



EBARA PUMP

Quality since 1912

EBARA

FIRE PUMP SYSTEM



Ahead Beyond

EBARA Fire Pumps

Protecting Your Most Important Asset at All Times

When it comes to fire safety for your building, the fire pumps remain the cornerstone of your internal and external fire fighting protection system. EBARA offers a complete range of quality Fire Pumps for your complete peace of mind without any compromise on performance or reliability, ensuring your buildings are constantly protected with the most reliable pump system in any emergency situations whenever it's called for. A high quality manufacturing standard coupled with compliance to various international fire standards such as FM, UL, NFPA and local Malaysian BOMBA guidelines, Ebara ensures all its fire standard pumps meet regulatory standards that are required for a safe working system at all times.

Ebara offers a complete range of both Motor Driven, Engine Driven or Jockey pumps for these applications:

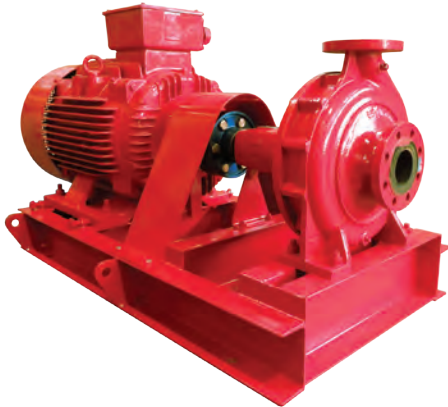
- Sprinkler Pumps
- Wet Riser Systems
- Hose Reel Systems
- External Reticulation Hydrants
- And all kinds of other applications where pressurized water systems are required

EBARA has also established a fully comprehensive testing facility in Malaysia with advanced testing and calibration devices to accurately inspect and test the operation of each fire pump system to the required level of compliance and ensure the quality standard expected to your installation.

Talk to us today to ensure peace of mind on your building safety.



TYPES OF FIRE PUMPS AVAILABLE



End-Suction Pumps - FS/GS series

- Conforming to Japan JIS B-8301 or international standards of EN 733 (DIN 24255)
- Flow Rate from 300 to 18,000 lit/m
- Working Pressure up to 14 bar
- Easy removal and maintenance with BPO(Back Pull Out) design enables disassembly and inspection of rotating elements without disconnecting suction and discharge pipework
- Top centerline discharge, foot support under casing for maximum resistance to misalignment and distortion from pipe loads
- Available with gland packing or mechanical sealing
- With approved UL Listing for some models

Horizontal Split Case Pumps - CNA/CNPA

- Flow Rate from 60 to 1,200 m³/hr
- Working Pressure up to 15 bar
- Compact design for easy installation and space saving
- Axially split casing allows easy removal of the top casing for inspection and service
- Available in horizontal, vertical configuration as well as clockwise or counter clockwise rotation to simplify pump room layout
- With approved UL Listing for some models



Diesel Engine Driven Pumps

- Pumps driven by diesel engines for backup in case of power supply cut-off in case of emergencies
- With End-suction or Split Case pumps depending on flow and pressure requirements
- Engine and pump combination conforming to international fire standards (where applicable)
- Fully operationally ready with main line pressure actuation and automatic start up
- Complete with local and remote control for fully automatic operation



Vertical Multistage Pumps

- For Hosereel or Jockey pump system
- Used for small to medium flow with high head application
- Typically also as Jockey pumps to maintain continuous pressure in the system caused by small leakages, as well as prevent main fire pumps from starting due to non-fire related need.
- Flow Rate from 30 to 1,000 lit/min
- Working Pressure up to 16 bar
- Compact design for easy and space saving installation with in-line pipework
- Robust and reliable maintenance free design



FIRE PUMP SELECTION

According to Occupancy Classification of Buildings

Conforming to BS EN 12845 : 2009 and LPC Rules for Automatic Sprinkler Installations

