






|   |  |    |    |     |    |     |      |  |   |                                       |         |      |
|---|--|----|----|-----|----|-----|------|--|---|---------------------------------------|---------|------|
| OWNER:<br><br>شرکت سست و سویی گیس ایرپک (سهامی خاص) | BUSHEHR PETROCHEMICAL COMPANY<br>MEG PLANT             |    |    |     |    |     |      | EPC CONTRACTOR:<br><br>Chagalesh-Enerchimi-Steam<br>Joint Venture<br>BUPC-MEG PLANT PROJECT |   |                                       |         |      |
|   | INSTRUMENT HOOK UP DRAWING FOR<br>NITROGEN GAS BOOSTER |    |    |     |    |     |      |   |   |                                       |         |      |
| MC :  |  |    |    |     |    |     |      |   |  | شرکت سست و سویی گیس ایرپک (سهامی خاص) | Project | Area |
| Owner Document Number:<br>17811-38A   | BU   | 20 | VD | 303 | IN | DWG | 0033 | Rev.:  | Page  |                                       |         |      |
|   |  |    |    |     |    |     |      | 04   | 1 of 14   |                                       |         |      |

## INSTRUMENT HOOK UP DRAWING FOR NITROGEN GAS BOOSTER

| Rev. | Date       | Purpose of Issue          | Prepared | Checked | Approved | AC Code  |
|------|------------|---------------------------|----------|---------|----------|----------|
| 04   | 17/05/2022 | Approved for Construction | AZ       | KP      | LdM      |          |
| 03   | 06/04/2022 | For approval              | WZ       | KP      | LdM      |          |
| 02   | 14/02/2022 | For approval              | WZ       | KP      | LdM      |          |
| 01   | 16/11/2021 | For approval              | WZ       | KP      | LdM      |          |
| 00   | 08/12/2020 | For approval              | WZ       | KP      | LdM      |          |
|      |            |                           |          |         | Class: 1 | Phase: P |



