

IR-3Z™

furnace wall sootblower

Diamond Power
International, Inc.

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**Lightweight, compact
and durable design
that fits and operates
where most won't**

Timing is everything. Especially when it comes to boiler cleaning. But who wants to mess around with complex mechanisms and numerous components just to set correct blower timing? You don't have to with Diamond Power's IR-3Z™ furnace wall sootblower.

Other wall blowers get out of time and may not clean the desired area, leaving furnace wall water tubes dirty and heat transfer inefficient. The IR-3Z™ wall blower, however, doesn't require electrical timing to provide the correct blowing arc needed to obtain accurate, dependable arc-control.

Features and Benefits

The rugged IR-3Z™ wall blower builds on the proven reliability of the IR3D Heavy Duty sootblower while providing further simplification: four gears, a single limit switch, and a separately mounted control box, all of which contribute to a reliable and rugged design. This blower is small enough to fit into tight spots.

When maintenance is required, the light and easy design saves on both man hours and replacement parts.

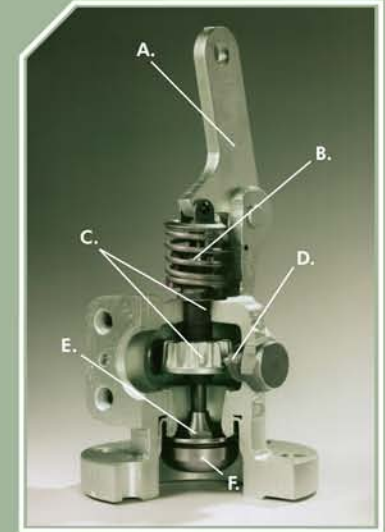
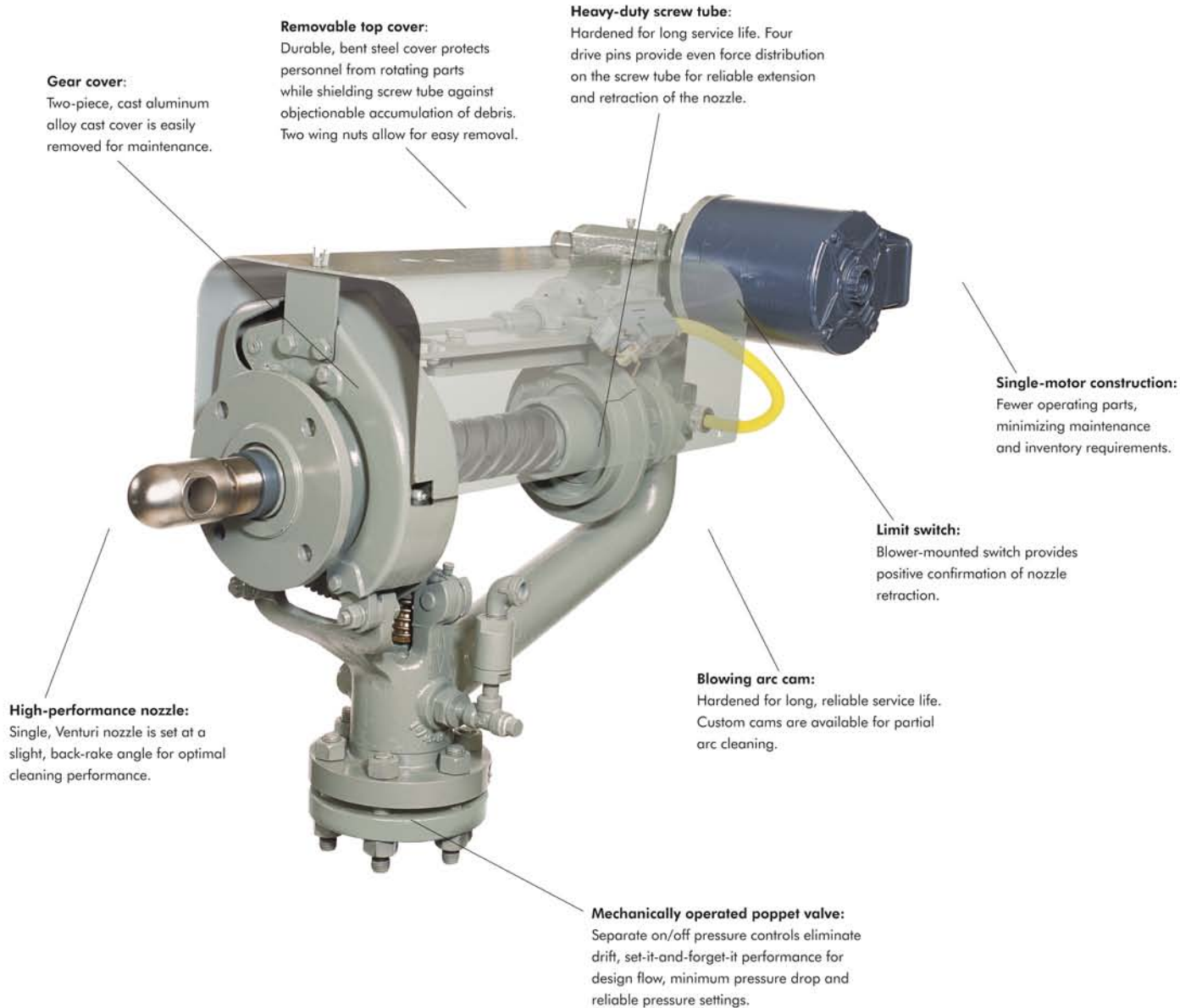
A single bolt and one coupling pin is all that stands between you and replacement of the drive unit. Removal of the motor and gear reducer is now a job for just one person.

