

# Johnson Pump brand

INDUSTRIAL PUMP PRODUCT OVERVIEW





## Welcome to a World of Pumps

For more than 75 years SPX FLOW Johnson Pump brand pumps have been developed, manufactured and marketed for industrial use. This experience and expertise, combined with our wide product range, makes us one of the most reliable pump producers world wide

At SPX FLOW we believe in 'life cycle economy'. Buying a pump is not just a one-off transaction - the pump has to keep running for a long time. Service and maintenance is therefore as important to us as it is to provide our customers with a suitable solution to each and every unique application. SPX FLOW is therefore much more than a Johnson Pump brand manufacturer - We are your solution provider!

Based in Charlotte, North Carolina, SPX FLOW (NYSE: FLOW) is a multi-industry manufacturing company with operations in more than 35 markets worldwide, SPX FLOW's innovative, world-class products and highly-engineered solutions are helping to meet the needs of a constantly developing world and growing global population. You'll find our innovative solutions in everything from dairy plants and power plants to oil and gas pipelines, and the power grid. SPX FLOW is really everywhere you look.

We help our customers around the globe expand and enhance their food and beverage, power and energy and industrial production processes. For more information, please visit www.spxflow.com

### Johnson Pump brand models

#### **C**ENTRIFUGAL PUMPS

- According to ISO, EN, API
- Multistage
- Magnetic Drive
- Self-priming

#### **POSITIVE DISPLACEMENT PUMPS**

- Internal Gear pumps
- Rotary Lobe pumps
- Flexible Impeller pumps
- Diaphragm pumps

#### QUALITY

SPX FLOW's research departments are busy experimenting with new raw materials, refining pumping principles and developing new products. The efforts of our R&D are put into production at our plants where we assure the quality of our work in accordance with ISO 9001.

CERTIFICATE		
and all the second	Station Suffrage Associal	Millio Survey Bears &
PT New Technology Results 48	Construction of the	TRANSPORTER A
	Section of the	
- TEMEROOD	Taxa a case of the second seco	
		10.00
	1000 Or	States of Concession, Name
the second states		The I
Contraction -	m	1.1.2
	Contactor II	

#### WORLDWIDE DISTRIBUTION

With our worldwide network of SPX FLOW affiliates and independent distributors we are working closely with you to provide the best solution for your liquid transport needs.

#### Europe

- Belgium
- Denmark
- Finland
- France
- Germany Italy
- the Netherlands
- Norway
- Spain
- Sweden
- Switzerland
- United Kingdom



Americas Asia Australia

Middle East

#### Distributors

See our web page for a detailed list www.johnson-pump.com, www.spxflow.com

## It's all about Finding Solutions

Every customer's process is in some way unique; it's that something extra that places you ahead of all the rest. Your unique process may require a nonstandard solution. We here at SPX FLOW are keen listeners to the special requirements of our customers. With our wide range of Johnson Pump brand standard product offerings to build on we can offer that little extra in the form of materials and design solutions to keep you ahead.

From our sales, support and application personnel to R&D, we pride ourselves in working together with you on an affordable, working solution for your special needs. In addition to pumps, through SPX FLOW you will have access to a variety of flow technologies; from valves and mixers to heat exchangers and entire systems.

Contact your local Johnson Pump brand representative for an investment in your future today!

#### ABRASION RESISTANT COATINGS

Lime slurries, paper fillers, dirty sump water and the like can unnecessarily wear out a pump. Coatings such as Wolfram or plasma nitriding on pump housing, rotors and impellers can greatly increase the service life of your pumps.

#### **NOISE REDUCTION**

With a specially designed impeller we were able to reduce noise levels in tank farm applications where large numbers of our FreFlow self-priming centrifugal pumps are in use.

#### SAFE HANDLING OF HOT WATER

For a hospital hot water recirculation project we combined a modified pump casing with externally mounted heat exchanger on the mechanical seal to ensure reliable, safe operation.

#### **ULTRA PURE WATER TREATMENT PLANT**

SPX FLOW collaborated with the plant owners on the design of pressure pumps to be used in reverse osmosis in an innovative enterprise where waste water is purified and used as steam injection for residual oil extraction from mature oil fields.

