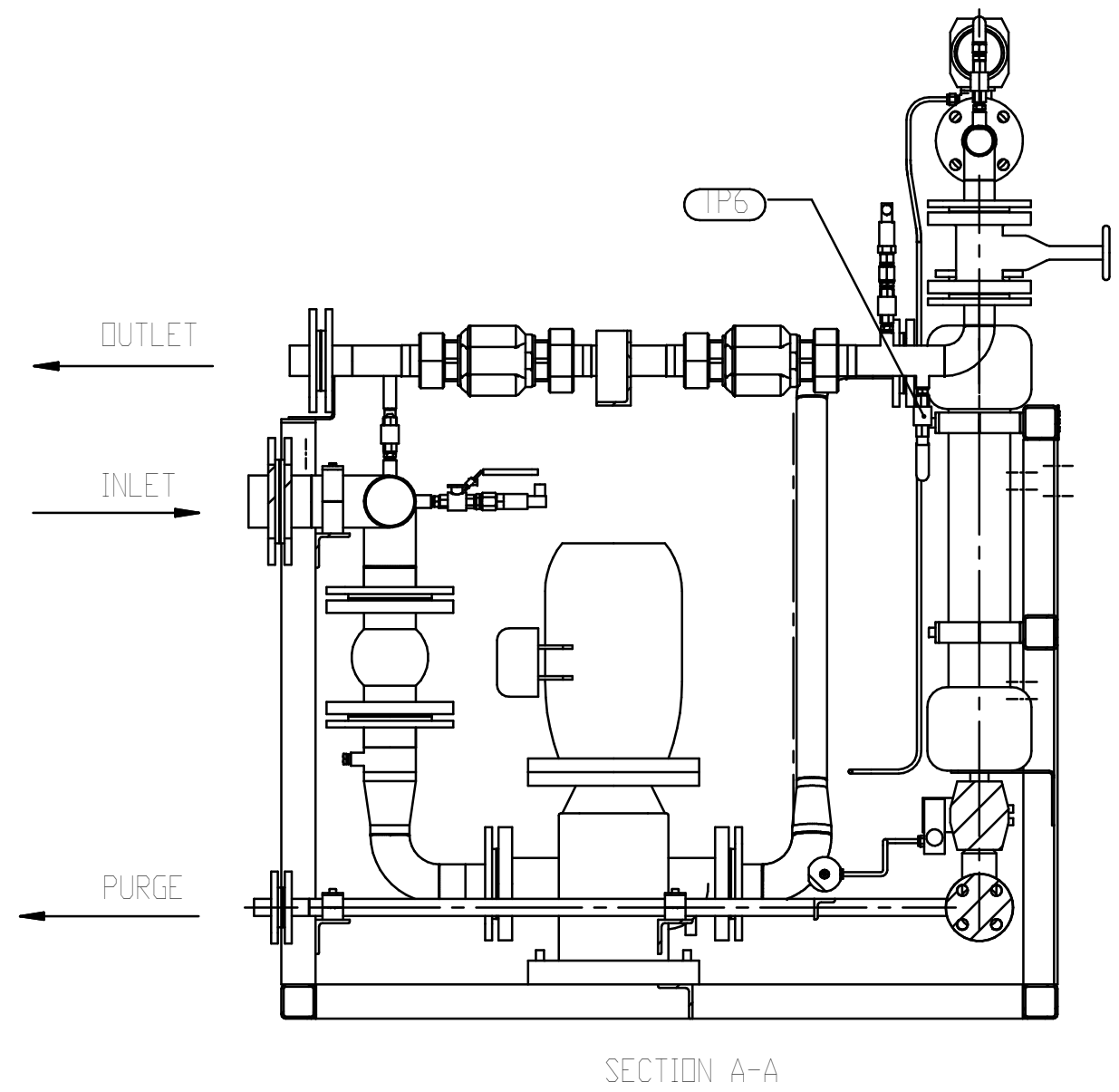
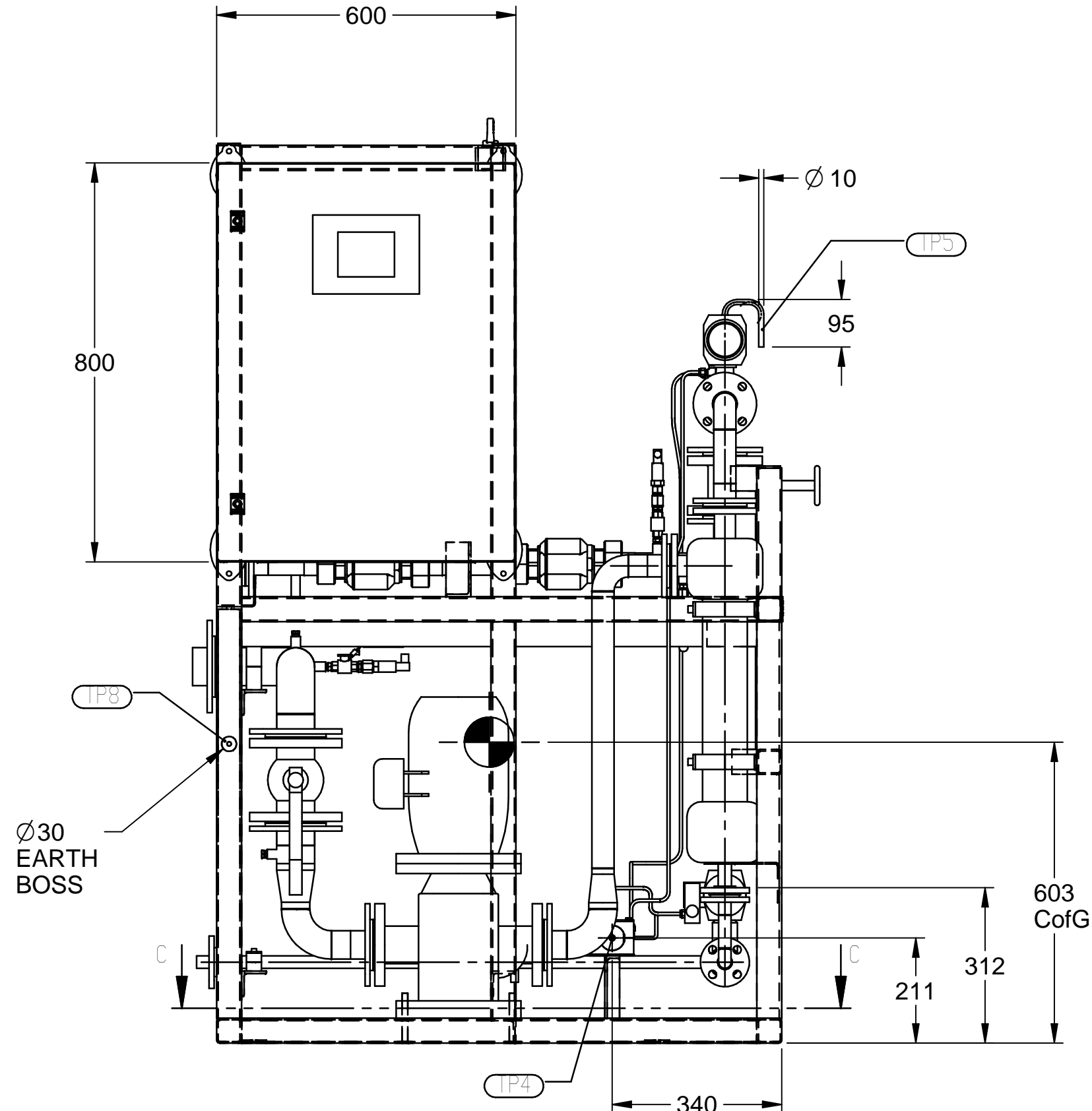
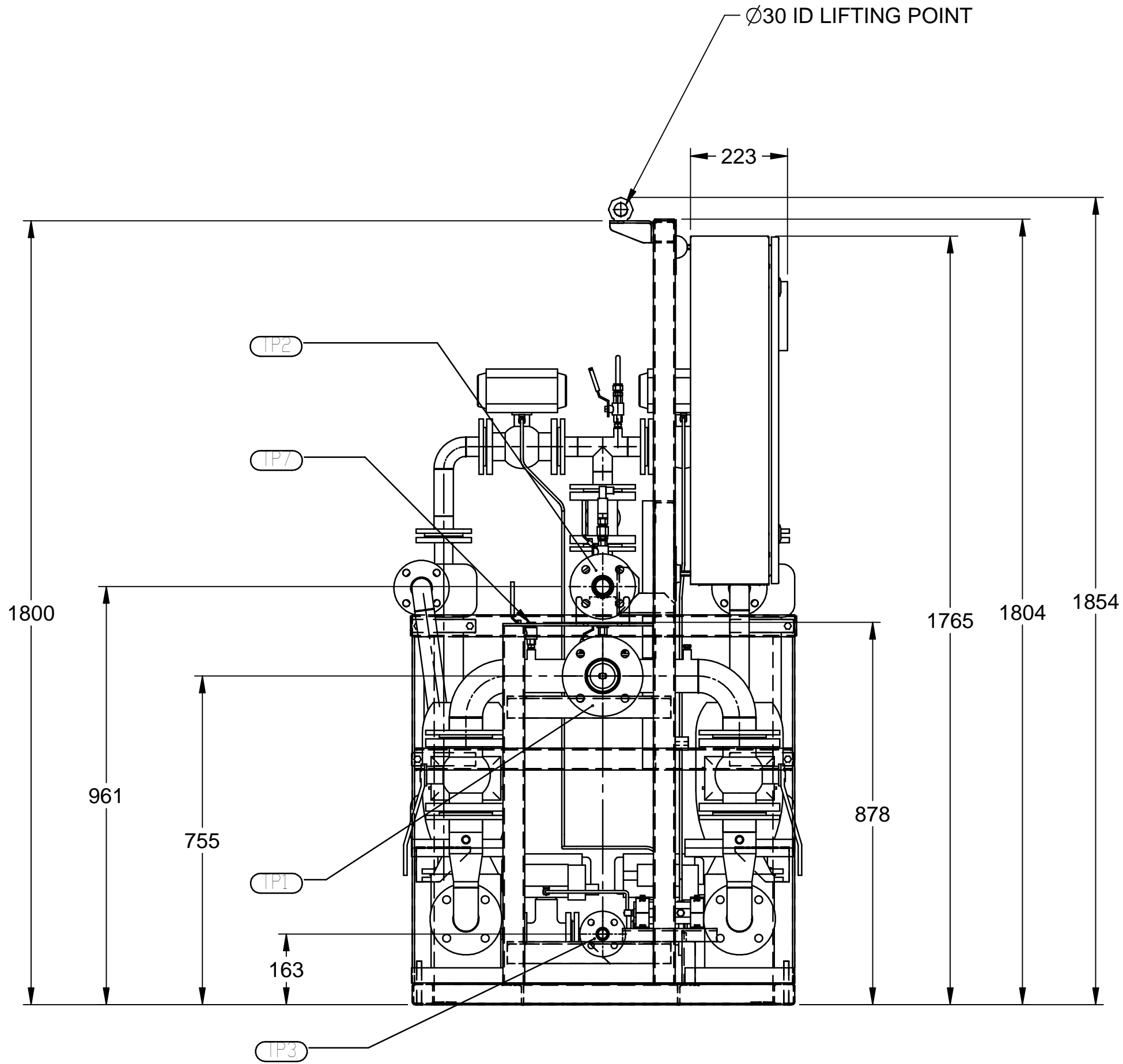
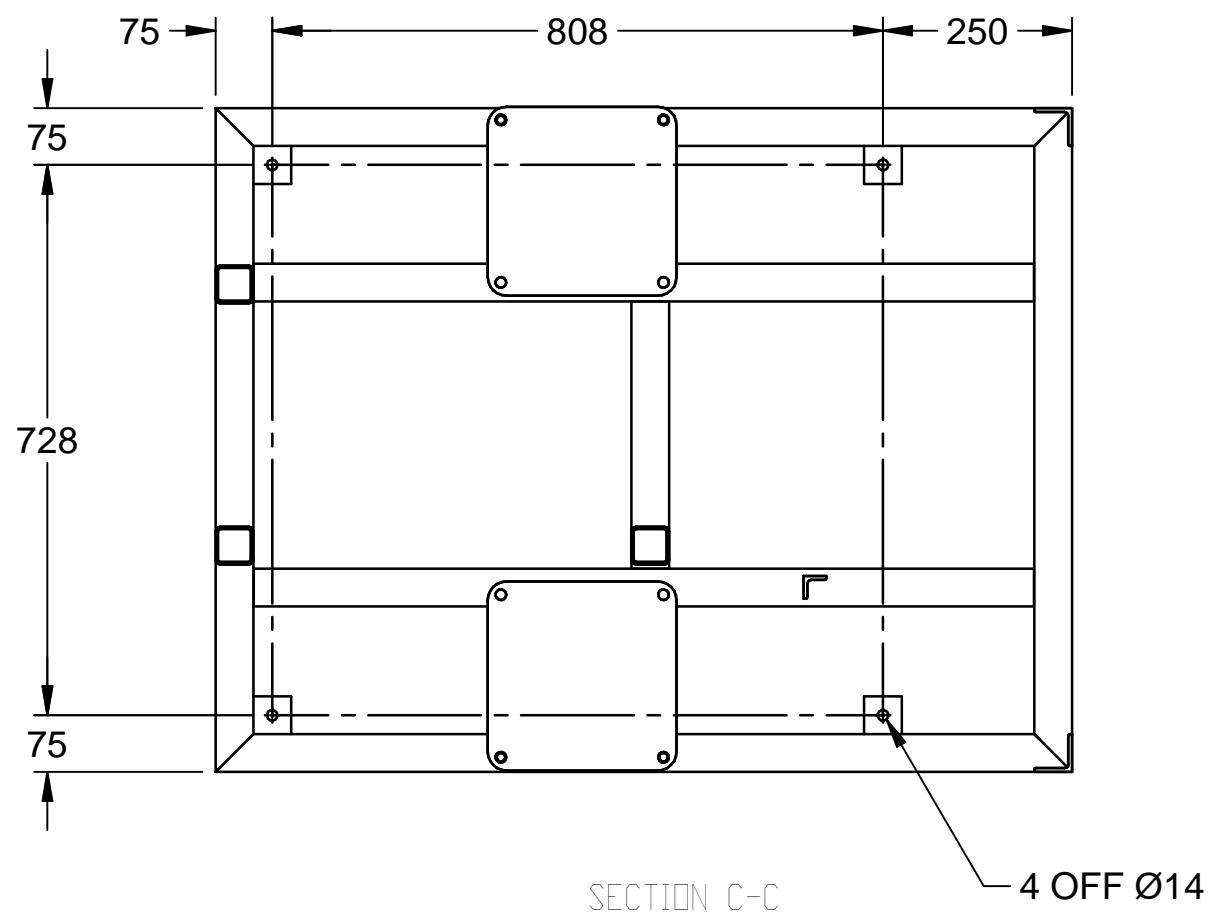
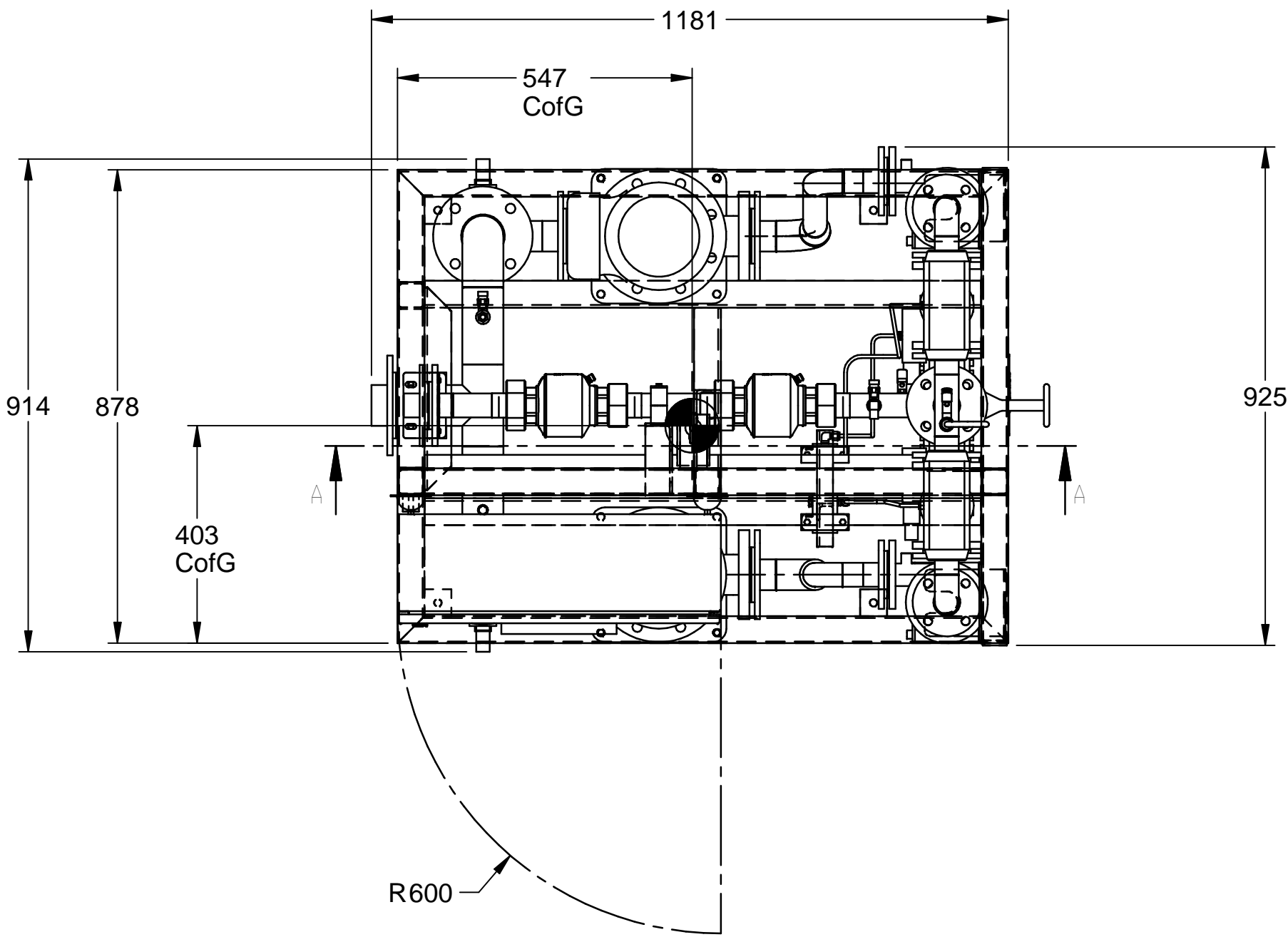
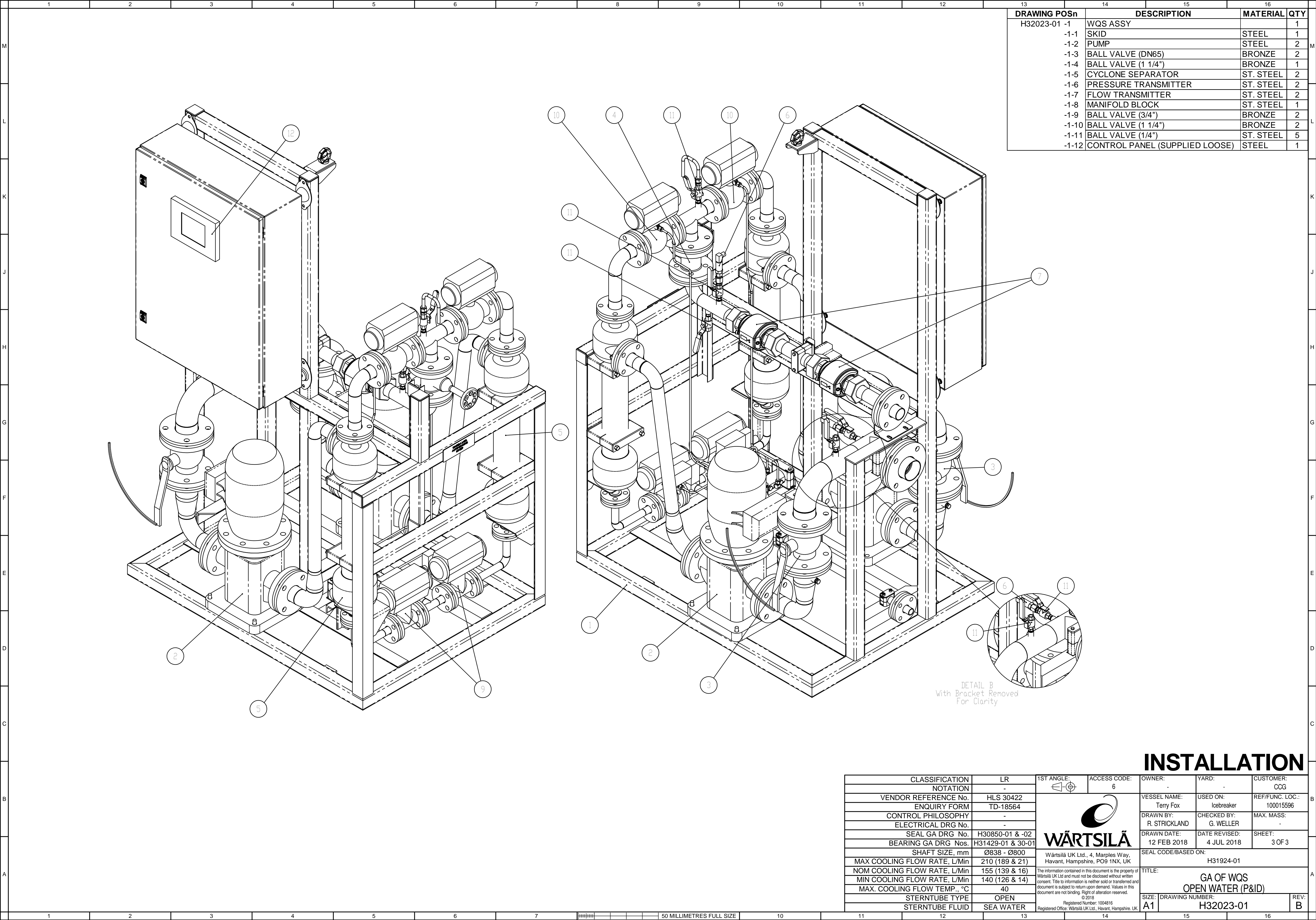


| CONNECTION | DESCRIPTION | SIZE | PIPE OD | WALL THICKNESS |
|------------|--|--------------|---------|----------------|
| TP1 | SEA WATER INLET | DN65 | Ø76 | 2 |
| TP2 | SYSTEM OUTLET | DN40 | Ø44.5 | 1.5 |
| TP3 | CYCLONE PURGE | DN20 | Ø25 | 1.5 |
| TP4 | AIR INLET | RP1/4" - 6H | - | - |
| TP5 | VENT | 10mm OD TUBE | Ø10 | 1 |
| TP6 | SAMPLE POINT | RP1/4" - 6H | - | - |
