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REV.	DATE	DRAWN	CHECKED	VERIFIED	APPROVED	DRAWING NO	REV
0	9.2.08	AKS	YPS	PZO	PZS	2007-PV197-S1	04
1	24.6.08	AKS	YPS	PZR	PZS	ITEM NO 211-C3	
2	20.1.09	AKS	YPS	PZR	PZS	P.O. NO 6879/6040/03/003 DT.19.12.2007	
3	17.2.09	AKS	YPS	PZR	PZS	PROJECT EURO IV IMPLEMENTATION	
4	7.10.09	AKS	YPS	PZR	PZS	CUSTOMER EIL A/C CPCL CHENNAI	
						TITLE HP SEPARATOR	
						DESCRIPTION GENERAL ARRANGEMENT	

ISGEC YAMUNANAGAR, HARYANA, INDIA

Issued to _____ Issued by _____ Issued date _____
☐ For pre-planning ☐ For manufacture in shop
☐ For provisional manufacture in shop ☐ For sub contracting / site work
This drawing supersedes drawing no. SAME Rev. 3

BILL OF MATERIAL

PART NO	SAP CODE	QTY.	DESCRIPTION	SIZES	WT (KG)	MATERIAL	AS BUILT	REMARKS
01	PV197-01	1	DISHED END	AS PER DRG		SA516GR60-HIC	SAME	
02	PV197-02	1	DISHED END	AS PER DRG		SA516GR60-HIC		
03	PV197-03	1	SUMP DISHED END	551×415 DIA	679	SA516GR60-HIC		
10	PV197-10	1	SHELL BELT	1231×1185×10700	18442	SA516GR60-HIC		
11	PV197-11	1	SHELL BELT	1231×1970×10700	20353	SA516GR60-HIC		
12	PV197-12	1	SHELL BELT	1231×1310×10700	13534	SA516GR60-HIC		
13	PV197-13	1	SHELL BELT+TEST PLATE	1231×2400×10750	24911	SA516GR60-HIC		
14	PV197-14	1	SHELL BELT	1231×2500×10700	25828	SA516GR60-HIC		
15	PV197-15	1	SHELL BELT	1231×2500×10700	25828	SA516GR60-HIC		
16	PV197-16	1	SUMP SHELL BELT+TEST PLATE	551×790×3800	1296	SA516GR60-HIC		
102	PV197-102	1	PLATE FOR PIPE	20t×300×1351	64	SA516GR60-HIC		
103	PV197-103	1	END PLATE	20t×450×500	35	SA516GR60-HIC		
104	PV197-104	1	WEAR PLATE	25t×850×2300	38t	SA516GR60-HIC	SAME	
104A	PV197-104A	1	WEAR PLATE	25t×850×2300	38t	SA516GR60-HIC	SAME	

MK'D. NO.	QTY.	NPS (INCH)	PIPE OD	SCH.	THK.	REFER NOTE 17 RATING (LBS)	TYPE	FACING	REINFORCEMENT PAD WIDTH	THK.	SERVICE
11 *	1	410 ID	546	–	68	600	INTEGRAL	RF	SELF-REINFORCED		FEED INLET
01 *	1	243 ID	343	–	50	600	INTEGRAL	RF	SELF-REINFORCED		HC LIQUID OUTLET
02 *	1	194 ID	273	–	39.5	600	INTEGRAL	RF	SELF-REINFORCED		VAPOUR OUTLET
03	1	76.2 ID	117	–	20.4	600	INTEGRAL	RF	SELF-REINFORCED		WATER OUTLET
MH	1	609.6 ID	718	–	54.2	600	INTEGRAL	RF	SELF-REINFORCED		MANHOLE+B.F.+DART
V1	1	203.2 ID	273	–	34.9	600	INTEGRAL	RF	SELF-REINFORCED		VENTILATION
V2	1	50.8 ID	84	–	16.6	600	INTEGRAL	RF	SELF-REINFORCED		VENT
D	1	76.2 ID	117	–	20.4	600	INTEGRAL	RF	SELF-REINFORCED		DRAIN
UC	1	50.8 ID	84	–	16.6	600	INTEGRAL	RF	SELF-REINFORCED		UTILITY CONNECTION
SP4-2	2	50.8 ID	84	–	16.6	600	INTEGRAL	RF	SELF-REINFORCED		STAND PIPE
L15-6	2	76.2 ID	117	–	20.4	600	INTEGRAL	RF	SELF-REINFORCED		LEVEL TRANSMITTER (DS)
SP1-2	2	50.8 ID	84	–	16.6	600	INTEGRAL	RF	SELF-REINFORCED		STAND PIPE
SP7-8	2	50.8 ID	84	–	16.6	600	INTEGRAL	RF	SELF-REINFORCED		STAND PIPE
SP6-6	2	50.8 ID	84	–	16.6	600	INTEGRAL	RF	SELF-REINFORCED		STAND PIPE
SP2A	1	50.8 ID	84	–	16.6	600	INTEGRAL	RF	SELF-REINFORCED		STAND PIPE
SP5A	1	50.8 ID	84	–	16.6	600	INTEGRAL	RF	SELF-REINFORCED		STAND PIPE

