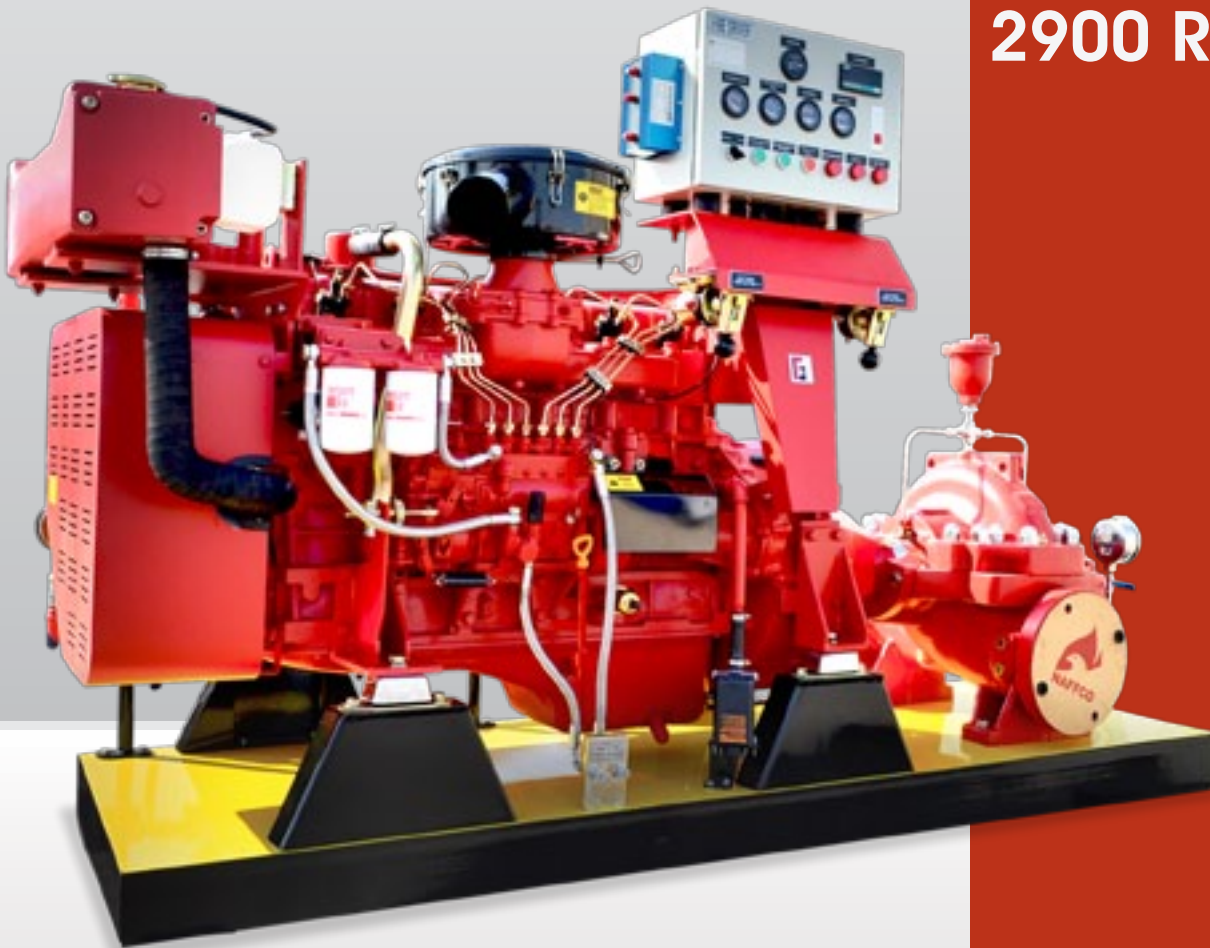




# NAFFCO Listed Fire Pumps 2900 RPM





## An Introduction to NAFFCO

NAFFCO FZCO is among the world's leading manufacturers and suppliers of top-tier firefighting equipment, fire protection systems, fire alarms, security and safety engineering systems worldwide. Since its humble beginnings, NAFFCO has grown from its headquarters in Dubai, UAE to expand to serving over 100 countries around the world.

### One Stop Shopping for All Your Fire Safety and Security Needs

Today's companies recognize the importance and convenience of having multiple safety services available under one roof, a "one-stop shopping" source for all types of fire protection systems. As the undisputed leader in

firefighting technology and fire safety solutions, NAFFCO has worked in both the private and government sectors, as well as manufacturing plants, hospitals, stadiums, malls and other organizational projects, delivering comprehensive fire safety and engineering solutions.

