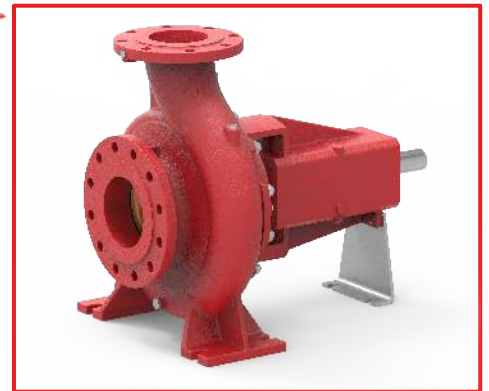
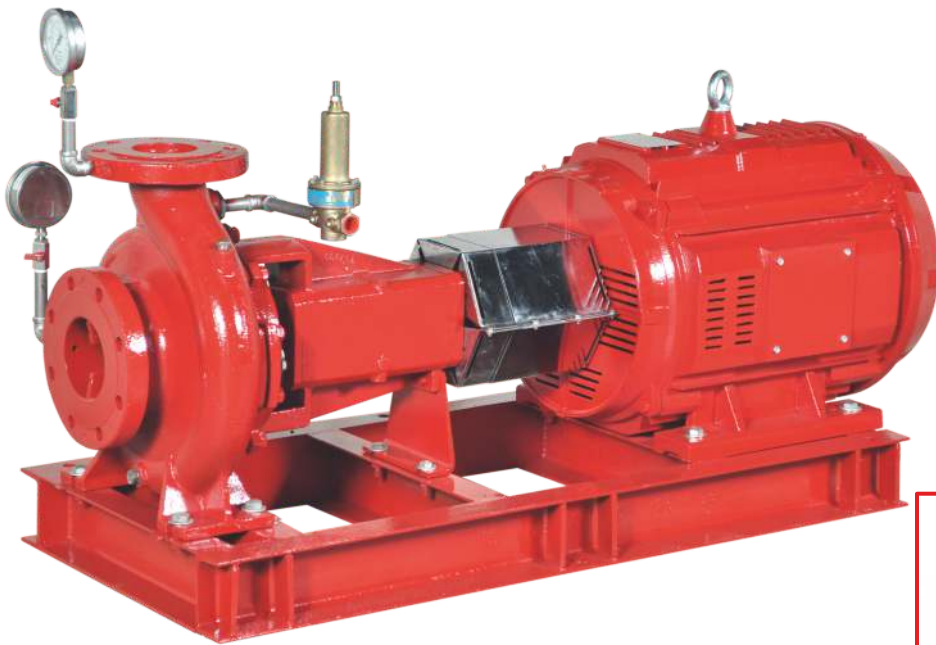


End Suction Fire Pumps



Introduction

General Pumps offers FGBS series state-of-the-art fire pumps with diesel engine or electric motor driven, single-stage End-Suction 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 50 to 1000 USgpm and the head range from 3.72 to 9.9 bar.

These fire pumps meet or exceed the requirements of NFPA20.

