

Item No. / Qty	2	1	Ref. No.			
Tag No.	21-FV-054		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	ACN		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0101-004 Flange facing finish : Serration ANSI B16.5 (Spiral) be noted that: 1)The offered is based on the process data of production No. 416-8310-6300. 2) Offered the model ACN instead of the old model VDN(low noise valve) which was phased out in production 20 years ago. SV0705-001 Without by-pass cock for HTP positioner		
	Description	Compressible Fluid Service Low-Noise Cage Type Control				
	Body/Port size (in.)	8	6			
	Conn. Size. / Rated CV		330			
	Rating / Conn. Type	ANSI150	RF			
	Body material	A216WCB				
	Trim material	A351CF8M/SUS316 STELLITE				
	Flow characteristic	LINEAR				
	Bonnet	DOUBLE EXT-1 (230 to 360 degC)				
	Actuator / Handle	HA4R	SIDE			
	Action	AIR TO OPEN				
	Gland packing / Grease	P6610CH+P6528	PS6			
	Gasket	V543				
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12	2.5Y8/12			
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1B	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve	JE3HT8320A108	1			
	Action / Power	En: Control, De: Close	DC48V			
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	LP STEAM	STEAM	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm	
Flow rate		MAX	NOR	MIN		Unit
Inlet pressure		4584				kg/h
Outlet pressure		2.83				kgf/cm2A
Differential press.		2.63				kgf/cm2
Shut-off press.			5.0			kgf/cm2
Temperature		300				degC
Density/Gravity(Liq)						kg/m3
Density/Gravity(G,V)		1.056				kg/m3(A)
Viscosity		0.01967				mPa-s
Flash						%
Calculated CV		164.5				
Travel		49				%
Outlet velocity		0.8957				Mach
Predictive SPL		92				dBa
				V93-5028-01 27		
				Yamatake Corporation		

Item No. / Qty	3	1	Ref. No.			
Tag No.	21-LV-014		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0210 High shut-off pressure trim for Model HTS Be noted that: 1) The offered valve is based on the process data of production No. 416-8310-4910. 2) Offered the model HTS(single seated) instead of the old model VDP (double seated valve) which was phased out in production so many years ago. *Air regulator with 4kgf/cm2 gauge		
	Description	Top-Guided Single Seated Control Valves				
	Body/Port size (in.)	3	3			
	Conn. Size. / Rated CV		99			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316 STELLITE				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	VA5R	SIDE			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519				
	Gasket	V543				
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1B *	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
Action						
Action						
V93-5028-00 2						
<Process data>	Fluid name/Phase	SHORT RESIDUE LIQUID		<Piping spec.>		
		MAX	NOR		MIN	Unit
	Flow rate	94				m3/h
	Inlet pressure	12.67				kgf/cm2A
	Outlet pressure					kgf/cm2A
	Differential press.	6.04				kgf/cm2
	Shut-off press.		26.5			kgf/cm2
	Temperature	110				degC
	Density/Gravity(Liq)	965				kg/m3
	Density/Gravity(G,V)					MW
	Viscosity	308.8				cP
	Flash					%
	Calculated CV	52.47				
	Travel	69				%
	Inlet velocity	5.913				m/s
Predictive SPL	72			dBA		
Strength Calc. Sheet						
Design	Press.			kPaG		
	Temp.			degC		
Pipe		Up stream	Down stream			
	Size			inch		
	Sch No.					
	Thickness			mm		
Yamatake Corporation						

Item No. / Qty	4	1	Ref. No.			
Tag No.	21-LV-008		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HLS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1)Old production No.: 416-8310-4600. 2)Model HLS(single seat) has been offered instead of model VZZ(VDP: small size of double seated valve) of existing valve, which was phased out in production so many years ago. 3) A HTP positioner is needed for satisfactory operation . * Air regulator with 4kgf/m2 gauge		
	Description	Small-Port Single Seated Control Valves				
	Body/Port size (in.)	1	Cv=10			
	Conn. Size. / Rated CV		10			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	PSA1R	---			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519	---			
	Gasket	V543				
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12	2.5Y8/12			
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1B*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	LIGHT SPINDLE OIL	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm	
		MAX	NOR	MIN		Unit
Flow rate		7.8				m3/h
Inlet pressure		8.78				kgf/cm2G
Outlet pressure						kgf/cm2G
Differential press.		2.6				kgf/cm2
Shut-off press.			16.5			kgf/cm2
Temperature		80				degC
Density/Gravity(Liq)		965				kg/m3
Density/Gravity(G,V)						MW
Viscosity		4.52				cP
Flash						%
Calculated CV		5.547				
Travel		84				%
Inlet velocity		4.416				m/s
Predictive SPL	52			dBA		
				V93-5028-00 3		
				Yamatake Corporation		

Item No. / Qty	5	1	Ref. No.		
Tag No.	21-FV-037		Purchaser		
Service			End user		
			Project		
			Unit name		
<Control valve>	Model	HCB		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, II Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0212 Cage plug with piston ring SV0101-004 Flange facing finish : Serration ANSI B16.5 (Spiral) Be noted that: 1)OLD production No. :416-8310-1800. 2) Inlet pressure 28.3 kgf/cm3A of the original process data was wrong judging from the flange rating ANSI 150# and temp. 350 deg C. It is assumed that correct inlet pressure is 2.83kgf/cm2A. 3)Model HCB(cage type) has been offered instead of model VZZ(VDP: double seated valve) of exsisting valve, which was phased out in production so many years ago. 4) HTP positioner is newly added because of the model change. SV0705-001 Without by-pass cock for HTP positioner * Air regulator with 4kgf/cm2 gauge V93-5028-00 4	
	Description	Pressure Balanced Cage Type Control Valves			
	Body/Port size (in.)	2	2		
	Conn. Size. / Rated CV		44		
	Rating / Conn. Type	ANSI150	RF		
	Body material	A216WCB			
	Trim material	SCS14A STELLITE			
	Flow characteristic	EQ%			
	Bonnet	EXT-1 (230 to 450 degC)			
	Actuator / Handle	HA2R	---		
	Action	AIR TO OPEN			
	Gland packing / Grease	P6610CH+P6528	PS6		
	Gasket	V543,V8590			
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2		
	Seat leakage	CLASS III			
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12			
Paint	Standard				
<Accessories>	Positioner	HTP-1D			
	Structure				
	Input signal	0.2-1.0 kgf/cm2			
	Regulator	KZ03-2B-1B*	1		
	Regulator2				
	Limit switch				
	Action				
	Solenoid valve				
	Action / Power				
	Booster				
	Air lock valve				
	Action				
	Action				
	Action				
	<Process data>	Fluid name/Phase	STEAM	STEAM	
		MAX	NOR	MIN	Unit
Flow rate		459			kg/h
Inlet pressure		2.83			kgf/cm2A
Outlet pressure					kgf/cm2A
Differential press.		2.55			kgf/cm2
Shut-off press.			5		kgf/cm2
Temperature		350			degC
Density/Gravity(Liq)					kg/m3
Density/Gravity(G,V)		0.9698			kg/m3(A)
Viscosity		0.02152			cP
Flash					%
Calculated CV		18.14			
Travel		71			%
Outlet velocity		1.07			Mach
Predictive SPL	102			dBA	
				<Piping spec.>	
				Strength Calc. Sheet	
Design		Press.	kgf/cm2G		
		Temp.	degC		
Pipe		Up stream	Down stream		
		Size	inch		
		Sch No.			
		Thickness	mm		
Yamatake Corporation					

