



MarFlex

Products & Services

Smart Pumping for a safer, cleaner future

www.marflex.com

Table of Contents

About MarFlex	04
Products	
Deepwell Pumps	06
• Deepwell Pump Double (MDPD)	08
• Ballast Deepwell Pump Concentric (MBDPC)	10
• Draining Pump (MPDP)	12
• Offshore Deepwell Pump (MODP)	14
• Fuel Transfer Pump (MDPD)	16
Submersible Portable Pump Solution	18
• Submersible Pump (MSP) – Portable Centrifugal Pump – Closed impeller	20
• Submersible Pump (MSP) – Portable Centrifugal Pump – Screw-type impeller	22
• Electric Hydraulic Powerpack (EHP)	24
• Auxiliary Equipment	26
Super Stripping Pump (MSSP)	28
Smart Pumping Solution	30
Full Drive System (VSDS)	32
Services	
Service	36
Training	38



MarFlex

Innovative Electric Pump Systems

Powering maritime, offshore, and industrial performance worldwide

About MarFlex

For over 40 years, MarFlex has been at the forefront of electrically driven pumping solutions for the maritime, offshore, and industrial sectors. Based in the Netherlands, we design and manufacture high-performance electric pumps that meet the demands of modern shipping, oil & gas, and industrial operations worldwide.

Our expertise lies in deepwell, cargo, ballast, and fuel transfer pumps, engineered for efficient, safe, and reliable operations. By replacing traditional hydraulic systems with advanced electric drive technology, MarFlex pumps reduce energy consumption, remove the need for complex hydraulic piping, and eliminate the risk of oil leakage. This supports a cleaner, quieter operating environment while lowering maintenance requirements over time.

We combine robust hardware with smart control and automation technology, including variable speed drives to enable precise, energy-efficient, and fully monitored pumping operations. Our integrated solutions are trusted by shipowners, shipyards, and offshore operators globally, valued for their durability and consistent performance under demanding conditions.

From large-scale tanker installations to portable and specialised pump solutions, MarFlex delivers tailored systems to keep your liquids moving safely and efficiently.

At MarFlex, we stand by our philosophy: **“Pumping for Life”** designing products that are long-lasting, reliable, and built to perform, year after year.



“SMART PUMPING
FOR A SAFER,
CLEANER FUTURE”

Deepwell Pumps



Reliable | Efficient | Safe

MarFlex Deepwell Pumps are advanced electric pumping solutions designed for safe, efficient, and reliable liquid handling in the maritime industry. With decades of experience and thousands of installations worldwide, MarFlex provides pump systems for a wide range of applications, from cargo handling to alternative fuel transfer.

The portfolio includes Cargo Pumps for both Inland and Seagoing vessels, as well as Fuel Transfer Pumps developed to support the maritime industry's transition to cleaner fuels such as methanol. Built around proven electric deepwell technology, MarFlex pumps deliver high performance, simplified maintenance, and long-term operational reliability.

Efficient Deepwell Design – Pumps liquids from deep sources with a motor conveniently positioned above the fluid.

Durable & Corrosion-Resistant – Premium materials ensure long-lasting performance in industrial, municipal, and marine environments.

Versatile Impellers – Handles solids, debris, and viscous liquids effortlessly, reducing downtime.

High Flow, Low Maintenance – Perfect for municipal water supply, oil wells, irrigation, industrial cooling, and marine applications.

Easy Access & Smooth Operation – Vertical column and top-mounted motor make maintenance fast and safe.

Deepwell Pump Double (MDPD)

Cargo Pump (Inland / Sea-going)



Available sizes

(MDPD) 80 / 100 / 150 / 200

MarFlex Deepwell Pump Double (MDPD) is a high-capacity electrically driven deepwell pump designed for efficient cargo handling in marine applications. It delivers a reliable performance while maintaining a compact footprint. Built with durable marine-grade materials, the MDPD ensures long service life, low maintenance requirements, and reliable operation in demanding environments.

