

Industrial Solutions
Electrolysis & Polymers Technologies

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Industrial Solutions

Equipment for Waterjet cutting pumps



thyssenkrupp

Equipment for waterjet cutting pumps – manufactured by Uhde



Wide range of models

The HPS/HPD series offers a suitable pump for every customer - from 7.5 kW at 0,8 l/min to 75 kW at 7.6 l/min (4,000 bar) and from 45 kW at 3 l/min to 90 kW at 6 l/min (6,000 bar).

Thanks to the special Uhde Common-Rail system higher power and flow rates are possible.

Valve boards

- High pressure piping components: pipes, fittings, valves etc.
- HP filters (4,000 and 6,000 bar)
- HP pulsation damper (4,000 and 6,000 bar)
- Special tools



Advantages to be gained at 6 kbar

- Increased max. cutting thickness (up to 400 or 500 mm)
- Increase of cutting speeds (1.8 to 2.5 times)
- Reduced abrasive consumption (30 to 40 %)
- Cutting harder materials such as ceramics
- Possible reduction in width of cut and kerf taper
- Possibility to cut materials with pure water only
- Possibility to cut new materials & increasing the cutting quality



Optional high pressure equipment

- HP cutting valves
- Abrasive cutting heads
- Abrasive dosing and supply systems
- High pressure piping components: pipes, fittings, valves etc.
- HP filters (4,000 and 6,000 bar)
- HP pulsation damper (4,000 and 6,000 bar)
- Special tools

Picture top: Basic - without hood, doors and sound proofing elements

Picture center: OEM - without electrical cabinet and control (PLC)

Picture bottom: Standard - including electrical cabinet, control (PLC), sound proofing elements, hood and doors

Main technical data for the 4,000 and 6,000 bar pump series

Description	Unit	HPS 4008	HPS 4011	HPS 4022	HPS 4037 HPD 4037	HPD 4055	HPD 4075	HPS 6045	HPD 6090 HPD 6045
Main motor power (400V, 50 Hz)	kW	7,5	11	22	37	55	75	45	90
Max. flow rate	l/min	0,8	1,2	2,3	3,8	5,7	7,6	3,0	6,0
Operating pressure	bar	400-3,800	400-3,800	400-3,800	400-3,800	400-3,800	400-3,800	500-6,000	500-6,000
Max. operating press.	bar	4,000	4,000	4,000	4,000	4,000	4,000	6,000	6,000
Max. sound level **	dB (A)								
Standard		≤ 75	≤ 75	≤ 75	≤ 75	≤ 75	≤ 75	≤ 75	≤ 75
OEM / Basic Version		≤ 80	≤ 80	≤ 82	≤ 82	≤ 85	≤ 87	≤ 85	≤ 87

Connections

Connection	Unit	HPS 4008	HPS 4011	HPS 4022	HPS 4037 HPD 4037	HPD 4055	HPD 4075	HPS 6045	HPD 6090 HPD 6045
Suction water pressure	bar	4 - 7	4 - 7	4 - 7	4 - 7	4 - 7	4 - 7	4 - 7	4 - 7
Pneumatic supply pressure	bar	6 - 8	6 - 8	6 - 8	6 - 8	6 - 8	6 - 8	6 - 8	6 - 8
High pressure connection HP-tube		3/8"	3/8"	3/8"	3/8"	9/16"	9/16"	3/8"	9/16"

* Stand-By HP-unit possible ** Toleranz +/- dB(A)

Technical Support / Service

High pressure waterjet cutting systems require high-quality services and professional technical support. Thus, UHDE HPT offers a comprehensive range of services from a single source:

- Competent installation and erection of the HP-pump for trouble-free commissioning
- Training courses and service seminars for operating and maintenance staff
- Repair of HP-components
- Complete overhaul service of the HP-pumps
- Customised piping of systems
- Life-long availability of high-quality original spare parts
- Execution of cutting tests
- 24-hour customer service
- Maintenance video (several languages selectable)

Feasible nozzle constellation for the 4,000 and 6,000 bar pump series

Nozzle Ø (mm)	Number of nozzles								
	HPS 4008*	HPS 4011*	HPS 4022*	HPS 4037* HPD 4037*	HPD 4055*	HPD 4075*	HPS 6045 HPD 6045	HPD 6090	
0.10	2	4	8	13	20	27	8 / 14*	17	
0.12	2	3	5	9	13	19	6 / 10*	12	
0.15	1	1	3	6	8	12	3 / 6*	7	
0.18	-	1	2	4	6	8	2 / 4*	5	
0.20	-	1	2	3	5	6	2 / 3*	4	
0.23	-	-	1	1	2	3	1 / 2*	3	
0.25	-	-	1	2	3	4	1 / 2*	2	
0.28	-	-	1	1	2	3	1 / 2*	2	
0.30	-	-	-	1	2	3	- / 1*	1	
0.33	-	-	-	1	1	2	- / 1*	1	
0.35	-	-	-	1	1	2	- / 1*	1	
0.38	-	-	-	-	1	1	- / 1*	1	
0.40	-	-	-	-	1	1	-	-	
0.45	-	-	-	-	1	1	-	-	
0.50	-	-	-	-	-	1	-	-	

* Values determined for 3,800 bar