PRINZ®

PUMPS & PACKAGED SYSTEMS MANUFACTURING COMPANY

Company Profile

Positive Displacement Pumps
Skids and Packaged Systems

Since 1952







Reliability
Efficiency
Performance

Since 1952

POMPE 3P®

PERA-PRINZ®

Pompe 3P® and Pera-Prinz® are trademarks of 3P Prinz® srl

Index Content

	Introduction	7
	History	8
	Production	10
	Industry Served	12
	Application Fields	13
	Packaged Systems	14
	Screw Pumps Series	20
	Hollow Rotary Disk Pumps Series	22
	Rotary Vane Pumps Series	24
	Gear Pumps Series	26
	Turbik Series	28
	Hygienic Pumps Series	30
	Quality & Certifications	32



POMPE 3P®

PERA-PRINZ®

Pompe 3P® and Pera-Prinz® are trademarks of 3P Prinz® srl

/ Company Profile

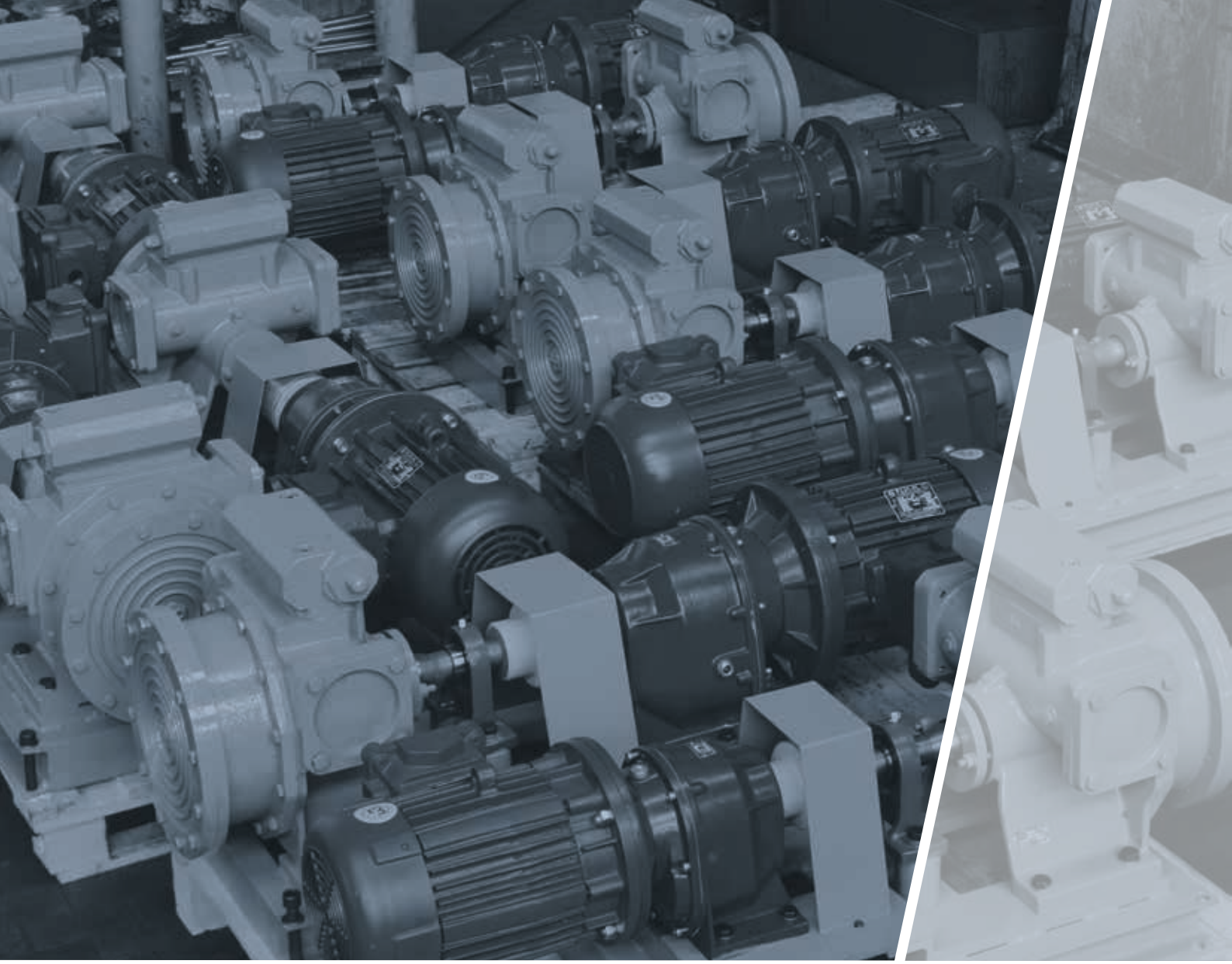
The company is highly specialized in engineering products and innovative technology, serving the demands of customers worldwide.
Thanks to its products range, the company is now able to provide complete pumps and packaged systems manufactured on customer's specification for the transport of liquids and gases in key industrial sectors.

3P Prinz is the owner of the following Brands:

Pompe 3P®
Hollow rotary disk, Rotary vane and Gear Pumps

Pera-Prinz®
Screw pumps





/ Our History since 1952

Tracing its history to early 1952, in Lucca Tuscany we can find its first application about hollow disk design with Pompe 3P.

Today 3P Prinz® with its own brands Pompe 3P® and Pera-Prinz® has more that 16000 pumps installed.

The company is highly specialized in engineering products and innovative technology, serving the demands of customers worldwide. 3P Prinz is the owner of the following Brands:

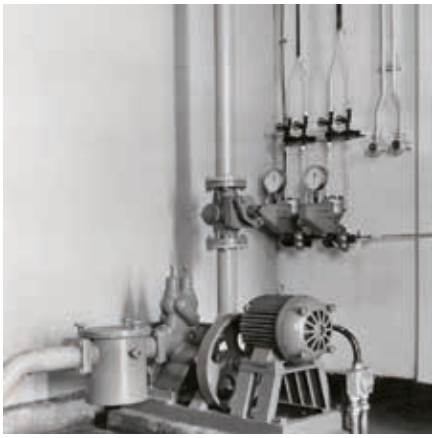
Pompe 3P® - Hollow rotary disk, Rotary Vane and Gear pumps
Pera-Prinz® - Screw pumps

Visit site
www.3pprinz.com

We believe that to buy a pump is a long term investment and not "ONE-OFF TRANSACTION"

/ More than 50 years of reliability

Our team is made up of skilled technicians who have the right expertise, combined with years of experience. This ensures that our clients are dealt in the best way possible.