With a quick adjustment of a time delay relay (located in the separately mounted control box), the IR-3Z™ sootblower can be set as needed for single or multiple revolutions per blowing cycle.

The blowing medium turn-on of the IR-3Z™ is mechanically delayed until after the nozzle is fully inserted into the furnace. This design minimizes wall sleeve changes due to premature turn-on and reduces erosion to nearby bent tubes. Steam/air turn-off occurs before the nozzle begins to retract.

The IR-3Z™ is ideally suited for high-temperature locations, too. The control box may be mounted anywhere, and keeps electronic components (and operating personnel) away from the heat source.

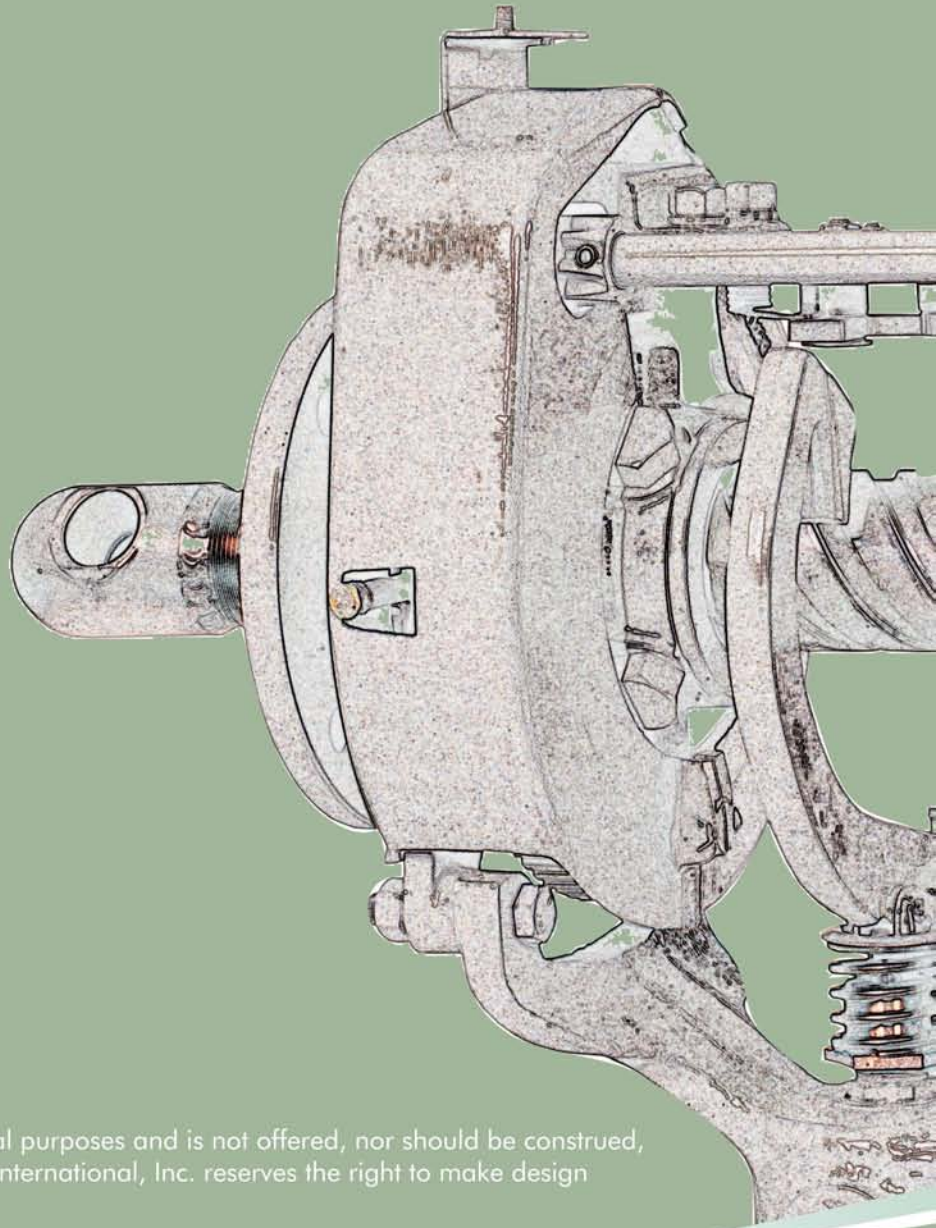




Poppet Valve

- A.** Direct mechanical valve action.
Rugged stem, hardened valve stem guide, and generous packing surface for minimum maintenance.
- B.** Micrometer-like adjustment for very close regulation at low flow rates.
- C.** Lock pin to hold pressure setting.
Welded-in polished Stellite valve seat is hydrotested to prevent leakage between the seat and body.
- E.** Floating valve disc assures tight seating every time.
- F.**

Blower operation	Local push-button (on separately mounted control box) or automatic control panel operation. 360° or partial arc cleaning.
Blower travel	10-1/2" (26.67 cm) standard. Adjusts from 10" (25.4 cm) minimum to 11" (27.94 cm) maximum.
Blowing medium valve (steam or air)	Diamond Power® mechanically operated poppet valve, integral to sootblower.
Blowing pressure	As required for ash deposits and fuel burned.
