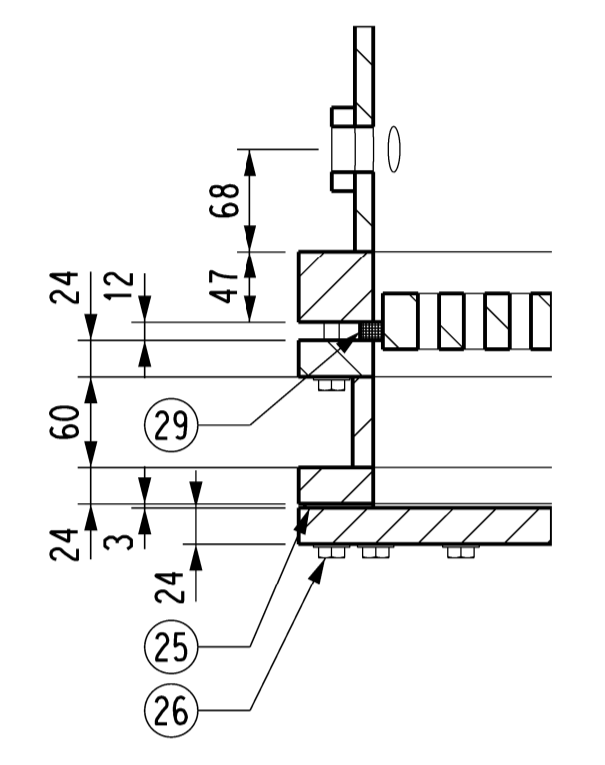
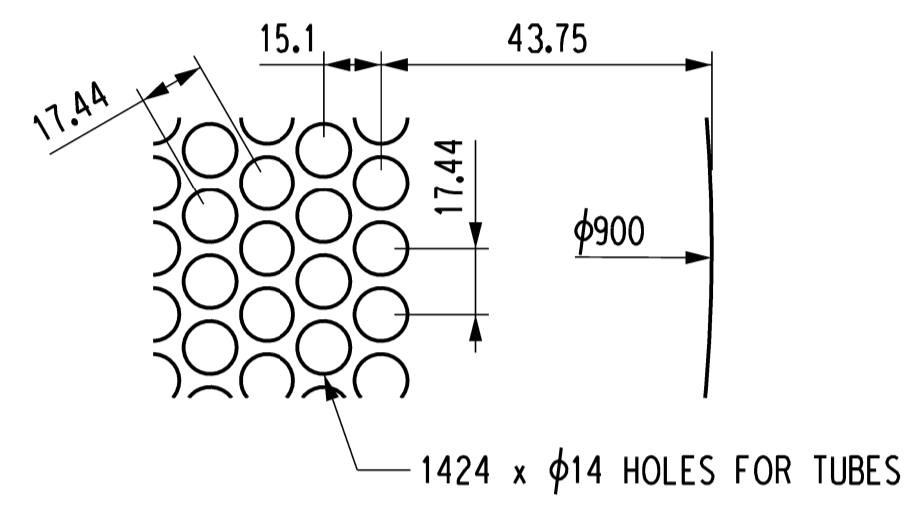
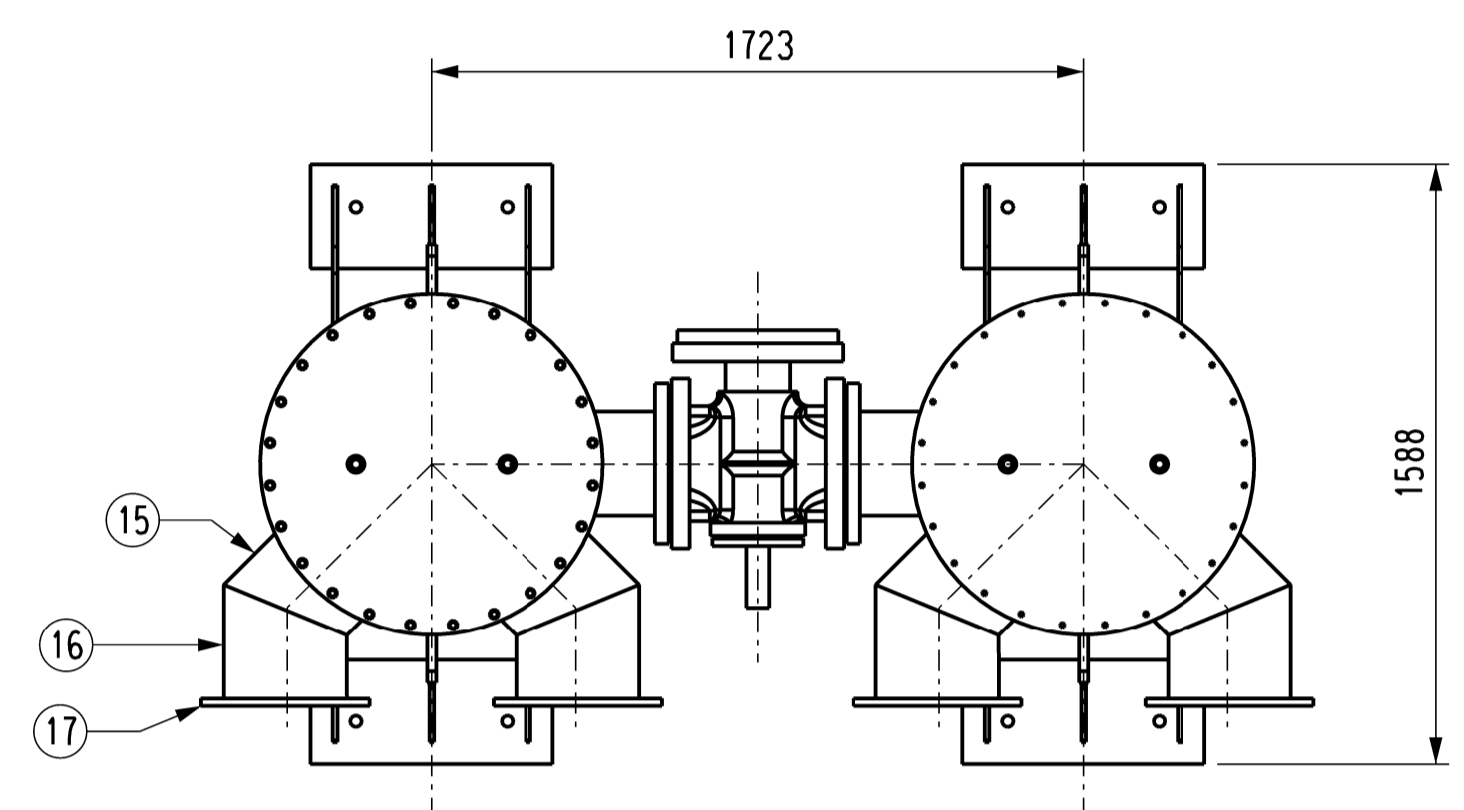


NOZZLE SCHEDULE		
No.	SIZE	DESCRIPTION
N1	300NB, BS 4504 TABLE 10 RF FLANGE	COOLING WATER OUTLET
N2	300NB, BS 4504 TABLE 10 RF FLANGE	COOLING WATER INLET
N3	250NB, BS 4504 TABLE 25 RF FLANGE	OIL OUTLET
N4	250NB, BS 4504 TABLE 25 RF FLANGE	OIL INLET
N5	20NB, TAPPED CONNECTION	AUXILIARY
N6	25NB, TAPPED CONNECTION	BALANCE
N7	25NB, TAPPED CONNECTION	STEAM INJECTION
N8	25NB, TAPPED CONNECTION	DRAIN
N9	25NB, TAPPED CONNECTION	SOLVENT FITTING
