



|  | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  |  |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
|---|--|---|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|-----------------|----------------|----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>                                     | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">Proj. Code</th> <th style="width: 10%;">Area</th> <th style="width: 10%;">Unit</th> <th style="width: 10%;">Disc. Code</th> <th style="width: 10%;">Doc. Type</th> <th style="width: 10%;">Material Code</th> <th style="width: 10%;">Serial. No</th> </tr> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5501</td> </tr> </table> | Proj. Code  | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5501 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Class: A</b></td> <td style="width: 50%;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 1 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 1 of 11</b> |  |
| Proj. Code  | Area   | Unit  | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| DPIC9812  | 001  | 500   | ME         | DS        | 4260          | 5501       |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Class: A</b>   | <b>Rev. D0</b>   |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Sheet 1 of 11</b>  |  |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |




## MECHANICAL DATA SHEET

### FOR

### MIXING SCREW FEEDER PACKAGE (BLACK GRADE) (M-5501)

This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

|     |               |              |               |                 |           |                  |
|-----|---------------|--------------|---------------|-----------------|-----------|------------------|
|     |               |              |               |                 |           |                  |
| D0  | 01-Jun-2020   | M.Haghevis   | S.Farhadzadeh | Mojahed         | H.Farhadi | IFA              |
| REV | DATE<br>ISSUE | PREPARE<br>D | CHECKED       | PPI<br>APPROVED | NARGAN    | PURPOSE OF ISSUE |



| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  | <br>شرکت صنایع پتروشیمی فارس<br>Persian Gulf Petrochemical Industries Co.<br>PGPIC<br>شرکت صنایع پتروشیمی دهشت (سهایی نام) |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
|--|--|---|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|-----------------|----------------|----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>  | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Proj. Code</th> <th>Area</th> <th>Unit</th> <th>Disc. Code</th> <th>Doc. Type</th> <th>Material Code</th> <th>Serial. No</th> </tr> </thead> <tbody> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5501</td> </tr> </tbody> </table> | Proj. Code  | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5501 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"><b>Class: A</b></td> <td style="width: 50%; text-align: center;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 2 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 2 of 11</b> |  |
| Proj. Code   | Area   | Unit  | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| DPIC9812   | 001  | 500   | ME         | DS        | 4260          | 5501       |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Class: A</b>  | <b>Rev. D0</b>   |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Sheet 2 of 11</b>   |  |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |

### TABULATION OF REVISED PAGES

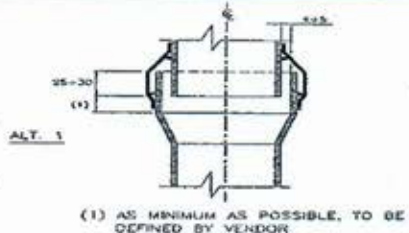
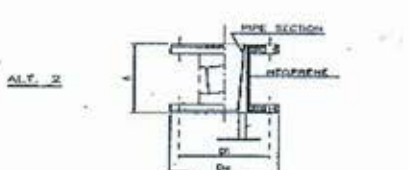
| Page | Rev-D0 | Rev-D1 | Rev-D2 | Rev-D3 | Rev-D4 |
|------|--------|--------|--------|--------|--------|
| 1    | x      |        |        |        |        |
| 2    | x      |        |        |        |        |
| 3    | x      |        |        |        |        |
| 4    | x      |        |        |        |        |
| 5    | x      |        |        |        |        |
| 6    | x      |        |        |        |        |
| 7    | x      |        |        |        |        |
| 8    | x      |        |        |        |        |
| 9    | x      |        |        |        |        |
| 10   | x      |        |        |        |        |
| 11   | x      |        |        |        |        |
| 12   |        |        |        |        |        |
| 13   |        |        |        |        |        |
| 14   |        |        |        |        |        |
| 15   |        |        |        |        |        |
| 16   |        |        |        |        |        |
| 17   |        |        |        |        |        |
| 18   |        |        |        |        |        |
| 19   |        |        |        |        |        |
| 20   |        |        |        |        |        |
| 21   |        |        |        |        |        |
| 22   |        |        |        |        |        |
| 23   |        |        |        |        |        |
| 24   |        |        |        |        |        |
| 25   |        |        |        |        |        |
| 26   |        |        |        |        |        |
| 27   |        |        |        |        |        |
| 28   |        |        |        |        |        |
| 29   |        |        |        |        |        |
| 30   |        |        |        |        |        |
| 31   |        |        |        |        |        |
| 32   |        |        |        |        |        |
| 33   |        |        |        |        |        |
| 34   |        |        |        |        |        |
| 35   |        |        |        |        |        |




| Page | Rev-D0 | Rev-D1 | Rev-D2 | Rev-D3 | Rev-D4 |
|------|--------|--------|--------|--------|--------|
| 36   |        |        |        |        |        |
| 37   |        |        |        |        |        |
| 38   |        |        |        |        |        |
| 39   |        |        |        |        |        |
| 40   |        |        |        |        |        |
| 41   |        |        |        |        |        |
| 42   |        |        |        |        |        |
| 43   |        |        |        |        |        |
| 44   |        |        |        |        |        |
| 45   |        |        |        |        |        |
| 46   |        |        |        |        |        |
| 47   |        |        |        |        |        |
| 48   |        |        |        |        |        |
| 49   |        |        |        |        |        |
| 50   |        |        |        |        |        |
| 51   |        |        |        |        |        |
| 52   |        |        |        |        |        |
| 53   |        |        |        |        |        |
| 54   |        |        |        |        |        |
| 55   |        |        |        |        |        |
| 56   |        |        |        |        |        |
| 57   |        |        |        |        |        |
| 58   |        |        |        |        |        |
| 59   |        |        |        |        |        |
| 60   |        |        |        |        |        |
| 61   |        |        |        |        |        |
| 62   |        |        |        |        |        |
| 63   |        |        |        |        |        |
| 64   |        |        |        |        |        |
| 65   |        |        |        |        |        |
| 66   |        |        |        |        |        |
| 67   |        |        |        |        |        |
| 68   |        |        |        |        |        |
| 69   |        |        |        |        |        |
| 70   |        |        |        |        |        |

This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

|  | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  |  |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
|---|--|---|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|-----------------|----------------|----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>                                     | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Proj. Code</th> <th>Area</th> <th>Unit</th> <th>Disc. Code</th> <th>Doc. Type</th> <th>Material Code</th> <th>Serial. No</th> </tr> </thead> <tbody> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5501</td> </tr> </tbody> </table> | Proj. Code  | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5501 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Class: A</b></td> <td style="width: 50%;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 3 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 3 of 11</b> |  |
| Proj. Code  | Area   | Unit  | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| DPIC9812  | 001  | 500   | ME         | DS        | 4260          | 5501       |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Class: A</b>   | <b>Rev. D0</b>   |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Sheet 3 of 11</b>  |  |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |




This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

| EXTENSION OF SUPPLY   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/>   | DESIGN OF THE SYSTEM IN ORDER TO MEET THE SPECIFIED MIXING CAPACITY   |   |
| <input checked="" type="checkbox"/>   | TWIN SCREW MIXER + BAG FILTER + SKID MOUNTED MIXER VENT BLOWER + SUCTION AND DISCHARGE PIPING +FLOW CONTROL VALVE   |   |
| <input checked="" type="checkbox"/>   | ELECTRIC MOTOR DRIVER INCLUDING SPEED CONTROL PANEL IF REQUIRED   |   |
| <input checked="" type="checkbox"/>   | ADEQUATE DISCHARGE FLOW RATE CONTROL SYSTEM   |   |
| <input checked="" type="checkbox"/>   | FEEDING HOPPER  |   |
| <input checked="" type="checkbox"/>   | BOTTOM DISCHARGE DOOR PNEUMATICALLY ACTUATED (CONTOUR DOOR)   |   |
| <input checked="" type="checkbox"/>   | INSPECTION DOORS (No. 2)  |   |
| <input checked="" type="checkbox"/>   | ELECTROMECHANICAL DEVICES (No. 2) FOR DOOR LOCKED   |   |
| <input checked="" type="checkbox"/>   | SOLENOID VALVE (No. 2) FOR DOOR LOCKED  |   |
| <input checked="" type="checkbox"/>   | LIMIT SWITCH (No. 2) FOR DOOR CLOSED  |   |
| <input checked="" type="checkbox"/>   | THERMOELEMENTS WITH LOCAL REPEATER  |   |
| <input checked="" type="checkbox"/>   | SPEED SENSOR FOR EACH SHAFT   |   |
| <input checked="" type="checkbox"/>   | ELECTRICAL AND INSTRUMENTATION CONNECTIONS INSIDE PACKAGE BATTERY LIMITS  |   |
| <input checked="" type="checkbox"/>   | INDICATING CONTROL AND PROTECTION INSTRUMENTS   |   |
| <input type="checkbox"/>  | LOCAL OPERATING PANEL   |   |
| <input checked="" type="checkbox"/>   | FLEXIBLE HOSES AT UNIT BOUNDARY   |   |
| <input checked="" type="checkbox"/>   | GROUNDING CLIPS   |   |
| <input checked="" type="checkbox"/>   | LIFTING LUGS  |   |
| <input checked="" type="checkbox"/>   | ANCHOR BOLTS  | <input checked="" type="checkbox"/> DESIGN <input checked="" type="checkbox"/> SUPPLY |
| <input checked="" type="checkbox"/>   | INSULATION SUPPORTS ON MACHINERY PARTS WHOSE OPERATING TEMPERATURE IS $\geq 60^{\circ}\text{C}$   |   |
| <input checked="" type="checkbox"/>   | SPECIAL TOOLS AND WRENCHES FOR MAINTENANCE  |   |
| <input checked="" type="checkbox"/>   | SPARE PARTS FOR COMMISSIONING AND START-UP  |   |
| <input checked="" type="checkbox"/>   | SPARE PARTS FOR 2 YEARS OPERATIONS  |   |
| <input checked="" type="checkbox"/>   | AUTOMATION AND INTERLOCK DESCRIPTION  |   |
| <input checked="" type="checkbox"/>   | MATERIAL CERTIFICATION  |   |
| <input checked="" type="checkbox"/>   | DOCUMENTATION, DRAWINGS AND INSTRUCTION MANUAL  |   |
| <input checked="" type="checkbox"/>   | PRESERVATION FOR DELIVERY AND STORAGE   |   |
| <input checked="" type="checkbox"/>   | SEALS WITH FLUSHING PIPING, VALVE, FLOW INDICATORS , PSV, PRESSURE REGULATION & INDICATOR AND SOLENOID VALVE  |   |
| <input checked="" type="checkbox"/>   | REMOVABLE FRONT BOLTED DOOR TO BE USED TO EMPTY INTO FLOOR IN CASE OF NEED (HAVING BLINDED BOTTOM DISCHARGE)  |   |
| <input checked="" type="checkbox"/>   | Any accessory, part, or device not specified herein but necessary for the correct unit operation, shall be supplied by Vendor.  |   |
| <p><b>FLEXIBLE HOSE (only as reference)</b></p> <p>ALL FLEXIBLE HOSES AT UNIT BOUNDARY SHALL BE WITH INTERNAL PIPE OR OTHER DEVICES SUITABLE TO AVOID POLLUTION WITH PELLETS OR POWDERS IN CASE OF FLEXIBLE BREAKAGE.</p> | <div style="text-align: center;">  <p>ALT. 1</p> </div> <div style="text-align: center;">  <p>ALT. 2</p> </div> |   |

| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>   |   | <br>شرکت صنایع پتروشیمی فارس<br>Persian Gulf Petrochemical Industries Co.<br>PGPIC<br>شرکت صنایع پتروشیمی ادهشت (سای ماه) |  |               |            |               |            |          |     |     |    |    |      |      |  |  |
|--|---|---|--|--|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|--|
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b> |  | <b>Class: A</b> <b>Rev: D0</b><br><br><b>Sheet 4 of 11</b> |               |            |               |            |          |     |     |    |    |      |      |  |  |
|  | <table border="1"> <tr> <th>Proj. Code</th> <th>Area</th> <th>Unit</th> <th>Disc. Code</th> <th>Doc. Type</th> <th>Material Code</th> <th>Serial. No</th> </tr> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5501</td> </tr> </table> | Proj. Code  | Area   | Unit   | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5501 |  |  |
| Proj. Code   | Area  | Unit  | Disc. Code   | Doc. Type  | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |  |
| DPIC9812   | 001   | 500   | ME   | DS   | 4260          | 5501       |               |            |          |     |     |    |    |      |      |  |  |

