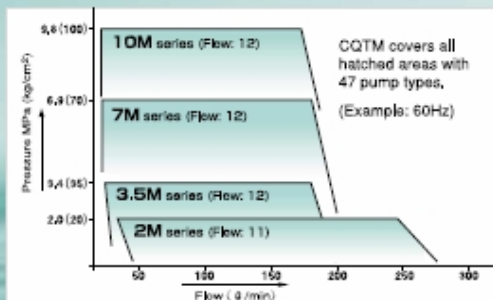


CQT offers wider applications of
water-based coolant pumps with ultra low noise.

Wide selection allows best fit performance.

4 × **11**
pressure ranges flow rates

4 pressure ranges:
Adequate pump can be easily selected to the required flow,
11 to 12 flow rates:
Minimized waste of flow contributes to energy saving.

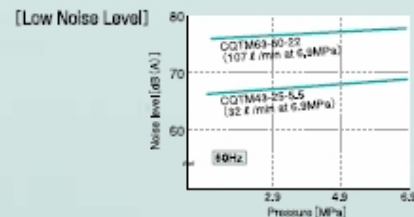


Energy saving

- 2-way energy saving:
Less electric consumption
Less heat-up of cutting-oil leads to precision machining in addition to high efficiency of CQT itself.
- Its wide selection offers minimized waste of flow.
- Controllable flow rate by changing rotational speed
- Variable rotation speed with INVERTER
- Delivery flow proportional to rotation speed
- Optimized delivery flow according to nozzle diameter → LOW RUNNING COST

Low noise / Low pressure ripples

Unique gear profile / Very little change of trapped volume → Very little pressure ripples 3%
($\Delta P = 3P/100$) → Extremely low noise level: 69 dB (A)
(6.9 MPa x 32 l/min) + 5.5 kw motor



High efficiency
at 1.5MPa~2MPa system.

1.5MPa~2MPa system
Little energy loss, stabled pressure, very short in length, good self-priming performance

2M Series

2.0MPa

Provides economic pump
for 3MPa system.

3MPa system
Most economical pump for 3MPa

3.5M Series

3.4MPa

7M Series

6.9MPa

10M Series

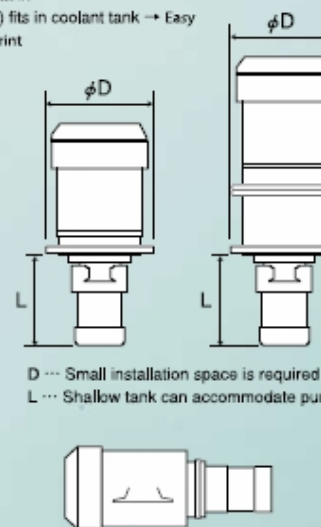
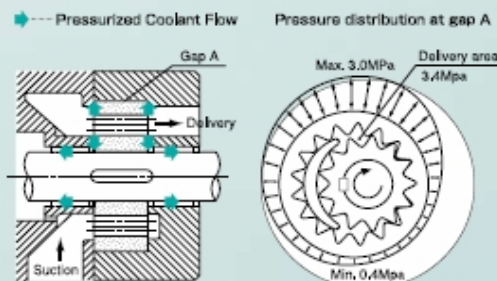
9.8MPa

Small footprint

Pump and motor are directly integrated.
Occupies small space, requires only flange area (D) on top of coolant tank
Short pump length (L) fits in coolant tank → Easy layout and small footprint

Long life and maintenance-free

Simple structure, Pressurized lubrication → No physical contact between components
No wear of parts (filtration must be kept at 30μ or better)



D ... Small installation space is required
L ... Shallow tank can accommodate pump



Horizontal type also available
※ Pump can be installed in any direction

Pump Model Number

CQTM 4 3-25FV-5.5-1-T-S※※※※-C

Basic model
Low noise high pressure coolant pump with motor (M)

Pump size 3~6

Max. Pressure rating

4: 10M series 3: 7M series
2: 3M series 1: 2M series

Delivery rating

Delivery at no-load rpm (Q/min.)

