



# Sales Quote

## INDUSTRIAL BUSINESS INTL CORP

1580 Sawgrass Corporate Parkway  
Suite 130, Sunrise, FL 33323  
Tel: 954-315-4781  
Fax: 954-838-7746  
E-mail: ibicorp@intech-ie.com

Quote #

IBI-2025-0132

Date:

Aug 21<sup>st</sup>, 2025

Customer ID

PETROPIAR

### Bill To:

#### CHEVRON PetroPiar

Complejo Petrolero y Petroquimico Jose, Edo  
Anzoategui, Venezuela  
Att: Jean Laya – Ing Confiabilidad  
<layajj@pdvsa.com>

### Ship To:

Custom Agent to be informed at Maiquetia Airport  
Venezuela

| Your #    | Our #                 | Sales Rep             | CIF                   | SHIP VIA | Terms       | Validity |
|-----------|-----------------------|-----------------------|-----------------------|----------|-------------|----------|
| Budgetary | 2025-0132 // 21104 R2 | L. Zuñiga<br>W. Brito | Maiquetia,<br>Airport | BWPPD    | See details | 60 days  |

| Item                                    | Qty | Units | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit Pr (US\$) | Total (US\$) |
|-----------------------------------------|-----|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|
| <b>REACTORS 14-R-001 &amp; 14-R-002</b> |     |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |              |
| 1                                       | 13  | Pcs   | <b>WIKA Gayesco Flanged Multi-Thermowell Assembly</b><br>Reactors <b>14-R-001 and 14-R-002</b><br>Nozzles <b>See below</b><br>Drawing <b>Refer to drawings 06113-C R1 (SO#211671) for Rx -001 and drawing 06117 R1 (SO#211671) for Rx -002</b><br>Process Connection <b>3"-1500#RF SA-182 347SS</b><br>Instrument Connection <b>1/4" SCH80 347SS Pipe</b><br>Pressure Gauge <b>4" Gauge, 1/2" NPT, Stem Mount, SS, Liquid Range 0 - 5,000 psig</b><br><br>Valves <b>3-Way Block and Bleed</b><br><b>Hex Valve 1/2" NPT P/N HG46-1-U-3-2-3-1-4-1</b><br><b>Bleed Valve 1/2" NPT P/N HB24-1-U-3-1-2</b><br>Process Wetted Material <b>347SS or 321SS</b><br>Thermowells <b>1/4"-SCH80, 347SS</b><br>No. of Thermowells <b>Three (3) each</b><br>Thermowell Support <b>1/4" x 1-3/8" T-Beam Support</b><br>Gland Fitting <b>Yes, complete with lava sealant</b><br>Spare Lava Sealant <b>6 each</b><br><br><b>Thermocouple</b><br>Thermocouple Type <b>K</b><br>Single or Dual Element <b>Single</b><br>Measuring Junction <b>Grounded</b><br>Sheath Material <b>347SS</b><br>No. of thermocouples <b>Three (3) each</b><br>Individual thermocouple sheath diameter - <b>3/16" (4.8 mm)</b><br>Thermocouple conductor size - <b>19 AWG</b><br>Standard - <b>ASTM E230, Sp. Lim.</b><br><br>Thermocouple sheath is single piece, seamless construction<br>Magnesium Oxide (MgO) Electrical Insulation, 99.5% Purity | \$27,720.00    | \$360,360.00 |



