



NAFFCO End Suction Fire Pump





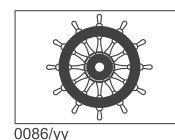
AN INTRODUCTION TO NAFFCO

NAFFCO was founded in Dubai, UAE to become the world's leading producer and supplier of life safety solutions. By recognizing the importance and convenience of having easy access to multiple safety services, we became specialized by offering complete solutions under one roof for all types of high quality firefighting equipment, fire protection systems, fire alarms, addressable emergency systems, security systems, custom-made vehicles such as fire trucks, ambulances, mobile hospitals and airport rescue firefighting vehicles (ARFF).

With the most talented and dedicated employees from around the world, NAFFCO has over 2,000 passionate engineers and over 5.5 million square feet of manufacturing facilities. We are currently exporting to over 100 countries worldwide.

NAFFCO manufactures UL, FM, BSI & Global Mark approved products in our facility in consistent with International Standards" UL-DQS, BSI certifies for the Quality Management System against ISO 9001. Our Environmental (ISO 14001) & Occupational Health & Safety (OHSAS 18001) Management Systems have been certified by UL-DQS. Our Trucks & Vehicles division has been assessed & certified for Quality Management System requirement for Aviation, Space & Defense organization(AS 9100) by UL-DQS.

Our success is driven by our passion to protect; our vision is to become the world's number one provider of innovative solutions in protecting life, environment and property.



FIRE FIGHTING PUMPS

NAFFCO's UL listed and FM approved fire pumps provide you with a reliable solution for your fire fighting pump needs by combining the stringent quality measures of UL, FM and NFPA standards with our proven experience in the fire protection field. We can offer you a complete package of services starting from engineering

assistance to field start-up and periodic maintenance. Each pump set is tested in our factory, prior to dispatch, as per UL, FM and NFPA standards. These pumps are covered by a warranty of one year subject to standard terms and conditions.

END SUCTION PUMPS

PUMP MODEL NAME ILLUSTRATION

NF	Series Name
E	End Suction
40	Discharge Size (mm)
26	Nominal Impeller Diameter (cm)

FEATURES

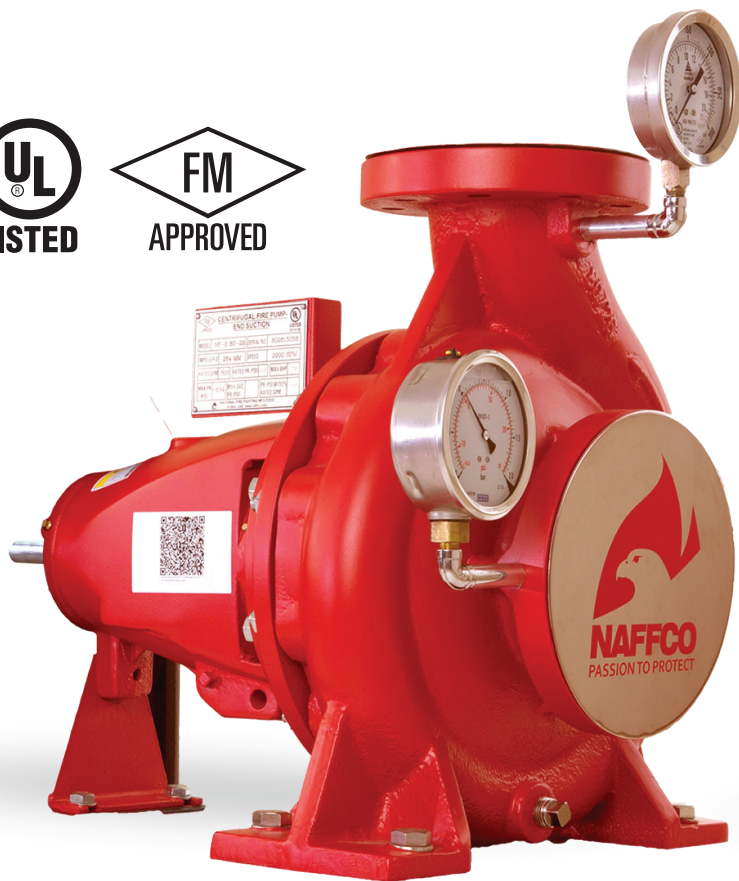
- Performance characteristics as per NFPA 20
- Complete unit responsibility.
- Complete in-house fabrication capabilities.
- Hydrostatic strength testing facilities.
- Operation run test as per NFPA 20, UL 448 and FM 1319 requirements.
- End suction models for capacities from 50 to 500 US GPM at 2900 rpm and 3550 rpm
- Drivers: Electric motor drive or diesel engine drive.
- Electrical testing capabilities for motors and controllers connected to pump as per NFPA standards.
- Capable to supply additional accessories wherever required.
- Capable to supply single skid mounted fire pump set.