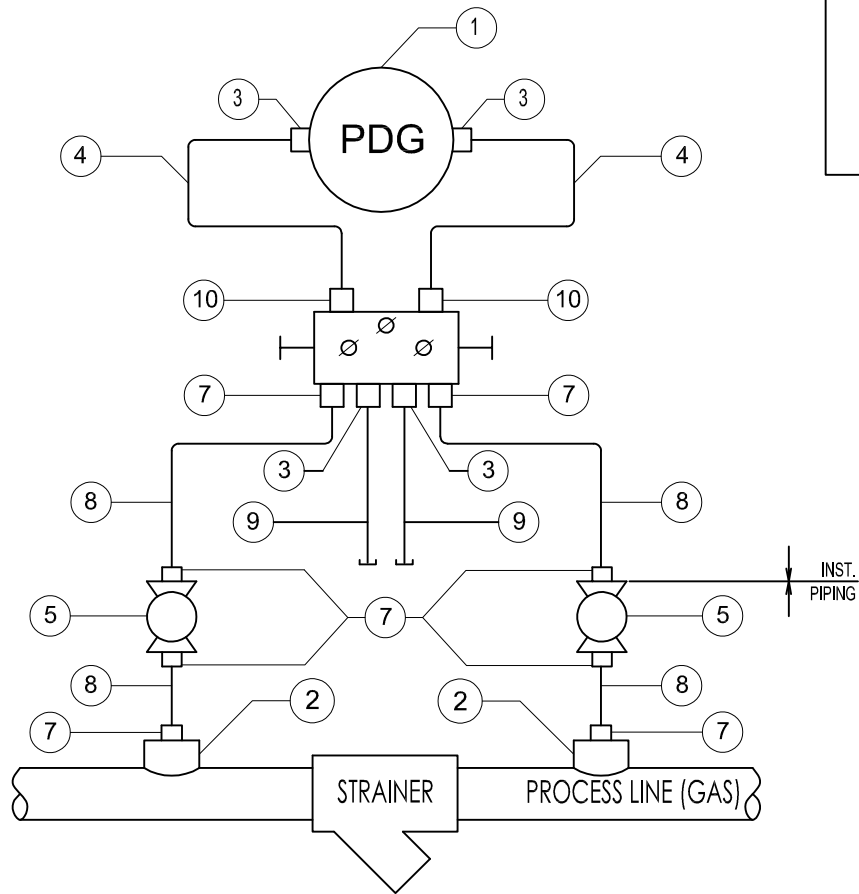
**BILL OF MATERIALS**


| ITEM NO: | DESCRIPTION  | MATERIAL | Q'TY |
|----------|--|----------|------|
| 1        | PRESSURE DIFFERENTIAL GAUGE                            | SS316    | 1    |
| 2        | PROCESS CONNECTION 1/2" NPT-F                          | SS316    | 2    |
| 3        | CONNECTOR DOUBLE COMPRESSION TYPE 1/4" NPT-M - 1/4" OD | SS316    | 4    |
| 4        | TUBING 1/4" OD   | SS316    | -    |
| 5        | 2-WAY BALL VALVE 1/2" NPT-F                            | SS316    | 2    |
| 6        | 5-WAY BLOCK & BLEED MANIFOLD                           | SS316    | 1    |
| 7        | CONNECTOR DOUBLE COMPRESSION TYPE 1/2" NPT-M - 1/2" OD | SS316    | 8    |
| 8        | TUBING 1/2" OD   | SS316    | -    |
| 9        | TUBING 1/4" OD WITH CAP                                | SS316    | -    |
| 10       | CONNECTOR DOUBLE COMPRESSION TYPE 1/2" NPT-M - 1/4" OD | SS316    | 2    |

TAG NO: PDG-10151

NO. OF INSTALLATIONS: 1

## PRESSURE DIFFERENTIAL GAUGE



|   |             |                                      |  |                |               |            |  |
|---|-------------|--------------------------------------|--|----------------|---------------|------------|--|
|  | SUBJECT     |                                      | INSTRUMENT HOOK UP DRAWING FOR NITROGEN COMPRESSOR |                | DATE          | 07-12-2020 | THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION<br>03 05-04-2022 VZ<br>02 11-02-2022 VZ<br>01 15-11-2021 VZ<br>00 07-12-2020 VZ |
|   | CLIENT      | Bushehr Petrochemical Company (BUPC) |  | PLANT LOCATION | IRAN, ONSHORE |            |  |
|   | CLIENT REF  | 17811                                |  | SCALE          | -             |            |  |
|   | AIRPACK REF | 17811-CDM                            |  | DRAWING NO.    | 17811-38      |            |  |
| MODIFICATIONS   |             |                                      | SHEET  |                | 01/12         |            |  |

