EBARA

Japanese Technology since 1912

EVMS 1-90 - Vertical Multistage pumps

Product Catalogue

EBARA

Japanese Technology since 1912

www.ebaraeurope.com

Built like a Kata刀a

A Katana is a Japanese product, it’s made with a traditional know-how started in 300 a.C.. Katana is manufactured with care and precision of details. Only years of experience can give the necessary capacity to build a masterpiece.

This is what we do with our pumps. Our 100 years of Japanese experience in pumps manufacturing are the base to project and realize pumps with high quality performance, reliability and cutting-edge mechanical parts.

We look forward not forgetting the past.

EBARA new vertical multistage pumps named “EVMS” are manufactured with the highest standards of quality, to achieve reliable operating performance by means of strict technical evaluation criteria and control programs that involve the whole manufacturing process.

We listen to the market. Our design is unique. EVMS can offer the exceptional values through the cutting-edge solutions that best suits your needs.

Shurricane®

Innovative hydraulic solutions

Any motor, anywhere.

- **Commercial motors** can be fitted to all of the pump models without any modifications thanks to low pump axial thrust load
- **Long life of the motor bearing**
- **High pump efficiency** classified in MEI > 0.7 as the most efficient models
- **Patent Pending**

Smart plug solutions

Air ventilation plug

Water filling & sensor plug

Commercial sensor fitting

Measurements for suction and discharge pressure / drain

Two priming plugs are on both sides of motor brackets **for EVMS32-90.** A ventilation plug is integrated with one priming plug

Stainless steel tie rods

Tie rods in EN 1.4057 (AISI 431) as standard.

Piping connection options

- The various pipe connections are available depending on the application requirements
- The external dimensions can be adjusted to the replacement of the existing pump in the wide majority

Material	Round flange DIN (incl. ANSI depending on models)	Loose Flange DIN (incl. ANSI depending on models)	Oval Flange	Victaulic®	Clamp
AISI304/ AISI316L					
ASTM CF8/ ASTM CF8M					
Cast Iron					

Shaft seal solutions

- **Shaft seal material:**
  B: Resin impregnated carbon graphite
  Q: Sintered silicon carbide
  Q_9: Silicon carbide with carbon graphite
  Carbon or graphite inclusions with silicon carbide can be used as **dry lubricant to reduce friction.**
- It's conforming to EN12756 (ex DIN 24960)

Easy maintenance

- **The cartridge shaft seal** enables **the plug in replacement** of the shaft seal without disassembling the motor bracket
- **The spacer coupling** allows easy maintenance without having to remove heavy motors over 5.5 kW.

EBARA standard motor solutions

- IE3 efficiency for both 50 and 60 Hz* operation, according IEC 60034-30 standard.
- ETM motors are available from 0.75 up to 11 kW for both 50 and 60 Hz**
- PTC sensors (thermistors) are standard from 1.5 kW upwards for motor protection at 150°C
- Unloosable screws and sealing are standard for terminal box fixing from 0.75 kW upwards
- Stable inverter mounting on fan covers made of pressed steel

** IE3 for 60Hz is depending on motor size and voltage.*
*** All other sizes including single phase motors are available with commercial IEC standard motors*

Reliability is made by numbers

1
Million

Cycles of the endurance test*

2
Times

Higher test criteria than nominal operating conditions*

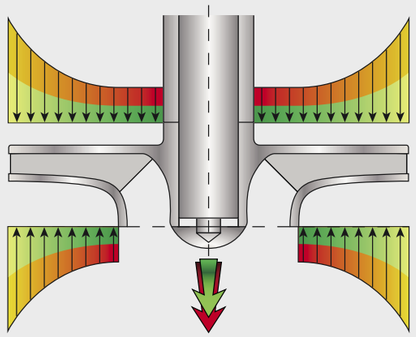
3
Times

Much less axial thrust load than common pumps

Shurricane®

* for main components

Solve axial thrust load



The pump axial thrust load is caused by the unbalance of the static pressure between a front shroud and a back shroud of an impeller. That always causes **the reduction of the bearing life of the motor.**
General methods to work with the axial thrust load are as below.

- Increasing the size of motor bearing or using enhanced motor bearings.
- Mounting additional ball bearings on the pump bracket.

