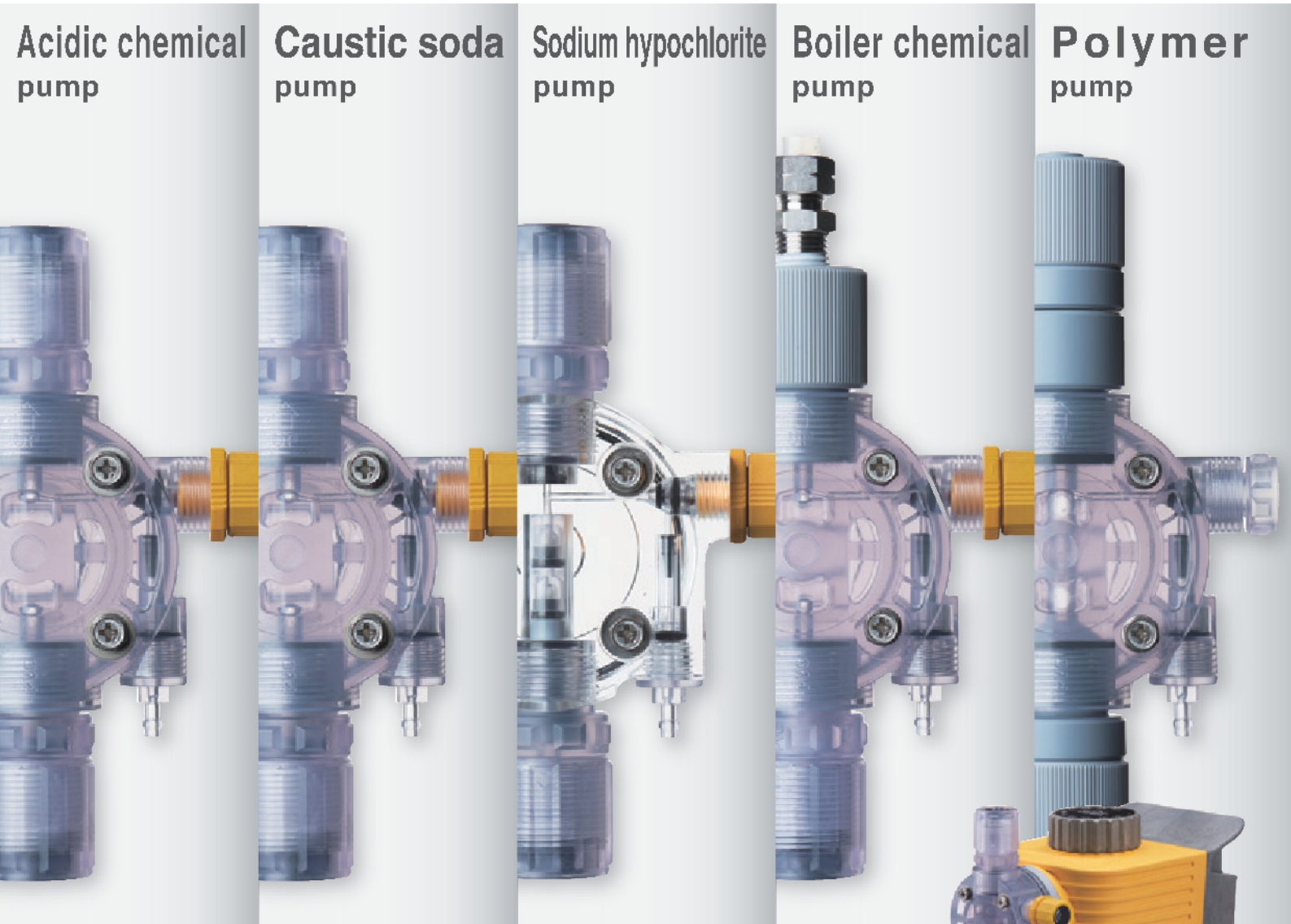


## Motor-Driven Metering Pump



# Dust and Rain Resistant Outdoor Specification!

## With a 3-Year Warranty for Added Peace of Mind!

### IP65 Rated Enclosure!

After rigorous repeated tests and evaluations, V Series pumps now offer drastically improved dust and water resistance performance.