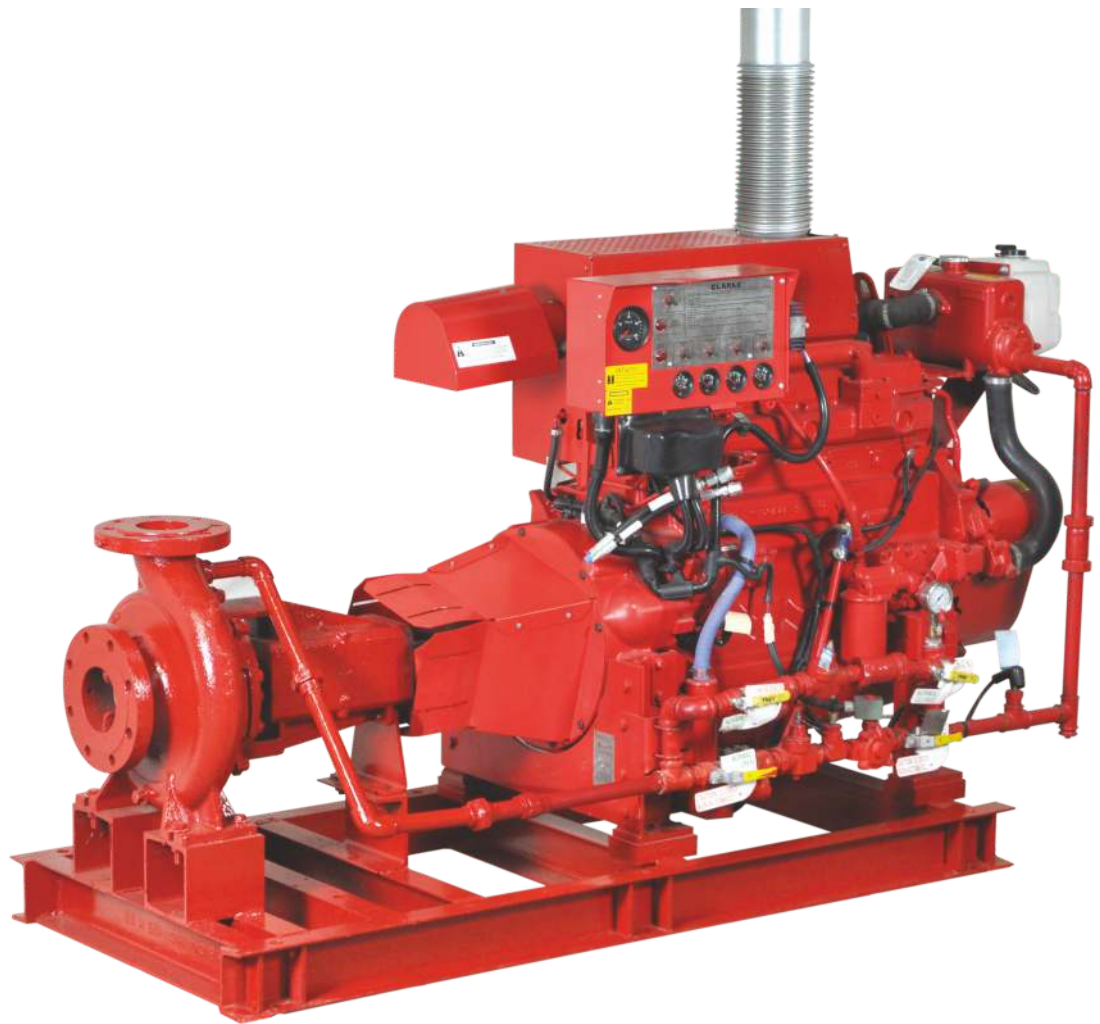
Installations of these pumps would ensure the safety of human life, buildings, and expensive equipments and plants. FGBS fire pumpset shall be used only where a positive suction is provided as specified in NFPA20.

These fire pumps typically consists of the following equipments:

- Single-Stage End-Suction 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
- 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 FGBS fire pumpsets are used in small capacity, diesel engine or motor driven 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.

