



EBARA

Japanese Technology since 1912

Looking ahead,
going beyond expectations
Ahead > Beyond

Vertical Multistage Pumps with Inverters

EVMS-K



E-SPD+



www.ebara.com.au

➤ Features

K series are energy saving pumps equipped with a new inverter E-SPD+[plus]. This new product allow users to save on energy costs with optimised operations according to the system's requirements and contribute to a sustainable society. The E-SPD+ is installable on the motor terminal board.



- ⚙ Innovative LCD display for viewing and changing operating parameters and for keeping track of the history of the key parameters, faults and alarms. Its cover can be rotated 180° for easier reading.
- 🛡 System protection against overcurrents, input voltage fluctuations, dry running and losses in the system.
- 🔧 Easy installation and programming thanks to the highly intuitive and user-friendly software.
- 🌐 Connectivity is provided by four configurable digital inputs, two ports for configurable digital outputs, two ports for analogue 4-20 mA inputs, one port for 0-10 V input, and one port for a motor thermistor PTC input.
- 📡 Two RS485 ports for communication and parallel operation of up to eight pumps.
- 🔄 Connecting to monitoring systems with Modbus connection.

➤ Applications



Industry

- Reverse Osmosis
- Micro or Ultra-filtration
- Softening, ionizing and demineralizing systems
- Boiler feed and condensate systems
- Industrial parts washing
- Food or bottle washing systems
- Handling of refrigerant for cooling
- Thermal control systems



