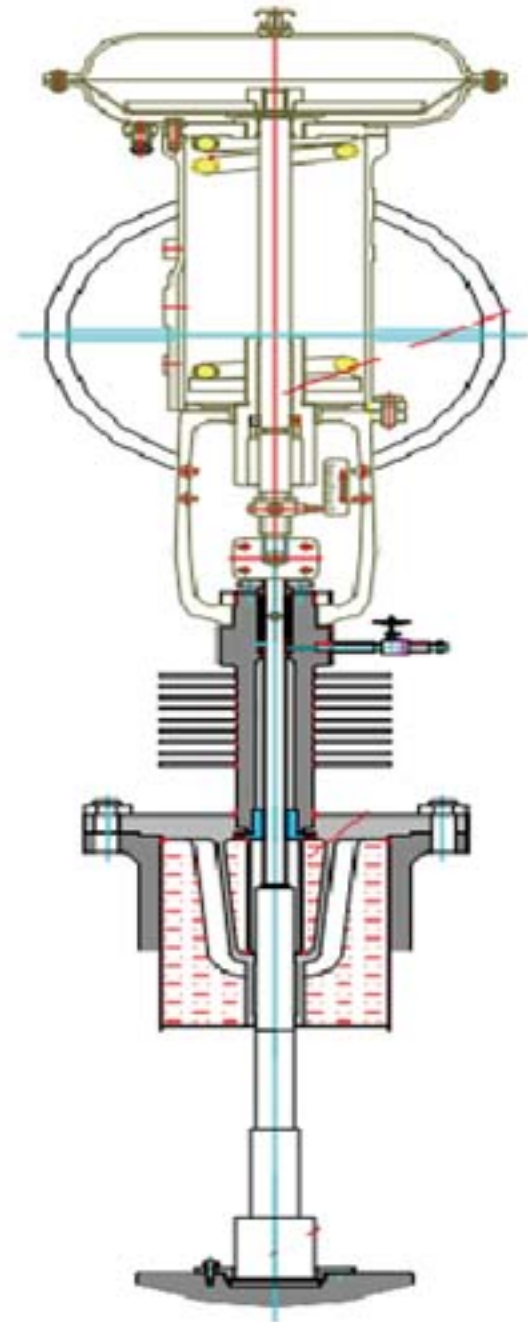


CTP

转化器废热锅炉调节阀 CONVERTING VESSEL WASTE HEATED GAS CONTROL VALVE



CTP 转化器废热锅炉调节阀

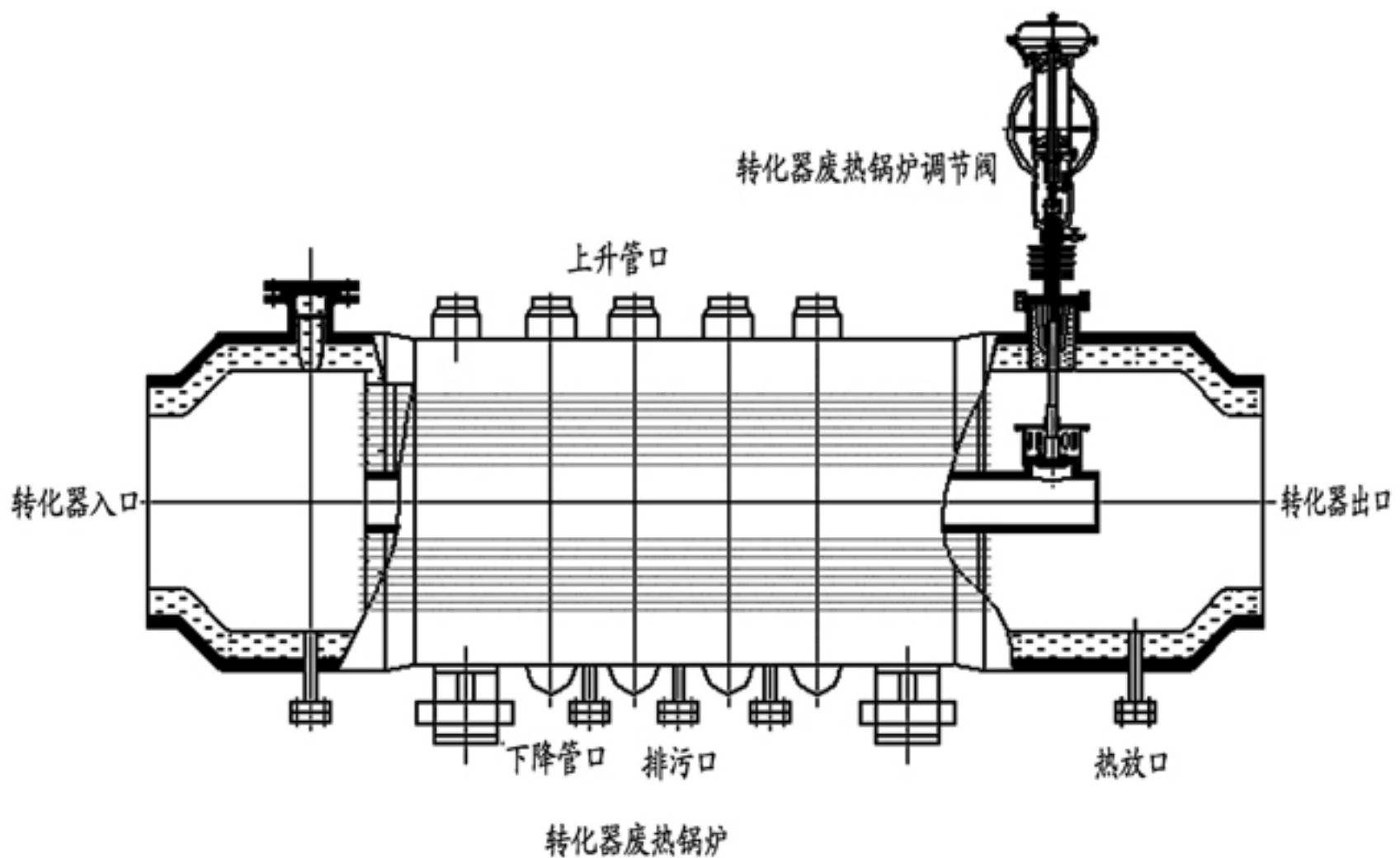
CTP CONVERTING VESSEL WASTE HEATED GAS CONTROL VALVE

概 要:

CTP 转化器废热锅炉调节阀是一种应用于转化器废热锅炉温度调节的特殊调节阀,该阀必需在极高的使用温度下(1200°)运行可靠、稳定,并准确的控制调节阀后空腔的温度。因此该阀与介质接触的零件必须要满足转化器废热锅炉的设计温度,为使调节阀使用更安全,寿命更长,增加了密封隔热结构,并填充隔热耐火材料,进一步保护阀本体。转化器废热锅炉调节阀的使用见图 1。

GENERAL

CTP Converting vessel waste heated gas control valve, called CTP Control Valve hereafter, is A special valve which has being used for controlling the temperature of the gas in converting vessel. The valve must be reliable and stable while operating under extreme high temperature, 1200° C, for example, and it can accurately control the temperature downstream of the valve. Therefore, the material of the parts which contact directly with the medium must meet the designed temperature of converting vessel. A heat insulated box, in which some fire-resistant stuff is filled, is added to protect the valve body in order that the valve can used more safely and for longer time. The view of the converting vessel is showed in Figure 1.



