

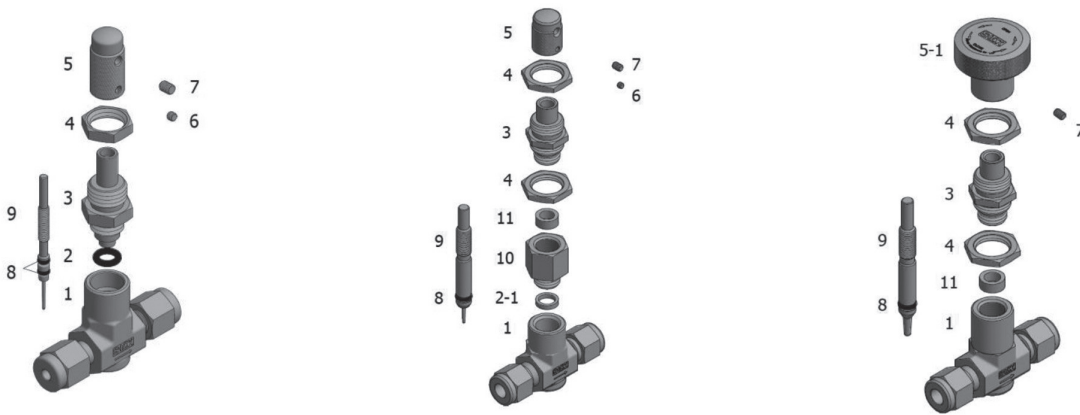
SMTV Series Low Pressure Metering Valves

✦ Features

- Forged body SS316 or brass material.
- Straight and angle patterns.
- Variety of end connections include S-LOK, NPT & ISO threads Male/Female.
- Variety of handle options : knurled, round, vernier, slotted, and adjustable torque handles.
- Flow setting lock system : knurled and slotted handles.
- Handle stop design : Prevent damage to stem and orifice.
- Panel mounting is standard for all valves.
- Tapered stem tip : Provide a wide flow range with ultrafine metering control.



✦ Material of Construction



Item	Component	Material	
		Stainless Steel	Brass
1	Body	SS316 / A182	Brass / B124
2	Body O-ring	FKM	NBR
2-1	Body Seal	Stainless Steel	
3	Bonnet	SS316 / A479 or A276	* Brass / B16
4	Lock Nut	SS316 / A479 or A276	* Brass / B16
5	Handle	Stainless Steel	* Brass / B16
5-1	Round Handle	Aluminum 6061	
6	Lock Screw	Stainless Steel	
7	Set Screw	Stainless Steel	
8	Stem O-ring	FKM	NBR
9	Stem	SS316 / A479 or A276	
10	Body Extension	SS316 / A479 or A276	* Brass / B16
11	Stem Guide Ring	PTFE	

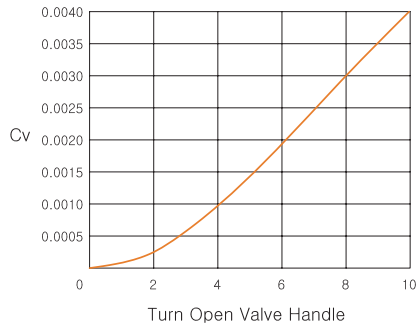
* Chrome Plated

Technical Data

Pressure and Temperature Ratings

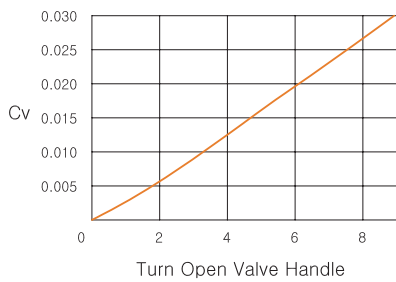
Valve Series	Temperature Ratings with O-ring Material			Pressure Rating @38°C(100°F)	Stem Taper	Flow Shut off
	FKM (Viton)	NBR	FFKM (Kalrez)			
SMTV1	-23°C to 204°C (-10°F to 400°F)	-23°C to 148°C (-10°F to 300°F)	-17°C to 148°C (0°F to 300°F)	2000psig (137 bar)	1°	No
SMTV2				1000psig (68.9 bar)	3°	No
SMTV3				1000psig (68.9 bar)	6°	Yes

