

艾坦姆流体控制技术有限公司 Utmost Flow Control Tech.Co.,Ltd





艾坦姆 PA系列粉煤流量调节阀

PA Series Pulverized Coal Flow Control Valve



PA系列粉煤流量调节阀简介

Introduction of PA Series Pulverized Coal Flow Regulating Valve

粉煤流量调节阀又称粉煤角阀,是SHELL、GSP、HT-L、CHOR等粉煤气化工艺装置中,安装在粉煤 给料罐和气化炉之间,用于调节进入气化炉粉煤流量、精确控制气化炉内氧-煤比的关键设备,其性能优劣 直接关系到气化炉能否实现安全、长期稳定运行。

粉煤调节阀输送的介质是以高压氮气或二氧化碳为载体,具有一定硬度的固体粉煤颗粒,为气-固两相控制系统。由于介质中粉煤的浓度较高,调节过程中易引起粉煤浓度的较大变化,粉煤易堆积、架桥、堵塞,致使流动不稳定,粉煤外泄漏易燃烧,而且阀门工作时,高速运动的粉煤颗粒对阀门造成很大的冲刷,容易造成粉煤流量不稳定,甚至调节失效,所以要求该阀门具有耐高压、耐冲刷、耐磨损、流量调节稳定等综合性能。

The pulverized coal flow regulating valve, also known as pulverized coal angle valve, is installed between the pulverized coal feeding tank and the gasification furnace in pulverized coal gasification process units such as shell, GSP, HT-L, and CHOR, and is a key device for regulating the flow of pulverized coal entering the gasification furnace and accurately controlling the oxygen-coal ratio in the gasification furnace. Its performance directly to the realization of safe and long-term stable operation of the gasification furnace.

The medium transported by the pulverized coal regulating valve is solid pulverized coal particles with a certain hardness and takes high-pressure nitrogen or carbon dioxide as a carrier, and is a gas-solid two-phase control system. As the concentration of the pulverized coal in the medium is higher, a larger change of the concentration of the pulverized coal is easily caused in the adjusting process, the pulverized coal is easily accumulated, bridged and blocked, so that the flow is unstable, and the pulverized coal is easily leaked and combusted. When the valve works, high-speed moving pulverized coal particles cause great scouring to the valve, so that the pulverized coal flow is unstable or even the adjustment is invalid, and the valve is required to have comprehensive performances of high pressure resistance, scouring resistance, abrasion resistance, stable flow regulation and other comprehensive performance.

应用领域

Application Area

煤化工、其它领域气固两相介质流量调节的工况。

Coal chemical industry and other areas in gas-solid two-phase medium flow regulation conditions.

PA系列粉煤流量调节阀结构特点

Structutal Characteristics of PA Series Pulverized Coal Flow Regulating Valve

阀杆双导向结构,保证阀杆运 动稳定。

Double guide structure of valve stem ensures stable movement of valve stem.

特殊降噪,稳流,定向吹扫设计,保证波纹管与阀体环腔形成稳定的高压气封,避免煤粉堆积或阀门卡塞。

Special noise reduction, steady flow and directional blowing design ensure that the bellows and valve body ring cavity form a stable high pressure air seal to avoid coal accumulation or valve jam.

阀芯及内衬为高硬度金属陶瓷 材料,采用特殊烧结成形工艺, 抗冲刷性能更强。

The spool and liner are made of high hardness metal-ceramic material with special sintering and forming process, which has stronger scouring resistance. 多层耐高压波纹管,寿命长,抗应力腐蚀,耐冲击,密封可靠,且填料与垫片多重密封,动态加载,确保煤粉不泄漏。
Multi layer high pressure resistant bellows possessing of long service life, stress corrosion resistance, impact resistance, reliable sealing, multiple sealing of packing and gasket, dynamic

loading which ensure no leakage of

pulverized coal.

出口耐冲刷延长管设计,减少阀后管 道冲刷。 Outlet scour-resistant extension tube

design reduces valve pipeline scouring.

特殊流量调节窗口设计,实现流量精确控制,并且节流口抗冲刷性更强。 The special flow adjustment window design can realize accurate flow control, and the orifice has stronger anti scour performance.