| TP7 | AIR PURGE POINT (COMMISSIONING) & RAW WATER TEST POINT | RP1/4" - 6H | - | - |
| TP8 | EARTH | M12 | - | - |




INSTALLATION

| | | | | | | |
|------------------------------|-------------------|---|--------------|------------------------------|-------|-----------|
| CLASSIFICATION | LR | 1ST ANGLE: | ACCESS CODE: | OWNER: | YARD: | CUSTOMER: |
| NOTATION | - | | 6 | - | - | CCG |
| VENDOR REFERENCE No. | HLS 30422 | | | | | |
| ENQUIRY FORM | TD-18564 | | | | | |
| CONTROL PHILOSOPHY | - | | | | | |
| ELECTRICAL DRG No. | - | | | | | |
| SEAL GA DRG No. | H30850-01 & -02 | <div>Wärtsilä UK Ltd., 4, Marples Way, Havant, Hampshire, PO9 1NX, UK</div> <div>The information contained in this document is the property of Wärtsilä UK Ltd and must not be disclosed without written consent. Title to information is neither sold or transferred and document is subject to return upon demand. Values in this document are not binding. Right of alteration reserved. © 2018 Registered Number: 1004816 Registered Office: Wärtsilä UK Ltd, Havant, Hampshire, UK</div> | | | | |
| BEARING GA DRG Nos. | H31429-01 & 30-01 | | | | | |
| SHAFT SIZE, mm | Ø838 - Ø800 | | | | | |
| MAX COOLING FLOW RATE, L/Min | 210 (189 & 21) | | | | | |
| NOM COOLING FLOW RATE, L/Min | 155 (139 & 16) | TITLE: GA OF WQS OPEN WATER (P&ID) | | | | |
