC 3 OARJA	
	Doc. Title / Titlu Doc. :	OIL TRANSPORT PUMP DATA SHEET FOAIE DE DATE POMPA TRANSPORT TITEI	
	Doc. No. / Doc. nr. :	TFP3O-D-TUV-R-DS-005	Rev: 02 / 4 of 6

CONSTRUCTION (to be completed by purchaser and manufacturer)

Pump Type:

☐ Internal Gear ☐ Twin-Screw ☐ Vane

☐ External Gear ☐ Three-Screw ■ Progressing Cavity

Gear Type:

☐ Spur ☐ Helical ☐ Other

Casing:

■ Max. Allowable Pressure 40 barg/ @ 20 °C

☐ Max. Allowable Pressure barg

☐ Steam Jacket Pressure barg/ @ °C

Rotor Mount: ■ Between Bearings ☐ Overhung

Bearing Type: ■ Radial ■ Thrust

Lubrication Type: ☐ Pumpage ☐ CLO

○ Packing ○ Lantern Ring

☐ Manufacturer and Type ☐ No.of Rings

Connections: As per EN 1092-1

	ND (in)	Class(PN)	Facing	Position
Suction	Hold	PN16	type B1	Side
Discharge	Hold	PN63	type B1	End
Gland Flush				
Drains				
Vents				
Jacket				

Mechanical Seals: Single mechanical seal acc. EN ISO 21049

■ Mfr. and Model Type: cartrige Size:

■ Mfr. sealing Code Type: Size:

Lubrication Type ☐ Constant Level Oilers

☐ Pumping Fluid ☐ Ring Oil ☐ Oil Mist

☐ External ☐ Oil Flood ☐ Grease

Coupling Type: ■ Manufacturer and Model See Note 8

MATERIAL (to be completed by manufacturer)

■ Casing	Carbon steel
■ Stator / Stator Coating	EPDM / 110,70 Durometru
■ Coupling Rod	1.4021 stainless steel
■ Rotor(s)	C 45 carbon steel
■ Rotor Surface Coating	ductile hardcoating
■ Shaft	1.4021 stainless steel

■ Sleeve(s) / Gland(s)	**FKM**
■ Bearing Housing	**Grey cast**
■ Protective Coating	**FPM even wall design**
■ Special Material Tests	
■ Low Ambient Temperature Material Test	
○ Baseplate	
○ Coupling	

DRIVE MECHANISM (to be completed by manufacturer)

■ Direct-Coupled ☐ V-Belt

■ Gear (ratio i= 7.158) ☐ Coupling Manufacturer

BASEPLATE

● By Pump Manufacturer ○ Suitable for Epoxy Grout

○ Extended For Pump And Motor

○ Subsole Plates by Pump Manufacturer

● Drain ● Drain-Pan

PREPARATION FOR SHIPMENT

○ Domestic ○ Export ○ Export Boxing Reqd.

● Outdoor Storage more than 3 months

DRIVERS

○ Motor	**Induction Motor**		
☐ Manufacturer			
☐ Type			
☐ Frame No.			
○ Constant Speed		● Variable Speed	
☐ kW	**VTA**	rpm	**VTA**
● Volts	**400 V**	Phase	**3 PH**
● Hertz	**50 Hz**	Service Factor	**9**
● Enclosure	ATEX	● IP Code	**min.IP55**

○ Others (see separate data sheets)

QA INSPECTIONS AND TESTS

● Compliance with Inspectors Check List

● Certification of Materials (3)

● Final Assembly Clearances

○ Surface and Subsurface Examinations

○ Radiography

○ Ultrasonic

○ Magnetic Particle

○ Liquid Penetrant

○ Cleanliness Prior to Final Assembly

● Hardness of Parts, Welds & Heat Affected Zones

○ Furnish Procedures for Optional Tests

TESTS

	Req'd	Wit	OBS
Hydrostatic @ bar	●	○	●
Mechanical Run	●	●	○
Performance	●	●	○
NPSH	●	●	○

WEIGHTS	Net	Maintenance	Shipping
Pump kg			
Base kg			
Gear kg			
Driver kg			
Total kg			

OTHER PURCHASER REQUIREMENTS

Nameplate Units ● **SI**

○ Relief Valves by Pump ○ Internal ● External

Piping for Seal Flush Furnished by:

● Pump Vendor ○ Others

Piping for Cooling / Heating Furnished by:

○ Pump Vendor ○ Others

● **Provide Technical Data Manual**

● Noise Level ● max85 dB(A)@1m ● Project Standard

PUMP DIMENSIONAL SKETCH

1	**NOTES**
2	(1) CE marking is mandatory for all equipments. Operating manuals should be in English and Romanian language (for pump and motor). Marking and Declaration of conformity for assembly in respect of directive 2014/34 and IEC TS 60079-46. ATEX Certification required for entire equipment
3	(2) Material certification according EN 10204 3.1 required for part under pressure.
4	(3) Design lifetime of the pumps will be 25 years.
5	(4) A safety margin of 20% will be required between maximum operating pressure and design pressure.
6	(5) Base plate common for pump and motor will be provided with lifting lugs and earthing clips.
7	(6) Earthing connection for pump motor and guards.
8	(7) Coupling will be metallic flexible element type, nonlubrificated, with spacer element that alows sufficient length for maintenance works. Belts, coupling and coupling guard shall be of non-sparking type.
9	(8) Bearing shall be designed for the maximum load for a lifetime of min. 40 000h. Bearings will be interchangeble sizes and will be placed in a separate oil lubed housing.
10	(9) Coupling roads shall be with universal articulated joints pin type, hermetically sealed, grease lubricated.
11	(10) Hydrostatic test pressure for each casing components shoud be at least 1.5 times MAWP.
12	(11) The motor rated load will be selected in order to asure a 10% overcapacity of the pump operating to the pressure of the safety valve relife set point.
13	(12) A proposal for the maintenance contract services, spare part included and for spare parts used in maintenance activity, has to be included in the offer.
14	(13) Fixing bolts diameter and loads (dinamic and static) shall be provided by **Vendor.** Fixing bolts shall be supplied by **Constructor**.
15	(14) Design Temperature : Max 60 ^{o}C and Min: -29 ^{o}C
16	(15) Outdoor mounted, directly into the sunlight. The motors starting type: VSD; Motor duty type: S9; The motors cable glands has to be metallic type; The supply network has the following characteristis: IT system type (3Ph); Motor has to be in accordance with IEC 60034 and EN 60079; Electrical motor accessories: anticondensation heater 220V, 50Hz, connected in separate terminal box. Motor shall have PTC's for winding temperature and for PTC's/PT's bearing temperature.
17	(16) VTA = Vendor to Advise.
18	(17) 5. Pumps shall be winterized (electrical trace heating shall be provided by vendor) considering minimum environmental temperature. For trace heating supply 230 VAC is available on site.
19	(18) Gearbox shall be without external cooling
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	