

FIRE PUMPS



GENERAL PUMPS

ESPAÑA



LISTED
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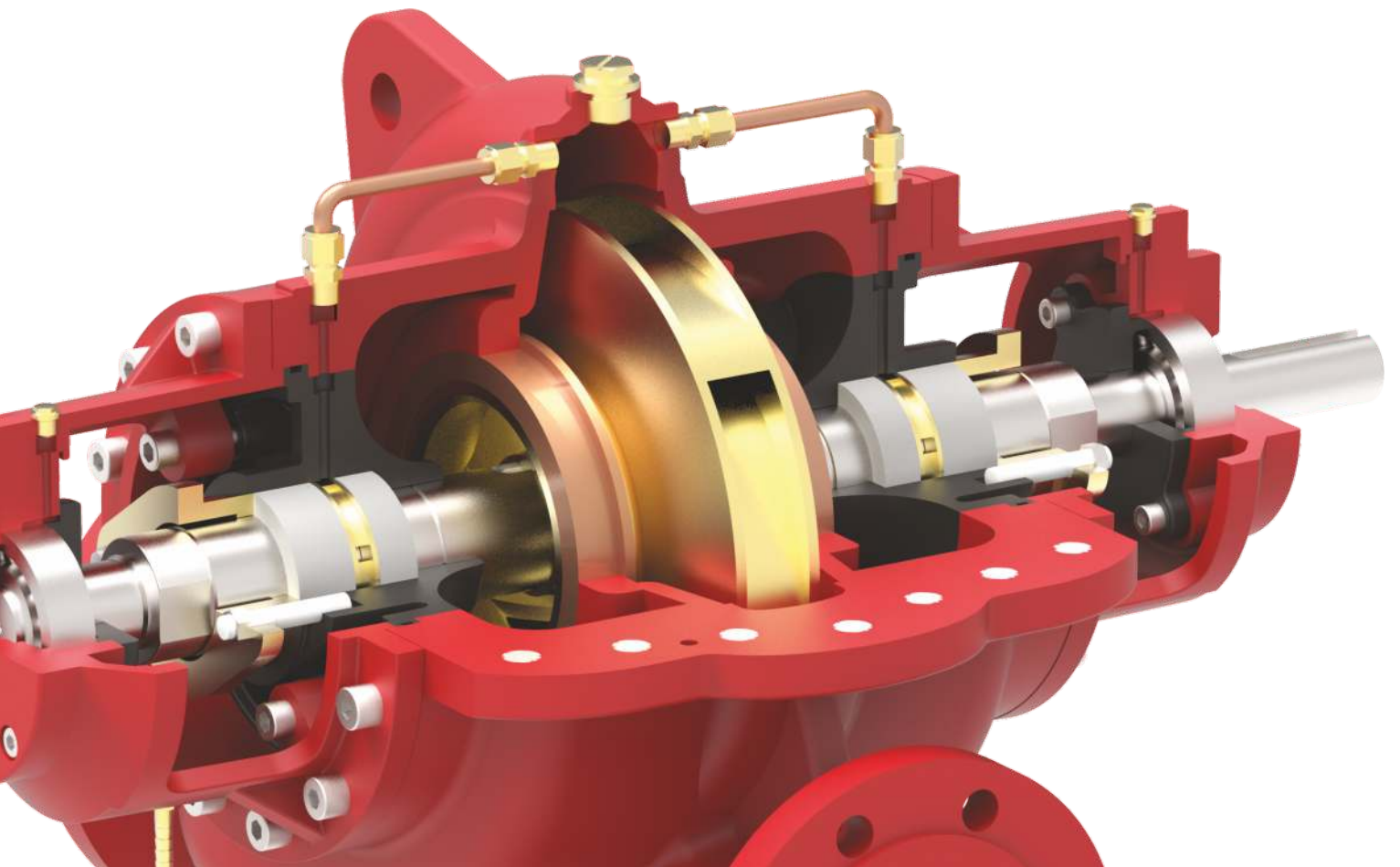


APPROVED



60Hz

www.pumpsgp.com





GENERAL PUMPS

ESPAÑA

General Pumps S.L., was established more than 25 years ago in Valencia, Spain.