These measurements are historically known to cause complicated mechanical structures.

EBARA new designed impeller "Shurricane" can reduce the pump axial thrust load with high pump efficiency by means of the innovative hydraulic design method.
EVMS can accept the commercial motors without any modifications and improve the maintenance cycles of motor bearing.

Any motor, anywhere.

Fields of applications

INDUSTRY

- **Water treatment**
  Reverse osmosis
  Ultra-filtration
  Water purification
  Micro-filtration
  Softening, ionizing, and demineralising systems
  Swimming pools
  Separators
- **Boiler feeding**
  Steam systems
  Condensate systems
- **Wash and clean**
  Vehicle washing systems
  Industrial part washing
  Laundry systems
  Supply of liquids with acids and bases
  Supply of chemical liquids
- **Chilling**
  Handling of refrigerants for cooling
  Thermal control systems
  Industrial cooling
  Laser cooling
- **Machine tooling**
  Cooling lubricant supply for tooling machines
- **Pressure boosting**
  Pressure boosting for industrial use
- **Food & beverage**
  Food washing systems
  Bottle wash systems
- **Pharmaceutical industries**
- **Marine applications**
  Freshwater, deckwash, high fog and fire fighting on ships

BUILDING SERVICE

- **Pressure boosting**
  Pressure boosting for buildings
  Pressure boosting for high rise buildings/hotels
- **Sprinkler systems**
- **Fire fighting systems**
  Jockey pump
- **District heating**
- **Heat exchangers / fan heaters**
- **Air conditioning systems**
- **Heating systems**

WATER SUPPLY

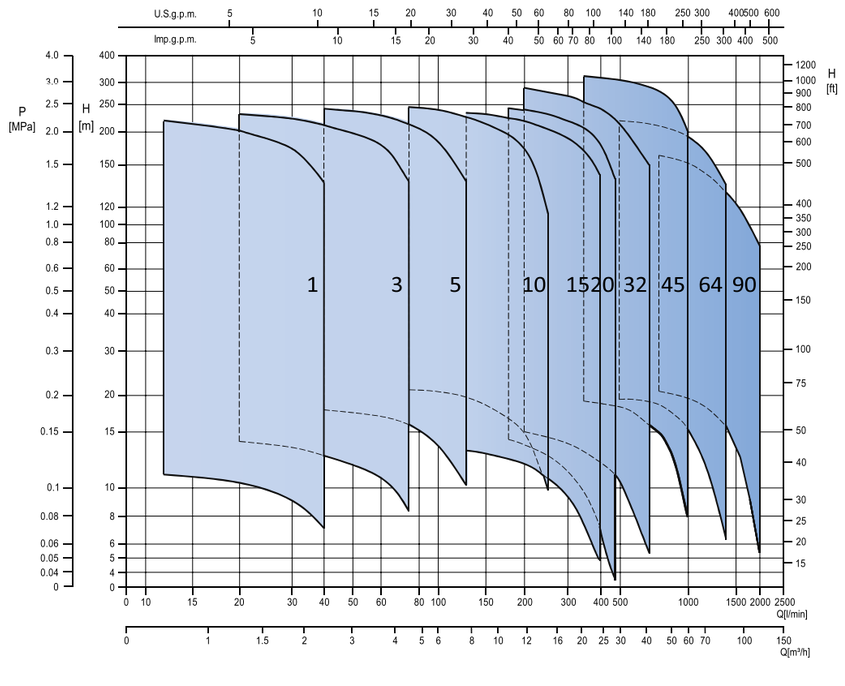
- **Water treatment**
  Water treatment plants filtration
  Water treatment plants transfer
- **Pressure boosting**
  Transfer from water treatment plants (mains)
- **Irrigation**
  Golf course / sport fields irrigation
- **Agriculture**
  Sprinkler irrigation
  Drip irrigation

