



Marine & Offshore Platform Pumps

Product Overview, Technology and Applications

NETZSCH

Company



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NETZSCH Group

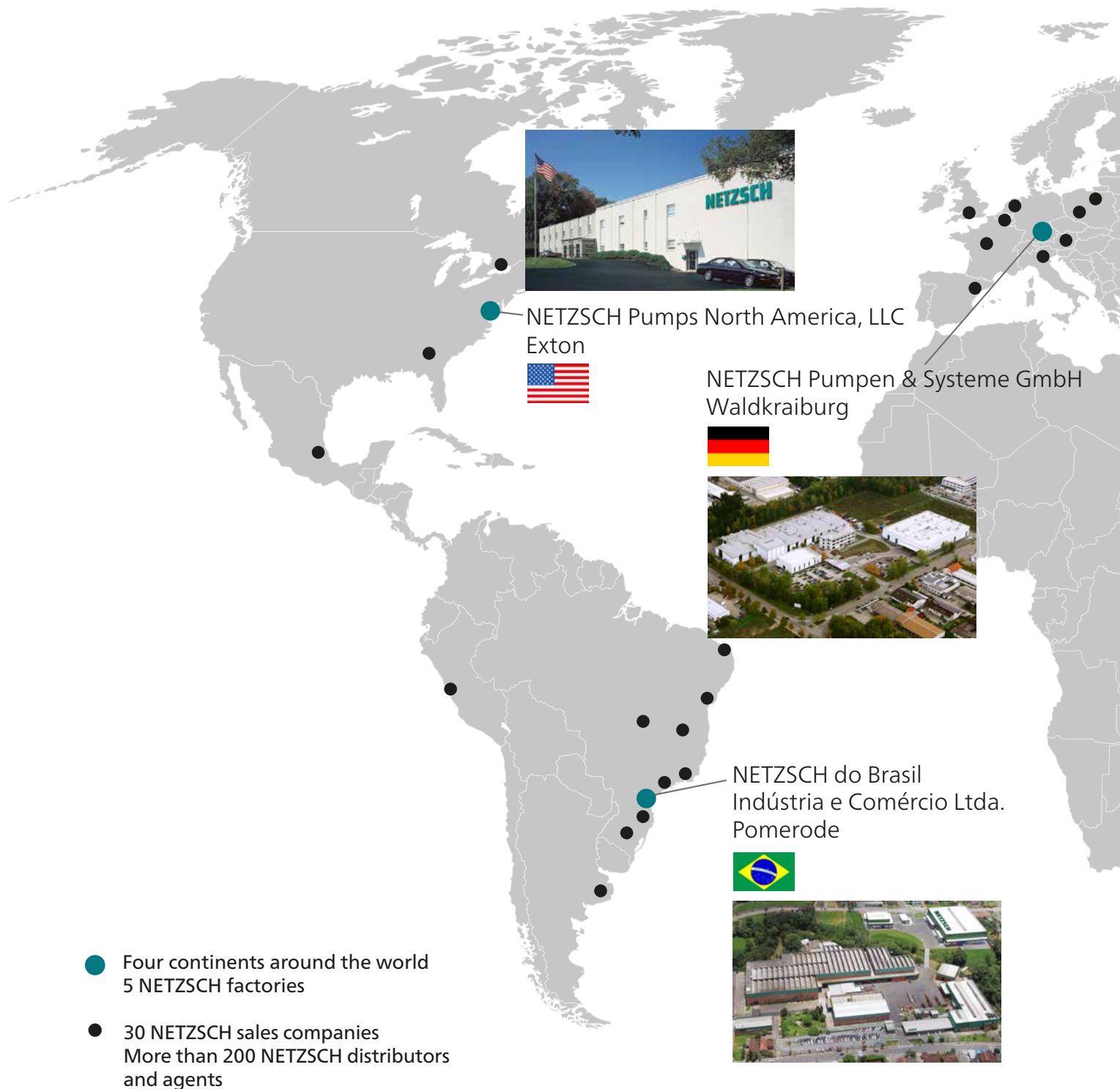
Since 1873 NETZSCH has been developing and manufacturing instruments and machines for research and industry. Today the group employs more than 3,300 people and consists in the three global business units, Analyzing & Testing, Grinding & Dispersing, Pumps & Systems. Although divisions are independent. Do business, but there is a common purpose mark, is to give customers with the best equipment and workers Art to meet their unique application requirements. Due to the with one hundred and forty years of experience in engineering and technology.