Converting vessel waste heated gas control valve

Fig 1

阀体部分 BODY

形式 Type	<p>转化器废热锅炉调节阀,见图 2 外型尺寸见图 5</p> <p>Converting vessel waste heated gas control valve in Figure 2</p> <p>Given by the developer of converting vessel figure 5</p>
公称通径 Body size	<p>DN100,250,300mm,或按用户主气管道口径要求设计</p> <p>DN200,250,300mm or bedesigned according to the requirements of customers</p>
阀芯形式 Plug type	<p>金属单座阀,由于现场工况种类较多,并且有特殊要求的场合如介质中含高硬度颗粒等,因此,阀芯的种类有以下几种可供选择,见图 3。</p> <p>Metal sealing sealing single-seated.Three types of plugs are showed in Figuer 3</p> <p>According to the fluid conditions,such as the fluid mixed with grain of high rigidity and that in hing temperature.</p>
流量特性 Flow Characteristics	<p>线性、快开 Linear, on-off</p>
阀内件 Trim	<p>在高温环境中稳定工作,并调节温度。</p> <p>It can woek stably to control the temperature nuder condition of high temperature.</p>
公称压力 Body ratings	<p>PN4.0,PN6.4,PN10.0(Mpa)或更高,与废热锅炉公称压力一致。</p> <p>设计制造标准:"钢制压力容器" GB150-1998</p> <p>"钢制化工容器制造技术要求" HG20584-1998</p> <p>"钢制管法兰,垫片,紧固件" HG20592-1997</p> <p>PN4.0 ,PN6.4, PN10.0, Mpa or higher it complies with the rated pressure of Converting vessel.</p> <p>Standard of design and manufacture: Steel pressure vessel GB150-1998</p> <p>Technical Requirements of Manufacture for Steel Chemical Vessel HG20584-1998, HG20592-1997</p>
密封隔热部分 Heat insulated box	<p>对阀本体进行有效保护,避免高温对阀本体的破坏,有效保证了阀的可靠性及寿命。</p> <p>It can protect the valve body from high temprature to guarantee the stability and Lifetime of the valve.</p>
执行机构(带手轮) Acturator(with hand wheel)	<p>具有合适的输出力满足工艺要求,并在控制系统出现故障时可切换到手动操作</p> <p>It must have enough force to meet the requiements of technics,and can be switched from automation to manual when failure occurred suddenly in control system.</p>
材料 Material	<p>根据废热锅炉设计温度的不同,密封隔热部件材料组配分以下几种组配:(见表 1)及图 4</p> <p>Based on the designed temprature of converting vessel, the materials of the parts in heat insulated box have been listed in following table.(showed table 1)</p>
上阀盖形式 Bonnet type	<p>高温伸长型(带散热片)450~500° C</p> <p>备注:工作温度不准超过各种材料的允许范围</p> <p>Extension bonner for high temperature (with cooling fin)</p> <p>Remarks:Working temperature must be less than allocable one of the specified material.</p>
填料 Packing	<p>因科镍合金丝增强石墨填料</p> <p>Graphite reinforced by Inconel thread</p>
压盖形式 Packingfiange type	<p>螺栓压紧式</p> <p>Syud bolt compaction.</p>
表面涂层 Painting color	<p>碳钢阀体喷银色环氧树脂,不锈钢阀体喷钢灰丙烯酸瓷漆</p> <p>Argentate munsell on carbon steel,Steel grey crylic acid enamel stainless steel</p>