Item No. / Qty	8	1	Ref. No.			
Tag No.	27-FV-001		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	ADVM		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, JI Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0507 Yoke material: SCPH2 Be noted that: 1)Old production No.: 416-8317-0100 2)Model ADVM(T&B guided double seat) has been offered instead of model VZZ(VDP: double seated valve) of existing valve, which was phased out in production so many years ago. * Air regulator with 6kgf/cm2 gauge		
	Description	Top and Bottom Guided Double-Seat Control Valves				
	Body/Port size (in.)	10	10			
	Conn. Size. / Rated CV		1100			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316 STELLITE				
	Flow characteristic	EQ%				
	Bonnet	EXT-1 (230 to 400 degC)				
	Actuator / Handle	HA4D	SIDE			
	Action	AIR TO CLOSE				
	Gland packing / Grease	P6610CL+P6722	PS6			
	Gasket	V543(Graphite)+V563(Graphite)+T1806GR				
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS III				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1N*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
Action						
Action						
<Process data>	Fluid name/Phase	HOT OIL LIQUID		<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm		
		MAX	NOR		MIN	Unit
	Flow rate	1471				m3/h
	Inlet pressure	5.79				kgf/cm2A
	Outlet pressure					kgf/cm2A
	Differential press.	3.5				kgf/cm2
	Shut-off press.		17			kgf/cm2
	Temperature	305				degC
	Density/Gravity(Liq)	696				kg/m3
	Density/Gravity(G,V)					kg/m3(A)
	Viscosity	0.487				cP
	Flash					%
	Calculated CV	765.8				
	Travel	91				%
	Inlet velocity	8.328				m/s
Predictive SPL	79			dBa		
Yamatake Corporation						

Item No. / Qty	9	1	Ref. No.			
Tag No.	28-PV-017B		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HLS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0101-004 Flange facing finish : Serration ANSI B16.5 (Spiral) Be noted that: 1)Old production No.: 416-8318-1600. 2)Model HLS has been offered instead of model VZZ(VSL) of existing valve, which was phased out in production so many years ago. *AIR REGULATOR WITH 4kgf/cm2 GAUGE		
	Description	Small-Port Single Seated Control Valves				
	Body/Port size (in.)	1	Cv=4.0			
	Conn. Size. / Rated CV		4.0			
	Rating / Conn. Type	ANSI150	RF			
	Body material	A216WCB				
	Trim material	SUS316				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	PSA1R	---			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519	650			
	Gasket	V543				
	Air supply / Spring range	1.4kgf/cm2	0.2-1.0kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12	2.5Y8/12			
Paint	Standard					
<Accessories>	Positioner	HTP-2R				
	Structure					
	Input signal	0.2-0.6 kgf/cm2				
	Regulator	KZ03-3B-1B *	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	N2	GAS	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm	
Flow rate		MAX 226	NOR	MIN		Unit m3/h(N)
Inlet pressure		7.03				kgf/cm2A
Outlet pressure						kgf/cm2A
Differential press.		4.0				kgf/cm2
Shut-off press.			10.0			kgf/cm2
Temperature		35				degC
Density/Gravity(Liq)						kg/m3
Density/Gravity(G,V)		1.25				kg/m3(N)
Viscosity		0.1016				cP
Flash						%
Calculated CV		2.602				
Travel		88				%
Outlet velocity		0.1375				Mach
Predictive SPL		50				dBA
				V93-5028-00 5		
				Yamatake Corporation		

Item No. / Qty	12	1	Ref. No.			
Tag No.	10-PV-018B		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HLS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0101-004 Flange facing finish : Serration ANSI B16.5 (Spiral) Be noted that: 1)Old production No.: 416-8299-2900 2)Model HLS has been offered instead of model VZZ(VDP: small size of double seated valve) of existing valve, which was phase out in production so many years ago. * Air regulator with 0-4kgf/cm2 gauge		
	Description	Small-Port Single Seated Control Valves				
	Body/Port size (in.)	1	Cv=10			
	Conn. Size. / Rated CV		10			
	Rating / Conn. Type	ANSI150	RF			
	Body material	A216WCB				
	Trim material	SUS316				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	PSA1R	---			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519	650			
	Gasket	V543				
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12				
Paint	Standard					
<Accessories>	Positioner	HTP-2R				
	Structure					
	Input signal	0.2-0.6 kgf/cm2				
	Regulator	KZ03-2B-1B*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	FUEL GAS GAS		<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm	
		MAX	NOR	MIN		Unit
Flow rate		175				m3/h(N)
Inlet pressure		3.53				kgf/cm2A
Outlet pressure						kgf/cm2A
Differential press.		2.15				kgf/cm2
Shut-off press.			4			kgf/cm2
Temperature		45				degC
Density/Gravity(Liq)						kg/m3
Density/Gravity(G,V)		2.27				kg/m3(N)
Viscosity		4.52				cP
Flash						%
Calculated CV		5.428				
Travel		83				%
Outlet velocity		0.32				Mach
Predictive SPL	50			dBA		
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				Yamatake Corporation		