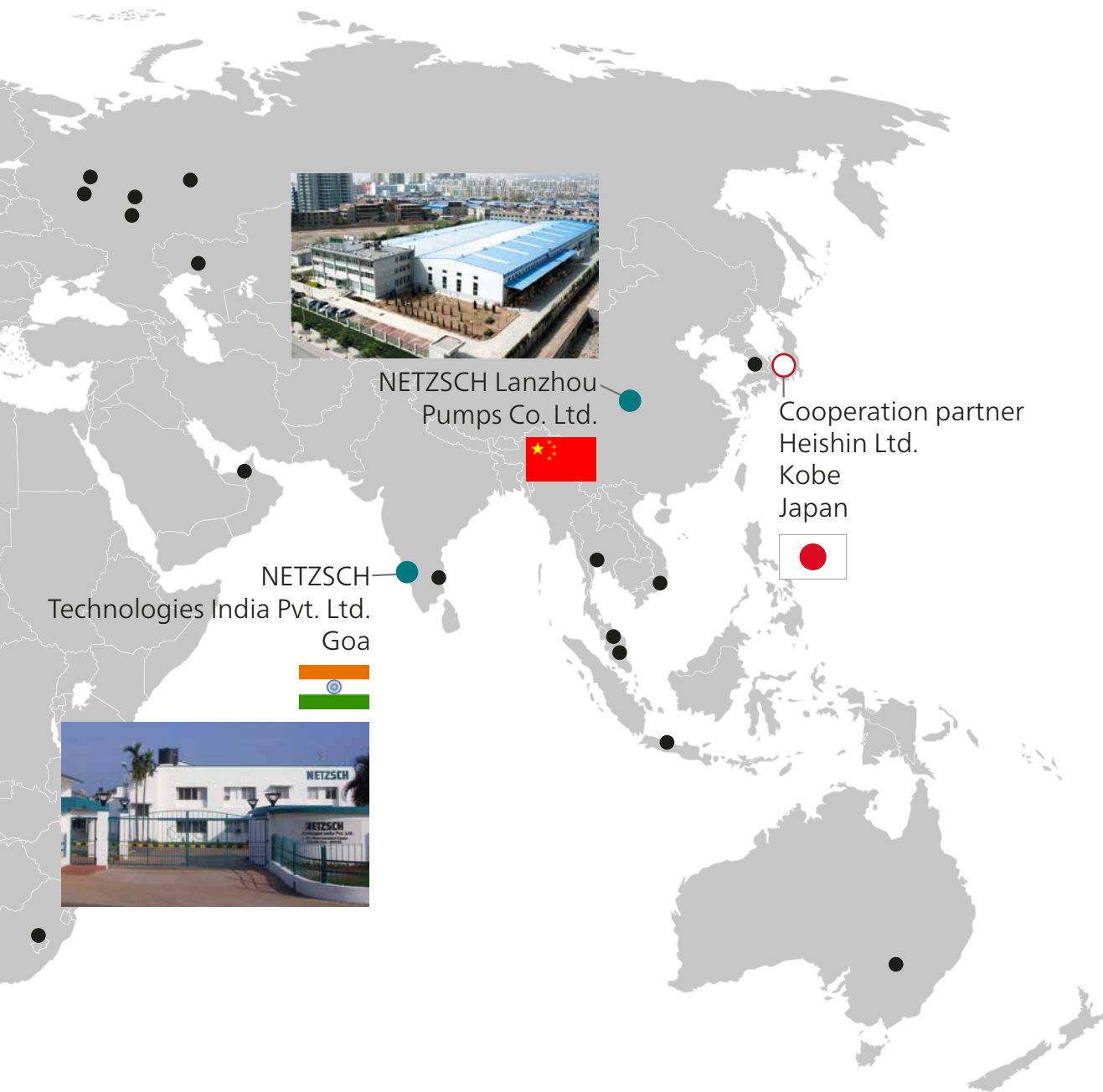
Accumulation, not only in technology, and in the market NETZSCH is second to none.