PA系列粉煤流量调节阀技术数据

Technical Data of PA Series Pulverized Coal Flow Regulating Valve

| 公称通径 Nominal Diameter | DN25、 40、 65、 80 | | |
|--------------------------------|---|--|--|
| 公称压力 Pressure Rating | CL300, CL600, CL900 | | |
| 适用温度 Applicable Temperature | -20 °C − 230 °C | | |
| 阀体材质 Body Material | 碳钢、不锈钢 Carbon Steel, Stainless Steel | | |
| 内件材质 Inner Part Material | 特殊碳化钨 Special Tungsten Carbide | | |
| 波纹管材质 Bellows Material | 316Ti、 321、316L | | |
| 适用介质 Suitable Media | 煤粉 Pulverized Coal | | |
| 流量特性 Flow Characteristics | 线性 Linear | | |
| 密封等级 Sealing Grade | ANSI/FCI 70-2 IV/V级 | | |
| 执行机构 Actuator | 气缸式或膜片式气动执行机构 Cylinder Type or Diaphragm Type Pneumatic Actuator | | |
| 参照标准 Reference Standards | ASME B16. 34、ASME B16. 10、ASME B16. 5、API 598、ANSI/FCI 70-2 | | |

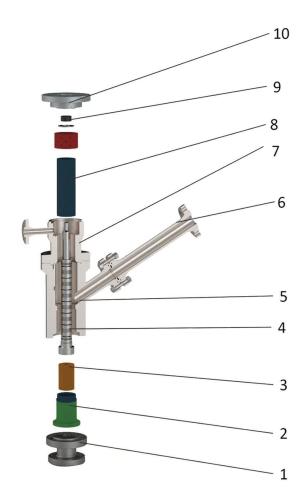
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PA系列粉煤流量调节阀技术数据

Technical Data of PA Series Pulverized Coal Flow Regulating Valve

主要零部件

Main Parts



| 1 入口端盖 | 2 阀座组件 | 3 阀芯 | 4 阀杆组件 | 5 阀体组件 |
|------------------------------|----------------------|---------------|---------------------|------------------------|
| Entrance End Caps | Valve Seat Assembly | Valve Spool | Valve Stem Assembly | Valve Housing Assembly |
| 6 出口耐冲刷管 | 7 阀盖组件 | 8 内衬套 | 9 填料组件 | 10 填料函 |
| Export Scour-Resistant Pipes | Valve Cover Assembly | Inner Bushing | Stuffing Box | Packing Box |

PA系列粉煤流量调节阀技术数据

Technical Data of PA Series Fly Ash Flow Control Valve

材质

Material

| 零件名称 | 阀体 | 内件 | 波纹管 | 密封件 | 紧固件 |
|----------------|--|--------------|----------------------|---------------------------------|------------------------------------|
| Parts Name | Valve Housing | Trim | Bellows | Sealing Parts | Fastener |
| 材质 Material | A216 WCB A351 CF8M A182 F316 A105 | A182 F316+WC | 316Ti 321 316L | 聚四氟乙烯 PTFE 石墨 Graphite | A193 B7/A194 2H A193 B8M/A194 8 |

特殊材质需求请接洽艾坦姆销售部

For special material requirements, please contact our sales department $\!\scriptscriptstyle \circ$



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艾坦姆流体控制技术(北京)有限公司

Utmost Flow Control Tech.(Beijing) Co.,Ltd

地址:北京市顺义区林河工业开发区顺仁路54号1栋1层

Add: FL, No54 of shunrenlu, Linhe Industrial Park, Shunyi district, B, ejing.

电话/Tel: (8610)80490441 传真/Fax:(8610)80490446-800 网站/Web: www.utmost-valve.com

艾坦姆流体控制技术有限公司

Utmost Flow Control Tech.Co,Ltd.

地址:山东省济宁市邹城市北宿镇恒发北路1号

Add: No.1 of Hengfalu, Beisu area, Zoucheng, Jining City, Shandong Province.

电话/Tel: 0537-5300022

网站/Web: www.utmost valve.com