Hydraulics
Components and cylinders, Systems, Safety & Press Technology, Power Packs and Units

Engineering GREAT Solutions

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Innovation, products and service
Engineering GREAT solutions through people, products, innovation and service

IMI Precision Engineering is a world-leader in fluid and motion control. Building close, collaborative relationships with our customers, we gain a deep understanding of their engineering needs and then mobilise our resources and expertise to deliver distinctive products and solutions.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world’s most demanding engineering challenges.

> **Reliability**  
  We deliver and support our high quality products through our global service network.

> **High performance products**  
  Calling on a world-class portfolio of fluid and motion control products including IMI Norgren, IMI Buschjost, IMI FAS, IMI Herion and IMI Maxseal. We can supply these singly, or combined in powerful customised solutions to improve performance and productivity.

> **Partnership & Problem Solving**  
  We get closer to our customers to understand their exact challenges.
Safety, economy and productivity at the highest level

Only a company that acts responsibly for humanity and the environment, whilst at the same time maximizing business and efficiency, is fit to meet the challenges of the future. The IMI HERION brand name accepts this challenge and has in the meantime been producing products and solutions for hydraulics, safety technology and the mechanical and pneumatic press engineering industries for some 50 years. As far as we are concerned, a safe working environment, product quality and safety have absolute priority.

We create the solutions to the problems that our clients want us to resolve with a combination of technology, innovation and technical know-how and we offer them THE decisive advantage in the race for the best technology.
We manufacture products both for your standard or your special applications. Hydraulic and individual components in proportional and on/off technology are used in all areas of the industry in hydraulic controls and drives.

**Hydraulic Valves and Actuators**

More know-how, more efficiency, more solutions

IMI Herion hydraulic valves and actuators are used in general machinery construction and many other fields.

**Applications:**

- General machine construction/ mechanical engineering
- Vehicle construction
- Plant construction

**Standard way valves**

DN 3 to DN 25

- For hydraulic applications up to 350 bar
- Directional valves, solenoid-actuated, also with mechanical detent
- Directional valves with inductive or electro-mechanical switch position monitoring
- Rocco: Provide translation Rohrleitungsventile, stehende und Sitzventil-Ausführungen NG 6
- Various types of actuation

**Proportional valve range from DN 6 to DN 25**

- For applications up to 350 bar
- Directional valves
- Pressure valves
- Flow control valves
- Integral or external electronics

**Pressure and flow control valves**

- For applications up to 350 bar
- Pressure valves DN 6 to DN 25
- Flow control valves DN 6 and DN 10
- Check valves DN 6 and DN 10
- Different mounting options

**Hydraulic cylinders**

- Rod-type cylinders piston Ø 200
Hydraulic Systems

The things we can do - just a few examples of IMI HERION hydraulic systems

Hydraulic remote control of the engine/gear clutch on special utility vehicles

Hydraulic control systems for operating tables allow to control all table elements individually in a medical environment

Hydraulic damping cylinders for damping systems on articulated buses

Hydraulic controls for the kinematics of Voith-Schneider propeller drives e.g. on harbour tugs

Need a special system? Please contact us at herionsystemtechnik@imi-precision.com
Hydraulic Safety Valves and Safety Solutions

IMI HERION products combine safety and economic efficiency at the highest level and are "the reference standard" in many machines and systems the world over.

IMI Herion hydraulic safety valves provide increased productivity – safely. The self-monitoring double valves make external monitoring components superfluous - this saves space and makes monitoring systems no longer current-dependent.

In addition, time is saved when making exchanges thanks to the quick mounting on connecting plates and in this way any downtime of your machines is reduced. We will be happy to discuss your safety applications with you - to assure protection of both people and machines.

Accumulator safety valves
- TÜV type examination certified to pressure equipment directive 97/23/EC
- Cartridge valves
- High blowoff
- Tightly closing poppet valve

Directional valves
- Position monitored
- DN 6 and 10

ATEX- Directional valves
- Intrinsically safe
- Low power consumption

3/2 – Directional valves DN 10, 16
- Intrinsically safe
- Safe depressurizing
- To EN 692
- DIN EN ISO 13849 - 2 Cat. 4

Hydraulic 2oo3 switch-off blocks for turbines
- SIL 3, TÜV certified
- DN 16 to 50
- ATEX versions also available
Hydraulic Systems and Components for Presses and Drive Technology

We have been developing and producing hydraulic safety components and drive systems for equipping mechanical presses for over 50 years. Thanks to international approvals and test certificates IMI Herion products are in use worldwide in safety-relevant systems.

Our products for presses and press safety:
- Hydraulic clutch-brake combinations in different designs
- Press safety valves
- Hydraulic overload safety devices
- Cylinder for the ram weight compensation
- Hydraulic standard and special units

Application for press and drive technology:
- Mechanical presses
- Servo presses
- Spindle presses
Hydraulic Power Packs and Units

Whether it be a small unit or large installation ... we will plan, develop and manufacture your specific solution. Even with the most demanding requirements, special versions, explosion-proof units or multifunctional installations, IMI HERION provides everything from one single source.