| MIN COOLING FLOW RATE, L/Min | 140 (126 & 14) | | | | | |
| MAX. COOLING FLOW TEMP., °C | 40 | | | | | |
| STERNTUBE TYPE | OPEN | | | | | |
| STERNTUBE FLUID | SEA WATER | SEAL CODE/BASED ON: H31924-01 | | | | |
| SIZE: A1 | | | | DRAWING NUMBER: H32023-01 | | REV: B |



| DRAWING POSn | DESCRIPTION | MATERIAL | QTY |
|--------------|--------------------------------|-----------|-----|
| H32023-01 -1 | WQS ASSY | | 1 |
| -1-1 | SKID | STEEL | 1 |
| -1-2 | PUMP | STEEL | 2 |
| -1-3 | BALL VALVE (DN65) | BRONZE | 2 |
| -1-4 | BALL VALVE (1 1/4") | BRONZE | 1 |
| -1-5 | CYCLONE SEPARATOR | ST. STEEL | 2 |
| -1-6 | PRESSURE TRANSMITTER | ST. STEEL | 2 |
| -1-7 | FLOW TRANSMITTER | ST. STEEL | 2 |
| -1-8 | MANIFOLD BLOCK | ST. STEEL | 1 |
| -1-9 | BALL VALVE (3/4") | BRONZE | 2 |
| -1-10 | BALL VALVE (1 1/4") | BRONZE | 2 |
| -1-11 | BALL VALVE (1/4") | ST. STEEL | 5 |
| -1-12 | CONTROL PANEL (SUPPLIED LOOSE) | STEEL | 1 |

INSTALLATION

| | | | | | | |
|------------------------------|-------------------|---|--------------|--------|-------|-----------|
| CLASSIFICATION | LR | 1ST ANGLE: | ACCESS CODE: | OWNER: | YARD: | CUSTOMER: |
| NOTATION | - | | 6 | - | - | COG |