NETZSCH HOLDING

The NETZSCH Holding builds the bridge between the owning family and the business units and is mainly involved in the group strategy and the financial management. The board of directors to the shareholders and each unit Camp together, and the main group co., LTD The financial and management strategy.

NETZSCH Global production center and branches





NETZSCH (Lanzhou) Pumps Co. Ltd, is the Production Center in Asia-Pacific Region

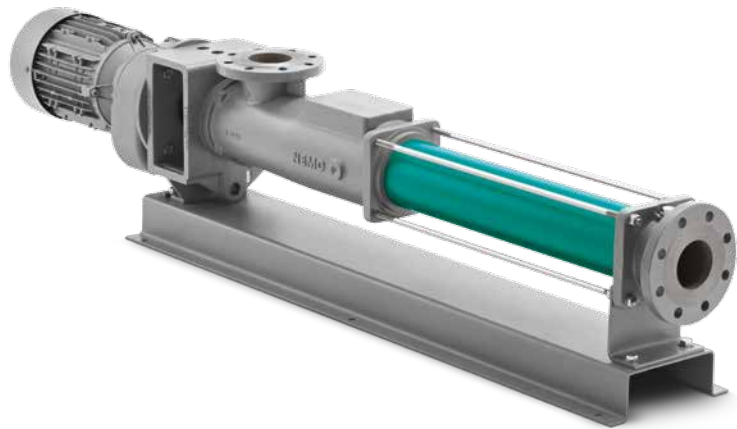
NETZSCH PRODUCTS INTRODUCTION

PCP, MSP, RLP &

PCP:

NEMO® Progressing Cavity Pump

- Capacity 0-600 m³/h
- Pressure 0-320 bar
- Able to equip with dry running protector
- Able to deliver solid-contained fluid & high-viscosity fluid
- Flow rate is in direct proportion on pump revolution speed
- High Discharge Pressure
- Able to transfer fluid of multiphase mixture with liquid, gas & solid
- Able to transfer fluid contains abrasive particles



MSP:

NOTOS Multiple Screw Pump

- Capacity up to 0-1000 m³/h
- Pressure up to 80 bar
- To transfer clean fluid only
- Compact structure with small footprint
- Fluid temperature up to 320°C
- Able to transfer multiphase mixture of oil and gas
- Cannot transfer fluid contains abrasive particles



Macerator

RLP:

TORNADO® Rotary Lobe Pump

- Small size with large flow rate (up to 800 m³/h)
- Pressure up to 10 bar
- Able to transfer multiphase mixture contains solid, liquid and gas
- High self-priming ability
- Able to dry-running for a certain time
- To be mounted prior to other pump(s) in line, it can protect the pump and the subsequent equipment
- End cover can be opened, easy for maintenance



NETZSCH Macerator

- To precipitate hard and heavy particles
- Can cut fiber entanglement
- To avoid blocking of pump, pipeline and subsequent equipment
- With cleaning port, easy for maintenance



Application

which we can serve



Marine

On oil tanker & other merchant ships and even on navy ships, Netzsch pumps are widely used as transfer and booster pumps in either engine room and on deck. Such as Fuel Pump, M/E or gear box L.O. pump, Hydraulic Pump, Bilge & Sludge Pump, Loading/Unloading pump & Stripping Pump.

Fluid Transferred:

Fuel oil, diesel oil, lubricating oil, waste oil, sludge, sewage, residual oil, anchor chain oil, and various chemicals etc.



