



MONASH PUMPS (ASIA)



QVT SERIES
Vertical Turbine NFPA 20 Fire Pumps

INTRODUCTION

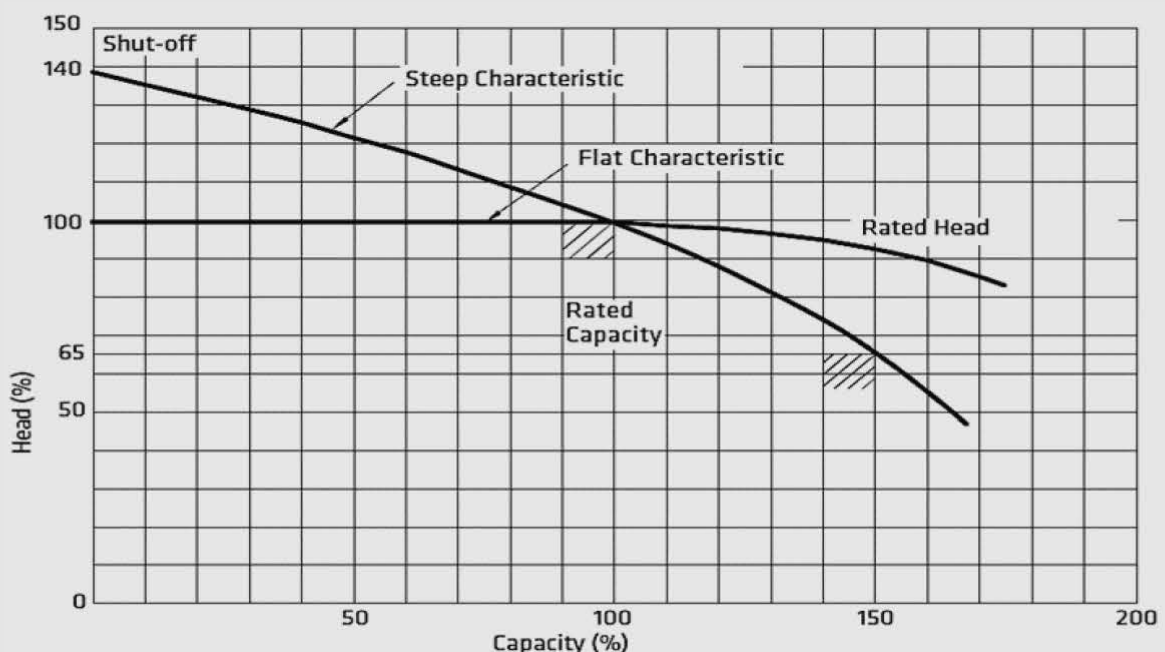
NFPA 20 standard defines the installation requirements of the fixed pumps for fire protection. This standard is the most common and the most detailed standard in the world used for fire protection services.

The scope of NFPA 20 document include the selection of fire pumps, installation, ac

Vertical Turbine fire pumps provide you with a reliable solution for your underground water source type fire fighting pump needs by combining the stringent quality measures of UL 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 and NFPA standards. These pumps are covered by a warranty of one year subject to standard terms and conditions.

Fire Pumps requirements of NFPA20

- Separate controller for each pump.
- Max. flow velocity in suction pipe is below 3m/s at rated capacity
- Pressure at zero flow is less than 1.4 times rated pressure
- Pressure at 1.5 x rated capacity is not less than 0.65 x rated pressure
- Service factor shall not exceed 1.15



TECHNICAL INFORMATION

SUCTION BELL ASSEMBLY

Suction bell is furnished with an extra long bearing that strengthens and provides rigid support for the lower end of the pump shaft. Suction bell provides efficient flow into the eye of the first stage impeller

DISCHARGE FLANGE

The rugged pump discharge head assembly is made of close-grained cast iron. It has smooth passageways that ensures efficient overall operation and provides an above ground connection to the discharge piping.

BOWL ASSEMBLY

The pump bowls have vanes cast integrally in them. These vanes are designed to match accurately with the impeller, and are smoothly contoured to guide the flow to next stage with maximum efficiency.

