



An ISO Certified Company

A Complete Solution Provider



# About Us

Flowlines is a leading provider of innovative drive and control technologies for Mobile, Marine, Industrial hydraulic and Pneumatic applications.

We support our client's product development activities from the initial project phase to the complete machine contributing high level technical expertise.

We can provide creating advanced machinery that features stringent technical demands up to the quality standards.

In the manufacture of hydraulic components, We offer a broad, Innovative range of products and complete tailor made solutions in hydraulic and Pneumatic.

Hydraulics can be used wherever high force and movement need to be controlled. We create systems that reveal the immense flexibility of modern hydraulics when combined with easy-to-use electronic controls.

To operate under extremely unfavorable conditions we demonstrate the ability of hydraulic solutions to various requirements.

We incorporate the improvements that occur in electronics, Microprocessor technology and sensor techniques in the design of new products.

By using modern technology, we are able to position the control elements at the precise point where hydraulic power needs to be converted into force.

We can shorten the development process considerably, optimise development procedures With help of an advanced CAD system (ProE) and modern development tools to get instant solutions more rapidly.

The high level technical expertise is our focus on research and development.

Our strength is to provide a complete solution by offering Special Purpose Machines.



# INDUSTRIAL HYDRAULIC

www.flowlines.ae

MINI POWER PACK



HYDRAULIC POWER PACK



MOBILE FILTRATION UNIT



HYDRAULICS CYLINDERS

TELESCOPIC CYLINDER



HYDRAULIC CYLINDER



MOBILE HYDRAULIC CYLINDER



MOBILE HYDRAULICS

MOBILE VALVES



TAIL LIFTS



MOBILE FILTRATION UNIT



MARINE HYDRAULICS











Gear Pump



Vane Pump



Vane Pump (Variable)



Variable Displacement Axial Piston Pump



Directional Control Valve (CETOP-R02, 03 & 05)



Pilot Operated Directional Control Valve



Solenoid Operated Directional Control Valve With Monitored Spool



Lever Operated Directional Control Valve



Explosion-Proof Version Solenoid Operated Directional Control Valve



Check Valve (In-Line)



Check Valve (Sub-Plate Mounted)



Bank Valve



Pressure Control Valve (knob Type)



Pressure Control Valve (Solenoid)



Flow Control Valve (Sub-Plate Mounted)



Modular Pilot Operated Pressure Relief Valve



Direct Operated Three-Way Pressure Reducing Valve



Modular Sequence Valve



Pilot Operated Check Valve (CETOP-R02,03,05 & 07)



Modular Flow Restrictor Valve



Electric Fast / Slow Speed Selection Valve



Logic Element



Hydraulic Cylinder



Hydraulic Power Pack





Proportional Control Valve With Integrated Electronics (Directional)



Proportional Control Valve With Integrated Electronics (Pilot Operated)



Direction Valve With Proportional Control Feedback And Integrated Electronics



Pilot Operated Pressure Reducing Valve With Electric Proportional Control



Proportional Control Valve With Integrated Electronics (Pressure Control)



Proportional Control Valve With Integrated Electronics (Pressure Control-Closed Loop)



Proportional Control Valve With Explosion - Proof



Flow Control Valve With Electric Proportional Control



Pilot Operated Flow Control Valve With Electric Proportional Control



Balancing Valve With Proportional Control



Servo Valve



Electronic Control Unit



Analogue Positioning Card For Stroke Control In Closed Loop Systems With Digital Feedback



Pressure Transducer



Duplomatic is the leading point of reference within Italy for design and production of devices, components and units for Industrial automation and Hydraulic Engineering.

Duplomatic started to develop and manufacture its own line of hydraulic components, thus branching out from its early aims and acquiring new innovative technical solutions both in the components and plant sectors.

## **Product Range**

- Pumps
- Pressure Control Valves
- Flow Control Valves
- Hydraulic Power Pack
- Directional Control Valves
- Check Valves
- Subplates & Manifolds
- Modular Valves

- Cylinders
- **Proportional Valves**
- **Electronic Control Units**
- Pressure Gauges, Filters, & Accessories



## HIGH PRESSURE GEAR PUMPS & MOTORS

www.marzocchipompe.com

## 0.25 - 0.5 Series Micro Gear Pumps



Group	Displacement (Cc/rev)	Pressure (bar)		
0.25	0.19 to 0.64	190		
0.5	0.5 to 1.50	190		

Extensive range and very high performance of these pumps integrated in to micro power packs make them ideal for many applications from aerospace to marine, medical to automotive.

