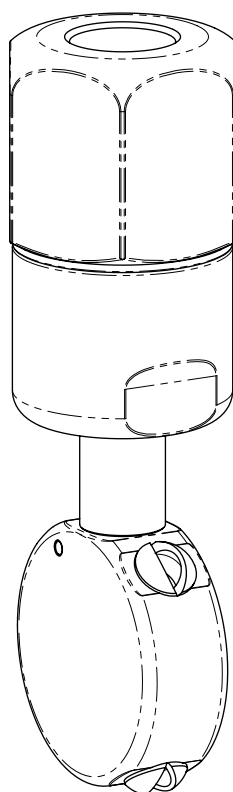




Operation and Maintenance Guide



Tank Cleaning machine TC-40J/TC60J

Models	Descriptions
TC40J/TC60J	Tank Cleaning Machine

Read this manual carefully before installing, operating or servicing this equipment. It's the responsibility of the employer to ensure this manual is read by the operator. Please preserve this manual.

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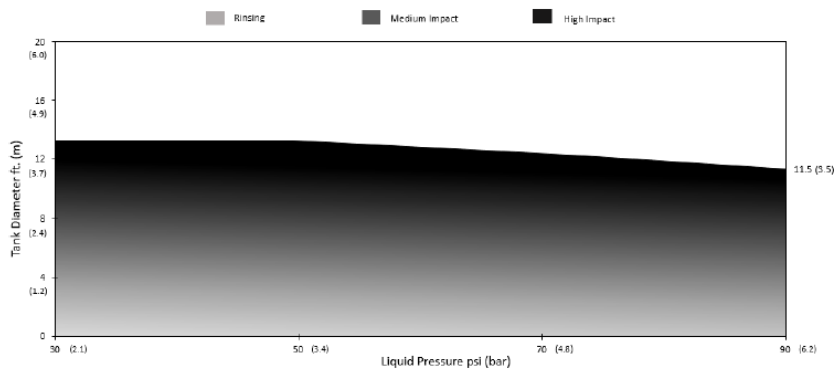
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These are twin nozzle tank washing machines. They have a Stainless Steel 316L construction for durability and chemical resistivity. The two opposing nozzles continuously rotate in two axes and complete a complete cleaning cycle Suitable for use with various cleaning media including water, and cleaning chemicals, both hot

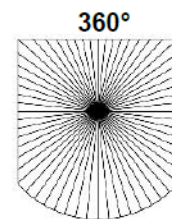
Technical Data TC-40/TC60J

Tank Cleaner	TC40	TC60
Max. Tank Diameter	13.1 ft (4 m)	19.7 ft (6 m)
Operating Principle	Fluid-driven Constant Speed	
Flow Rate	2.62 - 15.94 gpm (9.84 - 60.68 Imp)	3.91 - 23.79 gpm (14.64 - 90.28 Imp)
Operating Pressure	30 – 90 psi (2.1 – 6.2 bar)	
Max. Temperature	160°F (70°C)	
Inlet Connection	½" NPT	

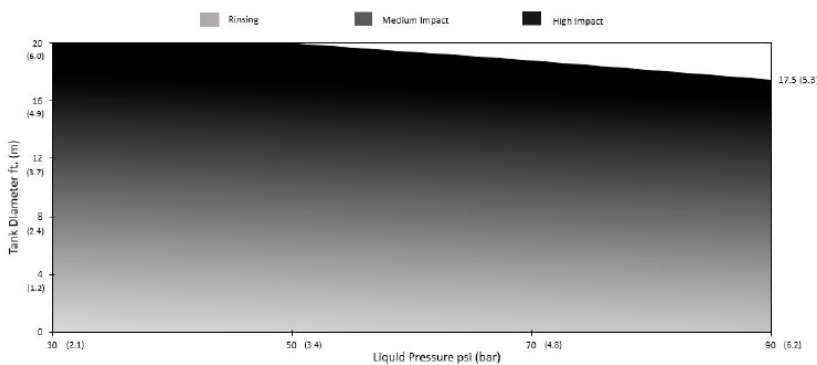
CLEANING EFFECTIVENESS – TC40



SPRAYING COVERAGE



CLEANING EFFECTIVENESS – TC60



Intended use

Tank cleaning machine is used to clean from process residue that is adhering to the internal wall surface. This tank cleaning machine cleans tank quickly and with the minimum use of manpower. This uses a high pressure nozzle rotating in 360° both horizontally and vertically to cover all the areas. This equipment is self start and uses least amount of water effectively to clean.