N10	25NB, TAPPED CONNECTION	DRAIN
N11	25NB, TAPPED CONNECTION	COOLING WATER INLET VENT
N12	25NB, TAPPED CONNECTION	COOLING WATER OUTLET VENT

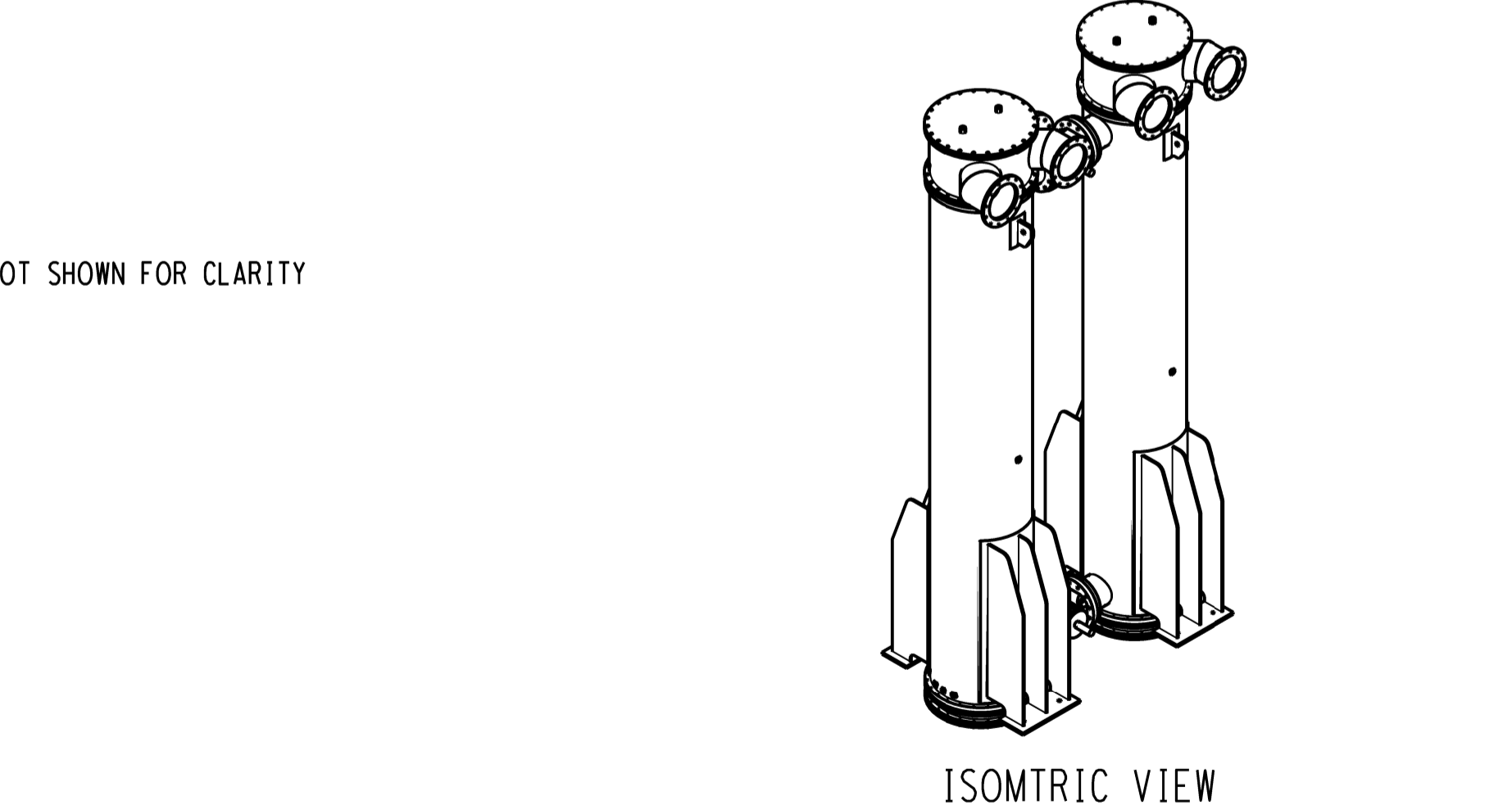
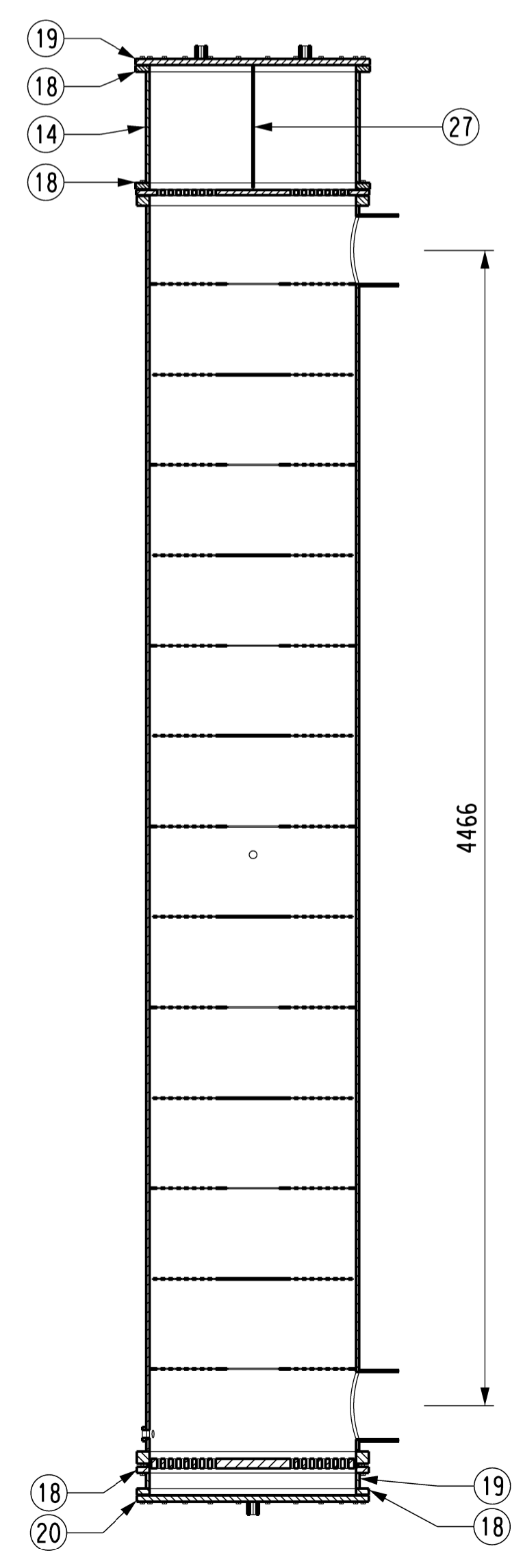
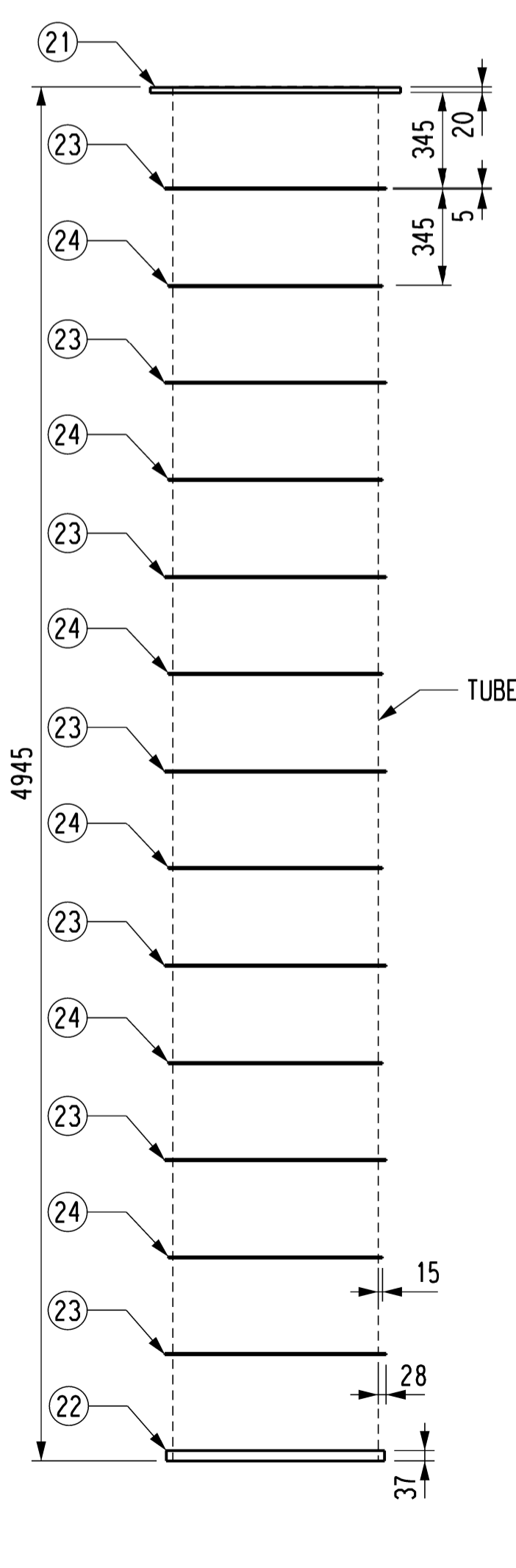
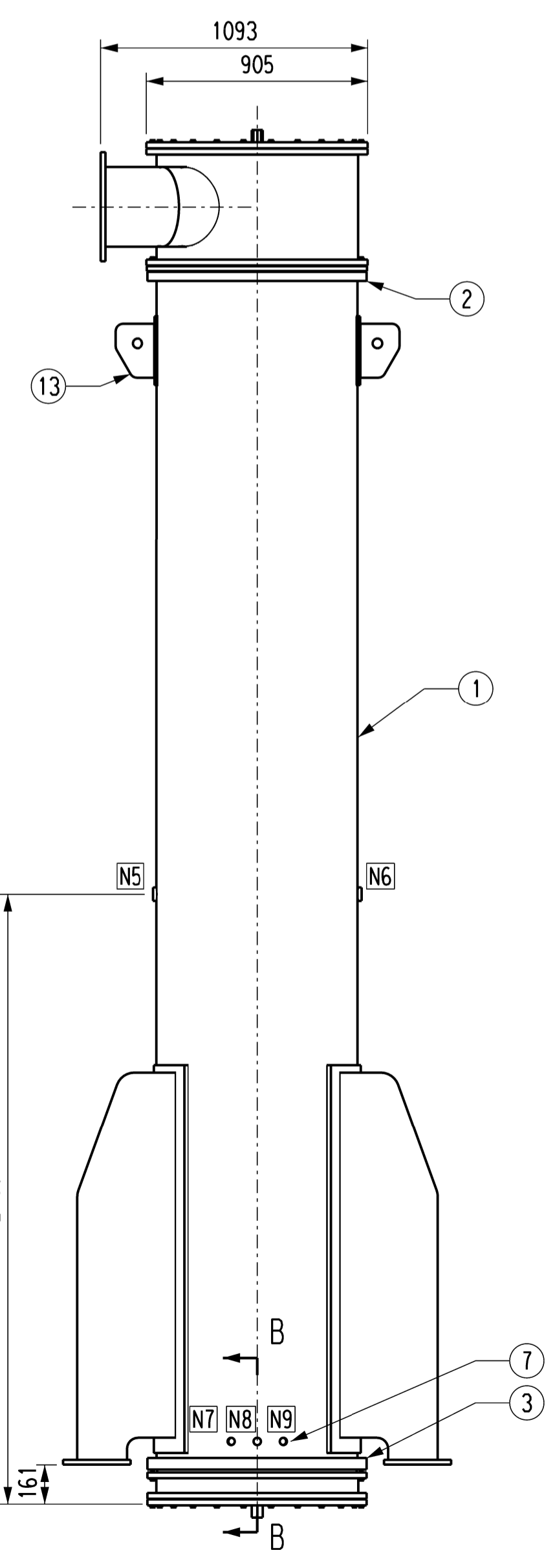
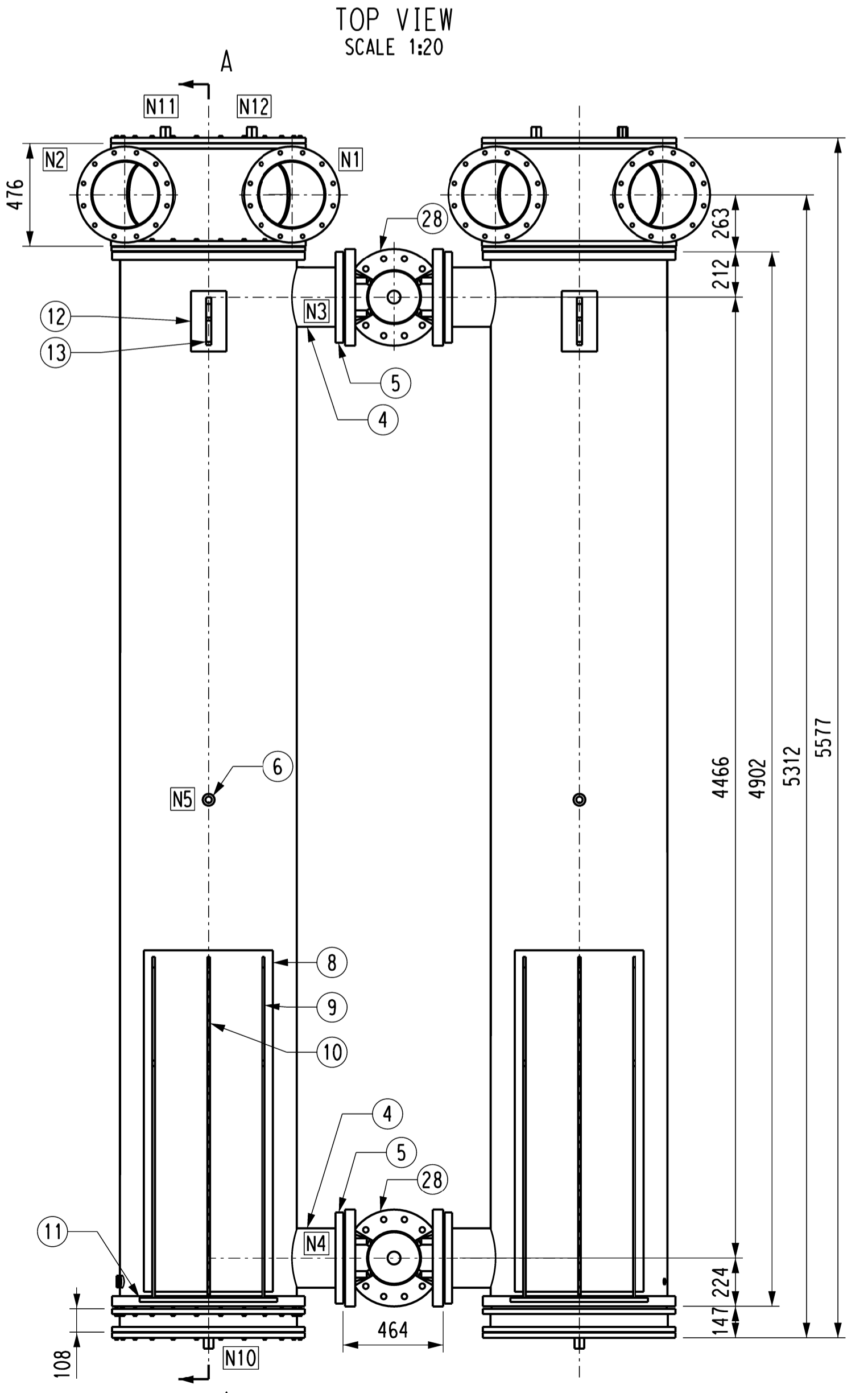
DESIGN DATA	
ORIGINAL DESIGN CODE	BS 1500
NEW DESIGN CODE	PD 5500
POSITION	VERTICAL
MANUFACTURE SERIAL NUMBER	N/A
EQUIPMENT	HEAT EXCHANGER
MANUFACTURER	N/A
SANS 347 H	SEP
YEAR OF MANUFACTURER	N/A
CORROSION ALLOWANCE	1mm
COUNTRY OF ORIGIN	N/A
