

# Hydraulic components for usage in explosive hazardous areas



Do you design or manufacture machines for use in explosion hazardous areas? Within our broad product range you can select the suitable hydraulic pumps, power units, solenoid or purely mechanically actuated valves. Please look closer!

Solutions for a World under Pressure

**HAWE**  
HYDRAULIK

## ATEX, IECEx, NEC 500 and more.

### What you need to know:

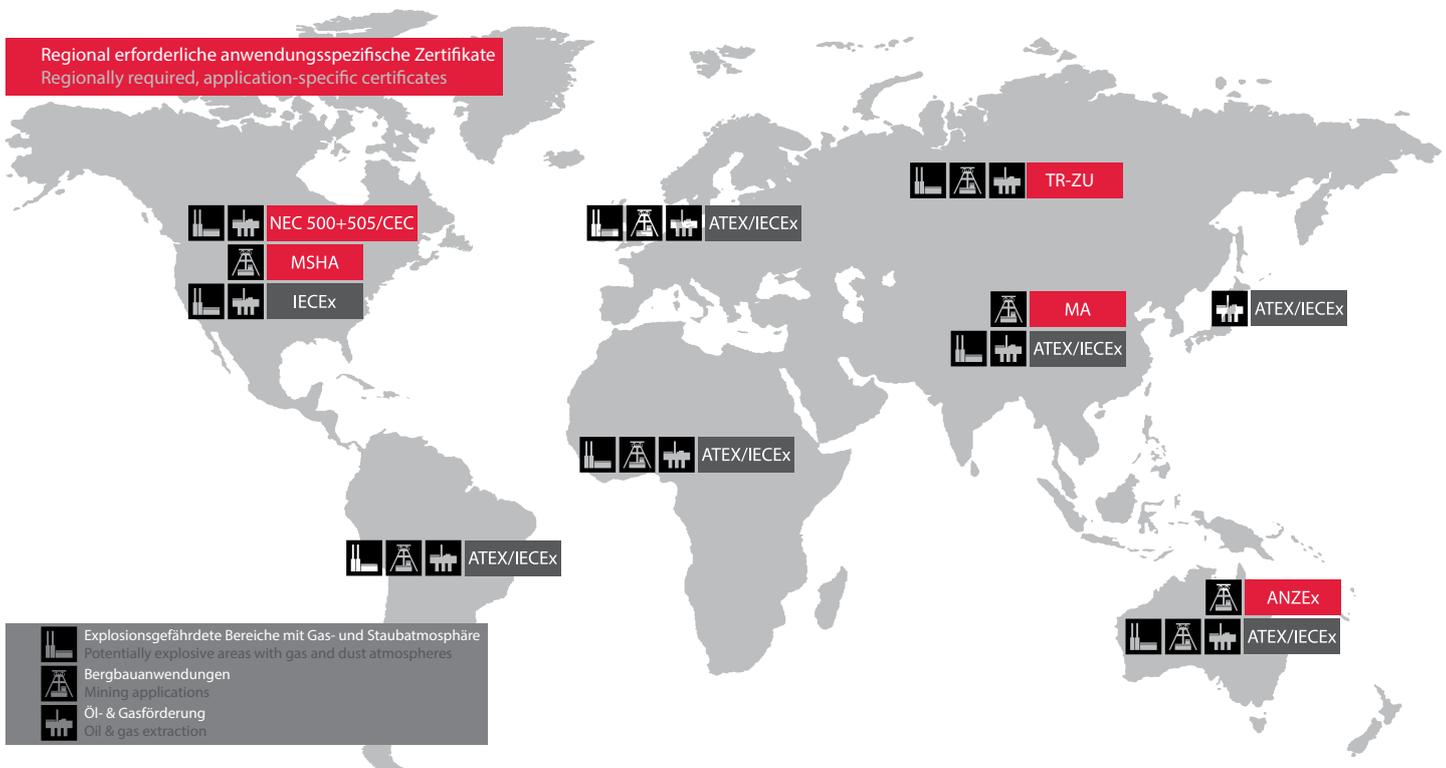
The ATEX Directive 94/9/EC, which has been valid in Europe for the past ten years or so, has grown far beyond its actual scope and has become the standard regulation for explosion protection.

The ATEX Directive has set standards in international explosion protection. Many non-European countries have since followed the EU's example and have established or expanded their regulations for explosion protection based on the content of the ATEX Directive and have adopted parts of it in their national regulations.

