

***Specification for the rotary drum thickener/dewaterer
Siljan RotoMaster SF 120***

Capacity in cubic meter per hour, municipal sludge:
DS 1-1.5 % ->6-8 % : 120-180 cbm/hour and/or 1200-1800 kg/hour

As-built	Total length:	6234 mm
measures:	Width:	2300 mm
	Height:	1900 mm
Weight, empty:		2400 kg

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

Motor drive: 2 x 1.5 kW 3-phase asynchronous motors according to IEC standard
Electrical connections: 3x220/380 V voltage

Pipe connections
Sludge in/filtrate: 2 x DN 150 in/DN 300 out

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

Spraying water: Fresh water (process water as option)
Number of spray nozzles: 82 pcs.
Minimum pressure: 6 bar
Water consumption: 8.4 cbm/h at continuous water spray,
normal spray interval, 20-30% → 1.67-2.51 cbm/h
Process water consumption: 13.8 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.

Type of sludge:	Thickened sludge: DS, %:	Polymer consumption: 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.

