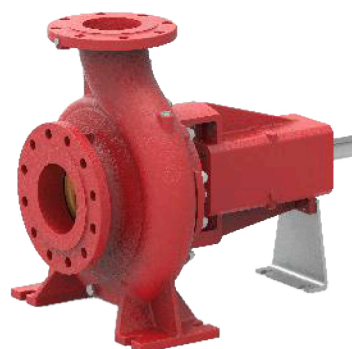
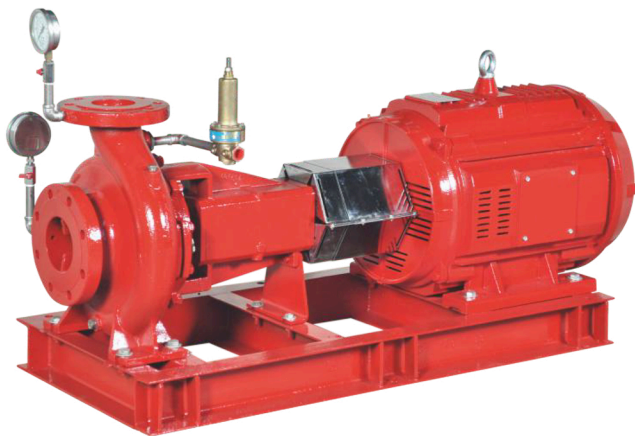


## End Suction Fire Pumps



-Grand Pumps provides FWBS series advanced fire pumps, available with either a diesel engine or electric motor, featuring a single-stage End-Suction design.

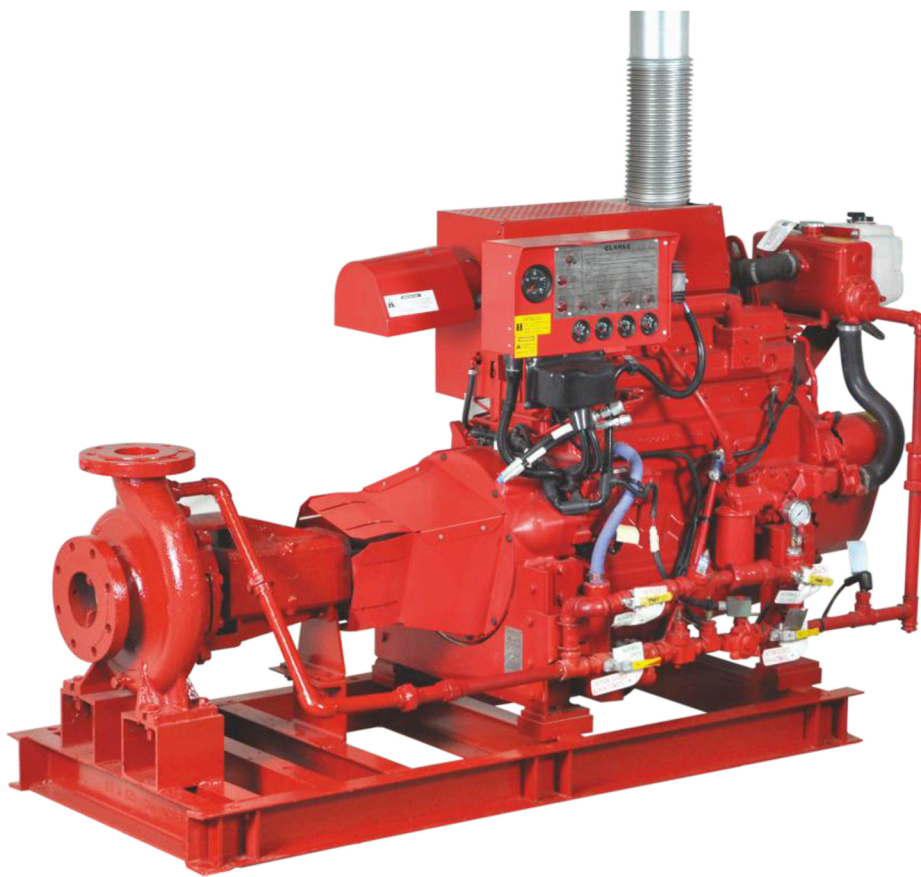
-These pumps are primarily used in fire-fighting to supply water to fire hose reels, hydrants, or sprinkler systems.