Offshore Platform

To transfer various oil, bilge water, waste oil, sewage etc.

Fluid Transferred:

Crude oil, product oil, gas, produced water and mixture, black oil, and slurry.



Loading & Unloading

On wharf of storing and handling oil products, heavy oil products and chemicals, Netzsch pumps can be widely used for loading/unloading barge and tankers, oil tank truck, railway tank-wagon etc, circulate between oil tanks (reladling), stripping and cleaning tanks.

Fluid Transferred:

High viscosity media such as black oil, pitch, tar, heavy oil; low viscosity media such as diesel oil, gasoline, hydrocarbon, seawater, and storage water.



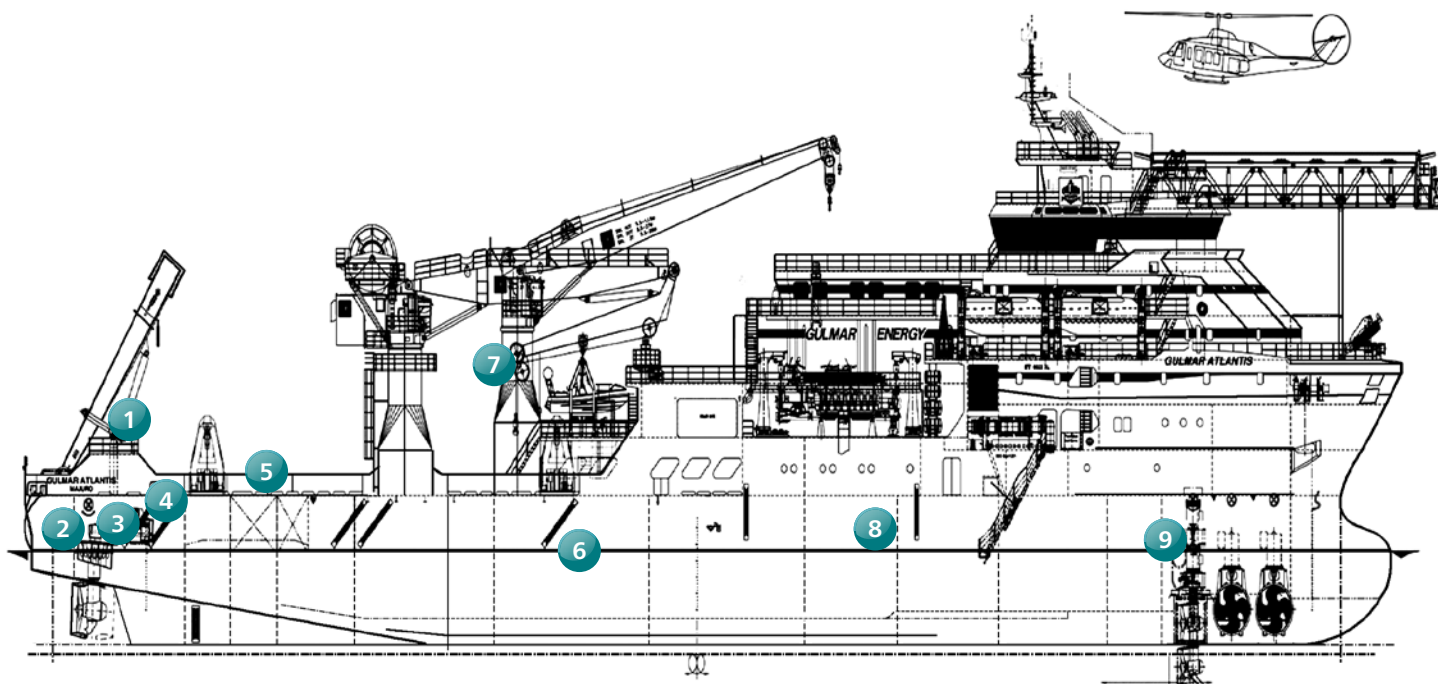
Tank Farm

All lubrication treatment, loading and unloading vessel, tank car, oil conveyance and all the transferring, reladling, sweeping, and pipeline cleaning can be done in the stock area and the pipelines.

