Products and Services





MarFlex Deepwell Pump Double (MDPD)

MarFlex Deepwell Pump Concentric (MDPC)



MarFlex Ballast Deepwell Pump Concentric (MBDPC)

MarFlex Offshore Deepwell Pump (MODP)







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The MarFlex Deepwell Pump

The MarFlex Deepwell Pump is a single stage centrifugal deepwell pump and uses the oil lubricated drive shaft principle. It can be driven by either an electric motor or a hydraulic motor. However, the electric drive pump system has a higher system efficiency compared to a hydraulic drive pump system. It also has a low noise level, is easy to install, and needs less maintenance because of the electrical wiring instead of the hydraulic piping system. As a result 99% of all deepwell pumps, installed by MarFlex, are electrically driven.

MarFlex produces the following pumps:

- cargo pump type MDPD 80/100/150/200
- cargo pump type MDPC 250/300
- cargo pump type MODP 150/200/300/350, built according to API-610
- ballast pump type MBDPC 150/200/300/400/500



Cargo pump type MDPD 80/100/150/200

Material code 1.4404 1.4462 1.4410

The MarFlex deepwell pump is a single stage centrifugal deepwell pump and uses the oil lubricated drive shaft principle. It can be driven by either an electric motor or a hydraulic motor. However, the electric drive pump system has a higher system efficiency compared to a hydraulic drive pump system. It also has a low noise level, is easy to install, and needs less maintenance because of the electrical wiring instead of the hydraulic piping system. As a result 99% of all deepwell pumps, installed by MarFlex, are electrically driven.

Pumps are made of

- MDPD-100 - MDPD-150 - MDPD-200

Materia	l descri	otion

AISI 316L/Stainless Steel (standard)	
Duplex/22Cr Duplex (optional)	
Super Duplex/25Cr Duplex (optional)	

General

.....

Cargo temperature :-15/+100°C Maximum viscosity :4000 cSt Maximum specific gravity : 2,11



Material code 1.4404 1.4462 1.4410



Cargo pump type MDPC 250/300

The MarFlex deepwell pump is a single stage centrifugal deepwell pump and uses the oil lubricated drive shaft principle. It can be driven by either an electric motor or a hydraulic motor. However, the electric drive pump system has a higher system efficiency compared to a hydraulic drive pump system. It also has a low noise level, is easy to install, and needs less maintenance because of the electrical wiring instead of the hydraulic piping system. As a result 99% of all deepwell pumps, installed by MarFlex, are electrically driven.

Pumps are made of

Material	description
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AISI 316L/Stainless Steel (standard)	
Duplex/22Cr Duplex (optional)	
Super Duplex/25Cr Duplex (optional)	

General

Cargo temperature :-15/+100°C Maximum viscosity : 4000 cSt Maximum specific gravity : 2,11



Material code 1.4404

1.4462 1.4410



Cargo pump type MODP 150/200/300/350 built according to API-610

The MarFlex MODP series is a single stage centrifugal deepwell pump and uses the oil lubricated drive shaft principle. These pumps are designed according to API 610 and are intended for offshore service. Stack lengths up to 30 meters are possible.

Pumps are made of

Material description AISI 316L/Stainless Steel (standard) Duplex/22Cr Duplex (optional)

Super Duplex/25Cr Duplex (optional)	

General

Cargo temperature	: -15/ +100°C
Maximum viscosity	: 4000 cSt
Maximum specific gravity	: 2,11



Capacity (m³/h)

 MODP-150(1)
 MODP-150 (2)
 MODP-200 (1)
 MODP-200 (2)
 MODP-300 (1)
 MODP-300 (2)
 MODP-350 (1)
 MODP-350 (2)

Pumping Excellence

Ballast pump type MBDPC 150/200/300/400/500

The MarFlex deepwell pump is a single stage centrifugal deepwell pump and uses the oil lubricated drive shaft principle. It can be driven by either an electric motor or a hydraulic motor. However, the electric drive pump system has a higher system efficiency compared to a hydraulic drive pump system. It also has a low noise level, is easy to install, and needs less maintenance because of the electrical wiring instead of the hydraulic piping system. As a result 99% of all deepwell pumps, installed by MarFlex, are electrically driven.

