









SO 45001:2018 OHSMS













PRODUCT CERTIFICATE EC Attestation of Conformity

In Compliance with following Directives:
Machinery Directive 2006/42/EC

Low Voltage Directive 2014/35/EU

Pressure Equipment Directive

UK CA

































#### 1. - PUMP

PUMP MAKE **AQUAJETS Part No** D 45023-XX Rated Horsepower 250

**Number of Cylinders** 3

3. 5 inch Plunger Stroke Plunger Load 15,500 Lbs

Flow Rate 8.57Gpm (Theoretical)

Max. Pressure 40,000 Psi



Fluid Cylinders Aircraft quality specialty stainless steel, proprietary pre stressed, to

continuously withstand high-pressure loading.

Manifolds Individual lightweight stainless steel Suction and Discharge

manifolds are easily removable for routine maintenance.

Heat-treated stainless steel "Valve-In-Line" system. All valves may **Valves & Seats** 

be reconditioned by surface grinding.

**Packing** Low friction polymer materials with glass/carbon fiber fillers, give

Drip less service when used with non-scoring ceramic plungers. Drip less packing is pressure lubricated by automatic closed loop

Circulation flow from the suction manifold.

Non scoring, solid Ceramic. (Tungsten carbide coated steel for UHP **Plungers** 

units)

**Power Frame** Precision machined high strength grey iron alloy casting with sturdily

ribbed wall sections.

Crankshaft Machine from a solid 4143H alloy billet with ground and polished

journal bearing surfaces. Shaft ends may extend from either side of

power-frame.

**Main Bearings** Heavy-duty taper roller bearings.

Crosshead Cylindrical type-high strength nodular iron castings with wrist pins of

hardened and ground alloy steel.

**Extension Rods** Ground, burnished and polished stainless steel.

Connecting Rod Self-lubricating polymer. Seals

Power End Lubrication Splash type from crankshaft rotation into the oil bath











#### 2. - ENGINE

## Diesel Engine

- Perkins 1106C-70TA
- Liquid cooled diesel engine, EPA and TIER 2 Certified
- Rated for 220 horsepower at 2200 rpm
- Side load power take-off (P.T.O.) clutch manually operated
- Low oil/High coolant temperature emergency shutdowns
- Hand operated engine throttle control
- Heavy-duty 12 volts battery, starter and alternator
- Carbon Steel Diesel tank 100 Gallons for 24 hrs. of operation with level gauge & safety vent (UL Certified USA).



## 3. - POWER DRIVE

#### Sprockets

Gear action synchronous driver and driven type with quick disconnect hub mounts.

#### Belt

Slip proof Kevlar reinforced toothed type belt drive eliminates Slippage, stretching and high tension and side load on pump and Motor shaft. Drive is virtually maintenance free.

# Guard

Sheet metal removable type with inspection covers encloses the toothed sheaves and the belt for safety.

#### 4. - SUCTION PLUMBING

#### Strainer

100 mesh Basket strainer with stainless steel screen filters incoming water from a supply source.

#### **Dual Filter**

Canister Stainless steel bag type and 4 Cartridge filter ensure complete removal of dirt particles down to 1 micron to protect wear Parts in the high pressure pump.



50 Gallon holding capacity with automatic water level shut off.

## Charge Pump

To take supply 12 GPM @ 500 Psi from the tank and pass through Filter at the proper Net Positive Suction Head (NPSH) to feed the high-pressure pump.































#### 5. - DISCHARGE PLUMBING

Connections 9/16" inch AE (F) replaceable threaded series 75 type connectors for

40,000 PSI rated service.

0 to 60,000 PSI, liquid filled, stainless steel type with a **Pressure Gauge** 

pulsation dampening snubber mounts on the high pressure

Pump discharge manifold.

**Rupture Disc** Dual Rupture Disc system set at 15% above the rated operating pressure are typically used to instantly

alleviate potentially dangerous pressure build up.

**Control Panel** Engine Temperature and Oil Temperature switches Engine Tachometer Start & Stop switches

Low Oil/High coolant temperature emergency shutdown

#### 6. - SKID MOUNTED

SKID Structural steel welded frame and plate.

- Solid plate seam welded to the structural framework.

- Four post protective frame and four lifting eyes

- Skid Size 5.5' x 12' x 8'

# 7. -FINISH SYSTEM

Preparation

Weld slag, grease & oil removal by grit SAE 2.5

blasting Primer

High quality, rust inhibitive primer is applied over all

Unpainted surfaces.

Automotive grade Gray for the Frame & Red for the Pump Coated over appropriate surfaces.

#### 8. - TRAINING

In-House

Paint

Two days comprehensive in house hands on training to customer personnel of the safe use and operation of Water-Jetting units and work tools (travel, hotel and visa arrangements will be covered at client's cost for two persons outside UAE) .

#### 9. - MAINTENANCE ACCESSORIES

- Maintenance & Operation Manual
- Maintenance & Operation Manual Engine
- Test certificate @ 40,000 PSI
- Warranty Certificate.















SI#	DESCRIPTION	QTY
1	Aquajets AQJ 200 DS 40,000 Psi @ 8.57 US GPM (32.39LPM) Water Jetting Pump Unit Consisting of:- Diaphragm Charge pump 12Gpm @ 500 Psi Duel Filtration System Water tank 50 G SS with Low level For Post Protective Frame with Four Lifting Eyes Fork Lift Tunnels 4 Nos.	1
2	Zero Thrust Gun 40K	2
3	7/16" Nozzle 30,000 PSI	4
4	9/16" 40K UHP Hose with Protective cover 20 Mtrs	5
5	Hose Connectors with Gland & Collar 60K	4
6	9/16" Gland & Collar 60K	2

Note: 40,000 PSI Pumps with sea water usage, the spare parts consumption will be more. UHP pump & accessories should be flushed with fresh water after every use.

Warranty

Twelve months or 1000 running hours limited warranty(whichever comes first) for the manufacturing defects and the non expandable parts of the pump, and there will be no warranty for Hose and Accessories. International warranty from the local agent for the Diesel Engine.











# **ORDERING INFORMATION**

S	r.	Part Number	Description
	1	SY-WATERJET-40K	HIGH PRESSURE WATERJET MACHINE, DIESEL, 40,000 PSI
2	2	SY-WATERJET-30K	HIGH PRESSURE WATERJET MACHINE, DIESEL, 30,000 PSI
3	3	SY-WATERJET-20K	HIGH PRESSURE WATERJET MACHINE, DIESEL, 20,000 PSI
	4	SY-WATERJET-10K	HIGH PRESSURE WATERJET MACHINE, DIESEL, 10,000 PSI











# **SYNERGY INFRASTRUCTURE**





# Contact us

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