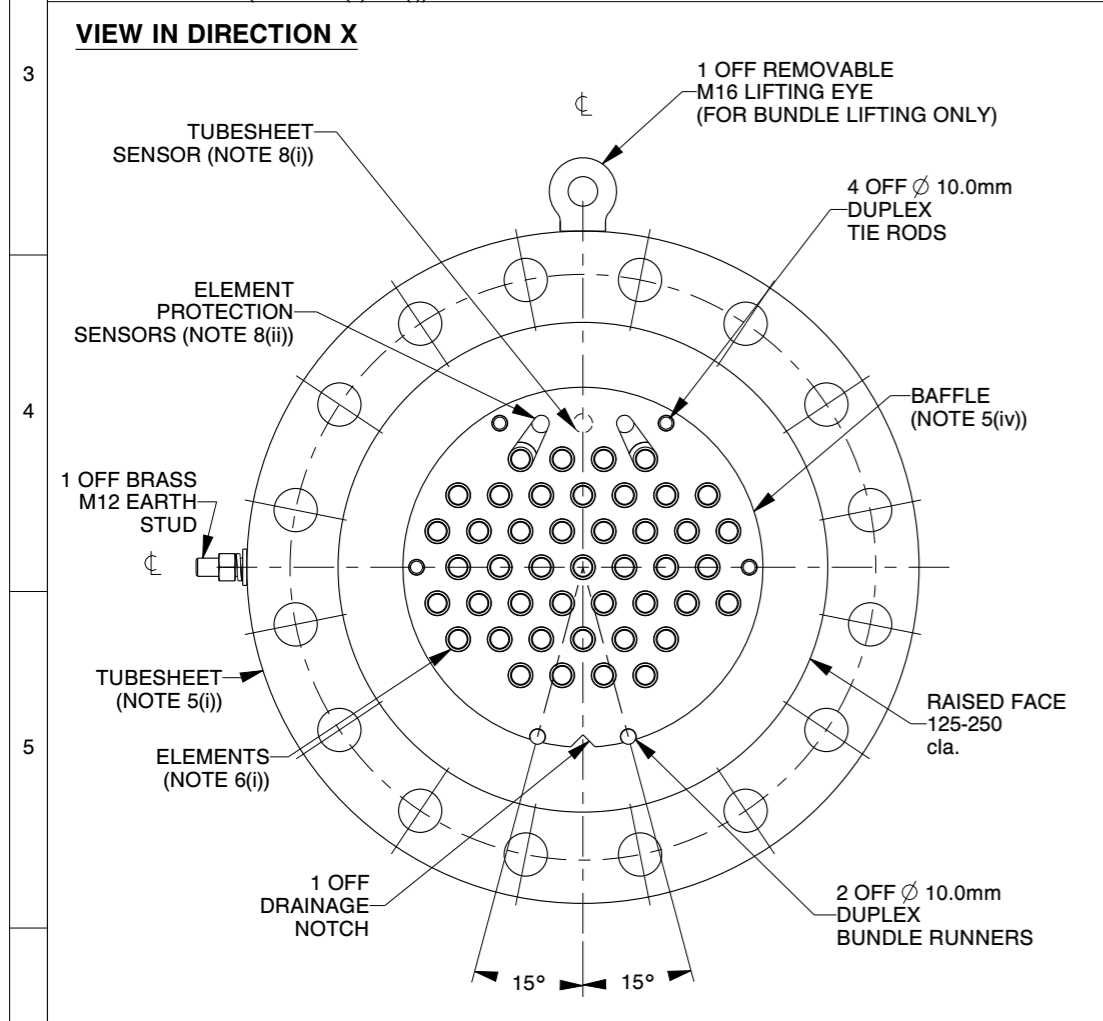


**AS BUILT**

SIGNED \_\_\_\_\_  
DATE \_\_\_\_\_



**NOTES:**

**1. SPECIFICATION:**  
 (i) 50kW, 690V, 3PH, 4 WIRE STAR, 50Hz, SINGLE CIRCUIT.  
 (ii) DESIGN PRESSURE: 2.0 BAR G  
 (iii) DESIGN TEMPERATURE (Min/Max): -29°C / +71°C