TOTAL CAPACITY	1.7m <sup>3</sup> +1.2m <sup>3</sup> =2.9m <sup>3</sup>

SHELL SIDE DESIGN DATA	
DESIGN PRESSURE	9.31 bar
OPERATING PRESSURE	5 BAR
DESIGN TEMPERATURE (MAX)	65°C
PROCESS MEDIUM	OIL
CAPACITY	1.7m <sup>3</sup>
TEST PRESSURE	9.31 bar

TUBE SIDE DESIGN DATA	
DESIGN PRESSURE	4.14 bar
OPERATING PRESSURE	2.5 BAR
DESIGN TEMPERATURE (MAX)	40°C
PROCESS MEDIUM	WATER
CAPACITY	1.2m <sup>3</sup>
TEST PRESSURE	6.3 bar



ITEM LIST			
ITEM	QTY	DESCRIPTION	MATERIAL
1	1	SHELL	4733 x 822 x 12mm WT CARBON STEEL
2	1	SHELL FLANGE TOP	896 OD x 798 ID x 40thk CARBON STEEL
3	1	SHELL FLANGE BOTTOM	896 OD x 798 ID x 47thk CARBON STEEL
4	1	SHELL BRANCH	276 OD x 60 ID x 203 LG CARBON STEEL
5	1	SHELL NOZZLE FLANGE	424 OD x 254 ID x 37 THK CARBON STEEL
6	1	SHELL NOZZLE MID	55 OD x 30 ID x 16 THK CARBON STEEL
7	1	SHELL NOZZLE BOTTOM	55 OD x 30 ID x 16 THK CARBON STEEL
8	1	VESSEL SUPPORT BACK PLATE	1588 x 673 x 12THK CARBON STEEL
9	1	VESSEL SUPPORT WEB 1	1585 x 405 x 12 THK CARBON STEEL
10	1	VESSEL SUPPORT WEB 2	1586 x 315 x 12 THK CARBON STEEL
11	1	VESSEL SUPPORT BASE PLATE	640 x 275 x 20 THK CARBON STEEL
12	1	LIFTING BRACKET BACK PLATE	280 x 165 x 10THK CARBON STEEL