\* Be sure to observe the specifications indicated in the operation manual, including ambient temperature (0 to 40 °C) and installation location (location with good drainage).



Conventional models

1 year

V Series

3-year warranty

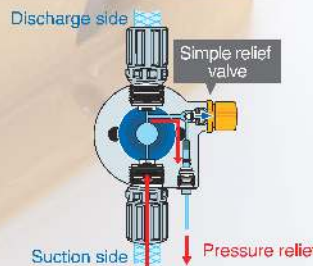
### 3-year warranty!

Thanks to improved durability, V Series models come with a warranty period three times longer than conventional models.

\* Applicable only under the specified conditions. Contact TACMINA for details.

### Simple flow rate adjustment

The large, easy-to-read dial on the top of the pump ensures intuitive adjustments to flow rates.



### With simple relief valve

Whenever abnormal pressure occurs, the pump's built-in relief valve operates to automatically release the pressure.

### Lineup

#### Acidic chemical pump

Liquid end part : VTCF/FTCT  
For sulfuric acid, hydrochloric acid, PAC, aluminum sulfate, etc.



#### Caustic soda pump

Liquid end part : VTCE/STST  
For caustic soda, etc.



#### Sodium hypochlorite pump

Liquid end part : ATCF  
For sodium hypochlorite (anti-gas locking measures)



#### Boiler chemical pump

Liquid end part : VTCE  
For boiler cleaning solution, pH adjusters, etc. (high-pressure injection support)