Pumps are made of

Material description

AISI 316L/Stainless Steel (standard) Duplex/22Cr Duplex (optional) Super Duplex/25Cr Duplex (optional)

Sea water resistance

Material Liquid Temperature Duty Precautions operation : 316L : sea water : 0-30°C : continuous : flush with fresh water after pump

Material code

1.4404

1.4462 1.4410



Capacity (m³/h)

	MBDPC-150
	MBDPC-200
_	MBDPC-300
—	MBDPC-400
	MBDPC-500

Pumping Excellence



Draining pump

Draining pumps are designed to completely drain the tank, until the very last drop!

Design Capacity/pressure Strokes Air consumption Max. air pressure : double acting : max. 7 m³/h – max. 7 bar : max. 13 strokes/min : max. 0.7 nm³/min : 10 bar

Materials in contact with cargo Plunger rod Plunger rings Sealing Discharge connection Blow through/strip connection Drain

: IO Dal : AISI 316L : AISI 316L : PTFE compound : ¾" BSP : ¾" BSP : ¾" BSP : ¾" BSP

Each pump consists of the following sub-assemblies:

- draining pump assembly
- foundation in tank
- suction filter
- deck trunk (stainless steel, 270 mm)







Cargo cooling system

The MarFlex cargo cooling system enables chemical carriers to also transport low boiling point cargoes and semi-gases. Cargoes such as Propylene Oxide and Isoprene are often transported on board chemical carriers and need to maintain a safe cargo temperature. The MarFlex cargo cooling system will always be custom made to individual requirements.



Variable Speed Drive System (VSDS)

The MarFlex Variable Speed Drive System (VSDS) is designed to be the perfect companion to the MarFlex electric deepwell pumps.

Tailor-made software in the VSDS's PLC and frequency converters ensure precise and individual speed control of the pumps enabling them to perform any discharge scenario for a wide range of liquid cargos with different viscosities and densities.

The VSDS has been designed giving the highest priority to safety, system efficiency and flexibility. The frequency converters deliver the actual power needed without any inrush currents, thereby reducing the mechanical wear and cavitation to a minimum. Depending on specific requirements, MarFlex can deliver either an air or a water cooled VSDS.

In its most basic form the VSDS is designed for remote and local pump control via one or more touch panels, together with an optional pump control desk, PLC, frequency converters and a custom-built contactor matrix to drive pumps. The system interacts and communicates with other third party systems onboard to provide a reliable and safe means of complete cargo loading and unloading operations.

The optional Remote Access function allows MarFlex service engineers to remotely monitor the VSDS components individually, to measure performance parameters, and to analyse any malfunctions.



Pump control desk

The pump control desk consists of a custom designed front panel with dedicated control modules for each separate pump. The number of control panels equals the number of pumps.

Variable speed control is available by means of a smooth fader panel. At the moment a start button is pressed, the pump control desk automatically selects an available frequency converter. The maximum number of simultaneously controlled pumps is limited by the available frequency converters. The basic indications are displayed via LEDs and the detailed pump information is displayed on the touch screen.

For pumps that are driven via star-delta or soft-starters, the control modules are available with start/stop functionality.





Remote access

The remote access system provides remote diagnostics of the pump system. On request, and only with the permission of the responsible officer on board, the system allows MarFlex Services to remotely analyse the pump system. Remote access will drastically reduce the average downtime and lower costs for field service both during and after the warranty period. An internet connection on board is required for this. When an internet connection is not available, the 3G+ and/or UMTS/HSUPA/GPRS/EDGE module is offered as an option.



NQZR

NQZR is a liquid cargo and ballast water tank gauging system that provides comprehensive pump control and cargo monitoring data.

The NQZR system is a tailor-made and modular system that uses state-of-the art human machine interfaces consisting of touch panels, zone 1 approved tablets and local deck control possibilities.

The NQZR system interacts & communicates with third party systems onboard to provide a safe, reliable & flexible overview of complete cargo loading and discharge operations.

The NQZR system is built taking into account the needs of the end user and provides in-depth information on:

- Cargo handling
- Ballast water handling including monitoring of the ballast water treatment systems
- Tank cleaning systems
- System diagnostics

The smart router on-board helps MarFlex services to monitor the VSDS components individually, measure performance parameters and analyze malfunctions if any, remotely.



Electric Hydraulic Powerpack (EHP)

The EHP is a skid mounted unit, including hydraulic oil tank, cooling, valves, and gauges, suitable for driving portable pumps.