-They offer a discharge range from 50 to 1000 USgpm and a head range from 3.72 to 9.9 bar, meeting or exceeding NFPA 20 standards. Installing these pumps ensures the safety of lives, buildings, and valuable equipment.

-The FWBS fire pumpset should be used only with a positive suction, as specified in NFPA 20.

These fire pumps typically include the following components:

- Single-stage End-Suction pump
- Electric motor or diesel engine
- Cooling system for the diesel engine
- Fuel system for the diesel engine
- Battery for electric start of the diesel engine
- Exhaust system for the diesel engine
- Fire pump controller for the diesel engine or electric motor
- Suction and discharge pressure gauges
- Casing relief valve for motor fire pump
- Base frame
- All components, except the fuel tank and fire pump controller, are mounted on a common base frame.
- Grand Pumps also offers packaged fire pumping systems with all necessary accessories ready for installation.



## Applications

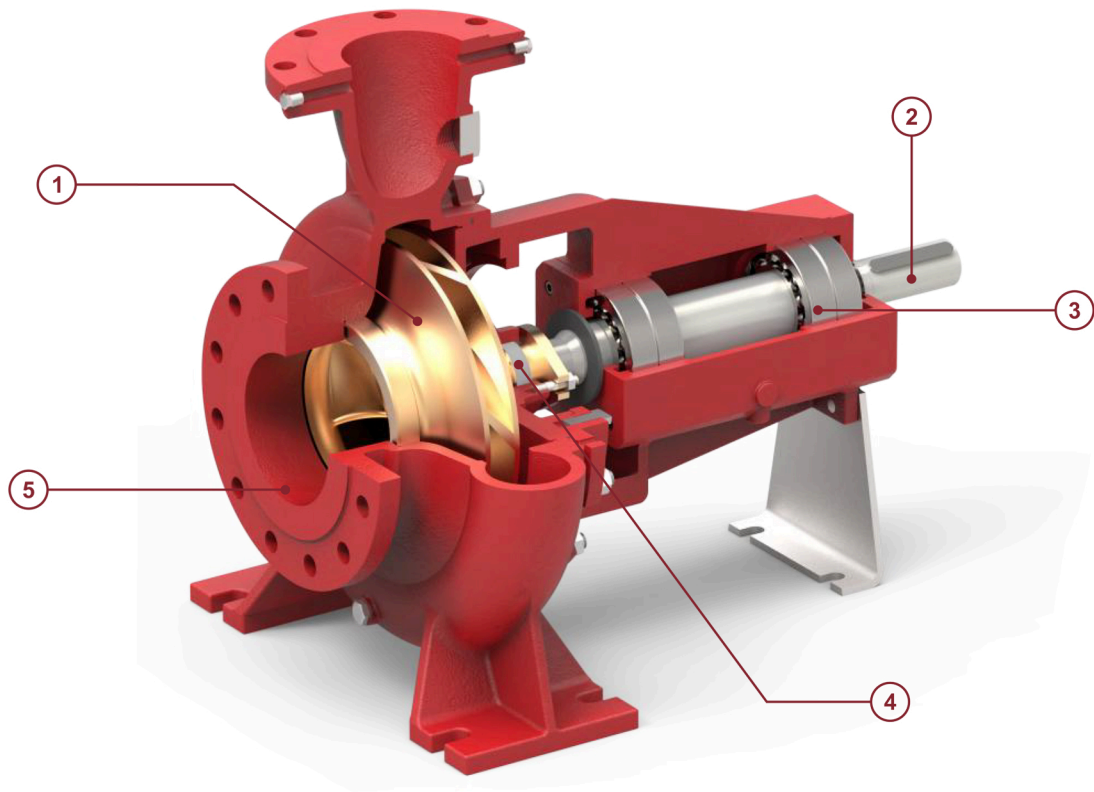
Grand fire pumpsets are designed for small-capacity, diesel engine or motor-driven fire-fighting applications, providing water to fire hose reels, hydrants, or sprinkler systems in fire-prone areas. Typical applications include:

- Commercial complexes and high-rise buildings
- Petrochemical industries and gas plants
- Airports and ports
- Jetties
- Marine operations
- Power and transformer stations
- Chemical industries
- Manufacturing plants
- Fireworks industries
- Warehouses and storage facilities

## Features

Grand Fire Pumpset offers additional features and benefits, including:

- State-of-the-art fire pumping design
- NFPA-20 compliance
- Compact diesel engine-driven pump
- Rugged construction
- More cost-effective than Horizontal Split designs
- Back pull-out design simplifies maintenance without disturbing pipe work
- Dynamically balanced pump impellers per ISO 1940-1
- Efficient operation
- Lower initial cost
- Reduced installation time and expenses
- Easy access to all working parts
- Ease of maintenance
- Single-source unit responsibility



## 1 - Impeller & Casing

- The impeller is dynamically balanced to grade G6.3 quality per ISO 1940-1 standards.
- Both the impeller and casing are designed using advanced CFD tools to ensure optimal performance.

