

NF SERIES



FIRE PUMPS



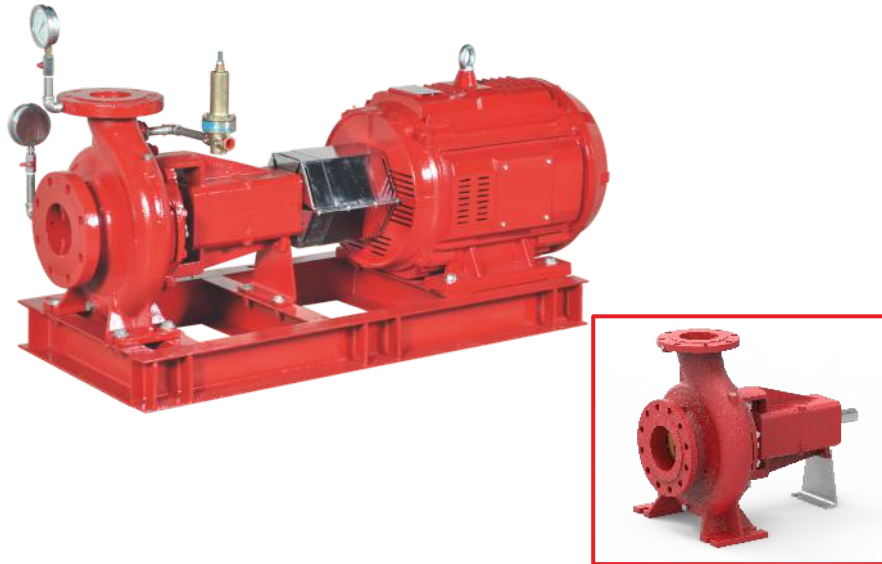
60Hz

PRODUCT CATALOGUE



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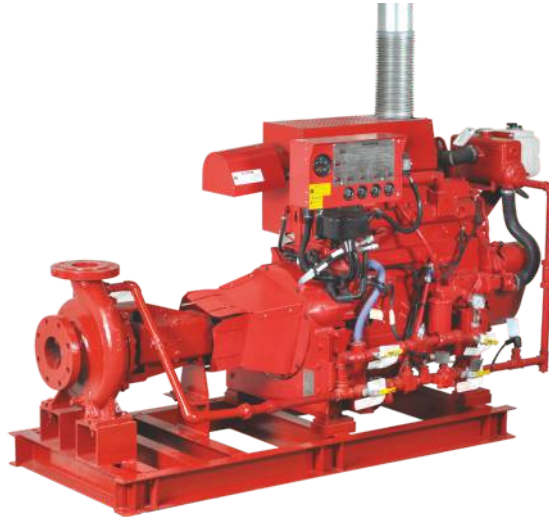
- ▶ NORTHAM offers NFE series state-of-the-art fire pumps with diesel engine or electric motor driven, single-stage End-Suction pump
- ▶ These pumps are typically used in fire-fighting applications for supplying water to fire hose reels, fire hydrants or sprinkler systems.
- ▶ Pumps have a discharge range from 100 to 1250 USgpm and the head range from 5.24 to 20.61 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. NFE 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
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- ▶ All above equipments except fuel supply tank and fire pump controller are mounted on a common base frame.
 - ▶ NORTHAM can also supply packaged fire pumping system with all required accessories ready for sit installation.

END SUCTION PUMPS

APPLICATIONS



The NFE 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:

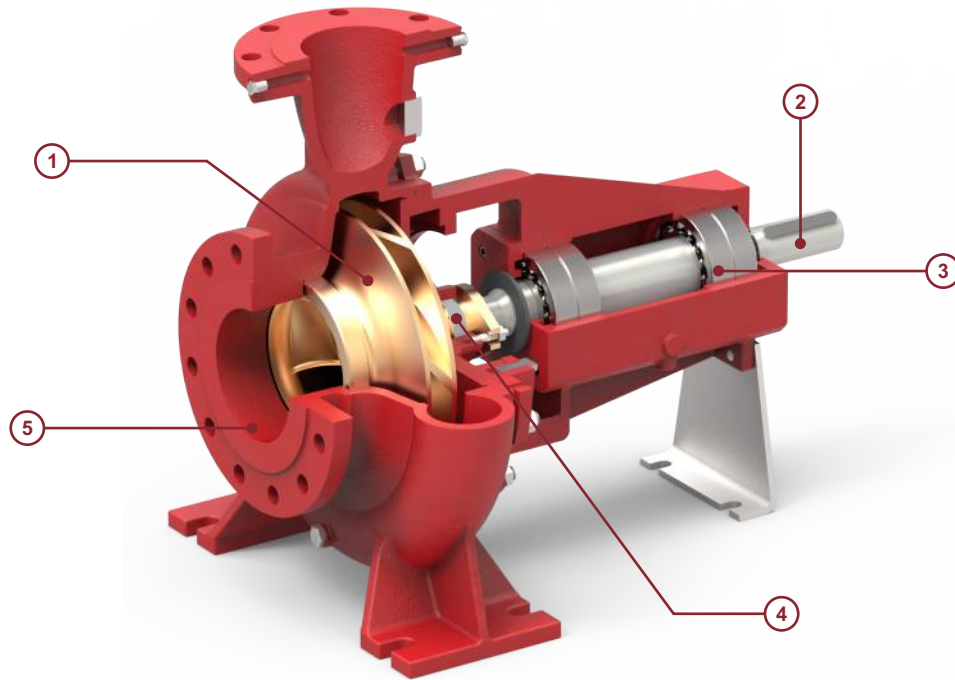
- ▶ Commercial complexes & high rise buildings
- ▶ Petrochemical industries and Gas plants
- ▶ Airports and ports
- ▶ Jetties
- ▶ Marine applications
- ▶ Power stations and transformer stations
- ▶ Chemical industries
- ▶ Manufacturing plants
- ▶ Fire-work industries
- ▶ Warehouses / godowns

FEATURES & BENEFITS

NFE fire pumpset offers all the features & benefits as mentioned in our NFE 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

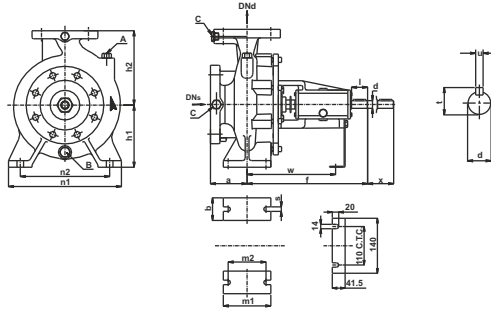
- ▶ Asbestos - free, soft packed stuffing boxes.

