

NOZZLE LIST												MATERIALS		DESIGN DATA			
MARK	NB	DESIGNATION	STAND OUT	PIPES/NECKS		FLANGES		REIN. WIDTH	NOTE	BARREL/VAPOR BELT	SHELL	SERVICE	FIRST DEVOLATILIZER CONDENSER				
				ND/BD	THK/SCH	TYPE	RAT.							FACE	THK.		
A1	1	SHELL INLET	1090	24"	13/-	W.N.	150	R.F.	10	35	(6)	FLANGES	ASME VIII DIV.1, TEMA R				
S1	1	CONDENSATE OUTLET	650	4"	- /120	W.N.	150	R.F.	-	-	(6)	NOZZLE FROM PIPE/PLATE	NO BEU				
D1	1	SHELL DRAIN	600	2"	- /160	W.N.	150	R.F.	-	-	(6,25,26)	NOZZLE FLANGES/COUPLINGS	HORIZONTAL/1				
S3	1	VAPOR OUTLET	650	3"	- /160	W.N.	150	R.F.	-	-	(6)	NOZZLE REINFORCEMENT PAD	1/1				
A2	1	CHANNEL INLET	650	4"	- /120	W.N.	150	R.F.	-	-	(6)	SADDLES WEAR PLATES	TUBE SIDE				
S2	1	CHANNEL OUTLET	650	4"	- /120	W.N.	150	R.F.	-	-	(6)	EXPANSION JOINT	CHILLED WATER				
MARK		DESIGNATION		DN			RATING		LOCATED ON								
P1		PRESSURE CONNECTION		3/4" NPT			6000 #		NOZZLES A1-S1-S3-A2-S2								
T1		TEMPERATURE CONNECTION		1" NPT			6000 #		NOZZLES A1-S1-A2-S2								
REFERENCE STANDARD DRAWINGS																	
NUMBER			MANUFACTURER NAME PLATE			DESIGNATION											
		1705-41-ST-ENG-901-03							BARREL								
		1705-41-ST-ENG-901-04							FLANGES								
		1705-41-ST-ENG-901-06							COVER								
		1705-41-ST-ENG-901-13							FLAT COVER								
		1705-41-ST-ENG-901-14							NOZZLE FROM PIPE/PLATE								
		1705-41-ST-ENG-901-16							NOZZLE FLANGES/COUPLINGS								
		1705-41-ST-ENG-901-17							NOZZLE REINFORCEMENT PAD								
		1705-41-ST-ENG-901-22							PARTITION PLATE								
		1705-41-ST-ENG-901-23							TUBES								
		1705-41-ST-ENG-901-23							TUBESHEET								
		1705-41-ST-ENG-901-51							BAFFLES/SUPPORTS/IMPINGEMENT PLATE								
		1705-41-ST-ENG-901-52							TIE RODS/SPACER								
		1705-41-ST-ENG-901-53							BOLTS AND NUTS								
		1705-41-ST-ENG-901-54							SHELL/COVER								
		1705-41-ST-ENG-901-55							SHELL/CHANNEL								
		1705-41-ST-ENG-901-56							CHANNEL/COVER								
		1705-41-ST-ENG-901-57							GASKETS								
		1705-41-ST-ENG-901-58							SHELL/COVER								
		1705-41-ST-ENG-901-59							SHELL/TUBESHEET								
		1705-41-ST-ENG-901-60							CHANNEL/TUBESHEET								
		1705-41-ST-ENG-901-61							CHANNEL/COVER								
		1705-41-ST-ENG-901-62							PAINTING								
		1705-41-ST-ENG-901-63							INSULATION SUPPORTS								
		1705-41-ST-ENG-901-64							FIREPROOFING SUPPORTS								
		1705-41-ST-ENG-901-65							CLIPS FOR LADDERS & PLATFORMS, PIPE SUPPORTS & GUIDES								
		1705-41-ST-ENG-901-66							LIFTING LUGS								
		1705-41-ST-ENG-901-67							TEST RINGS								
		1705-41-ST-ENG-901-68							NAME PLATE								
		1705-41-ST-ENG-901-69							EARTH LUG								