|                                                                         |                        |                                         |                  |     |
|-------------------------------------------------------------------------|------------------------|-----------------------------------------|------------------|-----|
| Thermocouple Extension Wire                                             |                        |                                         |                  |     |
| Insulation                                                              |                        | Teflon                                  |                  |     |
| Wire Gauge                                                              |                        | 16 gauge                                |                  |     |
| SS Armor with PVC Jacket                                                |                        | No                                      |                  |     |
| Length of Armor                                                         |                        | N/A                                     |                  |     |
| Junction Box                                                            |                        |                                         |                  |     |
| Junction Box is Attached -                                              |                        | Via threaded studs for 9" standoff      |                  |     |
| Junction Box Material-                                                  |                        | Stainless Steel, approx. 12" x 10" x 6" |                  |     |
| Junction Box Rating-                                                    |                        | NEMA 4X                                 |                  |     |
| Junction Box Cover -                                                    |                        | Hinged                                  |                  |     |
| Junction Box Terminals -                                                |                        | Type "K" Compensated                    |                  |     |
| Junction Box Conduit -                                                  |                        | One 3/4" NPT(F) Conduit Connection      |                  |     |
| Junction Box Nameplate -                                                |                        | Lexan                                   |                  |     |
| Rx 14-R-001 I.D.                                                        | TBD                    | mm                                      | Dim. X           | TBD |
| Dimensions are estimated and based on data sheets and drawing provided. |                        |                                         |                  |     |
| Assembly                                                                | Location               | Tags                                    | "L" Dimension, " |     |
| 1                                                                       | Bed 1 Top<br>Nozzle F1 | 14-TE-069                               | 54.25            |     |
|                                                                         |                        | 14-TE-070                               | 123.5            |     |
|                                                                         |                        | 14-TE-071                               | 192.8125         |     |
| 2                                                                       | Bed 1 Bot<br>Nozzle F2 | 14-TE-072                               | 54.25            |     |
|                                                                         |                        | 14-TE-073                               | 123.5            |     |
|                                                                         |                        | 14-TE-074                               | 192.8125         |     |
| 3                                                                       | Bed 2 Top<br>Nozzle F3 | 14-TE-075                               | 54.25            |     |
|                                                                         |                        | 14-TE-076                               | 123.5            |     |
|                                                                         |                        | 14-TE-077                               | 192.8125         |     |
| 4                                                                       | Bed 2 Mid<br>Nozzle F4 | 14-TE-078                               | 54.25            |     |
|                                                                         |                        | 14-TE-079                               | 123.5            |     |
|                                                                         |                        | 14-TE-080                               | 192.8125         |     |
| 5                                                                       | Bed 2 Bot<br>Nozzle F5 | 14-TE-081                               | 54.25            |     |
|                                                                         |                        | 14-TE-082                               | 123.5            |     |
|                                                                         |                        | 14-TE-083                               | 192.8125         |     |
| 6                                                                       | Bed 3 Top<br>Nozzle F6 | 14-TE-084                               | 54.25            |     |
|                                                                         |                        | 14-TE-085                               | 123.5            |     |
|                                                                         |                        | 14-TE-086                               | 192.8125         |     |
| 7                                                                       | Bed 3 Mid<br>Nozzle F7 | 14-TE-087                               | 54.25            |     |
|                                                                         |                        | 14-TE-088                               | 123.5            |     |
|                                                                         |                        | 14-TE-089                               | 192.8125         |     |
| 8                                                                       | Bed 3 Bot<br>Nozzle F8 | 14-TE-090                               | 54.25            |     |
|                                                                         |                        | 14-TE-091                               | 123.5            |     |
|                                                                         |                        | 14-TE-092                               | 192.8125         |     |
|                                                                         |                        |                                         |                  |     |
| Rx 14-R-002 I.D.                                                        | TBD                    | mm                                      | Dim. X           | TBD |
| Dimensions are estimated and based on data sheets and drawing provided. |                        |                                         |                  |     |
| Assembly                                                                | Location               | Tags                                    | "L" Dimension, " |     |
| 1                                                                       | Bed 1 Top<br>Nozzle F1 | 14-TE-136                               | 54.0625          |     |
|                                                                         |                        | 14-TE-137                               | 123.3125         |     |