* FLANGE FOR NOZZLE MARK '11' SHALL BE 18"NPS WN
FLANGE FOR NOZZLE MARK '01' SHALL BE 10"NPS WN
FLANGE FOR NOZZLE MARK '02' SHALL BE 8"NPS WN

GENERAL NOTES:–

1. ALL DIMENSIONS ARE IN MM UNLESS STATED OTHERWISE.
2. DO NOT SCALE THE DRAWING, IF IN DOUBT PLEASE ASK.
3. BOLT HOLES OF ALL FLANGES TO STRADDLE PRINCIPAL CENTER LINES UNLESS OTHERWISE SPECIFIED. ALL ANCHOR BOLT HOLES TO STRADDLE N/S CENTER LINE.
4. ALL MACHINED SURFACES & THREADED CONNECTIONS TO BE PROTECTED WITH READILY REMOVABLE RUST PREVENTIVE.
5. ALL SHARP CORNERS TO BE ROUNDED OFF WITH SMOOTH RADIUS UNLESS OTHERWISE SPECIFIED.
6. (a) ALL WELDINGS SHOULD BE FREE FROM UNDERCUTS & IRREGULARITIES.
   (b) ALL WELDING SURFACES TO BE THOROUGHLY CLEANED OFF SCALE, RUST OIL OR FOREIGN BODIES BEFORE WELDING.
   (c) WELDING ARC STRIKES TO BE AVOIDED.
   (d) FILLET SIZE SPECIFIED IN THE DRAWING ARE MINIMUM REQUIRED.
7. GASKET USED FOR HYDROTESTING OF VESSEL SHALL BE OF THE SAME SPECIFICATION AS SERVICE GASKET.
8. ALL FLANGE GASKET FACES SHALL HAVE 125 AARH FINISH.
9. PAINTING :- SURFACE PREPARATION SHALL BE AS PER SSPC-SP-10.
   PRIMER PAINT – ONE COAT OF INORGANIC ZINC SILICATE, TOTAL DFT = 65–75 MICRONS.
10. PWHT CYCLE:–
    (a) LOADING TEMP. (MAX.) = 400C
    (b) RATE OF HEATING (MAX.) = 56C/HR.
    (c) SOAKING TEMPERATURE = 610C ± 10C
    (d) SOAKING TIME (MIN.) = 175 MINUTES.
    (e) RATE OF COOLING (MAX.) = 56C/HR.
    (f) UNLOADING TEMP. (MAX.) = 400C
11. ALL REMOVABLE INTERNALS SHALL BE DESIGNED TO PASS THROUGH MANWAY.
12. HARDNESS OF ALL MATERIALS, WELDS AND HAZ SHALL BE LIMITED TO 200 BHN (REFER CL. 4.5 OF SPEC. 6-12-0002).
13. THE VESSEL SHALL BE NITROGEN BLANKETED PRIOR TO SHIPMENT.
14. ALL THE PLATES USED FOR PRESSURE PARTS SHALL BE WITHOUT NEGATIVE MILL TOLERANCE ON THICKNESS.
15. ALL PLATES, FORGINGS SHALL MEET THE CV IMPACT TEST REQUIREMENT OF CODE ASME SEC. VIII DIV. 2 AT (–)29°C.
16. ALL PRESSURE PARTS / INTERNALS SHALL MEET THE HIC REQUIREMENTS. CHEMISTRY / TESTING REQUIREMENTS AS PER APPLICABLE AKEN SPEC. / APPLICABLE EIL SPEC.
17. FLANGES SHALL BE AS PER ASME B16.5 (2003).
18. PIPE TO PIPE, PIPE TO FLANGE, PIPE TO FITTING AND FITTING TO FLANGE JOINT SHALL BE WELDED WITH THE SAME EQUIVALENT AS USED FOR MAIN EQUIPMENT WELDING.
19. ALL 4 LIFTING LUGS SHALL BE USED FOR ERECTION OF EQUIPMENT.

