



INNOVATION INSIDE



The Inside Story

› Grundfos motor

Grundfos makes its own motors to ensure maximum performance. The MG motors are remarkably silent and highly efficient. They are also available in the self-regulating MGE configuration, featuring an integrated frequency converter.

› Cartridge seal

The specially designed cartridge seal increases reliability, ensures safe handling and enables easy service and access.

› Shaft seal solutions

The cartridge shaft seal configuration comes in a wide choice of materials. It is available in flushed seal, double seal and magnetic drive configurations. Handles temperatures from -40°C to 180°C.

› Connection options

The Grundfos CR can be connected to any system.

› Dry-running sensor

The patented Grundfos LiqTec system eliminates the risk of breakdowns due to dry running. If there is no liquid in the pump, the LiqTec will immediately stop it.

› High-performance hydraulics

Pump efficiency is maximised by state-of-the-art hydraulic design and carefully crafted production technology.

› Durable bearings

The CR bearings are remarkably long-lived thanks to hard-wearing materials and a wide range of options for difficult liquids.

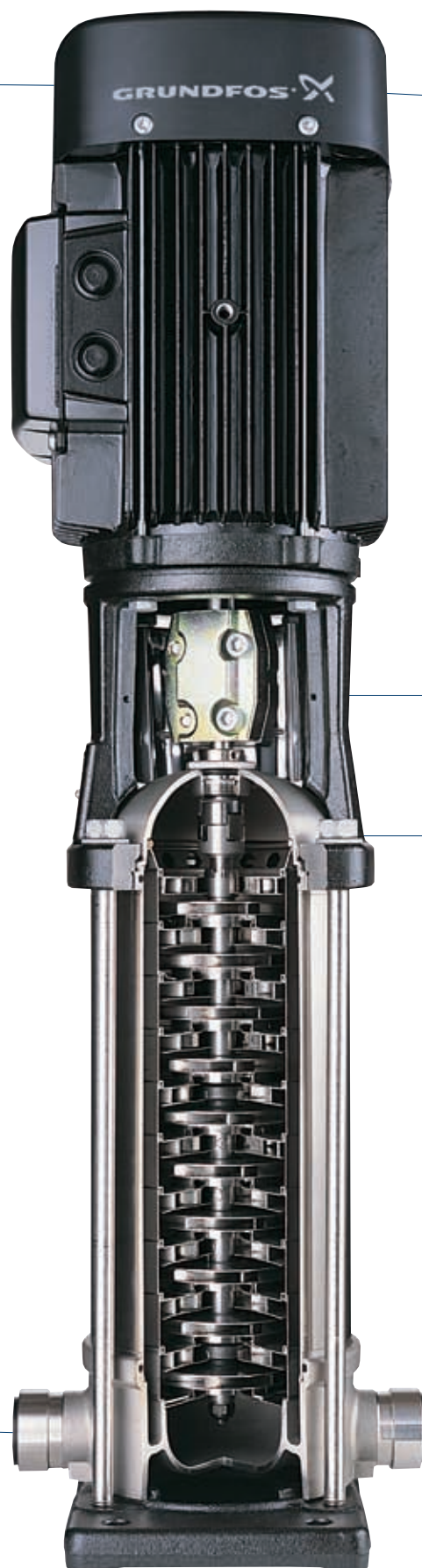
› Material options

The CR is available in four different materials: titanium, stainless steel AISI 316, stainless steel AISI 304, and AISI 304/cast iron.

› Wide range of sizes

The CR comes in 11 flow sizes and hundreds of pressure sizes, ensuring that you can always find exactly the right pump for the job.

To many, innovation is just a buzzword. At Grundfos, innovation is an integrated feature of all our products. After all, it's what's inside that matters.





The **complete** Grundfos CR range:

The last word in multistage pump technology

Grundfos was the first pump manufacturer ever to create a multistage in-line pump. Known as the CR pump, this innovative design has inspired followers all over the world. Even so, continuous development and innovation ensure that the Grundfos CR remains unmatched.

The CR of today reflects the needs and requirements of customers worldwide. We know this, because we asked you first. All development work at Grundfos is carried out with the end-users in mind; never for its own sake. The latest improvements provide:

Superior reliability

Unmatched cost efficiency

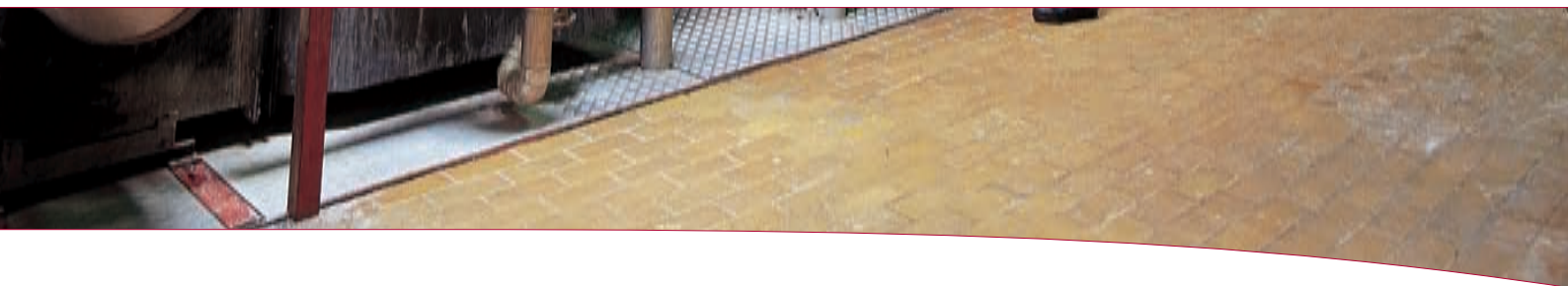
The most extensive range on the market

The new generation of Grundfos CR pumps features a full range of sizes and limitless scope for combinations to suit your specific needs. At Grundfos, innovation is about making things better. And we focus our effort where it matters: inside.

RELIABILITY



It's reliable. And we can prove it.



The boiler feeding process reads like a shortlist of extreme pump conditions: high temperatures, long operating hours, frequent starts/stops, pressure pulsing, and poor inlet conditions. This makes it even more remarkable that the Grundfos CR is the first choice for such operations worldwide.

Reliability in real life

The CR is renowned for its reliability. And rightly so. The CR design has all the durability that customers expect from a high-quality multistage pump – and then some. We have added unique features to ensure unsurpassed reliability: dry-running protection, a unique cartridge seal, and a full-titanium variant.

Extreme conditions call for extreme reliability. Less demanding applications need fewer special features. The virtually endless range of standard and customised CR pumps means that you can always find the right pump, no matter what your requirements may be.

Superior dry-running protection

Dry running is the most common cause of pump failure. In most pumps, the shaft seal and bearings will burn out almost immediately if liquid stops flowing in the pump.

The Grundfos CR is different. As part of our constant dedication to innovation, we have tested new and alternative



materials to bring you the best possible solution. This means that we can equip CR pumps with a shaft seal and bearing system that can withstand extreme heat and friction for longer periods of time. This makes them less unforgiving if the pump does run dry.

The Grundfos LiqTec: checking for liquid 24 hours a day

For those who need to avoid dry-running altogether, the Grundfos LiqTec is the answer. Available with all CR pumps, the LiqTec is plug-and-play technology at its very best. Ever vigilant, the LiqTec constantly checks that there is liquid in the pump. If there isn't, it stops the pump immediately. With the Grundfos LiqTec, you always have someone watching your pump.



In the event of dry running, the Grundfos LiqTec immediately shuts down the pump before any damage is done

RELIABILITY

Unique cartridge seal design

The CR deserves an outstanding seal. So do you. The seal used in the CR line combines the best features of standard seals, wrapped up in an ingenious cartridge design that provides unique advantages. All of these ensure extra reliability.

The durable seal is made from hardwearing materials which prevent downtime and prolong the lifetime of the seal. All axial movement has been eliminated, preventing wear of the shaft and rubber parts – a typical problem area for traditional seals. The cartridge seal is a balanced type seal, a fact which makes it less insensitive to pressure.

We know, however, that even the best of materials are not necessarily enough to guarantee success in real life. That is why the innovative team at Grundfos set out to eliminate the small, yet crucial, factors that can have a negative impact on pump reliability. Many of these have to do with handling, assembly and service.

Safe and easy handling

The peerless cartridge design ensures that the seal components will never be assembled wrongly, the spring will never be incorrectly preloaded, and that sensitive surfaces will never be subjected to greasy fingers or dirt. All these factors are common causes of short seal lifetimes in other pumps.

The cartridge design also enables rapid replacement when the seal ultimately does need changing after a long period of service. All in all, downtime is minimised. Naturally, this translates into significant savings for your business.

The cartridge design allows you to replace the seal in minutes – without special tools and without dismantling the pump.



With unfailing attention to reliability, the Grundfos engineers have designed an innovative cartridge seal that can be replaced within minutes.

And that is just one of the remarkable benefits it offers.





All Grundfos pumps are thoroughly tested before they leave the factory.

Heavy motors can stay in place with the Grundfos spacer coupling

Minimising downtime is also part of reliable operation. That is why Grundfos has eliminated a major nuisance for owners of large pumps. Now, it is no longer necessary to remove heavy motors to replace the seal: The innovative spacer coupling, unique to the CR range, means that all motors weighing more than 35 kg can be left in place during seal replacement.



When nothing else will do: The titanium CR

After dry running, corrosive liquids are the second-most common cause of pump failure and shortened pump lifetimes. High-grade stainless steel makes the Grundfos CR very resistant to corrosion, but for extremely demanding applications, true reliability requires the titanium touch.

The CR is the only pump of its kind to come in a full-titanium variant. Now a financially viable alternative, titanium offers a reliability which other materials simply cannot match. Not even a decade of full immersion in salt water will leave a blemish on the metal surface.

Reliability in production

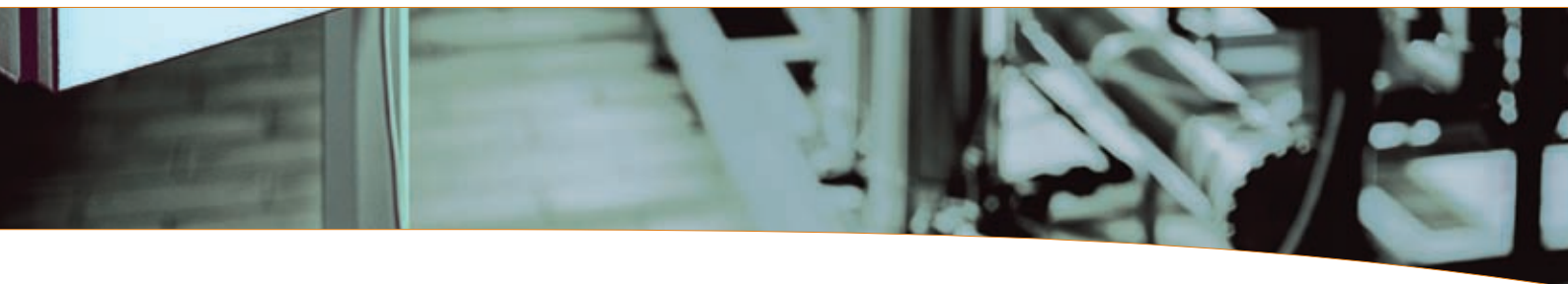
At Grundfos, we practice tight control over every aspect of the production process. Absolutely nothing is left to chance. Our production is certified in accordance with the strictest international standards (ISO 9001) and subjected to rigorous process control.

Remarkably, each CR pump is tested before leaving the factory. Every single one. They are tested for performance, power consumption, and static pressure. This careful testing is the only way to be certain that all pumps meet the standards you have a right to expect from a Grundfos CR solution.

EFFICIENCY



Let's talk money!



All Grundfos products are built to last. Our customers demand long-term solutions, so Grundfos pumps bring you the lowest total life-cycle costs. For example, we have reduced the CR's electricity consumption so much that all 3-phase motors are marked EFF1 for their efficiency..

Reduce the **real costs**

Electricity is the most expensive part of any pump. This simple fact is often overlooked when pumps and prices are compared, so it is worth repeating here.

It may still surprise some to learn that the purchase price and maintenance costs account for less than 15% of the total life-time cost of a pump. Obviously, this means that electricity accounts for a staggering 85% or more of the total costs. So if you want to save money, that's what you should look at.

Efficiency Class 1 motors – the best efficiency you can get

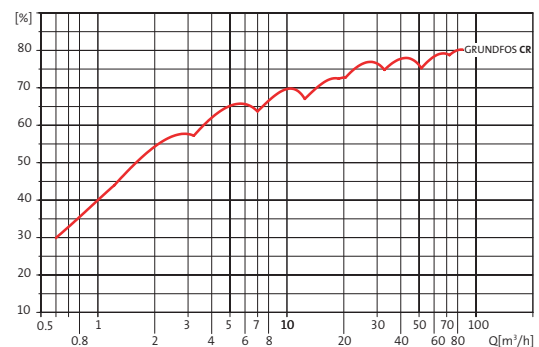
The Grundfos CR makes a real difference. All 3-phase 50Hz motors used in the CR range bear the EFF1 mark; clear proof that they are as efficient as pump motors can get. See the table below to find out just how much electricity you can save.

Other benefits of EFF1 pumps

While energy savings are the main benefit of EFF 1 motors, it's worth noting that they are also quieter than standard motors - they require less cooling, so their fans are smaller and less noisy. The lower motor temperature also means that EFF1 motors tolerate higher ambient temperatures - up to 60C.



CR pump efficiency



This table shows the unique efficiency of the Grundfos CR pump programme.

Efficient pumps, efficient motors

Application type	Typical duty point	Operating hours per day	Average kWh reduction per year with CR	Average kWh reduction per year with MG motors	Total reduction per year
Water supply	80 m³/h at 6 bar	24 hours	18500 kWh	5200 kWh	23700 kWh
Water treatment	2 m³/h at 15 bar	15 hours	3200 kWh	600 kWh	3800 kWh
General industry	6 m³/h at 10 bar	10 hours	2200 kWh	400 kWh	2600 kWh

The hydraulics of the CR pump are very efficient in themselves. When they are combined with EFF1 motors, the savings really add up. This table shows you the savings you can expect – year after year.

EFFICIENCY

Improve efficiency with the right pump

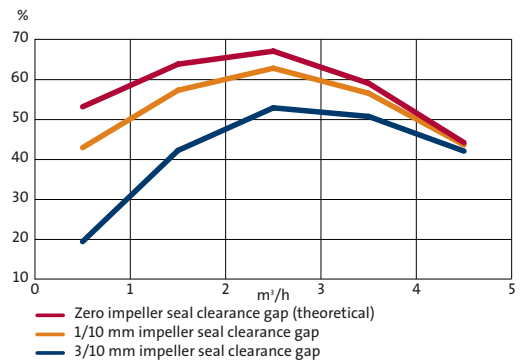
Getting the best possible overall efficiency out of your pump makes financial sense. The narrow interval between CR pump sizes allows you to eliminate the efficiency drop associated with over-dimensioned pumps.

By minimising the difference between pump capacity and the required pressure and volume, you get a pump which runs as close to its optimum duty point as possible. That makes it as cost-efficient as possible. And the CR family is sure to have exactly the right match for you.

Careful research behind real improvements

These days, pumps have evolved to a point where extremely small margins decide their final efficiency level. Always keen to accept a challenge, the Grundfos hydraulic engineering teams have carried out painstaking research into fluid dynamics to break new ground and find new ways to improve the CR.

The result of their development work is very concrete: **a 10% increase in pump efficiency**. This translates into a power reduction of 15-20% for the CR pumps. When your pumps are in operation many hours a day, such improvements provide substantial savings – year in and year out.

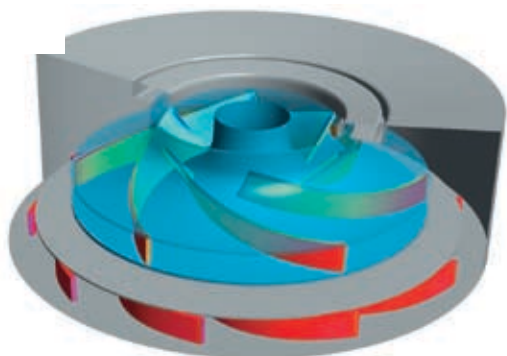


1

All good things come in threes

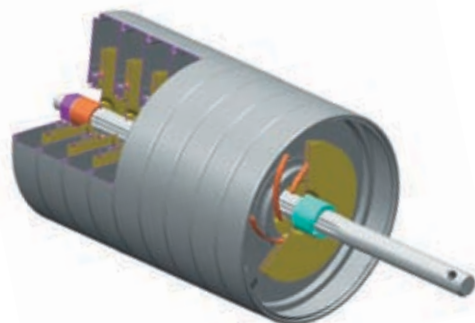
A 10% increase in pump efficiency is an impressive result, and it was not achieved in one go. It took three innovative improvements to create the total effect.

