Specification Sheet

No.: 1 QTY: 1
Tag no. 12-HV-004
Service SH STEAM

< Specification >

Model	HTS	
Description	Top-Guided Single Seated Control Valves	
Valve size	6	inch
Port size	4	inch
Rated Cv	175	
Connection size		inch
Body rating	ANSI600	
End connection	RF	
Body material	SCPH21	
Trim material	SUS304 STELLITE Sheeth	
Flow characteristic	%C	
Bonnet type	EXT-1 HIGH	
Actuator	DAP1500	
Manual operator	SIDE	
Valve action	DIRECT(Air fail open)	
Gland packing	P6610CH+P6528	
Gasket	V543	
Grease	PS6	
Air supply	4.0kgf/cm2	
Spring range		

< Accesories >

Positioner / Signal	VPP03-1
Exprosion-proof	
Signal	0.2-1.0 kgf/cm2
Regurator	INA13-127
Regulator 2	
Limit Switch	
Action	
Solenoid valve	
Action	
Power supply	
Others	

Product no.: -

<Option>

SV0703-105 Indicating unit : "kgf/cm2"

SV0601-001 Air piping Connection: 1/4 NPT

SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap

SV0801-E01 Material certificate in English. Scope: valve body and bonnet

<Finish>

Body:	Silver
Diaph. Case:	7.5R3/12
Yoke:	7.5R3/12
Paint:	Standard

<Operating condition>

Fluid name SH STEAM [STEAM]

	MAX	NOR	MIN	UNIT
Flow rate	27483			kg/h
Inlet pressure	43.2			kgf/cm2A
Outlet pressure	1			kgf/cm2A
Diff. pressure	42.2			kgf/cm2
Shut-off press.				kgf/cm2
Temperature	400			degC
Sp.Gr. (liq.)				water=1
Sp.Gr.(gas,vapor)				MW
Viscosity	0.02			cP
Flash				%
Velocity	2.05			Mach
S.P.L.				dBA
Calculated Cv	64.06			
Travel				%

<Seat Leakage>

<Note> Tokumi: V93-2093-00 - 1

Original Production No. : 416-8301~3400

Since the original model VST 6B has been out of production, we quoted current model HTS .

Includes air-failure-open unit with tank (200L) .

<Line spec>

Design press.			kgf/cm2G	
Design temp.			degC	
Line size in/out	6	/	6	inch
Line Sch. / Thick.	40	/	7.1	mm

YAMATAKE

Cv Calculation Sheet

No: 1 TAG NO: 12-HV-004 CASE: MAX

Flow rate:	27483	kg/h	Fluid state:	STEAM		
Inlet Pressure:	43.2	kgf/cm2A	Model:	HTS		
Outlet pressure:	1	kgf/cm2A	Valve size:	6		inch
Diff. pressure	42.2	kgf/cm2	Line size In/Out:	6	6	inch
Temperature:	400	degC	Pipe Sch/ Thick:	40	7.1	mm
Sp.Gr. (liq.):		water=1	Saturated temp.:		253.8	degC
Sp.Gr. (gas,vapor):		MW	KC:		0.98	
Viscosity:	0.02	cP				
Vapor pressure:		kgf/cm2A	Velocity:	2.05		Mach
Critical pressure:		kgf/cm2A	S.P.L.:			dBA
CP/CV , Z:			Calc. Cv:	64.06		
Flash:		%	Travel:			%

$$Cv(Gas) = \frac{27483kg/h \times (1 + 0.0013 \times 146.2)}{0.1205 \times 4237kPaA} = 64.06$$