

SKALS

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INSTRUCTION MANUAL

Felt roll dryer TF



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1.0 Purpose and scope of operations

Drying Machine TF is designed for the drying of potatoes and similar products within a temperature range of +5°C to +40°C.

2.0 General information

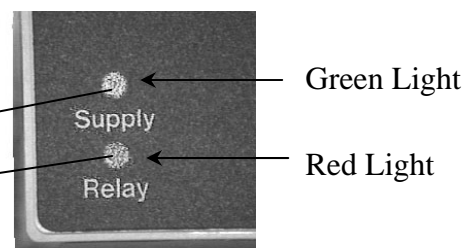
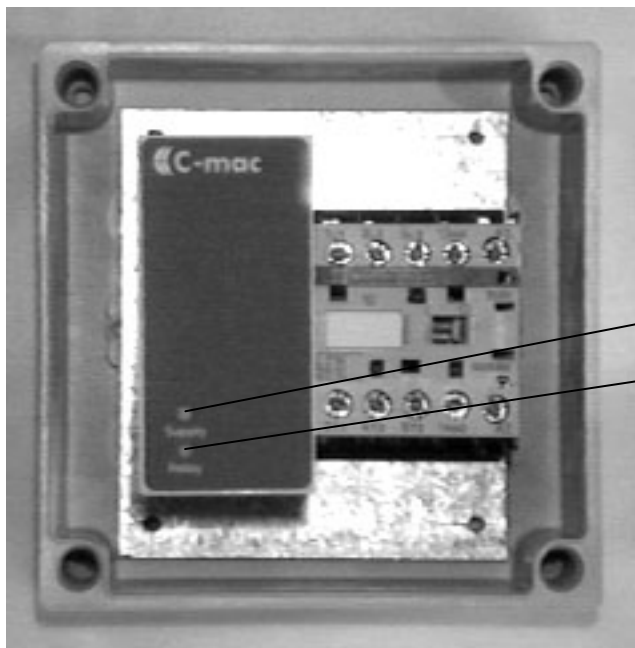
The machine's felt rollers are fitted with spring loaded squeeze rollers which press water out of the felt covering.

3.0 Installation

In order to ensure steady and smooth operation, it is imperative that the dryer stands on a flat, solid floor, evenly supported on all four legs. Adjust the legs so that the dryer stands absolutely level.

Connect the electricity supply in accordance with local regulations. The electricity supply should be connected through a motor protection relay which corresponds to the size of the motor. If the dryer is supplied with a motor relay, connect the power supply to this.

When the direction of flow is correct, both the red and green lamp in the relay box should light up (see illustration below). If this is *not* the case, then switch 2 phases in the incoming supply.



3.1 Installation of accessories

Inclined waste collector:

The inclined waste collector hangs underneath the rollers from two pegs on one side and rests on two angled supports on the outlet side.

The inclined waste collector can be positioned with the outlet on either side.

Waste collector with overflow:

The sludge container is hung underneath the rollers from the two angled supports.

Support frame:

Place the frame on a solid, level base.

Lift the dryer with a fork lift truck (before the inclined waste collector and sludge container are fitted) and lower on to the frame, the legs fitting over the four pegs on the frame. Loosen the leg bolts, adjust the legs on the frame until the dryer is level. Tighten the leg bolts again.

Extended outlet:

If the extended outlet is not fitted to the dryer when supplied, affix with the 4 bolts on the two angled supports on the outlet end of the dryer.

4.0 Operation

When the dryer has been correctly placed in relation to other machines in the production sequence, start the dryer by activating the motor relay.

5.0 Pictograms

Danger! Keep hands away from rollers over and under the dryer. Keep a safe distance.

6.0 Lubrication and maintenance

Bearings

All bearings are lubricated for life and require no further maintenance.

N.B. Bearings must be given a protective layer of grease if the dryer is to remain inoperative for a longer period.

Grease:LM Castrol NLGI 2.5

Gear

The sprocket is lubricated for life with synthetic grease suitable for a normal temperature range of -15°C to +40°C.