EBARA worldwide service points

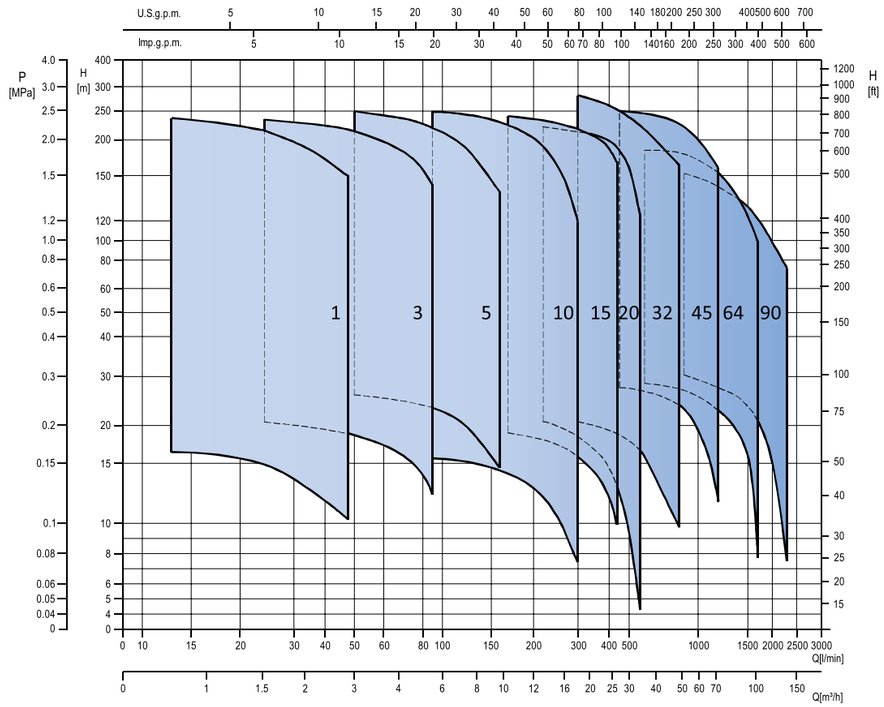
please see the contact list on page 17

Performance Range

50Hz



60Hz



General information

Minimum efficiency index (MEI)

Pump type	MEI
EVMS(.)1	> 0.70
EVMS(.)3	> 0.70
EVMS(.)5	> 0.70
EVMS(.)10	> 0.70
EVMS(.)15	> 0.70
EVMS(.)20	> 0.70
EVMS(.)32	> 0.70
EVMS(.)45	> 0.70
EVMS(.)64	> 0.70
EVMS(.)90	> 0.70

	Version	EVMS (AISI 304), EVMSL(AISI 316L), EVMSG (Cast Iron/AISI 304)			
Operating range	Nominal flow rate	1, 3, 5, 10, 15, 20, 32, 45, 64, 90 m³/h			
	Max working pressure	1.6, 2.5, 3.0, 3.5 MPa (16, 25, 30, 35 bar)			
	Max liquid temperature range	-30°C to 140°C			
Power source	Frequency	50 Hz		60 Hz	
	Phase	Single phase	Three phase	Three phase	
	Nominal rotation speed	~ 2900 min -1		~ 3500 min -1	
	Power rating	0.37 ÷ 2.2 kW	0.37 ÷ 45 kW	0.37 ÷ 45 kW	
	Voltage	230V±10%	230/400V±10% (up to 4kW) 400/690V±10% (above 5.5kW)	460V±10% (up to 4kW) 220/380V+10%/-5% (up to 4kW)	460V±10% (above 5.5kW) 380/660V+10%/-5% (above 5.5kW)
Motor type	Type	Electric - TEFC			
	Efficiency class	-	IE3 (above 0.75 kW)	IE2/IE3 (above 0.75 kW)	
	N° of poles	2			
	Protection degree	IP55 (up to 11kW), IP56 (above 15kW)			
	Insulation class	F	F (temperature rise class B)		
	Thermal protection	-	PTC as standard for the above 1.5 kW		
	Flange mount (IEC motor)	IM B14 (up to 4 kW), IM B5 (above 5.5 kW)			

