



TOP DOME HEIGHT = 112.20  
 BOTTOM DOME HEIGHT = 89.75  
 ⊕ DENOTE TUBE HOLE  
 ⊙ DENOTE TIE ROD  
 ● DENOTE IMPACT BAR

**"AS BUILT DWG"**  
 DRAWING CERTIFIED BY  
*Harry R. Bishop* 05/26/03  
 HARRY R. BISHOP  
 CHIEF DESIGN ENGINEER

SHELL ID = 1342 mm O.T.L. = ø1324.98 mm  
 NO. OF TUBE HOLES = 1144 PITCH = 31.75 mm  
 (FOR 572 NOS. 'U' TUBES) LAYOUT = SQUARE  
 TUBE HOLE DIAMETER = 25.654 ±0.05 mm  
 NO OF PASSES : 2 ON TUBE SIDE  
 NO OF PASSES : 2 ON SHELL SIDE

REV.	DATE	DESCRIPTION	DRWN	CHKD	APPD
6	05/26/03	AS BUILT DIMENSIONS ARE SHOWN IN BKT (-) & OTHER REVISED AS MKD. THIS	DMF	WB	HRB
5	07/10/02	DWG IS REVISED AS MKD. THIS	DMF	WB	HRB
4	05/02/02	DWG IS REVISED AS MKD. THIS	DMF	WB	HRB

PROJECT NAME : <b>CPCL REFINERY- III PROJECT</b>					
MANUFACTURER : <b>TEMA INDIA LTD</b> <small>Factory: Achhad Village, Dist. Thane, &amp; Kherdi, Shivasa Gram: COOPERASEL, Mumbai 88.</small>					
ENGINEERING : <b>Struthers STRUTHERS INDUSTRIES, INC. GULFPORT, MISSISSIPPI</b>					
CONSULTANT : <b>ENGINEERS INDIA LIMITED</b>					
CLIENT : <b>CHENNAI PETROLEUM CORPORATION LIMITED</b>					
TITLE : <b>TUBE LAYOUT FOR RX EFFLUENT / CLPS LIQUID</b>					EQPT. NO. <b>207-E4</b>
JOB NO.	SII TEMA	3-02-04-41206B T/E/02517	P/O No.	1027/PO/2138/4814	
SCALE	AS SHOWN	DWG. No. or Doc No.	VP-1027-E4-02517	SHT. NO. 6 OF 18	Rev. 3/4/5/6

**TUBE LAYOUT**  
**VIEW FROM SHELL SIDE**  
 SCALE = 1:8