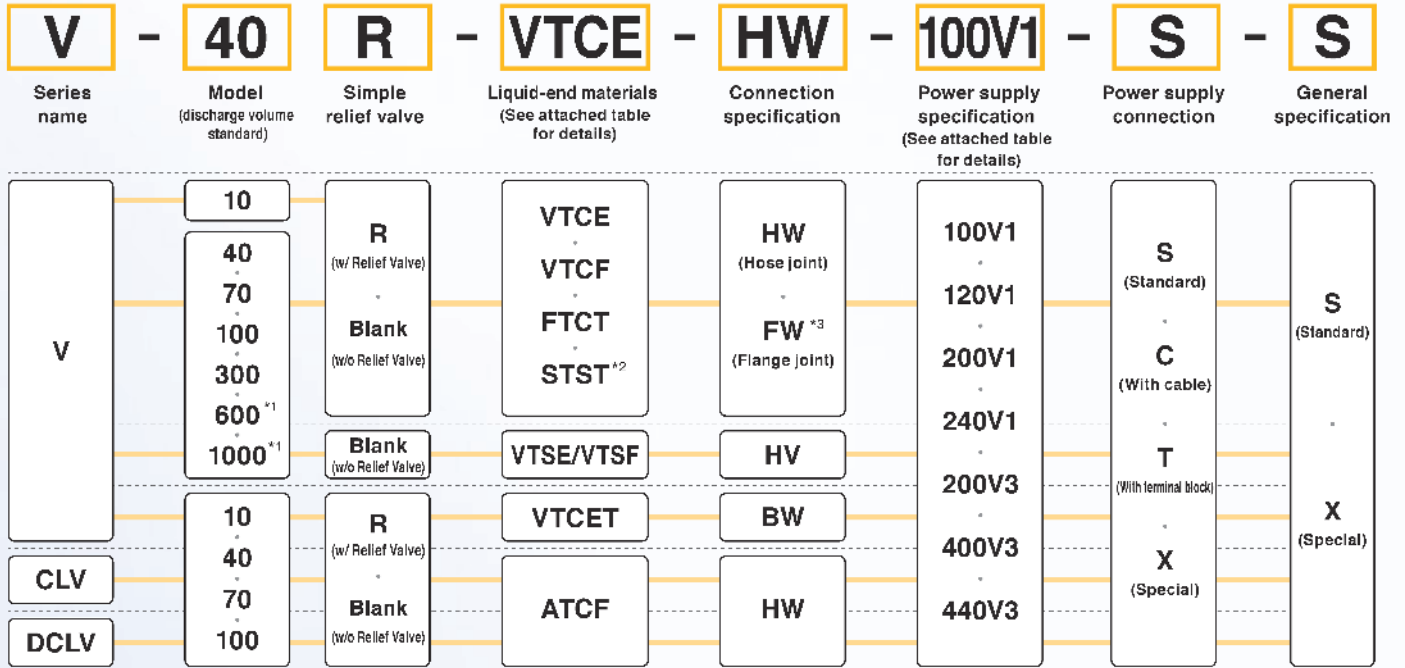
#### Polymer pump

Liquid end part : VTSE/VTSE  
For polymer coagulant, etc. (up to 2,000mPa-s)



\* Corrosion resistance for any given material is greatly influenced by conditions such as temperature, concentration of pumped ingredients, and ultraviolet rays. Consult TACMINA during model selection.

## Model code



\*1. 600 and 1000 models do not include a simple relief valve. \*2. STST types do not include a simple relief valve. \*3. Flange connections not available for FTCT and STST types.

## Performance specifications

Liquid end material		VTCE/VTCF/FTCT						STST						VTSE/VTSF						VTCET				ATCF						
Model		10	40	70	100	300	600	1000	10	40	70	100	300	600	1000	40	70	100	300	600	1000	10	40	70	100	10	40	70	100	
Max. discharge volume	mL/min	50Hz	15	45	70	125	325	675	1150	13	43	66	108	325	675	1150	43	66	108	325	675	1150	13	43	66	108	13	43	66	108
		60Hz	18	54	84	150	390	810	1380	16	52	80	130	390	810	1380	52	80	130	390	810	1380	16	52	80	130	16	52	80	130
	L/h	50Hz	0.9	2.7	4.2	7.5	19.5	40.5	69	0.78	2.58	3.96	6.48	19.5	40.5	69	2.58	3.96	6.48	19.5	40.5	69	0.78	2.58	3.96	6.48	0.78	2.58	3.96	6.48
		60Hz	1.08	3.24	5.04	9	23.4	48.6	82.8	0.96	3.12	4.8	7.8	23.4	48.6	82.8	3.12	4.8	7.8	23.4	48.6	82.8	0.96	3.12	4.8	7.8	0.96	3.12	4.8	7.8
US G/h	50Hz	0.23	0.71	1.1	1.98	5.14	10.69	18.21	0.2	0.68	1.04	1.71	5.14	10.69	18.21	0.68	1.04	1.71	5.14	10.69	18.21	0.2	0.68	1.04	1.71	0.2	0.68	1.04	1.71	
	60Hz	0.28	0.85	1.33	2.37	6.17	12.63	21.85	0.25	0.82	1.26	2.05	6.17	12.63	21.85	0.82	1.26	2.05	6.17	12.63	21.85	0.25	0.82	1.26	2.05	0.25	0.82	1.26	2.05	
Max. discharge pressure	MPa	w/ Relief Valve	0.7	0.7	0.7	0.7	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		w/o Relief Valve	1.0	1.0	1.0	1.0	1.0	0.5	0.3	0.5	0.5	0.5	0.5	0.5	0.5	0.3	1.0	1.0	1.0	1.0	0.5	0.3	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0
	bar	w/ Relief Valve	7	7	7	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		w/o Relief Valve	10	10	10	10	10	5	3	5	5	5	5	5	5	3	10	10	10	10	5	3	15	15	15	15	10	10	10	10
	psi	w/ Relief Valve	101.5	101.5	101.5	101.5	101.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
w/o Relief Valve	145	145	145	145	145	72.5	43.5	72.5	72.5	72.5	72.5	72.5	72.5	43.5	145	145	145	145	72.5	43.5	217.5	217.5	217.5	217.5	145	145	145	145		
Stroke speed	50Hz	60	60	60	108	108	108	108	60	60	60	108	108	108	60	60	108	108	108	108	108	60	60	60	108	60	60	60	108	
	60Hz	72	72	72	130	130	130	130	72	72	72	130	130	130	130	72	72	130	130	130	130	72	72	72	130	72	72	72	130	
Max. stroke length	(mm)	2	2	3	3	6	6	6	2	2	3	3	6	6	6	2	3	3	6	6	6	2	2	3	3	2	2	3	3	
	(in)	0.08	0.08	0.12	0.12	0.24	0.24	0.24	0.08	0.08	0.12	0.12	0.24	0.24	0.24	0.08	0.12	0.12	0.24	0.24	0.24	0.08	0.08	0.12	0.12	0.08	0.08	0.12	0.12	
Liquid viscosity	(mPa·s)	100	100	100	100	50	50	50	100	100	100	100	50	50	50	2000	2000	2000	2000	2000	1000	100	100	100	100	100	100	100	100	
	(cP)	100	100	100	100	50	50	50	100	100	100	100	50	50	50	2000	2000	2000	2000	2000	1000	100	100	100	100	100	100	100	100	
Weight	(kg)	4.3 <sup>*1</sup>	4.3 <sup>*1</sup>	4.3 <sup>*1</sup>	4.3 <sup>*1</sup>	4.3 <sup>*1</sup>	4.8 <sup>*1</sup>	5.5 <sup>*1</sup>	5.7	5.7	5.7	5.7	5.7	6.7	7.3	4.4	4.4	4.4	4.4	5.1	5.7	4.3	4.3	4.3	4.3	4.4 <sup>*2</sup>	4.4 <sup>*2</sup>	4.4 <sup>*2</sup>	4.4 <sup>*2</sup>	
	(lb)	9.5	9.5	9.5	9.5	9.5	10.6	12.1	12.5	12.5	12.5	12.5	12.5	14.8	16.2	9.7	9.7	9.7	9.7	11.2	12.6	9.5	9.5	9.5	9.5	9.7	9.7	9.7	9.7	
Connection diameter	Hose	VTCE: φ4×φ9 VTCT: φ6×φ8		VTC: φ6×φ11 FTCT: φ6×φ8		VTC: φ12×φ18 FTCT: φ12×φ15		φ6×φ8						φ12×φ15			φ12×φ18			φ19×φ26			Discharge: φ4×φ9 Suction: φ4×φ9		Discharge: φ6×φ8 Suction: φ6×φ11		φ4×φ9		φ6×φ11	
	Flange	JIS10K15A(VTC only)						-						-			-			-		-		-		-				
Transferable temperature (°C)	Ambient temperature	0 to 40																												
	Transfer liquid	VTCE/VTCF: 0 to 40 (No freezing) FTCT/STST: 0 to 60 (No freezing)														0 to 40 (No freezing)														
Output (W)		25																												