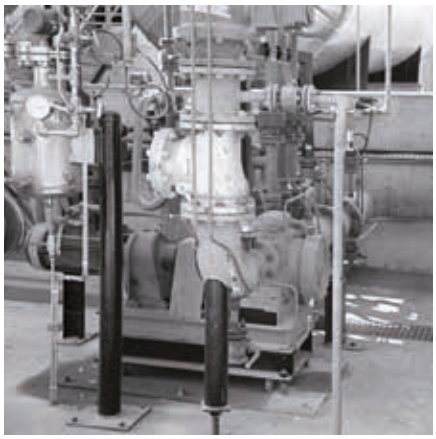












3PPrinz

With its own brands 3PPrinz is placed, as a very important company, in national and international market regarding the production of positive displacement pumps.

Since

The kinds of engineered and assembled pumps vary between hollow-oscillating disk pumps, screw pumps, gear pumps and other specially designed ones.

1952

All of our employers, at any level, are fully experienced along 50 years history. Our company works constantly to reach maximum customer satisfaction.

Within our customer base there are some of the most important international companies. Italian, european, asian american and african industries working in refinery, petrochemical, olive oil production, as well as chemical, pharmaceutical, marine & shipbuilding water treatment and environmental.

/ Our production

3P Prinz uses very advanced research, analysis, design and production, as well as control system, employing materials of outstanding quality. The whole mechanical and assembling cycles and the pump-testing procedures are accomplished in site.

Design

Our employees have gained, in the course of their cooperation with major businesses, full flexibility and outstanding professional skills, which are available to the customer's needs at any moment.

Quality assurance and Production

For each produced pump, a certificate of compliance with european Union Standards is released, along with a user-and-mantainance manual. Upon customer's request, a certificate of internal testing can be released.

Research

The research department within the company operates in order to use the best materials and the most advanced and latest generation technology. The company is able to supply products to specific needs and demands of customers.

Genuine spare parts

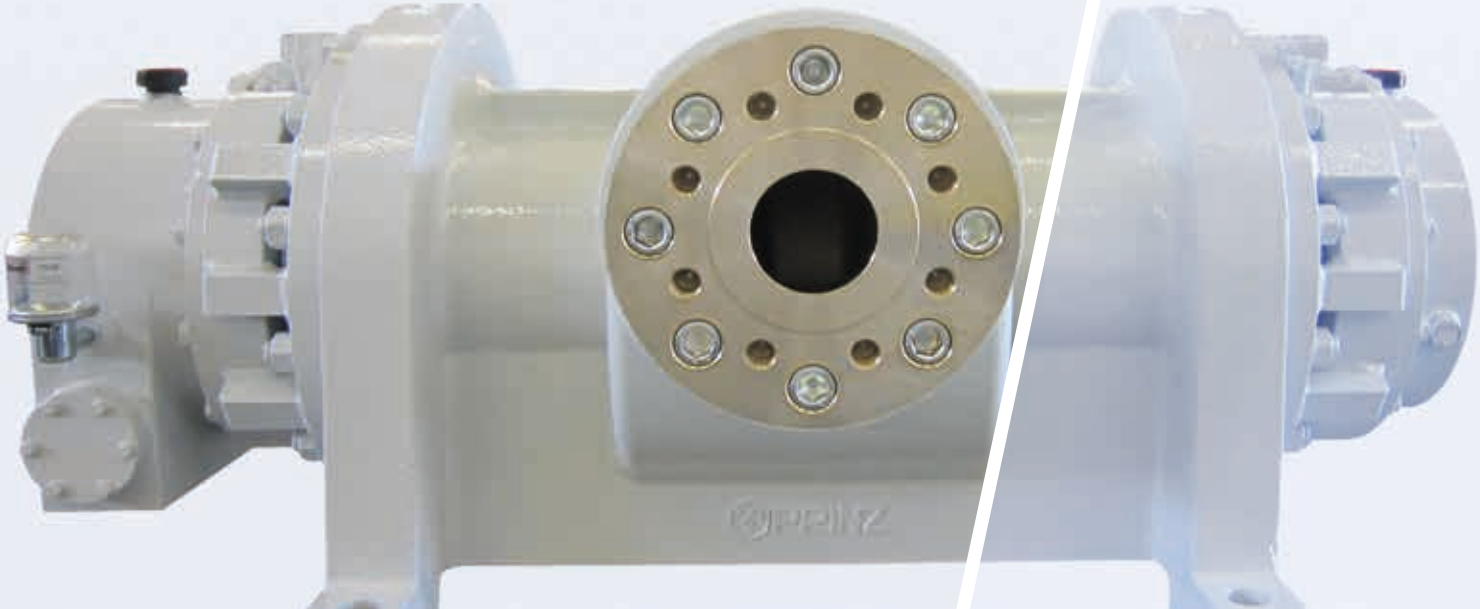
The control, after sales service, and supply of original spare parts are at the basis of 3P Prinz approach with its customers.

Visit site
www.3pprinz.com

"We make pumps that work the way you wish they would"

They are proven and well established pumps in the market. Both design are modular with high degree of interchangeability of parts between the pumps and their variants, inside the same products family.





/ Industry served

Thanks to 3P Prinz range of products, today the company can supply specific and taylor made pumps for fluids for the most important industries.

Oil & Gas - Chemical - Industrial - Hygienic

1952 - Today

All the most important industrial sectors has a large request of pumps, and this is for 3P Prinz one of the main markets. Reliability, efficiency and performance are the base in this industry. In many cases the offshore platforms are located in remote areas, normally they work heavy duty, in very hard conditions. 3P Prinz design and manufactures the pumps fully in accordance with the customer specifications.

During the project stage, the company takes care not only of the fluid, but also of the climate conditions, of the ambient temperature etc. All the components that are used on the pumps and auxiliary accessories are compatible with the local regulations, ambient temperature and location . 3P Prinz can offer much more economical solutions when the high grade Alloys are required to avoid corrosion. The pumps are available in all kinds of materials, from cast iron/carbon steel to high grade alloys, like titanium, hastelloy, duplex stainless steel. The Packaged Systems can be supplied with structural steel (painted and/or galvanized) or stainless steel baseframe, storage tanks in carbon steel, stainless steel, plastic or GRP materials, piping in plastic, carbon steel, 3P Prinz on request can supply pumps fully in accordance with API specifications.

-- @3pprinz





/ Fields of application



Power Generation and Cooling Towers

For industrial companies using a cooling tower for its facility, some type of cooling tower water treatment system is usually necessary to ensure an efficient process and long equipment service life.

-- @3pprinz



Chemical and Petrochemical Plants

A chemical plant is an industrial process plant that manufactures (or otherwise processes) chemicals, usually on a large scale.The general objective of a chemical plant is to create new material wealth via the chemical or biological transformation and or separation of materials.

-- @3pprinz



Desalination and Water Treatment

Disposal of wastewaters from an industrial plant is a difficult and costly problem. Most petroleum refineries, chemical and petrochemical plants have onsite facilities to treat their wastewaters so that the pollutant concentrations in the treated wastewater comply with the local and/ or national regulations.

