中国石化集团 洛阳石油化工工程公司 LUOYANG PETROCHEMICAL ENGINEERING CORP./SINOPEC	调节阀规格书 CONTROL VALVE INSTRUMENT SPECIFICATION		项目文件号 Proj.Doc.No.	专业文件号 Discipline Doc.No.	Rev.
		LPEC's	413091D1267	50-00/R701	
		顾客要求 Client's			
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概况 General	1	位号 Tag Number		数量 Quantity	PID号	41-PV-705		1	41-T4031-022	
	2	工艺管号 Line No.		管道等级 Class		41-24"-PL-16002		A53F		
	3	工艺管线尺寸Pipe Size mm		工艺管道材质Pipe Mat'l		600		ASTM A106 Gr.B		
操作条件 Process Condition	4	介质名称 Fluid		介质状态 Phase		HC C8芳烃 对二乙基苯		液体		
	5	流量 Flow Rate	液体 Liquid kg/h	最大MaxFlow		3764		m3/h		
			气体 Gas Nm^3/h	正常 NorFlow		见附页		m3/h		
			蒸汽 STM kg/h	最小 MinFlow		1686		m3/h		
	6	阀前压力 Inlet Pressure MPa(G)		阀后压力 Outlet Pressure MPa(G)		1.88/1.88/1.87		1.334/1.231/0.996		
	7	全关时的压力降 Max DP for Shut-off MPa(G)				3.24		MPa		
	8	操作温度 Oper. Temp. ℃		摩尔分子量 Molecular WT		175				
	9	操作密度 Oper.Density		标准密度 Std.Density kg/Nm3		720				
	10	操作粘度 Oper.Viscidity		粘度单位 Visc Unit		0.25		mPa.s		
	11	绝热指数 CP/CV		压缩系数 Com. Factor						
	12	饱和蒸汽压力 Vapor PressMpa(a)		临界压力 Critical Press.Mpa(a)		0.24		3.58		
	13	固体物质含量Solid Mass Cont		汽化量 Mass Vap						
调节阀 Control Valve	14	调节阀类型 Body Type				Single Seat Globe				
	15	公称直径 Body Size mm		阀座直径 Trim Size mm		500				
	16	流量特性 Character		过程连接 Proc.Conn		线性特性		ASME Class 300 RF 20″		
	17	阀体材质及阀盖材质 Body/Bonnet Mat'l				A216GR.WCB				
	18	阀芯材质 Trim Mat'l		阀座材质 Seat Mat'l		316SS+ST		316SS+ST		
	19	填料材质 Packing Mat'l		垫片材质 Gasket Material		PTFE		厂标		
	20	计算Cv值 Sizing Cv		最大Max.	正常Nor.	最小Min.	1611.91812	845.69/1365.36/1075.08/1267.16	570.678535	
	21	选用Cv值 Selected Cv					3040			
	22	调节阀开度%Valve Opening%		最大Max.	正常Nor.	最小Min.	51.40	25.33/43.01/33.14/39.67	15.97	
	23	执行机构型式 Actuator Type		弹簧范围 Spring Range MPa			气缸			
	24	上阀盖型式 Bonnet Type					标准			
	25	气源故障时阀门状态 Failure Action to Open/Colse					F.L			
	26	电磁阀失电时阀门位置 Val. Posn. when Sol. Val. De-energized								
	27	噪声估计 DBA		泄漏等级 Leakage Class			≤85dBA		ANSI Class IV	
	28	作用型式 Action								
转换器或定位器 Transducer/Positioner	29	名称 Name					电气阀门定位器			
	30	输入信号 Input Singal		输出信号 Output Singal			4~20mA+HART			
	31	防爆等级 Explosion Proof		防护等级 Enclosure Protection			ExiaIICT4		IP65	
	32	气源 Air Supply(kPa)		电源 Power Supply			400			
	33	气动连接 Pneu.Conn.		电气连接 Eelec.Conn.			1/4″NPT(F)		1/2″NPT(F)	
	34									
	35									
附件 Accessories	36	过滤器减压阀 Filter-Regulator W/gauge					随阀带			
	37	电磁阀 Solenoid Valve		电源 Power Supply						
	38	阀位开关 Position Switch		手轮装置 Hand Wheel						
	39	防爆等级 Explosion Proof								
	40									
其他 Miscell	41	推荐制造商 Manufacturer								
	42	型号 Model								
	43									

说明 Note: Balanced/Unbalanced:Balanced 随阀带阀位变送器

Stem Material:13CR

当执行机构采用双作用气缸时，需带事故空气罐，其容量应保证执行机构完成2个行程.

Tag number : 41-PV-705

1. The sizing calculation shall be carried out based on ISA S75.01 and the Manufacturer's standard equations. The sizing calculations result shall be provided with valve specification.

2. The control valve packing glands shall be of the bolted type.

3. Miscellaneous accessories such as booster relay, quick exhaust valves, lock-up valves; accumulators (air volume tanks) travel limit stops etc shall be considered to maintain proper operation during Detailed Engineering Stage.