## 2 - Shaft

- Heavy-duty stainless steel shaft, fully sealed and dry for zero corrosion.
- Short, rigid design with minimal vibrations.
- Replaceable shaft protection sleeves.
- No exposed threads to the pump medium, ensuring long life and no corrosion.
- Assembly requires no adjustments.

## 3 - Bearing

- Heavy-duty, permanently grease-lubricated antifriction bearings for extended service life.
- Open gland design with ample space for maintenance activities.

## 4 - Seal

- Soft-packed stuffing boxes that are asbestos-free.

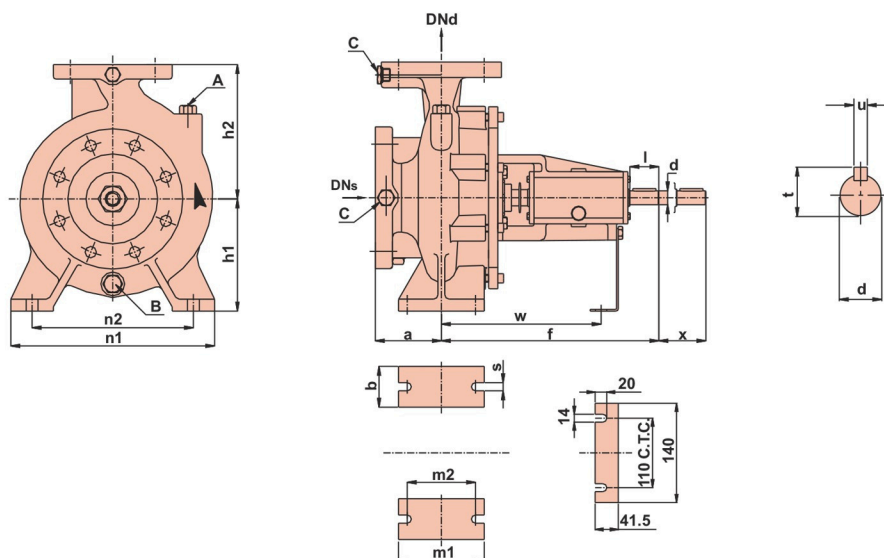
## 5 - Casing

- The End Suction back-pullout design allows for pump maintenance without disassembling the piping.
- Rugged ball bearings on both the drive and non-drive ends.
- Flanges are drilled according to ASME B16.42 class 300.
- Interior surfaces are smooth and CED coated for enhanced corrosion protection.
- Replaceable wear ring protects the casing and maintains impeller clearances.
- Heavy-duty casing design supports high working pressures.



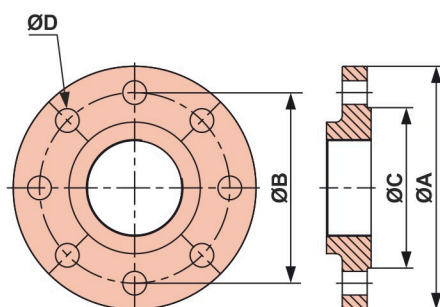
**GRAND PUMPS**  
— COMPANY —

## Dimensions



Model	DNs	DNd	a	b	d.k6	f	h1	h2	l	m1	m2	n1	n2	s	t	u	w	x	A	B	C
FWBS 125-100-250	125	100	310	250	170	360	180	225	50	125	95	320	250	14	27	8	260	100	Ø3/8"	Ø1/2"	Ø1/4"
FWBS 125-100-400	125	100	375	325	210	482	200	250	80	160	120	360	280	18	45	12	340	140	Ø3/8"	Ø1/2"	Ø1/4"
FWBS 150-125-315	150	125	350	300	195	527	225	280	10	160	120	400	315	18	45	12	360	140	Ø3/8"	Ø1/2"	Ø1/4"
FWBS 200-150-250	200	150	385	325	190	630	250	315	10	160	120	400	315	18	51.5	14	445	140	Ø3/8"	Ø1/2"	Ø1/4"
FWBS 250-200-250	250	200	450	325	280	640	280	355	10	200	150	500	400	22	51.5	14	455	140	Ø3/8"	Ø1/2"	Ø1/4"