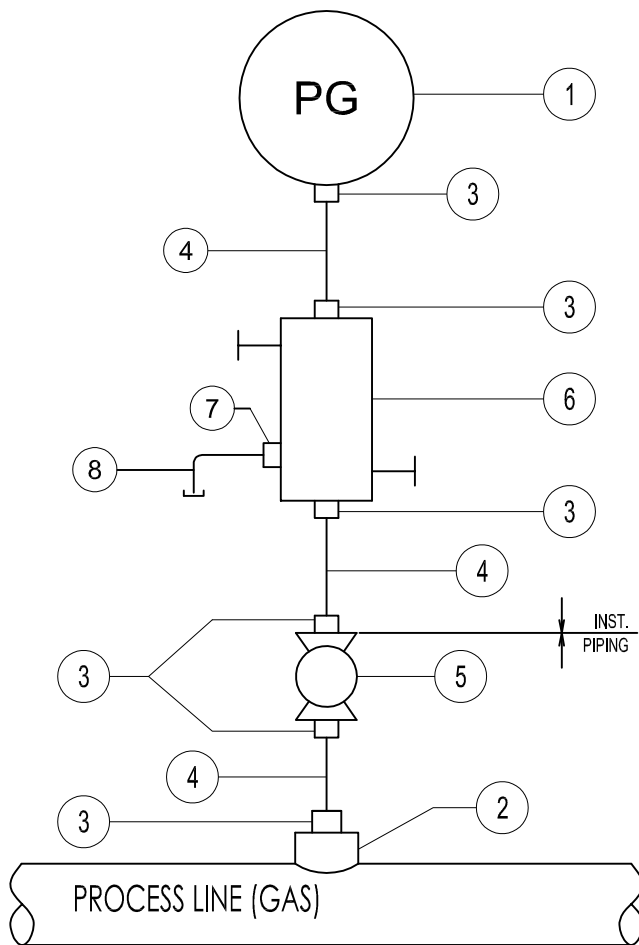
**BILL OF MATERIALS**

| ITEM NO: | DESCRIPTION  | MATERIAL | Q'TY |
|----------|--|----------|------|
| 1        | PRESSURE GAUGE   | SS316    | 1    |
| 2        | PROCESS CONNECTION 1/2" NPT-F                          | SS316    | 1    |
| 3        | CONNECTOR DOUBLE COMPRESSION TYPE 1/2" NPT-M - 1/2" OD | SS316    | 6    |
| 4        | TUBING 1/2" OD   | SS316    | -    |
| 5        | 2-WAY BALL VALVE 1/2" NPT-F                            | SS316    | 1    |
| 6        | 2-WAY BLOCK & BLEED MANIFOLD                           | SS316    | 1    |
| 7        | CONNECTOR DOUBLE COMPRESSION TYPE 1/4" NPT-F - 1/4" OD | SS316    | 1    |
| 8        | TUBING 1/4" OD WITH CAP                                | SS316    | -    |

TAG NO: PG-10152 / PG-10155 / PG-10161

NO. OF INSTALLATIONS: 3

## PRESSURE GAUGE



|             |  |  |  |                |               |  |            |            |       |
|-------------|--|--|--|----------------|---------------|--|------------|------------|-------|
| SUBJECT     |  | INSTRUMENT HOOK UP<br>DRAWING FOR<br>NITROGEN COMPRESSOR |  | DATE           | 07-12-2020    | THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION |            |            |       |
| CLIENT      |  | Bushehr Petrochemical Company (BUPC)                     |  | DRAWN BY       | WZ            |  | 03         | 05-04-2022 | VZ    |
| CLIENT REF  |  | 17811  |  | CHECKED BY     | KP            |  | 02         | 11-02-2022 | VZ    |
| AIRPACK REF |  | 17811-CDM  |  | PLANT LOCATION | IRAN, ONSHORE |  | 01         | 15-11-2021 | VZ    |
|             |  |  |  | SCALE          | -             | 00   | 07-12-2020 | VZ         |       |
|             |  |  |  | DRAWING NO.    | 17811-38      | MODIFICATIONS  | SHEET      |            | 02/12 |