PUMP CASING

The casing is designed for back pull-out which permits the removal of complete rotor unit without removing suction and discharge pipe. The cast iron volute casing is of robust design with integrally cast feet, vertical top centerline discharge with axial suction incorporating cast inlet vane to give best flow to impeller eye.

BEARINGS

Driven end / non-driven end bearings are grease lubricated deep groove ball bearings



IMPELLER

Impeller is double shrouded type. It is hydraulically balanced and positively driven by shaft key and axially locked between sleeve and impeller nut.

SHAFT SEAL

Soft-packed stuffing box. Graphite impregnated type gland packing.

Approved Fire Pump Models with Ratings

RATED CAPACITY - 50 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 32-20	50-87	---	2900	2	1.25	1
2	NF-E 32-26	88-139	---	2900	2	1.25	1
3	NF-E 40-20	59-95	---	2900	2.5	1.5	1
4	NF-E 40-26	77-128	---	2900	2.5	1.5	1
5	NF-E 50-20	58-89	---	2900	2.5	2	1
6	NF-E 50-26	93-138	---	2900	2.5	2	1
7	NF-E 65-20	58-89	---	2900	3	2.5	1
8	NF-ES 32-20	72-128	72-126	3550	2	1.25	1

RATED CAPACITY - 100 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 32-26	126	---	2900	2	1.25	1
2	NF-E 40-20	53-92	---	2900	2.5	1.5	1
3	NF-E 40-26	70-124	---	2900	2.5	1.5	1
4	NF-E 50-20	61-91	---	2900	2.5	2	1
5	NF-E 50-26	93-139	---	2900	2.5	2	1
6	NF-E 65-20	58-88	---	2900	3	2.5	1
7	NF-ES 32-20	62-119	---	3550	2	1.25	1
8	NF-ES 40-26	66-136	67-135	3550	2.5	1.5	1

RATED CAPACITY - 150 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 40-26	114	---	2900	2.5	1.5	1
2	NF-E 50-20	62-93	---	2900	2.5	2	1
3	NF-E 50-26	90-139	---	2900	2.5	2	1
4	NF-E 65-20	56-86	---	2900	3	2.5	1
5	NF-ES 40-26	60-131	60-129	3550	2.5	1.5	1

RATED CAPACITY - 200 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 65-26	92-141	94-144	2900	3	2.5	1
2	NF-E 65-32	133-211	135-216	2900	3	2.5	1
3	NF-ES 65-32	---	84-161	3550	3	2.5	1

RATED CAPACITY - 250 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 65-26	89-140	91-143	2900	3	2.5	1
2	NF-E 65-32	132-210	133-211	2900	3	2.5	1
3	NF-E 80-32	126-208	---	2900	4	3	1

RATED CAPACITY - 300 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 65-26	87-139	88-142	2900	3	2.5	1
2	NF-E 65-32	129-209	130-206	2900	3	2.5	1
3	NF-E 80-26	87-135	93-145	2900	4	3	1
4	NF-E 80-32	125-207	132-213	2900	4	3	1
5	NF-E 80-26	90-142	---	2950	4	3	1
6	NF-E 80-26	93-142	---	3000	4	3	1
7	NF-E 80-32	130-217	---	2950	4	3	1
8	NF-E 80-32	134-224	---	3000	4	3	1
9	NF-ES 65-36	75-160	77-160	3550	3	2.5	1
10	NF-ES 80-26	---	80-138	3550	4	3	1
11	NF-ES 80-32	---	151-212	3550	4	3	1