Commercial building service

- Pressure Boosting for buildings
- Air conditioning systems
- District heating



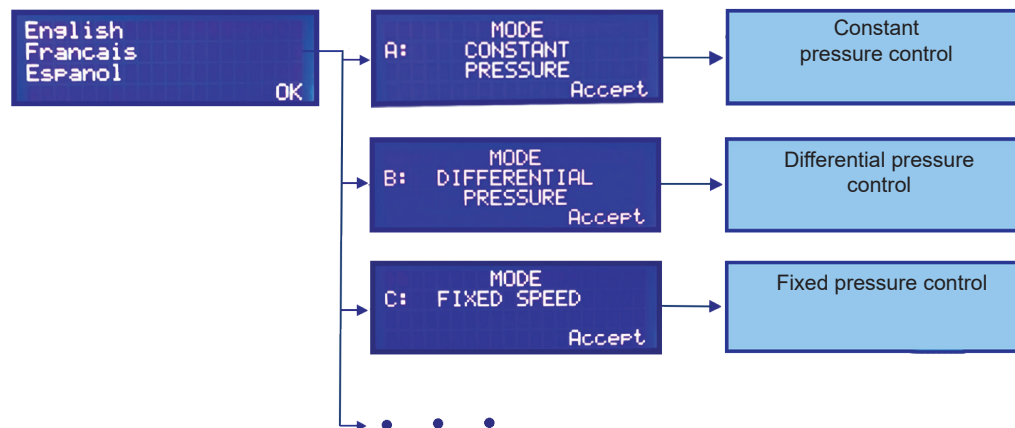
Irrigation

- Field Irrigation
- Sprinkler Irrigation
- Drip Irrigation

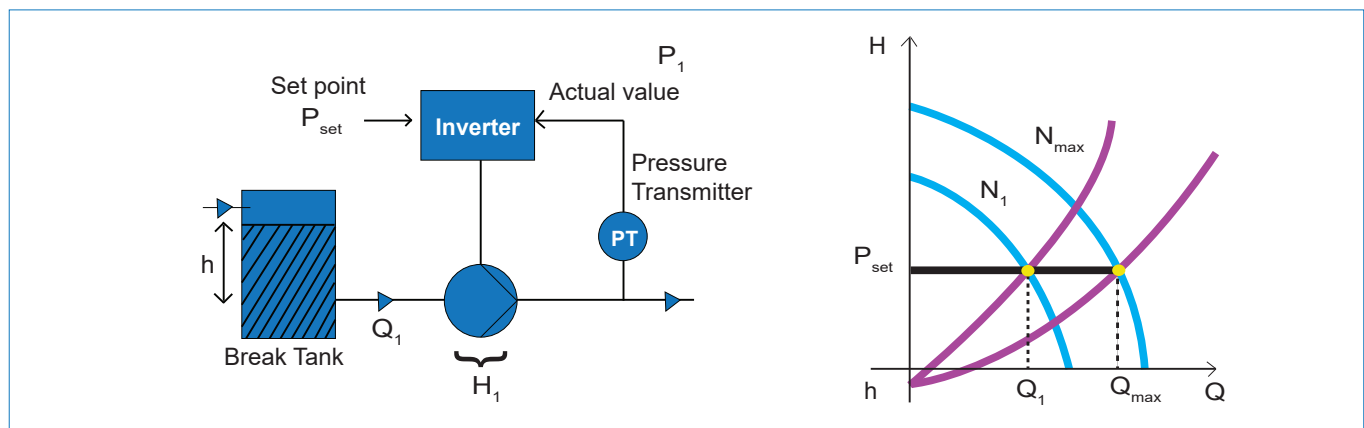
➤ Pump control system



E-SPD+ setup wizard easily guide different parameter according to the control mode