Item No. / Qty	15	1	Ref. No.			
Tag No.	10-LV-501		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	ADVM		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, JI Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0507 Yoke material: SCPH2 Be noted that: 1)Old production No.: R-09276-41-130 2)Model ADVM(T & B guided double seat) has been offered instead of model VDP(double seated valve) of exsisting valve, which was phased out in production so many years ago. * Air regulator with 6kgf/cm2 gauge		
	Description	Top and Bottom Guided Double-Seat Control Valves				
	Body/Port size (in.)	10	10			
	Conn. Size. / Rated CV		1100			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316 STELLITE				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	HA4R	SIDE			
	Action	AIR TO OPEN				
	Gland packing / Grease	P6610CL+P6722	650			
	Gasket	V543(PTFE)+V563(PTFE)+T1806GR				
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS III				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1N*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	PREFLASHED CRUDE	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm	
		MAX	NOR	MIN		Unit
Flow rate		496	450.9			m3/h
Inlet pressure		18.02				kgf/cm2A
Outlet pressure						kgf/cm2A
Differential press.		16.13				kgf/cm2
Shut-off press.			20.5			kgf/cm2
Temperature		227				degC
Density/Gravity(Liq)		866				kg/m3
Density/Gravity(G,V)						kg/m3(A)
Viscosity		7.36				cP
Flash		Cavitation				%
Calculated CV		192				
Travel		57				%
Inlet velocity		2.808				m/s
Predictive SPL	100			dBa		
				V93-5028-02 31		
				Yamatake Corporation		

Item No. / Qty	16	1	Ref. No.		
Tag No.	11-LV-007		Purchaser		
Service			End user		
			Project		
			Unit name		
<Control valve>	Model	HCB		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, JI Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1)OLD production No. :416-8300-2300 2)Model HCB(cage type) has been offered instead of model VZZ(VDP: double seated valve) of existing valve, which was phased out in production so many years ago. * Air regulator wit4kgf/cm2 gauge	
	Description	Pressure Balanced Cage Type Control Valves			
	Body/Port size (in.)	2	2		
	Conn. Size. / Rated CV		44		
	Rating / Conn. Type	ANSI300	RF		
	Body material	A216WCB			
	Trim material	SCS24			
	Flow characteristic	EQ%			
	Bonnet	PLAIN (-17 to 230 degC)			
	Actuator / Handle	HA2R	---		
	Action	AIR TO OPEN			
	Gland packing / Grease	NP4519	650		
	Gasket	V543,V8590			
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2		
	Seat leakage	CLASS III			
	Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12		
	Paint	Standard			
	<Accessories>	Positioner	HTP-1D		
		Structure			
Input signal		0.2-1.0 kgf/cm2			
Regulator		KZ03-2B-1B*	1		
Regulator2					
Limit switch					
Action					
Solenoid valve					
Action / Power					
Booster					
Air lock valve					
Action					
<Process data>		Fluid name/Phase	LPG	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kgf/cm2G Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm
	Flow rate	MAX 22.3	NOR 39.0	Unit m3/h	
	Inlet pressure	24.87		kgf/cm2A	
	Outlet pressure			kgf/cm2A	
	Differential press.	0.8		kgf/cm2	
	Shut-off press.		28.5	kgf/cm2	
	Temperature	40		degC	
	Density/Gravity(Liq)	500		kg/m3	
	Density/Gravity(G,V)			Air=1	
	Viscosity	0.11		cP	
	Flash			%	
	Calculated CV	20.58			
	Travel	75		%	
	Inlet velocity	3.156		m/s	
	Predictive SPL	50		dBA	
	Yamatake Corporation				

Item No. / Qty	17	1	Ref. No.			
Tag No.	11-FV-013		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0210 High shut-off pressure trim for Model HTS Be noted that: 1) The offered valve is based on the process data of production No. 416-8300-0400. 2) Offered the model HTS(single seated) instead of the old model VDP (double seated valve) which was phased out in production 5 years ago. *Air regulator with 4kgf/cm2 gauge		
	Description	Top-Guided Single Seated Control Valves				
	Body/Port size (in.)	3	3			
	Conn. Size. / Rated CV		99			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316 STELLITE				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	HA4R	---			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519				
	Gasket	V543				
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1B *	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
Action						
Action						
V93-5028-00 11						
<Process data>	Fluid name/Phase	HC	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm		
		MAX	NOR		MIN	Unit
	Flow rate	174				m3/h
	Inlet pressure	16.04				kgf/cm2A
	Outlet pressure					kgf/cm2A
	Differential press.	11.43				kgf/cm2
	Shut-off press.		18.2			kgf/cm2
	Temperature	138				degC
	Density/Gravity(Liq)	622				kg/m3
	Density/Gravity(G,V)					MW
	Viscosity	0.19				cP
	Flash					%
	Calculated CV	47.38				
	Travel	67				%
	Inlet velocity	10.95				m/s
Predictive SPL	76			dBA		
Yamatake Corporation						

Item No. / Qty	19	1	Ref. No.			
Tag No.	12-FV-031		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0210 High shut-off pressure trim for Model HTS Be noted that: 1) The offered valve is based on the process data of production No. 416-8301-0600. 2) Offered the model HTS(single seated) instead of the old model VDP (double seated valve) which was phased out in production so many years ago. *Air regulator with 6kgf/cm2 gauge		
	Description	Top-Guided Single Seated Control Valves				
	Body/Port size (in.)	4	3			
	Conn. Size. / Rated CV		99			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	HA4D	---			
	Action	AIR TO CLOSE				
	Gland packing / Grease	NP4519				
	Gasket	V543				
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	7.5R3/12 7.5R3/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1C	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
Action						
Action						
V93-5028-00 12						
<Process data>	Fluid name/Phase	HC	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm		
	Flow rate	MAX	NOR		MIN	Unit
	Inlet pressure	111				m3/h
	Outlet pressure	21.70				kgf/cm2A
	Differential press.	1.80				kgf/cm2
	Shut-off press.		24.6			kgf/cm2
	Temperature	225				degC
	Density/Gravity(Liq)	509				kg/m3
	Density/Gravity(G,V)					MW
	Viscosity	0.11				cP
	Flash					%
	Calculated CV	68.91				
	Travel	74				%
	Inlet velocity	3.928				m/s
	Predictive SPL	66				dBA
Yamatake Corporation						