NAFFCO is associated with globally renowned international companies in the fire protection industry such as Esser, Secutron, Megalights, Evax, Fike, Central, Shield, Mueller, Giacomini, RB Pumps, Bombas, Ideal Pumps, Joslyn Pumps, Peerless Pumps.

At NAFFCO we are passionate about sustaining, upgrading and improving any means of safety, by having over 2 million square foot of manufacturing space, over 450 engineers, and following all the latest technology available. We live by our passion, the passion to protect.



# 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



### 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.
- Drivers: Electric motor drive or diesel engine drive.
- Electrical testing capabilities for motors and controllers as per NFPA standards.
- Capable to supply additional accessories wherever required.
- Capable of supplying 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 the best flow to the 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

### 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

### 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

### 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

### 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

### 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

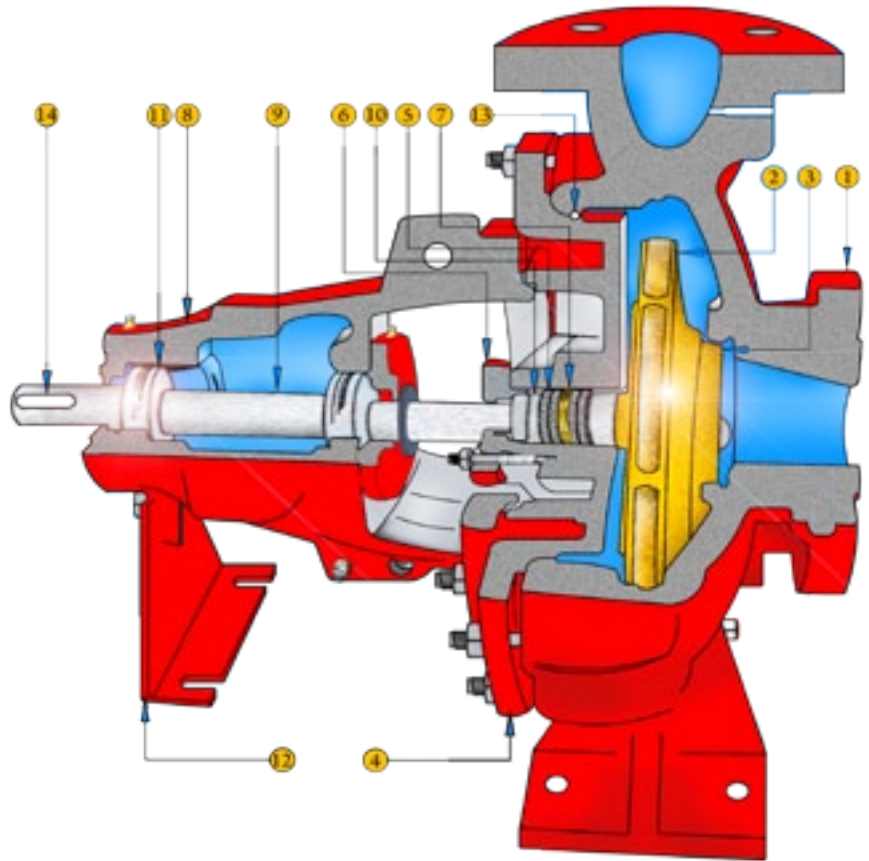
### RATED CAPACITY - 450 US GPM

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

### 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

# CUT-SECTIONAL VIEW

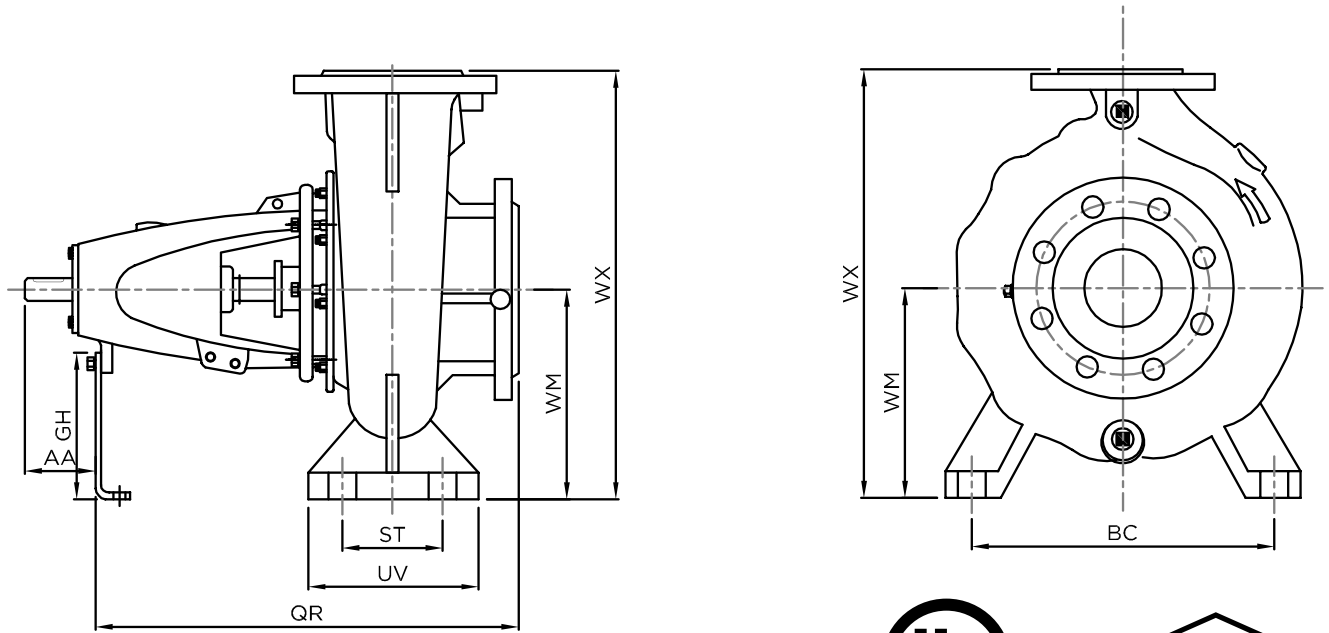


## PUMP MODEL NAME ILLUSTRATION

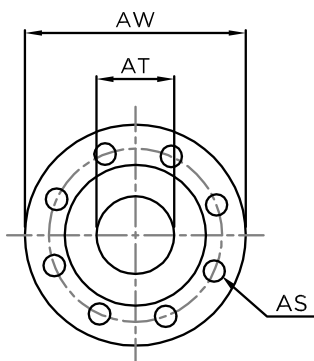
