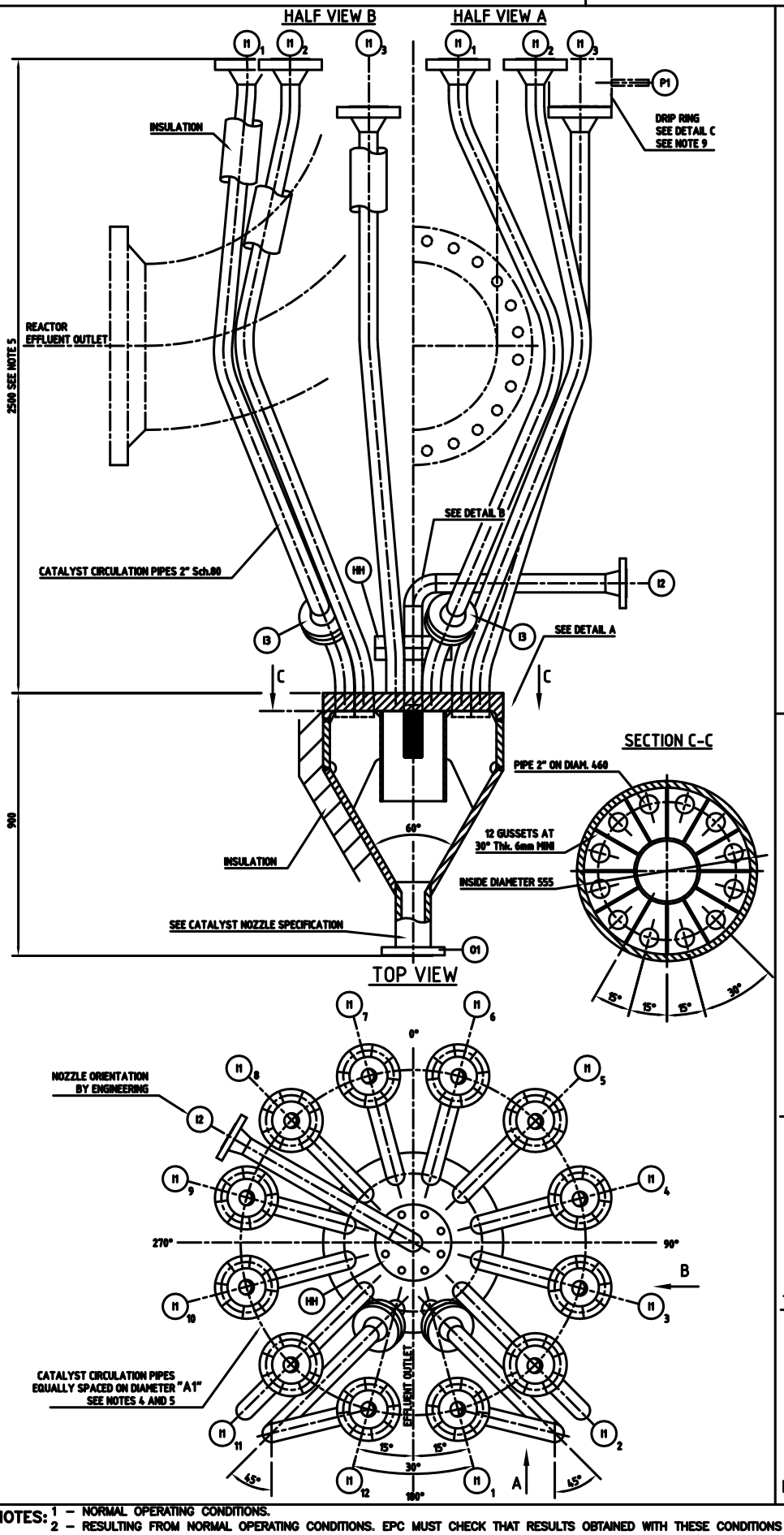
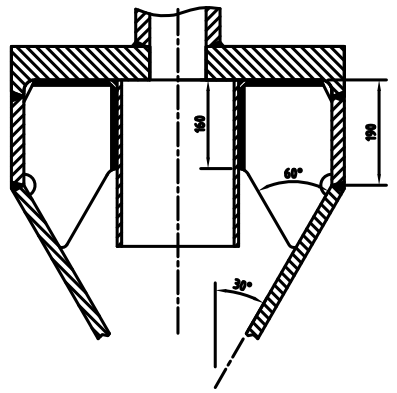
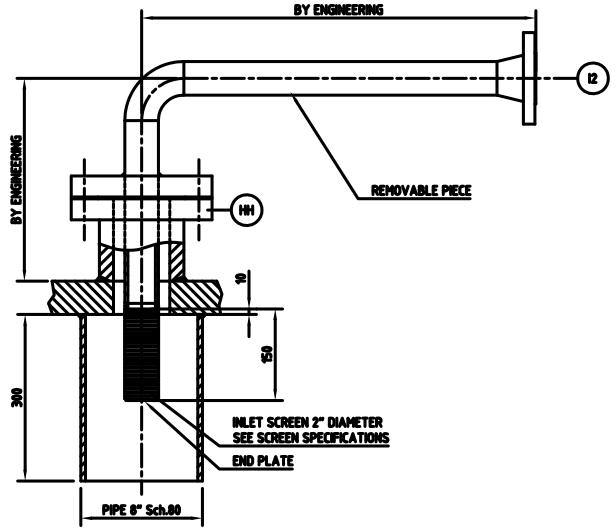


