

## SECTION XXXX

### AIR BURST SYSTEMS (Sample Specification)

#### PART 1. GENERAL

##### 1.1 SUMMARY

- A. Provide a skid-mounted air burst backwash system consisting of compressor(s), receiver, valving, instrumentation and controls necessary to provide sufficient amount of air to backwash intake screen provided as specified herein and as shown on the drawings. The receiver may be separate depending upon size.

##### 1.2 RELATED SECTIONS

- A. Section XXXX – Submittals

##### 1.3 SUBMITTALS

- A. Submit in accordance per Section XXXX.
- B. Submit shop drawings, manufactures data and literature in accordance with Section XXXX prior to manufacturing.
- C. Air Burst System: Submit drawings or literature showing receiver size, piping size, valve literature, compressor manual, electrical schematic, and skid size and weight.

##### 1.3 WARRANTY

- A. Manufacturing Warranty Period: Two years from acceptance and furnish owner items found to be defective within the two year period.

##### 1.4 QUALITY ASSURANCE

- A. Air Burst System: System shall be supplied by an ISO 9000 Certified company, fabricated by ASME Section IX Certified welders and the manufacture shall provide evidence of experience in having supplied at least five assemblies of similar designs which have been in successful service for at least three years.

## PART 2. PRODUCTS

### 2.1 AIR BURST SYSTEM

- A. Manufacture: Hendrick Screen Company, P.O. Box 22075, Owensboro, Kentucky 42304-2075, (270) 685-5138, fax (270) 685-1729.
- B. Compressor: A Ingersoll-Rand Type T-30 compressor with sufficient capacity to recharge receiver vessel to operating pressure of 150 psig within 60 minutes shall be provided. A two-year warranty shall be provided on compressor parts. Compressor shall be equipped with a low oil level switch. The compressor shall operate at 460V, 3 Phase, 60 Hz. The compressor shall deliver **XXX CFM** free air at 175 psig at ambient inlet conditions
- C. Receiver: An ASME code 150 psi horizontal/vertical air receiver shall be provided. The receiver shall be provided with pressure gauge, safety valve, and automatic drain assembly. The receiver shall be sized to hold 2 to 3 screen volumes of air. The receiver capacity shall be **XXX** gallons, based on an airburst piping length to the screen of **XXX ft.** max. The receiver outlet shall be nominally **X inches** in diameter.
- D. Controls: A NEMA 4 control panel shall be provided and pre-wired. Manual controls shall provide push button operation of backwash of each screen(s). A step down transformer shall be provided to furnish 110V control power. A quick safety disconnect shall be provided in a NEMA 12 enclosure to terminate power to the compressor(s) and controls. For automatic operation, a timer and/or a PLC shall be provided to control the sequence of operation. A low oil annunciator on the control panel shall be provided. The control panel shall have an auto/off/manual selection switch. A 30-second delay is suggested between initiating backwash command and actually opening backwash valve. Provisions shall be provided for actuating alarms during this 30-second grace period. Alarms shall be provided by others. The system shall be designed to accept one electrical service hook-up. Motor starter(s) with overcurrent and overload protection shall be provided.
- E. Operation: System shall operate in manual or automatic mode. In manual mode, the backwash will be initiated by pushing an activation button, which will open a control valve after a 30-second delay, provided the system is powered up and the receiver is fully pressurized. Once the receiver pressure drops below a preset value, a pressure switch initiates the starting of the compressor(s), which repressurize the receiver. When the receiver reaches the preset pressure, the compressor shuts off automatically. When multiple compressors are used, they are alternately

started. In automatic mode, the backwash is initiated by a preset timer. After a 30-second delay, the control valve is opened, and air is released to the screen(s) for backwashing. When multiple screens are used, the operation can be modified to sequentially burst each screen or all screens at one time.

**END OF SECTION**