		1705-41-ST-ENG-901-70							TEMP. COVER, GASKET AND BOLTING FOR SHIPMENT								
		1705-41-ST-ENG-901-71							GENERAL NOTES:								
		1705-41-BC-ENG-110							(1) DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE NOTED.								
		1705-41-BC-ENG-111							(2) ALL THICKNESSES SPECIFIED ON DWG ARE MINIMUM AFTER FORMING AND MACHINING REQUIRED. THE MANUFACTURER SHALL BE RESPONSIBLE FOR DETAIL DESIGN.								
		1705-41-BC-ENG-109							(3) THICKNESSES, WEIGHTS, AND LOADS ARE INDICATED FOR ESTIMATION PURPOSE ONLY.								
		1705-41-BC-ENG-106							(4) BOLT HOLES SHALL BE STRADDLE OF MAIN AXIS.								
		1705-41-BC-ENG-103							(5) NOZZLES STAND OUT IS REFERRED FROM VESSEL CENTER LINE TO FLANGES CONTACT FACE.								
									(6) FLANGE FACING TO BE IN ACCORDANCE WITH ASME B16.5 FOR 24" OR LESS AND B16.47 SERIE B FOR LARGER, SURFACE FINISH: SPIRAL SERRATED FINISH, ROUGHNESS 3.2 TO 6.3 µm.								
									(7) ALLOWABLE STRESS FOR ANCHOR BOLTS TO BE: 110 MPa.								
									(8) PAINTING SHALL BE AS PER SPECIFICATION 1705-41-SR-ENG-304.								
									(9) FLANGE 24" AND BELOW SHALL BE AS PER ASME B16.5 AND FLANGE LARGER THAN 24" SHALL BE AS PER ASME B16.47 SERIES B.								
									(10) ALL WELDED ATTACHMENTS TO THE VESSEL TO BE SUPPLIED BY THE VESSEL MANUFACTURER.								
									(11) GASKET MATERIAL: S.S. DOUBLE METAL JACKETED FIBER FILLED.								
									(12) LOADING DATA AT BASE IS PRIMARY AND WILL BE FINALIZED LATER.								
									(13) DRILLING AND TOLERANCES OF TUBESHEET: SEE TEMA "CLOSED FIT".								
									(14) DRILLING AND TOLERANCES OF BAFFLES AND SUPPORT PLATES: SEE TEMA.								
									(15) WHERE RADIUS IS NOT DIMENSIONED, R=12 mm.								
									(16) SLIDING RAILS SHALL BE CONTINUOUSLY WELDED TO BAFFLES AND FIXED TUBESHEET.								
									(17) BOTH ENDS OF THE-RODS SHALL BE 1.50 THREADED FOR 50 mm.								
									(18) THREADED HOLES IN FIXED TUBESHEET SHALL NOT BE COMPLETELY DRILLED.								
									(19) DIAMETER OF HOLES FOR THE-RODS IN BAFFLES: THE-ROD DIA.+0.5 mm.								
									(20) EDGES OF HOLES IN BAFFLES SHALL BE ROUNDED (R=2) OR BEVELLED.								
									(21) PROVIDE HOLE 6 DIA. IN PASS PARTITION.								
									(22) ALL "U" TUBES BENDS SHALL BE STRESS RELIEVED: "U" TUBES + 300 mm OF STRAIGHT PORTION.								
									(23) SUPPORT SADDLES TYPE III-31" (SEE 1705-41-ST-ENG-901-53).								
									(24) ALL NOZZLES SIZE 2" SHALL BE PROVIDED WITH 2 STIFFENERS (SECTION 6X30) EACH AT 90° APART.								
									(25) GASKET MATERIAL: REINFORCED FLEXIBLE GRAPHITE, 1.5mm THICK FOR ALL DIAMETERS AS PER ASME B16.21.								
									(26) WITH BLIND FLANGE, BOLTING AND GASKET.								