Constant Pressure Control



Examples of advanced parameters

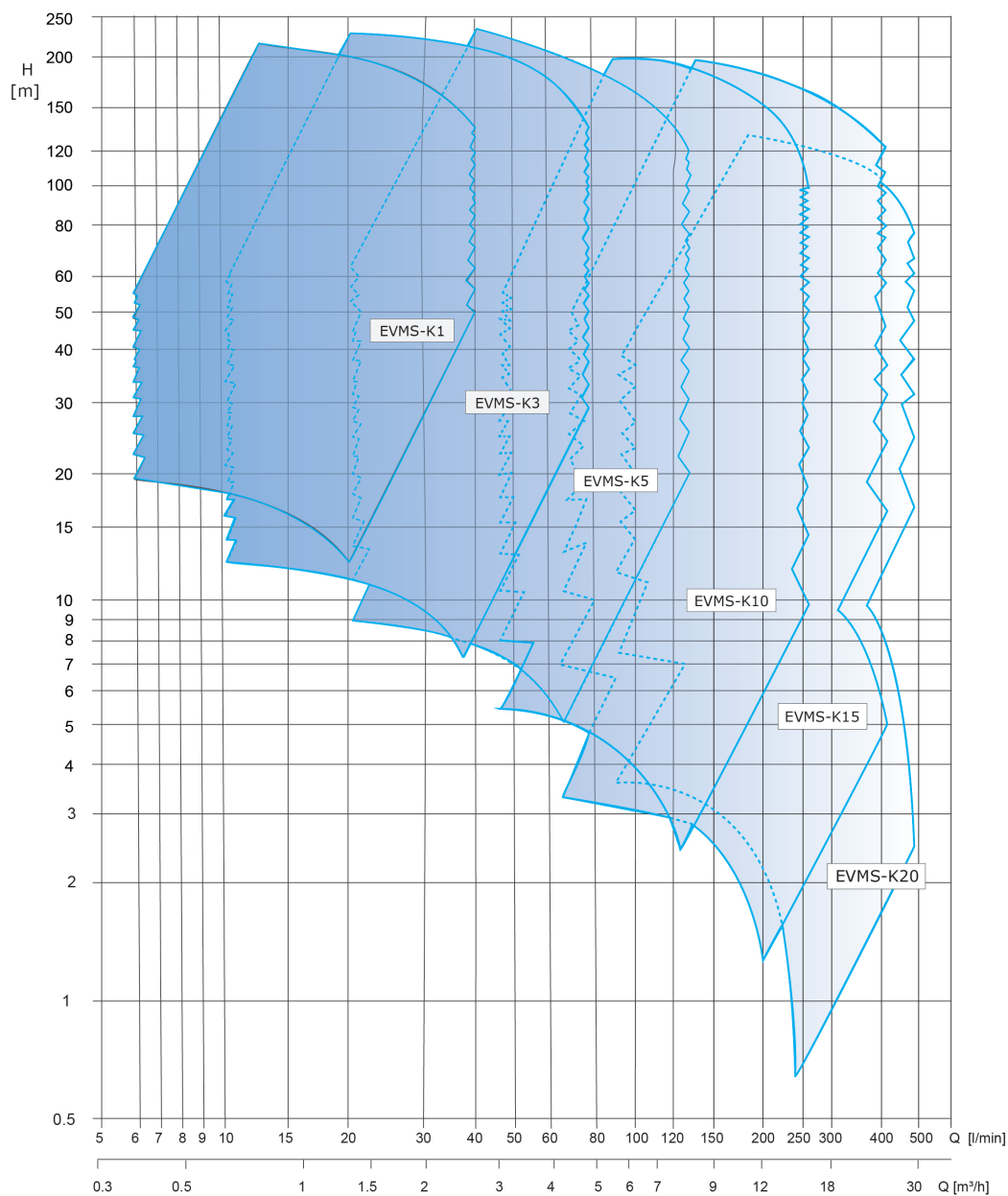
Parameter	Descriptions
1. Overpressure alarm	To set maximum pressure level
2. Pump kick	After a set period time, pump will rotate for 2-3 times
3. Changeover	Changeover between multiple pumps to have similar working hours
4. Proportional Boost	To compensate for the pressure loss in the pipeline

