# **KMT Pure Water Cutting**

AQUALINE® PRO 90,000psi VALVES

# PROVEN PERFORMANCE AT EXTREME PRESSURES

Pure water cutting applications are among the most demanding of subcontracting jobs in the industry. Demands put on waterjet components and some industry production units usually run 3 x 8-hour shifts throughout the complete week highlighting a need for extremely high reliability and speed.

Any production stop is equivalent to expensive delays and shutdowns of processes further down the production flow stream. The KMT AQUALINE® PRO, teamed up with the STREAMLINE PRO® pump, will substantially increase cutting speeds while retaining durability and precision during these long production runs.

### Wide Range of Applications

Pure water cutting applications usually work with significantly higher cutting speeds compared to those of abrasive cutting. The typical applications of this nature are found in the Automotive and Aerospace Industries, as well as miscellaneous plastic and composite paneling. Gaskets, foams and food are also sizeable application areas for pure waterjets.

#### Reliability Under Extreme Conditions

Our Aqualine® PRO pure water pneumatic valve has gained an industry-wide reputation for being among the quickest and the most reliable pure water cutting heads under extreme working conditions. The heads have the fastest reaction times while maintaining long component lifetimes with high quality.

# **Back-up Solutions**

The compact design allows it to be adapted to multiple cutting valves on a 1- or 2-D cutting machine to increase production throughput. The compactness also creates the possibility of installing a second set of cutting heads as a backup or redundant solution. In practice, more than 12 cutting heads have been hooked up to a single cutting system.

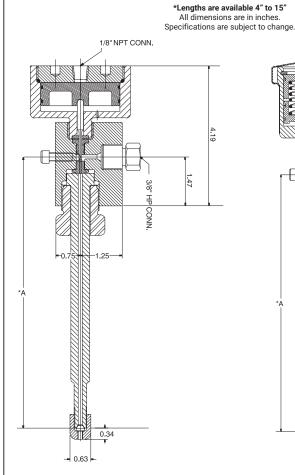


#### Ease of Maintenance

Leak holes protect the nozzle body, nozzle tube and nozzle nut from damages and indicate clearly which connection has to be tightened or which seal has to be replaced. The unique design allows for replacing the seal in under 5 minutes.

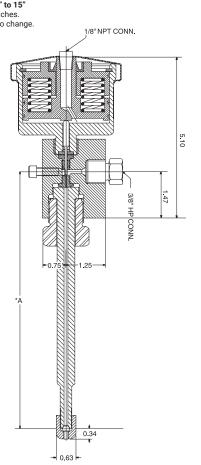






# **Normally Open Valve**

- Requires air pressure to close
- Loss of air pressure will automatically open the valve and release any stored water pressure



# **Normally Closed Valve**

- Requires air pressure to open
- Contains water pressure if air pressure is lost

# **Summary of Features**

#### **Durability**

New stem and seal design ensures a longer, more reliable life.

#### **Minimal Maintenance**

New stem designed for far more on/ off cycles than ordinary valves.

#### **Fast Reaction**

Design enables faster movement between cutting locations for an increase in production.

#### Reliability

6 stainless steel springs increase reliability and production.

#### **Flexibility**

The compact design enables close stacking of the cutting heads.

# **Two Styles**

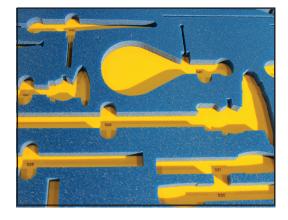
match the right valve to specific machines or build a complete bleed-and-block system using the *Normally Open* or *Normally Closed* styles.

#### Components

Part of the industry-leading cutting system which includes the best-ranked AUTOLINE™ cutting nozzles, focusing tubes and orifices.

# CYCLE TIMES (Water @ 50,000 PSI)

•	•	•
VALVE	OPEN	CLOSE
NC	48 MS	160 MS
NO	48 MS	115 MS
(MS = Milliseconds)		





THE HEART OF WATERJET CUTTING

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