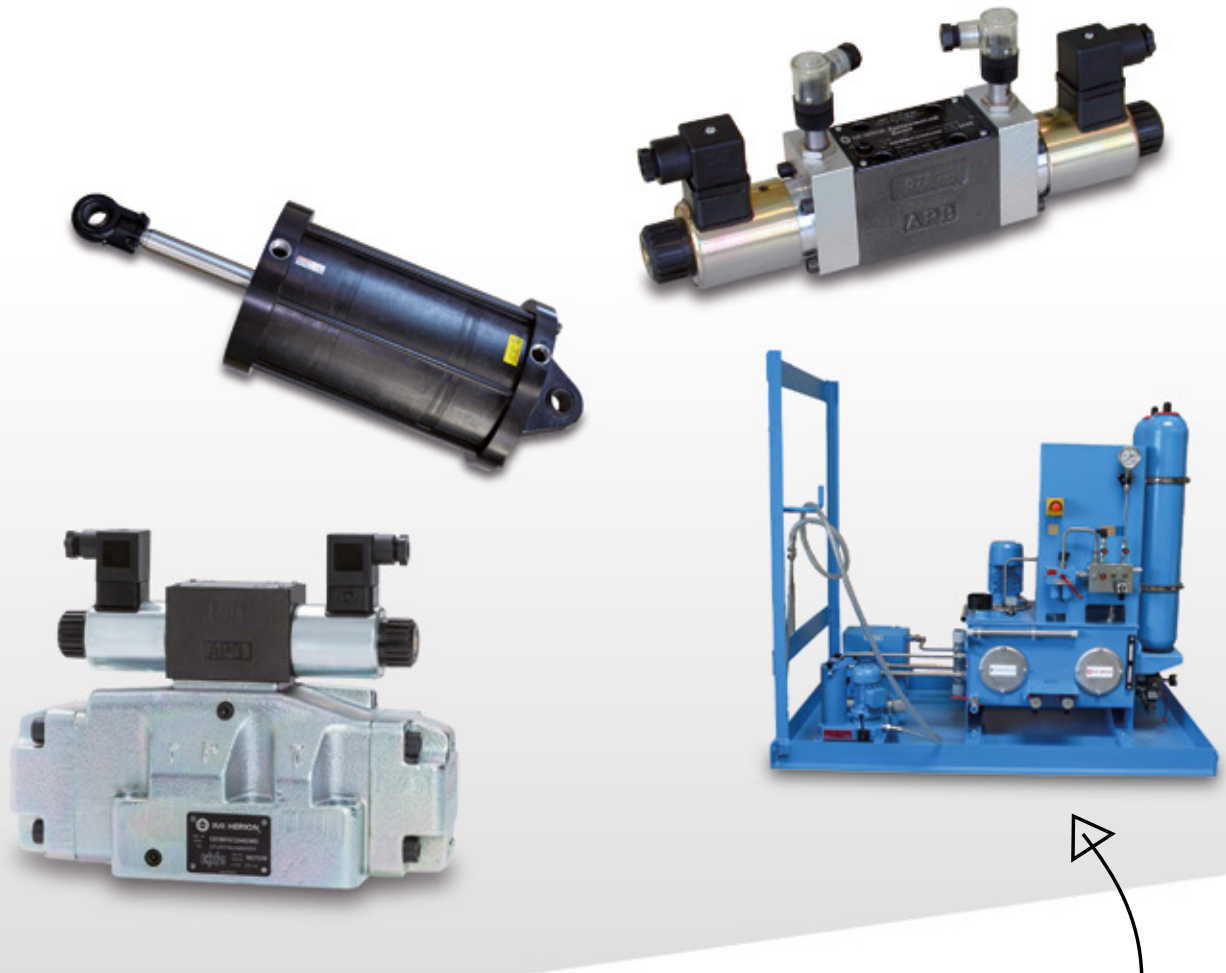


## Hydraulics

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



Engineering  
*GREAT* Solutions

# Contents

03	Introduction
04	Safety, economy and productivity at the highest level
05	Hydraulic Valves and Actuators
06	Hydraulic Systems
07	Hydraulic Safety Valves and Safety Solutions
08	Hydraulic Systems and Components for Presses and Drive Technology
09	Hydraulic Power Packs and Units
10	Product Options



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.



# 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.

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.