Fluid Transferred:

Pitch, tar, chemicals, heavy and light fuel oil, crude oil, black oil and storage water, fat, oil, paint, liquid fuel, polyols, and isocyanate.

Specific Application	PCP	Twin-Screw	Three-Screw	RLP	Mace-rator
Anti-heeling pump				●	
Bilge pump	●				
Boiler feed water pumps					●
Cargo pump	●	●	●	●	
Crosshead lube-oil pump			●		
Cylinder oil transfer pump		●	●		
Fresh water cooling pump				●	
Fuel pump(light/heavy oil,diesel oil)	●	●	●		
General service pump	●			●	
Heavy oil feeder pump for separator			●		
Heavy oil preliminary pressure pump			●		
Hydraulic pump			●		
Lube oil circulation pump		●	●		
Sludge pump	●			●	
Stern tube lube-oil pump			●		
Stripping pump	●	●			
Winch pump			●		
Offshore platform drillings	●				●
Mud ship loading and unloading	●			●	
Oil depot loading and unloading	●			●	
Oil storage area transfer	●	●		●	
Offshore platform oil-gas mixing transportation	●	●			
Offshore platform sewage treatment	●			●	●
Main engine L.O. pump		●			
Dosing storage tank	●			●	



OVERVIEW OF APPLICATIONS FOR *NETZSCH Products on a Ship*

- 1 Three-screw pump, used for winch lubricating.
- 2 Three-screw pump, to lubricate propeller and steering gear.
- 3 Twin-screw or three-screw pump, to transfer fuel oil & diesel oil for engine.
- 4 Twin-screw or three-screw pump, to supply lubricating oil for engine.
- 5 Multiple screw pump is used for loading and unloading cargo on deck.
- 6 To transfer sludge and residual oil.
- 7 Three-screw pump, used as hydraulic pump on crane.
- 8 To transfer waste water and sludge oil, and for oily water separating.
- 9 PC pump, used to transfer waste water in engine room.

Examples – NETZSCH Products Specific Applications



NEMO® pumps, to transfer kaolin on board



NEMO® pump, to transfer drilling mud



Nm105 oil motor driven pump applied on board



Oil motor driven pumps for marine ready for delivery



Twin-screw pumps for lubricating oil transferring



Three-screw pumps for bearing lubricating oil transferring



Skid NEMO® pumps, for offshore platform



Rotary lobe pump TORNADO® on platform

NETZSCH Products for Applications on Marine & Offshore



Passenger liner

- PC pump: Used for sewage transfer
- Three-screw pump: Used for lubricating oil and fuel oil transfer, mainly in engine room
- Macerator: Mainly used for grinding & precipitate the big & hard objects during transferring sewage



Oil Tanker

- PC pump: Used for transferring residual oil, sludge oil and oily water
- Twin-screw pump: Mainly used for main engine lubrication system, to circulate lubricating oil
- Industrial rotary lobe pump: Used for crude oil loading and unloading



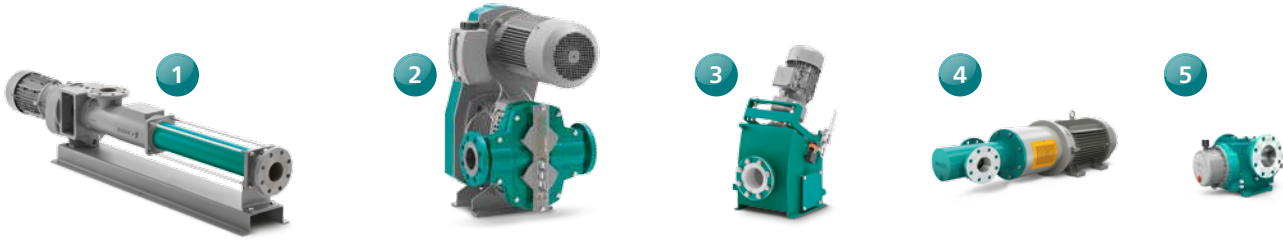
Ocean Work Vessel (Platform Supply Vessel)