This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

|  |  |   |                                     |  |                      |
|--|--|---|-------------------------------------|--|----------------------|
| SERVICE  | BLENDING AND TRASPORTING OF HDPE POWDER WITH SOILD ADDITIVES |   | ITEM                                | M-5501                                 |                      |
| TYPE   | HORIZONTAL TWIN SCREW MIXER (5)                              |   | MODEL                               | No. OF UNITS 1 (one)                   |                      |
| MFR  |  |   | MOTOR RATED                         | kW                                     |                      |
| SOUND PRESSURE LEVEL (SPL) @ 1 m   | ≤ 85   | dB(A)   | SERVICE TYPE                        | CONTINUOUS                             |                      |
| <b>APPLICABLE CODES AND STANDARDS</b>  |  |   |                                     |  |                      |
| <input checked="" type="checkbox"/> MIXER  | MFR std.   | <input checked="" type="checkbox"/> ELECTRIC MOTORS | IEC                                 |  |                      |
| <b>INSTALLATION DATA</b>   |  |   |                                     |  |                      |
| <input checked="" type="checkbox"/> ENVIRONMENT  | <input checked="" type="checkbox"/> HUMID                    | <input checked="" type="checkbox"/> CORROSIVE       | <input type="checkbox"/> SEA SIDE   | <input type="checkbox"/> WINTERIZATION |                      |
| INSTALLATION   | <input checked="" type="checkbox"/> INDOOR                   | <input type="checkbox"/> OUTDOOR                    | <input type="checkbox"/> UNDER ROOF | <input type="checkbox"/> GROUND FLOOR  |                      |
|  | <input checked="" type="checkbox"/> SKID MOUNTED             |   |                                     |  |                      |
| AREA CLASSIFICATION(9)   | ZONE 22  | DUST GR. IIIIB                                      | MAX SURFACE TEMP. 200°C             | PROTECTION DEGREE IP 65                |                      |
| <b>DESIGN CONDITIONS</b>   |  |   |                                     |  |                      |
| PRODUCT TO BE FED (2)  | HDPE BEADS: 92.5 %wt OF STREAM                               |   |                                     |  |                      |
| PRODUCT HAZARDOUSNESS  | n. *   | SOLID ADDITIVES: 7.5 %wt OF STREAM                  |                                     |  |                      |
| OPERATION No.  | hours/day  | 24 hours/day AND 8000 hours/year                    |                                     |  |                      |
| OPERATION TYPE   | FULLY AUTOMATIC  |   |                                     |  |                      |
| PRODUCT CHARACTERISTICS  | <b>SEE ANNEX-I</b>   |   |                                     |  |                      |
| PARTICLE SIZE  |  |   |                                     |  | % weight             |
| BULK/REAL DENSITY  |  |   |                                     |  | kg/m <sup>3</sup>    |
| REPOSE ANGLE   |  |   |                                     |  | * on horizontal line |
| FLOWRATE   | th   | NORMAL DESIGN                                       | 45 (HDPE POWDER) + 3.65 (ADDITIVES) |  |                      |
|  |  | MAX (3)(4)  |                                     |  |                      |
|  |  | MIN (2)   |                                     |  |                      |
| FED FROM   | <b>METERING UNITS AND SCREW FEEDER</b>                       |   |                                     |  |                      |
| DISCHARGING INTO   | <b>EXTRUDER</b>  |   |                                     |  |                      |
| OPERATING / DESIGN PRESSURE  | barg   | 0.05 / -0.02 TO 0.2                                 |                                     |  |                      |
| OPER. / DESIGN TEMPERATURE   | °C   | 90 (MAX 100) / 120                                  |                                     |  |                      |
| ADDITIVES FEED TEMPERATURE   | °C   | 20  |                                     |  |                      |
| TEMPERATURE INCREASE   | °C   | <5  |                                     |  |                      |
| MIXING LNEGHT (MIN DISTANCE BETWEEN ADDITIVE INLET AND DISCHARGE NOZZLE)   | mm   | NOT SHORTER THAN 2500                               |                                     |  |                      |
| CLEARANCE BETWEEN SCREW AND CASING   | mm   | 10  |                                     |  |                      |
| <b>CONSTRUCTION MATERIALS</b>  |  |   |                                     |  |                      |
| METALLIC MATERIAL IN CONTACT WITH PRODUCT  | AISI 304   |   |                                     |  |                      |
| GASKET IN CONTACT WITH PRODUCT   | WHITE NEOPRENE OR EQUIVALENT TO AVOID PRODUCT POLLUTION      |   |                                     |  |                      |
| <b>OPERATING DESCRIPTION</b>   |  |   |                                     |  |                      |
| THE CONTINUOUS MIXER IS FED BY GRAVITY FROM STABILIZER DOSING SCLAE W 5601-5606 BELONG TO SATBILZER DOSING PACKAGE UNIT PK-5601. MAIN STREAM CONTAINING HDPE POWDER & COMING FROM W-5501 ARE DIRECTLY FED TO THE MIXER. THE STREAMS ARE CONTINUOUSLY MIXED AND THE RESULTING MIXTURE IS FED TO THE EXTRUDER. |  |   |                                     |  |                      |
| THE CONTINUOUS MIXER SHALL FEED THE EXTRUDER WITH REGULARITY MAINTAINING THE ACCURACY OF THE ABOVE SAID METERING EQUIPMENT (± 0.5% IN THE WHOLE CAPACITY RANGE).   |  |   |                                     |  |                      |
| <b>TECHNICAL REQUIREMENTS FOR THE PACKAGE</b>  |  |   |                                     |  |                      |
| THE MIXER SHALL HAVE A POWDER, DUST AND GAS (NITROGEN) TIGHT DESIGN. IT SHALL BE DESIGNED TO AVOID POSSIBLE TROUBLES DUE TO THE INFILTRATION OF FINE POWDERS IN THE OPERATING PARTS AND FOR HIGH DUST CONTAINMENT.   |  |   |                                     |  |                      |

|  |   |   |                           |                                |                               |                                     |   |                      |                |
|--|---|---|---------------------------|--------------------------------|-------------------------------|-------------------------------------|---|----------------------|----------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |                           |                                |                               |                                     |  |                      |                |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b> |                           |                                |                               |                                     |   | <b>Class: A</b>      | <b>Rev. D0</b> |
|  | <b>Proj. Code</b><br><b>DPIC9812</b>  | <b>Area</b><br><b>001</b>   | <b>Unit</b><br><b>500</b> | <b>Disc. Code</b><br><b>ME</b> | <b>Doc. Type</b><br><b>DS</b> | <b>Material Code</b><br><b>4260</b> | <b>Serial. No</b><br><b>5501</b>  | <b>Sheet 5 of 11</b> |                |

**TECHNICAL REQUIREMENTS FOR THE PACKAGE (CONT.)**

- ALL INTERNAL PARTS MUST BE BUILT IN ORDER TO AVOID PRODUCT STAGNATION.
- THE DIFFERENT PARTS OF MIXER SHALL HAVE AN EASY ACCESS AND SHALL BE EASILY DISASSEMBLED FOR CLEANING.
- THE MIXER SHALL BE DESIGNED IN ORDER TO AVOID THE FORMATION OF BLOCKS AND AGGLOMERATES CONNECTED TO THE ADDITION OF LIQUID ADDITIVES
- REMOVABLE COVER TO BE PROVIDED: ONE BEFORE AND ONE AFTER THE FILTER IN ORDER TO OPEN THE MIXER WITHOUT DISMANTLING THE FILTER

**NOTES**

- (1) FOR AVAILABLE UTILITIES, REFER TO DOCUMENT DPC-PR-SPC-0003.
- (2) VENDOR SHALL SPECIFY TURN DOWN RATIO (AT LEAST 40% IS REQUESTED), IF APPLICABLE.
- (3) TO BE SPECIFIED ACCORDING TO EXTRUDER DESIGN CAPACITY.
- (4) VENDOR SHALL SUGGEST, CHECK AND APPROVE THE INSTALLATION OF THE EQUIPMENT, ACCORDING TO THE INSTALLATION OF METERING UNITS AND THE EXTRUDER, IN ORDER TO GUARANTEE A CORRECT AND RELIABLE OPERATION.
- (5) PADDEL- BLADE AND COUNTER ROTATING, TWO SPEED MOTOR (POLE CHANGING MOTOR OR VFD with NORMAL MOTOR)
- (6) MDMT: -4 @ 0.2 barg
- (7) ADJUSTABLE AUTOMATIC WEIR SYSTEM IF REQUIRED SHALL BE SUPPLIED BY VENDOR.
- (8) NITROGEN FLOW UP TO 100 m<sup>3</sup>/h COUNTERCURRENT TO HDPE FLOW TO BE CONSIDERED
- (9) THE HAZARDOUS AREA CLASSIFICATION IS SUBJECTED TO CHANGE.



**CONSTRUCTION DATA**

|                         |  |  |   |                                |                                 |
|-------------------------|--|--|---|--------------------------------|---------------------------------|
| SHELL DIAMETER          | mm                                       | LENGTH   | mm  | THICKNESS                      | mm                              |
| CORROSION ALLOWANCE     | 0  | INTERNAL SURFACE POLISHING                     |   | RMS                            |                                 |
| MIXING CHAMBER CAPACITY | m <sup>3</sup>                           | CAPACITY                                       |   | m <sup>3</sup>                 |                                 |
| MIXING TIME             | minutes                                  | ROTATION SPEED                                 |   | rpm                            |                                 |
| SIZE AND SHAPE OF INLET | SIZE AND SHAPE OF OUTLET                 |  |   |                                |                                 |
| SHAFT                   | <input type="checkbox"/> TUBULAR         | <input checked="" type="checkbox"/> SOLID      | <input checked="" type="checkbox"/> ONE PIECE CONSTRUCTION      |                                |                                 |
| END SUPPORTS (1)        | <input type="checkbox"/> ROLLER BEARINGS | <input type="checkbox"/> BUSHINGS              |   |                                |                                 |
| INTERMEDIATE SUPPORTS   | <input type="checkbox"/> ROLLER BEARINGS | <input type="checkbox"/> BUSHINGS              |   |                                |                                 |
| LUBRICATION             | <input type="checkbox"/> OIL             | <input checked="" type="checkbox"/> GREASE     |   |                                |                                 |
| TYPE OF SHAFT SEAL (2)  | DOUBLE STUFFING BOX                      |  | FLUSHED WITH  |                                | NITROGEN                        |
| DRIVEN BY               | <input type="checkbox"/> MOTOR+REDUCER   | <input checked="" type="checkbox"/> GEAR MOTOR | <input checked="" type="checkbox"/> THROUGH COUPLING            | <input type="checkbox"/> BELTS | <input type="checkbox"/> CHAINS |
| COUPLING                | MFR                                      | TYPE   | <input checked="" type="checkbox"/> ANTISPARKING COUPLING GUARD |                                |                                 |

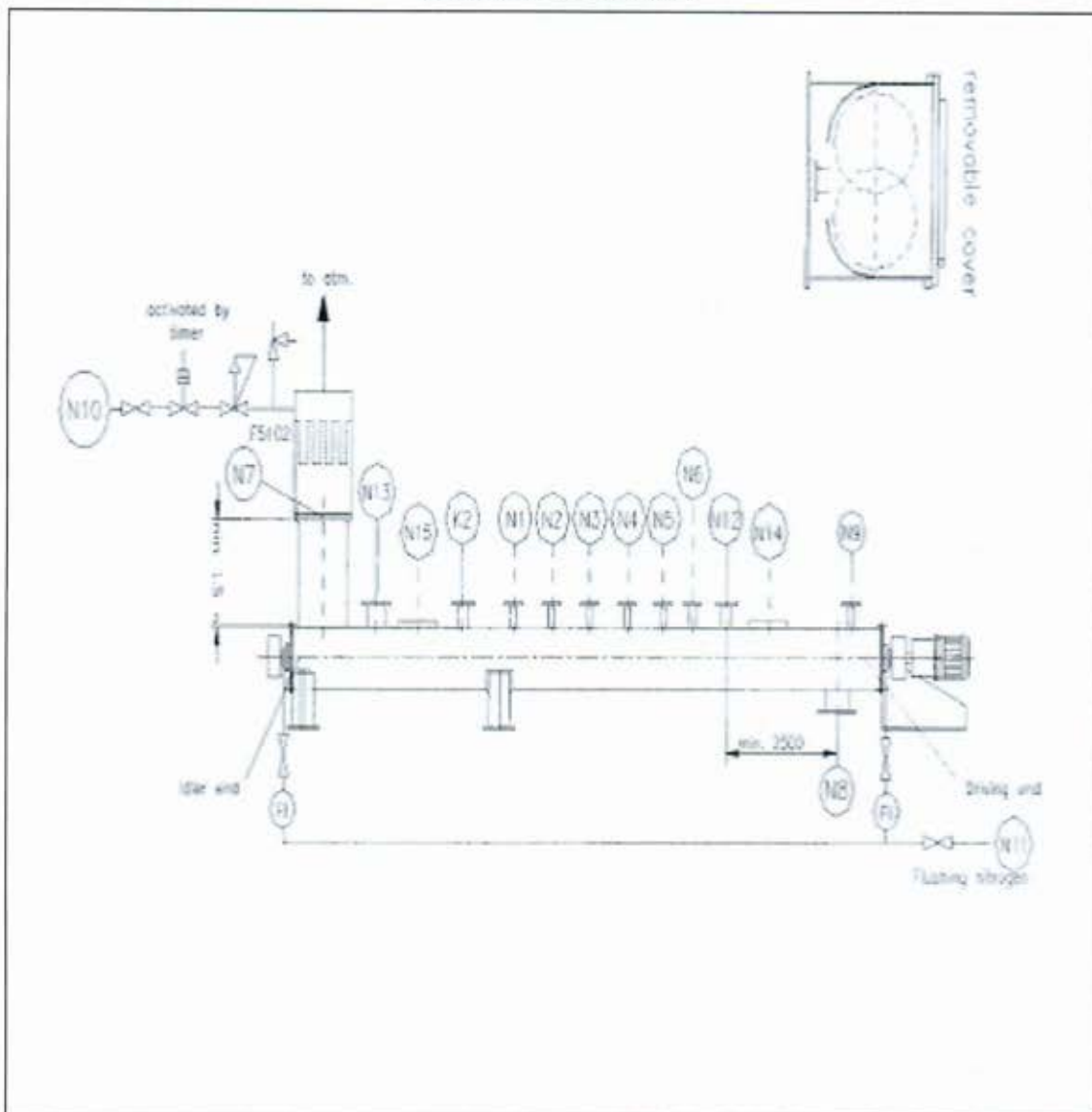
**NOTES**

- (1) BEARINGS SHALL BE OUT OF PRODUCT CONTACT.
- (2) NITROGEN FLOWMETERS WITH RELEVANT VALVES, PRESSURE REDUCER, PRESSURE GAUGE, PRESSURE SAFETY VALVES AND DISTRIBUTION PIPING SHALL BE INCLUDED IN THE SUPPLY. VENDOR SHALL PROVIDE SHUT OFF VALVES TO CLOSE THE NITROGEN IN CASE OF INTERLOCK ACTUATION. SEE AVAILABLE NITROGEN CONDITION DPC-PR-SPC-0003




This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

|  | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  |  |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
|---|--|---|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|-----------------|----------------|----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>                                     | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Proj. Code</th> <th style="width: 10%;">Area</th> <th style="width: 10%;">Unit</th> <th style="width: 10%;">Disc. Code</th> <th style="width: 10%;">Doc. Type</th> <th style="width: 10%;">Material Code</th> <th style="width: 10%;">Serial. No</th> </tr> </thead> <tbody> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5501</td> </tr> </tbody> </table> | Proj. Code  | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5501 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Class: A</b></td> <td style="width: 50%;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 6 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 6 of 11</b> |  |
| Proj. Code  | Area   | Unit  | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| DPIC9812  | 001  | 500   | ME         | DS        | 4260          | 5501       |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Class: A</b>   | <b>Rev. D0</b>   |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Sheet 6 of 11</b>  |  |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |

### SCHEMATIC SKETCH






This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  | <br>شرکت ملی پتروشیمی فارس<br>Persian Gulf Petrochemical Industry Co.<br>PGPIC<br>شرکت ملی پتروشیمی دهشت (سایمان) |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
|--|--|--|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|-----------------|----------------|----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>  | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Proj. Code</th> <th>Area</th> <th>Unit</th> <th>Disc. Code</th> <th>Doc. Type</th> <th>Material Code</th> <th>Serial. No</th> </tr> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5501</td> </tr> </table> | Proj. Code   | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5501 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Class: A</b></td> <td style="width: 50%;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 7 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 7 of 11</b> |  |
| Proj. Code   | Area   | Unit   | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| DPIC9812   | 001  | 500  | ME         | DS        | 4260          | 5501       |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Class: A</b>  | <b>Rev. D0</b>   |  |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Sheet 7 of 11</b>   |  |  |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |

| MIXER NOZZLE TABLE  |     |                     |     |        |        |           |           |
|---|-----|---------------------|-----|--------|--------|-----------|-----------|
| POS.  | NO. | SERVICE             | DN  | RATING | FLANGE | FINISHING | NOTES     |
| K1  | 1   | PRESSURE CONTROLLER | 3"  | #300   | WN-RF  |           |           |
| K2  | 1   | SPARE               | 3"  | #150   | WN-RF  |           | (4)       |
| N1  | 1   | POWDER IN           | 16" | #150   | WN-RF  |           | (1)       |
| N2  | 1   | ADDITVE FROM W 5606 | 6"  | #150   | WN-RF  |           | (2)       |
| N3  | 1   | ADDITVE FROM W 5601 | 6"  | #150   | WN-RF  |           | (2)       |
| N4  | 1   | ADDITVE FROM W 5602 | 6"  | #150   | WN-RF  |           | (2)       |
| N5  | 1   | ADDITVE FROM W 5603 | 6"  | #150   | WN-RF  |           | (2)       |
| N6  | 1   | ADDITVE FROM W 5604 | 6"  | #150   | WN-RF  |           | (2)       |
| N7  | 1   | VENT TO F 5502      | 20" | #150   | WN-RF  |           | (1) . (3) |
| N8  | 1   | POWDER OUTLET       | 16" | #150   | WN-RF  |           | (1)       |
| N9  | 1   | VENT FROM EX 5501   | 6"  | #150   | WN-RF  |           | (1)       |
| N10   | 1   | NITROGEN INLET      | 1"  | #300   | WN-RF  |           | (1)       |
| N11   | 1   | NITROGEN INLET      | ½"  | #300   | WN-RF  |           | (1)       |
| N12   | 1   | ADDITVE FROM W 5605 | 6"  | #150   | WN-RF  |           | (2)       |
| N13   | 1   | VENT FROM RF 5501   | 2"  | #150   | WN-RF  |           | (5)       |
| N14   | 1   | INSPECTION DOOR     |     |        |        |           | (1)       |
| N15   | 1   | INSPECTION DOOR     |     |        |        |           | (1)       |
|   |     |                     |     |        |        |           |           |
|   |     |                     |     |        |        |           |           |
| <b>NOTES</b>  |     |                     |     |        |        |           |           |
| 1) TO BE CONFIRMED BY VENDOR<br>2) TO BE CONFIRMED BY PK-5601 VENDOR<br>3) CONNECTION SIZE AND SHAPE SHALL BE IN SCOPE OF BAG FILTER DESIGNER.<br>4) WITH BLIND FLANGE AND PLUG FLUSH TO INNER SURFACE.<br>5) TO BE CONFIRMED BY PK 5501 VENDOR |     |                     |     |        |        |           |           |




This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

|  |   |   |   |                         |                        |                              |                           |                      |
|--|---|---|---|-------------------------|------------------------|------------------------------|---------------------------|----------------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   | <br>شرکت ملی پتروشیمی فارس<br>Persian Gulf Petrochemical Industry Co<br>PGPIC<br>شرکت ملی پتروشیمی دشت (سهامی عام) |                         |                        |                              |                           |                      |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b> |   |                         |                        |                              | <b>Class: A</b>           | <b>Rev. D0</b>       |
|  | Proj. Code<br><b>DPIC9812</b>   | Area<br><b>001</b>  | Unit<br><b>500</b>  | Disc. Code<br><b>ME</b> | Doc. Type<br><b>DS</b> | Material Code<br><b>4260</b> | Serial. No<br><b>5501</b> | <b>Sheet 8 of 11</b> |

This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.




|   |                                    |                                     |  |                |              |            |      |
|---|------------------------------------|-------------------------------------|--|----------------|--------------|------------|------|
| SERVICE                                     | EXTRUDER FEED DEGASSING FILTER (1) |                                     | ITEM   | F-5502         | QUANTITY     | 1          |      |
| TYPE  | BAG FILTER                         |                                     | DIAMETER   | mm             | PLANT UNIT   | 500        |      |
| HEAD TYPE                                   |                                    |                                     | HEIGHT OR LEN.   | mm             | INCLUDED IN  | M-5501     |      |
| INSULATION                                  |                                    |                                     | CAPACITY   | m <sup>3</sup> | SERVICE TYPE | CONTINUOUS |      |
| INSTALLATION                                | INDOOR                             |                                     | FIREPROOFING   |                | RADIOGRAPHY  |            |      |
| DESIGN CODE                                 |                                    |                                     |  |                |              |            |      |
| GAS OR LIQUID                               |                                    |                                     | SKETCH   |                |              |            |      |
| FLUID                                       | NITROGEN                           |                                     |  |                |              |            |      |
| FLOWARE                                     | kg/h                               | 250 (TO BE CONFIRMED)               |  |                |              |            |      |
| OPERATING TEMP.                             | °C                                 | 90                                  |  |                |              |            |      |
| OPERATING PRESSURE                          | bar(g)                             | 0.05                                |  |                |              |            |      |
| MW  |                                    | 28                                  |  |                |              |            |      |
| DENSITY                                     | kg/m <sup>3</sup>                  |                                     |  |                |              |            |      |
| VISCOSITY                                   | mPa.s                              |                                     |  |                |              |            |      |
| FLUID HAZARD                                |                                    |                                     |  |                |              |            |      |
| FILTRATION TYPE                             |                                    |                                     |  |                |              |            |      |
| SOLID TO BE FILTERED                        |                                    |                                     |  |                |              |            |      |
| SOLID                                       | HDPE POWDER / ADDITIVES            |                                     |  |                |              |            |      |
| FLOWARE                                     | kg/h                               |                                     |  |                |              |            |      |
| DENSITY                                     | kg/m <sup>3</sup>                  |                                     |  |                |              |            |      |
| PARTICLE SIZE                               |                                    | 2+30 mu                             |  |                |              |            |      |
| PARTICLE SIZE DISTRIBUTION                  |                                    | mu                                  | fract  |                |              |            |      |
|   |                                    | mu                                  | fract  |                |              |            |      |
|   |                                    | mu                                  | fract  |                |              |            |      |
|   |                                    | mu                                  | fract  |                |              |            |      |
| OPERATING DATA                              |                                    |                                     |  |                |              |            |      |
| DP CLEAN DIRTY                              | mbar                               | 10 / 50                             |  |                |              |            |      |
| TOTAL EFF. REQ'D / ACTUAL                   | %                                  | 98 /                                |  |                |              |            |      |
| PARTIAL SEPARATION EFF. (5)                 |                                    | mu                                  | fract  |                |              |            |      |
|   |                                    | mu                                  | fract  |                |              |            |      |
|   |                                    | mu                                  | fract  |                |              |            |      |
|   |                                    | mu                                  | fract  |                |              |            |      |
| CONSTRUCTION DATA OF ONE FILTER             |                                    |                                     |  |                |              |            |      |
| FILTER MEDIA                                | TYPE                               | BAG                                 | AREA   | m <sup>2</sup> |              |            |      |
|   | MATERIAL                           | PPS (Ryton) / 550 g/ m <sup>2</sup> | GASKETS  |                |              |            |      |
| PACKING                                     | TYPE                               |                                     | HEIGHT   | mm             |              |            |      |
|   | MATERIAL                           |                                     |  |                |              |            |      |
| DESIGN PRESS.                               | Bar(g)                             | COND.1 0.2                          | COND.2 -0.02   | F.V. REQUIRED  |              |            |      |
| DESIGN TEMP.                                | °C                                 | COND.1 120                          | COND.2 120   | F.V. TEMP.     |              |            |      |
| MDMT  | @                                  | @                                   |  |                |              |            |      |
| BODY MATERIAL                               | S.S.                               |                                     | CORROSION ALLOWANCE  | 0              | mm           |            |      |
| NOZZLES GASKETS                             |                                    |                                     |  |                |              |            |      |
| NOZZLES                                     |                                    |                                     |  |                |              |            |      |
| POS.  | NO.                                | SERVICE                             | DN   | RATING         | FLANGE       | FINISHING  | NOTE |
|   |                                    |                                     |  |                |              |            |      |
| NOTES                                       |                                    |                                     |  |                |              |            |      |
| 1) GAS TIGHT WITH AUTOMATIC CLEANING DEVICE |                                    |                                     | 4) SPERATION EFFICIENCY REQUIRED: 99%                            |                |              |            |      |
| 2) CLEANING TYPE: PULSE JET                 |                                    |                                     | 5) (PARTIAL SEPARATION EFFICIENCY: SIZE OF PARTICLE RETAIN: 5µm. |                |              |            |      |
| 3) SOLID CONTENT: 0.1 kg/m <sup>3</sup>     |                                    |                                     | MAX. DUST CONTENT IN OUTLET GAS: 10 mg/m <sup>3</sup>            |                |              |            |      |



|  |   |   |                    |                         |                        |                              |   |                      |                |
|--|---|---|--------------------|-------------------------|------------------------|------------------------------|---|----------------------|----------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |                    |                         |                        |                              | <br>شرکت صنایع پتروشیمی فارس<br>Parsian Gulf Petrochemical Industries Co.<br>PGPIC<br>شرکت صنایع پتروشیمی دشت عباس |                      |                |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b> |                    |                         |                        |                              |   | <b>Class: A</b>      | <b>Rev. D0</b> |
|  | <b>Proj. Code</b><br>DPIC9812   | <b>Area</b><br>001  | <b>Unit</b><br>500 | <b>Disc. Code</b><br>ME | <b>Doc. Type</b><br>DS | <b>Material Code</b><br>4260 | <b>Serial. No</b><br>5501   | <b>Sheet 9 of 11</b> |                |

This document is the property of DPIC Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

