



**JOHNSON PUMP**  
AN SPX BRAND

# Shipbuilding

## Pumps – the heart of any ship



**motralec**

4 rue Lavoisier . ZA Lavoisier . 95223 HERBLAY CEDEX  
Tel. : 01.39.97.65.10 / Fax. : 01.39.97.68.48  
Demande de prix / e-mail : [service-commercial@motralec.com](mailto:service-commercial@motralec.com)  
[www.motralec.com](http://www.motralec.com)

**SPX**<sup>®</sup>



When the pumps stop working, everything on board shuts down. Pumps are the life of a ship. That's why we make the best pumps. For SPX, the best pump represents both the right price and the shortest delivery time, which precisely meets the specifications demanded. This requires a constant feedback from the marine market and a swift translation into sound and reliable applications. Our design and manufacturing facilities are fully equipped to do just this.

### The right pumps in the right place

SPX's R&D department developed the Hydraulic Investigator selection program for selecting the right size of centrifugal pump. This program translates the required QH-value into the hydraulic most suitable for the intended objective. SPX has its own approved test beds on which we can carry out tests for QHP, NPSH, vibration and noise level. We can carry out tests in accordance with various inspection agencies such as Lloyds RoS, GL, DNV, ABS, RINA etc.

We can provide you the total pump package for:

- Bilge & Ballast
- Engine Cooling
- Fire Fighting
- General Service
- HVAC
- Oil Systems
- Potable Water
- Sewage



### One man one pump

Supplying reliable pumps at a reasonable price imposes considerable demands on the core of our firm; the works floor. By applying the principle of one man one pump, we are aiming at the shortest possible production time. Working in specially equipped assemblage cells, our highly qualified technicians have all components within easy reach and are able to assemble each pump exactly to specification in a minimum of time.



### The Combi system

The Johnson Pump brand Combi system is a modular program that comprises a range of vertical and horizontal centrifugal pumps. One of the major advantages of the system is the ability to interchange components between the various models.

This means a considerable reduction in the stock of spare parts to be maintained by the customer. For maintenance staff the modular system also means significant time gains.



### CombiPrime Vertical & Horizontal

Vertical & Horizontal self-priming pump, hydraulics according to EN733

General service, bilge, ballast and fire fighting applications

**Maximum ratings**

Capacity	500 m <sup>3</sup> /h (H) 800m <sup>3</sup> /h (V)
Head	100 m
Working press.	10 bar
Temperature	80°C
Speed	3600 rpm

**Materials:** cast iron, bronze

**Features**

- Built-in vacuum pump operating on liquid ring principle
- Large air capacity, i.e. short priming time, even for large suction lines
- No compressed air required
- CombiPrime V vertical, compact build
- Variable (8) positions of suction bend (CombiPrime V)



### FreFlow

Self priming centrifugal pump

Corrosive and slightly contaminated liquids containing gas or air such as sea, fresh, bilge and fire-fighting water

**Maximum ratings**

Capacity	350 m <sup>3</sup> /h
Head	80 m
Working press.	9 bar
Temperature	95°C
Speed	3600 rpm

**Materials:** cast iron, bronze, stainless steel

**Features**

- Excellent suction ability up to 7 meters lift
- Heavy-duty, dust-tight, grease-lubricated bearing
- Inspection hatch for easy maintenance (bigger types)
- Modular design
- Available in compact monobloc design



### CombiLine

Inline close-coupled circulation pump on extended shaft motor

Circulating pump for heating and cooling systems

**Maximum ratings**

Capacity	500 m <sup>3</sup> /h
Head	35 m
Pressure	10 bar
Temperature	140°C
Speed	1800 rpm

**Materials:** cast iron

**Features**

- Specially designed suction bend
- Improved impeller design
- Ample hydraulic application range
- Excellent hydraulic performance
- In-line design
- Horizontal or vertical installation



