



Clemas & Co Ltd

Industrial Cleaning Equipment
Sales - Hire - Service

TENNANT F3 POLISHER OPERATOR MANUAL



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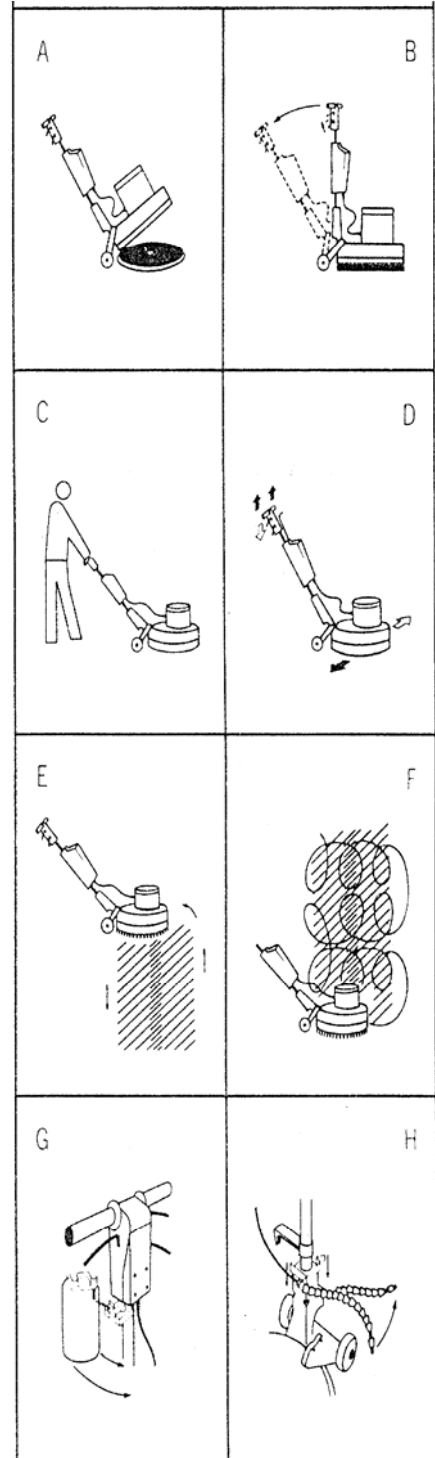
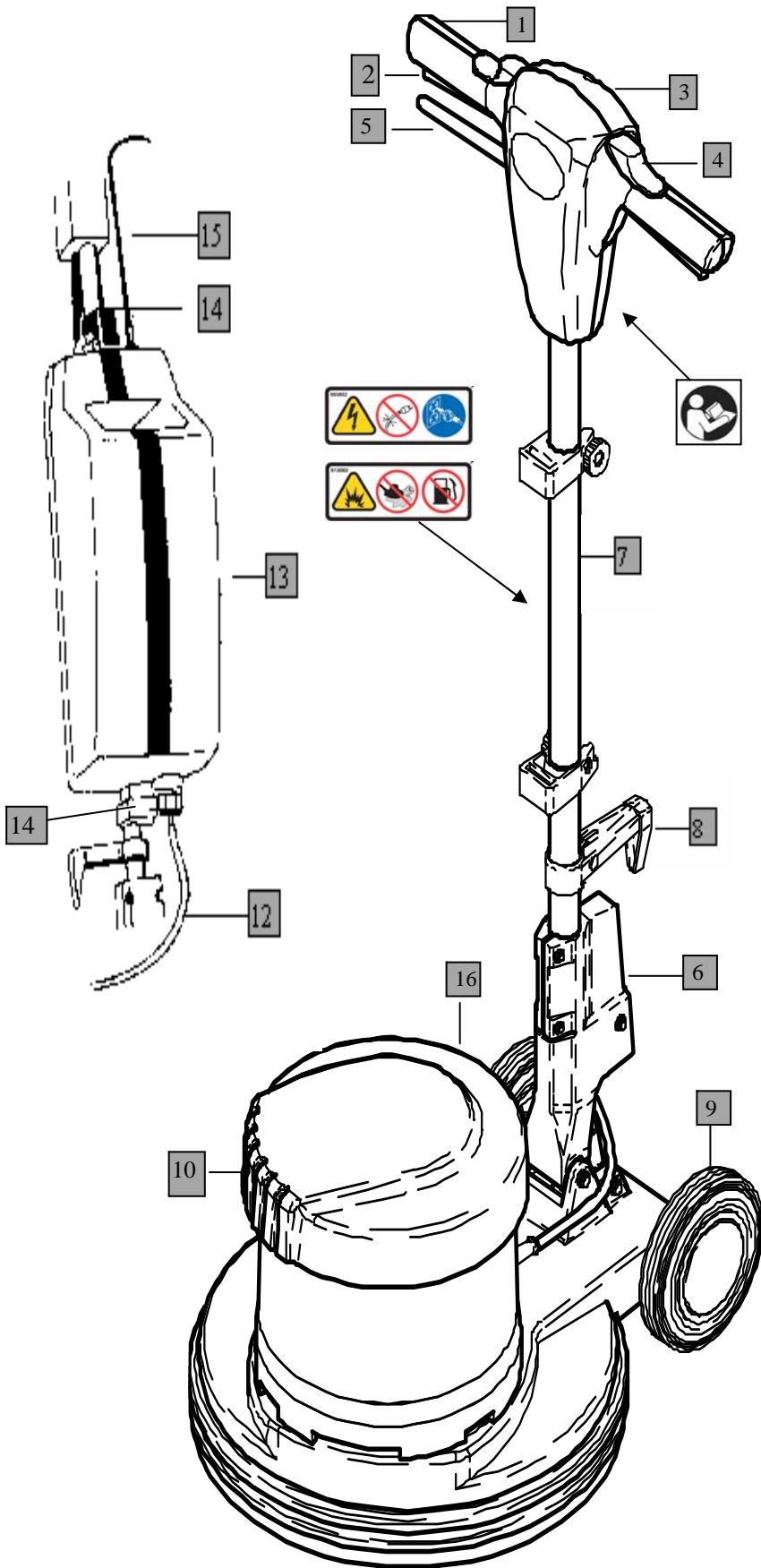
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F3/8/12