IMPELLER

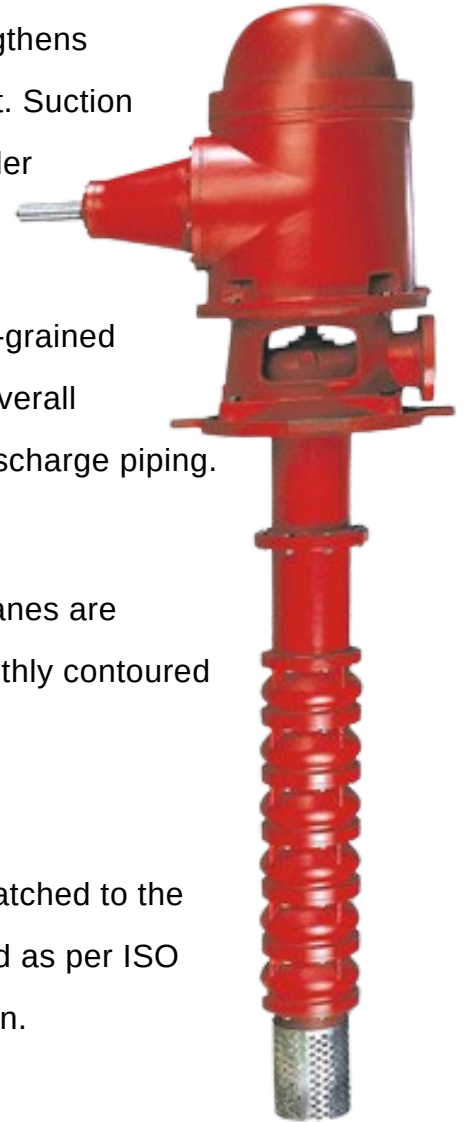
Impellers are enclosed type, made of bronze / SS 304 and matched to the pump bowls. Each impeller is statically / dynamically balanced as per ISO 1940-1 to insure highest efficiency and vibration free operation.

COLUMN PIPE

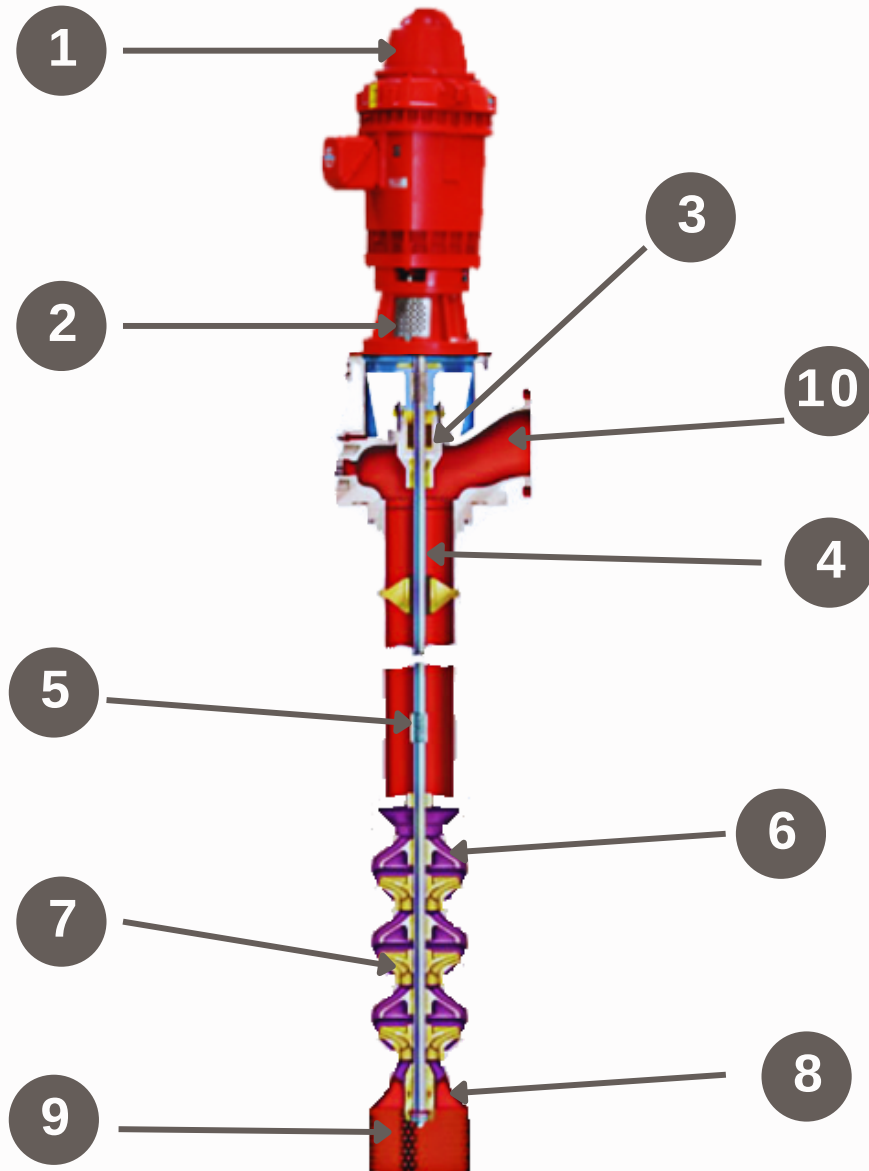
Pump column pipe shall be in sections not longer than 10 ft each. Column pipe is flanged type. Flanged connections are accurately machined to accept bearing retainers and are bolted together securely for proper sealing.

