

Sure-Trak2[™] Shot Control System

With Front Cylinder Head Servo Valve Replacement Manifold for HPM Model II DCM

FRONT HEAD THROTTLING MANIFOLD for HPM Die Casting Machines

A New Front Head for the HPM Model II shot cylinder integrates an Olmsted **50mm** servo piloted slip in cartridge style throttling valve.

1. New front head manifold for direct replacement of the HPM POC throttling valve
 - Cartridge valves for shot return
 - Pilot operated check valves for shot return
 - 5 micron filter assembly for HR Textron servo pilot valve
 - Updated hydraulic drawings to reflect changes
 - 50mm slip-in cartridge valve
 - 15 GPM HR Textron Servo Pilot Valve w/ mating connector

Contact Visi-Trak for pricing

Notes:

1. 50mm throttling valve has sufficient flow capacity for 400, 600, & 900 ton HPM's
 2. Customer to install the new front head.
- If desired, a technician can be present for assembly at a modest additional charge



*Visi-Trak partners with
Die Cast Press Mfg. Co.
-Who designs and fabricates
the Front Head Throttling
Manifolds*

Sure-Trak2[™] Fully Integrated Shot Control System

The Sure-Trak2[™] Fully Integrated Shot Control System consolidates the True-Trak[™] 2020 Computer Monitoring System and the Sure-Trak2 Programmable Multiple Axis Servo Controller Option into an industrially hardened system designed to spend its entire economic life on the die casting shop floor.

The Sure-Trak2[™] Fully Integrated Shot Control System includes all of the process monitoring capabilities for display of shot profiles in many different viewing options, real time and on-line SPC, and alarm output capabilities when the process exceeds user defined limits. Every monitoring function required by the customer base has been integrated into this system, and it continues to be expanded. In addition, the Sure-Trak2 includes a multiple axis servo control option for driving a throttling valve during the filling phase and for proportionally implementing pressure control during intensification.