In order to fulfil the increasing requirements, also in an international context, the updated Directive 2014/34/EU will be effective as of 20 April 2016.

Since the same explosion-proof device must meet different standards in different countries – depending on the underlying safety policy – sometimes a national certificate alone is insufficient. The device may need to be certified several times depending on the country in which the device will be used. Standards such as NEC 500, ANZEx, MA etc. must be observed.

HAWE Hydraulik is aware of the importance of functioning explosion protection and provides products that are in accordance with common global standards. HAWE Hydraulik constantly endeavours to adapt existing unit approval tests to meet global requirements and also to provide international approvals.



## System components from HAWE Hydraulik.

HAWE Hydraulik offers reliable, durable products with state-of-the-art design. The sophisticated modular system enables you to combine the elements you need in the most effective, cost-efficient way for minimum overall weight. A selection from our product range:

### Secure overall control system:

Single and dual circuit pumps with an ATEX approved industrial standard motor, coupling, fluid level switch and temperature switch for a high level of safety. In conjunction with a wide range of valve controls for potentially explosive areas, we offer a flexible range of variants and a secure overall control system.

- Operating pressure ( $p_{max}$ ): 700 bar
- Flow rate ( $Q_{max}$ ): 91,2 l/min



### Precise control with certification:

Proportional directional spool valves according to the Load-Sensing principle for bankable or manifold mounting. They are intended for sensitive motion control via hand lever, joystick or remote control. Even the variant with integrated displacement transducer can be shipped in compliance with the ATEX Directive.

- Operating pressure ( $p_{max}$ ): 420 bar
- Flow rate ( $Q_{max}$ ): 400 l/min per section



### High pressure components:

Individual valves and valve banks with zero leakage for directional control. They are available as single valves for pipe installation, as manifold mounting valves and as valve banks. In this way, depending on the application, an optimum, space-saving and economical control system can be realised.

- Operating pressure ( $p_{max}$ ): 700 bar
- Flow rate ( $Q_{max}$ ): 12 l/min



### Additional functions for intelligent solutions:

Solenoid actuated valves with integrated additional functions for clever controls in compact design. Thanks to their flange pattern according to DIN 24 340 (NG6), they can be flexibly integrated into known control concepts.

- Operating pressure ( $p_{max}$ ): 220 bar
- Flow rate ( $Q_{max}$ ): 25 l/min



### Compact combinations:

Valve combination used for controlling lifting equipment with one or two single acting hydraulic cylinders. The integration of all required control components in a shared housing provides a very compact solution.

- Operating pressure ( $p_{max}$ ): 220 bar
- Flow rate ( $Q_{max}$ ): 30 l/min



## Identification of HAWE products:

### For usage in gas and dust hazardous areas:

Mechanical	II 2 GD c T4
Single coil:	II 2 G Ex d IIB + H2 T4 II 2 D Ex mbD 21 T135°C
Twin coil:	II 2 G Ex mb II 120°C (T4) II 2 D Ex mbD 21 T120°C

### For usage in mining:

Mechanical	I M2 c
Twin coil:	I M2 Ex d I
(intrinsic safe)	I M2 Ex d ib I

I:	Device group: For use in mining applications
II:	Equipment group: Use in all areas except mining
2:	Equipment category: Use in zone 1, 11, 2 and 21
GD:	Explosive atmosphere: G - Gas, D - dust
c:	Type of ignition protection: c - constructive safety m - molded d - pressure resistant enclosure
T4:	Temperature class: Maximum surface temperature for use in potentially explosive atmospheres: 135°C.

Further certifications according to IECEx (international), MSHA & NEC (USA), CEC (Canada), MA (China), ANZEx (Australia) and TR (Russia).

## End-to-end service.

With five sales offices in Germany, 17 subsidiaries worldwide and around 30 expert partner companies, HAWE Hydraulik is bound to have a presence in your area.

HAWE Hydraulik offers the following benefits:

- Comprehensive individual advice and assistance
- Customized solutions
- Products designed and manufactured using state-of-the-art technology
- Many years of experience and expertise in hydraulic products and their uses
- Tailored service and maintenance contracts
- Layout, set-up, and maintenance/service on-site

If you have any questions, please get in touch. Our experts are always happy to help.