Main Features

- Single-stage Deepwell Pump design
- Electrically driven / Variable Speed solution
- ATEX certified (available)
- High corrosion and chemical resistant
- Compact configuration

Key Advantages

- Fast cargo transfer operations
- Low energy consumption and operating costs
- Low maintenance and increased reliability
- Long service life in harsh marine environments

Material Description

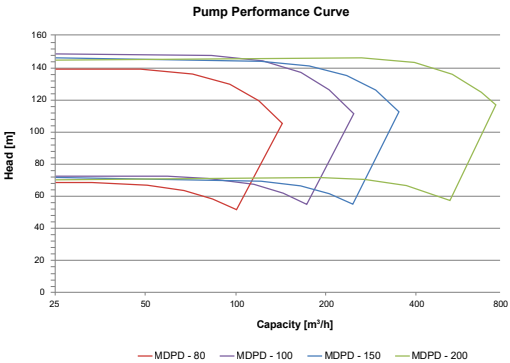
Stainless steel AISI 316L (Standard)
Duplex
Super Duplex

Material Code

1.4404
1.4462
1.4410

General Information

Cargo temperature range -15 / +100 °C
Max. viscosity 4000 cSt
Max. specific gravity 2.11



Ballast Deepwell Pump Concentric (MBDPC)

Ballast Pump (Inland / Sea-going)



Available sizes

(MBDPC) 200 / 300 / 310 / 500

MarFlex Ballast Deepwell Pump Concentric (MBDPC) is a single-stage centrifugal deepwell pump designed specifically for marine ballast operations on ships and tankers. It is engineered to efficiently discharge ballast water from tanks to trim or stabilize a vessel during loading or unloading operations, ensuring safe and balanced sea-going behavior.

Main Features

- Single-stage Deepwell Pump design
- Electrically driven / Variable Speed solution
- ATEX certified (available)
- High corrosion and chemical resistant
- Compact configuration

Key Advantages

- Low energy consumption and operating costs
- Low maintenance and increased reliability
- Long service life in harsh marine environments

Material Description

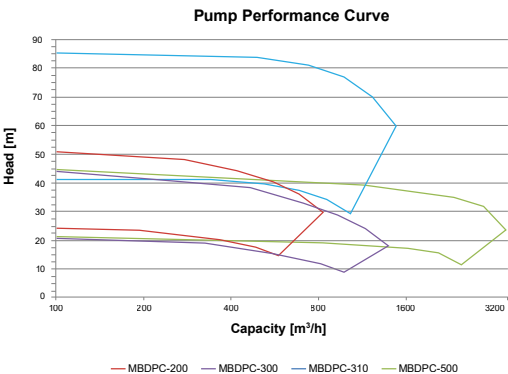
Stainless steel AISI 316L (Standard)
Duplex
Super Duplex

Material Code

1.4404
1.4462
1.4410

General Information

Temperature range	0 °C / +30 °C
Viscosity	1 cSt
Specific gravity	1.025
Liquid	Sea water / Ballast water



Draining Pump (MPDP)

Stripping Pump (Inland)



Available size
(MPDP) 20

MarFlex Draining Pump (MPDP) is designed for efficient tank stripping and/or drainage operations in marine applications. Its robust construction, reliable suction performance, and compact design ensure effective removal of residual liquids while delivering dependable operation, low maintenance, and long service life in demanding environments.

Main Features

- Double acting Piston Pump design
- Useable up to 8.8m tank depth
- Pneumatically driven
- ATEX certified (available)
- High corrosion and chemical resistant
- Compact configuration

Key Advantages

- Strips tank well to near empty
- Low energy consumption and operating costs
- Low maintenance and increased reliability
- Long service life in harsh marine environments

Material Description	Material Code
Stainless steel AISI 316L (Standard)	1.4404
PTFE	

General Information

Max. capacity	7 m³ / h
Max. pressure	7 bar
Max. air consumption	0.7 Nm³ / min
Max. allowable air pressure	10 bar

Offshore Deepwell Pump (MODP)

Cargo Pump (Offshore)



Available sizes

(MODP) 300 / 350

MarFlex Deepwell Pump Double (MODP) is a high-capacity electrically driven excentric deepwell pump designed for efficient cargo in marine and offshore applications. It delivers a reliable performance while maintaining a compact footprint. Built with durable marine-grade materials, the MODP ensures long service life, low maintenance requirements, and dependable operation in demanding environments.

Main Features

- Single-stage Deepwell Pump design
- Designed according API 610
- Electrically driven / Variable Speed solution
- High corrosion and chemical resistant

Key Advantages

- Fast cargo transfer operations
- Low energy consumption and operating costs
- Low maintenance and high reliability
- Long service life in offshore environments

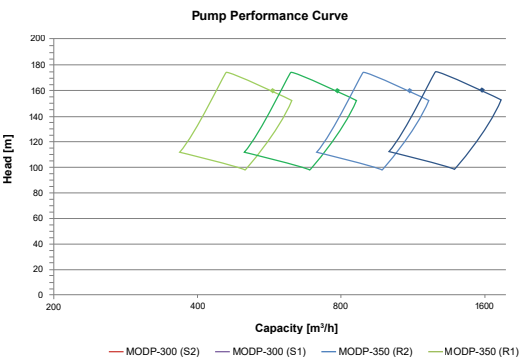
Material Description

Material Code

Stainless steel AISI 316L (Standard)	1.4404
Duplex	1.4462
Super Duplex	1.4410

General Information

Cargo temperature range	-15 / +100 °C
Max. viscosity	4000 cSt
Max. specific gravity	2.11