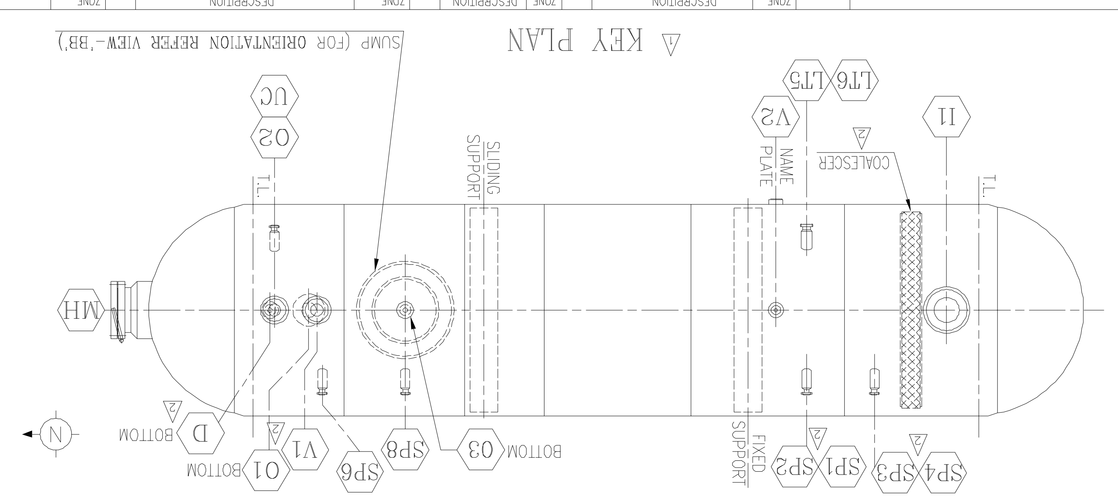
DESIGN DATA

CODE OF CONSTRUCTION		ASME SEC.VIII DIV.1 2004, ADDENDA 2006
WORKING PRESSURE	Kg/cm2(g)	68.2/22.9/68.2
DESIGN PRESSURE INT./EXT.	Kg/cm2(g)	79.8 / F.V. AT ANG. TEMP.
HYDROSTATIC TEST PRESSURE (NEW & COLD)	Kg/cm2(g)	103.74 (AT TOP)
WORKING TEMPERATURE	(°C)	55/55/155
DESIGN TEMPERATURE	(°C)	139
MIN. DESIGN METAL TEMPERATURE	(°C)	18
HYDRAULIC TEST TEMPERATURE	(°C)	AMBIENT (≥20 °C)
RADIOGRAPHY(R.T.) / JOINT EFFICIENCY		FULL / 1.0
CORROSION ALLOWANCE	(MM)	6 (FOR FIXED INTERFACE), 6mm ON EACH EXPOSED SURFACE)
STRESS RELIEVING (PWHT)		YES (COMPLETE EQUIPMENT)
INSULATION / FIRE PROOFING	(MM)	NIL / NO
OPERATING MEDIUM / Sp. GRAVITY		HC / 0.7983
WEIGHTS : ERECTION/OPERATING/HYDROTEST (SHOP)/HYDROTEST (FIELD)(Kgs)		16000/24800/27420/27580O APPROX.
PAINTING		REFER NOTE 9
INSPECTION		EIL
CAPACITY	(m3)	114.2