## 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

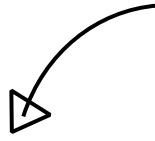
### Hydraulic cylinders

- > Rod-type cylinders piston Ø 200



# Hydraulic Systems

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



*IMI Herion customized control blocks for hydraulic grippers*



*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](mailto: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.

## 3/2 – Directional valves DN 10, 16

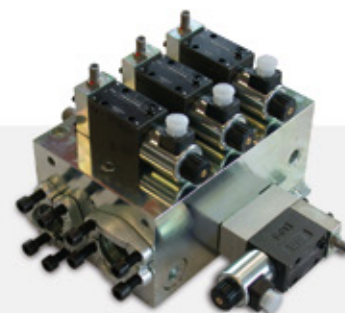
- > Intrinsically safe
- > Safe depressurizing
- > To EN 692
- > DIN EN ISO 13849 - 2 Cat. 4



*Dynamic self monitored*

## Hydraulic 2oo3 switch-off blocks for turbines

- > SIL 3, TÜV certified
- > DN 16 to 50
- > ATEX versions also available



*Reliability & safety*

## Accumulator safety valves

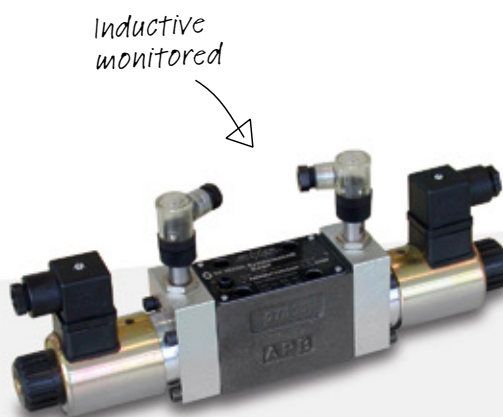
- > TÜV type examination certified to pressure equipment directive 97/23/EC
- > Cartridge valves
- > High blowoff
- > Tightly closing poppet valve