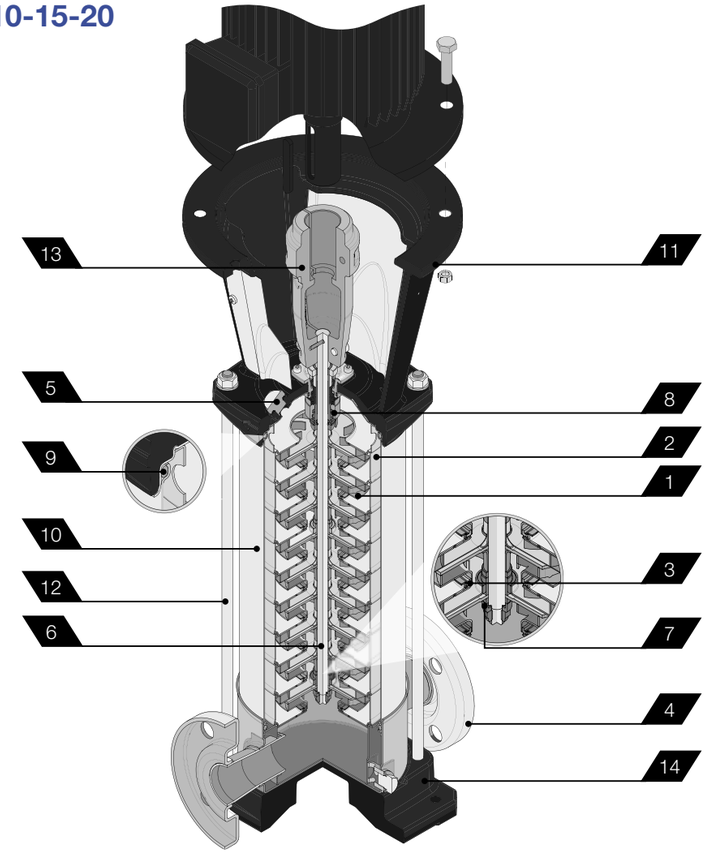
	Drinking water approval					Atmosferes explosibles approval*
	DM174/2004	ACS	DVGW**	WRAS*	PZH	ATEX 2014/34/UE
					no HK/W/0394/01/2017	
Mechanical seal	SiC/Carbon_EPDM	SiC/Carbon_EPDM	All variations with EPDM on page 14-15	SiC/Carbon_EPDM	All variations with EPDM on page 14-15	All variations on page 14-15
EVMSG	●	-	-	-	●	●
EVMS	●	●	●	●	●	●
EVMSL	●	●	●	●	●	●

Note: * Available only for EVMS 1-20
** DVGW W270 is certified for elastomers. Reg. Nr. DW-5253CR0217
KTW is certified for organic components.