We are a major manufacturer in Spain of a wide variety of water pumps for various applications. We have two factories in Spain with the total space of more than 2600 Sq. M.

Today we have one of the most comprehensive ranges of pumps for Fire, HVAC, Water Treatment and Plumbing Industry. The product line ranges from small domestic pumps to large Industrial application pumps. The pumps can be offered in various Metallurgies such as Cast Iron, Stainless Steel, Bronze, etc.

We have our product distribution channels in North and South America, Europe, Middle East and Far East. More than 75% of our sales revenue is generated through exports across the world.

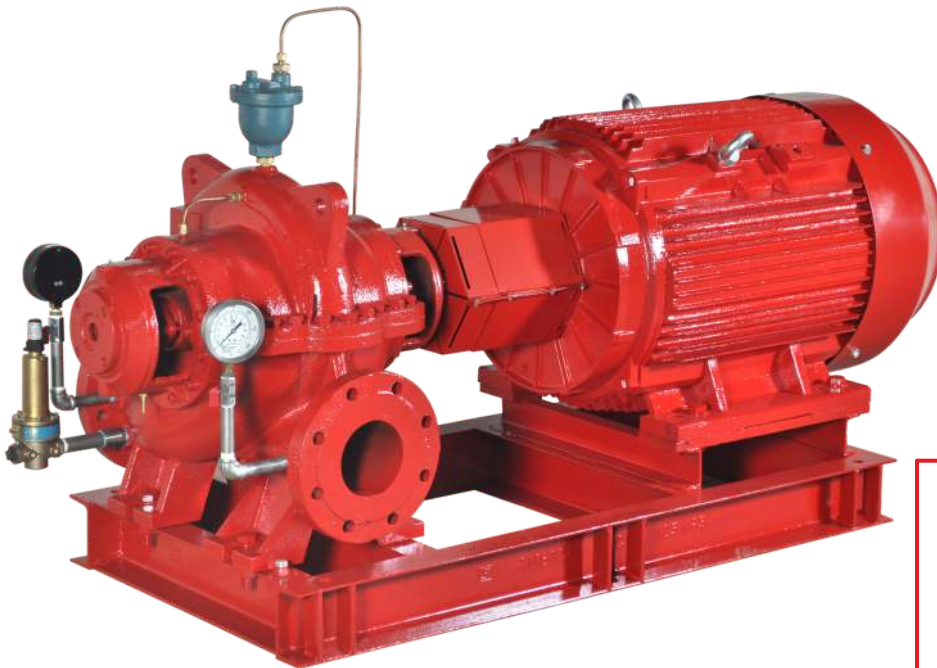
We have a comprehensive range of Fire Pumps which are UL Listed and FM Approved.

The Quality Management System at our manufacturing facility is certified to the latest International Standard of ISO 9001.

We believe in providing our customers with a complete solution for all their Fire Pumping needs. Our Engineers can assist you in making the right choice of product for your Fire Pumping Application.



Horizontal Split Case Fire Pumps



Introduction

General Pumps offers FGHC series state-of-the-art fire pumps with diesel engine or electric motor driven, horizontal split case pump.

These pumps are typically used in fire-fighting applications for supplying water to fire hose reels, fire hydrants or sprinkler systems.

Pumps have a discharge range from 450 to 750 USgpm and the head range from 6.4 to 14.65 bar.

These fire pumps meet or exceed the requirements of NFPA20.

