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SPECIAL TEMPERATURE DETECTION INSTRUMENTS

PROJECT SPECIFICATION

928238 — 640

SHEET 10

REV	DATE	BY	APVD	REV	DATE	BY	APVD
0	20AUG04	AS	DEB				

Item

2, 3 (cont'd)

Notes

1. All pressure containment welds shall be liquid dye penetrant inspected per ASME Section 5, Article 24. All cracks and porosity defects shall be removed by grinding. Where repairs by welding are made, repaired areas shall be reinspected by dye penetrant.
2. All Type 321 or 347 stainless steel materials used in the fabrication of the thermowell assembly shall be in the chemically stabilized heat treated condition.
3. Thermowell tip welds shall be radiographed.
4. Each thermowell shall be pressure tested at 1.5 times the ASME rated pressure and ambient temperature.
5. Before shipment, each thermocouple assembly shall be tested for continuity.
6. Each thermocouple shall be removed from the thermowell after initial assembly and then reinstalled to insure proper gland connections.
7. The supplier shall furnish a recommended spare parts list including thermocouple elements.
8. The supplier shall fabricate a separate pipe and flange of suitable size to completely enclose the thermocouple bundle, and a rigid weatherproof top cover to enclose the thermocouples extending out of the assembly flange. The top cover and bundle case shall be bolted to the assembly flange to form a rigid weatherproof enclosure.

To prevent damage to the assembly, the thermowell bundle case will be removed from the assembly, at grade, just prior to insertion into the reactor.

The thermowell assembly must be stored in a dry area to prevent moisture accumulation in the mineral insulation.

9. The contractor shall coordinate information transfer between the thermowell assembly supplier and the reactor vendor to insure compatibility of the multi-thermowell assembly and the associated reactor nozzle with respect to flange size, rating and facing, nozzle I.D., bolt pattern orientation, and reactor internal dimensions.



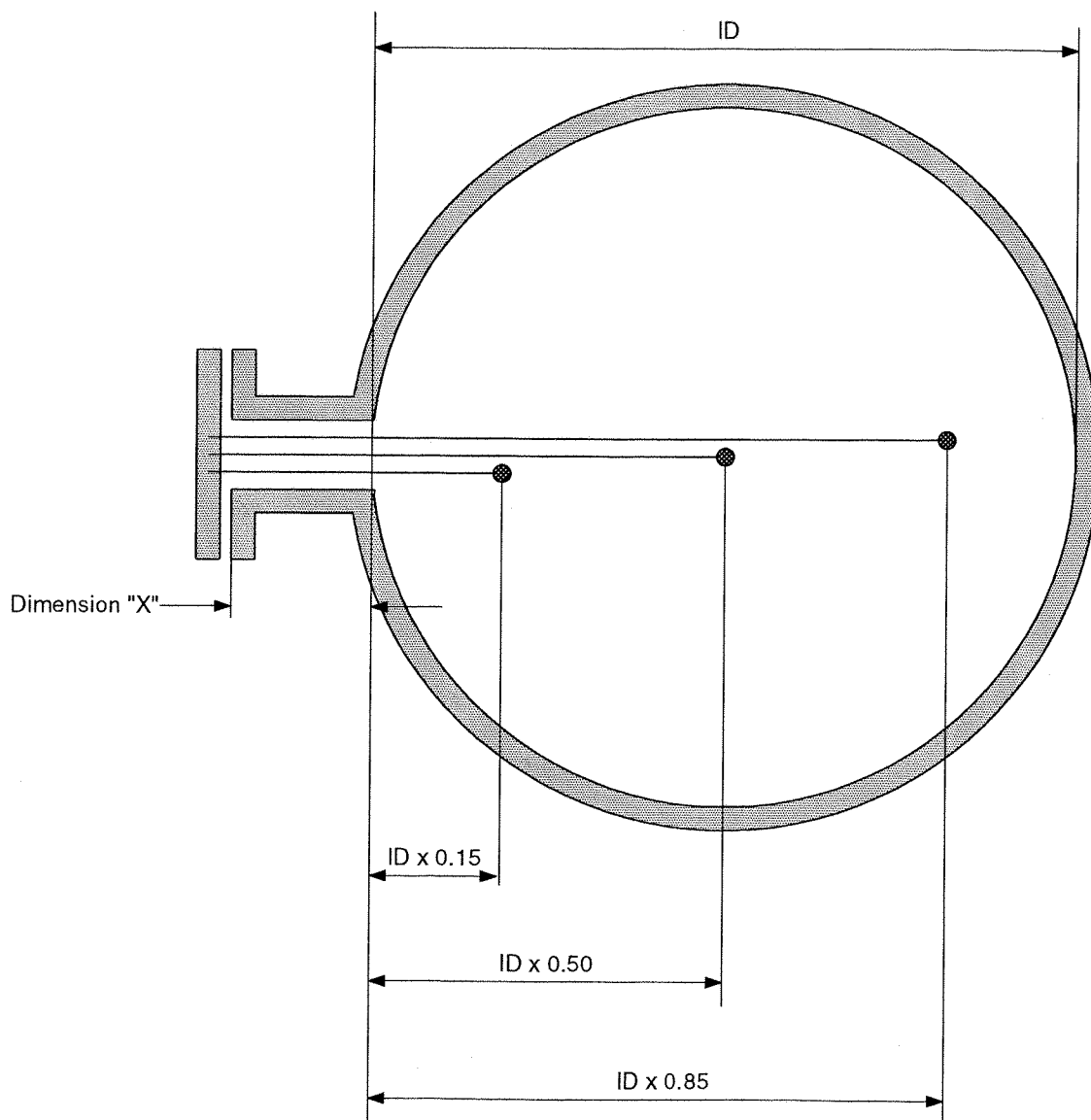
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**SPECIAL TEMPERATURE
DETECTION INSTRUMENTS****PROJECT SPECIFICATION**