Machine component / Maschinen Komponenten / Pièces de machine



17



11



F3 / F8 / F12 Single disc machine

Machine components

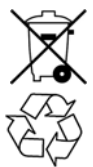
1 - Handle bar	9 - Wheels
2 - Brush motor switch	10 - Motor head
3 - Housing of top shaft element	11 - Brush
4 - Switch lock	12 - Outlet hose
5 - Shaft adjustment handle	13 - Solution tank
6 - Shaft adjustment unit	14 - Tank holder
7 - Bar	15 - Tank lever
8 - Cable hook	16 - Water connector

Accessories

	Part. No.
11 - Scrubbing brush for F8/F3 low speed	9002236
Polishing brush for F12/F8 high speed	9002200
13 - Solution tank for F8/F3 low speed	9002256
17 - Drive plate for F8/F3 low speed	9002191
Drive plate for F12/F8 high speed flexible	9002193
n/s Spray unit for F12/F8 high speed	9002262
Vacuunit	9002288
Vacuumring 430mm	9002289
8kg extra weight F3/F8	9002304
8kg extra weight F12	9002303

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PROTECT THE ENVIRONMENT

Please dispose of packaging materials and old machine components in a safe environmentally way according to your local waste disposal regulations. Always remember to recycle.

Safety instructions



WARNING: This manual must be read and understood before operating or servicing machine.

This machine is intended for commercial use. It's designed exclusively to scrub hard floors in an indoor environment and is not constructed for any other use. Only use recommended pads/brushes and cleaning agents.

These operating instructions are intended for operating staff.

1. Please familiarize yourself with the instructions and recommendations contained in these operating instructions before setting up, operating and servicing the machine.
2. You will then have full control over the machine and use it efficiently. The care and maintenance described in these operating instructions are in the interests of your own safety and preserve the machine's value.
3. The manufacturer accepts no liability for personal injury or damage to property due to the incorrect use of this machine.