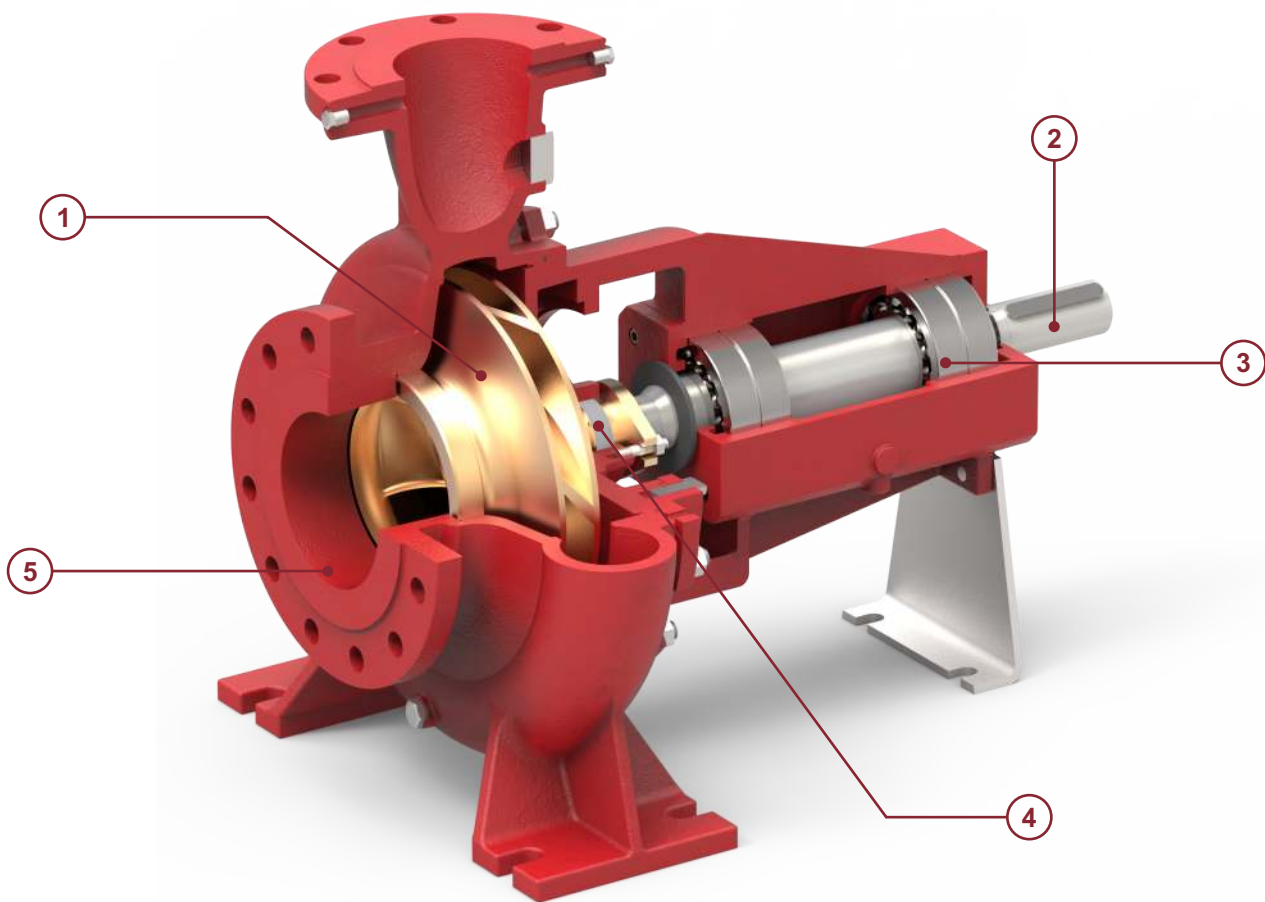
The typical applications are as follow:

- Commercial complexes & high rise buildings
- Petrochemical industries and Gas plants
- Airports and ports
- Jetties
- Marine applications
- Power stations and transformer stations
- Chemical industries
- Manufacturing plants
- Fire-work industries
- Warehouses / godowns

Features & benefits

FGBS fire pumpset offers all the features & benefits as mentioned in our GBS standard pump series data booklet. Following are the additional features & benefits offered by these pumpsets:

- State-of-the-art design fire pumping system.
- NFPA-20 design
- Compact diesel engine driven pump package
- Rugged construction
- More economical than Horizontal Split Case diesel fire pump packages
- Back pull-out design which simplifies inspection and maintenance without disturbing pipe work
- The pump impellers are dynamically balanced to grade 6.3 of ISO 1940-1
- Efficient operation
- Lower initial cost
- Reduced installation time and cost
- Easy access to all working parts
- Ease of maintenance
- Single source unit responsibility.