4. Maximum time to open and close the valve from 0% to 100% = 15 seconds.

5. In addition to the control signals from SCS/PLC or DCS to the valve actuator, ancther signal to the SCS/PLC will also be provided to monitor the correct valve position on site.

6. Hand Switch to select which controller, SCS/PLC or DCS, pilots the valve. SCS in normal operation or DCS during start-up.

7. Accuracy of the flow control loop = 1.0% maximum - Linear characteristic required. Double acting actuator recommended

8. Valve data sheet and characteristic curve (Cv/opening) to be submitted to AXENS for approval

9. Fail Lock position is ensured by the positionner only. No other failure lock arrangement is required.

10. Estimated shut-off pressure of 41-P-202 A/C, (Design Pressure) shall be confirmed by DEC

11. For Valve calculation and size selection DEC need to be rechecked during Detailed Engineering

12. Trim size and Rated CV are based on Fisher.

13. Please refer to attachment# 3 for addition requirements.

No.	By	Date	Revision
1	D.D	2/28/2007	FINAL (as FEED Package)
0	D.D	12/15/2006	Preliminary

INSTRUMENT SPECIFICATION
Control Valve

TOYO ENGINEERING CORP.

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Code: 170 | Dwg. No.: | Rev.: 1

IV-149

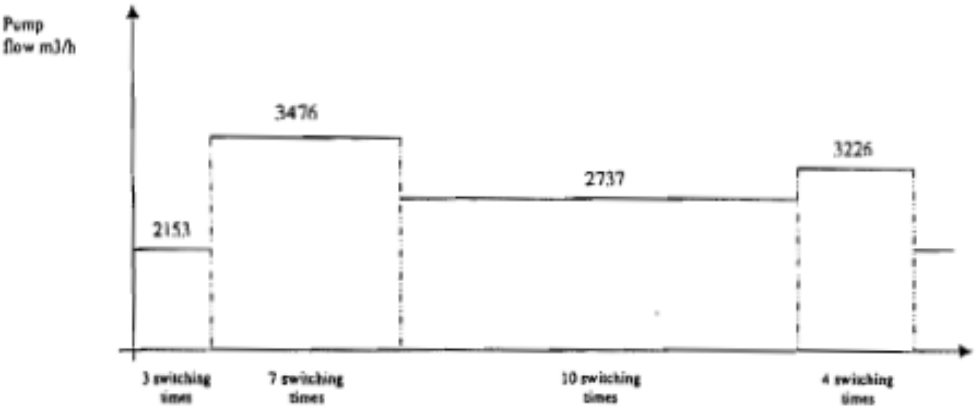
Axens IFP Group Technologies — Process licensing

INSTRUMENT DATA SHEET : CONTROL VALVE

Job Number	Unit	Type	P&ID	Page
05-2678b	41b	4VC	PID 16/27	4/5

		Date	By	Check By	Rev
Client	: DRAGON AROMATICS (XIAMEN) CO., LTD	23/06/06	PAB	FLA	0
	DAC PX COMPLEX PROJECT - Xiamen (P.R. China)				
Unit	: XYLENE SEPARATION + ELUXYL UNIT (Unit 41)				
VALVE TYPE	Pressure control Valves				

~~(10)~~ Pump flow varies this way for a typical operating case (average R/F, (14) switching time is about 75 seconds) :



(15) ~~(11)~~ Estimated shut-off pressure of 41-P-202 B/C, to be checked by Engineering.
(16) ~~(12)~~ Accuracy of the pressure control loop = 1.0% maximum - Linear characteristic required - Double acting actuator recommended.
(17) ~~(13)~~ Maximum time to open and close the valve from 0 to 100% = 15 seconds.
(18) ~~(14)~~ Valve data sheet and characteristic curve (Cv / opening) to be submitted to AXENS for approval.
(19) ~~(15)~~ Estimated min. design Cv : 653, estimated maximum operating Cv : 2064
(20) ~~(16)~~ In addition to the control signal from SCS/PLC to the valve actuator, another signal to the SCS/PLC will also be provided to monitor the correct valve position on site. See Automation Data Book.
(21) ~~(17)~~ Hand Switch to select which controller, SCS/PLC or DCS, pilots the valve. SCS in normal operation or DCS during start-up.
~~(18)~~ Fail Lock position is ensured by the positionner only. No other failure lock (22) arrangement is required. Refer to typical instrumentation diagram for pumparound valves.

(23) Valve shall be provided with Anti cavitation Q-Trim design or equivalent. Engineering contacts to recheck during detail engineering.

(24) Intelligent valve controller, with embedded lifecycle diagnostics including static and dynamic deviation trend, actuators load trends, valve diagnostic, and predictive maintenance based lifecycle diagnostic recommended compare to valve signature approach.

(25) Unique supplier for package valve, actuator and intelligent valve controller is recommended.

(26) Field devices management software FDT-DTM technology based with condition monitoring is required.