

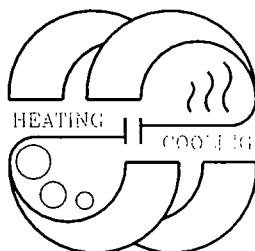
DRAWING

For
TMA Separation Vessel

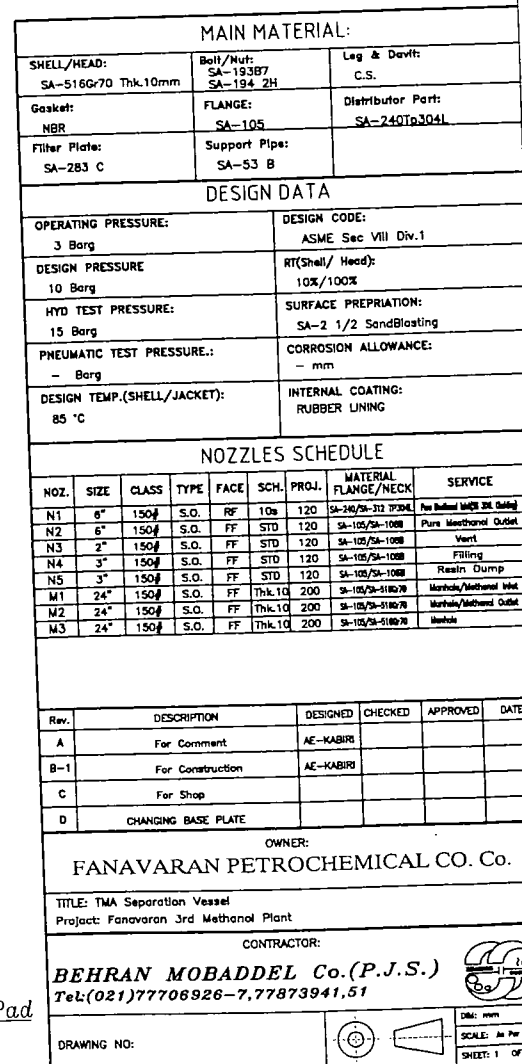
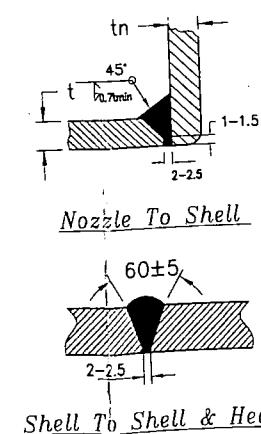
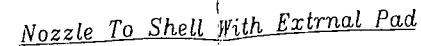
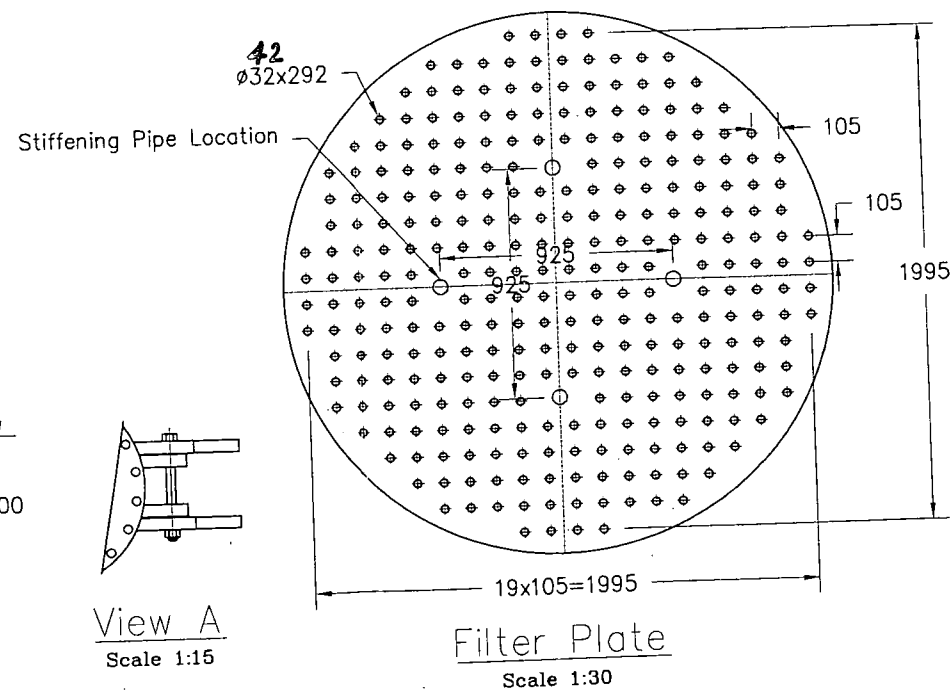
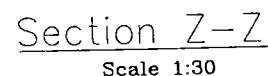
Customer
FANAVARAN PETRUCHEMICAL CO .