- NF ..... Series Name
- E ..... End Suction
- 40 ..... Discharge Size (mm)
- 26 ..... Nominal Impeller Diameter (cm)

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

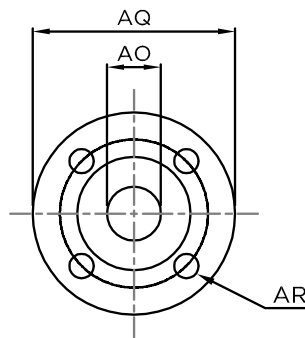
# DIMENSIONAL DRAWING



FIRE PUMP DIMENSIONS - END SUCTION PUMP



SUCTION FLANGE



DISCHARGE FLANGE

Suction and Discharge Flanges:

- Standard - ASME B16.1
- Class Rating - Class 250

## TABLE OF DIMENSIONS

Model	AA	GH	QR	UV	ST	WM	WX	BC	Suction Flange			Discharge 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	140	1.25"	4 Holes Ø18 on PCD 100
NF-E 32-26	55	120	410	127	95	177	400	250	165	2"	4 Holes Ø17 on PCD 125	140	1.25"	4 Holes Ø17 on PCD 100
NF-E 40-20	68	100	390	100	70	160	405	212	185	2.5"	4 Holes Ø18 on PCD 145	150	1.5"	4 Holes Ø18 on PCD 110
NF-E 40-26	62	120	425	125	95	180	405	250	185	2.5"	4 Holes Ø18 on PCD 145	150	1.5"	4 Holes Ø18 on PCD 110
NF-E 50-20	62	99	390	100	70	160	360	212	185	2.5"	4 Holes Ø18 on PCD 145	165	2"	4 Holes Ø18 on PCD 125
NF-E 50-26	62	120	390	125	95	180	405	250	185	2.5"	4 Holes Ø18 on PCD 145	165	2"	4 Holes Ø18 on PCD 125
NF-E 65-20	63	120	408	125	95	180	405	250	200	3"	8 Holes Ø18 on PCD 160	185	2.5"	4 Holes Ø18 on PCD 145
NF-E 65-26	62	120	450	160	120	200	450	280	200	3"	8 Holes Ø18 on PCD 160	185	2.5"	4 Holes Ø18 on PCD 145
NF-E 65-32	132	120	510	165	120	225	505	315	200	3"	8 Holes Ø18 on PCD 160	185	2.5"	4 Holes Ø18 on PCD 145
NF-E 80-26	88	120	531	160	120	200	480	315	220	4"	8 Holes Ø18 on PCD 180	200	3"	8 Holes Ø18 on PCD 160
NF-E 80-32	133	160	510	160	120	250	565	315	220	4"	8 Holes Ø18 on PCD 180	200	3"	8 Holes Ø18 on PCD 160