13	1	LIFTING BRACKET	220 x 160 x 24 THK CARBON STEEL
14	1	TOP VESSEL SHELL	825 OD x 798 ID x 476 LG STAINLESS STEEL
15	1	TOP VESSEL BRANCH 1	325 OD x 305 ID x 235 LG STAINLESS STEEL
16	1	TOP VESSEL BRANCH 2	326 OD x 305 ID x 302 LG STAINLESS STEEL
17	1	TOP VESSEL BRANCH FLANGE	445 OD x 315 ID x 20 THK STAINLESS STEEL
18	1	TOP VESSEL BLANKING PLATE	905 OD x 24 THK STAINLESS STEEL
19	1	BOTTOM VESSEL SHELL	825 OD x 798 ID x 108 THK STAINLESS STEEL
20	1	BOTTOM VESSEL BLANKING PLATE	896 OD x 24 THK STAINLESS STEEL
21	1	FIXED TUBE SHEET	900 OD x 20 THK SUITABLE COPPER CONTAINING MATERIAL
22	1	FLOATING TUBE SHEET	785 OD x 37 THK SUITABLE COPPER CONTAINING MATERIAL
23	1	BAFFLE PLATE LARGE	796 OD x 5 THK SUITABLE COPPER CONTAINING MATERIAL
24	1	BAFFLE PLATE SMALL	770 OD x 5 THK SUITABLE COPPER CONTAINING MATERIAL
25	1	BOTTOM VESSEL GASKET	NA CARBON STEEL
26	1	VESSEL BOLTS	NA CARBON STEEL
27	1	TOP SHELL DIVIDER PLATE	NA STAINLESS STEEL
28	1	VALVE	NA CARBON STEEL
29	1	FLOATING TUBE SHEET GASKET	NA CARBON STEEL
30	1424	TUBES (NOT SHOWN FOR CLARITY)	14.28mm OD x 1mm WT 4877 LG ADMIRALITY BRASS



ABBREVIATIONS:  
 WT - WALL THICKNESS  
 LG - LONG  
 ID - INSIDE DIMENSION  
 OD - OUTSIDE DIMENSION  
 mm - MILLIMETER  
 M - METER

DO	REV	DATE	DESCRIPTION	REV	CHKD	APPV	APPV	APPV	APPV	APPV
			FIRST ISSUE, DRAWING CREATED FOR MAINTENANCE & REPLACEMENT OF EQUIPMENT	JT						
AUTHORIZED BY: _____ CLASSIFICATION: _____ APPROVED BY: _____ CODIFICATION BY: _____ CHECKED BY: _____ CREATED BY: _____ J THEUNISSEN SCALE: AS SHOWN										
DUVHA POWER STATION SECTIONS AND DETAILS UNIT 1-6 MAIN LUBE OIL COOLER										
Eskom ESKOM HOLDINGS SOC. LTD REG. NO. 2002/015521/30 ESKOM DRAWING NO. 057/64377 SHT 0 REV 0										