Approved Fire Pump Models with Ratings

RATED CAPACITY - 350 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 80-26	---	91-144	2900	4	3	1
2	NF-E 80-32	---	131-211	2900	4	3	1

RATED CAPACITY - 400 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 80-26	84-133	88-142	2900	4	3	1
2	NF-E 80-32	122-204	130-209	2900	4	3	1
3	NF-E 80-26	87-142	---	2950	4	3	1
4	NF-E 80-26	90-147	---	3000	4	3	1
5	NF-E 80-32	128-215	---	2950	4	3	1
6	NF-E 80-32	132-222	---	3000	4	3	1
7	NF-ES 80-26	76-137	79-138	3550	4	3	1
8	NF-ES 80-32	147-207	148-210	3550	4	3	1
9	NF-E 125-27	84-139	---	2900	5	4	1
10	NF-E 125-27	87-144	---	2950	5	4	1
11	NF-E 125-27	91-149	---	3000	5	4	1
12	NF-E 125-34	133-208	---	2900	5	4	1
13	NF-E 125-34	138-215	---	2950	5	4	1
14	NF-E 125-34	142-223	---	3000	5	4	1

RATED CAPACITY - 450 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 80-26	81-132	83-141	2900	4	3	1
2	NF-E 80-32	119-203	129-207	2900	4	3	1
3	NF-E 80-26	85-141	---	2950	4	3	1
4	NF-E 80-26	88-146	---	3000	4	3	1
5	NF-E 80-32	126-214	---	2950	4	3	1
6	NF-E 80-32	131-222	---	3000	4	3	1
7	NF-ES 80-26	75-134	78-137	3550	4	3	1
8	NF-ES 80-32	145-205	145-207	3550	4	3	1

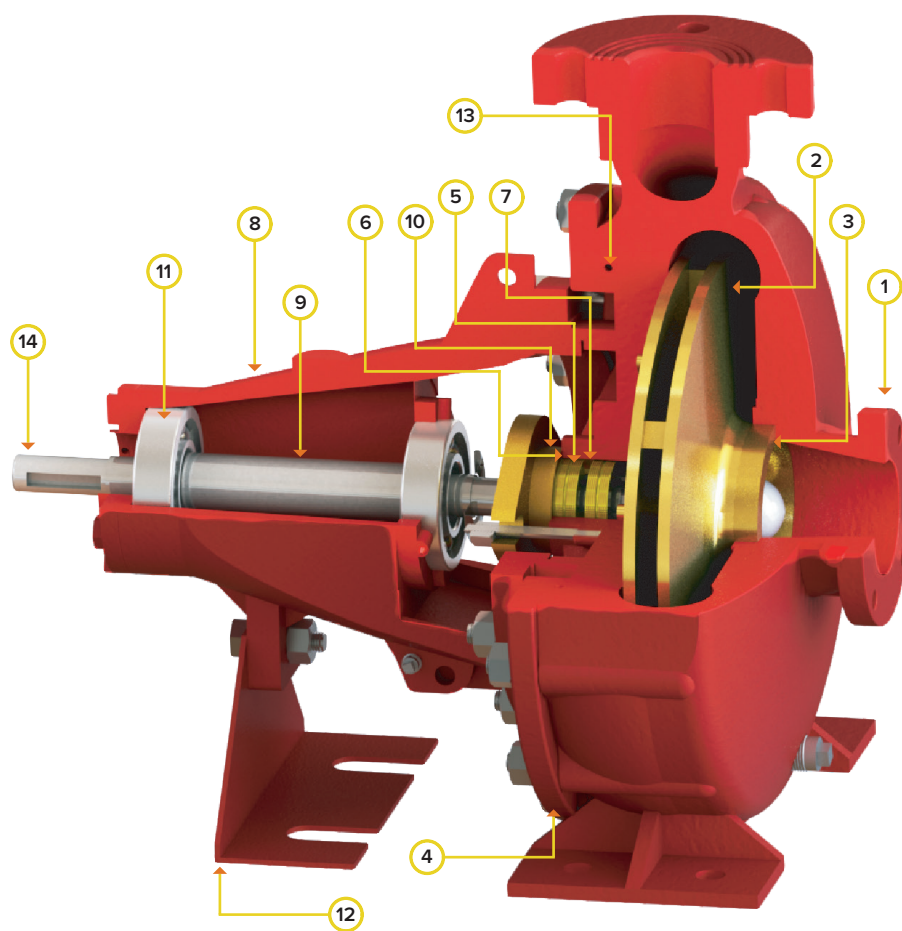
RATED CAPACITY - 500 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 80-26	130	79-139	2900	4	3	1
2	NF-E 80-32	202	126-203	2900	4	3	1
3	NF-E 80-26	82-141	---	2950	4	3	1
4	NF-E 80-26	85-146	---	3000	4	3	1
5	NF-E 80-32	124-214	---	2950	4	3	1
6	NF-E 80-32	129-221	---	3000	4	3	1
7	NF-ES 80-32	142-204	140-204	3550	4	3	1
8	NF-E 80-26	84-133	---	2900	4	3	1
9	NF-E 80-32	128-203	---	2900	4	3	1
10	NF-E 125-27	83-137	---	2900	5	4	1
11	NF-E 125-27	86-142	---	2950	5	4	1
12	NF-E 125-27	89-147	---	3000	5	4	1
13	NF-E 125-34	132-208	---	2900	5	4	1
14	NF-E 125-34	136-215	---	2950	5	4	1
15	NF-E 125-34	141-222	---	3000	5	4	1