Item No. / Qty	20	1	Ref. No.			
Tag No.	12-FV-027		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0210 High shut-off pressure trim for Model HTS Be noted that: 1) The offered valve is based on the process data of production No. 416-8301-0400. 2) Offered the model HTS(single seated) instead of the old model VDP (double seated valve) which was phased out in production 5 years ago. *Air regulator with 6kgf/cm2 gauge		
	Description	Top-Guided Single Seated Control Valves				
	Body/Port size (in.)	3	3			
	Conn. Size. / Rated CV		99			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	PSA6R	SIDE			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519	650			
	Gasket	V543				
	Air supply / Spring range	4.0kgf/cm2	2.0-3.5kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1N*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
Action						
Action						
V93-5028-00 13						
<Process data>	Fluid name/Phase	H2 + HC	GAS	<Piping spec.>		
		MAX	NOR		MIN	Unit
	Flow rate	14010				m3/h(N)
	Inlet pressure	31.83				kgf/cm2A
	Outlet pressure					kgf/cm2A
	Differential press.	0.80				kgf/cm2
	Shut-off press.		33.1			kgf/cm2
	Temperature	40				degC
	Density/Gravity(Liq)					kg/m3
	Density/Gravity(G,V)	0.317				kg/m3(N)
	Viscosity	0.01				cP
	Flash					%
	Calculated CV	63.48				
	Travel	72				%
	Outlet velocity	0.04694				Mach
Predictive SPL	53			dBA		
Strength Calc. Sheet						
Design		Press.		kPaG		
		Temp.		degC		
Pipe		Up stream	Down stream			
		Size		inch		
		Sch No.				
		Thickness		mm		
Yamatake Corporation						

Item No. / Qty	21	1	Ref. No.		
Tag No.	12-TV-015		Purchaser		
Service			End user		
			Project		
			Unit name		
<Control valve>	Model	HLS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1)Old production No.: 416-8301-4400 2)Model HLS has been offered instead of model VSL of existing valve, which was phased out in production so many years ago. * Air regulator with 0-4kgf/cm2 gauge	
	Description	Small-Port Single Seated Control Valves			
	Body/Port size (in.)	1	Cv=1.6		
	Conn. Size. / Rated CV		1.6		
	Rating / Conn. Type	ANSI600	RF		
	Body material	A216WCB			
	Trim material	SUS316 STELLITE			
	Flow characteristic	EQ%			
	Bonnet	PLAIN (-17 to 230 degC)			
	Actuator / Handle	PSA1R	---		
	Action	AIR TO OPEN			
	Gland packing / Grease	NP4519	650		
	Gasket	V543			
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2		
	Seat leakage	CLASS IV			
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12			
Paint	Standard				
<Accessories>	Positioner	HTP-1D			
	Structure				
	Input signal	0.2-1.0 kgf/cm2			
	Regulator	KZ03-2B-1B*	1		
	Regulator2				
	Limit switch				
	Action				
	Solenoid valve				
	Action / Power				
	Booster				
	Air lock valve				
	Action				
	Action				
	Action				
	<Process data>	Fluid name/Phase	B.F.W	WATER	
		MAX	NOR	MIN	Unit
Flow rate		1.66			m3/h
Inlet pressure		52.83			kgf/cm2A
Outlet pressure					kgf/cm2A
Differential press.		8.8			kgf/cm2
Shut-off press.			68		kgf/cm2
Temperature		125			degC
Density/Gravity(Liq)		941.3			kg/m3
Density/Gravity(G,V)					kg/m3(N)
Viscosity		0.2291			cP
Flash					%
Calculated CV		0.6338			
Travel		75			%
Inlet velocity		0.9398			m/s
Predictive SPL	51			dBA	
<Piping spec.>					
Strength Calc. Sheet					
Design	Press.			kPaG	
	Temp.			degC	
Pipe		Up stream	Down stream		
	Size			inch	
	Sch No.				
	Thickness			mm	
Yamatake Corporation					

Item No. / Qty	22	1	Ref. No.			
Tag No.	12-HV-004		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0210 High shut-off pressure trim for Model HTS SV0603-004 Air-fail-Open system without tank Be noted that: 1) The offered valve is based on the process data of production No. 416-8301-3400. 2) Offered the model HTS(single seated) instead of the old model VST (single seated valve) which was phased out in production so many years ago. *Air regulator with 10kgf/cm2 gauge		
	Description	Top-Guided Single Seated Control Valves				
	Body/Port size (in.)	6	4			
	Conn. Size. / Rated CV		175			
	Rating / Conn. Type	ANSI600	RF			
	Body material	SCS13A				
	Trim material	SUS316 STELLITE				
	Flow characteristic	EQ%				
	Bonnet	EXT-1 (230 to 450 degC)				
	Actuator / Handle	VP7	SIDE			
	Action	AIR TO CLOSE				
	Gland packing / Grease	P6610CH+M8590	PS6			
	Gasket	V543				
	Air supply / Spring range	5.0kgf/cm2	---			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	Non Painting	2.5Y8/12	2.5Y8/12			
Paint	Standard					
<Accessories>	Positioner	VPP03-1				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-3B-1C	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
Action						
Action						
V93-5028-00 15						
<Process data>	Fluid name/Phase	SH STEAM	STEAM(FCI)	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm		
		MAX	NOR		MIN	Unit
	Flow rate	27483				kg/h
	Inlet pressure	43.2				kgf/cm2A
	Outlet pressure					kgf/cm2A
	Differential press.	42.2				kgf/cm2
	Shut-off press.		54.1			kgf/cm2
	Temperature	400				degC
	Density/Gravity(Liq)					kg/m3
	Density/Gravity(G,V)	14.49				kg/m3(A)
	Viscosity	0.02338				cP
	Flash					%
	Calculated CV	64.07				
	Travel	62				%
Outlet velocity	2.014			Mach		
Predictive SPL	127			dBA		
Yamatake Corporation						