Fuel Transfer Pump (MDPD)

Fuel Transfer Pump (Inland / Sea going)



Available sizes

(MDPD) 80 / 100

MarFlex Fuel Transfer Pump is based on MarFlex's proven MDPD deepwell pump design and is specifically developed for the safe and efficient transfer of alternative fuels on marine vessels. It combines high energy efficiency, ATEX-certified explosion proof, and advanced monitoring capabilities to support the maritime industry's transition to cleaner fuels.

Main Features

- Single-stage Deepwell Pump design
- Electrically driven / Variable Speed solution
- Fully automated and monitored drive system
- ATEX certified (available)
- Suitable for alternative fuels like: Methanol
- Compact configuration

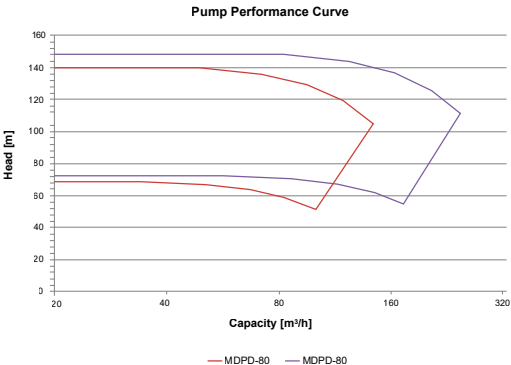
Key Advantages

- Fast cargo transfer operations
- Low energy consumption and operating costs
- Low maintenance and high reliability
- Long service life in harsh marine environments

Material Description	Material Code
Stainless steel AISI 316L (Standard)	1.4404
Duplex	1.4462
Super Duplex	1.4410

General

Cargo temperature range	-15 / +100 °C
Max. viscosity	4000 cSt
Max. specific gravity	2.11



Submersible Portable Pump Solution



Portable | Versatile | Dependable

MarFlex Portable Submersible Pumps (MSP) are compact, hydraulically driven portable pumping solutions designed for a wide range of marine and industrial applications. The pumps can be installed directly into tanks or cargo spaces, they are used for operations such as cargo transfer, emergency or back-up pumping, salvage, oil recovery, and tank cleaning.

The MSP range is available in two pump types, each offered in different sizes: stainless steel centrifugal pumps with a closed impeller and aluminum pumps with a screw-type impeller.

The centrifugal models with closed impellers are designed for emergency or back-up pumping, while the screw-type impeller centrifugal pumps are intended for more controlled handling of delicate or viscous fluids. This combination ensures suitability for a broad variety of cargo types and operational conditions onboard vessels.

Submersible Pump (MSP)

Portable Centrifugal Pump - Closed Impeller



Available sizes

(MSP) 80 / 200 / 500

Portable submersible pumps with closed impellers are designed for a wide range of onboard operations, but mainly used as a emergency or back-up pumps for our Deep well pumps. These pumps are made from stainless steel for a high corrosion and chemical resistance. The pump is available in different sizes to suit varying capacity requirements, making them adaptable to diverse operational conditions.

Main Features

- Single-stage submersible pump design
- Hydraulically driven emergency solution
- Portable and easy to deploy
- High corrosion and chemical resistance
- Compact configuration

Key Advantages

- Perfect in combination with a MarFlex EHP
- Reliable under demanding conditions
- Easy handling and deployment

Material Description	Material Code
Stainless steel AISI 316L (Standard)	1.4404
PTFE	

General Information

Cargo temperature range	-15°C / +100°C
Max. viscosity	500 cSt

- **MSP - 80**

Rated capacity / Head	70 m ³ / hr at 56 m
Hydraulic pressure	280 bar
Hydraulic flow	60 l / min

- **MSP - 200**

Rated capacity / Head	180 m³ / hr at 65 mlc
Hydraulic pressure	320 bar
Hydraulic flow	119 l / min

- **MSP - 500**

Rated capacity / Head	300 m³ / hr at 39 mlc
Hydraulic pressure	300 bar
Hydraulic flow	130 l / min

Submersible Pump (MSP)

Portable Centrifugal Pump - Screw-type Impeller



Available sizes

(MSP) 100 / 150

Portable submersible pumps with a screw-type impeller are designed for applications that require gentle and controlled liquid handling. They combine the principles of a screw and centrifugal pump to ensure smooth, low-shear, and controlled flow.