RATED CAPACITY - 750 US GPM

Sl. No.	Pump Model	UL Listed Pressure (psi)	FM Approved Pressure (psi)	Rated Speed (rpm)	Suction Inlet Dia. (inch)	Discharge Outlet Dia. (inch)	Stage(s)
1	NF-E 125-27	72-129	---	2900	5	4	1
2	NF-E 125-27	75-134	---	2950	5	4	1
3	NF-E 125-27	79-139	---	3000	5	4	1
4	NF-E 125-34	125-201	---	2900	5	4	1
5	NF-E 125-34	129-208	---	2950	5	4	1
6	NF-E 125-34	134-216	---	3000	5	4	1

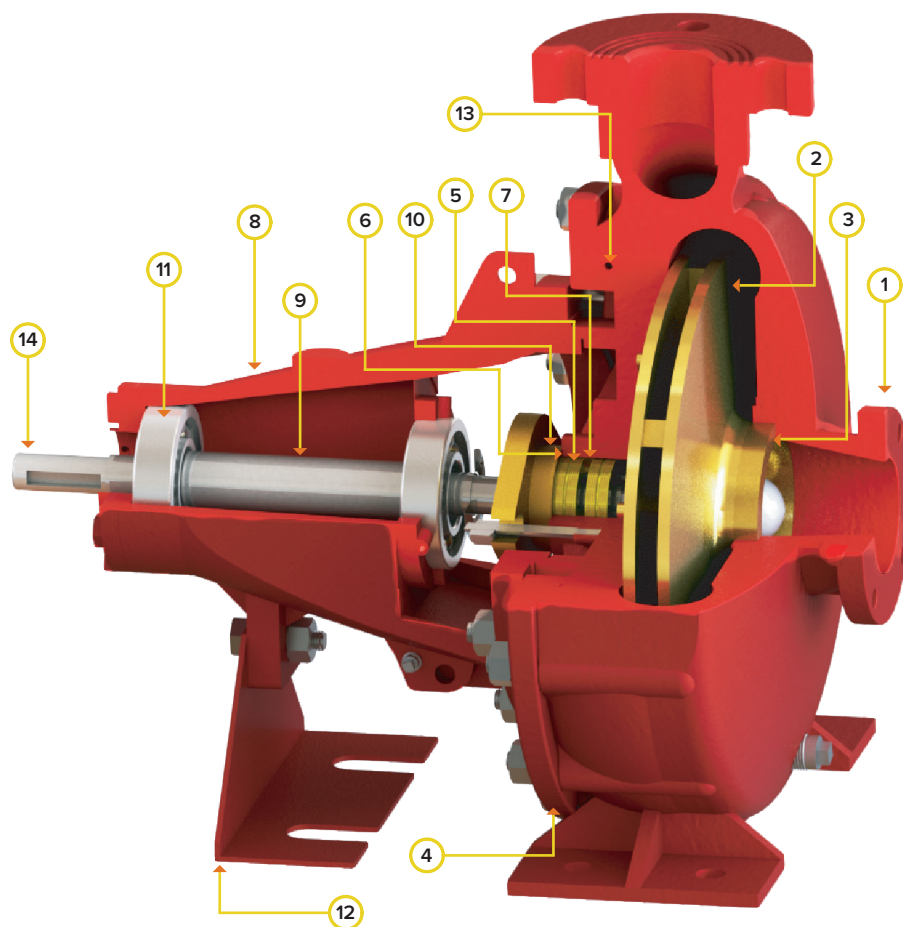
CUT-SECTIONAL VIEW



Models : NF-E 32-20, NF-E 32-26, NF-E 40-20, NF-E 40-26, NF-E 50-20, NF-E 50-26, NF-E-65-20, NF-S-65-26, NF-S-65-32, NF-E 80-26 & NF-E 80-32

DESCRIPTION			
No.	Part Name	Material	Qty.
1	Casing	Cast Iron ASTM A48 Class 40	1
2	Impeller	Bronze SAE 40	1
3	Wear ring	Bronze SAE 40	1
4	Stuffing Box (Casing Cover)	Cast Iron ASTM A48 Class 40	1
5	Gland Packing	Graphite Impregnated	4
6	Gland	Bronze SAE 40	1
7	Lantern Ring	Bronze SAE 40	1