NOZZLES EXT. ATTACHMENTS, LOADS & REQUIREMENTS*											
1	NOZZLE'S LOAD WILL BE AS PER SPEC. (OR MR)						ØYES	ØNO			
2	NOZZLE'S LOAD WILL BE AS PER TABLE ON NEXT SHEET(S).						ØYES	ØNO			
3	PIPE CLIPS REQ'D.						ØYES	ØNO			
4	PLATFORMS AND LADDERS REQ'D.						ØYES	ØNO			
5	LADDERS REQ'D.						ØYES	ØNO			

* TO BE CONFIRMED BY PIPING AND CIVIL DEPARTMENTS.											
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HIPS II (LINE D) PRODUCTION PLANT											
TABRIZ PETROCHEMICAL CO.											
DRAWING TITLE: ENGINEERING DWG.											
41-E-205											
(FIRST DEVOLATILIZER CONDENSER)											
FILE Co.											

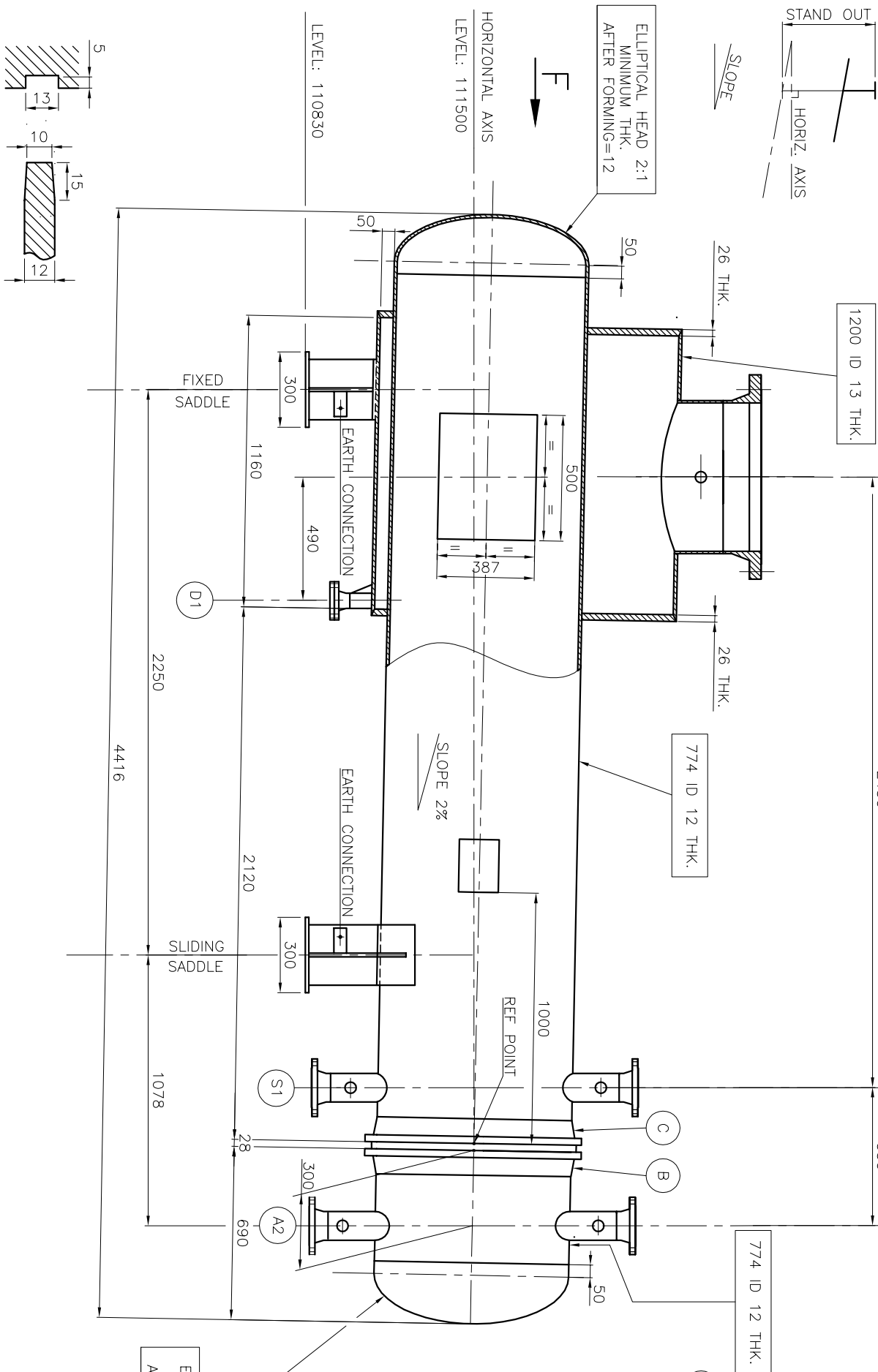
UNIT: D	DISC: MEC	SCALE: 1:20	DWG. SIZE: A3
DWG. NO: 1705-41-DT-ENG-944		SH: 10F3	REV: 0