● Available

Construction

EVMS 1-3-5-10-15-20

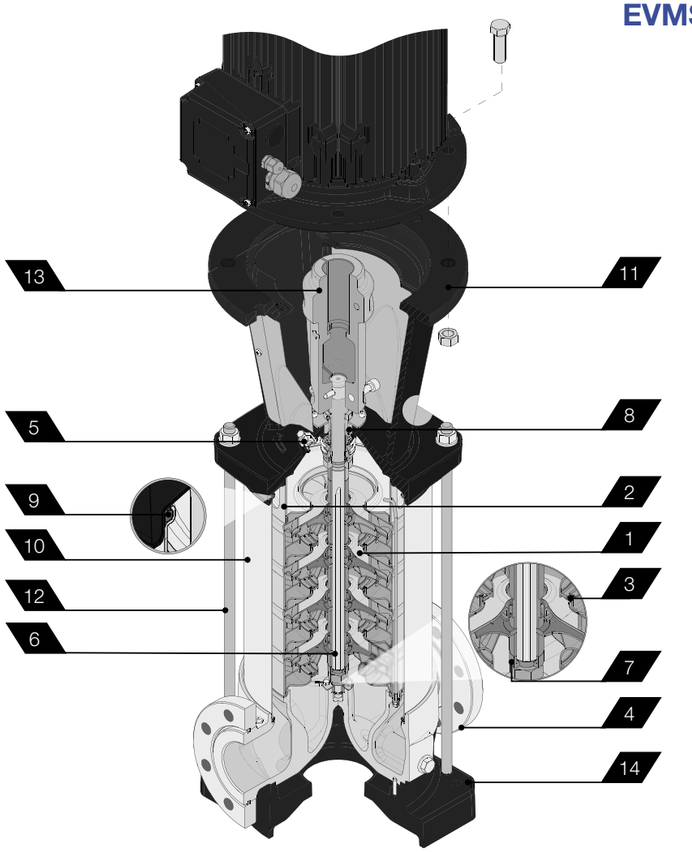


Version			EVMSG	EVMS	EVMSL
Key Components Materials	1. Impeller		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)
	2. Intermediate casing		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)
	3. Liner ring		EN 1.4301 (AISI 304) + PPS		EN 1.4404 (AISI 316L) + PPS
	4. Bottom casing		Cast iron ENGJL-250 EN1551	EN 1.4301 (AISI 304)	EN 1.4404 (AISI 316L)
	5. Casing cover		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)
	6. Shaft	EN 1.4301 (AISI 304)	EVMS(G) 1-3-10 EVMSG 5-15-20 (depend on models)		
		EN 1.4404 (AISI 316L)	EVMSL 1-3-10 EVMSL 5-15-20 (depend on models)		
		EN 1.4460 (AISI 329A)	EVMS(G)(L) 5-15-20 (depend on models)		
	7. Shaft sleeve bearing		Tungsten carbide		
	8. Shaft seal		SiC/Carbon/EPDM or FPM SiC graphite/SiC/EPDM or FPM		
	9. O ring	EPDM	●	●	●
		FPM	●	●	●
	10. Outer casing		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)
	11. Motor bracket		Cast iron ENGJL-200 EN1561		
	12. Tie rod		EN 1.4057 (AISI 431)		
	13. Coupling	up to 4 kW	Die cast Aluminium EN AB-AISI11 Cu2 (Fe)		
		from 5.5 kW	Cast Iron EN GJL250 EN 1561		
	14. Base		Cast iron ENGJL-250 EN1551	Die cast Aluminium EN AB-AISI11 Cu2 (Fe)	
Pipe Connection	Oval flange	up to 16 bar	●	●	●
	Round flange DIN (EVMS(L)1-3-5 DIN/ANSI)	up to 16 bar	●	●	●
		from 16 bar to 25 bar	●	●	●
	Loose Flange DIN (EVMS(L)1-3-5 DIN/ANSI)	up to 16 bar	●	●	●
		from 16 bar to 25 bar	●	●	●
	Victaulic®	up to 25 bar	●	●	●
	Clamp	up to 25 bar	●	●	●

Legend: ● Available

Construction

EVMS 32-45-64-90



Version			EVMSG	EVMS	EVMSL
Key Components Materials	1. Impeller		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)
	2. Intermediate casing		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)
	3. Liner ring		EN 1.4301 (AISI 304) + PPS		EN 1.4404 (AISI 316L) + PPS
	4. Bottom casing		Cast Iron EN GJL-250 EN 1561 (for EVMSG32-90 up to 16 bar) Cast Iron EN GJS 400-15 EN 1563 (for EVMSG45-90 above 25 bar)	EN 1.4308 (ASTM CF8)	EN 1.4408 (ASTM CF8M)
	5. Casing cover		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)
	6. Shaft	EN 1.4301 (AISI 304)	EVMSG / EVMS 32-45-64-90 (depend on models)		
		EN 1.4404 (AISI 316L)	EVMSL 32-45-64-90 (depend on models)		
		EN 1.4460 (AISI 329A)	EVMSG / EVMS / EVMSL 32-45-64-90 (depend on models)		
	7. Shaft sleeve bearing		Tungsten carbide		
	8. Shaft seal		SiC/Carbon/EPDM or FPM SiC graphite/SiC/EPDM or FPM		
	9. O ring	EPDM	●	●	●
		FPM	●	●	●
	10. Outer casing		EN 1.4301 (AISI 304)		EN 1.4404 (AISI 316L)
	11. Motor bracket		Cast Iron EN GJS 400-15 EN 1563		
	12. Tie rod		EN 1.4057 (AISI 431)		
	13. Coupling	up to 4.0 kW	Die cast Aluminium EN AB-AISI11 Cu2 (Fe)		
		from 5.5 kW to 30 kW	Cast Iron EN GJL250 EN 1561		
		above 37 kW	Carbon steel		
	14. Base		Cast iron EN GJL200 EN 1561		
Pipe connection	Round flange DIN/ANSI		●		
	Loose flange DIN/ANSI			●	●

Legend: ● Available

Everything you need in just one click!