Flow Data with Number of Handle Turns



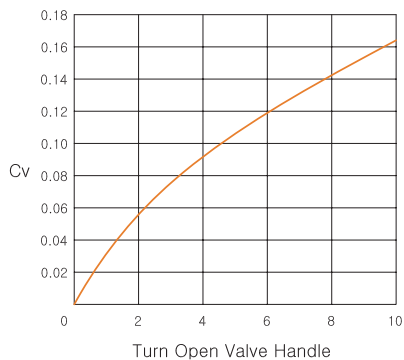
SMTV1 Series

Pressure Drop@ Atmosphere psi (bar)	Air Flow Std. ft ³ /min. (Std. L/min.)	Water Flow U.S. gal/min. (L/min.)
10 (0.68)	0.04 (1.1)	0.01 (0.03)
50 (3.4)	0.1 (2.8)	0.02 (0.07)
100 (6.8)	0.2 (5.6)	0.04 (0.15)



SMTV2 Series

Pressure Drop@ Atmosphere psi (bar)	Air Flow Std. ft ³ /min. (Std. L/min.)	Water Flow U.S. gal/min. (L/min.)
10 (0.68)	0.33 (9.3)	0.09 (0.34)
50 (3.4)	0.9 (25.4)	0.21 (0.79)
100 (6.8)	1.5 (42.4)	0. (1.1)



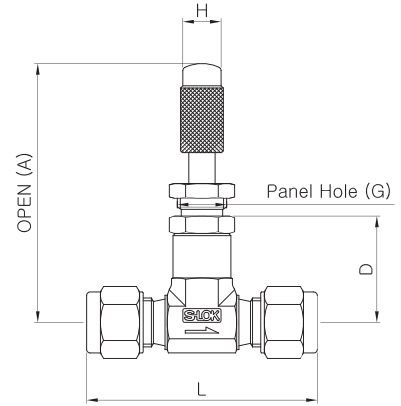
SMTV3 Series

Pressure Drop@ Atmosphere psi (bar)	Air Flow Std. ft ³ /min. (Std. L/min.)	Water Flow U.S. gal/min. (L/min.)
10 (0.68)	2.0 (56.6)	0.51 (1.9)
50 (3.4)	6.4 (181.0)	1.2 (4.5)
100 (6.8)	11.4 (323.0)	1.7 (6.4)

Dimensions

Straight Pattern

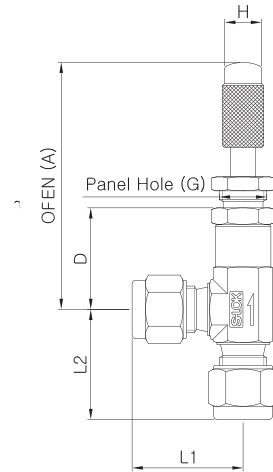
Ordering Number	Orifice (mm)	Cv	End Connections		Dimensions (mm)			
			Inlet	Outlet	L	A	D	H
SMTV1	S-1T	0.81	0.004	1/16" S-LOK	39.6	58.0	23.9	9.6
	S-2T			1/8" S-LOK	48.2			
	S-3M			3mm S-LOK	51.8			
	S-4T			1/4" S-LOK				
	S-6M			6mm S-LOK				
SMTV2	S-2T	1.42	0.03	1/8" S-LOK	51.3	72.0	42.2	12.7
	S-3M			3mm S-LOK				
	S-4T			1/4" S-LOK	55.8			
	S-6M			6mm S-LOK				
	M-2N			1/8" Male NPT	38.1			
	M-4N			1/4" Male NPT	49.8			
	F-2N			1/8" Female NPT	49.3			
SMTV3	S-4T	3.25	0.16	1/4" S-LOK	59.4	73.0	34.4	28.7
	S-6M			6mm S-LOK	62.5			
	S-6T			3/8" S-LOK	62.5			
	M-4N			1/4" Male NPT	50.8			