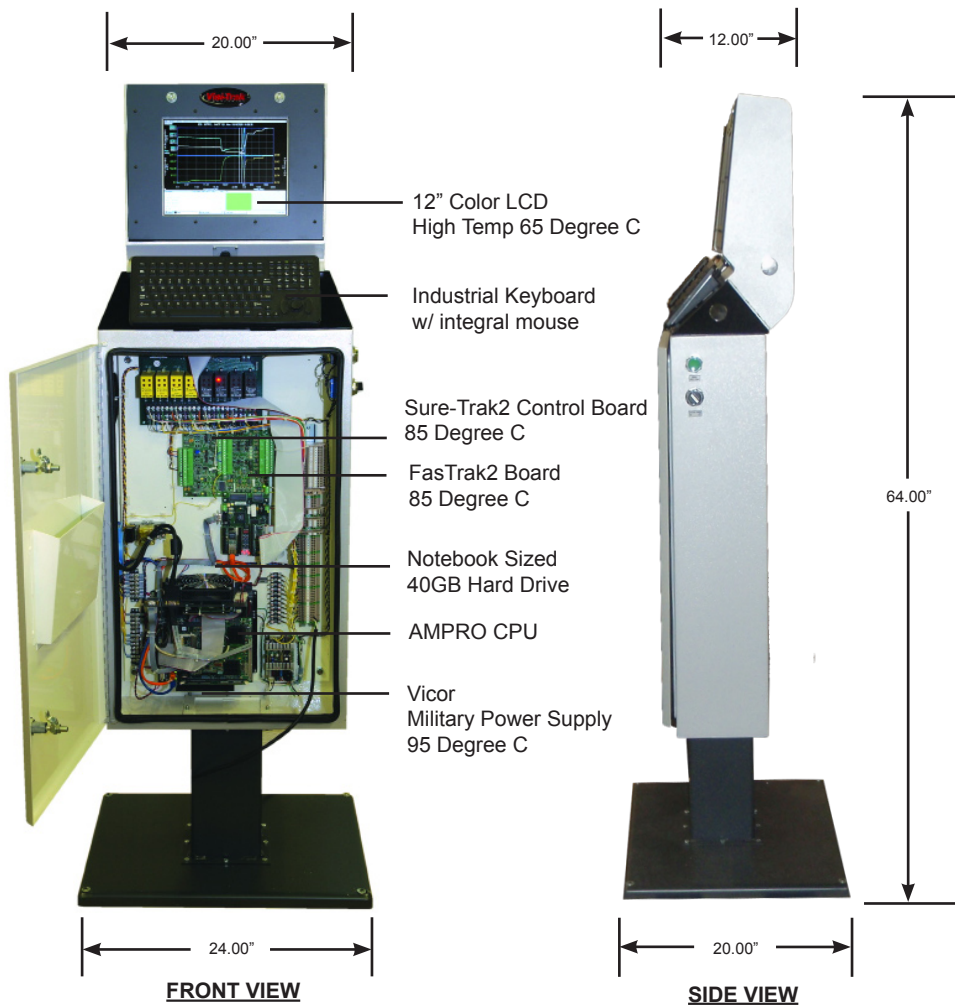
Sure-Trak2 Shot Control System

Either stand alone version or panel mount

Notes:

Total-Trak HMI

Is a graphical interface to the machine PLC. This is an option to any Sure-Trak2 or True-Trak 2020 System. The result is a single location to setup and run the die casting machine.

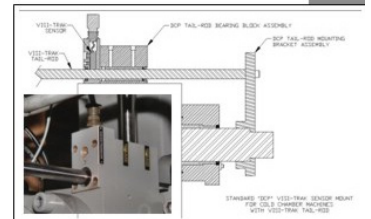
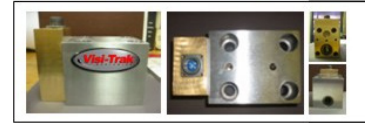


Visi-Trak Linear Velocity Sensors

There are two options for integrating a Visi-Trak linear velocity sensor onto your die casting machine. The Visi-Trak Sensor can be in the form of a Tail Rod Integration, or the sensor can be integrated directly into the piston rod on the shot cylinder

TAIL ROD SYSTEM WITH BEARING BLOCK

1. Visi-Trak Sensor: Bearing Block System with bronze holding block for the bi-directional transducer. Includes wiper rings at each end, grease fittings, bi-directional transducer, connector, and mating connector.
2. 1" dia rod x desired length- 20 pitch modification



PISTON ROD MODIFICATION AND MODIFIED PACKING RETAINER GLAND

The best method for Sensor incorporation is to integrate the Visi-Trak Sensor directly into the shot cylinder piston rod. This enables direct sensing from the rod that is being controlled, producing the most responsive and positive feedback.

Visi-Trak will quote modifications to piston rods, or will quote complete new piston rods, upon the receipt of customer drawing.

A new, reinforced, shot cylinder packing retainer gland with provisions to hold the bi-directional transducer, including a heavy duty wiper ring to keep the area beneath the packing gland clean and free of blowback, is part of the design.



PRESURE TRANSDUCERS

Viatran 248 Pressure Transducers with connector and mating connector Two (2) required

FIELD SERVICES

Field Services are optional and different customers have varying requirements for start-up services. Most new installations do involve a service trip to check all cable terminations, start-up the system, tune the system, and then do some training. The following generic service trip quotation could be used for budgetary purposes.

Service Trip for start-up assistance and training

TRAINING

The importance of training cannot be over-emphasized. A critical component of robustness are your trained and competent hands-on personnel. Visi-Trak Worldwide has committed the resources to a training facility that includes a 600 Ton Shot End featuring Sure-Trak2 closed loop shot and pressure control. Our Field Support Team has many years of experience, and we are all committed to supporting our customers.

* Make TRAINING a line item in the project budget!

BEST PRACTICES

A small piston accumulator (1 gallon capacity) for providing supply oil and pressure to the servo pilot valve is an inexpensive way to ensure good servo response.

The drain line from the servo valve must be a separate line all the way back to the tank, and should exhaust into the main reservoir above the level of the hydraulic fluid, in order to ensure absolutely no back pressure on this line.