visit our website www.ebaraeurope.com

Data book

The complete technical documentation where find all pumps data

Instruction Manual

The technical manual where find all information to install our pumps properly

Kensaku

The system to select the spare parts

Ez-finder

The software to find and select the suitable pump for any requirment
https://ezfinder.ebara.com

Service

An expert team at disposal to suggest the right product and supporting for aftersales matters

EBARA Pumps Network

EUROPE

EBARA Pumps Europe S.p.A.
Via Torri di Confine 2/1 int. C
36053 Gambellara (Vicenza), Italia
Tel. +39 0444 706811
Fax +39 0444 405811
www.ebaraeurope.com

Italian Sales (for order only):
e-mail: ordini@ebaraeurope.com

Export Sales (for order only):
e-mail: exportsales@ebaraeurope.com

Technical Customer Service (TCS):
e-mail: tcs@ebaraeurope.com
Tel. +39 0444 706869/902/923/833

EBARA Pumps Europe S.p.A. GERMANY
Elisabeth-Selbert-Straße 2
63110 Rodgau, Germany
Tel. +49 (0) 6106-660 99-0
Fax +49 (0) 6106-660 99-45
e-mail: info@ebara.de

EBARA Pumps Europe S.p.A. UNITED KINGDOM
Unit A, Park 34
Collett Way - Didcot
Oxfordshire - OX11 7WB, United Kingdom
Tel. +44 1895 439027
Fax +44 1235 815770
e-mail: mktguk@ebaraeurope.com

EBARA Pumps Europe S.p.A. FRANCE
122, Rue Pasteur
69780 Toussieu, France
Tel.: +33 04 72 76 94 82
Fax +33 08 05 10 10 71
e-mail: mktgf@ebaraeurope.com

EBARA POMPY POLSKA Sp. z o.o.
ul. Działkowa 115 A
02-234 Warszawa, Poland
Tel. +48 22 3909920
Fax +48 22 3909929
e-mail: mktgpl@ebaraeurope.com

EBARA Pumps RUS Ltd.
Prospekt Andropov 18, building 7, floor 11
115432 Moscow
Tel. +7 499 6830133
e-mail: mktgrus@ebaraeurope.com

EBARA PUMPS IBERIA, S.A.
Polígono Ind. La Estación
C/Cormoranes 6-8
28320 Pinto (Madrid), Spain
Tel. +34 916.923.630
Fax +34 916.910.818
e-mail: marketing@ebara.es

MIDDLE EAST

EBARA Pumps Middle East FZE
P.O.BOX 61383
Jebel Ali, Dubai, UAE
Tel. +971 4 8838889
Fax +971 4 8835307
e-mail: info@ebarame.ae

EBARA PUMPS SAUDI ARABIA LLC
St. 98, Dammam Second Industrial City, P.O.Box. 9210,
Dammam 34333, Kingdom of Saudi Arabia
Tel. 966-138022014

ASIA & SOUTHEAST ASIA

EBARA Corporation
11-1, Haneda Asahi-cho, Ohta-ku,
Tokyo 144-8510, Japan
Tel. +81 3 3743-6111
Fax +81 3 5736 3100
www.ebara.co.jp

EBARA Corporation Fujisawa plant
4-2-1, Hon-Fujisawa, Fujisawa-shi.
Kanagawa 251-8502, Japan
Tel. +81-466-83-8111
Fax +81-466-81-2164

EBARA Machinery (CHINA) CO.,Ltd.
Room No.303, Beijing Fortune Plaza,
No.7 Dongsanhuan Zhong Road, Chaoyang District
Beijing, 100020 P. R. China
Tel. 86-10-65309996
Fax 86-10-6530-8968
e-mail: emc@ebare.cn
www.ebara.cn

EBARA Densan (Qingdao) Technology Co., Ltd.
No.88, Wangsha Road, Chengyang Qingdao,
Shandong Province, P.R.China
Tel. 86-532-8965-3382
Fax 86-532-8965-3379
www.edq-ebara.com

EBARA-Densan Taiwan Manufacturing Co., Ltd.
No.7, Nan-Yuen 2nd Road, Chung Li City,
Tao Yuen Hsien, Taiwan
Tel. 886-3-451-5881
Fax 886-3-452-7904
www.ebara.com.tw

