

KOPPEN & LETHEM

The Koppen & Lethem Group is an internationally focussed group of companies specialising in the design, production and installation of hydraulic power units and electrical control systems. The company operates three distinct divisions; Hydraulics, Measurement & Control Engineering and Oil Management. To support these divisions K&L has an in-house design and engineering department working closely with our manufacturing facility.



Production company K&L, the Netherlands

HYDRAULICS DIVISION



The Hydraulics division of Koppen & Lethem is well known in the drives and control market place, partly because of its world-famous components and also because of its excellent reputation in the design and manufacture of manifold blocks, power packs and systems for a wide range of applications. The in-house design team at Koppen & Lethem work closely with the manufacturing team to provide the complete solution.

This brochure gives you further information about our manifold range, all built up with A-brand components from our own stock allowing the shortest possible delivery time.

For further information about Koppen & Lethem and the other products of the Hydraulics division please contact K&L or visit our web site. You will find the address at the back of this brochure

MANIFOLDS

Many hydraulic installations are still built up with loose components, which is time-consuming and therefore expensive. These components are assembled into a complete power unit by means of couplings, flanges and pipework, all requiring accurate installation dimensions.

It is generally known that a hydraulic system built up in such a way is not compact, the total weight can be heavy and the risk of leakage substantial due to the many pipe work connections. For this reason more and more companies have decided to apply manifold technology with screw-in cartridges and built on components for their hydraulic systems.

The disadvantages of the traditional system with pipe work, such as space and leakage, are now things of the past when manifold technique is applied.

TOTAL SOLUTIONS OR SUBFUNCTIONS

Manifolds can be used for a compact and complete hydraulic control system or as modules for a number of specific functions. These function blocks are usually directly built on to a pump, motor or cylinder. In addition to ease of assembly, manifolds require little space and the risk of leakage and hose breakage is reduced to a minimum.

The ongoing developments in the area of cartridge design are continuing to accelerate. Proportional pressure-control and flow-control valves with the accompanying electronic controls are already available and in particular Sun Hydraulics, HydraForce and HAWE are developing, as market leaders, in their specific fields. These manufacturers are exclusively represented by Koppen & Lethem.

ADVANTAGES

Compared to a hydraulic system with loose components the application of manifold technique (combined with the other possibilities of Koppen & Lethem) offers you many advantages:

- Reduced space requirement because of compact construction.
- Significantly reduced risk of leakage, therefore less pollution!
- Less weight because of the application of light materials, which makes it particularly interesting for mobile applications.
- Reduced cost due to the absence of jointing materials, pipe work and the application of pattern valves.
- Quick adjustment due to modular assembly.
- Simple 'fault finding' and service.

Dependent on the pressure requirement manifolds are available in aluminium, cast iron or steel.



K&L: EVERYTHING IN-HOUSE, INTERESTING PRICING!

With very low volume projects, the relatively high costs can be a barrier for using a manifold. At Koppen & Lethem we control the entire process of design up to and including production itself ensuring the best possible pricing. When even small volumes are available the cost of manifolds become far more competitive than conventional methods.

- We design the entire hydraulic solution.
- We design and draw the entire manifold or function block with the latest bespoke software packages in-house.
- We bore your manifold in our own workshop using special milling machines.
- We represent Sun Hydraulics, HydraForce and HAWE, all A-brands in the area of screw-in cartridges and control valves.
- We assemble the complete manifold in-house.

- We test the whole block immediately after production for functionality using our own test equipment.
- We can install, commission on-site and provide after-sales service if required.
- With volume production we can provide significant cost savings compared with traditional construction.
- We can guarantee very short delivery times, partly because we use our A-brand components that K&L exclusively represent and keep in stock.

In short..... from first contact until commissioning: Koppen & Lethem!

Your advantages? Low costs, fast, high quality guaranteed, one contact point. Single pieces available.



Manifolds

MANIFOLD SOLUTIONS

- Manifold design
- Prototype: in-house production
- Functional test
- Mat.: (stainless) steel or aluminium



SREW-IN CARTRIDGES

- Counterbalance valves
- Relief valves
- Flow controls
- Standard manifolds



HIGH GRADE ALUMINIUM

- Compact solution
- Cost reduction
- Engineering by K&L/HydraForce
- Functional tested



Manifolds

BRAKE MANIFOLDS

- Fail-safe system.
- Zero leakage
- Compact
- Aluminium or steel manifolds



SREW-IN CARTRIDGES

- Solenoid valves
- Prop. pressure or flow regul. valves
- Hand pumps
- Standard manifolds



PUMP MANIFOLDS

- Basic design
- Standard valves
- SAE mountings
- High flow



MOOG

SERVO VALVES

- Pressure/flow
- Integrated electronics
- Flow 10 up to 1,500 l/min
- Working pressure 350 bar max.



