



Certificate no.:
TAP00002Z8

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Tank Washing Machine

with type designation(s)

Twin Nozzle NPM-40, Cleanmax Single Nozzle UPM-4050, UPM-6580

issued to

Tanktech Co., Ltd.
Busan, Korea, Republic of

is found to comply with

MARPOL 73/78 Annex 1, Reg. 13 B (2) and IMO Revised Spec. Res. A. 446 (XI) 4.2

Application:

The Cleanmax UPM-4050, UPM-6580 & NPM-40 Tank Washing Machines is approved for installation on deck.

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

Issued at **Høvik** on **2025-06-20**

This Certificate is valid until **2030-06-19**.

for **DNV**

DNV local unit: **Busan, CMC Korea**

Approval Engineer: **Erik Istad**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Product description UPM-4050 & UPM-6580

Cleanmax UPM-4050 & UPM-6580 programmable single nozzle fixed tank washing machine.

The Cleanmax UPM-4050 & UPM-6580 programmable single nozzle tank washing machines are approved for deck installation.

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.

Application/Limitation UPM-4050 & UPM-6580:

Performance data UPM-4050 & UPM-6580:

Nozzle diameter [mm]	Pressure [bar]	Flow [m3/hr]	Max. Effective Jet length [m]	Nozzle diameter [mm]	Pressure [bar]	Flow [m3/hr]	Max. Effective Jet length [m]
10	6	9,0	9,0	18	6	29,4	18,5
	8	10,4	11,0		8	34,4	21,0
	10	11,7	13,0		10	38,5	22,0
	12	12,7	14,0		12	41,6	23,0
11	6	10,9	10,0	20	6	36,1	20,5
	8	12,8	13,0		8	41,6	23,0
	10	14,2	14,0		10	46,6	25,0
	12	15,6	15,0		12	50,6	27,0
12.4	6	13,9	13,0	22	6	29,4	23,0
	7	15,0	14,0		-	-	-
	8	16,0	15,0		8	34,4	26,0
	10	18,0	17,0		10	38,5	29,0
13	12	19,5	18,0		12	41,6	30,0
	6	15,3	13,0	24	6	49,7	24,0
	8	17,3	14,0		8	57,7	29,0
	10	19,4	14,4		10	64,4	31,0
14	12	20,9	15,0		12	69,5	33,0
	6	18,9	15,5	26	6	61,7	27,0
	8	21,7	18,0		8	71,3	31,0
	10	24,2	20,0		10	79,6	32,0
15.2	12	26,3	20,5		12	85,7	34,0
	6	20,3	16,0	28	6	70,8	30,0
	8	23,5	18,0		8	81,9	32,0
	9	25,0	19,0		-	-	-
16	10	26,1	19,0		10	91,4	33,5
	12	28,6	20,0		12	98,3	35,0
	6	23,3	17,5	30	6	80,8	30,0
	8	27,1	19,5		8	90,0	33,0
16.5	10	30,3	21,5		10	103,6	35,0
	12	32,7	22,0		12	112,7	36,0
	6	24,9	18,0	32	6	90,9	32,0
	8	28,5	21,0		8	105,2	36,0
	9	30,0	21,5		-	-	-
	10	31,4	22,0		10	115,4	37,0
	12	34,6	23,0		12	-	-

Type Approval documentation

Dwg. No	Rev / Date	Title
UPM-Series-A-01	0	UPM-Series, Assembly.

UPM-Series-A-02	0	UPM-Series, Sub Assembly, Driving Unit.
UPM-Series-A-03	0	UPM-Series, Sub Assembly, Washing Unit.

Technical Specification and Operation Manual, Model: UPM Series, Rev. 1, August 10th, 2006

Performance Test report no TKT-040528-001

Performance Test report no TKT-060810-01

Product description NPM-40

Cleanmax NPM-40 twin nozzle non-programmable tank washing machine.

The Cleanmax NPM-40 twin nozzle non-programmable tank washing machines are approved for deck installation.

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.

Application/Limitation NPM-40:

Performance data NPM-40:

Nozzle diameter [mm]	Pressure [bar]	Flow [m3/hr]	Max. Effective Jet length [m]	Nozzle diameter [mm]	Pressure [bar]	Flow [m3/hr]	Max. Effective Jet length [m]
8	6	5,6	6,0	12	6	12,9	11,0
	8	6,5	7,0		8	14,7	13,0
	10	7,3	8,0		10	16,5	14,0
	12	7,9	9,0		12	18,1	15,0
10	6	9,0	9,0	13	6	14,9	12,0
	8	10,1	11,0		8	17,2	13,0
	10	11,4	11,5		10	19,2	14,0
	12	12,5	12,0		12	25,6	16,0
11	6	10,7	10,0	-	-	-	-
	8	12,4	11,0		-	-	-
	10	13,4	12,0		-	-	-
	12	15,1	12,0		-	-	-

Type Approval documentation

Dwg. No	Rev / Date	Title
NPM-40F-ASS-01	0	NPM-40, Assembly (Fixed Type).
NPM-40P-ASS-01	0	NPM-40, Assembly (Portable Type).
NPM-40S-ASS-01	0	NPM-40, Assembly (Submerged Type).

Tests carried out

Washing machine jet performance testing carried out under survey by DNV dated August 10th, 2006 & May 28th, 2004. Performance is based upon test requirements that meet TA-Program DNV-CP-0211 item 3.2

Marking of product

For identification to this certificate the products are to be marked with:

- Manufacturers name or trade mark.
- Type designation.
- Additional marking at manufacturers' option.

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform a periodical assessment after two years, after three and a half year and before the expiry date of this certificate to verify that the conditions for the type approval are complied with. The main elements of the certificate retention survey are:

- Review of Type Approval documentation
- Review of possible changes in design, materials and performance



Job ID: **262.1-011077-5**
Certificate no.: **TAP00002Z8**

- Ensure traceability between manufacturer's product type marking and Type Approval Certificate.

This certificate is replacing previous Type Approval Certificate No. TAP00001YK

Manufactured by:

TANKTECH CO., LTD

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