Item No. / Qty	23	1	Ref. No.					
Tag No.	12-HV-006		Purchaser					
Service			End user					
			Project					
			Unit name					
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0210 High shut-off pressure trim for Model HTS SV0604-004 Air-fail-Close system without tank				
	Description	Top-Guided Single Seated Control Valves						
	Body/Port size (in.)	4	3					
	Conn. Size. / Rated CV		99					
	Rating / Conn. Type	ANSI600	RF					
	Body material	A216WCB						
	Trim material	SUS316 STELLITE						
	Flow characteristic	EQ%						
	Bonnet	PLAIN (-17 to 230 degC)						
	Actuator / Handle	VP5	SIDE					
	Action	AIR TO OPEN		Be noted that:				
	Gland packing / Grease	NP4519	---	1) The offered valve is based on the process data of production No. 416-8301-4310.				
	Gasket	V543		2) Offered the model HTS(single seated) instead of the old model VST (single seated valve) which was phased out in production so many years ago.				
	Air supply / Spring range	5.0kgf/cm2	---	3) A volume tank of the existing valve shall be r-used for air-fail back-up system.				
	Seat leakage	CLASS IV		*Air regulator with 10kgf/cm2 gauge				
	Color: Body/Diaph./Yoke	7.5R3/12	7.5R3/12	7.5R3/12				
	Paint	Standard		V93-5028-00 16				
	<Accessories>	Positioner	VPP03-1					
		Structure						
		Input signal	0.2-1.0 kgf/cm2					
Regulator		KZ03-3B-1C*	1					
Regulator2								
Limit switch								
Action								
Solenoid valve								
Action / Power								
Booster								
Air lock valve								
Action								
Action								
Action								
<Process data>	Fluid name/Phase	WATER		WATER		<Piping spec.>		
		MAX	NOR	MIN	Unit			
	Flow rate	42.0			m3/h			
	Inlet pressure	52			kgf/cm2A			
	Outlet pressure				kgf/cm2A			
	Differential press.	3.2			kgf/cm2			
	Shut-off press.		68		kgf/cm2	Strength Calc. Sheet		
	Temperature	125			degC	Design	Press.	kPaG
	Density/Gravity(Liq)	941.3			kg/m3		Temp.	degC
	Density/Gravity(G,V)				kg/m3(A)	Pipe	Up stream	Down stream
	Viscosity	0.2291			cP	Size		inch
	Flash				%	Sch No.		
Calculated CV	26.59				Thickness		mm	
Travel	56			%				
Inlet velocity	1.486			m/s				
Predictive SPL *	67			dBA				
Yamatake Corporation								

Item No. / Qty	24	1	Ref. No.			
Tag No.	14-LV-011		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0210 High shut-off pressure trim for Model HTS Be noted that: 1)OLD production No. :416-8303-3400 2)Model HCB(cage type) has been offered instead of model VZZ(VDP: double seated valve) of existing valve, which was phased out in production so many years ago. * Air regulator wit4kgf/cm2 gauge		
	Description	Top-Guided Single Seated Control Valves				
	Body/Port size (in.)	2	2			
	Conn. Size. / Rated CV		44			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316 STELLITE				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	HA4R	---			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519	650			
	Gasket	V543				
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1B*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	LPG	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kgf/cm2G Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm	
Flow rate		MAX 70	NOR 39.0	MIN		Unit m3/h
Inlet pressure		14.5				kgf/cm2A
Outlet pressure						kgf/cm2A
Differential press.		4.5				kgf/cm2
Shut-off press.			37			kgf/cm2
Temperature		25				degC
Density/Gravity(Liq)		535				kg/m3
Density/Gravity(G,V)						Air=1
Viscosity		0.45				cP
Flash						%
Calculated CV		28.18				
Travel		72				%
Inlet velocity		9.908				m/s
Predictive SPL		66				dBA
				V93-5028-00 17		
				Yamatake Corporation		

Item No. / Qty	25		1		Ref. No.	
Tag No.	14-PV-006				Purchaser	
Service					End user	
					Project	
					Unit name	
<Control valve>	Model	HTS			<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0210 High shut-off pressure trim for Model HTS Be noted that: 1) The offered valve is based on the process data of production No. 416-8303-1800. 2) Offered the model HTS(single seated) instead of the old model VDP (double seated valve) which was phased out in production so many years ago. *Air regulator with 4kgf/cm2 gauge	
	Description	Top-Guided Single Seated Control Valves				
	Body/Port size (in.)	2	2			
	Conn. Size. / Rated CV			44		
	Rating / Conn. Type	ANSI300		RF		
	Body material	A216WCB				
	Trim material	SUS316				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	HA4R	---			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519				
	Gasket	V543				
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	7.5R3/12	7.5R3/12			
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1B*			1	
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	HC LIQUID		LIQUID	
		MAX	NOR	MIN	Unit	
Flow rate		64			m3/h	
Inlet pressure		14.5			kgf/cm2A	
Outlet pressure					kgf/cm2A	
Differential press.		4.5			kgf/cm2	
Shut-off press.			33.5		kgf/cm2	
Temperature		40			degC	
Density/Gravity(Liq)		547			kg/m3	
Density/Gravity(G,V)					MW	
Viscosity		0.11			cP	
Flash					%	
Calculated CV		26.05				
Travel		71			%	
Inlet velocity		9.059			m/s	
Predictive SPL	65			dBA		
					<Piping spec.>	
					Strength Calc. Sheet	
					Design	Press. kPaG
						Temp. degC
					Pipe	Up stream
						Down stream
					Size	inch
					Sch No.	
					Thickness	mm
Yamatake Corporation						

Item No. / Qty	26	1	Ref. No.			
Tag No.	14-PV-002		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HCB		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, JI Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1)OLD production No. :416-8303-1300 2)Model HCB(cage type) has been offered instead of model VZZ(VDP: double seated valve) of existing valve, which was phased out in production so many years ago. * Air regulator wit4kgf/cm2 gauge		
	Description	Pressure Balanced Cage Type Control Valves				
	Body/Port size (in.)	1-1/2	1-1/2			
	Conn. Size. / Rated CV		36			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SCS24				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	HA2R	---			
	Action	AIR TO OPEN				
	Gland packing / Grease	NP4519	650			
	Gasket	V543,V8590				
	Air supply / Spring range	2.8kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS III				
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12 2.5Y8/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1B*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	LPG	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kgf/cm2G Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm	
Flow rate		MAX	NOR	MIN		Unit
Inlet pressure		23.9				m3/h
Outlet pressure		34.3				kgf/cm2A
Differential press.		1.5				kgf/cm2
Shut-off press.			46			kgf/cm2
Temperature		40				degC
Density/Gravity(Liq)		467				kg/m3
Density/Gravity(G,V)						Air=1
Viscosity		0.1				cP
Flash						%
Calculated CV		15.57				
Travel		62				%
Inlet velocity		6.014				m/s
Predictive SPL		50				dBA
				V93-5028-00 19		
				Yamatake Corporation		