Chain

The chain which drives the rollers is kept tight automatically. This is done by an automatic chain adjuster. The chain guide, which keeps the chain in mesh with the roller sprockets, must be correctly adjusted without binding on the chain.

Lubricate the chain regularly and always prior to an extended period of inactivity.

Lubricant:Kema KK-2002 chain oil (complies with USDA H2)

Felt

In order to give the product the correct degree of drying, the felt covering should be changed after approximately 10,000 tonnes of raw material have been dried. The time between changes is reduced to 5,000 tonnes if the raw material contains stones.

6.1 Cleaning

With reference to the Danish Plant Directorate's Order No. 965 of 13 December 1993 (p. 6).

- 2.3.3. Seed potato growers with contained propagation must clean and disinfect all sorting and ancillary equipment after each new variety. Disinfecting should be carried out using a product approved by The Danish Institute of Plant and Soil Science.
- 2.3.4. Companies authorised to sort potatoes and who also have the authorisation to propagate potatoes, must clean and disinfect sorting machinery etc. which is under the control of The Danish Plant Directorate before the sorting of own propagation is commenced. Disinfecting should be carried out using a product approved by The Danish Institute of Plant and Soil Science.
- 2.3.5 Premises and machinery etc. must be cleaned and disinfected each year before 30 June. Disinfecting must be carried out using a product approved by The Danish Institute of Plant and Soil Science.

In other countries, customers must conform to relevant, local food and hygiene regulations.

Cleaning with a high pressure cleaner requires that the following parts are securely covered:

Gearmotor, relay box and electrical control box.

In order to maintain effective production and keep maintenance costs at a minimum, regular lubrication, maintenance and cleaning are very important.

7.0 Packing and transport information

Number of units:

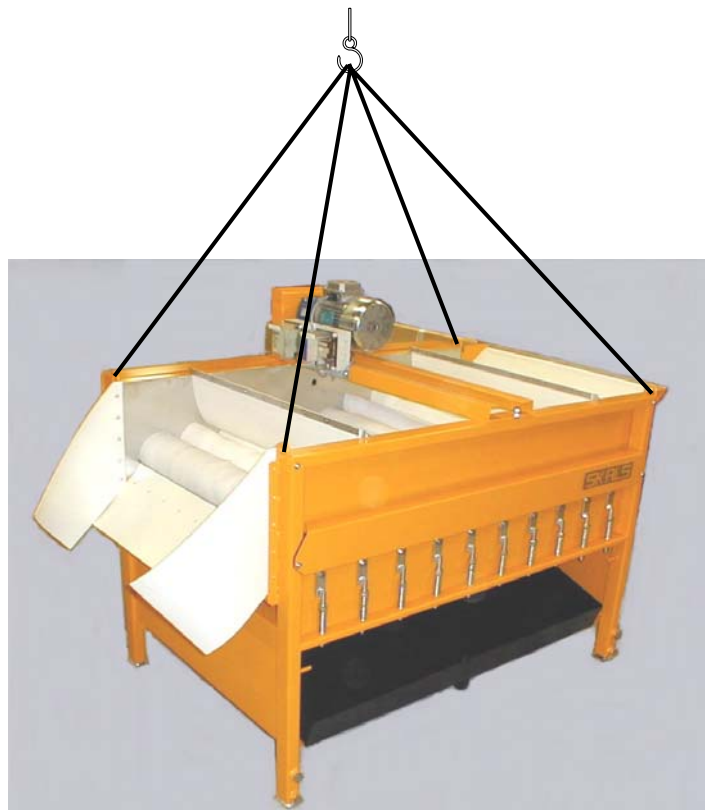
The dryer is packed complete as 1 unit.

<u>Weight</u>	<u>Kg.</u>
TF910	550
TF1210	625
TF1510	700
TF916	700
TF1216	910
TF1516	1120

<u>Dimensions:</u>	<u>Length</u>	<u>Width</u>	<u>Height</u>
TF910	1,670 mm.	1,200 mm.	1,270 mm.
TF1210	1,670 mm.	1,500 mm.	1,270 mm.
TF1510	1,670 mm.	1,800 mm.	1,270 mm.
TF916	2,510 mm.	1,200 mm.	1,270 mm.
TF1216	2,510 mm.	1,500 mm.	1,300 mm.
TF1510	2,510 mm.	1,800 mm.	1,300 mm.

