

2 types of plug-and-play dosing solutions:

- Frame-mounted pump(s)
- Chemical injection package with storage tank

Compact, modular and self-contained metering solutions. DosaSkid are ideal for preparing, storing and injecting chemical solutions

Tubing

- 316L stainless steel or C-PVC

Storage tank

- 316L stainless steel or HDPE



DosaSkid®

Turnkey and ready-to-use device

- **A turnkey and ready-to-use device manufactured by an expert in metering technology**
- **Modularity and Adaptability to process developments**
- **Reliability and Safety**

TYPICAL APPLICATIONS

- **Boiler water treatment:** treatment of make up, boiler feed and waste waters (injection of limewash, corrosion inhibitor, biocide, antifoam, scale inhibitor, etc.)
- **Industrial water treatment:** coagulation / flocculation (injection of ferric chloride, aluminium sulphate, WAC, etc.), pH regulation (injection of acids and alkalis)
- **Refinerie:** injection of additives into fuels from refineries, conditioning of drinking water in utilities (injection of sodium hypochlorite)
- **Desalination:** cleaning and maintenance of reverse osmosis membranes (injection of hydrochloric acid, sodium hydroxyde, anti-scaling agents and anti-fouling agents)
- **Surface treatment:** pickling (injection of hydrochloric, sulphuric, nitric, phosphoric or hydrofluoric acid), neutralisation (injection of acids or alkalis), waste treatment (injection of sodium bisulphate, bleach, sodium hydroxide, etc.)
- **Cleaning in place** (injection of nitric acid in food industry for example)

FEATURES AND BENEFITS

- **Easy and fast installation:** only the hydraulic and electrical connections need to be made
- **Modularity:** 1, 2 or 3 dosing modules with or without tank; accumulation of DosaSkid® units possible; 2 piping and tank materials available
- **Process adaptability:** interchangeable pumps for easy adaptation to process changes
- **Reliability and Safety:** trade practices and NPSH respected; risks associated with piping connection errors avoided; metering equipment and piping protected
- **Simple, rapid maintenance:** easy access to components; modules 95 % identical
- **A single supplier ensures proper installation operation:** time savings (design, diagrams, negotiation, administrative operations), costs controlled
- **Recognised know-how:** pumps and accessories included in lists of approved suppliers to the largest companies
- **Compact**
- **ATEX zone 2** upon request

Technical features

Dosing module

- Tubing: 316L stainless steel or C-PVC
- Connections and tubing: OD 1/2"
- Suction line comprising for each pump:
 - > 1 isolating valve
 - > 1 Y-filter: protection and improvement of dosing pump lifespans
 - > 1 battery limit inlet connection
- Suction connection: connection of the suction line of the modules
- Discharge line comprising for each pump:
 - > 1 safety valve: protection of piping and dosing pumps
 - > 1 isolating valve: simplified maintenance without production stoppage
 - > 1 pulsation dampener: smoothing of the injection flow and cavitation prevention
 - > 1 manometer with manifold: operating pressure measurement and display of pulsation damper efficiency
 - > 1 back-pressure valve if required by the service pressure: cavitation prevention
- Accessories: characteristics determined based on the application

Recommended dosing pumps

- **Flow rate:** up to 400 l/h (standard)
- **Maximum permissible pressure:** up to 64 barg (standard)
- **Electric motor-driven pumps:** **G^{TMM}** (mechanically actuated diaphragm), **mROY® XA and XB** (hydraulically actuated diaphragm) and **MILROYAL® D** (plunger or hydraulically actuated diaphragm). For further details, refer to the technical data sheets of each pump
- **Liquid ends (according to models):** 316L S. S., C-PVC, PVDF, PP, slurries. Other materials upon request
- Installation of frequency inverters and actuators possible

Storage tank module with inspection hatch

316L S.S.

- 4 sizes: 200, 500, 1,000 and 1,500 litres
- Tubing: 316L stainless steel
- Filling: Ø 1" NPT
- Drain: Ø 1/2" NPT female with isolating valve
- Tank with sight flow indicator

HDPE

- 5 sizes: 60, 120, 250, 500 and 1,000 litres
- Tubing: 316L stainless steel or C-PVC
- Excellent resistance to corrosive chemicals, treated for UV protection
- Moulded graduation scale up to 500 litres
- Filling: Ø 140 mm for 60 to 500-litre tanks / 185 mm for 1,000-litre tank
- Drain: Ø 1/2" Gas female
- Max. temperature: +60°C (precautions for corrosive products)

Installation and test

- Connections (inlet/outlet): 1/2" NPT female
- Leak tested assembly and connection of pump(s) and accessories
- Indoor or outdoor installation, not exposed to direct sunlight, for the plastic version

Options

- Suitable for use in an explosive atmosphere area: ATEX zone 2 (gas)
- Other configurations upon request

Options for dosing module:

- Drip pan (304L S.S.): for the safety of the environment and users
- Back pressure valve (standard if pressure < 5 bar): siphonage prevention
- Calibration pot: precise pump calibration according to real operating conditions
- ON/OFF control box with emergency stop per pump module: simplified control
- Flange connections: perfect adaptation within the installation