| BLOWER   |                   |                                    |                                 |                     |             |  |  |         |          |      |        |
|--|-------------------|------------------------------------|---------------------------------|---------------------|-------------|--|--|---------|----------|------|--------|
| SERVICE  | MIXER VENT BLOWER |                                    |                                 | TYPE                | CENTRIFUGAL |  | No. REQUIRED                                       | 1 (one) |          | ITEM | C 5502 |
| MFR  |                   |                                    |                                 | MODEL               |             |  | No. OF STAGES                                      | 1       |          |      |        |
| LOCATION   | OUTDOOR           | <input type="checkbox"/> UNDERROOF | <input type="checkbox"/> INDOOR | AREA CLASSIFICATION |             |  | ZONE 22 DUST GROUP III B (WILL BE FINALIZED LATER) |         |          |      |        |
| OPERATING CONDITION  |                   |                                    |                                 |                     |             | SPEED VARIATION  |  |         |          |      |        |
| SUCKED GAS:  |                   |                                    |                                 |                     |             | SPEED RATIO:   |  |         |          |      |        |
| GAS COMPOSITION:   |                   |                                    |                                 |                     |             | AGMA SERVICE FACTOR:   |  |         |          |      |        |
| CAPACITY:  |                   |                                    |                                 |                     |             | MECHANICAL GEAR <input type="checkbox"/> TYPE:   |  |         |          |      |        |
| CAPACITY AT SUCTION CONDITIONS:  |                   |                                    |                                 |                     |             | MFR:   |  |         |          |      |        |
| SUCTION TEMPERATURE:   |                   |                                    |                                 |                     |             | COUPLING TYPE:   |  |         |          |      |        |
| VISCOSITY AT SUCTION CONDITIONS:   |                   |                                    |                                 |                     |             | REDUCER LUBRICATION:   |  |         |          |      |        |
| DENSITY AT SUCTION CONDITIONS:   |                   |                                    |                                 |                     |             | COUPLINGS LUBRICATION:   |  |         |          |      |        |
| SUCTION PRESSURE:  |                   |                                    |                                 |                     |             | BELTS: <input type="checkbox"/> NO.: TYPE:   |  |         |          |      |        |
| DISCHARGE PRESSURE:  |                   |                                    |                                 |                     |             | MOTOR PULLEY: <input type="checkbox"/> Dp mm FAN PULLEY: <input type="checkbox"/> Dp mm  |  |         |          |      |        |
| DIFFERENTIAL PRESSURE:   |                   |                                    |                                 |                     |             | FLOWRATE REGULATION  |  |         |          |      |        |
| OUTLET SPEED AT DISCHARGE:   |                   |                                    |                                 |                     |             |  |  |         |          |      |        |
| SPEED:   |                   |                                    |                                 |                     |             | ON SUCTION <input type="checkbox"/> ON DELIVERY <input type="checkbox"/>   |  |         |          |      |        |
| INPUT POWER AT SHAFT:  |                   |                                    |                                 |                     |             | CONTROL TYPE: GATE <input type="checkbox"/> BUTTERFLY <input type="checkbox"/>   |  |         |          |      |        |
| RATED POWER FOR DRIVER:  |                   |                                    |                                 |                     |             | ON/OFF <input type="checkbox"/> CONTROL VANE <input type="checkbox"/>  |  |         |          |      |        |
| EFFICIENCY:  |                   |                                    |                                 |                     |             | DRIVE: MANUAL <input type="checkbox"/> REMOTE <input type="checkbox"/>   |  |         |          |      |        |
| ROTATION (VIEWED FROM DRIVER END) <input type="checkbox"/> C.W. <input type="checkbox"/> C.C.W.          |                   |                                    |                                 |                     |             | DRIVER (ELECTRIC MOTORS)   |  |         |          |      |        |
| GAS TYPE <input type="checkbox"/> TOXIC <input type="checkbox"/> EXPLOSIVE                               |                   |                                    |                                 |                     |             | RATED OUTPUT: kw MFR:  |  |         |          |      |        |
| <input type="checkbox"/> CORROSIVE <input type="checkbox"/> DUSTY  |                   |                                    |                                 |                     |             | TYPE & SIZE: SHAPE:  |  |         |          |      |        |
| CONSTRUCTION CHARACTERISTICS   |                   |                                    |                                 |                     |             | SAFETY PROTECTION TEMP. CLASS:   |  |         |          |      |        |
| IMPELLER: OPEN <input type="checkbox"/> ENCLOSED <input type="checkbox"/> DIAMETER: mm                   |                   |                                    |                                 |                     |             | LUBRICATION: SUPPLY: 400 ± 5% V, 50 ± 3% HZ, 3Ph   |  |         |          |      |        |
| IMPELLER MOUNTING: OVERHUNG <input type="checkbox"/> BETWEEN BEARING <input type="checkbox"/>            |                   |                                    |                                 |                     |             | DEGREE OF MECHANICAL PROTECTION: IP65 DATA SHEET:  |  |         |          |      |        |
| SUCTION: SINGLE <input checked="" type="checkbox"/> DOUBLE <input type="checkbox"/>                      |                   |                                    |                                 |                     |             | REQUIRED TESTING AND ADDITIONAL DATA   |  |         |          |      |        |
| BLADES NO.: TYPE: AIRFOIL <input type="checkbox"/> FLAT BACKWARD <input type="checkbox"/>                |                   |                                    |                                 |                     |             | IMP. DTN. BALANCE <input checked="" type="checkbox"/> MECHANICAL TEST AT WORK SHOP <input checked="" type="checkbox"/>   |  |         |          |      |        |
| RADIAL <input type="checkbox"/>  |                   |                                    |                                 |                     |             | HYDROSTATIC TEST <input type="checkbox"/> PERFORMANCE TEST AT WORKSHOP <input checked="" type="checkbox"/>   |  |         |          |      |        |
| TIP SPEED: m/s   |                   |                                    |                                 |                     |             | NOISE LEVEL: ≤ 85 dBA @ 1m   |  |         |          |      |        |
| COUPLING: DIRECT <input type="checkbox"/> JOINT <input type="checkbox"/> BELTS <input type="checkbox"/>  |                   |                                    |                                 |                     |             | TOTAL MASS OF FAN (INCL. MOTOR): kg  |  |         |          |      |        |
| INSPECTION DOOR <input type="checkbox"/> VOLUTE CLEANING DOOR <input type="checkbox"/>                   |                   |                                    |                                 |                     |             | MOMENT OF INERTIA (REFERRED TO DRIVER SHAFT) Kg/m <sup>2</sup>   |  |         |          |      |        |
| SHAFT SEAL <input type="checkbox"/> TYPE:  |                   |                                    |                                 |                     |             | DRAWINGS:  |  |         |          |      |        |
| SHAFT COOLING <input type="checkbox"/> LIQUID USED:  |                   |                                    |                                 |                     |             | PERFORMANCE CURVES:  |  |         |          |      |        |
| FLOWARET: m <sup>3</sup> /h PRESSURE: barg   |                   |                                    |                                 |                     |             | MFR, JOB AND ITEM No.:   |  |         |          |      |        |
| SHAFT JACKET <input type="checkbox"/> SHAFT COOLING FAN <input type="checkbox"/>                         |                   |                                    |                                 |                     |             | SCOPE OF SUPPLY  |  |         |          |      |        |
| RADIAL BEARING: MFR TYPE: ANTI-FRICTION  |                   |                                    |                                 |                     |             | MOTOR: <input checked="" type="checkbox"/> COUPLING: <input checked="" type="checkbox"/> GUARD: <input checked="" type="checkbox"/> CASING DRAIN VALVES: <input checked="" type="checkbox"/> |  |         |          |      |        |
| THRUST BEARING: MFR TYPE: ANTI-FRICTION  |                   |                                    |                                 |                     |             | REGULATION DAMPERS: <input type="checkbox"/> PNEUMATIC ACTUATORS: <input type="checkbox"/>   |  |         |          |      |        |
| LUBRICATION TYPE: GREASE   |                   |                                    |                                 |                     |             | FOUNDATION BOLTS: <input checked="" type="checkbox"/> BASE PLATE: <input checked="" type="checkbox"/>  |  |         |          |      |        |
| BEARING COOLING: <input type="checkbox"/> LIQUID USED:   |                   |                                    |                                 |                     |             | SUCTION FILTER <input checked="" type="checkbox"/> VIBRATION PROBE ON BEARING <input type="checkbox"/>   |  |         |          |      |        |
| FLOWRATE: m <sup>3</sup> /h PRESSURE: barg   |                   |                                    |                                 |                     |             | SUCTION AND DISCHARGE PIPING AND VALVE: <input checked="" type="checkbox"/> INSTALLATION MATERIAL <input checked="" type="checkbox"/>  |  |         |          |      |        |
| MATERIAL   |                   |                                    |                                 |                     |             | CONNECTIONS  |  |         |          |      |        |
| CASING: S.S.   |                   |                                    | SHAFT: S.S.                     |                     |             | SUCTION FLANGE: DIRECTION: SHAPE:  |  |         | SECTION: |      |        |
| IMPELLER: S.S.   |                   |                                    | HUB:                            |                     |             | SIZE / RATING / FACING:  |  |         | SECTION: |      |        |
| BLADES: S.S.   |                   |                                    | VOLUTE:                         |                     |             | DISCHARGE FLANGE: DIRECTION: SHAPE:  |  |         | SECTION: |      |        |
| BELLOWS:   |                   |                                    | BASE PLATE: C.S.                |                     |             | SIZE / RATING / FACING:  |  |         | SECTION: |      |        |
| NOTES  |                   |                                    |                                 |                     |             |  |  |         |          |      |        |
| (1) DESIGNED AND SUPPLIED BY M 5501 VENDOR. VENDOR SHALL SUBMIT AND FILL IN THE DATA SHEET WITH THE BID. |                   |                                    |                                 |                     |             |  |  |         |          |      |        |
| (2) DESIGN TEMPERATURE 120°C. MINIMUM METAL DESIGN TEMPERATURE DUE TO AMBIENT CONDITION: -4.0°C          |                   |                                    |                                 |                     |             |  |  |         |          |      |        |

| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  | <br>شرکت ملی پتروشیمی فارس<br>Persian Gulf Petrochemical Industries Co.<br>PGPIC<br>شرکت ملی پتروشیمی دشت (سای نام) |            |           |               |            |               |            |          |     |     |    |    |      |      |   |                 |                |                       |  |
|--|--|--|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|---|-----------------|----------------|-----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>  | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b><br><br><table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Proj. Code</th> <th>Area</th> <th>Unit</th> <th>Disc. Code</th> <th>Doc. Type</th> <th>Material Code</th> <th>Serial. No</th> </tr> </thead> <tbody> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5501</td> </tr> </tbody> </table> | Proj. Code   | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5501 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Class: A</b></td> <td style="width: 50%;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 10 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 10 of 11</b> |  |
| Proj. Code   | Area   | Unit   | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |   |                 |                |                       |  |
| DPIC9812   | 001  | 500  | ME         | DS        | 4260          | 5501       |               |            |          |     |     |    |    |      |      |   |                 |                |                       |  |
| <b>Class: A</b>  | <b>Rev. D0</b>   |  |            |           |               |            |               |            |          |     |     |    |    |      |      |   |                 |                |                       |  |
| <b>Sheet 10 of 11</b>  |  |  |            |           |               |            |               |            |          |     |     |    |    |      |      |   |                 |                |                       |  |

### ANNEX-I

#### TYPICAL HDPE POWDER PROPERTIES:




|   |                              |                                |                              |
|---|------------------------------|--------------------------------|------------------------------|
| Bulk density :                                  | 400 to 500 kg/m <sup>3</sup> | Solid density:                 | 940 to 960 kg/m <sup>3</sup> |
| Specific heat :                                 | 2.1 kJ/kg K                  | Melting point :                | 125 °C                       |
| Angle of repose (typical):                      |                              | 40 to 45° (on horizontal line) |                              |
| Abrasion :                                      |                              | Non-abrasive                   |                              |
| Kinematic angle of surface friction (typical) : |                              | 11 to 18°                      |                              |

The product is:

- Dry
- Tending to electrostatic charging
- Combustible
- Free flowing
- Non abrasive

#### PARTICLE SIZE DISTRIBUTION:

| Particle size distribution (based on Z509 catalyst): |          | Particle size distribution (based on Z501 catalyst): |          |
|--|----------|--|----------|
| sieve (µm)   | % by wt. | sieve (µm)   | % by wt. |
| > 400  | 0.05     | > 600  | 1.2      |
| 315 - 400  | 0.95     | 500 - 600  | 0.9      |
| 250 - 315  | 4.10     | 400 - 500  | 1.5      |
| 200 - 250  | 7.40     | 315 - 400  | 3.9      |
| 160 - 200  | 19.00    | 250 - 315  | 12.7     |
| 125 - 160  | 21.00    | 200 - 250  | 23.9     |
| 63 - 125   | 38.50    | 160 - 200  | 25.1     |
| 32 - 63  | 7.4      | 125 - 160  | 19.4     |
| < 32   | 1.6      | 100 - 125  | 5.7      |
|  |          | 63 - 100   | 4.85     |
|  |          | 32 - 63  | 0.7      |
|  |          | < 32   | 0.15     |
| d50: 100 - 140 µm                                    |          | d50: 180 - 220 µm                                    |          |

|  |   |   |      |            |           |               |   |                 |                |
|--|---|---|------|------------|-----------|---------------|---|-----------------|----------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |      |            |           |               |  |                 |                |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5501)</b> |      |            |           |               |   | <b>Class: A</b> | <b>Rev. D0</b> |
|  | Proj. Code  | Area  | Unit | Disc. Code | Doc. Type | Material Code | Serial. No  | Sheet 11 of 11  |                |
|  | DPIC9812  | 001   | 500  | ME         | DS        | 4260          | 5501  |                 |                |

### ANNEX-I CONTINUED

#### TYPICAL HDPE PELLET PROPERTIES:

|                 |                              |                       |                              |
|-----------------|------------------------------|-----------------------|------------------------------|
| Bulk density :  | 500 to 650 kg/m <sup>3</sup> | Solid density:        | 940 to 960 kg/m <sup>3</sup> |
| Specific heat : | 2.1 kJ/kg K                  | Melting point :       | 125 °C                       |
| Pellet shape:   | LENTOID                      | Nominal pellets size: | D= 3 – 5 mm<br>L/D=0.75 - 1  |
| Abrasion :      | Non-abrasive                 |                       |                              |

#### TYPICAL PROPERTIES OF STABILIZERS (ADDITIVES):

|                       |   |   |
|-----------------------|---|---|
| Melting Points Range  | : | 150 to 210 °C                                 |
| Softening Point range | : | 55 to 70 °C                                   |
| PSD Range             | : | 0.3 to 30 µm                                  |
| Dustiness             | : | Dusty   |
| Flowability           | : | some have poor flowability and easy to bridge |



Additives are:

- Dry
- Tending to electrostatic charging
- Combustible

#### ADDITIVES DESIGN RANGE:

| Particulars       | W-5601                       | W-5602                       | W-5603                       | W-5604                       | W-5605                       | W-5606                       |
|-------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Stabilizer        | Viton FFGB                   | Calcium Stearate             | Zinc stearate                | Irganox 1010                 | Irgafos 168 S                | Carbon Black Materbatch (2)  |
| Feed Capacity (1) | 1.5 to 6 kg/h                | 10 to 50 kg/h                | 10 to 50 kg/h                | 20 to 90 kg/h                | 10 to 100 kg/h               | 1000 to 3500 kg/h            |
| Bulk Density      | 630 to 670 kg/m <sup>3</sup> | 170 to 210 kg/m <sup>3</sup> | 170 to 210 kg/m <sup>3</sup> | 530 to 630 kg/m <sup>3</sup> | 480 to 570 kg/m <sup>3</sup> | 480 to 570 kg/m <sup>3</sup> |
| Grain Size        |                              | 0.3 to 30 µm                 | 0.5 to 20 µm                 | 10 to 400 µm                 |                              |                              |



- 1) Feed Capacity depends on stabilizer and recipe. Range is mentioned in the table. Maximum flow rate to be confirmed according to expected capacity of extruder. If the range is too wide for a single feeder, Vendor shall suggest alternate solution.
- 2) Carbon Black Materbatch (Carbon corporation, product type PLUSBLACK LL4616)

|  | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  |  |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
|---|--|---|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|-----------------|----------------|----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>                                     | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 12.5%;">Proj. Code</th> <th style="width: 12.5%;">Area</th> <th style="width: 12.5%;">Unit</th> <th style="width: 12.5%;">Disc. Code</th> <th style="width: 12.5%;">Doc. Type</th> <th style="width: 12.5%;">Material Code</th> <th style="width: 12.5%;">Serial. No</th> </tr> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5101</td> </tr> </table> | Proj. Code  | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5101 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Class: A</b></td> <td style="width: 50%;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 1 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 1 of 11</b> |  |
| Proj. Code  | Area   | Unit  | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| DPIC9812  | 001  | 500   | ME         | DS        | 4260          | 5101       |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Class: A</b>   | <b>Rev. D0</b>   |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Sheet 1 of 11</b>  |  |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |

**MECHANICAL DATA SHEET  
FOR  
MIXING SCREW FEEDER PACKAGE (M-5101)**

This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.