Product specifications

Items		EVMS(G,L)-K					
Operating range	Nominal flow rate [m3/h]	1	3	5	10	15	20
	Max. operating pressure	16/25 bar			16 bar		
	Liquid temperature	-30 to 125° C					
	Ambient operating temperature (no higher than 1000 m above sea level)	-10 to 40° C					
Pump	EVMS with AISI 304 bottom casting and AISI 304 hydraulic	•	•	•	•	•	•
	EVMSL with AISI 316L bottom casting and AISI 316L hydraulic	•	•	•	•	•	•
	EVMSG with Cast iron bottom casting and AISI 304 hydraulic	•	•	•	•	•	•
Motor	Model	ETM					
	Frequency	50 Hz					
	Output power	2.2 to 11 kW as standard 0.75 to 1.5 kW on request					
	Motor Voltage	Three-phase x 400 V					
	Number of poles	2					
	Protection degree	IP55					
	Insulation class	F (temperature rise class B)					
	Thermal protection	PTC sensor pre-installed from 1.5 kW motors					

Items		E-SPD+		
Inverter	Model	MT2200	TT4000	TT11000
	Max power rating	2.2 kW	4.0 kW	11 kW
	Power supply voltage	Single-phase 230 V	Three-phase 400 V	Three-phase 400 V
	Output voltage	Three-phase 230 V	Three-phase 400 V	Three-phase 400 V
	Max current in/out	20 A / 11 A	12 A / 11 A	31 A / 30 A
	Protection rating	IP55		
	Analog ports	2 ports for 4-20 mA 1 port for 0-10 V 1 port for PTC sensor		
	Digital inputs	4 ports for Not used, All pumps/Single pump Stop with external control, In Setpoints, Flow sensor, Slave 0-10 V		
	Digital outputs	2 ports for OFF Alarm, Start Clock, Dry running external stop, Overpressure		
	Communication	Two RS485 ports		
		- for communication and parallel operation of up to eight pumps - for monitoring systems with Modbus connection		
Accessories	Pressure transmitter	10/16/25 bar:Type 520 (Huba Control)		
	Cable with connector for pressure transmitter	M12 2M		
	Cable RS485	2x0.5mm ² L=900 mm		