\*1. For VTCE and VTCF types with a hose connection. \*2. 4.6 kg for the DCLV series.

## Power supply specifications

	Number of phases	Voltage	
		50Hz	60Hz
100V1	Single phase	100V/110V	100V/110V/115V
120V1		120V	120V
200V1		200V/220V/230V	200V/230V
240V1		240V	-
200V3	3-phase	200V	200V/220V/230V
400V3		380V/400V/415V	380V/400V
440V3		-	440V

## Liquid-end materials

	Pump head	Diaphragm	Check ball	O-ring	Valve seat	Joint	Ball stopper <sup>*1</sup>
VTCE	PVC	PTFE	Ceramic	EPDM	EPDM	PVC	PVC <sup>*2</sup>
VTCF	PVC	PTFE	Ceramic	Fluoro rubber	Special fluoro rubber	PVC	PVC <sup>*2</sup>
FTCT	PVDF	PTFE	Ceramic	PTFE	PTFE	PVDF	PTFE
STST	SUS304	PTFE	SUS304	PTFE	-	SUS304	PTFE
VTSE	PVC	PTFE	SUS304	EPDM	-	PVC	PE
VTSF	PVC	PTFE	SUS304	Fluoro rubber	-	PVC	PE
VTCET	PVC	PTFE	Ceramic	EPDM	PTFE	PVC	PVC
ATCF	PMMA	PTFE	Ceramic	Fluoro rubber	Special fluoro rubber	PVC	-

\* Contact TACMINA for materials not listed above.

\*1 Depending on the model, it might be a valve stopper.

