

**Specification for the rotary drum thickener/dewaterer
Siljan RotoMaster SF 7****Capacity in cubic meter per hour
municipal sludge, DS 1-1.5 % → 6-8 % : 7-10,5 cbm/hour and/or 70-105 kg DS/h**

As built measures:	Total length:	2180 mm
	Width:	650 mm
	Height:	920 mm

Weight, empty: 180 kg**Materials of construction:** Stainless steel, AISI 304L, or 316L, except for the bearings (self lubricate Robalon), the filter cloth (polyester), the spray nozzles (brass) and the drive junction (aluminium).**Motor drive:** 0.37 kW 3-phase asynchronous motor according to IEC standard**Electrical connections:** 3x220/380 V voltage**Pipe connections
Sludge in/filtrate:** DN 60 in/DN 110 out**Control cabinet:** Protection class IP 54, stainless steel, see flow chart. Necessary automatic protection included.**Spray water:** Fresh water (process water as option)**Number of spray nozzles:** 12 pcs.**Minimum pressure:** 6 bar**Water consumption:** 1.2 cbm/h at continuous water spray, normal spray interval, 20-30% → 0.24-0.37 cbm/h**Process water consumption:** 2 cbm/h at continuous 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.

Type of sludge:	Thickened sludge DS %:	Polymer consumption kg/ton:
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.