Project
Fanavaran 3rd Methanol Plant

BEHRAN MOBADDEL Co.
Engineering Department



1386



MAIN MATERIAL:		
SHELL/HEAD: SA-516G70 Thk.10mm	Bolt/Nut: SA-193B7 SA-194 2H	Leg & Dowl: C.S.
Gasket: NBR	FLANGE: SA-105	Distributor Part: SA-240Ta304L
Filter Plate: SA-283 C	Support Pipe: SA-53 B	

DESIGN DATA	
OPERATING PRESSURE: 3 Barg	DESIGN CODE: ASME Sec VIII Div.1
DESIGN PRESSURE 10 Barg	RT(Shell/ Head): 10%/100%
HYD TEST PRESSURE: 15 Barg	SURFACE PREPARATION: SA-2 1/2 SandBlasting
PNEUMATIC TEST PRESSURE.: - Barg	CORROSION ALLOWANCE: - mm
DESIGN TEMP.(SHELL/JACKET): 85 °C	INTERNAL COATING: RUBBER LINING

NOZZLES SCHEDULE								
NOZ.	SIZE	CLASS	TYPE	FACE	SCH.	PROJ.	MATERIAL FLANGE/NECK	SERVICE
N1	6"	150#	S.O.	RF	10#	120	SA-142/SA-133 3750#	Pen Medium (No. 2) Galing
N2	2"	150#	S.O.	FF	STD	120	SA-105/SA-100#	Pure Methanol Outlet
N3	2"	150#	S.O.	FF	STD	120	SA-105/SA-100#	Vent
N4	3"	150#	S.O.	FF	STD	120	SA-105/SA-100#	Filling
N5	3"	150#	S.O.	FF	STD	120	SA-105/SA-100#	Rein. Pump
M1	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-1180#	Methanol/Methanol Vent
M2	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-1180#	Methanol/Methanol Outlet
M3	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-1180#	Reboiler

Rev.	DESCRIPTION	DESIGNED	CHECKED	APPROVED	DATE
A	For Comment	AE-KABIRI			
B-1	For Construction	AE-KABIRI			
C	For Shop				
D	CHANGING BASE PLATE				

OWNER:
FANAVARAN PETROCHEMICAL CO. Co.

