

**SALES ORDER REQUISITION & SUPPLY  
Reactor.**

**ChemDist Process Solutions Pvt. Ltd.**

|         |  |
|---------|--|
| QRN No. | QRN-6999/R5  |
| Client  | JINDAL SPECIALITY CHEMICALS<br>INDIA PRIVATE LIMITED |
| Type.   | Manufacturing  |
| Job No. | SO-660   |
| Date    | 02/07/2022   |
| Rev     | R0   |

INDIA Address:  
Plot No J-174/1, J-Block,  
PCNTDA, Bhosari, Pune-411026, Maharashtra  
Landline: 020-68143308  
Email: info@chemdist.in

- EQUIPMENT MANUFACTURING SR. NO. TUBULAR REACTO R-110B CDPS-660-V1930-2022

**SCOPE OF SUPPLY:**

Our scope of supply includes Manufacturing & Supply of below listed items:

| 1. Description                         | Tubular Reactor                               |
|--|---|
| <b>Process Details</b>                 |   |
| Design Pressure (kg/cm <sup>2</sup> g) | 16/8  |
| Design Temperature (Deg C)             | 420   |
| Shell/End Radiography                  | Spot + All T Joints/Full (100%)               |
| <b>Vessel Details</b>                  |   |
| Shell Diameter (ID)                    | Dia. 2100 mm X L 5807mm X 20mm Thk.           |
| Top Bonnet                             | Dia. 2100 mm X L 1100 mm X 12 mm Thk.         |
| Top Dishend                            | 14 mm Thk (10% Torispherical )                |
| Bottom Bonnet                          | Dia. 2100 mm X L 1000 mm X 12 mm Thk.         |
| Bottom Dish                            | 14 mm Thk (10% Torispherical )                |
| Tubes                                  | OD 50.8mm X L 6000 mm X 2.77mm Thk X 890 Nos. |
| Tube sheet                             | OD 2095 X 100 mm Thk X 2 Nos.                 |
| Support                                | Skirt Support + Lug Support                   |
| Shell                                  | SS 316L                                       |
| Bonnet                                 | SS 316L                                       |
| Dishend                                | SS 316L                                       |
| Tubes                                  | SS 316L (Heavy Metals)                        |
| Tubesheet                              | SS 316L                                       |
| Grid Plate                             | SS 316L                                       |
| Support Plate                          | MS  |
| Nozzles pipe MOC                       | SS 316  |
| Nozzle Flange MOC                      | SS 316L                                       |

|        |  |
|--------|--|
| Gasket | 4.5 mm Thk Spiral Wound Graphite Filled with SS 316L |
|--------|--|

**Nozzle Details:**

| NO.       | SERVICE               | Qty | NOZZLE PIPE |          | End Connection  |
|-----------|-----------------------|-----|-------------|----------|-----------------|
|           |                       |     | NB          | SCH      |                 |
| N1        | Vapour Inlet          | 1   | 200         | Sch 40S  | 300# WNRF       |
| N2        | Vapour Outlet         | 1   | 200         | Sch 40S  | 300# WNRF       |
| N3        | Thermic Fluid Inlet   | 1   | 150         | Sch 80S  | 300# WNRF       |
| N4        | Thermic Fluid Outlet  | 1   | 150         | Sch 80S  | 300# WNRF       |
| N5        | Temperature Indicator | 1   | 40          | Sch 80S  | 300# WNRF       |
| N6        | Pressure Transmitter  | 1   | 40          | Sch 80S  | 300# WNRF       |
| N7        | Temperature Indicator | 1   | 40          | Sch 80S  | 300# WNRF       |
| N8        | Pressure Transmitter  | 1   | 40          | Sch 80S  | 300# WNRF       |
| M1        | Manhole               | 1   | 500         | 10mm Thk | 300# WNRF (B/F) |
| M2        | Manhole               | 1   | 500         | 10mm Thk | 300# WNRF (B/F) |
| M3        | Manhole               | 1   | 500         | 10mm Thk | 300# WNRF (B/F) |
| HH1       | Hand Hole             | 1   | 200         | Sch 40S  | 300# WNRF (B/F) |
| SV<br>1/2 | Skirt Vent            | 2   | 100         | Sch 80S  |                 |

| Note |  |
|------|--|
| 1    | Spare Gasket and Hardware not in CDPS Scope.       |
| 2    | Spring and Catalyst not in CDPS Scope.             |
| 3    | All Nozzles Flanges as well as blind are in SS 316 |
| 4    | Tubes are not in CDPS Scope.                       |



**Notes:**

1. All '\*' mark shall be confirmed by design team.
2. In this reactor, agitator not in our scope.
3. All thicknesses shall be confirmed by design team.

|                            |                                       |
|----------------------------|---------------------------------------|
| Delivery Date (FOR-Site)   | 2 <sup>nd</sup> JULY 2022 (FOR)       |
| Internal Inspection Report | Required                              |
| TPI                        | YES                                   |
| Remark/Instruction         | Test Certificates Required as per QAP |

| issued By | Signature | Received By   | Signature |
|-----------|-----------|---------------|-----------|
| Marketing |           | Design/Dwg    |           |
|           |           | Manufacturing |           |
|           |           | Purchase      |           |

|             | Signature |
|-------------|-----------|
| Prepared By | NMB       |
| Checked By  | NMB       |
| Approved By | TW        |