Specifications	EHP-45	EHP-45	EHP-75	EHP-112
Location of operation	Safe area	Safe area	Safe area	Safe area
Ambient temperature	Max. 45°C	Max. 45°C	Max. 45°C	Max. 45°(
Length	1350	1350	1700	1700
Width	650	650	860	860
Height	1250	1250	1680	1720
Weight empty (kg)	500	500	1000	1370
Hydraulic system				
Capacity (I/min)	60	72	125	130
Working pressure (bar)	280	280	320	320
System	Open	Open	Open	Open
Displacement (cm³)	45	45	74	112
Hydraulic oil tank capacity (I)	125	125	300	300
Electric system				
Auxiliary voltage (V)	230	230	230	230
Auxiliary current (A)	1	2	5	5
Frequency (Hz)	50	60	60	50
Electric motor				
Rated power (kW)	37	34,5	90	90
Rated (rpm)	1500	1800	1800	1500
Current at 400 V	69	57	144	154
Insulation Class	F	F	F	F
Protection	IP56,	IP56,	IP56,	IP56,
	Tropical	Tropical	Tropical	Tropical





Diesel Hydraulic Powerpack (DHP)

The DHP is a skid mounted unit, including hydraulic oil tank, cooling, valves, and gauges, suitable for driving portable pumps. The DHP-300 is suitable for driving both cargo deepwell pumps and portable pumps.

Specifications	DHP-60	DHP-120	DHP-150	DHP-300
Application	Portable	Portable	Portable	Fixed
Location of operation	Safe area	Safe area	Safe area	Safe area
Ambient temperature	Max. 45°C	Max. 45°C	Max. 45°C	Max. 45°C
Starting system	Spring starter	Spring starter	Spring starter	Electric starter (24 Volt)
Fuel type	Diesel	Diesel	Diesel	Diesel
Fuel tank capacity (I)	135	280	320	Not included
Length	1350	1820	2005	3500
Width	700	1070	1120	1500
Height	1260	1560	1660	1900
Weight incl. hydraulic oil (kg)	600	1110	1400	3200
Hydraulic system				
Capacity (I/min)	60	140	180	356
Working pressure (bar)	280	320	305	300
System	Open	Open	Open	Open
Displacement (cm³)	45	74	94	193
Hydraulic oil tank capacity (I)	90	200	195	685
Hydraulic connections	Snap-on coupling	Snap-on coupling	Snap-on coupling	SAE flanges
Diesel Motor				
Emission standard	Tier 3, Stage IIIA	Tier 2, Stage II	Tier 2, Stage II	Tier 3, Stage IIIA

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Rated power (kW) 46 93 128 223	
Rated (rpm) 2500 2300 2200 2200	
Cylinders 4 4 6 6	
Fuel consumption (I/h) 12,6 22,5 31 59,3	

Air system

Compressor	Reciprocating
Capacity (nm³/hr)	17 (at 2200 rpm)
Nominal pressure (bar)	6
Maximum pressure (bar)	8
Air outlet connection	DN 20 PN40
Fuel system	DN 15 PN40



Portable submersible pump type MSP-80

The MSP-80 is a light and compact, high capacity hydraulic drive, centrifugal pump and designed for a wide range of products such as: • chemicals • acids

- solvents
- crude oil

- petroleum products
- edible oils

The pump impeller is keyed directly to the hydraulic motor shaft enabling a very compact design. Between the hydraulic motor and the pump impeller is a double mechanical seal arrangement to ensure a proper segregation between the hydraulic and product side.

All parts exposed to the cargo are made of AISI 316L or PTFE. The pump has a maximum diameter of 250 mm and can be utilised via a standard 12" tank cleaning hatch. The pump can be driven by a ship's hydraulic system or by means of a portable powerpack. As standard the pump is delivered with an 18 m concentric hydraulic hose with a start-stop valve at the other end. A flow control can be delivered as an option.

