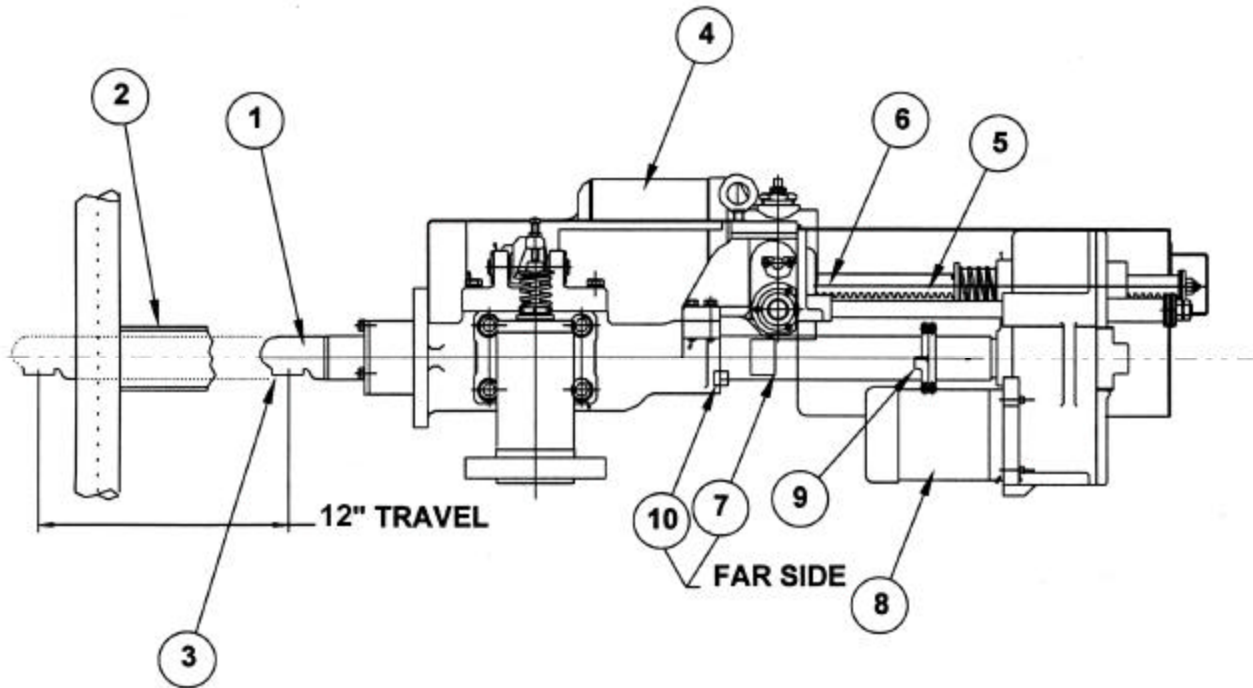


RW-5E FURNACE WALL BLOWER



OPERATION OVERVIEW

The unit is mounted on the furnace wall with the swivel tube (1) parked inside the boiler wall sleeve (2) and the blowing nozzle (3) located 12" from its normal cleaning position.

Once the unit is activated, the traversing motor (4) is first energized and pulls the rack (5) and the attached swivel tube toward the furnace. After the rack and swivel tube has traversed, the rack assembly will be disengaged from the swivel tube.

The rack will then allow the ramp cam (6) to engage the head-opening lever and admit blowing medium to the swivel tube. Once the head is opened, the limit switch (7) will deactivate the traversing motor and activate the rotary motor (8).

The rotary motor through its gearbox will rotate the swivel tube a full 360° while blowing medium is being discharged through the cleaning nozzle. After one complete rotation, the split cam (9) on the swivel tube will trip the lever actuated limit switch (10) and deactivate the rotary motor and activate the traverse motor to pull the swivel tube out of the furnace.

The initial movement of the rack (5) will allow the head to fully close while the swivel tube remains stationary. Once the head closes the rack assembly will re-engage with the swivel tube, moving the nozzle to its normal park position; at that time, the rotary limit switch will deactivate the traversing gear box. The unit is now ready for its next cycle.

RW-5E FURNACE WALL BLOWER OPERATION OVERVIEW (CON'T)

The RW-5E Wall Deslagger consists of the stationary body and rack housing, and a traveling gearbox to which the swivel tube is attached. The swivel tube is supported by sleeve type bearings at each end of the body casting. The horizontal guide rods are used to assure proper alignment of the traveling gearbox.