### **IMPROVED FLOW CHARACTERISTICS**

Development of new multilobe rotors for uniform flow of sausage meats and even less pulsation and resonance in the pipeworks when pumping thin liquids.





#### PHARMACEUTICAL

FOOD & BEVERAGE





Снемісаі

HORTICULTURE

**GENERAL INDUSTRY** 

PETROCHEMICAL





WASTE WATER TREATMENT

PULP & PAPER

SHIPBUILDING















## Johnson Pump Centrifugal Pumps



Centrifugal Pumps are the most common and well-established pumps on the market. They come in many different models and can transfer fluids with high efficiency over a wide range of flows and pressures. Johnson Pump brand offers several series of centrifugal pumps, many of which comply with ISO, DIN and API standards.

Johnson Pump brand's Combi system is a modular programme of centrifugal pumps with a high degree of interchangeability of parts between the different pump constructions.

The modular design makes it possible to construct many design variants and it also provides a large degree of interchangeability of components between various pump types and even between the different pump families. This, together with the wide range of materials available, makes it easy to supply the correct design for each specific application; allowing customers to be served in an optimal way.

SPX FLOW supplies you with a full range of documentation for our pumps:

- ATEX .
- ЗA .
- EHEDG
- FDA, USP VI
- Material traceability & certification 2.1, 2.2 and 3.1
- QHP tests .
- Vibration tests
- Noise level tests



#### **C**OMBINORM

utility or general purpose pump according to EN 733

Max. capacity 1500 m<sup>3</sup>/h (6600GPM) Max. head 100 m (328 ft) Max. pressure 10 bar (145 psi) 200°C (392°F) Max. temp Max. speed 3600 rpm Materials: cast iron, nodular cast iron, bronze

#### Self-priming pumps





Magnetic Drive pumps

horizontal & vertical (variable position suction bend), hydraulics according to EN733

Max. capacity Max. head Max. pressure Max. temp Max. speed Materials:

500 m<sup>3</sup>/h (2200 GPM) [H] 800 m<sup>3</sup>/h (3520 GPM) [V] 100 m (328 ft) 10 bar (145 psi) 80°C (176°F) 3600 rpm cast iron, bronze

FREFLOW horizontal, handles gas and particle content

> 350 m<sup>3</sup>/h (1540 GPM) Max. capacity Max. head Max. pressure Max. temp Max. speed Materials:

80 m (262 ft) 9 bar (131 psi) 95°C (203°F) 3600 rpm cast iron, bronze, stainless steel

Ex,

800 m<sup>3</sup>/h (3520 GPM)

cast iron, nodular cast iron.

bronze, stainless steel

160 m (525 ft)

16 bar (232 psi)

200°C (392°F)

3600 rpm



#### СомвіМас

heavy duty seal-less pump according to ISO 5199 and EN 22858 550 m<sup>3</sup>/h (2420 GPM) Max. capacity Max. head 160 m (525 ft) Max. pressure 16 bar (232 psi) Max. temp 300°C (572°F) Max. speed 3600 rpm Materials: cast iron, nodular cast iron, stainless steel, duplex, Alloy 20, Hastelloy C





#### **C**OMBI**M**AG**B**LOC

СомвіСнем

Max. capacity

Max. pressure

Max. head

Max. temp

Max. speed

Materials:

ISO 5199 and EN 22858

heavy duty chemical pump according to

heavy duty seal-less	close-coupled pump
according to ISO 519	9 and EN 22858
Max. capacity	280 m³/h (1230 GPM)
Max. head	140 m (459 ft)
Max. pressure	16 bar (232 psi)
Max. temp	200°C (392°F)
Max. speed	3600 rpm
Materials:	cast iron, nodular cast iron,
stainless steel du	nlex Alloy 20 Hastellov C

Thermal oil / hot water pumps



#### **COMBITHERM**

specially developed for thermal oil (DIN 4754) and hot water applications (ratings and dimensions to EN733)

Max. capacity Max. head Max. pressure Max. temp

400 m<sup>3</sup>/h (1761 GPM) 160 m (525 ft) 16 bar (232 psi) Thermal oil 350°C (662°F) Hot water 190°C (374°F) 3600 rpm nodular cast iron