Suction/Delivery port position

F: Both ports at opposite side (standard)
No symbol: Both ports at same side

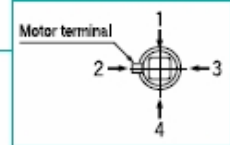
Simplified model number CQT43-25 is used to represent the above model.

Specifications No. Design No.

Pump/Motor Installation

T: Vertical (standard) No symbol: Horizontal

Position of motor terminal and pump delivery port



Motor rating (1.5~37) kW

Pump/Motor coupling

-: direct coupled +: belt/large coupled

V: O ring FKM No symbol O ring NBR

Pump Model Table

Delivery (l/min)	Pressure (max.)		2M Series 2.0MPa	3.5M Series 3.4MPa	7M Series 6.9MPa	10M Series 9.8MPa	Remarks
	50Hz	60Hz					
6	10			CQT32-10	CQT33-10	CQT34-10	Middle size for both water-based and no-water based coolant
10	14			-12.5	-12.5	-12.5	
13	18			-16	-16	-16	
17	25		CQT31-20	CQT42-20	CQT43-20	CQT44-20	
25	32		-25	-25	-25	-25	
32	43		-31.5	-31.5	-31.5	-31.5	Large size for both water-based and no-water based coolant
38	49		CQT41-40	CQT52-40	CQT53-40	CQT54-40	
53	68		-50	-50	-50	-50	
71	89		-63	-63	-63	-63	
84	107		CQT51-80	CQT62-80	CQT63-80	CQT64-80	
112	141		-100	-100	-100	-100	
144	180		-125	-125	-125	-125	
193	235		CQT61-160				
248	—		-200				

Note: Deliveries are approximate at the maximum pressure with water based coolant. Refer to the performance table for details. In this catalog the highlighted pumps are described in detail. For other models please contact the manufacturer.

3.5M Series (3.4 MPa)

Most economical pump can be selected for Mpa. system.



Performance table

r.p.m.	Model No.	Delivery (l/min)						Power Input (kW)					
		1.0MPa	2.0MPa	2.5MPa	2.9MPa	3.4MPa	1.0MPa	2.0MPa	2.5MPa	2.9MPa	3.4MPa		
1500 (50Hz)	CQT32	- 10	13	10	9	8	6	0.4	0.6	0.8	0.9	1.0	
		- 12.5	16	14	12	11	9	0.5	0.8	1.0	1.1	1.3	
		- 16	20	17	16	15	14	0.6	1.0	1.2	1.4	1.6	
	CQT42	- 20	27	23	21	19	17	0.7	1.3	1.5	1.8	2.0	
		- 25	34	30	28	26	24	0.9	1.6	1.9	2.2	2.5	
		- 31.5	44	39	37	35	32	1.2	2.0	2.4	2.8	3.2	
1800 (60Hz)	CQT32	- 10	16	13	12	11	10	0.5	0.8	0.9	1.1	1.2	
		- 12.5	20	17	16	15	14	0.6	1.0	1.2	1.4	1.6	
		- 16	25	22	21	20	19	0.7	1.2	1.4	1.7	1.9	
	CQT42	- 20	33	30	28	26	24	0.9	1.6	1.9	2.2	2.5	
		- 25	41	38	36	34	32	1.1	1.9	2.3	2.7	3.1	
		- 31.5	54	50	47	45	43	1.5	2.5	2.9	3.4	3.9	

Data are with water-based coolant, for data with no-water based coolant contact manufacturer.

Standard Pump/Motor combination

Model No.	Delivery (l/min)		Motor (kW)				
	50Hz	60Hz	1.5	2.2	3.7	5.5	
CQT32 →	6-13	10-18	01	02			
CQT42 →	17-32	24-43		03	04	05	

- Figures show standard combination
- Figures show code on the dimension table on page 6
- Hatched areas show direct coupled combination

7M Series (6.9 MPa)

Offers low noise and less foot-print for 5~6.9Mpa. system.

