

# Products of MSO GmbH

## To optimize - quantify at first.

Sensors are the prerequisite for measuring and quantifying the parameters required. Sensors making parameters measurable are the basis of process automation, monitoring and controlling quality, production and process improvements and the IOT.

**MSO GmbH** makes innovative sensing and monitoring solutions available, providing you with the tools for optimizing your applications and processes.

**MSO GmbH** develops, manufactures and sells sensors and systems for measurement of sprays, "free" thrown particulate material flow, liquid and particulate material flow in ductwork and fully integrated systems for monitoring sprays and particulate material flow.

## Speed measurement

### MSO Speed Wedge MKII: speed sensor



Contactless Doppler Radar based speed measurement for application on vehicles, conveyor belts, material flow e.g. water chutes.

More about [Speed Wedge MKII speed sensor](#) .

### MSO AccoSat: speed sensor



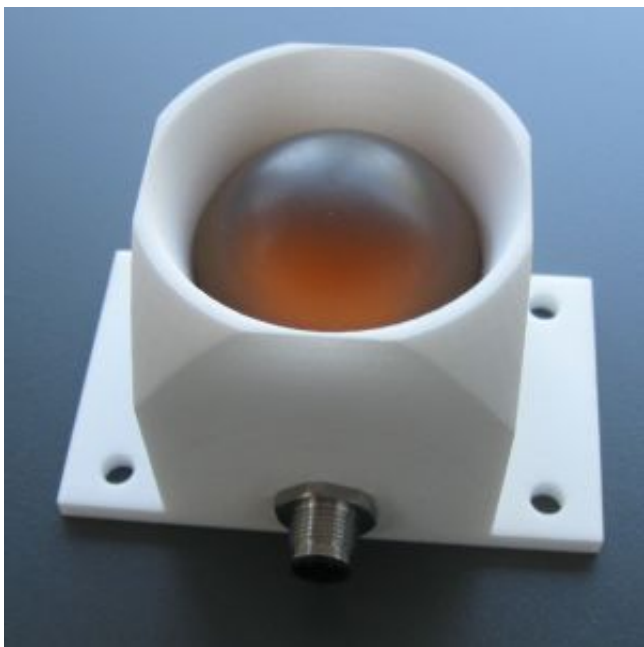
For precise speed measurement of vehicles e.g. in off-highway applications - without the need to calibrate - we do offer the **MSO AccoSat speed sensor**.

**AccoSat** combines a 3D accelerometer with a DGPS receiver with high sensitivity delivering true ground speed measurement.

More about [AccoSat speed sensor](#) .

## Distance measurement

### MSO RaDist: distance sensor



FMCW (frequency modulated continuous wave) Radar based long range distance sensor.

More about [RaDist distance sensor](#) .

# Material flow measurement

## MSO SprayRay: spray measurement



The **NEW SprayRay** sensor measures the radar signature of a spray thus enabling characterization and assessment of spray quality in the application in real-time.

More about [SprayRay sensor](#).

## MSO SeeDector: material flow measurement



**SeeDector** enables real-time measurement of amount and speed of a material flow conveyed through plastic pipes or tubes on e.g. pneumatic seed drills or applicators for mineral fertilizer or liquids e.g. slurry. **SeeDector** deploys a novel measurement technique based on Doppler microwave radar measuring material flow in movement.

The sensor is directly clamped onto a plastic pipe/tube with a steel sheet bracket (wide range of diameters available) without alteration of the existing design - no cutting, nothing built into, no alteration, no disturbance of the flow.

More about [SeeDector Sensor](#).

## **Axmat: free flow measurement**



The **Radar Sensor System** from **MSO GmbH** is the core measurement component of the [Rauch Axmat System](#) for measurement and control of the lateral distribution of disc spreaders. The sensor system measures the amount of material and its lateral distribution over the "launch zone" as it is thrown from the rotating disc.

The **Rauch Axmat system** adjusts the lateral distribution accordingly by adjusting the delivery point of the material flow onto the disc.

The lateral distribution of the material is thus optimized on the go. The **Rauch Axmat** swivel arm system has been further developed to the **Rauch Axmat** with two radar sensor arrays each with 27 radar sensors mounted on ring segments.

More about [Axmat](#)

## **Monitoring spraying**

### **MSO SprayMon: spray quality monitoring**



The **SprayMon** system integrates the [SprayRay sensors](#) monitoring the quality of the spray of the nozzles of a sprayer. **SprayMon** alarms the operator when a configurable deviation of the spray quality occurs.

More about [SprayMon Spray quality monitoring system](#).

## Monitoring seeding & fertilizing

### MSO SeedMon: blockage monitor system



The **SeedMon** Blockage monitor provides for monitoring of material flows in pipes / tubes while seeding and application of mineral and liquid fertilizer e.g. slurry. The **SeedMon** system consists of [MSO SeeDector](#) sensors, hubs and sub-hubs and head unit (MSO on-board computer, alternatively an ECU of an OEM). A blockage is detected in an early stage of building up if and when the material flow throughput drops underneath a threshold percentage set on the head unit by the operator.

The software of the **MSO SeedMon** head unit (on-board computer) is specifically custom-made for easy

to operate uncluttered blockage monitoring and detection.  
More about [SeedMon Blockage monitor system](#).

[Top](#)