Certificate No:
TAP00002KZ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Tank Washing Machine

with type designation(s)
SC30T, SC30TH, SC30TH-DU, SC15TW, SC45TW, SC45TW-H

Issued to
Scanjet Marine & Systems AB
Sjöbo, Skåne Län, Sweden

is found to comply with
MARPOL 73/78 Annex 1, Reg. 13 B (2) and IMO Revised Spec. Res. A. 446 (XI) 4.2
DNV class programme DNV-CP-0211 – Type approval – Tank washing machines
DNV rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Type:	Design:	Performance data:
SC30T		
SC30TH		
SC30TH-DU		
SC15TW		
SC45TW		
SC45TW-H		

Issued at **Høvik** on **2022-09-16**

This Certificate is valid until **2027-09-15**.

for **DNV**

DNV local station: **Sweden CMC**

Approval Engineer: **Ole Henrik Kverndal Pedersen**

Dalibor Bukarica
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Place of production

Törnedalsgatan 1,
Sjöbo,
Sweden

PT. Scanjet Production Indah
Batamindo Industrial Park
Jl, Bungur, Lot 293
Muka Kuning, Sei Beduk
Batam 29433,
Indonesia

Following types are produced in Batam – Indonesia:
-SC30T
-SC30TH
-SC15TW
-SC45TW

Product description

SC30T and SC30TH:
Tankcleaning machine, Rotating single nozzle, Powered by a media flow driven turbine.
Materials: The main parts in contact with cargo are made of austenitic stainless steel AISI 316. Bearings and sealing are made of Teflon and Viton rubber.
Nozzle sizes SC30T: 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 24, 26, 28 mm
Nozzle sizes SC30TH: 14, 16, 18, 20, 22, 24, 26, 28, 30 mm

SC30TH-DU:
Tankcleaning machine, Rotating single nozzle, Powered by a media flow driven turbine.
Materials: The main parts in contact with cargo are made of Duplex Stainless steel. Bearings and sealing are made of Teflon and Viton rubber.
Nozzle sizes SC30TH-DU: 14, 16 mm

SC15TW, SC45TW and SC45TW-H
Tankcleaning machine, Rotating twin nozzles, Powered by a media flow driven turbine.
Materials: The main parts in contact with cargo are made of austenitic stainless steel AISI 316 or bronze. Bearings and sealing are made of Teflon and PEEK.
Nozzle sizes SC15TW: 6, 7, 8, 9, 10, 11 mm
Nozzle sizes SC45TW: 11, 12, 14, 15, 16, 18 mm
Nozzle sizes SC45TW-H: 20 mm

Application/Limitation

Performance data:
Type SC30T:

Nozzle diameter [mm]	***Pressure [bar]***	***Flow [m3/h]***	***Max. effective jetlength [m]***	***Nozzle diameter [mm]***	***Pressure [bar]***	***Flow [m3/h]***	***Max. effective jetlength [m]***
1 x 8	6 8 10 12	7 8 9 10	13 14 15 16	1 x 15	6 8 10 12	19 22 25 27	21 23 24 25
1 x 9	6 8 10 12	8,8 9,9 11 12	14 15 16 17	1x 16	6 8 10 12	22 25 27,5 30	22 24 25 26
1 x 10	6 8 10 12	10,5 11,5 13 14	15 16 17 18	1 x 17	6 8 10 12	24,5 28,3 31,3 34,5	23 25 26,7 28
1 x 11	6 8 10 12	12 14 15 17	18 19 20 21	1 x 18	6 8 10 12	27 31,5 35 39	24 26 28 30
1 x 12	6 8 10 12	14 16 18 19,5	19 21 22 23	1 x 20	8 10 12	38 43 47,5	27 31 33
1 x 13	6 8 10 12	16 18,3 20,5 22,3	19,3 21,5 22,8 23,9	1 x 22	8 10 12	44 50 54,5	28 31 33
1 x 14	6 8 10 12	18 20,5 23 25	19 22 23 25	1 x 24	8 10 12	50 55 60	27 29 32

Type SC30T:

Nozzle diameter [mm]	***Pressure [bar]***	***Flow [m3/h]***	***Max. effective jetlength [m]***	***Nozzle diameter [mm]***	***Pressure [bar]***	***Flow [m3/h]***	***Max. effective jetlength [m]***
1 x 26	8 10 12	54 60 67	25 27 30	1 x 28	8 10 12	56 62 69	24 27 29

Type SC30TH:

Nozzle diameter [mm]	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*	*Nozzle diameter [mm]*	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*
1 X 14	6 8 10 12	19,1 21,8 24,1 26,5	19 22 23 25	1 x 24	6 8 10	51 60 65	30 33 35
1 X 16	6 8 10 12	23,8 27,1 30 32,3	20 23 25 26	1 x 26	6 8 10	58 67 74	30 34 37
1 x 18	6 8 10	33 36 40	25 27 29	1 x 28	6 8 10	65 74 83	33 37 39
1 x 20	6 8 10	39 45 50	28 30 32	2 x 30	6 8 10	71 82 91	34 37 39
1 x 22	6 8 10	45 52 58	30 33 34				

