# **OPERATION MANUAL**



Wash- and Peeling Machine for potatoes and vegetables

H.J. Dames Corp. Flottwerk

Bahnhofstr. 34

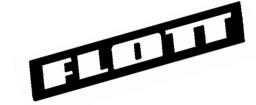
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**Technical information** 

1.

#### 1. Technical information

type	filling	rated poxer kW	weight
25 K	25 - 30 kg	1,50 kW	133 kg

Mains connection: three phase AC motor with transformator for 440 V, 60 cycles without neutral

Fusing of the mains supply: max. 10 A

#### 2. Noise emission

The work-related emission level is 69 dB (A).

# 3. Proper usage

The machine is suited to simultaneously wash and peel potatoes and other tuberous roots. It is made for use in dry, moist or wet rooms. Operation is done by a trained person.

# 4. Installation and start up

Set the machine up so that the peeling collector is directly next to the drainage gully Connect a suitable hose to a water faucet and connect the hose to the inlet nozzle of the machine.

The machine has a 3 m long cable with a Cekon plug.

The electrical connection to be supplied by the client is to be installed by a certified electrician in accordance with VDE regulations and safety measures of the local EVU regulations.

The connection may only be done via the mains plug present on the machine.

# 5. General safety instructions

- The machine may only be used in compliance with the regulations (see section 3). This also entails observing the operational, service and maintenance regulations prescribed by the manufacturer.
- Work on the electrical system must only be done by professional electricians.
   The electrical connection may only be done over the mains plug (no permanent trunk line).
- The machine must be run with the prescribed safety preparations.
- Unauthorized modifications to the machine will render any liability null and void.
- The mains plug is to be unplugged from the socket before all service work.
- Risks caused by the rotating tool have been reduced to an acceptable level through proper measures. Nonetheless, once the machine has been started, do not reach inside it, particularly since there is no reason to do so, due to the way the machine works.
- Gloves must be worn when installing and removing the peeling devices.
- The machine may only be operated by trained personnel.

# 6. Safety preparations

#### In the following are found the most important safety preparations:

- The entire drive system is contained in the interior of the machine housing and is inaccessible from all sides.
- The tensioning device for the v-belts is activated by a hand wheel arranged on the outside.
- The top housing lid can be flipped 180° backwards. The lid is part of the machine cladding and is not to be seen as an service flap. Access through the peeling discharge in which a self-closing discharge flap is found is not connected with any hazard.
- The distance between the base disk and the solid part of the machine is 8 mm.
   The distance between the disk and the upper edge of the discharge opening is at least 100 mm.
- Owing to a stop, the discharge flap cannot be pushed out of the side cladding of the discharge. Access is thereby made difficult, and an accidental falling-shut of the lid prevented.
- For the automatically activated discharge flaps, a distance of at least 150 mm length to the squeeze place is maintained by the chute and side cladding.
- The observance of VDE regulations is guaranteed through acceptance by the authorized employers' liability insurance association.
- The device is equipped with a motor protection as well as a re-start fuse for power failure. After a power failure the green push-button (ON) must be hit to go back into operation.

#### Safety cutoff (personell safety system):

- Machine stops automatically if the upper housing or plexi-glass cover is opened.
- Machine stops automatically if the discharge flap is opened during the peeling process.

To restart the machine the green start button must be pressed again once the respective cover or flap is closed.

To discharge, press and hold the green start button using one hand and then use the other to open and hold the flap.

Cleaning can be done without reaching into the machine.

It is only necessary to take the machine apart at great intervals of time (thorough cleaning, disk change). When removing the peeling device, gloves must be worn. Please heed the information given under point 8 of the operation manual.

# 7. Functionality and operation

Peeling takes place in a dammed water bath by means of the vertically arranged peeling basket and the rotating base disk.

The extraction of the peeled goods occurs automatically with the machine is running once the discharge flap is opened and the start button is pressed and held.

The peelings are removed by the drainage water through a separate opening.

#### PEELING IS DONE AS FOLLOWS:

Fill the device with the stipulated amount of potatoes and turn the water on via the ball valve on the machine. Set the machine into operation by setting the peeling time and then pressing the green start button. The peeling time varies from season to season due to the potatoes. The water intake can remain open at all times since excess water is removed via the overflow valve.

However, to save water, the water intake can be reduiced via the ball valve during the peeling process once the water has visibly and audibly started to rinse in the machine.

The machine stops after the set peeling time has expired.