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 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.

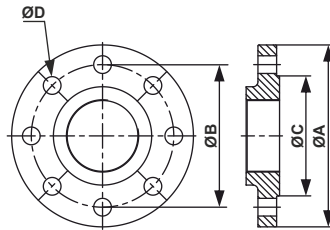
END SUCTION FIRE PUMPS

DIMENSIONS



Model	DNs	DNd	a	b	d.k6	f	h1	h2	l	m1	m2	n1	n2	s	t	u	w	x	A	B	C
NFE 025-015-100	2.65	1.5	3.9	2.6	0.9	14.2	7.1	8.9	2.0	4.9	3.7	12.6	9.8	0.6	1.1	0.3	10.2	3.94	Ø3/8"	Ø1/2"	Ø1/4"
NFE 030-025-100	3.0	2.5	3.9	3.1	1.7	19.0	7.9	9.8	3.1	6.3	4.7	14.2	11.0	0.7	1.8	0.5	13.4	5.51	Ø3/8"	Ø1/2"	Ø1/4"
NFE 050-040-080	5.0	4.0	4.9	3.1	1.7	19.0	7.9	9.8	3.1	6.3	4.7	14.2	11.0	0.7	1.8	0.5	13.4	5.51	Ø3/8"	Ø1/2"	Ø1/4"
NFE 050-040-100	5.0	4.0	5.5	3.1	1.7	20.7	8.9	11.0	4.3	6.3	4.7	15.7	12.4	0.7	1.8	0.5	14.2	5.51	Ø3/8"	Ø1/2"	Ø1/4"
NFE 050-040-125	5.0	4.0	5.5	3.1	1.9	24.8	9.8	12.4	4.3	6.3	4.7	15.7	12.4	0.7	2.0	0.6	17.5	5.51	Ø3/8"	Ø1/2"	Ø1/4"
NFE 060-050-100	6.0	5.0	5.5	3.1	1.7	24.8	9.8	14.0	4.3	6.3	4.7	15.7	12.4	0.7	2.0	0.6	17.5	5.51	Ø3/8"	Ø1/2"	Ø1/4"
NFE 060-050-125	6.0	5.0	5.5	3.9	1.9	25.2	11.0	14.0	4.3	7.9	5.9	19.7	15.7	0.9	2.0	0.6	17.9	5.51	Ø3/8"	Ø1/2"	Ø1/4"

FLANGE DIMENSIONS

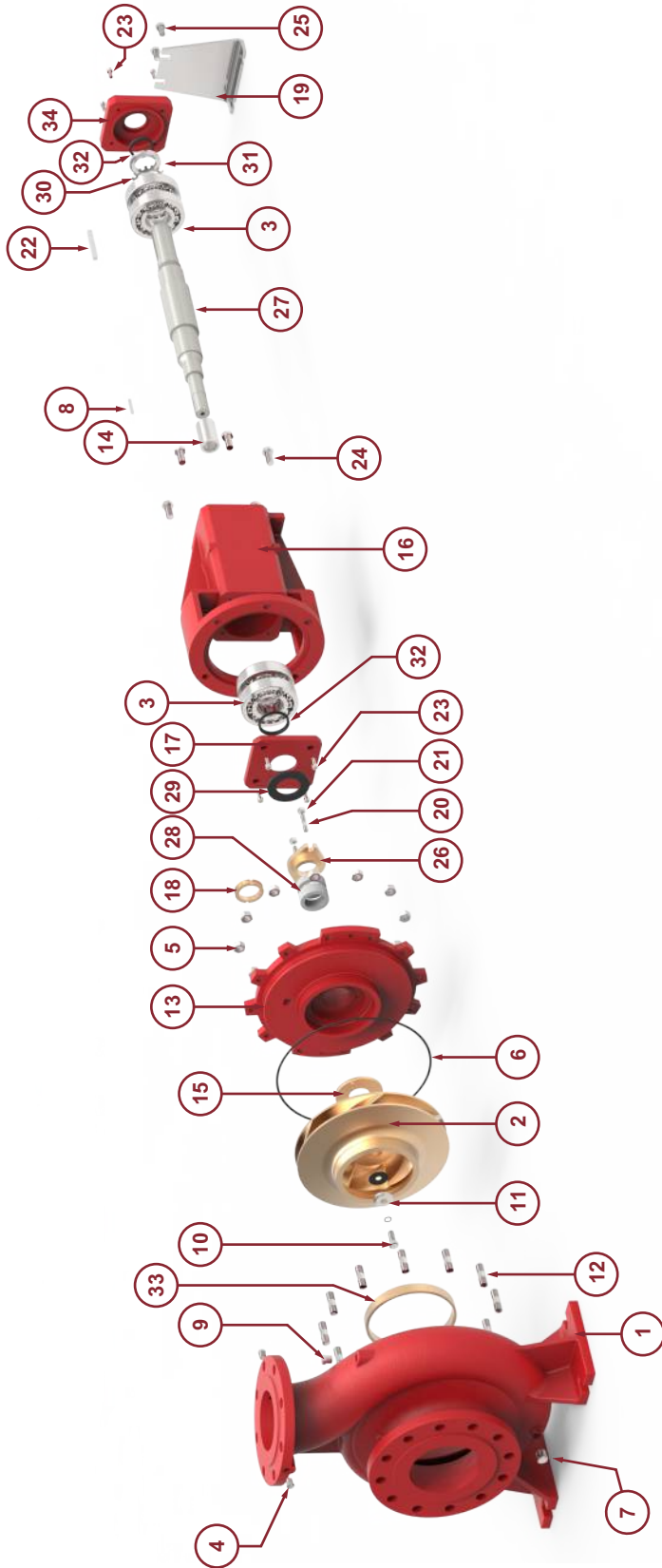


CLASS 300 FLANGE DIMENSIONS

Model	Suction				Discharge			
	ØA	ØB	ØC	ØD x Nos. of holes	ØA	ØB	ØC	ØD x Nos. of holes
NFE 025-015-100	7.48	5.87	4.92	Ø7/8" x 8	6.10	4.49	3.58	Ø7/8" x 4
NFE 030-025-100	8.27	6.61	5.67	Ø7/8" x 8	7.48	5.87	4.92	Ø7/8" x 8
NFE 050-040-080	11.02	9.25	8.31	Ø7/8" x 8	10.04	7.87	6.93	Ø7/8" x 8
NFE 050-040-100	11.02	9.25	8.31	Ø7/8" x 8	10.04	7.87	6.93	Ø7/8" x 8
NFE 050-040-125	11.02	9.25	8.31	Ø7/8" x 8	10.04	7.87	6.93	Ø7/8" x 8
NFE 060-050-100	12.60	10.63	9.69	Ø7/8" x 12	11.02	9.25	8.31	Ø7/8" x 8
NFE 060-050-125	12.60	10.63	9.69	Ø7/8" x 12	11.02	9.25	8.31	Ø7/8" x 8