A stationary electric motor is situated on the right side of the blower. This motor, through a gearbox, operates a pinion, which drives a horizontal rack, the outer end of which is fastened to the traveling gearbox.

When the traveling gearbox approaches the fully-extended position, a ramp attached to the free end of the rack contacts a bearing surface which is an integral part of the DVT head operating lever.

When the blower is started, the rack pinion moves the rack and rotary gearbox toward the boiler. Operation of the traversing gear causes rotation of a shaft extending out from the rack gear housing into a switch enclosure.

Located in this enclosure are two cam actuated limit switches. One cam holds limit switch LSTE in the open position when the blower is fully retracted. Extending of the blower moves the cam allowing LSTE to close. The blower is then under its own control.

Near the fully extended position, the rack strikes the cam operating the lever that opens the DVT head valve.

The DVT head valve controls the blowing medium flow rate to the swivel tube. It is a poppet type valve that can be adjusted.

The rotary motor is attached to the rotary gearbox, which is mounted at the lower left of the blower. The motor rotates the swivel tube through a gear train.

When the blowing sweep is finished the split cam on the swivel tube contacts and rotates the arm on limit switch LSR. The traversing motor begins to retract the blower. Near the fully retracted position the cam again opens the switch LSTE to halt the blower.

RW5E FURNACE WALL BLOWER DESCRIPTION

The model RW-5E Furnace Wall Blower is designed for swivel tube travel of 12". It is comprised of a cast steel steam chest, 2-3/8" O.D. Type 304 stainless steel swivel tube, chrome alloy nozzle head, cast steel head with external adjustable pressure control, one 0.6 H.P. traversing motor, one 0.07H.P. Rotary motor, limit switches and a NEMA 4 junction box. Included are a wall sleeve or adapter, mounting plate and an ANSI Standard companion flange with gasket, studs and nuts for the soot blower head. A metal cover is included to protect the drive rack, the guide rods, swivel tube and gear box.

Normal speed is: 5 seconds extending
70 seconds blowing
5 seconds retracting

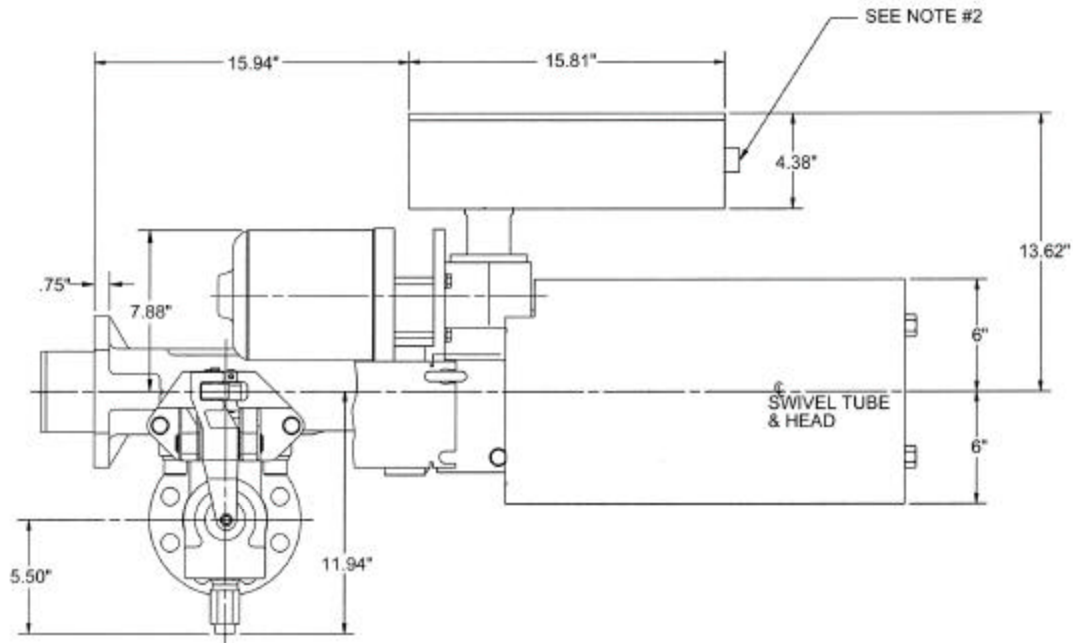
Optional speeds of 30 and 50 seconds blowing time are also available. A full 360° sweep is standard; however, limited sweep option is also available.