CTP 转化器废热锅炉结构
 CTP Control Valve consists mainly

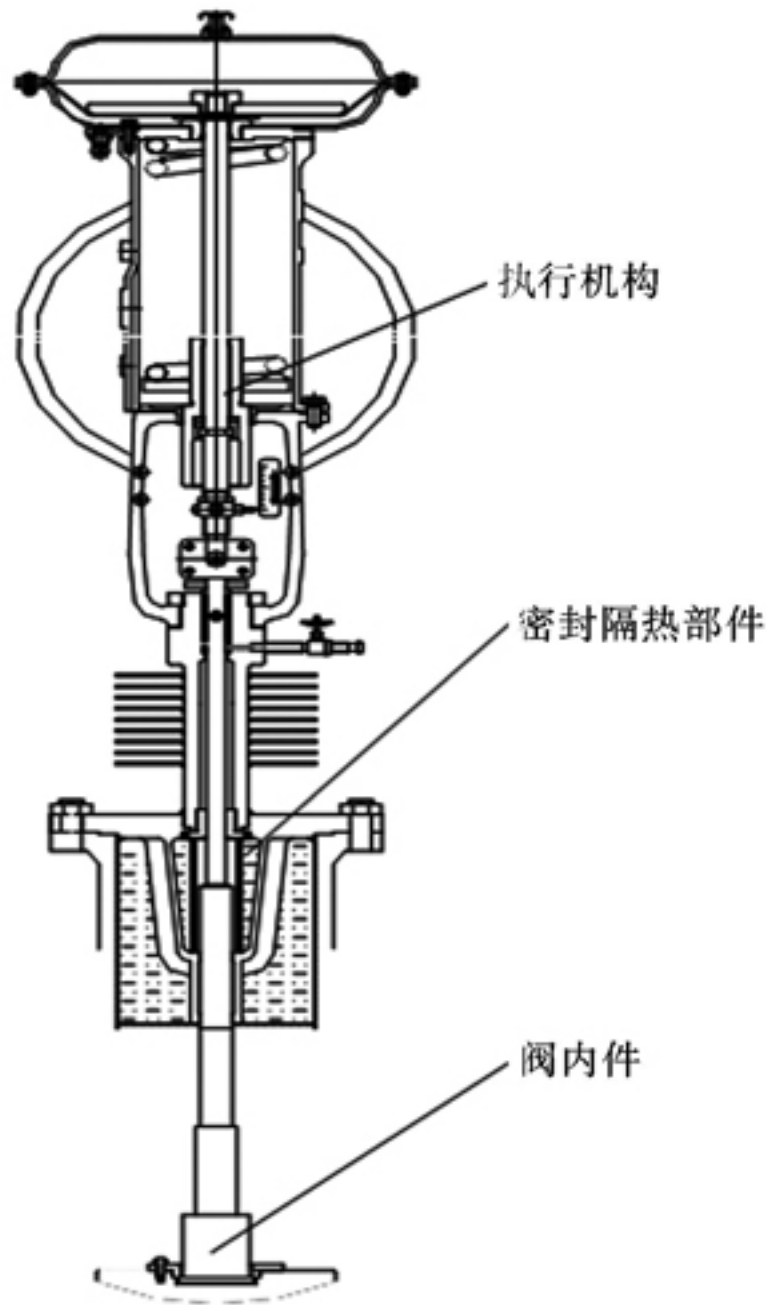
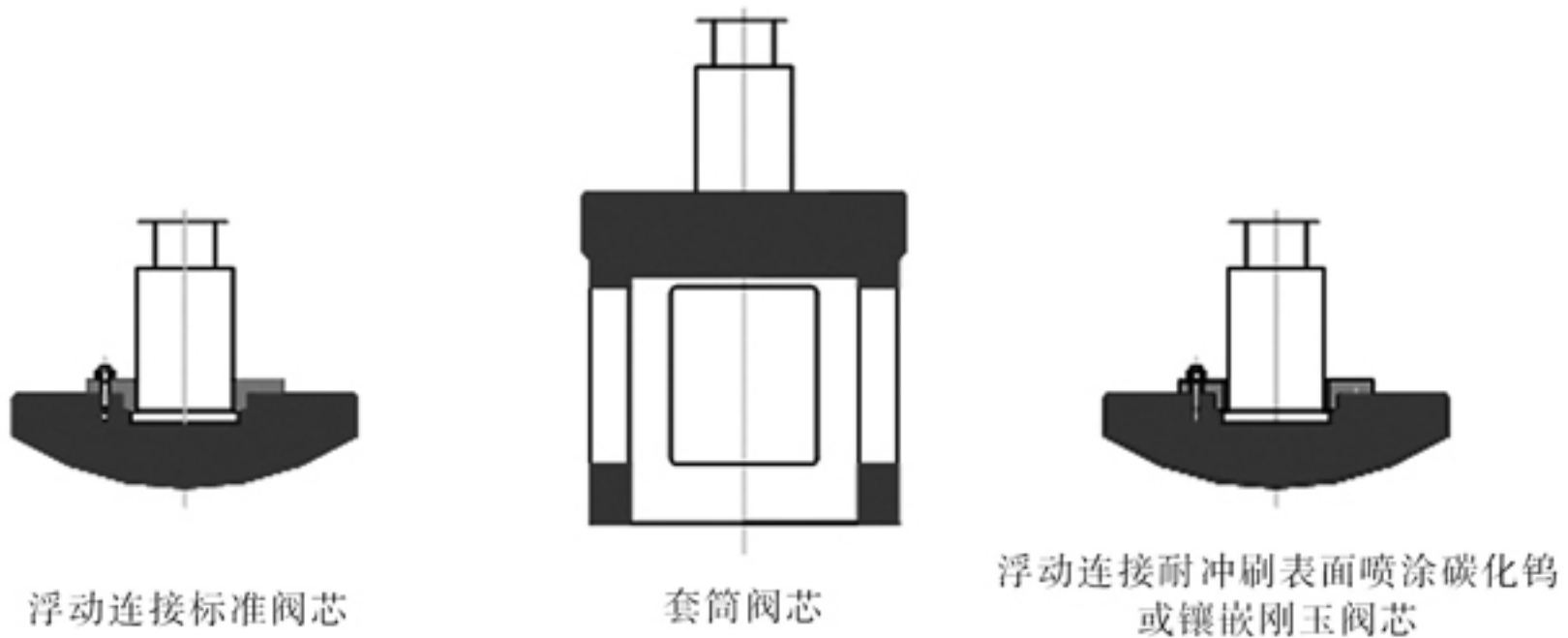


