



Water as a tool
for a clean environment

Ultra-High Pressure 3000-bar M-Line



3000 bar
for the next
millennium

Millennium: The most powerful 3000-bar pump

Pump Head

- ▶ Three partite pump head in central valve design, free of alternating stresses
- ▶ Armoured cylinders
- ▶ Conversion set, equipped with hard metal plungers and dynamic sealing systems
- ▶ High volumetric efficiency due to minimized "dead volume"
- ▶ Newly developed static metal sealings in the areas of dynamic loading
- ▶ Minimum pressure fluctuations due to optimized valve kinematics
- ▶ Long service life of all pump head components
- ▶ Easy maintenance due to simple assembly and good accessibility

HCV® technique

Hydrostatically Compensated Valves

The unique und patented (DE 19819972 C 1) central valve construction guarantees:

- ▶ Extremely long service life
- ▶ Excellent resistance against high mechanical loads
- ▶ High fatigue strength
- ▶ Minimum maintenance cost

General Features

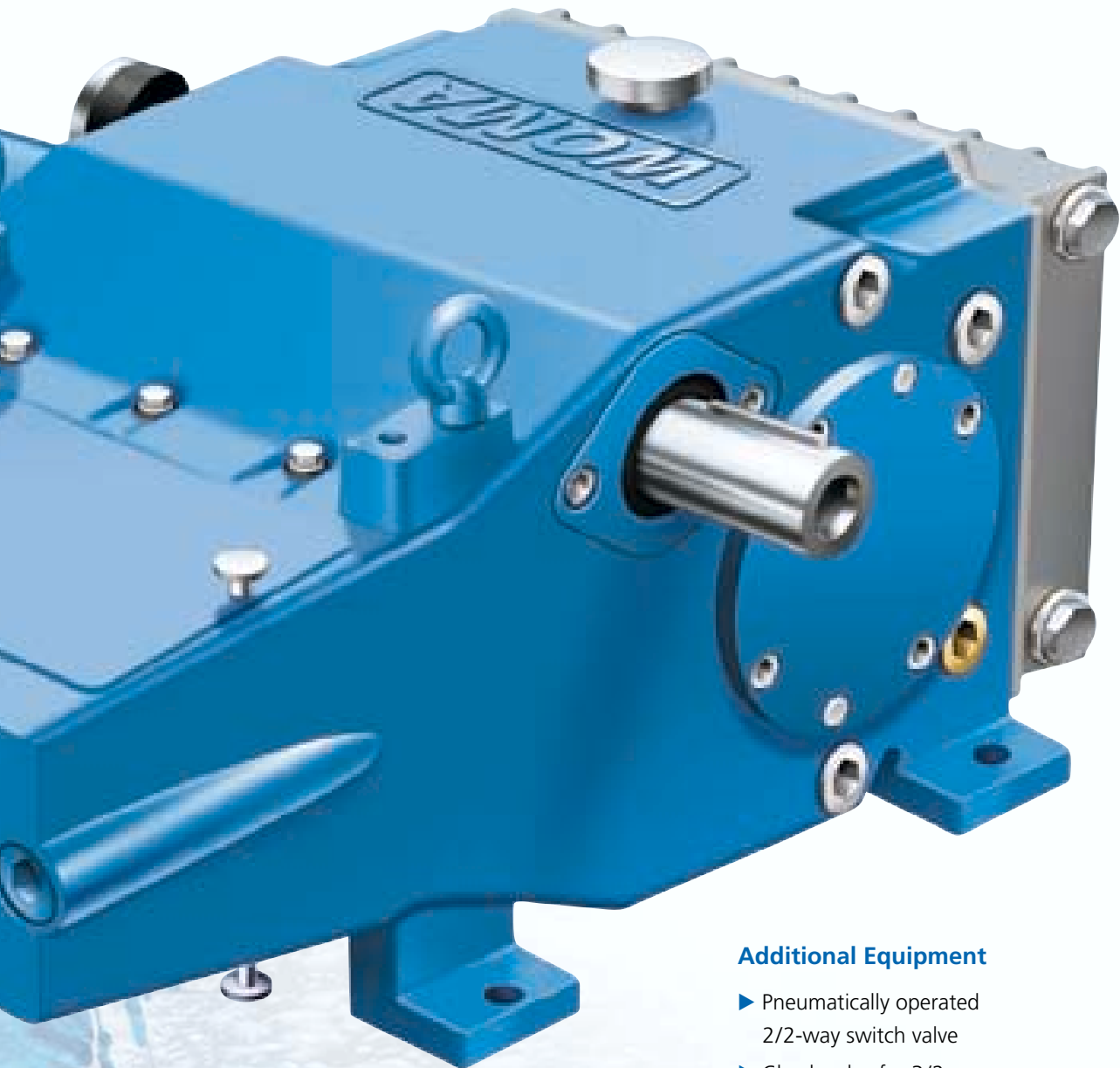
- ▶ Two levels of the drive shaft possible by turning the complete pump
- ▶ Good accessibility in any fitting position
- ▶ Very high service life even in permanent operation



ump line featuring the HCV® valve technique

Pump Gear

- ▶ Proven pump gear with forced lubrication and variable gear ratio



Additional Equipment

- ▶ Pneumatically operated 2/2-way switch valve
- ▶ Check valve for 3/2-way functions

