

Southern Cement State Company
 Fire fighting system by water For Electric Power Plant
 Order No:

Item No	Specifications	Qty.
1-	Diesel Pump complete: *Diesel engine :- 85 kw 2400 r.p.m Multi stage centrifugal pump : Water Flow :- Q = 120 m ³ /h Total Head :- H = 80 m Power required :- 37kw at 2400 r.p.m	1
2-	Electric Motor Pump Set Multi stage centrifugal pump : Water Flow :- Q=120m ³ /h Total Head :- H=80m *Electric Motor:- 55kw,2950 r.p.m , 380-400V,3ph, 50Hz,IP55,Class F	1
3-	Jockey Pump Water Flow:- Q=2m ³ /h Total Head :- H=90m *Electric Motor:- 4kw 2900r.p.m, 380-400V,50 Hz,3ph,IP 55	1

فانج
 4kw 2900r.p.m
 380-400V,50 Hz,3ph,IP 55
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Main and Technical Data for firefighting system:-

item	Specification
Ambient circumstances	temp. range(-5 °C) To (+55°C) automatic starting in 4c+.
Diesel engine	water cooled. The coolant of diesel is cooled with air in cooling radiator
Coolant of diesel	mixture of pure water and anti- Liquid 50/50%(anti-corrosive Inhibitor in antifreeze liquid).
Fuel	gasoil
Capacity of fuel tank	200 liters
Starting batteries	two sets of 24 v batteries Automatically operated change- over switch
Voltage of control and Monitoring system	24 V DC from starting batteries

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Notes:-

- 1- All items must be put inside container, erection of this items from by supplier are completed with auxiliaries of it, as well as all diagrams, included manual of operation and maintenances on supplier.
- 2- This container made of steel surfaces(inside, outside) must protection against(corrosion ,oxidation ,etc..) and painting by red color which resistances effect different weather conditions .