All dimensions are in mm unless otherwise indicated.

# HORIZONTAL SPLIT CASE PUMPS



## FEATURES

- Performance characteristics as per NFPA 20
- Complete unit responsibility.
- Complete in-house fabrication capabilities.
- Hydrostatic testing facilities.
- Operation run test as per NFPA 20, UL 448 and FM 1311 requirements.
- Horizontal Split case pumps for capacities from 750 to 1500 US GPM.
- Drivers: Electric motor drive or diesel engine drive.
- Electrical testing capabilities for motors and controllers as per NFPA standards.
- Capable of supplying additional accessories wherever required.



## Approved Fire Pump Models with Ratings

### 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-S-125-80	236	236	2900	5	3	1
2	NF-S-150-100	112 - 213	108 - 216	2900	6	4	1
3	NF-S-150-100-375	226 - 276	227 - 280	2900	6	4	1

### RATED CAPACITY - 1000 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-S-150-100	101 - 208	101 - 215	2900	6	4	1
2	NF-S-150-100-375	219 - 273	215 - 273	2900	6	4	1
3	NF-S-200-125	143 - 267	143 - 252	2900	8	5	1

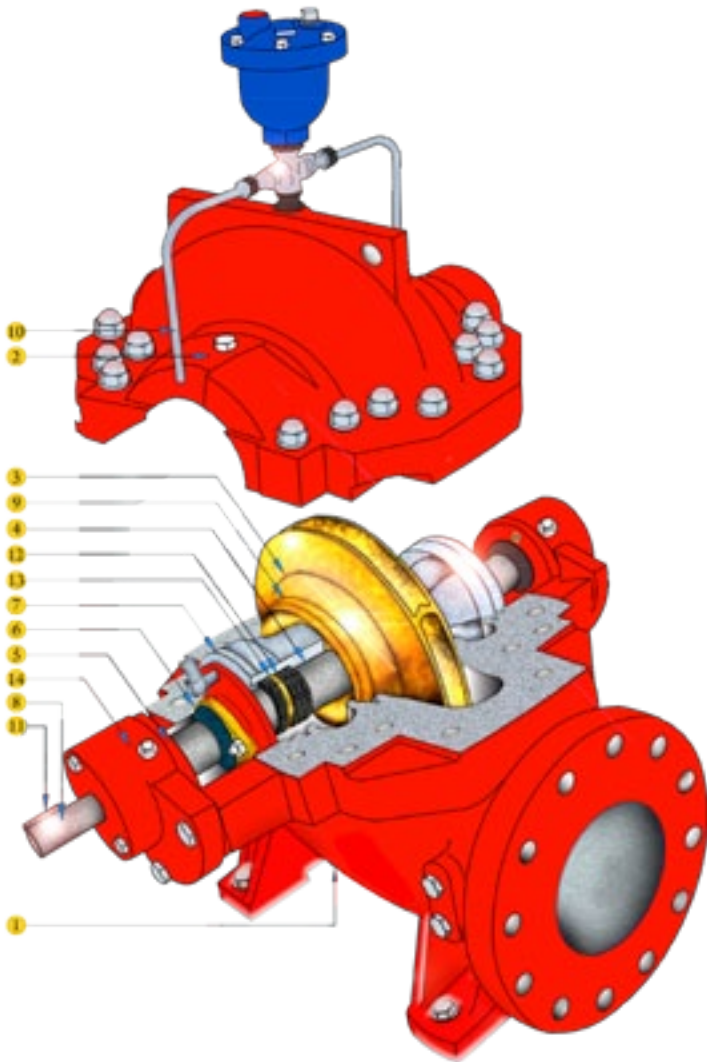
### RATED CAPACITY - 1250 US GPM

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-S-200-125	137 - 263	134- 250	2900	8	5	1

### RATED CAPACITY - 1500 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-S-200-125	130 - 256	121- 242	2900	8	5	1

# OPEN VIEW



**PUMP CASING:** The casing is axially split, which permits removal of the complete rotor without moving either piping or motor. Pumps generating high heads have double volutes to reduce radial forces, ensuring minimal shaft deflection and low bearing loads. Replaceable wear rings protect the casing at the impeller running clearances.