|   |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |            |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
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|   |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <table><tr><td></td><td></td><td>14-TE-138</td><td>192.6875</td></tr><tr><td>2</td><td>Bed 1 Bot Nozzle F2</td><td>14-TE-139<br/>14-TE-140<br/>14-TE-141</td><td>54.0625<br/>123.3125<br/>192.6875</td></tr><tr><td>3</td><td>Bed 2 Top Nozzle F3</td><td>14-TE-142<br/>14-TE-143<br/>14-TE-144</td><td>54.0625<br/>123.3125<br/>192.6875</td></tr><tr><td>4</td><td>Bed 2 Mid Nozzle F4</td><td>14-TE-145<br/>14-TE-146<br/>14-TE-147</td><td>54.0625<br/>123.3125<br/>192.6875</td></tr><tr><td>5</td><td>Bed 2 Bot Nozzle F5</td><td>14-TE-148<br/>14-TE-149<br/>14-TE-150</td><td>54.0625<br/>123.3125<br/>192.6875</td></tr></table> |          |            | 14-TE-138 | 192.6875 | 2 | Bed 1 Bot Nozzle F2 | 14-TE-139<br>14-TE-140<br>14-TE-141 | 54.0625<br>123.3125<br>192.6875 | 3 | Bed 2 Top Nozzle F3 | 14-TE-142<br>14-TE-143<br>14-TE-144 | 54.0625<br>123.3125<br>192.6875 | 4 | Bed 2 Mid Nozzle F4 | 14-TE-145<br>14-TE-146<br>14-TE-147 | 54.0625<br>123.3125<br>192.6875 | 5 | Bed 2 Bot Nozzle F5 | 14-TE-148<br>14-TE-149<br>14-TE-150 | 54.0625<br>123.3125<br>192.6875 |  |  |
|   |                     | 14-TE-138                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 192.6875                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |          |            |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
| 2 | Bed 1 Bot Nozzle F2 | 14-TE-139<br>14-TE-140<br>14-TE-141                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 54.0625<br>123.3125<br>192.6875                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |            |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
| 3 | Bed 2 Top Nozzle F3 | 14-TE-142<br>14-TE-143<br>14-TE-144                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 54.0625<br>123.3125<br>192.6875                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |            |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
| 4 | Bed 2 Mid Nozzle F4 | 14-TE-145<br>14-TE-146<br>14-TE-147                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 54.0625<br>123.3125<br>192.6875                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |            |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
| 5 | Bed 2 Bot Nozzle F5 | 14-TE-148<br>14-TE-149<br>14-TE-150                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 54.0625<br>123.3125<br>192.6875                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |            |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
|   |                     | <p><b>Notes for Multi-well Assemblies</b></p> <p>1. The UOP Multi-well 3-point Thermocouple Assembly being quoted, is based on the UOP standard drawing 6-156-5. This tried and tested design has been used in the industry for many years.<br/>GAYESCO will not perform design verification calculations on the pressure components.<br/>If design verification calculations are requested, there will be additional costs incurred. Any design change required due to the calculation results will be provided to the customer in a revised proposal.</p> <p>2. Each thermowell shall be identified with the respective tag number stamped on the flange</p> <p>3. Each multi-thermowell assembly shall be protected for shipping by a rigid enclosure</p> <p>4. 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.</p> <p>5. Thermowell tip welds shall be radiographed.</p> <p>6. Each thermowell shall be pressure tested at 1.5 times the ASME rated pressure and ambient temperature.</p> <p>7. Before shipment, each thermocouple assembly shall be tested for continuity.</p> <p>8. Each thermocouple shall be removed from the thermowell after initial assembly and then reinstalled to insure proper gland connections.</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |          |            |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
| 2 | 114                 | Pcs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p><b>WIKA GAYESCO THERMOCOUPLES</b><br/><b>K-25-S0-UU-24"-E7AP (24")- HA35AB-CGB</b><br/>WASHER SKIN THERMOCOUPLE, TYPE K THERMOCOUPLE, 1/4" O.D., 310SS, DUAL, UNGROUNDED, 24 INCH LONG SS SPIRAL ARMOR, SS TRANSITION WITH EPOXY, PVC SHRINKFIT OVER SPIRAL ARMOR, CAST ALUMINUM HEAD WITH SS CHAIN (WEATHERPROOF) WITH ENTRELEC TERMINAL BLOCK, 1 1/2" O.D. x 3/4" I.D. x 1/4" THICK 316SS WASHER.<br/><b>DRAWING 06055 Rev 3</b></p> <p><b>TAGS</b><br/>14-TE-022 THRU 135</p>                                                                                                                                                       | 1,650.00 | 188,100.00 |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
|   |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>FURNACE 14-H-001</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |          |            |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |
| 3 | 24                  | Pcs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p><b>WIKA GAYESCO THERMOCOUPLES</b><br/><b>K-25-S0-GG-148"-E7-12NUN- HAXBB-CS4</b><br/>XTRACTOPAD THERMOCOUPLE, TYPE 'K', .250" SHEATH OD, 310SS SHEATH MATERIAL, DUAL GROUNDED ELEMENT, 148" SHEATH LENGTH INCLUDES (4) 3" OD EXPANSION LOOPS AND 180° WRAP AROUND 4" OD TUBE, TEFLON INSULATED LEAD WIRE ATTACHED TO AN EXPLOSION PROOF ALUMINUM</p>                                                                                                                                                                                                                                                                                   | 2,380.00 | 57,120.00  |           |          |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |   |                     |                                     |                                 |  |  |