Conditions of certification

1. The delivery tube is to be stress relieved in the deck support region to improve fatigue life.
2. The welding of the tubes is to be performed by qualified welders, and satisfactorily tested.
3. The machine is to be electrically continuous with its mounting flange.
4. Dissimilar materials are to be protected to eliminate bi-metallic corrosion.
5. The machine mounting tubes are to be maintained in a satisfactory condition and critically examined at the same time as Classification Society in tank surveys and also when removed for any other reason.
6. The method of support of the tank machines is to be to the satisfaction of the attending surveyors.
7. After installation it is to be demonstrated no undue vibration of the machine delivery head is induced under normal operating conditions.
8. The openings in the deck and fixing arrangements of the machine must be in accordance with IMO Resolution A.446 (XI), classification society rules and requirements of the administration.


Safety Instructions

Following symbols are used through out this manual.


Warning

 If not followed could cause personal injuries


Caution

 If not followed could result in damage to equipment.

Warning

 This manual must be read and the operating instructions carefully followed.


Warning

 Operators under eighteen not allowed to operate this Tank cleaning machine. Operators must be made familiar with the instructions in this manual before attempting to operate the Tank cleaning machine.

Caution

 Use only genuine Teryair or Teryair approved accessories.

Warning

 Do not modify this equipment in any way as this will invalidate the warranty and could lead to serious injury.

Operating instructions

- The tank cleaning machine should be installed in vertical position (upright or upside down). it is recommended to install a filter in the supply line in the order to avoid large particles to clog inside the machine. Before connecting the machine in to the system, all supply lines and valves should be flushed to remove foreign matter.
- This manual has been prepared as a guide for the persons who will be operating and maintaining your tank cleaning machine. The key to long life for your tank cleaning machine will always be a system of carefully planned maintenance; you will appreciate

that a tank cleaning machine which has a rough and dirty job to do will need more frequent attention than one working in ideal conditions.

Storage

When storing equipment for any length of time precautions should be taken to prevent corrosion and to maintain equipment in a serviceable condition.

- Remove inlet hose or pipe and run tank cleaning machine out of water to blow out all moisture.
- Put the top cover on the threaded portion.
- Store equipment in dry place.

Dis-Assembly instructions

- 1) Remove the Lock Pin (7) from Cleaning Head (1).
- 2) Then open the threads of Impeller Shaft (3) from Cleaning Head (1).
- 3) Open threads of Inlet Head (4) from Inlet Tail (6) and then remove the Stream Disc (5) and Disc Bush (9).
- 4) Then use plastic mallet to hammer the bottom of Impeller Shaft (3) to take out from Inlet Head (4).
- 5) Finally remove the Head Bush (8) from Inlet Head (4).

Tools Required for Assembly

- 1) Gather all the components as per assembly part list in SAP.
- 2) Clean all components (except PTFE components) with suitable cleaning agent.
- 3) Refer the exploded view as attached.