-- @3pprinz



Pulp & Paper

Due to the process for pulp production, several liquid chemicals are used, there is a very high grade of corrosion and erosion inside this process. 3P Prinz can supply the right pump, built in the right material in order to have longest live with the minimum maintenance cost.

-- @3pprinz



Marine & Shipbuilding

Pumps play a major part in marine vessel operations. A variety of liquids, air, vacuum pumps are used on board ships for different operations, but all share one thing in common – they are very long-lasting!

The ocean water can be very salty and they can cause corrosion of metal. In this case the pumps are manufactured in special material /alloy in order to be very durable not only for the fluid but also for the surrounding environment.

-- @3pprinz



Food, Beverage & Pharma

3P Prinz portfolio has many references in food. beverage and pharma. 3P Prinz offers a range of products for processing, from full viscosity range as well clear, creamy, fruit preparation and particular food, sauces oils etc...

-- @3pprinz

PACKAGED SYSTEMS
Skids

THE PACKAGED SYSTEMS DIVISION

The Packaged Systems Division of 3P Prinz is dedicated to supply and support our customers with the design, manufacturing, and project supervision of fully integrated pumping systems and skids.

From concept and design, through production, quality control, delivery, installation and service, 3P Prinz Packaged Systems Division provides complete systems integration while remaining a single-source for our customer's requirements.

- **Chemical injection systems**
- **Fuel gas skids**
- **Diesel skids**
- **Metering systems**
- **Integrated skids**
- **Nitrogen generators**
- **Methanol injection systems**
- **Pipeline Manifold Packaged Systems**
- **Subsea Chemical Injection Packages**
- **API 614 Lube Oil Systems**
- **Compressor Baseplates**
- **Turbine Baseplates**
- **Mobile Skids**



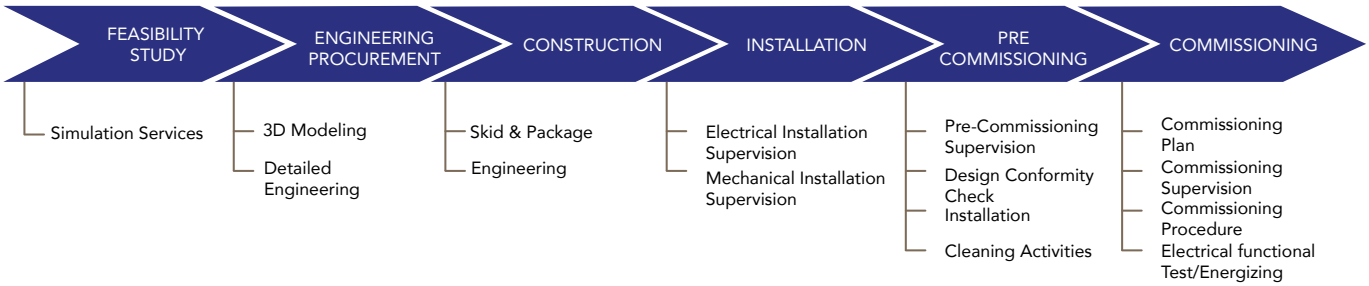
WATER TREATMENTS UNITS

Chemical dosing systems (designed for water and other fluid substances)
Systems for dosing water in cooling towers
Chemical dosing plants for neutralization
Reverse osmosis and ultra filtration systems
Integrated Skids
Systems for air and water treatment









/ Performance And Reliability

3P Prinz, during the years, has gained experience in the design, engineering, and assembly of API 676, API 675 API 674 and API 610 Pump Packages and complex packaged systems.

Our Pump package range varies from small units of 0,25 kW up to 1.500 kW units.

Our Packaged Pump Systems can include the following components, that are sourced, assembled and tested by 3P Prinz:

- Pumps/motors
- Reduction Gears
- Variable Frequency Drive / Inverter
- Complex Pumping Controls (from Local Control Panels to Complex Custom PLC)
- Piping and Piping Headers
- Valves (Isolation and Control type, Relief Valves, Flame Arresters on Tanks)
- Filters and Strainers, also Duplex configuration and Automatic Self-Cleaning type
- Pressure Instrumentation (Gauges, Switches, Transmitters)
- Flow/Level Sensors and Meters
- Vibration Sensors and Transmitters
- Temperature Sensors and Transmitters
- Electric Tracing on full equipment, self-regulated
- Storage Tanks (Pressure Vessels) in accordance to ASME and PED norms
- Fully cabled and wired unit, complete with Junction Boxes
- Executions fully suitable to Hazardous Areas (ATEX / IEC-Ex)
- Baseplates complete with Drain Plates, Floor Grating, Ladders, Handrails Platforms
- NDE and Testing Services
- Systems are typically mounted on specially fabricated baseplates or skids as per customer specifications.
- Pumps can be supplied in horizontal or vertical installation
- Fluid Analysis Instrumentation
- Compressors Baseplates with API 614 Lube Oil Console and without"
- Turbine Baseplates with API 614 Lube Oil Console and without

SERVICE FEATURES

Site Installation and Assistance, Startup | Specifications Review | Detailed Proposals

We provide operators and engineers for Site installation and startup for all our Pump Packages and Packaged Pump Systems. In Case Customer prefers to do their own installation and startup, we provide a complete IOM with custom CAD drawings and teleconference training.

PACKAGED SYSTEMS
Skids

After Market Support

- IOM Manuals
- Export Crating
- World Wide Support
- Spare Parts
- Repairs
- Technical Assistance
- Site Intervention on Start Up
- Equipment Remote Monitoring

Manufacturing

- Fabrication of:

- Pumps
- Structural Steel
- Tanks/Pressure Vessels
- Piping Systems
- Machining
- Assembly
- Coating
- Surface Treatments

Quality Assurance

- Welding Procedures & Qualifications in accordance to:

AWS D1.1
ASME B31.1 and 31.3
ASME IX
EN 1090
ISO EN 15614

- Non Destructive Examinations:

Liquid Penetrant
Magnetic Particles
Visual Inspection
Ultrasonic Testing
Radiography Examinations

- PMI (Positive Material Identification)
- Hydrostatic Testing
- Pneumatic Testing
- Performance Testing
- NPSH/NPIP testing
- Noise and Vibration Testing
- Mechanical Running Test
- Functional Test
- Witnessed Inspection & Testing
- Piping Cleanliness Report
- Pickling and Passivation Report for SS Piping
- Painting Inspection and Adhesion Test
- Material Documentation (ISO 10204 3.1 and 3.2 Certificates)