DETAIL A



DETAIL B



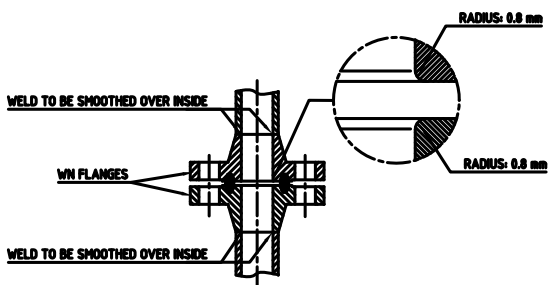
SCREENS SPECIFICATIONS NOTES:

- THE SCREENS FOR CATALYST RETENTION ARE MADE OF VEE WIRES SEPARATED BY A CONSTANT SLOT OPENING.
- THESE WIRES HAVE A PERFECTLY SMOOTH SIDE IN CONTACT WITH THE CATALYST AND ARE HOLD BY REINFORCEMENTS (WIRES OR BARS).
- WELDS OF SCREEN IN CONTACT WITH CATALYST HAVE TO BE SMOOTHED.

SLOT AVERAGE	0.7± 0.05mm
STANDARD DEVIATION	0.05mm
MAX SLOT	0.9mm
WIRE WAVINESS	0.8mm MAXI
VOID FRACTION OF GRID	10% MINI

LOWER HOPPERS TAG :			33-D-121	33-D-122	33-D-123	33-D-124
Note	DESIGN CONDITIONS					
(2)	PRESSURE	MPa g	0.90	0.830	0.760	0.70
(2)	TEMPERATURE	°C	545	545	545	545
	EXT. PRES.	FULL VACUUM @ AMB.				
	M.D.M.T.	5°C				
Note	OPERATING CONDITIONS					
(1)	PRESSURE	MPa g	0.470	0.425	0.380	0.335
	TEMPERATURE	°C	200	200	200	200
(6)	PRESSURE	MPa g	-	-	-	-
	TEMPERATURE	°C	-	-	-	-
	TYPE OF HEADS	FLAT / CONICAL				
(11)	INSULATION	YES (HEAT CONSERVATION)				
Note	MATERIALS					COR. ALLOW.
(10)	SHELL/PIPE	1.25Cr-0.5Mo OR 2.25Cr-1Mo				3mm
Note	MATERIAL FOR INTERNALS					COR. ALLOW.
	FIXED/REMOVABLE	1.25Cr-0.5Mo / 2.25Cr-1Mo				3mm (EACH SIDE)
	STRINGER/PUNCHED PLATE	STAINLESS STEEL TYPE 321				NIL
	A1		1707	1707	1961	1961