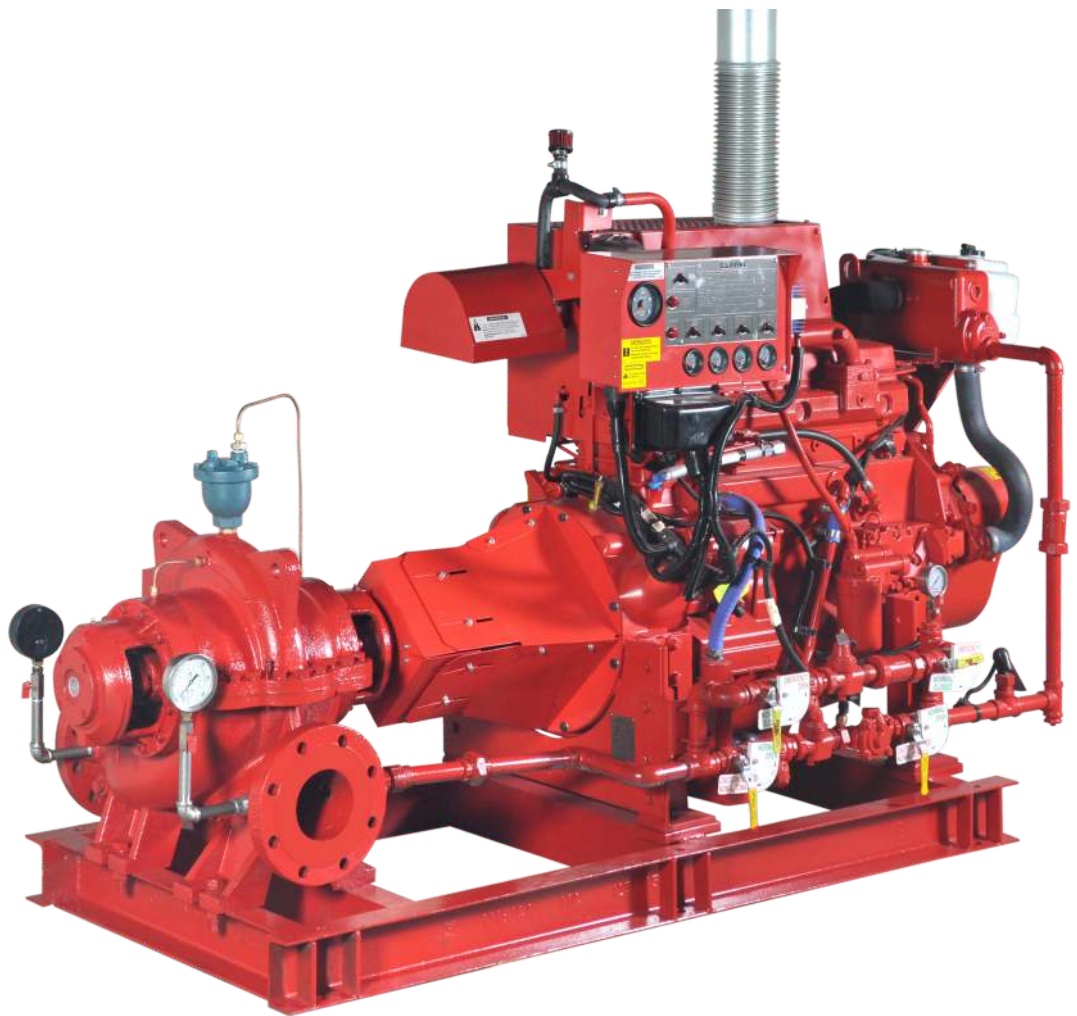
Installations of these pumps would ensure the safety of human life, buildings, and expensive equipments and plants. FGHC fire pumpset shall be used only where a positive suction is provided as specified in NFPA20.

These fire pumps typically consist of the following equipments:

- Horizontal Split Case pump.
- Electric motor or Diesel Engine
- Cooling system for Diesel Engine
- Fuel system for Diesel Engine
- Battery for Diesel Engine electric start
- Exhaust system for Diesel Engine
- Diesel Engine / Electric Motor Fire pump controller
- Suction and Discharge pressure gauges
- Air relief valve
- Casing Relief Valve for Motor Fire Pump
- Base frame

All above equipments except fuel supply tank and fire pump controller are mounted on a common base frame.