928238 — 640

SHEET 11

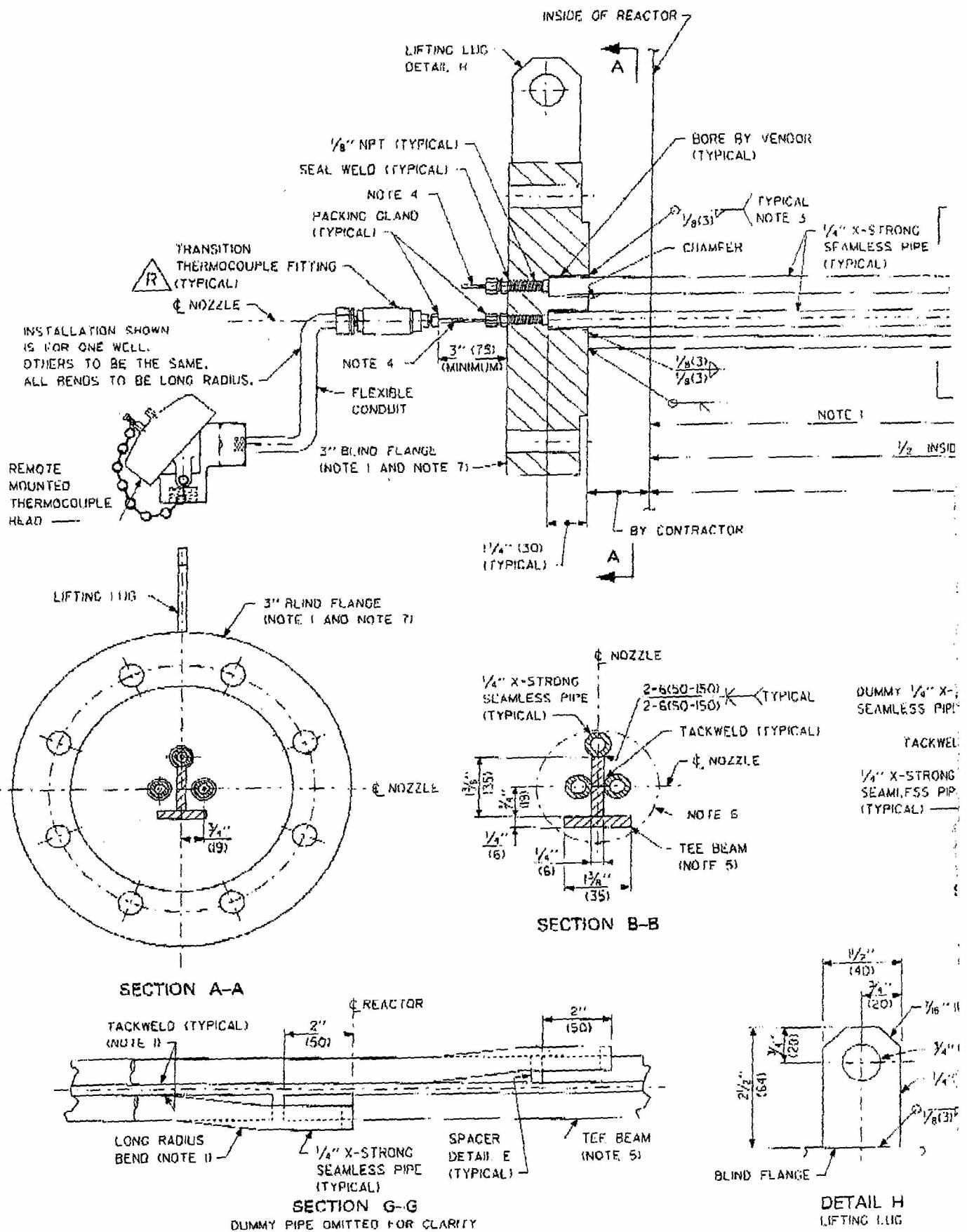
REV	DATE	BY	APVD	REV	DATE	BY	APVD
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Sketch " A "**Catalyst Bed Multi-Thermowell Assembly****Note:**

Total thermowell lengths shall be the dimensions indicated plus Dimension "X".