8	Bearing Housing	Cast Iron ASTM A48 Class 40	1
9	Shaft	Stainless Steel AISI 420	1
10	Shaft Sleeve	Stainless Steel AISI 420	1
11	Bearing	Bearing Steel	2
12	Foot Support	Steel	1
13	"O" Ring	Buna N Rubber	1
14	Coupling Key	Stainless Steel AISI 420	1

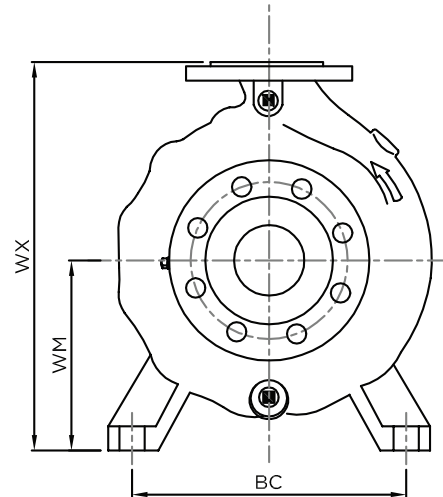
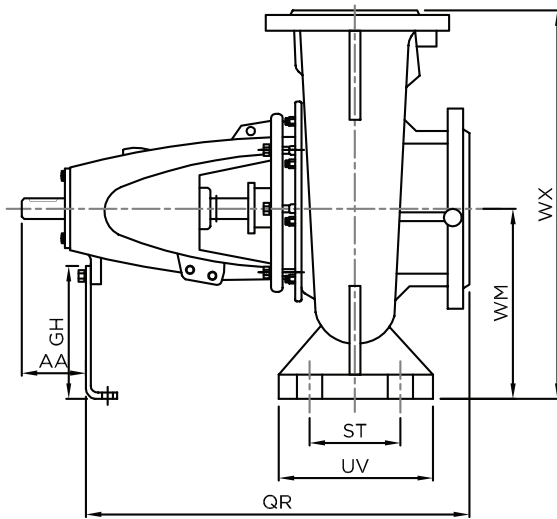
CUT-SECTIONAL VIEW



Models : NF-E 125-34 & NF-E 125-27

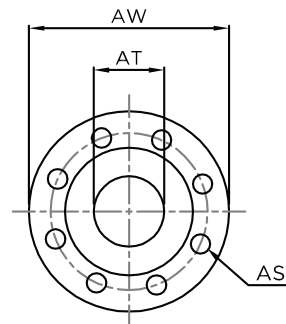
DESCRIPTION			
No.	Part Name	Material	Qty.
1	Casing	Ductile Iron ASTM A536	1
2	Impeller	Bronze SAE 40/SS 304	1
3	Wear ring	Bronze SAE 40	1
4	Stuffing Box (Casing Cover)	Ductile Iron ASTM A536	1
5	Gland Packing	Graphite Impregnated	4
6	Gland	Stainless / S 304	1
7	Lantern Ring	Bronze SAE 40	1
8	Bearing Housing	Cast Iron	1
9	Shaft	Stainless / S 420	1
10	Shaft Sleeve	Stainless / S 316	1
11	Bearing	Bearing Steel	2
12	Foot Support	Steel	1
13	"O" Ring	Viton	1
14	Coupling Key	ASTM1045	1