### CombiLineBloc

Inline close-coupled circulation pump

Circulating pump for HVAC - and cooling systems

**Maximum ratings**

Capacity	450 m <sup>3</sup> /h
Head	100 m
Pressure	10 bar
Temperature	120°C
Speed	3600 rpm

**Materials:** cast iron, bronze

**Features**

- Standard mechanical shaft seal EN12756 (DIN 24960)
- In-line design
- Stub shaft for standard IEC flange motors
- Back-Pull-Out construction for easy maintenance
- Low NPSH through unique suction bend design
- Horizontal or vertical installation



### CombiFlex, -Universal, -Bloc

Vertical pump variable position suction bend, hydraulics according to EN733

General service and fire fighting applications

**Maximum ratings**

Capacity	1500 m <sup>3</sup> /h
Head	140 m
Working press.	10 bar
Temperature	200°C
Speed	3600 rpm

**Materials:** cast iron, bronze

**Features**

- Many mounting options (floor-, bulkhead-, wall-mounting)
- 8 positions possible between suction and delivery connections
- Top-pull-out construction in combination with spacer coupling for easy maintenance
- Bearing bracket option allows range of shaft-seals
- Compact build



### CombiBloc

Horizontal centrifugal pump in monobloc design with standard IEC flange motor

Ideal pumps for engine rooms in HVAC- and chiller units and in general duty systems.

**Maximum ratings**

Capacity	850 m <sup>3</sup> /h
Head	105 m
Working press.	10 bar
Temperature	110°C
Speed	3600 rpm

**Materials:** cast iron, bronze, stainless steel

**Features**

- Standard mechanical shaft seal according to EN 12756 (DIN 24960)
- Back-pull-out construction for easy maintenance
- Self-venting pump housing
- Can be mounted horizontally or vertically (wall-mounting)
- High pump efficiency
- Compact build



### CombiNorm

Horizontal centrifugal pump according to EN733 with electric motor built on common base plate

General service, cooling or fire fighting applications

**Maximum ratings**

Capacity	1500 m <sup>3</sup> /h
Head	100 m
Working press.	16 bar (10 bar)
Temperature	200°C
Speed	3600 rpm

**Materials:** cast iron, nodular cast iron, bronze

**Features**

- Back-pull-out construction for easy maintenance
- Many shaft-seal, bearing-design and material options
- Modular design and interchangeability of parts



### CombiChem

Heavy duty chemical pump according to ISO5199 and EN22858

General service, boiler feed, exhaust gas and tank cleaning applications

**Maximum ratings**

Capacity	800 m <sup>3</sup> /h
Head	160 m
Working press.	16 bar (10 bar)
Temperature	200°C
Speed	3600 rpm

**Materials:** cast iron, nodular cast iron, bronze, stainless steel

**Features**

- Mechanical seals according to EN 12756 (DIN 24960)
- Back-pull-out construction for easy maintenance
- Many shaft-seal, bearing-design and material options
- Modular design and interchangeability of parts
- Mag-driven CombiMag is 100% leakproof



### Multistage

Horizontal (MCH), self-priming (MCHZ) and vertical (MCV) high pressure multistage pumps

General service and engine room

**Maximum ratings**

Capacity	100 m <sup>3</sup> /h
Head	340 m
Working press.	40 bar
Temperature	120°C(MCV&MCHZ), 150°C(MCH)
Speed	3600 rpm

**Materials:** cast iron, bronze

**Features**

- Ridgid, reliable construction
- MCHZ liquid ring self-priming version
- Compact build
- Modular design and interchangeability of parts



### TopGear

Heavy duty self-priming internal gear pump range

Cargo transfer, fuel and oil transfer

**Maximum ratings**

Capacity	250 m <sup>3</sup> /h
Working pres.	16 bar
Temperature	300°C
Viscosity	80 000 mPas

**Materials:** cast iron, nodular cast iron, stainless steel, cast steel

**Features**

- Front and Back-Pull-Out
- High and low viscos products
- Simple design
- Easy maintenance

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WHERE IDEAS MEET INDUSTRY

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