CATALYST CIRCULATION LINE SPECIFICATION



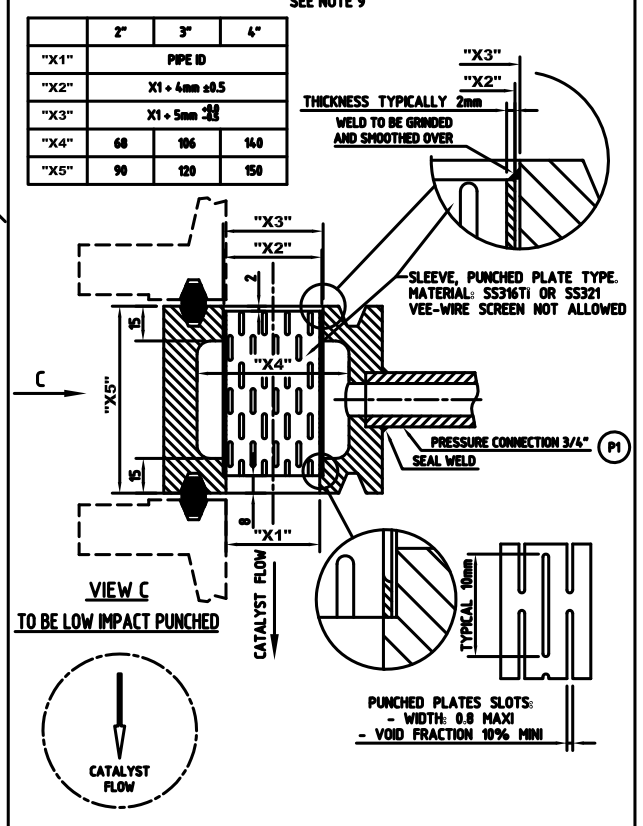
NOTES –DO NOT USE WELDED ELBOW FITTINGS WHEN IT IS IMPOSSIBLE TO GRIND THE WELD INSIDE.
–BENDING RADIUS = 6 DIAMETERS MINI FOR GRAVITY FLOW.
–BENDING RADIUS = 20 DIAMETERS MINI FOR PNEUMATIC FLOW (LIFT).
–ALL PIPE INTERNAL SURFACES TO BE FLUSH.

DETAIL C

DRIP RING

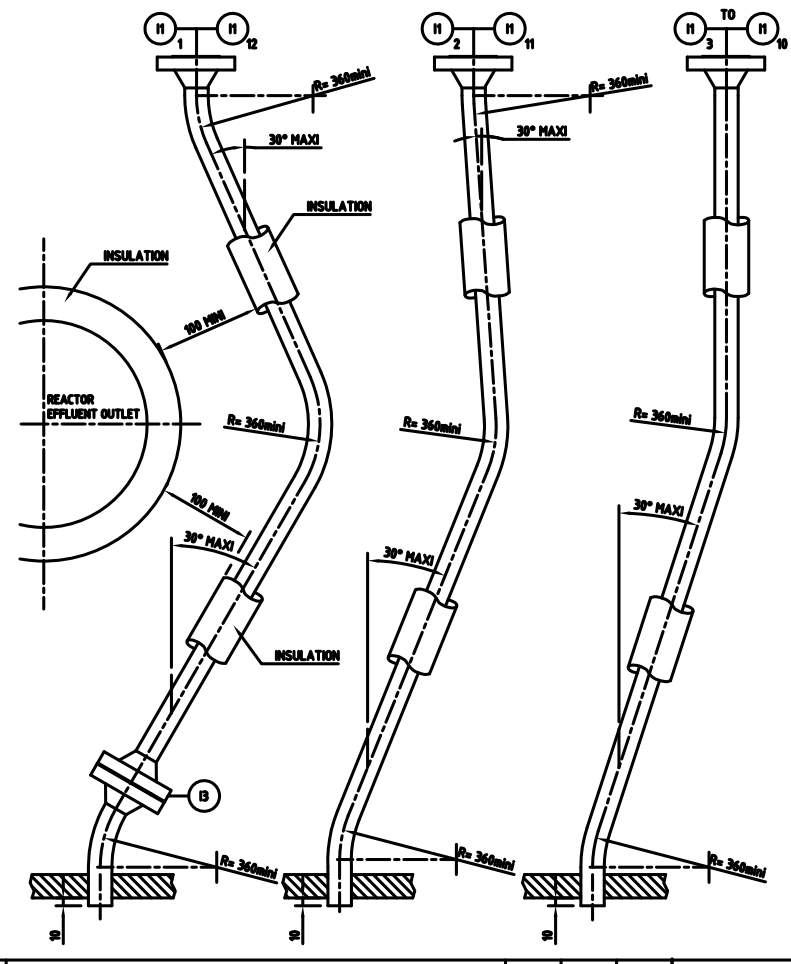
SEE NOTE 9

	2"	3"	4"
"X1"	PIPE ID		
"X2"	X1 + 4mm ±0.5		
"X3"	X1 + 5mm +0.8 -0.5		
"X4"	68	106	140
"X5"	90	120	150



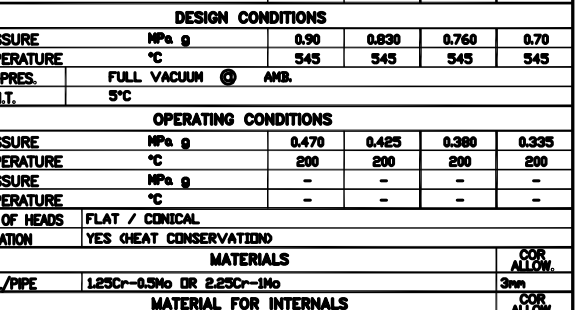
NOTES: SLEEVE INSIDE DIAMETER MUST BE THE SAME AS PIPE INSIDE DIAMETER.

