DO NOT SCALE
IF IN DOUBT, ASK

FURNACE
SUPERHEATER
BOILER BANK
ECONOMISER
AIRHEATER
AIRHEATER
ESP
TO ASH HANDLING SYSTEM.
ID FAN A
ID FAN B
2 x 100%
ONE WORKING/ONE STANDBY
HD-024-A MULTICLOVER
HD-026-A
HD-025-A (MULTICLOVER)
HD-027-A
TBW MAKE DAMPER (TYP.)
HD-023-A
HD-022-A
HD-014-A
HD-013-A
OFA HDR.
RH SIDE WALL
LH SIDE WALL
HD-012-A
TBW MAKE FLUE GAS RECIRCULATION DAMPER
APH BY PASS
HD-CCC-A
TBW UP TO CHIMNEY FLANGE
CHIMNEY
FROM SECOND BOILER.
HCD PLATE
COMPARTMENT NO 1
COMPARTMENT NO 2
COMPARTMENT NO 3
COMPARTMENT NO 4
COMPARTMENT NO 5
FRONT
REAR
AFR
DAMPERS SHALL BE TIGHT SHUT OFF TBW MAKE)
HD-011-A
HD-010-A
HD-009-A
HD-008-A
HD-007-A
TO START UP BURNER 1
TO START UP BURNER 2
HD-060-A
AIR TO BURNER
INSTRUMENT AIR 5 Kg/cm (g)2 DUE POINT (-)40°C
TO INSTRUMENTS
TO SCANNER
SERVICE AIR PRESSURE = 5Kg/cm2(G)
REFER P & I DIAGRAM FOR COAL BED ASH COOLING DRG. NO. D12-0FB-1451P
AIR TO COAL FEED LINES
AIR TO ASH COOLERS
PA FAN A
PA FAN B
HD-019-A
HD-017-A (INLET GUIDE VANE)
HD-015-A
HD-020-A TBW MAKE DAMPER (TYPICAL)
HD-018-A (INLET GUIDE VANE)
HD-016-A
HD-021-A
FD FAN A
FD FAN B
HD-003-A
HD-001-A (INLET GUIDE VANE)
HD-002-A (INLET GUIDE VANE)
BIRD SCREEN
FROM AIR HEATER
AIR-151-A

## NOTES

- UNLESS OTHERWISE MENTIONED SCOPE OF SUPPLY SHALL BE AS PER CONTRACT.
- FOR VALVE SYMBOLS REFER SD-02-0104
- FOR LINE SYMBOL REFER SD-02-0106
- FOR EQUIPMENT SYMBOLS REFER SD-01-0115
- SCOPE :-
  - TBW - THERMAX BABCOCK & WILCOX'S SCOPE.
  - C - CLIENT'S SCOPE

REFERANCE DRAWING NOS.
1) P & I DIAGRAM FOR STEAM & WATER _ D12-0FB-1450P
2) P & I DIAGRAM FOR DEAERATOR, FWP & DOSING _ D12-1FB-3091P
3) P & I DIAGRAM FOR COAL FEEDING & BOTTOM COOLING SYSTEM _ D12-0FB-1451P
4) P & I DIAGRAM FOR START UP OIL FIRING SYSTEM _ D12-2FB-2541P

### SYMBOLS FOR LINES

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---|---|---|---|
| | STEAM LINE | | PROCESS MEASURED LINE |
| | FEED WATER LINE | | CHEMICAL DOSING LINE |
| | DRAIN LINE | | ELECTRONIC SIGNAL LINE |
| | PNEUMATIC LINE | | CAPILLARY |
| | COMBUSTION AIR LINE | | COMPUTER SIGNAL BUS LINE |
| | COOLING WATER LINE | | |
| | FLUE GAS | | |

### SYMBOLS FOR VALVES

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---|---|---|---|
| | GATE | | COCK |
| | GLOBE | | SAFETY VALVE |
| | NON RETURN VALVE | | VENT |
| | AUTO RECIRCULATION VALVE | | DRAIN |
| | STRAINER | | PRV |
| | SILENCER | | IBD VALVE |
| | NEEDLE VALVE | | DAMPER |
| | EXPANSION BELLOW | | KGV/SLIDING GATE |
| M | MOTORISED | | |
| H | HAND OPERATED | | |

P & ID FOR ONE BOILER IS SHOWN, SECOND BOILER IS TYPICAL. TAG NO. WILL END WITH B INSTEAD OF A.

ALL THE INSTRUMENTS WILL HAVE A PREFIX 50 FOR TAG NUMBERS.

50 - INSTRUMENT
TE-TEMP. ELEMENT
314 - TAG NO.
A - BOILER NO. 1 (PA0171)

50 - INSTRUMENT
TE-TEMP. ELEMENT
314 - TAG NO.
B - BOILER NO. 2 (PA0172)

CLIENT : OSWAL STEEL.
CONSULTANT : DESEIN CONSULTANTS PVT. LTD.

THIS SYMBOL IN THE BLOCK INDICATES THAT THIS BLOCK IS PICKED FROM BLOCK LIBRARY.

| REV. NO. | REVISION | BY / DATE | CHD / DATE | APP'D / DATE |
|---|---|---|---|---|
| 1 | LINE SYMBOLS & VALVE SYMBOLS REVISED. | SHAH 23.03.2001 | RAJWELL 23.03.2001 | NVK 23.03.2001 |
| 2 | REVISED AS PER CLIENT'S COMMENTS & TAG NOS. GIVEN. | SHAH 24.03.2001 | RAJWELL 24.03.2001 | NVK 24.03.2001 |
| 3 | REVISED AS PER CLIENT'S COMMENTS & TAG NOS. GIVEN. | SHAH 27.03.2001 | RAJWELL 28.03.2001 | NVK 28.03.2001 |

IF REVISION IN CAD DRAWING SHALL BE RELEASED ONLY AFTER ENCURING THAT IT IS INCORPORATED IN THE RELEVENT CAD FILE. REVISION IS INVALID IF CAD CHECKSIGN IN BOX IS ATTENT

Thermax Babcock & Wilcox Limited PUNE 411 034

TP PROJECT PA0171/PA0172

| | | |
|---|---|---|
| REF.NO. | | |
| SCALE | DRAWN | 21.03.2001 |
| NTS. | CHECKED | RAJWELL 21.03.2001 |
| | APPROVED | NVK 21.03.2001 |

P & I DIAGRAM FOR 2X110TPH AFBC COAL FIRED BOILER (AIR & GAS)

DRG.NO. D12-0FB-1452P

REV.NO. 3

THIS IS A CAD DRAWING, DO NOT TAKE REPRODUCIBLE

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