8.0 Transport and lifting instructions

Should it be necessary to lift the drying machine, this **must** be carried out by using the nylon straps fitted to the machine's four lifting eyes, as shown in the illustration below.



9.0 Accessories

<u>Dryer Type TF910</u>	<u>Part No.</u>	<u>4 42 75 000</u>
Accessories		
Inclined waste collector	- -	4 42 99 500
or		
Waste collector with overflow.	- -	4 42 99 900
Support frame adapted to the required working height.	- -	4 42 99 000
Extended outlet adapted to the next machine in sequence.	- -	4 42 98 500
<u>Dryer Type TF1210</u>	<u>- -</u>	<u>4 42 85 000</u>
Accessories		
Inclined waste collector	- -	4 42 99 400
or		
Waste collector with overflow.	- -	4 42 99 800
Support frame adapted to the required working height.	- -	4 42 98 900
Extended outlet adapted to the next machine in sequence.	- -	4 42 98 475
<u>Dryer Type TF1510</u>	<u>- -</u>	<u>4 42 90 000</u>
Accessories		
Inclined waste collector	- -	4 42 99 300
or		
Waste collector with overflow.	- -	4 42 99 700
Support frame adapted to the required working height.	- -	4 42 98 800
Extended outlet adapted to the next machine in sequence.	- -	4 42 98 450
<u>Dryer Type TF916</u>	<u>- -</u>	<u>4 42 80 000</u>
Accessories		
Inclined waste collector	- -	4 42 99 275
or		
Waste collector with overflow.	- -	4 42 99 675
Support frame adapted to the required working height.	- -	4 42 98 775
Extended outlet adapted to the next machine in sequence.	- -	4 42 98 500

<u>Dryer Type TF1216</u>	<u>Part No.</u>	<u>4 42 92 000</u>
Accessories		
Inclined waste collector	-	4 42 99 250
or		
Waste collector with overflow.	-	4 42 99 650
Support frame adapted	-	4 42 98 750
to the required working height.		
Extended outlet adapted to the	-	4 42 98 475
next machine in sequence.		
<u>Dryer Type TF1516</u>	-	<u>4 42 95 000</u>
Accessories		
Inclined waste collector	-	4 42 99 200
or		
Waste collector with overflow.	-	4 42 99 600
Support frame adapted	-	4 42 98 700
to the required working height.		
Extended outlet adapted to the	-	4 42 98 450
next machine in sequence.		
<u>Accessories for all models</u>		
Control box type 1	-	4 97 01 000
Control box type 2	-	4 97 02 000
with CEE plug.		
Control box type 3	-	4 97 10 000
with manual and auto position.		

10.0 Spare parts

When ordering parts, state machine type, serial no. and, if possible, position no.