- PC pump: Mainly used for transfer and circulate slurry, and transfer well drilling chemicals
- Three-screw pump: Mainly used for transfer lubricating oil, fuel oil, and cylinder oil, and also for stripping and heavy oil separation.
- Macerator: Mainly used for grinding & precipitate the big & hard objects during transferring sewage



Container Vessel

- PC pump: Used for transfer residual oil, sludge oil, oily water, and sewage.
- Twin-screw pump: Mainly used as hydraulic pump, winch pump, and to transfer lubricating oil.
- Three-screw pump: Mainly used for transfer fuel oil & lubricating oil for main engine.



Bulk Carrier

- PC pump: Used for stripping, transfer residual oil, oily water & sewage.
- Twin-screw pump: Mainly used for transfer hydraulic oil and lubricating oil.
- Three-screw pump: Mainly used for transfer lubricating oil and chemicals.
- Industrial rotary lobe pump: Mainly used for transfer residual oil and heavy oil, loading/unloading crude oil.



Offshore Platform

- PC pump: Mainly used to transfer industrial slurry, oil-gas multiphase mixture chemicals.
- Twin-screw pump: Mainly used to transfer lubricating oil & fuel oil.
- Industrial rotary lobe pump: Mainly used to transfer industrial waste oil, drilling cuttings and slurry.



FPSO

- PC pump: Mainly used to transfer industrial slurry and sewage, and oil-gas mixture.
- Twin-screw pump: Mainly used for hydraulic system, and to transfer lubricating oil and fuel oil.
- Industrial rotary lobe pump: Mainly used to transfer crude oil, industrial waste oil & sewage.



Wharf

- PC pump: Used to transfer high viscosity material and chemicals, stripping tanks and pipeline cleaning.
- Industrial rotary lobe pump: Mainly used for loading/unloading oil, transferring residual oil, and reladling.

Examples – NETZSCH Products Specific Applications



NEMO® pump NM038BY, in floating oil recovering system



NEMO® pumps on platform to transfer bilge oil and water



NEMO® pumps on platform to transfer drilling cuttings and sludge



Vertical TORNADO® pumps to transfer lubricating oil on board



PC pumps in engine room



Twin-screw pump to transfer oil products



NETZSCH products in shipyard



NETZSCH products in oil storage wharf

NETZSCH Group, with advanced technical and management system, and global production and sales network all over the world, can offer the users with highest guarantee in operation security. The company can, in response to all the users' various requirements and aiming at different projects, offer users with our qualifications and perfect documentation by our professional teams.


Qualification

Certificates & Documentation



NETZSCH ensures highest international standards

- BV
- CCS
- ISO9000
- SGS
- etc.



The NETZSCH Group is a mid-sized, family-owned German company engaging in the manufacture of machinery and instrumentation with worldwide production, sales, and service branches.

The three Business Units – Analyzing & Testing, Grinding & Dispersing and Pumps & Systems – provide tailored solutions for highest-level needs. Over 3,300 employees at 210 sales and production centers in 35 countries across the globe guarantee that expert service is never far from our customers.

The NETZSCH Business Unit Pumps & Systems offers with NEMO® progressing cavity pumps, TORNADO® rotary lobe pumps, NOTOS multiple screw pumps, macerators/grinders, dosing technology and equipment custom built and challenging solutions for different applications on a global basis.

NETZSCH Pumps & Systems – Solutions you can trust ■

BLUECOMPETENCE
Alliance Member

Partner of the Engineering Industry
Sustainability Initiative

FROST & SULLIVAN

BEST
2014 PRACTICES
AWARD

GLOBAL PROGRESSIVE CAVITY
PUMPS IN OIL AND GAS
PRODUCT LEADERSHIP AWARD

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NLP - 908 - 02 - 03/16 - 01 - Technical specifications are subject to change.