Contractor shall advise Dimension "X" to agree with Reactor purchased.

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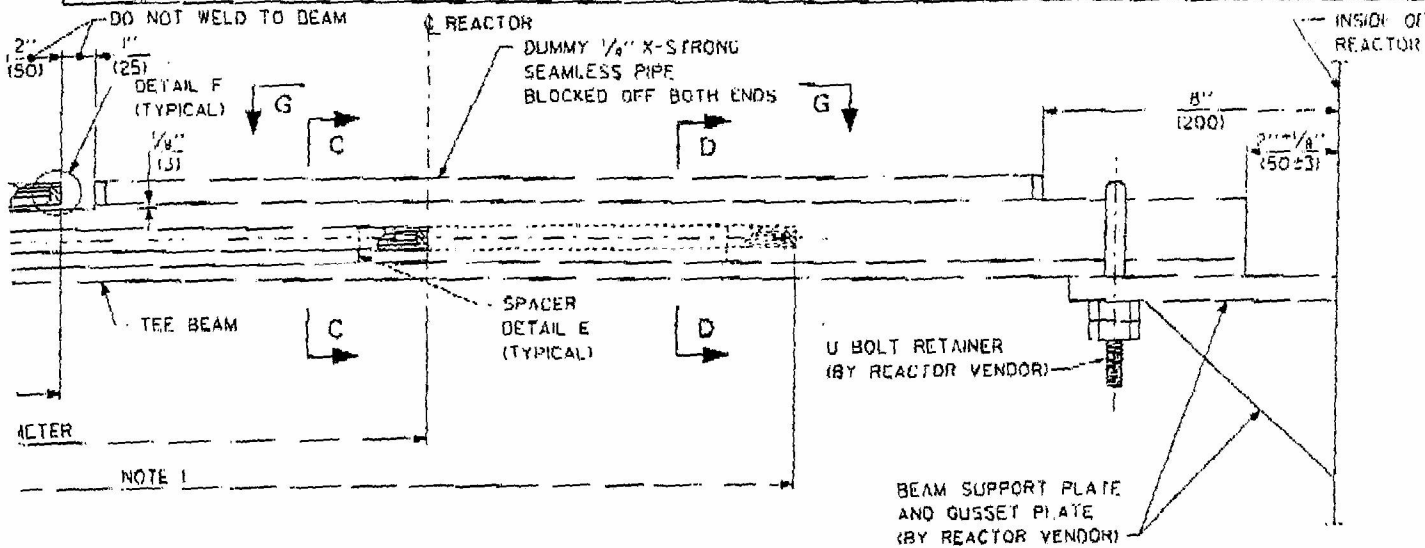
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FLANGED MULTI-THERMOWELL ASSEMBLY WITH INTEGRAL SUPPORT

