Control Container
Part No. FA21900F

- Information And Control Center For Microtunneling System -

FEATURES
- The control container consists of the control console, power distribution, Motor Control Centers (MCC) for the slurry pumps, the MTBM drive motor, and a bulkhead panel for the electrical and communication connections.
- Control console includes a computer with monitors that interface to operate and control the machine operations.
- An E-Stop button on the control console will stop all container electrical bulkhead component functions.
- The gas detector in the MTBM is monitored by the control system with visual and audible alarms.
- The input power is monitored for proper three phase electrical power to prevent component damage.
- Project data progress is logged and reports can be generated with integrated software.
- Remote camera provides video communication for viewing the MTBM. System is expandable for additional cameras (optional).
- An audio system is equipped for live, one-way audio monitoring from the microphone installed in the MTBM.
- Container is ISO sized for ease of shipping.
- Climate controlled operator cabin.
- Vandal resistant window and electrical bulkhead.

SPECIFICATIONS
Dimensions (width x length x height)
.......................................................... 8 x 20 x 8.5 ft. (2.4 x 6 x 2.6 m)
Container Weight ..................... 11,000 lbs. (4,990 kg)
Electrical
  Main Disconnect ........ 600 amp, 480V, 3 Phase
  Transformer ......................... 480V to 575V
  Cutter Head Drive VFD ........... 75-250 HP, 575V
  Feed Pump VFD .................... 60 HP, 480V
  Return Pump VFD .................. 60 HP, 480V
  Booster Pump VFD ................. 60 HP, 480V
  Power Outlets - Auxiliary .......... Six, 120V
  Power Input for console & lights .... 240V/120V

Communications
  Wired ........................................... Ethernet
  Distributed Computing .............. Wago® PLC
  Audio ................................. One way wired
  Video ..................................... Ethernet

Hardware
  Computer ......................... Intel® Core™ i5
  Graphics Card ...................... Dual Monitor

Software
  Computer OS .......................... Windows® 7 / 32 bit
  MTBM Control Software
    ........................................... Akkerman Proprietary
  OPC Server ......................... Kepware®
Operator can easily monitor the status of the target, control, indicator screen displays and control all system components from inside the Control Container. Programmable alarms provide a quick view of system status.

The target screen shows all critical data by means of graphical and numeric meter displays.

The variable frequency drives (VFDs) efficiently control the electric motors for the main MTBM drive, slurry feed, slurry booster, and slurry return systems.

The slurry removal system, steering, cutting head, jacking frame, and emergency stop controls are located on the control console.

A bulkhead panel provides the connections for the electrical and communications.

MCC (Motor Control Center) modules support and house control units, a common bus bar for power to the control units, and a network of raceways to accommodate load and control wires.