#### THE BEST PEELING IS ACHIEVED

when, in the course of peeling, the middle of the screw cap can be seen and the water with the tubers in it is moved along the sides.

#### ONCE THE VEGETABLES ARE PEELED

First of all, drain off the water in the peeling drum with the peel by opening the side mounted drain valve.

To empty the potatoes press and hold the green start button and open the discharge flap with the machine running. The ready peeled vegetables glide out of the device.

Then release the green start button and close the discharge flap.

The next peeling process can be started again as stated above.

#### **CLEANING THE MACHINE**

After a day of peeling the machine should be run ca. 1 -2 minutes with just water. Leftover peelings are thereby rinsed out and the machine stays clean.

#### WHEN SHUTTING DOWN OPERATIONS FOR THE DAY

set the timer to 0 (OFF), turn the machine off by hitting the red push-button (OFF) and pull the mains plug.

#### 8. Maintenance

#### INSTALLING THE ROUND-HOLE PEELING DEVICE

With the door open, insert the peeling basket with the foot cam into the guide rails of the machine vat so that the basket opening is aligned with the door section.

The basket must sit firmly on the edge of the cast section.

Place the support disk (arch downwards) on the square support piece, press the round-hole peeling disk into the arch of the support disk. Screw the cap nuts on, insert the socket wrench in the transverse borehole of the cap nuts and tighten them firmly.

#### REMOVING THE ROUND-HOLE PEELING DEVICE

Insert the socket wrench in the transverse borehole of the cap nuts and unscrew them. Remove the support and peeling disk as well as, lastly, the peeling basket by pulling upwards.

When changing potato sorts please keep in mind the change of peeling time as well as, additionally, the choice of different peeling disks:

peeling disk no. 1 = for new potatoes

peeling disk no. 2 = for medium potatoes

peeling disk no. 3 = for old potatoes

Only one side of the round-hole peeling disk is for peeling, so heed the indication "up".

# INSTALLING THE CARBORUNDUM PEELING DEVICE

With the door open, insert the peeling basket with the foot cam into the guide rails of the machine vat so that the basket opening is aligned with the door section.

The basket must sit firmly on the edge of the cast section.

Place the plate disks on the square support piece. Screw on the cap nuts, insert the socket wrench in the transverse borehole of the cap nuts and tighten them firmly.

# REMOVING THE CARBORUNDUM PEELING DEVICE

Insert the socket wrench in the transverse borehole of the cap nuts and unscrew them. Remove the plate disks and the peeling basket by pulling upwards.

# INSTALLING THE **SUPER PEELING** DEVICE with double-edged blades

With the door open, insert the bladed peeling basket with the foot cam into the guide rails of the machine vat so that the basket opening is aligned with the door section.

The basket must sit firmly on the edge of the cast section. If the inlet lid cannot be shut, the basket has not properly snapped into place at the bottom. The inlet lid should press against the black rubber section of the basket and arrest it by closing the outer sealing bracket.

Place the blade disk on the square support piece and screw the cap nut on. Insert the socket wrench in the transverse borehole of the cap nuts and tighten them firmly.

#### REMOVING THE BLADED PEELING DEVICE

Insert the socket wrench in the transverse borehole of the cap nuts and unscrew them. Unscrew the cap nuts and remove the base disk. Remove the peeling basket by taking hold of the handles on the upper edge.

#### THE SENSE OF ROTATION OF THE BASE DISK

can be changed by reversing the phase in the indentation of the Cekon plug.

WHEN INSTALLING AND REMOVING THE PEELING DEVICE gloves are to be worn.

AFTER INSTALLING OR REMOVING THE PEELING DEVICE remove the socket wrench from the cap nut and peeling area.

SERVICE TASKS may only be done when the device is turned off and the mains plug pulled.