END SUCTION FIRE PUMPS

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- 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	NFE 030-025-100	87-191	5.99-13.16	87-193	5.99-13.30	3550	3	2.5	1
2	NFE 030-025-100	84-134	5.79- 9.23	84-129	5.79-8.89	2900	3	2.5	1
3	NFE 025-015-100	95-127	6.55- 8.73	96-127	6.61-8.75	2900	2.5	1.5	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	NFE 030-025-100	84-191	5.7-13.16	84-193	5.79-13.30	3550	3	2.5	1
2	NFE 030-025-100	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	NFE 030-025-100	81-191	5.58-13.16	81-193	5.58-13.30	3550	3	2.5	1
2	NFE 030-025-100	81-135	5.58-9.30	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	NFE 030-025-100	76-191	5.2-13.16	76-193	5.24-13.30	3550	3	2.5	1
2	NFE 030-025-100	78-134	5.37-9.23	77-129	5.30-8.89	2900	3	2.5	1

APPROVED FIRE PUMP MODELS WITH RATING

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	NFE 050-040-080	87-123	5.9-8.48	87-122	5.99-8.41	3550	5	4	1
2	NFE 050-040-100	120-195	8.27-13.44	121-196	8.34-13.51	3550	5	4	1
3	NFE 050-040-100	94-132	6.48-9.10	94-132	6.48-9.10	2900	5	4	1

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	NFE 050-040-080	86-122	5.92-8.41	85-121	5.86-8.34	3550	5	4	1
2	NFE 050-040-100	118-195	8.13-13.44	119-195	8.20-13.44	3550	5	4	1
3	NFE 050-040-125	176-299	12.13-20.61	177-300	12.2-20.68	3550	5	4	1
4	NFE 050-040-100	93-131	6.41-9.03	93-131	6.41-9.03	2900	5	4	1
5	NFE 050-040-125	122-207	8.41-14.27	118-203	8.13-13.99	2900	5	4	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	NFE 050-040-080	84-122	5.79-8.41	84-122	5.79-8.41	3550	5	4	1
2	NFE 050-040-100	117-194	8.06-13.3	118-195	8.13-13.44	3550	5	4	1
3	NFE 050-040-125	175-298	12.06-20.54	176-300	12.13-20.68	3550	5	4	1
4	NFE 050-040-100	92-131	6.34-9.03	93-131	6.41-9.03	2900	5	4	1
5	NFE 050-040-125	121-207	8.34-14.27	117-203	8.06-13.99	2900	5	4	1

APPROVED FIRE PUMP MODELS WITH RATING

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	NFE 050-040-080	83-122	5.75-8.41	83-122	5.72-8.41	3550	5	4	1
2	NFE 050-040-100	116-194	7.99-13.37	117-194	8.06-13.37	3550	5	4	1
3	NFE 050-040-125	174-298	11.99-20.54	175-299	12.06-20.61	3550	5	4	1
4	NFE 050-040-100	91-130	6.27-8.96	91-130	6.24-8.96	2900	5	4	1
5	NFE 050-040-125	120-207	8.27-14.27	116-203	7.99-13.99	2900	5	4	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	NFE 050-040-080	77-118	5.30-8.13	77-118	5.30-8.13	3550	5	4	1
2	NFE 050-040-100	110-191	7.58-13.16	110-191	7.58-13.16	3550	5	4	1
3	NFE 050-040-125	167-296	11.51-20.40	168-298	11.58-20.54	3550	5	4	1
4	NFE 050-040-100	86-125	5.92-8.61	85-125	5.86-8.61	2900	5	4	1
5	NFE 050-040-125	111-203	7.65-13.99	108-199	7.44-13.72	2900	5	4	1

RATED CAPACITY- 1000 US GPM

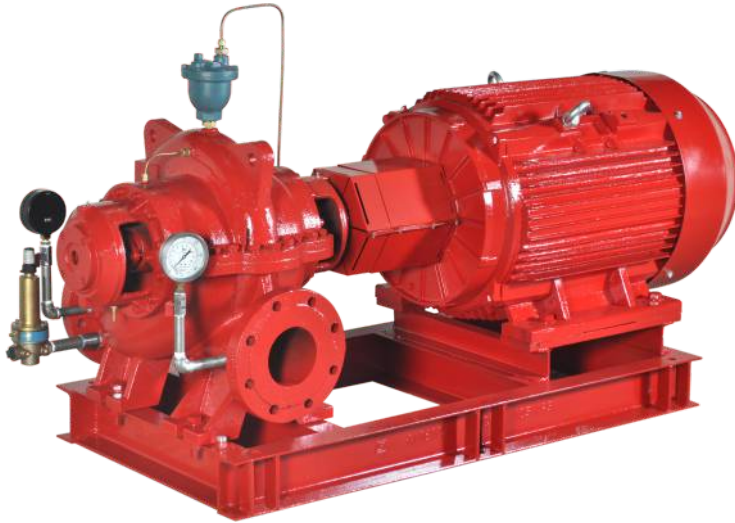
Sr. No.	Pump Model	UL Listed Pressure		FM Approved Pressure		Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
		(psi)	(bar)	(psi)	(bar)				
1	NFE 060-050-100	101-183	6.9-12.61	101-181	6.96-12.47	3550	6	5	1
2	NFE 060-050-125	153-220	10.54-15.16	157-221	10.82-15.23	3550	6	5	1
3	NFE 060-050-125	104-188	7.17-12.96	99-190	6.82-13.1	2900	6	5	1