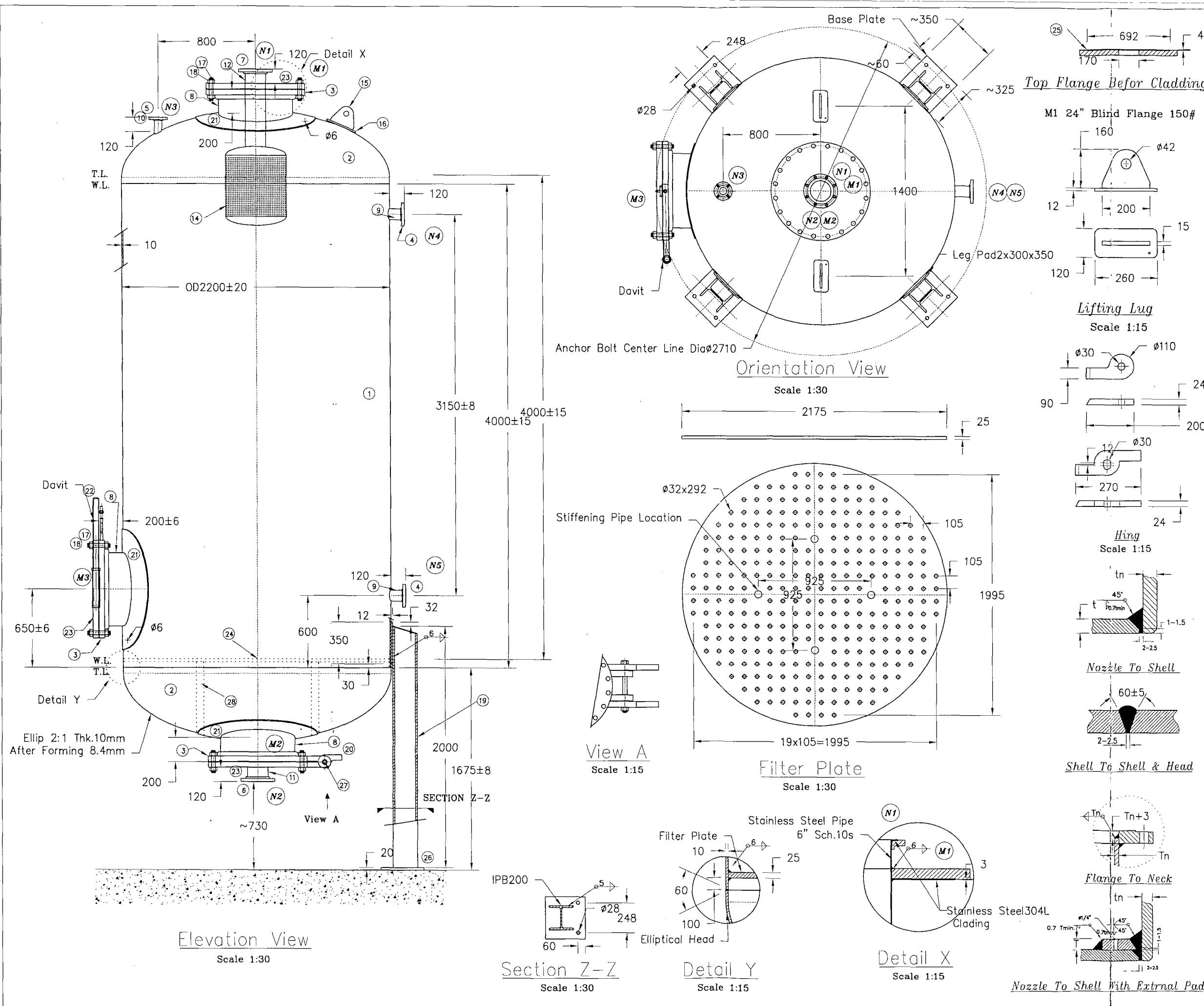
TITLE: TMA Separation Vessel
Project: Panavaran 3rd Methanol Plant