# **EC DECLARATION OF CONFORMITY FOR MACHINERY**

(Directive 2006/42/EG - EEC, Annex 11, sub A)

Manufacturer: FLOTTWERK H.J. Dames GmbH & Co. KG

Herewith declares that

is in conformity with the provisions of the Machinery Directive

Directive 98/37/EEC

is in conformity with the provisions of the following other EEC directives: **Directive 2006/42/EG** 

and furthermore declares that

The following harmonized standards have been applied:

EN 292, EN 60204 part 1

The following clauses of national technical standards and specifications have been used: **BGW D 18 (VBG 77)** 

# Spare parts list for peeling machine type 25 K

- 1. base ring
- 2. bottom section
- 3. cable gland
- 4. connection cable
- 5. motor
- 6. motor bracket
- 7. draw lever
- 8. motor belt pulley
- 9. tensioning lever

#### intermediate, compl. Item 10 - 15

- 10. spacer sleeve
- 11. shaft sealing
- **12.** ball bearing 2302
- 13. stepped disk
- 14. sleeve bolt with screws
- 15. ball bearing 2302 with nilos ring 2302

# cone belt tensioner, compl. Item 16 - 19

- 16. star type handle
- 17. guide bushing
- 18. eye bolt
- 19. splint pin
- 20. disk base
- 21. vat screwed onto Item 20
- 22. carborundum peeling system
  - a) carborundum peeling basket
  - b) carborundum plate disk
  - c) cap nut

# round hole peeling system

- a) round hole peeling basket
- b) round hole peeling disk no. 1 for new potatoes
- c) round hole peeling disk no. 2 for medium size potatoes
- d) round hole peeling disk no. 3 for old potatoes
- e) support disk
- f) cap nut

# SUPER-bladed peeling system

- a) SUPER-bladed peeling basket
- b) SUPER-bladed peeling disk
- c) SUPER-cap nut
- 23. inlet sealing
- **24.** inlet
- 25. plexiglass lid
- **26.** rubber seal

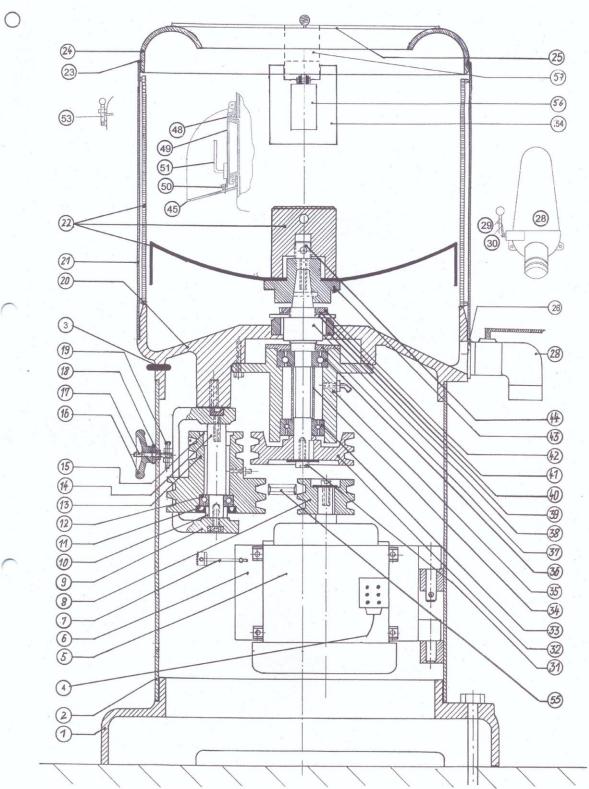
#### waste water drainage compl. Item 27 - 28

- 29. ---
- 30. ---

#### main bearing, compl.item. 31 - 42

- 31. hexagon socket head screw with u-disk
- 32. main belt disk
- 33. ball bearing 6306 Z
- 34. ---

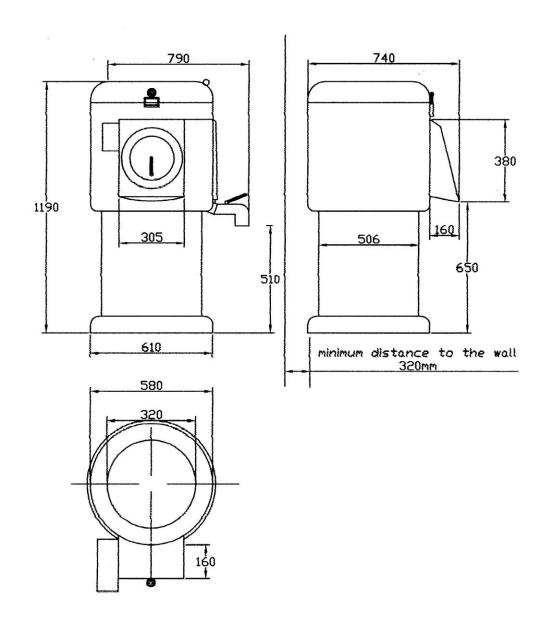
- 35. bearing casing
- **36.** ball bearing 6306 Z
- 37. cord o ring
- 38. main shaft
- **39.** d-ring
- **40.** counter running ring
- **41.** lock plate MB 7
- 42. slotted nut KM 7
- 43. support piece
- 44. threaded bolt
- 45. outlet
- 46. ---
- **47.** door
- 48. door sealing
- 49. lid plate
- **50.** door latch
- 51. door handle
- 52. ---
- 53. inlet closure
- 54. inlet hinge
- **55.** 3 cone belts 10 x 800
  - 3 cone belts 10 x 630
- 56. saftey switch U9T
- 57. cover band
- 58. flange