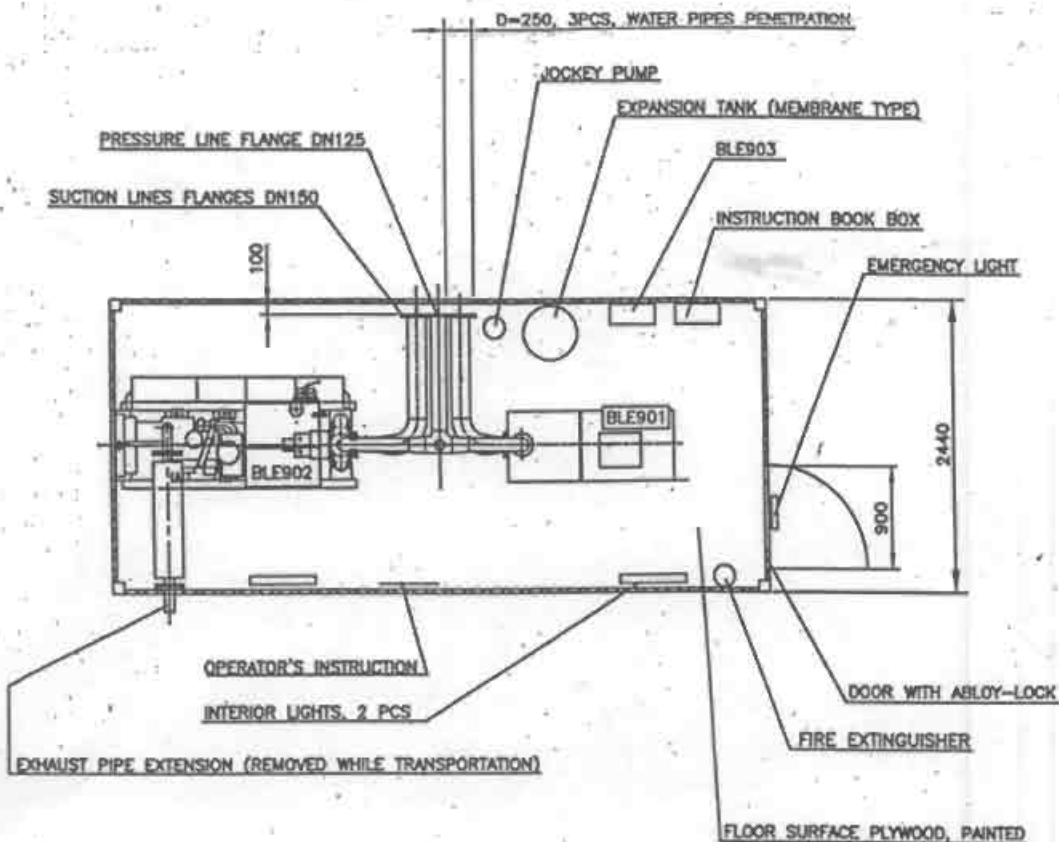
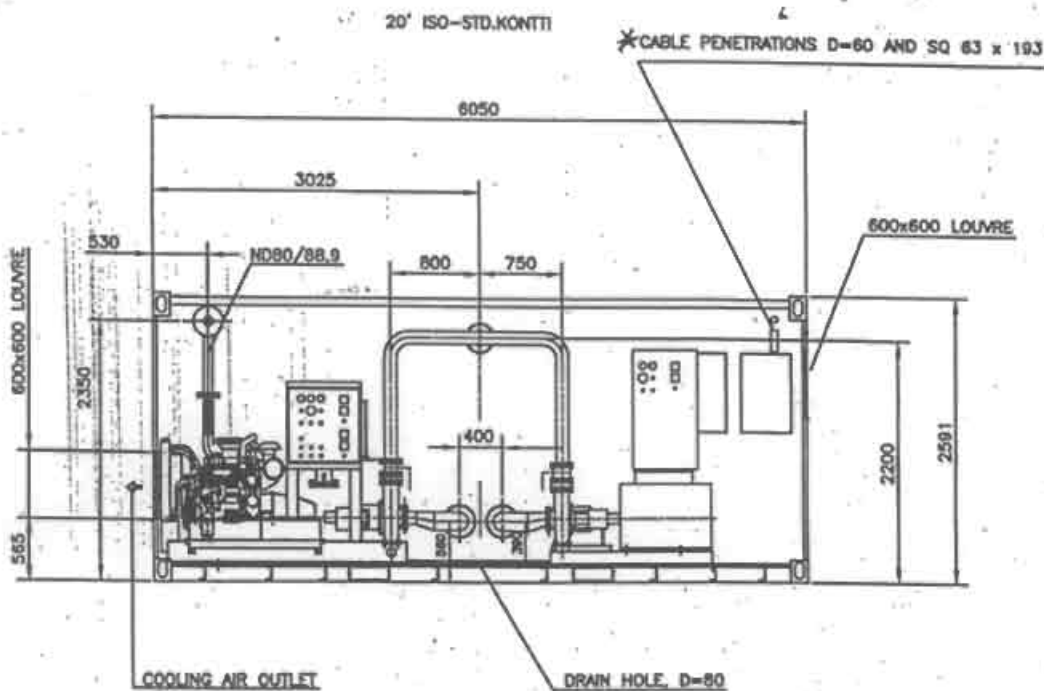
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MAIN FIRE FIGHTING UNIT