图 2 Fig 2



阀芯型式号 Plug Type
 图 3 Fig 3

Table 1

转化器出口温度 Putput Teperature	盖板部件材 Material of cover board	散热材质 Material of cooling fin	隔热材料 Heat insulating material
400° C	35CrMo	35CrMo	陶瓷纤维 Porecelain fibre
540° C	1Cr18Ni9 (304)	1Cr18Ni9 (304)	
600° C	Cr25Ni20	1Cr18Ni9 (304)	
≥600°	Cr25Ni35	1Cr18Ni9 (304)	

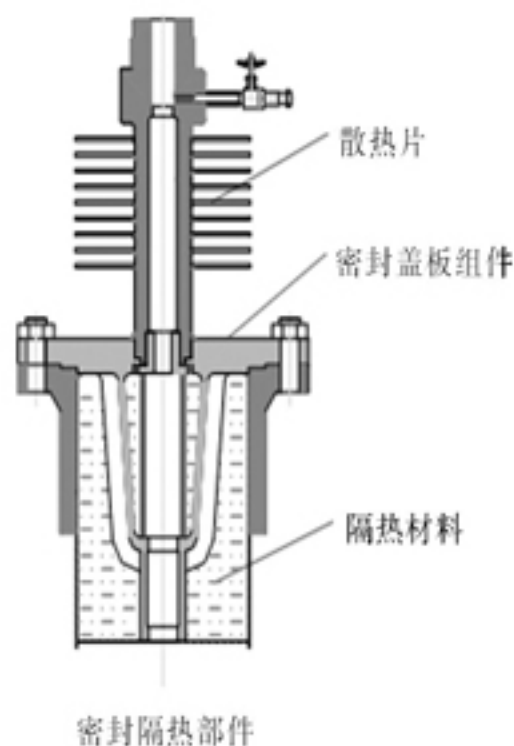


图 4 Fig 4

Table 2

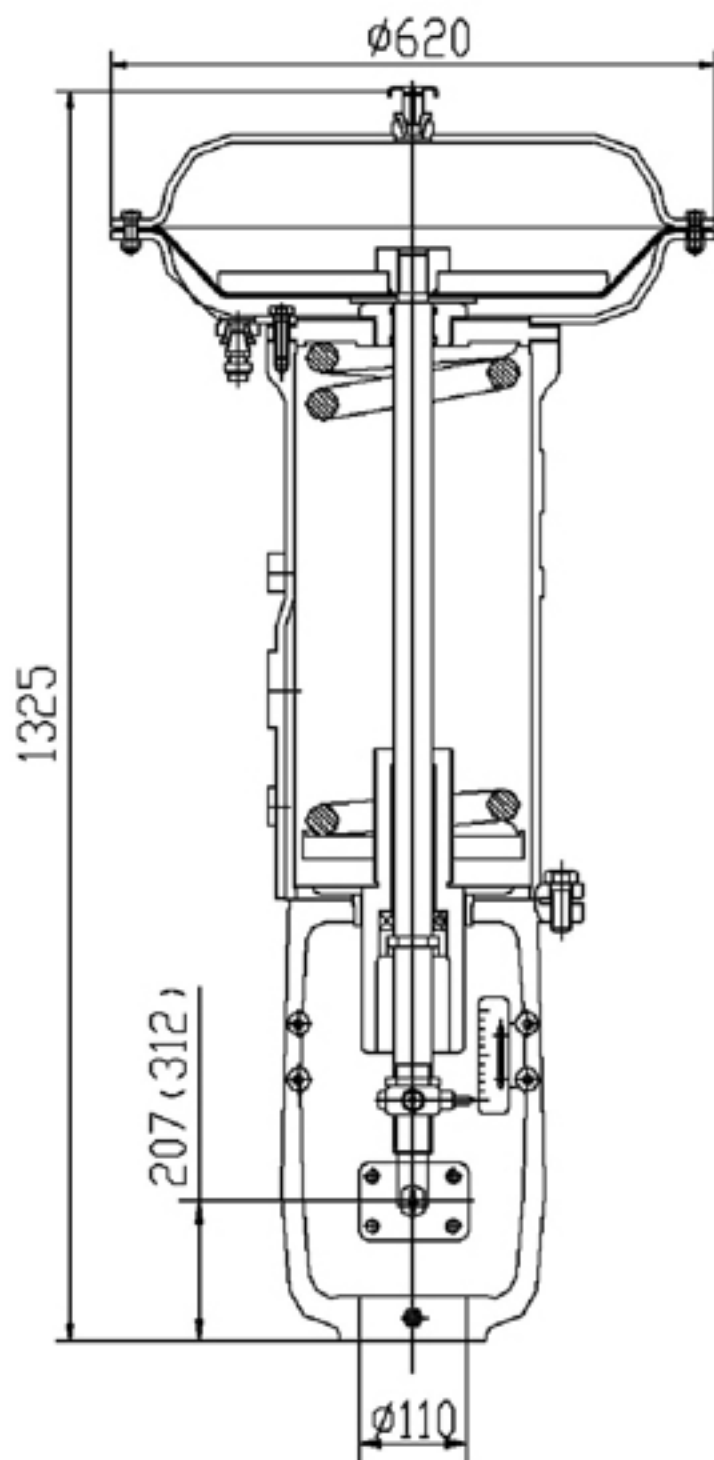
转化器入口温度 Input temperature of converting vessel	阀芯材质 Material of the piug
< 1000° C	Cr25Ni20
> 1000° C	Cr35Ni35

