

- Reliably finds metal contaminants in sausage meat
- easy to integrate into all common piping systems
- Stainless steel housing and frame are robust and easy to clean  
- ideal for the meat industry
- highest sensitivity with 4-quadrant technology
- Autocalibration and Teach Assistant for intuitive control and easy installation



- Maximum detection performance with highest reliability in the entire detection area due to 4-quadrant technology
- Simple setup with Teach Assistant
- Storage spaces for up to 250 products
- Easy to use with intuitive and multilingual menus
- 4-level password system, automatic log out after time lapse
- Documentation of all events and metal messages
- IFS5 and HACCP reports available on the display at the touch of a button
- Optional: Data transfer to USB interface or connection to the company network via SHARKNET® software
- Cyclical function monitoring with Performance Validation System (PVS)



INA Meat with METAL SHARK® 2A controller.

### Scope of delivery:

- Detection unit incl. mobile base frame with spring for height adjustment
  - Controller METAL SHARK 2
  - Polyoxymethylene pipe section for detection zone
  - suitable connectors and plugs for direct integration into the existing production line
- (please specify Handtmann or REX filler type when ordering)

### Accessories & Extras:

- SHARKNET® access for perfect documentation according to HACCP, IFS or FDA standard
- more stable frame construction possible
- Lamp stack can be attached

### Function:

Compact metal detector for sausage filling machines and sausage meat with mobile base frame on wheels. The stand with integrated gas spring offers easy height adjustment from 85 to 120 cm height.

The METAL SHARK® INA Meat can be used universally with twisting devices and automatic clip machines. In the twist-off mode, the foreign device cable is simply plugged into the foreign device socket on the filling machine. For automatic clip machines

or automatic hanging lines, the foreign device cable is inserted into the existing cable between the filling machine and the clip or hanging machine. Plug and socket types are supplied to match the filling machine type.

The device is easy to clean and complies with the FDA standard.

### Application:

Monitoring of very heavy, pasty products especially in sausage production.

For all products that are closed with twisting devices or clippers. The METAL SHARK® IN Meat is adapted to fillers from:

- Handtmann
- Rex

### Industries:

- meat processing, especially sausage production



METAL SHARK® IN Meat fitted into a production line.

### Specifications:

METAL SHARK® IN Meat is supplied as standard with the METAL SHARK® 2A control unit.

Model	INA Meat 0065/Handtmann	INA Meat 0065/Handtmann
Type	with driveshaft for Handtmann VF	with driveshaft for REX
Installation Length	490 mm	490 mm
Frame	mobile on 4 castors, height adjustable from 80-120 cm, stainless steel	
Metal Alarm	0.1–10 sec. adjustable, discontinues twister or clipper which results in double-length sausage.	
Compressed Air	---	
Filling Pressure	max. 80 bar	max. 80 bar
Sensitivity	Laboratory: FE 0,5 mm, VA 0,8 mm with sausage meat: FE 1,0 – 1,5 mm, VA 2,0 – 2,5 mm	
Electronics	digital signal processor, noise filter, digital balance control, digital frequency control, PowerDrive circuit	
Input Signals	8 freely configurable 24 V DC signals, e.g. for eject confirmation	
Output Signals	2 potential-free: "Error" and "Metal" 8 freely configurable 24 V DC signals, e.g. for optic/acoustic alarm	
Measuring Method	inductive, multi channel operation, balanced receiver coils	
Metal Detection	ferrous, non-ferrous (e.g. aluminium or copper) und stainless steel	
Product Compensation	250 storage spaces, product compensation is automatic	
Protection Type	IP 68 / NEMA 6P (for daily water hose cleaning in wet environments)	
Ambience	-10° C bis +40° C, rel. humidity 30% up to 80% (nicht kondensierend)	
Product Temperature	-10° C to +80° C	
Power Supply	One phase 85-264 VAC, 50/60 Hz, 100 W	
Interface	RS232, provides documentation according to HACCP- and IFS-standard, USB- or ethernet option	
Maintenance	maintenance-free, selfcalibrating sensors	
Diagnosis	integrated diagnostic software, automatic self-test	

### Accessories:



LED signal lamp and beeper  
Error=red/metal=yellow and acoustic alarm/Ok=green,  
24 VDC,  
Protection class IP69



LED signal lamp with wire basket protection  
Error=red/metal=yellow/ok=green,  
robust tripod, 24 VDC,  
Protection class IP65

USB socket for control unit

Makrolon cover for control unit

### METAL SHARK® IN Meat Self Monitoring:

Material	Properties
Air pressure monitoring	Reports an error if the pressure is too low for the functionality of the ejector valve
Ejection monitoring	End position sensing for the ejection cylinder, software module reports error if the ejector piston hangs, clip signal is suppressed
Testport	Inlet tube is equipped with a T-piece and sealing cap for inserting the test ball. Tube is 230mm long instead of 160mm. The pipe pump must be stopped before the sealing cap is opened.
Test balls	Diameter 10 mm made of plastic POM, with embedded metal ball made of iron, brass and stainless steel, certified Ball size, metal type and certificate number are embedded in the test ball
Test bars	made of white, flexible plastic, certified, with embedded metal ball made of iron, ball size / metal type engraved



### CASSEL Quality Promise:

Every single device is thoroughly tested during and after production.  
Before delivery from the factory it is tested over several days subjected to a final inspection.

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