CONTRACTOR: _____

BEHRAN MOBADDEL Co.(P.J.S.)
Tel:(021)77706926-7,77873941,51

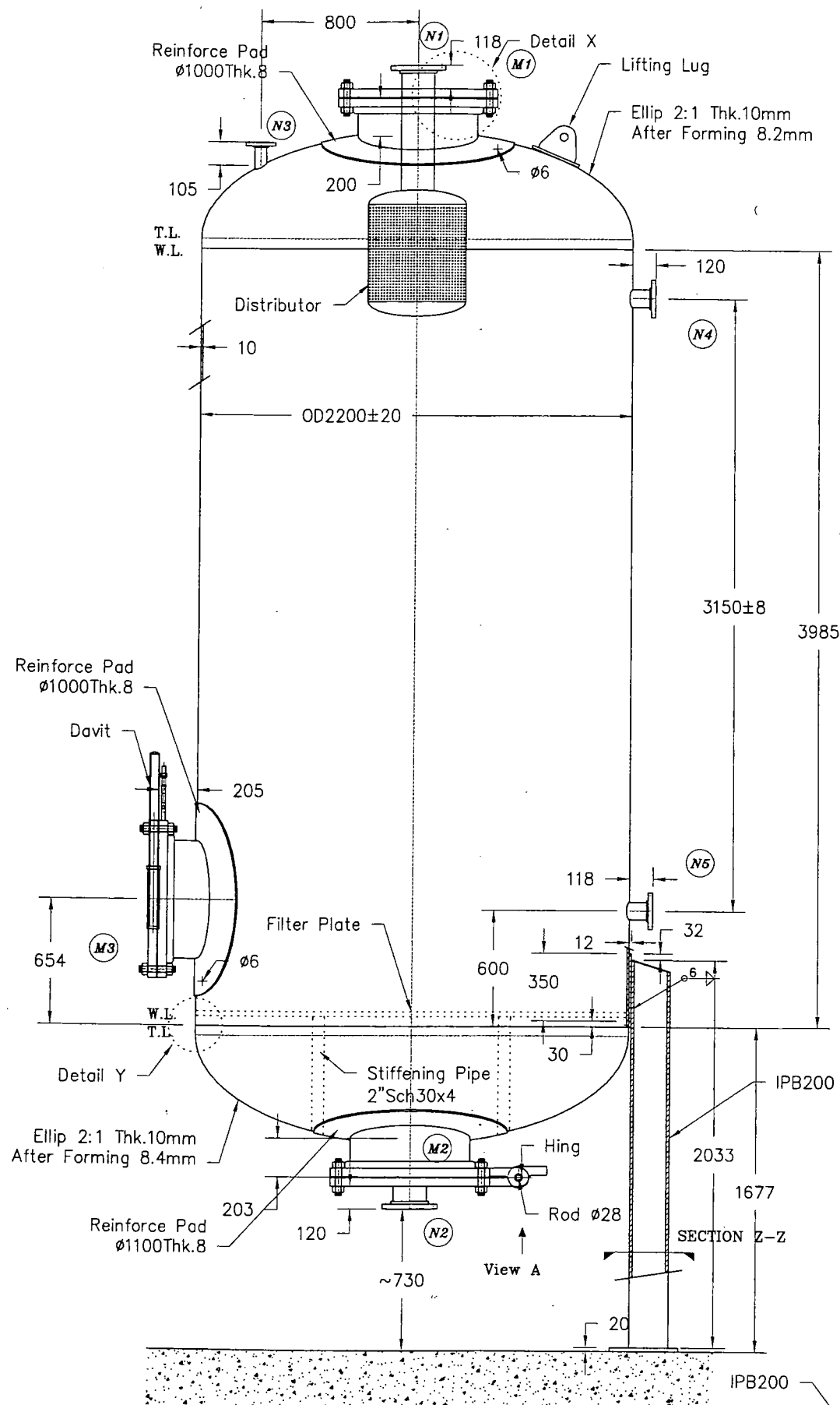
DRAWING NO:  DIM: mm
SCALE: As Is

SHEET: 1



28	4	Stiffening Pipe	SA-106B	2" Sch 30x4
27	1	Rod of hing	cs	#28
26	4	Base Plate	SA-283 GrC	350x325x20
25	1	Clad	SA-240 TP304	ø692 thk=4
24	1	Filter Plate	SA-283 GrC	ø2175 THK 25
23	3	Flange	SA-105	24" BL. #150
22	1	Pipe of Davit	SA-106B	1 1/2" sch std
21	3	Reinforce Pad	SA-516Gr70	#1000 THK 8
20	1	Hing	SA-516Gr70	See DWG.
19	4	Leg	CS	IPB 200 L:2000
18	120	Nut	SA 194 2H	M32
17	60	STUD BOLT	SA-193B7	M32 L:175
16	2	Lifting Lug Pad	SA-516Gr70	260x120x12
15	2	Lifting Lug Plate	SA-516Gr70	See DWG.
14	1	Distributor	SA-240 TP304	500x1570
13	3	Gasket	NBR	ID:616 OD:692
12	1	Pipe	SA-312 TP304	6" sch 10S
11	1	Pipe	SA-106B	8" sch std
10	1	Pipe	SA-106B	2" sch std
9	2	Pipe	SA-106B	3" sch std
8	3	Neck Plate	SA-516Gr70	Thk.10
7	1	Flange	SA-240 TP304	6" SO. #150
6	1	Flange	SA-105	6" SO. #150
5	1	Flange	SA-105	2" SO. #150
4	2	Flange	SA-105	3" SO. #150
3	3	Flange	SA-105	24" SO. #150
2	2	Head	SA-516Gr70	Ellip 2:1 Thk. 10 after forming:8.4 mm
1	1	Shell	SA-516Gr70	thk. 10 mm
ITEM	QTY	DESCRIPTION	MATERIAL	REMARK