1 - Impeller & Casing

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

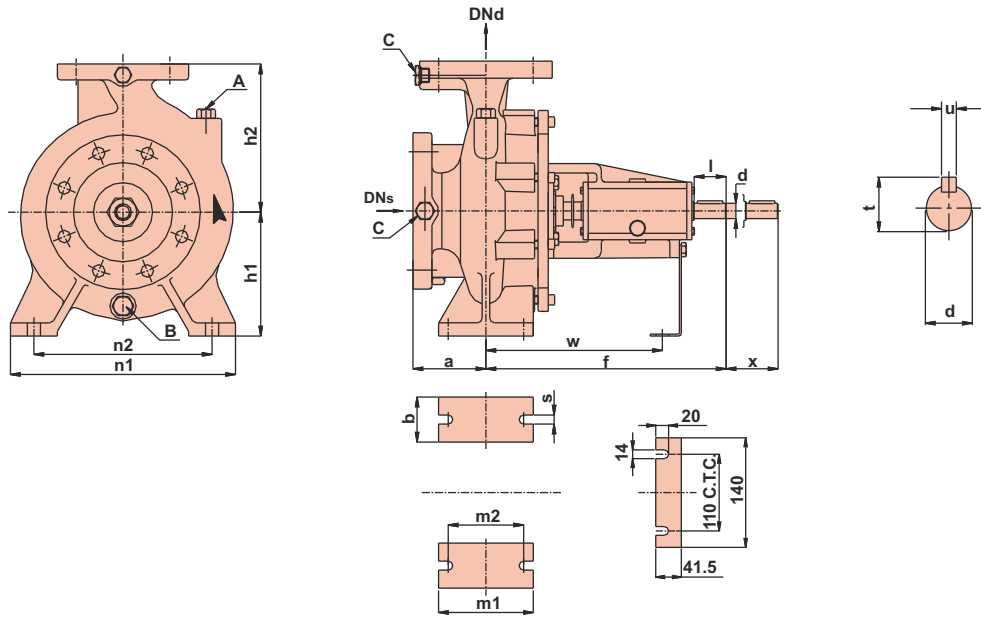
4 - Seal

- Asbestos - free, soft packed stuffing boxes.

5 - Casing

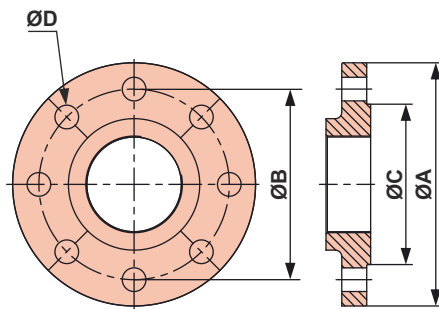
- End Suction backpullout design permits maintenance of the pump without removing the pipes.
- Rugged Ball Bearings on Drive as well as Non Drive end.
- Flange drilled as per ANSI B16.1 class 250.
- Smooth surface inside & CED coated for superior corrosion protection.
- Replaceable wear ring protect the casing and the impeller running clearances.
- Heavy duty casing design for high working pressure.

Dimensions



Model	DN _s	DN _d	a	b	d.k6	f	h1	h2	l	m1	m2	n1	n2	s	t	u	w	x	A	B	C
FGBS 65-40-250	65	40	100	65	24	360	180	225	50	125	95	320	250	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"
FGBS 80-65-250	80	65	100	80	42	482	200	250	80	160	120	360	280	18	45	12	340	140	Ø3/8"	Ø1/2"	Ø1/4"
FGBS 125-100-250	125	100	140	80	42	527	225	280	110	160	120	400	315	18	45	12	360	140	Ø3/8"	Ø1/2"	Ø1/4"
FGBS 125-100-315	125	100	140	80	48	630	250	315	110	160	120	400	315	18	51.5	14	445	140	Ø3/8"	Ø1/2"	Ø1/4"
FGBS 150-125-315	150	125	140	100	48	640	280	355	110	200	150	500	400	22	51.5	14	455	140	Ø3/8"	Ø1/2"	Ø1/4"

