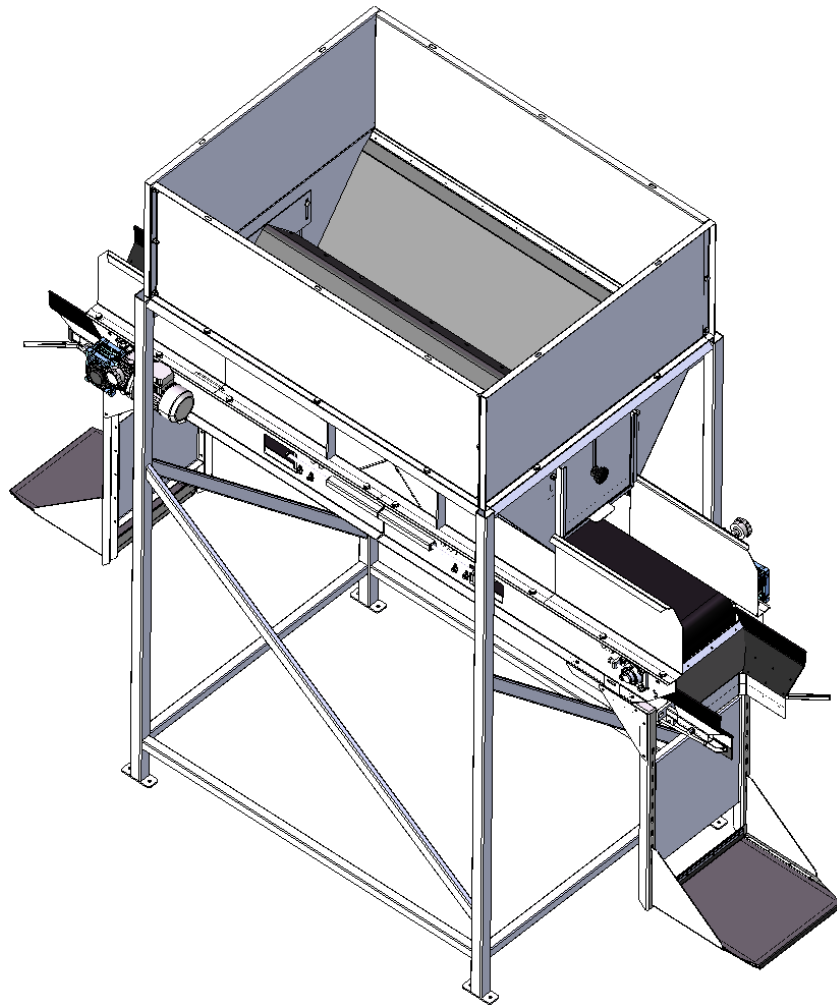


# INSTRUCTION MANUAL

Silo Type AV418-2



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## 1.0 The application of the machine

The machine is used as a storage and dosing machine for potatoes, onions and similar products.

## 2.0 Set-up

The machine must stand on all four supports.

Electrical connection must comply with current regulations. Electricity on single phase 230 volt should be connected using the plug on the supply cable. The machine has a stop button for both discharge conveyors. Both conveyors are installed with frequency control for speed adjustment. Each frequency control also protects the motor against overload. In the event of overload of the conveyors, the power supply must be disconnected for five minutes to reset the frequency control.

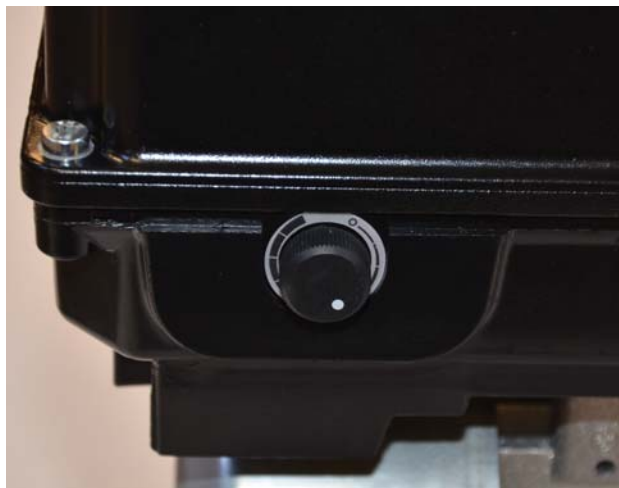
## 2.1 Set-up of accessories

The machine is available with additional superstructures depending on the required volume. The sides are bolted to the top edge of the silo.