This warning alert symbol that is used throughout this manual is to warn of hazards or unsafe practices. Failure to follow these may cause electric shock, fire or explosion which could result in severe personal injury or death.



Before operating the single-disc machine, please read these instructions carefully and keep them handy at all times.

The single-disc machine may only be used by persons trained in its use and explicitly entrusted with its operation.



WARNING:



Fire or Explosion Hazard. Never use flammable liquids or operate machine in or near flammable liquids, vapours or combustible dusts.

This machine is not equipped with an explosion proof motor. The electric motor will spark when powered on which could cause a flash fire or explosion if machine is used in an area where flammable vapours/liquids or combustible dusts are present.



WARNING:



Electrical Hazard. Never operate machine with damaged power supply cable. Do not modify plug. Unplug cable before servicing machine.

If the power supply cable is damaged or broken, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

General remarks

The operation of the single-disc machine is subject to the currently valid national regulations.

It is essential to observe not only the operating instructions and the binding regulations on accident prevention valid in the country of use, but also the generally acknowledged rules for safe and correct working procedures. No methods involving safety risks must be used.

Correct use

- All single-disc machines are intended exclusively for use in building interiors.
- Any use beyond this is considered incorrect. The manufacturer accepts no liability for any resultant damage; the user alone bears the risk.
- Correct use also includes adherence to the operating, servicing and maintenance conditions recommended by the manufacturer.
- The relevant accident prevention regulations as well as all the generally acknowledged safety and working practices must be followed.
- Unauthorized modifications to the machine exclude the manufacturer's liability for resultant damage.
- Before machine use, floorcoverings must be tested for suitability for this cleaning process.
- Pay attention to the area compression of point-elastic floors, e.g. in gymnasiums
- The manufacturer accepts no liability for damage to equipment and to the floor being cleaned from using the wrong brushes and cleaning agents.
- Machine may not be used in combination with an extension cord.

Product liability

The operator's attention is drawn explicitly to the fact that the machines may only be used for their intended purpose. If the machines are not used for their intended purposes, the user must accept full responsibility. Any liability of the manufacturer is thus excluded.

Sources of risk



WARNING: The single-disc machine is not suitable for cleaning surfaces which release health-hazardous dusts and liquids. Do not use the machine on steps.



WARNING: This machine is only intended for use on level surfaces with a maximum gradient of up to 2 %.



WARNING: This machine is not approved for use on public paths and roads.



WARNING: Use only the brushes provided with the appliance or those specified in the instructions. The use of other brushes may impair safety.



WARNING: When the machine is stationary, the brush unit must be immediately switched off to prevent damage to the floorcovering.



WARNING: During transportation in lifts, the currently valid user instructions and safety regulations – and particularly those concerning maximum loading – must be observed.

Machine operation position

The machine operation position is behind the machine.

Approved maintenance staff

The single-disc machine may only be serviced and repaired by persons with technical and legal authorization.

Cleaning agents

- When using cleaning and care agents, the manufacturer's danger warnings must be followed and protective goggles and clothing must be worn.
- Only use low-foaming, non-combustible cleaning agents which do not contain generally health-hazardous substances. Explicit reference is made to the risks of using highly flammable, combustible, toxic, health-hazardous, corrosive or irritant substances.

Machine assembly and operation

Initial operation

- Delivery, instruction on safety procedures, handling and maintenance and initial operation are generally carried out by our authorized specialist.
- If this is not the case, the operator is responsible for instructing machine users.

Please remember that the voltage in the building being cleaned must concur with that given on the machine's type plate.

Assembly instructions

- The motor head and bar are supplied separately packed.
- First release the hexagon socket screws in the shaft adjustment unit (6).
- Then feed the bar (7) gently as far as it will go into the shaft adjustment unit (6).
- Align the handle bar (1) parallel with the wheels (9), so that the open side of the housing of the top shaft element (3) is facing to the rear.
- Then tighten the hexagon socket screws again.
- Wind the electric cable around the handle bar (1) and cable hook (8).