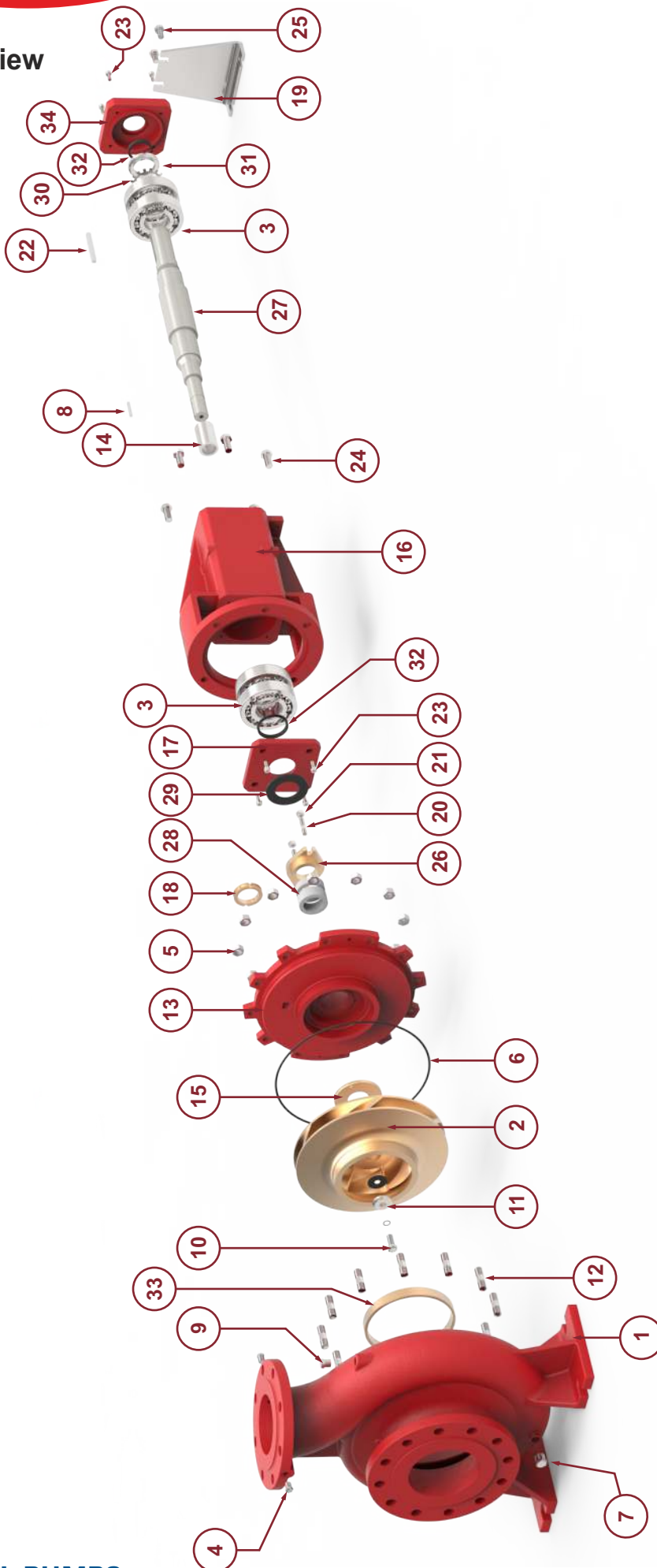
Flange Dimensions



ANSI 250 Flange Dimensions

Model	Suction				Discharge			
	ØA	ØB	ØC	ØD x Nos. of holes	ØA	ØB	ØC	ØD x Nos. of holes
FGBS 65-40-250	190	149	125	Ø7/8" x 8	155	114	91	Ø7/8" x 4
FGBS 80-65-250	210	168	144	Ø7/8" x 8	190	149	125	Ø7/8" x 8
FGBS 125-100-250	280	235	211	Ø7/8" x 8	255	200	176	Ø7/8" x 8
FGBS 125-100-315	280	235	211	Ø7/8" x 8	255	200	176	Ø7/8" x 8
FGBS 150-125-315	320	270	246	Ø7/8" x 12	280	235	211	Ø7/8" x 8