Applications for units:
> General machine construction/mechanical engineering
> Energy technology (Turbine control systems)

Available tank capacities:
> Standard sizes up to 800l
> Special sizes on request

Advantages and special services:
> Sub-base assemblies to minimize piping
> Units include return flow filters, pressure and control valves, pressure gauges in one single package
> Development of special hydraulic units
> Explosion proof versions possible
> Easy retrofit
> Service contracts

IMI Herion customized hydraulic power unit for the control of a turbine armature

Need a special power pack or unit? Please contact us at herionsystemtechnik@imi-precision.com
# Product Options

## Directional valves

<table>
<thead>
<tr>
<th>Material</th>
<th>Directional control valve</th>
<th>Seat valves</th>
<th>Directional control valve</th>
<th>Directional control valve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal bore (DN), Port size</td>
<td>6, 10, 16, 25</td>
<td>6</td>
<td>6, G3/8</td>
<td>6, 10</td>
</tr>
<tr>
<td>Function</td>
<td>3/2, 4/2, 4/3</td>
<td>2/2, 3/2</td>
<td>4/2, 4/3</td>
<td>3/2, 4/2, 4/3</td>
</tr>
<tr>
<td>Key Features</td>
<td>DIN 24340 und ISO 4401</td>
<td>DIN 24340 &amp; ISO 4401 (CETOP03)</td>
<td></td>
<td>DIN 24340 &amp; ISO 4401, directly actuated. Electrical position monitoring</td>
</tr>
</tbody>
</table>

## Pressure valves

<table>
<thead>
<tr>
<th>Material</th>
<th>Pressure valves</th>
<th>Pressure relief valves</th>
<th>Pressure valves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal bore (DN), Port size</td>
<td>6, 10</td>
<td>6, 10, G1/2 ; G3/4</td>
<td>10, 25</td>
</tr>
<tr>
<td>Function</td>
<td>2 way</td>
<td>2 way and 3 way</td>
<td></td>
</tr>
<tr>
<td>Key Features</td>
<td>DIN 24340 &amp; ISO 4401, directly controlled</td>
<td>DIN 24340 &amp; ISO 6264, direct controlled</td>
<td>DIN 24340 &amp; ISO 6264, indirectly controlled, also pneumatically actuated available</td>
</tr>
</tbody>
</table>

## Flow control & check valves

<table>
<thead>
<tr>
<th>Material</th>
<th>Throttle and throttle check valves</th>
<th>Flow control valves</th>
<th>Double throttle check valve</th>
<th>Pressure released double check valves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal bore (DN), Port size</td>
<td>8, 10, 12, 16, 20, 25 G1/4- G1 1/4</td>
<td>6,10</td>
<td>6, 10</td>
<td>6, 10</td>
</tr>
<tr>
<td>Function</td>
<td>Throttle</td>
<td>2 way and 3 way</td>
<td>Throttle</td>
<td>Intake or return flow throttle</td>
</tr>
<tr>
<td>Key Features</td>
<td>High Repeatability</td>
<td>DIN 24340</td>
<td>DIN 24340 &amp; ISO 4401</td>
<td>DIN 24340 &amp; ISO 4401</td>
</tr>
</tbody>
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Hydraulics

Press technology

<table>
<thead>
<tr>
<th>Material</th>
<th>Press Safety valve</th>
<th>Overload protection</th>
<th>Clutch-Brake Combination</th>
<th>Ram weight cylinder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10, 16</td>
<td>16 to 63</td>
<td>KB303 to KB300</td>
<td>Piston Ø 100-500 mm</td>
</tr>
<tr>
<td>Function</td>
<td>3/2</td>
<td></td>
<td>Single acting</td>
<td></td>
</tr>
</tbody>
</table>

| Key Features | Intrinsically safe, Safe depressurizing, to EN 692, DIN EN ISO 13849 – 1 & 13849 – 2, Cat. 4 | Machine protection High-response rate | Wear-free Low switching noise Constant braking angles Low energy consumption | Self-lubricating Long lifetime |

Actuators

<table>
<thead>
<tr>
<th>Material</th>
<th>Actuator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes</td>
<td>Piston Ø up to 200 mm</td>
</tr>
</tbody>
</table>

| Function | To CETOP/ISO up to 250 bar (higher pressures on request) With accessories |

| Key Features |

Units & Power packs

<table>
<thead>
<tr>
<th>Material</th>
<th>Units &amp; Power packs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sizes</td>
<td>Standard tank sizes, special tank sizes on request</td>
</tr>
<tr>
<td>Function</td>
<td>According to customer specifications</td>
</tr>
</tbody>
</table>

| Key Features | Compact Filters easy to replace |

For any further information on IMI Herion hydraulic products, please contact: herionsystemtechnik@imi-precision.com
IMI Precision Engineering operates four global centres of technical excellence and a sales and service network in 50 countries, as well as manufacturing capability in the USA, Germany, China, UK, Switzerland, Czech Republic, Mexico and Brazil.

For information on all IMI Precision Engineering companies visit
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