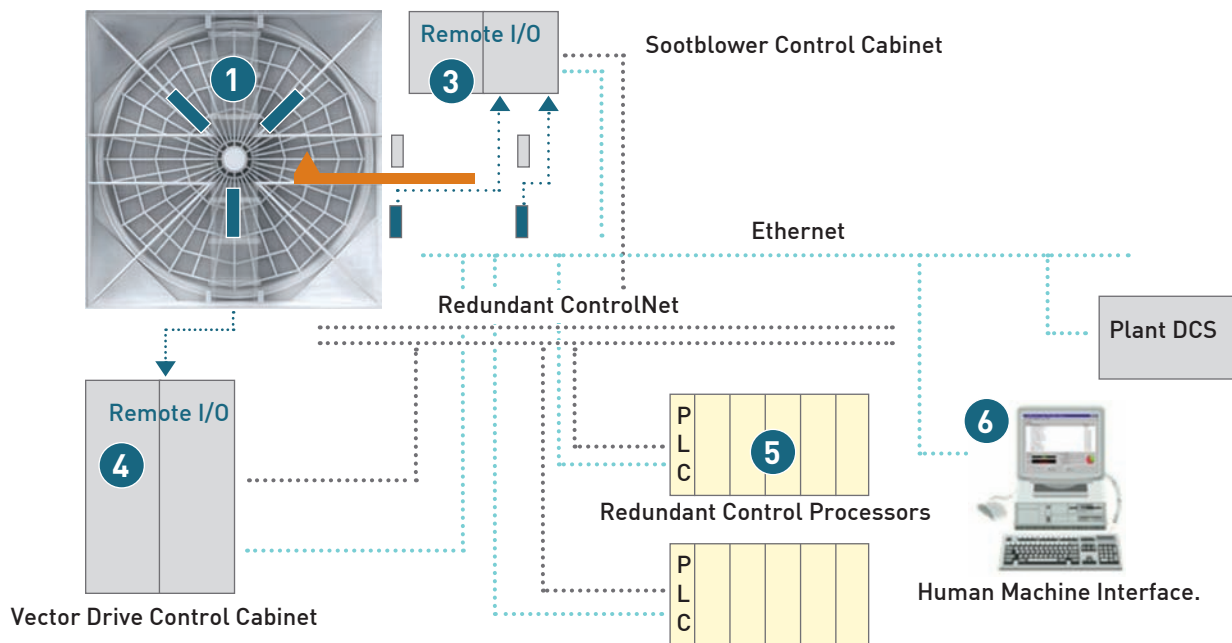


Dynamic Speed Controlled (DySC™) Air Heater Sootblowing Control System



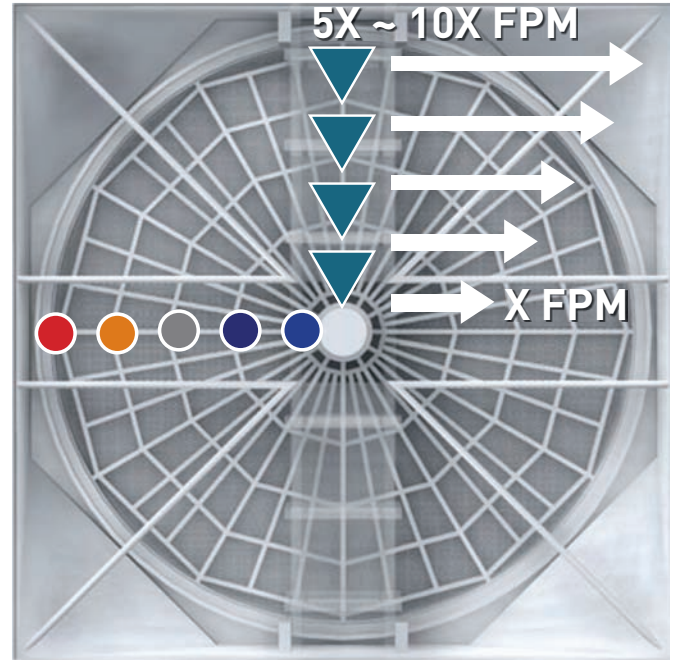
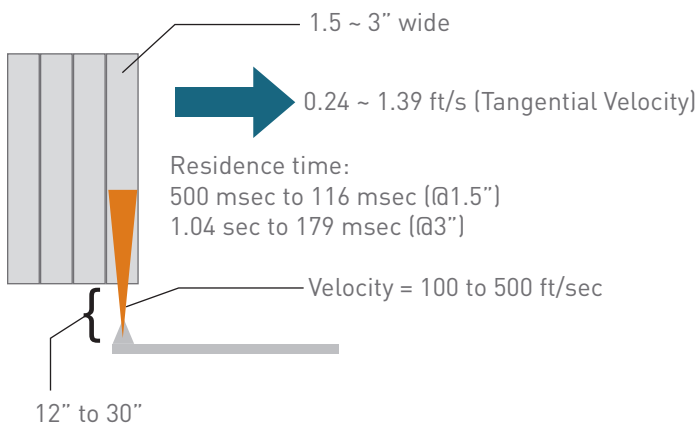
Air Heater Sootblowing