0000 bar

Applications and Technical Data



WOMA Apparatebau GmbH

Werthäuser Str. 77-79 · D-47226 Duisburg
 P.O. Box 14 18 20 · D-47208 Duisburg
 Phone +49 2065 304-0 · Fax +49 2065 304-200
 Internet: <http://www.woma.de>
 E-mail: info@woma.de

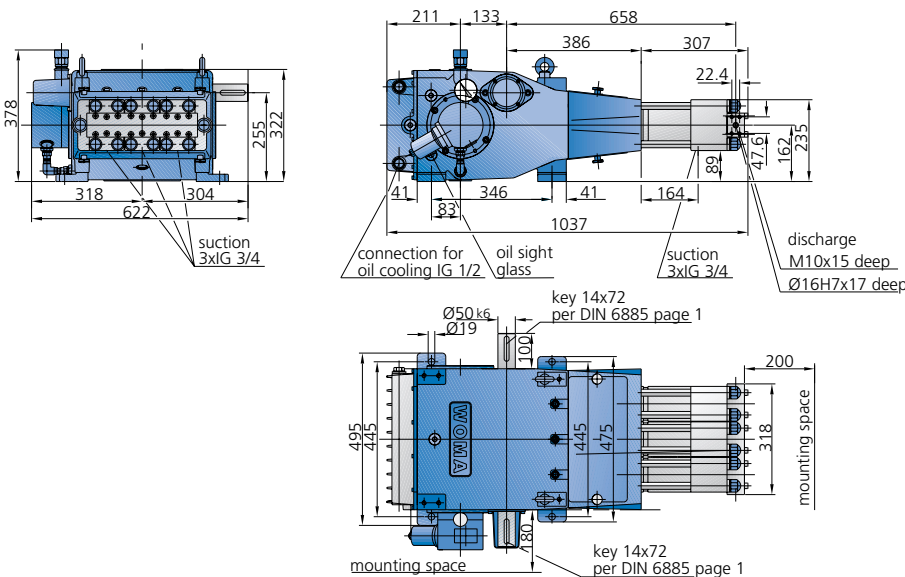
Technical Data:

- ▶ Oil capacity: approx. 8 l
- ▶ Stroke: 95 mm/3.74 inch
- ▶ Weight: approx. 370 kg net
- ▶ Impact pressure required: 20 – 45 psi/3 – 5 bar
- ▶ Rod force: 51 kN

Performance Chart Pump Type 180 M-3000

Plunger diameter (mm)	Gear ratio		Crank shaft (Rpm)	Required drive (kW)	Nominal flow rate			Max. permissible operating pressure (psi/bar)
	Pinion shaft (Rpm)				USG pm	IMPG pm	l/min	
	1,500	1,800						
P 15	4.52	398	92	4.5	3.8	17	43,500/3,000	
	3.57	420	97	4.8	3.9	18		
	4.52	331	77	3.8	3.1	14		
P 16	4.52	398	90	5.3	4.4	20	36,200/2,500	
	3.57	420	95	5.6	4.6	21		
	4.52	331	75	4.3	3.5	16		
P 18	4.52	398	94	6.9	5.7	26	29,000/2,000	
	3.57	420	99	7.2	6.0	27		
	4.52	331	78	5.6	4.6	21		

Your Canadian Representative:
 aquapower®
 a division of
 aquachem corp.
 75 Fernstaff Court #3
 Concord, ON L4K 3P8
 Ph.: 905-761-7255
 Fax: 905-761-7256
info@aquachem.ca



All dimensions in mm
 Thread „M“ as per DIN 13/ISO 261
 Thread „G“ as per DIN ISO 228/1

Delivery Programme

High-pressure plunger pumps
 High-pressure water jet systems
 High-pressure water tools
 and accessories

Fields of Application

- Agriculture
- Automotive and aviation industry
- Beverage industry
- Cement industry
- Chemical industry
- Construction and concrete industry
- Engineering industry
- Food industry
- Glass, porcelain, ceramic industry
- Iron, steel and metal industry
- Mining
- Municipal services
- Offshore industry
- Power industry
- Public transport
- Pulp and paper industry
- Ship building
- Wood working industry