Series	Panel Hole (G)	Panel MaxThickness
SMTV1	11.4	4.1
SMTV2	14.7	3.3
SMTV3	14.7	3.3

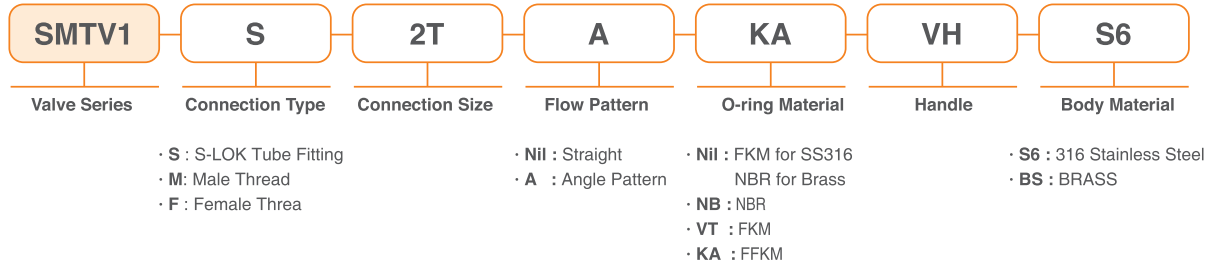
Angle Pattern

Ordering Number	Orifice (mm)	Cv	End Connections		Dimensions (mm)				
			Inlet	Outlet	L1	L2	A	D	H
SMTV1	S-1T	0.81	0.004	1/16" S-LOK	20.6	22.4	80.4	23.9	9.6
	S-2T			1/8" S-LOK	24.1	82.1			
	S-3M			3mm S-LOK	24.9	25.1	83.9		
	S-4T			1/4" S-LOK	25.9	83.1			
SMTV2	S-2T	1.42	0.03	1/8" S-LOK	25.6	84.6	29.2	12.7	
	S-3M			3mm S-LOK					
	S-4T			1/4" S-LOK	27.9	86.9			
	S-6M			6mm S-LOK					
	M-2N			1/8" Male NPT					19.5
	M-4N			1/4" Male NPT	24.9	83.9			
	F-2N			1/8" Female NPT	24.2	83.2			
SMTV3	S-4T	3.25	0.16	1/4" S-LOK	28.7	97.1	28.8	28.7	
	S-6M			6mm S-LOK					



Series	Panel Hole (G)	Panel MaxThickness
SMTV1	11.4	4.1
SMTV2	14.7	3.3
SMTV3	14.7	3.3

Ordering Information



Handle Option

- **Nil** : SMTV1, 2 Series Standard for Locking Screw Handle
SMTV3 Series Standard for Round Handle
- **SH** : SMTV1, 2 Series
- **AH** : SMTV1 Series
- **VH** : SMTV1, 2, 3 Series



SMTV1, 2 Standard
Locking Screw Handle



SMTV3 Standard
Round Handle



SH
Slotted Handle



AH
Adjustable Torque Handle



VH
Vernier Handle

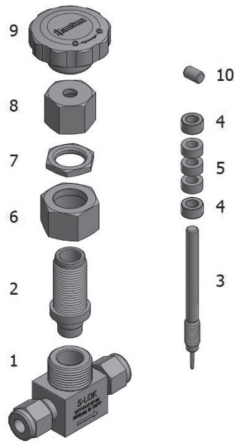
SMTVH Series High Pressure Metering Valves

⚡ Features

- SS316 bar stock body with straight and angle patterns.
- Variety of end connections include S-LOK, NPT & ISO threads Male/Female.
- Phenolic knob round handle.
- Panel mounting is standard for all valves.
- Union nut-prevents accidental disassembly of the valve in its service.
- Metal to metal low shut off.
- 2° Tapered stem tip : Provide a wide low range with ultrafine metering control.