Options for storage tank module:

- High speed electric mixer: homogenisation, dissolving, preparation of reagents, neutralisation
- ON/OFF control box with emergency stop for mixer: simplified control
- Level detector (low and high): optimum flow management, securing of the process
- Connection to dosing module: turnkey solution

Codification | Standard & options

Frame-mounted pump version

| MPP | Frame-mounted pump (including accessories, dosing pump(s) to be coded separately) | | | | | | | | | |
|-----|---|---|---|----|---|----|----|----|---|--|
| | Number of dosing modules | | | | | | | | | |
| | 1 | 1 module 1 pump | | | | | | | | |
| | Tubing material | | | | | | | | | |
| | P | C-PVC tubing | | | | | | | | |
| | S | 316L stainless steel tubing | | | | | | | | |
| | / OPTIONS | | | | | | | | | |
| | Frame option: Drip pan | | | | | | | | | |
| | — | Without drip pan | | | | | | | | |
| | RE | With 1 drip pan per pump module | | | | | | | | |
| | Dosing module option: Back pressure valve | | | | | | | | | |
| | — | Without back pressure valve on discharge line | | | | | | | | |
| | R | With back pressure valve on discharge line - Mandatory if P < 5 bar | | | | | | | | |
| | Dosing module option: Control | | | | | | | | | |
| | — | Without control box | | | | | | | | |
| | BC | ON/OFF control box with emergency stop per pump module | | | | | | | | |
| | Dosing module option: Calibration pot | | | | | | | | | |
| | — | Without calibration pot | | | | | | | | |
| | P1 | 1 calibration pot per pump module. Stainless steel if stainless steel tubing/PVC if C-PVC tubing. Volume determined automatically depending on associated dosing pump flow rate | | | | | | | | |
| | Connection option: Inlet and outlet flanges | | | | | | | | | |
| | — | Standard inlet and outlet connections: 1/2" NPT female | | | | | | | | |
| | R3 | Inlet and outlet flange connection - Rating to be defined | | | | | | | | |
| | Dosing module option: Explosive atmosphere area (ATEX) | | | | | | | | | |
| | — | Non-explosive atmosphere area | | | | | | | | |
| | AT | Suitable for use in an explosive atmosphere area: ATEX zone 2 (gas) | | | | | | | | |
| MPP | 1 | S | / | RE | R | BC | P1 | R3 | — | |

- For more than one dosing module, add up the modules

Chemical injection package with storage tank version

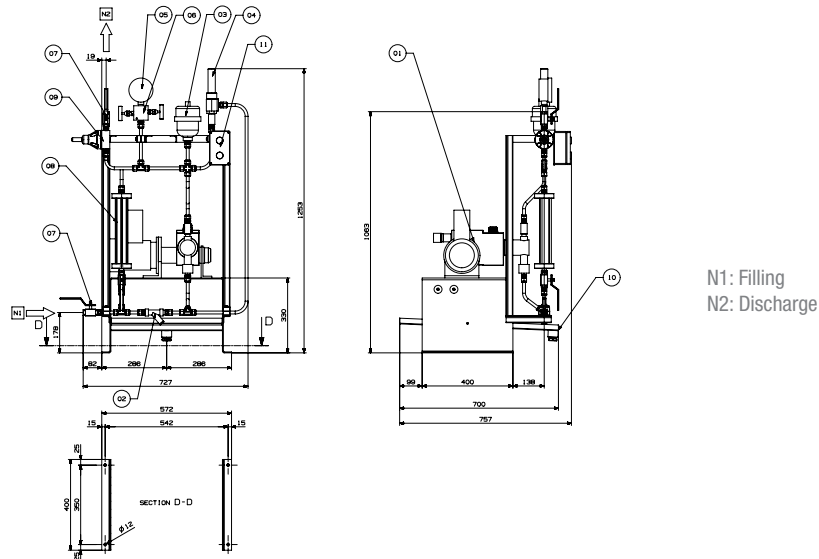
| STORAGE TANK MODULE | | | | | | | | | |
|---|---|---|---|--|--|-----|----|-----|--|
| MT | Module with 1 closed storage tank with inspection hatch | | | | | | | | |
| | Storage tank material | | | | | | | | |
| | P | HDPE tank | | | | | | | |
| | S | 316L stainless steel tank with sight flow indicator | | | | | | | |
| | Storage tank volume | | | | | | | | |
| | | | | HDPE tank | 316L S.S. tank | | | | |
| | 60 | 60 litres | | x | NA | | | | |
| | 120 | 120 litres | | x | NA | | | | |
| | 200 | 200 litres | | NA | x | | | | |
| | 250 | 250 litres | | x | NA | | | | |
| | 500 | 500 litres | | x | x | | | | |
| | 1,000 | 1,000 litres | | x | x | | | | |
| | 1,500 | 1,500 litres | | NA | x | | | | |
| | / OPTIONS | | | | | | | | |
| | Tank module option: Level detector | | | | | | | | |
| | | | | | Without level detector | | | | |
| | NB | | | | With low level detector | | | | |
| | NH | | | | With high level detector | | | | |
| | NB | NH | | | With low and high level detectors | | | | |
| | Tank module option: Mixer | | | | | | | | |
| | | | | | Without mixer | | | | |
| | VDA | | | | With 1 tank-mounted high-speed mixer (1,500 rpm) | | | | |
| | Tank module option: Mixer control | | | | | | | | |
| | | | | Without control box | | | | | |
| BC | | | | ON/OFF control box with emergency stop for Mixer option only | | | | | |
| Tank module option: Hose for connection to pump module(s) | | | | | | | | | |
| | | | | Without connecting hose | | | | | |
| FP1 | | | | Hose for connection to C-PVC tubing/to 1 module | | | | | |
| FP2 | | | | Hose for connection to C-PVC tubing/to 2 or more modules | | | | | |
| FS1 | | | | Hose for connection to 316L S.S. tubing/to 1 module | | | | | |
| FS2 | | | | Hose for connection to 316L S.S. tubing/to 2 or more modules | | | | | |
| MT | P | 120 | / | NB | | VDA | BC | FS2 | |