\*2 For the 600 and 1000 models, the material will be PE.

## Accessories

	Hose/tube <sup>*1,2</sup>	Relief/air release hose <sup>*2</sup>	Anti-siphon check valve <sup>*2</sup>	Foot valve <sup>*2</sup>	Pump securing bolt	OPERATION MANUAL	Other
VTCE	PVC braided hose 3m	Soft PVC hose 1m <sup>*3,4</sup>	1 set	1 set	4 M5 x 30; with spring washer, flat washer, and flange nut	1	-
VTCF	PVC braided hose 3m	Soft PVC hose 1m <sup>*3,4</sup>	1 set	1 set			-
FTCT	FEP hose 3m	Soft PVC hose 1m <sup>*3,4</sup>	1 set <sup>*4</sup>	1 set <sup>*4</sup>			Ceramic weight, 1 set <sup>*4</sup>
STST	PTFE hose 3m	-	1 set	1 set			Hose pump, 1 <sup>*4</sup>
VTSE/VTSF	PVC braided hose 3m	Soft PVC hose 1m <sup>*4</sup>	-	-			-
VT CET	PVC braided hose 1m PA tube 2m	Soft PVC hose 1m <sup>*3</sup>	1 set	1 set			-
ATCF	PVC braided hose 3m	Soft PVC hose 1m <sup>*3</sup>	1 set	1 set			-

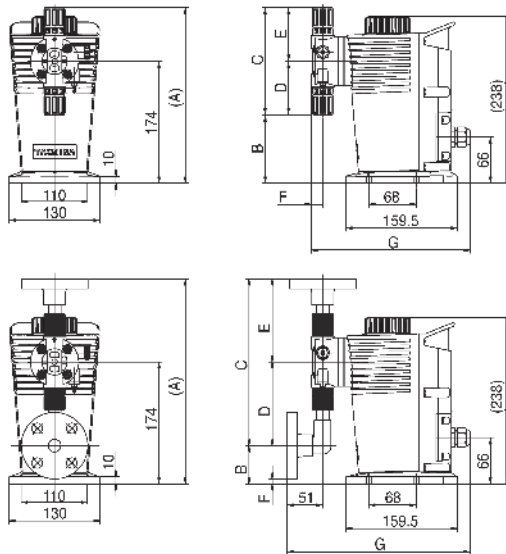
\*1. Refer to the connection information in the performance specification table for the hose/tube diameter.

\*2. Not included with flange connection types.

\*3. Only types with simple relief valves come installed with a cable tie. One spare cable tie also included.

\*4. Not included with the 600 and 1000 models.

## External dimensions(mm)



	VTCE/VTCF (HW: Hose connection)						
	10/10R	40/40R	70/70R	100/100R	300/300R	600	1000
(A)	250.5	250.5	250.5	250.5	250.5	271	279
B	97.5	97.5	97.5	97.5	97.5	94.5	87
C	153	153	153	153	153	176.5	192
D	76.5	76.5	76.5	76.5	76.5	79.5	87
E	76.5	76.5	76.5	76.5	76.5	97	105
F	16.3	16.3	16.3	16.3	16.3	23.6	23
G	227	225	225	225	229	244	245

	VTCE/VTCF (FW: Flange connection)						
	10	40	70	100	300	600	1000
(A)	292.5	292.5	292.5	292.5	292.5	315	323
B	54.5	54.5	54.5	54.5	54.5	49.5	42
C	238	238	238	238	238	265.5	281
D	119.5	119.5	119.5	119.5	119.5	124.5	132
E	118.5	118.5	118.5	118.5	118.5	141	149
F	7	7	7	7	7	1.9	-6 <sup>*1</sup>
G	262	260	260	260	264	271	273

\*1. Flange base is lower than the installation surface of the body.

## Related Equipment



**Chemical injection functionality provided in a single unit**

**Chemical injection system**

**PTS**

This chemical injection system combines a high-performance pump with a small tank in order to improve use and safety.

Using together with a pump featuring a timer control function allows for an even broader range of applications.

**Tank capacity 30/50/120 L**

Product designs and specifications are subject to change without notice for product improvement.

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