Max. speed Materials:



heavy duty process pump according to API610, API682 and API685 Max. capacity 350 m<sup>3</sup>/h (1540 GPM) Max. head 160 m (525 ft) Max. pressure 35 bar (508 psi) 350°C (662°F) Max. temp Max. speed 3600 rpm Materials: carbon steel, 13% Cr-steel, stainless steel (316)



850 m<sup>3</sup>/h (3740 GPM) 105 m (344 ft) 10 bar (145 psi) 120°C (248°F) 3600 rpm cast iron, bronze, stainless steel

#### horizontal or vertical pump utilizing vortex principle, handles particles and gaseous content Max. capacity 420 m<sup>3</sup>/h (1850 GPM) Max. head 40 m (130 ft) 10 bar (145 psi) Max. pressure 80°C (176'°F) Max. temp Max. speed 1800 rpm Max. free passage 100 mm (3.94") Materials: cast iron, nodular cast iron, stainless steel, super duplex



KGE

horizontal, handels gas and particle content

Max. capacity Max. head Max. pressure Max. temp Max. speed Materials:

100 m<sup>3</sup>/h (440 GPM) 60 m (197 ft) 8 bar (116 psi) 95°C (203°F) 3600 rpm cast iron



horizontal & vertical

Materials:

Multistage pumps

Max. capacity Max. head Max. pressure Max. temp Max. speed

InLine pumps

Materials:

100 m<sup>3</sup>/h (440 GPM) 340 m (1120 ft) 40 bar (580 psi) 150°C (302°F) [MCH] 120°C (248°F) [MCV] 3600 rpm cast iron, bronze





MCHZ horizontal, self-priming

Max. capacity Max. head Max. pressure Max. temp Max. speed Materials:

100 m<sup>3</sup>/h (440 GPM) 340 m (1120 ft) 40 bar (580 psi) 120°C (248°F) 3600 rpm cast iron



MDR Close-coupled seal-less pump

Max. capacity	30 m³/h (130 GPM)
Max. head	24 m (78 ft)
Max. pressure	3 bar (43 psi)
Max. temp	100°C (212°F)
Max. speed	2800 rpm
Materials:	PP, PVDF



Max. speed

Materials:

close-coupled circulation pump on extended 500 m<sup>3</sup>/h (2200 GPM) 35 m (115 ft) 10 bar (145 psi) 140°C (284°F)

1800 rpm

cast iron



#### **COMBILINEBLOC** close-coupled circulation pump on stub shaft

to IEC motor Max. capacity Max. head Max. pressure Max. temp Max. speed Materials:

450 m<sup>3</sup>/h (1980 GPM) 100 m (328 ft) 10 bar (145 psi) 120°C (248°F) 3600 rpm cast iron, bronze

Vertical pumps



#### COMBIFLEX, -UNIVERSAL, -BLOC

variable position suction bend, hydraulics according to EN733

0	
Max. capacity	1500 m³/h (6600 GPM)
Max. head	140 m (459 ft)
Max. pressure	10 bar (145 psi)
Max. temp	200°C (392°F)
Max. speed	3600 rpm
Materials:	cast iron, bronze





Сомві vertical pump with dry motor EN 733, EN 22858 and API 610 1500 m<sup>3</sup>/h (6600 GPM) Max. capacity Max. head 160 m (525 ft) 16 bar (232 psi) Max. pressure [35 bar (508 psi) API610] 160°C (320°F) Max. temp 3600 rpm Max. speed Materials: cast iron, nodular cast iron, bronze, stainless steel, carbon steel, 13% Cr-steel



#### **COMBIWELL**

vertical pump with dry motor for paint/solvent degreasing spray units

uegreasing spray u	111.5
Max. capacity	300 m³/h (1320 GPM)
Max. head	45 m (148 ft)
Max. pressure	10 bar (145 psi)
Max. temp	80°C (176°F)
Max. speed	3000 rpm
Materials:	cast iron, stainless steel

## Johnson Pump Positive Displacement Pumps

**Rotary Lobe Pumps** are easy to clean and have gentle product-handling characteristics. They contain few cavities, which reduces the risk of bacterial growth and makes them particularly suitable for the tranport of sensitive fluids – from glue to whole strawberries.

