

# Overview of Hydraulics Range

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Jahns Regulatoren was founded in 1905 as a specialist for manufacturing of controllers for any kind of power machines. Founders of company Jahns were: Engineer Wilhelm Jahns, who was the owner of patents for controllers, the merchant Carl Seidel and some silent partners.

Jahns Regulatoren is owned since 1928 by the families Dapp/Sauerwein. Beginning of this time the production of axial piston pumps for presses and rudder engines started. Also controllers for water turbines were a major part of the Jahns production program.

In the 70s of the last century Jahns enlarged the product portfolio with radial piston motors. Those are used for driving heavy equipment, forging manipulators, rubber injection machines and plant construction. The first NC machines were integrated in the manufacturing operations to keep cost efficiency.

In 1986 Jahns started trading activities in hydraulics and drive technology. The product development is always in collaboration with our customers. This is significant with our flow dividers and volume synchronizers were we could offer a nearly complete range. Jahns customers in this area are almost all important hydraulic companies in Germany.

In May 2000 Jahns took over the production of radial pumps, submerged pumps and mixers from ABG. Those products are primarily used in the chemical industry and process engineering. The in-house production depth guarantees additional workload.

Jahns focus is not fast growth. Our philosophy is continuity, quality and loyalty against customers and employees.



# Planetary gear units JPL and JPW

- JPL coaxial planetary gear reducer
- 16 sizes up to 300.000 Nm
- JPW angular-drive planetary gear reducer
- 15 sizes up to 150.000 Nm

On the input side the gear reducers can be supplied with keyed shaft for belt transmission, with hydraulically applied multiple disc brakes, as well as connections for all currently available hydraulic and electric motors.

For the main drive side, splined hubs, endplates, main drive flanges, pinions, splined shafts and shrink discs are also available.

# Rack and piston swivel gear R and RA

- 12 sizes
- 300 Nm up to 100.000 Nm

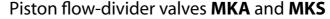
High radial load bearing capacity on the main drive shaft, continuous hollow shaft, standard swivel angle between 60 and 360°, larger swivel angles on request. Specific versions available for all special hydraulic fluids.











- Two section flow-divider in the form of a valve
- 3 sizes
- Total oil flow-rate of between 2 and 150 l/min
- MKA aluminium housing, peak pressure 210 bar
- MKS steel housing, peak pressure 350 bar

Flow-divider valve works in both flow directions. Within the permissible synchronising error, the division ratio is largely independent of the pressure and viscosity of the medium.



#### Gear flow-divider MTO

- Two to twelve section divider
- 2 sizes
- Aluminium housing
- Part oil flow-rate 2 l/min up to 62 l/min
- · Working pressure 210 to 250 bar
- The chamber inlets are interconnected internally
- Every second chamber has an inlet junction

Within each specific size, there is no difference between devices with varying absorption-volumes. Version 'A' has a combined pressure-limit and prefill valve incorporated directly in the housing.



#### Gear flow-divider MTO

- Two to twelve section divider
- 2 sizes
- Cast iron housing
- Part oil flow-rate 16 l/min up to 220 l/min
- Working pressure 235 to 270 bar

Inlet and outlet bloc in aluminium **EA7** or steel **EA9** for end-position damping, with a pressure-limit valve for secondary protection, a prefill valve and test port for each section.

These devices are being increasingly replaced by HTO.



## Gear flow-divider MHD

- Two to eight section divider
- 2 sizes
- Cast iron housing
- Part oil flow-rate 11 l/min up to 250 l/min
- Working pressure 280 bar
- The chamber inlets are interconnected internally

Within each specific size, devices with varying absorption-volumes differ only in terms of the width of the housing.

These devices are being increasingly replaced by **HTO**.



#### Gear flow-divider **HTO**

- Two to twelve section divider
- 2 sizes
- Cast iron housing
- Part oil flow-rate 16 l/min up to 220 l/min
- Working pressure 320 bar
- The chamber inlets are interconnected internally
- Every second chamber has an inlet junction

Within each specific size, there is no difference between devices with varying absorption-volumes.

Pressure-limit and prefill valve incorporated directly in the housing.

# Radial piston flow-divider MT-GM

- Two section divider
- 5 sizes
- Part oil flow-rate 5 l/min up to 550 l/min
- Working pressure 240 bar

Outlet bloc in steel for end-position damping, with a pressure-limit valve for secondary protection, a prefill valve and test port for each section.

Can be supplied with contact-free revolution counter.



# Radial piston flow-divider MTL

- Two to twelve section divider
- 3 sizes
- Part oil flow-rate 28 l/min up to 250 l/min
- Working pressure 240 bar

Outlet bloc in steel for end-position damping, with a pressure-limit valve for secondary protection, a prefill valve and test port for each section.

Can be supplied with contact-free revolution counter.