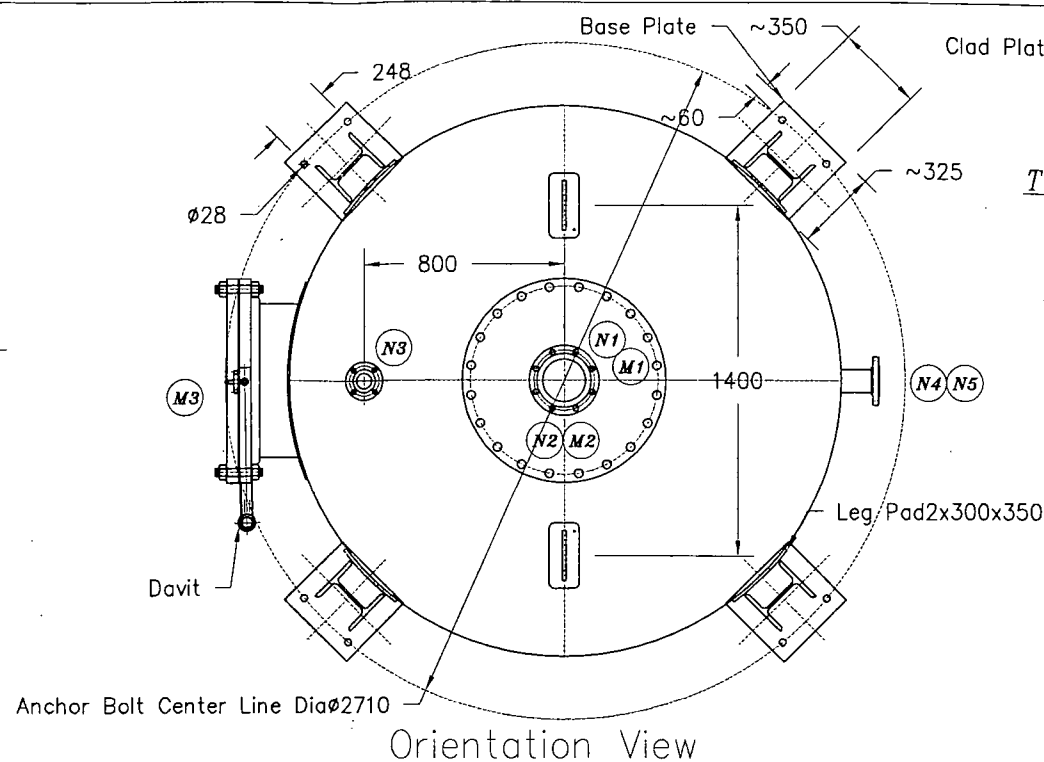
DESIGN DATA										
OPERATING PRESSURE:					DESIGN CODE:					
3 Barg					ASME Sec VIII Div.1					
DESIGN PRESSURE					RT(Shell/ Head):					
10 Barg					10%/ 100%					
HYD TEST PRESSURE:					SURFACE PREPARATION:					
15 Barg					SA-2 1/2 SandBlasting					
PNEUMATIC TEST PRESSURE:.					CORROSION ALLOWANCE:					
- Barg					- mm					
DESIGN TEMP.(SHELL/JACKET):					INTERNAL COATING:					
85 °C					RUBBER LINING					
NOZZLES SCHEDULE										
NOZ.	SIZE	CLASS	TYPE	FACE	SCH.	MATERIAL FLANGE/NECK	SERVICE			
N1	6"	150#	S.O.	RF	10s	120	SA-240/SA-312 1030A	For Bottom WMS 3RD Gdaly		
N2	6"	150#	S.O.	FF	STD	120	SA-105/SA-100B	Pure Methanol Outlet		
N3	2"	150#	S.O.	FF	STD	120	SA-105/SA-100B	Vent		
N4	3"	150#	S.O.	FF	STD	120	SA-105/SA-100B	Filling		
N5	3"	150#	S.O.	FF	STD	120	SA-105/SA-100B	Reelin Dump		
M1	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-5160/2	Methanol/Methanol Inlet		
M2	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-5160/2	Methanol/Methanol Outlet		
M3	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-5160/2	Venthole		
Rev.	DESCRIPTION					DESIGNED	CHECKED	APPROVED	DATE	
A	For Comment					AE-KABIRI				
B-1	For Construction					AE-KABIRI				
C	For Shop									
D	CHANGING BASE PLATE									
OWNER:										
FANAVARAN PETROCHEMICAL CO. Co.										
TITLE: TMA Separation Vessel										
Project: Fanavaran 3rd Methanol Plant										
CONTRACTOR:										
BEHRAN MOBADDEL Co.(P.J.S.)										
Tel:(021)77708926-7,77873941,51										
										