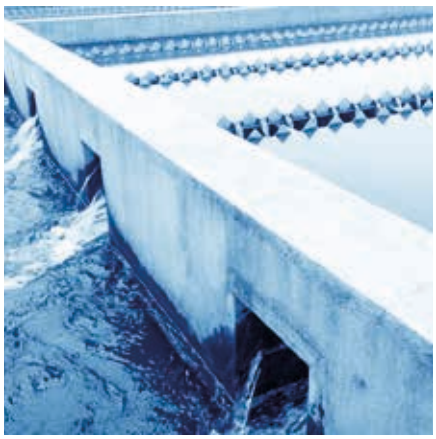




WE OFFER CUSTOM PACKAGED SYSTEMS FOR THE FOLLOWING SECTORS:

- Oil & Gas
- Offshore
- Wellhead
- Pipeline
- Tank Storage
- Metering Station (LACT)
- Petrochemical / Chemical / Refinery
- Boiler Feedwater
- Cooling Tower
- Process
- Drain Collection
- Loading and Unloading Station
- Power Generation
- Fuel Oil Pumping
- Turbine Oil Cooling and Baseframe
- Compressor Oil Cooling and Baseframe
- Waste Water Treatment










PACKAGED SYSTEMS
Skids

MODULAR SYSTEMS & INTEGRATED SKIDS:

Our packaged systems and modules consist of a multi-level collection of integrated skids, each one dedicated to a kind of processing task, particularly in the upstream oil&gas industry.

By engineering, coordinating and producing the several modules in 3P Prinz, the modules are supplied as a fully functioning unit.

This has many advantages like: single contact point, one single mechanical and process guarantee for the full module, optimized footprint and weight, maximum compatibility between the integrated systems, with continuous and trouble-free start-up and operation, aimed for the highest productivity and lowest downtime.

OUR TECHNICAL AND MANAGEMENT EXPERTISE

At 3P Prinz, we work with the highest flexibility and the various departments are coordinated for translating our multi-disciplines product know-how into added value for managing complex and customized projects.

Our engineering and quality teams are directed and coordinated by a project manager, that is the single-point of contact for the Customer and the Third Party Inspectors.

Thanks to our long experience in the Oil&Gas projects from all over the worlds, we know how to handle projects of a wide variety of sizes and types, with fast-track deliveries, with the highest quality and safety standards.

Having the knowledge of several processes and disciplines, the strong motivation of our team and the coordination capability of our project managers, 3P Prinz can supply complete packaged solutions and can be the EPC contractor ideal partners.

Thanks for our wide and highly skilled supply chain in the area, with long experience in the Oil&Gas filed, the Customer can enjoy and relax while we provide the fully integrated and trouble-free solution.

Our site assistance team is always ready for on-site installation, support for pre-commissioning and start-up, technical training, assistance, maintenance and upgrade, for the complete scope of supply.



3P PRINZ SUPPLIES CUSTOMIZED PACKAGED SYSTEMS AND MODULES FOR FPSOS AND OFFSHORE PLATFORMS. OUR SKILLED ENGINEERS CAN DESIGN THE SYSTEMS CONSIDERING THE FOLLOWING:

- Wind Loads (including Severe Wind Conditions)
- Accelerations caused by Wave motions
- Offshore weather conditions (salt laden, high salinity and humidity etc.)
- Well Fluids Conditions (sour crude and gas, high viscosities, produced water corrosivity etc.)
- Space and Weights optimization and reduction
- Reduction of down times and optimization of operability
- Health Safety and Environmental Engineering
- Latest generation technologies
- Assembly and integration into modules of several process packages

We in 3P Prinz strongly believe that each offshore project is unique and shall be customized for satisfying the client demands and the harsh environment conditions.

Our engineering team and our project management are fully dedicated to provide high flexibility and high technical expertise from bidding phase up to start up, commissioning and maintenance.

FUEL GAS SKIDS







CHEMICAL INJECTION SKIDS



VACUUM RESIDUE PUMPS FOR REFINERIES





TWIN SCREW Pumps Series



HD SERIES PUMP

3P PRINZ SCREW PUMPS RANGE for OIL&GAS and MARINE				
TWIN SCREW PUMP		CAPACITY RANGE	DESIGN PRESSURE	MARKET
HM Series	Single Pair of Screws, External Timing Gears	up to 80 m3/h	20 Bar	Oil&Gas, Industrial, Marine
HR Series	Double Pair of Screws, Light & Compact Design, External Timing Gears	up to 3500 m3/h	14 Bar	Oil&Gas, Industrial, Marine
HD Series	Double Pair of Screws, Heavy Duty Design, External Timing Gears	up to 3500 m3/h	20 Bar	Oil&Gas, Industrial, Marine
UD Series	Double Pair of Screws, High Pressure Design, External Timing Gears	up to 1000 m3/h	50 Bar	Oil&Gas, Industrial, Marine
JD Series	Double Pair of Screws, Very High Pressure Design, External Timing Gears	up to 600 m3/h	149 Bar	Oil&Gas, Industrial
SD Series	Double Pair of Screws, Heavy Duty Design, Internal Timing Gears	up to 1200 m3/h	20 Bar	Oil&Gas, Industrial, Marine
SR Series	Double Pair of Screws, Light & Compact Design, Internal Timing Gears	up to 1200 m3/h	14 Bar	Oil&Gas, Industrial, Marine
VDC Series	Double Pair of Screws, Heavy Duty Design, Vertical Submerged, Internal Timing Gears	up to 600 m3/h	50 Bar	Oil&Gas, Marine

Pompe 3P® and Pera-Prinz® are trademarks of 3P Prinz® srl

/ Features

PERA-PRINZ® screws pumps are externally and internally supported positive displacement rotary pumps.

/ Screws Pumps Series

One or two pairs of screws which rotates without contact between each other, ensure constant pulsation, free capacity together with an high suction capacity, ie, a very low NPSH.

On request it is possible to supply special materials like Duplex, Super Duplex, Stainless Steel or special Alloys as well as special overlay material for wetted parts.

CONSTRUCTION

- Integral or inserted screws
- External support with rolling bearings which are constantly lubricated (option with bearings lubricated by pumped fluid is available)
- Transmission of movement between the pairs of screws by means of oil bath gears which ensure quiet and long-life operation
- Mechanical seal (single or double) or stuffing box type with the possibility or heating or cooling the same
- Pump casing with heating cooling jacket on request
- Integral or replaceable liner pump casing
- Pumps can be supplied in horizontal or vertical installation

The scope of supply is not limited to the pumps

3P Prinz can supply also:

- Skid type base frames or custom skid mounted
- Instrumentation
- On-skid piping with valves
- Control equipment
- Auxiliary equipment.

Special Executions and Materials

3P Prinz is able to manufacture the entire range of products with special materials for pump wetted parts.
Starting from cast iron to the all special Alloys, like Inconel ®, Hastelloy ®, Alloy 20 or Duplex / Super Duplex.
The material selection depends from the service fluid, the temperature and the external environment.
Pumps design life is due to the right materials selection.