General Pumps can also supply Packaged fire pumping system with all required accessories ready for site installation.



Applications

The FGHC fire pumps are used in fire-fighting applications for supplying water to fire hose reels, fire hydrants or sprinkler systems in areas which are prone to the hazards of fire.

The typical applications are as follow:

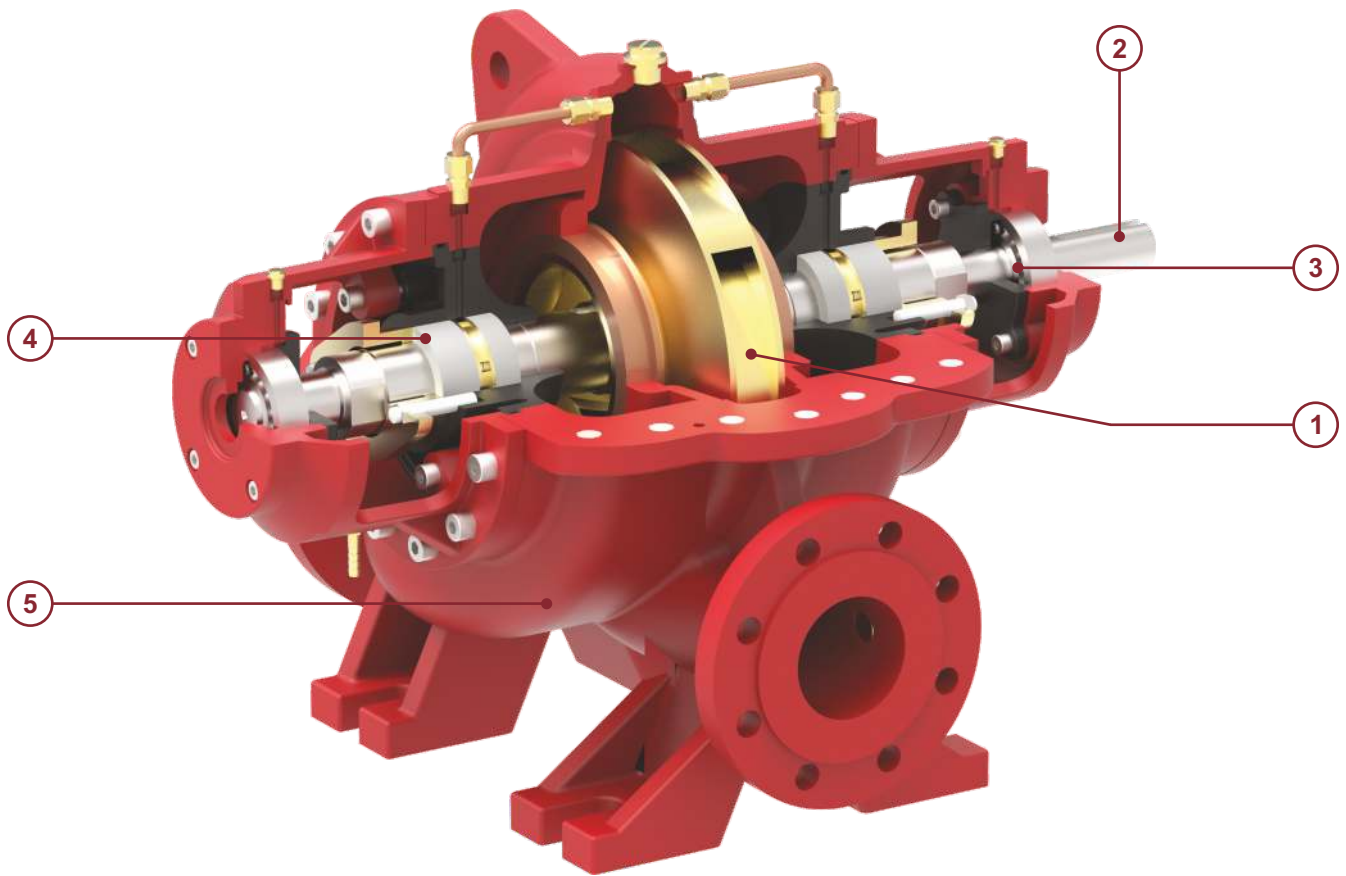
- Commercial complexes and high rise buildings
- Petrochemical industries and Gas plants
- Oil and Gas on-shore & off-shore platforms
- Oil terminals
- Airports and ports
- Jetties
- Marine applications
- Power stations and transformer stations
- Chemical industries
- Manufacturing plants
- Fire-work industries
- Warehouses/godowns.