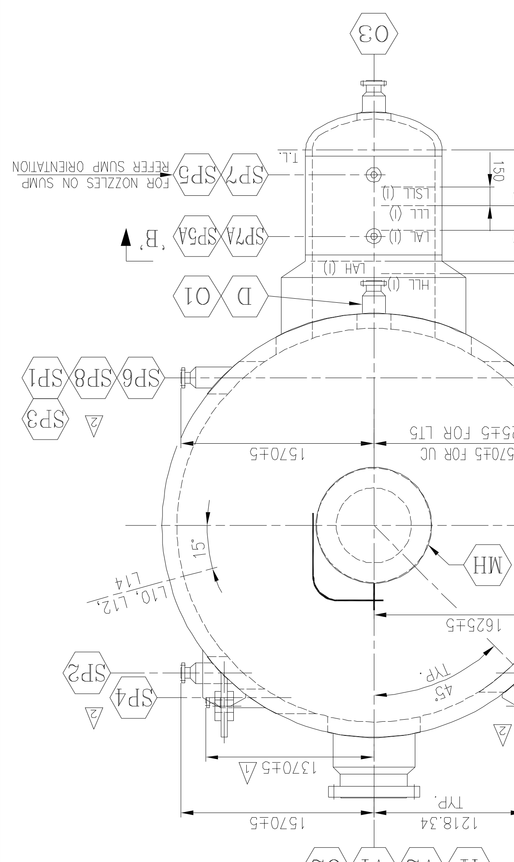
APPLICABLE DRAWINGS

SHT. NO.	DESCRIPTION
1.	GENERAL ARRANGEMENT
2.	NOZZLES DETAIL & APPLICABLE STANDARDS
3.	NOZZLE ATTACHMENT & NAME PLATE DET.
4.	INTERNAL & EXTERNAL ATTACHMENTS
5.	NAME PLATE DETAIL
6.	EXTERNAL CLEATS DETAIL

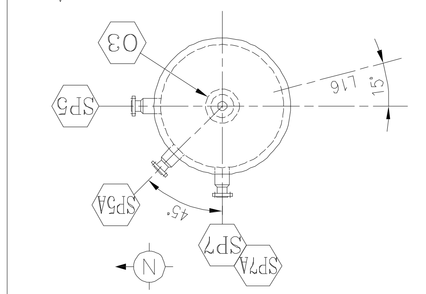
KEY PLAN



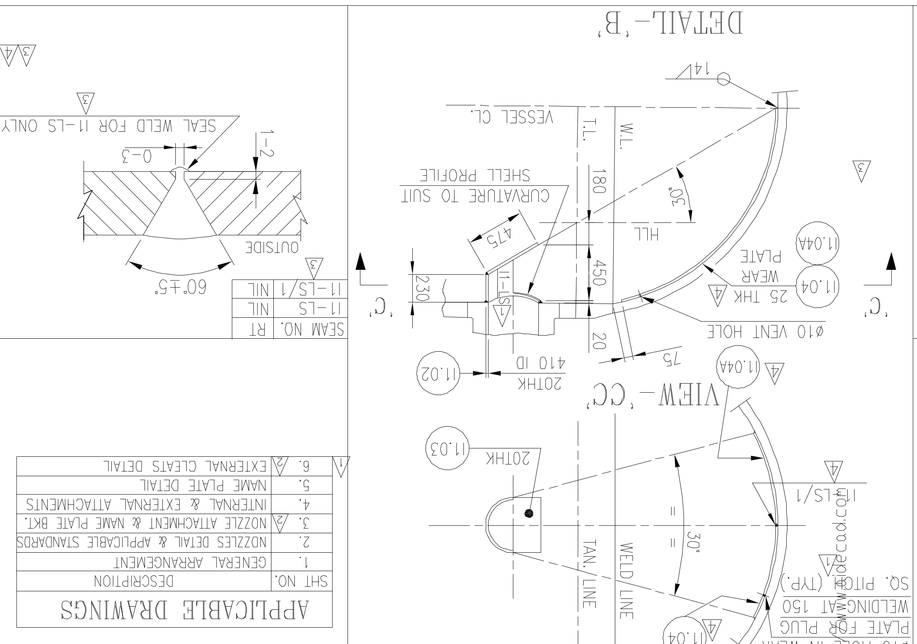
VIEW FROM ARROW 'AA'
(SUPPORTS NOT SHOWN FOR CLARITY)