|     |             |            |               |          |           |                  |
|-----|-------------|------------|---------------|----------|-----------|------------------|
|     |             |            |               |          |           |                  |
| D0  | 01-Jun-2020 | M.Haghevis | S.Farhadzadeh | Mojahed  | H.Farhadi | IFA              |
| REV | DATE ISSUE  | PREPARED   | CHECKED       | PPI      | NARGAN    | PURPOSE OF ISSUE |
|     |             |            |               | APPROVED |           |                  |

|  | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  |  |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
|---|--|---|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|-----------------|----------------|----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>                                     | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b><br><table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Proj. Code</th> <th>Area</th> <th>Unit</th> <th>Disc. Code</th> <th>Doc. Type</th> <th>Material Code</th> <th>Serial. No</th> </tr> </thead> <tbody> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5101</td> </tr> </tbody> </table> | Proj. Code  | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5101 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Class: A</b></td> <td style="width: 50%;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 2 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 2 of 11</b> |  |
| Proj. Code  | Area   | Unit  | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| DPIC9812  | 001  | 500   | ME         | DS        | 4260          | 5101       |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Class: A</b>   | <b>Rev. D0</b>   |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Sheet 2 of 11</b>  |  |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |

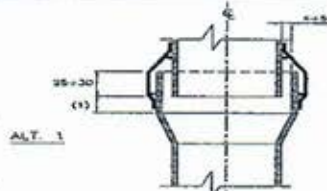
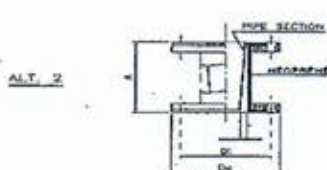
### TABULATION OF REVISED PAGES




This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

| Page | Rev-D0 | Rev-D1 | Rev-D2 | Rev-D3 | Rev-D4 | Page | Rev-D0 | Rev-D1 | Rev-D2 | Rev-D3 | Rev-D4 |
|------|--------|--------|--------|--------|--------|------|--------|--------|--------|--------|--------|
| 1    | x      |        |        |        |        | 36   |        |        |        |        |        |
| 2    | x      |        |        |        |        | 37   |        |        |        |        |        |
| 3    | x      |        |        |        |        | 38   |        |        |        |        |        |
| 4    | x      |        |        |        |        | 39   |        |        |        |        |        |
| 5    | x      |        |        |        |        | 40   |        |        |        |        |        |
| 6    | x      |        |        |        |        | 41   |        |        |        |        |        |
| 7    | x      |        |        |        |        | 42   |        |        |        |        |        |
| 8    | x      |        |        |        |        | 43   |        |        |        |        |        |
| 9    | x      |        |        |        |        | 44   |        |        |        |        |        |
| 10   | x      |        |        |        |        | 45   |        |        |        |        |        |
| 11   | x      |        |        |        |        | 46   |        |        |        |        |        |
| 12   |        |        |        |        |        | 47   |        |        |        |        |        |
| 13   |        |        |        |        |        | 48   |        |        |        |        |        |
| 14   |        |        |        |        |        | 49   |        |        |        |        |        |
| 15   |        |        |        |        |        | 50   |        |        |        |        |        |
| 16   |        |        |        |        |        | 51   |        |        |        |        |        |
| 17   |        |        |        |        |        | 52   |        |        |        |        |        |
| 18   |        |        |        |        |        | 53   |        |        |        |        |        |
| 19   |        |        |        |        |        | 54   |        |        |        |        |        |
| 20   |        |        |        |        |        | 55   |        |        |        |        |        |
| 21   |        |        |        |        |        | 56   |        |        |        |        |        |
| 22   |        |        |        |        |        | 57   |        |        |        |        |        |
| 23   |        |        |        |        |        | 58   |        |        |        |        |        |
| 24   |        |        |        |        |        | 59   |        |        |        |        |        |
| 25   |        |        |        |        |        | 60   |        |        |        |        |        |
| 26   |        |        |        |        |        | 61   |        |        |        |        |        |
| 27   |        |        |        |        |        | 62   |        |        |        |        |        |
| 28   |        |        |        |        |        | 63   |        |        |        |        |        |
| 29   |        |        |        |        |        | 64   |        |        |        |        |        |
| 30   |        |        |        |        |        | 65   |        |        |        |        |        |
| 31   |        |        |        |        |        | 66   |        |        |        |        |        |
| 32   |        |        |        |        |        | 67   |        |        |        |        |        |
| 33   |        |        |        |        |        | 68   |        |        |        |        |        |
| 34   |        |        |        |        |        | 69   |        |        |        |        |        |
| 35   |        |        |        |        |        | 70   |        |        |        |        |        |

|  |   |   |   |                   |                  |                      |                   |                      |
|--|---|---|---|-------------------|------------------|----------------------|-------------------|----------------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |  |                   |                  |                      |                   |                      |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b> |   |                   |                  |                      |                   | <b>Class: A</b>      |
|  | <b>Proj. Code</b>   | <b>Area</b>   | <b>Unit</b>   | <b>Disc. Code</b> | <b>Doc. Type</b> | <b>Material Code</b> | <b>Serial. No</b> | <b>Sheet 3 of 11</b> |
|  | <b>DPIC9812</b>   | <b>001</b>  | <b>500</b>  | <b>ME</b>         | <b>DS</b>        | <b>4260</b>          | <b>5101</b>       |                      |




This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

| EXTENSION OF SUPPLY  |  |
|--|--|
| <input checked="" type="checkbox"/>  | DESIGN OF THE SYSTEM IN ORDER TO MEET THE SPECIFIED MIXING CAPACITY  |
| <input checked="" type="checkbox"/>  | TWIN SCREW MIXER + BAG FILTER + SKID MOUNTED MIXER VENT BLOWER + SUCTION AND DISCHARGE PIPING +FLOW CONTROL VALVE  |
| <input checked="" type="checkbox"/>  | ELECTRIC MOTOR DRIVER INCLUDING SPEED CONTROL PANEL IF REQUIRED  |
| <input checked="" type="checkbox"/>  | ADEQUATE DISCHARGE FLOW RATE CONTROL SYSTEM  |
| <input checked="" type="checkbox"/>  | FEEDING HOPPER   |
| <input checked="" type="checkbox"/>  | BOTTOM DISCHARGE DOOR PNEUMATICALLY ACTUATED (CONTOUR DOOR)  |
| <input checked="" type="checkbox"/>  | INSPECTION DOORS (No. 2)   |
| <input checked="" type="checkbox"/>  | ELECTROMECHANICAL DEVICES (No. 2) FOR DOOR LOCKED  |
| <input checked="" type="checkbox"/>  | SOLENOID VALVE (No. 2) FOR DOOR LOCKED   |
| <input checked="" type="checkbox"/>  | LIMIT SWITCH (No. 2) FOR DOOR CLOSED   |
| <input checked="" type="checkbox"/>  | THERMOELEMENTS WITH LOCAL REPEATER   |
| <input checked="" type="checkbox"/>  | SPEED SENSOR FOR EACH SHAFT  |
| <input checked="" type="checkbox"/>  | ELECTRICAL AND INSTRUMENTATION CONNECTIONS INSIDE PACKAGE BATTERY LIMITS   |
| <input checked="" type="checkbox"/>  | INDICATING CONTROL AND PROTECTION INSTRUMENTS  |
| <input type="checkbox"/>   | LOCAL OPERATING PANEL  |
| <input checked="" type="checkbox"/>  | FLEXIBLE HOSES AT UNIT BOUNDARY  |
| <input checked="" type="checkbox"/>  | GROUNDING CLIPS  |
| <input checked="" type="checkbox"/>  | LIFTING LUGS   |
| <input checked="" type="checkbox"/>  | ANCHOR BOLTS   |
| <input checked="" type="checkbox"/>  | INSULATION SUPPORTS ON MACHINERY PARTS WHOSE OPERATING TEMPERATURE IS $\geq 60^{\circ}\text{C}$  |
| <input checked="" type="checkbox"/>  | SPECIAL TOOLS AND WRENCHES FOR MAINTENANCE   |
| <input checked="" type="checkbox"/>  | SPARE PARTS FOR COMMISSIONING AND START-UP   |
| <input checked="" type="checkbox"/>  | SPARE PARTS FOR 2 YEARS OPERATIONS   |
| <input checked="" type="checkbox"/>  | AUTOMATION AND INTERLOCK DESCRIPTION   |
| <input checked="" type="checkbox"/>  | MATERIAL CERTIFICATION   |
| <input checked="" type="checkbox"/>  | DOCUMENTATION, DRAWINGS AND INSTRUCTION MANUAL   |
| <input checked="" type="checkbox"/>  | PRESERVATION FOR DELIVERY AND STORAGE  |
| <input checked="" type="checkbox"/>  | SEALS WITH FLUSHING PIPING, VALVE, FLOW INDICATORS, PSV, PRESSURE REGULATION & INDICATOR AND SOLENOID VALVE  |
| <input checked="" type="checkbox"/>  | REMOVABLE FRONT BOLTED DOOR TO BE USED TO EMPTY INTO FLOOR IN CASE OF NEED (HAVING BLINDED BOTTOM DISCHARGE)   |
| <input checked="" type="checkbox"/>  | Any accessory, part, or device not specified herein but necessary for the correct unit operation, shall be supplied by Vendor.   |
| <b>FLEXIBLE HOSE (only as reference)</b><br><br>ALL FLEXIBLE HOSES AT UNIT BOUNDARY SHALL BE WITH INTERNAL PIPE OR OTHER DEVICES SUITABLE TO AVOID POLLUTION WITH PELLETS OR POWDERS IN CASE OF FLEXIBLE BREAKAGE. |  <p>ALT 1</p> <p>(1) AS MINIMUM AS POSSIBLE, TO BE DEFINED BY VENDOR</p>  <p>ALT 2</p> |

|  |   |   |   |                                |                               |                                     |                                  |                      |
|--|---|---|---|--------------------------------|-------------------------------|-------------------------------------|----------------------------------|----------------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |  |                                |                               |                                     |                                  |                      |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b> |   |                                |                               |                                     | <b>Class: A</b>                  | <b>Rev. D0</b>       |
|  | <b>Proj. Code</b><br><b>DPIC9812</b>  | <b>Area</b><br><b>001</b>   | <b>Unit</b><br><b>500</b>   | <b>Disc. Code</b><br><b>ME</b> | <b>Doc. Type</b><br><b>DS</b> | <b>Material Code</b><br><b>4260</b> | <b>Serial. No</b><br><b>5101</b> | <b>Sheet 4 of 11</b> |

This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.



|  |  |   |   |  |  |
|--|--|---|---|--|--|
| <b>SERVICE</b>   | BLENDING AND TRASPORTING OF HDPE POWDER WITH SOILD ADDITIVES |   |   | <b>ITEM</b>                            | M-5101   |
| <b>TYPE</b>  | HORIZONTAL TWIN SCREW MIXER (5)                              |   | <b>MODEL</b>                              | No. OF UNITS<br>1 (one)                |  |
| <b>MFR</b>   | MOTOR RATED  |   |   | kW                                     |  |
| <b>SOUND PRESSURE LEVEL (SPL) @ 1 m</b>  | ≤ 85   | <b>dB(A)</b>  | <b>SERVICE TYPE</b>                       | CONTINUOUS                             |  |
| <b>APPLICABLE CODES AND STANDARDS</b>  |  |   |   |  |  |
| <input checked="" type="checkbox"/> MIXER  | MFR std.   | <input checked="" type="checkbox"/> ELECTRIC MOTORS | IEC                                       |  |  |
| <b>INSTALLATION DATA</b>   |  |   |   |  |  |
| <input checked="" type="checkbox"/> ENVIRONMENT  | <input checked="" type="checkbox"/> HUMID                    | <input checked="" type="checkbox"/> CORROSIVE       | <input type="checkbox"/> SEA SIDE         | <input type="checkbox"/> WINTERIZATION |  |
| <b>INSTALLATION</b>  | <input checked="" type="checkbox"/> INDOOR                   | <input type="checkbox"/> OUTDOOR                    | <input type="checkbox"/> UNDER ROOF       | <input type="checkbox"/> GROUND FLOOR  | <input checked="" type="checkbox"/> SKID MOUNTED |
| <b>AREA CLASSIFICATION(9)</b>  | <b>ZONE</b>  | 22  | <b>DUST GR.</b>                           | IIIB                                   | <b>MAX SURFACE TEMP.</b> 200°C                   |
|  |  |   | <b>PROTECTION DEGREE</b>                  | IP 65                                  |  |
| <b>DESIGN CONDITIONS</b>   |  |   |   |  |  |
| <b>PRODUCT TO BE FED (2)</b>   | HDPE BEADS: 99.0 + 99.95 %wt OF STREAM                       |   | SOLID ADDITIVES: 0.05 + 1.0 %wt OF STREAM |  |  |
| <b>PRODUCT HAZARDOUSNESS</b>   | n. *   |   |   |  |  |
| <b>OPERATION No.</b>   | hours/day  |   | 24 hours/day AND 8000 hours/year          |  |  |
| <b>OPERATION TYPE</b>  | FULLY AUTOMATIC  |   |   |  |  |
| <b>PRODUCT CHARACTERISTICS</b>   | SEE ANNEX-I  |   |   |  |  |
| <b>PARTICLE SIZE</b>   | % weight   |   |   |  |  |
| <b>BULK/REAL DENSITY</b>   | kg/m <sup>3</sup>  |   |   |  |  |
| <b>REPOSE ANGLE</b>  | * on horizontal line   |   |   |  |  |
| <b>FLOWRATE</b>  | th   | <b>NORMAL DESIGN</b>                                | 45 (HDPE POWDER) + 0.45 (ADDITIVES)       |  |  |
|  |  | <b>MAX (3)(4)</b>                                   |   |  |  |
|  |  | <b>MIN (2)</b>                                      |   |  |  |
| <b>FED FROM</b>  | METERING UNITS AND SCREW FEEDER                              |   |   |  |  |
| <b>DISCHARGING INTO</b>  | EXTRUDER   |   |   |  |  |
| <b>OPERATING / DESIGN PRESSURE</b>   | 0.05 / -0.02 TO 0.2  |   |   |  |  |
| <b>OPER. / DESIGN TEMPERATURE</b>  | °C 90 (MAX 100) / 120  |   |   |  |  |
| <b>ADDITIVES FEED TEMPERATURE</b>  | °C 20  |   |   |  |  |
| <b>TEMPERATURE INCREASE</b>  | °C <5  |   |   |  |  |
| <b>MIXING LNEGHT (MIN DISTANCE BETWEEN ADDITIVE INLET AND DISCHARGE NOZZLE)</b>  | mm   | NOT SHORTER THAN 2500                               |   |  |  |
| <b>CLEARANCE BETWEEN SCREW AND CASING</b>  | mm   | 10  |   |  |  |
| <b>CONSTRUCTION MATERIALS</b>  |  |   |   |  |  |
| <b>METALLIC MATERIAL IN CONTACT WITH PRODUCT</b>   | AISI 304   |   |   |  |  |
| <b>GASKET IN CONTACT WITH PRODUCT</b>  | WHITE NEOPRENE OR EQUIVALENT TO AVOID PRODUCT POLLUTION      |   |   |  |  |
| <b>OPERATING DESCRIPTION</b>   |  |   |   |  |  |
| THE CONTINUOUS MIXER IS FED BY GRAVITY FROM STABILIZER DOSING SCLAE W 5201-5205 BELONG TO SATBILZER DOSING PACKAGE UNIT PK-5201. MAIN STREAM CONTAINING HDPE POWDER & COMING FROM W-5101 ARE DIRECTLY FED TO THE MIXER. THE STREAMS ARE CONTINUOUSLY MIXED AND THE RESULTING MIXTURE IS FED TO THE EXTRUDER. |  |   |   |  |  |
| THE CONTINUOUS MIXER SHALL FEED THE EXTRUDER WITH REGULARITY MAINTAINING THE ACCURACY OF THE ABOVE SAID METERING EQUIPMENT (± 0.5% IN THE WHOLE CAPACITY RANGE).   |  |   |   |  |  |
| <b>TECHNICAL REQUIREMENTS FOR THE PACKAGE</b>  |  |   |   |  |  |
| THE MIXER SHALL HAVE A POWDER, DUST AND GAS (NITROGEN) TIGHT DESIGN. IT SHALL BE DESIGNED TO AVOID POSSIBLE TROUBLES DUE TO THE INFILTRATION OF FINE POWDERS IN THE OPERATING PARTS AND FOR HIGH DUST CONTAINMENT.   |  |   |   |  |  |