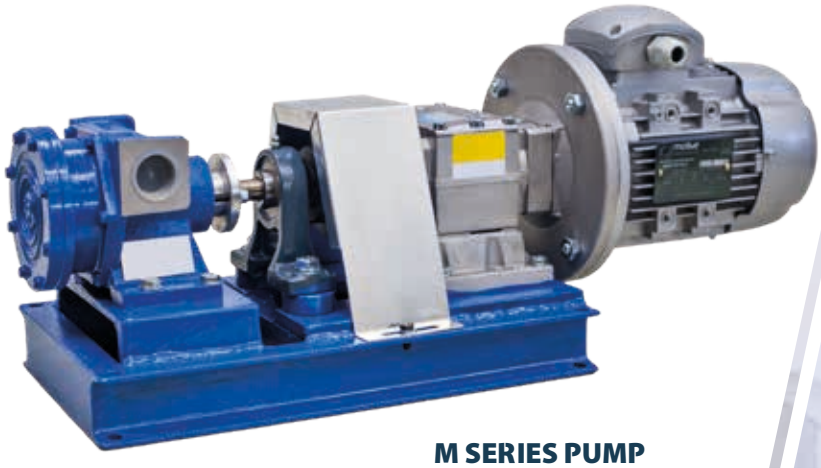
On Request:
- Accordance to API 676 Standard
- Instrumentation
- Skid Type Base frames or Custom Skid Mounted
- On Skid Piping with Valves
- Control Equipment
- Auxiliary Equipment
- Special Execution for Low or High Temperature and / or Ambient Temperature

Technical Features	
ND pipes [mm]	From 35 to 750
Flow rate [m3/h]	From 0,5 to 3500
Max. pressures [bar]	Diff. Pressure Up to 60 bar
Max.temperatures [°C]	350
Rotation speed [RPM]	From 0 to 3600
Viscosity [cSt.]	0,5 - 200,000

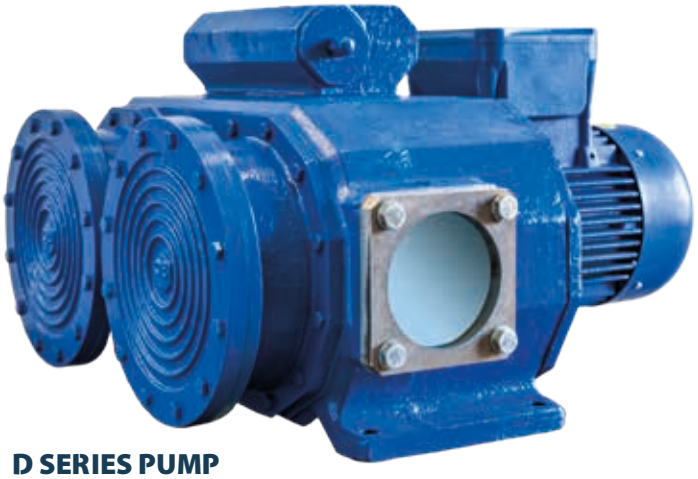
Materials	
Casing	**Trim and Wetted Parts**
Cast Iron	Carbon Steel
Stainless Steel	Stainless Steel
Duplex and Super Duplex	Duplex and Super Duplex
Inconel ®	Inconel ®
Hastelloy™	Hastelloy™
Nickel-Aluminium Bronze	Nickel-Aluminium Bronze
Carbon Steel	Monel K
Nickel-Aluminium Bronze	HVOF Spray Coated
Note : Other Alloys on request	

Certification	
On Products :	**Electrical Group :**
Standard CE	CE and ATEX standards
On request ATEX and / or API 676	UL and ATEX standards
	NEMA standard
On Components :	Other on request (Diesel Hydraulic Motor, Turbins)
ISO EN 10204-2.1	
ISO EN 10204-2.2	
ISO EN 10204-3.1	
ISO EN 10204-3.2	

HOLLOW ROTARY DISK Pumps Series



M SERIES PUMP



D SERIES PUMP



T SERIES PUMP

3P PRINZ HOLLOW DISK PUMPS RANGE				
HOLLOW ROTARY DISK PUMP		CAPACITY RANGE	DESIGN PRESSURE	MARKET
M Series	Single Impeller	0,5 to 100 m3/h	10 Bar	Oil&Gas, Industrial, Marine
D Series	Double Impeller	20 to 210 m3/h	10 Bar	Oil&Gas, Industrial, Marine
DN Series	Double Impeller on same shaft	30 - 95 m3/h	10 Bar	Oil&Gas, Industrial, Marine
MN Series	Single Impeller	15 - 40 m3/h	10 Bar	Oil&Gas, Industrial
TURBIK	Single Impeller	50 lpm	7 Bar	Industrial

/ Features

Self Priming without any auxiliary devices
Low operating speed
Reverse flow by operating in reverse rotation and keep constant capacity.

/ Hollow Rotary Disk Pumps Series

This type of pumps with single impeller is ideal to transfer liquid with medium, high and very high viscosity containing also small amounts of suspended solids.

On request it is possible to have special materials like Duplex, Super Duplex, Stainless Steel or special Alloy as well as special overlay material for wetted parts.

SELF PRIMING
Primes without any auxiliary device and with empty suction pipe (suction capacity 9 meters of water column). Only at first start-up it is required to fill the pump with a liquid.

REVERSIBLE
The pump keeps constant capacity and total head working in both directions.

DISK'S ELASTICITY
This feature allows recovering possible wear, thermal expansion and pumping fluids with solid particles in suspension.

LOW ROTATION SPEED
It is particularly indicated for "delicate" and/or extremely viscous fluids. This feature also assures durable and reliable operation.

The scope of supply is not limited to the pumps

3P Prinz can supply also:
- Skid type base frames or custom skid mounted
- Instrumentation
- On-skid piping with valves
- Control equipment
- Auxiliary equipment.

Special Executions and Materials

3P Prinz is able to manufacture the entire range of products with special materials for pump wetted parts.
Starting from cast iron to the all special Alloys, like Inconel ®, Hastelloy ®, Alloy 20 or Duplex / Super Duplex.
The material selection depends from the service fluid, the temperature and the external environment.
Pumps design life is due to the right materials selection.

