

IR-3Z™ 炉膛吹灰器
furnace wall sootblower

Diamond Power
Machine (Hubei) Co. Inc.
a Diamond Power International, Inc. company
戴蒙德电力机械（湖北）有限公司

IR-3Z

炉膛吹灰器 furnace wall sootblower

轻巧、简洁及耐用的设计，使其适用于其它产品无法操作的工况。

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

时间就是一切，特别对于锅炉清洁而言。但是谁会愿意不厌其烦地在复杂的定时装置和众多组件中设置正确的吹扫时间呢？---有了戴蒙德电力机械（湖北）有限公司的IR-3Z型炉膛吹灰器，一切就迎刃而解了。

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.

其它炉膛吹灰器无法保证吹灰时间的设置与运行同步，并可能无法清洁目标区域，导致炉膛水冷壁管积灰和传热效率低。然而，IR-3Z炉膛吹灰器无需复杂的吹灰时间设定装置，便能够通过精确可靠的时间控制来实现正确的吹灰弧度。

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 mechanical timing gears to provide the correct blowing arc. Instead, an accurate and repeatable blowing arc is ensured through the use of a time-delay relay.

产品特点与优点 Features and benefits

实践证明IR-3D炉膛吹灰器性能可靠，IR-3Z正是IR-3D的升级产品，它坚固且设计更加简洁优化，即：四个传动齿轮、一个行程开关和一个就地控制盒，它们保证了产品的可靠性和耐久性。IR-3Z吹灰器体积小，能够安装于空间狭小的部位。

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

简洁轻便的设计既缩短维护工时，又减少零件更换。

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

整个传动件的拆卸只需卸下传动轴上的两个传动销，电动机和减速箱的拆卸由一人即可完成。

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.

只需按照要求调整时间继电器（位于控制柜内），IR-3Z吹灰器就能够在每个吹灰周期中吹扫一圈或多圈。

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

IR-3Z提升阀由机械控制，只有当喷嘴完全深入炉膛后，阀门才会开启，吹灰介质流入，吹灰开始。这种设计可避免因阀门过早开启，减少了对炉膛管的冲蚀。

The IR-3Z poppet valve is mechanically controlled to only allow blowing medium to flow while the nozzle is fully inserted into the furnace. This design feature eliminates furnace wall tube erosion of the bent tube opening due to premature opening or late closing of the poppet valve.

可拆卸罩板

此罩板坚固耐用且易于拆装。此设计能避免旋转部件可能造成的的人身意外伤害，并可防止有害碎物堆积于螺纹管。

Removable Top Cover:

A durable, easily removable cover protects personnel from rotating parts while shielding screw tube against objectionable accumulation of debris.

齿轮罩

易于拆卸的齿轮罩降低意外风险，并可防止有害碎物堆积于齿轮。

Gear Cover:

A easily removable gear cover reduces the risk of injury to personnel while also keeping the gear set from accumulating debris.

螺纹管

螺纹管设计坚固，使用寿命长。驱动销为螺纹管提供均衡的传动力，保证喷嘴伸缩自如。

Screw Tube:

Hardened for long service life. Drive pins provide even force distribution on the screw tube for reliable extension and retraction of the nozzle.

单电机

传动件少，维护简易。

Single-motor Construction:

Fewer operating parts, minimizing maintenance and inventory requirements.

行程开关

确保喷头退到正确位置。

Limit Switch:

Provides positive confirmation of nozzle retraction.

高效喷嘴

单一的文丘里喷嘴以一定的后倾角布置，以保证清洁吹扫效果。

High-performance Nozzle:

Single, Venturi nozzle is set at a slight back-rack angle for optimal cleaning performance.

吹扫弧度凸轮

性能可靠，坚固耐用。量身定制的凸轮便于局部清洁。

Blowing Arc Cam:

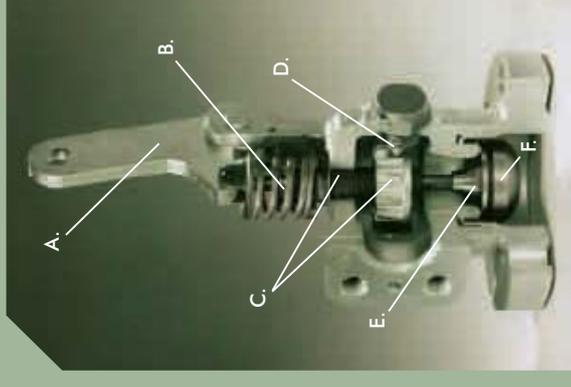
Hardened for long, reliable service life. Custom cams are available for partial arc cleaning.

