






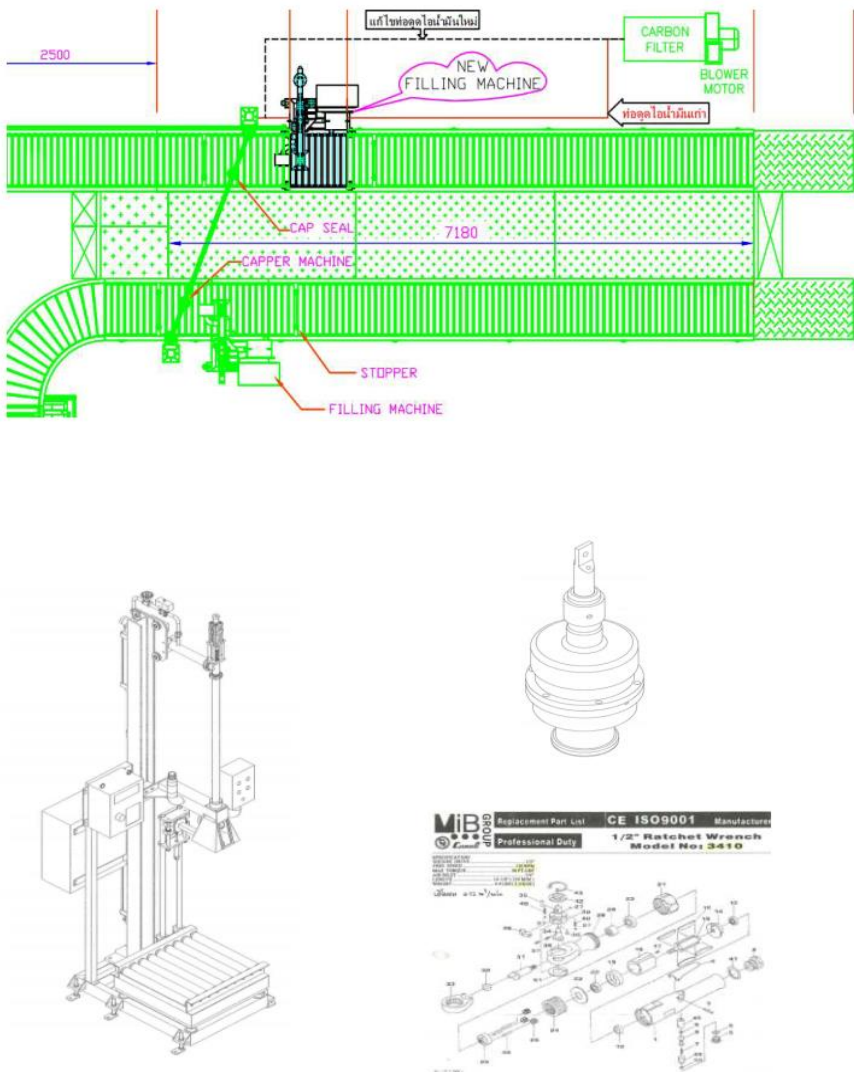
## MECHANICAL DATASHEET FOR DRUM FILLING MACHINE

### HP02-00-ME-DAS-0006

|          |            |                  |       |  |   |   |
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| A        | 20-Oct-23  | Issue for Review |       | T.D.H  | D.T.T   | N.T.S   |
| REV. NO. | DATE       | DESCRIPTION      |       | PREP'N   | CHECK   | REVIEW  |
| REV. NO. | DISCIPLINE | PREPARATION      | CHECK | REVIEW   |   | APPROVAL  |
| A        | MECHANICAL |                  |       |  |   |   |
|          |            | T.D.H            | D.T.T | N.T.S  | V.V.V   |   |