## 3.0 Operation

When the machine is correctly positioned in relation to the connected machinery, the machine can be activated using the shared stop switch or by operating a foot pedal.

The conveyor has steeples speed control which can be adjusted by turning the potentiometer. Range of speed is from 5 to 85 Hz.



## 4.0 Pictograms

Risk of crushing at outlet. Keep your distance.

## 5.0 Lubrication and maintenance

All bearings have been lubricated from the factory and require no maintenance.

Worm gear type NMRV50 has been lubricated for its entire life with IP TELIUM VSF, a synthetic grease for operation in a standard temperature range (-15°C to 40°C).

Quantity of grease: 0.15 litres.

### Suitable oil types:

IP	Telium VSF
Shell	Tivela Oil SC320
Agib	Blasia S320
Mobil	Glygoyle 30
Castrol	Alphasyn PG 3

Oil change every 5000 hours of operation.

The loose roller has been lubricated from the factory and requires no maintenance.

In the event of a fault, the loose roller must be removed and returned to the factory for repair.

The conveyor belts must be kept suitably taut and run straight. This is ensured by adjusting the conveyor's tightening bolts.

## 5.1 Cleaning the machine

Reference is made to the Danish Plant Directorate's Order no. 965 of 13 December 1993 (p. 6):

- 2.3.3 Seed potato farmers with closed crops must clean and disinfect sorting machinery, etc. for each part of a different type. Disinfection must take place using an agent certified as efficient by the Danish State Plant Trials.
- 2.3.4 Authorised sorting companies that are also authorised to grow potatoes must clean and disinfect sorting facilities, etc. under the control of the Danish Plant Directorate prior to commencement of sorting of own produce. Disinfection must take place using an agent certified as efficient by the Danish State Plant Trials.
- 2.3.5 Premises and machinery, etc. must be cleaned and disinfected annually prior to 30 June. Disinfection must take place using an agent certified as efficient by the Danish State Plant Trials.

**For high-pressure cleaning** it is vital carefully to cover the motor, frequency control, worm gear, loose roller and all bearings.

To achieve optimum operating reliability and low maintenance costs careful lubrication, maintenance and cleaning are very important.

## 6.0 Packaging/transport guide

Packing/packaging:

Number of pieces:

The machine must be packed in one piece.

Weight: (incl. conveyors)

220 kg.

Dimension: (incl. conveyors)

**Length**  
1970

**Width**  
1200

**Height**  
1130

## 7.0 Transport and lifting instructions

If the machine needs to be lifted, this **must** take place using the nylon straps mounted on the machine's four supports as shown on the illustration below (Fig. 1).



Fig 1

## 8.0 Accessories

The following accessories are available:

Superstructure in sections of 535 mm.  
Volume 0.575 m<sup>3</sup>

Fall arrest for box tipper (straps on the top of the silo)  
FDI 1200

## 9.0 List of spare parts

When ordering spare parts, please state machine type, serial number and any position number.