SHAFT SEAL

The shaft sealing is gland packing type. A lantern ring is furnished between the packing and it relieves pump pressure from the upper packing rings by bypassing the high pressure water through its relief ports.

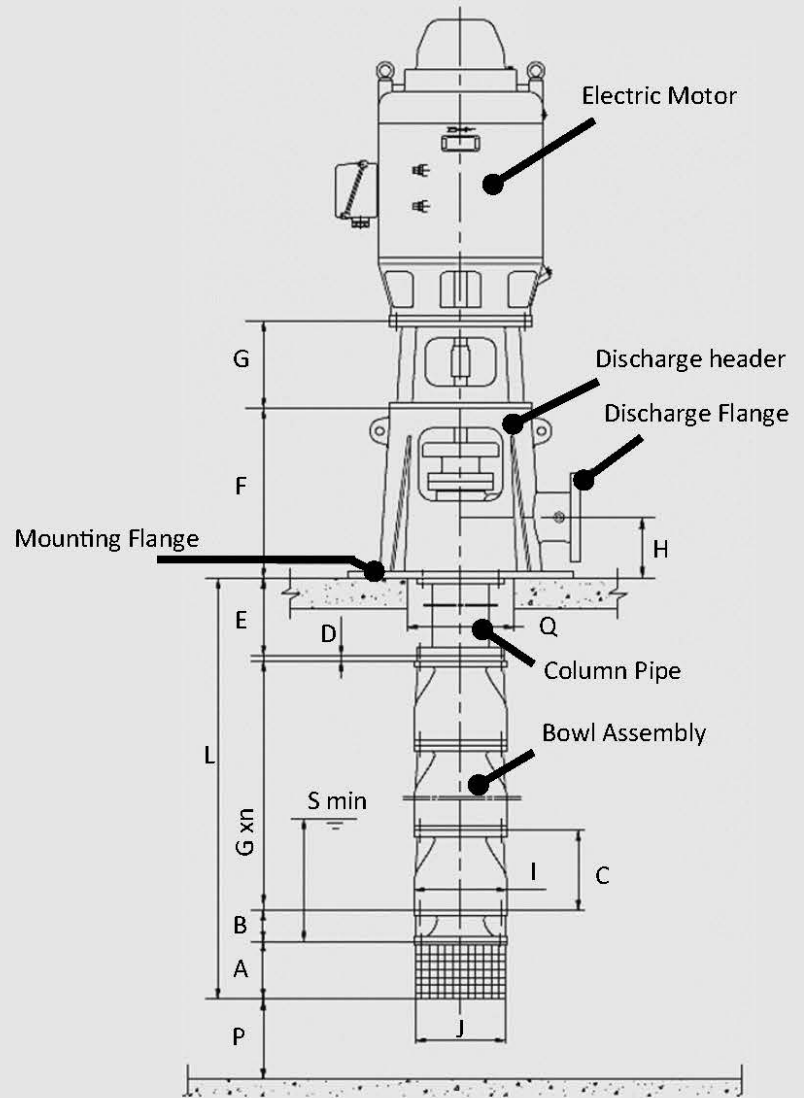
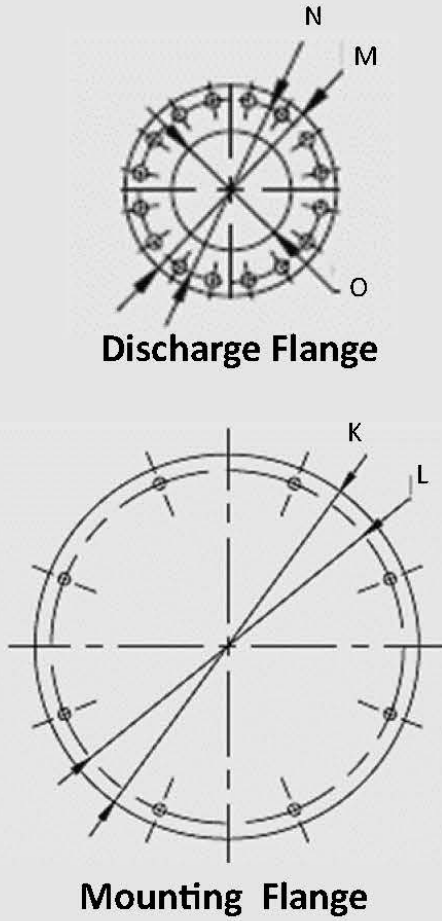