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|---|-------------------------------|---|-------------------------|---|---------------------------|
|  |                               | <b>MECHANICAL DATASHEET OF DRUM FILLING MACHINE</b> |                         | COMPANY<br>The Branch of Top Solvent (Vietnam) Limited Liability Company - Hai phong Terminal |                           |
| SHEET   |                               | 2 OF 3  |                         | PROJ.   |                           |
| Q'TY  |                               | 1   |                         | UNIT.   |                           |
| DESIGN CODE   |                               | TYPE  |                         | SECTION   |                           |
|   |                               | ITEM  |                         | JOB NO.   |                           |
|   |                               | SER.  |                         | P&ID NO.  |                           |
|   |                               | X-203   |                         | HPTP.00-PR-PID-0013   |                           |
|   |                               | FILLING FOR DRUM                                    |                         | DWG. NO.  |                           |
|   |                               |   |                         | DOC. NO.  |                           |
|   |                               |   |                         | HPTP-00-ME-DAS-0006   |                           |
| 1 OPERATING DATA  |                               |   |                         |   |                           |
| 2   | Flow rate                     | 20  | m³/h                    | Number required (incl. spare)   | 1                         |
| 3   | Pressure drop max.            | 2.5   | barg                    | Mounted   | Floor mounted             |
| 4   | Type of liquid                | HC, Chemsol   |                         | Location  | Outdoor, under shelter    |
| 5   | Viscosity ranges              | 0.33-0.45   | cP                      | Area classification   | Zone I                    |
| 6   | Density of material           | 670-920   | kg/m³                   | Size of drum (WxLxH)  | approx.600x900            |
| 7   | Operating/ Design Temperature | AMB/ 70   | °C                      | Number of drum  | 1                         |
| 8   | Operating/ Design Pressure    | 0.5 / 6.3   | barg                    | Scale type  | Load cell                 |
| 9   | Through put                   | 100   | drum/h                  | Platform type   | SS304                     |
| 10  | Capacity Req'd                | -   |                         | Number scales   | 1                         |
| 11  | Number of product             | 19  |                         | Number loadcells per scale  | *                         |
| 12  | Foam                          | -   |                         | Number pallets (1200x1200)  | N/A                       |
| 13  | Flammable/ Explosive (Y/N)    | Yes   |                         | Full scale  | 300                       |
| 14  | Solids                        | No  |                         | Tare weight   | Require                   |
| 15  | Extraction requirement        | Yes   |                         | Net weight  | Require                   |
| 16  | Safety requirement            | Yes   |                         | Gross weight  | Require                   |
| 17  |                               |   |                         | Utility air pressure  | 7                         |
| 18  |                               |   |                         | Air consumption   | *                         |
| 19 CONSTRUCTION   |                               |   |                         |   |                           |
| 20  | Manufacturer                  | *   |                         | Valve connection & size   |                           |
| 21  | Model                         | *   |                         | Inlet   | 2"                        |
| 22  | Type of liquid                | Pneumatic   |                         | Return  | *                         |
| 23  | Operation                     | Semi automatic                                      |                         | Dischrg   | *                         |
| 24  | Filling                       | Manual  |                         | Interlock   | Emergency Stop (2 points) |
| 25  | Start                         | Auto & Manual                                       |                         | Piping connections  |                           |
| 26  | Valve type                    | *   |                         | Product Inlets  | 2"                        |
| 27  | Platform type                 | Weighing platform                                   |                         | Exhaust outlet  | 3"                        |
| 28  | Dimension                     | approx. 700x700                                     | mm                      | Instrument air  | 1"                        |
| 29  | Total weight                  | 300   | kg                      |   |                           |
| 30  | Conveyor type                 | Roller  |                         |   |                           |
| 31  | Vertical travel length        | * (see layout) drawing)                             |                         |   |                           |
| 32  | Filling position              | Top filling: Yes                                    | Sub-surface filling: No |   |                           |
| 33 PERFORMANCE MATERIAL   |                               |   |                         |   |                           |
| 34  | Operation range               |   |                         | Wetted part   | SS304                     |
| 35  | Accuracy                      | ±0.2 or better                                      |                         | Weight platform   | SS304                     |
| 36  | Max. Viscosity for liquid     | 0.45  | cP                      | Roller  | CS with hot dip galvanize |
| 37  | Max. Temp. for liquid         | 45  | °C                      | Seal/ gasket  | PTFE (*)                  |
| 38  | Function control valve        |   |                         | Earthing  | SS304                     |
| 39  | Step filling                  | 2 steps (Fast and Slow)                             |                         | Structure frame/ Support  | CS with hot dip galvanize |
| 40  | Semi-auto mode                | Fast ■ Dribble ■ Slow ■                             |                         | Filling nozzle  | SS304                     |
| 41  | Manual mode                   | Fast ■ Dribble ■ Slow ■                             |                         | Swivel joint  | SS304                     |
| 42  | Filling time per drum         | *   |                         | Boom  | CS with hot dip galvanize |
| 43  | Filling stage                 | Two-stage (Dribble)                                 |                         | Piping  | A106                      |
| 44  | Capable of rotation through   | Fix   |                         | Hydraulic   | *                         |
| 45 ACCESSORIES  |                               |   |                         |   |                           |
| 46  | Switches                      | YES   |                         | Flexible hose   | YES                       |
| 47  | Positioner                    | YES   |                         | Inlet filling valve   | *                         |
| 48  | Solenoid                      | YES   |                         | Air operated filling nozzle   | YES                       |
| 49  | Control panel                 | YES   |                         | Instrumentation   | YES                       |
| 50  | Roller                        | YES   |                         | Safety switches   | YES                       |
| 51  | Swivel joint                  | YES   |                         | Hoist   | N/A                       |
| 52  | Load cell                     | YES   |                         | Air block   | N/A                       |
| 53  | Earthing lug                  | YES   |                         | Fume hood   | YES                       |
| 54  | Operator handle               | YES   |                         | Weight scale  | YES                       |
| 55  | Operator control station      | YES   |                         | Boom locking device   | N/A                       |
| 56  | Drip collector                | *   |                         | Numeric operator keyboard   | YES                       |
| 57  | Air filter regulator          | YES   |                         |   |                           |