Features & benefits

FGHC fire pumps offers all features & benefits as mentioned in our GHC standard pump series data booklet. Following are the additional features & benefits offered by these pumps :

- State-of-the-art design fire pumping system.
- UL listed/FM approved/NFPA-20 design
- Diesel engine as well as electric motor driven pump
- Rugged construction
- Liberal water passages
- Automatic air relief valve
- Efficient operation
- Lower initial cost
- Reduced installation time and cost
- Simplified piping design
- Suitable for space saving installation systems and retrofit applications
- Easy access to all working parts
- Ease of maintenance
- Single source unit responsibility.

General Pump Features



1 - Impeller & Casing

- Minimal axial thrust due to double-entry impeller.
- Impeller is dynamically balanced to grade G6.3 balance quality in accordance to ISO 1940-1.
- Impeller & Casing are designed using state of art CFD tools to ensure optimal performance.

2 - Shaft

- Heavy duty stainless steel shaft completely sealed and dry for zero corrosion.
- Short and rigid with negligible vibrations.
- Replaceable shaft protecting sleeves.
- No threads exposed to pump medium, long operating life and no corrosion.
- Adjustment-free assembly.

3 - Bearing

- Heavy duty and grease lubricated antifriction bearings for long service life.
- Open gland, enough space for service activities.

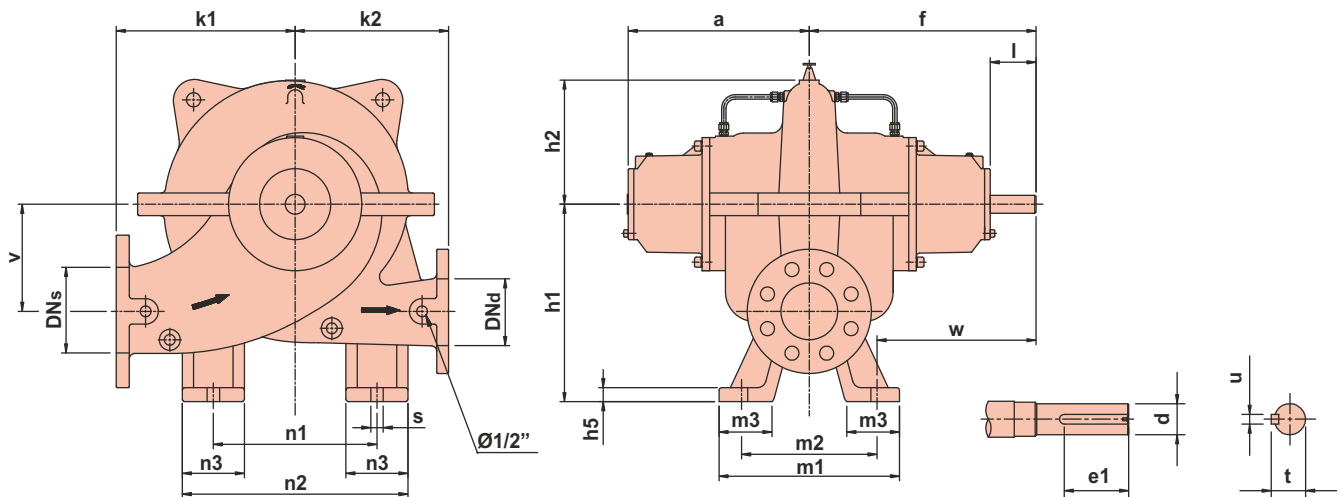
4 - Seal

- Asbestos - free, soft packed stuffing boxes.