APPROVED FIRE PUMP MODELS WITH RATING

RATED CAPACITY- 1250 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	NFE 060-050-125	146-217	10.06-14.96	150-217	10.34-14.96	3550	6	5	1

INTRODUCTION



Introduction

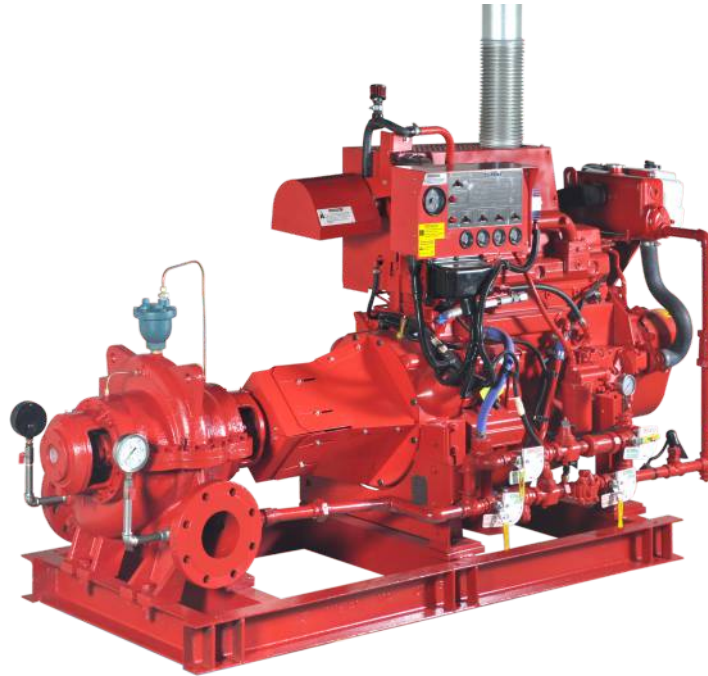
- ▶ NORTHAM offers NFH series state-of-the-art fire pumps with diesel engine or electric motor driven, horizontal split case pump.
- ▶ These pumps are typically used in fire-fighting applications for supplying water to fire hose reels, fire hydrants or sprinkler systems.
- ▶ Pumps have a discharge range from 450 to 3000 USgpm and the head range from 6.4 to 16 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. NFH fire pumpset shall be used only where a positive suction is provided as specified in NFPA20.

There 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.
 - ▶ NORTHAM can also supply Packaged fire pumping system with all required accessories ready for site installation.

HORIZONTAL SPLIT CASE FIRE PUMPS

APPLICATIONS



The NFH 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.

- ▶ 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.

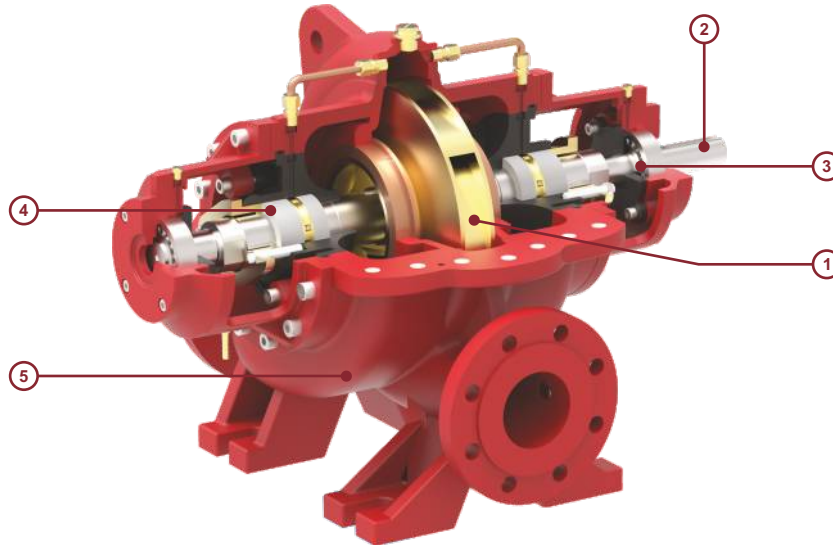
FEATURES & BENEFITS

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

- ▶ 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.

HORIZONTAL SPLIT CASE FIRE PUMPS

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

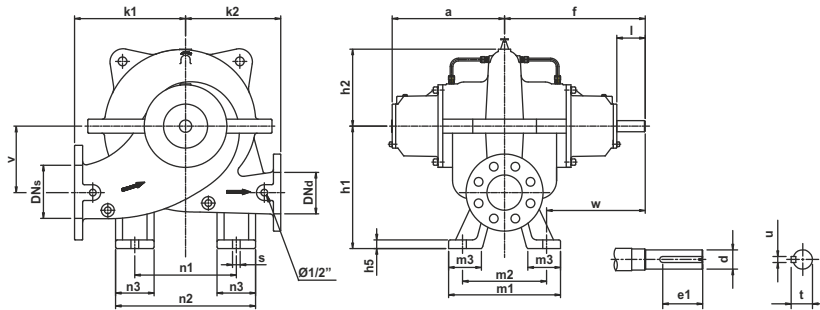
- ▶ Asbestos - free, soft packed stuffing boxes.

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.

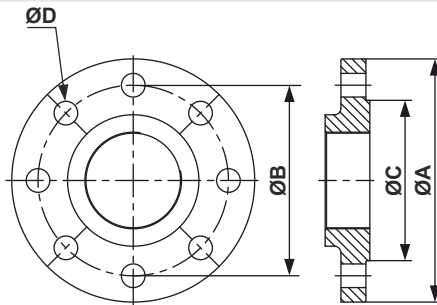
HORIZONTAL SPLIT CASE FIRE PUMPS

DIMENSIONS



Model	DNs	DNd	k1	k2	v	n1	n2	n3	a	f	h1	h2	h5	s	w	m1	m2	m3	d	l	e1	u	t
NFH 050-040-100	5.0	4.0	12.20	9.84	6.69	9.84	13.78	3.94	12.72	15.83	12.60	7.83	0.98	0.87	11.10	12.60	9.45	3.74	1.26	3.19	2.56	0.39	1.390
NFH 060-050-125	6.0	5.0	13.78	11.81	7.78	11.81	17.32	5.51	13.11	17.09	14.76	9.61	0.98	0.87	12.17	13.78	9.84	3.90	1.50	4.02	3.35	0.39	1.614
NFH 060-040-107	6.0	4.0	13.39	11.81	6.50	11.02	15.16	4.13	13.15	17.09	13.66	7.68	0.79	0.87	12.17	13.78	9.84	3.82	1.50	4.02	3.35	0.39	1.614
NFH 080-060-107	8.0	6.0	14.76	13.78	6.89	14.17	19.69	5.51	13.74	17.91	16.14	8.50	1.10	0.87	12.60	14.57	10.63	3.82	1.89	4.17	4.02	0.55	2.028
NFH 120-100-200	12.0	10.0	23.62	22.64	10.83	25.59	32.87	7.28	19.49	24.96	21.65	14.92	1.18	1.10	16.69	20.47	16.54	4.72	3.35	5.51	5.12	0.87	3.504