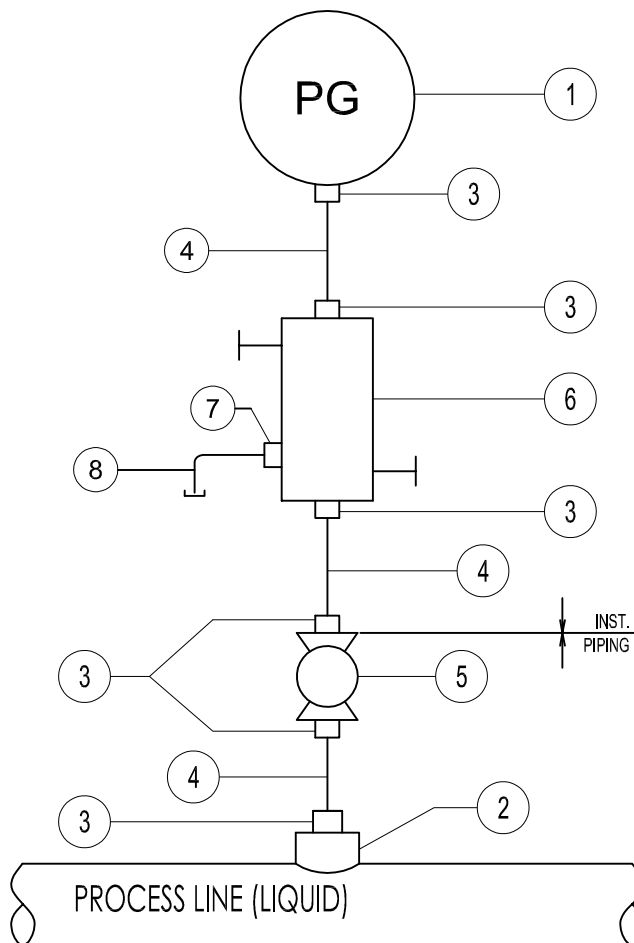
**BILL OF MATERIALS**

| ITEM NO: | DESCRIPTION  | MATERIAL | Q'TY |
|----------|--|----------|------|
| 1        | PRESSURE GAUGE   | SS316    | 1    |
| 2        | PROCESS CONNECTION 1/2" NPT-F                          | SS316    | 1    |
| 3        | CONNECTOR DOUBLE COMPRESSION TYPE 1/2" NPT-M - 1/2" OD | SS316    | 6    |
| 4        | TUBING 1/2" OD   | SS316    | -    |
| 5        | 2-WAY BALL VALVE 1/2" NPT-F                            | SS316    | 1    |
| 6        | 2-WAY BLOCK & BLEED MANIFOLD                           | SS316    | 1    |
| 7        | CONNECTOR DOUBLE COMPRESSION TYPE 1/4" NPT-F - 1/4" OD | SS316    | 1    |
| 8        | TUBING 1/4" OD WITH CAP                                | SS316    | -    |

TAG NO: PG-10160

NO. OF INSTALLATIONS: 1

**PRESSURE GAUGE**



|  |             |  |  |             |                |               |  |    |            |    |
|--|-------------|--|--|-------------|----------------|---------------|--|----|------------|----|
|  | SUBJECT     |  | INSTRUMENT HOOK UP DRAWING FOR NITROGEN COMPRESSOR |             | DATE           | 07-12-2020    | THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION |    |            |    |
|  | CLIENT      |  | Bushehr Petrochemical Company (BUPC)               |             | DRAWN BY       | WZ            |  | 03 | 05-04-2022 | VZ |
|  | CLIENT REF  |  | 17811  |             | CHECKED BY     | KP            |  | 02 | 11-02-2022 | VZ |
|  | AIRPACK REF |  | 17811-CDM  |             | PLANT LOCATION | IRAN, ONSHORE |  | 01 | 15-11-2021 | VZ |
|  |             |  |  |             | SCALE          | -             |  | 00 | 07-12-2020 | VZ |
|  |             |  |  | DRAWING NO. | 17811-38       | MODIFICATIONS | SHEET  |    | 03/12      |    |

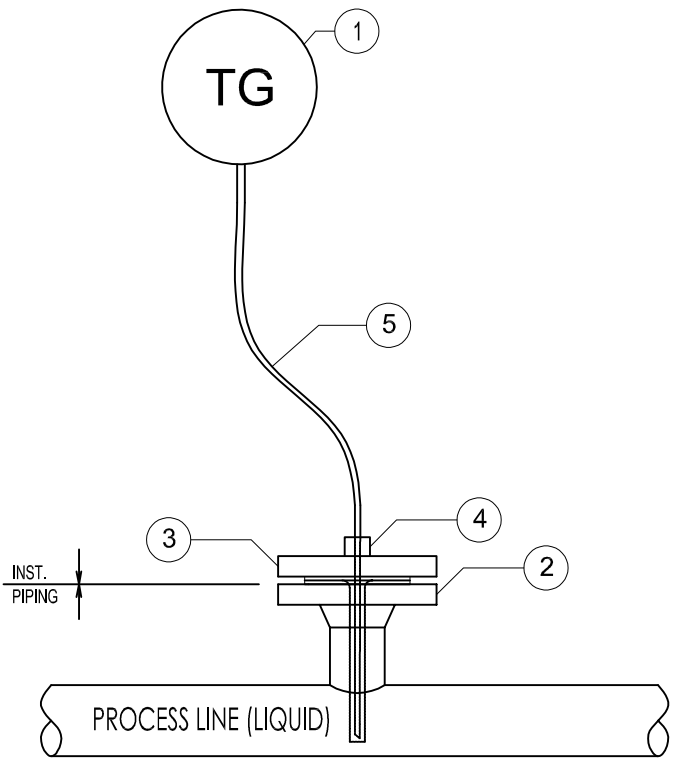
**BILL OF MATERIALS**

| ITEM NO: | DESCRIPTION   | MATERIAL | Q'TY |
|----------|---|----------|------|
| 1        | TEMPERATURE GAUGE   | SS316    | 1    |
| 2        | PROCESS CONNECTION 1 1/2" ANSI 300# RF                    | SS316    | 1    |
| 3        | THERMOWELL 1 1/2" ANSI 300# RF                            | SS316    | 1    |
| 4        | CONNECTOR DOUBLE COMPRESSION FITTING 1/2" NPT-M - 6 MM OD | SS316    | 1    |
| 5        | CAPILARY, L=5M MOULDED TO TEMPERATURE ELEMENT             | SS316    | 1    |
|          |   |          |      |
|          |   |          |      |
|          |   |          |      |
|          |   |          |      |