➤ Performance range



➤ Selection Chart

Model		Motor size [kW]	Inverter model for Power supply		Max operating pressure [bar]	Q=Capacity						
						[L/min] 0	12	20	40	60	75	130
						[m³/h] 0	0.72	1.2	2.4	3.6	4.5	7.8
						H=Total head [m] at full speed in 50 Hz						
1	EVMS(G,L)-K1 14/0.75	(0.75)	MT2200	TT4000	16	83.5	78.5	73	49.5	-	-	-
	EVMS(G,L)-K1 16/0.75	(0.75)	MT2200	TT4000	16	95.5	89.5	83	56.5	-	-	-
	EVMS(G,L)-K1 18/1.1	(1.1)	MT2200	TT4000	16	107	101	93.5	63.5	-	-	-
	EVMS(G,L)-K1 20/1.1	(1.1)	MT2200	TT4000	16	119	112	104	71	-	-	-
	EVMS(G,L)-K1 22/1.1	(1.1)	MT2200	TT4000	16	131	123	114	78	-	-	-
	EVMS(G,L)-K1 24/1.1	(1.1)	MT2200	TT4000	16	143	135	125	85	-	-	-
	EVMS(G,L)-K1 26/1.1	(1.1)	MT2200	TT4000	16	155	146	135	92	-	-	-
	EVMS(G,L)-K1 27/1.5	(1.5)	MT2200	TT4000	25	161	151	140	95.5	-	-	-
	EVMS(G,L)-K1 29/1.5	(1.5)	MT2200	TT4000	25	173	163	151	103	-	-	-
	EVMS(G,L)-K1 32/1.5	(1.5)	MT2200	TT4000	25	191	179	166	113	-	-	-
	EVMS(G,L)-K1 34/1.5	(1.5)	MT2200	TT4000	25	203	191	177	120	-	-	-
	EVMS(G,L)-K1 37/2.2	2.2	MT2200	TT4000	25	221	207	192	131	-	-	-
	EVMS(G,L)-K1 39/2.2	2.2	MT2200	TT4000	25	232	219	203	138	-	-	-
3	EVMS(G,L)-K3 7/0.75	(0.75)	MT2200	TT4000	16	51.5	-	49.5	45	38.3	29.2	-
	EVMS(G,L)-K3 8/0.75	(0.75)	MT2200	TT4000	16	59	-	56.5	51.5	44	33.4	-
	EVMS(G,L)-K3 9/1.1	(1.1)	MT2200	TT4000	16	66.5	-	63.5	58	49	37.6	-
	EVMS(G,L)-K3 10/1.1	(1.1)	MT2200	TT4000	16	73.5	-	70.5	64.5	54.5	41.5	-
	EVMS(G,L)-K3 11/1.1	(1.1)	MT2200	TT4000	16	81	-	77.5	71	60	46	-
	EVMS(G,L)-K3 12/1.1	(1.1)	MT2200	TT4000	16	88.5	-	84.5	77.5	65.5	50	-
	EVMS(G,L)-K3 13/1.5	(1.5)	MT2200	TT4000	16	96	-	91.5	84	71	54.5	-
	EVMS(G,L)-K3 14/1.5	(1.5)	MT2200	TT4000	16	103	-	98.5	90.5	76.5	58.5	-
	EVMS(G,L)-K3 15/1.5	(1.5)	MT2200	TT4000	16	111	-	106	97	82	62.5	-
	EVMS(G,L)-K3 16/1.5	(1.5)	MT2200	TT4000	16	118	-	113	103	87.5	67	-
	EVMS(G,L)-K3 17/2.2	2.2	MT2200	TT4000	16	125	-	120	110	93	71	-
	EVMS(G,L)-K3 19/2.2	2.2	MT2200	TT4000	16	140	-	134	123	104	79.5	-
	EVMS(G,L)-K3 21/2.2	2.2	MT2200	TT4000	16	155	-	148	136	115	87.5	-
	EVMS(G,L)-K3 23/2.2	2.2	MT2200	TT4000	25	170	-	162	149	126	96	-
	EVMS(G,L)-K3 24/2.2	2.2	MT2200	TT4000	25	177	-	169	155	131	100	-
	EVMS(G,L)-K3 25/3.0	3.0	-	TT4000	25	184	-	176	161	137	104	-
	EVMS(G,L)-K3 27/3.0	3.0	-	TT4000	25	199	-	190	174	148	113	-
	EVMS(G,L)-K3 29/3.0	3.0	-	TT4000	25	214	-	204	187	159	121	-
5	EVMS(G,L)-K5 4/0.75	(0.75)	MT2200	TT4000	16	37.9	-	-	35.9	34.1	31.9	20.4
	EVMS(G,L)-K5 5/1.1	(1.1)	MT2200	TT4000	16	47.5	-	-	45	42.5	39.9	25.5
	EVMS(G,L)-K5 6/1.5	(1.5)	MT2200	TT4000	16	57	-	-	54	51	48	30.6
	EVMS(G,L)-K5 7/1.5	(1.5)	MT2200	TT4000	16	66.5	-	-	63	59.5	56	35.7
	EVMS(G,L)-K5 8/2.2	2.2	MT2200	TT4000	16	76	-	-	72	68	64	41
	EVMS(G,L)-K5 9/2.2	2.2	MT2200	TT4000	16	85.5	-	-	81	77	72	46
	EVMS(G,L)-K5 10/2.2	2.2	MT2200	TT4000	16	95	-	-	90	85.5	80	51
	EVMS(G,L)-K5 11/2.2	2.2	MT2200	TT4000	16	104	-	-	98.5	94	87.5	56
	EVMS(G,L)-K5 12/3.0	3.0	-	TT4000	16	114	-	-	108	102	95.5	61
	EVMS(G,L)-K5 13/3.0	3.0	-	TT4000	16	123	-	-	117	111	104	66.5
	EVMS(G,L)-K5 14/3.0	3.0	-	TT4000	16	133	-	-	126	119	112	71.5
	EVMS(G,L)-K5 15/3.0	3.0	-	TT4000	16	142	-	-	135	128	120	76.5
	EVMS(G,L)-K5 17/4.0	4.0	-	TT4000	16	161	-	-	153	145	136	86.5
	EVMS(G,L)-K5 19/4.0	4.0	-	TT4000	25	180	-	-	171	162	152	97
	EVMS(G,L)-K5 20/4.0	4.0	-	TT4000	25	190	-	-	179	171	160	102
	EVMS(G,L)-K5 23/5.5	5.5	-	TT11000	25	218	-	-	206	196	183	117
	EVMS(G,L)-K5 25/5.5	5.5	-	TT11000	25	237	-	-	224	213	199	127
	EVMS(G,L)-K5 27/5.5	5.5	-	TT11000	25	256	-	-	242	230	215	138