Internal leakage caused by pressure differentials within the pump was minimised. Tests on pumps similar to a CR3 have shown that an impeller seal clearance gap of just 0.1 mm between the impeller and the chamber causes a 5% drop in efficiency. The reason for this efficiency loss is quite simply that when liquid seeps out into the pump, precious energy is wasted on circulating that liquid. To reduce internal leakage to an absolute minimum, Grundfos uses a floating seal ring between chambers. This provides a close to perfect seal.



2

An enhanced impeller design ensures a more streamlined flow in the impeller, reducing eddy flow and friction losses. Tiny margins determine the success of the final result, so Grundfos aimed for the very best. We developed a highly specialised laser-welding technology which facilitates unmatched accuracy. This technology literally makes dreams come true, allowing for a seamless transition from the sketchpad to real life. We use it to bring you impellers of truly superior design and construction, aiming for the point of theoretical perfection.



3

State-of-the-art production technology guarantees the best possible results and gives the CR pumps the final edge. At Grundfos, we develop our own tools and processes to ensure a perfect match between what we want to do and the tools we use to do it. We never settle for less than ideal solutions when it comes to making your pumps. The final outcome is products with near-perfect geometries and tolerances, reflecting the care that has gone into the research and development stages.

Does a smaller motor sound good to you?

The 10% increase in pump efficiency caused by these improvements very often means that a smaller motor can be used to power the pump at a given duty point. Of course, smaller motors equal savings on both initial investment costs and running costs.

Innovation with practical applications

When innovative skill is aimed at creating practical results, everybody benefits from it. By continuing to apply new and proven knowledge, the Grundfos CR team raises the bar for multistage pump efficiency and performance. This means that you can rest assured that with a CR pump, you get the best there is.



What you need. Guaranteed.



Tough pumps for difficult liquids: the Grundfos CR pump series is so wide ranging and offers so many opportunities for customised solutions that even the most extreme of requirements can be met.

All your needs covered

Choosing the right pump can be quite hard. While it is easy enough to find a pump that will do the job, it gets trickier when you want an exact match. And there are many good reasons to avoid over-capacity, with energy conservation coming in right at the top of the list. The CR programme lets you choose pumps which exactly match your system demands.

Infinite variety

The CR range is without parallel on the world market. Available in 11 pump sizes, four basic materials and a number of configurations near the one million mark, the CR programme is the most extensive and comprehensive around. You can get CR pumps with magnetic drives, with air-cooled shaft seal chambers, with double shaft seals, etc. Special CR pumps are available for high-pressure performance, for aggressive liquids, and much more. And there is a CR pump for almost any liquid you could possibly want to pump.

The CR range meets all challenges

Aggressive or corrosive liquids	Seawater, hypochlorites, hydrochloric acid, ferric chloride, nitric acid, chromic acid
Abrasive liquids	Metasilicate, abrasive cleaners/degreasers, phosphates
Toxic or explosive liquids	Trichloroethylene, toluene, petrol, ethyl alcohol, methyl alcohol
High-viscosity liquids	Glycols, lubricating oils, vegetable oils
Hardening liquids	Paints
Crystallising liquids	Glycol additives, naphthalene, sugar products (e.g. dextran), salts
High pressures	Water treatment, cleaning/washing
Extreme temperatures	Oils, boiler feed, secondary coolants

The CR range is available in four different basic materials:



CR
Stainless steel AISI 304 with a cast iron top and base.



CRI
Stainless steel AISI 304 throughout.



CRN
High-grade AISI 316 stainless steel throughout.



CRT
Titanium throughout.

The Grundfos CRE: Ultimate solutions

Add the final touch with a variable-speed motor

Some matches are truly made in heaven. To accommodate the many situations where the required flows and pressures vary considerably over time, the CR pumps can be supplied with a variable-speed motor that continually adapts pump performance to match current conditions. Known as the CRE series, these pumps combine the very best of pump technology with sophisticated motors developed by Grundfos with optimum efficiency in mind. The result is a range of pumps without peer in the market today.



The CRE pumps represent a happy union between high-quality pumps and superior variable-speed motors. Here, a variable-speed motor is used to give the final touch.

Intelligent solutions to complex situations

Grundfos makes its own motors. That means you can be sure of a perfect match between all the technologies involved. And the net result is intelligent solutions that will take care of everything you need, carefully controlling even the most complex of processes and delivering the exact flow and pressure required.

Do you need constant pressure? Constant differential pressure? Stable PH levels? Specific temperatures? Carefully timed operation? The E-pumps from Grundfos can give you all this and much more.

Communication options

The E-solutions from Grundfos allow you to define industrial processes down to the smallest detail. They can also be remote-controlled and/or linked to management systems of your choice for perfect interaction. CRE offers unique possibilities of monitoring the performance and the result of the performance as well as controlling the pump performance. Or both in the same solution.

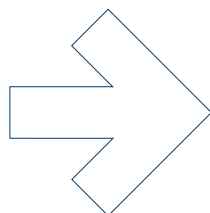
Ultimate efficiency

Variable speed can certainly yield constant benefits. With their ability to change speed to suit the demand, no more and no less, you never spend energy generating pressure you do not require. The electronically controlled motors also give the final touch to the already highly efficient Grundfos CR immersible pumps, saving even more energy. Naturally, this contributes to a very low total Cost of Ownership.

Available in all variants

The entire CR range can be fitted with a variable speed motor, meaning that you can enjoy the benefits of the CRE model regardless of what your other requirements may be.

In short, the combination of Grundfos motor technology and pump expertise guarantees ultimate efficiency. The CRE is a perfect example of the whole being even greater than the sum of its parts.



Create your own

The CR pump can be customised to meet individual requirements with unparalleled ease. This is due to the Grundfos “mix and match” approach to customisation, where the many pump features and options should be regarded as modules that can be combined to create the ideal pump for the job at hand.

In everyday production, Grundfos manufactures a so-called standard range of CR pumps. This in no way represents the full potential of the CR technology, but should simply be regarded as a reflection of general market demands. In effect, the standard range is a shortlist of the most popular and widely applicable multistage solutions around today.

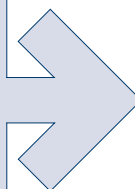
Special designs on request

It is more than likely that we will be able to create exactly the right pump for you by combining the elements and options already available within the CR range. But if you have special requirements or a specific design in mind, let us know. We will do our best to provide full satisfaction.

Motor options

CR motors are available in many different configurations to meet the requirements presented by the power supply, the pumping environment and/or the pumped liquid itself.

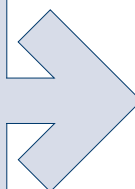
- Power supply systems vary in terms of both frequency and voltage, and protection methods also differ greatly around the world.
- Your environment may be explosive, very hot and/or very humid. Special conditions also apply at great altitudes.
- The liquid pumped can call for a special motor solution. High or low viscosities and/or high or low densities may require non-standard motor sizes. You may also need an explosion-proof variant.



Shaft seal options

Sometimes extreme liquids call for extreme measures.

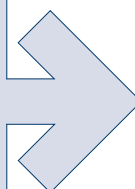
- High temperatures damage seal faces unless precautions are taken.
- Concern for safety can necessitate special measures for aggressive, toxic or explosive liquids.
- Liquids can be harmful to shaft seals because they crystallise, harden or are extremely abrasive.



Pump options

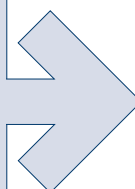
The CR pump elements can handle the most demanding of liquids and pressures and be adapted to suit many other requirements.

- Horizontal installation if height is a limitation
- Poor inlet conditions mean that NPSH values must be adjusted to avoid cavitation.
- Very high pressures demand special solutions.
- You may also need special surface treatments or certificates.



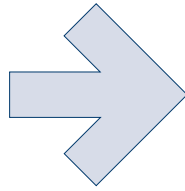
Connection options

Your chosen pump elements can be fitted with exactly the connection options you need. All standards are covered, and special connection variants are available for maximum compactness, high liquid pressures, and so on.



MIX AND MATCH – WITH EXPERT ADVICE

The Grundfos CR range offers the perfect way to create a completely customised solution. The highly skilled Grundfos specialists are always ready to help you combine the various modules in the best possible way.



Single phase



Single-phase motors

Four pole



Four pole motors

High efficiency



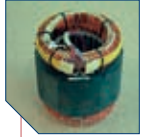
CEMEP Eff1 motors

Explosion proof

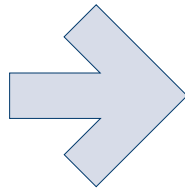


ATEX approved

Motor heater



Anti-condensation unit



Seal face



Many seal face materials available

Rubber



Variety of rubber (O-ring) materials

Titanium



All-titanium shaft seal

Non-cartridge solution

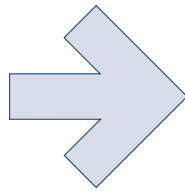


Any EN12756 shaft seal

Air-cooled



Liquid up to +180°C



High pressure



Pump pressure up to 45 bar

Horizontal mounting



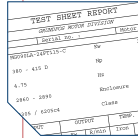
When height is limited

All stainless steel



Stainless steel base plate, flanges & motor stool

Certificates issued

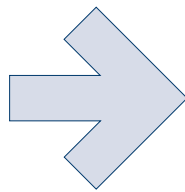


Many pump & material certificates available

Low temperature



Liquid temperature down to -40°C



CR oval flange



Internal thread (BSP)

CR flange



DIN, JIS and ANSI flange

CRI/CRN PJE



Victaulic coupling

CRI/CRN flange



DIN, JIS and ANSI flange

CRI/CRN clamp



Compact clamp system

Boiler feed



Fire fighting



Industrial washing










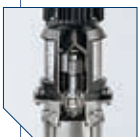




Water treatment
















Industrial cooling








Harting plug  Industrial multiple plug	CSA/UL approved  Canadian / US approval	Protection  PTC sensor or thermal switch	Oversized or undersized  Alternative viscosity or density	Voltage  Special voltage	Enclosure class  Alternative IP class	Mounting  Alternative terminal box position
---	---	--	---	--	---	--

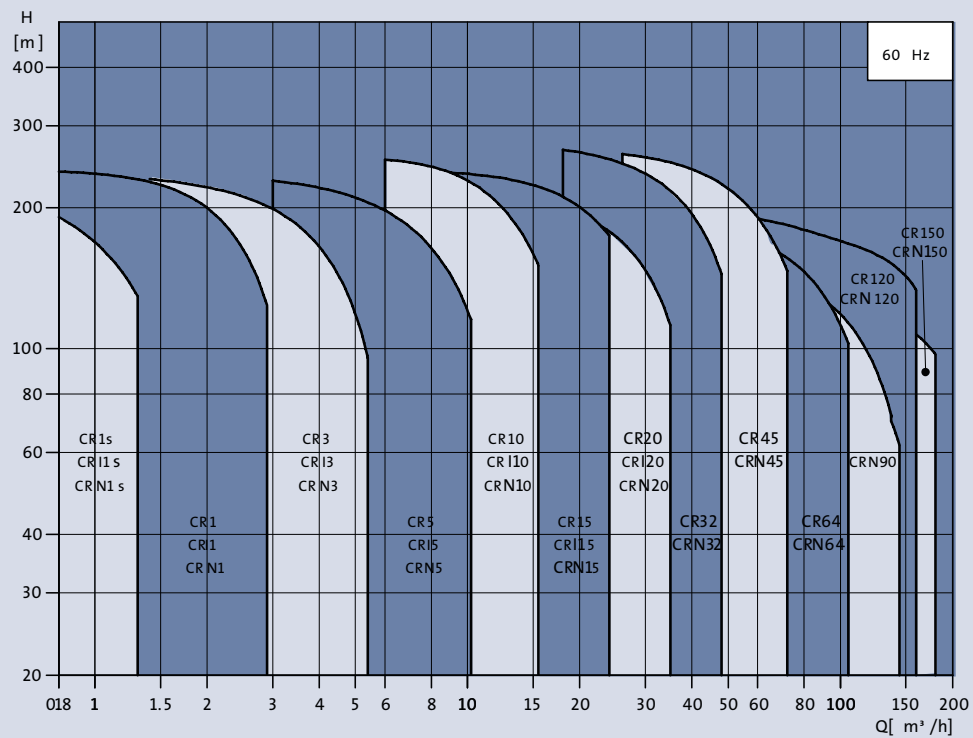
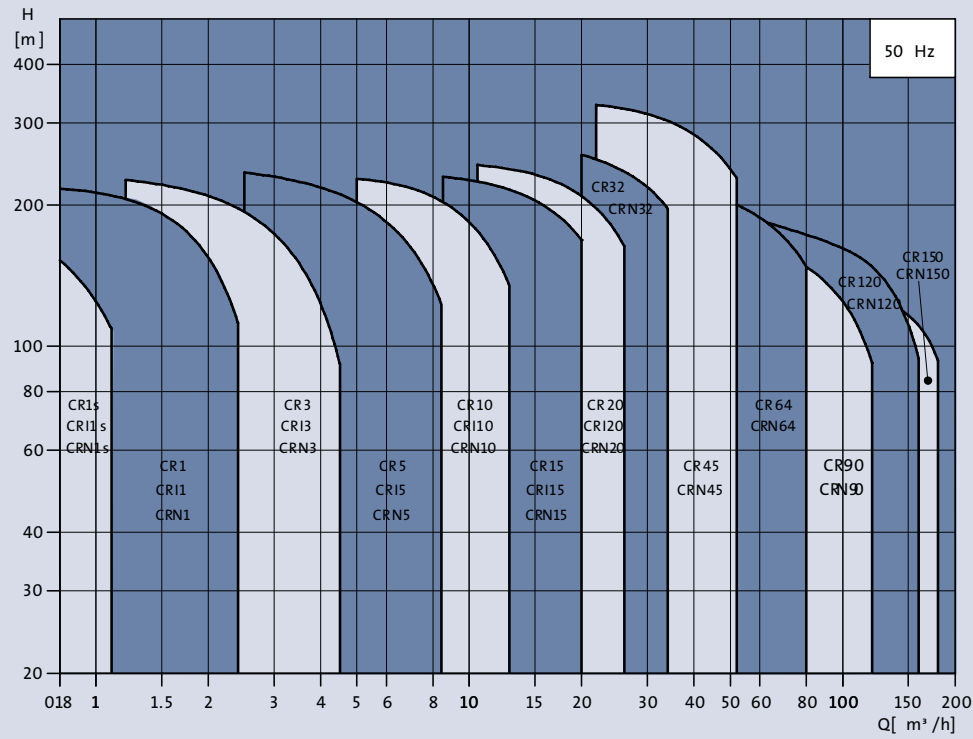
MAGdrive  Magnetic coupled pump	Double back-to-back  Leakage-proof double seal design	Intensifier  Barrier fluid solution for back-to-back seal	Barrier fluid, dosing pump  Barrier fluid solution for back-to-back seal	Double, Tandem  Flushed seal (Quench)
--	---	---	--	---

Alternative colour  Customised paint finish	Bearing flange  For high inlet pressures	Rubber parts  Variety of rubber (sleeve sealing)	Low NPSH  For poor inlet conditions	LiqTec sensor  For dry running/ motor protection	Pulley head  For non-electric driver, e.g. diesel	Bearing materials  Variety of pump bearing materials	Surface treatment  Electro polished, cleaned or silicone-free
--	--	--	---	--	---	---	---

CRI/CRN oval flange  Internal thread (BSP)	CRN TriClamp  Pharmaceutical/ food industries	CRI/CRN union  External thread (+GF+)	CRT PJE  Victaulic coupling, all-titanium	Custom connection  Customer specified solutions
---	---	---	---	---

Car washing 	Bleach factory 	Petro-chemical 	Sea water 	Chemical liquids 
--	--	--	---	--

CR Performance Range



Performance curves and technical data

	CR 1s	CR 1	CR 3	CR 5	CR 10	CR 15	CR 20	CR 32	CR 45	CR 64	CR 90	CR 120	CR 150
Range:													
Temperature range (°C)	-20 to +120							-30 to +120					
On request (°C)	-40 to +180							-40 to +180					
Max. pump efficiency (%)	35	48	58	66	70	72	73	78	79	80	81	75	72
Flow range (m³/h)	0.3-1.1	0.7-2.4	1.2-4.5	2.5-8.5	5-13	9-24	11-29	15-40	22-58	30-85	45-120	60-160	75-180
Version:													
CR (AISI 304/Cast Iron)	x	x	x	x	x	x	x	x	x	x	x	x	x
CRI (AISI 304)	x	x	x	x	x	x	x						
CRN (AISI 316)	x	x	x	x	x	x	x	x	x	x	x	x	x
CRT (Titanium)		x*	x*	x*	x*	x*							
CR pipe connection:													
Oval flange (BSP)	Rp 1	Rp 1	Rp 1	Rp 1½	Rp 1½	Rp 2	Rp 2½						
On request (BSP)	Rp 1½	Rp 1½	Rp 1½	Rp 1	Rp 1½ Rp 2	Rp 2½	Rp 2						
Flange	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 40	DN 50	DN 50	DN 65	DN 80	DN 100	DN 100	DN 125	DN 125
On request					DN 50	DN 65	DN 65	DN 80	DN 100	DN 125	DN 125	DN 150	DN 150
CRI pipe connection:													
Oval flange (BSP)	Rp 1	Rp 1	Rp 1½	Rp 1½	Rp 1½	Rp 2	Rp 2						
On request (BSP)	Rp 1½	Rp 1½	Rp 1	Rp 1	Rp 2								
Flange	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 40	DN 50	DN 50						
On request					DN 50	DN 65	DN 65						
PJE coupling (Victaulic)	Rp 1½ DN 32	Rp 1½ DN 32	Rp 1½ DN 32	Rp 1½ DN 32	Rp 2 DN 50	Rp 2 DN 50	Rp 2 DN 50						
Clamp coupling (L-coupling)	Ø48.3	Ø48.3	Ø48.3	Ø48.3	Ø60.3	Ø60.3	Ø60.3						
Union (+GF+)	Rp 2	Rp 2	Rp 2	Rp 2	Rp 2½	Rp 2½	Rp 2½						
CRN pipe connections:													
Flange	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 25/ DN 32	DN 40	DN 50	DN 50	DN 65	DN 80	DN 100	DN 100	DN 125	DN 125
On request					DN 50	DN 65	DN 65	DN 80	DN 100	DN 125	DN 125	DN 150	DN 150
PJE coupling (Victaulic)	Rp 1½ DN 32	Rp 1½ DN 32	Rp 1½ DN 32	Rp 1½ DN 32	Rp 2 DN 50	Rp 2 DN 50	Rp 2 DN 50	Rp 3	Rp 4	Rp 4	Rp 5	Rp 5	Rp 5
Clamp coupling	x	x	x	x	x	x	x						
Union (+GF+)	x	x	x	x	x	x	x						
CRT pipe connections:													
PJE coupling (Victaulic)		x*	x*	x*	x*	x*							
Flange (on request)		x*	x*	x*	x*	x*							

*CRT 2,4,8 and 16.