**IMPELLER:** The closed impeller has double curved vanes. The double suction design gives practically zero axial forces. Each impeller is dynamically balanced according to ISO 1940-1 standard.

**BEARINGS:** Grease lubricated deep groove ball bearings are provided on both sides.

**SHAFT SEAL:** Soft-packed stuffing box. Cooling lines are provided for additional cooling of the graphite impregnated type gland packing.

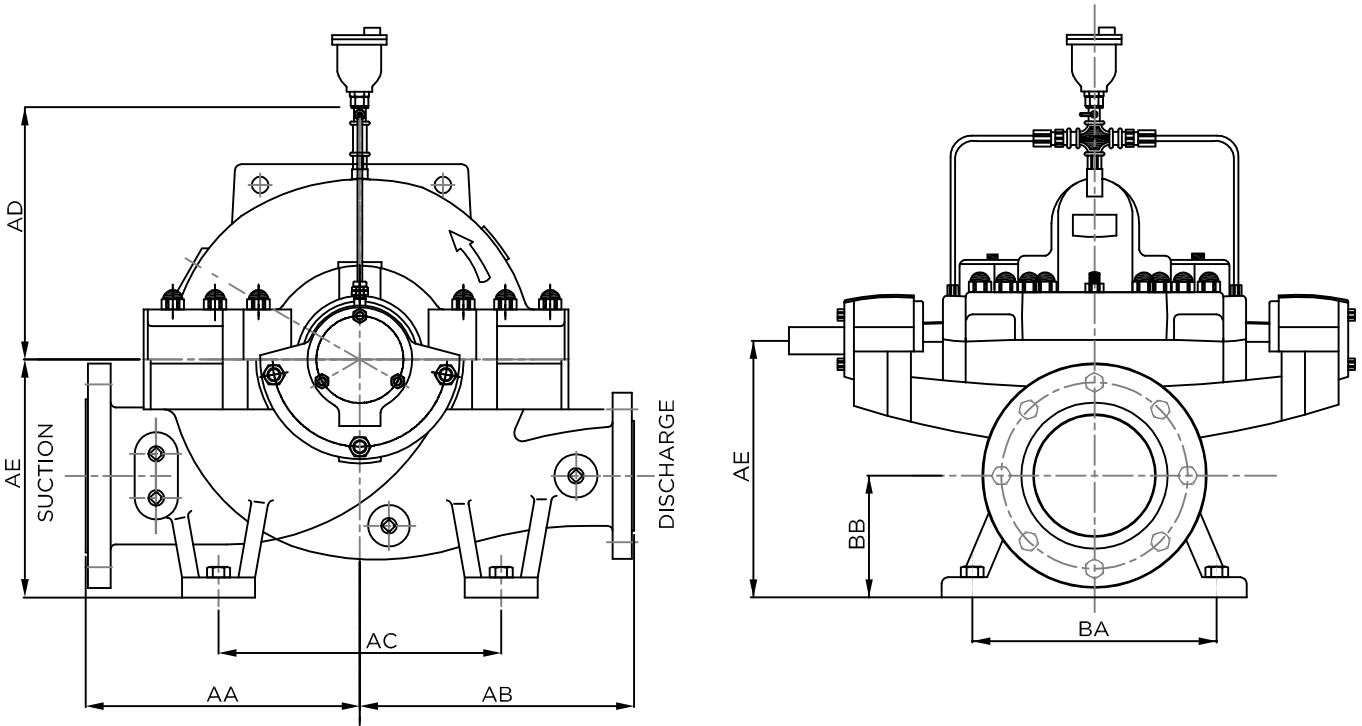
### PUMP MODEL NAME ILLUSTRATION

NF ..... Series Name  
 S ..... Split Case  
 150 ..... Suction Size (mm)  
 100 ..... Discharge Size (mm)