**2. CERTIFICATION:**  
 (i) Ex d IIC T3 Gb  
 Ex tb IIIC T190 °C Db IP66  
 IEC 60079-0, IEC 60079-1 & IEC 60079-31  
 CERTIFICATE No. IECEX LCI 06.0006X (FP)

**3. DESIGN CODE:**  
 (i) ASME VIII, DIV. 1, CODE STAMP, EDITION 2015

**4. REFERENCE DRAWINGS/DOCUMENTS:**  
 (i) WIRING DIAGRAM: 041564.01.03  
 (ii) INSTALLATION, OPERATION & MAINTENANCE MANUAL: 041564.IOM

**5. MAIN COMPONENTS:**  
 (i) TUBESHEET: 10" 300LB ASME B16.5, RF BLIND, MATERIAL: ASME SA182 F-51 DUPLEX.  
 (ii) Exd TERMINAL BOX: FP10 ST.ST. 316L (IP66/67).  
 (iii) Exd TRANSMITTERS: ROSEMOUNT 3144P-D6-A1-E7-M5-Q4-C4-QT.  
 (iv) BAFFLES: 3mm THICK DUPLEX.  
 (v) ELEMENT COUPLINGS INTO TUBESHEET: EXHEAT TYPE - ST.ST. 316L.  
 (vi) ANTI-CONDENSATION HEATER: 50W @230V

**6. ELEMENT DETAILS:**  
 (i) 36 ACTIVE ELEMENTS, 8 INSTALLED CLIENT SPARE  
 1389W @ 398V / Ø16.0mm DUPLEX CARTRIDGE POCKET  
 Ø 11.9 mm ST ST 316 ELEMENT CONTAINED WITHIN.

**7. FINISH:**  
 (i) TUBESHEET: IN ACCORDANCE WITH CLIENT SPECIFICATION LPP-HF-FDE-STR-SPC-9000 AND EXHEAT PAINT PROCEDURE 041564.PAINT, SYSTEM 16, COLOUR: RAL 7038  
 (ii) REMAINING ITEMS: NATURAL: (UN-PAINTED)

**8. TEMPERATURE SENSORS:**  
 (i) 1 x TERMINAL BOX OVERTEMPERATURE SENSING CUTOUT (AUTO-RESET TYPE).  
 (ii) 1 x TUBESHEET OVERTEMPERATURE SENSING PT 100 RTD (SIMPLEX). TERMINATED IN TUBESHEET.  
 (iii) 2 x ELEMENT OVERTEMPERATURE SENSING PT 100 RTD (SIMPLEX). STRAPPED TO ELEMENT(S) SHOWN.

**NOTES:**

**9. CABLE ENTRIES:**  
 (i) POWER AND CONTROL ENTRIES IN TERMINAL BOX VIA 1 OFF M50 x 1,5p THREADED CABLE ENTRY, AND 2 X M25 CONTROL ENTRIES WITH M20 REDUCER.  
 (ii) CONTROL ENTRY INTO TRANSMITTERS VIA 1 OFF M20 x 1,5p THREADED CABLE ENTRY

**10. TESTING:**  
 (i) HYDROTEST: WI/09/110, METHOD 1, PRESSURE: 67.21 BAR G. DURATION 60 MIN.  
 (ii) ELECTRICAL: WI/09/114.  
 (iii) NDE: 100% PT EXAMINATION OF CARTRIDGE AND SENSOR POCKETS.  
 (iv) POSITIVE MATERIAL IDENTIFICATION: 041564.PMI