## ALP / GHP Series Gear Pumps



Group	Displacement	Pressure			
	(Cc/rev)	(bar)			
ALP1/GHP	1 1.4 to 13.8	250			
ALP2/GHP	2 4.5 to 35.2	250			
ALP3/GHP	3 20 to 87	230			
ALP4	87 to 200	240			

This product range includes pumps of different displacements (up to 200cc/rev) in a full aluminium configuration (ALP) & Cast iron front flange and rear cover(GHP), able to withstand medium to high pressures and using different versions of flanges (European, German and SAE), porting and shafts. Used in industrial and mobile sector.

#### High / Low Pumps



Group	Displacement (Cc/rev)	Pressure (bar)
1st Stage	1.1 to 8.3	250
2nd Stage	3.7 to 35.2	Pressure set by unloading valve

Ideal pump for applications which require a fast approach and/or return of the actuator at low loads and slow motion of the actuator at high loads. e.g log splitters, compactors and presses. Volumetric and mechanical efficiencies as well as low noise levels are further benefits of this range.

# ALM / GHM Series Gear Motors



Group	Uni- Directional cc/rev	Bi- Directional cc/rev	Pressure (bar)		
ALM1/GHM1	2.8 to 13.8	2.8 to 11	250		
ALM2/GHM2	4.5 to 35.2	4.5 to 28.2	250		
ALM3/GHM3	20 to 87	22 to 87	230		

For medium to high pressure rates the ALM series is ideal for mobile and industrial sectors. Mono-directional and bi-directional with internal and external drain available. The GHM series offers identical configurations to the ALM series but more robust thanks to the cast iron front flange and rear cover.

## 1P Series Mini Gear Pumps



Group	Displacement	Pressure
	(Cc/rev)	(bar)
1P-K1P	1.1 to 8	230
EK1P	0.9 to 5.8	230

High production rates, performance consistency and absolute reliability ensure this a benchmark product for the hydraulic power pack market.

## ALP / GHP Series Multiple Modular Gear Pumps



Group	Displacement	Pressure
Section Company	(Cc/rev)	(bar)
ALP/GHP	1.9 to 200	250

Modularity and flexibility are the characteristics of these pumps. They allow the assembly of pump modules of the ALP and GHP (from 0.25 to 4) enabling solutions to wide range of application requirements.

## ALPC / GHPC Series Short Multiple Pumps



	Group	Displacement (Cc/rev)	Pressure (bar)
1	ALPC/GHPC	1.4 to 35.2	270

For reduced axial layout. Available with both flanges and covers in aluminium or cast from.

# Special Pumps And Motors



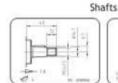
Thanks to the extreme specification and to the know how of application. Marzocchi pompe had always a strong interest in evaluating special Request from the customers. Requirements that if technically And economically feasible have lead to the development of several solution of special pumps and motors and integrated units as

Pump will be supplied with relief valve, anticavitation valves, proportional relief valve, priority valve, ext.., as per request of the application.

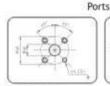
#### Flanges













Different type of flanges (European, German and SAE) porting and shafts available.



- Marzocchi Pumpe was founded in 1961 by guglielmo and stefano marzocchi, in casalecchio di reno, in the outskirts of bologna.
- Marzocchi Pumpe is now the most reliable partner making available to the Customer their specific Know-how, high quality and a perfect service for all hydraulic applications.





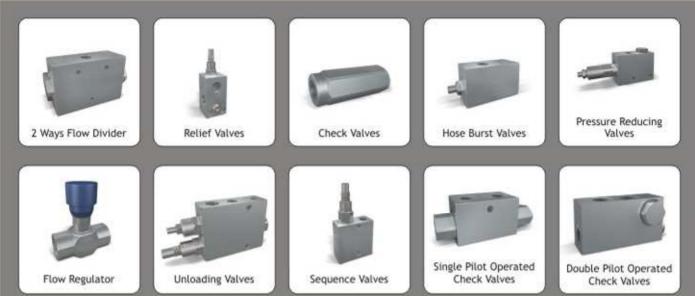
## **FILTERS**

The OMT range of filters fits into return lines of hydraulic circuits, suction lines and medium/high pressure lines. Depending on the models, they can be equipped with accessories like DIFFERENTIAL CLOGGING INDICATORS (VISUAL AND ELECTRIC), PRESSURE GAUGES, PRESSURE SWITCHES, BY-PASS VALVES etc. All filters have conformity with the corresponding ISO regulations. OMT can customize some kind of filters.