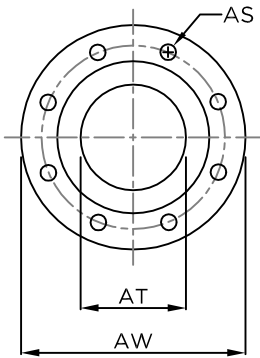
DESCRIPTION			
No.	Part Name	Material	Qty.
1	Lower Casing	Cast Iron ASTM A48 Class 40	1
2	Upper Casing	Cast Iron ASTM A48 Class 40	1
3	Impeller	Bronze SAE 40	1
4	Shaft Sleeve	Stainless Steel AISI 420	2
5	Bearing Cover	Cast Iron ASTM A48 Class 40	2
6	Gland	Bronze SAE 40	2
7	Stuffing Box	Cast Iron ASTM A48 Class 40	2
8	Shaft	Alloy Steel AISI 4340	1
9	Wear Ring	Bronze SAE 40	2
10	Flushing Pipe	Stainless Steel, Gr. 304	2
11	Coupling Key	Stainless Steel AISI 420	1
12	Gland Packing	Graphite Impregnated	8
13	Lantern Ring	Bronze SAE 40	2
14	Bearing Housing	Cast Iron ASTM A48 Class 40	2



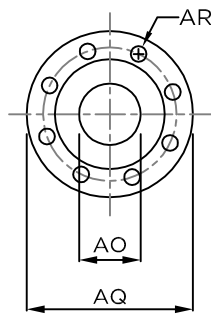
# DIMENSIONAL DRAWING



## FIRE PUMP DIMENSIONS - HORIZONTAL SPLIT CASE PUMP



SUCTION FLANGE



DISCHARGE FLANGE



### Suction and Discharge Flanges:

Standard - ASME B16.1  
 Class Rating - Class 250

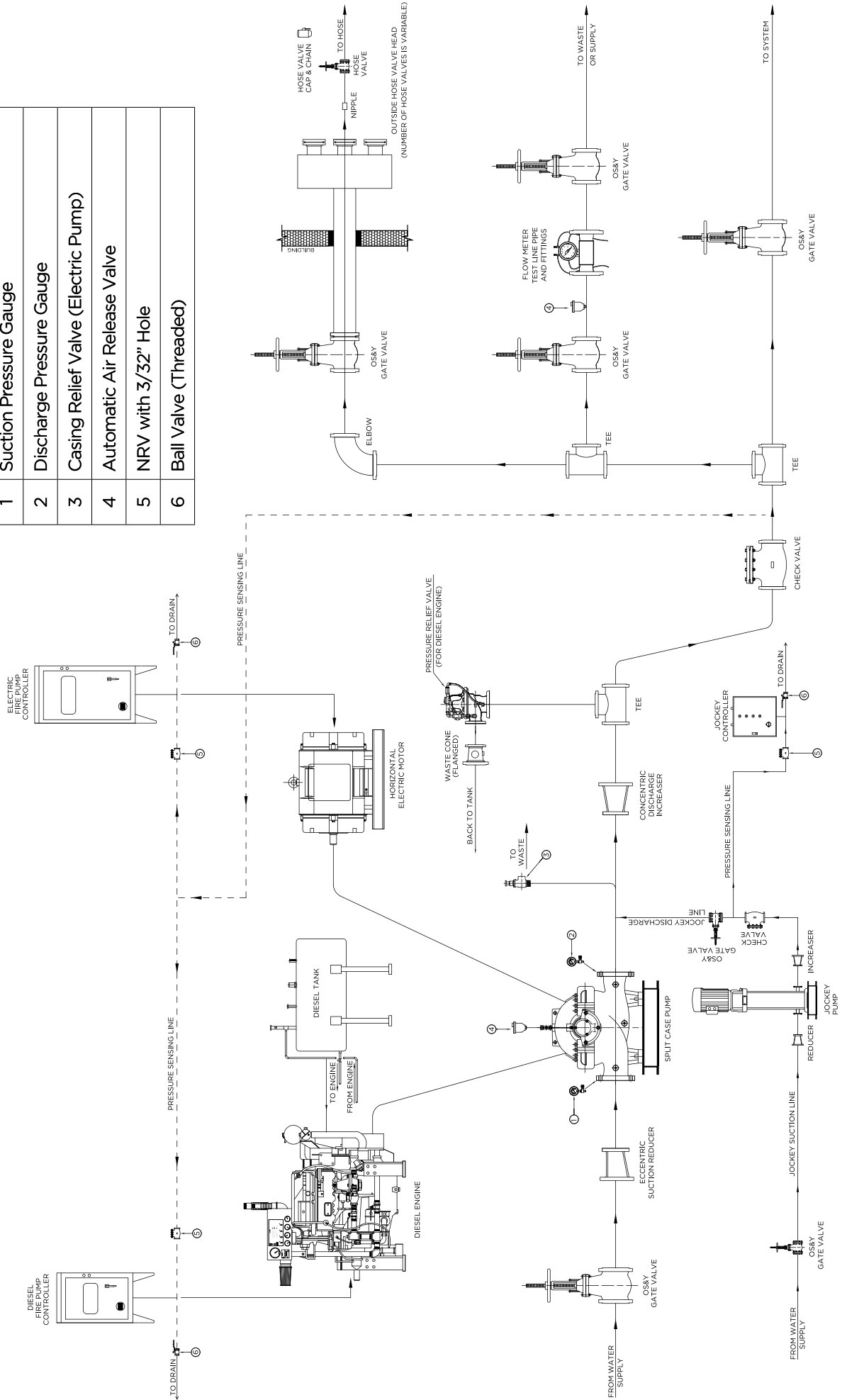
## TABLE OF DIMENSIONS

Model	AA	AB	AC	AD	AE	B A	BB	Suction Flange			Discharge Flange		
								AW	AT	AS	AQ	AO	AR
NF-S-125-80	330	330	340	306	315	270	175	280	5"	8 holes Ø22 on PCD 235	210	3"	8 holes Ø22 on PCD 168
NF-S-150-100	330	330	400	267	355	270	185	320	6"	12 holes Ø22 on PCD 270	255	4"	8 holes Ø22 on PCD 200
NF-S-150-100-375	375	375	400	340	355	270	185	320	6"	12 holes Ø22 on PCD 270	255	4"	8 holes Ø22 on PCD 200
NF-S-200-125	395	370	450	367	400	340	200	380	8"	12 holes Ø28 on PCD 330	280	5"	8 holes Ø22 on PCD 235