DRY WEIGHT = 4070 kg

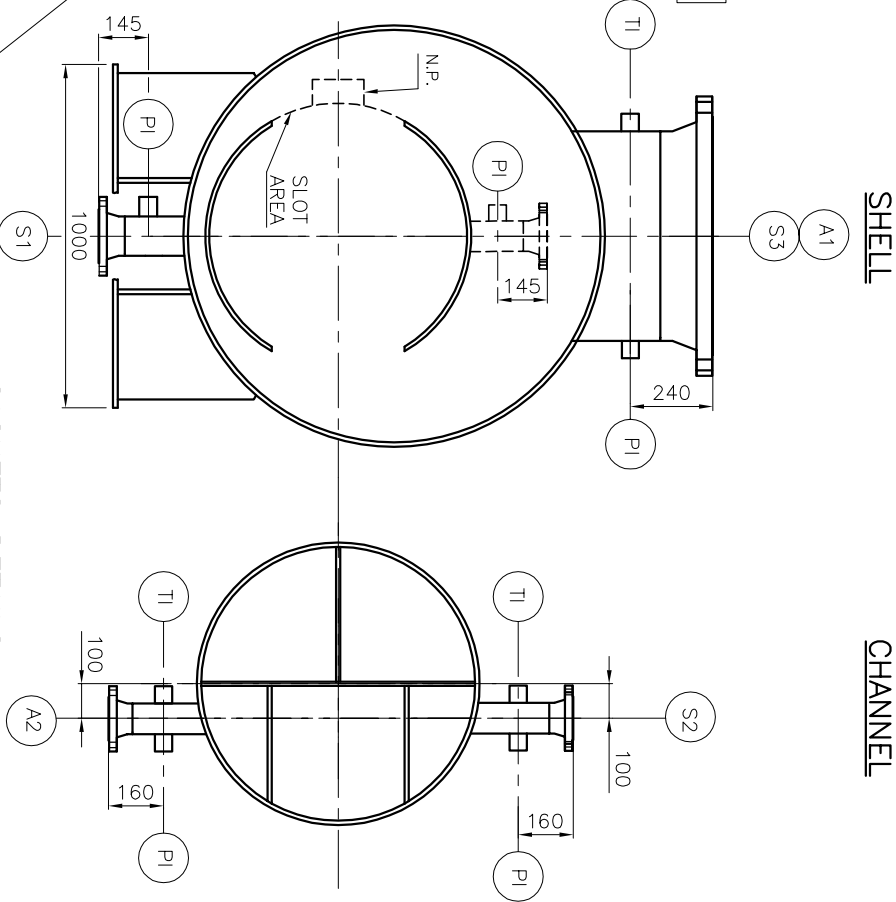
WEIGHT OF TUBE BUNDLE=1720 kg

* TO BE CONFIRMED LATER.