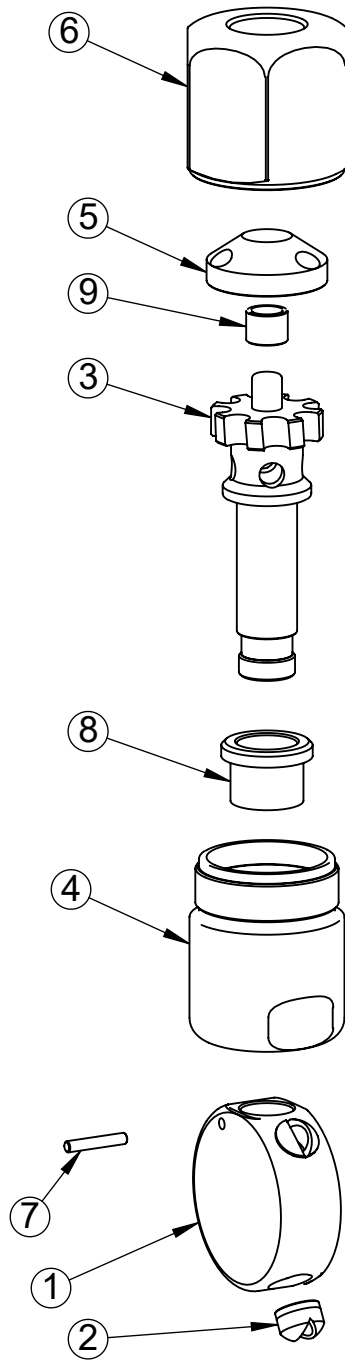
Re-assembly instructions

- 1) Press Fit all Nozzle Cap (2) into Cleaning Head (1) with respective directions shown in Exploded View and keep ready.
- 2) Insert Head Bush-PTFE (8) into Inlet Head (4) and make sure that it is slightly tight fitted into the bore of Inlet Head (4).
- 3) Insert Disc Bush-PTFE (9) into Stream Disc (5), it should be snug fitted.
- 4) Take Impeller Shaft (3) and pass through Inlet Head (4) into the Cleaning Head (1) and assemble as shown in Exploded View.
- 5) Ensure that Impeller Shaft (3) is freely rotating in Head Bush (8) fitted with Cleaning Head (1).
- 6) Insert Lock Pin (7) into Cleaning Head (1) resulting as Impeller Shaft (3) is now engaged with Cleaning Head (1).
- 7) Fit Stream Disc (5) with Disc Bush (9) on top of Impeller Shaft (3) as direction shown and check that Stream Disc (5) is Rotating freely on it.
- 8) Assemble Inlet Tail (6) with Inlet Head having Impeller Shaft (3) and Stream Disc (5) between them.
- 9) Finally, check if the Cleaning Head (1) with the Impeller Shaft (3) rotates freely.