CATALYST CIRCULATION PIPES



CATALYST NOZZLE SPECIFICATION

LONG WELDING-NECK FLANGES



NOMINAL DIAMETER	2"	3"
INSIDE DIAMETER	49.2	73.6

CONNECTIONS NOMENCLATURE				
Note	Item	Qty.	Size	Service
(8)	I1	12	2"	CATALYST INLET
	I2	1	2"	GAS INLET
(8)	I3	2	2"	FLANGES FOR REMOVABLE CATALYST OUTLET
(8)	O1	1	3"	CATALYST OUTLET
	HH	1	4"	HAND HOLE
(9)	P1		3/4"	PRESSURE CONNECTION
-	CATALYST FLANGES ASME CLASS : 300# / FACING: RTJ			
-	OTHER FLANGES ASME CLASS : 300# / FACING: RF			

NOTES:
1 – NORMAL OPERATING CONDITIONS.
2 – RESULTING FROM NORMAL OPERATING CONDITIONS. EPC MUST CHECK THAT RESULTS OBTAINED WITH THESE CONDITIONS ARE ADEQUATE FOR ALL OPERATING CONDITIONS.
3 – INTERNALS IN CONTACT WITH CATALYST MUST BE DESIGNED CONSIDERING A CATALYST DENSITY OF 0.7 t/m3 AND AN INTERNAL VOLUME FULL OF CATALYST.
4 – NOZZLES MUST BE EQUALLY SPACED ALONG A CIRCLE. HOPPER TOLERANCES MUST BE IN ACCORDANCE WITH THE REACTORS TOLERANCES.
5 – THIS DIMENSION MUST BE SUCH THAT, IN ADDITION WITH LENGTH OF CATALYST OUTLET PIPING OF REACTOR, DISTANCES BETWEEN REACTOR BOTTOM TL AND LOWER HOPPER UPPER TL ARE IDENTICAL FOR ALL REACTORS.
6 – VACUUM PURGE (CONDITIONS BY EPC).
7 – ALL PIECES SHALL BE LOW IMPACT PUNCH MARKED.
8 – FOLLOW CATALYST CIRCULATION LINE SPECIFICATION.
9 – FOR HOPPERS 2/3/4 ONE OF THE 12 CATALYST PIPES I1 MUST BE SHORTER TO ALLOW MOUNTING OF A SPECIAL DRIP RING.
FOR HOPPER 5, TWO OF THE 12 CATALYST PIPES I1 MUST BE SHORTER TO ALLOW MOUNTING OF A SPECIAL DRIP RING.
POSITION OF DRIP RINGS BY ENGINEERING.
10– SEE AXENS SPECIFICATIONS IN–42.1 OR IN–42.2.
11– LOWER HOPPERS AND PIPES MUST BE INSULATED
12– ALL VESSEL MANUFACTURER'S DRAWINGS TO BE SENT TO AXENS FOR INFORMATION AND COMMENTS IF ANY, BEFORE CONSTRUCTION.

REV	DATE	DESCRIPTION OF REVISION	DRAWN BY	CHECKED BY	APPR. BY
0	01/06/06	PROCESS BOOK ISSUE	SLA	DPH	SMO

DRAGON AROMATICS (XIAMEN) CO.,LTD
XIAMEN (P.R. CHINA)
DAC PX COMPLEX PROJECT
AROMIZING CATALYST REGENERATION LOOP
(UNIT 33)

LOWER HOPPERS PROCESS DATA SHEET
GENERAL ARRANGEMENT

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VP: VD: BE DWG Number: 2678-D121-1-0
CLIENT PROJECT NUMBER | CLIENT DWG NUMBER

JOB NUMBER	UNIT	TYPE	ITEM	SHEET	REV
05-2678a	33	2LH	33-D-121/122/123/124	1/1	0

A1P001

2LH1011.DWG REV : 8 DU 23/01/06