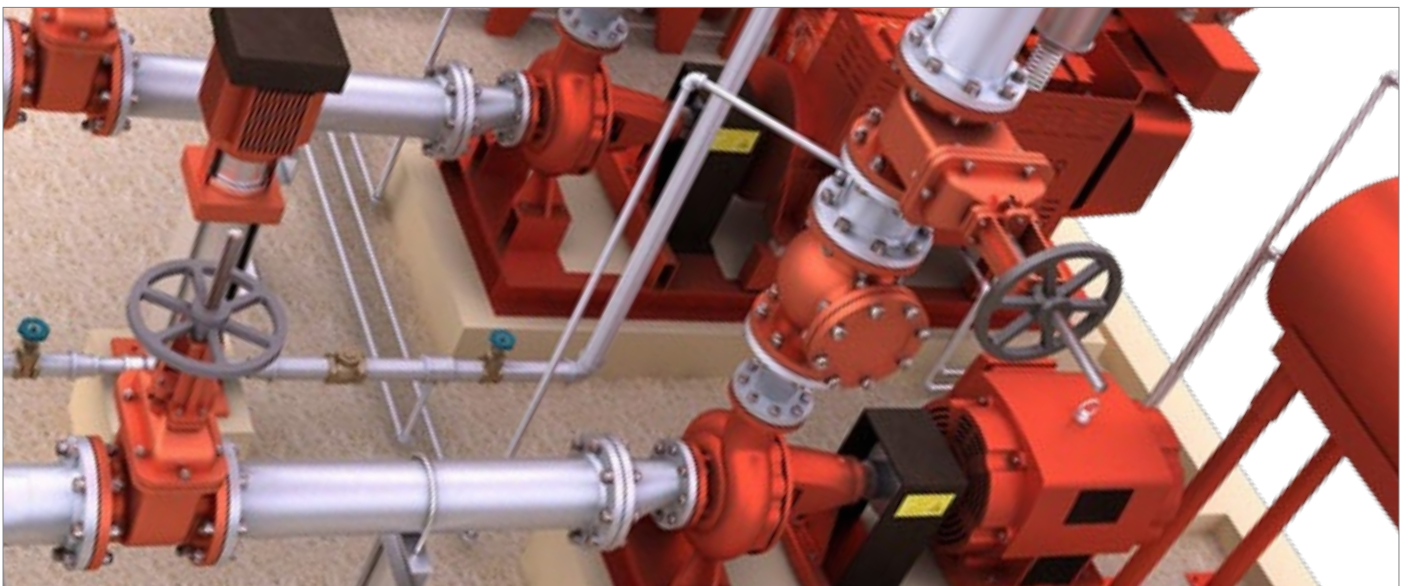
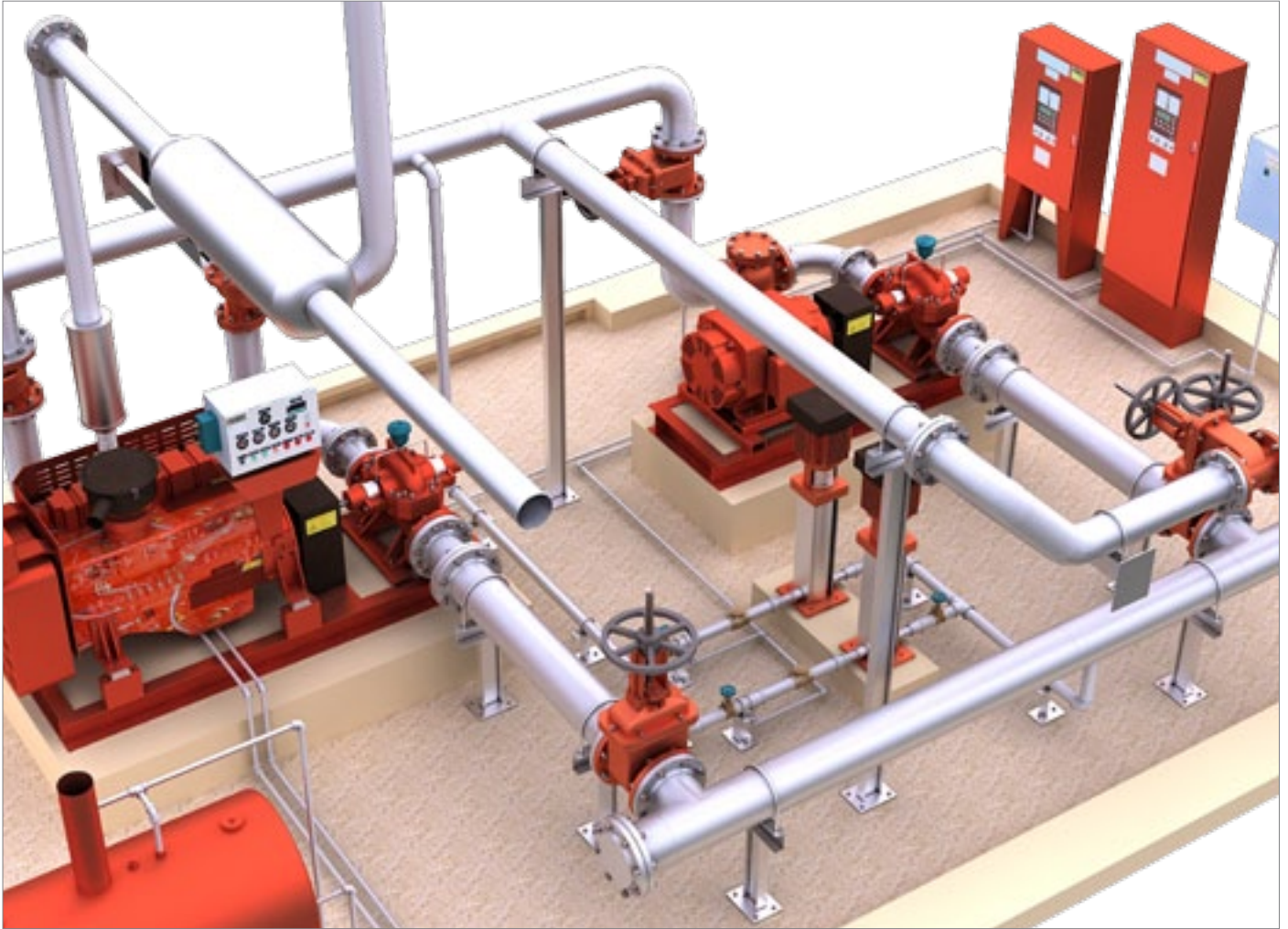
All dimensions are in mm unless otherwise indicated.

# GENERAL ARRANGEMENT DRAWING FOR FIRE PUMPS

No.	Description
1	Suction Pressure Gauge
2	Discharge Pressure Gauge
3	Casing Relief Valve (Electric Pump)
4	Automatic Air Release Valve
5	NRV with 3/32" Hole
6	Ball Valve (Threaded)



## 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.



Serving Over 100 Countries Worldwide



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