| DOSING MODULE (TANK TO BE CODED SEPARATELY - SEE CODING ABOVE) | | | | | | | | | |
|--|---|---|---|-----------|----------------|----|----|----|---|
| MPC | Dosing unit for mounting with tank (including accessories, dosing pump(s) to be coded separately) | | | | | | | | |
| | Number of dosing modules | | | | | | | | |
| | 1 | 1 module 1 pump | | | | | | | |
| | 2 | 2 modules 1 pump | | | | | | | |
| | 3 | 3 modules 1 pump | | | | | | | |
| | Tubing material | | | | | | | | |
| | | | | HDPE tank | 316L S.S. tank | | | | |
| | P | C-PVC tubing | | x | NA | | | | |
| | S | 316L stainless steel tubing | | x | x | | | | |
| | / OPTIONS | | | | | | | | |
| | Frame option: Drip pan | | | | | | | | |
| | | Without drip pan | | | | | | | |
| | RE | With 1 drip pan per pump module | | | | | | | |
| | Dosing module option: Back pressure valve | | | | | | | | |
| | | Without back pressure valve on discharge line | | | | | | | |
| | R | With back pressure valve on discharge line - Mandatory if P < 5 bar | | | | | | | |
| | Dosing module option: Control | | | | | | | | |
| | | Without control box | | | | | | | |
| | BC | ON/OFF control box with emergency stop per pump module | | | | | | | |
| | Dosing module option: Calibration pot | | | | | | | | |
| | | Without calibration pot | | | | | | | |
| | P1 | 1 calibration pot per pump module. Stainless steel if stainless steel tubing/PVC if C-PVC tubing. Volume determined automatically depending on associated dosing pump flow rate | | | | | | | |
| | Connection option: Outlet flange | | | | | | | | |
| | | Standard outlet connection: 1/2" NPT female | | | | | | | |
| | R3 | Outlet flange connection - Rating to be defined | | | | | | | |
| | Dosing module option: Explosive atmosphere area (ATEX) | | | | | | | | |
| | | Non-explosive atmosphere area | | | | | | | |
| | AT | Suitable for use in an explosive atmosphere area: ATEX zone 2 (gas) | | | | | | | |
| MPC | 2 | S | / | — | — | BC | P1 | R3 | — |

Dimensions

Dimensions (in mm)

• Frame-mounted pump - 1 dosing module (316L S.S.)



| ITEM | DESCRIPTION |
|-----------------------------|--|
| Standard arrangement | |
| 1 | Dosing pump |
| 2 | Y-filter |
| 3 | Pulsation dampener |
| 4 | Safety valve |
| 5 | Manometer |
| 6 | 2-way manifold |
| 7 | Isolating valve |
| 12 | Sight flow indicator (316L S.S. tank only) |
| 17 | Storage tank (chemical injection package only) |
| Options | |
| 8 | Calibration pot |
| 9 | Back pressure valve (standard if P < 5 bar) |
| 10 | Drip pan |
| 11 | ON/OFF control box |
| 13 | Connecting hose |
| 14 | Electric mixer |
| 15 | Low level detector |
| 16 | High level detector |

| STORAGE TANK MODULE | A (mm) | B (mm) | C (mm) | NET WEIGHT (excluding options) (kg) (*) |
|--------------------------|--------|--------|--------|---|
| 316L S.S. version | | | | |
| 200 litres | 490 | 490 | 1,156 | 66 |
| 500 litres | 790 | 790 | 1,156 | 116 |
| 1,000 litres | 1,040 | 740 | 1,656 | 173 |
| 1,500 litres | 1,040 | 1,040 | 1,656 | 209 |
| HDPE version | | | | |
| 60 litres | 252 | 252 | 520 | 11 |
| 120 litres | 252 | 252 | 865 | 12.5 |
| 250 litres | 315 | 315 | 1,100 | 19 |
| 500 litres | 431 | 431 | 1,220 | 33 |
| 1,000 litres | 578 | 578 | 1,300 | 53 |

(*) Approximately