Limitations of standard fixed speed sootblowing

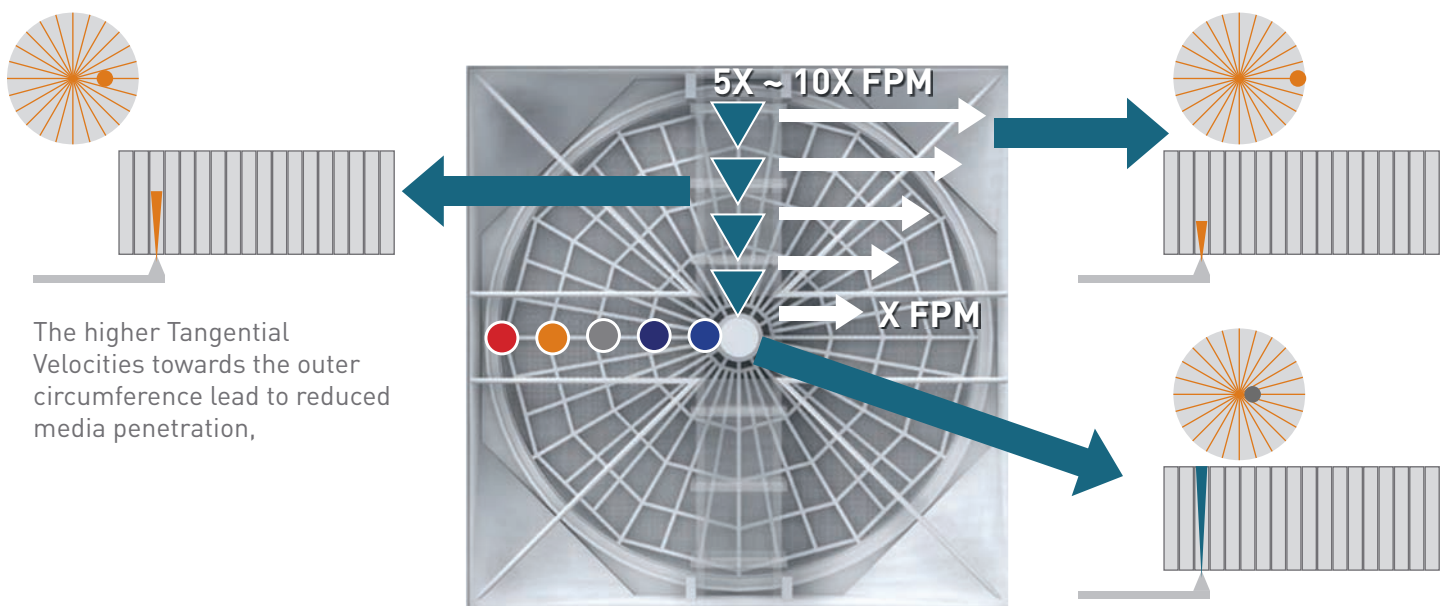
Air Heater tangential velocities may be up to 5 to 10 times higher at the circumference than at the center.

For E.G.