EBARA Thailand Limited
3rd Floor Achme Build. 125 Phetchburi Road
Tungphayathai, Rajtheve, Bangkok 10400, Thailand
Tel. 66-2-216-4935
Fax 66-2-216-4937
e-mail: info@ebara.co.th
www.ebara.co.th/index.php/en/

EBARA Fluid Machinery Korea Co., Ltd.
3rd Fl. Hyun-Seok Tower, 50,
Seolleung-Ro 93-Gil, Gangnam-Gu
Seoul, 135-513 Korea
Tel. 82 70 43621100
Fax 82 70 82302030
e-mail: nishikura.ryutaro@efmk-ebara.com

EBARA Pumps Philippines, Inc.
Canlubang Industrial Estate,
Cabuyao 4025, Laguna, Philippines
Tel. 0063-49-549-1806
Fax 0063-49-549-1915
e-mail: marketing@ebaraphilippines.com
www.ebaraphilippines.com.ph

P.T. EBARA Indonesia
Jl. Raya Jakarta - Bogor Km. 32
Desa Curug, Cimanggis-Depok
Jawa Barat, 16953 Indonesia
Tel. (62-21) 874 0852-53
Fax (62-21) 874 0033
e-mail: marketing@ebaraindonesia.com
www.ebaraindonesia.com

EBARA Pumps Malaysia Sdn. Bhd
6, Jalan TP3, UEP Subang Jaya Industrial Park,
47620, Subang Jaya, Selangor, Malaysia.
Tel. 603-8023 6622
Fax 603-8023 9355
e-mail: sales@ebara.com.my
www.ebara.com.my

EBARA Enginering Singapore Pte. Ltd.
No 1, Tuas Link 2, Singapore 638550
Tel. 65-6862-3536
Fax 65-6861-0589
e-mail: stdpump@ebrnet.com.sg
www.ebara.com.sg

EBARA MACHINERY INDIA PRIVATE LIMITED
#133, 1st Floor, Velachery Main Road, Guindy,
Chennai 600 032, India
Tel. 91-755-0089388

EBARA Vietnam Pump Company Limited
Lai Cach Industrial Zone, Lai Cach Town,
Cam Giang District,
Hai Duong Province, Vietnam
Tel 84-2203-850182
Fax 84-2203-850180
e-mail: info@evpc-vn.com
www.ebarapump.com.vn/en/

AMERICA

EBARA PUMPS AMERICAS CORPORATION
1651 Cedar Line Drive
Rockhill, South Carolina, 29730 U.S.A.
Tel. 803 327-5005
Fax 803 327-5097
e-mail: info@pumpsebara.com
www.pumpsebara.com

EBARA Bombas América do Sul Ltda
Rua Joaquim Marques de Figueiredo, 2-31,
Distrito Industrial, CEP 17034-290, Bauru, SP, Brasil
Tel. +55 14 4009-0000
Fax +55 14 4009-0044
e-mail: assistencia@ebara.com.br
www.ebara.com.br/ebara/pt/index.php

EBARA Bombas Colombia S.A.S.
Autopista Medellin km 7 Celta Trade Park Bodega
02 Lote 116 Funza. Republica de Colombia
Tel. 57-1-826-9865

AFRICA

EBARA PUMPS SOUTH AFRICA (PTY) LTD
26 Kyalami Boulevard,Kyalami Business Park,
1684, Midrand, Gauteng
South Africa
Tel.: +27 11 466 1844
Fax: +27 11 466 1933

OCEANIA

EBARA Pumps Australia Pty. Ltd.
7, Holloway Drive
Bayswater 3153 Victoria, Australia
Tel. 0061-3-97613033
Fax 0061-3-97613044
e-mail: berrett@ebara.com.au
sales@ebara.com.au
www.ebara.com.au/index.html

EBARA

Japanese Technology since 1912

www.ebaraeurope.com

EBARA Pumps Europe S.p.A.
Via Torri di Confine 2/1 int. C
36053 Gambellara (Vicenza), Italy
Phone +39 0444 706811
Fax +39 0444 405811
ebara_pumps@ebaraeurope.com
www.ebaraeurope.com

EBARA Corporation
11-1, Haneda Asahi-cho, Ohta-ku,
Tokyo 144-8510
Japan
Phone +81 3 6275 7598
Fax +81 3 5736 3193
www.ebara.com

47970559 8C 06/18