Exploded View



Part no.	Part name	Part no.	Part name	Part no.	Part name	Part no.	Part name
1	Casing	11	Impeller Washer	21	Hex Nut	31	Ring Nut
2	Impeller	12	Stud	22	Key	32	V-seal
3	Ball Bearing	13	Back Cover	23	Cap Screw	33	Wear Ring
4	Plug	14	Shaft Sleeve	24	Hex Bolt	34	Bearing Cover (DE)
5	Hex Nut	15	Gland Cover	25	Hex Bolt		
6	'O' Ring	16	Bearing Bracket	26	Gland		
7	Plug	17	Bearing Cover (NDE)	27	Shaft		
8	Key	18	Lentern Ring	28	Graphite Packing		
9	Plug	19	Foot	29	Water Thrower		
10	Hex Bolt	20	Stud	30	Locking Washer		

Approved Fire Pump Models with Rating

RATED CAPACITY- 50 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	FGBS 65-40-250	96-130	6.61-8.96	96-130	6.61-8.96	2900	2.5	1.5	1
2	FGBS 80-65-250	85-134	5.86-9.23	85-130	5.86-8.96	2900	3	2.5	1

RATED CAPACITY- 100 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	FGBS 65-40-250	95-127	6.55-8.75	96-127	6.61-8.75	2900	2.5	1.5	1
2	FGBS 80-65-250	84-134	5.79-9.23	84-129	5.79-8.89	2900	3	2.5	1

RATED CAPACITY- 150 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	FGBS 80-65-250	83-135	5.72-9.30	83-129	5.72-8.89	2900	3	2.5	1

RATED CAPACITY- 200 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	FGBS 80-65-250	81-135	5.58-9.90	81-129	5.58-8.89	2900	3	2.5	1

RATED CAPACITY- 250 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	FGBS 80-65-250	78-134	5.37-9.23	77-129	5.30-8.89	2900	3	2.5	1

RATED CAPACITY- 300 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	FGBS 125-100-250	94-132	6.48-9.10	94-132	6.48-9.10	2900	5	4	1

Approved Fire Pump Models with Rating

RATED CAPACITY- 400 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	FGBS 125-100-250	93-131	6.41-9.03	93-131	6.41-9.03	2900	5	4	1
2	FGBS 125-100-315	122-207	8.41-14.27	118-203	8.13-13.99	2900	5	4	1
3	FGBS 150-125-315	111-192	7.65-13.23	107-195	7.37-13.55	2900	6	5	1

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	FGBS 125-100-250	92-131	6.34-9.03	93-131	6.41-9.03	2900	5	4	1
2	FGBS 125-100-315	121-207	8.34-14.27	117-203	8.06-13.99	2900	5	4	1
3	FGBS 150-125-315	110-192	7.58-13.23	107-195	7.37-13.44	2900	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	FGBS 125-100-250	91-130	6.27-8.96	91-130	6.27-8.96	2900	5	4	1
2	FGBS 125-100-315	120-207	8.27-14.27	116-203	7.99-13.99	2900	5	4	1
3	FGBS 150-125-315	110-192	7.58-13.23	106-194	7.30-13.37	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	FGBS 125-100-250	86-125	5.92-8.61	85-125	5.86-8.61	2900	5	4	1
2	FGBS 125-100-315	111-203	7.65-13.99	108-199	7.44-13.72	2900	5	4	1
3	FGBS 150-125-315	109-190	7.51-13.1	104-194	7.17-13.37	2900	6	5	1

Approved Fire Pump Models with Rating

RATED CAPACITY- 1000 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	FGBS 150-125-315	104-188	7.17-12.96	99-190	6.86-13.1	2900	6	5	1