5 - Casing

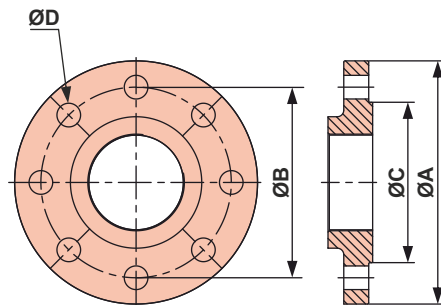
- In-line axially split design which permits removal of the complete Impeller Shaft Assembly without removing the pipes & motor.
- Short distance between bearings.
- Leak-tight due to compact joint flange with long Pre-stressed bolts.
- Counter-rotation possible with similar parts.
- Easy mounting self-aligning upper casing.
- Flange drilled as per ASME B16.42 class 300.
- Smooth surface inside & CED coated for superior corrosion protection.
- Replaceable wear ring protect the casing and the impeller running clearances.
- Heavy duty casing design for high working pressure.

Dimensions



Model	DN _s	DN _d	k1	k2	v	n1	n2	n3	a	f	h1	h2	h5	s	w	m1	m2	m3	d	l	e1	u	t
FGHC 125-100-250	125	100	310	250	170	250	350	100	323	402	320	199	25	22	282	320	240	95	32	81	65	10	35,3