#### **ACCESSORIES**

The OMT range of accessories is mostly aimed to be fitted on the so called "Tank Environment". Steel plate oil tanks (CF & CFP series), Die-cast aluminum oil tanks (CP series), Electric oil level gauges, Visual level gauges (LG series), Plastic oil filters, Breathers, Chrome plated oil fillers with air breather cap (Even pressurized) with lockable steel basket (TR series) showing customer logo. Pump supports SP series. Other OMT accessories are PRESSURE GAUGES, PRESSURE GAUGE ISOLATORS, PUMP SUPPORTS AND MOBILE FILTRATION GROUPS.







# **Components for Pneumatic Automation**

Vesta's concept of Quality:

A belief that we can always do things better and that resultant bene ts for customer s may strongly contribute to the success of the company.

Over 25 years of experience in production of pneumatic components leads Vesta to provide the market with very competitive and reliable solutions.

A whole team working next to you in order to grant the right answer



**PNEUMATIC CYLINDERS** 



**FRL COMPONENTS** 



**SOLENOID VALVES** 



PNEUMATIC GRIPPER



MULTIPOLAR CONNECTION SYSTEM



**NAMUR VALVES** 



**ROUND CYLINDERS** 



STAINLESS STEEL CYLINDERS



PNEUMATIC SLIDES



**CARTIRAGE CYLINDERS** 























Peters Indu-Produkt GMBH belongs to the international recognized manufacturers of PNEUMATIC, HYDRAULIC, SENSOR AND AUTOMATION products. The name of Peters stands for technical progress with new trend-setting products. Innovation and exemplary quality are world-wide recognized by our partners and customers. Quality checks are not just made after the product has been manufactured, rather during every stage of process-oriented production.

#### Interface Technology

- · Coupling Relay
- · Optical Coupler Module

#### Connectors

- Solenoid Connectors
- Cable Adapters
- Sensor Connector (Moulded & Field Attachable)
- · DC lluminated Gaskets

#### Pressure Vacuum Technology

- Electronic Pressure Transmitter/ Switches
- Hydraulic & Pneumatic Pressure Switches
- · Miniature Pressure Switches

#### Sensor

· Proximity Sensor



EWO COMPONENTS FOR COMPRESSED AIR INSTALLATIONS

GERMANY www.ewo-stuttgart.de

# Air Preparation: Standard



# Blowguns



# Air Preparation: Drain Valves



- Manual Drain Valve
- · Semi-Automatic Drain Valve
- External-Automatic Drain Valve
- · Internal-Automatic Drain Valve



























# **CONVERSION TABLE**

	kg	x 2.21 x 10 x 35.27	20 20 20 20	lb N* oz		Bar	x 100 x 100,000 x 14.5	0 0	kPa Pa psi		Speed Vitesse Velocda	d	
Mass Masse Masse Masa	Ib N*	x 0.45 x 4.54 x 15.96 x 0.1 x 0.22 x 3.53	8 8 8 8 8	kg N* oz kg Ib oz	Pressure Drunck Pression Presion	kPa Pa	× 0.01 × 1000 × 0.145 × 0.00001 × 0.001 × 0.000145	0000000	bar Pa psi bar kPa pa	ft/s in/s ("/s)	x 0.083 x 0.31 x 0.083 x 0.0254		in/s m/s ft/s
oz	x 0.03 x 0.06 x 0.28		kg Ib N*		psi	x 0.069 x 6.9 x 6896.9	9 9 9	bar kPa Pa	m/s	x 3.28 x 39.37		in/s ft/s	
	ft	x 12 x 0.31 x 304.8	9 9	in m mm						Acceleration Acceleracion			
Length Lange	in	x 0.083 x 0.0254 x 25.4		ft m mm	Temperature Temperatur	°F (°	Cx1.8)+32 (73.16 F-32)x0.56			ft/s¹	x 0.083 x 0.31		in/s m/s
Longeur m Longitud	m	x 39.37 x 3.28 x 1000	8 8 8	in ft mm	Temperature Temperatura			٥F		x 0.083 x 0.0254		ft/s m/s	
	mm	x 0.003 x 0.039 x 0.001	0 0 0	ft in m						m/s¹	x 3.28 x 39.37		in/s ft/s



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