|  |   |   |                    |                         |                        |                              |   |                 |                |
|--|---|---|--------------------|-------------------------|------------------------|------------------------------|---|-----------------|----------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |                    |                         |                        |                              |  |                 |                |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b> |                    |                         |                        |                              |   | <b>Class: A</b> | <b>Rev. D0</b> |
|  | <b>Proj. Code</b><br>DPIC9812   | <b>Area</b><br>001  | <b>Unit</b><br>500 | <b>Disc. Code</b><br>ME | <b>Doc. Type</b><br>DS | <b>Material Code</b><br>4260 | <b>Serial. No</b><br>5101   | Sheet 5 of 11   |                |

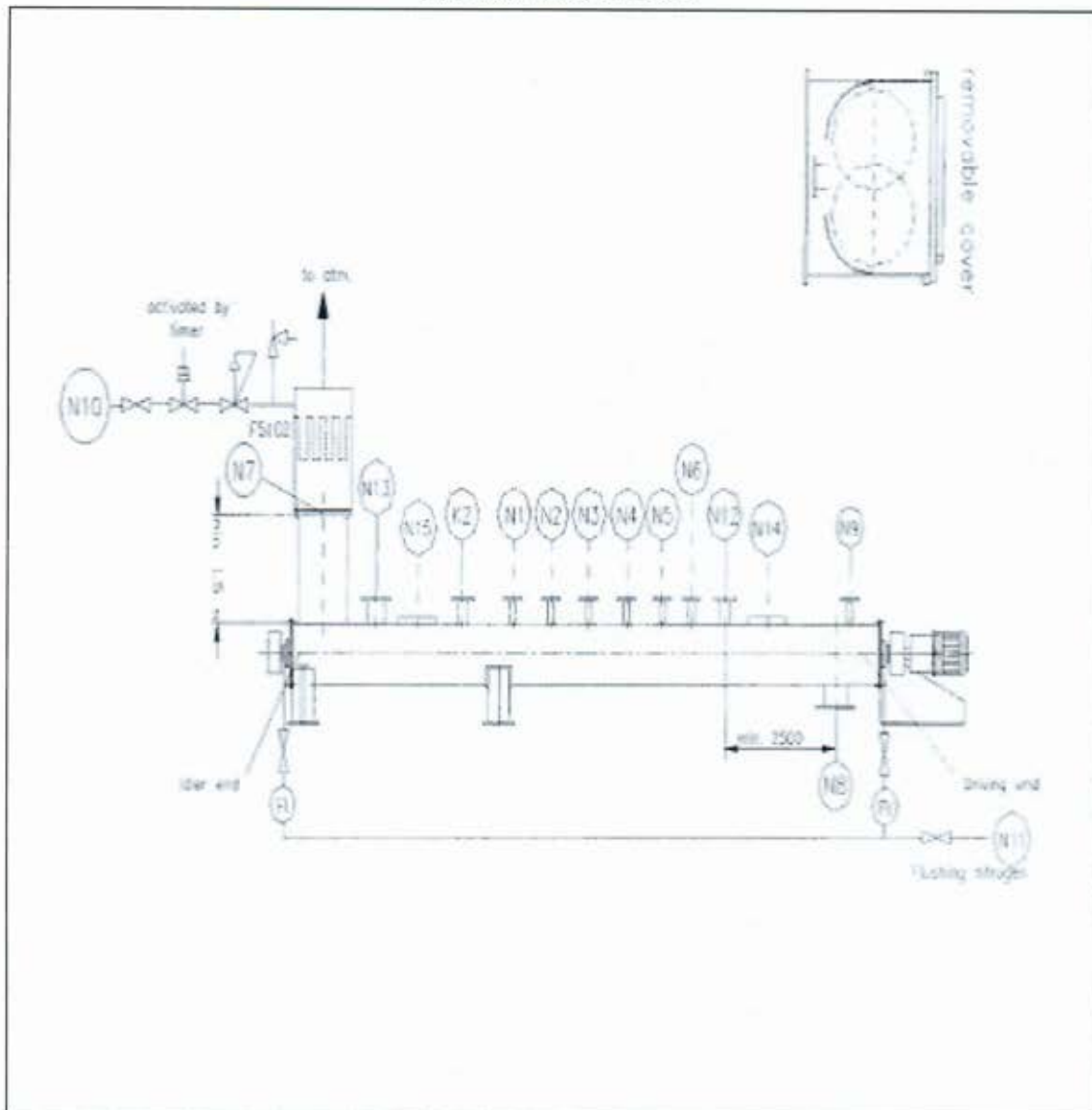
| TECHNICAL REQUIREMENTS FOR THE PACKAGE (CONT.)  |  |  |   |  |    |
|---|--|--|---|--|----|
| ALL INTERNAL PARTS MUST BE BUILT IN ORDER TO AVOID PRODUCT STAGNATION.  |  |  |   |  |    |
| THE DIFFERENT PARTS OF MIXER SHALL HAVE AN EASY ACCESS AND SHALL BE EASILY DISASSEMBLED FOR CLEANING.   |  |  |   |  |    |
| THE MIXER SHALL BE DESIGNED IN ORDER TO AVOID THE FORMATION OF BLOCKS AND AGGLOMERATES CONNECTED TO THE ADDITION OF LIQUID ADDITIVES  |  |  |   |  |    |
| REMOVABLE COVER TO BE PROVIDED: ONE BEFORE AND ONE AFTER THE FILTER IN ORDER TO OPEN THE MIXER WITHOUT DISMANTLING THE FILTER   |  |  |   |  |    |
| NOTES   |  |  |   |  |    |
| (1) FOR AVAILABLE UTILITIES, REFER TO DOCUMENT DPC-PR-SPC-0003.   |  |  |   |  |    |
| (2) VENDOR SHALL SPECIFY TURN DOWN RATIO (AT LEAST 40% IS REQUESTED), IF APPLICABLE.  |  |  |   |  |    |
| (3) TO BE SPECIFIED ACCORDING TO EXTRUDER DESIGN CAPACITY.  |  |  |   |  |    |
| (4) VENDOR SHALL SUGGEST, CHECK AND APPROVE THE INSTALLATION OF THE EQUIPMENT, ACCORDING TO THE INSTALLATION OF METERING UNITS AND THE EXTRUDER, IN ORDER TO GUARANTEE A CORRECT AND RELIABLE OPERATION.  |  |  |   |  |    |
| (5) PADDEL- BLADE AND COUNTER ROTATING, TWO SPEED MOTOR (POLE CHANGING MOTOR OR VFD with NORMAL MOTOR)  |  |  |   |  |    |
| (6) MDMT: -4 @ 0.2 barg   |  |  |   |  |    |
| (7) ADJUSTABLE AUTOMATIC WEIR SYSTEM IF REQUIRED SHALL BE SUPPLIED BY VENDOR.   |  |  |   |  |    |
| (8) NITROGEN FLOW UP TO 100 m <sup>3</sup> /h COUNTERCURRENT TO HDPE FLOW TO BE CONSIDERED.   |  |  |   |  |    |
| (9) THE HAZARDOUS AREA CLASSIFICATION IS SUBJECTED TO CHANGE.   |  |  |   |  |    |
| CONSTRUCTION DATA   |  |  |   |  |    |
| SHELL DIAMETER  | mm                                       | LENGTH   | mm  | THICKNESS  | mm |
| CORROSION ALLOWANCE   | 0  | INTERNAL SURFACE POLISHING                     |   | RMS  |    |
| MIXING CHAMBER CAPACITY   | m <sup>3</sup>                           | CAPACITY                                       |   | m <sup>3</sup>   |    |
| MIXING TIME   | minutes                                  | ROTATION SPEED                                 |   | rpm  |    |
| SIZE AND SHAPE OF INLET   |  | SIZE AND SHAPE OF OUTLET                       |   |  |    |
| SHAFT   | <input type="checkbox"/> TUBULAR         | <input checked="" type="checkbox"/> SOLID      | <input checked="" type="checkbox"/> ONE PIECE CONSTRUCTION      |  |    |
| END SUPPORTS (1)  | <input type="checkbox"/> ROLLER BEARINGS | <input type="checkbox"/> BUSHINGS              |   |  |    |
| INTERMEDIATE SUPPORTS   | <input type="checkbox"/> ROLLER BEARINGS | <input type="checkbox"/> BUSHINGS              |   |  |    |
| LUBRICATION   | <input type="checkbox"/> OIL             | <input checked="" type="checkbox"/> GREASE     |   |  |    |
| TYPE OF SHAFT SEAL (2)  | DOUBLE STUFFING BOX                      |  | FLUSHED WITH  | NITROGEN   |    |
| DRIVEN BY   | <input type="checkbox"/> MOTOR+REDUCER   | <input checked="" type="checkbox"/> GEAR MOTOR | <input checked="" type="checkbox"/> THROUGH COUPLING            | <input type="checkbox"/> BELTS <input type="checkbox"/> CHAINS |    |
| COUPLING  | MFR                                      | TYPE   | <input checked="" type="checkbox"/> ANTISPARKING COUPLING GUARD |  |    |
| NOTES   |  |  |   |  |    |
| (1) BEARINGS SHALL BE OUT OF PRODUCT CONTACT.   |  |  |   |  |    |
| (2) NITROGEN FLOWMETERS WITH RELEVANT VALVES, PRESSURE REDUCER, PRESSURE GAUGE, PRESSURE SAFETY VALVES AND DISTRIBUTION PIPING SHALL BE INCLUDED IN THE SUPPLY. VENDOR SHALL PROVIDE SHUT OFF VALVES TO CLOSE THE NITROGEN IN CASE OF INTERLOCK ACTUATION. SEE AVAILABLE NITROGEN CONDITION DPC-PR-SPC-0003 |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |
|   |  |  |   |  |    |

This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.






|  | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>  |  |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
|---|--|---|------------|-----------|---------------|------------|---------------|------------|----------|-----|-----|----|----|------|------|--|-----------------|----------------|----------------------|--|
| <b>Contract No.:</b><br><br><b>DPIC/98-12</b>                                     | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b><br><br><table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Proj. Code</th> <th style="width: 10%;">Area</th> <th style="width: 10%;">Unit</th> <th style="width: 10%;">Disc. Code</th> <th style="width: 10%;">Doc. Type</th> <th style="width: 10%;">Material Code</th> <th style="width: 10%;">Serial. No</th> </tr> </thead> <tbody> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5101</td> </tr> </tbody> </table> | Proj. Code  | Area       | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No | DPIC9812 | 001 | 500 | ME | DS | 4260 | 5101 | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Class: A</b></td> <td style="width: 50%;"><b>Rev. D0</b></td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Sheet 6 of 11</b></td> </tr> </table> | <b>Class: A</b> | <b>Rev. D0</b> | <b>Sheet 6 of 11</b> |  |
| Proj. Code  | Area   | Unit  | Disc. Code | Doc. Type | Material Code | Serial. No |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| DPIC9812  | 001  | 500   | ME         | DS        | 4260          | 5101       |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Class: A</b>   | <b>Rev. D0</b>   |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |
| <b>Sheet 6 of 11</b>  |  |   |            |           |               |            |               |            |          |     |     |    |    |      |      |  |                 |                |                      |  |