End Suction Quick Selection guide

Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump Model	Rated Pressure in Bar	Jockey Flow in USgpm	Jockey Pump Model	Electric Motor HP @ 2900 RPM	Diesel Engine HP @ 3000 RPM	Jockey Pump HP @ 2900 RPM
50(189)	96-130 (6.61- 8.96)	FGBS 65-40-250	6.7	2.50	GCR 1s-15	15HP	15 HP	0.75 HP
			7	2.50	GCR 1s-15	15HP	15 HP	0.75 HP
			8	2.50	GCR 1s-17	15HP	15 HP	0.75 HP
			8.95	2.50	GCR 1s-19	15HP	20 HP	0.75 HP
	85-134 (5.86- 9.23)	FGBS 80-65-250	6	2.50	GCR 1s-13	15HP	15 HP	0.5 HP
			9.2	2.50	GCR 1s-19	20HP	30 HP	0.75 HP
100(378)	95-127 (6.55- 8.75)	FGBS 65-40-250	6.6	5.00	GCR 1-12	15HP	15 HP	1 HP
			7	5.00	GCR 1-13	15HP	20 HP	1 HP
			8	5.00	GCR 1-15	20 HP	20 HP	1 HP
			8.75	5.00	GCR 1-17	20 HP	30 HP	1.5 HP
	84-134 (5.79- 9.23)	FGBS 80-65-250	6	5.00	GCR 1-11	15HP	15 HP	0.75 HP
			9.2	5.00	GCR 1-17	25 HP	30 HP	1.5 HP
150(567)	83-135 (5.12- 9.30)	FGBS 80-65-250	6	7.50	GCR 1-13	15HP	20 HP	1 HP
			7	7.50	GCR 1-15	20 HP	30 HP	1 HP
			8	7.50	GCR 2-11	25 HP	30 HP	1.5 HP
			9	7.50	GCR 2-13	30HP	30 HP	2 HP
			9.3	7.50	GCR 2-13	30HP	57 HP	2 HP

End Suction Quick Selection guide

Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump Model	Rated Pressure in Bar	Jockey Flow in USgpm	Jockey Pump Model	Electric Motor HP @ 2900 RPM	Diesel Engine HP @ 3000 RPM	Jockey Pump HP @ 2900 RPM
200 (757)	81-135 (5.58-9.30)	FGBS 80-65-250	5.8	10.00	GCR 3-11	20 HP	20 HP	1.5 HP
			6	10.00	GCR 3-11	20 HP	30 HP	1.5 HP
			7	10.00	GCR 3-13	25 HP	30 HP	1.5 HP
			8	10.00	GCR 3-15	30 HP	30 HP	1.5 HP
			9	10.00	GCR 3-17	30 HP	57 HP	2 HP
			9.3	10.00	GCR 3-17	40 HP	57 HP	2 HP
250(946)	78-134 (5.37-9.23)	FGBS 80-65-250	5.5	12.50	GCR 3-12	20 HP	30 HP	1.5 HP
			6	12.50	GCR 3-13	25 HP	30 HP	1.5 HP
			7	12.50	GCR 3-15	30 HP	30 HP	1.5 HP
			8	12.50	GCR 3-17	30 HP	57 HP	2 HP
			9	12.50	GCR 3-19	40 HP	57 HP	2 HP
300(1135)	94-132 (6.48-9.10)	FGBS 125-100-250	6.65	15.00	GCR 3-17	40 HP	57 HP	2 HP
			7	15.00	GCR 3-17	50 HP	57 HP	2 HP
			8	15.00	GCR 4-10	50 HP	57 HP	3 HP
			9	15.00	GCR 4-12	60 HP	71 HP	3 HP