TAG NO: TG-10156 / TG-10157 / TG-10158

NO. OF INSTALLATIONS: 3

## TEMPERATURE GAUGE



|             |  |  |  |                |               |  |            |            |       |
|-------------|--|--|--|----------------|---------------|--|------------|------------|-------|
| SUBJECT     |  | INSTRUMENT HOOK UP<br>DRAWING FOR<br>NITROGEN COMPRESSOR |  | DATE           | 07-12-2020    | THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION |            |            |       |
| CLIENT      |  | Bushehr Petrochemical Company (BUPC)                     |  | DRAWN BY       | WZ            |  | 03         | 05-04-2022 | VZ    |
| CLIENT REF  |  | 17811  |  | CHECKED BY     | KP            |  | 02         | 11-02-2022 | VZ    |
| AIRPACK REF |  | 17811-CDM  |  | PLANT LOCATION | IRAN, ONSHORE |  | 01         | 15-11-2021 | VZ    |
|             |  |  |  | SCALE          | -             | 00   | 07-12-2020 | VZ         |       |
|             |  |  |  | DRAWING NO.    | 17811-38      | MODIFICATIONS  | SHEET      |            | 04/12 |

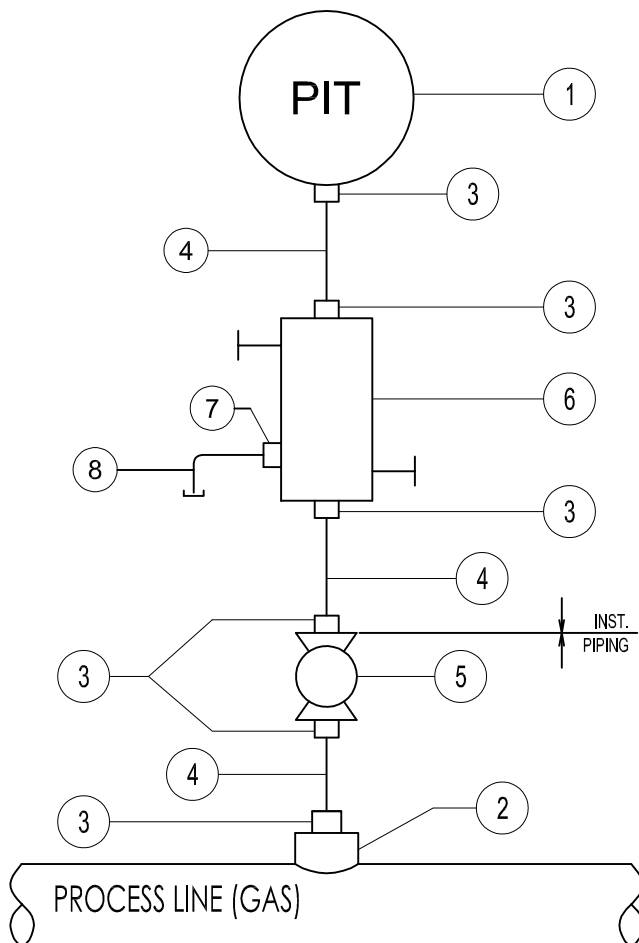
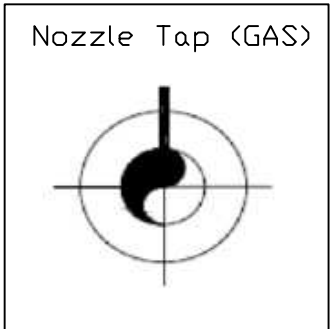
**BILL OF MATERIALS**

| ITEM NO: | DESCRIPTION  | MATERIAL  | Q'TY |
|----------|--|-----------|------|
| 1        | PRESSURE TRANSMITTER                                   | ALUMINIUM | 1    |
| 2        | PROCESS CONNECTION 1/2" NPT-F                          | SS316     | 1    |
| 3        | CONNECTOR DOUBLE COMPRESSION TYPE 1/2" NPT-M - 1/2" OD | SS316     | 6    |
| 4        | TUBING 1/2" OD   | SS316     | -    |
| 5        | 2-WAY BALL VALVE 1/2" NPT-F                            | SS316     | 1    |
| 6        | 2-WAY BLOCK & BLEED MANIFOLD                           | SS316     | 1    |
| 7        | CONNECTOR DOUBLE COMPRESSION TYPE 1/4" NPT-F - 1/4" OD | SS316     | 1    |
| 8        | TUBING 1/4" OD WITH CAP                                | SS316     | -    |