A standard RW-5E is complete with wiring from limit switches and motors terminating at terminal blocks in a NEMA 4 integrally mounted junction box. Also available is an integral cabinet of NEMA 4 construction containing motor starters. With this arrangement, the limit switches, motors and starters are shop wired to a disconnect-type terminal block mounted in the starter cabinet. Plug-in type disconnects are also available as well as other customer specified disconnects.

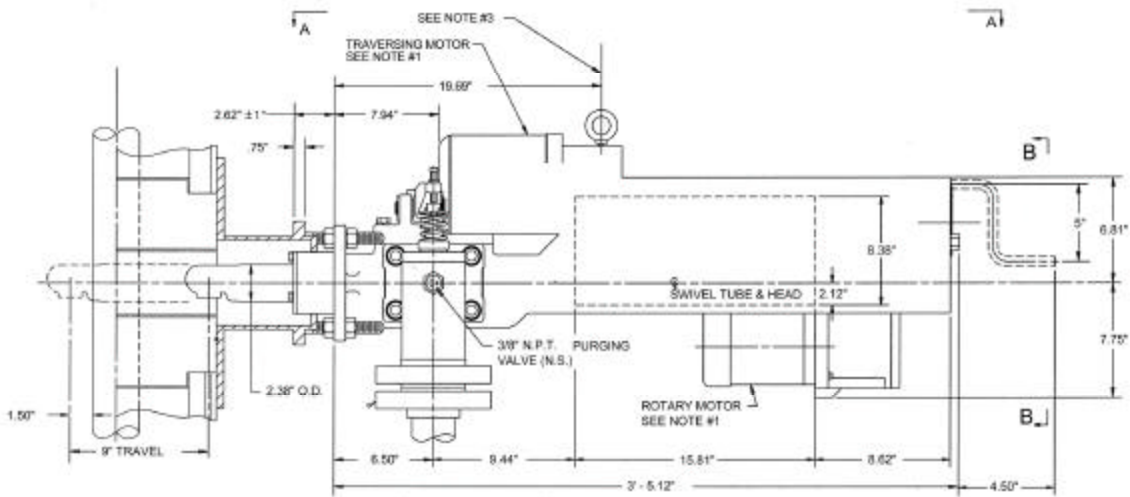
RW5E FURNACE WALL BLOWER DESCRIPTION

Cover	-	#14 Gauge Steel
Motors	-	Rotary: 0.07 H.P. (230/460V 3 phase, 60 HZ, 1800 RPM), TENV. Class 'F' Insulation for 55°C Rise/65°C AMB.
	-	Traversing: 0.6H.P. (230/460V 3 phase, 60 HZ, 900 RPM), TENV. Class 'F' Insulation for 55°C Rise/65°C AMB
Swivel Tube	-	Type 304 Stainless Steel
Nozzle Head	-	25 Chrome, 12 Nickel, Stainless Steel
Steam Chest	-	Carbon Steel, ASTM A216 Grade WC-B
Head	-	Carbon Steel, ASTM A216 Grade WC-B
	-	Optional: Chrome-Moly, ASTM A217 Grade WC-6
Poppet Valve	-	Type 410 Stainless Steel (prehardened)
Seat	-	Solid Stellite Insert
Limit Switches	-	One (1) NEMA 4 Lever Actuated – Rotary Motion
	-	One (1) NEMA 4 Lever Actuated – Traverse Motion
Junction Box	-	NEMA 4
Wiring		
Conductor	-	No. 14 AWG
Insulation	-	Cross Linked Polyethylene, (XLPE), 90°C Rating
Paint	-	Type: Enamel
	-	Color: Blue

RW5E FURNACE WALL BLOWER DESCRIPTION



PLAN VIEW 'A-A'
(SWIVEL TUBE OMITTED)



SIDE ELEVATION



NOTES:

1. MOTOR WIRED FOR XXX VOLT, 3 PHASE, 60 HERTZ.
2. 1.25 N.P.T. CUSTOMER CONNECTIONS (POWER & CONTROL)
3. CENTER OF GRAVITY (RETRACTED POSITION) APPROX. UNIT WEIGHT = 320 LBS.
4. CENTERLINE OF SLEEVE ASS'Y TO BE PERPENDICULAR TO CENTERLINE OF WALL TUBES.