**Impeller Pumps** have good suction characteristics and the ability to pump solid particles. Impeller pumps have a wide range of applications in all types of industries.

**Air Operated Double Diaphragm Pumps** are used in all types of industries for transporting a wide variety of liquids. Clean or polluted, thin or viscous, abrasive or aggressive.

**Internal Gear Pumps** can be used in all types of manufacturing applications for the transportation of both thin and thick materials, from chocolate to diesel fuel.

SPX supplies you with a full range of documentation depending on need and local regulations:

- ATEX
- 3A
- EHEDG
- FDA, USP VI
- Material traceability & certification 2.1, 2.2 and 3.1
- QHP tests
- Vibration tests
- Noise level tests

#### Flexible Impeller pumps



#### F-19 12/24 V DC self-priming extra heavy duty bronze pumps

Max. capacity	55ℓ/min (14.5 GPM)
Max. pressure	1.2 bar (17.4 psi)
Max. temp	55°C (130°F)
Materials:	PTMT (thermoplastic polyester)
	or bronze

#### Internal Gear pumps, self-priming



**TopGear TG L** for low viscosity liquids

Max. capacity Max. pressure Max. temp Max. viscosity Materials: 8 m³/h (35 GPM) 25 bar (363 psi) 250 °C (480 °F) 60 000 mPas / cP nodular cast iron

# Protect your valuable process equipment from debris damage

A filter with appropriate strainer upstream from your equipment can effectively protect your investments from potentially damaging solids. Downstream a filter can ensure product homogeny and recover valuable solids. **TopFilter** is our range of single and dual filters for cost-effective protection of pipeline equipment, liquid cleaning or salvaging valuable solids.

Single filters for applications where the flow can be temporarily shut down for cleaning of the filter basket.

**Dual filters** for applications requiring uninterrupted flow with minimal loss of pressure. The flow is diverted to a second basket while the first basket is cleaned.

**Multiple basket filters** are of a space saving construction, providing a large filter area with low pressure drops in a compact, easy to service unit

Mesh sizes 20-300 mesh, pleated elements giving filtration down to 10 µm are also available

#### **Rotary Lobe pumps**



**TOPLOBEPLUS** hygienic tri-lobe rotors

Max. capacity Max. pressure Max. temp Max. viscosity Materials:

124 m3/h (547 GPM) 10 bar (145 psi) 100°C (212°F) 100000mPas/cP stainless steel (316L)



hygienic tri-lobe rotors

Max. capacity Max. pressure Max. temp Max. viscosity Materials:

125 m<sup>3</sup>/h (550 GPM) 22 bar (319 psi) 70°C (158°F) 100 000 mPas / cP stainless steel (316L), duplex

#### Air Operated Double Diaphragm pumps



high hygienic bi-wing & multilobe rotors

Max. capacity Max. pressure Max. temp Max. viscosity Materials:

156 m3/h (687 GPM) 15 bar (218 psi) 150°C (300°F) 80000 mPas/cP stainless steel (316L), duplex



#### **FIP & FB**

self-priming pumps, industry / hygienic stainless steel and bronze versions

Max. capacity	37.5 m³/h (165 GPM)
Max. pressure	4 bar (58 psi)
Max. temp	55 °C (130 °F)
Materials:	bronze, stainless steel, polished
	stainless steel



self-priming multipurpose pump with peripheral

Max. capacity 7 bar (102 psi) Max. pressure 120°C (248°F) Max. temp 10000 mPas/cP Max. viscosity Materials: PP, aluminium, cast iron, stainless steel, PTFE, PVDF, PVC



ΟρτιFlo

self-priming multipurpose pump with central flow

Max. capacity	8 m³⁄h (36 GPM)
Max. pressure	7 bar (102 psi)
Max. temp	85 °C (185 °F)
Max. viscosity	6000 mPas/cP
Materials:	PP, aluminium, stainless steel



TOPGEAR TG G for general purpose heavy duty

Max. capacity	250 m³/h (1100 GPM)
Max. pressure	16 bar (230 psi)
Max. temp	300°C (570°F)
Max. viscosity	80000mPas/cP
Materials:	cast iron