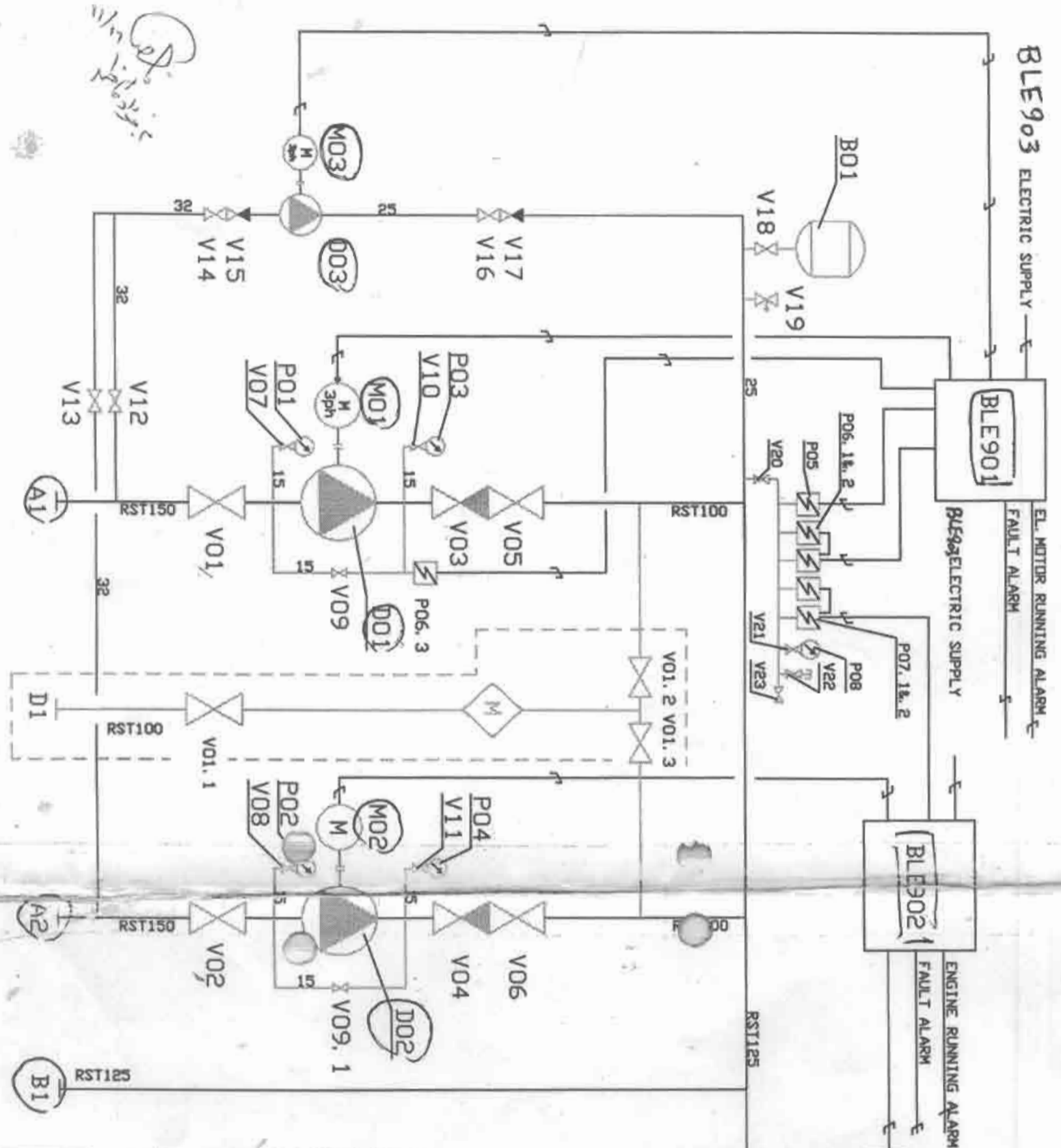
PART LIST - 1

POS.	PCS	DESCRIPTION	REMARKS
A1	1	SUCTION LINE FLANGE, EL.MOTOR PUMP	DN150
A2	1	SUCTION LINE FLANGE, DIESEL PUMP	DN150
B1	1	DELIVERY LINE FLANGE	DN125
B01	1	EXPANSION TANK PUMPPULOHJA No R23552, NP10,V=50L	PRE-PRESSURE 8,7 bar
VO1	1	SHUT OFF VALVE EVBS, EPDM SEALING	DN150
V02	1	SHUT OFF VALVE EVBS, EPDM SEALING	DN150
V03	1	NON RETURN VALVE LVI 526 630	DN100
V04	1	NON RETURN VALVE LVI 526 630	DN100
V05... VO6	2	SHUT OFF VALVE EVBS, EPDM SEALING	DN100
V07... V11	4	SHUT OFF VALVE ORAS No 400015	DN15
V12... V14	3	SHUT OFF VALVE ORAS No 400032	DN32
V15	1	NON RETURN VALVE, TA 52139-032	DN32
V16	1	SHUT OFF VALVE, ORAS No 400025	DN25
V17	1	NON RETURN VALVE, TA 52139-032	DN25
V18	1	SHUT OFF VALVE, ORAS No 400025	DN25
V19	1	SAFETY VALVE, ORAS	DN15
V20... V23	4	SHUT OFF VALVE, ORAS No 400015	DN15
P01... P02	2	PRESSURE GAUGE, LVI 4531020	R $\frac{1}{2}$, 0... 16 bar
P03... P04	2	PRESSURE GAUGE, LVI 4531020	R $\frac{1}{2}$, 0... 16 bar
P05	1	PRESSURE SWITCH, JOCKEY PUMP DANFOSS 17-5203	R1/4, 1... 10 bar, DIFF. 0,3... 1,5 bar SETTING: start up 7,8 bar, dif. 1,0 bar
P06.1 PO6.2	2	PRESSURE SWITCH, EL.MOTOR PUMP DANFOSS 17-5203	R1/4, 1... 10 bar, DIFF. 0,3... 1,5 bar SETTING: start up 6,8 bar, dif. 0,5 bar
PO6.3	1	PRESSURE SWITCH, EL.MOTOR PUMP RUN INFORMATION, DANFOSS 17-5203	R1/4, 1... 10 bar, DIFF. 0,3... 1,5 bar SETTING: start up 7,0 bar, dif. 0,5 bar
