

# ARA

## WATERJET PUMP

60,000 PSI | 50 HP



### SIMPLIFIED CUTTING OPERATION

Field Proven Technology for a Wide Range of Applications

The ARA high-pressure pump meets all essential requirements for successful and seamless operation of a waterjet cutting system. While it fully eliminates complex features in favor of ease of operation, ARA hosts one of the most successful and reliable KMT intensifier designs, called "HSEC". Whether you're cutting hourly or single shift operation, ARA handles the load easily.



### Trusted SL-VI HSEC High-Pressure Intensifier

Thousands of the SL-VI intensifier with the Hard Seal End Cap type are currently in use all over the world, many of them in multiple shift operations. The highly reliable SL-VI intensifier unit is one of the key features of the ARA high pressure pump and is often referred to as "the heart of the pump".



### Intelligent Control System for Built-in Safety

To ensure highest safety and reliability, the ARA is equipped with a Siemens PLC system. The graphic display provides the machine operator with valuable information regarding the operating status of the pump. Information that might be relevant for proper servicing is thus easily available, and the display acts as an indispensable tool for troubleshooting.



### Maintenance Friendly Frame Design

To facilitate instant access to the maintenance and inspection areas, doors and covers are designed for easy removal and re-positioning.

### Stand-alone Operation or Overall System Integration

Depending on the customer's requirements, the pump can be run as a stand-alone unit or it can be hardwired to the central PLC of the motion system.

The Right Pump Matters

**KMT**  
WATERJET

ARA PUMP SYSTEM INFORMATION	IMPERIAL	METRIC
Nominal Power Rate	50 HP	37 kW
Max. Continuous Pressure	7,251- 60,000 PSI	500-4.100 bar
Max. Water Flow Rate at Max. Pressure	1 gal./min.	3.8 l/min.
No. of Language Options on Display	2: English/Chinese	2: English/Chinese
Control Voltage & Power Supply VDC	24 V DC	24 V DC
Nominal Motor Current 380V/50Hz	66 A	66 A
Max. Circuit Breaker at 380V/50 Hz	80 A	80 A
Length	76 in.	1.935 mm
Width	36 in.	914 mm
Height	47 in.	1.194 mm
Control System	Siemens	Siemens
Pneumatic Supply Pressure Requirement	86,000 PSI	5.9 bar
Pneumatic Supply Volume Requirement	7.48 gal./min.	28.3 l/min.
Max. Noise Level	<90 dB (A)	<90 dB (A)
<b>CONNECTIONS</b>		
High Pressure Outlet Connections	9/16 in. UNF	15 mm UNF
Low Pressure Connection	1/2 in. BSPT	12.7 mm BSPT
Drainage Connection	1/2 in. BSPT	12.7 mm BSPT
<b>CUTTING WATER</b>		
Min. Inlet Cutting Water Pressure	29,000 - 58,000 PSI	2 - 4 bar
Max. Nominal Stroke Rate	54 min.-1	54 min.-1
Accumulator Volume	.26 gal	1 l
Low Pressure Filter	10 µm abs.	10 µm abs.
<b>HYDRAULIC SYSTEM</b>		
Max. Hydraulic Pressure	2755.717 PSI	190 bar
Hydraulic Tank Capacity	45 gal.	170 l
Hydraulic Pump Flow Rate at 50 Hz	26.7 gal./min.	101 l/min.
<b>COOLING SYSTEM</b>		
Cooling Water Pressure bar	29,000 - 101,526 PSI	2 - 7 bar
Cooling Water Consumption at 24d C / 75d F	1.50 gal./min.	5.7 l/min.
Ambient Temp. Oil/Water Heat Exchanging	104d F	40d C
<b>OPTIONS &amp; OTHER FEATURES</b>		
SSEC Intensifier Design	Standard	
HYPERLIFE™ Seal Technology	Standard	
Safety Dump Valve	Standard	
Inlet Shut-Off Valve	Standard	
Low Pressure Filter (10 µm abs.)	Standard	
Oil Level & Temperature Sensor	Standard	
Booster Pump (adjustable & protected)	Standard	
Oil/Water Heat Exchanger	Standard	
Y/D Starter	Standard	
Dual Pressure Compensator	Standard	
ProfiBus Connection	Optional	
Electric V/P/N : 208/3/60, 575/3/60, 460/3/60, 230/3/60	Optional (others on request)	

### MAX. QUANTITY OF ORIFICES @ 60,000 psi/3.800 bar

Dia. in mm	Dia. in Inches	Quantity of Orifices
0.10	0.004	12
0.12	0.005	8
0.15	0.006	5
0.17	0.007	4
0.20	0.008	3
0.23	0.009	2
0.25	0.010	2
0.28	0.011	1
0.30	0.012	1
0.33	0.013	1
0.35	0.014	1

The maximum quantity of orifices installed can be increased or larger orifice sizes can be installed by reducing the working pressure. Please feel free to contact us for your individual calculation.

## KMT CUT CALCULATOR APP

Compare cutting speeds.



## KMT GENUINE SERVICE

KMT 360 PM programs available.



### KMT Waterjet Systems

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08/2024  
ARA PUMP US - RELEASE