On Request:
- MAG Magnetic Drive Total absence of any liquid leakage thanks to the magnetic drive enclosure. Suitable for dangerous and harmful media
- In accordance with API 676 Standard
- High Pressure Version (20 Barg)
- Custom Made Skid
- Special Execution for Low or High Temperature and / or Ambient Temperature

Technical Features	
ND pipes [mm]	From 25 to 200
Flow rate [m3/h]	From 0,3 to 210
Design pressures [bar]	10
Max. temperatures [°C]	280
Rotation speed [RPM]	From 0 to 500
Viscosity [cSt.]	1 - 200,000

Materials	
Casing	**Trim and Wetted Parts**
Cast Iron	Carbon Steel
Stainless Steel	Stainless Steel
Duplex and Super Duplex	Duplex and Super Duplex
Inconel ®	Inconel ®
Hastelloy™	Hastelloy™
Nickel-Aluminium Bronze	Nickel-Aluminium Bronze
	Monel K
	HVOF Spray Coated
Note : Other Alloys on request	

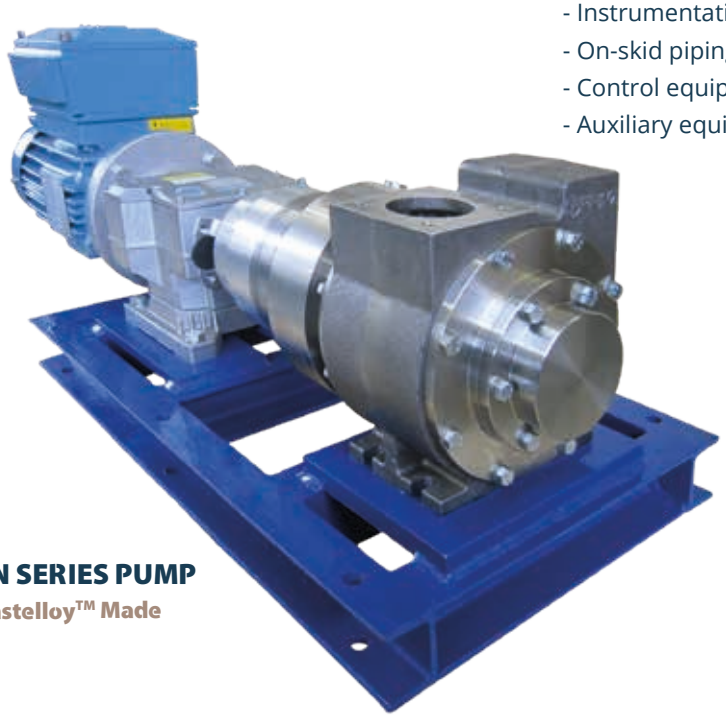
Certification	
On Products :	**Electrical Group :**
Standard CE	CE and ATEX standards
On request ATEX and / or API	UL and ATEX standards
	NEMA standard
	Other on request (diesel)
On Components :	Hydraulic Motor
ISO EN 10204-2.1	
ISO EN 10204-2.2	
ISO EN 10204-3.1	
ISO EN 10204-3.2	

ROTARY VANE Pumps Series

The scope of supply is not limited to the pumps

3P Prinz can supply also:

- Skid type base frames or custom skid mounted
- Instrumentation
- On-skid piping with valves
- Control equipment
- Auxiliary equipment.



CN SERIES PUMP
Hastelloy™ Made

CN Series Pumps are used in petrochemical applications like:

- Refineries
- Terminals
- Tank Farms
- Chemical plants

But also in transportation for loading/off-loading:

- Trucks
- Trains
- Ships and Barges

Rotary Vane Pumps

3P PRINZ ROTARY VANE PUMPS					
CN Series Pump Model	CN30	CN40	CN50	CN60	CN70
Suction Flange Ø	1.1/2" Threaded (Side)	2" (Side)	2,5" (Side)	3" (Side)	4" (Side)
Discharge Flange Ø	1.1/2" Threaded (Side)	2" (Top)	2,5" (Top)	3" (Top)	4" (Top)
Max Rotation speed:	1450 rpm (flow = 15 m3/h)	980 rpm	980 rpm	650 rpm	500 rpm
Flow rate (@ 980 rpm) – 1 cSt	10,5 m3/h	26 m3/h	44 m3/h	-	-
Flow rate (@ 780 rpm) – 1 cSt	8,5 m3/h	20 m3/h	35 m3/h	-	-
Flow rate (@ 640 rpm) – 22 cSt	6,9 m3/h	16 m3/h	28 m3/h	62 m3/h	115 m3/h @500 rpm
Flow rate (@ 400 rpm) – up to 1100 cSt	4,3 m3/h	10 m3/h	18 m3/h	40 m3/h	92 m3/h
Differential pressures [bar]	10 bar	7 bar	7 bar	7 bar	7 bar
Max. pressures [barg]	15 barg	10 barg	10 barg	10 barg	10 barg

/ Features

Self Priming without any auxiliary devices
High performance especially with low viscosity, volatile and light fluids
Reversible execution (on request)

/ CN Series – Rotary Vane Pump

The CN Series Rotary Vane Pumps are Positive Displacement Pumps for the transfer of fluids with a wide range of viscosities and are wear-compensating. They are Self Priming and have an High Suction Lift.

Rotary Vane Pumps are ideal for pumping low viscosity and volatile, light fluids, however the same pump can be used also for pumping liquids with higher viscosity.
They are capable of supplying higher flow rate than other pumps at the same comparable size and operating speed.
The Power Consumption of these Pumps is lower than other Positive Displacement Pumps, thanks to its high speed and light construction.

Principle of Operation

Their impeller rotates eccentrically to the pump internal body. The fluid that is enclosed between the impeller, the vanes and the body, is pumped forward.

Certification	
On Products :	**Electrical Group :**
CE Standard	CE and ATEX standards
On request ATEX and / or API	UL and ATEX standards
	NEMA standard
On Components :	Others on request : -Diesel Engine -Hydraulic Motor -PTO Drive
ISO EN 10204-2.1	
ISO EN 10204-2.2	
ISO EN 10204-3.1	
ISO EN 10204-3.2	

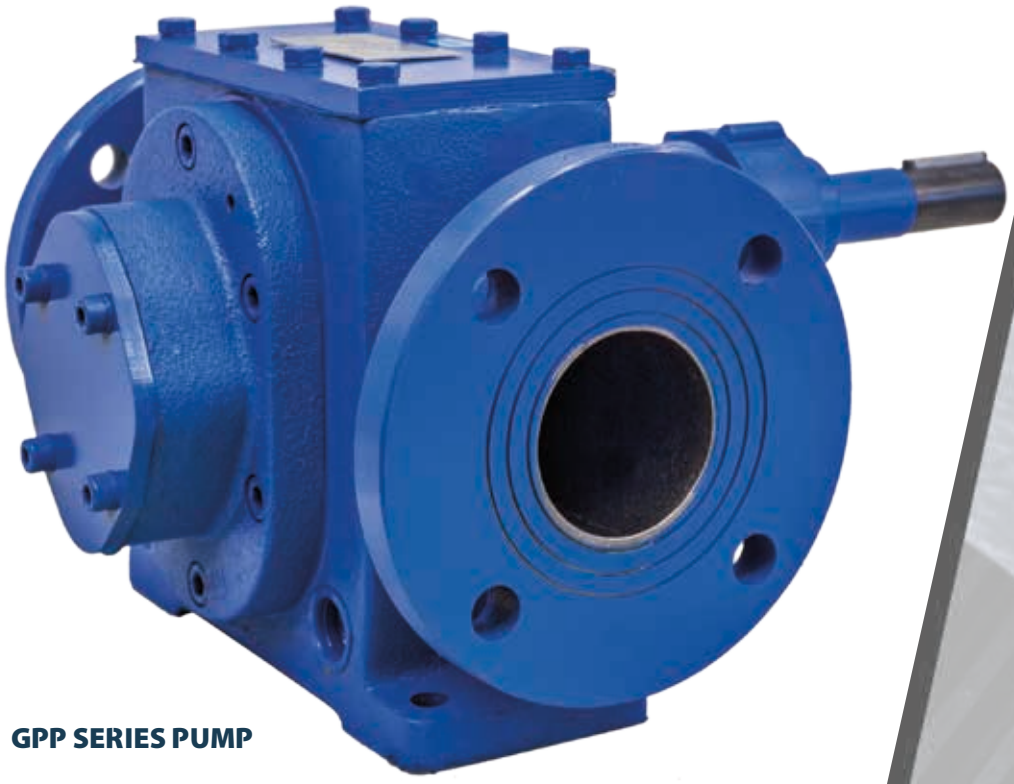
Materials	
Casing	**Trim and Wetted Parts**
Cast Iron	Carbon Steel
Stainless Steel	Stainless Steel
Duplex and Super Duplex	Duplex and Super Duplex
Inconel ®	Inconel ®
Hastelloy™	Hastelloy™
Nickel-Aluminium Bronze	Nickel-Aluminium Bronze
	Monel K
	HVOF Spray Coated
Note : Other Alloys on request	