Main Features

- Screw-type centrifugal impeller design
- Low shear operation
- Gentle liquid handling
- Reduced risk of emulsification
- Versatile application range
- Proven suitability for oil recovery

Key Advantages

- Perfect in combination with a MarFlex EHP
- Reliable under demanding conditions
- Easy handling and deployment

Material Description

Aluminum

FPM / NBR seals

General Information

Cargo temperature range -15°C / +100°C

- **MSP - 100**

Rated capacity / Head 150 m³ / hr at 26 mlc

Hydraulic pressure 250 bar

Hydraulic flow 48 l / min

- **MSP - 150**

Rated capacity / Head 300 m³ / hr at 30 mlc

Hydraulic pressure 225 bar

Hydraulic flow 130 l/min

Electric Hydraulic Powerpack (EHP)



Available sizes

(EHP) 45 / 75 / 112

MarFlex EHP is an electrically driven, compact and lightweight hydraulic power unit designed to operate MarFlex portable submersible pumps (MSP).

Main Features

- Electrically driven hydraulic power pack
- Compact, skid-mounted design
- Integrated dash board
- Integrated hydraulic oil tank and cooling system
- Temperature controlled and monitored
- Oil level detection, pressure relief valve
- Non-hazardous area

Key Advantages

- Perfect in combination with a MarFlex MSP
- Wall mount control panel included, ready to-use

Rated Capacity

• EHP - 45 (50 Hz and 60 Hz)

Hydraulic flow	60 l / min (50 Hz)
Hydraulic flow	72 l / min (60 Hz)
Hydraulic pressure	280 bar
Combine with:	MSP - 80 and MSP - 100

• EHP - 75 (60 Hz) / EHP - 112 (50 Hz)

Hydraulic Flow	125 l / min (EHP-75)
Hydraulic Flow	130 l / min (EHP-112)
Hydraulic Pressure	320 bar
Combine with:	MSP - 200 and MSP - 150

Auxiliary Equipment

Tripod

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.

General Information

Working Loads

500 kg

Types

Manual (62kg) / Pneumatic (78kg)



Hoses

Various cargo and hydraulic hoses are available to make a perfect connection to the Marflex portable equipment.

Cargo Hose Types

Polypropylene Temperature Range	-30/+80°C
Stainless Steel Temperature Range	-200 /+600°C



Hose reel

A dedicated storage and transport reel is available for hydraulic hoses. It simplifies the handling of hoses that are typically heavy, stiff, and inflexible, making storage and transport significantly easier and more efficient.

General Information

Dimensions	1000 mm x 1000 mm x 1540 mm
Weight with Hoses	Approximately 350kg



Super Stripping Pump (MSSP)



Available Types

PTFE / FKM

MarFlex Super Stripping Pump (MSSP) is a high-performance, vacuum-assisted stripping system designed for marine tanker operations. It is used to remove residual cargo from tank well bottoms after main discharge, ensuring near-complete emptying of tanks.

Installed on deck and integrated with deepwell cargo pump systems, the MSSP provides reliable performance across a wide range of cargo types, including chemicals, oils, and industrial liquids.

The system operates by creating a vacuum in the stripping line, generating a pressure difference that enables efficient suction of remaining liquid from the tank bottom, even at very low levels where conventional pumps are no longer effective.

Main Features

- Strips tank well to near empty
- Reducing loss and turnaround time
- Deck-mounted skit mounted unit
- Suitable to use with multiple tanks

Key Advantages

- Ensures fast and efficient tank stripping
- Reliable in demanding marine environments
- Suitable for a wide range of cargo types, including chemicals, oils, and industrial liquids

Material Description

Stainless steel AISI 316L (Standard)
Duplex
Super Duplex
Membrane, O-rings, Balls

Material Code

1.4404
1.4462
1.4410
PTFE or FKM

General Information

Stripping depth	Up to approx. 26 m
Operating range PTFE	+5 °C to +100 °C
Operating range FKM	-40 °C to +176 °C

Smart Pumping Solution



Safety | Longevity | Sustainability

MarFlex Smart Pumping Solution is a software-controlled system that automatically adjusts pump speed and valve positions to achieve the most efficient cargo discharge from multiple tanks simultaneously. This automation allows ships to unload cargo faster with less manual intervention from the crew.