Occupancy Classification

Category	Description	Types of Buildings	Example of Building Categories
LIGHT HAZARD	Non-industrial premises < 126m between construction of not less than half-hour fire resistance, where the amount and combustibility of contents are low	Non-industrial	Offices, libraries, hospitals, schools, etc
ORDINARY HAZARD	Commercial and industrial premises involving the handling, processing and storage of mainly combustible materials, which are unlikely to burn intensely in the early stages of a fire.	Group 1 (OH 1)	Breweries, dairies and restaurants
		Group 2 (OH 2)	Engineering works, garages, medium size retail shops, etc
		Group 3 (OH 3)	Soap factories, sugar refineries, aircraft factories, etc
		Group 3 Special (OH 3 Special)	Film and television studios, cotton mills, match factories, etc
HIGH HAZARD	Commercial and industrial premises with abnormal fire loads where there are materials of extra hazardous nature likely to develop rapid and intensely-burning fires, or those involving high-piled storage	Category 1	Process high hazards
		Category 2	High-piled storage hazards
		Category 3	Potable spirit storage hazards
		Category 4	Oil and flammable liquids hazard

EBARA Pump Model Selection according to Occupancy Classification

Hazard Class	Sprinkler Height (M)	Nominal Rating		Characteristic not less than				EBARA FIRE PUMP MODEL	Driver Rating (WITH ORIFICE PLATE INSTALLED)		
		Flow (l/min)	Pressure (kPa)	Flow (l/min)	Pressure (kPa)	Flow (l/min)	Pressure (kPa)		Motor kW	RPM	Engine kW
EXTRA LIGHT	15	300	150	225	370	N/A		GS 32-160.1/177	4	2900	3.5 kW @ 2900 RPM
	30	340	180	225	520			GS 32-250/222	5.5	2900	7.5 kW @ 2900 RPM
	45	375	230	225	670			GS 32-250/262	5.5	2900	7.5 kW @ 2900 RPM
ORDINARY GROUP 1 (OH 1)	15	900	120	540	220	375	250	GS 40-160/150	5.5	2900	27 kW @ 2950 RPM
	30	1150	190	540	370	375	400	GS 40-160/177	11	2900	27 kW @ 2950 RPM
	45	1340	260	540	520	375	550	GS 50-200/203	15	2900	27 kW @ 2950 RPM
	60	1500	330	540	670	375	700	GS 50-250/221	18.5	2900	27 kW @ 2950 RPM
	75	1650	400	540	820	375	850	GS 50-250/254	30	2900	42 kW @ 2950 RPM
ORDINARY GROUP 2 (OH 2)	15	1700	130	1000	250	725	290	GS 65-160/165	11	2900	27 kW @ 2950 RPM
	30	2050	200	1000	400	725	440	GS 65-200/203	15	2900	27 kW @ 2950 RPM
	45	2350	260	1000	550	725	590	GS 65-200/219	22	2900	27 kW @ 2950 RPM
	60	2650	320	1000	700	725	740	GS 65-250/254	30	2900	42 kW @ 2950 RPM
	75	2900	380	1000	850	725	890	GS 65-315/258	45	2900	60 kW @ 2950 RPM
ORDINARY GROUP 3 (OH 3)	15	2250	140	1350	290	1100	320	GS 65-160/165	15	2900	27 kW @ 2950 RPM
	30	2700	200	1350	440	1100	470	GS 80-200/200	22	2900	27 kW @ 2950 RPM
	45	3100	250	1350	590	1100	620	GS 80-200/222	30	2900	42 kW @ 2950 RPM
	60	3400	320	1350	740	1100	770	GS 80-250/255	37	2900	42 kW @ 2950 RPM
	75	3700	380	1350	890	1100	920	GS 80-250/270	45	2900	60 kW @ 2950 RPM
ORDINARY GROUP 3 SPECIAL (OH 3 SPECIAL)	15	2650	190	2100	300	1800	350	GS 80-160/177	22	2900	27 kW @ 2950 RPM
	30	3050	240	2100	450	1800	500	GS 80-200/200	30	2900	42 kW @ 2950 RPM
	45	3400	310	2100	600	1800	650	GS 80-200/222	37	2900	42 kW @ 2950 RPM
	60	3750	370	2100	750	1800	800	GS 80-250/255	55	2900	60 kW @ 2950 RPM
	75	4050	430	2100	900	1800	950	GS 80-250/270	75	2900	103 kW @ 2950 RPM