Special Executions and Materials

Starting from Cast Iron to Ductile Iron, Carbon Steel, Stainless Steel, Duplex Stainless Steen and Special Alloys for the most corrosive applications. The material selection depends from the service fluid, the temperature and the external environment. Pumps design life is given by the right materials selection.

On Request:
MAG Magnetic Drive Total absence of any liquid leakage thanks to the magnetic entrainment. Suitable for dangerous and toxic media
- In accordance with API Standard
- High performance and long life mechanical seals
- Custom Made Enclosure
- Special Execution for Low or High Temperature and / or Ambient Temperature
- Executions with flushing or recirculation in accordance with the required API PLANS

GEAR
Pumps Series



GPP SERIES PUMP

Pompe 3P® and Pera-Prinz® are trademarks of 3P Prinz® srl

/ Features

Compared to the other traditional positive displacement pumps, this type has the advantage of absolutely no pulsations and better dosing accuracy.

/ Gear Pumps Series

3P Gear pumps are rotary displacement pumps, and can be considered ideal dosing pumps where the flow rate is directly proportional to the number of revolutions.

DESCRIPTION

The rotation of the gear is possible only if a specific radial and axial clearance, although minimal, exists between the gear and the casing. All these clearances create a passage with a fixed section that allows the pumped fluid to flow back from the supply to the suction side due to the differential pressure existing inside the pump. The backflow amount increases in function of the differential pressure and decreases in function of viscosity. The pump may rotate both clockwise and counterclockwise.
The pump revolves in one direction only if a safety (by-pass) valve with internal re-circulation is installed or due to the specific characteristics of the mechanical seal.

The scope of supply is not limited to the pumps

3P Prinz can supply also:

- Skid type base frames or custom skid mounted
- Instrumentation
- On-skid piping with valves
- Control equipment
- Auxiliary equipment.

Special Executions and Materials

3P Prinz is able to manufacture the entire range of products with special materials for pump wetted parts.
Starting from cast iron to the all special Alloys, like Inconel ®, Hastelloy ®, Alloy 20 or Duplex / Super Duplex.
The material selection depends from the service fluid, the temperature and the external ambient.
Pumps design life is due to the right materials selection.

On Request:
- MAG Magnetic Drive Total absence of any liquid leakage thanks to the magnetic drive enclosure. Suitable for dangerous and harmful media
- Custom Made Skid
- Special Execution for Low or High Temperature and / or Ambient Temperature

Technical Features	
ND pipes [mm]	From 3/8“ to 250
Flow rate [m3/h]	From 0 to 300
Max. pressures [bar]	30
Max. temperatures [°C]	200
Rotation speed [RPM]	From 0 to 1750
Viscosity [cSt.]	500,000

Materials	
Casing	**Trim and Wetted Parts**
Cast Iron	Carbon Steel
Stainless Steel	Stainless Steel

Certification	
On Products :	**Electrical Group :**
Standard CE	CE and ATEX standards
On request ATEX and / or API	UL and ATEX standards
	NEMA standard
	Other on request (diesel)
On Components :	Hydraulic Motor
ISO EN 10204-2.1	
ISO EN 10204-2.2	
ISO EN 10204-3.1	
ISO EN 10204-3.2	

TURBIK
Pumps Series

- OILS
- FATS
- MOLASSES
- INKS
- PARAFFIN WAX
- RESINS



TURBIK SERIES PUMP
T35

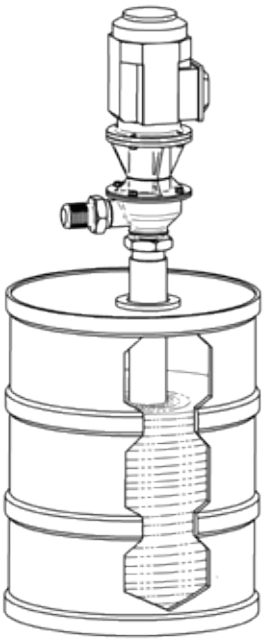


TURBIK SERIES PUMP
With Hydraulic Motor

Pompe 3P® and Pera-Prinz® are trademarks of 3P Prinz® srl

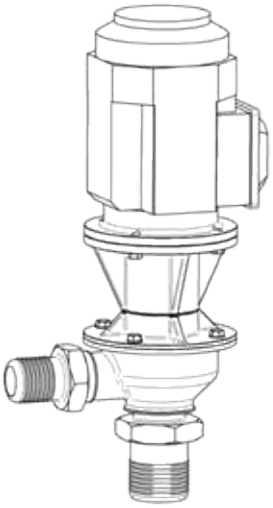
/ Features

These pumps, with two impellers, are ideal to transfer fluids with medium and high viscosity and are designed to be used with piping, valves, fittings, etc..



/ Turbik Pumps Series

The hollow rotary disk T35 series, during its rotary-oscillating motion, causes a vacuum sucking the fluid inside the pump; in the meantime, it pushes the fluid already present in the chamber to the downstream pipe. Because of their particular features, 3P Prinz® hollow disk pumps are indicated for pumping liquids with low, medium, high or very high viscosity even in presence of moderate contents of solid particles in suspension.