FLANGE DIMENSIONS

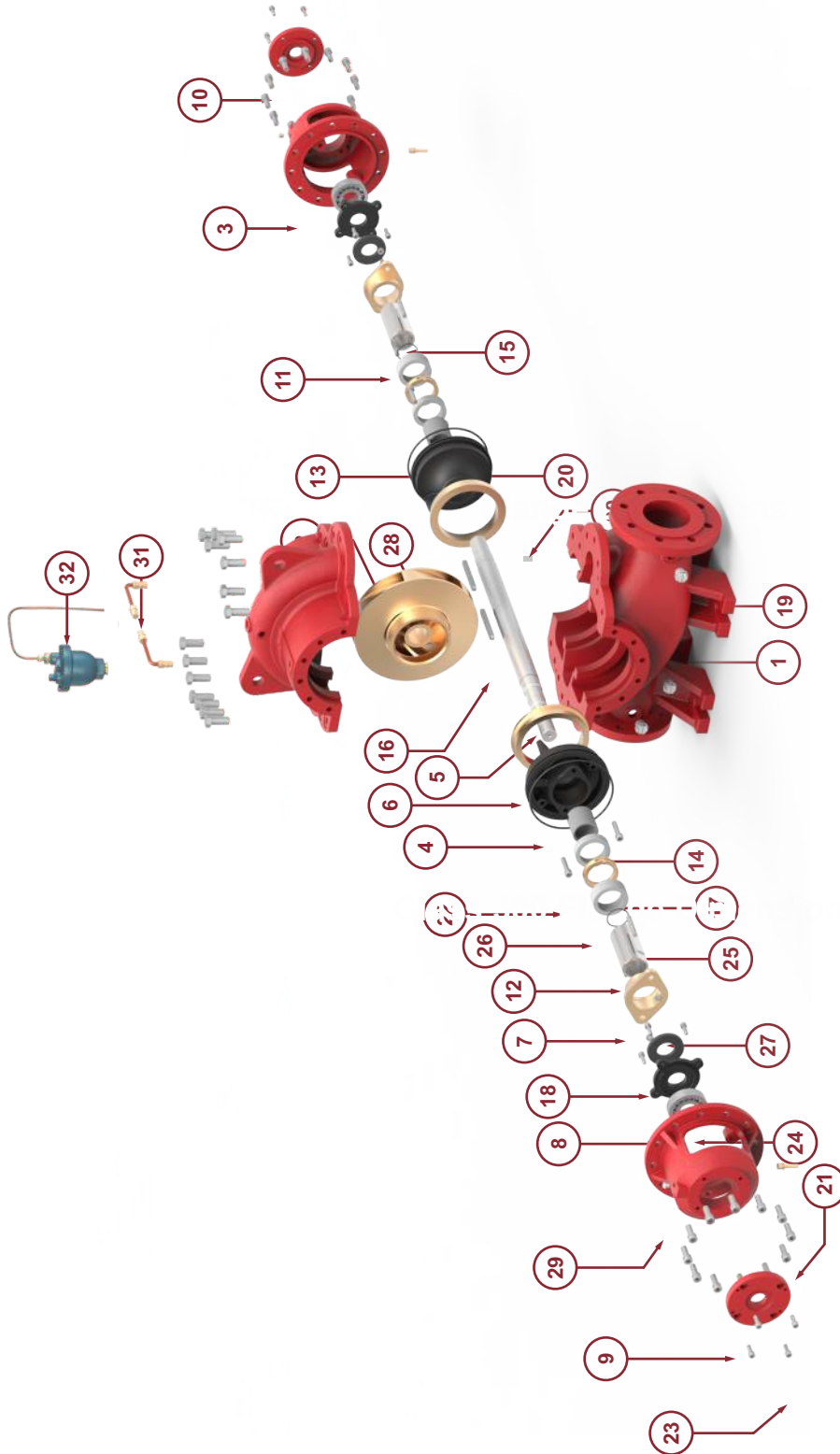


CLASS 300 FLANGE DIMENSIONS

Model	Suction				Discharge			
	ØA	ØB	ØC	ØD x Nos. of holes	ØA	ØB	ØC	ØD x Nos. of holes
NFH 050-040-100	11.02	9.25	8.31	Ø7/8" x 8	10.04	7.87	6.93	Ø7/8" x 8
NFH 060-050-125	12.60	10.63	9.69	Ø7/8" x 12	11.02	9.25	8.31	Ø7/8" x 8
NFH 060-040-107	12.60	10.63	9.69	Ø7/8" x 12	10.04	7.87	6.93	Ø7/8" x 8
NFH 080-060-107	14.96	12.99	11.93	Ø1" x 12	12.60	10.63	9.69	Ø7/8" x 12
NFH 120-100-200	20.47	17.76	16.46	Ø1-1/4" x 16	17.52	15.24	13.78	Ø1-1/8" x 16

HORIZONTAL SPLIT CASE FIRE PUMPS

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	NFH 050-040-100	101-205	6.9-14.13	100-205	6.89-14.13	3550	5	4	1
2	NFH 050-040-100	71-131	4.89-9.03	75-136	5.1-9.3	2900	5	4	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	NFH 050-040-100	100-205	6.89-14.13	99-205	6.82-14.13	3550	5	4	1
2	NFH 050-040-100	71-131	4.89-9.03	74-135	5.10-9.3	2900	5	4	1
3	NFH 060-050-125	131-214	9-14.75	131-214	9-14.75	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	NFH 050-040-100	94-204	6.4-14.0	92-204	6.34-14.06	3550	5	4	1
2	NFH 050-040-100	65-130	4.48-8.96	66-132	4.5-9.10	2900	5	4	1
3	NFH 060-040-107	165-233	11.37-16.0	166-232	11.44-15.9	3550	6	4	1
4	NFH 060-050-125	129-213	8.89-14.65	129-212	8.8-14.61	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	NFH 060-040-107	158-226	10.8-15.5	158-225	10.8-15.5	3550	6	4	1
2	NFH 080-060-107	164-234	11.3-16.13	164-240	11.3-16.5	3550	8	6	1