(.) on request

Model		Motor size [kW]	Inverter model for Power supply		Max operating pressure [bar]	Q=Capacity							
						[L/min] 0	75	130	180	250	300	400	480
			Single phase	Three phase		[m³/h] 0	4.5	7.8	10.8	15.0	18.0	24.0	28.8
H=Total head [m] at full speed in 50 Hz													
10	EVMS(G,L)-K10 2/0.75	(0.75)	MT2200	TT4000	16	21.8	21.2	19.7	16.6	9.8	-	-	-
	EVMS(G,L)-K10 3/1.5	(1.5)	MT2200	TT4000	16	32.7	31.8	29.6	24.9	14.7	-	-	-
	EVMS(G,L)-K10 4/2.2	2.2	MT2200	TT4000	16	43.6	42.4	39.5	33.2	19.6	-	-	-
	EVMS(G,L)-K10 5/2.2	2.2	MT2200	TT4000	16	54.5	53	49.3	41.5	24.6	-	-	-
	EVMS(G,L)-K10 6/2.2	2.2	MT2200	TT4000	16	65.5	63.5	59	50	29.5	-	-	-
	EVMS(G,L)-K10 7/3.0	3.0	-	TT4000	16	76.5	74	69	58	34.4	-	-	-
	EVMS(G,L)-K10 8/3.0	3.0	-	TT4000	16	87.0	84.5	79	66.5	39.3	-	-	-
	EVMS(G,L)-K10 9/4.0	4.0	-	TT4000	16	98	95.5	89	74.5	44	-	-	-
	EVMS(G,L)-K10 10/4.0	4.0	-	TT4000	16	109	106	98.5	83	49	-	-	-
	EVMS(G,L)-K10 11/4.0	4.0	-	TT4000	16	120	116	109	91.5	54	-	-	-
	EVMS(G,L)-K10 12/5.5	5.5	-	TT11000	16	131	127	118	99.5	59	-	-	-
	EVMS(G,L)-K10 14/5.5	5.5	-	TT11000	16	153	148	138	116	68.5	-	-	-
	EVMS(G,L)-K10 15/5.5	5.5	-	TT11000	16	163	159	148	124	73.5	-	-	-
	EVMS(G,L)-K10 16/7.5	7.5	-	TT11000	25	174	169	158	133	78.5	-	-	-
	EVMS(G,L)-K10 18/7.5	7.5	-	TT11000	25	196	191	178	149	88.5	-	-	-
	EVMS(G,L)-K10 19/7.5	7.5	-	TT11000	25	207	201	188	158	93.5	-	-	-
	EVMS(G,L)-K10 21/7.5	7.5	-	TT11000	25	229	222	207	174	103	-	-	-
	EVMS(G,L)-K10 22/11	11	-	TT11000	25	240	233	217	183	108	-	-	-
	EVMS(G,L)-K10 23/11	11	-	TT11000	25	251	244	227	191	113	-	-	-
15	EVMS(G,L)-K15 1/1.1	(1.1)	MT2200	TT4000	16	14.9	-	13.3	12.4	10.8	9.5	4.8	-
	EVMS(G,L)-K15 2/2.2	2.2	MT2200	TT4000	16	29.5	-	27.5	26	24.9	23.1	16.8	-
	EVMS(G,L)-K15 3/3.0	3.0	-	TT4000	16	44.5	-	41.5	39.7	37.3	34.7	25.2	-
	EVMS(G,L)-K15 4/4.0	4.0	-	TT4000	16	59	-	55	53	50	46.5	33.6	-
	EVMS(G,L)-K15 5/5.5	5.5	-	TT11000	16	73.5	-	69	66	62	58	42	-
	EVMS(G,L)-K15 6/5.5	5.5	-	TT11000	16	88.5	-	82.5	79.5	74.5	69.5	50.5	-
	EVMS(G,L)-K15 7/7.5	7.5	-	TT11000	16	103	-	96.5	92.5	87	81	58.5	-
	EVMS(G,L)-K15 8/7.5	7.5	-	TT11000	16	118	-	110	106	99.5	92.5	67	-
	EVMS(G,L)-K15 9/11	11	-	TT11000	16	133	-	124	119	112	104	75.5	-
	EVMS(G,L)-K15 10/11	11	-	TT11000	16	147	-	138	132	124	116	84	-
	EVMS(G,L)-K15 11/11	11	-	TT11000	16	162	-	151	146	137	127	92.5	-
	EVMS(G,L)-K15 12/11	11	-	TT11000	25	177	-	165	159	149	139	101	-
	EVMS(G,L)-K15 13/11	11	-	TT11000	25	191	-	179	172	162	150	109	-
	EVMS(G,L)-K15 15/15	15	-	TT11000	25	221	-	206	199	187	174	126	-
	EVMS(G,L)-K15 17/15	15	-	TT11000	25	250	-	234	225	211	197	143	-
20	EVMS(G,L)-K20 1/1.5	(1.5)	MT2200	TT4000	16	17.2	-	-	14.3	12.8	11.3	7.3	2.4
	EVMS(G,L)-K20 2/3.0	3.0	-	TT4000	16	33.7	-	-	30.4	28.9	27.7	23.6	17.4
	EVMS(G,L)-K20 3/4.0	4.0	-	TT4000	16	50.5	-	-	46	43.4	41.6	35.5	26.2
	EVMS(G,L)-K20 4/5.5	5.5	-	TT11000	16	67.4	-	-	61	58	55.4	47.3	34.9
	EVMS(G,L)-K20 5/7.5	7.5	-	TT11000	16	84.2	-	-	76.0	72.3	69.3	59	43.6
	EVMS(G,L)-K20 6/7.5	7.5	-	TT11000	16	101	-	-	91.2	87	83.1	71	52.3
	EVMS(G,L)-K20 7/11	11	-	TT11000	16	118	-	-	106	101	97	82.7	61.1
	EVMS(G,L)-K20 8/11	11	-	TT11000	16	135	-	-	122	116	111	95	70
	EVMS(G,L)-K20 9/11	11	-	TT11000	16	152	-	-	137	130	125	106	79
	EVMS(G,L)-K20 10/11	11	-	TT11000	25	168	-	-	152	145	139	118	87
	EVMS(G,L)-K20 11/15	15	-	TT11000	25	185	-	-	167	159	152	130	96
	EVMS(G,L)-K20 12/15	15	-	TT11000	25	202	-	-	182	173	166	142	105
	EVMS(G,L)-K20 13/15	15	-	TT11000	25	219	-	-	198	188	180	154	113
	EVMS(G,L)-K20 14/18.5	18.5	-	TT11000	25	244	-	-	221	210	202	175	130
	EVMS(G,L)-K20 15/18.5	18.5	-	TT11000	25	262	-	-	237	225	216	186	141
	EVMS(G,L)-K20 16/18.5	18.5	-	TT11000	25	279	-	-	252	240	231	199	150