### SCHEMATIC SKETCH






This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

|  |   |   |                           |                                |                               |                                     |   |                      |                |
|--|---|---|---------------------------|--------------------------------|-------------------------------|-------------------------------------|---|----------------------|----------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |                           |                                |                               |                                     |  |                      |                |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b> |                           |                                |                               |                                     |   | <b>Class: A</b>      | <b>Rev. D0</b> |
|  | <b>Proj. Code</b><br><b>DPIC9812</b>  | <b>Area</b><br><b>001</b>   | <b>Unit</b><br><b>500</b> | <b>Disc. Code</b><br><b>ME</b> | <b>Doc. Type</b><br><b>DS</b> | <b>Material Code</b><br><b>4260</b> | <b>Serial. No</b><br><b>5101</b>  | <b>Sheet 7 of 11</b> |                |




| MIXER NOZZLE TABLE   |     |                      |     |        |        |           |           |
|--|-----|----------------------|-----|--------|--------|-----------|-----------|
| POS.   | NO. | SERVICE              | DN  | RATING | FLANGE | FINISHING | NOTES     |
| K1   | 1   | PRESSURE CONTROLLER  | 3"  | #300   | WN-RF  |           |           |
| K2   | 1   | SPARE                | 3"  | #150   | WN-RF  |           | (4)       |
| N1   | 1   | POWDER IN            | 16" | #150   | WN-RF  |           | (1)       |
| N2   | 1   | ADDITVE FROM W 5201  | 6"  | #150   | WN-RF  |           | (2)       |
| N3   | 1   | ADDITVE FROM W 5202  | 6"  | #150   | WN-RF  |           | (2)       |
| N4   | 1   | ADDITVE FROM W 5203  | 6"  | #150   | WN-RF  |           | (2)       |
| N5   | 1   | ADDITVE FROM W 5204  | 6"  | #150   | WN-RF  |           | (2)       |
| N6   | 1   | ADDITVE FROM W 5205  | 6"  | #150   | WN-RF  |           | (2)       |
| N7   | 1   | VENT TO F 5102       | 20" | #150   | WN-RF  |           | (1) . (3) |
| N8   | 1   | POWDER OUTLET        | 16" | #150   | WN-RF  |           | (1)       |
| N9   | 1   | VENT FROM EX 5101    | 6"  | #150   | WN-RF  |           | (1)       |
| N10  | 1   | NITROGEN INLET       | 1"  | #300   | WN-RF  |           | (1)       |
| N11  | 1   | NITROGEN INLET       | ½"  | #300   | WN-RF  |           | (1)       |
| N12  | 1   | SPARE FOR ADDTIVE 6" | 6"  | #150   | WN-RF  |           | (2) (4)   |
| N13  | 1   | VENT FROM RF 5101    | 2"  | #150   | WN-RF  |           | (5)       |
| N14  | 1   | INSPECTION DOOR      |     |        |        |           | (1)       |
| N15  | 1   | INSPECTION DOOR      |     |        |        |           | (1)       |
|  |     |                      |     |        |        |           |           |
|  |     |                      |     |        |        |           |           |
| <b>NOTES</b>   |     |                      |     |        |        |           |           |
| 1) TO BE CONFIRMED BY VENDOR<br>2) TO BE CONFIRMED BY PK-5201 VENDOR<br>3) CONNECTION SIZE AND SHAPE SHALL BE IN SCOPE OF BAG FILTER DESIGNER.<br>4) WITH BLIND FLANGE AND PLUG FLUSH TO INNER SURFACE.<br>5) TO BE CONFIRMED BY PK-5101 VENDOR. |     |                      |     |        |        |           |           |

This document is the property of DPIC Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

|  |   |   |                           |                                |                               |                                     |   |                      |                |
|--|---|---|---------------------------|--------------------------------|-------------------------------|-------------------------------------|---|----------------------|----------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |                           |                                |                               |                                     |  |                      |                |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b> |                           |                                |                               |                                     |   | <b>Class: A</b>      | <b>Rev. D0</b> |
|  | <b>Proj. Code</b><br><b>DPIC9812</b>  | <b>Area</b><br><b>001</b>   | <b>Unit</b><br><b>500</b> | <b>Disc. Code</b><br><b>ME</b> | <b>Doc. Type</b><br><b>DS</b> | <b>Material Code</b><br><b>4260</b> | <b>Serial. No</b><br><b>5101</b>  | <b>Sheet 8 of 11</b> |                |




|   |                                |                                     |                     |  |              |               |                |
|---|--------------------------------|-------------------------------------|---------------------|--|--------------|---------------|----------------|
| SERVICE                                     | EXTRUDER FEED DEGASSING FILTER |                                     | ITEM                | F-5102   | QUANTITY     | 1             |                |
| TYPE  | BAG FILTER                     |                                     | DIAMETER            | mm   | PLANT UNIT   | 500           |                |
| HEAD TYPE                                   |                                |                                     | HEIGHT OR LEN.      | mm   | INCLUDED IN  | M-5101        |                |
| INSULATION                                  |                                |                                     | CAPACITY            | m <sup>3</sup>   | SERVICE TYPE | CONTINUOUS    |                |
| INSTALLATION                                | INDOOR                         |                                     | FIREPROOFING        | RADIOGRAPHY  |              |               |                |
| DESIGN CODE                                 |                                |                                     |                     |  |              |               |                |
| GAS OR LIQUID                               |                                |                                     | SKETCH              |  |              |               |                |
| FLUID                                       | NITROGEN                       |                                     |                     |  |              |               |                |
| FLOWARE                                     | kg/h                           | 250 (TO BE CONFIRMED)               |                     |  |              |               |                |
| OPERATING TEMP.                             | °C                             | 90                                  |                     |  |              |               |                |
| OPERATING PRESSURE                          | bar(g)                         | 0.05                                |                     |  |              |               |                |
| MW  | 28                             |                                     |                     |  |              |               |                |
| DENSITY                                     | kg/m <sup>3</sup>              |                                     |                     |  |              |               |                |
| VISCOSITY                                   | mPa.s                          |                                     |                     |  |              |               |                |
| FLUID HAZARD                                |                                |                                     |                     |  |              |               |                |
| FILTRATION TYPE                             |                                |                                     |                     |  |              |               |                |
| SOLID TO BE FILTERED                        |                                |                                     |                     |  |              |               |                |
| SOLID                                       | HDPE POWDER / ADDITIVES        |                                     |                     |  |              |               |                |
| FLOWARE                                     | kg/h                           |                                     |                     |  |              |               |                |
| DENSITY                                     | kg/m <sup>3</sup>              |                                     |                     |  |              |               |                |
| PARTICLE SIZE                               | 2+30 mu                        |                                     |                     |  |              |               |                |
| PARTICLE SIZE DISTRIBUTION                  | mu                             |                                     | fract               |  |              |               |                |
|   | mu                             |                                     | fract               |  |              |               |                |
|   | mu                             |                                     | fract               |  |              |               |                |
|   | mu                             |                                     | fract               |  |              |               |                |
|   | mu                             |                                     | fract               |  |              |               |                |
| OPERATING DATA                              |                                |                                     |                     |  |              |               |                |
| DP CLEAN DIRTY                              | mbar                           | 10                                  | / 50                |  |              |               |                |
| TOTAL EFF. REQ'D /ACTUAL                    | %                              | 98                                  | /                   |  |              |               |                |
| PARTIAL SEPARATION EFF. (5)                 | mu                             |                                     | fract               |  |              |               |                |
|   | mu                             |                                     | fract               |  |              |               |                |
|   | mu                             |                                     | fract               |  |              |               |                |
|   | mu                             |                                     | fract               |  |              |               |                |
|   | mu                             |                                     | fract               |  |              |               |                |
| CONSTRUCTION DATA OF ONE FILTER             |                                |                                     |                     |  |              |               |                |
| FILTER MEDIA                                | TYPE                           | BAG                                 |                     |  |              | AREA          | m <sup>2</sup> |
|   | MATERIAL                       | PPS (Ryton) / 550 g/ m <sup>2</sup> |                     |  |              | GASKETS       |                |
| PACKING                                     | TYPE                           |                                     |                     |  |              | HEIGHT        | mm             |
|   | MATERIAL                       |                                     |                     |  |              |               |                |
| DESIGN PRESS.                               | Bar(g)                         | COND.1                              | 0.2                 | COND.2   | -0.02        | F.V. REQUIRED |                |
| DESIGN TEMP.                                | °C                             | COND.1                              | 120                 | COND.2   | 120          | F.V. TEMP.    |                |
| MDMT  | ⊕                              | ⊕                                   |                     |  |              |               |                |
| BODY MATERIAL                               | S.S.                           |                                     | CORROSION ALLOWANCE |  |              |               | 0 mm           |
| NOZZLES GASKETS                             |                                |                                     |                     |  |              |               |                |
| NOZZLES                                     |                                |                                     |                     |  |              |               |                |
| POS.  | NO.                            | SERVICE                             | DN                  | RATING   | FLANGE       | FINISHING     | NOTE           |
|   |                                |                                     |                     |  |              |               |                |
| NOTES                                       |                                |                                     |                     |  |              |               |                |
| 1) GAS TIGHT WITH AUTOMATIC CLEANING DEVICE |                                |                                     |                     | 4) SPERATION EFFICIENCY REQUIRED: 99%                            |              |               |                |
| 2) CLEANING TYPE: PULSE JET                 |                                |                                     |                     | 5) (PARTIAL SEPARATION EFFICIENCY: SIZE OF PARTICLE RETAIN: 5µm. |              |               |                |
| 3) SOLID CONTENT: 0.1 kg/m <sup>3</sup>     |                                |                                     |                     | MAX. DUST CONTENT IN OUTLET GAS: 10 mg/m <sup>3</sup>            |              |               |                |

This document is the property of DPIC. Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

|  |   |   |                           |                                |                               |                                     |   |                      |
|--|---|---|---------------------------|--------------------------------|-------------------------------|-------------------------------------|---|----------------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |                           |                                |                               |                                     |  |                      |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b> |                           |                                |                               |                                     |   | <b>Class: A</b>      |
|  | <b>Proj. Code</b><br><b>DPIC9812</b>  | <b>Area</b><br><b>001</b>   | <b>Unit</b><br><b>500</b> | <b>Disc. Code</b><br><b>ME</b> | <b>Doc. Type</b><br><b>DS</b> | <b>Material Code</b><br><b>4260</b> | <b>Serial. No</b><br><b>5101</b>  | <b>Sheet 9 of 11</b> |

This document is the property of DPIC Any unauthorized attempt to reproduce it, in any form, is strictly prohibited.