## Flange Dimensions

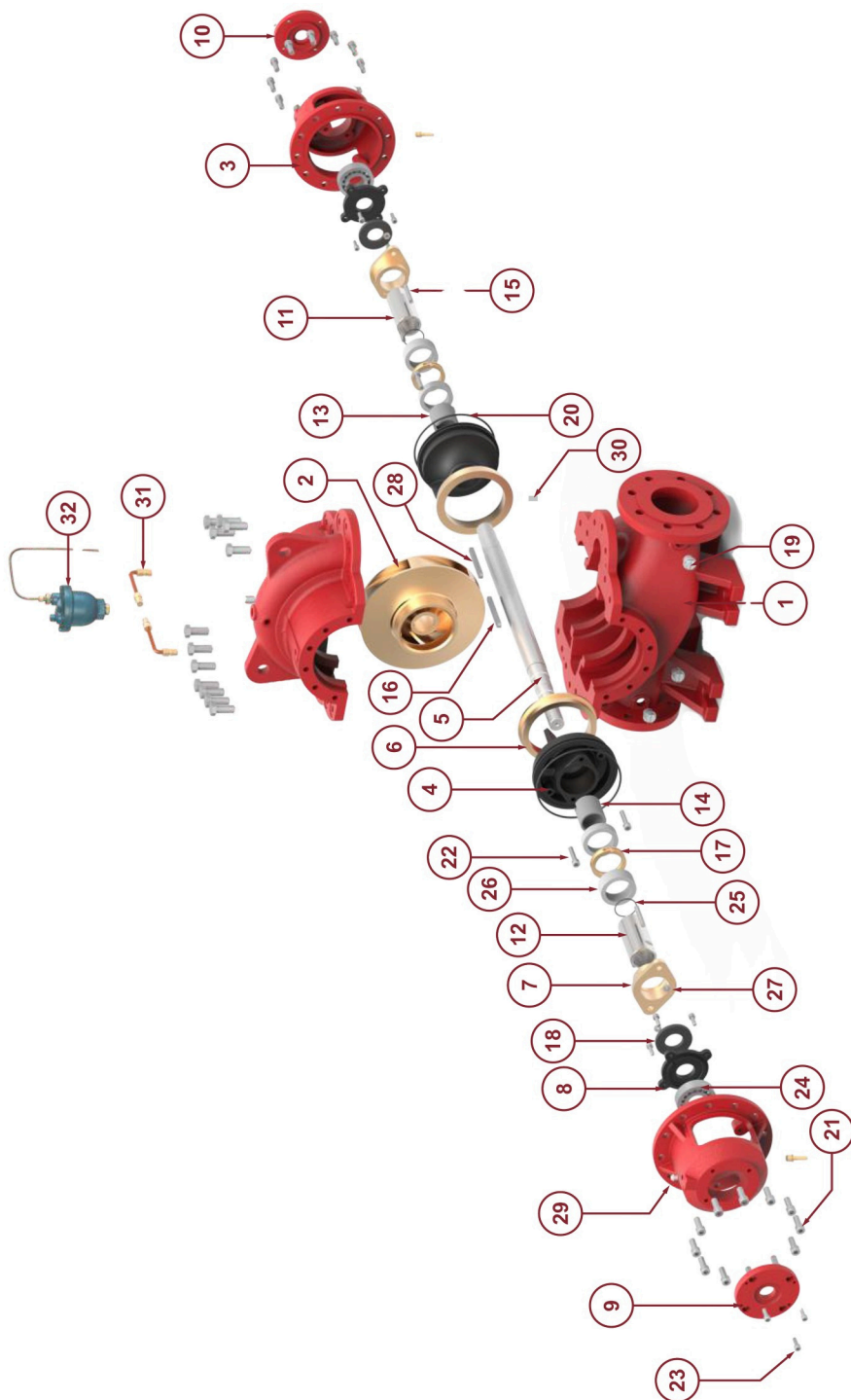


## ANSI 250 Flange Dimensions

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

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	FWBS 65-40-250	96-130	6.61-8.96	96-130	6.61-8.96	2900	2.5	1.5	1
2	FWBS 80-65-250	85-134	5.86-9.23	85-130	5.86-8.96	2900	5	4	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	FWBS 65-40-250	95-127	6.55-8.75	96-127	6.61-8.75	2900	2.5	1.5	1
2	FWBS 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	FWBS 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	FWBS 80-65-250	83-135	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	FWBS 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	FWBS 125-100-250	94-132	6.48-9.10	94-132	6.48-9.10	2900	5	4	1