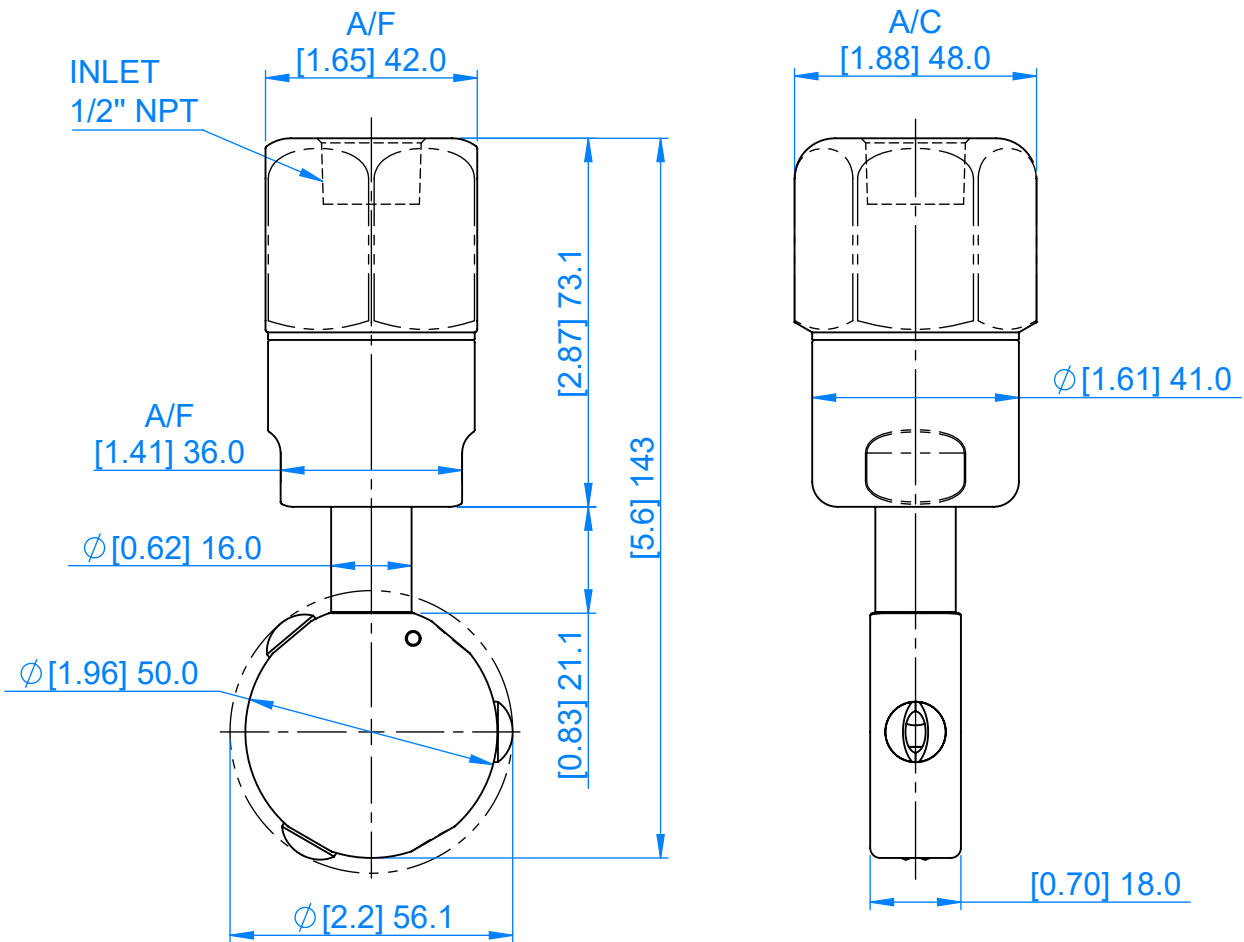
Bill of Material for TC-40J/TC-60J

Item No.	Part No.	Description	TC-40J	TC-60J
1	5272701	Cleaning Head-SS	1	
1	5282701	Cleaning Head-SS		1
2	5272702	Nozzle Cap-SS	3	
2	5272702	Nozzle Cap-SS		3
3	5272703	Impeller Shaft-SS	1	
3	5272703	Impeller Shaft-SS		1
4	5272704	Inlet Head-SS	1	
4	5272704	Inlet Head-SS		1
5	5272705	Stream Disc-SS	1	
5	5272705	Stream Disc-SS		1
6	5272706	Inlet Tail-SS	1	
7	5272707	Lock Pin-SS	1	1
8	5273601	Head Bush-PTFE	1	1
8	5273601	Head Bush-PTFE		1
9	5273602	Disc Bush-PTFE	1	

Exploded View for TC-40J/TC-60J



Dimensional Data TC40J /TC60J



EU DECLARATION OF CONFORMITY

We hereby certify that the Listed Product stipulated below comply with all relevant provisions of the machinery directive (2006/42/EC) and the national laws and regulations adopting this directive.

Description : Tank Cleaning Jet Machine (6~10mm)

Model Number : TC40J/TC60J

Is in conformity with the provisions of the following European Directives: (2006/42/EC) Machinery Safety and Harmonized standards

ISO 12100-1: 2010: Safety of Machinery –general Principles for Design –Risk Assessment and Risk Reduction.

Registered Office : 416 Gundecha Industrial Complex, Akuril Road,
Kandivali East, Mumbai – 400101, Maharashtra, India.

Web site : www.teryair.com

Works : A-1, Tirupati Udyog Nagar, Sativali Road, Vasai East,
Palghar – 401208, Maharashtra, India.

CE certification registration no – C E 16831

Issued by – BMQR Certifications Pvt Ltd.
www.cemarking-india.com

Valid Till – 03/11/2025

Signed for and on behalf of



TERYAIR EQUIPMENT PVT. LTD.

Place of Issue : Vasai



Warranty Certificate

Every product manufactured by Teryair
is built to meet the highest standards of quality.

Teryair warrants that the Products, accessories and parts manufactured or supplied by the company be free from defects in material and workmanship for a period of six months from date of Teryair authorized dealer invoice to customer, or one year from date of Teryair invoice to dealer, whichever is earlier. Failure due to normal wear, misapplication, or abuse is, of course, excluded from this warranty.

Since the use of Teryair products and parts is beyond our control, Teryair cannot guarantee the suitability of any product or part for a particular application and Teryair shall not be liable for any consequential damage or expense arising from the use or misuse of its products on any application. Teryair does not warranty bought out products or components such as electric motors and hardware but will assist in directing warranty queries to the dealer/manufacturer responsible. Teryair responsibility is limited solely to replacement or repair of defective Teryair products or components.

Dealer/End User shall have no right or remedy and Teryair shall have no liability or obligation under the warranty, if: (i) a Product is altered, changed, modified or tampered with in any way, (ii) a Product is damaged after deposit with the transporter for shipment; (iii) a Product is not properly preserved, packaged, stored, processed or handled after receipt; (iv) a Product is not used and maintained in accordance with Teryair's recommended operating and maintenance manuals, instructions and procedures, if any; (v) a Product is not properly incorporated or installed in, or not properly combined with, an Other Product; (vi) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, a failure, substandard performance or other issue with another product, material, component or part not supplied by Teryair; (vii) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, compliance with any design, specification or other specific requirement of Dealer/End User; (viii) a Product is used in a manner, with a substance or for a purpose other than the normal manner, substance and purpose for which it is intended or is otherwise subjected to abnormal use or service; (ix) a Product is subjected to a power surge, brown out or other similar occurrence; (x) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, normal wear and tear of such Product (including, without limitation, things such as worn seals, diaphragms, balls, O rings, gaskets, chisels, cutters, hoses and other such wearing components; (xi) the issue with a Product is directly or indirectly.

Model Number : TTC40J/TC60J

A handwritten signature in blue ink, appearing to read "M. Yadav", is written over a horizontal line.

M Yadav, Q.A. Manager
(Company Seal)

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