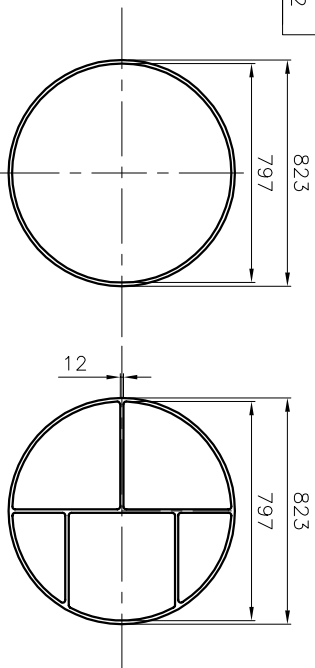
STAND OUT DETAIL



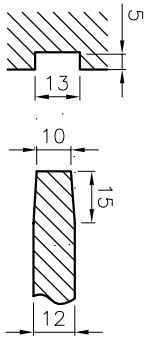
VIEW "F"



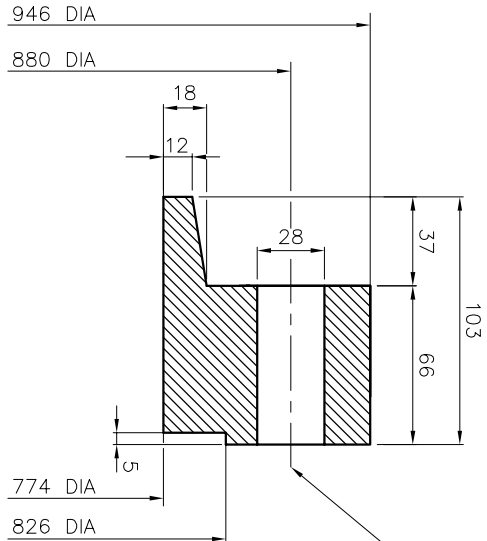
GASKETS DETAILS



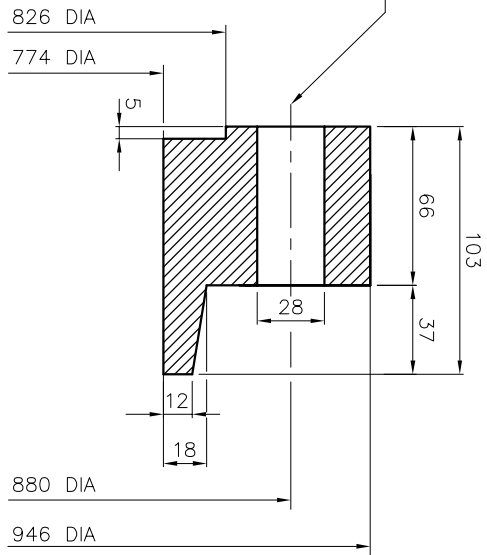
TUBESHEET DETAIL



FLANGE "C"



FLANGE "B"



REV.	DATE	DESCR.	DRWN.	CHK.	APP.	CHK.	APP.	OWNER
2								
1								
0	02/10/05	IFC	S.M.	H.S. AR.N.	A.KH.			

HIPS II (LINE D) PRODUCTION PLANT
TABRIZ PETROCHEMICAL CO.

TABRIZ PETROCHEMICAL CO.

DRAWING TITLE: ENGINEERING DWG.

41-E-205

(FIRST DEVOLATILIZER CONDENSER)



UNIT: D | DISC: MEC | SCALE: 1:20 | DWG. SIZE: A3
DWG. NO: 1705-41-DT-ENG-944 | SH: 20F3 | REV: 0