Item No. / Qty	27	2	Ref. No.		
Tag No.	15-FV-003/005		Purchaser		
Service			End user		
			Project		
			Unit name		
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0210 High shut-off pressure trim for Model HTS SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1) The offered valve is based on the process data of production No. 416-8304-0100. 2) Offered the model HTS(single seated) instead of the old model VDP(double seated valve) which was phased out in production so many years ago. *Air regulator with 6kgf/cm2 gauge	
	Description	Top-Guided Single Seated Control Valves			
	Body/Port size (in.)	3	3		
	Conn. Size. / Rated CV		99		
	Rating / Conn. Type	ANSI300	RF		
	Body material	A216WCB			
	Trim material	SUS316 STELLITE			
	Flow characteristic	EQ%			
	Bonnet	EXT-1 (230 to 450 degC)			
	Actuator / Handle	HA4D	---		
	Action	AIR TO CLOSE			
	Gland packing / Grease	P6610CH+P6528	PS6		
	Gasket	V543			
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2		
	Seat leakage	CLASS IV			
Color: Body/Diaph./Yoke	SILVER	7.5R3/12 7.5R3/12			
Paint	Standard				
<Accessories>	Positioner	HTP-1D			
	Structure				
	Input signal	0.2-1.0 kgf/cm2			
	Regulator	KZ03-2B-1C*	1		
	Regulator2				
	Limit switch				
	Action				
	Solenoid valve				
	Action / Power				
	Booster				
	Air lock valve				
	Action				
	Action				
	Action				
	<Process data>	Fluid name/Phase	REDUCED CRUDE	LIQUID	
		MAX	NOR	MIN	Unit
Flow rate		84.5			m3/h
Inlet pressure		18.51			kgf/cm2A
Outlet pressure					kgf/cm2A
Differential press.		3.2			kgf/cm2
Shut-off press.			24		kgf/cm2
Temperature		316			degC
Density/Gravity(Liq)		758			kg/m3
Density/Gravity(G,V)					kg/m3(A)
Viscosity		1.0			cP
Flash					%
Calculated CV		48.01			
Travel		67			%
Inlet velocity		5.316			m/s
Predictive SPL	68			dBa	
				<Piping spec.>	
				Strength Calc. Sheet	
Design		Press.	kPaG		
		Temp.	degC		
Pipe		Up stream	Down stream		
		Size	inch		
		Sch No.			
		Thickness	mm		
Yamatake Corporation					

Item No. / Qty	28	1	Ref. No.		
Tag No.	15-FV-008		Purchaser		
Service			End user		
			Project		
			Unit name		
<Control valve>	Model	HCB		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, JI Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0212 Cage plug with piston ring SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1) The offered valve is based on the process data of production No. 416-8304-0200. 2) Offered the model HCB(cage type) instead of the old model VDP(double seated valve) which was phased out in production so many years ago. 3) HTP positioner is newly added. *Air regulator with 6kgf/cm2 gauge	
	Description	Pressure Balanced Cage Type Control Valves			
	Body/Port size (in.)	1-1/2	1		
	Conn. Size. / Rated CV		11		
	Rating / Conn. Type	ANSI300	RF		
	Body material	A216WCB			
	Trim material	SCS14A STELLITE			
	Flow characteristic	EQ%			
	Bonnet	EXT-1 (230 to 450 degC)			
	Actuator / Handle	HA2D	---		
	Action	AIR TO CLOSE			
	Gland packing / Grease	P6610CH+P6528	PS6		
	Gasket	V543,V8590			
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2		
	Seat leakage	CLASS III			
Color: Body/Diaph./Yoke	SILVER	7.5R3/12 7.5R3/12			
Paint	Standard				
<Accessories>	Positioner	HTP-1D			
	Structure				
	Input signal	0.2-1.0 kgf/cm2			
	Regulator	KZ03-2B-1C*	1		
	Regulator2				
	Limit switch				
	Action				
	Solenoid valve				
	Action / Power				
	Booster				
	Air lock valve				
	Action				
	Action				
	Action				
	<Process data>	Fluid name/Phase	MP STEAM	STEAM	
		MAX	NOR	MIN	Unit
Flow rate		610.5			kg/h
Inlet pressure		16.0			kgf/cm2A
Outlet pressure					kgf/cm2A
Differential press.		10			kgf/cm2
Shut-off press.			18.2		kgf/cm2
Temperature		270			degC
Density/Gravity(Liq)					kg/m3
Density/Gravity(G,V)		6.586			kg/m3(A)
Viscosity		0.01856			cP
Flash					%
Calculated CV		3.911			
Travel		66			%
Outlet velocity		0.1077			Mach
Predictive SPL	80			dBA	
				<Piping spec.>	
				Strength Calc. Sheet	
Design		Press.	kPaG		
		Temp.	degC		
Pipe		Up stream	Down stream		
		Size	inch		
		Sch No.			
		Thickness	mm		
Yamatake Corporation					