|   |    |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |             |
|---|----|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|
|   |    |     | <p>HEAD VIA 3/4" NIPPLE-UNION-NIPPLE ASSEMBLY W/ INTERNAL SS COMPRESSION FITTING AND 1-1/2" X 3/4" HEX BUSHING FOR CONNECTION TO FURNACE WALL.<br/>INCLUDES 310SS CURVED HEAT SHIELD, WELD PAD W/ GUIDE CHANNEL AND HALF TUBE CLIPS.<br/><b>DRAWING 06127 Rev 4</b></p> <p>Note: does NOT include any additional Testing on Tubeskins or parts based on Drawings supplied. If a Testing is required additional costs will be added to order</p> <p><b>TAGS #:</b><br/> <b>14-TE-195A, 195B, 195C, 195D</b><br/> <b>14-TE-196A, 196B, 196C, 196D</b><br/> <b>14-TE-197A, 197B, 197C, 197D</b><br/> <b>14-TE-198E, 198F, 198G, 198H</b><br/> <b>14-TE-199E, 199F, 199G, 199H</b><br/> <b>14-TE-200E, 200F, 200G, 200H</b></p>                                                                                                                                                                                                                                                                                                                                                                            |             |             |
| 4 | 24 | Pcs | <p><b>WIKA GAYESCO THERMOCOUPLES</b><br/> <b>K-25-S0-GG-175"-E7-12NUN- HAXBB-CS4</b><br/>           XTRACTOPAD THERMOCOUPLE, TYPE 'K', .250" SHEATH OD, 310SS SHEATH MATERIAL, DUAL GROUNDED ELEMENT, 175" SHEATH LENGTH INCLUDES (4) 3" OD EXPANSION LOOPS AND 180° WRAP AROUND 4" OD TUBE, TEFLON INSULATED LEAD WIRE ATTACHED TO AN EXPLOSION PROOF ALUMINUM HEAD VIA 3/4" NIPPLE-UNION-NIPPLE ASSEMBLY W/ INTERNAL SS COMPRESSION FITTING AND 1-1/2" X 3/4" HEX BUSHING FOR CONNECTION TO FURNACE WALL.<br/>           INCLUDES 310SS CURVED HEAT SHIELD, WELD PAD W/ GUIDE CHANNEL AND HALF TUBE CLIPS.<br/> <b>DRAWING 06127-A Rev 4</b></p> <p>Note: does NOT include any additional Testing on Tubeskins or parts based on Drawings supplied. If a Testing is required additional costs will be added to order</p> <p><b>TAGS #:</b><br/> <b>14-TE-198A, 198B, 198C, 198D</b><br/> <b>14-TE-199A, 199B, 199C, 199D</b><br/> <b>14-TE-200A, 200B, 200C, 200D</b><br/> <b>14-TE-195E, 195F, 195G, 195H</b><br/> <b>14-TE-196E, 196F, 196G, 196H</b><br/> <b>14-TE-197E, 197F, 197G, 197H</b></p> | 2,825.00    | 67,800.00   |
| 5 | 3  | Pcs | <p><b>WIKA GAYESCO TC/TW</b><br/> <b>K-25-S0-U-29"-E7-SLU-HAXBB-8NUN</b><br/>           THERMOCOUPLE, TYPE 'K', .250" SHEATH OD, 310SS SHEATH MATERIAL, SINGLE UNGROUNDED ELEMENT, 29" LENGTH, 24" OF TEFLON INSULATED WIRE,<br/>           INCLUDES 446SS THERMOWELL 1", 150# RF, 0.343 Bore 18", U length 0.688, Root Taper to 0.531 ,REFERENCE GAYESCO DWG# 06257-002, Reference 221157</p> <p><b>TAGS#: 14-TE-012, 14-TE-019A, 14-TE-019B</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | \$16,370.00 | \$49,110.00 |
| 6 | 1  | Pcs | <p><b>WIKA GAYESCO TC/TW</b><br/> <b>K-25-S0-U-27"-E7-SLU-HAXBB-8NUN</b><br/>           THERMOCOUPLE, TYPE 'K', .250" SHEATH OD, 310SS SHEATH MATERIAL, SINGLE UNGROUNDED ELEMENT, 27" LENGTH, 24" OF TEFLON INSULATED WIRE,<br/>           INCLUDES 446SS THERMOWELL 1", 150# RF, 0.343 Bore 18", U length 0.688, Root Taper to 0.531 ,REFERENCE GAYESCO DWG# 06257-002, Reference 221157</p> <p><b>TAGS#: 14-TE-013</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | \$5,225.00  | \$5,225.00  |
| 7 | 1  | Pcs | <p><b>WIKA GAYESCO TC/TW</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | \$4,750.00  | \$4,750.00  |