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Übersichtsplan 16K- 18K- 20K- 25K ZS 3- ZS 10- ZS 25

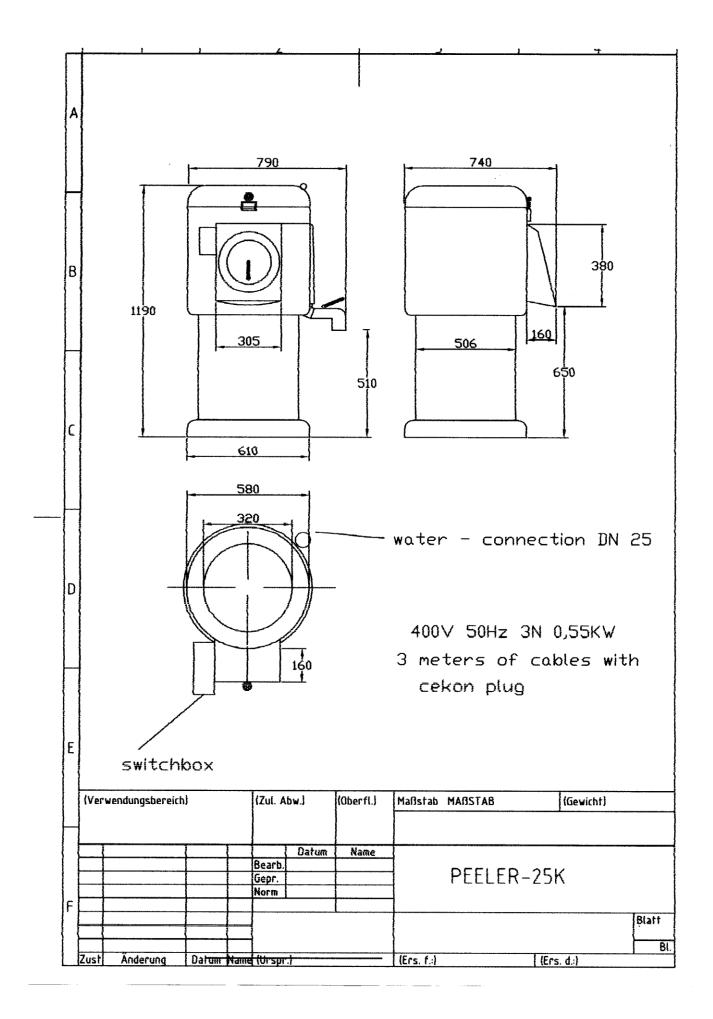


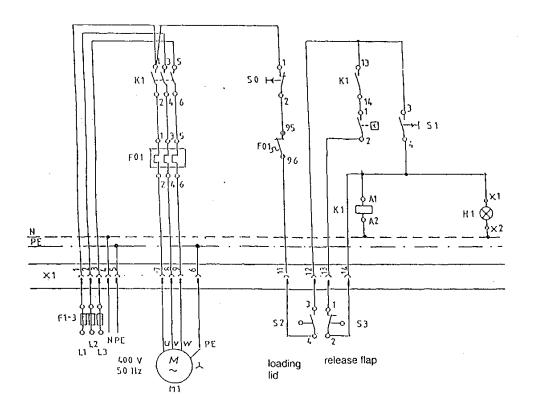
# FLOTTWERK H.J. DAMES GMBH & CO. KG

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SCHÄLMASCHINE-25K





400 V three phase A.C. motor

Electrical circuit diagram 16K 18K 20K 25K ZS3 ZS10 ZS25 F1 - 3 Fusing of the mains supply max. 10 A
K1 motor contactor
S0 stop button
S1 start button
S2 auto-stop control for loading lid and top lid
F3 release flap
H1 pilot lamp
M1 motor

t mechanically timer
F01 relay for motor protection