CETOP-VALVES

DIRECTIONAL VALVES

- CETOP 3 en 5
- Working pressure 250 bar
- Flow CETOP 3 max. 80 l/min
- Flow CETOP 5 max. 120 l/min



HAMME HYDRAULIK

HIGH PRESSURE COMPONENTS

- Radial piston pumps
- Compact power units
- Zero leakage poppet valves
- Proportional valves

DIVISIONS

MEASUREMENT & CONTROL

- Pressure sensors
- Temperature sensors
- Flow sensors
- Level and water-in-oil sensors
- Inclination and acceleration sensors
- Linear movement sensors
- Position sensors
- Power and coupling sensors
- Digital readings
- Portable measuring sets and data loggers
- Radiographic remote controls
- Proportional valve amplifiers and joysticks
- Electric (PLC-controlled) controls



HYDRAULICS

- High-pressure hydraulic components
- Screw-in cartridges
- Custom-made manifolds
- Hydraulic motors
- Hydraulic pumps
- Hydraulic cylinders
- Proportional and servo valves
- Cetop valves
- Power pack

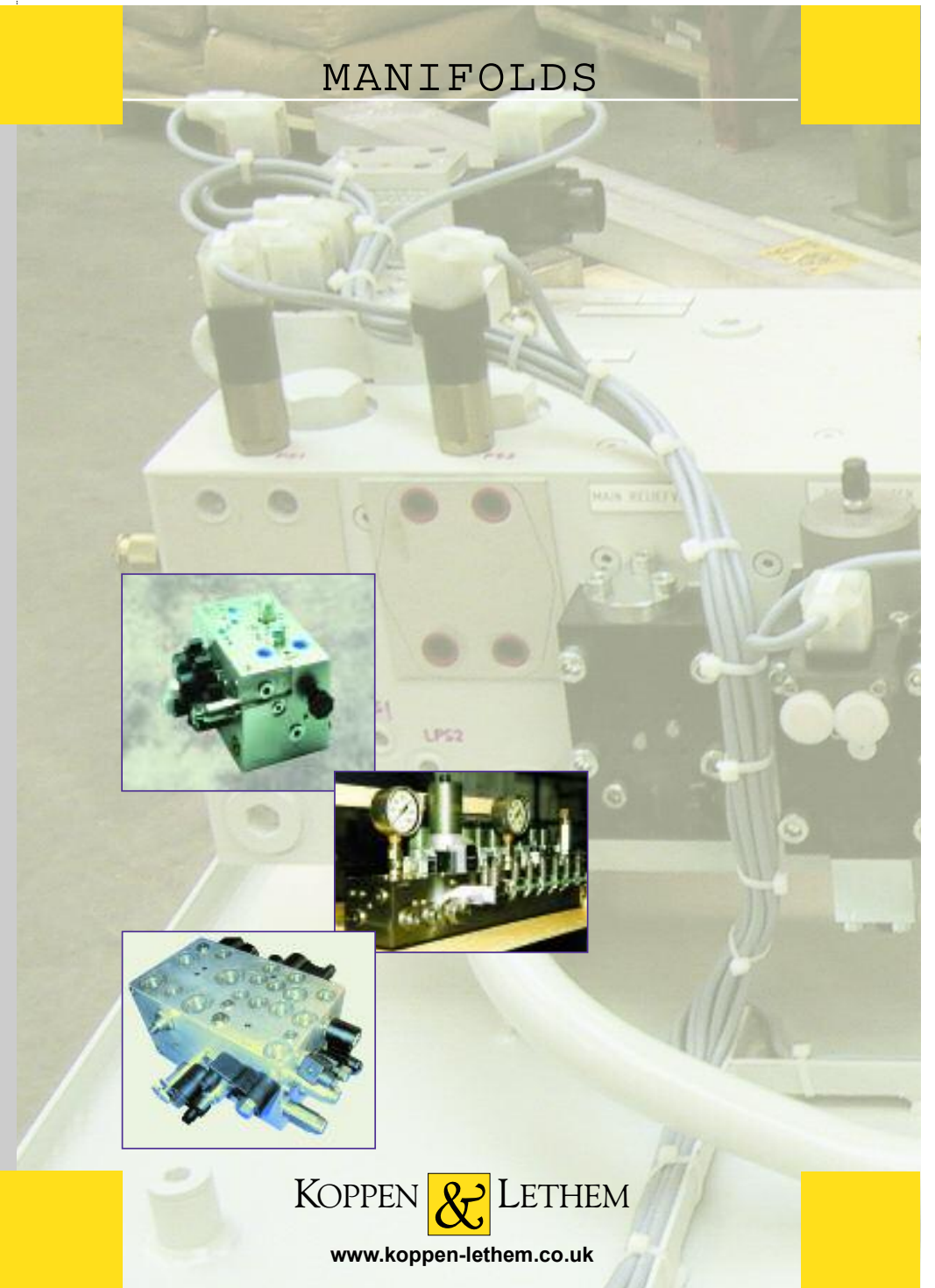


OIL MANAGEMENT

- By-pass and Off-line filters
- Pressure and return line filters
- Air conditioners
- Filter carriages
- Oil sample measuring equipment
- Advice in the area of oil management



MANIFOLDS



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