EBARA FIRE PUMP SELECTION

Conforming to Malaysian Local BOMBA Fire Guidelines
ACCORDING TO FLOW AND PRESSURE CALCULATION

MAIN DUTY AND STAND-BY PUMPS

Flow Range (lit/min)	Pressure Range (mH)	EBARA FIRE PUMP MODEL	MOTOR DRIVEN	ENGINE DRIVEN (Where Applicable)
			RPM	Engine kW (Max)
300 - 600	20 - 33	GS 32 - 160	2900	7.5 kW
400 - 800	30 - 50	GS 32 - 200	2900	27 kW
400 - 700	60 - 80	GS 32 - 250	2900	27 kW
600 - 1200	20 - 36	GS 40 - 160	2900	27 kW
600 - 1200	40 - 55	GS 40 - 200	2900	27 kW
600 - 1200	60 - 80	GS 40 - 250	2900	42 kW
800 - 1200	80 - 120	GS 40 - 315	2900	60 kW
800 - 1600	20 - 34	GS 50 - 160	2900	27 kW
900 - 1800	40 - 60	GS 50 - 200	2900	42 kW
1000 - 1800	70 - 90	GS 50 - 250	2900	60 kW
1200 - 2000	90 - 140	GS 50 - 315	2900	103 kW
1600 - 2500	20 - 34	GS 65 - 160	2900	27 kW
1600 - 2500	35 - 60	GS 65 - 200	2900	42 kW
1600 - 2500	60 - 90	GS 65 - 250	2900	103 kW
2000 - 4000	90 - 120	GS 65 - 315	2900	103 kW
2000 - 4000	30 - 60	GS 80 - 200	2900	103 kW
3000 - 5000	60 - 90	GS 80 - 250	2900	103 kW
3500 - 5500	90 - 140	GS 80 - 315L	2900	197 kW
4000 - 6000	30 - 55	GS 100 - 200	2900	103 kW
4000 - 6500	50 - 90	GS 100 - 250	2900	103 kW
4000 - 6500	80 - 120	GS 100 - 315L	2900	246 kW
6000 - 9000	30 - 50	GS 125 - 200	2900	103 kW
6000 - 10,000	50 - 90	GS 125 - 250L	2900	246 kW
6000 - 10,000	75 - 110	GS 125 - 315	2900	246 kW
8000 - 12,000	30 - 40	GS 150 - 200	2900	125 kW
12,000 - 18,000	40 - 60	GS 150 - 250	2900	279 kW

JOCKEY PUMP

Typically sized for 10% of main flow rate and 110% above main pump pressure to maintain continuous pressurised system and prevent main fire pumps to start due to non-fire related needs.

Flow Range (lit/min)	Pressure Range (mH)	EBARA JOCKEY PUMP MODEL	Motor kW Range	Speed (RPM)
20 - 60	30 - 150	EVMS 3	0.55 - 3.0	2900
30 - 75	30 - 150	EVMS 5	0.75 - 5.5	2900
60 - 200	30 - 150	EVMS 10	2.2 - 7.5	2900
150 - 350	30 - 150	EVMS 15	3.0 - 15.0	2900
200 - 450	30 - 150	EVMS 20	4.0 - 18.5	2900



Specifications of EBARA GS FIRE Pump System:

Main and St-By Pump : GS End-Suction Pump

Construction : Cast Iron Casing and Impeller, Stainless Steel Shaft, Mechanical Sealing

Casing Pressure to PN 16 with EN PN16 or JIS Flange

Motor : TEFC Squirrel Cage Induction Motor (IP 55)

Jockey Pump : EVMS Vertical Multistage Pump

Construction : Stainless Steel Casing and Impeller, Stainless Steel Shaft, Mechanical Sealing

Motor : TEFC Squirrel Cage Induction Motor (IP 55)

Diesel Engine

Water Cooled Diesel Engine with Radiator, Air-Intake Filter, Exhaust Silencer, Fuel Speed Governor, Motor starter and 12/24V batteries

Control System : Local control box for engine start/stop complete with Emergency push-button and OPTIONAL Engine management controller

Fuel Tank (where supplied) :

Single walled tank with volume for 8 hours engine running

EBARA LISTED FIRE PUMPS



Fire Pumps with FM/UL Listing and Compliance to NFPA 20 Standards

For a globally recognized fire standard complying to NFPA 20 guidelines and underwriter's insurance requirements, EBARA's range of FM/UL Listed fire pumps are the preferred choice for your facility with a fully recognized approval certificate from UL (Underwriter Laboratories). Ebara's range of FM/UL Listed pumps are supplied as a complete package consisting of UL Listed pumps, motors and stand-by diesel engine driver, Jockey pump, UL Listed control panels and fire accessories to the requirements of NFPA 20 standards.