Preparations for use

- Grasp the handle bar (1) with both hands and tip the machine until it is resting on both wheels (A).
- Then wheel the machine to its place of work and plug the electric cable into the power supply.
- Set the desired rpm, using the switch mounted at the motor housing (only for F8 Duo speed)
- Lay the accessories (11), i.e. brush or drive plate with pad, on the floor.
- Now tip the machine back onto the wheels and push it over the brush (or drive plate) until the drive star and brush flange are vertically aligned. Lower the machine onto the brush (B).
- Then squeeze the shaft adjustment lever (5) and lower the bar (7) into its working position. Both arms should be extended loosely downwards (C).
- Align the machine horizontally above the working element (brush or drive plate), press the switch lock (4) and press the brush motor switch (2) briefly.

- The accessory automatically engages.

Operating machine

- Press the brush motor switch (2) (to the right or left). The motor starts.
- If you raise the bar (7) slightly, the machine moves to the right (D).
- If you lower the bar, the machine moves to the left (D).
- If you keep the bar in its central position, the machine works on the spot.

After use

- Squeeze the shaft adjustment handle (5) and shift the bar (7) into its vertical position.
- Then tip the machine onto its wheels (9) and press the brush motor switch (2) briefly. The accessory (11) disengages.
- Remove the plug from the power socket and wind the electric cable around the handle bar (1) and cable hook (8).

Thorough cleaning the easy way

For thorough cleaning, equip your machine with the following accessories:

- Solution tank (13)
- Scrubbing brush (11) or drive plate with pad.
- Fasten the tank to the mounting (14).
- Slide the outlet hose (12) onto the water connector (16).
- Fill the tank (13). Then fit the brush or drive plate with pad.
- Control the flow of liquid with the tank lever (15) by pulling the lever (15) upwards.
- Vacuum the dirty wash solution a section at a time with a water extractor.

Shampooing thoroughly and efficiently

For shampooing, equip your machine with the following accessories:

- - Solution tank; 0.3 Perlon shampooing brush or pad for textile floorcoverings.
- The working procedure is in principle the same as for thorough cleaning.
- Start the machine with the shampooing brush dry.
- Meter a small amount of liquid until the bristles are saturated with foam.
- Run the machine with the rotating brush from right to left or vice-versa. ⇒ Immediately after this, run the machine in the same way in the reverse direction, but with an overlap of about a quarter of the strip already treated (E.)
- Only then run the machine in a spiral pattern over the shampooed strips. ⇒ In doing so, work both strips at the same time (F.)
- During shampooing it is highly advisable to immediately remove the dirt-laden foam a section at a time with a water extractor.

Assembly instructions for Spray unit

- Fit the holder for the spray can to the bar (7) with the holder pointing upwards and, when viewed from the operating side, to the left (G).
- Hook the spray can's tongue onto the holder, pivoting the holder back until the ball catch engages.
- Then slide the spring clip over the shaft adjustment unit (7).
- Attach the box on the right or left as desired (H).
- Point the universal-jointed hose in the desired direction.

Routine cleaning

For routine cleaning, equip your machine with the following accessories:

- Spray unit, drive plate for pads, pad for F8/F3 low speed or Spray unit, drive plate for pads, pad for F12/F8 high speed
- Fill the spray can with the desired product.
- Fit the drive plate with the desired pad.
- Start the machine.
- When you pull the Spray unit lever a few times the cleaning agent is sprayed onto the floor. Now start cleaning immediately until a shine is produced.
- We advise cleaning the surface in relatively small areas at a time. The machine is ideal for cleaning with polymer dispersions. The coating's resistance to foot traffic and general wear and tear is preserved. Streaks and marks are easier to remove.

Polishing with F12/F8 high speed

For polishing, equip your machine with the following accessories:

- Drive plate for pads, white pad
- Fit the drive plate with the pad.
- Then start the machine.

Service

- For repairs, please contact your specialist wholesaler or one of the service shops.
- You will be expertly and quickly served.