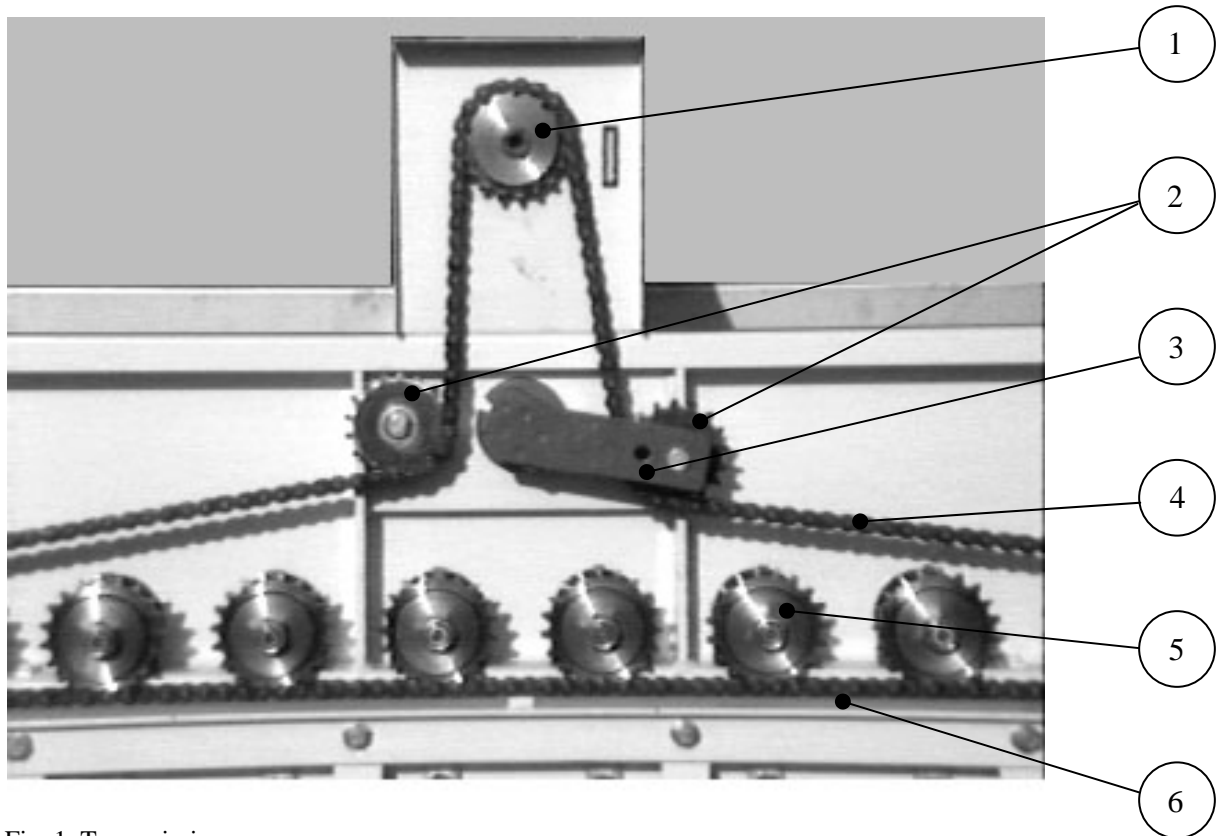


Fig. 1. Transmission

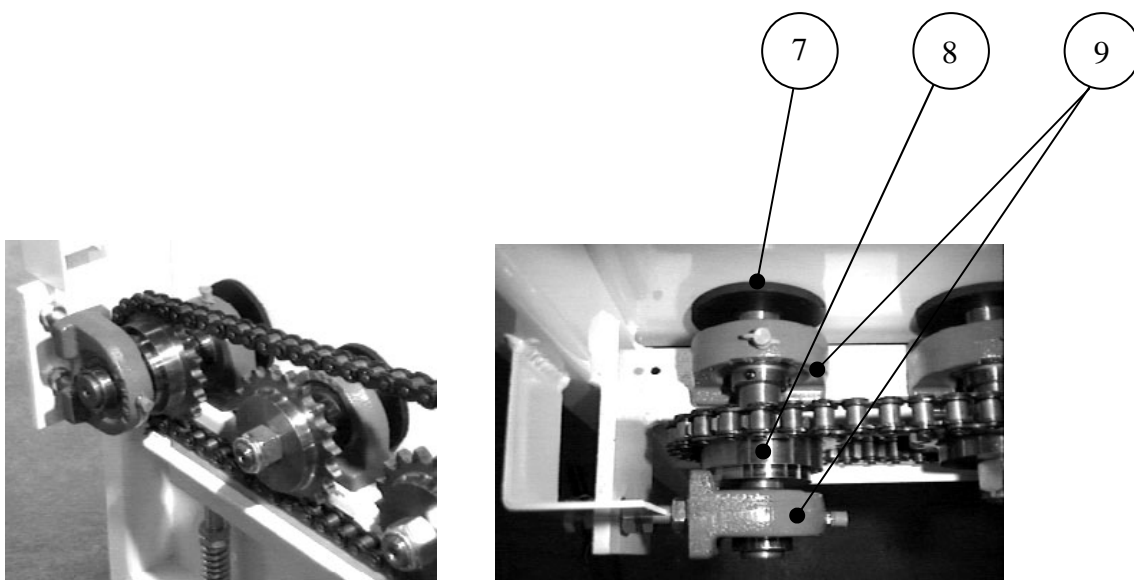


Fig. 2. Transmission

Fig. 3. Transmission



Fig. 4 Squeeze roller with scraper (seen from below)

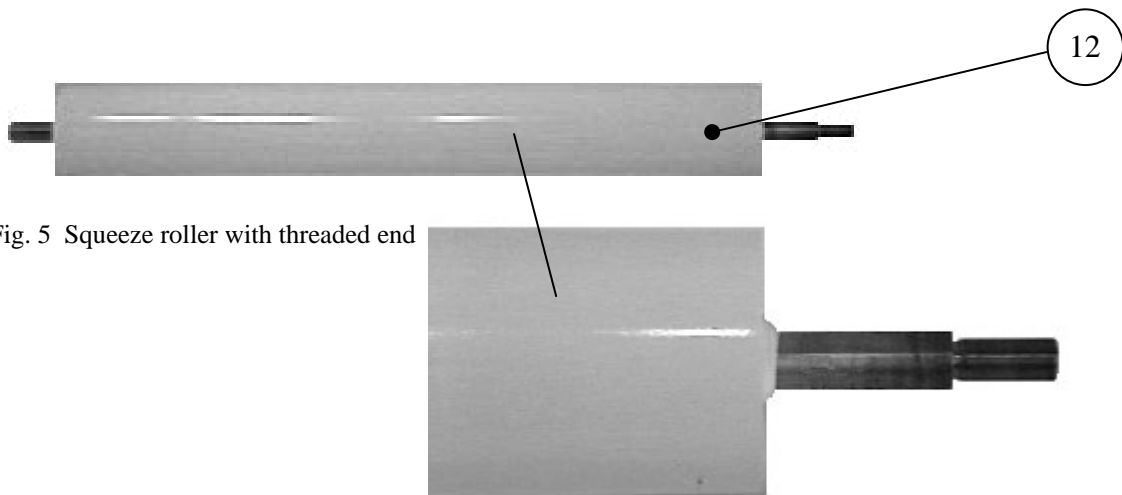


Fig. 5 Squeeze roller with threaded end

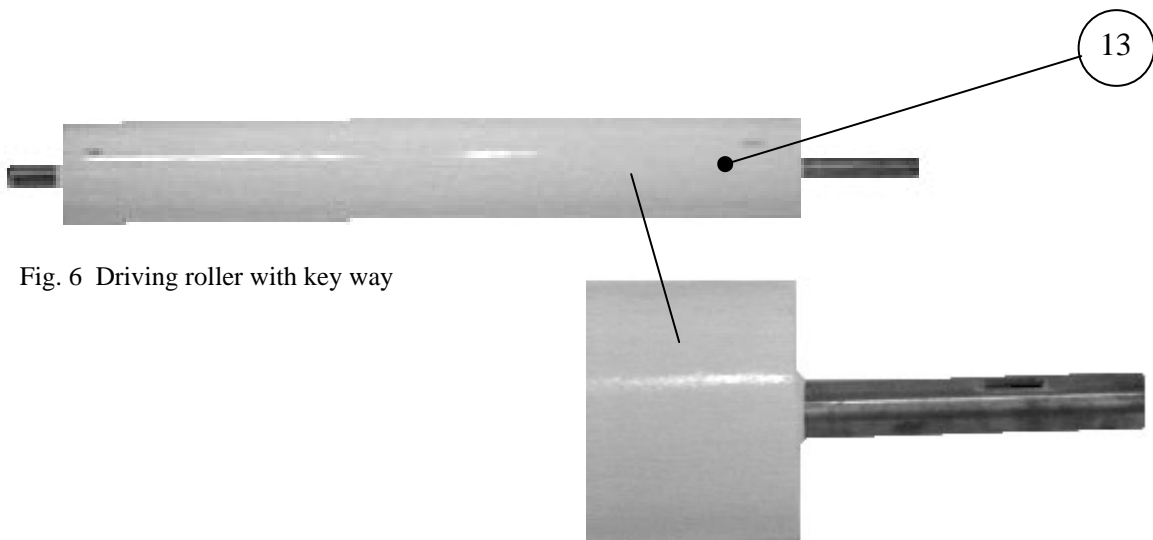


Fig. 6 Driving roller with key way

Fig. 7 Side shield lock

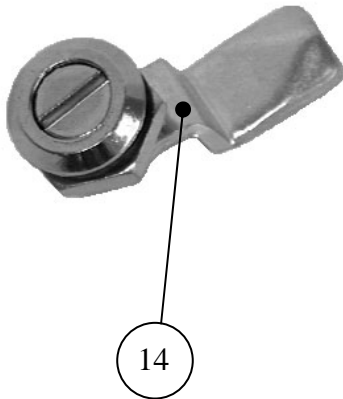


Fig. 8 Nylon bushes

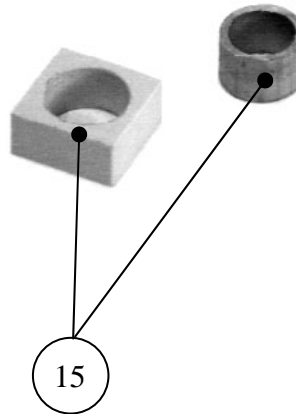


Fig. 9 Spring



Parts list for Felt roll dryer Type TF		
Pos no.	Description	Fig no.
1	Sprocket wheel	1
2	Intermediate gear wheel	1
3	Chain adjuster	1
4	Chain	1
5	Sprocket wheel	1
6	Chain guide	1
7	Sealing ring	3
8	Sprocket wheel	3
9	Bearings	3
10	Squeeze roller	4
11	Scraper	4
12	Thrust roller	5
13	Driving roller	6
14	Side shield lock	7
15	Nylon bushes	8
16	Coil spring	9
	Gearmotor	
	Counter sprocket axle	
	Chain adjuster axle	
	Felt	
	PVC	

9.0 Declaration of conformity with EU.

Manufacturer	
Firm:	A/S Skals Maskinfabrik
Address:	Hovedgaden 56
	8832 Skals, Denmark
Telephone:	87 25 62 00

Representative: (should only be filled out if the representative is established in EU)	
Firm:	
Address:	
Telephone:	

declares herewith, that

Machine:	Felt roll dryer type TF
Brand:	
Type, serial no., year:	

- A:** is manufactured in accordance with the decisions of the Councils Directive of 14. June 1989 about the mutual rapprochement of the laws of Member States about machinery (98/37/EF) with special regard to the directives appendix 1 which deals with essential aspects of health and safety in connection with the construction and manufacture of machinery.
- B:** is manufactured in accordance with the following national standards and technical specifications.

- Must be filled out, if C is not*
- must be filled out only if it is considered important in connection with documentation regarding the correct application of essential health and safety demands.*

- C:** is manufactured in accordance with the following national standards which implement a harmonised standard with regard to article 5, stk. 2:f

- The filling out of C means that the demands set out in A are considered to have been met.

Must only be filled out if the machine is mentioned in Appendix IV of the aforementioned Directive.

Controlling body:

Name:

Address:

Telephone:

- A:** has tested the aforementioned machine in accordance with type certificate no. _____
- B:** has received a technical dossier for safe-keeping. The enclosed signed receipt is proof of _____ receipt.
- C:** has checked the application of the standards mentioned in Article 5, part 2 and hereby certifies their correct application in accordance with certificate no. _____

Title:	Managing director
Name:	Søren Lund Madsen
Firm:	A/S Skals Maskinfabrik

Date: _____

Signature: _____