# Radial piston flow-divider STL

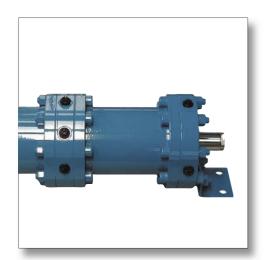
- Two to twelve section divider
- 1 size
- Part oil flow-rate 400 l/min
- Working pressure 240 bar

Outlet bloc in steel for end-position damping, with a pressure-limit valve for secondary protection, a prefill valve and test port for each section.

Can be supplied with contact-free revolution counter.







## Multi-chamber volumetric-divider MZB

- Two to twelve section divider
- 5 sizes
- Chamber capacity extends from 79 cm<sup>3</sup> up to 40.000 cm<sup>3</sup>
- Workingpressure 250 bar, on request up to 500 bar

In contrast to the rotating oil flow dividers MTO and MTL, these are actually volume dosing units, i.e. the units represent volume synchronisers.



#### Linear stroke volumetric-divider MLH

- Two to eight section divider
- 8 sizes
- Chamber capacity extends from 50 cm<sup>3</sup> up to 12.300 cm<sup>3</sup>
- Workingpressure 250 bar

In contrast to the rotating oil flow dividers MTO and MTL, these are actually volume dosing units, i.e. the units represent volume synchronisers.

It is also possible to retrofit the standard B2.6 valve bloc.



# Radial piston motor **HMs**

- 8 motors in 4 sizes
- Displacement between 18 and 147 cm<sup>3</sup>/U
- Workingpressure 250 bar

All motors come with the option of a keyed or splined hollow shaft, various revolution counters, hydraulically applied and connection plates for NG6 and NG10 control valves.

Special versions are available for particular bespoke applications (HMs 23, HMs 31, HMs 54, HMs 65, HMs 75 and HMs 165).



# Radial piston motor **HMw**

- 18 motors in 6 sizes
- Displacement between 188 and 6.300 cm<sup>3</sup>/U
- Workingpressure 250 bar

All the motors come with the option of a splined shaft, keyed shaft or a splined hollow shaft, contact-free revolution counter and connection blocks with integrated pressure limit and prefill valves.



# Radial piston motor **HMF** and **HMT**

- 55 motors in 7 sizes
- Displacement between 39 and 4.300 cm<sup>3</sup>/U
- Workingpressure 250 bar, peak pressure up to 420 bar.

The motors can be supplied with splined shaft, cylindrical or conically shaped, keyed shaft, splined hollow shaft and with different types of revolution counter.

The **HMT** series is the fast running version of the HMF series of motors.



#### Vane motor MD4 and MDS2

- MD4 constant motors in 4 sizes
- Displacement between 51,6 and 2.496 cm<sup>3</sup>/U
- MDS2, 3-stage switchable, vane motors in 3 sizes
- Displacement between 170 and 2.496 cm<sup>3</sup>/U
- Compact design, small outer diameter
- Continuous hollow shaft
- Working pressure 200 up to 230 bar

In 1992 Jahns took over the manufacture, sales and servicing of the range of vane motors, previously produced by Teves.

# Gerotor motor EPM, EPRM, EPMS, EPMT

- 7 series
- Displacement between 8 and 800 cm<sup>3</sup>/U
- 2-hole and 4-hole SAE-flanges
- all drive shafts that are commonly used with these motors.

Standard valve extensions for brake valve, shuttle valve and relief valves are available for all motors.





# Wheel drive WR..., GK... and BDK...

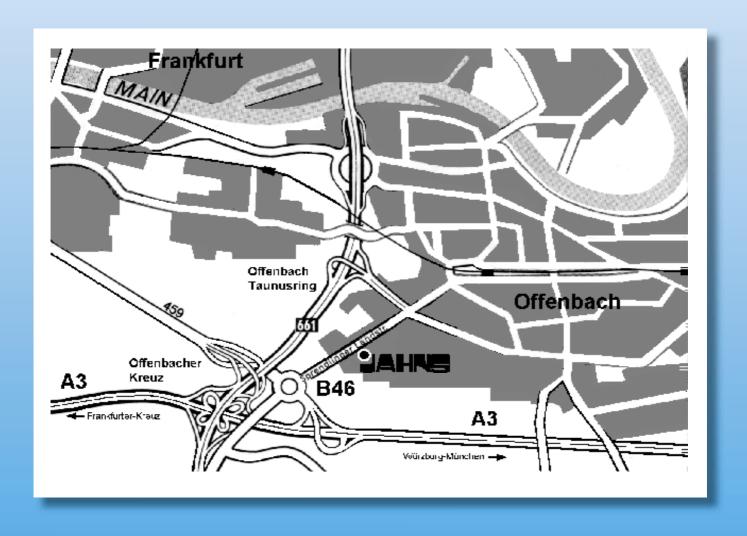
Consists of a drive gear with and without fixing brake and hydro motor. Reliably high radial load bearing capacities.

The **GK..** series incorporates the motor and the gear system in a housing.





# Components for hydraulics and process technology



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