DRAWING NO:						Dwg. mm				
						SCALE: As Per Sheet				
						SHEET: 1 OF 1				



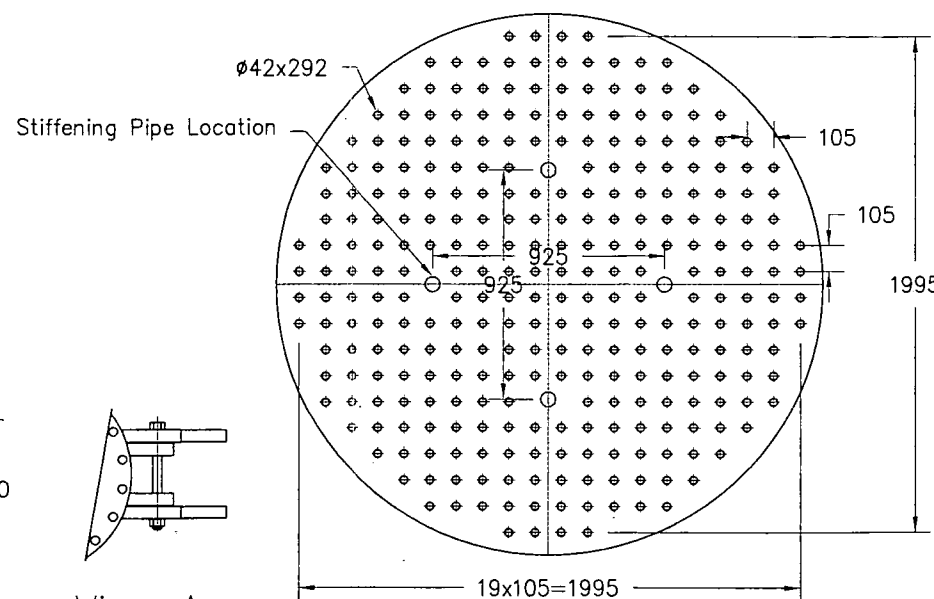
Elevation View
Scale 1:30

Section Z-Z
Scale 1:30

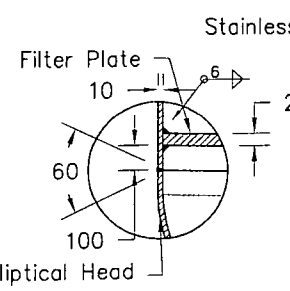
Detail Y
Scale 1:15



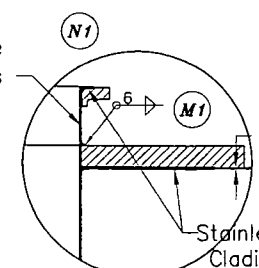
Orientation View
Scale 1:30



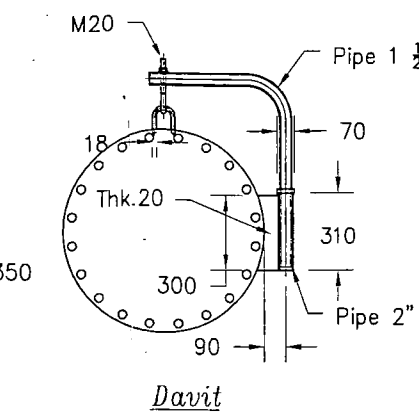
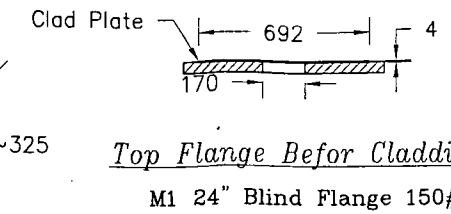
Filter Plate
Scale 1:30



