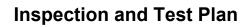


Inspection and Test Plan - VSD 2 Delivery and Installation

ITP Reference Number 561482-ITP-002.2

| SECTION 1 - GENERA | AL DETAILS | | | | | | | | | | |
|---|--|----------------------|---------------------------|------------------------|------------|-------------------------|----------------------------|--|------------------------|-----------------|--------------------|
| Project Name: | III C C 11014 Water Dumn Station Denewale SII VEDS I DEAM | | | | | | | Responsibilities If Use in sections 3, 4 and 5. | | | |
| Project Number: | 561482 | 561482 | | | | Α | Action | ŕ | | Name | Signature/ Initial |
| Customer: | Dunedin City Council | Dunedin City Council | | | | | Report by Breach | СМ | Construction Manager | Stephen Vorgers | |
| Contract Number: | DCC11014-WPS002 | | | | С | Check | CR | Cust. Representative | Joff Riley / Mark Todd | | |
| Area/ Sub-System: | VSD Delivery and Installation - SILVERSTREAM Lot ID N/A | | | | D | Dimension Inspection | ΙP | Inspection Personnel | Hamish Watson | | |
| | | Number: | | | | | Examine | МС | Material Controller | | |
| ITP Number: | 561482-ITP-002.2 Version : DRAFT | | | | Н | Hold Point | OP | Operations Manager | | | |
| ITP Description: | VSD2 Delivery and Ins | tallation | | | | I | Inspection | PM | Project Manager | Matt Paterson | |
| Discipline: | VSD's | | | | | М | Monitor on Random Basis | PS | Project Supervisor | | |
| | | | | | | | Operation | QE | Quality Engineer | | |
| Specification: | C11014 Water Pump Station Renewals Specification 12581908 | | | | | R | Review | QM | QA Manager | | |
| _ | Construction Issue Drawings as issued by GHD - Silverstream Pump Station | | | | | s | Subcontractor | SP | Supervisor | Hamish Watson | |
| Drawings: | Project Ref: 12581908-0 | | · | | | ٧ | Visual Verification | ST | Superintendent | | |
| Prepared By: (Name) | Hamish Watson / Matt P | aterson | | Date: | 10/12/2024 | w | Witness Point | sv | Surveyor | | |
| Quality Specified: | None - As per Specificat | ion requirements | | • | | • | | ws | Welding Supervisor | | |
| SECTION 2 - SIGNAT | URES - CLOSE-OUT & A | PPROVAL | | | | | | | | | |
| ITP Close-Out by Downer Name: Hamish Watson S | | | Signatur | e: | | | | Date: | | | |
| Downer Approval | | Name: | Matt Paterson/Stephen | tephen Vorgers Signatu | | ure: | | | | Date: | |
| Customer Approval | | Name: | Joff Riley / Bruce Buxtor | e Buxton Signatur | | ure: | | | | Date: | |





| SECTION 3 – RECEIVING INSPECTIONS Insert additional or delete unused rows as required. Include reference to specification. | | | | | | | | | | |
|--|--|---|---|---------------------------|---------------|---------------------|------------|------|--|--|
| | m No. Activity/ Task Description Inspection Point: Quality Control Activity Acceptance Criteria Verifying Document Frequency | | | | | | Inspection | | | |
| Item No. | | Frequency | Inspection Type (Visual, other) | Key | By (Role Key) | | | | | |
| 3.1 | Inspection of VSD prior to delivery to site | isions of damade. Check faling | Visual check and report any defects or areas of concern | | Once | Visual + Photograph | С | IP/B | | |
| 3.2 | Delivery of VSD to Site | Check and verify that correct VSD are delivered and that drives are undamaged | VSD are damage free | VSD Delivery documents | Once | Visual | С | IP | | |
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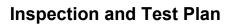