MSP-80

Discharge connection Max. pressure Max. return pressure Max. oil flow Pressure connection Return connection

Dimensions

Max. diameter Height excluded stand pipe Stand pipe height Weight excluded hoses : 4" coupling or 4" flange : 320 bar : 10 bar : 75 (I/min) : ½" quick coupling : ¾" quick coupling

: 250 mm : 558 mm : 415-400-405-395 mm : 38 kg



Pump Performance Curve



Portable submersible pump type MSP-100

The MSP-100 portable pump is based around a Hydrostal Screwcentrifugal impeller. This type of impeller combines the properties of a screw pump with those of a centrifugal pump. The low liquid velocities in the pump result in low shear forces. This makes the pump suitable for liquids which have to be treated carefully and without too much motion and turbulence, in order to avoid emulsification such as water-oil mixtures. The last property makes the pump perfect for oil-recovery operations and it is for this reason that several coast guards have standardized on this type of pump. The pump can be delivered in an aluminium version. A bronze version is optional.

MSP-100

Discharge connection Max. pressure Max. return pressure Max. oil flow Pressure connection Return connection

Dimensions

225 bar 250 bar

Max. diameter Height Weight excluded hoses : 4" coupling or 4" flange : 250 bar : 6 bar : 48 (I/min) : ½" quick coupling : ¾" quick coupling

: 305 mm : 373 mm : 28 kg





Portable submersible pump type MSP-150

The MSP-150 portable pump is based around a screw centrifugal impeller. This type of impeller combines the properties of a screw pump with those of a centrifugal pump. The low liquid velocities in the pump result in low shear forces. This makes the pump suitable for delicate liquids (which must be handled carefully and without too much motion and turbulence) and so problems such as coagulation of natural latex and emulsification, such as in water-oil mixtures, are avoided. The last property makes the pump perfect for oil-recovery operations and it is for this reason that several coast guards have standardized on this type of pump. For very viscous products, like molasses and heavy fuel oil, the pump can be delivered with a different hydraulic motor.

Discharge connection Max. pressure Max. return pressure Max. oil flow Pressure connection Return connection

MSP-150-63 6" coupling or 6" flange 320 bar

1" quick coupling

11/2" quick coupling

6 bar 130 (I/min)

MSP-150-90

6" coupling or 6" flange 320 bar 6 bar 180 (I/min) 1" quick coupling 1½" quick coupling

Dimensions

Max. diameter Height Weight excluded hoses 490 mm 610 mm 83 kg

490 mm 610 mm 92 kg



Portable submersible pump type MSP-200

The MSP-200 is a light and compact, high capacity, hydraulic drive, centrifugal pump and designed for a wide range of products such as: • chemicals • acids

- solvents
- crude oil

- petroleum products
- edible oils

The pump impeller is keyed directly to the hydraulic motor shaft enabling a very compact design. Between the hydraulic motor and the pump impeller is a double mechanical seal arrangement to ensure a proper segregation between the hydraulic and product side. All parts exposed to the cargo are made of AlSI 316L or PTFE. The pump has a maximum diameter of 300 mm and can be utilised via a standard 12" tank cleaning hatch. The pump can be driven by a ship's hydraulic system or by means of a portable powerpack. As standard, the pump is delivered with an 18 m concentric hydraulic hose with a start-stop valve at the other end. A flow control can be delivered as an option.

MSP-200

Dimensions Max. diameter

Stand pipe height

- 250 bar

– 320 bar

Discharge connection Max. pressure Max. return pressure Max. oil flow Pressure connection Return connection

Height excluded stand pipe

Weight excluded hoses

: 112 (I/min) : 1" quick coupling : 1½" quick coupling

: 320 bar

: 10 bar

: 300 mm : 575 mm : 1000-945 mm : 52 kg

: 4" coupling or 4" flange





Portable submersible pump type MSP-500

The MSP-500 is a light and compact, hydraulic drive, centrifugal salvage pump specially designed for those situations where high capacities are required. The pump impeller is keyed directly to the hydraulic motor shaft enabling a very compact design. Between the hydraulic motor and the pump impeller is a double mechanical seal arrangement to ensure a proper segregation between the hydraulic and product side. All parts exposed to the cargo are made of AISI 316L or PTFE. The pump can be used via a standard $12^{1}/_{2}$ tank cleaning hatch and can be driven by a ship's hydraulic system or by means of a portable powerpack.