TAG NO: PIT-10153 / PIT-10156 / PIT-10157 / PIT-10158 / PIT-10159

NO. OF INSTALLATIONS: 5

## PRESSURE TRANSMITTER



|             |  |                                      |               |               |  |
|-------------|--|--------------------------------------|---------------|---------------|--|
| SUBJECT     | INSTRUMENT HOOK UP<br>DRAWING FOR<br>NITROGEN COMPRESSOR |                                      | DATE          | 07-12-2020    | THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION |
|             | CLIENT   | Bushehr Petrochemical Company (BUPC) | DRAWN BY      | WZ            |  |
| CLIENT REF  | 17811  | PLANT LOCATION                       | IRAN, ONSHORE | CHECKED BY    | KP   |
| AIRPACK REF | 17811-CDM  | SCALE                                | -             | PERMISSION    |  |
|             |  | DRAWING NO.                          | 17811-38      | MODIFICATIONS |  |
|             |  |                                      |               | SHEET         | 05/12  |



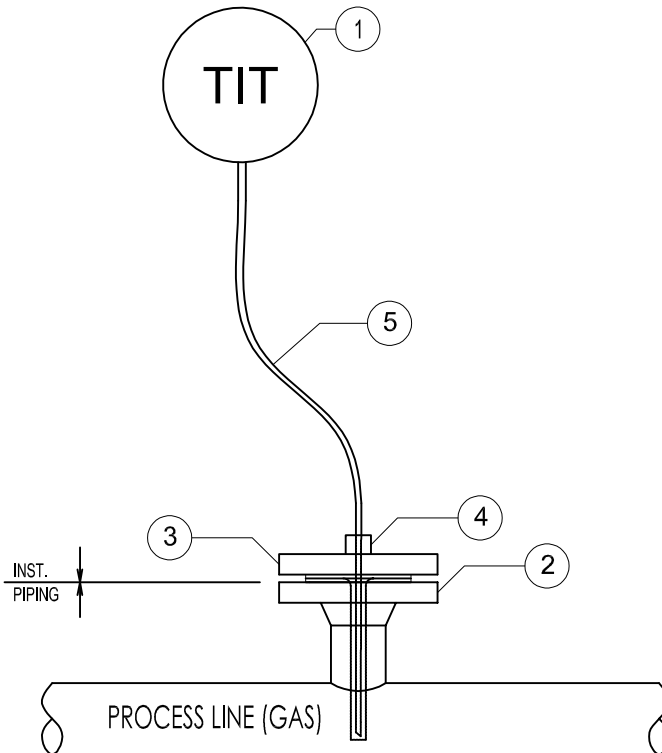
**BILL OF MATERIALS**


| ITEM NO: | DESCRIPTION   | MATERIAL  | Q'TY |
|----------|---|-----------|------|
| 1        | TEMPERATURE TRANSMITTER                                   | ALUMINIUM | 1    |
| 2        | PROCESS CONNECTION 1 1/2" ANSI 300# RF                    | SS316     | 1    |
| 3        | THERMOWELL 1 1/2" ANSI 300# RF                            | SS316     | 1    |
| 4        | CONNECTOR DOUBLE COMPRESSION FITTING 1/2" NPT-M - 6 MM OD | SS316     | 1    |
| 5        | CAPILARY, L=5M MOULDED TO TEMPERATURE ELEMENT             | SS316     | 1    |
|          |   |           |      |
|          |   |           |      |
|          |   |           |      |
|          |   |           |      |
|          |   |           |      |