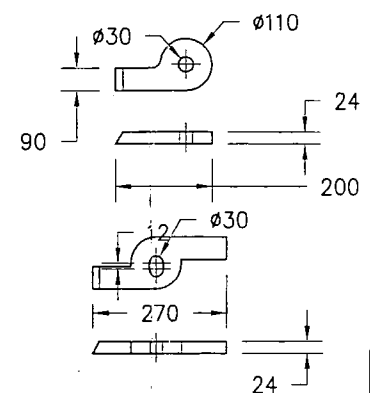
Detail X
Scale 1:15



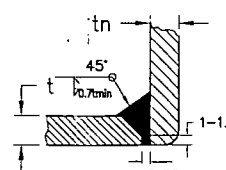
Detail Y
Scale 1:15



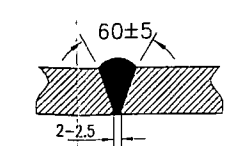
Davit



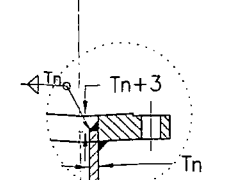
Hing
Scale 1:15



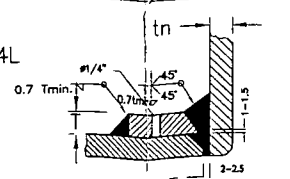
Nozzle To Shell



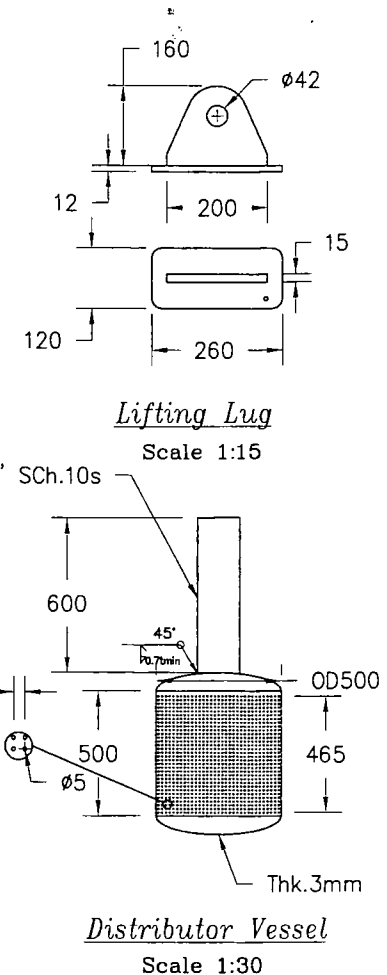
Shell To Shell & Head



Flange To Neck



Nozzle To Shell With External Pad



Distributor Vessel
Scale 1:30

MAIN MATERIAL:		
SHELL/HEAD: SA-516G-70 Thk.10mm	Bolt/Nut: SA-193B7 SA-194 2H	Lug & Davit: C.S.
Gasket: NBR	FLANGE: SA-105	Distributor Part: SA-240To304L
Filter Plate: SA-283 C	Support Pipe: SA-53 B	

DESIGN DATA	
OPERATING PRESSURE: 3 Barg	DESIGN CODE: ASME Sec VIII Div.1
DESIGN PRESSURE 10 Barg	RT(Shell/ Head): 100%/100%
HYD TEST PRESSURE: 15 Barg	SURFACE PREPARATION: SA-2 1/2 SandBlasting
PNEUMATIC TEST PRESSURE: - Barg	CORROSION ALLOWANCE: - mm
DESIGN TEMP.(SHELL/JACKET): 85 °C	INTERNAL COATING: RUBBER LINING

NOZZLES SCHEDULE							
NOZ.	SIZE	CLASS	TYPE	FACE	SCH.	PROJ.	SERVICE
N1	8"	150#	S.O.	RF	10w	120	SA-240/SA-312 17204 No Relief 100% 304L
N2	6"	150#	S.O.	FF	STD	120	SA-105/SA-106 Pure Methanol Outlet
N3	2"	150#	S.O.	FF	STD	120	SA-105/SA-106 Vent
N4	3"	150#	S.O.	FF	STD	120	SA-105/SA-106 Filling
N5	3"	150#	S.O.	FF	STD	120	SA-105/SA-106 Resin Dump
M1	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-10670 Methanol/Methanol Inlet
M2	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-10670 Methanol/Methanol Outlet
M3	24"	150#	S.O.	FF	Thk.10	200	SA-105/SA-10670 Methanol

Rev.	DESCRIPTION	DESIGNED	CHECKED	APPROVED	DATE
A	For Comment	AE-KABIRI			
B-1	For Construction	AE-KABIRI			
C	For Shop				
D	CHANGING BASE PLATE				
E	AS BUILT				

OWNER: FANAVARAN PETROCHEMICAL CO. Co.	
TITLE: TMA Separation Vessel Project: Fanavaran 3rd Methanol Plant	
CONTRACTOR: BEHRAN MOBADEL Co.(P.J.S.) Tel:(021)77706926-7,77873941,51	
DRAWING NO:	SCALE: As Per Sheet SHEET: 1 OF 1