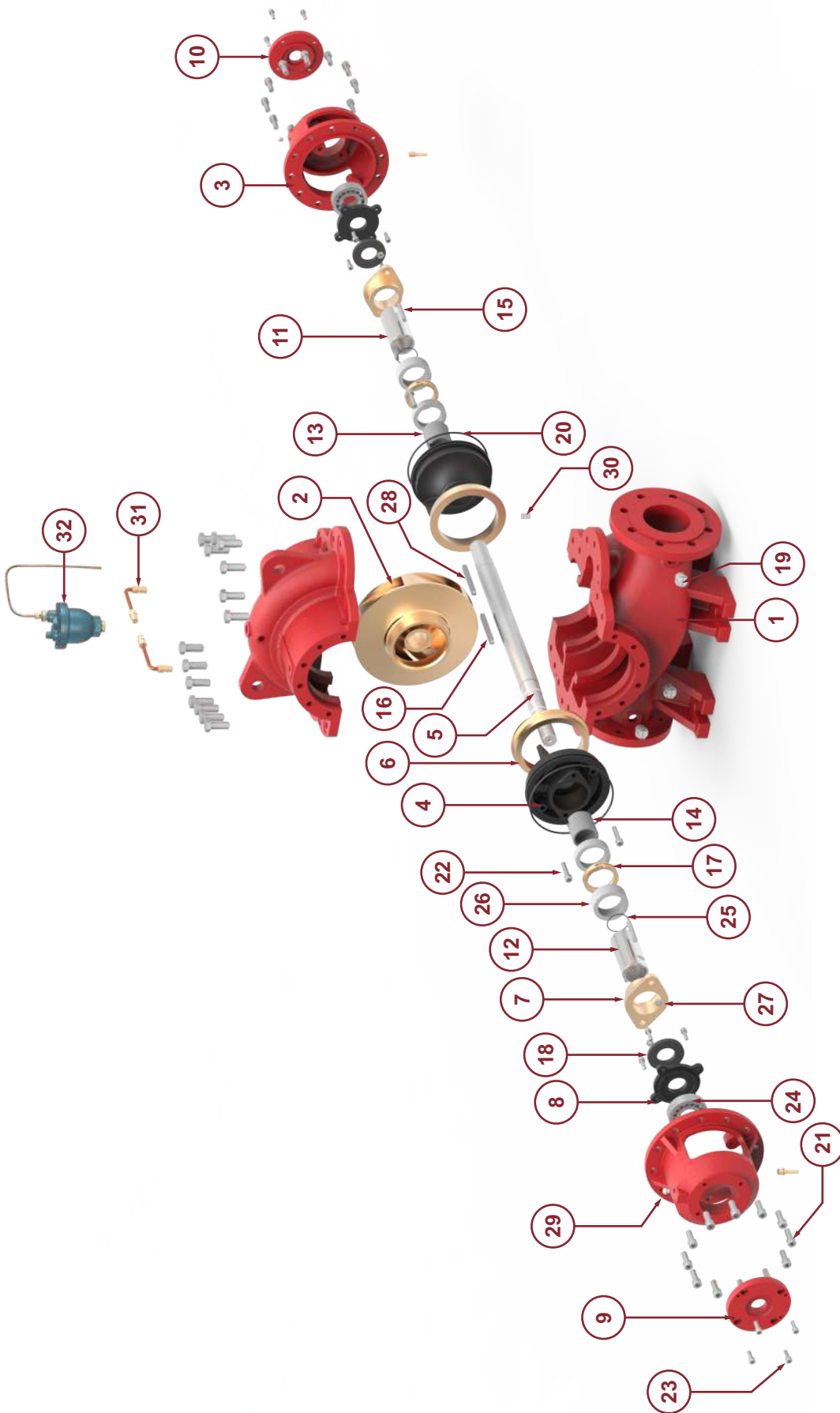
Flange Dimensions



ANSI 250 Flange Dimensions

Model	Suction				Discharge			
	ØA	ØB	ØC	ØD x Nos. of holes	ØA	ØB	ØC	ØD x Nos. of holes
FGHC 125-100-250	280	235	211	Ø7/8" x 8	255	200	176	Ø7/8" x 8

Exploded View



Part no.	Part name	Part no.	Part name	Part no.	Part name	Part no.	Part name
1	Split casing	11	R.H. Sleeve	21	Cap screw with spring washer	31	Hose pipe
2	Impeller	12	L.H. Sleeve	22	Cap screw	32	Automatic Air Release Valve
3	Bearing housing	13	Shaft sleeve	23	Cap screw		
4	Back cover	14	Shaft sleeve	24	Ball bearing		
5	Shaft	15	Stud	25	'O' ring		
6	Wear ring	16	Key	26	Graphite packing		
7	Gland	17	Lantern ring	27	Hex nut		
8	Internal bearing cover	18	Water thrower	28	Key		
9	External bearing cover	19	Drain plug	29	Grease nipple		
10	External bearing cover(drive)	20	'O' ring	30	Dowel pin		

Approved Fire Pump Models with Rating

RATED CAPACITY- 450 US GPM									
Sr. No.	Pump Model	UL Listed Pressure		FM Approved Pressure		Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
		(psi)	(bar)	(psi)	(bar)				
1	FGHC 125-100-250	101-205	6.9-14.13	100-205	6.89-14.13	3550	5	4	1
2	FGHC 125-100-250	71-131	4.89-9.03	75-136	5.17-9.37	2900	5	4	1
3	FGHC 150-125-400	108-173	7.44-11.92	113-172	7.79-11.8	2100	6	5	1

RATED CAPACITY- 500 US GPM									
Sr. No.	Pump Model	UL Listed Pressure		FM Approved Pressure		Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
		(psi)	(bar)	(psi)	(bar)				
1	FGHC 125-100-250	100-205	6.89-14.13	99-205	6.82-14.13	3550	5	4	1
2	FGHC 125-100-250	71-131	4.89-9.03	74-135	5.10-9.30	2900	5	4	1
3	FGHC 150-125-315	131-214	9-14.75	131-214	9.03-14.7	2900	6	5	1