Type SC30TH-DU:

Nozzle diameter [mm]	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*	*Nozzle diameter [mm]*	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*
1 X 14	6 8 10 12	18,4 21,1 23,4 25,6	19 22 23 25	1 X 16	6 8 10 12	22 25,1 28,7 33,3	20 23 25 26

Type SC15TW:

Nozzle diameter [mm]	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*	*Nozzle diameter [mm]*	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*
2 x Ø6	6 8 10 12	7,5 8,5 9,5 10,5	8 10 11 12	2 x Ø9	6 8 10 12	14,5 17 19 20,5	12 13 14 16
2 x Ø7	6 8 10 12	10 11 12,5 13,5	10 12 13 14	2 x Ø10	6 8 10 12	16,5 19 21 23,5	12 13 14 16
2 x Ø8	6 8 10 12	12 14 15,5 17	12 13 14 15	2 x Ø11	6 8 10 12	19 22 24 26	13 15 16 17

Type SC45TW:

Nozzle diameter [mm]	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*	*Nozzle diameter [mm]*	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*
2 x Ø11	6 8 10 12	22 25 28 31	15 17 19 20	2 x Ø14	6 8 10 12	30 35 38,5 42,5	15 17 19 20
2 x Ø12	6 8 10 12	25 29 32,5 36	15 17 19 20	2 x Ø15	6 8 10 12	32 36 41 44,5	15 17 19 21
2 x Ø16	6 8 10 12	34 38 42 45	14 16 18 20	2 x Ø18	6 8 10 12	35 40 45 49	13 15 17 19

Type SC45TW-H:

Nozzle diameter [mm]	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*	*Nozzle diameter [mm]*	*Pressure [bar]*	*Flow [m3/h]*	*Max. effective jetlength [m]*
2 x Ø20	6 8 10 12	57,7 66,8 73,4 80,3	17 20 22 24				

Performance is based upon test requirements that meet DNV TA-Program CP-0211, item 3.2.
This Type Approval is based on examination of drawings and tests carried out. Drawings showing number, location and supporting arrangement of the tank washing machines are to be submitted for each installation on board.

No DNV product certificate is required.

Type Approval documentation

- Instruction Manual SC 30T, dated 2012-06-20
- Instruction Manual SC 30T –multistage, dated 2011-03-30
- Instruction Manual SC 30TH, dated 2013-01-21
- Instruction Manual SC280, dated 2015-11-25
- Instruction Manual SC 30TH-DU, dated 2015-11-25
- Instruction Manual SC 15TW, dated 2012-10-01
- Instruction Manual SC 45TW, dated 2011-02-02
- Instruction Manual SC 45TW-H. dated 2016-11-08
- Test records from protypetesting July/ August, 2006.
- Certificate retention survey with test records dated 2006-08-23
- Performance data for 30TH

Drawings:

Gun Unit SC30T ASM, SC30T, rev. P01, dated 12-09-06
SC30T-Multistage, SC30T-X, rev. P02.1, dated 13-04-08
Drive Unit SC280, SC280-XXXX, rev. P04 , dated 14-10-28
Gun unit SC30TH ASM, SC30TH-Du, rev. P01, dated 15-06-10
Gun unit SC30TH ASM, SC30TH, rev. P01, dated 08-03-18
Gun unit SC30Th 76,1x4,5 ASM, SC30TH-76,1x4,5, rev.P01, dated 11-12-16
SC15TW SS ASM, SC15TW, rev. P03, dated 05-02-23
SC15TW SS Partly asm, 41002-0, rev. P02, dated 05-12-22
Gearbox SC15TW SS ASM, 41001-0, Rev. P06, dated 08-12-11
SC45TW SS New, SC45TW-S-N, rev. P02, dated 10-11-09
Gearbox SC45TW ASM, 40151-0, rev. P01, dated 05-12-15
SC45TW-B-N-H, SC45TW-BH, rev. P02, dated 10-05-07
SC45TW BR H Delmont, SC45TW BR H Part ASM, 40002-1-H, rev P02

Tests carried out

Performance of prototype testing in presence of DNV Surveyor.
Performance of prototype testing is based upon test requirements that meet DNV TA-Program CP-0211, item 3.2.

Marking of product

For identification to this certificate the products are at least to be marked with:
- Manufacturers name or trade mark
- Type designation
- Serial No.
- Date of production

Periodical assessment

For retention of the type Approval, DNV Surveyor shall perform a survey – every second year and before the expiry date of this certificate. This is in order to verify that the conditions for the type approval are complied with, ref. DNV-CP-0338, DNV Type approval scheme.