

Tank cleaning

SC 40RT

Introduction

The SC 40RT is an automated tank cleaning machine with the option for two or four nozzles. It is constructed from 316 stainless steel and other materials that are highly resistant to corrosion. The SC 40RT features a patented magnetic drive transmission that minimizes the need for seal replacements and reduces the risk of failures in hazardous environments.

Specifically, the machine is designed for low water consumption, saving up to 70% water compared to traditional spray ball cleaning methods. The efficiency of the SC 40RT makes it an optimal choice for operations where sustainability and water conservation goals are a priority.

Application

- Marine applications:
The Scanjet SC 40RT model is a specialized tank cleaning machine designed for use in cleaning cargo and slop tanks on chemical/product carriers and inland barges with smaller tanks.
- Industrial applications:
The SC 40RT is widely used in many industrial applications, for example:
 - Ethanol fermenters, storage, and process tanks
 - High-density stock chests
 - Large silos and dryers
 - Large Uni-Tanks
 - Pulp towers

Working principle

The Scanjet SC 40RT operates as a turbine-driven tank cleaning device. When the flow of cleaning media moves through the turbine, it begins to rotate and engages with the external magnetic coupling to initiate rotation of the machine. The flow then passes through the turbine into the downpipe and onto the nozzle head, where a powerful water jet is emitted, capable of efficiently cleaning even the most challenging tanks.

Thanks to its external gearbox configuration, the machine prevents blockages by keeping the gearbox separate from the cleaning media. This is particularly beneficial when the media contains particulate matter such as fibers, pulp, paint, and similar materials. The setup makes sure that the cleaning performance is uninterrupted.

The manual speed control on the SC 40RT allows for adjustment to suit different cleaning requirements, from lightly to heavily soiled tanks.



Visibility of nozzle operation is provided by a clearly visible top nut or shaft, which facilitates process monitoring. The SC 40RT is designed for reliability and efficiency.

Benefits

- Up to 70% water savings compared to traditional cleaning using spray balls – Cleaner and greener
- Can handle particles as the gearbox is not in direct contact with the cleaning media
- Offers adjustable speed settings, applicable for lightly to heavily soiled tanks
- Delivers high jet impact for effective cleaning
- External drive for easy maintenance

Alternate product

- SC 40RE: Model controlled by electrical motor
- SC 40RA: Model controlled by air

Both versions allow easier speed control of the machine and can handle higher load of particles in the cleaning media.

Performance data

Nozzle size	Supply pressure							
	6 bar (87 psi)		8 bar (116 psi)		10 bar (145 psi)		12 bar (174 psi)	
	Flow ¹ m ³ /h (USgpm)	Jet length m (feet)	Flow ¹ m ³ /h (USgpm)	Jet length m (feet)	Flow ¹ m ³ /h (USgpm)	Jet length m (feet)	Flow ¹ m ³ /h (USgpm)	Jet length m (feet)
2 x Ø 6 mm	7 (31)	7 (23)	8.5 (37)	7 (23)	9.3 (41)	8 (26)	10 (44)	9 (30)
2 x Ø 8 mm	11.5 (51)	13 (43)	14 (62)	14 (46)	15.5 (68.2)	15 (49)	17 (75)	16 (52)
2 x Ø 10 mm	19 (84)	16 (52)	22 (97)	17 (56)	25 (110)	18 (59)	27 (119)	19 (62)
2 x Ø 12 mm	28 (123)	18 (59)	30 (132)	19 (62)	34 (150)	20 (66)	36 (159)	21 (69)
2 x Ø 14 mm	34 (150)	20 (66)	38 (167)	21 (69)	42 (185)	22 (72)	45.5 (200)	24 (79)
2 x Ø 16 mm	40 (176)	19 (62)	44 (194)	20 (66)	48 (211)	21 (69)	53 (233)	22 (72)
4 x Ø 6 mm	15.2 (67)	8 (26)	17.7 (78)	10 (33)	19 (84)	11 (36)	20.4 (90)	11 (36)
4 x Ø 8 mm	23.7 (104)	9.5 (31)	27.5 (121)	11 (36)	30.8 (136)	11.5 (38)	33.4 (147)	12 (39)
4 x Ø 10 mm	33.4 (147)	10 (33)	38.7 (170)	11.5 (38)	43.2 (190)	12 (39)	46.8 (206)	13 (43)
4 x Ø 12 mm	42 (185)	10.5 (34)	48 (211)	11.5 (38)	53.7 (236)	13 (43)	58.6 (258)	14 (46)

¹ Because of variations in part wear, water temperature, installation etc., the flow may differ ±10% from specified value.

Technical data

SC 40RT

Flow: 7–55 m³/h (31–242 USgpm)

Inlet pressure: 6–12 bar (87–174 psi)

Recommended pressure: 8 bar (116 psi)

Minimum operating temperature: -20 °C (-4 °F)

Maximum operating temperature: 95 °C (203 °F)

Rotation speed: 1–2 rpm
(Can be slower in colder climate.)

Weight (Machine length, L=1 m): 38 kg (83.8 lb)

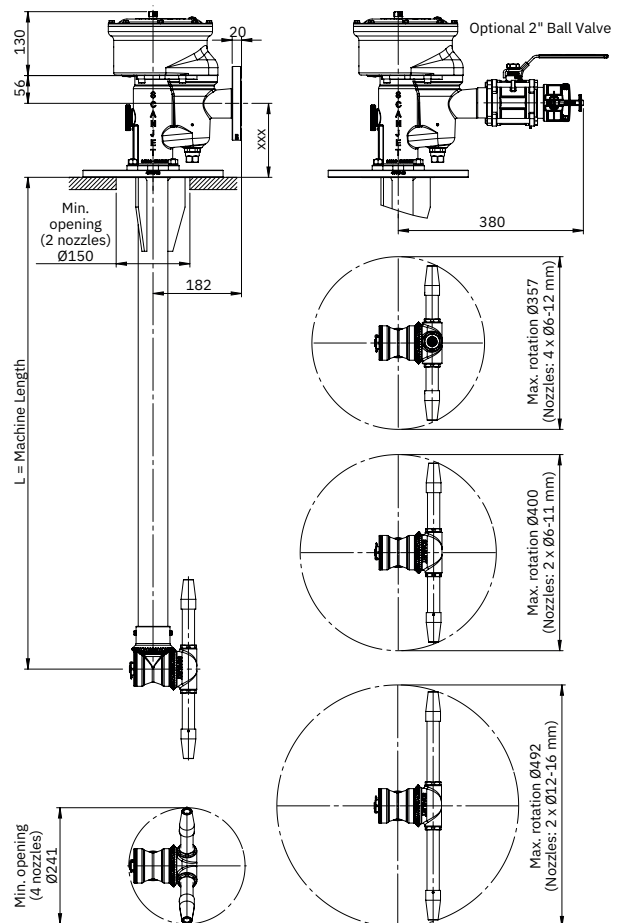
Per additional meter of main pipe: 10 kg (22.0 lb)

Weight (Drive unit): 12 kg (26.5 lb)

Material; Main pipe/Inlet housing: AISI316L, SS2348, WST 1.4404

Material; Other parts: Manufacturer's standard

Dimensions



Issue: Scanjet-SC_40RT-datasheet_v20251008

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