**11. WEIGHT:**  
 (i) HEATER BUNDLE: 191 kg.

**12. TERMINAL BOX TEMPERATURE:**  
 HEATER BUNDLE IS DESIGNED TO SUIT AN AMBIENT TEMPERATURE OF 40°C, HOWEVER THE CLIENT SHOULD ENSURE THAT THE TERMINAL BOX IS NOT SUBJECTED TO DIRECT SUNLIGHT AT AMBIENT TEMPERATURES ABOVE 30°C, THIS IS TO REDUCE TERMINAL BOX HEATING THROUGH SOLAR GAIN. THE USE OF CLIENT PROVIDED SUNSHADE WILL FACILITATE THIS.

**13. BUNDLE SUPPORT:**  
 THIS HEATER BUNDLE IS NOT SELF SUPPORTING & REQUIRES INTERNAL SUPPORT. IDEALLY, SUPPORT SHOULD RUN THE LENGTH OF THE HEATER LOCATING ON THE BUNDLE RUNNER BARS PROVIDED.

**14. BUNDLE CONSTRUCTION:**  
 (i) BAFFLES: TACK WELDED TO TIE RODS.  
 (ii) BUNDLE RUNNERS: BAFFLE PROTRUSION, 1mm MIN / 2mm MAX. WELDED TO BAFFLES.  
 (iii) TIE RODS: SCREWED INTO TUBESHEET.

**15. EXHEAT NAMEPLATES/LABELS:**  
 (i) CERTIFICATION NAMEPLATE (T/BOX LID)  
 (ii) VOLTAGE WARNING LABEL (T/BOX LID)  
 (iii) TAG LABEL (T/BOX LID)  
 (iv) HYDRO-TEST LABEL (TUBESHEET EDGE)  
 (v) ANTI-CONDENSATION HEATER LABEL (T/BOX LID)  
 (vi) ASME CODE STAMP (TUBESHEET EDGE)

**16. GASKET:**  
 4.5 MM THICKNESS S31803 DUPLES SS SPIRAL WOUND GASKET, S31803 DUPLEX INNER RING, 316SS OUTER RING, GRAPHITE FILLED, FLEXITALLIC CGI.

<b>CERTIFIED PRODUCT</b> NO MODIFICATIONS PERMITTED WITHOUT THE APPROVAL OF THE QA MANAGER DOES THIS CHANGE AFFECT ANY CERTIFICATION OR CERTIFICATE SCHEDULE DRAWING? IF YES, RECORD THE DCN No. IN THE COLUMN TO THE RIGHT	-	-	Z1	18.06.18	REVISED AS BUILT	JJS			3rd ANGLE PROJECTION  ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED DO NOT SCALE! IF IN DOUBT, ASK! WHERE ELECTRONIC DOCUMENTS ARE SUPPLIED, THE END PRODUCT MUST CONFORM TO THE PAPER ORIGINAL FORMAT Pro/E	 NORFOLK ENGLAND  Certificate No. FM 26078	<b>TITLE</b> 50kW / 690V CIP FLUIDS ELECTRIC HEATER GENERAL ARRANGEMENT DRAWING TAG No: BAP-4950	EXHEAT DRAWING NUMBER <b>041564-01-01</b>	REV <b>Z1</b>
	-	-	5	12.01.18	AS BUILT	EP	BC	SC					
	-	-	4	15.11.17	MOUNTING CHANGED FOR 3144P TRANSMITTERS	EP	BC	SC					
	-	-	3	20.09.17	CLIENT COMMENTS INCORPORATED.	AR	EP	SC					
	-	-	2	24.08.17	ISSUE FOR CONSTRUCTION	EP	BC	SC					
-	-	1	24.07.17	CLIENT COMMENTS INCORPORATED.	EP	BC	SC						
-	-	0	27.06.17	ISSUED FOR APPROVAL	EP	BC	SC						
DCN No	Y/N	REV	DATE	COMMENTS	DRWN	CHKD	APPR	ANGULAR					