End Suction Pumps (FSPA)

- Flow Rate from 250 to 750 Usqpm
- Working Pressure up to 14 bar
- Easy removal and maintenance with a BPO (Back Pull Out) design
- Top centerline discharge, foot support under casing for maximum resistance to misalignment and distortion from pipe loads
- Complete with air relief valve and suction/discharge pressure gauges

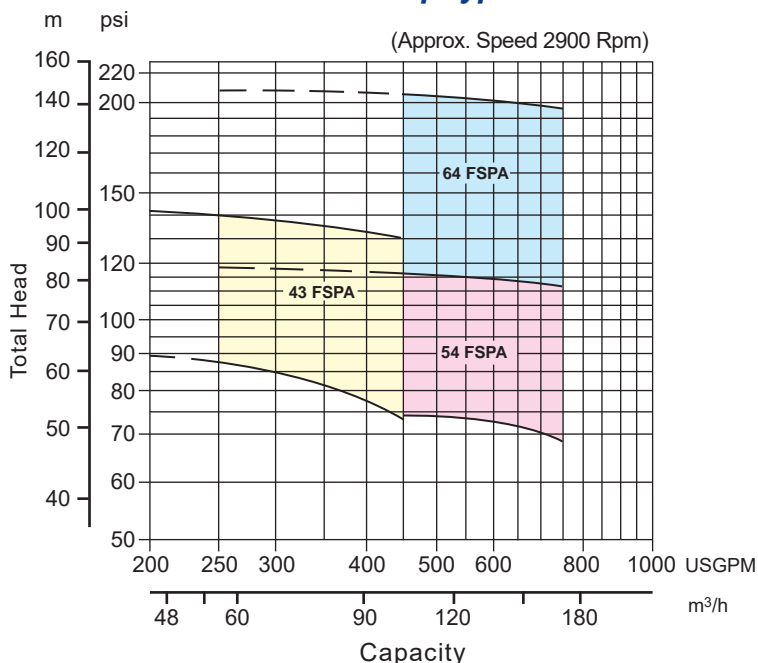


Horizontal Split Case Pumps (CNPA)

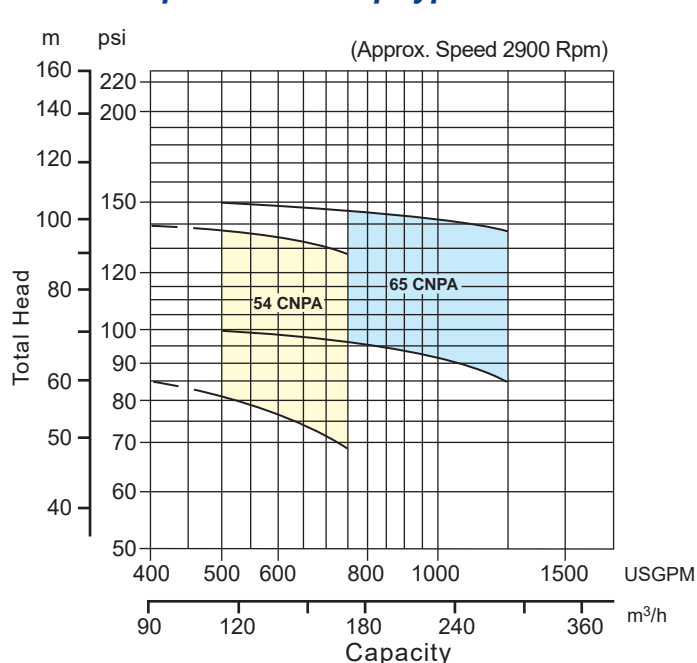
- Flow Rate from 500 to 1,250 Usqpm
- Working Pressure up to 10 bar
- Compact design for easy installation and space saving
- Axially split casing allows easy removal of the top casing for inspection and service
- Available in horizontal or vertical configuration, as well as clockwise or counter clockwise rotation to simplify pump room layout