The CR range from Grundfos

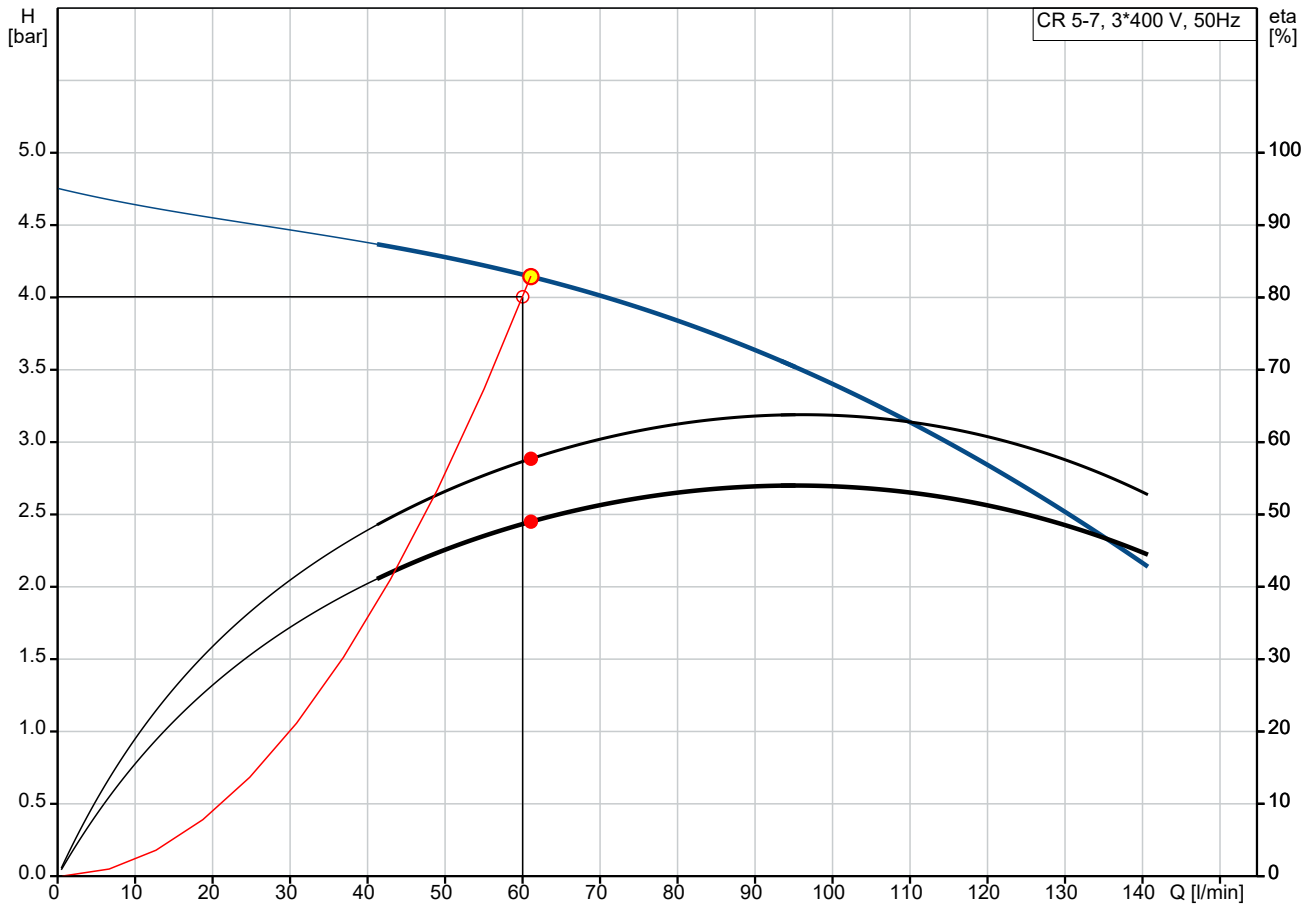
Grundfos was the first company ever to develop a multi-stage in-line pump. The present-day CR pump series remains second to none. It is the most extensive in-line pump programme on the market, matching all customer requirements. With many innovative features unique to Grundfos, CR pumps provide superior reliability and the lowest possible cost of ownership to customers worldwide.

A pump for every purpose

Impressive as the CR range is, Grundfos offers much more. A complete range of pump solutions means that all applications – industrial and domestic – can benefit from the Grundfos touch.

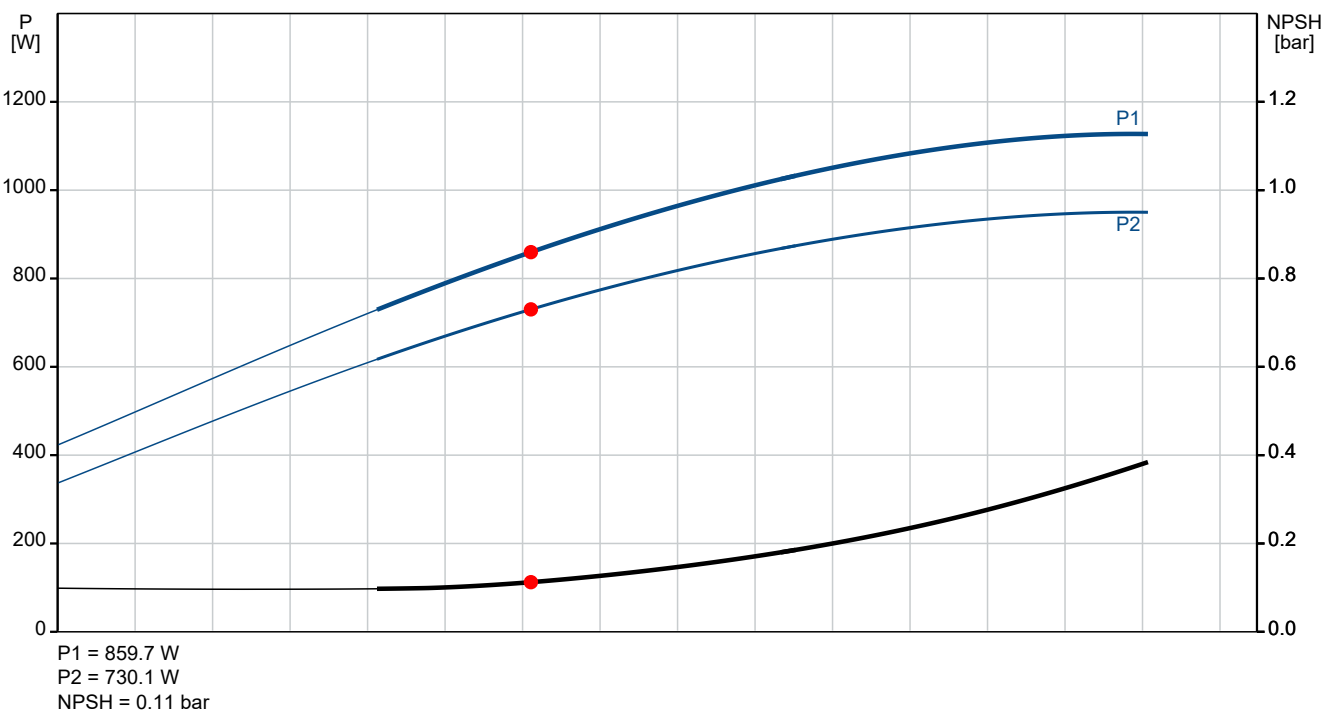
Customers can always rely on our complete dedication to quality and service.

96517042 CR 5-7 A-FGJ-A-E-HQQE 50 Hz



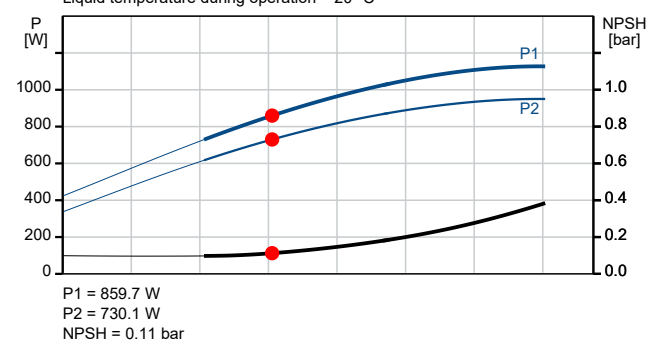
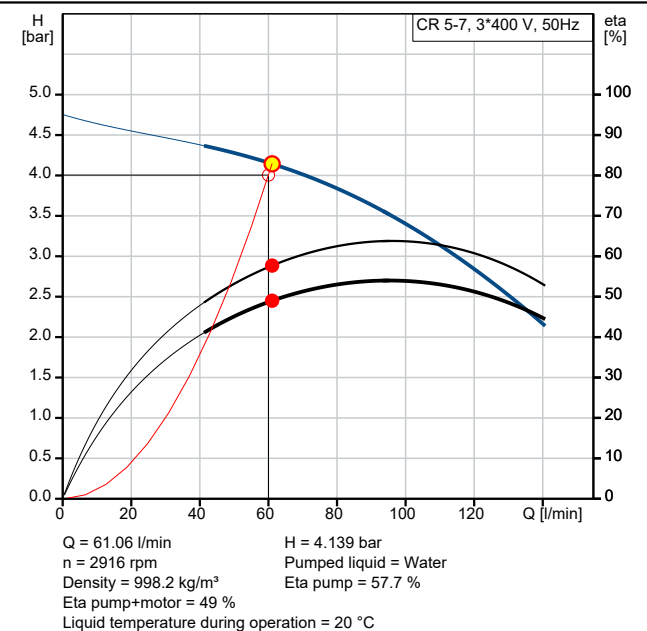
Q = 61.06 l/min
 n = 2916 rpm
 Liquid temperature during operation = 20 °C
 Eta pump = 57.7 %

H = 4.139 bar
 Pumped liquid = Water
 Density = 998.2 kg/m³
 Eta pump+motor = 49 %



P1 = 859.7 W
 P2 = 730.1 W
 NPSH = 0.11 bar

Description	Value
General information:	
Product name:	CR 5-7 A-FGJ-A-E-HQQE
Product No:	96517042
EAN number:	5700396755069
Technical:	
Pump speed on which pump data are based:	2853 rpm
Actual calculated flow:	61.06 l/min
Resulting head of the pump:	4.139 bar
Maximum head:	4.797 bar
Stages:	7
Impellers:	7
Number of reduced-diameter impellers:	0
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals:	CE,EAC,UKCA,SEPRO
Approvals for drinking water:	WRAS,ACS
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	A
Materials:	
Base:	Cast iron
Base:	EN 1561 EN-GJL-200
Base:	ASTM A48-25B
Impeller:	Stainless steel
Impeller:	EN 1.4301
Impeller:	AISI 304
Material code:	A
Code for rubber:	E
Bearing:	SIC
Installation:	
t max amb:	60 °C
Maximum operating pressure:	25 bar
Max pressure at stated temp:	25 bar / 120 °C
Max pressure at stated temp:	25 bar / -20 °C
Type of connection:	DIN / ANSI / JIS
Size of inlet connection:	DN 25/32
Size of outlet connection:	DN 25/32
Pressure rating for connection:	PN 25
Flange rating inlet:	250 lb
Flange size for motor:	FT100
Connect code:	FGJ
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-20 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m³
Electrical data:	
Motor standard:	IEC
Motor type:	80C
IE Efficiency class:	IE3
Rated power - P2:	1.1 kW
Power (P2) required by pump:	1.1 kW
Mains frequency:	50 Hz





Company name: CAE ENGINEERING PTE LD

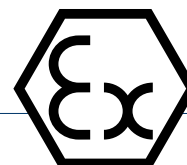
Created by:

Phone:

Date: 16/01/2023

Description	Value
Rated voltage:	3 x 220-240D/380-415Y V
Rated current:	4.35/2.50 A
Starting current:	450-500 %
Cos phi - power factor:	0.83-0.76
Rated speed:	2840-2870 rpm
Efficiency:	IE3 82,7%
Motor efficiency at full load:	82.7 %
Motor efficiency at 3/4 load:	84.6 %
Motor efficiency at 1/2 load:	85.4 %
Number of poles:	2
Enclosure class (IEC 34-5):	55 Dust/Jetting
Insulation class (IEC 85):	F
Built-in motor protection:	NONE
Motor No:	85U05105
Controls:	
Frequency converter:	NONE
Others:	
Minimum efficiency index, MEI ≥:	0.57
Net weight:	30.3 kg
Gross weight:	33.2 kg
Shipping volume:	0.074 m³

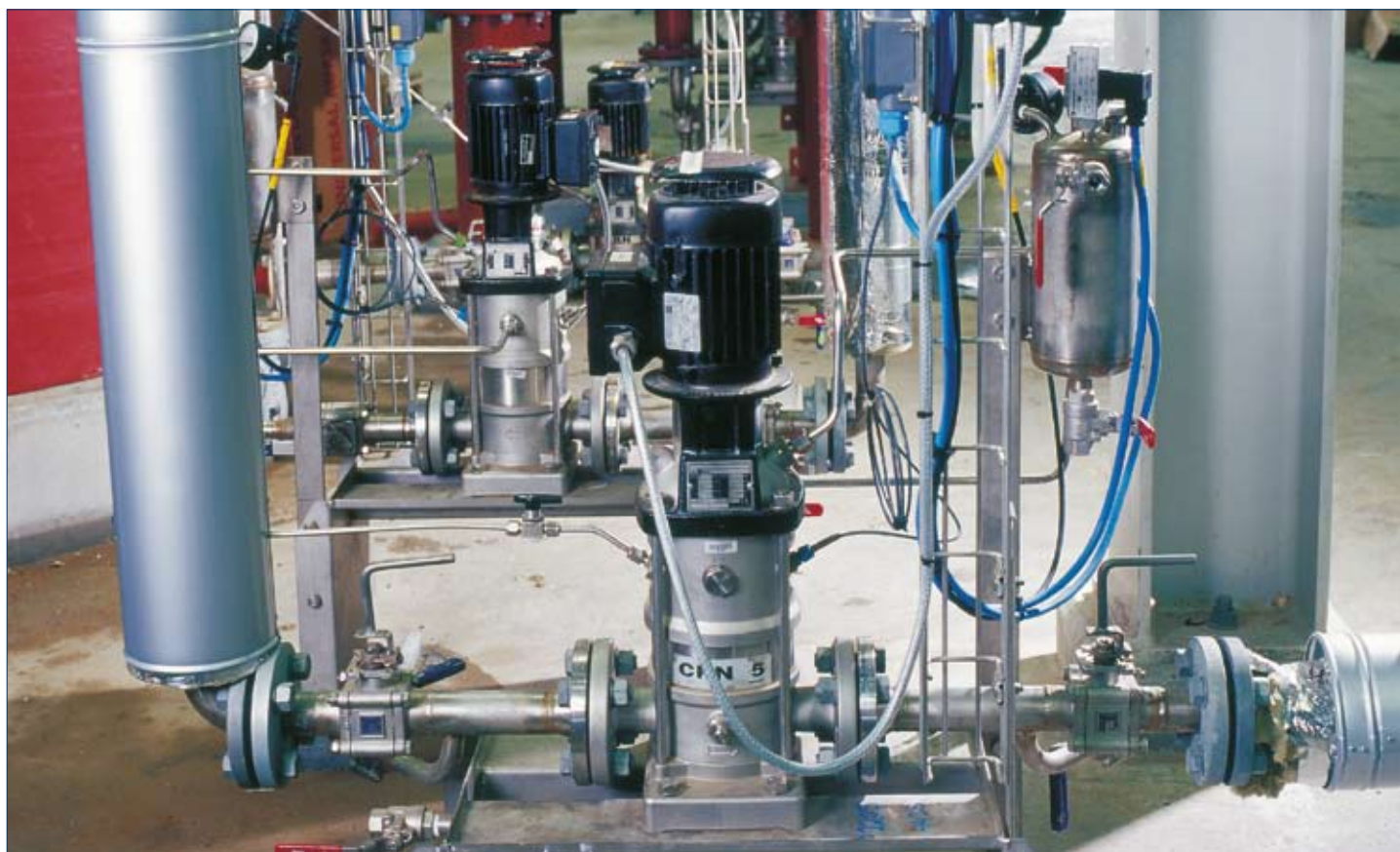
ATEX approved CR pumps



Grundfos CR in hazardous areas

The ATEX directive, (94/9/EC), deals with electrical, mechanical, hydraulic or pneumatic equipment in areas exposed to explosive atmosphere. Explosive atmosphere consists of air and some sort of combustible material such as gas, dust or vapour. So, to prevent explosions from occurring, and thereby higher the standard of safety in the risk areas, manufacturers of this type of equipment have to comply with the basic safety requirements stated in the new directive.