TAG NO: TIT-10151 / TIT-10152 / TIT-10153 / TIT-10154 / TIT-10155

NO. OF INSTALLATIONS: 5

## TEMPERATURE TRANSMITTER



|   |               |                                      |  |                |               |            |  |
|---|---------------|--------------------------------------|--|----------------|---------------|------------|--|
|  | SUBJECT       |                                      | INSTRUMENT HOOK UP<br>DRAWING FOR<br>NITROGEN COMPRESSOR |                | DATE          | 07-12-2020 | THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION<br>03 05-04-2022 VZ<br>02 11-02-2022 VZ<br>01 15-11-2021 VZ<br>00 07-12-2020 VZ |
|   | CLIENT        | Bushehr Petrochemical Company (BUPC) |  | PLANT LOCATION | IRAN, ONSHORE |            |  |
|   | CLIENT REF    | 17811                                |  | SCALE          | -             |            |  |
|   | AIRPACK REF   | 17811-CDM                            |  | DRAWING NO.    | 17811-38      |            |  |
|   | MODIFICATIONS |                                      | SHEET  |                | 07/12         |            |  |



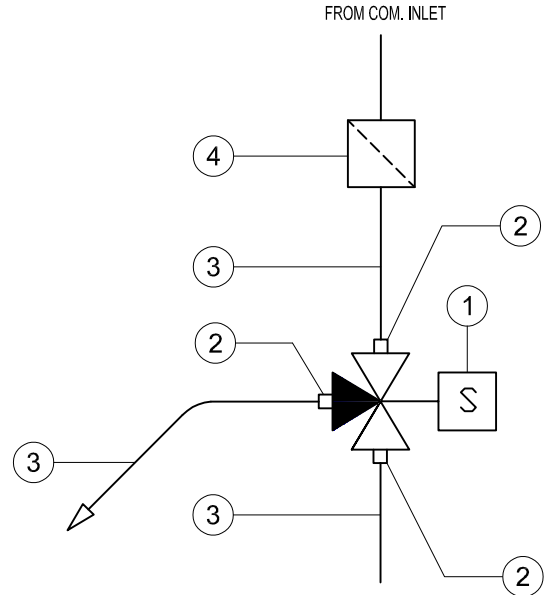
**BILL OF MATERIALS**

| ITEM NO: | DESCRIPTION  | MATERIAL | Q'TY |
|----------|--|----------|------|
| 1        | 3-WAY SOLENOID VALVE                                   | SS 316   | 1    |
| 2        | CONNECTOR DOUBLE COMPRESSION TYPE 1/4" NPT-M - 1/4" OD | SS 316   | 3    |
| 3        | TUBING 1/4" OD   | SS 316   | -    |
| 4        | AIR INLET FILTER/REGULATOR                             | SS 316   | 1    |
|          |  |          |      |
|          |  |          |      |
|          |  |          |      |
|          |  |          |      |
|          |  |          |      |
|          |  |          |      |

TAG NO: XY-10151

NO. OF INSTALLATIONS: 1

**SOLENOID VALVE**



|             |  |  |  |                |               |  |            |            |    |
|-------------|--|--|--|----------------|---------------|--|------------|------------|----|
| SUBJECT     |  | INSTRUMENT HOOK UP<br>DRAWING FOR<br>NITROGEN COMPRESSOR |  | DATE           | 07-12-2020    | THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION |            |            |    |
| CLIENT      |  | Bushehr Petrochemical Company (BUPC)                     |  | DRAWN BY       | WZ            |  | 03         | 05-04-2022 | WZ |
| CLIENT REF  |  | 17811  |  | CHECKED BY     | KP            |  | 02         | 11-02-2022 | WZ |
| AIRPACK REF |  | 17811-COM  |  | PLANT LOCATION | IRAN, ONSHORE |  | 01         | 15-11-2021 | WZ |
|             |  |  |  | SCALE          | -             | 00   | 07-12-2020 | WZ         |    |
|             |  |  |  | DRAWING NO.    | 17811-38      | MODIFICATIONS  | SHEET      | 09/12      |    |

