

# HIGH PRESSURE PUMPS



Toll Free Sales & Service (USA & Canada)  
**1-800-217-8677**

# HIGH PRESSURE PUMPS: OUR 4 PRODUCT DIVISIONS.

Toll Free Sales & Service (USA & Canada)  
1-800-217-8677

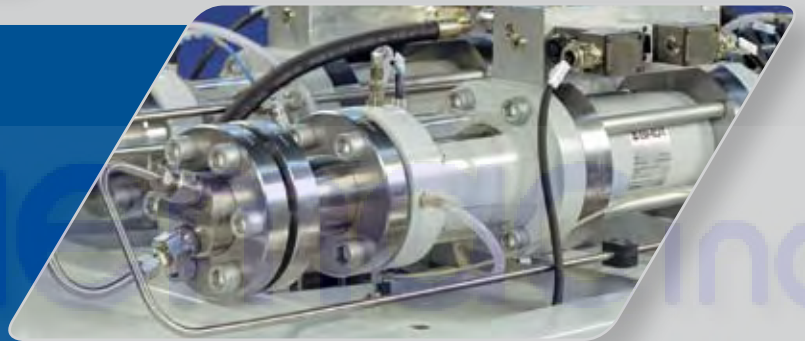
1.

HIGH PRESSURE PUMPS  
FOR WATERJET CUTTING.



2.

PEROXIDE DOSING PUMPS  
FOR LDPE SYSTEMS.



3.

PRESSURE TESTING  
PUMPS AND SYSTEMS.

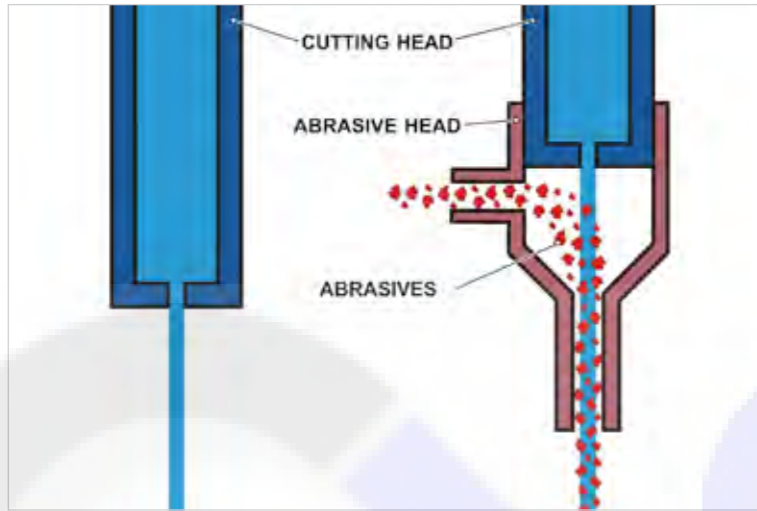


4.

AUTOFRETTAGE SYSTEMS.



# 1. HIGH PRESSURE PUMPS FOR WATERJET CUTTING (420 MPa).



The first technical applications to use waterjet technology date back some 140 years. Waterjets were first used in about 1870 for gold mining. In the years that followed, this technology has seen rapid changes.

## 2 DIFFERENT APPROACHES!

Today, there are two fundamentally different approaches to waterjet technology: pure waterjet and abrasive waterjet. Applications can handle material thicknesses of up to approx. 300 mm.

### THE WATERJET.

Waterjet cutting relies on a highly focused jet. Waterjet diameters are between 0.10 and 0.45 mm. To achieve the required energy concentration, pressures of up to 420 MPa are required to generate the jet. This is equivalent to the pressure a 42 km column of water would exert on the ground.

### THE ABRASIVE WATERJET.

The energy density of a pure waterjet is not adequate for processing many technical materials. In applications of this type, solid particles (typically garnet sand) are added. This gives users the ability to boost the cutting performance compared with a pure waterjet application.

All told, waterjet technology gives users the ability to process a large variety of materials. Due to the benefits of this approach, it is a better choice than conventional cutting for many applications.



Various materials, cut with a pure waterjet.



Technical parts, cut with an abrasive waterjet.



Stainless steel coat of arms with abrasive cutting head.



## HYTRON®

### THE NEW STANDARD FOR WATERJET CUTTING

High pressure pumps are available as open-type OEM units or as complete units with sound insulated housing. HYTRON® high pressure pumps are characterized by excellent accessibility, easy maintenance and use. Units with flow rates of between 1.2 and 7.6 l/min and power ratings of between 11 and 75 kW are available.