Item No. / Qty	29	1	Ref. No.			
Tag No.	16-HV-009		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HCB		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, JI Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0212 Cage plug with piston ring SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1) The offered valve is based on the process data of production No. 416-8352-0600. 2) Offered the model HCB(cage type) instead of the old model VDP(double seated valve) which was phased out in production so many years ago. * Air regulator with 6kgf/cm2 gauge		
	Description	Pressure Balanced Cage Type Control Valves				
	Body/Port size (in.)	2	2			
	Conn. Size. / Rated CV		60			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SCS14A STELLITE				
	Flow characteristic	EQ%				
	Bonnet	EXT-1 (230 to 450 degC)				
	Actuator / Handle	HA2D	---			
	Action	AIR TO CLOSE				
	Gland packing / Grease	P6610CH+P6528	PS6			
	Gasket	V543,V8590				
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS III				
	Color: Body/Diaph./Yoke	SILVER	7.5R3/12 7.5R3/12			
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1C*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
Action						
Action						
V93-5028-00 22						
<Process data>	Fluid name/Phase	SM	STEAM	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm		
	Flow rate	MAX	NOR		MIN	Unit
	Inlet pressure	3175				kg/h
	Outlet pressure	15.19				kgf/cm2A
	Differential press.					kgf/cm2
	Shut-off press.	3.19	18.2			kgf/cm2
	Temperature	270				degC
	Density/Gravity(Liq)					kg/m3
	Density/Gravity(G,V)	6.235				kg/m3(A)
	Viscosity	0.01856				cP
	Flash					%
	Calculated CV	29.2				
	Travel	66				%
	Outlet velocity	0.1577				Mach
	Predictive SPL	81				dBA
	Yamatake Corporation					

Item No. / Qty	30	1	Ref. No.		
Tag No.	16-HV-006		Purchaser		
Service			End user		
			Project		
			Unit name		
<Control valve>	Model	HCB		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, JI Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0212 Cage plug with piston ring SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1) The offered valve is based on the process data of production No. 416-8305-3300. 2) Offered the model HCB(cage type) instead of the old model VDP(double seated valve) which was phased out in production so many years ago. * Air regulator with 6kgf/cm2 gauge	
	Description	Pressure Balanced Cage Type Control Valves			
	Body/Port size (in.)	4	4		
	Conn. Size. / Rated CV		175		
	Rating / Conn. Type	ANSI300	RF		
	Body material	A216WCB			
	Trim material	SCS14A STELLITE			
	Flow characteristic	EQ%			
	Bonnet	EXT-1 (230 to 450 degC)			
	Actuator / Handle	HA2D	---		
	Action	AIR TO CLOSE			
	Gland packing / Grease	P6610CH+P6528	PS6		
	Gasket	V543			
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2		
	Seat leakage	CLASS III			
	Color: Body/Diaph./Yoke	SILVER	7.5R3/12 7.5R3/12		
Paint	Standard				
<Accessories>	Positioner	HTP-1D			
	Structure				
	Input signal	0.2-1.0 kgf/cm2			
	Regulator	KZ03-2B-1C*	1		
	Regulator2				
	Limit switch				
	Action				
	Solenoid valve				
	Action / Power				
	Booster				
	Air lock valve				
	Action				
	Action				
	Action				
<Process data>	Fluid name/Phase	SM	STEAM		
		MAX	NOR	MIN	Unit
	Flow rate	10900			kg/h
	Inlet pressure	15.90			kgf/cm2A
	Outlet pressure				kgf/cm2A
	Differential press.	12.77			kgf/cm2
	Shut-off press.		18.2		kgf/cm2
	Temperature	380			degC
	Density/Gravity(Liq)				kg/m3
	Density/Gravity(G,V)	5.298			kg/m3(A)
	Viscosity	0.02264			cP
	Flash				%
	Calculated CV	77.87			
	Travel	74			%
Outlet velocity	0.5761			Mach	
Predictive SPL	108			dBA	
				<Piping spec.>	
				Strength Calc. Sheet	
Design		Press.	kPaG		
		Temp.	degC		
Pipe		Up stream	Down stream		
		Size	inch		
		Sch No.			
		Thickness	mm		
Yamatake Corporation					

Item No. / Qty	31	1	Ref. No.			
Tag No.	16-TV-016		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HTS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0210 High shut-off pressure trim for Model HTS SV0705-001 Without by-pass cock for HTP positioner Be noted that: 1) The offered valve is based on the process data of production No. 416-8305-4700. 2) Offered the model HTS(single seat type) instead of the old model VDP(double seated valve) which was phased out in production so many years ago. * Air regulator with 6kgf/cm2 gauge		
	Description	Top-Guided Single Seated Control Valves				
	Body/Port size (in.)	2	2			
	Conn. Size. / Rated CV		44			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316				
	Flow characteristic	EQ%				
	Bonnet	PLAIN (-17 to 230 degC)				
	Actuator / Handle	HA2D	---			
	Action	AIR TO CLOSE				
	Gland packing / Grease	NP4519	PS6			
	Gasket	V543				
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2			
	Seat leakage	CLASS IV				
	Color: Body/Diaph./Yoke	SILVER	7.5R3/12 7.5R3/12			
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1C*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
Action						
V93-5028-00 24						
<Process data>	Fluid name/Phase	RAW GASOLINE	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm		
		MAX	NOR		MIN	Unit
	Flow rate	35.2				m3/h
	Inlet pressure	15.28				kgf/cm2A
	Outlet pressure					kgf/cm2A
	Differential press.	2.59				kgf/cm2
	Shut-off press.		15.6			kgf/cm2
	Temperature	110				degC
	Density/Gravity(Liq)	595				kg/m3
	Density/Gravity(G,V)					kg/m3(A)
	Viscosity	0.14				cP
	Flash					%
	Calculated CV	19.7				
	Travel	66				%
Inlet velocity	4.982			m/s		
Predictive SPL	61			dba		
Yamatake Corporation						