|   |   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |             |
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|   |   |     | <p><b>K-25-S0-U-24"-E7-SLU-HAXB-8NUN</b><br/>THERMOCOUPLE, TYPE 'K', .250" SHEATH OD, 310SS SHEATH MATERIAL, SINGLE UNGROUNDED ELEMENT, 24" LENGTH, 24" OF TEFLON INSULATED WIRE, INCLUDES 446SS THERMOWELL 1", 150# RF, 0.343 Bore 18", U length 0.688, Root Taper to 0.531 ,REFERENCE GAYESCO DWG# 06257-002, Reference 221157</p> <p><b>TAGS#: 14-TE-014</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |             |
| 8 | 4 | Pcs | <p><b>WIKA GAYESCO TC/TW</b><br/><b>TC15-2-0IM-1AW111FC-B002401BK0300 with</b><br/><b>TW30-B-I-CE@-UD-1425002750-K-G8-A-1063-1063</b><br/>Thermocouple Type E, Simple element, Ungrounded, MgO, 1/4" OD, Sheat 310SS, Immersion Length 22", Total Length 46", Aluminum Ex-Proof Connection Head, Adjustable Compression Fitting 1/2" NPTM with Van Stone Thermowell , Straight Shank, 1 1/2" Flange Size, 300#, Bore Size 260", Material 347SS, Immersion length 14.25", Length to Flange 2.75" Approval Drawings included</p> <p>Equivalent to Thermo-Electric<br/>TC28659-Q-EE-U-22-24-AE-S-461(SP)T-2.75-14.25</p> <p><b>TAGS#: 14-TE-016, 14-TE-017, 14-TE-018A, 14-TE-018B</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$5,865.00 | \$23,460.00 |
|   |   |     | <p><b>Delivery Time</b><br/><b>20 Weeks after Receipt of P.O. and advance payment</b><br/>(see Engineering &amp; production Standard Schedule below – Premium schedule will be granted with Surcharge of 30% to decrease delivery to 16 wks)<br/>New Updated Drawings must be released by WIKA GAYESCO for approval of end users</p> <p><b>Payment Terms</b></p> <ul style="list-style-type: none"> <li>• 50 % with Purchase order.<br/>A manufacturer's confirmation and acknowledgement of material entered for production will be released with your P.O.</li> <li>• Balance 50% Net 30 days Shipping date to Destiny Port in Venezuela</li> </ul> <p><b>All the Materials will be manufactured at WIKA GAYESCO Plant in Pieve San Giacomo, Cr, ITALY,-</b><br/><b>Local Freights, Import Duties, Custom taxes, Destiny Handling will be responsibility of customer</b></p> <p><b>Volume &amp; Weight</b><br/>Thermocouple Assemblies and Hardware will be securely packaged in a wooden crate. Crate is sized to allow for Air Cargo transit.<br/>Normal mode of domestic transit is via truck. Overseas and expedited delivery is normally via Air Cargo.<br/>Material can be packaged for Ocean Freight at additional cost.</p> <p>Estimated No of Crates: 3(To be reconfirmed)<br/>Each Crate of 84"W x 120"L, 18"H, @ 1000 Lbs / each (To be reconfirmed)</p> <p><b>Warranty:</b><br/>18 months after delivery or 12 months after commissioning &amp; startup whichever occurs first</p> <p><b>Project Cancellation charges:</b></p> |            |             |

