

Particular & Technical Specifications 1,200 HP Electric Booster Station

Model No. BO-13500E
Preliminary Specifications

General

Overall Booster Length 28' (7.6 m)
Overall Booster Width 8' (2.4 m)

Prime Mover

Prime Mover: 480 VAC AC TEFC Electric Motor
Prime Mover Rating: 1,200 HP (895 kW)

Dredge Pump

The dredge pump is designed for mining applications. The dredge slurry piping will have an 20" (500 mm) suction diameter and an 20" (500 mm) discharge. The impeller diameter will be 46" and supplied with three (3) vanes.

Dredge Pump Reduction

True direct drive, single reduction gear utilizing a parallel gearbox. Reduction provided with torsional coupling and elastomer coupling

Service Water Pump

Booster is equipped with an electric motor-driven service water pump, designed to provide adequate gland sealing water for the dredge pump included in this package

Service Water Prime Mover

Prime Mover: 20 HP (14 kW), TEFC Electric Motor

Electrical System

This unit will be constructed using the following equipment, which will be wired, tested, and ready for operation when shipped

3 Phase Booster Unit Substation

This booster is equipped with a substation and will be designed for an input of 4,160 VAC delta, three phase, 60 HZ, and an output of 460 volts to power the booster. This unit will be supplied with a 5KV switch for disconnecting power from the umbilical cable.

Standard Construction Features

- ✓ All copper buss work
- ✓ All high voltage cables will be supported with fiberglass supports and hangers. High voltage cables are not allowed to come in contact with other high voltage cables or ground
- ✓ Low voltage cable runs are located in the bottom of the unit or close to frame members and will be enclosed in fire retardant wiring tray
- ✓ This equipment is guaranteed to meet or exceed all MSHA and NEC codes and regulations
- ✓ All circuits fused for protection
- ✓ 480/240 VAC for Electrical Components, & Lighting
- ✓ 1,200 HP (895 kW) Variable Frequency AC Drive in NEMA 3R Enclosure

Options included with Booster

Booster Automation Package

Booster Area Lighting

Coatings

Booster Skid:

1. Blast all steel SSPC-SP6. Blast to achieve 1- to 2- mils profile as determined with a surface profile comparator
2. First coat; 2-4 mils (dry film thickness) Oxide red epoxy
3. Second coat; 4-6 mils (dry film thickness) Pearl Grey epoxy
4. Finish coat; 2 mils (dry film thickness) polyurethane

Other Surfaces:

1. Blast all steel SSPC-SP10. Blast to achieve 1- to 2- mils profile as determined with a surface profile comparator
2. First coat; 2-4 mils (dry film thickness) Oxide red epoxy
3. Second coat; 4-6 mils (dry film thickness) Pearl Grey epoxy
4. Finish coat; 2 mils (dry film thickness) polyurethane

Building Standards

Equipment manufactured by DSC Dredge, LLC are designed and built using the most current versions of the following regulations as our guidelines:

- Manual of Steel Construction by the American Institute of Steel Construction.
- Joint Industrial Council Hydraulic Standards.
- Structural Welding Code – Steel by the American Welding Society and the American National Standards Institute.
- Mining Safety and Health Act.
- Occupational Safety and Health Act.
- Surface Preparation Specifications Steel Structures Painting Council.
- National Electrical Code Handbook.

Note: Specifications may change due to continual product improvement