| VENDOR REFERENCE No. | HLS 30422 |  Wärtsilä UK Ltd., 4, Marples Way, Havant, Hampshire, PO9 1NX, UK <small>The information contained in this document is the property of Wärtsilä UK Ltd and must not be disclosed without written consent. Title to information is neither sold or transferred and document is subject to return upon demand. Values in this document are not binding. Right of alteration reserved. © 2018 Registered Number: 1004816 Registered Office: Wartsila UK Ltd., Havant, Hampshire, UK.</small> | | | | |
| ENQUIRY FORM | TD-18564 | | | | | |
| CONTROL PHILOSOPHY | - | | | | | |
| ELECTRICAL DRG No. | - | | | | | |
| SEAL GA DRG No. | H30850-01 & -02 | VESSEL NAME: Terry Fox USED ON: Icebreaker REF/FUNC. LOC.: 100015596 DRAWN BY: R. STRICKLAND CHECKED BY: G. WELLER MAX. MASS: - DRAWN DATE: 12 FEB 2018 DATE REVISED: 4 JUL 2018 SHEET: 3 OF 3 SEAL CODE/BASED ON: H31924-01 TITLE: GA OF WQS OPEN WATER (P&ID) SIZE: A1 DRAWING NUMBER: H32023-01 REV: B | | | | |
| BEARING GA DRG Nos. | H31429-01 & 30-01 | | | | | |
| SHAFT SIZE, mm | Ø838 - Ø800 | | | | | |
| MAX COOLING FLOW RATE, L/Min | 210 (189 & 21) | | | | | |
| NOM COOLING FLOW RATE, L/Min | 155 (139 & 16) | | | | | |
| MIN COOLING FLOW RATE, L/Min | 140 (126 & 14) | | | | | |
| MAX. COOLING FLOW TEMP., °C | 40 | | | | | |
| STERNTUBE TYPE | OPEN | | | | | |
| STERNTUBE FLUID | SEA WATER | | | | | |