执行机构 ACTUATOR

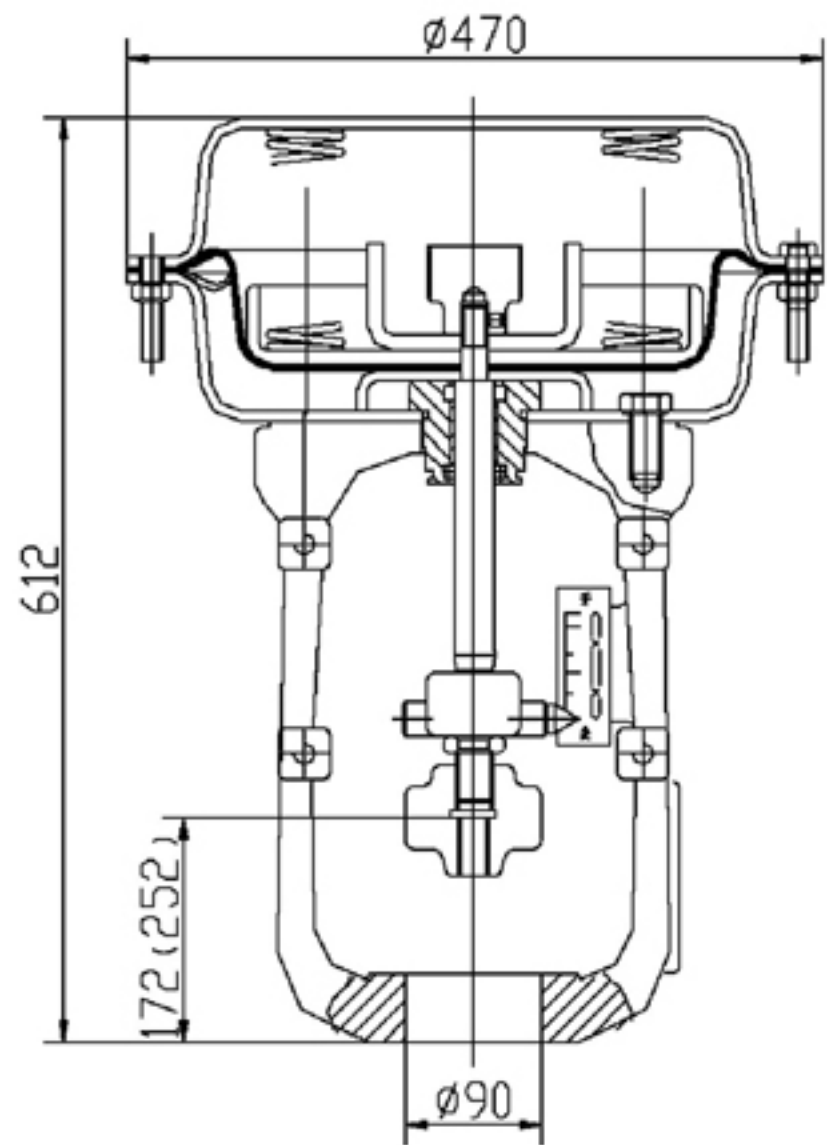
规格 Specification	形式 Type	气动薄膜式 Diaphragm type
型式 Type	多弹簧式薄膜执行机构改, 见图 4(括号内数字代表正作用连接尺寸。 HA or VA Diaphragm aturator	
用途 Purpose	调节, 开关 Modulation or on-off	
供气压力 Air supply	0.28, 0.4Mpa	
气源接头 Air connector	Rc1/4	
膜片材料 Material of diaphragm	EPT rubber	
弹簧范围 Range of supply	0.08-0.24Mpa	
环境温度 Ambient temperature	-30° C~+70° C	
作用形式 Function	气 - 开, 气 - 关 Air to , air to close	
标准涂层色 Painting	中国兰 China biue	
选购设备 Option	定位器, 手轮机构, 减压阀等或按使用实际要求组配附件 Positioner, hand wheel, air regulator or others according to requirements.	

