



**MORVARID PETROCHEMICAL COMPANY**  
**30% Expansion of Olefin Plant**



**DATA SHEET FOR CONTROL VALVES (SECTION 30)**

CONTRACTOR DOCUMENT N°

OWNER DOCUMENT N°

Project N°	Unit	Doc. Type	Material Code	Serial N°	Rev.	Page	Project N°	Unit	Doc.	Material Code	Serial N°	Rev.	Page			
N293	000	SP	1541	301	3	30 / 41	7273F/E	000	SP	1541	301	7	30 / 41			
General Data	1	TagNo.		Case			PV 30153									
	2	Service		P&IDNo.			E308 Press Control		0021-30-12							
	3	□PED							□SIL							
Inletline	4	Diameter		Number					10"-PH40005A-DB01-N							
	5	Line schedule		Piping class					DB01							
Outlet line	6	Diameter		Number			12 in									
	7	Line schedule		Piping class			7.14 mm		DA03							
Operating Conditions	8	CalculationResultsFrom:						0 Internal 0 Manufacturer 0 Both								
	9	Sour service		Specialconditions												
	10	MolecularWeight		Viscosity @ normal			4.13		0.01 Cp							
	11	Cp/Cv		Compressibility			1.39		1							
	12	Densitymin / Density nor / Density max						1.810		kg/m3						
	13	Vapour Pressure atT nom.														
	14	Critical Pressure / CriticalTemperature														
	15	Fluid / Phase / State						FUEL GAS Gas/Vapor Single Phase								
	16	Flow Mn.		Norm.		Max.		Unit		700		14826		17780		kg/h
	17	Temp. QMin.		Q Norm.		Q Max.		Unit		48		48		11		°C
	18	Press. QMin.		Q Norm.		Q Max.		Unit		9.7		9.4		9.4		bar-g
	19	DP °Min.		Q Norm.		Q Max.		Unit		6.7		6.0		5.5		bar
	20	CV Mn.		Norm.		Max.				10.6		243.00		280		
	21	Noise Min.		Norm.		Max.				<40		68		69		dBA
	22	RequairedCV														
23	Selected CV / Internal / Mfr						299.01									
24	Fd / Internal / Mfr / FI (Cf)						/									
25	Fluid tending to			Air-FailPosition			NA		Open							
Valve Body	26	Body type		IBodymaterial / Materialdetail			Finetrol Low T CS ROTARY Q-FI		LCB							
	27	Design Pressure		Mn.		Max.		bar-g		12.3 bar-g						
	28	DesignTemperature		Mn.		Max.		°C		65 °C						
	29	Max.DP closed valve		Seat leakage class			9.3 bar		Standard							
	30	Connect./ Rating/Face					6 " - 300 lb RF									
	31	Plug type		Plugmaterial												
	32	Plugdim.		Plug form/law			6.0									
	33	Seat type		Q.ty / Material			316SS+Stellite									
	34	Packingmat.		Lubricator			PTFE/TFE		self lubrication							
	35	Bonnet type					Standard									
Actuator	37	Direction of action														
	38	Spring range														
Positioner	39	Type			Input signal			HART		4 - 20mA						
	40	Air supply			Action dir.			5 Barg								
	41	Elec.Protec.Class			Area Classification			EEx-i + IP65		IIC T3						
Accessories	42	Booster relay														
	43	Locking device														
	44	Pressure reducing valve						YES								
	45	Pressure gauge						YES								
	46	Handwheel						NO								
	47	Solenoidvalve			Spec. No.			NO								
Purchase	48	Pos.detector			Spec. No.			NO								
	49	Manufacturer			Model			*		PV 40242A (OLD)						
	50	Client Reference I RequisitionNo. I Item						1541 01								
	51	SerialNumber														
	52	Weight I Consumption														
	53	MaterialCode						154100								

Notes:

- Line 16 : Minimum flow : Flow to be minimized.  
 Attenuator plate at valve outlet : PX 30153 [10" - 150# - LTCS] (located in front of following block valve)  
 Maximum case is for expander shutdown :  
 Molecular weight = 5.7  
 Density = 2.5 Kg/m3  
 Cp/Cv = 1.4  
 TRAVEL 3.7 TO 95.4 % ( in previous vendor calculation sheet with previous process data, travel was 3.7% to 85.1%)  
 valve opening with maximum required capacity is high, and valve opening with minimum required capacity is low.