MSP-500

Discharge connection Max. pressure Max. return pressure Max. oil flow Pressure connection Return connection

Dimensions

250 bar 320 bar

Max. diameter Height excluded stand pipe Stand pipe height Weight excluded hoses

: 6" coupling or 6" flange : 320 bar : 10 bar : 130 (I/min) : 1" quick coupling : 1½" quick coupling

: 306 mm : 590 mm : 790-750-700 mm :75 kg





Pump Performance Curve

Portable submersible pump type MSP-EH 16-200

The MarFlex submersible pump EH 16/200, (-Mono pump), is a hydraulic drive, eccentric helical pump, that uses the positive displacement principle, and is especially designed to cope with high viscous cargoes like: • molasses • lubricating oil additives

• unheated fuel oil

clay slurries

The pump can be used via a standard 12" tankcleaning hatch and can be driven by the ship's hydraulic system or a portable powerpack. The pump consists of a rotating element (worm or rotor) and a static element (stator). The rotor (chromium steel) is shaped as a worm and has a relatively coarse pitch. The stator (NBR rubber) has the same shape but with a pitch which is exactly half as coarse as the pitch of the rotor. This difference in pitch creates the so-called 'chambers' between the rotor and stator. As soon as the pump starts running these chambers will move from the suction side to the pressure side of the pump and accordingly the cargo will move in the same direction. The seal between the stator and the rotor always exists and is independent of their position with regard to each other. This means that at any position of the rotor the pressure side is always separated from the suction side. The maximum discharge head of the Mono pump depends on the deformation (due to the NBR material) of the stator.

MSP-EH 16-200

Discharge connection: 4" couplingMax. pressure: 250 barMax. return pressure: 6 barMax. oil flow: 125 (I/min)Pressure connection: ½" quick couplingReturn connection: ¾" quick coupling

Dimensions

Max. diameter Height Weight excluded hoses : ¾" quick co

: 1430 mm : 98 kg

Performance

Viscosity (mPa∙s)	Capacity (m³/h)	Speed (rpm)	Oil flow (l/min)	Oil press (bar)	Power (kW)
1	58	600	120	75	15
4.000	48	500	100	100	17
8.000	38	400	80	125	17
10.000	29	300	60	150	15
20.000	24	250	50	175	15
40.000	19	200	40	200	13
80.000	14	150	30	225	11
160.000	10	100	20	250	8



6

MarFlex

Tripod

The tripod is a compact and sturdy hoisting device, designed to handle portable pumps, cargo, and hydraulic hoses during overtop off-loading. The tripod has two fixed legs and one hinged leg for easy storage. Two wheels enable one man to carry the tripod across a deck.

Safe working load Leg materials Wheel material Length and wire material Wire diameter Operation

Dimensions

Weight

: 500 kg : aluminum : NBR rubber : 35 m, Stainless steel : 8 mm : manual : electrical : pneumatic : 2250 x 1170 x 490/1400 mm (height x width x depth) : 62 kg manual winch : 85 kg electrical winch : 78 kg pneumatic winch



Demineralising water unit

This unit is designed to demineralise fresh water or water delivered from an evaporator. The unit consists of a stainless steel vessel which is filled with a special mixture of cation and anion ion-exchange grain. Diffusers are installed in the top and bottom of the vessel to secure an even flow through the filter material.

Production capacity Capacity with fresh water Water pressure Inlet connection Outlet connection Material Weight, empty Weight, with 100 I filling Height Diameter Volume of filling material : 3000 I/h max. : 500 m³ : 7 bar max. : 1"BSP female : stainless steel, AISI 316L : 60 kg : 132 kg : 1500 mm : 465 mm : 100 I



Closed system purge set

The closed circuit purging unit allows purging of a deepwell pump without the risk of making contact with the purged contents. The unit is used for:

- purging of the cofferdam of a deepwell pump to monitor the pump seals
- flushing of the purge lines and cofferdam of a deepwell pump

The closed circuit purging unit consists of the following main components:

- a reservoir for storage of the purged contents
- a sight glass
- a compartment for the pump unit
- an air-operated, double diaphragm pump
- an air supply valve
- a 3-way selector valve
- two connecting hoses with quick couplings

Operation of the air-operated, double diaphragm pump creates a low pressure inside the reservoir. The 3-way selector valve allows the flow to go through the standpipe or from the bottom of the reservoir. The diaphragm pump moves the flow to the purge inlet of the deepwell pump. The return flow from the purge outlet of the deepwell pump enters the reservoir and is monitored through the sight glass. By controlling the supplied air flow / pressure to the diaphragm pump the flow through the closed circuit purging unit is regulated.