整机性能 PERFORMANCE

泄漏量 Leakage rate	符合标准 ANSI B16.104IV 级, 小于额定 Cv 的 0.01% According with ANSI B16.104 class IV Less than 0.01% of maximum valve capacity
回差 Hysteresis error	1% (带定位器), Within 1%FS (with positioner) 3% (不带定位器), Within 3%FS (without positioner)
线性 Linearity	±1% (带定位器) Within ±1%FS (with positioner) ±5% (不带定位器) Within ±5%FS (without positioner)



VA 执行机构 VA actuator



HA 执行机构 HA actuator

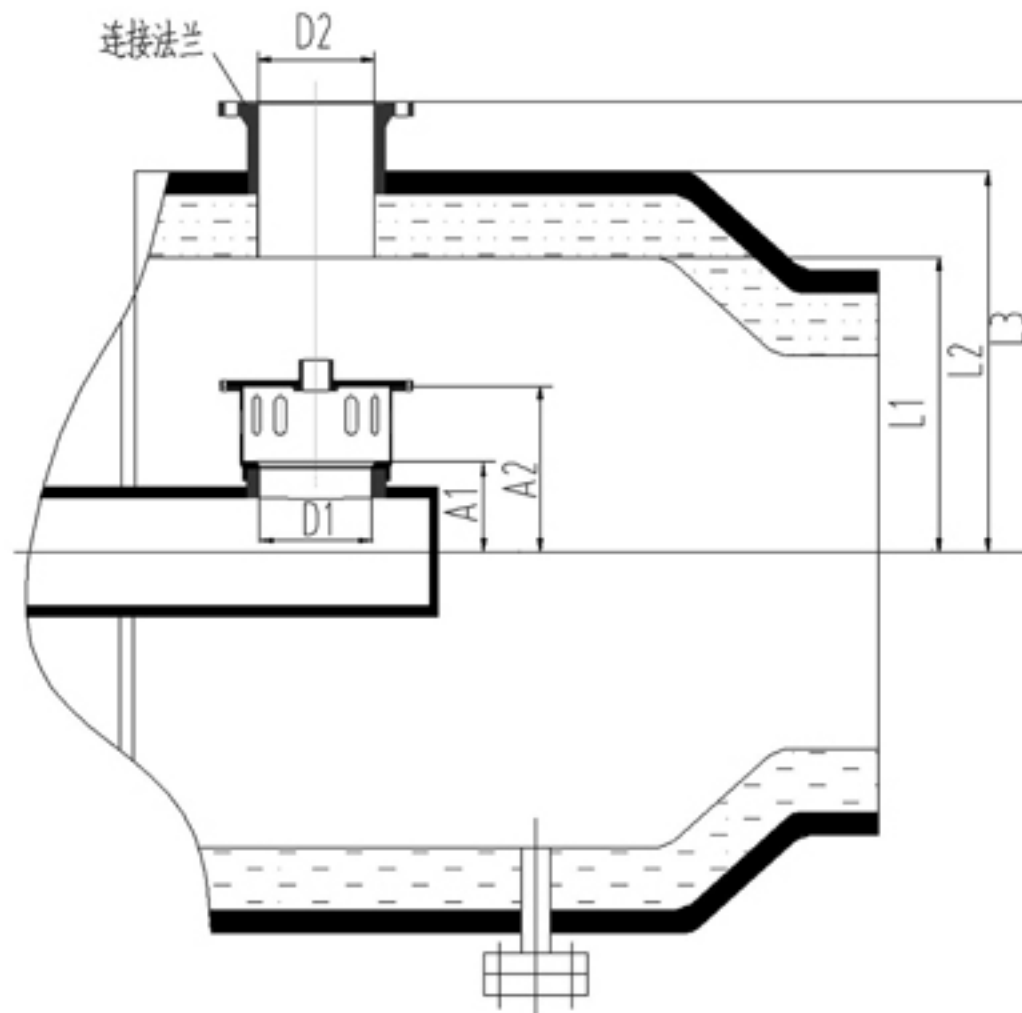


图 5 Fig 5

外型尺寸说明:

该系列调节阀的外型尺寸是由废热锅炉的尺寸决定的,因此废热锅炉的要求不同,阀的外形尺寸均不一样,只有锅炉设计方提供相关参数,我方才能最终确定阀与锅炉的准确装配及连接尺寸。锅炉设计方应提供以下关键尺寸(见图 5)及连接法兰标准。

Outline dimension

The outline dimensions of the valve are based on the relative dimensions of converting vessel. Therefore, they vary with the related dimensions of conveying vessel. Only if the relative dimensions are provided by the developer of conveying vessel can we design the valve and give it the proper connecting sizes with the converting vessel. The following key dimensions and connection standards should be given by the developer of conveying vessel.

特殊规格(有偿):按用户要求制造,具体内容如下:

Special specification (not free): Manufacture according to the requirements of customers, followings are in detail:

特殊检查 Special inspection	材料检查(试验报告)、非破坏检查、放射线检查 Material examination(examining report)、no damaging inspection、radiation inspection
禁铜处理 Copper prohibiting treatment	完全除油、除水处理 Oil and water removing treatment
指定色涂层 Specified painting coat	特殊空气配管和特殊接头 Special air-pipe connector
防沙、防尘型 Sand proof and dust-proof	防强腐蚀型 Strong corrosion preventing
