MODEL HST
3,000 PSI Max Operating Pressure
1½” Through 16” Bores Available

The CUNNINGHAM MFG. CO. hollow rod servo cylinder is equipped with a TEMPOSONICS linear displacement transducer. A permanent magnet in the piston of the cylinder indicates the stroke traveled to as little as 0.002 inches tolerance.

FEATURES:
- Frictionless operation of the electronic parts
- Absolute system — data not lost after power interruption
- Rugged — not affected by adverse conditions
- Direct sensing of position
- Easy installation of a compact package
- High speeds possible with no shock
- Designed for continuous use in mill type applications
- Standard Cunningham seal kits and parts

BROCHURE 799 HST
Table 1: Mounting Dimensions

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WT: Determined for maximum 9" transducer deadband.

Table 2: Rod End Dimensions

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<th>BORE</th>
<th>ROD DIA.*</th>
<th>CC' ROD THD</th>
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</table>

*Many rod diameters available

Porting:
Rod End Port: SAE straight thread
Blind End Porting Options:
1. Manifold mount for Rexroth Servo
2. Manifold mount for your Servo
3. SAE straight thread
4. Special to suit application
**POSITIONER CYLINDER**
- 3000 PSI Operating pressure.
- 1\(\frac{1}{2}\)" bore thru 16" bore.
- Strokes up to 180", consult factory over 180".
- Most NFPA mounts available.
- Quick and easy installation.
- Designed for rugged, continuous use.
- Standard parts utilized, no special repair procedures.
- Internal digital transducer, easily replaced in the field.
- Highly accurate (±0.002") repeat positioning.
- High forces obtained with high velocity capabilities.
- Unaffected by adverse environmental conditions, i.e., dirt, dust, temperature, humidity, grease, oil, water.

**VALVING / COMBINATIONS**
- Servo
- Proportional
- Combination Servo plus Directional
- Proportional plus Directional for high speed application where accurate positioning must be maintained.
- Valve mounting options (manifold mounting) available.

**TRANSUDER AND CONTROLS**
- Internal Digital, or Analog Transducer utilizing a magnetostrictive principle.
- Output is absolute (no loss of position), infinite resolution, non-contacting, no friction, no wear or deterioration.
- Excellent repeatability (zero accumulated error).
- Mechanical stoppage of the cylinder will not affect the system.
- Extremely resistant to line noise.
- Feedback is an absolute encoder.

**SERVO-LOOP SYSTEM**
- Compatible with most computers and PLC's
- System can stand alone with custom operator control console for adjustable and discrete positioning.
Linear Positioner Cylinder

**EXISTING SYSTEM APPLICATIONS**
- XY Tables and Profiling
- Robot Arms
- Test equipment; velocity, positioning, deflection
- Windmill blade positioning
- Turbine wicket gates
- Lumber processing equipment; edgers, horizontal resaws, etc.
- Metal forming
- Tube and pipe bending
- Synchronization of multi-cylinder systems
- Automatic profile grinding
- Laser positioners

**FOUR POPULAR SYSTEM TYPES**

**Tempsonics II Half-Digital System with Digital Personality Module**

- Power Supply Requirements: ±15Vdc to ±15Vdc @ 10mA (typical)
- Pulse Duration Output: +2.5V
- Belden 8105 or equivalent (5 pair)
- USER'S CONTROL SYSTEM

**Analog System Configuration Using an Analog Output Module**

- Power Supply: ±5Vdc ±10Vdc
- Analog Output Module
- TEMPOSONICS™ II Transducer
- Belden 8105 or equivalent (5 pair)
- 0 to 10Vdc displacement output

**Full Digital System Configuration with Digital Personality Module**

- Power Supply Requirements: ±12Vdc to ±12Vdc (5 pair)
- Pulse Duration Output: ±12Vdc
- Digital Counter Card
- Belden 8105 or equivalent (5 pair)
- Natural Binary or BCD Output: ±5Vdc
- USER'S CONTROL SYSTEM

**Analog System Configuration Using an Analog Personality Module**

- USER'S CONTROL SYSTEM
- TEMPOSONICS™ II Transducer
- Analog Personality Module