Item No. / Qty	32	1	Ref. No.		
Tag No.	17-FV-006		Purchaser		
Service			End user		
			Project		
			Unit name		
<Control valve>	Model	ADVB		<Remarks> SV0201-002 Seat leakage: Less than 0.1%CV (Equivalent IEC, JI Class III) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0705-001 Without by-pass cock for HTP positioner SV0507 Yoke material: SCPH2	
	Description	Top and Bottom Guided Double-Seat Control Valves			
	Body/Port size (in.)	10	10		
	Conn. Size. / Rated CV		1100		
	Rating / Conn. Type	ANSI150	RF		
	Body material	A216WCB			
	Trim material	SUS316 STELLITE(SEAT)			
	Flow characteristic	EQ%			
	Bonnet	PLAIN (-17 to 230 degC)			
	Actuator / Handle	HA4R	SIDE		
	Action	AIR TO OPEN			
	Gland packing / Grease	NP4519	650		
	Gasket	V543(PTFE)+V563(PTFE)+T1806GR			
	Air supply / Spring range	4.0kgf/cm2	0.8-2.4kgf/cm2		
	Seat leakage	CLASS III			
Color: Body/Diaph./Yoke	SILVER	2.5Y8/12	2.5Y8/12		
Paint	Standard				
<Accessories>	Positioner	HTP-1D		* Air regulator with 6kgf/cm2 gauge	
	Structure				
	Input signal	0.2-1.0 kgf/cm2			
	Regulator	KZ03-2B-1N*	1		
	Regulator2				
	Limit switch				
	Action				
	Solenoid valve				
	Action / Power				
	Booster				
	Air lock valve				
	Action				
	Action				
	Action				
	<Process data>	Fluid name/Phase	LP STEAM	STEAM	<Piping spec.>
		MAX	NOR	MIN	Unit
Flow rate		10739			kg/h
Inlet pressure		4.52			kgf/cm2A
Outlet pressure					kgf/cm2A
Differential press.		0.2			kgf/cm2
Shut-off press.			5.0		kgf/cm2
Temperature		148			degC
Density/Gravity(Liq)					kg/m3
Density/Gravity(G,V)		2.378			kg/m3(A)
Viscosity		0.01403			cP
Flash					%
Calculated CV		588.7			
Travel		84			%
Outlet velocity		0.05236			Mach
Predictive SPL	64			dBA	
				Strength Calc. Sheet	
Design		Press.		kPaG	
		Temp.		degC	
Pipe		Up stream	Down stream		
		Size		inch	
		Sch No.			
		Thickness		mm	
Yamatake Corporation					

Item No. / Qty	34	1	Ref. No.			
Tag No.	20-PV-009		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HLS		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" Be noted that: 1)Old production No.: 416-8309-2310 2)Model HLS has been offered instead of model VSL of existing valve, which was phased out in production so many years ago. * Air regulator with 4kgf/cm2 gauge **A handle shall be used for minimum flow stopper function.		
	Description	Small-Port Single Seated Control Valves				
	Body/Port size (in.)	1	Cv=6.3			
	Conn. Size. / Rated CV		6.3			
	Rating / Conn. Type	ANSI300	RF			
	Body material	A216WCB				
	Trim material	SUS316 STELLITE FACE				
	Flow characteristic	EQ%				
	Bonnet	EXT-1 (230 to 450 degC)				
	Actuator / Handle	PSA1D	SIDE**			
	Action	AIR TO CLOSE				
	Gland packing / Grease	P6610CH+P6528	PS6			
	Gasket	V543				
	Air supply / Spring range	1.6kgf/cm2	0.2-1.0kgf/cm2			
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	7.5R3/12 7.5R3/12				
Paint	Standard					
<Accessories>	Positioner	HTP-1D				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-2B-1B*	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	V93-5028-00 26					
<Process data>	Fluid name/Phase	STEAM	STEAM	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm		
		MAX	NOR		MIN	Unit
	Flow rate	592				kg/h
	Inlet pressure	16.03				kgf/cm2A
	Outlet pressure					kgf/cm2A
	Differential press.	7.0				kgf/cm2
	Shut-off press.		18.2			kgf/cm2
	Temperature	270				degC
	Density/Gravity(Liq)					kg/m3
	Density/Gravity(G,V)	0.8457				kg/m3(N)
	Viscosity	0.01856				cP
	Flash					%
	Calculated CV	4.068				
	Travel	88				%
	Outlet velocity	0.1561				Mach
Predictive SPL	50			dBA		
Yamatake Corporation						

Item No. / Qty	37	1	Ref. No.			
Tag No.	56-TV-701		Purchaser			
Service			End user			
			Project			
			Unit name			
<Control valve>	Model	HDT		<Remarks> SV0201-003 Seat leakage: Less than 0.01%CV (Equivalent IEC, JIS Class IV) SV0602-002 Air piping: Vinyl covered copper tube. Joint:Cr plated with vinyl cap SV0003-001 Valve size indication: ' ' ' SV0601-001 Air piping Connection: 1/4 NPT SV0703-105 Indicating unit : "kgf/cm2" SV0604-001 Air-fail-Close system with 39L tank SV0101-004 Flange facing finish : Serration ANSI B16.5 (Spiral) Be noted that: 1) Old production No.: 416-8323-3000 2)Model HDT has been offered instead of model VTD of existin valve, which was phased out in production so many years ago. *Air regulator with 10kgf/cm2 gauge		
	Description	Three way Control Valve				
	Body/Port size (in.)	6				
	Conn. Size. / Rated CV		270			
	Rating / Conn. Type	ANSI150	RF			
	Body material	A216WCB				
	Trim material	SUS316				
	Flow characteristic	LV				
	Bonnet	PLAIN (0 to 200 degC)				
	Actuator / Handle	DAP560	SIDE			
	Action	AIR FAIL BOTTOM CLOSE				
	Gland packing / Grease	NP4519	650			
	Gasket	V543				
	Air supply / Spring range	4.0kgf/cm2				
	Seat leakage	CLASS IV				
Color: Body/Diaph./Yoke	SILVER	7.5R3/12	7.5R3/12			
Paint	Standard					
<Accessories>	Positioner	VPP03-1				
	Structure					
	Input signal	0.2-1.0 kgf/cm2				
	Regulator	KZ03-3B-1C	1			
	Regulator2					
	Limit switch					
	Action					
	Solenoid valve					
	Action / Power					
	Booster					
	Air lock valve					
	Action					
	Action					
	Action					
	<Process data>	Fluid name/Phase	TEMPERED WATER	LIQUID	<Piping spec.> Strength Calc. Sheet Design Press. kPaG Temp. degC Pipe Up stream Down stream Size inch Sch No. Thickness mm	
		MAX	NOR	MIN		Unit
Flow rate		367				m3/h
Inlet pressure						kgf/cm2A
Outlet pressure						kgf/cm2A
Differential press.		3				kPa
Shut-off press.			4.5			kgf/cm2
Temperature		65				degC
Density/Gravity(Liq)		988				kg/m3
Density/Gravity(G,V)						MW
Viscosity		0.55				cP
Flash						%
Calculated CV						
Travel						%
Inlet velocity						m/s
Predictive SPL				dBA		
				V93-5028-03 34		
				Yamatake Corporation		

