

# T20E RETRACTABLE SOOTBLOWERS

The Clyde Industries T20E electric drive long retractable sootblower is designed for travels up to twenty feet. These low cost, easily maintainable sootblowers are constructed for dependable operation indoors or outdoors in all climates. They can use air, saturated or superheatred steam as a cleaning medium and their compact design makes it possible to fit these units in tight spaces. The T20E is, in fact, the worldwide standard for industrial and petrochemical applications.

# Construction / Design

The construction of the T20 starts with a 3/16" thick heavy gauge box design steel housing to protect all working parts. The model T20E has a single electric motor drive that traverses the lance in and out of the boiler while rotating it, all through the use of one drive chain. Depending upon the application and cleaning requirements, lance speeds can be 6.5 fpm x 6.5 fpm or 4 fpm x 8 fpm. The stationary power pack is located at the outboard end of the blower away from heat and boiler gases. Blowing pressure can be adjusted any time during blower operation by way of an external adjustment device. The lance is supported by a solid SS hourglass roller positioned on the canopy front plate providing durability and long life. All electrical components are to NEMA 4 standards with NEMA 7 available to meet hazardous gas environments.

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# Operation / Maintainability

The Clyde Industries model T20E sootblower is designed to provide the optimum cleaning for rated boiler output, to provide dependable operation and to allow for ease in maintainability. The traveling carriage is pre-lubricated so it requires no oiling. The connection between the lance and carriage is flanged for ease in removal. The stainless steel feed tube is ground and polished to prevent binding and wear.

The Clyde Industries low-friction chain is prelubricated, self-cleaning and corrosion resistant. The chain assembly can be easily inspected and maintained. This motor is a totally enclosed, nonventilated, 3-phase moisture resistant type with high constant torque and class F insulation. The motor is located away from the boiler to protect it from heat and contamination.

### **T20 Design Variations**

The standard T20E rotate 360 degrees while traversing in and out of the boiler. The TEH variation is used for air preheaters and is non-rotating. The TEH can be used for regenerative or tubular type air perheaters. Another variation of the standard T20E is the half-track. These units rotate and traverse; however, have multiple nozzle sets to clean more boiler surface area at reduced travel lengths.

### Wall Box Variations

The negative or balanced draft wallbox is designed to provide proper sealing while the lance travels through its normal operating cycle. As the lance travels through this wallbox, all particles of soot and slag are stripped off its surface by a hardened steel scraper plate adjacent to the boiler wall. This two piece plate is easily replaced by removing its retainer. The positive pressure wallbox is designed for pressurized furnaces. This wallbox allows an air seal to be created in the lance penetration area that is greater than that found in the boiler, which prevents the escape of boiler gases. An aspirator can be added to seal in the boiler gases, should it be necessary to remove the sootblower lance while the boiler is on line.