机械操作的提升阀

独立的压力调节装置，精确地设置调节压力和流量。无需导向的机械操作的提升阀能全程保证阀门的开启和关闭。吹灰介质(蒸汽或空气)的压力调节由单独的调压盘完成。此设计避免了当压力调整时，介质对阀门的冲击所造成的阀座和阀瓣的损伤。

Mechanically Operated Poppet Valve:

Positive action poppet valve with direct mechanical actuation provides reliable full-stroke opening and closing. The pressure adjustment of the blowing medium (steam or air) is accomplished with a separate, adjustable pressure disc. This eliminates seat and disc damage that occurs when pressure adjustment is made by partially stroking a valve.



吹灰器提升阀 Poppet Valve

- A.** 无需导向的阀门启闭机构；
Direct mechanical valve action.
- B.** 阀杆坚固，导向可靠。填料密封面充裕，维护量小；
Rugged stem, hardened valve stem guide, and generous packing surface for minimum maintenance.
- C.** 螺旋式调压盘可精确调节吹灰压力和流量；
An internal adjustable pressure disc allows very close regulation at low flow rates.
- D.** 定位销保证设置压力恒定；
Lock pin to hold pressure setting.
- E.** 一体的抛光钼铍合金阀座经过水压试验，保证阀座和阀体间无渗漏；
The valve seat is welded in and surface-hardened with stellite, then lapped in with the valve disc to ensure a 100% leak-free valve.
- F.** 柔性阀瓣保证每次精确定位。
Floating valve disc assures tight seating every time.