| SECTION 4 - IN-PRO | CTION 4 – IN-PROCESS INSPECTIONS Insert additional or delete unused rows as required. Include reference to specification. | | | | | | | | | | |
|--------------------|---|---|---|----------------------------------|-----------|---------------------|------------|---------------|--|--|--|
| | Activity/ Task | Inspection Point: Quality Control Activity | Acceptance Criteria | | | Inspection Type | Inspection | | | | |
| Item No. | Description | | | Verifying Document | Frequency | (Visual, other) | Key | By (Role Key) | | | |
| 4.1 | On-site assembly of mounting Frame | materials for frame delivered to site | Correct materials on site, protective coatings correct. | Delivery Docket for Materials | Once | Visual | I | IP | | | |
| 4.2 | Assembly and mounting of Frame | Frame Built and bolted to Ground. | Frame built and Securely attached to ground, minimal flex/ movement when force applied. | N/a | Once | Visual + Photograph | I | IP | | | |
| 4.3 | Mounting of VSD to Frame | VSD Mounted to frame | VSD Mounted satisfactorily, bolts tight, washers and spring washers present, S/S bolts and fixings used. | VSD Inspection Sheets. | Once | Visual + Photograph | I | IP | | | |
| 4.4 | Installation of supply cables to VSD | Cables installed, not | Correct Cables installed, suitable for full load plus 20 percent of VSD, insulation resistance acceptable | VSD Cable Test Sheets. | Once | Visual + Inspection | I | IΡ | | | |
| 4.5 | Installation of Output Cables From VSD to Motors | Cables installed, not terminated at motors or VSD | Correct Cables installed, suitable for full load of motor plus 20 percent, insulation resistance acceptable | VSD Cable Test Sheets. | Once | Visual + Inspection | I | IP | | | |
| 4.6 | Termination of cabling to VSD | Cables terminated into VSD | Correct Cables installed, terminals tightened to correct torque, cables prepared correctly. cable earths and screens fit off correctly. | VSD Cable Test Sheets. | Once | Visual + Inspection | I | IP | | | |



Inspection and Test Plan

| 4.7 | Termination of cabling to Switchboard | Cables fit off at Switchboard. | Correct Cables installed, terminals tightened to correct torque, cables prepared correctly. cable earths and screens fit off correctly. | VSD Cable Test Sheets. | Once | Visual + Inspection | I | ΙΡ |
|-----|---------------------------------------|---|---|-------------------------|------|---------------------|---|----|
| 4.8 | | Cables installed, not terminated into motor | Correct motors installed. insulation resistance verified, winding configuration confirmed against nameplate. | VSD Cable Test Sheets. | Once | Visual + Inspection | I | IΡ |
| 4.9 | Termination of cabling to Motor | Cables fit off at Motor | Cables Lugged off correctly, terminals tightened to correct torque | Motor Inspection Sheets | Once | Visual + Photograph | I | IP |





| SECTION 5 – FINAL INSPECTION AND HANDOVER Insert additional or delete unused rows as required. Include reference to specification. | | | | | | | | | | |
|--|----------------------------|--|---|------------------------|-----------|------------------------------------|------------|---------------|--|--|
| | | | | | | | Inspection | | | |
| Item No. | Activity/ Task Description | Inspection Point: Quality Control Activity | Acceptance Criteria | Verifying Document | Frequency | Inspection Type (Visual, other) | Key | By (Role Key) | | |
| 5.1 | VSD | | VSD parameters set correctly, inputs set up as per drawings. analog i/o set correctly and verified to plc | | Once | Visual + Document | I | IP | | |
| 5.2 | Motors | Assembled and in position, inspection carried out and approved | Motors Tested, rotation direction confirmed, pumps operating as intended. | Motor inspection Sheet | Once | Visual + Document | I | IP | | |
| SECTION 6 - COMMEN | ECTION 6 - COMMENTS | | | | | | | | | |
| | | | Customer Release Granted: | ☐ Yes | □ No | Date: | | | | |
| | | | Certificate Number: | | | Date. | | | | |