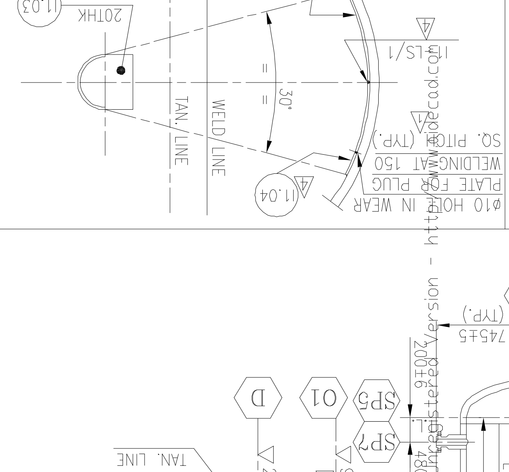
SUMP ORIENTATION
(VIEW FROM ARROW 'BB')



DETAIL–'B'



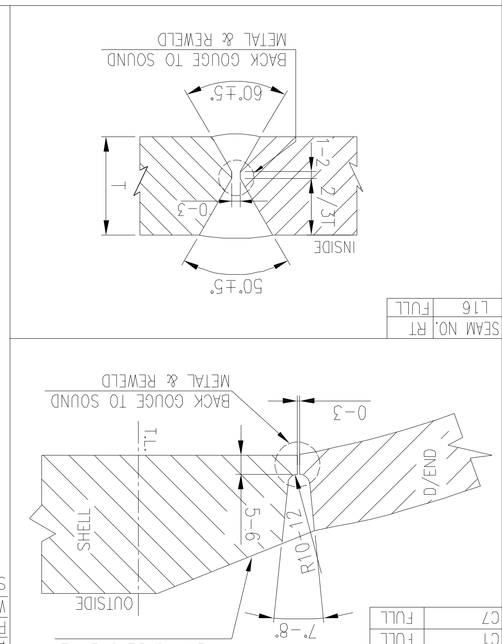
VIEW–'CC'



SEAL WELD FOR I1–S ONLY

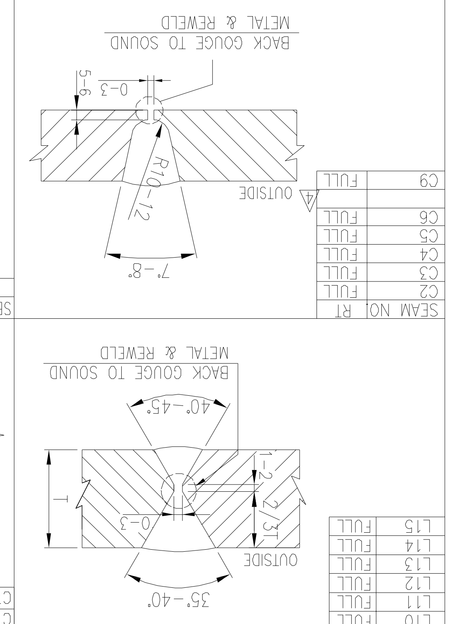
SEAM NO.	RT
I1–S/1	NIL
I1–S	NIL

BACK COUGE TO SOUND METAL & REWELD



SEAM NO.	RT
L16	FULL

BACK COUGE TO SOUND METAL & REWELD



SEAM NO.	RT
C9	FULL
C6	FULL
C5	FULL
C4	FULL
C3	FULL
C2	FULL
SEAM NO.	RT

BACK COUGE TO SOUND METAL & REWELD

SEAM NO.	RT
L15	FULL
L14	FULL
L13	FULL
L12	FULL
L11	FULL
L10	FULL
SEAM NO.	RT

TAPER 1:3 BEFORE T.L.

SEAM NO.	RT
C7	FULL
C1	FULL
SEAM NO.	RT

IMPORTANT NOTE:–

1. ALL NOZZLES & SUPPORTS ON SHELL SHALL BE PERPENDICULAR TO HORIZONTAL LINE AND NOZZLES ON HEADS SHALL BE PARALLEL TO HORIZONTAL LINE.
2. MANWAY 'MH' SHOULD BE ON VESSEL CENTER LINE.
3. CENTER LINE NOZZLES, ALL PROJECTIONS ARE FROM VESSEL CENTER LINE TO FLANGE FACE AS TYPICALLY SHOWN FOR NOZZLE MK'D. '02'.
4. FOR SHELL NOZZLES, ALL PROJECTIONS ARE FROM VESSEL CENTER LINE TO FLANGE FACE AS TYPICALLY SHOWN FOR NOZZLE MK'D. 'O2'.

SECTIONAL ELEVATION