The safety requirements in the ATEX directive implies that pumps have to carry a clear indication of which equipment group and category, they belong to, and in what areas they can be used. All the pumps in the Grundfos CR ATEX range comply with the requirements in the directive. The ATEX directive affects a wide range of industries, dealing with the handling of cereals, animal feed, paper and wood industries that generate combustible dust. Likewise the directive affects industries that deal with the handling of chemicals, plastics and petrol, that is industries that generates explosive gasses.



CR in hazardous areas

The ATEX approved CR pumps and motors carry a mark that shows which explosion category the pumps are designed for, and thus, in what kind of areas they can be used. The directive distinguishes between two explosion groups; group I and II. Whether it is a group I or II pump, depends on the level of danger of explosion in the area in which the CR pump is installed.



Group 1

	Category M2
Underground installations in mines with danger of explosive gasses or combustible dust.	Pumps made of materials that do not create sparks and thereby do not make any danger of explosion.
CR pumps	CR/CRI/CRN
Motors	None

Group 2

	Category 2		Category 3	
Installation in areas with risk of explosion because of presence of explosive atmosphere.	Pumps made for areas where explosive atmosphere is likely.		Pumps made for areas where explosive atmosphere is rare.	
	G (gas)	D (dust)	G (gas)	D (dust)
CR pumps	CR/CRI/CRN*/CRT	CR/CRI/CRN/CRT	CR/CRI/CRN/CRT	CR/CRI/CRN/CRT
Motors	2G EEx e IICT3 2G EEx d IIB T4 2G EExd IICT4 2G EExde IIBT4 2G EExde IICT4	2D 125 C	2G EEx e IICT3 2G EEx d IIB T4 2G EExd IICT4 2G EExde IIBT4 2G EExde IICT4	3D 125 C

* Magnetic drive, Double shaft seal – Back to back or Tandem

Custom-built solutions

The comprehensive standard Grundfos CR programme covers a wide range of pumps, for a wide range of different industrial applications. Besides, Grundfos designs custom-built pump solutions; acknowledging that sometimes it does not take more, than a little extra effort, to come up with the right solution. With a custom-built pump solution from Grundfos, your pump is capable of handling even higher pressures, more aggressive liquids, excessive liquid temperatures etc.

Worldwide pump supplier

Being a worldwide pump supplier, Grundfos has committed itself to provide its clients with a global, reliable and efficient service network. Our experienced team of service technicians are always ready to serve you wherever in the world you are and – of course – at a short notice – whenever you need it.

FIRE HOSE REEL BOOSTER SET



Model : CAE-HR-BS VER 01

The Fire Hosereel Boosters set are simple and reliable system, consisting of 2 Pumps , connected in parallel and mounted on a common skid base.

The Fire Hosereel Boosters set are supplied as complete, pre-assembled and tested system including suction and discharge manifolds, isolating valves, non-return valves, pressure switches and gauges.

The controller comes with motor protection , incoming indication, water level sensor with high/low level indication, Run/stop/trip indication for each pump , auto/off/manual selector , manual start/stop pushbutton and duty/standby selector switch.

Standard Features

- IP55 ENCLOSURE (SUITABLE FOR OUTDOOR USAGE)
- 2 PUMPS OPERATION (1 DUTY + 1 STANDBY)
- TEST RACK WITH PRESSURE GAUGE AND SWITCHES

Optional Features

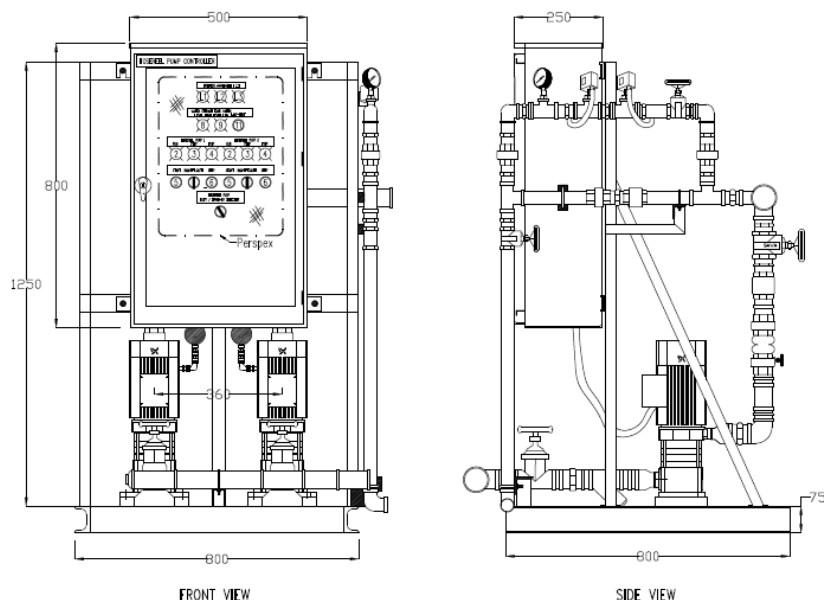
- DATA LOG (PRESSURE , PUMP STATUS, DATE AND TIME RECORDING)
- HOUR RUN METER FOR EACH PUMP
- VOLT/AMP/POWER METER FOR CONTROLLER

System Operation

When the hose is opened, Water will be drawn from the system. The pressure will drop to the first cut-in pressure level, and the duty pump will be activated.

When the water demand increases, the stand-by pump will cut-in until the performance of the pumps in operation corresponds to the demand.

As the water demand falls, the discharge pressure will rise to the first cut-out pressure level and the pressure switch will cut-out one pump . as water demand continuous to falls, the other pump will eventually cut-out, and in preparation for the next demand cycle.



Grundfos CR certificates

As an acclaimed worldwide pump supplier, Grundfos is authorised by well-reputed international classification societies to classify pumps and pump parts. For insurance reasons, classification of pumps is especially important in maritime applications. These certificates are delivered with an inspection certificate made up in accordance with the European standard EN 10204 3.1 C.

- **Lloyds Register of shipping** (LRS)
- **Det Norske Veritas** (DNV)
- **Germanischer Lloyd** (GL)
- **Bureau Veritas** (BV)
- **American Bureau of Shipping** (ABS)
- **Registro Italiano Navale Agenture** (RINA)
- **China Classification Society** (CCS)
- **Russian Maritime Register of Shipping** (RS)
- **Biro Klassifikasio Indonesia** (BKI)
- **United States Coast Guard** (USCG)
- **Nippon Kaiji Koykai** (NKK)



Grundfos issues a variety of certificates for a wide range of different pump solutions. Close cooperation with our customers over the years, has established that many clients require absolute certainty that the product supplied fully complies with the order specifications, for instance with regard to surface roughness, vibration tolerances, motor performance, and material specifications.

Certificates issued by Grundfos are available upon request.



Type of certificate	Description
Certificate of compliance with the order	According to EN10204, 2.1. Grundfos document which certifies that the pump supplied is in compliance with the order specifications.
Test certificate. Non-specific inspection and testing	According to EN10204, 2.2. Certificate with inspection and test results of a non-specific pump.
Inspection certificate 3.1B	Grundfos document which certifies that the pump supplied is in compliance with the order specifications. Inspection and test results are mentioned in the certificate.
Inspection certificate 3.1C	Grundfos document which certifies that the pump supplied is in compliance with the order specifications. Inspection and test results are mentioned in the certificate. Certificate from the surveyor is included.
Material specification report	Certifies the material, which has been used for the main components of the specific pump.
Material specification report with certificate from raw material supplier	Certifies the material, which has been used for the main components of the specific pump. A material certificate, EN10204 3.1B, will be supplied for each main component.
Duty-point verification report	Certifies a test point specified by the customer. Issued according to ISO9906 concerning "Duty point verification"
Surface-roughness report	Shows the measured roughness of the cast pump base of the specific pump. The report indicates the values measured at the base inlet and outlet, tested according to ISO 1302.
Vibration test report	Vibration report that indicates the values measured during the performance test of the specific pump, tested according to ISO 10816.
Motor test report	Shows the performance test of the specific motor, including power output, current, temperature, stator windings resistance and insulation test.
Clean and dried pump report	Confirms that the specific pump has been cleaned and dried, and in which way it has been done.
Electro-polished pump report	Confirms that the specific pump has been electro polished. The maximum surface roughness is specified in the report.
ATEX approved pump report	Confirms that the specific pump is ATEX approved according to the EU directive 94/9/EC, the "ATEX directive".

Custom-built solutions

The comprehensive standard Grundfos CR programme covers a wide range of pumps, for a wide range of different industrial applications. Besides, Grundfos designs custom-built pump solutions; acknowledging that sometimes it does not take more, than a little extra effort, to come up with the right solution. With a custom-built pump solution from Grundfos, your pump is capable of handling even higher pressures, more aggressive liquids, excessive liquid temperatures etc.

Worldwide pump supplier

Being a worldwide pump supplier, Grundfos has committed itself to provide its customers with a global, reliable and efficient service network. Our experienced team of service technicians is always ready to serve you wherever you are in the world, and – of course – at short notice.

**CAE ENGINEERING PTE LTD -
GRUNDFOS HOSEREEL / JOCKEY PROJECT REFERENCE
FIRE PUMP PACKAGE**

S/N	PROJECT NAME	YEAR OF DELIVERY / CONFIRM	LOCATION
1	MARPERSON NURSING HOME	2022	SINGAPORE
2	LATTICE ONE SERAYA CRESCENT	2021-2022	SINGAPORE
3	170, LORONG 2 TAO PAYOH	2022	SINGAPORE
4	19 NASSIM HILL	2022	SINGAPORE
5	167 YIO CHU KANG ROAD	2022	SINGAPORE
6	PARKSUITE @ HOLLAND GROVE ROAD	2021	SINGAPORE
7	PENTA OCEAN	2022	SINGAPORE
8	CANTONMENT STATION & TUNNELS C882	2021	SINGAPORE
9	KEPPEL STATION C883	2021	SINGAPORE
10	48 HORNE ROAD	2020	SINGAPORE
11	23 SENOKO SOUTH	2018	SINGAPORE
12	TRAVEL LODGE	2021	SINGAPORE
13	AMK AVE 5	2022	SINGAPORE
14	CLAVON	2022	SINGAPORE
15	BUGIS VILLAGE	2022	SINGAPORE
16	GUILLEMARD FLAT, LORONG 28 GEYLANG	2022	SINGAPORE
17	422 TAGORE SUBSTATION	2019	SINGAPORE
18	YIO CHU KANG	2019	SINGAPORE
19	BALESTIER HILL	2019	SINGAPORE
20	AMOS	2019	SINGAPORE
21	CITY HOUSE @ 36 ROBINSON ROAD	2019	SINGAPORE
22	12 TAI SENG	2019	SINGAPORE
23	WEST PHARMACEUTICAL SERVICE	2019	SINGAPORE
24	CIVIC PLAZA	2020	SINGAPORE

CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
1	1 GUL STREET 5	GRUNDFOS	GRUNDFOS	-	CAE
2	10 GUL AVE	-	GRUNDFOS	-	-
3	10 LORONG LIMAUI	-	KSB	-	-
4	100 LORONG K TELOK KURAU	GRUNDFOS	EUROFLO	-	CAE
5	101 EUNOS AVE 3	GRUNDFOS	-	-	CAE
6	11 BEACH ROAD	GRUNDFOS	EUROFLO	-	-
7	11 KIM CHUAN TERRACE	GRUNDFOS	AJAX	-	CAE
8	11 SUNGEI KADUT ST 2	DP	-	-	CAE
9	12 CHAN ROAD	GRUNDFOS	KSB	-	CAE
10	12 DEVONSHIRE	DP	AJAX	-	CAE
11	12 GALISTAN AVE	GRUNDFOS	GRUNDFOS	-	CAE
12	12 TAI SENG ST	GRUNDFOS	KBL	-	-
13	123 GENTING LANE	GRUNDFOS	EUROFLO	-	CAE
14	137 CECIL ST, AVIVA BUILDING	GRUNDFOS	AJAX	-	CAE
15	138 ROBINSON	-	-	-	CAE
16	14 GUL	GRUNDFOS	GRUNDFOS	-	CAE
17	14 SENOKO SOUTH ROAD	-	-	-	CAE
18	15 CHANGI NORTH WAY	-	-	-	CAE
19	15 TUAS AVE 3	SPP	KSB	-	CAE
20	1510 COLES RIVERTON (C) - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
21	17 MARNE ROAD	GRUNDFOS	EUROFLO	SIDA	CAE
22	17 SOON LEE RD LAB PROJECT	GRUNDFOS	AJAX	-	CAE
23	17 SUNGAI KADUT ST 6	GRUNDFOS	GRUNDFOS	IVECO	CAE
24	180 CHANGI MALL	DP	AJAX	-	CAE
25	183 UPPER THOMSON	GRUNDFOS	EUROFLO	SIDA	CAE
26	19 TUAS	GRUNDFOS	GRUNDFOS	-	CAE
27	2 HAVELOCK ROAD	PARAGON	KBL	-	CAE
28	2 PENJURU CLOSE	GRUNDFOS	-	-	CAE
29	2 PEREIRA RD	GRUNDFOS	KSB	-	CAE
30	20 CECIL STREET	GRUNDFOS	AJAX	-	CAE
31	20 CLEMENTI AVE 5 AT CLEMENTI POLICE HQ	GRUNDFOS	KSB	-	CAE
32	20 GUL WAY	-	SPP	-	-
33	20 PENJURU	GRUNDFOS	GRUNDFOS	-	CAE
34	20 SENOKO	DP	AJAX	-	CAE
35	20 TAMPINES AT KEPPEL DATA CENTRE	GRUNDFOS	GRUNDFOS	-	CAE
36	20 TAMPINES STREET 11	SPP	GRUNDFOS	YAMAR	CAE
37	209 JALAN LOYAN BESAR	DP	AJAX	-	CAE
38	21 LORONG SESUAI	SPP	KBL	-	CAE
39	21 PAYA LEBAR CRESCENT	GRUNDFOS	KSB	-	CAE
40	21 SENOKO DR	DP	AJAX	-	CAE
41	21 TAMPINES AVE 1	GRUNDFOS	GRUNDFOS	-	CAE
42	211 BEDOK RD	GRUNDFOS	GRUNDFOS	-	CAE
43	21B SENOKO LOOP	DP	AJAX	-	CAE
44	22 TUAS AVE 6	GRUNDFOS	KSB	-	CAE
45	226 & 228 PANDON LOOP	GRUNDFOS	GRUNDFOS	-	CAE
46	23 SENOKO SOUTH ROAD	GRUNDFOS	GRUNDFOS	-	CAE
47	23 TUAS	GRUNDFOS	EUROFLO	-	CAE
48	230 PANDAN LOOP FACTORY	DP	AJAX	-	CAE
49	23A NALLUR RIAD HUA XING COURT	DP	-	-	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
50	26 SENOKO SOUTH RD	DP	AJAX	IVECO	CAE
51	267 PANDAN LOOP	SPP	KBL	-	
52	28 QUALITY RD	DP	AJAX	IVECO	CAE
53	29 TUAS AVE 11	GRUNDFOS	-	-	CAE
54	29 TYRWHITT ROAD	GRUNDFOS	KBL	-	CAE
55	3 SURREY GOH	-	AJAX	-	-
56	3 TUAS AVE 2	GRUNDFOS	NM FIRE	CNP	TORNATECH
57	30 MARSLING	SPP	KBL & NM FIRE	CNP	TORNATECH & CAE
58	30 TAMPINES ROAD	SPP	KBL	-	CAE
59	30 TUAS BAY DRIVE	GRUNDFOS	-	-	CAE
60	31 FISHERY PORT	GRUNDFOS	GRUNDFOS	IVECO	CAE
61	31 TUAS SOUTH ST 6	DP	AJAX	SMOOTHFLO	CAE
62	LOG	DP	-	-	CAE
63	35 PIONEER SECTOR 2	-	-	-	CAE
64	35 TUAS	GRUNDFOS	AJAX	SMOOTHFLO	CAE
65	37 GUL DRIVE	SPP	KBL	-	CAE
66	4 STY DEVELOPMENT AT TUAS AVE 2	GRUNDFOS	RUNDFOS-PEERLES	ALTON	CAE
67	40 MEYER ROAD	GRUNDFOS	EUROFLO	-	CAE
68	40 SCOTTS	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
69	404 JOO CHIAT ROAD	GRUNDFOS	KBL	SIDA	CAE
70	41 BENOI ROAD	GRUNDFOS	KSB	NAFA	CAE
71	422 TAGORE INDUSTRIAL AVE	GRUNDFOS	KBL	-	CAE
72	45 AMBER ROAD	GRUNDFOS	GRUNDFOS	-	CAE
73	45 LENG KEE ROAD	GRUNDFOS	GRUNDFOS	-	CAE
74	45 MIDDLE ROAD	GRUNDFOS	-	-	CAE
75	455 TAGORE IND AVE	GRUNDFOS	-	-	CAE
76	460 TOA PAYOH	SPP	KBL	-	-
77	47 KIM CHUAN DRIVE	SPP	KSB	-	CAE
78	48 HORNE ROAD	GRUNDFOS	-	-	CAE
79	48 PENJURU RD	GRUNDFOS	GRUNDFOS	GRUNDFOS	CAE
80	5 JALAN MUTIARA	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
81	5 JOO KOON	GRUNDFOS	EUROFLO	-	CAE
82	50 KALLANG AVE	GRUNDFOS	KSB	-	CAE
83	50 LOYANG	GRUNDFOS	EUROFLO	-	CAE
84	50 ROBINSON	GRUNDFOS	-	-	CAE
85	501 AIRPORT ROAD	GRUNDFOS	-	-	CAE
86	52 ELITE TERRACE	GRUNDFOS	EUROFLO	SIDA	CAE
87	52 TUAS AVE 9	DP	AJAX	-	CAE
88	52 TUAS VIEW SQUARE	GRUNDFOS	GRUNDOFS	-	CAE
89	520 BALESTIER	GRUNDFOS	KBL	-	CAE
90	55 CHANGI RD (MILLAGE)	DP	AJAX	-	CAE
91	56 LOYANG WAY	GRUNDFOS	AJAX	-	CAE
92	6 DERBYSHIRE	GRUNDFOS	GRUNDFOS	-	CAE
93	6 GUL DRIVE	GRUNDFOS	-	-	CAE
94	6 LOK YANG DR WAREHOUSE	DP	AJAX	-	CAE
95	66 EAST COAST	GRUNDFOS	EUROFLO	SIDA	CAE
96	7 KIM CHUAN LANE	GRUNDFOS	-	-	CAE
97	7 TAI SENG DRIVE	GRUNDFOS	NM FIRE	CNP	TORNATECH
98	70 SENOKO ROAD	GRUNDFOS	GRUNDFOS	CNP	CAE

CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
99	71 JALAN BAHTERA	GRUNDFOS	-	-	CAE
100	71 TUAS SOUTH AVE 1 WAREHOUSE	-	AJAX	-	CAE
101	73-76 BOAT QUAY	SPP	-	-	CAE
102	76 PIONEER	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
103	78 SHENTON WAY	GRUNDFOS	-	-	CAE
104	788D TAMPINES ROAD	SPP	KSB	-	CAE
105	79 AYER RAJAH AVE (JVC)	GRUNDFOS	-	-	CAE
106	8 PANDAN AVE	SPP	KBL	-	CAE
107	8 TUAS SOUTH LANE	DP	AJAX	-	CAE
108	86 INTERNATIONAL RD	GRUNDFOS	GRUNDFOS	SMOOTHFLO	CAE
109	90 TUAS BAY DRIVE	DP	AJAX	SMOOTHFLO	CAE
110	925 YISHUN AVE 1	GRUNDFOS	GRUNDFOS	-	CAE
111	95 KALLANG AVE	GRUNDFOS	-	-	CAE
112	9-STY LIGHT IND	-	-	-	CAE
113	A&A @ QUEENWAY BRANCH OFFICE	DP	-	-	CAE
114	ADELPHI	DP	AJAX	-	CAE
115	AFRO ASIA	GRUNDFOS	GRUNDFOS	-	CAE
116	AGILENT YISHUN	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
117	AGILENT YISHUN		NM FIRE	CNP	TORNATECH
118	AIR TRUNK	SPP	SPP	-	TORNATECH
119	AIRBASE 7900	GRUNDFOS	GRUNDFOS	IVECO	CAE
120	AKZO NOBEL HOUSE	-	-	-	TORNATECH
121	AMBERSKYE AT AMBER ROAD	-	-	-	CAE
122	AMCOR	GRUNDFOS	KBL	-	CAE
123	AMK HUB	GRUNDFOS	GRUNDFOS	-	CAE
124	ANCHORVALE CONDO	GRUNDFOS	GRUNDFOS	-	CAE
125	ANG MO KIO CHURCH	DP	AJAX	-	CAE
126	ARK @ GAMBAS AVE	DP	AJAX	-	CAE
127	ASANA	GRUNDFOS	KSB	-	CAE
128	ASRS BUILDING AT 29 JOO KOON CIRCLE	GRUNDFOS	GRUNDFOS	-	CAE
129	AURORA (P) - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
130	AVAGO	-	RUNDFOS-PEERLES	CLARKE	-
131	AXA TOWER	GRUNDFOS	SPP	-	CAE
132	BALESTIER HILL	GRUNDFOS	KBL	-	CAE
133	BALESTIER NURSING HOME	GRUNDFOS	-	-	CAE
134	BARTLEY RIDGE AT MOUNT VERNON	GRUNDFOS	EUROFLO	-	CAE
135	BASSEIN	DP	AJAX	-	CAE
136	BEACH CENTRE	GRUNDFOS	AJAX	-	CAE
137	BEDOK CAMP	GRUNDFOS	AJAX	-	CAE
138	BEDOK INTEGRATED COMPLEX @ NORTH ST 3	-	-	-	CAE
139	BELLE WATER	GRUNDFOS	GRUNDFOS	-	CAE
140	BELLGRIA VILLAS	GRUNDFOS	GRUNDFOS	-	CAE
141	BENDIGO HOSPITAL - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
142	BEYONICS	GRUNDFOS	GRUNDFOS	IVECO	CAE
143	BIDEFORD HOTEL	PARAGON	AJAX	-	CAE
144	BIG BOX	DP	CALPEDA	-	CAE
145	BIG BOX - FMS (FIRE MONITORING)	DP	AJAX	-	CAE
146	BISHAN COMMUNITY CLUB	GRUNDFOS	-	-	CAE
147	BLANGADESH	-	RUNDFOS-PEERLES	CLARKE	-

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
148	BLK 22 NGEE ANN POLY	GRUNDFOS	AJAX	-	CAE
149	BOK SENG WARE HOUSE	GRUNDFOS	-	-	CAE
150	BOMBADIER	SPP	SPP	CLARKE	TORNATECH
151	BOON KENG	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	CAE
152	BOUTIQUE HOTEL @ MIDDLE RD	GRUNDFOS	GRUNDFOS	-	CAE
153	BRADDELL	SPP	KBL	-	CAE
154	BRADDELL PARK RESIDENCE	GRUNDFOS	AJAX	-	CAE
155	BRIGHT HILL @ THOMSON	GRUNDFOS	GRUNDOFS	-	CAE
156	BUDHETONE HOTEL	-	-	-	CAE
157	BUKIT BATOK AVE 8	DP	-	-	CAE
158	BUKIT GOMBAK BLK 307	DP	-	-	CAE
159	BUKIT MERAH WAREHOUSE	GRUNDFOS	OMEGA	-	CAE
160	BUKIT PANJANG METHODISH CHURCH	GRUNDFOS	-	-	CAE
161	BUKIT TIMAH SHOPPING CENTRE	-	-	-	CAE
162	BUROH STREET	GRUNDFOS	AJAX	-	CAE
163	C158A CANBERRA STATION	GRUNDFOS	GRUNDFOS	-	CAE
164	CAAS AT AVIATION PARK	GRUNDFOS	-	-	CAE
165	CABLE WAY @ SENTOSA	DP	-	-	CAE
166	CACTUS RD	GRUNDFOS	EUROFLO	-	CAE
167	CANONMENT	GRUNDFOS	AJAX	-	CAE
168	CAPITAL SQUARE - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
169	CARLTON HOTEL	-	-	-	CAE
170	CASTUS ROAD CONDO	GRUNDFOS	GRUNDFOS	-	CAE
171	CAUSEWAY POINT	-	SPP	-	-
172	CCK EC	GRUNDFOS	GRUNDFOS	-	CAE
173	CCK NURSING HOME	GRUNDFOS	GRUNDFOS	-	CAE
174	CEDAR PRIMARY SCHOOL	GRUNDFOS	-	-	CAE
175	CENTRAL PLAZA	DP	AJAX	-	CAE
176	CHADSTONE STAGE 38 © - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
177	CHANCERY HILL	GRUNDFOS	AJAX	SIDA	CAE
178	CHANGI AIRBASE	GRUNDFOS	GRUNDFOS	-	FIRETROL
179	CHANGI AIRPORT TERMINAL - 3	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
180	CHANGI AIRPORT TERMINAL - 4	DP	AJAX	-	CAE
181	CHANGI SOUTH ST 1	GRUNDFOS	GRUNDFOS	-	CAE
182	CHANGI T4	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
183	CHAO CHU KANG CAMP II	GRUNDFOS	KBL	-	CAE
184	CHAO CHU KANG WATERWORKS C2	GRUNDFOS	GRUNDFOS	CNP	CAE
185	CHECKPOINT BUILDING	GRUNDFOS	-	-	CAE
186	CHIN BEE RD	GRUNDFOS	EUROFLO	-	CAE
187	CHINESE SCHOOL	GRUNDFOS	-	-	CAE
188	CHOA CHU KANG CAMP	GRUNDFOS	GRUNDFOS	-	CAE
189	CHOA CHU KANG SOUTH VIEW	GRUNDFOS	-	-	CAE
190	CHURCH @ ANG MO KIO AVE 1	DP	AJAX	-	CAE
191	CHURCH OF CHRIST MOULMERIN	GRUNDFOS	KSB	-	CAE
192	CHURCH OF THE HOLY SPIRIT	GRUNDFOS	-	-	CAE
193	CHYE CHIAM AT TAMPINES	GRUNDFOS	KSB	-	CAE
194	CINTECH II	DP	AJAX	-	CAE
195	CITY GATE	GRUNDFOS	GRUNDFOS	-	CAE
196	CITY HOUSE	-	KBL	-	-

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
197	CITY INDUSTRIAL BUILDING	GRUNDFOS	GRUNDFOS	-	CAE
198	CITY SUITES	GRUNDFOS	GRUNDFOS	-	CAE
199	CITY VISTA RESIDENCE	DP	KBL (KPDS)	-	CAE
200	CIVIC PLAZA	GRUNDFOS	KBL	-	CAE
201	CLAREMONT MANOR - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
202	CLUNY PARK RESIDENCE	GRUNDFOS	GRUNDOFS	-	CAE
203	CMBP @ DEPOT RD	GRUNDFOS	AJAX	-	CAE
204	CMPB	-	-	-	CAE
205	COLD HUB 1	GRUNDFOS	GRUNDFOS	IVECO	CAE
206	COMMONWEALTH TOWER	GRUNDFOS	GRUNDFOS	-	CAE
207	COMMONWEALTH WARE HOUSE	GRUNDFOS	GRUNDFOS	-	CAE
208	CONDO @ 15 BUTTERWORTH LANE	DP	KBL (KPDS)	-	CAE
209	CONDO @ 17 ROBIN RD	DP	AJAX	-	CAE
210	CONDO @ 57 KOVAN RD	DP	AJAX	SMOOTHFLO	CAE
211	CONDO @ AMK AVE 2	GRUNDFOS	AJAX	-	CAE
212	CONDO @ BALMORAL	DP	EBSRAY	-	CAE
213	CONDO @ GEYLANG LOR 22	DP	-	-	CAE
214	CONDO @ HOLLAND RD	DP	AJAX	SMOOTHFLO	CAE
215	CONDO @ JURONG GATEWAY	GRUNDFOS	GRUNDFOS	-	CAE
216	CONDO @ LEWIS RD	DP	KBL	-	CAE
217	CONDO @ NO. 20 & 30 SURREY RD	DP	KBL	-	CAE
218	CONDO @ POH HUAT	DP	KBL	-	CAE
219	CONDO @ PRINCE CHARLES CRESCENT	DP	AJAX	-	CAE
220	CONDO @ SHANGHAI RD	DP	KBL	-	CAE
221	CONDO @ SHELFORD	DP	AJAX	-	CAE
222	CONDO @ SOMME RD	DP	AJAX	-	CAE
223	CONDO @ ST. PATRICK	DP	AJAX	SMOOTHFLO	CAE
224	CONDO @ STEVEN RD	DP	AJAX	SMOOTHFLO	CAE
225	CONDO @ THOMSON 3 BRIGHT HILL	GRUNDFOS	GRUNDFOS	-	-
226	CONTRACT T308 MARINE TERRACE	GRUNFOS	-	-	CAE
227	COOLALINGA SHOPPING CENTRE - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
228	CORALS @ KEPPAL BAY	GRUNDFOS	EUROFLO	-	CAE
229	CPF BUILDING @ 30 ROBINSON ROAD	GRUNDFOS	GRUNDFOS	-	CAE
230	CQ UNI EMERALD (C) - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
231	CUMMINS	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
232	DBS BUILDING @ 6 SHENTON WAY	GRUNDFOS	GRUNDFOS	-	CAE
233	DEFU CITY	GRUNDFOS	GRUNDFOS	CNP	CAE
234	DELFI @ ORCHARD	DP	KBL	-	CAE
235	DEPOT CLOSE	DP	AJAX	-	CAE
236	DERBYSHIRE RESIDENCE AT 6 DERBYSHIRE ROAD	GRUNDFOS	GRUNDFOS	-	CAE
237	DEVONSHIRE	GRUNDFOS	AJAX	-	CAE
238	DFS AT CLAYMORE	GRUNDFOS	KSB	-	CAE
239	DIAMOND INYA	-	GRUNDFOS	-	-
240	DIAMOND LAND @ TUAS SOUTH LINK 1	GRUNDFOS	GRUNDFOS	-	CAE
241	DJITSUN MALL	DP	AJAX	-	CAE
242	DORMA AT TUKANG	GRUNDFOS	GRUNDFOS	VMD	CAE
243	DORMITORY AT JALAN PAPAN	GRUNDFOS	GRUNDFOS	-	CAE
244	DORMITORY AT KAKI BUKIT	GRUNDFOS	GRUNDFOS	-	CAE
245	DOWN TOWN EAST RESORT	GRUNDFOS	EUROFLO	-	CAE

CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
246	EAGLE FACTORY	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
247	EA-NUS	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
248	EAST SINGTEL EXCHANGE	DP	-	-	CAE
249	ECOLAB-NALCO	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
250	EMBOODHO LAGOON MALDIVES	GRUNDFOS	GRUNDFOS	SIDA	CAE
251	ENTERPRISE HUB	-	KSB	-	-
252	EON SHENTON AT 70 SHENTON WAY	GRUNDFOS	EUROFLO	-	CAE
253	EW-31	GRUNDFOS	GRUNDFOS	-	CAE
254	FACTORY @ PENJURU	DP	AJAX	IVECO	CAE
255	FAR EAST FINANCE	GRUNDFOS	-	-	-
256	FARRER WALK	GRUNDFOS	KSB	-	CAE
257	FIRE STATION 3	GRUNDFOS	-	-	CAE
258	FOREST WOODS	GRUNDFOS	EUROFLO	-	CAE
259	FORTE	GRUNDFOS	GRUNDFOS	SMOOTHFLO	CAE
260	FUGRO 35 LOYANG CRESCENT	SPP	-	-	-
261	FUNAN MALL	GRUNDFOS	KSB	-	CAE
262	GAIN CITY	GRUNDFOS	-	-	CAE
263	GAMBIR RIDGE	DP	AJAX	-	CAE
264	GE - AVIATION	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
265	GE SELETAR	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
266	GEELONG HOSPITAL - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
267	GEYLANG	-	-	-	CAE
268	GEYLANG BAHRU	GRUNDFOS	-	-	-
269	GEYLANG LOR 25A	DP	AJAX	-	CAE
270	GEYLANG LOR 26	DP	AJAX	SMOOTHFLO	CAE
271	GEYLANG LOR 39	DP	AJAX	SMOOTHFLO	CAE
272	GEYLANG NURSING HOME	GRUNDFOS	GRUNDFOS	-	CAE
273	GLENEAGLES HOSPITAL	GRUNDFOS	GRUNDFOS	-	CAE
274	GOMBAK CAMP	-	RUNDFOS-PEERLES	CLARKE	TORNATECH
275	GOO3	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	FIRETROL
276	GOODWOOD GRAND AT BALMORAL ROAD	GRUNDFOS	EUROFLO	-	CAE
277	GOOGLE WEN 2	GRUNDFOS	GRUNDFOS	-	FIRETROL
278	GRACE STREET CHURCH	GRUNDFOS	AJAX	-	CAE
279	GSK HQ AT VISTA EXCHANGE GREEN	GRUNDFOS	GRUNDFOS	-	CAE
280	GUILEMARD SUITES RD	GRUNDFOS	EUROFLO	SMOOTHFLO	CAE
281	GURKHA CAMP	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
282	HABOUR FRONT VIEW	GRUNDFOS	GRUNDFOS	-	CAE
283	HABOURFRONT	GRUNDFOS	GRUNDF - PEERLESS	-	EATON
284	HAFARY	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
285	HAFARY AT SUNGAI KADUT	GRUNDFOS	GRUNDFOS	-	CAE
286	HANGAR AT CHANGI EAST	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
287	HANWELL WAREHOUSE AT JLN BOON LAY	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
288	HAW PAR VILLA	GRUNDFOS	GRUNDFOS	-	CAE
289	HAWAII TOWER	GRUNDFOS	-	-	CAE
290	HDB	GRUNDFOS	GRUNDFOS	-	
291	HDB @ BEDOK N5C19	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
292	HDB @ BUKIT BATOK N1C15	-	RUNDFOS-PEERLES	-	CAE
293	HDB @ BUKIT BATOK N4C18	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH

CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
294	HDB @ PUNGGOL WEST C39	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
295	HDB @ AMK N2C31	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
296	HDB AT CHANGI VILLAGE	GRUNDFOS	GRUNDFOS	SMOOTHFLO	CAE
297	HDB BANKIT CARPARK	GRUNDFOS	GRUNDFOS	IEVCO	CAE
298	HDB BATCH 6	GRUNDFOS	-	-	CAE
299	HDB BATCH 8	GRUNDFOS	-	-	CAE
300	HDB BT PANJANG N6C12/N6C15	-	-	-	CAE
301	HDB BUKIT BATOK N1C15	-	RUNDFOS-PEERLES	-	-
302	HDB BUKIT PANJANG	DP	AJAX	-	
303	HDB BUKIT PANJANG N6 C10	AURORA	-	-	
304	HDB C50	-	RUNDFOS-PEERLES	-	
305	HDB CLEMENTI N2C3	SPP	SPP	-	CAE
306	HDB CLEMENTI N4C12	-	-	-	CAE
307	HDB CLEMENTI N8C1	-	RUNDFOS-PEERLES	-	-
308	HDB DAWSON C1	DP	AURORA	AURORA	CAE
309	HDB DAWSON C3	-	-	-	CAE
310	HDB DAWSON C4	-	-	-	CAE
311	HDB DAWSON C5	-	-	-	CAE
312	HDB DAWSON C6 & C7	GRUNDFOS	RUNDFOS-PEERLES	-	FIRETROL
313	HDB JURONG TOWN COUNCIL	DP	-	-	CAE
314	HDB KALLANG			-	CAE
315	HDB KALLANG WHAMPOA RC 47	-	-	-	CAE
316	HDB KALLANG WHAMPOO		-	-	CAE
317	HDB N2C22 BUKIT BATOK	GRUNDFOS	AURORA	-	
318	HDB N4C10	GRUNDFOS	GRUNDFOS	-	
319	HDB N4C25 ANG MO KIO	-	RUNDFOS-PEERLESS		
320	HDB N4C28	-	RUNDFOS-PEERLES	-	
321	HDB N5C26	GRUNDFOS	GRUNDFOS	-	
322	HDB PUNGGOL C8	-	-	-	CAE
323	HDB PUNGGOL NORTH C6 & C7	-	-	-	CAE
324	HDB RC25A QUEENSTOWN		GRUNDFOS-PEERLES	-	-
325	HDB SIN MING	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
326	HDB WOODLANDS N1C25	-	RUNDFOS-PEERLES	-	-
327	HDB YISHUN CARPARK	GRUNDFOS	GRUNDFOS	IVECO	CAE
328	HDB BT PANJANG N6C13/N6C14	-	-	-	CAE
329	HDB CHAO CHU KANG N1C15	-	-	-	CAE
330	HEDGES PARK	DP	AJAX	-	CAE
331	HENDERSON NURSING HOME	PARAGON	-	-	CAE
332	HIGH LINE	GRUNDFOS	GRUNDFOS	-	CAE
333	HIGHPARK CONDOMINIUM	GRUNDFOS	GRUNDFOS	-	CAE
334	HILL VIEW	GRUNDFOS	EUROFLO	-	CAE
335	HILLION	-	-	-	CAE
336	HILLVIEW TERRACE	SPP	GRUNDFOS	CNP	CAE
337	HITACHI	GRUNDFOS	-	-	CAE
338	HO LEE	GRUNDFOS	GRUNDFOS	W&C	CAE
339	HOLLAND RD	DP	AJAX	-	CAE
340	HOLLAND RESIDENCE @ TAMAN WARNA	DP	AJAX	-	CAE
341	HOTEL @ BIDEFORD RD	DP	AJAX	-	CAE
342	HOUGANG VILLAGE	DP	KBL (KPDS)	-	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
343	HOUGANG XCHANGE	DP	-	-	CAE
344	HURUELIH ISLAND MALDIVES	GRUNDFOS	GRUNDFOS	-	CAE
345	HYFLUX @ TUAS SOUTH	DP	AJAX	-	CAE
346	ICA BUILDING	DP	AJAX	-	CAE
347	ICON @ CHANGI RD	DP	AJAX	-	CAE
348	ICPH	GRUNDFOS	GRUNDFOS	VMD	CAE
349	IGMH	-	GRUNDFO	-	CAE
350	IMH (BUANGKOK GREEN)	DP	AJAX	-	CAE
351	IMH @ 10 BUANGKOK VIEW	GRUNDFOS	NM FIRE	CNP	TORNATECH
352	INDEX	-	-	-	CAE
353	INDIAN HERITAGE CENTRE	DP	AJAX	-	CAE
354	INDIAN SCHOOL	GRUNDFOS	GRUNDFOS	-	CAE
355	INFLORAL	GRUNDFOS	AJAX	-	CAE
356	INSTUTION HILL	GRUNDFOS	AJAX	-	CAE
357	INTERLOCAL	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
358	INTERNATIONAL EXHIBITION HALL	SPP	NM FIRE	-	CAE
359	IPOH LANE	ISURUMI	-	-	CAE
360	ISTANA	GRUNDFOS	-	-	CAE
361	JALAN BESAR (OFFICE)	DP	AJAX	-	CAE
362	JALAN BUKIT MERAH	DP	AJAX	-	CAE
363	JALAN BUSUT	GRUNDFOS	AJAX	-	CAE
364	JALAN DUSUN	GRUNDFOS	GRUNDFOS	-	CAE
365	JALAN KECHI	GRUNDFOS	GRUNDFOS	-	CAE
366	JALAN KILANG	GRUNDFOS	AJAX	-	CAE
367	JALAN PELIKAT	GRUNDFOS	GRUNDOFS	-	CAE
368	JALAN SENYUM	SPP	KSB	-	CAE
369	JALAN SULTAN	DP	AJAX	-	CAE
370	JALAN TUKANG SUBSTATION	DP	AJAX	SMOOTHFLO	CAE
371	JEP AT SELETAR	GRUNDFOS	EUROFLO	SIDA	CAE
372	JEWEL	GRUNDFOS	-	-	CAE
373	JEWEL	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
374	JLN LEGUNDI	DP	AJAX	SMOOTHFLO	CAE
375	JTC @ CLEANTECH 2	SPP	KBL	-	CAE
376	JTC @ FUNITURE HUB	-	-	-	CAE
377	JTC @ GUL CIRCLE	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
378	JTC FACTORY	DP	AJAX	-	CAE
379	JTC @ WOODLANDS	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
380	JURONG ISLAND - BERTSCHI	GRUNDFOS	RUNDFOS-PEERLES	-	W&C
381	JURONG ISLAND - NUPPON	-	RUNDFOS-PEERLES	-	FIRETROL
382	JURONG ISLAND SUBSTATION	GRUNDFOS	GRUNDFOS	IVECO	CAE
383	JURONG KECHI	DP	AJAX	-	CAE
384	JURONG MOSQUE	GRUNDFOS	-	-	CAE
385	JURONG PIER SUBSTATION	GRUNDFOS	GRUNDFOS	IVECO	CAE
386	JURONG WEST AVE 4 SUBSTATION	DP	AJAX	SMOOTHFLO	CAE
387	JURONG WEST N2C25	-	-	-	CAE
388	K & T BUILDING	-	-	-	CAE
389	K + N @ PIONEER CRESCENT	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	CAE
390	KACC	GRUNDFOS	-	-	CAE
391	KALLANG WHAMPOA RC21	-	-	-	CAE

CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
392	KALSA	GRUNDFOS	KSB	-	CAE
393	KAMPUNG UBI INDUSTRIAL	GRUNDFOS	-	-	CAE
394	KANDIMA RESORT - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
395	KATONG	GRUNDFOS	-	-	CAE
396	KEBUN BARU CC	GRUNDFOS	EUROFLO	-	CAE
397	KECHI	GRUNDFOS	-	-	CAE
398	KENG LEE VIEW	GRUNDFOS	-	-	CAE
399	KENSINGTON	GRUNDFOS	AJAX	-	CAE
400	KEWALRAN HOUSE	-	GRUNDFOS	-	-
401	KIM CHUAN	GRUNDFOS	GRUNDFOS	-	CAE
402	KIM SOON LEE	GRUNDFOS	KSB	CNP	CAE
403	KING ALBERT	-	-	-	CAE
404	KING'S HOTEL	SPP	KSB	SIDA	CAE
405	KL MRT - BUKIT BINTANG STATION (P4) - IN MALAYSIA	-	SPP	-	-
406	KL MRT - COCHRANE - IN MALAYSIA	-	SPP	-	-
407	KL MRT - KAJANG DEPOT (MERDEKA STATION (P3)) IN MALAYSIA	-	SPP	-	-
408	KL MRT - MALURI - IN MALAYSIA	-	SPP	-	-
409	KL MRT - PASAR SENI STATION - IN MALAYSIA	-	SPP	-	-
410	KL MRT - TUN RAZAK STATION - IN MALAYSIA	-	SPP	-	-
411	KL MRT-P1-SENTRAL STATION - IN MALAYSIA	-	SPP	-	-
412	KOVAN OH 3 30	DP	AJAX	SMOOTHFLO	CAE
413	KRANJI CAMP	GRUNDFOS	AJAX	-	CAE
414	KRANJI CAMP 3	GRUNDFOS	-	-	CAE
415	KRANJI SECONDARY SCHOOL	GRUNDFOS	-	-	CAE
416	LABRADOR 230KV	GRUNDFOS	NM FIRE	CNP	TORNATECH
417	LAM HUAT FACTORY	GRUNDFOS	GRUNDFOS	-	CAE
418	LATITUDE CONDOMINIUM	SPP	-	-	-
419	LCK CAMP	DP	AJAX	SMOOTHFLO	CAE
420	LE REGAL 340 GEYLANG	DP	AJAX	-	CAE
421	LENG KEE	GRUNDFOS	EUROFLO	-	CAE
422	LEONIE HILL	GRUNDFOS	AJAX	-	CAE
423	LEW LIAN	GRUNDFOS	AJAX	-	CAE
424	LIBERETE CONDO @ 5 SARKIES RD	GRUNDFOS	KBL	-	CAE
425	LIGHT HOUSE - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
426	LINE	-	-	-	CAE
427	LOR 20	DP	AJAX	SMOOTHFLO	CAE
428	LOR 23	DP	AJAX	SMOOTHFLO	CAE
429	LOR 24	DP	AJAX	-	CAE
430	LOR 27	GRUNDFOS	KSB	SMOOTHFLO	CAE
431	LORONG 17	GRUNDFOS	-	-	CAE
432	LORONG 23 GEYLANG	GRUNDFOS	KBL	-	CAE
433	LORONG 27	GRUNDFOS	KSB	SIDA	CAE
434	LORONG 28 GEYLANG	DP	-	-	CAE
435	LORONG K	GRUNDFOS	EUROFLO	-	CAE
436	LORONG KEBASI	GRUNDFOS	GRUNDFOS	-	CAE
437	LOYANG BUS DEPOT	GRUNDFOS	GRUNDFOS	-	CAE
438	LOYANG FACTORY	GRUNDFOS	GRUNDFOS	-	CAE

CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
439	MAAMUTAA ISLAND MALDIVES	GRUNDFOS	GRUNDFOS	SIDA	CAE
440	MALDIVES	GRUNDFOS	GRUNDFOS	SIDA	CAE
441	MAMUTTA RESORT - MALDIVES	GRUNDFOS	GRUNDFOS	-	CAE
442	MANCAST @ PENJURU	GRUNDFOS	AJAX	-	CAE
443	MANDAI CAMP 2	GRUNDFOS	-	-	CAE
444	MANDAI DEPOT	GRUNDFOS	GRUNDFOS-PEERLES	-	CAE
445	MANDAI GAS STATION	GRUNDFOS	KSB	-	CAE
446	MANDAI LINK	GRUNDFOS	GRUNDFOS	-	CAE
447	MARGATER DRIVE	GRUNDFOS	GRUNDFOS	-	CAE
448	MARIAM WAY	SPP	KSB	-	CAE
449	MARINE BLUE AT MARINE PARADE	PARAGON	-	-	CAE
450	MARINE PARADE TOWN COUNCIL	-	GRUNDFOS	-	-
451	MARKANO	GRUNDFOS	GRUNDFOS	CLARKE	CAE
452	MBT @ TUAS SOUTH AVE 2	GRUNDFOS	GRUNDFOS	-	CAE
453	MD - 11	CALPEDA	OMEGA	-	CAE
454	MEGA AT WOODLANDS CLOSE	GRUNDFOS	KSB	-	CAE
455	MENICON SG	SPP	-	-	-
456	MERGUI SUITES FORTE 88 @ RANGOON RD	GRUNDFOS	GRUNDFOS	SMOOTHFLO	CAE
457	MEYAPPA CHETTIAR	GRUNDFOS	NM FIRE	-	CAE
458	MEYER	GRUNDFOS	AJAX	-	CAE
459	MICRON	GRUNDFOS	GRUNDFOS-PEERLES	CLARKE	TORNATECH
460	MIDLINK @ MIDDLE RD	GRUNDFOS	GRUNDFOS	-	CAE
461	MIDVIEW CITY	-	-	-	CAE
462	MILAGE (55 CHANGI RD)	GRUNDFOS	AJAX	-	CAE
463	MITUTOYO @ KALLANG	DP	AJAX	-	CAE
464	MOHD SULTAN RD	GRUNDFOS	EUROFLO	-	CAE
465	MONASH CHILDREN HOSP - IN AUSTRALIA	-	-	-	CAE
466	MOSQUE @ JALAN BAHAR	GRUNDFOS	AJAX	-	CAE
467	MOUNT E	GRUNDFOS	KSB	-	CAE
468	MULTI-STY CAR PARKS (HDB BATCH 6)	GRUNDFOS	-	-	CAE
469	MUNDIPHARMA	SPP	SPP	-	TORNATECH
470	NAGA WORLD HANGER @ CAMBODIA	GRUNDFOS	EUROFLO	-	CAE
471	NANOSPACE AT TAMPINES	GRUNDFOS	GRUNDFOS	-	TORNATECH
472	NATIONAL CANCER CENTRE	GRUNDFOS	SPP	-	TORNATECH
473	NCID	GRUNDFOS	EUROFLO	-	-
474	NEE SOON (TRANSIT RD)	GRUNDFOS	GRUNDFOS	-	CAE
475	NEE SOON EAST CC	GRUNDFOS	-	-	CAE
476	NEESON CAMP	GRUNDFOS	GRUNDFOS	-	CAE
477	NEW FUTURA	GRUNDFOS	AJAX	-	CAE
478	NEW NATIONAL CANCER CENTRE	GRUNDFOS	SPP	-	TORNATECH
479	NEW PRIMARY SCHOOL PUNGGOL	GRUNDFOS	GRUNDFOS	-	CAE
480	NEXUS INTERNATIONAL SCHOOL	GRUNDFOS	GRUNDFOS	-	CAE
481	NIE @ 1 NANYANG DRIVE	SPP	KBL & SPP	-	CAE
482	NO 36 PIONEER SECTOR 2	GRUNDFOS	-	-	-
483	NO 7 SENOKO AVE	GRUNDFOS	-	-	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
484	NO. 1, CLEMENTI LOOP	DP	KBL	-	CAE
485	NO. 2, FISHERY RD	GRUNDFOS	GRUNDOFS	-	CAE
486	NO. 20, PATTERSON RD	DP	KBL	-	CAE
487	NOL	GRUNDFOS	AJAX	SMOOTHFLO	CAE
488	NORRIS ROAD	GRUNDFOS	KBL	-	CAE
489	NORTH POINT SHOOPING CENTRE	DP	-	-	CAE
490	NOVENA CHURCH	GRUNDFOS	-	-	CAE
491	NSL	GRUNDFOS	GRUNDFOS	IVECO	CAE
492	NTU	DP	AJAX	-	CAE
493	NTU HYTECH	GRUNDFOS	-	-	CAE
494	NTU LEARNING CENTRE	DP	AJAX	-	CAE
495	NUH	GRUNDFOS	AJAX	-	CAE
496	NURSING HOME CHAI CHEE	PARAGON	KBL	-	CAE
497	NURSING HOME GEYLANG	GRUNDFOS	GRUNDFOS	-	CAE
498	NUS	GRUNDFOS	GRUNDFOS	-	CAE
499	NUS E4	CALPEDA	OMEGA	-	CAE
500	NUS E7	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
501	NUS S8	GRUNDFOS	OMEGA	-	CAE
502	OASIA	AJAX	-	-	CAE
503	OASIS PUMP	CALPEDA	AJAX	-	CAE
504	OASIS SAKRA	GRUNDFOS	GRUNDFOS	-	EATON
505	OCBC @ CHULIA ST	GRUNDFOS	GRUNDFOS	-	CAE
506	OFFICE @ GILLEMARD	DP	AJAX	-	CAE
507	OFFICE @ LOR 25	DP	AJAX	-	CAE
508	OFFICE BUILDING @ TAI SIN	DP	AJAX	-	CAE
509	ONE RAFFLES PLACE	-	-	-	CAE
510	ORIENT AT 251 PASIR PANJANG	GRUNDFOS	-	-	CAE
511	OXFORD RD PROJECT	DP	KBL	-	CAE
512	P & G	-	-	-	TORNATECH
513	PAN PACIFIC	SPP	NM FIRE	-	TORNATECH
514	PARC LIFE	GRUNDFOS	KSB	-	CAE
515	PARK MALL	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
516	PARK ROYAL	GRUNDFOS	GRUNDFOS	-	CAE
517	PARKWAY PARADE	GRUNDFOS	-	-	-
518	PASIR LAB CAMP	DP	-	-	CAE
519	PASIR PANJANG	GRUNDFOS	AJAX	-	CAE
520	PASIR RIS	GRUNDFOS	EUROFLO	-	CAE
521	PASIR RIS BUS INTERCHANGE	GRUNDFOS	KBL	-	CAE
522	PASIR RIS CENTRAL HAWKER CENTRE	GRUNDFOS	GRUNDFOS	-	CAE
523	PAYA LEBAR AIR BASE	GRUNDFOS	-	-	CAE
524	PAYA LEBAR ROAD / SIMS AVENUE	GRUNDFOS	GRUNDFOS	-	CAE
525	PAYAR LEBAR QUARTER	GRUNDFOS	GRUNDFOS	-	CAE
526	PENJURU	GRUNDFOS	KBL	-	CAE
527	PENTRIDGE PLAZA - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
528	PEPPER AND FUCHS @ PIONEER	GRUNDFOS	GRUNDFOS	-	CAE
529	PET FARM AT SUNGEI TEMGAH ROAD	-	GRUNDFOS	-	CAE
530	PIONEER RD	DP	AJAX	SMOOTHFLO	CAE
531	PLAYFAIR RD	DP	AJAX	-	CAE
532	PRIME BUILDING	GRUNDFOS	-	-	CAE
533	PRINCIPLE GARDEN	GRUNDFOS	GRUNDFOS	-	CAE
534	PROJECT 828	GRUNDFOS	GRUNDFOS	-	CAE
535	PSA	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	EATON
536	PSA PASIR PANJANG	GRUNDFOS	AJAX	-	CAE
537	PUNGGOL C1	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
538	PUNGGOL C2	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
539	PUNGGOL FIELD WALK	DP	AJAX	-	CAE
540	PUNGGOL NORTH C3 & CG	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
541	PUNGGOL NURSING HOME	SPP	KBL	-	-
542	PUNGGOL WEST C33 & C34	GRUNDFOS	-	-	-
543	QUEEN PEAK CONDOMINIUM	GRUNDFOS	GRUNDFOS	-	CAE
544	QUEENTOWN	AURORA	-	-	CAE
545	R252 LOYANG BUS DEPOT	GRUNDFOS	GRUNDOFS	-	CAE
546	RACE COURSE RD	GRUNDFOS	EUROFLO	SMOOTHFLO	CAE
547	RAFFLES HOTEL	DP	AJAX	YAMMA	CAE
548	RANGOON ROAD	DP	AJAX	-	CAE
549	RED LION	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
550	REPUBLIC POLYTECHNIC	SPP	KBL	-	CAE
551	REX HOUSE	-	-	-	CAE
552	RIVER GROOVE @ SANKANG	GRUNDFOS	GRUNDFOS	-	CAE
553	RIVER ISLES	DP	AJAX	-	CAE
554	RIVER VALLEY	GRUNDFOS	KSB	-	CAE
555	RIVERVALE	GRUNDFOS	KBL	-	CAE
556	ROBINSON TOWER	GRUNDFOS	AJAX	-	CAE
557	ROSEWOOD	DP	AJAX	-	CAE
558	RSAF	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
559	S.M.P	-	KBL	LD	-
560	SAF - P2, TEKON BLK 18	DP	-	-	CAE
561	SAINT THOMAS	GRUNDFOS	EUROFLO	-	CAE
562	SANTORINI	GRUNDFOS	GRUNDFOS	-	CAE
563	SC AUTO	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
564	SCOTT RD	GRUNDFOS	AJAX	-	CAE
565	SCOTT TOWER	GRUNDFOS	RUNDFOS-PEERLESS		EATON
566	SEA ESTA	DP	AJAX	-	CAE
567	SEAH STREET HOTEL	DP	AJAX	-	CAE
568	SEASIDE CONDO	GRUNDFOS	GRUNDFOS	-	-
569	SELARANG PARK	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
570	SELETAR AIRPORT	GRUNDFOS	GRUNDFOS	-	CAE
571	SELETAR CAMP	GRUNDFOS	GRUNDFOS	-	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
572	SELISIA	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
573	SEMBAWANG AIR BASE	SPP	-	-	CAE
574	SEMBAWANG HDB	GRUNDFOS	EUROFLO	-	CAE
575	SEMBAWANG SPORT HUB	-	-	-	CAE
576	SENGKANG BOY	GRUNDFOS	-	-	CAE
577	SENGKANG CONDO	GRUNDFOS	GRUNDFOS	-	CAE
578	SENNETTE RESIDENCE	GRUNDFOS	AJAX	-	CAE
579	SENOKO FOOD HUB	GRUNDFOS	AJAX	-	CAE
580	SENOKO OILFIELD	-	-	-	TORNATECH
581	SENTOSA	GRUNDFOS	-	-	CAE
582	SHANGRI-LA CENTRAL	-	-	-	CAE
583	SHELL SIMPANG BEDOK	GRUNDFOS	-	-	CAE
584	SHIMANO	GRUNDFOS	GRUNDFOS	CNP	CAE
585	SIA HANGAR 2	-	SPP	-	TORNATECH
586	SIMS URBAN OASIS	-	-	-	CAE
587	SIN 060 DC	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
588	SING POST	GRUNDFOS	AJAX	-	CAE
589	SINGAPORE CHINESE CULTURAL CENTRE @ MAXWELL RD	GRUNDFOS	GRUNDFOS	-	CAE
590	SINGAPORE POOLS @ 210 MIDDLE RD	DP	AJAX	-	CAE
591	SINGNATURE PARK	SPP	-	-	CAE
592	SINGPOST	GRUNDFOS	GRUNDFOS	-	CAE
593	SINGPOST @ TAMPINES	GRUNDFOS	AJAX	-	CAE
594	SINGTEL AT BEDOK	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
595	SINGTEL NEW DATA CENTRE FACILITY @ YUNG HO	DP	AJAX	-	CAE
596	SKYPARK	GRUNDFOS	GRUNDFOS	-	CAE
597	SKYPARK RES EC AT SEMBAWANG ROAD	GRUNDFOS	KBL	-	CAE
598	SLING	GRUNDFOS	GRUNDFOS	CLARKE	CAE
599	SMU	GRUNDFOS	GRUNDFOS	-	CAE
600	SOHFIA	GRUNDFOS	GRUNDFOS	SMOOTHFLO	CAE
601	SOLOMON ISLANDS	GRUNDFOS	GRUNDFOS	-	CAE
602	SOPHIA	GRUNDFOS	KSB	-	CAE
603	ST ELECTRONICS	GRUNDFOS	GRUNDFOS	-	CAE
604	ST JOSEPH CHURCH	GRUNDFOS	-	-	CAE
605	ST POWEN JAMES	GRUNDFOS	GRUNDFOS	-	CAE
606	ST. THOMAS RESIDENCE @ THOMAS WALK	DP	KBL	-	CAE
607	ST2 OMEGA	GRUNDFOS	EUROFLO	-	CAE
608	STAGMONT CAMP		NM FIRE	CNP	TORNATECH
609	STAR HUB	-	-	-	CAE
610	STAT CHIPPAC	GRUNDFOS	-	-	-
611	STATES COURTS	GRUNDFOS	GRUNDFOS	-	CAE
612	STRILING ROAD	GRUNDFOS	GRUNDFOS	-	CAE
613	STURDEE	GRUNDFOS	GRUNDFOS	IVECO	CAE
614	SUBSTATION	GRUNDFOS	KBL	SIDA	CAE
615	SUBSTATION @ BOONLAY	DP	AJAX	SMOOTHFLO	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
616	SUBSTATION @ DUNEARN RD	SPP	KBL	-	CAE
617	SUBSTATION @ EUNOS RD	DP	AJAX	SMOOTHFLO	CAE
618	SUBSTATION @ GAMBAS	DP	AJAX	-	CAE
619	SUBSTATION @ KG BAHRU	DP	AJAX	SMOOTHFLO	CAE
620	SUBSTATION @ LOYANG	DP	AJAX	SMOOTHFLO	CAE
621	SUBSTATION @ RAFFLES	DP	AJAX	SMOOTHFLO	CAE
622	SUBSTATION @ SHANGHAI TUNNEL	DP	AJAX	HATZ	CAE
623	SUBSTATION @ TAGORE	SPP	KBL	-	CAE
624	SUBSTATION @ TAMPINES	SPP	KBL KPD	-	CAE
625	SUBSTATION @ TUAS SOUTH AVE 4	DP	KBL	IVECO	CAE
626	SUBSTATION @ WOODLAND AVE 4	DP	AJAX	SMOOTHFLO	CAE
627	SUBSTATION @ WOODLAND HEIGHT	DP	AJAX	SMOOTHFLO	CAE
628	SUBSTATION @ YISHUN	GRUNDFOS	GRUNDFOS	SMOOTHFLO	CAE
629	SUBSTATION ANN SIANG	DP	AJAX	IVECO	CAE
630	SUBSTATION BIDEFORD	DP	AJAX	HATZ	CAE
631	SUBSTATION BOON KENG	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	CAE
632	SUBSTATION BULIM	GRUNDFOS	AJAX	SMOOTHFLO	CAE
633	SUBSTATION CLEAN TECH	GRUNDFOS	AJAX	SMOOTHFLO	CAE
634	SUBSTATION PUNGGOL	DP	AJAX	-	CAE
635	SUBSTATION SUNVIEW I	GRUNDFOS	AJAX	SMOOTHFLO	CAE
636	SUBSTATION SUNVIEW II	GRUNDFOS	AJAX	SMOOTHFLO	CAE
637	SUITE 28 @ LOR 30	DP	AJAX	-	CAE
638	SUNGEI GEDONG CAMP	SPP	KBL	-	CAE
639	SUNGEI KADUT ST 2	DP	AJAX	-	CAE
640	SUNVIEW LANE	DP	AJAX	SMOOTHFLO	CAE
641	SYMRISE ASIA PACIFIC	GRUNDFOS	-	-	-
642	TAGORE DATA CENTRE	-	-	-	CAE
643	TAI SENG	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
644	TAI SIN	DP	AJAX	-	CAE
645	TAMPINES INDUSTRIAL DRIVE	-	-	-	CAE
646	TAMPINES N4C28	GRUNDFOS	-	-	-
647	TAMPINES N6C1A	GRUNDFOS	RUNDFOS-PEERLES	-	TORNATECH
648	TAMPINES NORTH	GRUNDFOS	GRUNDFOS	-	CAE
649	TAMPINES PRIMARY SCHOOL	GRUNDFOS	GRUNDFOS	-	CAE
650	TAMPNIES AVE 10	GRUNDFOS	AJAX	-	CAE
651	TAMPNIES FACTORY	DP	AJAX	SMOOTHFLO	CAE
652	TAN TOCK SENG HOSPITAL	DP	-	-	CAE
653	TANJONG KILANG PROJECT	DP	AJAX	-	CAE
654	TANJONG PAGAR MIXED DEVELOPMENT	GRUNDFOS	GRUNDFOS	-	CAE
655	TANJONG PENJURU	DP	AJAX	IVECO	CAE
656	TANJONG RHU	-	-	-	CAE
657	TELEFLEX - IN MALAYSIA	-	RUNDFOS-PEERLES	CLARKE	TORNATECH
658	TELIN HUB	GRUNDFOS	GRUNDFOS	-	CAE
659	TELOK CAMP	DP	-	-	CAE

CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
660	TEMASAK POLY SPORTS CENTRE	DP	-	-	CAE
661	TENGAH AIR BASE	GRUNDFOS	RUNDFOS-PEERLES	CLARKE	TORNATECH
662	THCW T15	DP	AJAX	-	CAE
663	THE BIJOU	GRUNDFOS	GRUNDFOS	-	CAE
664	THE CORALS AT KEPPEL BAY DRIVE	GRUNDFOS	EUROFLO	-	CAE
665	THE GARDEN RESIDENCES	SPP	NM FIRE	-	TORNATECH
666	THE HILLIER AY HILLVIEW AVE	-	-	-	CAE
667	THE MKZ-131 MACKENZIE RD	DP	AJAX	-	CAE
668	THE SANTORINI AT TAMPINES	GRUNDFOS	GRUNDFOS	-	CAE
669	THE SIENA @ FARRER RD	GRUNDFOS	GRUNDFOS	-	CAE
670	THE TOMLINSON	-	KSB	-	-
671	THE TRILINQ 1	GRUNDFOS	EUROFLO	IVECO	CAE
672	THE TRILINQ 2	GRUNDFOS	GRUNDFOS	W & C	CAE
673	TIONG SENG FACTORY	GRUNDFOS	EUROFLO	-	CAE
674	TOH DRIVE	DP	AJAX	-	CAE
675	TOLL CITY	GRUNDFOS	RUNDFOS-PEERLES	-	CAE
676	TOUCH COMMUNITIES @ JALAN BUKIT MERAH	DP	OMEGA	-	CAE
677	TOWN SQUARE	-	-	-	CAE
678	TOYOGO	GRUNDFOS	GRUNDFOS	-	CAE
679	TREASURE AT BALMORAL	GRUNDFOS	-	-	-
680	TRILIVE	GRUNDFOS	GRUNDFOS	-	CAE
681	TRIPLEONE SOMESET	GRUNDFOS	KSB	-	-
682	TTJ	-	GRUNDFOS	-	CAE
683	TTS	-	-	-	CAE
684	TUAS	GRUNDFOS	-	-	-
685	TUAS BIOMEDICAL PARK - EPI CENTRE	DP	-	-	CAE
686	TUAS SHIPYARD	DP	AJAX	SMOOTHFLO	CAE
687	TUAS SOUTH LINK 1	SPP	KBL	-	CAE
688	TUAS SOUTH ROAD 6	-	-	-	CAE
689	TUAS SOUTH ST 15	SPP	KSB	-	CAE
690	TUAS SOUTH ST 7	GRUNDFOS	EUROFLO	-	CAE
691	TUAS SOUTH ST 8	GRUNDFOS	AJAX	SMOOTHFLO	CAE
692	TUAS SOUTH STREET 15	SPP	KSB	-	CAE
693	TUAS TUNNEL DIESEL	-	KSB	-	CAE
694	TUNG ANN	-	KSB	-	-
695	TURBO MECA	GRUNDFOS	GRUNDFOS	-	CAE
696	TYRWHITT RD HOTEL	GRUNDFOS	AJAX	-	CAE
697	UBI RD 1	DP	AJAX	-	CAE
698	UBI WAREHOUSE	DP	AJAX	-	CAE
699	UCB TOWER CAMBODIA	GRUNDFOS	GRUNDFOS	-	CAE
700	UOB	DP	AJAX	-	CAE
701	UPPER JURONG SUBSTATION	DP	AJAX	SMOOTHFLO	CAE
702	UPPER PAYA LEBAR	DP	AJAX	-	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
703	UPPER SERANGOON	DP	AJAX	SMOOTHFLO	CAE
704	URA	GRUNDFOS	AJAX	-	CAE
705	UTOO FACTORY	SPP	KBL	-	CAE
706	VICTORIA ONE - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
707	VIVA VISTA	DP	AJAX	HATZ	CAE
708	WATER COLOUR	DP	-	-	CAE
709	WATERHUB	GRUNDFOS	GRUNDFOS	-	CAE
710	WENYA DEPOT @ BULIM	GRUNDFOS	GRUNDFOS	-	CAE
711	WEST COAST	SPP	KBL	-	CAE
712	WEST PHARMA	GRUNDFOS	KBL	-	CAE
713	WEST PT	GRUNDFOS	GRUNDFOS	-	CAE
714	WESTWOOD AT WESTWOOD AVE	GRUNDFOS	EUROFLO	-	CAE
715	WHEELLOCK	-	-	-	CAE
716	WHITE HAVEN	GRUNDFOS	KSB	-	CAE
717	WILLIE	GRUNDFOS	KSB	-	CAE
718	WILLY	GRUNDFOS	GRUNDFOS	-	CAE
719	WILLY	DP	-	-	CAE
720	WISMA ATRIA	-	-	-	CAE
721	WOLLWORTHS CROWS NES - IN AUSTRALIA	GRUNDFOS	GRUNDFOS	-	CAE
722	WOODLAND AVE 12	GRUNDFOS	GRUNDFOS	-	CAE
723	WOODLANDS INDUSTRIAL PARK E9	GRUNDFOS	GRUNDFOS	-	CAE
724	WOODLANDS SQUARE	GRUNDFOS	GRUNDFOS	-	CAE
725	WOODLANDS ST 13	GRUNDFOS	EUROFLO	-	CAE
726	WOODLANDS SUNNY FOOD	GRUNDFOS	GRUNDFOS	IVECO	CAE
727	YIO CHU KANG	GRUNDFOS	KBL	-	CAE
728	YISHUN AVE 1	DP	-	-	CAE
729	YISHUN AVE 4	GRUNDFOS	GRUNDFOS	-	CAE
730	YISHUN FACTORY	GRUNDFOS	GRUNDFOS	-	CAE
731	YISS @ PUNGGOL SCHOOL	SPP	KBL	-	-
732	YUSEN LOGISTICS	GRUNDFOS	GRUNDFOS	IVECO	CAE
733	79RR	GRUNDFOS	GRUNDFOS	-	CAE
734	BOMBARDIER	SPP	SPP	CLARKE	TORNATECH
735	UL FM-T4 SIZE UP OF SPRINKLER PUMP	CR	GRUNDFOS	-	TORNATECH
736	PAN PACIFIC HOTELS GROUP	SPP	SPP	-	CAE
737	NO.1 TUAS BAY CLOSE(AWARDED PROJECT)	GRUNDFOS	KBL	-	CAE
738	20 CHIN BEE ROAD	SPP	SPP	CLARKE	CAE
739	PUNGGOL DRIVE AT SENTUL CRESCENT	GRUNDFOS	SPP	-	CAE
740	FERNVALE COMMUNITY CLUB	SPP	KBL	-	CAE
741	6TH WAREHOUSE@7 TAI SENG DR	GRUNDFOS	NM FIRE	-	TORNATECH
742	ST RIVERVALE DR.(SENGKANG)	GRUNDFOS	KBL	-	CAE
743	8 STY LABORATORY FACILITIES@NUS	GRUNDFOS	GRUNDFOS	-	TORNATECH
744	20 MACTAGGART RD	GRUNDFOS	KBL	-	CAE
745	OCBC WET RISER	SPP	KBL	-	CAE
746	NEPAL PARK (SERVICE APARTMENT)	SPP	KBL	-	-

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
747	16 NASSIM ROAD	SPP	KBL	-	-
748	RAZER HQ	SPP	KBL	-	CAE
749	LE GAL	SPP	-	-	CAE
750	CHANGI COAST ROAD	SPP	KBL	-	CAE
751	MADIFUSHI	SPP	KSB	LD	CAE
752	BIDADARI	GRUNDFOS	GRUNDFOS	-	TORNATECH
753	DF15	GRUNDFOS	GRUNDFOS	-	CAE
754	HDB PROJECT PUNGGOL WEST C39	GRUNDFOS	GRUNDFOS	-	TORNATECH
755	CAMP	GRUNDFOS	NM FIRE	NM FIRE	TORNATECH
756	ALPS @ TAMPINES	SPP	KSB	-	CAE
757	MINISTRY OF FOREIGN AFFAIRS AT SHERWOOD RD	SPP	KSB	-	CAE
758	66 KV SUBSTATION @ TAGORE RD	SPP	KBL	-	CAE
759	AFPD @ 10 TAMPINES INDUSTRIAL AVENUE 3 (DZ)	-	KBL	-	-
760	TAMPINES SUBSTATION	SPP	KBL	-	CAE
761	NEOVIA JOCKEY PUMP	SPP	-	-	-
762	21 COLLYER QUAY	GRUNDFOS	GRUNDFOS	-	-
763	JURONG LOGISTIC HUB	-	-	NM FIRE	TORNATECH
764	JTC LOGISTICS HUB @ GUL DRIVE	GRUNDFOS	GRUNDFOS	-	CAE
765	JTC CLEANTECH THREE AT CLEANTECH PARK	SPP	KBL	-	CAE
766	45 AMBER RD	GRUNDFOS	GRUNDFOS	-	CAE
767	52 GENTING LANE	SPP	-	-	-
768	HARBOURVIEW GARDEN AT PASIR PANJANG	SPP	KBL	-	CAE
769	LOYANG DIRVE	SPP	-	-	CAE
770	SENGKANG	GRUNDFOS	GRUNDFOS	-	CAE
771	PUNGGOL FIRE STATION (HOSEREEL PUMP)	GRUNDFOS	-	-	-
772	3 STOREY SINGLE USER INDUSTRIAL DEVELOPMENT	SPP	KBL	LD	CAE
773	BRADDELL PROJECT	SPP	KBL	-	CAE
774	MSD TUAS	GRUNDFOS	SPP	-	TORNATECH
775	31 MARSILING RISE	SPP	-	-	CAE
776	SIN06 WOODLANDS	SPP	NM FIRE	-	TORNATECH
777	AIR TRUNK C&D	SPP	-	-	CAE
778	NSP SHIMANO	GRUNDFOS	GRUNDFOS	-	CAE
779	ADVANCED LIVING (BEST WORLD)	SPP	NM FIRE	-	CAE
780	A&A WORKS - SINGAPORE POST CENTRE	SPP	-	-	-
781	THERMO FISHER	SPP	NM FIRE	NM FIRE	TORNATECH
782	YISHUN N4C20	SPP	NM FIRE	-	TORNATECH
783	10 TANJONG PENJURU	SPP	KBL	-	CAE
784	206 BEDOK SOUTH	SPP	KBL	-	CAE
785	MEZZANINE HAWKER CENTRE	GRUNDFOS	GRUNDFOS	-	CAE
786	TUAS PROJECT	SPP	SPP	NM FIRE	CAE
787	SLT	SPP	KBL	-	CAE
788	2 STY NUS SCHOOL	SPP	NM FIRE	-	CAE
789	PASIR PANJANG NURSERY	SPP	KBL	HATZ	CAE
790	DSTA CIVIL WORKS AT SEMBAWANG	SPP	NM FIRE	-	TORNATECH

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
791	PHASE 2 EXPANSION-CHANGI WATER RECLAMATION PLANT	GRUNDFOS	GRUNDFOS	-	TORNATECH
792	TAMPINES N6 C15-16	SPP	KBL	-	CAE
793	6TH STY KFS BUILDING	GRUNDFOS	GRUNDFOS	-	CAE
794	BANK PROJECT	SPP	KBL	-	CAE
795	357/363 EAST COAST ROAD	GRUNDFOS	NM FIRE	-	CAE
796	28 CHANGI NORTH RISE	SPP	KBL	NM FIRE	TORNATECH
797	SIONG BEE IND	SPP	KBL	LD	CAE
798	ESSENTIAL	SPP	KBL	HATZ	CAE
799	8&9 HONG KONG STREET	SPP	KBL	-	CAE
800	HIGH PARK	GRUNDFOS	GRUNDFOS	-	CAE
801	ANCHORVALVE	GRUNDFOS	GRUNDFOS	-	CAE
802	MOE HQ @ GRANGE ROAD	SPP	KBL	LD	CAE
803	BHPS - 565 BALESTIER ROAD	SPP	KBL	-	CAE
804	CCK N1C16	-	NM FIRE	-	-
805	SENKANG N3C29	SPP	NM FIRE	-	TORNATECH
806	PUNGGOL EAST C48	SPP	NM FIRE	-	TORNATECH
807	31 SENOKO SOUTH ROAD	SPP	KBL	HATZ	CAE
808	KAMPUNG JAVA 230KV	GRUNDFOS	GRUNDFOS	-	CAE
809	CHANGI PRISON CPC	SPP	NM FIRE	-	CAE
810	FUJI OIL	-	KBL	LD	CAE
811	TRAVEL LODGE	GRUNDFOS	KBL	-	CAE
812	SIN 61 DATA CENTER	SPP	NM FIRE	-	TORNATECH
813	NEO GARDEN -KBL	SPP	KBL	-	CAE
814	SATS CARGO STAGING SHED PROJECT	SPP	KBL	-	-
815	PASIR RIS WET PLAZA	SPP	KBL	LD	-
816	MFS PUNGGOL ROAD- PUNGGOL CHILD CARE	SPP	KBL	-	-
817	THE PERANAKAN MUSEUM AT 39 ARMENIAN STREET	SPP	KBL	-	CAE
818	19 LOYANG WAY	GRUNDFOS	GRUNDFOS	CLARKE	CAE
819	146 ROBINSON ROAD	SPP	KBL	-	CAE
820	TAI SENG AVENUE	SPP	KBL	LD	-
821	HYDE BALMORAL	SPP	KBL	-	CAE
822	43 HONG KONG STREET	SPP	KBL	-	CAE
823	MITSUISOKO	-	KBL	LD	-
824	RIVIERE @ JIAK KIM STREET (WR TRANSFER)	-	KBL	-	CAE
825	ROYAL GREEN @ 25 SCOTTS ROAD	SPP	KBL	-	-
826	THE JOVELL @ FLORA DRIVE	SPP	KBL	-	CAE
827	FLORENCE RESIDENCES @ HOUGANG AVENUE 2	SPP	KBL	-	CAE
828	AXA TOWER	GRUNDFOS	GRUNDFOS	-	CAE
829	AXA TOWER TR REPLACEMENT	KSB	KSB	-	CAE
830	182 CLEMENCEAU AVE	GRUNDFOS	NM FIRE	-	CAE
831	TANK FARM JURONG ISLAND	SPP	NM FIRE	-	CAE
832	ICPH PUNGGOL BARAT (SPK)	SPP	NM FIRE	-	CAE
833	DAPL-V PROJECT	SPP	NM FIRE	NM FIRE	TORNATECH
834	DSTA UTF	SPP	KBL	LD	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
835	DSTA CCKW (MEDICAL CENTRE)	SPP	KBL	LD	CAE
836	ST CAMPUS PROJECT	SPP	KBL	-	CAE
837	MERLION	SPP	NM FIRE	NM FIRE	CAE
838	2 PIONEER SECTOR 3	SPP	NM FIRE	NM FIRE	TORNATECH
839	JTC-MSRF (FINAL REV 1)	SPP	SPP	-	CAE
840	2 MOUNT ELIZABETH LINK	SPP	KBL	-	CAE
841	INSPACE @ 24NIR	SPP	KBL	-	CAE
842	TENGAH C2	SPP	KBL	-	CAE
843	NUS COM 4	SPP	-	-	CAE
844	HOME TEAM NS AT BEDOK NORTH ROAD	SPP	SPP	-	TORNATECH
845	BUGIS VILLAGE	GRUNDFOS	GRUNDFOS	-	CAE
846	HYUNDAI INNOVATION	SPP	NM FIRE	-	TORNATECH
847	TAMPINES N6C13&14	SPP	KBL	-	CAE
848	ROYAL PLAZA @ 20 SCOTTS ROAD	GRUNDFOS	GRUNDFOS	-	-
849	15 CHIN BEE DRIVE @ ST ENGINEERING	-	NM FIRE	NM FIRE	TORNATECH
850	41 SCIENCE PARK	SPP	KBL	-	CAE
851	KIM CHUAN DRIVE	GRUNDFOS	NM FIRE	-	CAE
852	SINGTEL CITY SOUTH TELEPHONE	SPP	KBL	-	CAE
853	APTIV MARSILING	SPP	NM FIRE	NM FIRE	TORNATECH
854	TAB	-	-	-	TORNATECH
855	26 KALLANG AVENUE	SPP	KBL	-	CAE
856	SINGTEL @ CCK	SPP	NM FIRE	-	CAE
857	PENTA OCEAN DORMITORY (300 WORKER DORM)	GRUNDFOS	KBL	-	CAE
858	SRI LANKA	GRUNDFOS	-	-	CAE
859	JTC CHEMICAL HUB	SPP	NM FIRE	-	TORNATECH
860	YISHUN N4C21&21B	GRUNDFOS	NM FIRE	-	CAE
861	WOLG PROJECT	SPP	KBL	-	CAE
862	YASIN 66KV PHASE 2	SPP	KBL	-	CAE
863	230KV SUBSTATION @ UPPER JURONG RD	SPP	KBL & NM FIRE	-	CAE
864	ARMY LOGISTICS BASE @ 601 OLD CCK	SPP	NM FIRE	-	CAE
865	52 PENJURU LANE	GRUNDFOS	-	-	CAE
866	XILIN A&B - 3 CHANGI SOUTH STREET 2	GRUNDFOS	GRUNDFOS	CLARKE	CAE
867	5 PIONEER SECTOR LANE	SPP	KBL	-	CAE
868	63 ALEXANDER TERRANCE	SPP	KBL	-	CAE
869	CHIN BEE ROAD	SPP	GRUNDFOS	JASPER	CAE
870	MANDAI LINK	SPP	KBL	-	CAE
871	BIDADARI ESTATE	SPP	-	-	-
872	NTU NANYANG DRIVE	GRUNDFOS	NM FIRE	-	CAE
873	CLUNY PARK RD	SPP	KBL	-	-
874	DAINTREE AT TOH TUCK DRIVE	GRUNDFOS	GRUNDFOS	-	TORNATECH
875	ONE MEYER PLACE	GRUNDFOS	NM FIRE	NM FIRE	TORNATECH
876	SICC	SPP	KBL	-	CAE
877	CHT CONDO @ 16 CAIRNHILL RISE	SPP	KBL	-	CAE
878	NYON @ 12 AMBER RD	SPP	KBL	-	CAE

**CAE ENGINEERING PTE LTD -
COMPLETED PROJECT REFERENCE FROM 2014 TO 2022
FOR FIRE PUMP PACKAGE (PUMP , DRIVER & CONTROLLER)**

NO	PROJECT	JOCKEY / HOSEREEL PUMP	MAIN PUMP	ENGINE	PANEL
879	SHANGRI-LA HOTEL	SPP	NM FIRE	-	CAE
880	PARKSUITE @ HOLLAND GROVE RD	GRUNDFOS	GRUNDFOS	-	CAE
881	HAUS @ HANDY ROAD	SPP	KBL	-	CAE
882	SG TIGER	SPP	NM FIRE	NM FIRE	CAE
883	SUB STATION	GRUNDFOS	KBL	LD	CAE
884	828 UPPPER BUKIT TIMAH ROAD	SPP	KBL	-	CAE
885	120 GRANGE ROAD	SPP	KBL	-	CAE
886	AMBER PARK	SPP	KBL	-	CAE
887	AFFINITY @ SERANGOON AVE 1	SPP	KBL	-	CAE
888	RIVIERE @ JIAK KIM STREET	SPP	KBL	-	CAE
889	TAO PAYOH	SPP	KBL	LD	CAE
890	POTONG PASIR AVE 1	SPP	KBL	-	CAE
891	PIERMANT GRAND @ SUMANG WAIK	SPP	KBL	-	CAE
892	WOODLEIGH	GRUNDFOS	GRUNDFOS	-	CAE
893	20 PENJURU	-	GRUNDFOS	-	-
894	2 TPC	SPP	NM FIRE	NM FIRE	CAE
895	ICPH PUNGGOL BARAT (HYD)	SPP	KBL	-	CAE
896	ICPH PUNGGOL BARAT (HR)	SPP	-	-	CAE
897	435A CLEMENTI ROAD	SPP	KBL	-	CAE
898	32 PENJURU LANE	SPP	KBL	-	CAE
899	78 SENOKO DR	SPP	KBL	-	CAE
900	AMK AVE 5	GRUNDFOS	KBL	-	CAE