*TÜV approved*

## Directional valves

- > Position monitored
- > DN 6 and 10



*Inductive monitored*

## ATEX- Directional valves

- > Intrinsically safe
- > Low power consumption



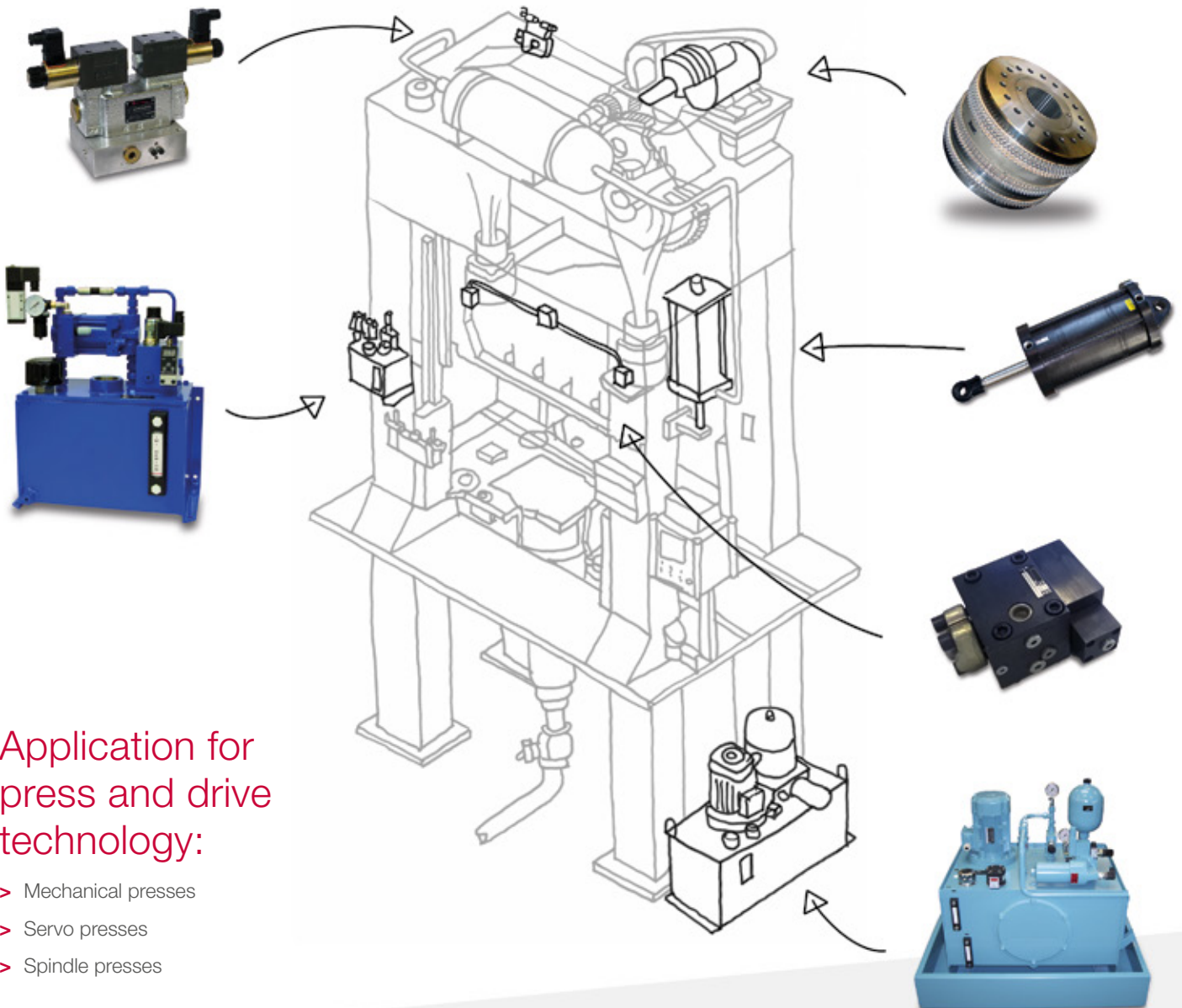
*Safe in dangerous environments*

# 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](mailto:herionsystemtechnik@imi-precision.com)

# Product Options

## Directional valves



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

## Pressure valves



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

## Flow control & check valves







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

## Proportional valves

				
	<b>Proportional directional control valves</b>	<b>Proportional directional control valves</b>	<b>Proportional pressure valves</b>	<b>Proportional flow control valve</b>
<b>Material</b>				
<b>Nominal bore (DN), Port size</b>	6, 10, 16, 25	6,10	6, 10, 25	6
<b>Function</b>	3/2, 4/2, 4/3	4/3	2 way and 3 way	2 way
<b>Key Features</b>	DIN 24340 & ISO 4401, position controlled piston possible	With integrated digital electronics, position controlled piston possible	DIN 24340 & ISO 6264 directly & indirectly controlled	DIN 24340

## Press technology

				
	<b>Press Safety valve</b>	<b>Overload protection</b>	<b>Clutch-Brake Combination</b>	<b>Ram weight cylinder</b>
<b>Material</b>				
<b>Nominal bore (DN), Port size</b>	10, 16	16 to 63	KB03 to KB300	Piston Ø 100-500 mm
<b>Function</b>	3/2			Single acting
<b>Key Features</b>	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

	
	<b>Actuator</b>
<b>Material</b>	
<b>Sizes</b>	Piston Ø up to 200 mm
<b>Function</b>	
<b>Key Features</b>	To CETOP/ISO up to 250 bar (higher pressures on request) With accessories

## Units & Power packs

	
	<b>Units &amp; Power packs</b>
<b>Material</b>	
<b>Sizes</b>	Standard tank sizes, special tank sizes on request
<b>Function</b>	According to customer specifications
<b>Key Features</b>	Compact Filters easy to replace

For any further information on IMI Herion hydraulic products, please contact: [herionsystemtechnik@imi-precision.com](mailto: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 **[www.imi-precision.com](http://www.imi-precision.com)**

**Supported by distributors worldwide.**



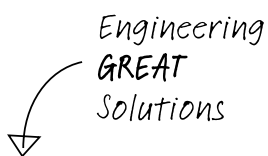
**Precision** Engineering

Norgren, Buschjost, FAS, Herion and Maxseal are registered trademarks of IMI Precision Engineering companies.

Due to our policy of continuous development, IMI Precision Engineering reserve the right to change specifications without prior notice.

z8210BR en/02/18

Selected Images used under license from Shutterstock.com



THORNE &  
**DERRICK**  
INTERNATIONAL

**Thorne & Derrick**  
+44 (0) 191 410 4292  
[www.heatingandprocess.com](http://www.heatingandprocess.com)