(.) on request



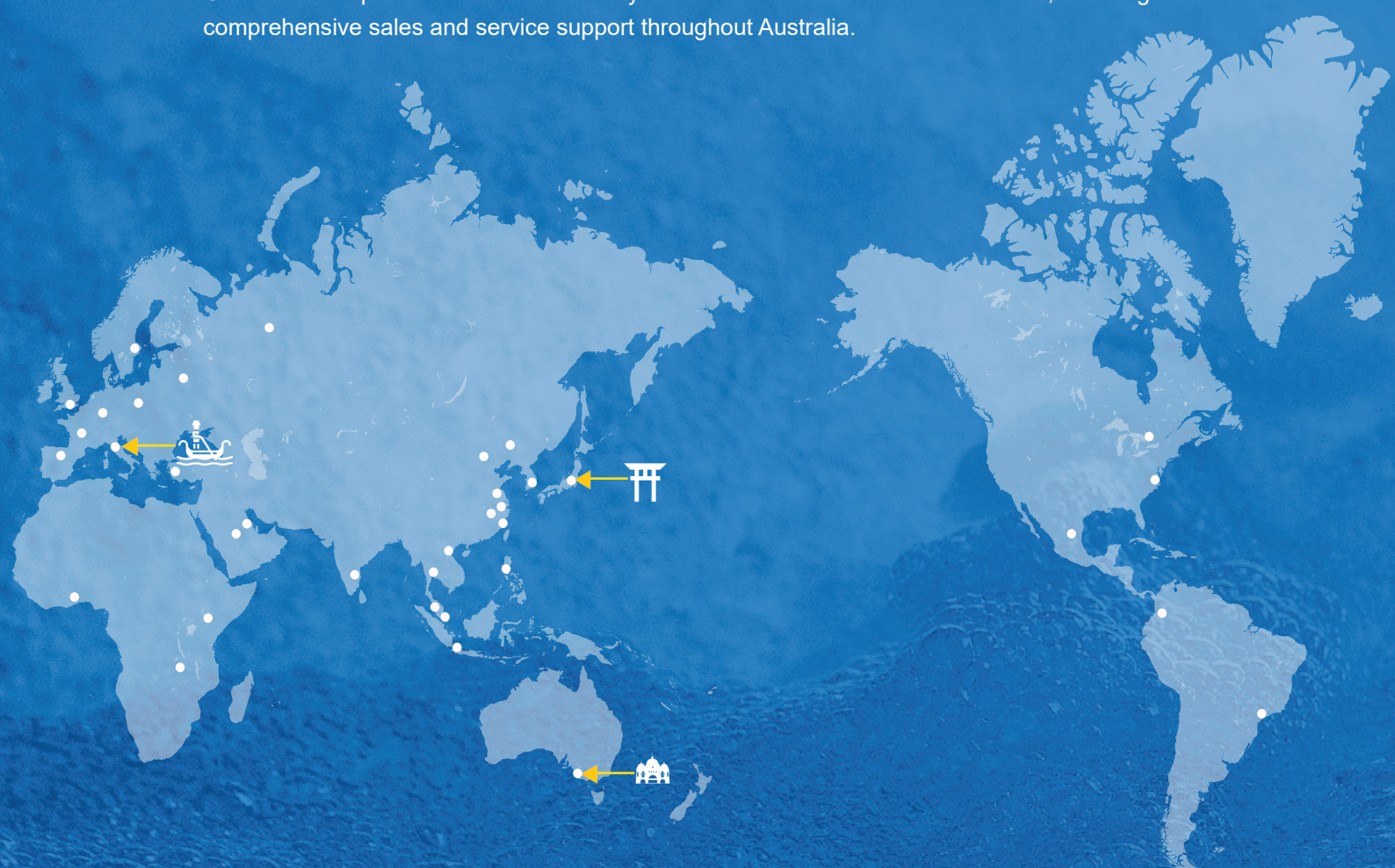
Established as a Japanese pump manufacturer in 1912, EBARA Corporation has leveraged its roots in Japan to expand its business into diverse fields, including fans and blowers, chillers, environmental plants, and the precision machinery industry.



Ebara extends its production operations globally, including Italy. In Italy, Ebara boasts a state-of-the-art facility dedicated to the mass production of stamped stainless steel pumps. This facility utilizes cutting-edge manufacturing technologies, such as a patented stamping process, to ensure the consistent production of high-quality products.



Ebara's presence extends to Australia, where Ebara pumps have been trusted and utilized for over 30 years, earning acclaim for their quality and reliability. In 2000, Ebara Pumps Australia Pty Ltd was founded to enhance market serviceability, offering an expanding array of top-tier products. Our extensive product line is bolstered by a robust network of dealers nationwide, ensuring comprehensive sales and service support throughout Australia.



EBARA PUMPS AUSTRALIA PTY.LTD.

7 Holloway Drive
Bayswater, Vic 3153

03 9761 3033

sales.epa@ebara.com

www.ebara.com.au

ACN 090 963 572
ABN 81 090 963 572



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