DIMENSIONAL DRAWING

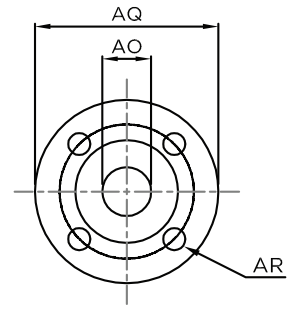


FIRE PUMP DIMENSIONS - END SUCTION PUMP

Suction and Discharge Flanges:
Standard - ASME B16.1



SUCTION FLANGE



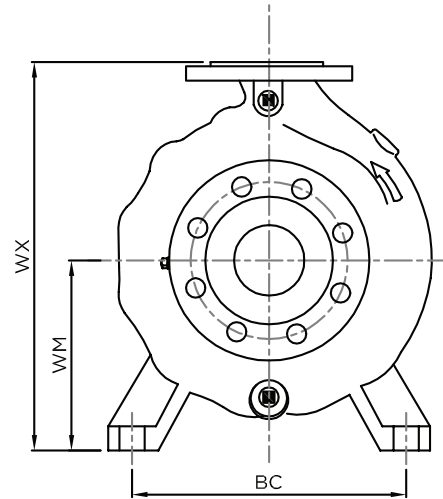
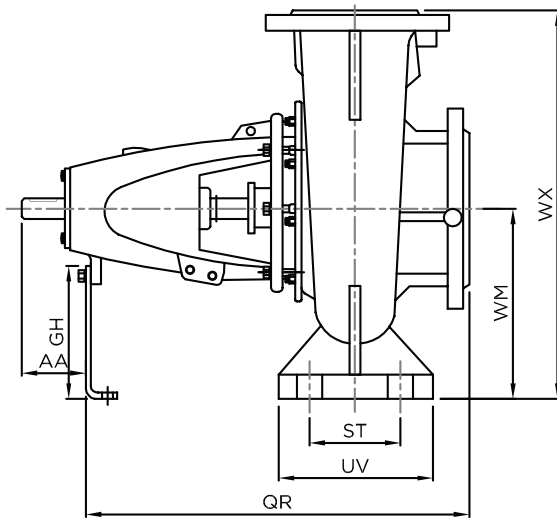
DISCHARGE FLANGE

TABLE OF DIMENSIONS

Model	AA	GH	QR	UV	ST	WM	WX	BC	Suction Flange			Disc harge Flange		
									AW	AT	AS	AQ	AO	AR
NF-E 32-20	68	100	370	100	70	160	340	190	165	2"	4 Holes Ø18 on PCD 125 ANSI #250RF	140	1.25"	4 Holes Ø18 on PCD 100 ANSI #250RF
NF-E 32-26	55	120	410	127	95	177	400	250	165	2"	4 Holes Ø17 on PCD 125 ANSI #250RF	140	1.25"	4 Holes Ø17 on PCD 100 ANSI #250RF
NF-E 40-20	68	100	390	100	70	160	405	212	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF	150	1.5"	4 Holes Ø18 on PCD 110 ANSI #250RF
NF-E 40-26	62	120	425	125	95	180	405	250	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF	150	1.5"	4 Holes Ø18 on PCD 110 ANSI #250RF
NF-E 50-20	62	99	390	100	70	160	360	212	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF	165	2"	4 Holes Ø18 on PCD 125 ANSI #250RF
NF-E 50-26	62	120	390	125	95	180	405	250	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF	165	2"	4 Holes Ø18 on PCD 125 ANSI #250RF
NF-E 65-20	63	120	408	125	95	177	405	250	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF
NF-E 65-26	62	120	450	160	120	200	450	280	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF
NF-E 65-32	132	120	510	165	120	225	505	315	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF
NF-E 80-26	88	120	531	160	120	200	480	315	220	4"	4 Holes Ø18 on PCD 180 ANSI #250RF	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF
NF-E 80-32	133	160	510	160	120	250	565	315	220	4"	4 Holes Ø18 on PCD 180 ANSI #250RF	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF
NF-E 125-27	130	178	540	160	120	225	505	315	279.4	5"	4 Holes Ø22.4 on PCD 235 ANSI #300RF	254	4"	4 Holes Ø18 on PCD 200.2 ANSI #300RF
NF-E 125-34	130	178	540	160	120	250	565	315	279.4	5"	4 Holes Ø22.4 on PCD 235 ANSI #300RF	254	4"	4 Holes Ø22.4 on PCD 200.2 ANSI #300RF