End Suction Quick Selection guide

Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump Model	Rated Pressure in Bar	Jockey Flow in USgpm	Jockey Pump Model	Electric Motor HP @ 2900 RPM	Diesel Engine HP @ 3000 RPM	Jockey Pump HP @ 2900 RPM
400(1514)	93-131 (6.41 - 9.03)	FGBS 125-100-250	6.55	20.00	GCR 4-10	50 HP	57 HP	3 HP
			7	20.00	GCR 4-10	50 HP	57 HP	3 HP
			8	20.00	GCR 4-12	60 HP	71 HP	3 HP
			9	20.00	GCR 4-12	75 HP	71 HP	3 HP
	122-207 (8.41 - 14.27)	FGBS 125-100-315	10	20.00	GCR 4-14	75 HP	83 HP	4 HP
			11	20.00	GCR 4-16	100 HP	115 HP	4 HP
			12	20.00	GCR 4-16	100 HP	115 HP	4 HP
			13	20.00	GCR 4-19	100 HP	115 HP	5.5 HP
			14	20.00	GCR 4-19	100 HP	115 HP	5.5 HP
	450(1703)	92-131 (6.34 - 9.03)	FGBS 125-100-250	6.5	22.50	GCR 4-10	50 HP	57 HP
7				22.50	GCR 4-10	50 HP	57 HP	3 HP
8				22.50	GCR 4-12	60 HP	71 HP	3 HP
9				22.50	GCR 4-14	75 HP	83 HP	4 HP
121-207 (8.34 - 14.27)		FGBS 125-100-315	10	22.50	GCR 4-14	75 HP	83 HP	4 HP
			11	22.50	GCR 4-16	100 HP	115 HP	4 HP
			12	22.50	GCR 4-19	100 HP	115 HP	5.5 HP
			13	22.50	GCR 4-19	100 HP	115 HP	5.5 HP
			14	22.50	GCR 4-22	125 HP	145 HP	5.5 HP

End Suction Quick Selection guide

Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump Model	Rated Pressure in Bar	Jockey Flow in USgpm	Jockey Pump Model	Electric Motor HP @ 2900 RPM	Diesel Engine HP @ 3000 RPM	Jockey Pump HP @ 2900 RPM
500(1892)	91-130 (6.21 - 8.96)	FGBS 125-100-250	6.5	25.00	GCR 4-10	50 HP	57 HP	3 HP
			7	25.00	GCR 4-12	60 HP	71 HP	3 HP
			8	25.00	GCR 4-14	60 HP	71 HP	4 HP
			8.96	25.00	GCR 4-14	75 HP	83 HP	4 HP
	120-207 (8.27 - 14.27)	FGBS 125-100-315	10	22.00	GCR 10-10	100 HP	115 HP	5.5 HP
			11	25.00	GCR 10-12	100 HP	115 HP	5.5 HP
			12	25.00	GCR 10-14	100 HP	115 HP	7.5 HP
			13	25.00	GCR 10-14	125 HP	145 HP	7.5 HP
			14	22.00	GCR 10-14	125 HP	145 HP	7.5 HP
	750(2838)	86-125 (5.92 - 8.61)	FGBS 125-100-250	6	37.50	GCR 10-7	60 HP	71 HP
7				37.50	GCR 10-8	75 HP	83 HP	4 HP
8				37.50	GCR 10-10	100 HP	115 HP	5.5 HP
8.6				37.50	GCR 10-10	100 HP	115 HP	5.5 HP
114-203 (7.65 - 13.99)		FGBS 125-100-315	9	37.50	GCR 10-12	100 HP	115 HP	5.5 HP
			10	37.50	GCR 10-12	100 HP	115 HP	5.5 HP
			11	37.50	GCR 10-14	125 HP	145 HP	7.5 HP
			12	37.50	GCR 10-14	125 HP	145 HP	7.5 HP
			13	37.50	GCR 10-16	150 HP	175 HP	7.5 HP
			13.99	37.50	GCR 10-16	150 HP	175 HP	7.5 HP

End Suction Quick Selection guide

Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump Model	Rated Pressure in Bar	Jockey Flow in USgpm	Jockey Pump Model	Electric Motor HP @ 2900 RPM	Diesel Engine HP @ 3000 RPM	Jockey Pump HP @ 2900 RPM
1000(3785)	104-188 (7.17 - 12.96)	FGBS 150-125-315	7.3	50.00	GCR 15-6	100 HP	115 HP	7.5 HP
			8	50.00	GCR 15-7	125 HP	145 HP	7.5 HP
			9	50.00	GCR 15-8	125 HP	145 HP	10 HP
			10	50.00	GCR 15-8	150 HP	175 HP	10 HP
			11	50.00	GCR 15-9	200 HP	216 HP	10 HP
			12	50.00	GCR 15-10	200 HP	216 HP	15 HP
			12.96	50.00	GCR 15-12	200HP	216 HP	15 HP