CROSS SECTIONAL VIEW



ID	Parts	Material	ID	Parts	Material
1	Motor		6	Bowl	Cast Iron / Ductile Iron
2	Motor Mount	Cast Iron	7	Impeller	Bronze / SS304
3	Gland Packing	Graphite Impregnated	8	Suction Bell	Cast Iron / Ductile Iron
4	Line Shaft	SS416	9	Strainer	SS304 / SS316
5	Guide Bearing	Teflon	10	Discharge Head	Cast Iron / Ductile Iron

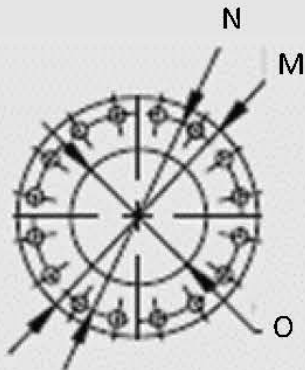
DIMENSIONS



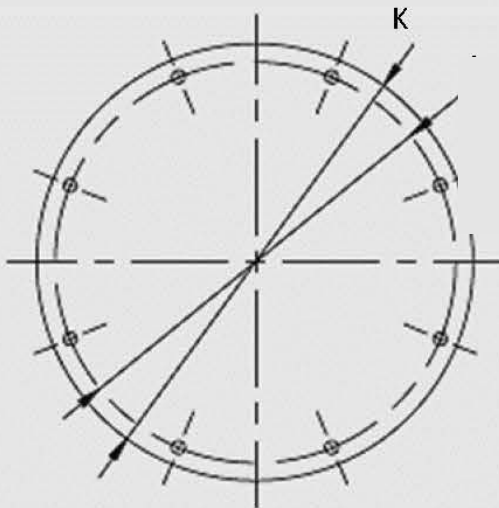
Model	A	B	C xn ⁺	D	E	F	G	H	I	J	Smin	Q	P
QVT1-150/200-17	340	100	250xn	15	495	620	250	230	Ø358	Ø302	535	500	300
QVT1-200/250-22	350	120	300xn	-	495	645	300	250	Ø420	Ø362	775	560	300
QVT1-250/400-28	345	150	330xn	-	495	745	370	300	Ø477	Ø392	820	620	300

