

## tetraCORE™ - Orifices



H2O Jet's  
**Edge**  
Cutting Head



### Introducing tetraCORE™

tetraCORE™ is the newest material for waterjet cutting applications and has a hardness approaching diamonds - at a fraction of the cost. A mid-range performing orifice (doesn't last like diamonds), it is a breakthrough in material science and is the first new grade of orifice material introduced into the waterjet industry in over 30 years. It provides a more reliable alternative to rubies and sapphires. An elaborate technology engineered at the atomic level, tetraCORE™ is the achievement of a strategic structuring of the atomic lattice and has been designed to employ an extremely tough and durable tetrahedral bond that will resist erosion, chipping, and fracturing to last longer and reduce operating costs.

### Performance Advantages

- Longer Life – Binderless structure eliminates chemical reaction to water for more durable edges
- Greater jet stream consistency for smoother edges through thicker material
- Fewer change-outs and less scrap reduces operating costs
- Excellent reliability in abrasive waterjets
- Less supervision required

### New, Long-Life Orifices for Increased Up-Time of Waterjet Cutting Heads and Slitters

Precision-engineered for predictable performance, tetraCORE™ orifices offer durability far beyond rubies and sapphires. Extensive durability testing consistently showed performance over ten times better than ruby and sapphire orifices.

The longer life of the tetraCORE™ results in increased uptime and consistent production of parts with clean edges, making it a good option for parts far along in the production process or for uninterrupted cutting.

### Key Benefits

- Longer Cutting Hours
- Minimized material waste
- Increased Equipment ROI



*It's time to re-think the orifice change-out routine!*



## Mount Styles

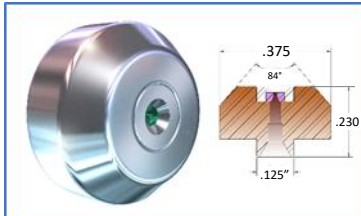
- xx=Orifice size in thousandths of an inch
- Available in 0.004"-0.020" (use 10 for 0.010")
- More mount styles available; please contact us

## Installation

- Purge lines before installing orifices after work is performed anywhere on the system
- Apply a small amount of blue anti-gall/anti-seize lubricant to the tapered face of the nozzle tube
- Tighten the head:
  - Only enough to create a seal – about 35-foot pounds
  - Prevent the nozzle tube from turning against the on-off valve

## Extending Performance

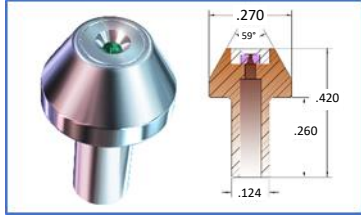
- Use tetraCORE™ with H2O Jet's Short-Stop, inline filter (it is used in the high-pressure water line):
  - The metal Short Stop Filter element can be cleaned and reused
  - Stops debris larger than 0.006"
- Change water filters regularly



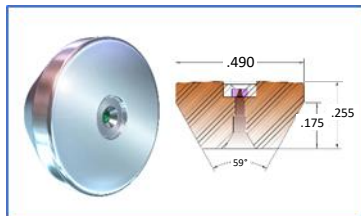
205101-xx  
Standard Nozzle



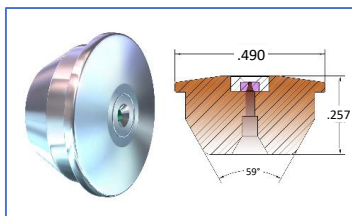
205201-xx  
Low Mass – LM-II-L Nozzle



205401-xx  
Long Stem - LS-I Nozzle



205501-xx  
P-III Nozzle



205940-xx  
P-V Nozzle

## ORIFICE performance

