

**Specification for the rotary drum thickener/dewaterer  
Siljan RotoMaster SF 35**

Capacity in cubic meter per hour municipal sludge,  
DS 1-1.5 % ->6-8 % : 35-53 cbm/hour and/or 350-525 kg DS/hour

|                |               |         |
|----------------|---------------|---------|
| As-built       | Total length: | 5280 mm |
| measures:      | Width:        | 890 mm  |
|                | Height:       | 1417 mm |
| Weight, empty: |               | 990 kg  |

Materials of construction: Stainless steel, AISI 304, or AISI 316L, except for the bearings (self lubricated Robalon), the filter cloth (polyester), the spray nozzles (brass) and the drive junction (aluminum).

Motor drive: 1.1 kW 3-phase asynchronous motor according to IEC standard

Electrical connections: 3x220/380 V voltage

**Pipe connections**

Sludge in/filtrate: DN 100 in/DN 150 out

Control cabinet: Protection class IP 54, stainless steel  
Necessary automatic protection included.

Spray water: Fresh water

Number of spray nozzles: 36 pcs.

Minimum pressure: 6 bar

Water consumption: 3.7 cbm/h at continuous water spray,  
normal spray interval, 20-30% → 0.75-1.10 cbm/h

**Thickening/dewatering and polymer consumption:**

The thickening/dewatering result and the polymer consumption depend on type of sludge, type of polymer selected, efficiency of polymer/water mixing, the efficiency of the mixing of polymer with sludge, the temperature, the time for and efficiency of flocculation before separation as well as selected thickening parameters of the drum thickener.

| Type of sludge:                   | Thickened sludge:<br>DS, %: | Polymerconsumption:<br>kg/ton: |
|-----------------------------------|-----------------------------|--------------------------------|
| 100 % biological excess sludge    | 5-8 %                       | 1.5-2                          |
| Mixed sludge, 50 % bio, 50 % chem | 6-9 %                       | 2-3                            |
| Primary sludge                    | 6-10 %                      | 1-3                            |
| Digested sludge                   | 10-12 %                     | 2-4                            |
| External sludge                   | 12-15 %                     | 0-1                            |

The control unit *Siljan PolySave* governs the polymer consumption to the lower part of those ranges.