P07.1 PO7.2	2	PRESSURE SWITCH, DIESEL PUMP DANFOSS 17-5203	R1/4, 1... 10 bar, DIFF. 0,3... 1,5 bar SETTING: start up 5,8 bar, dif. 0,5 bar
P08	1	PRESSURE GAUGE, LVI 4531020	R $\frac{1}{2}$, 0 ... 16 bar
M01	1	EL.MOTOR	55 kW - 2950 rpm, 400V, 50 Hz, I _N = 93A, I _{ST} = 6,9 x
D01	1	PUMP KSB Etanorm M80-250	120 m ³ /h - 80 mwc
MO2	1	DIESEL ENGINE SISU 320DS	85 kW - 2400 rpm
D02	1	PUMP KSB Etanorm M65-315	120 m ³ /h - 80 mwc
D03& MO3	1	JOCKEYPUMP UNIT KSB Movitec VF 2/13	2 m ³ /h - 90 mwc 1,3 kW - 2900 rpm, 400V, 50 Hz, I _N = 3,25A, I _{ST} = 5,5 x
BLE901	1	CONTROL PANEL FOR EL.MOTOR PUMP AND JOCKEY PUMP	CIRCUIT DIAGRAM B65054 C
BLE902	1	CONTROL PANEL FOR DIESEL PUMP	CIRCUIT DIAGRAM B63986
BLE903	1	CONTROL PANEL FOR AUXILIARIES	CIRCUIT DIAGRAM B65996

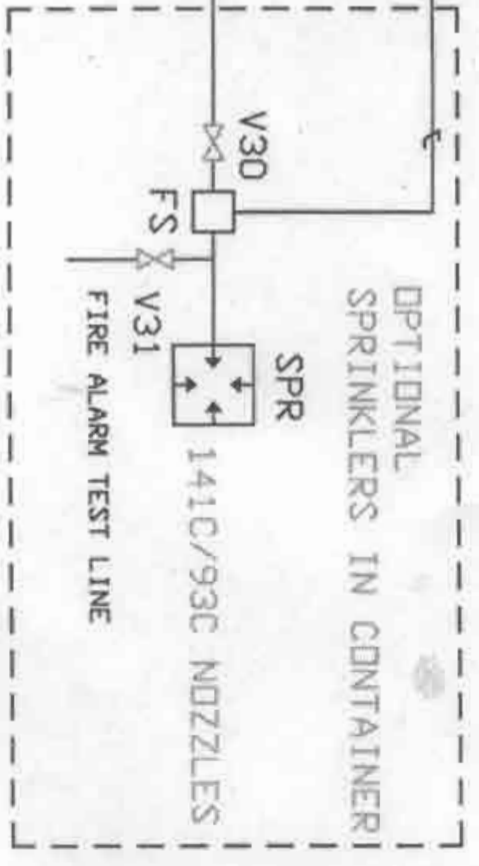
FIRE WATER PUMP UNIT LAYOUT AND DIMENSIONS




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CONNECTIONS AND MAIN COMPONENTS:
 A1&A2 SUCTION LINES
 B1 DELIVERY LINE
 D01/M01 EL. MOTOR PUMP UNIT
 D02/M02 DIESEL PUMP UNIT
 D03/M03 JOCKEY PUMP UNIT
 BLE901 CONTROL PANEL, EL. MOTOR/JOCKEY PUMPS
 BLE902 CONTROL PANEL, DIESEL PUMP

SETTING VALUES, SEE PART LIST
 DWG No B65344_2, sheet 2 of 2

DIAGRAM - 1 -

FIRE FIGHTING PUMP UNIT	
PI-DIAGRAM	
Design JS	Drawing no
DWG no	DATE