## Approved Fire Pump Models

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	FWBS 125-100-250	93-131	6.41-9.03	93-131	6.41-9.03	2900	5	4	1
2	FWBS 125-100-315	122-207	8.41-14.27	118-203	8.13-13.99	2900	5	4	1
3	FWBS 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	FWBS 125-100-250	92-131	6.34-9.03	93-131	6.41-9.03	2900	5	4	1
2	FWBS 125-100-315	121-207	8.34-14.27	117-203	8.06-13.99	2900	5	4	1
3	FWBS 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	FWBS 125-100-250	91-130	6.27-8.96	91-130	6.27-8.96	2900	5	4	1
2	FWBS 125-100-315	120-207	8.27-14.27	116-203	7.99-13.99	2900	5	4	1
3	FWBS 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	FWBS 125-100-250	86-125	5.92-8.61	85-125	5.86-8.61	2900	5	4	1
2	FWBS 125-100-315	111-203	7.65-13.99	108-199	7.44-13.72	2900	5	4	1
3	FWBS 150-125-315	109-190	7.51-13.1	104-194	7.17-13.37	2900	6	5	1

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	FWBS 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	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
50(189)	96-130 (6.61- 8.96)	FWBS 65-40-250	6.7	2.50	JCR 1s-15	15HP	15HP	0.75HP
			7	2.50	JCR1s-15	15HP	15HP	0.75HP
			8	2.50	JCR 1s-17	15HP	15HP	0.75HP
	85-134 (5.86- 9.23)	FWBS 80-65-250	8.95	2.50	JCR1s-19	15HP	20HP	0.75HP
			6	2.50	JCR 1s-13	15HP	15HP	0.75HP
			9.2	2.50	JCR 1s-19	15HP	30HP	0.75HP
100(378)	95-127 (6.55- 8.75)	FWBS 65-40-250	6.6	5.00	JCR1-12	15HP	15 HP	1 HP
			7	5.00	JCR1-13	15HP	20 HP	1 HP
			8	5.00	JCR 1-15	20 HP	20 HP	1 HP
			8.75	5.00	JCR 1-17	20 HP	30 HP	1.5 HP
	84-134 (5.79- 9.23)	FWBS 80-65-250	6	5.00	JCR1-11	15HP	15 HP	0.75 HP
			9.2	5.00	JCR1-17	25 HP	30 HP	1.5 HP
150(567)	83-135 (5.12- 9.30)	FWBS 80-65-250	6	7.50	JCR1-13	15HP	20 HP	1 HP
			7	7.50	JCR 1-15	20 HP	30 HP	1 HP
			8	7.50	JCR2-11	25 HP	30 HP	1.5 HP
			9	7.50	JCR 2-13	30HP	30 HP	2 HP
			9.3	7.50	JCR 2-13	30HP	57 HP	2 HP

Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump	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
200 (757)	81-135 (5.58-9.30)	FWBS 80-65-250	5.8	10.00	JCR 3-11	20 HP	20 HP	1.5 HP
			6	10.00	JCR 3-11	20 HP	30 HP	1.5 HP
			7	10.00	JCR 3-13	25 HP	30 HP	1.5 HP
			8	10.00	JCR 3-15	30 HP	30 HP	1.5 HP
			9	10.00	JCR 3-17	30 HP	57 HP	2 HP
			9.3	10.00	JCR 3-17	40 HP	57 HP	2 HP
250(946)	78-134 (5.37-9.23)	FWBS 80-65-250	5.5	12.50	JCR 3-12	20 HP	30 HP	1.5 HP
			6	12.50	JCR 3-13	25 HP	30 HP	1.5 HP
			7	12.50	JCR 3-15	30 HP	30 HP	1.5 HP
			8	12.50	JCR 3-17	30 HP	57 HP	2 HP
			9	12.50	JCR 3-19	40 HP	57 HP	2 HP
300(1135)	94-132 (6.48-9.10)	FWBS 125-100-250	6.65	15.00	JCR 3-17	40 HP	57 HP	2 HP
			7	15.00	JCR 3-17	50 HP	57 HP	2 HP
			8	15.00	JCR 4-10	50 HP	57 HP	3 HP
			9	15.00	JCR 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	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
400(1514)	93-131 (6.41 - 9.03)	FWBS 125-100-250	6.55	20	JCR 4-10	50 HP	57 HP	3 HP
			7	20	JCR 4-10	50 HP	57 HP	3 HP
			8	20	JCR 4-12	60 HP	71 HP	3 HP
			9	20	JCR 4-12	75 HP	71 HP	3 HP
	122-207 (8.41 - 14.27)	FWBS 125-100-315	10	20	JCR 4-14	75 HP	83 HP	4 HP
			11	20	JCR 4-16	100 HP	115 HP	4 HP
			12	20	JCR 4-16	100 HP	115 HP	4 HP
			13	20	JCR 4-19	100 HP	115 HP	5.5 HP
			14	20	JCR 4-19	100 HP	115 HP	5.5 HP
Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump	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
450(1703)	92-131 (6.34 - 9.03)	FWBS 125-100-250	6.5	22.50	JCR 4-10	50 HP	57 HP	3 HP
			8	22.50	JCR 4-10	50 HP	57 HP	3 HP
			10	22.50	JCR 4-12	60 HP	71 HP	3 HP
			12	22.50	JCR 4-14	75 HP	83 HP	4 HP
	122-207 (8.41 - 14.27)	FWBS 125-100-315	14	22.50	JCR 4-14	75 HP	83 HP	4 HP
			11	22.50	JCR 4-16	100 HP	115 HP	4 HP
			12	22.50	JCR 4-16	100 HP	115 HP	5.5 HP
			13	22.50	JCR 4-19	100 HP	115 HP	5.5 HP
			14	22.50	JCR 4-22	125 HP	145 HP	5.5 HP
Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump	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
500(1892)	91-130 (6.21 - 8.96)	FWBS 125-100-250	6.55	25.00	JCR 4-10	50 HP	57 HP	3 HP
			7	25.00	JCR 4-12	60 HP	71 HP	3 HP
			8	25.00	JCR 4-14	60 HP	71 HP	4 HP
			9	25.00	JCR 4-14	75 HP	83 HP	4 HP
	120-207 (8.27 - 14.27)	FWBS 125-100-315	10	22.00	JCR 10-10	100 HP	115 HP	5.5 HP
			11	25.00	JCR 10-12	100 HP	115 HP	5.5 HP
			12	25.00	JCR 10-14	100 HP	115 HP	7.5 HP
			13	25.00	JCR 10-14	125 HP	145 HP	7.5 HP
			14	22.00	JCR 10-14	125 HP	145 HP	7.5 HP

## End Suction Quick Selection guide

Rated Capacity in GPM / (LPM)	Pressure in PSI(Bar)	Electric & Diesel Engine Pump	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
750(2838)	86-125 (5.92 - 8.61)	FWBS 125-100-250	6	37.50	JCR 10-7	60 HP	71 HP	4 HP
			7	37.50	JCR 10-8	75 HP	83 HP	4 HP
			8	37.50	JCR 10-10	100 HP	115 HP	5.5 HP
			8.6	37.50	JCR 10-10	100 HP	115 HP	5.5 HP
	114-203 (7.65 - 13.99)	FWBS 125-100-315	9	37.50	JCR 10-12	100 HP	115 HP	5.5 HP
			10	37.50	JCR 10-12	100 HP	115 HP	5.5 HP
			11	37.50	JCR 10-14	125 HP	145 HP	7.5 HP
			12	37.50	JCR 10-14	125 HP	145 HP	7.5 HP
			13	37.50	JCR 10-16	150 HP	175 HP	7.5 HP
			13.99	37.50	JCR 10-16	150 HP	175 HP	7.5 HP
1000(3785)	104-188 (7.17 - 12.96)	FWBS 150-125-315	7.3	50.00	JCR 15-6	100 HP	115 HP	7.5 HP
			8	50.00	JCR 15-7	125 HP	145 HP	7.5 HP
			9	50.00	JCR 15-8	125 HP	145 HP	10 HP
			10	50.00	JCR 15-8	150 HP	175 HP	10 HP
			11	50.00	JCR 15-9	200 HP	216 HP	10 HP
			12	50.00	JCR 15-10	200 HP	216 HP	15 HP
			12.96	50.00	JCR 15-12	200HP	216 HP	15 HP