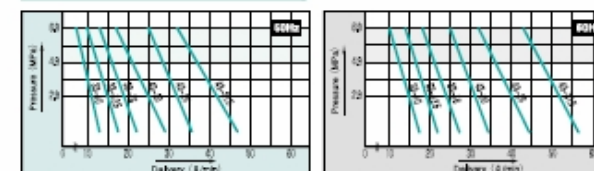


Performance table

r.p.m.	Model No.	Delivery (l/min)						Power Input (kW)						
		2.0MPa	2.9MPa	3.9MPa	4.9MPa	5.9MPa	6.9MPa	2.0MPa	2.9MPa	3.9MPa	4.9MPa	5.9MPa	6.9MPa	
1500 (50Hz)	CQT33	- 10	13	11	10	9	8	6	0.8	1.0	1.3	1.6	1.8	2.1
		- 12.5	16	15	14	13	11	10	1.0	1.3	1.6	2.0	2.3	2.6
		- 16	20	19	17	16	15	14	1.2	1.6	2.0	2.4	2.8	3.2
	CQT43	- 20	27	25	23	21	19	17	1.6	2.1	2.6	3.1	3.6	4.2
		- 25	34	32	30	28	26	25	1.9	2.6	3.2	3.9	4.5	5.1
		- 31.5	44	42	39	37	35	32	2.5	3.3	4.1	4.9	5.8	6.6
1800 (60Hz)	CQT33	- 10	16	15	13	12	11	10	1.0	1.3	1.6	1.9	2.2	2.5
		- 12.5	20	19	18	17	15	14	1.2	1.6	2.0	2.4	2.8	3.2
		- 16	25	24	22	21	20	19	1.5	2.0	2.5	3.0	3.5	3.9
	CQT43	- 20	33	31	29	28	26	25	2.0	2.6	3.2	3.9	4.5	5.1
		- 25	41	40	38	36	34	32	2.4	3.2	4.0	4.8	5.5	6.3
		- 31.5	54	52	50	47	45	43	3.1	4.1	5.1	6.1	7.1	8.1

Data are with water-based coolant, for data with no-water based coolant contact manufacturer.

Performance curve



Standard Pump/Motor combination

Model No.	Delivery (l/min)		Motor (kW)					
	50Hz	60Hz	1.5	2.2	3.7	5.5	7.5	
CQT33 →	6-13	10-18	01	02	03	04	05	
CQT43 →	17-32	24-43			10	11	12	

- Figures show standard combination
- Figures show code on the dimension table on page 6
- Hatched areas show direct coupled combination
- △: Show optional production type

10M

Ultra quiet pump for 9.8Mpa. system
Series (9.8 MPa)

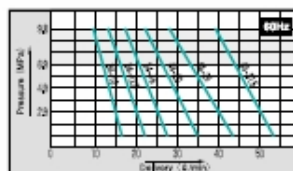
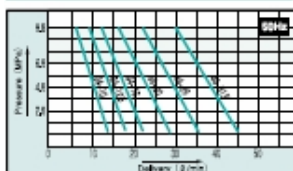


