

Semi-automatic filling systems

Based on the example of wired-in version



FLUX semi-automatic filling systems allow pre-set quantities to be quickly and safely metered at the touch of a button. They provide an economical alternative to conventional automatic filling systems and stations. The combination of pump, motor, flow meter and additional accessories is designed for the specific application, it can also be configured for ex-applications. In order to configure a semi-automatic filling system, it is essential to follow the correct procedure. The following instructions show the individual steps for an example in the non-ex-area (below) and an example in the ex-area (see following page).

Systematic procedure for selecting the components:

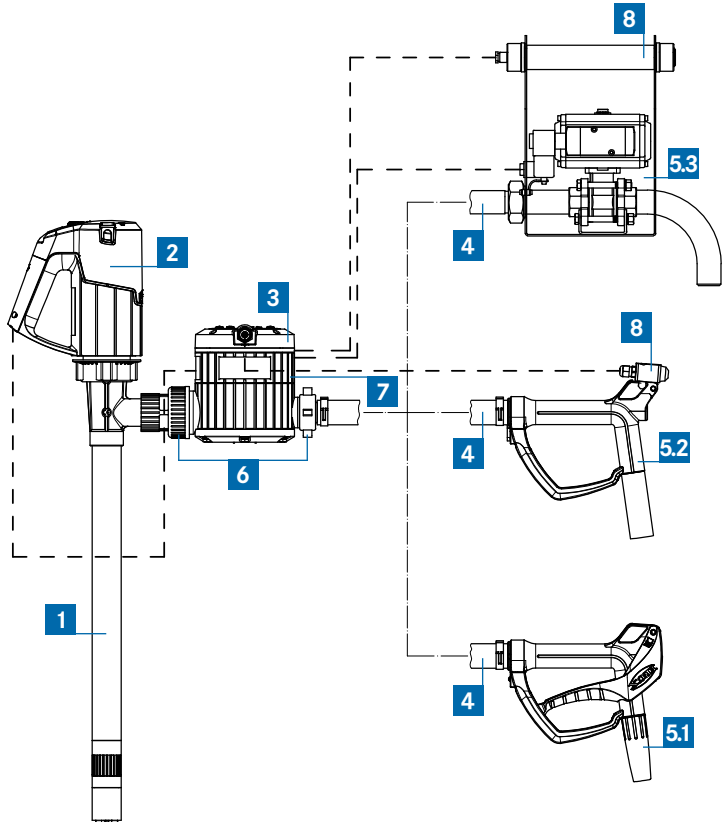
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|---|--------------------------|
| 1. Select the components following the flow path of the liquid from the container to the discharge fitting. | 1 1 to 5 5 |
| 2. Find any missing connecting elements. | 6 6 |
| 3. Decide on the electrical components to be used for the control system. | 7 7 to 8 8 |
| 4. In the case of applications within the ex-area, check compliance with the ex-rules as specified by the operator. | 9 |

Note

The designs shown in the following examples incorporate various FLUX discharge fittings. However, depending on the medium and application, other configurations may also be recommended which include a hand nozzle and integrated electronic display unit, or a discharge spout. Just contact your FLUX sales engineer for advice.

Configuration example showing a semi-automatic filling system for the non-ex-area

- 1** Pump (non-return valve recommended)
- 2** Motor without undervoltage protection
- 3** Flow meter with electronic display unit FLUXTRONIC®
- 4** Hose
- 5.1** FLUX hand nozzle
- 5.2** FLUX discharge unit with spring valve (FAE)
- 5.3** FLUX discharge fitting with externally controlled valve
- 6** Connecting elements
- 7** Integrated switching amplifier
- 8** External Start-Stop
- 9** Control and mains cable (— — in figure)



Selection of the individual components and illustrative selection criteria

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|--|--|
| 1 1 Pump <ul style="list-style-type: none">Application (type, immersion depth, non-return valve yes/no, Ex yes/no)Medium (material) | 6 6 Any missing non-electrical connecting components <ul style="list-style-type: none">Component fittings (any required hose connection) |
| 2 2 Motor without undervoltage protection <ul style="list-style-type: none">Type (electric, compressed-air, Ex yes/no)Desired flow rate (output) | 7 7 Switching amplifier <ul style="list-style-type: none">Non-ex application (integrated within flow meter or remote mounted)Ex-application (not integrated, placement within ex-area possible) |
| 3 3 Flow meter <ul style="list-style-type: none">Application (type, Ex yes/no, with electronic display unit FLUXTRONIC® or external signal processing)Desired flow rate (design size)Medium (material) | 8 8 External start/stop control <ul style="list-style-type: none">Wired-in |
| 4 4 Hose <ul style="list-style-type: none">Application (Ex yes/no)Medium (material, resistance, FOOD) | 9 9 Control and mains cable <ul style="list-style-type: none">Application (Ex yes/no)Positioning of the components |
| 5 5 FLUX discharge fitting <ul style="list-style-type: none">ApplicationFilling accuracyEase of useMedium (material) | 10 Earth cable for equipotential bonding <ul style="list-style-type: none">For ex-applications |

Configuration example showing a semi-automatic filling system for the ex-area



- 1** Pump (non-return valve recommended)
- 2** Motor without undervoltage protection
- 3** Flow meter with electronic display unit FLUXTRONIC®
- 4** Hose
- 5.1** FLUX hand nozzle
- 5.2** FLUX discharge unit with spring valve (FLUX filling unit FAE)
- 5.3** FLUX discharge fitting with externally controlled valve
- 6** Connecting elements
- 7** Switching amplifier
- 8** External start/stop control
- 9** Control/mains cable (— — in Figure)
- 10** Earth cable