|  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |
|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|  |  | <p>15% Up to submittal of Engineering &amp; Design Drawings and Documents</p> <p>25% After submittal of Engineering &amp; Design Drawings and Documents</p> <p>50% After material order placement and before production commences</p> <p>75% Within two weeks of production release</p> <p>100% Two weeks after production commences</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |
|  |  | <p><b>TECHNICAL Notes on all Materials:</b></p> <p><b>ASME BPVC SECTION VIII, DIVISION 1</b></p> <p>All pressure retaining components will be designed, manufactured and tested per ASME BPVC Section VIII, Division 1, Latest Edition/Addenda. WIKA Gayesco can include code inspection and provide a U stamp with a U2A Certificate for an additional charge.</p> <p><b>WIKA GAYESCO QUALITY STATEMENT</b></p> <p>WIKA Gayesco's Quality Assurance Program is in accordance with ISO 9001. Our quality systems meets the same BPVC requirements in order to provide the Code 'U' stamp per Section VIII, Division 1.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |
|  |  | <p><b>MATERIAL TESTING AND INSPECTION INCLUDED ON Items 1</b></p> <p><b>Single Point Calibration</b><br/>It is important to verify the accuracy of each individual thermocouple that will be placed in service. Each thermocouple is compared to a NIST traceable standard to ASTM E-230 at 700°F (371°C) standard limits of error and the results document</p> <p><b>Continuity Test</b><br/>All Thermocouples shall be tested to verify continuity</p> <p><b>Insulation Resistance Test</b><br/>Ungrounded thermocouples shall be tested at room temperature to record the electrical insulation resistance between conductors and between conductors and sheath in accordance with ASTM E780</p> <p><b>Thermocouple Heat Test</b><br/>All thermocouples shall be tested to confirm function and operation</p> <p><b>Materials Test Report</b><br/>A copy of the MTR's or certificate of compliance shall be provided for all process wetted and pressure retaining material. Please specify if EN10204 3.1 is required.</p> <p><b>Positive Material Identification - PMI</b><br/>With Positive Material Identification, the alloy composition, and thus the identity of materials can be determined. WIKA Gayesco performs in-house PMI using x-ray flu alloy analyzer</p> <p><b>Radiograph Examination - RT of pressure retaining welds</b><br/>All radiographable pressure retaining welds will be X-rayed and the results documented in accordance with ASME Section VIII, Division 1, paragraph UW-51</p> <p><b>Radiograph Examination - RT of thermocouple tip welds</b><br/>All Flex-R thermocouple tips shall be X-rayed and the results documented.</p> <p><b>Liquid Penetrant Test - PT of all pressure retaining welds</b><br/>Dye Penetrant testing will be provided for all pressure retaining welds and the results documented in accordance with ASME Section V, Article 6.</p> |  |  |