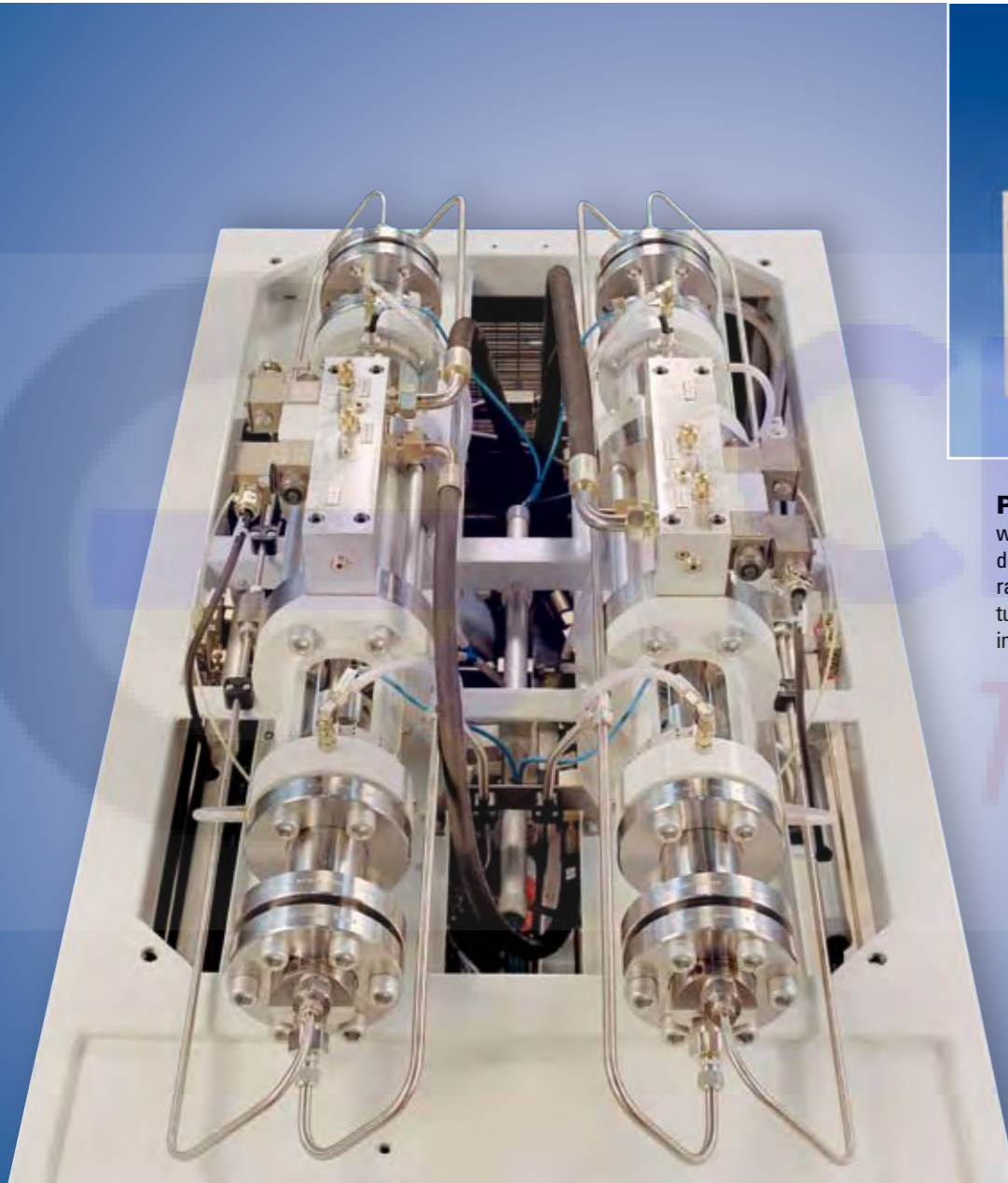
### HIGH PRESSURE COMPONENTS

such as the TWINJET® abrasive waterjet cutting system, abrasives dosing systems, high pressure valves, swivels, fittings, and complete tubing systems for waterjet and abrasive waterjet cutting with operating pressures of up to 420 MPa are available.

Toll Free Sales & Service (USA & Canada)

1-800-217-8677

**2. PEROXIDE DOSING PUMPS FOR LDPE PLANTS (350 MPa).**



**PEROXIDE DOSING PUMPS** with intensifier in "single" and "stand-by" design, pressure range up to 350 MPa, flow rates up to 150 l/h, as well as high pressure tubing systems and injection nozzles for use in LDPE (Low Density Polyethylene) reactors.

**STAND-BY INTENSIFIERS** offer redundancy and improve the availability of the dosing pump. Switch-over can be effected directly at the pump or remotely controlled via the central control unit (DCS).

**Chemac Inc**  
 USA & Canada Toll Free 1-800-217-8677  
 Off: 1-252-631-7188  
 121 Corporate Lane New Bern, NC 28562  
 USA (HQ URACA Service Center)  
 Email: chemac@chemacinc.com  
 www.chemacinc.com or www.uraca.de

**3. PRESSURE TESTING PUMPS AND SYSTEMS (550 MPa).**



**PRESSURE TESTING PUMPS** mobile type for construction site use and as stationary plants for valve testing units, flow rates up to 1 l/min at a max. operating pressure of 550 MPa.

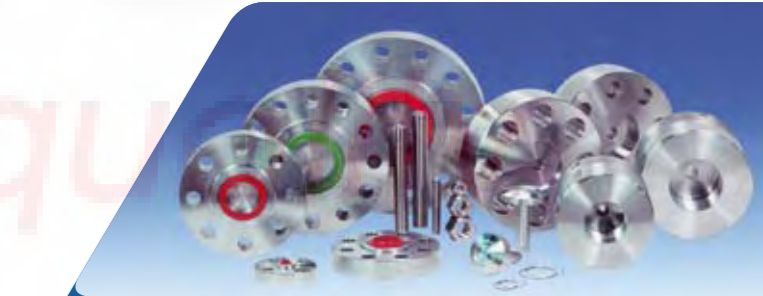


**STATIONARY VALVE TESTING UNITS** and complete pressure testing units for a max. operating pressure of up to 550 MPa.

**4. AUTOFRETTAGE SYSTEMS (1,000 MPa).**



**ULTRA HIGH PRESSURE PUMPS** and components for autofrettage and pressure testing units with operating pressures of up to 1,000 MPa with a flow rate of up to 0.5 l/min.



**TOOLS AND COMPLETE SEALING SYSTEMS** for pressure testing and autofrettage at operating pressures of up to 1,000 MPa.