技术规格

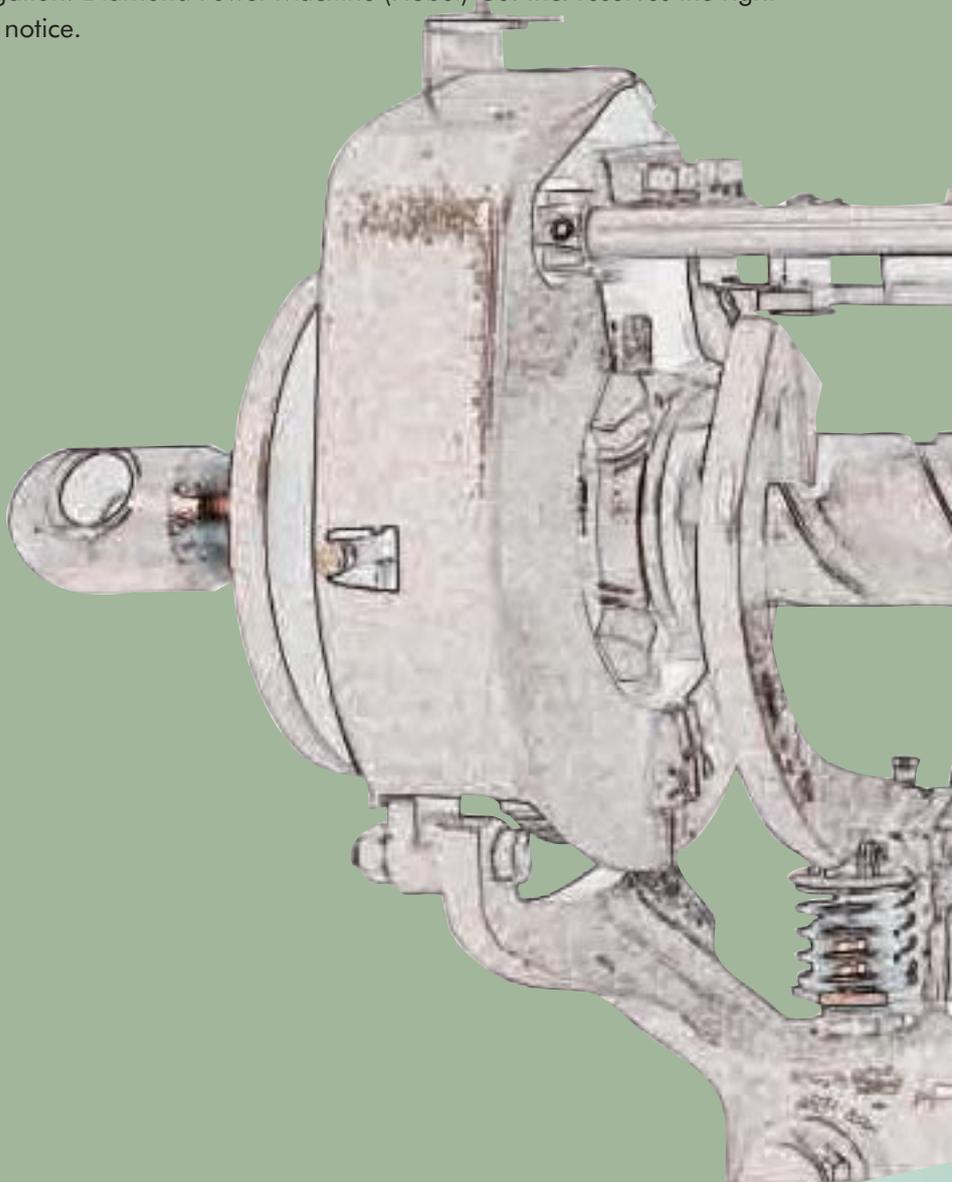
Specifications

吹灰器运行 Blower Operation	由本体按钮控制或由控制系统程控。 Remote operation from control system or local push button.
吹灰器行程 Blower Travel	吹灰行程为267mm。 Standard blower travel is 267mm.
吹灰介质阀 (蒸汽或空气) Blower Medium Valve (Steam or Air)	机械提升阀，与吹灰器是一个整体。 Diamond Power® mechanically operated poppet valve, integral to the sootblower.
吹灰压力 Blowing Pressure	由内部调压盘轻松设置。 Easily set by adjustment of internal pressure adjusting disc.
吹扫圈数， 吹灰时间及周期时间 Blowing Revolutions, Blowing Time and Cycle Time	可按照要求在每个吹灰周期中设置吹扫一圈或多圈，实际一圈吹扫时间：25秒。吹扫一圈的运行时间：2分16秒（使用50Hz电机），根据需要，可按顺序频繁吹灰。 Single or multiple revolutions per blowing cycle. Blowing time: 25 sec. Total cycle time for one blowing revolution: 2 min 16 sec (using a 50Hz motor.) Sequence allows more frequent operations as required.
本体控制盒 Blower Mounted Junction Box	包括：启动按钮、电源开关、端子排。 Includes a start push button, control power on/off switch and terminal strips for connecting motor and control power wiring to the sootblower.
行程开关 Limit Switch	单杠杆传动行程开关，防护等级可达IP55。 Lever-actuated limit switch compliant with IP55.
电动机参数 (中国国内使用) Motor Data (For China Only)	YSR-6324 B5, 0.18KW, 1400 RPM, 380V, 3P. F级绝缘，IP54或其它电压、频率。 Class F insulation, IP54. Other voltages and frequencies available.
电机启动器和时间继电器控制柜 Motor Starter and Time Delay Relay Cabinet	前进和后退电机以及时间继电器都安装于单独的控制柜内。按键式时间设定(精度为0.1秒)确保精确吹灰周期控制。 Forward and reverse motor contacts and time delay relays are mounted in separately mounted cabinets. Push-and-click time settings (0.1 sec minimum increments) provide precise control of sootblower blowing cycles.
喷嘴材料 Nozzle Material	耐热铸钢。 Heat-resistant stainless steel casting.
喷嘴转速 Nozzle Rotation Speed	约 2.5 RPM。 Approximately 2.5 RPM.
重量 Weight	吹灰器重量（不含本体控制盒）约为102Kg。 Blower without junction box weighs approximately 102 Kg.

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