|  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|  |  | <p><b>Pneumatic Pressure Test</b><br/>Secondary containment seal will be pneumatically pressure tested in accordance with ASME Code Section VIII, Div 1, Paragraph UG-100. This test checks the primary and secondary seal weld of the thermocouple to the chamber as well as the instrument connection weld<br/>The minimum hold time is 5 minutes.</p> <p><b>Hydrostatic External Pressure Test</b><br/>Flange assembly will be hydrostatically pressure tested in accordance with ASME Code Section VIII, Division 1, Paragraph UG-99. This test checks the flange assembly welds as well as the flange sealing surface.<br/>The minimum hold time is 5 minutes.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |
|  |  | <p><b>MATERIAL TESTING AND INSPECTION INCLUDED ON Items 2 to 6</b></p> <p>This proposal does NOT include any additional Testing on Tubeskins or Thermowells based on Drawings supplied (items 5 &amp; 6)</p> <p>If a Testing is required additional costs will be added to order</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
|  |  | <p><b>APPROVAL DOCUMENTS:</b><br/>Client must provide WIKA Gayesco with the following information at time of order placement:<br/>Engineering Design and Schedule will be HELD until all information is received</p> <ol style="list-style-type: none"> <li>Reactor Design Pressure and Temperature</li> <li>Material specifications</li> <li>Thermocouple nozzle details including inside diameter and space limitations</li> <li>Drawings: Reactor assembly, catalyst support grid, distributor trays, internal supports, and tray penetrations as applicable</li> <li>Thermocouple point location, elevation, and tag numbers.</li> <li>Client or Third Party Inspection requirements</li> <li>Certifications and or Approval Requirements (ASME Code 'U' stamp, PED, ATEX, etc.)</li> <li>WIKA Gayesco cannot be held responsible for project material requirements, inspection requirements or markings required by accredited bodies or organizations if these specifications and/or requirements are not supplied in English. If English copies of the specifications cannot be supplied, additional costs for translation services will be applied to the quoted price.</li> <li>WIKA Gayesco will not be responsible for or assume any liability for the accuracy of technical drawing and document translation from English to another language.</li> </ol> <p><b>cci Williams Brito _ INTECh Pto La Cruz</b></p> |  |  |



# **INDUSTRIAL BUSINESS INTL CORP**

1580 Sawgrass Corporate Parkway  
Suite 130, Sunrise, FL 33323  
Tel: 954-315-4781  
Fax: 954-838-7746  
E-mail: ibicorp@intech-ie.com

## **PRELIMINARY ENGINEERING AND PRODUCTION SCHEDULE**

This schedule may be affected by factors outside of WIKI Gayesco's control. This is not anticipated, but if it the case, then the delivery may be affected as well

| WEEKS                                                                                                                                       |      | ENGINEERING DESIGN & DRAWING SCHEDULE                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------|
| ARO                                                                                                                                         | ARAD |                                                                                                                   |
| 1                                                                                                                                           | 0    | WIKA Gayesco received purchase order and all required information                                                 |
| 4                                                                                                                                           | 0    | *WIKA Gayesco submittal of Engineering Design Drawings and Documents for Review and Approval                      |
| 6                                                                                                                                           | 0    | Two weeks - estimated time for client drawing review and material and construction approval                       |
| PRODUCTION SCHEDULE AFTER RECEIPT OF APPROVED DRAWINGS                                                                                      |      |                                                                                                                   |
| When design and construction approval is received and confirmed, WIKA Gayesco will schedule the shipping date based on Client Approval Date |      |                                                                                                                   |
|                                                                                                                                             |      |                                                                                                                   |
| 8                                                                                                                                           | 2    | Manufacturing Package which will include materials, inspection and testing requirements and production scheduling |
| 9                                                                                                                                           | 3    | Shop Work Orders generated and major materials are released for purchase                                          |
| 10                                                                                                                                          | 4    | Production Release and Estimated receipt of materials                                                             |
| 20                                                                                                                                          | 14   | Fabrication complete                                                                                              |
| 21                                                                                                                                          | 15   | Final Inspection & Packing                                                                                        |
| 16                                                                                                                                          |      | WEEKS ARAD DELIVERY                                                                                               |
| 22                                                                                                                                          |      | WEEKS ARO DELIVERY - based on approved drawing receipt by due date                                                |
| * A signed Confidentiality Agreement with client must be received prior to drawing submittal                                                |      |                                                                                                                   |