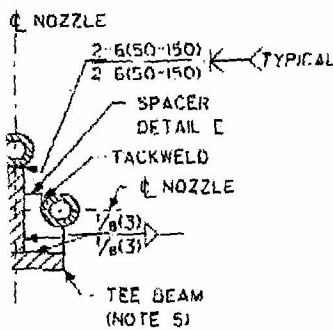
STANDARD DRAWING

6-156-3

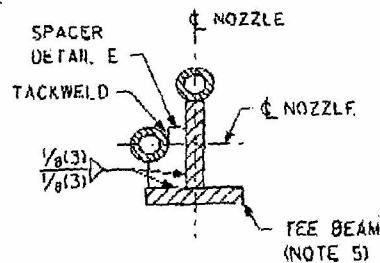
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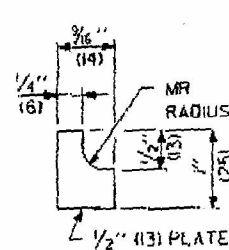
ELEVATION



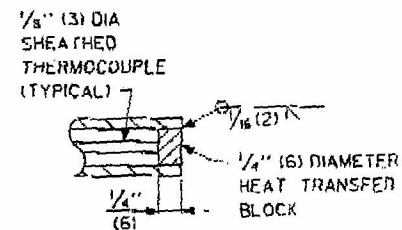
IN C-C



SECTION D-D



DETAIL E
SPACER



DETAIL F

NOTES:

1. SEE UOP PROJECT SPECIFICATION 640 FOR PACKING GLANDS, FLANGE CLASS AND FACING, THERMOWELL LENGTHS AND THERMOWELL MATERIAL, TACKWELDS AND LONG RADIUS BENDS.
2. ALL MATERIAL SHALL BE TYPE 321 STAINLESS STEEL OR 347 STAINLESS STEEL UNLESS NOTED.
3. THERMOWELL WELDS SHALL NOT OVERLAP.
4. EACH THERMOCOUPLE MUST BE REMOVED AFTER INITIAL ASSEMBLY TO INSURE PROPER GLAND CONNECTIONS.
5. ALTERNATIVES TO WELDED TEE BEAM CONSTRUCTION INCLUDE COMMERCIALY AVAILABLE TEE BEAM OR TEE BEAM MACHINED FROM A SOLID BAR.
6. COMPLETE ASSEMBLY, INCLUDING WELDS, MUST FIT WITHIN A 2 1/2\" (65) DIAMETER CIRCLE.
7. CONTRACTOR SHALL COORDINATE WITH VESSEL FABRICATOR AND THERMOWELL VENDOR TO ENSURE PROPER FLANGE CLASS AND ALIGNMENT OF THE FLANGE AND NOZZLE BOLTING PATTERNS. THE THERMOWELL ASSEMBLY SHALL BE ORIENTATED AS SHOWN IN SECTIONS A-A AND B-B.
8. DIMENSIONS SHOWN IN PARENTHESES ARE IN MILLIMETERS.