RATED CAPACITY- 750 US GPM									
Sr. No.	Pump Model	UL Listed Pressure		FM Approved Pressure		Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
		(psi)	(bar)	(psi)	(bar)				
1	FGHC 125-100-250	94-204	6.4-14.0	92-204	6.34-14.06	3550	5	4	1
2	FGHC 125-100-250	65-130	4.48-8.96	66-132	4.55-9.10	2900	5	4	1
3	FGHC 150-125-315	129-213	8.89-14.65	129-212	8.89-14.61	2900	6	5	1

Horizontal Split Case Quick Selection guide

Rated Capacity in GPM (LPM)	Pressure in PSi(Bar) for Electric Motor driven Pump	Pump Model for Electric Driven	Pressure in PSi(Bar) for Diesel Engine driven Pump	Pump Model for Diesel Engine Driven	Rated Pressure in Bar	Jockey Pump Flow in USgpm	Jockey Pump Model	Electric Motor HP @ (3550 RPM)	Clarke DIESEL ENGINE HP @ (2100 RPM & 3000 RPM)	Jockey Pump HP @ 3450 RPM			
450 (1703)	101-205 (6.96-14.13)	FGHC 100-250 (5"X4")	71-131 (4.89-9.03)	FGHC 100-250 (5"X4")	7	22.5	GCR 4-8-7	60 HP	60HP-3000 RPM	3HP			
					8	22.5	GCR 4-8	75 HP	71HP-3000 RPM	3HP			
					9	22.5	GCR 4-9	75 HP	83HP-3000 RPM	5HP			
					10	22.5	GCR 4-10	100 HP	105HP-2100 RPM	5HP			
					11	22.5	GCR 4-11	100 HP	130HP-2100 RPM	5HP			
			11.92 (7.44-11.92)	(6"X5")	11.92	22.0	GCR 4-11	125 HP	130HP-2100 RPM	5HP			
500 (1893)	100-205 (6.89-14.13)	FGHC 100-250 (5"X4")	71-131 (4.89-9.03)	FGHC 100-250 (5"X4")	7	25.0	GCR 4-8-7	60 HP	71HP-3000 RPM	3HP			
					8	25.0	GCR 4-8	75 HP	83HP-3000 RPM	3HP			
					9	25.0	GCR 4-9	100 HP	83HP-3000 RPM	5HP			
					10	25.0	GCR 4-10	100 HP	145HP-3000 RPM	5HP			
					11	25.0	GCR 4-11	100 HP	145HP-3000 RPM	5HP			
					12	25.0	GCR 4-12	125 HP	175HP-3000 RPM	5HP			
					13	25.0	GCR 4-13	125 HP	175HP-3000 RPM	5HP			
					14	25.0	GCR 4-14	150 HP	216HP-3000 RPM	5HP			
750 (2839)	94-204 (6.48-14.06)	FGHC 100-250 (5"X4")	65-130 (4.48-8.96)	FGHC 100-250 (5"X4")	6.5	37.5	GCR 5-11	75 HP	62KW (83HP)-3000	5HP			
					7	37.5	GCR 5-12	75 HP	62KW (83HP)-3000	5HP			
					8	37.5	GCR 5-14	100 HP	86KW (115HP)-3000	5HP			
					9	37.5	GCR 5-15	100 HP	108KW (145HP)-3000	5HP			
					10	37.5	GCR 5-18	125 HP	108KW (145HP)-3000	7.5HP			
					11	37.0	GCR 5-18	125 HP	131KW (175HP)-3000	7.5HP			
					12	37.5	GCR 5-20	150 HP	161KW (216HP)-3000	7.5HP			
					13	37.5	GCR 5-22	150 HP	161KW (216HP)-3000	7.5HP			
					14	37.5	GCR 5-24	200 HP	161KW (216HP)-3000	7.5HP			



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