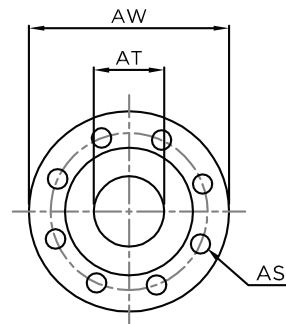
All dimensions are in mm unless otherwise indicated.

DIMENSIONAL DRAWING

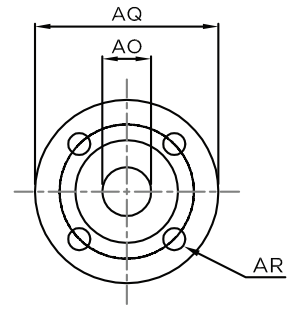


FIRE PUMP DIMENSIONS - END SUCTION PUMP

Suction and Discharge Flanges:
Standard - ASME B16.1



SUCTION FLANGE



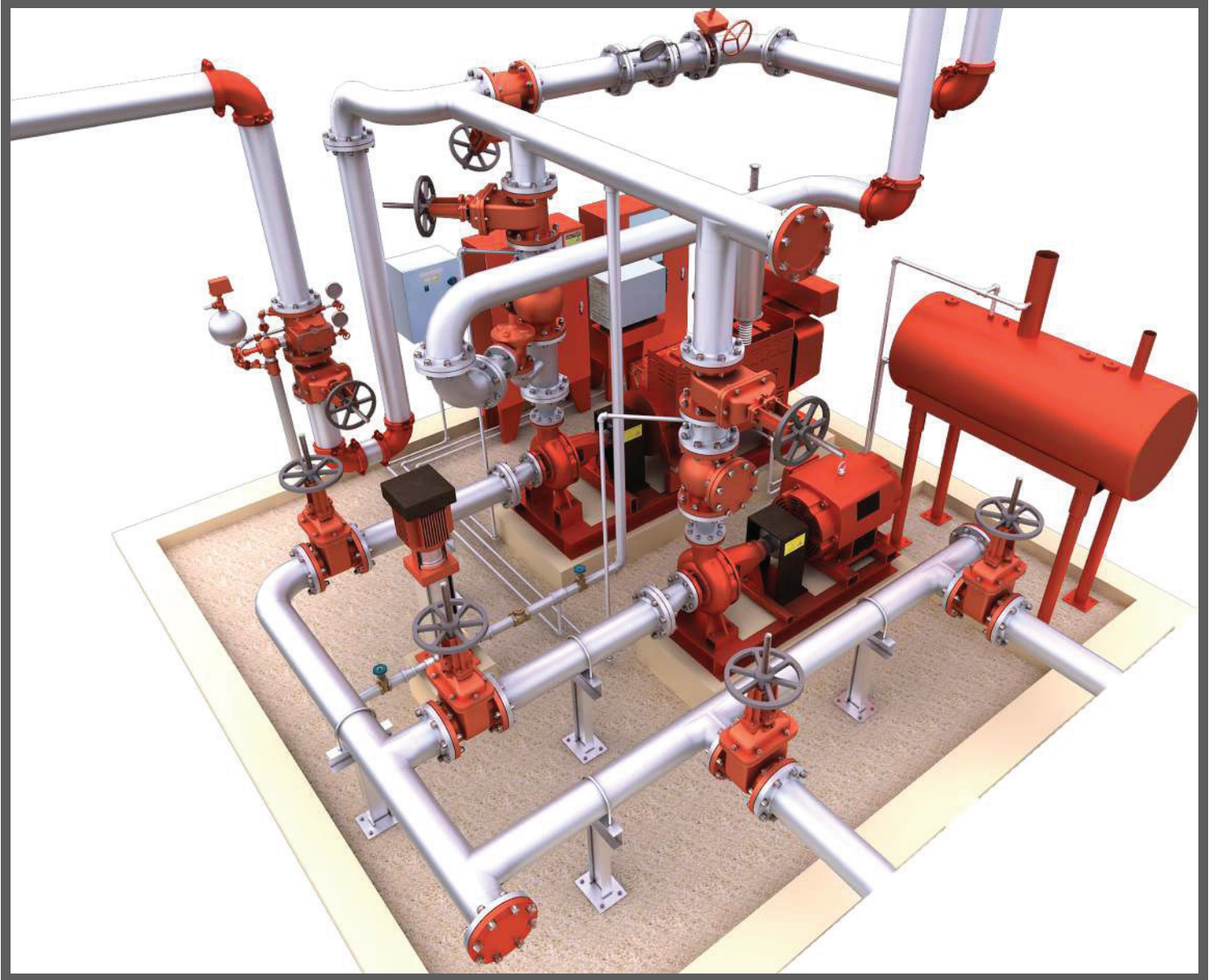
DISCHARGE FLANGE

TABLE OF DIMENSIONS

Model	AA	GH	QR	UV	ST	WM	WX	BC	Suction Flange			Disc harge Flange		
									AW	AT	AS	AQ	AO	AR
NF-E 32-20	68	100	370	100	70	160	340	190	165	2"	4 Holes Ø18 on PCD 125 ANSI #250RF	140	1.25"	4 Holes Ø18 on PCD 100 ANSI #250RF
NF-E 32-26	55	120	410	127	95	177	400	250	165	2"	4 Holes Ø17 on PCD 125 ANSI #250RF	140	1.25"	4 Holes Ø17 on PCD 100 ANSI #250RF
NF-E 40-20	68	100	390	100	70	160	405	212	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF	150	1.5"	4 Holes Ø18 on PCD 110 ANSI #250RF
NF-E 40-26	62	120	425	125	95	180	405	250	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF	150	1.5"	4 Holes Ø18 on PCD 110 ANSI #250RF
NF-E 50-20	62	99	390	100	70	160	360	212	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF	165	2"	4 Holes Ø18 on PCD 125 ANSI #250RF
NF-E 50-26	62	120	390	125	95	180	405	250	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF	165	2"	4 Holes Ø18 on PCD 125 ANSI #250RF
NF-E 65-20	63	120	408	125	95	177	405	250	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF
NF-E 65-26	62	120	450	160	120	200	450	280	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF
NF-E 65-32	132	120	510	165	120	225	505	315	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF	185	2.5"	4 Holes Ø18 on PCD 145 ANSI #250RF
NF-E 80-26	88	120	531	160	120	200	480	315	220	4"	4 Holes Ø18 on PCD 180 ANSI #250RF	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF
NF-E 80-32	133	160	510	160	120	250	565	315	220	4"	4 Holes Ø18 on PCD 180 ANSI #250RF	200	3"	4 Holes Ø18 on PCD 160 ANSI #250RF
NF-E 125-27	130	178	540	160	120	225	505	315	279.4	5"	4 Holes Ø22.4 on PCD 235 ANSI #300RF	254	4"	4 Holes Ø18 on PCD 200.2 ANSI #300RF
NF-E 125-34	130	178	540	160	120	250	565	315	279.4	5"	4 Holes Ø22.4 on PCD 235 ANSI #300RF	254	4"	4 Holes Ø22.4 on PCD 200.2 ANSI #300RF

All dimensions are in mm unless otherwise indicated.

FIRE PUMP INSTALLATION



NFPA 20 requirements related to the installation of fire pump set should be followed strictly. The main pipe sizes, necessary distances between the piping components, valve sizes, branch pipe sizes, bends in the

pipe line etc. shall be such that it will facilitate the most efficient and effective performance of the fire pump set. The foundation, grouting, support and bolting should also be in line with a stringent design based on NFPA 20.



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In line with NAFFCO policy for continuous product development,
NAFFCO has the right to change specifications without prior notice.

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