

**Specification for the rotary drum thickener/dewaterer  
Siljan RotoMaster SF 3****Capacity in cubic meter per hour****municipal sludge, DS 1-1.5 % ->6-8 % : 3-4.5 cbm/hour and/or 30-45 kg DS/h**

<b>As-built</b>	<b>Total length:</b>	<b>1250 mm</b>
<b>measures:</b>	<b>Width:</b>	<b>650 mm</b>
	<b>Height:</b>	<b>920 mm</b>
<b>Weight, empty:</b>		<b>110 kg</b>

**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 (aluminium).

**Motor drive:** 0.25 kW 3-phase asynchronous motor according to IEC standard

**Electrical connections:** 3x220/380 V voltage

**Pipe connections**

**Sludge in/filtrate:** DN 60 in/DN 75 out

**Control cabinet:** Protection class IP 54, stainless steel, see flow sheet  
Necessary automatic protection included.

**Spray water:** Fresh water (process water as option)

**Number of spray nozzles:** 6 pcs.

**Minimum pressure:** 6 bar

**Water consumption** 0.6 cbm/h at continuous water spray,  
normal spray interval, 20-30% → 0.12-0.18 cbm/h

**Process water consumption:** 1.0 cbm/h at continuous process water spray

**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.

<b>Type of sludge:</b>	<b>Thickened sludge: DS, %:</b>	<b>Polymerconsumption: kg/ton:</b>
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.