TOPGEAR TG H for high demanding heavy duty

130 m<sup>3</sup>/h (570 GPM) Max. capacity 16 bar (230 psi) Max. pressure Max. temp 300°C (570°F) 80000 mPas/cP Max, viscositv Materials: stainless steel, cast steel, ductile iron

TOPGEAR MAG seal-less, with magnetic drive

Max. capacity	80 m³/h (350 GPM)
Max. pressure	16 bar (230 psi)
Max. temp	250°C (480°F)
Max. viscosity	10 000 mPas/cP
Materials: cast iron, st	ainless steel



#### TOPFILTER TFOV

Single filter
Pipe sizes
Max. pressure
Connections
Threaded:
Flange:
Max. temp

Materials:



20 – 150 mm (% – 6°)	
50 bar (725 psi)	

BSP, NPT BS10, BS4504, ANSI, DIN 200°C (392°F) cast iron, cast steel, gunmetal, stainless steel

JP\_000\_USA Version: 04/2016 Issued: 03/2016



**TOPFILTER TFOVM** Single, multibasket filter Pipe sizes Max. pressure Connections Threaded: Flange:

Max. temp

Materials:

200-250 mm (8"-10") 13.8 bar (200 psi)

BSP, NPT BS10, BS4504, ANSI, DIN 200°C (392°F) cast iron, cast steel, gunmetal, stainless steel



### TOPFILTER TFOW

Dual filter Pipe sizes Max. pressure Connections Threaded: Flange: Max. temp Materials:

20 - 200 mm (3/4" - 8")50 bar (725 psi)

BSP, NPT BS10, BS4504, ANSI, DIN 200°C (392°F) cast iron, cast steel, gunmetal, stainless steel



flow

48 m<sup>3</sup>/h (211 GPM)

## SPXFLOW

#### CENTRIFUGAL PUMPS SPX FLOW TECHNOLOGY ASSEN B.V.

Dr. A.F. Philipsweg 51, 9403 AD Assen P.O. Box 9, 9400 AA Assen, THE NETHERLANDS P: +31 (0)592 37 67 67 F: +31 (0)592 37 67 60 E: johnson-pump.nl.support@spxflow.com

#### COMPONENTS, CENTRIFUGAL PUMPS, INTERNAL GEAR PUMPS SPX FLOW TECHNOLOGY (INDIA) PRIVATE LIMITED Survey No. 275, Odhav Road, Odhav Ahmedabad-382415, INDIA P: +91 (0)79-22870311, 22873005

F: +91 (0)79-22870593, 22872522 E: johnson-pump.in@spxflow.com

## FLEXIBLE IMPELLER PUMPS, ROTARY

#### SPX FLOW TECHNOLOGY SWEDEN AB

Nastagatan 19, P.O. Box 1436 SE-701 14 Örebro, SWEDEN P: +46 (0)19 21 83 00 F: +46 (0)19 27 23 18 E: johnson-pump.se.support@spxflow.com

#### INTERNAL GEAR PUMPS, AODD PUMPS, FILTERS SPX FLOW TECHNOLOGY BELGIUM N.V. Evenbroekveld 2-6 BE-9420 Erpe-Mere, BELGIUM P: +32 (0)53 60 27 15 F: +32 (0)53 60 27 01 E: johnson-pump.be.support@spxflow.com

Your local contact:

www.spxflow.com/en/johnson-pump/where-to-buy/

#### SPX FLOW TECHNOLOGY

611 Sugar Creek Road Delavan, WI 53115 Phone: 1-800-252-5200 E-Mail: ft.amer.info@spxflow.com

#### SPX FLOW TECHNOLOGY

1625 Hunter Road, Suite B Hanover Park, Illinois, 60133, USA Phone: +1 (847) 671 7867 E-Mail: johnson-pump.americas.industrial@spxflow.com

For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.johnson-pump.com and www.spxflow.com.

SPX FLOW, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing.

JP 000 USA Version: 04/2016 Issued: 03/2016

Copyright © 2016 SPX FLOW, Inc.