Servicing instructions

the following instructions must always be observed

- When cleaning and servicing the machine, replacing parts or when changing over to a different function, switch off the drive and remove the plug.
- The power supply lead must not be damaged by driving over it, crushing, tugging etc.
- Check the power supply lead regularly for signs of damage.
- The machine must not be used if the power supply lead is not in perfect condition.
- When using or replacing the power supply or equipment supply leads, use only those specified by the manufacturer.
- When replacing the plug-and-socket connectors of power supply or equipment supply leads, splash protection and mechanical strength must be assured.

- When transporting the machine in lifts, put the shaft/bar in a vertical position so that it cannot catch on the lift walls.
- The shaft/bar is automatically secured against recoil by the patented shaft/bar adjustment unit.
- Only the spray and cleaning agents suitable for the machine's purpose may be used.
- Never use highly flammable, combustible, toxic, health-hazardous, corrosive or irritant substances.
- Repairs, including the fitting of spray agent lines and hoses, may only be carried out by approved customer service shops or by

specialists in this field who are familiar with all the relevant safety regulations.



Storage

- Remove brush/pad driver from machine and neatly coil cord around cord hook and handle.
- Store the machine in a dry place and in normal room conditions (not below under 0°C).

Trouble Shooting

Problem	Cause	Solution
<u>Machine does not operate</u>	Faulty power cord. Tripped circuit breaker Faulty machine wiring. Faulty motor. Capacitor burned out.	Contact Service Center. Wait 10 min. till machine cooled down and try again. Contact Service Center Contact Service Center Contact Service Center
<u>Machine operates with a wobble or jerky motion.</u>	Soiled Pad. Improper pad/brush for application. Pad driver/brush not installed correctly. Pad/brush unevenly worn. Pad not properly centered on pad driver	Contact Service Center Replace Pad Change to proper pad/brush Remove and reinstall pad driver/brush Replace pad/brush Remove and reinstall pad driver
<u>Machine circuit breaker trips continuously.</u>	Heavily soiled pad/brush Improper pad/brush for application Defective circuit breaker. Worn carbon brushes in motor.	Clean or replace pad/brush Change to proper pad/brush Contact Service Center Contact Service Center

Technical specifications	F3 low speed	F8 high speed	F12 Duo speed
A.C. motor	230 V: 50 Hz	230 V; 50 Hz	230 V, 50 Hz
Rated power	1000 W	1100 W	1200/1500 W
Max. amp draw	5,5 A	5,5 A	5,2 / 8,1 A
Brush (rpm)	165	400	170 / 340
Brush (mm)	430	430	430
Working height (mm)	250	250	250
Working weight	31 kg	31 kg	37 kg
Protection class	IPx4	IPx4	IPx4
Belt-driven	x	x	x
Sound pressure level LPA	59db (A)	59db (A)	65db
Weighted acceleration value	1.05 m/sec ²	1.05 m/sec ²	1.05 m/sec ²

 <p>Tennant N.V. Address: Industrielaan 6, 6405 AB P.O. Box 6, 5400 AA Uden-The Netherlands Uden/Netherlands, 20-12-06</p>  <p>Richard van de Hoogen - Technical Support Engineer</p>	<p>Model: F3,F8,F12</p> <p>DECLARATION OF CONFORMITY FOR MACHINERY (Directive 89/392/EEC, Annex II, sub A) Machine nr.: MF122004, MF122904, MF32004, MF32904, MF82004, MF82904</p> <p>Herewith declares, on our own responsibility, that the machinery</p> <ul style="list-style-type: none"> - is in conformity with the provisions of Directive 89/392/EEC, 73/23/EWG and 89/336/EWG - The following standards and normative documents have been applied: EN 60335-1 (ed.3);am1;am2, 60334-2-67(ed2);am1, EN60355-1:94+A1:96+A12:96+A13:98+A14:98+A15:00+A2:00+A16:01,EN60355-2-67:98+A1:00, EMC:CISPR 14-1:00+A1:01,CISPR 14-2:01, ICE61000-3-2:00,IEC61000-3-3:94+A1:01,EN55014-1:00+A1:01,EN 55014-2:97+A1:01, EN61000-3-2:00, EN 61000-3-3:95+A1:01
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