| BLOWER   |                                  |                                    |  |                     |   |  |  |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
|--|----------------------------------|------------------------------------|--|---------------------|---|--|--|---------------|--|--------------------------------------|----------------------|---|-------------------------------------|------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------------|-------------------------------------|
| SERVICE  | MIXER VENT BLOWER                |                                    |  | TYPE                | CENTRIFUGAL                                   |  |  | No. REQUIRED  | 1 (one)                                | ITEM                                 | C 5102               |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| MFR  |                                  |                                    |  | MODEL               |   |  |  | No. OF STAGES | 1                                      |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| LOCATION   | OUTDOOR <input type="checkbox"/> | UNDERROOF <input type="checkbox"/> | INDOOR <input checked="" type="checkbox"/> | AREA CLASSIFICATION |   |  | ZONE 22 DUST GROUP III B (WILL BE FINALIZED LATER) |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| OPERATING CONDITION  |                                  |                                    |  |                     | SPEED VARIATION                               |  |  |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| SUCKED GAS:  |                                  |                                    |  |                     | SPEED RATIO:                                  |  |  |               |  |                                      | AGMA SERVICE FACTOR: |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| GAS COMPOSITION:   |                                  |                                    |  |                     |   |  |  |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| CAPACITY:  |                                  |                                    |  |                     | Nm <sup>3</sup> /h                            |  | MECHANICAL GEAR                                    |               | <input type="checkbox"/>               |                                      |                      | TYPE:   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| CAPACITY AT SUCTION CONDITIONS:  |                                  |                                    |  |                     | m <sup>3</sup> /h                             |  | MFR:   |               |  |                                      |                      | MODEL:  |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| SUCTION TEMPERATURE:   |                                  |                                    |  |                     | °C  |  | COUPLING TYPE:                                     |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| VISCOSITY AT SUCTION CONDITIONS:   |                                  |                                    |  |                     | cP  |  | REDUCER LUBRICATION:                               |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| DENSITY AT SUCTION CONDITIONS:   |                                  |                                    |  |                     | Kg/m <sup>3</sup>                             |  | COUPLINGS LUBRICATION:                             |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| SUCTION PRESSURE:  |                                  |                                    |  |                     | barg  |  | BELTS:   |               | <input type="checkbox"/>               |                                      | NO.:                 | TYPE:   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| DISCHARGE PRESSURE:  |                                  |                                    |  |                     | barg  |  | MOTOR PULLEY:                                      |               | <input type="checkbox"/>               | Dp                                   | mm                   | FAN PULLEY:                                   | <input type="checkbox"/>            | Dp                           | mm                                  |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| DIFFERENTIAL PRESSURE:   |                                  |                                    |  |                     | bar   |  | FLOWRATE REGULATION                                |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| OUTLET SPEED AT DISCHARGE:   |                                  |                                    |  |                     | m/s   |  | ON SUCTION <input type="checkbox"/>                |               |  | ON DELIVERY <input type="checkbox"/> |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| SPEED:   |                                  |                                    |  |                     | rpm   |  | CONTROL TYPE:                                      |               | GATE                                   | <input type="checkbox"/>             | BUTTERFLY            |   | <input type="checkbox"/>            |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| INPUT POWER AT SHAFT:  |                                  |                                    |  |                     | kw  |  | ON/OFF   |               | <input type="checkbox"/>               | CONTROL VANE                         |                      |   | <input type="checkbox"/>            |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| RATED POWER FOR DRIVER:  |                                  |                                    |  |                     | kw  |  | DRIVE:   |               | MANUAL                                 | <input type="checkbox"/>             | REMOTE               |   | <input type="checkbox"/>            |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| EFFICIENCY:  |                                  |                                    |  |                     | %   |  | DRIVER (ELECTRIC MOTORS)                           |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| ROTATION (VIEWED FROM DRIVER END)  |                                  |                                    |  |                     | <input type="checkbox"/> C.W.                 |  | <input type="checkbox"/> C.C.W                     |               | RATED OUTPUT:                          |                                      | kw                   | MFR.:   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| GAS TYPE   |                                  |                                    |  |                     | <input type="checkbox"/> TOXIC                |  | <input type="checkbox"/> EXPLOSIVE                 |               | TYPE & SIZE:                           |                                      | SHAPE:               |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
|  |                                  |                                    |  |                     | <input checked="" type="checkbox"/> CORROSIVE |  | <input checked="" type="checkbox"/> DUSTY          |               | SAFETY PROTECTION                      |                                      | TEMP. CLASS:         |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| CONSTRUCTION CHARACTERISTICS   |                                  |                                    |  |                     | IMPELLER:                                     |  | OPEN <input type="checkbox"/>                      |               | ENCLOSED <input type="checkbox"/>      |                                      | DIAMETER:            |   | mm                                  |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
|  |                                  |                                    |  |                     | IMPELLER MOUNTING:                            |  | OVERHUNG <input type="checkbox"/>                  |               | BETWEEN BEARING                        |                                      |                      | <input type="checkbox"/>                      |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| SUCTION:   |                                  |                                    |  |                     | SINGLE <input checked="" type="checkbox"/>    |  | DOUBLE <input type="checkbox"/>                    |               |  | REQUIRED TESTING AND ADDITIONAL DATA |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| BLADES NO.:  |                                  |                                    |  |                     | TYPE:   |  | AIRFOIL <input type="checkbox"/>                   |               | FLAT BACKWARD <input type="checkbox"/> |                                      | IMP. DTN. BALANCE    |   | <input checked="" type="checkbox"/> | MECHANICAL TEST AT WORK SHOP | <input checked="" type="checkbox"/> |                                     |                                     |                                     |                                     |                                     |                      |                                     |
|  |                                  |                                    |  |                     |   |  | RADIAL <input type="checkbox"/>                    |               |  |                                      |                      | HYDROSTATIC TEST                              |                                     | <input type="checkbox"/>     | PERFORMANCE TEST AT WORKSHOP        | <input checked="" type="checkbox"/> |                                     |                                     |                                     |                                     |                      |                                     |
| TIP SPEED:   |                                  |                                    |  |                     | m/s   |  | COUPLING:  |               | DIRECT                                 | <input type="checkbox"/>             | JOINT                | <input type="checkbox"/>                      | BELTS                               | <input type="checkbox"/>     | NOISE LEVEL:                        |                                     | ≤ 85 dBA @ 1m                       |                                     |                                     |                                     |                      |                                     |
| INSPECTION DOOR  |                                  |                                    |  |                     | <input type="checkbox"/>                      |  | VOLUTE CLEANING DOOR                               |               | <input type="checkbox"/>               | TOTAL MASS OF FAN (INCL. MOTOR):     |                      |   | kg                                  |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| SHAFT SEAL   |                                  |                                    |  |                     | <input type="checkbox"/>                      |  | TYPE:  |               | DRAWINGS:                              |                                      |                      | MOMENT OF INERTIA (REFERRED TO DRIVER SHAFT): |                                     |                              | Kg/m <sup>2</sup>                   |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| SHAFT COOLING  |                                  |                                    |  |                     | <input type="checkbox"/>                      |  | LIQUID USED:                                       |               | PERFORMANCE CURVES:                    |                                      |                      | MFR. JOB AND ITEM No.:                        |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| FLOWARET:  |                                  |                                    |  |                     | m <sup>3</sup> /h                             |  | PRESSURE:  |               | barg                                   | SCOPE OF SUPPLY                      |                      |   | MOTOR:                              |                              |                                     | <input checked="" type="checkbox"/> | COUPLING:                           | <input checked="" type="checkbox"/> | GUARD:                              | <input checked="" type="checkbox"/> | CASING DRAIN VALVES: | <input checked="" type="checkbox"/> |
| SHAFT JACKET   |                                  |                                    |  |                     | <input type="checkbox"/>                      |  | SHAFT COOLING FAN                                  |               | <input type="checkbox"/>               | REGULATION DAMPERS:                  |                      |   | <input type="checkbox"/>            | PNEUMATIC ACTUATORS:         |                                     |                                     | <input type="checkbox"/>            |                                     |                                     |                                     |                      |                                     |
| RADIAL BEARING:  |                                  |                                    |  |                     | MFR.  |  | TYPE:  |               | ANTIFRICTION                           | FOUNDATION BOLTS:                    |                      |   | <input checked="" type="checkbox"/> | BASE PLATE:                  |                                     |                                     | <input checked="" type="checkbox"/> |                                     |                                     |                                     |                      |                                     |
| THRUST BEARING:  |                                  |                                    |  |                     | MFR.  |  | TYPE:  |               | ANTIFRICTION                           | SUCTION FILTER                       |                      |   | <input checked="" type="checkbox"/> | VIBRATION PROBE ON BEARING   |                                     |                                     | <input type="checkbox"/>            |                                     |                                     |                                     |                      |                                     |
| LUBRICATION TYPE:  |                                  |                                    |  |                     | GREASE  |  | BEARING COOLING:                                   |               | <input type="checkbox"/>               | LIQUID USED:                         |                      | SUCTION AND DISCHARGE PIPING AND VALVE:       |                                     |                              | <input checked="" type="checkbox"/> | INSTALLATION MATERIAL               |                                     |                                     | <input checked="" type="checkbox"/> |                                     |                      |                                     |
| FLOWRATE:  |                                  |                                    |  |                     | m <sup>3</sup> /h                             |  | PRESSURE:  |               | barg                                   | MATERIAL                             |                      |   | CONNECTIONS                         |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| CASING:  |                                  |                                    |  |                     | S.S.  |  | SHAFT:   |               | S.S.                                   |                                      | SUCTION FLANGE:      |   |                                     | DIRECTION:                   | SHAPE:                              |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| IMPELLER:  |                                  |                                    |  |                     | S.S.  |  | HUB:   |               |  |                                      |                      | SIZE / RATING / FACING:                       |                                     |                              | SECTION:                            |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| BLADES:  |                                  |                                    |  |                     | S.S.  |  | VOLUTE:  |               |  |                                      |                      | DISCHARGE FLANGE:                             |                                     |                              | DIRECTION:                          | SHAPE:                              |                                     |                                     |                                     |                                     |                      |                                     |
| BELLOW:  |                                  |                                    |  |                     |   |  | BASE PLATE:  |               | C.S.                                   | SIZE / RATING / FACING:              |                      |   | SECTION:                            |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| NOTES  |                                  |                                    |  |                     |   |  |  |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| (1) DESIGNED AND SUPPLIED BY M 5101 VENDOR. VENDOR SHALL SUBMIT AND FILL IN THE DATA SHEET WITH THE BID. |                                  |                                    |  |                     |   |  |  |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |
| (2) DESIGN TEMPERATURE 120°C. MINIMUM METAL DESIGN TEMPERATURE DUE TO AMBIENT CONDITION: -4.0°C          |                                  |                                    |  |                     |   |  |  |               |  |                                      |                      |   |                                     |                              |                                     |                                     |                                     |                                     |                                     |                                     |                      |                                     |

| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b>   |   |  |           |               |            |               |                 |                |     |     |    |    |      |      |  |  |  |  |                       |  |
|--|---|---|---|-----------|---------------|------------|---------------|-----------------|----------------|-----|-----|----|----|------|------|--|--|--|--|-----------------------|--|
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b> |   |           |               |            |               | <b>Class: A</b> | <b>Rev. D0</b> |     |     |    |    |      |      |  |  |  |  |                       |  |
|  | <table border="1"> <tr> <th>Proj. Code</th> <th>Area</th> <th>Unit</th> <th>Disc. Code</th> <th>Doc. Type</th> <th>Material Code</th> <th>Serial. No</th> </tr> <tr> <td>DPIC9812</td> <td>001</td> <td>500</td> <td>ME</td> <td>DS</td> <td>4260</td> <td>5101</td> </tr> </table> | Proj. Code  | Area  | Unit      | Disc. Code    | Doc. Type  | Material Code | Serial. No      | DPIC9812       | 001 | 500 | ME | DS | 4260 | 5101 |  |  |  |  | <b>Sheet 10 of 11</b> |  |
| Proj. Code   | Area  | Unit  | Disc. Code  | Doc. Type | Material Code | Serial. No |               |                 |                |     |     |    |    |      |      |  |  |  |  |                       |  |
| DPIC9812   | 001   | 500   | ME  | DS        | 4260          | 5101       |               |                 |                |     |     |    |    |      |      |  |  |  |  |                       |  |

### ANNEX-I

#### TYPICAL HDPE POWDER PROPERTIES:




|   |                              |                                |                              |
|---|------------------------------|--------------------------------|------------------------------|
| Bulk density :                                  | 400 to 500 kg/m <sup>3</sup> | Solid density:                 | 940 to 960 kg/m <sup>3</sup> |
| Specific heat :                                 | 2.1 kJ/kg K                  | Melting point :                | 125 °C                       |
| Angle of repose (typical):                      |                              | 40 to 45° (on horizontal line) |                              |
| Abrasion :                                      |                              | Non-abrasive                   |                              |
| Kinematic angle of surface friction (typical) : |                              | 11 to 18°                      |                              |

The product is:

- Dry
- Tending to electrostatic charging
- Combustible
- Free flowing
- Non abrasive

#### PARTICLE SIZE DISTRIBUTION:

| Particle size distribution (based on Z509 catalyst): |          | Particle size distribution (based on Z501 catalyst): |          |
|--|----------|--|----------|
| sieve (µm)   | % by wt. | sieve (µm)   | % by wt. |
| > 400  | 0.05     | > 600  | 1.2      |
| 315 - 400  | 0.95     | 500 - 600  | 0.9      |
| 250 - 315  | 4.10     | 400 - 500  | 1.5      |
| 200 - 250  | 7.40     | 315 - 400  | 3.9      |
| 160 - 200  | 19.00    | 250 - 315  | 12.7     |
| 125 - 160  | 21.00    | 200 - 250  | 23.9     |
| 63 - 125   | 38.50    | 160 - 200  | 25.1     |
| 32 - 63  | 7.4      | 125 - 160  | 19.4     |
| < 32   | 1.6      | 100 - 125  | 5.7      |
|  |          | 63 - 100   | 4.85     |
|  |          | 32 - 63  | 0.7      |
|  |          | < 32   | 0.15     |
| d50: 100 - 140 µm                                    |          | d50: 180 - 220 µm                                    |          |

|  |   |   |                           |                                |                               |                                     |   |                       |                |
|--|---|---|---------------------------|--------------------------------|-------------------------------|-------------------------------------|---|-----------------------|----------------|
| <br> | <b>DEHDASHT PETROCHEMICAL INDUSTRY COMPANY</b><br><br><b>DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT</b> |   |                           |                                |                               |                                     |  |                       |                |
|  | <b>Contract No.:</b><br><br><b>DPIC/98-12</b>   | <b>DOCUMENT TITLE: Mechanical Data Sheet for Mixing Screw Feeder Package (M-5101)</b> |                           |                                |                               |                                     |   | <b>Class: A</b>       | <b>Rev. D0</b> |
|  | <b>Proj. Code</b><br><b>DPIC9812</b>  | <b>Area</b><br><b>001</b>   | <b>Unit</b><br><b>500</b> | <b>Disc. Code</b><br><b>ME</b> | <b>Doc. Type</b><br><b>DS</b> | <b>Material Code</b><br><b>4260</b> | <b>Serial. No</b><br><b>5101</b>  | <b>Sheet 11 of 11</b> |                |

### ANNEX-I CONTINUED

#### TYPICAL HDPE PELLET PROPERTIES:

|                 |                              |                       |                              |
|-----------------|------------------------------|-----------------------|------------------------------|
| Bulk density :  | 500 to 650 kg/m <sup>3</sup> | Solid density:        | 940 to 960 kg/m <sup>3</sup> |
| Specific heat : | 2.1 kJ/kg K                  | Melting point :       | 125 °C                       |
| Pellet shape:   | LENTOID                      | Nominal pellets size: | D= 3 – 5 mm                  |
| Abrasion :      | Non-abrasive                 |                       | L/D=0.75 - 1                 |

#### TYPICAL PROPERTIES OF STABILIZERS (ADDITIVES):

|                       |   |   |
|-----------------------|---|---|
| Melting Points Range  | : | 150 to 210 °C                                 |
| Softening Point range | : | 55 to 70 °C                                   |
| PSD Range             | : | 0.3 to 30 μm                                  |
| Dustiness             | : | Dusty   |
| Flowability           | : | some have poor flowability and easy to bridge |

Additives are:

- Dry
- Tending to electrostatic charging
- Combustible

#### ADDITIVES DESIGN RANGE:

| Particulars       | W-5201                       | W-5202   | W-5203                       | W-5204                       | W-5205                       |
|-------------------|------------------------------|--|------------------------------|------------------------------|------------------------------|
| Stabilizer        | Viton FFGB                   | Calcium Stearate/<br>(PB Hostastat M RN 7067 GR)             | Zinc stearate                | Irganox 1010                 | Irgafos 168 S                |
| Feed Capacity (1) | 1.5 to 6 kg/h                | 10to100 kg/h<br>(100 – 220 kg/h)                             | 9 to 80 kg/h                 | 3.5 to 90 kg/h               | 4 to 100 kg/h                |
| Bulk Density      | 630 to 670 kg/m <sup>3</sup> | 170 to 210 kg/m <sup>3</sup> (400 to 600 kg/m <sup>3</sup> ) | 170 to 210 kg/m <sup>3</sup> | 530 to 630 kg/m <sup>3</sup> | 480 to 570 kg/m <sup>3</sup> |
| Grain Size        |                              | 0.3 to 30 μm<br>(not available)                              | 0.5 to 20 μm                 | 10 to 400 μm                 |                              |

- 1) Feed Capacity depends on stabilizer and recipe. Range is mentioned in the table. Maximum flow rate to be confirmed according to expected capacity of extruder. If the range is too wide for a single feeder, Vendor shall suggest alternate solution.
- 2) The feeder W-5202 will be used to dose any one of the two mentioned stabilizers (at a time only one of the two stabilizers is fed through the feeder).
- 3) Values in brackets for W-5202 are for additive PB Hostastat M RN 7067 GR.