⚡ Material of Construction



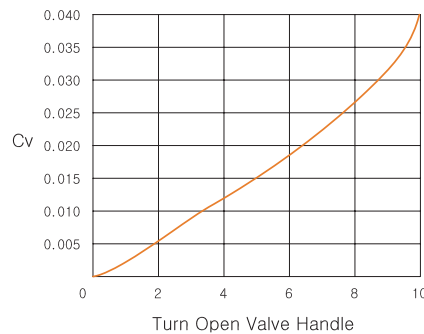
Item	Component	Material
1	Body	SS316 / A479 or A276
2	Bonnet	SS316 / A479 or A276
3	Stem	SS630 / A564 (17-4PH)
4	Gland	SS316 / A479 or A276
5	Packing	PTFE
6	Union Nut	SS316 / A479 or A276
7	Panel Nut	SS316 / A479 or A276
8	Packing Nut	SS316 / A479 or A276
9	Handle	Nylon with Brass Insert
10	Set Screw	Stainless Steel

⚡ Technical Data

Pressure and Temperature Ratings

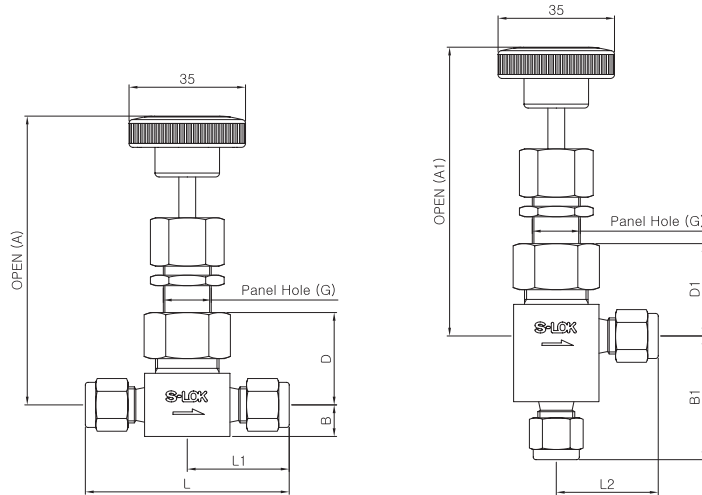
ASME Material Group	Table 2-2.2
ASME Class Rating	2080
Temperature @ Pressure	psig (bar)
-54°C (-65°F) ~ 38°C (100°F)	5000 (344)
93°C (200°F)	4295 (295)
148°C (300°F)	3875 (266)
204°C (400°F)	3560 (245)
232°C (450°F)	3435 (236)
260°C (500°F)	3310 (228)
315°C (600°F)	3130 (215)
343°C (650°F)	3080 (212)
371°C (700°F)	3000 (206)
398°C (750°F)	2930 (201)
426°C (800°F)	2880 (198)
454°C (850°F)	2815 (193)

Flow Data with Number of Handle Turns



Pressure Drop @ Atmosphere psi (bar)	Air Flow Std. ft ³ /min. (Std. L/min.)	Water Flow U.S. gal/min. (L/min.)
10 (0.68)	0.04 (1.1)	0.01 (0.03)
50 (3.4)	0.1 (2.8)	0.02 (0.07)
100 (6.8)	0.2 (5.6)	0.04 (0.15)

Dimension



Panel Hole (G)	Panel Max Thickness
15.0	9.6

Ordering Number	Orifice (mm)	Cv	End Connections		Dimensions (mm)									
			Inlet	Outlet	L	L1	L2	A	A1	B	B1	D	D1	
SMTVH	S-4T	1.6	0.04	1/4" S-LOK		60.6	30.3	29.5	87.8	87.8	9.6	37.6	28.1	28.1
	S-6M			6mm S-LOK										
	F-2N			1/8" Female NPT		52.4	26.2	23.1		92.9		25.4		
	F-4N			1/4" Female NPT										52.4

Testing

- Every valve is factory tested for bubble-tight leakage at both seat and stem packing with nitrogen at 1000psi (69bar).

Ordering Information

SMTVH	-	S	-	2T	-	A	-	GF	-	S6
Valve Series Designator		End Connection Designator		Inlet-Outlet Size Designator		Flow Pattern Designator		Packing Material Designator		Body Material Designator
		. S : S-LOK Tube Fitting . M: Male Thread . F : Female Thread				. Nil : Straight . A : Angle		. Nil : PTFE . GF : Graphite		. S6 : Stainless Steel 316 . BS : Brass