Blowing revolutions, blowing time and cycle time	Set for single or multiple revolutions per blowing cycle. Actual blowing time: 20 sec. Total cycle time for one blowing revolution: 1 min 46 sec (using a 60 Hz motor). Sequence "nesting" allows more frequent operations as required.
Control box	Ready to mount on the sootblower or remotely. NEMA rated with push-button start. Choose starter or terminal box. Available in: carbon steel (NEMA 4), fiberglass (NEMA 4X) and stainless steel (NEMA 4X).
Control box accessories	Power, control or combination disconnect plugs, power disconnect switches, non-standard terminal blocks, and push buttons.
Limit switch	A single, lever-actuated limit switch. Temperature rated to 250°F (121°C).
Motor data	Electric motor drive: 1/6 hp, TENV, frame 56, 1725 rpm, Class B insulation, 230/460 volts, 3-phase, 60 Hz. Other voltages and frequencies available.
Motor starter	Mounts in a separate box or common cabinet. Choice of IEC or NEMA.
Nozzle material	Heat-resistant, austenitic stainless steel casting.
Nozzle rotation speed	Approximately 3 rpm.
Power disconnect plug or switch	Available for indoor or outdoor service.
Retrofit kits	Convert timing gear controls to IR-3Z™ wall blower controls.
Time-delay relay	Located in separately mounted control box. Push-and-click number buttons and 0.1-sec incremental settings on the adjustable, time-delay relay provide precise timing.
Weight	Blower without control box weighs approximately 225 lb (102 kg).



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