## **SUGGESTED INSPECTION & TEST PLAN**

| Test & Inspection                                                          | Req. | CUSTOMER |   |   | Reference, Procedure, Acceptance Criteria   | Notes                                                         |
|----------------------------------------------------------------------------|------|----------|---|---|---------------------------------------------|---------------------------------------------------------------|
|                                                                            |      | H        | W | R |                                             |                                                               |
| Pre-Fabrication                                                            |      |          |   |   |                                             |                                                               |
| Material Test Reports (T+S)                                                | x    |          |   | x | EN 10204 3.1                                | All Pressure and Wetted Parts                                 |
| Welding procedure specifications                                           | x    |          |   | x | ASME Code                                   | Included in the Welding Book                                  |
| Welder Qualification Record                                                | x    |          |   | x | ASME IX                                     | Included in the Welding Book                                  |
| Welding book                                                               | x    |          |   | x |                                             | Approval by Customer                                          |
| ASME Calculation                                                           | x    |          |   | x |                                             | For information only                                          |
| Assembly Drawing                                                           | x    |          |   | x |                                             | Approval by Customer                                          |
| NDT Personnel & Procedures                                                 | x    |          |   | x | ASME V, EN 9712 or ASNT TC 1A               |                                                               |
| PMI Check of Raw Material (I)                                              | x    |          |   | x | Proc.: IL-10-315                            | One shot each heat number used (Mi cable, Flange, pipe, bars) |
|                                                                            |      |          |   |   |                                             |                                                               |
| In-Process Inspection & Testing Requirements                               |      |          |   |   |                                             |                                                               |
| Radiograph Inspection of T/Cs Tip 100% (T)                                 | x    |          |   | x | ASME V, Proc.: IL-10-313                    | One shot - For Item 1 Only                                    |
| Thermocouple Calibration Verification 100% (T)                             | x    |          |   | x | EN 60584-2 - Class 1                        | 1 (one) point calibration at 371°C                            |
| Liquid Penetrant Test of Welds 100% (T)                                    | x    |          |   | x | ASME V, Proc.: IL-10-310                    |                                                               |
| Pneumatic Pressure Test (to verify welds between TC and Seal Cap) 100% (T) | x    |          |   | x | ASME VIII UG-100 Proc.: IL-09-35            | TBD barg; Hold time 5 min. - For Item 1 Only                  |
| Radiograph Inspection of Pressure Welds 100% (T)                           | x    |          |   | x | ASME V, Proc.: IL-10-313                    | For Item 1 Only                                               |
| Hydrostatic Pressure Test (External) 100% (T)                              | x    |          |   | x | ASME VIII UG-99, ASME B16.5 Proc.: IL-10-05 | TBD barg; Hold time 10 min. - For Item 1 Only                 |
|                                                                            |      |          |   |   |                                             |                                                               |
| Final Inspection & Testing Requirements                                    |      |          |   |   |                                             |                                                               |
| Visual & Dimensional Check 100% (T)                                        | x    |          |   | x | Applicable dwgs.                            |                                                               |
| Functionality Test on thermocouples 100% (T)                               | x    |          |   | x | Applicable dwgs.                            | Polarity, Continuity, Insulation Check                        |
| Conformity ATEX Directives (F)                                             | x    |          |   | x | Directives 2014/34/UE                       |                                                               |

|                     |                   |                      |
|---------------------|-------------------|----------------------|
| <b>LEGEND</b>       |                   | T - TEST REPORT      |
| H - Hold Point      | W - Witness Point | F - COMPLIANCE       |
| R - Document Review |                   | CERTIFICATE S - MILL |

## **PLEASE TRANSFER TO OUR ACCOUNT AT:**

Branch Banking & Trust Co.  
450 North Pine Island  
Plantation, FL 33324  
Account #: 0140953040  
ABA# 053-101-121  
Routing/Transit Number: 2631-9138-7  
Swift Code: BRBTUS33

|                  |             |                   |
|------------------|-------------|-------------------|
| <b>Subtotal</b>  | <b>US\$</b> | <b>755,925.00</b> |
| <b>Freight</b>   | <b>US\$</b> | <b>Included</b>   |
| <b>Insurance</b> | <b>US\$</b> | <b>Included</b>   |
| <b>Docs.</b>     | <b>US\$</b> | <b>Included</b>   |
| <b>TOTAL</b>     | <b>US\$</b> | <b>755,925.00</b> |

**THANK YOU FOR YOUR BUSINESS**