Performance table

r.p.m.	Model No.	Delivery (l/min)						Power Input (kW)						
		2,9MPa	4,9MPa	6,9MPa	7,9MPa	8,6MPa	9,8MPa	2,9MPa	4,9MPa	6,9MPa	7,9MPa	8,6MPa	9,8MPa	
1500 [50Hz]	CQT34	10	12	10	9	8	7	6	1.2	1.7	2.2	2.5	2.7	3.0
		12.5	16	14	12	11	10	9	1.5	2.1	2.8	3.1	3.5	3.8
		16	20	17	15	14	13	12	1.8	2.6	3.4	3.9	4.3	4.7
	CQT44	20	26	23	20	19	17	16	2.4	3.4	4.5	5.0	5.5	5.9
		25	33	29	26	25	23	22	2.9	4.2	5.5	6.2	6.8	7.4
		31.5	42	39	35	33	32	30	3.8	5.4	7.1	7.9	8.7	9.5
1800 [60Hz]	CQT34	10	15	13	12	11	10	9	1.5	2.1	2.7	3.1	3.4	3.7
		12.5	20	18	16	15	14	13	1.9	2.8	3.5	3.9	4.3	4.6
		16	25	22	20	19	18	17	2.3	3.3	4.3	4.7	5.2	5.7
	CQT44	20	32	29	26	25	24	22	3.0	4.3	5.5	6.2	6.7	7.4
		25	40	37	34	32	30	28	3.7	5.3	6.8	7.6	8.4	9.1
		31.5	52	48	45	43	41	39	4.8	6.8	8.8	9.7	10.7	11.7

Data are with water-based coolant, for data with no-water based coolant contact manufacturer.

Performance curve



Standard Pump/Motor combination

Model No.	Delivery (l/min)		Motor (kW)			
	50Hz	60Hz	3,7	5,5	7,5	11
CQT34-※	8-12	9-17	13	14	15	11
CQT44-※	16-30	22-39	16	17	36	

- Figures show standard combination
- Figures show code on the dimension table on page 6
- Hatched areas show direct coupled combination

Piping flanges (option)

Model number

QG T-12-※-A

Basic model

Piping flanges for CQT

Connection

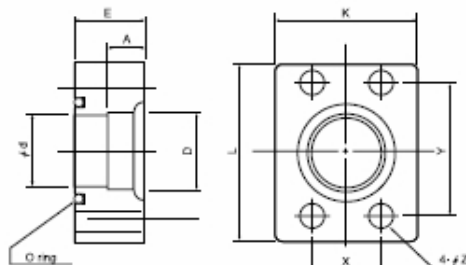
T : Threaded
W : Welding

Design No.

Option

Piping size

04~20

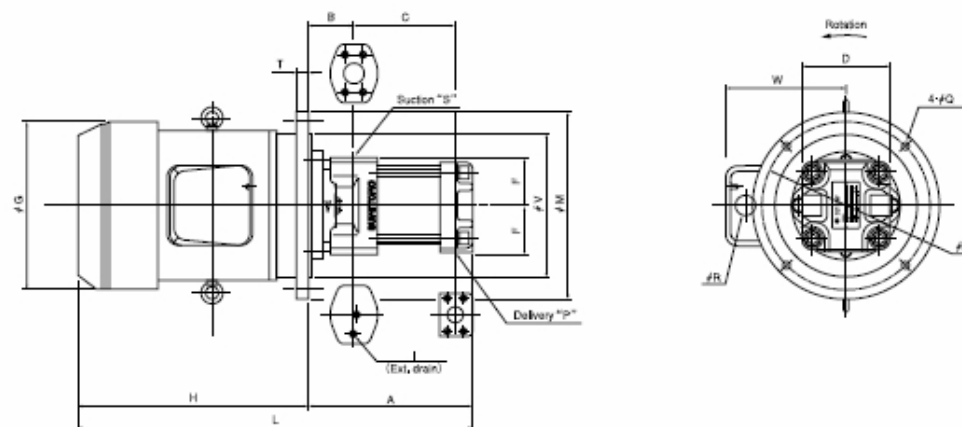


Piping flange No.	Size	A		W		D		E	K	L	X	Y	Z	O ring JISB2401	Mounting bolt JISB1175
		T	W	T	W	T	W								
QG※-06	3/4"	19,2	12	20	16	Rc 3/4	φ22,2	24	50	65	22	48	11	—1BP28	M10 × 40
QG※-08	1"	23,2	14	25	20	Rc 1	φ27,7		50	70	26	52		—1BP34	M10 × 50
QG※-10	1 1/4"	25,5	16	32	25	Rc 1 1/4	φ34,5	31	65	79	30	59		—1BP42	
QG※-12	1 1/2"		18	38	32	Rc 1 1/2	φ43,2		75	94	36	70		—1BP50	