The Turbik pump is suitable for:

- IEC Electric Motor
- NEMA Electric Motor
- Hydraulic Motor

T35 Series Hollow Rotary Disk Pump Main Specification	
Maximum manometric head:	6 bar *[87 PSI]*
Flow rates:	up to 3 m3/h *[up to 13 GPM]*
Viscosity of the pumped fluid:	up to 3.000 cSt (from medium to high)
Pipe Nominal Size DN:	Suction NPS 1.1/2" -
	Outlet NPS 1"
Rotation speed:	980 rpm (at 50 Hz) - 1180 rpm (at 60 Hz)
Temperature range:	0 / +100 °C *[32 / 212 °F]*
Handling Solid Particles & Dirty Fluids:	Yes
Handling Aggressive Fluids:	Yes
Pulsations:	Yes
Dosing capability:	Good
Connections:	Standard: Threaded Connection GAS ; Available NPT-F and BSPP Threaded Connections
Bearing types:	Bearings + Bushings

FMH & LMH Series Hygienic Pumps



FMH SERIES Performance Data

	FMH 50	FMH 100	FMH 200
Capacity	Up to 12 m3/h | 53 gpm	Up to 22 m3/h| 88 gpm	Up to 30 m3/h| 132 gpm
Differential Pressure	Up to 16 barg | 232 psi	Up to 16 barg | 232 psi	Up to 16 barg | 232 psi
Rotation Speed	Up to 3000 rpm	Up to 3000 rpm	Up to 3000 rpm
Medium Temperature	-20 / +140 °C |-4 / 284 °F (160°C |320°F with oil cooler)	-20 / +140 °C |-4 / 284 °F (160°C |320°F with oil cooler)	-20 / +140 °C |-4 / 284 °F (160°C |320°F with oil cooler)
Viscosity	Up to 1.000.000 cSt	Up to 1.000.000 cSt	Up to 1.000.000 cSt

LMH SERIES Performance Data

	LMH 50	LMH 100	LMH 200	LMH 300i
Capacity	Up to 16 m3/h| 70 gpm	Up to 32 m3/h| 141 gpm	Up to 72 m3/h| 317 gpm	Up to 180 m3/h| 793 gpm
Differential Pressure	Up to 6 barg | 87 psi	Up to 6 barg | 87 psi	Up to 6 barg | 87 psi	Up to 16 barg | 232 psi
Rotation Speed	Up to 3000 rpm	Up to 3000 rpm	Up to 2600 rpm	Up to 2200 rpm
Medium Temperature	-20 / +140 °C |-4 / 284 °F (160°C |320°F with oil cooler)	-20 / +140 °C |-4 / 284 °F (160°C |320°F with oil cooler)	-20 / +140 °C |-4 / 284 °F (160°C |320°F with oil cooler)	-20 / +140 °C |-4 / 284 °F (160°C |320°F with oil cooler)
Viscosity	Up to 1.000.000 cSt	Up to 1.000.000 cSt	Up to 1.000.000 cSt	Up to 1.000.000 cSt

Pompe 3P® and Pera-Prinz® are trademarks of 3P Prinz® srl

/ Features

PERA-PRINZ® Twin screw pumps for Food&Beverage Industry
EHEDG STANDARD - 3A STANDARD

/ FMH & LMH Series Hygienic Pumps

The PERA-PRINZ® FMH & LMH Screw Pumps are Rotating Positive Displacement Pumps, externally supported. One or Two Pairs of Screws, which operate without being in contact with each other, ensure a constant flow, pulsation-free, together with a high suction lift capability with very low NPSH values.

MAIN ADVANTAGES

The Trim design is modular with a high degree of interchangeability of parts between their variants, inside the same Pump Series.

Each pump can be customized for a specific application allowing the customer to be served in an optimal way.

External supports and gears is supplied as a Standard.

EASY CLEANING

- Compact Design and Dimensions,
- Easy Access for Maintenance.
- The Pump is suitable to CIP and SIP and can be used as a CIP Pump.



PULSATION FREE AND GENTLE MOVEMENT

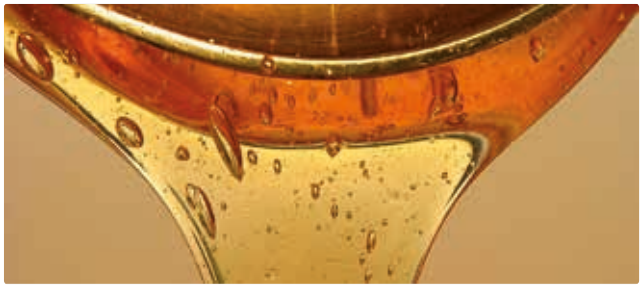
Thanks to the absence of pulsations, the pumped product does not suffer of changes of volume, texture, aspect and properties.

Since the Screws are contactless, the pumped product is not squeezed or smashed, so its physical properties are mantained after it is pumped.



HIGH VISCOSITY PRODUCTS

Suitable to pump fluids with low, medium, high and very high viscosity, up to 1.000.000 cSt.



SUCTION PERFORMANCE

High Suction Lift Capability – generally from 7 to 8,5 meters (the pump NPSH being very low).



3P Prinz

3P PRINZ is based in Tuscany, Italy, 3P Prinz is a pump manufacturing company.
The company is highly-specialized in engineering products and innovative technology, serving the demands of customers worldwide. 3P Prinz is the owner for the following Brands:
Pompe 3P - Hollow rotary disk Rotary Vane and Gear Pumps
Pera-Prinz - Screw pumps

We believe that After sales service, reliability and efficiency are essential in this type of products and industry.
The pumps selection is based on cost-effective and energy-efficient pumping solutions.
Strong of its 60 years spent supplying Italy's top refineries, chemical, petrochemical, ship building, ecological and food industries, 3P Prinz has become an undisputed benchmark of quality and service.
Our richness is based on customers that require perfection, personalization, promptly!
We fulfill our customer's requirements and our customers fulfill our desire of growth at a steady rate!

Genuine spare parts

Base on 3P Prinz culture and philosophy the pumps reliability and life is base of a good investment.
In many case the pumps are the heart of the plant, so their efficiency is extremely important in order not to slow down the production process.
3P Prinz is able to ship spare parts worldwide within 48 hours.

Quality Assurance & Quality Controls (QA/QC)

3P Prinz commits to Quality.
The Quality assurance and Quality Controls are registered and independently audited to the ISO 9001 standard.
3P Prinz is certified by CSI.
For Enquiries or Further Information please contact: sales@3pprinz.com

PUMPS & PACKAGED SYSTEMS MANUFACTURING COMPANY

ISO 9001



Visit site

www.3pprinz.com

Reliability
Efficiency
Performance

Since 1952

POMPE 3P®

PERA-PRINZ®

Pompe 3P® and Pera-Prinz® are trademarks of 3P Prinz® srl

PRINZ®
PUMPS & PACKAGED SYSTEMS MANUFACTURING COMPANY

/ 3PPrinz®

Made in Tuscany. Italy

sales@3pprinz.com
www.3pprinz.com

Pompe 3P® and Pera-Prinz® are trademarks of 3P Prinz® srl