Main Features

- Automatic cargo discharge control
- Simultaneous unloading of multiple cargo tanks
- Pump speed optimization
- Cavitation prevention
- Integration with cargo control systems
- Remote monitoring and diagnostics

Key Advantages

- Energy savings
- Faster cargo discharge
- Reduced CO₂ emissions
- Longer pump life
- Improved safety

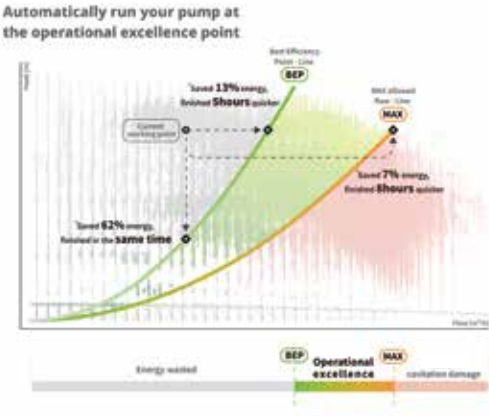
Available in two levels

- **Basic Smart Pumping**

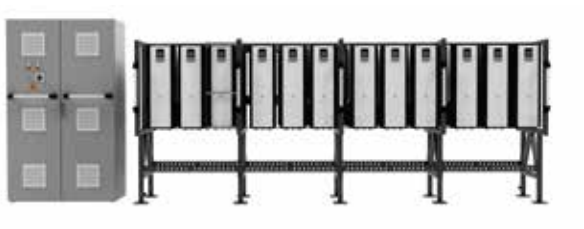
Calculates optimal pump speed for energy saving or fastest discharge

- **Enhanced Smart Pumping**

Uses sensors to automatically adjust pump speed and valve positions



Full Drive System (VSDS)



MarFlex Full drive system is a Variable Speed Drive System (VSDS) that is designed for seamless operation with MarFlex electric deepwell pumps, providing precise and individual speed control for each pump. It enables flexible handling of a wide range of cargo discharge scenarios with varying viscosities and densities, ensuring safe and efficient pump operation.

Main Features

- Individual pump speed control
- Wide cargo handling capability
- Dedicated Frequency onverter per pump
- Built-in safety features
- User-friendly and flexible operation
- Smart Pumping compatible

Key Advantages

- Low energy consumption and operating costs
- High efficiency
- Low maintenance and high reliability
- Flexible and future-ready

If you require a system suitable for larger vessels, we also offer a matrix-type solution. Please let us know if this is of interest to you.

MarFlex

Services and Training



“SMART PUMPING
FOR A SAFER,
CLEANER FUTURE”

Services



MarFlex Service provides professional support to ensure the reliable and efficient operation of MarFlex pump systems on tankers and offshore vessels.

Our service team offers technical assistance, preventive maintenance, repairs, and original spare parts to keep equipment operating at optimal performance. Experienced service engineers can support vessels onboard, in shipyards, or remotely, helping to diagnose issues, perform system checks, and carry out upgrades when required.

We help prevent failures with

- Purge result evaluations
- Pre-docking inspections
- Annual inspections
- Dry-docking services
- Preventive maintenance programs

Our services include

- 24/7 service desk
- A team of highly skilled service engineers available 24/7
- Global, short delivery times
- Service locations worldwide
- Remote monitoring & assistance

With a strong focus on safety, reliability, and minimizing downtime, MarFlex Service helps operators maintain the highest standards in cargo handling operations.

For more information, please contact our Service Department.

+31 (0)186 890 999 24/7 emergency only

Email: service@marflex.com

Training



MarFlex Training provides specialized instruction for marine engineers and crew on the operation, control, and maintenance of MarFlex pump systems used on tankers and offshore vessels.

Participants learn how to safely operate electric deepwell cargo pumps, manage cargo transfer and stripping operations, and understand the electrical control systems and automation used in MarFlex installations. The training also covers routine maintenance, troubleshooting techniques, and safety procedures to ensure reliable pump performance and efficient cargo handling.

Through a combination of theoretical lessons and practical demonstrations, the program helps crews improve operational efficiency, system reliability, and onboard safety.

Key Advantages

- Safe and efficient pump operation
- Improved maintenance skills
- Better understanding of control systems
- Reduced downtime and operational risks

This training supports crews in maximizing the performance and lifespan of MarFlex pump systems on board.

For more information about MarFlex Training programs, please contact our Service Department.

+31 (0)186 890 999 24/7 emergency only

Email: service@marflex.com

MarFlex Europe B.V.

Louis Pasteurstraat 8
3261 LZ Oud-Beijerland
The Netherlands

Telephone: +31-186-890200

Email: info@marflex.com

Website: www.marflex.com



Member of **TAIKO
HOLDINGS**