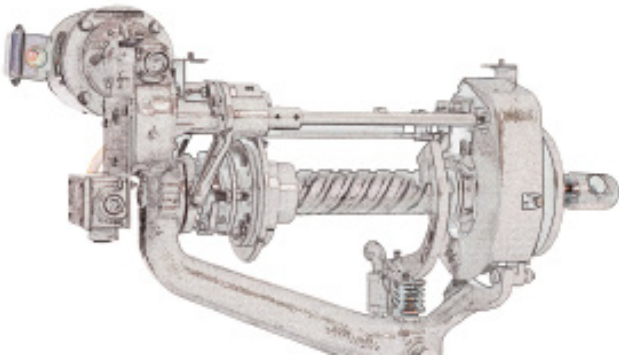


LIGHTWEIGHT, COMPACT AND DURABLE DESIGN THAT FITS AND OPERATES WHERE MOST WON'T.

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 the Diamond Power® IR-3Z™ furnace wall sootblower, provided by Babcock & Wilcox (B&W).

Other short, retractable wall blowers get out of time and may not clean the full 360-degree rotation, leaving furnace wall water tubes dirty and heat transfer inefficient. The IR-3Z wall blower, however, does not require electrical timing to achieve the blowing arc needed to obtain accurate, dependable, 360-degree cleaning.



FEATURES AND BENEFITS

The rugged IR-3Z wall blower builds on the proven reliability of the IR-3D 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 is required for access to the drive unit. Removal of the motor and gear reducer can be accomplished by 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 (steam/air) flow is mechanically delayed until the nozzle is fully inserted into the furnace. This design minimizes wall sleeve changes due to premature operation and reduces erosion to nearby bent tubes. Steam/air flow turns off before the nozzle begins to retract.

The IR-3Z is also ideally suited for high temperature locations. 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
- B** Rugged stem, hardened valve stem guide, and PLC generous packing surface for minimum maintenance
- C** Micrometer-like adjustment for very close regulation at low flow rates
- D** Lock pin to hold pressure setting
- E** Welded-in polished valve seat is hydrotested to prevent leakage between the seat and body
- F** Floating valve disc assures tight seating every time

SPECIFICATIONS

Blower coverage - Local push-button (on separately mounted control box) or automatic control panel operation; 360° or partial arc cleaning

Blower travel - 10.5 in. (26.7 cm) standard; Adjusts from 10 in. (25.4 cm) minimum to 11 in. (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)

Diamond Power® IR-3Z™



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 250F (121C)

Motor data - Electric motor drive: 1/6 hp, TENV, frame 56, 1725 rpm, 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

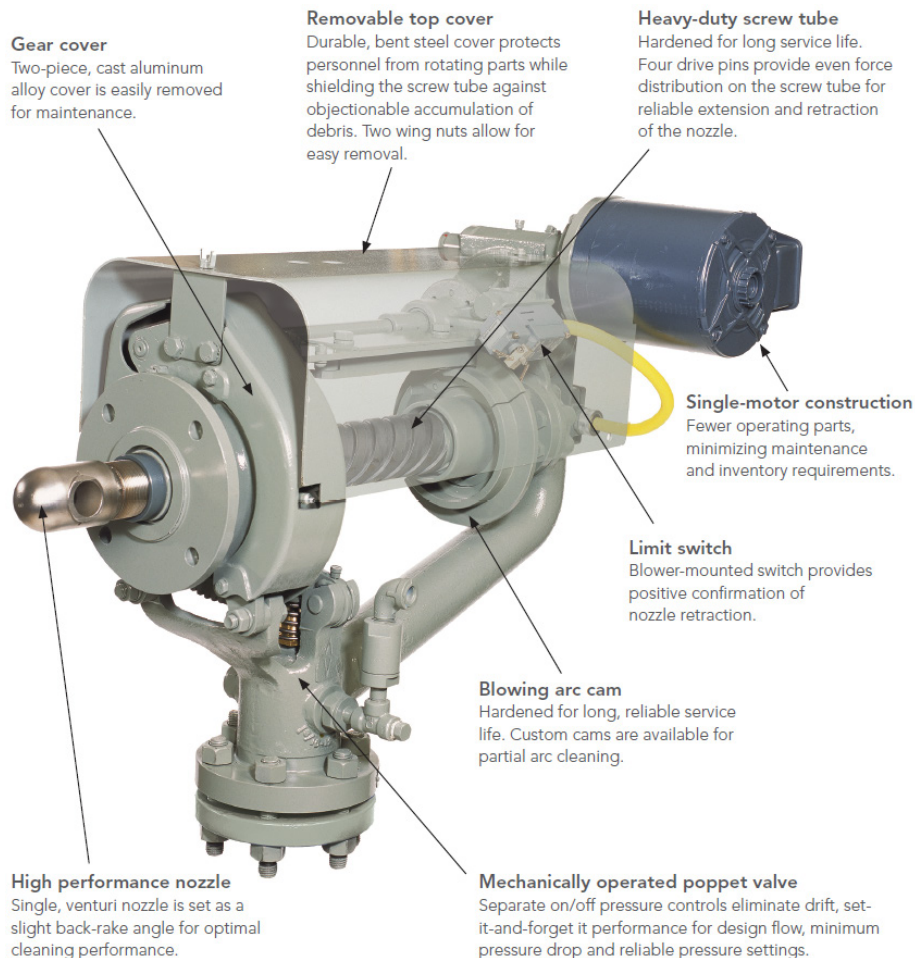
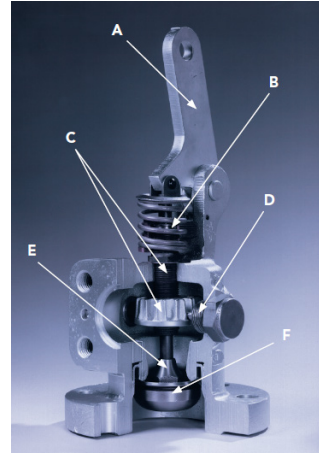
Nozzle rotation speed - Approximately 3 rpm

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-second incremental settings on the adjustable, time-delay relay provide precise timing

Weight - Blower without control box weighs approximately 225 lb (102 kg)



Gear cover
Two-piece, cast aluminum alloy cover is easily removed for maintenance.

Removable top cover
Durable, bent steel cover protects personnel from rotating parts while shielding the screw tube against objectionable accumulation of debris. Two wing nuts allow for easy removal.

Heavy-duty screw tube
Hardened for long service life. Four drive pins provide even force distribution on the screw tube for reliable extension and retraction of the nozzle.

Single-motor construction
Fewer operating parts, minimizing maintenance and inventory requirements.

Limit switch
Blower-mounted switch provides positive confirmation of nozzle retraction.

Blowing arc cam
Hardened for long, reliable service life. Custom cams are available for partial arc cleaning.

Mechanically operated poppet valve
Separate on/off pressure controls eliminate drift, set-it-and-forget-it performance for design flow, minimum pressure drop and reliable pressure settings.

High performance nozzle
Single, venturi nozzle is set as a slight back-rake angle for optimal cleaning performance.

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