Model	Mounting Flange				Discharge Flange					
	K (Out Side Diameter)	L (PCD)	Diameter of Holes	Number of Holes	M (Out side Diameter)	N (PCD)	O (Inside Diameter)	Diameter of Holes	Number of Holes	
QVT1-150/200-17	Ø760	Ø700	Ø30	8	Ø320	Ø270	Ø150	Ø22	12	
QVT1-200/250-22	Ø880	Ø800	Ø30	8	Ø380	Ø330	Ø200	Ø25	12	
QVT1-250/400-28	Ø980	Ø900	Ø30	8	Ø445	Ø387	Ø250	Ø30	12	

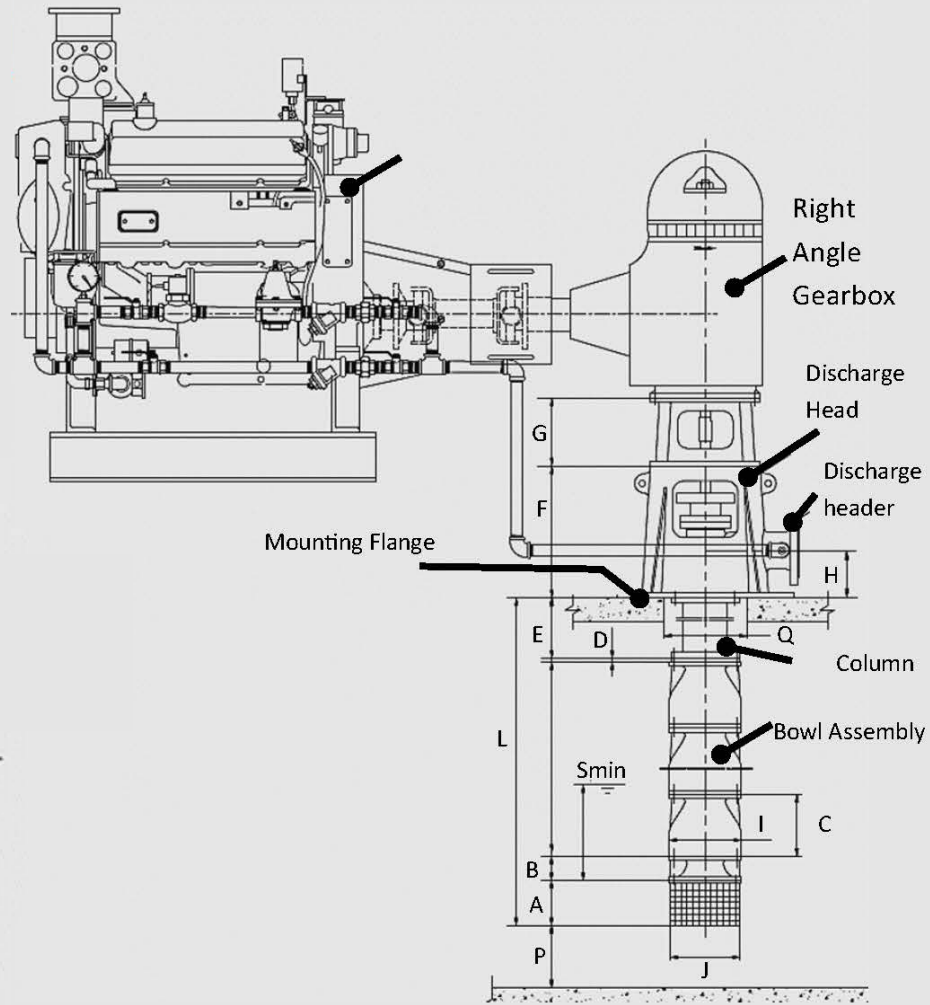
DIMENSIONS



Discharge Flange



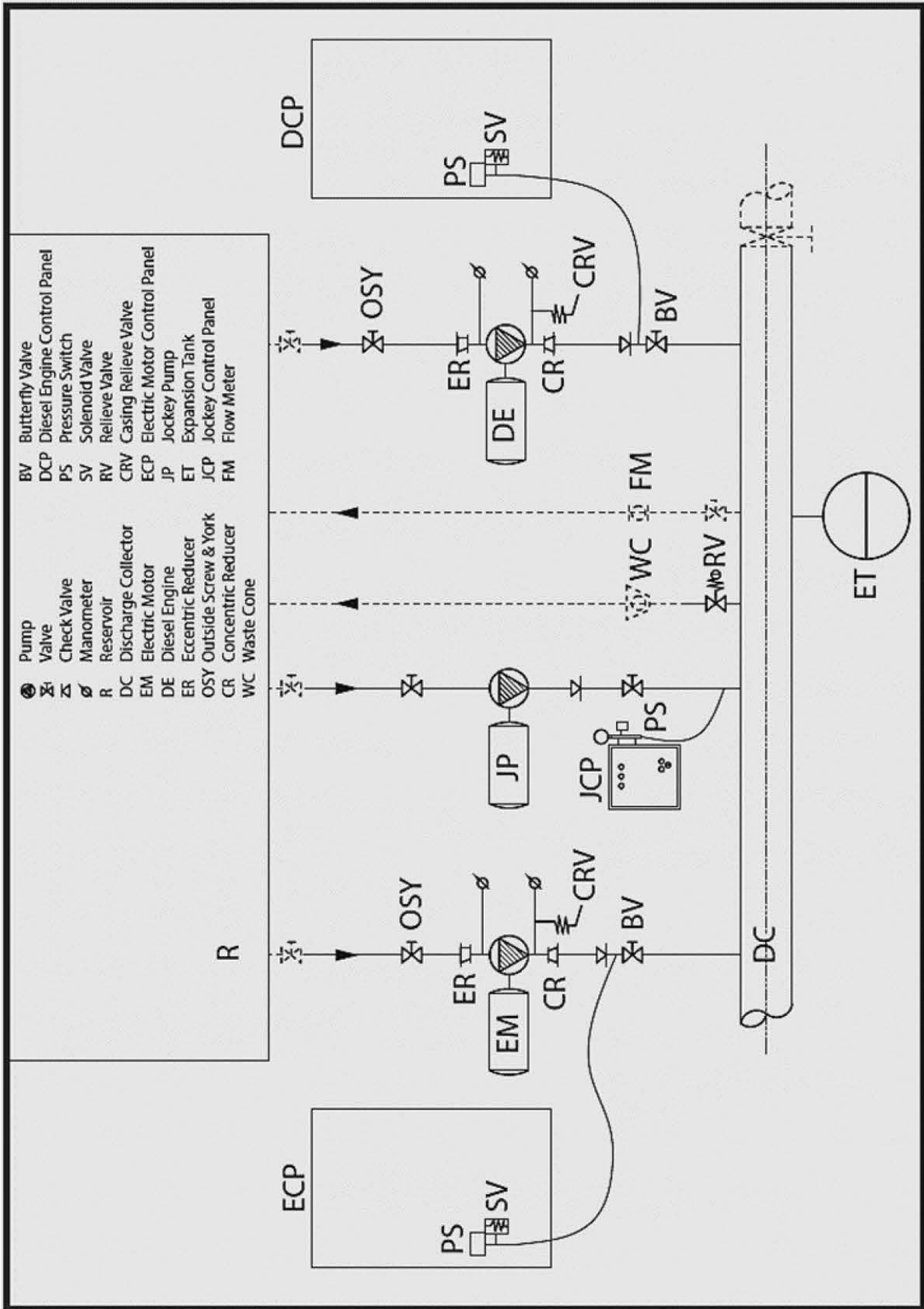
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P&I Diagram Conform to NFPA20





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