真空工作条件用 Used under vacuum	接触大气部分 SUS 不锈钢螺栓、螺母 Stainless steel bolts and nuts exposed in air
寒带地区用 Used in frigid zone	热带地区用 Used in tropic

订货需知

订货时,请写明:

- | | |
|-----------------------|---------------------------|
| 1、型号 | 11、介质名称、状态(液、气、蒸气等) |
| 2、口径 | 12、配管尺寸及图 5 要求提供的尺寸 |
| 3、公称压力及法兰连接型式 | 13、常用流量及最大、最小流量 |
| 4、阀体和阀内组件材料,表面处理要求 | 14、流体压力及压差(全开、全关时) |
| 5、流量特性 | 15、流体的温度、比重或密度 |
| 6、填料类型 | 16、介质压力、最大流量和最小流量时进口压力和出口 |
| 7、执行机构型号,是否配手轮及供气压力 | |
| 8、阀作用型式(正作用、反作用) | 17、介质比重粘度,有无浆料、闪蒸 |
| 9、附件(是否要带定位器、手轮、减压阀等) | 18、是否用于高压、高温、防爆等工作条件 |
| 10、是否禁油、禁铜等特殊规格 | 19、其它特殊要求 |

Ordering information

Please specify when ordering:

- 1、Type
- 2、Sizs
- 3、Rated pressure and end connection
- 4、Material of body and trim, surface treatment requirements
- 5、Flow charactristic
- 6、Packing type
- 7、Actuator type,with or without hand wheel and air supply pressure
- 8、Function of valve(direct or reverse)
- 9、Accessories(positioner, hand wheel and air set etc.)
- 10、Special requirements of or copper prohibiting
- 11、Fluid name and state
- 12、Connecting size and those required in Figure 5
- 13、Max,normal and min.flow
- 14、Fluid pressure and differertial pressure
- 15、Fluid temperature,specific gravity or density
- 16、Pressure of flow medium, upstream and downstream at maaximum and minimum required foww
- 17、Viscosity of flow medium. If there is slurry and fiash
- 18、Other special requirements

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宁夏吴忠仪表公司
Ningxia Wuzhong Instrument Co., LTD.
地址：宁夏吴忠市朝阳街67号 邮编：751100
Tel:0953-3929024 Fax:3929014
[http:// www.wzyb.com.cn](http://www.wzyb.com.cn)