Technical data

Pump compartment material	: stainless steel 1.4404
Pump housing material	: polypropylene
Maximum pressure supplied air	: 8.6 bar
Capacity	: 3 m³/h
Diaphragm, seals and valve balls	: teflon© PTFE
Hose material	: teflon© PTFE
Hose length	: 1.5 m
Hose mantle	: stainless steel wire mesh
Couplings	: snap-tite ½" BSP, SS316

Purge set

To prevent any contamination of the ship's air/nitrogen system it is not allowed to connect the purge inlet at the deepwell pump top cover directly to the ship's air/nitrogen system. The MarFlex purge set connects to the purge inlet quick coupling at the deepwell pump top cover on one side and to the ship's air/nitrogren system on the other side. The purge set reduces the pressure (max. 3.5 bar), cleans the air/ nitrogen, and keeps it separate from the ship's air/nitrogen system.

The purge set contains

Frame

Frame sides Hand grip

: 1 mm, AISI 316L : dia 10 mm, AISI 316L

Purge set Regulator

Indicator Hose tube 2 x

Hoses

Air hose 2 x Hose clamps 4 x Quick coupling

: filter reducer ½", 0-8 bar, manual drain : manometer G¼", 0-11 bar : 13 mm, 1/2" AISI 316L

: 13 mm, length 2 m, EPDM flame retardant, 18 bar

- : hose clip 18-25 mm : quick coupling, ½", BSP female, SS316 (incl. hose shank and dust cap)



Cargo hoses

The cargo hose connects the MarFlex submersible pump to the ship's cargo discharge system. A wide range of connection types is available. Depending on the cargo type that is being handled, a cargo hose of polypropylene or stainless steel is used.

Polypropylene cargo hose

Sizes Lengths Material inside

Material outside

Temperature range Max. working pressure Discharge connection

- : 4" or 6" : 10 m, 15 m or 20 m, or on demand
- : Polypropylene liner with 316 Stainless steel inner wire
- : Nylon/PVC over with galvanized steel outer wire
- :-30/+80°C
- : 10-14 bar (depending on the size) : FCL 4" ASA, DIN or JIS flange



Stainless steel cargo hose

Sizes Lengths Material hose Material braid Temperature range Max. working pressure Discharge connection

: 4", 5" or 6"

- : 10 m, 15 m or 20 m, or on demand
- : Stainless steel 304 or 316
- : single or double braided layer 304 or 316 : -200/+600°C
- : 10-23 bar (depending on the size) : FCL 4" ASA, DIN or JIS flange



Hose reel

MarFlex made a special storage and transport reel for hydraulic hoses. This overcomes the problems of physically handling such hydraulic hoses that are inherently relatively heavy and stiff and inflexible.

The reel can accommodate

3 x 18 m 1" high pressure hose 3 x 18 m 1½" return hose

Alternative

 $5 \times 18 \text{ m} \frac{1}{2}$ " high pressure hose $5 \times 18 \text{ m} \frac{3}{4}$ " return hose

Dimensions

Length	: 1000 mm
Width	: 1000 mm
Height	: 1540 mm

Weight	
With 3 sets hoses	: 334 kg
With 5 sets hoses	: 341 kg



MarFlex Training

MarFlex Training is an intrinsic part of our endeavours to maintain safe operations and to keep your equipment performing to your satisfaction. We now have even more training centers in operation and our training courses are always well received. Taking part in our training courses will enable you to:

- get to know the system better
- need less maintenance because of better treatment/operation of the system
- achieve safer working
- achieve better stripping results and therefore less residue after offloading

Objective: to improve system (cost) operational performance

Global strategic training centers are located in India, Russia and the Netherlands.

Standard and customised training is available:

- on board
- at the customer's office
- at global MarFlex' training centers
- during annual seminars



MarFlex Services

In order to keep your MarFlex deepwell pump installation always up and running, MarFlex Services focuses on preventive maintenance. Furthermore, MarFlex's service desk is available 24/7 to help you and, if necessary, provide you with a service engineer and the spare parts required for your MarFlex deepwell pump. You can always rely on MarFlex Services.

MarFlex Services can help you to prevent failures by:

- evaluation of purge results
- pre docking inspections
- annual inspections
- dry docking
- preventive maintenance

MarFlex Services features include:

- 24/7 service desk
- a team of highly skilled service engineers available 24/7
- global, short delivery times
- fully equipped service locations worldwide
- remote monitoring & assistance



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Pumping Excellence