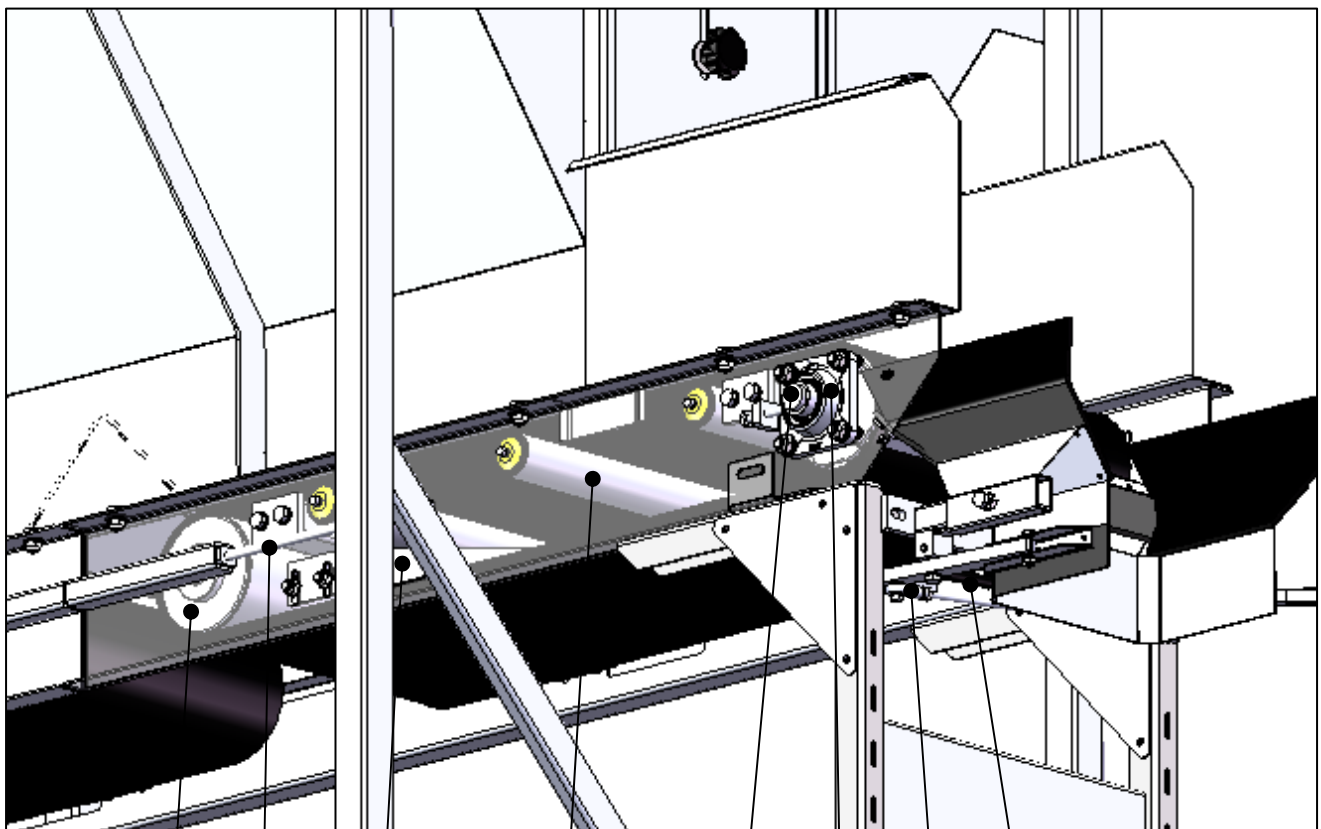


Fig. 2



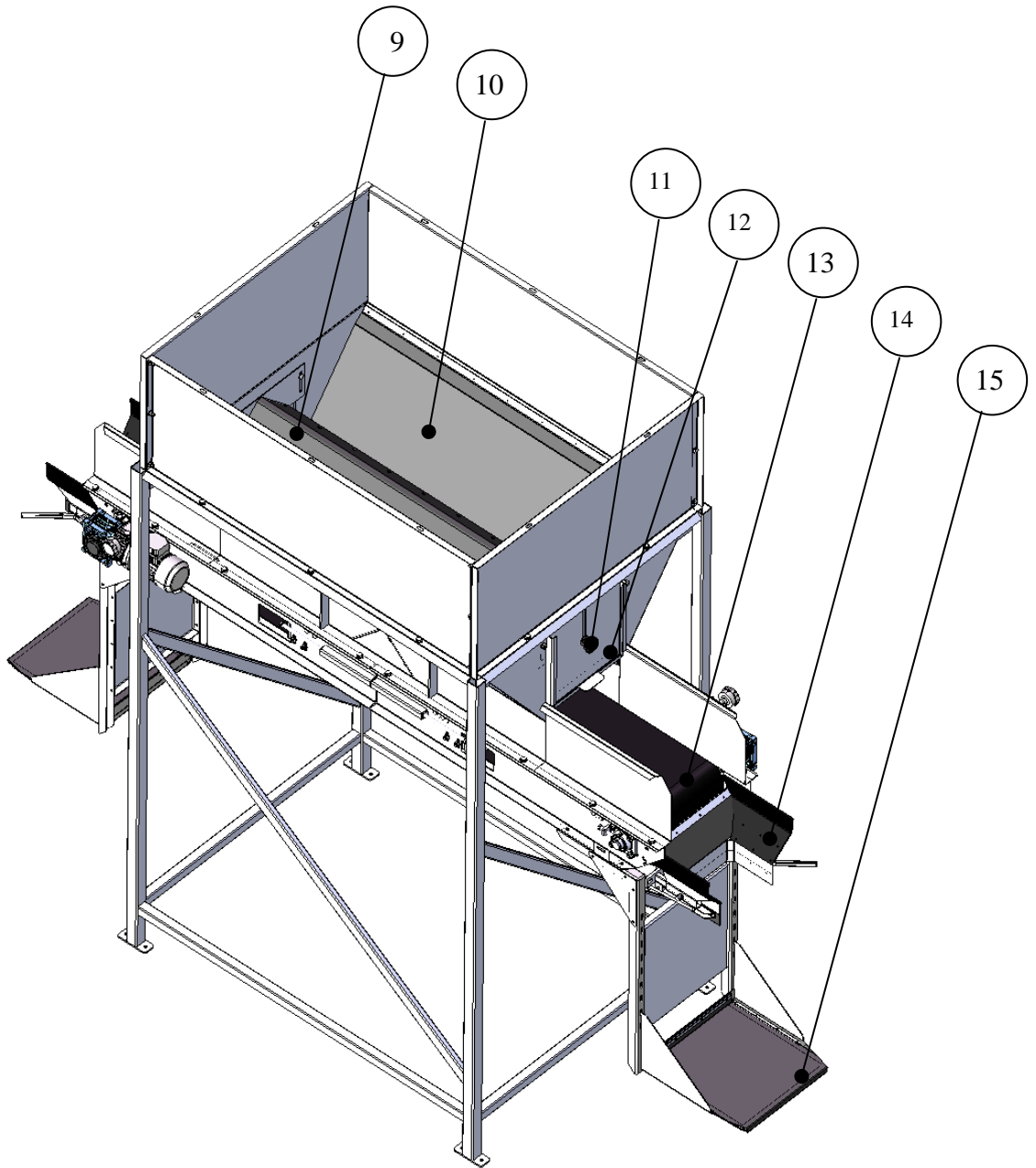


Fig. 3



Fig. 4



Fig. 5



<b>Page</b>	<b>Fig. no.</b>	<b>Pos. no</b>	<b>Description</b>
5	2	1	Loose roller
5	2	2	Adjustment bolt
5	2	3	Conveyor scraper
5	2	4	Bearing roller complete
5	2	5	Drawing roller
5	2	6	Bearing complete
5	2	7	Ball bearing
5	2	8	Gas spring
6	3	9	Rubber plate
6	3	10	Rubber plate
6	3	11	Handle
6	3	12	Shutter
6	3	13	Conveyor belt
6	3	14	Outlet funnel
6	3	15	PVC canvas
6	4	16	Cover
6	4	17	Gear
6	4	18	Motor/frequency control
6	5	19	Foot pedal



## 10.0 Frequency control parameter set-up Motorvaro inverter drive for AV418-2 (installed by SKALS).



Adjust dip-switch according picture.



Connect phase to L and zero to N. Ground to GND.  
Connect foot pedal to terminal 1 and 4.



Connect wire to terminal 13 and 14 in foot pedal.



## 11.0 EU - Declaration of Conformity

<b>Manufacturer</b>	
Company name:	A/S SKALS MASKINFABRIK
Address:	Hovedgaden 56 8832 Skals, Denmark
Telephone:	+45 87 25 62 00

hereby declares that

<b>Machine:</b>	<b>SILO</b>
Brand:	<b>AV418-2</b>
Type, serial no., year:	

Has been manufactured in conformity with the COUNCIL'S DIRECTIVE:

- 1 Machinery Safety – Directive 98/37/EC
- 2 The Low Voltage Directive (LVD) 2006/95/EEC
- 3 The Electromagnetic Compatibility (EMC) Directive 89/336/EEC and the amended 93/68/EEC.

<b>Title:</b>	Production Manager
Name:	Søren Lund Madsen
Company:	A/S Skals Maskinfabrik

Date: \_\_\_\_\_

Signature:  \_\_\_\_\_