※ T: Threaded W: Welding

Dimensions

3.5M-7M-10M Series



Date/No.	Model No.	A	B	C	D	F	G	H	I	L	M	N	Q	R	T	V	W	Flange diameter Suct./Del.	Shaft Dia.	
01	CQT34	1,5T	178	63			188	301	Rc 1/4	479	200	165	12	22	12	130	148	Q68-10	Q68-08	
02		2,2T	165	50	94	115	60	208	328	Rc 1/4	493	250	215	15	16	180	158			
03		3,7T	217	76				208	328	Rc 1/4	545									
04	CQT44	3,7T	215	74	114	139	75	235	366	Rc 1/4	581	250	215	15	22	16	180	170	Q68-12	Q68-08
05		5,5T	212	71				270	375	Rc 1/4	587	300	265		33	20	230	194		
07		2,2T	210	50				208	328	Rc 1/4	538									
08	CQT34	3,7T	209	49	139	115	60	235	366	Rc 1/4	575	250	215	15	22	16	180	170	Q68-10	Q68-08
09		5,5T	206	46				270	375	Rc 1/4	581	300	265		33	20	230	194		
10		3,7T	271	74				235	366	Rc 1/4	637	250	215		22	180	170			
11	CQT44	5,5T	268	71	170	139	75	270	375	Rc 1/4	643	300	265	15	33	20	230	190	Q68-12	Q68-08
12		7,5T						413	Rc 1/4	681					36					
13		3,7T	254	49				235	366	Rc 1/4	620	250	215		22	16	180	170		
14	CQT34	5,5T	251	46	184	115	60	270	375	Rc 1/4	626	300	265	15	33	20	230	194	Q68-10	Q68-08
15		7,5T						413	Rc 1/4	664					36					
16		5,5T	324	71	226	139	75	270	375	Rc 1/4	699	300	265	15	33	20	230	194	Q68-12	Q68-08
17	CQT44	7,5T						413	Rc 1/4	737					36					

For size 4 ext. drain use 8 mm (I.D.) pipe.

Nozzle dia. VS. Pressure

Nozzle Dia φ × 2	Pressure at Nozzle Outlet: MPa (kgf/cm ²)					
	6,9 (70)	5,9 (60)	4,9 (50)	3,9 (40)	2,9 (30)	2,0 (20)
0,5X2	2,3	2,1	1,9	1,7	1,5	1,2
1,0X2	9,2	8,6	7,8	6,9	6,0	4,9
1,2X2	13,4	12,4	11,3	10,1	8,7	7,1
1,4X2	18,2	16,9	15,4	13,7	11,9	9,7
1,6X2	23,8	22,1	20,1	18,0	15,5	12,7
1,8X2	30,1	27,9	25,4	22,7	19,7	16,0
2,0X2	37,2	34,5	31,4	28,1	24,3	19,8
2,5X2	53,8	53,8	49,0	43,9	38,0	31,0
3,0X2	83,1	76,9	70,2	62,8	54,3	44,4

Note: Flow in this table is calculated from the pressure just at the nozzle outlet.
No pressure drop in the piping from pump to nozzle is considered.

Micron VS. Mesh conversion table

Mesh	150	170	200	250	270	300	500	600	800	1000	1450
Micron (μm)	100	88	75	60	53	50	30	25	20	15	10



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● Always refer to the instruction manual for correct and safe use of the pump.

Specifications may be changed without notice.



**SUMITOMO Ultra Low Noise
High Pressure Coolant Pump Series**

YOUR NEEDS COME FIRST



High Pressure Coolant

- Enables higher speed machining
- Improves finishing precision, surface roughness by cooling down the works
- Prolongs tool life
- Eases discharge of chip by crushing



**Ultra Low Noise
High Pressure Coolant Pumps**

CQQTTM

CQTM Pump, Pump with Motor



SUMITOMO PRECISION PRODUCTS CO.,LTD.