APPROVED FIRE PUMP MODELS WITH RATING

RATED CAPACITY- 1250 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	NFH 080-060-107	162-231	11.1-15.9	161-235	11.1-16.2	3550	8	6	1

RATED CAPACITY- 1500 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	NFH 080-060-107	156-225	10.7-15.5	155-230	10.6-15.8	3550	8	6	1

RATED CAPACITY- 2000 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	NFH 120-100-200	129-212	8.89-14.6	129-227	8.89-15.6	1770	12	10	1

RATED CAPACITY- 2500 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	NFH 120-100-200	128-211	8.82-14.5	128-226	8.82-15.5	1770	12	10	1

RATED CAPACITY- 3000 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	NFH 120-100-200	124-209	8.54-14.4	125-224	8.61-15.4	1770	12	10	1

END SUCTION 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
100 (378)	87-191 (5.99- 13.16)	NFE 030-025-100	84-134 (5.79- 9.23)	NFE 030-025-100	6	5	NV-C-010-08-X	15 HP	45 HP/3000 RPM	1
			95-127 (6.55- 8.73)	NFE 025-015-100	7	5	NV-C-010-09-X	20 HP	45 HP/3000 RPM	1
			84-134 (5.79- 9.23)	NFE 030-025-100	8	5	NV-C-010-10-X	25 HP	45 HP/3000 RPM	1
					9	5	NV-C-010-11-X	25 HP	45 HP/3000 RPM	1.5
150 (567)	84-191 (5.79- 13.16)	NFE 030-025-100	83-135 (5.72- 9.30)	NFE 030-025-100	6	7.5	NV-C-010-08-X	20 HP	45 HP/3000 RPM	1
					7	7.5	NV-C-010-09-X	25 HP	45 HP/3000 RPM	1
					8	7.5	NV-C-010-11-X	30 HP	45 HP/3000 RPM	1.5
					9	7.5	NV-C-010-12-X	30 HP	45 HP/3000 RPM	1.5
200 (757)	81-191 (5.58-13.16)	NFE 030-025-100	81-135 (5.58-9.30)	NFE 030-025-100	5.7	9.9	NV-C-010-09-X	20 HP	45 HP/3000 RPM	1
					6	10	NV-C-010-10-X	20 HP	45 HP/3000 RPM	1
					7	10	NV-C-010-11-X	25 HP	45 HP/3000 RPM	1.5
					8	10	NV-C-010-13-X	30 HP	45 HP/3000 RPM	1.5
					9	10	NV-C-010-15-X	40 HP	45 HP/3000 RPM	2
250 (946)	76-191 (5.24-13.16)	NFE 030-025-100	78-134 (5.37-9.23)	NFE 030-025-100	5.7	12.5	NV-C-016-07-X	25 HP	45 HP/3000 RPM	1.5
					6	12.5	NV-C-016-08-X	25 HP	45 HP/3000 RPM	1.5
					7	12	NV-C-016-09-X	30 HP	45 HP/3000 RPM	1.5
					8	12.5	NV-C-016-11-X	40 HP	45 HP/3000 RPM	2
					9	12.5	NV-C-016-12-X	40 HP	45 HP/3000 RPM	2
300 (1135)	87-123 (5.99-8.48)	NFE 050-040-080	94-132 (6.48-9.10)	NFE 050-040-100	6.5	15	NV-C-016-10-X	50 HP	60 HP/3000 RPM	2
					7	15	NV-C-016-10-X	50 HP	60 HP/3000 RPM	2
	120-195 (8.27-13.44)	NFE 050-040-100			8	15	NV-C-016-12-X	60 HP	60 HP/3000 RPM	2
					9	15	NV-C-016-13-X	75 HP	71 HP/3000 RPM	3

END SUCTION 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
400 (1514)	86-122 (5.92 - 8.41)	NFE 050-040-080	93-131 (6.41 - 9.03)	NFE 050-040-100	6	20	NV-C-027-06-X	50 HP	60 HP/3000 RPM	3
					7	20	NV-C-027-08-7	60 HP	60 HP/3000 RPM	3
					8	20	NV-C-027-08-X	60 HP	71 HP/3000 RPM	3
	118-195 (8.13 - 13.4)	NFE 050-040-100	122-207 (8.41 - 14.27)	NFE 050-040-125	9	20	NV-C-027-08-X	75 HP	71 HP/3000 RPM	3
					10	20	NV-C-027-09-X	100 HP	83 HP/3000 RPM	5
					11	20	NV-C-027-10-X	100 HP	115 HP/3000 RPM	5
					12	20	NV-C-027-11-X	100 HP	115 HP/3000 RPM	5
	176-299 (12.13 - 20.61)	NFE 050-040-125			13	20	NV-C-027-12-X	100 HP	115 HP/3000 RPM	5
					14	20	NV-C-027-13-X	125 HP	115 HP/3000 RPM	5
	450 (1703)	84-122 (5.79 - 8.41)	NFE 050-040-080	92-131 (6.34 - 9.03)	NFE 050-040-100	6.5	22.5	NV-C-027-06-X	50 HP	60 HP/3000 RPM
7						22.5	NV-C-027-08-7	60 HP	60 HP/3000 RPM	3
8						22.5	NV-C-027-08-X	75 HP	71 HP/3000 RPM	3
117-194 (8 - 13.37)		NFE 050-040-100	121-207 (8.34 - 14.27)	NFE 050-040-125	9	22.5	NV-C-027-09-X	75 HP	83 HP/3000 RPM	5
					10	22.5	NV-C-027-10-X	100 HP	83 HP/3000 RPM	5
					11	22.5	NV-C-027-11-X	100 HP	115 HP/3000 RPM	5
					12	22.5	NV-C-027-11-X	100 HP	115 HP/3000 RPM	5
175-298 (12.06 - 20.54)		NFE 050-040-125			13	22.5	NV-C-027-12-X	125 HP	115 HP/3000 RPM	5
					14	22.5	NV-C-027-13-X	125 HP	145 HP/3000 RPM	5