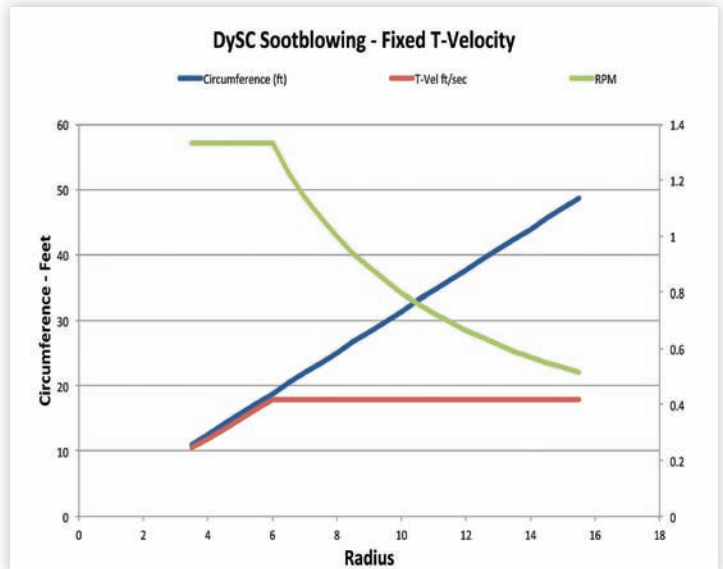
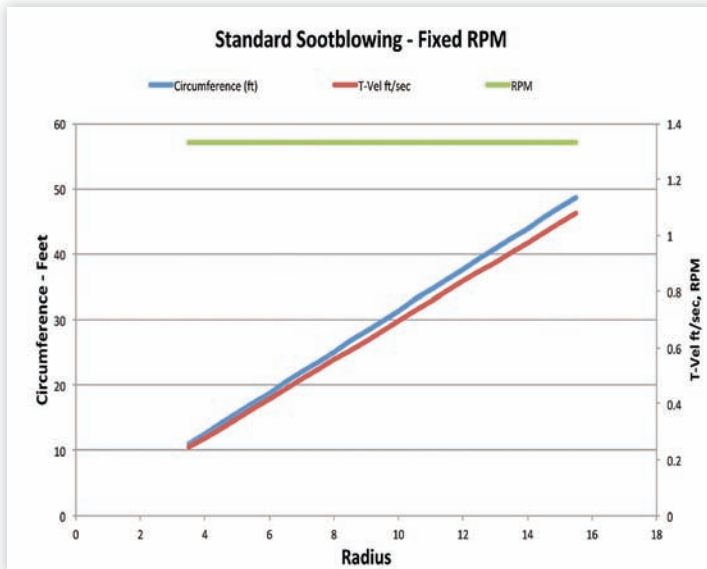
Location	Radius	Tangential Velocity
Trunnion	3.5 Feet	0.24 Feet/Sec
Circumference	20 Feet	1.39 Feet/sec



Sootblower Cleaning Ability = function(tangential velocity, peak Impact Pressure, Distance from nozzle, strength-adhesion characteristics of deposits, residence time)



Variable Speed sootblowing



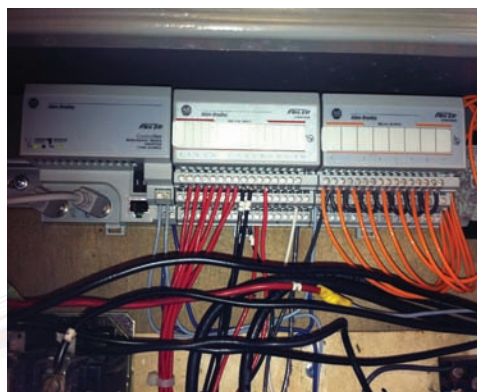
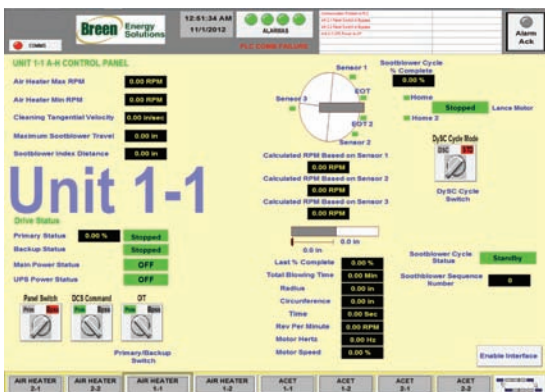
The DySC sootblowing process maintains a Tangential Velocity at or below a desired value in order to maintain maximum media penetration.

The standard sootblower keeps the RPM fixed while the Tangential Velocity changes based on position of the nozzle.



DySC System

1. Proximity-Speed Sensors
2. Redundant Home and EOT Limit Switches
3. Remote I/O in Sootblower Cab.
4. New Vector Drive Cabinet
5. Redundant PLC Cabinet
6. HMI



Specifications

General

Type of Air Heater	Lungstrom
Compatible Sootblowers	Retractable Indexing

Electrical

Motors	480 VAC 3-Phase, Inverter Duty
Analog I/O	Speed, Position, % Complete, Direction
Digital I/O	Start/Stop, SB Cycle, Primary/Secondary
Switch Voltage	110 VAC
Field Wiring	480 VAC, 110 VAC, ControNet, Ethernet, 4-20 mA

Mechanical

AH Motor Coupling	Rigid Coupling required. Fluid Coupling not acceptable
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Other

Cooling Air	25 CFM @ 100 PSIG
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