|   |   |   |      |                            |  |                     |
|---|---|---|------|----------------------------|--|---------------------|
|  |   | <b>MECHANICAL DATASHEET OF DRUM FILLING MACHINE</b> |      | COMPANY                    | The Branch of Top Solvent (Vietnam) Limited Liability Company - Hai phong Terminal |                     |
| SHEET   |   | 3 OF 3  | ITEM | X-203                      | PROJ.  | Hai Phong 2 Project |
| QTY   |   | 1   | SER. | FILLING FOR DRUM           | UNIT.  |                     |
| DESIGN CODE   |   |   | TYPE |                            | SECTION  |                     |
|   |   |   |      |                            | JOB NO.  |                     |
|   |   |   |      |                            | P&ID NO.   | HPTP.00-PR-PID-0013 |
|   |   |   |      |                            | DWG. NO.   |                     |
|   |   |   |      |                            | DOC. NO.   | HPTP-00-ME-DAS-0006 |
| 45  | ILLUSTRATION  |   |      |                            |  |                     |
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| 94  |   |   |      |                            |  |                     |
| 95  | NOTE  |   |      |                            |  |                     |
| 96  | (*) To be completed by vendor   |   |      |                            |  |                     |
| 97  | TECHNICAL REQUIRED  |   |      | FABRICATED MATERIAL        |  |                     |
| 98  | Isolation   | No  |      | Component                  | Material   | Corrosion           |
| 99  | Fire fighting   | No  |      |                            |  |                     |
| 100   | Special requirement   | Yes   |      | Carbon Steel; with coating | ASTM A516 Gr.70  | 1 mm                |
| 101   | Other (if any)  | -   |      |                            |  |                     |