END SUCTION 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 HP @ (2100 RPM & 3000 RPM)	Jockey Pump HP @ 3450 RPM
500 (1892)	83-122 (5.72 - 8.41)	NFE 050-040-080	91-130 (6.27 - 8.96)	NFE 050-040-100	6.5	25	NV-C-027-08-7	50 HP	60 HP/3000 RPM	3
					7	25	NV-C-027-08-7	60 HP	60 HP/3000 RPM	3
					8	25	NV-C-027-08-X	75 HP	71 HP/3000 RPM	3
	116-194 (7.99 - 13.37)	NFE 050-040-100	120-207 (8.27 - 14.27)	NFE 050-040-125	9	25	NV-C-027-09-X	100 HP	83 HP/3000 RPM	5
					10	25	NV-C-027-10-X	100 HP	115 HP/3000 RPM	5
					11	25	NV-C-027-11-X	100 HP	115 HP/3000 RPM	5
					12	25	NV-C-027-12-X	125 HP	115 HP/3000 RPM	5
	174-298 (11.99-20.54)	NFE 050-040-125			13	25	NV-C-027-13-X	125 HP	145 HP/3000 RPM	5
					14	25	NV-C-027-14-X	125 HP	145 HP/3000 RPM	5
	750 (2838)	77-118 (5.30 - 8.1)	NFE 050-040-100	86-125 (5.92 - 8.61)	NFE 050-040-100	6	37.5	NV-C-030-10-X	60 HP	71 HP/3000 RPM
7						37.5	NV-C-030-12-X	75 HP	83 HP/3000 RPM	5
8						37.5	NV-C-030-14-X	100 HP	115 HP/3000 RPM	5
110-191 (7.58 - 13.16)		NFE 050-040-100	111-203 (7.65 - 13.99)	NFE 050-040-125	9	37.5	NV-C-030-15-X	100 HP	115 HP/3000 RPM	5
					10	37.5	NV-C-030-18-X	125 HP	115 HP/3000 RPM	7.5
					11	37.5	NV-C-030-18-X	125 HP	145 HP/3000 RPM	7.5
					12	37.5	NV-C-030-20-X	150 HP	145 HP/3000 RPM	7.5
167-296 (11.51 - 20.40)		NFE 050-040-100			13	37.5	NV-C-030-22-X	150 HP	175 HP/3000 RPM	7.5
					13.99	37.5	NV-C-030-24-X	200 HP	175 HP/3000 RPM	7.5

END SUCTION 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	
1000 (3785)	101-183 (6.96 - 12.61)	NFE 060-050-100	104-188 (7.17 - 12.96)	NFE 060-050-125	7.5	50	NV-C-055-07-X	125 HP	115 HP/3000 RPM	5	
					8	50	NV-C-055-07-X	125 HP	145 HP/3000 RPM	5	
					9	50	NV-C-055-08-X	150 HP	145 HP/3000 RPM	7.5	
					10	50	NV-C-055-09-X	200 HP	175 HP/3000 RPM	7.5	
	153-220 (10.54 - 15.16)	NFE 060-050-125				11	50	NV-C-055-10-X	200 HP	216 HP/3000 RPM	7.5
						12	50	NV-C-055-10-X	200 HP	216 HP/3000 RPM	7.5
						12.96	50	NV-C-055-12-X	200 HP	216 HP/3000 RPM	7.5

HORIZONTAL SPLIT CASE QUICK SELECTION GUIDE

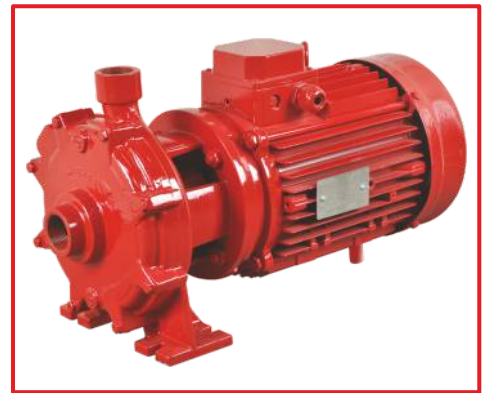
Rated Capacity in GPM (LPM)	Pressure in PSI(Bar) for Electric Motor driven Pump	Pump Model for Electric Driven	Pressure in PSI(Bar) for Diesel Engine driven Pump	Pump Model for Diesel Engine Driven	Rated Pressure in Bar	Jockey Pump Flow in USgpm	Jockey Pump Model	Electric Motor HP @ (3550 RPM)	Clarke DIESEL ENGINE HP @ (3000 RPM)	Jockey Pump HP @ 3450 RPM					
450 (1703)	101-205 (6.96-14.13)	NFH 050-040-100	71-131 (4.89-9.03)	NFH 050-040-100	7	22.5	NV-C-027-08-7	60 HP	60HP-3000 RPM	3					
					8	22.5	NV-C-027-08-X	75 HP	71HP-3000 RPM	3					
					9	22.5	NV-C-027-09-X	75 HP	83HP-3000 RPM						
500 (1893)	100-205 (6.89-14.13)	NFH 050-040-100	74-131 (5.10-9.03)	NFH 050-040-100	7	25.0	NV-C-027-08-7	60 HP	71HP-3000 RPM	3					
					8	25.0	NV-C-027-08-X	75 HP	83HP-3000 RPM	3					
					9	25.0	NV-C-027-09-X	100 HP	83HP-3000 RPM	5					
					10	25.0	NV-C-027-10-X	100 HP	145HP-3000 RPM	5					
					11	25.0	NV-C-027-11-X	100 HP	145HP-3000 RPM	5					
					12	25.0	NV-C-027-12-X	125 HP	175HP-3000 RPM	5					
					13	25.0	NV-C-027-13-X	125 HP	175HP-3000 RPM	5					
14	25.0	NV-C-027-14-X	150 HP	193HP-3000 RPM	5										
750 (2839)	94-204 (6.48-14.06)	NFH 050-040-100	66-130 (4.55-8.96)	NFH 050-040-100	6.5	37.5	NV-C-030-11-X	75 HP	83HP-3000 RPM	5					
					7	37.5	NV-C-030-12-X	75 HP	83HP-3000 RPM	5					
					8	37.5	NV-C-030-14-X	100 HP	115HP-3000 RPM	5					
					9	37.5	NV-C-030-15-X	100 HP	145HP-3000 RPM	5					
					10	37.5	NV-C-030-18-X	125 HP	145HP-3000 RPM	7.5					
					11	37.0	NV-C-030-18-X	125 HP	175HP-3000 RPM	7.5					
					12	37.5	NV-C-030-20-X	150 HP	216HP-3000 RPM	7.5					
					13	37.5	NV-C-030-22-X	150 HP	216HP-3000 RPM	7.5					
					14	37.5	NV-C-030-24-X	200 HP	216HP-3000 RPM	7.5					
					750 (2839)	166-232 (11.45-16.00)	NFH 060-040-107	-	-	11.45	37.5	NV-C-055-09-X	150 HP	-	7.5
										12	37.5	NV-C-055-09-X	150 HP	-	7.5
										13	37.5	NV-C-055-10-X	150 HP	-	7.5
										14	37.5	NV-C-055-12-X	150 HP	-	10
										15	37.5	NV-C-055-12-X	200 HP	-	10
16	37.5	NV-C-055-12-X	200 HP	-						10					