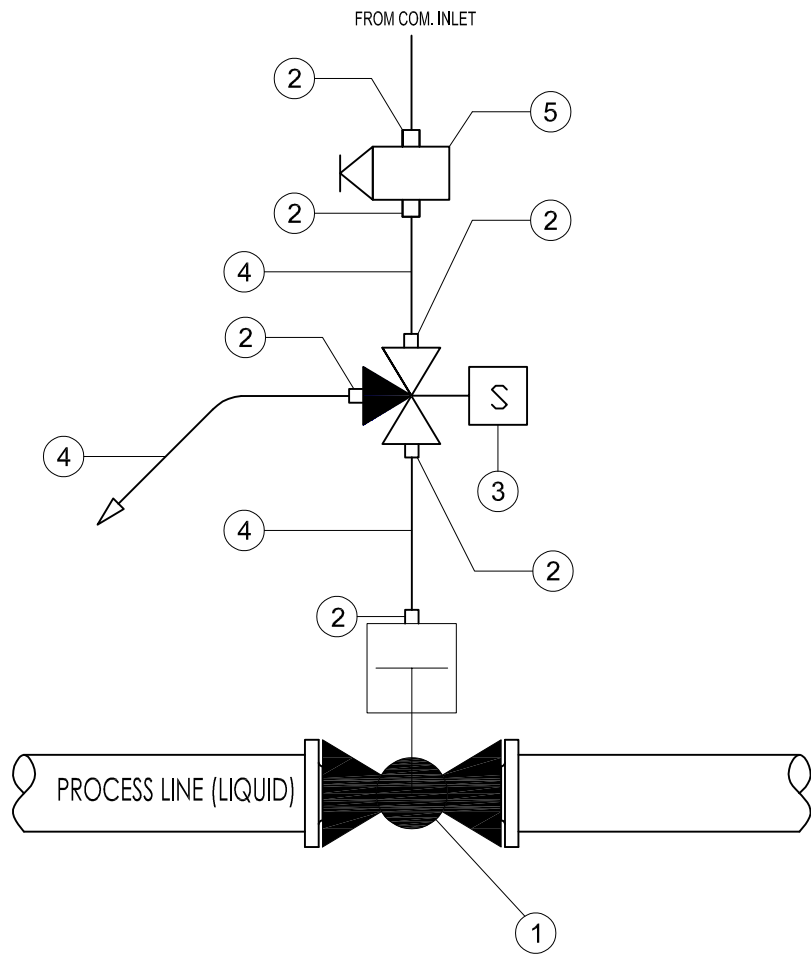
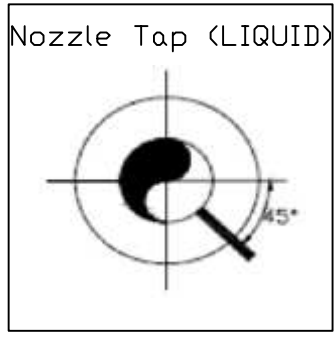
**BILL OF MATERIALS**

| ITEM NO: | DESCRIPTION  | MATERIAL | Q'TY |
|----------|--|----------|------|
| 1        | 2-WAY BALL VALVE 1 1/2" ANSI 150# RF                   | SS 316   | 1    |
| 2        | CONNECTOR DOUBLE COMPRESSION TYPE 1/4" NPT-M - 1/4" OD | SS 316   | 6    |
| 3        | 3-WAY SOLENOID VALVE                                   | SS 316   | 1    |
| 4        | TUBING 1/4" OD   | SS 316   | -    |
| 5        | FILTER REGULATOR                                       | SS316    | 1    |
|          |  |          |      |
|          |  |          |      |
|          |  |          |      |
|          |  |          |      |
|          |  |          |      |

TAG NO: XV-10152  
XY-10152

NO. OF INSTALLATIONS: 1

## PNEUMATIC OPERATED BALL VALVE



|             |  |  |  |                |               |  |            |            |    |
|-------------|--|--|--|----------------|---------------|--|------------|------------|----|
| SUBJECT     |  | INSTRUMENT HOOK UP<br>DRAWING FOR<br>NITROGEN COMPRESSOR |  | DATE           | 07-12-2020    | THIS DRAWING IS OWNED BY AIRPACK AND SHALL NOT BE PRINTED OR COPIED IN ANY OTHER WAY THAN WITH AIRPACKS PERMISSION |            |            |    |
| CLIENT      |  | Bushehr Petrochemical Company (BUPC)                     |  | DRAWN BY       | WZ            |  | 03         | 05-04-2022 | VZ |
| CLIENT REF  |  | 17811  |  | CHECKED BY     | KP            |  | 02         | 11-02-2022 | VZ |
| AIRPACK REF |  | 17811-COM  |  | PLANT LOCATION | IRAN, ONSHORE |  | 01         | 15-11-2021 | VZ |
|             |  |  |  | SCALE          | -             | 00   | 07-12-2020 | VZ         |    |
|             |  |  |  | DRAWING NO.    | 17811-38      | MODIFICATIONS  | SHEET      | 10/12      |    |