SELECTION CHART

End Suction Pump type FSPA



Split Case Pump type CNPA



EBARA Fire Pump Systems

EBARA LISTED FIRE PUMPS



Fire Pump Controllers and Diesel Engines with FM/UL Listing complying to NFPA 20 Standards

EBARA offers a complete line of UL Listed controller panels for automatic control of your fire pumps, ensuring a dedicated package conforming to full NFPA compliance standards. The range consists of Electric, Diesel Engine and Jockey Pump controllers with advanced electronic sensing, monitoring and protection capability with a host of safety features designed to ensure a complete and safe fire protection system for your facility.



Electric Fire Pump Controller Panels



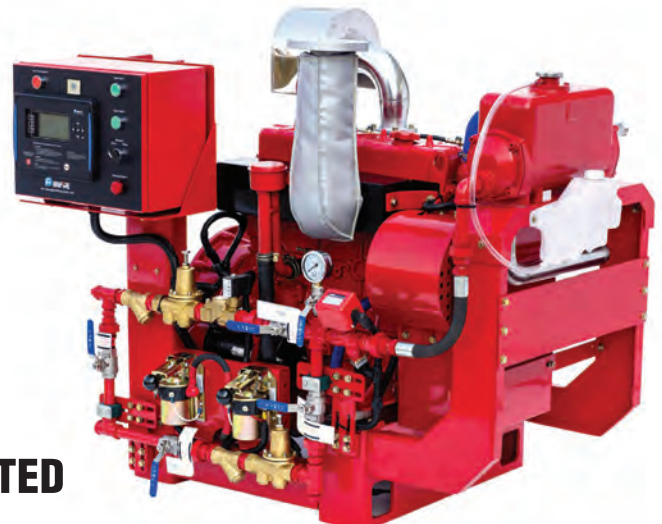
Diesel Engine Pump Controller Panels



Jockey Pump Controller Panels

Diesel Engines

Where a power blackout can render the main pumps un-operational during a fire, EBARA offers a complete range of UL Listed Diesel Engine drivers for emergency operation with automatic starting capability when the line pressure drops below its setting. With engine availability from 27 kW up to 270 kW in 2900 rpm and even larger kW powers in reduced speed, a full range of power options are available for all our fire pumps to ensure pump availability at all times to fight the worst fire. And depending on your facility requirements, all engines can come with either heat exchanger system OR fan/radiator cooling combination and are equipped with various parameter sensors and electronic management to ensure a completely safe and dedicated working fire protection system.





Ebara Pumps Malaysia (EPM) in Subang Jaya, Selangor



Testing facilities in EPM

Founded in 1912, EBARA Corporation Japan has grown to become one of the world's principal manufacturers of industrial machinery, specializing in pumps and other related products. As a leading global pump manufacturer today, EBARA owns major manufacturing facilities around the world duly certified to ISO quality standards and are able to offer all kinds of Standard, Custom, Engineered and API Process pumps for a wide ranging applications within Building Services, General Industries, Water Supply, Sewage/Wastewater Treatment and many others.

EBARA PUMPS MALAYSIA Sdn Bhd (EPM), incorporated in January 2001 as a subsidiary of EBARA Corporation, Japan is responsible for the sales and marketing of EBARA pumps and related equipment in Malaysia. By providing value-added products through continuous innovation, EPM strives to offer high quality pumping solutions to meet and fulfil customer needs and expectations at all times.



* Dimensional details are provided for reference only.
* All specifications are subject to change without prior notice.



EBARA Pumps Malaysia Sdn Bhd
6, Jalan TP3, UEP Subang Jaya Industrial Park,
47620 Subang Jaya, Selangor, Malaysia.
Tel : 03-8023 6622 Fax : 03-8023 9355
Email : sales@ebar.com.my
Website : www.ebara.com.my



Authorised dealer: