

MAJA-OPS

Operator Protection System

for manual (open) MAJA-machines

DERINDING

MEMBRANE SKINNING



Example of
EVM 5006 with OPS system

The advantages of the MAJA-OPS

- Highest possible **risk minimization**.
- Considerable **reduction of injury** during open derinding / membrane skinning.
- **High safety level** as the protection system cannot be avoided by the operator thanks to self test of the control unit.
- **Compliance with the functional safety**, e.g. by installation of redundant safety components.

Since more than 60 years, MAJA has developed, produced and distributed high-quality derinding machines for the requirements of butcheries and industrial meat processors. But not only subjects like yield increase and maximum benefit are focussed by MAJA, but also the operator's comfort and safety, creating a base for obtaining always good skinning results.

For increased safety: Operator Protection System!

Application

The MAJA-OPS (Operator Protection System) considerably reduces the risk of heavy injuries on the operator's fingers and hands during the work with manual (open) MAJA derinding and membrane skinning machines.

It offers additional protection over and above the safety regulations EN 12355 for derinding and membrane skinning machines.

The protective function is obtained by the significantly faster stopping of the machine compared to the normal response time of an operator. The intended use of a MAJA-machine equipped with the MAJA-OPS reduces the operator's risk of injury considerably.

The following manual (open) MAJA machines can be supplied with MAJA-OPS:

- **Derinding machine:**
ESM 5550
- **Membrane skinning machines:**
EVM 5004, EVM 5006, EVMsplit 5006

Equipment & features

What does the MAJA-OPS mean for the operator?

- Highest possible risk minimization.
- Considerable reduction of injury.
- High safety level as the protection system cannot be avoided by the operator.
- Compliance with the functional safety, e.g. by installation of redundant safety components.
- No disturbance of the process of derinding / membrane skinning.
- Without hindering for the operator.
- High level of process safety.
- Easy operation.
- Comfortable personal protective equipment for convenient operation and easy movement.



Equipment & features:

High safety level – high operator comfort.

Function of MAJA-OPS:

- When working on the machine, the operator wears electrically conductive sub-gloves and over them a second pair of insulating rubber gloves.
- The operator is connected to the MAJA-OPS by a cable plug connection.
- The working principle of MAJA-OPS:
As soon as the insulating rubber glove is damaged (e.g. by the knife), an electrical connection occurs from the conductive sub-glove to the machine. This contact is recognized by the MAJA-OPS, which makes the tooth / transport roller stop immediately and additionally change its rotating direction.
- As soon as the operator has put on the gloves and has connected himself to the machine, this is recognized by the electronic system and the machine is released.

Electronics:

- For guaranteeing the high safety level of the MAJA-OPS, the system leads the operator through a checkup after having started the machine. The operator's presence, the functioning of the cable set as well as of the conductive gloves and the control unit is checked.
- The function analysis is displayed by an indicator LED on the machine housing.
- The tamper-safe protection system cannot be avoided by the operator thanks to the control unit self test.

Cable set:

- Solid cable set construction with spiral cable allowing easy operator movement, e.g. for changing the membrane / rind box.
- Easy connection to the MAJA-OPS by two solid plug connections on the machine front.
- Fast and easy connection of the cable set to the conductive sub-gloves.



MAJA-OPS



Protective equipment

Very comfortable, electrically conductive sub-gloves (pict. 1):

- Very light, elastic and breathable.
- Easy handling of the products, no hindering of operation.
- The material is very skin-friendly, emission-tested and corresponds to the guideline for medicine products 93/42/EWG.



Insulated rubber gloves (pict. 2):

- High degree of humidity impermeability.
- Good product grip.

Electrically insulated rubber boots (pict. 3):

- For guaranteeing the trouble-free function of the MAJA-OPS.

Thermo jacket with fixing possibilities for the cable set (pict. 4):

- With cable channels inside for connection to each hand.
- Easy integration of the cable set into the clothing.



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