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 & 1760 RPM)	Clarke DIESEL ENGINE HP @ (1760 RPM)	Jockey Pump HP @ 3450 RPM
1000 (3785)	158-225 (10.90-15.51)	NFH 060-040-107			10.89	50	NV-C-055-10-X	150 HP	-	7.5
					11	50	NV-C-055-10-X	150 HP	-	7.5
					12	50	NV-C-055-12-X	200 HP	-	10
					13	50	NV-C-055-12-X	200 HP	-	10
					14	50	NV-C-055-14-X	200 HP	-	10
					15	50	NV-C-055-14-X	200 HP	-	10
					15.51	50	NV-C-055-14-X	200 HP	-	10
1250 (4732)	162-231 (11.17-15.92)	NFH 080-060-107			11.17	62.5	NV-C-055-14-X	200 HP	-	10
					12	62.5	NV-C-055-14-X	200 HP	-	10
					13	62.5	NV-C-055-16-X	250 HP	-	15
					14	62.5	NV-C-055-16-X	250 HP	-	15
					15	62.5	NV-C-055-16-X	300 HP	-	15
					15.92	62.5	NV-C-055-17-X	300 HP	-	15
					1500 (5678)	156-225 (10.76-15.51)	NFH 080-060-107			11.30
12	75	NV-C-095-08-X	250 HP	-						15
13	75	NV-C-095-08-X	250 HP	-						15
14	75	NV-C-095-09-X	300 HP	-						15
15	75	NV-C-095-09-X	300 HP	-						15
15.51	75	NV-C-110-10-X	300 HP	-						25
2000 (7571)	129-212 (8.90-14.61)	NFH 120-100-200	129-212 (8.89-14.61)	NFH 120-100-200						8.90
					9	100	NV-C-140-04-2	300 HP-1760 RPM	345 HP	15
					10	100	NV-C-140-05-2	350 HP-1760 RPM	410 HP	20
					11	100	NV-C-140-05-2	400 HP-1760 RPM	422 HP	20
					12	100	NV-C-140-05-X	450 HP-1760 RPM	495 HP	20
					13	100	NV-C-140-06-2	450 HP-1760 RPM	520 HP	20
					14	100	NV-C-140-06-2	500 HP-1760 RPM	587 HP	20
14.61	100	NV-C-140-06-X	-	650 HP	25					

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 @ (1760 RPM)	Clarke DIESEL ENGINE HP @ (1760 RPM)	Jockey Pump HP @ 3450 RPM
2500 (9465)	128-211 (8.83-14.54)	NFH 120-100-200	128-211 (8.83-14.54)	NFH 120-100-200	8.83	125	NV-C-140-04-X	350 HP	410 HP	15
					9	125	NV-C-140-04-X	350 HP	410 HP	15
					10	125	NV-C-140-05-2	400 HP	460 HP	20
					11	125	NV-C-140-05-2	450 HP	495 HP	20
					12	125	NV-C-140-06-2	500 HP	542 HP	20
					13	125	NV-C-140-06-2	500 HP	587 HP	20
					14	125	NV-C-140-06-X	-	650 HP	25
					14.54	125	NV-C-140-06-X	-	800 HP	25
3000 (11356)	125-209 (8.62-14.41)	NFH 120-100-200	125-209 (8.62-14.41)	NFH 120-100-200	8.62	150	NV-C-140-05-2	400 HP	410 HP	20
					9	150	NV-C-140-05-2	400 HP	460 HP	20
					10	150	NV-C-140-05-2	450 HP	495 HP	20
					11	150	NV-C-140-06-2	500 HP	542 HP	20
					12	150	NV-C-140-06-2	-	587 HP	20
					13	150	NV-C-140-06-X	-	650 HP	25
					14	150	NV-C-140-07-2	-	800 HP	25
					14.41	150	NV-C-140-07-2	-	800 HP	25



Introduction

Jockey Pump are small, motor driven pumps used in conjunction with main fire pumps to compensate for minor leaks in the fire protection system and automatically maintain stand-by pressure. This reduces wear on the main pump and controller caused by unnecessary, frequent operation. Jockey Pump controllers are available for across-the-line starting.

Occasionally in a Fire Pump system, water leakage will occur at flanged or threaded pipe connections, valve stems, stuffing boxes, etc. This normal loss of water will lower the system pressure gradually until the main Fire pump is required to start. To minimize wear on the Fire Pump resulting from unnecessary operation, a Jockey Pump is recommended for the system. In a Jockey Pump system a small pump, motor and Controller / pressure switch unit is installed in the piping system.

When the water pressure drops below the pre-set level, the pressure switch energizes a starter which activates the Jockey Pump. Correct water pressure is therefore maintained at all times. An optional minimum run timer will prevent the Jockey Pump from being started too frequently. This timer will ensure operation for a minimum of 2 minutes. If a fire should start, the pressure will continue to drop and the main Fire Pump will start. Automatic controllers also include a "Hand-off Automatic" selector switch for manual operation.



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Product Improvement and changes are a continuous process at 'Northam'. The data given in this publication is therefore subject to revision.