

# green GLUING

## ADHESIVE MEASURING SYSTEMS AMS

Process reliability | Production efficiency |  
Cost transparency

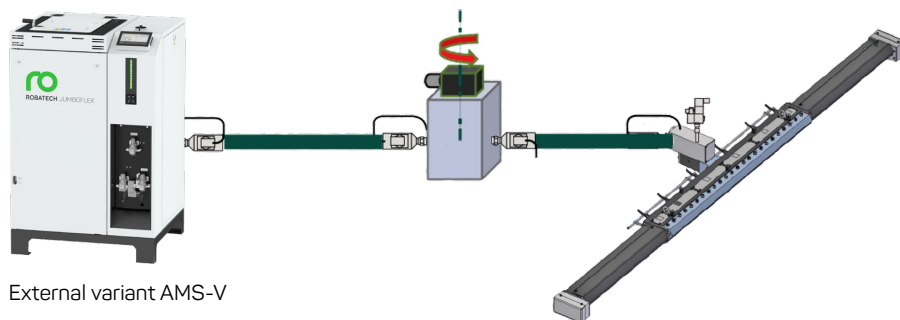
# ADHESIVE CONSUMPTION MONITORING FOR INCREASED PRODUCTIVITY

The adhesive measuring systems AMS (Adhesive Measuring System) for adhesive melters are used to determine and display the amount of adhesive applied and to monitor the gluing process. The system records the adhesive flow rate and displays it as a trend. An upper and lower tolerance limit for the amount of adhesive to be applied can be defined. If the quantity deviates from the defined range, the system issues a message. In addition, the number of finished products can be measured via a product counter input and assigned to the corresponding adhesive consumption.

There are two measurement variants, differing in the accuracy and response time of the measurement.

## Variant AMS-K

In this version, data is recorded via the piston pump. The adhesive consumption is measured step by step using the pump stroke. AMS-K is integrated as standard in the Vision adhesive melter and is available as an option for Concept Diamond/Stream.

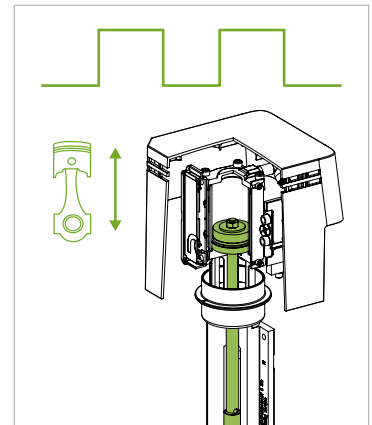


## Variant AMS-V (external)

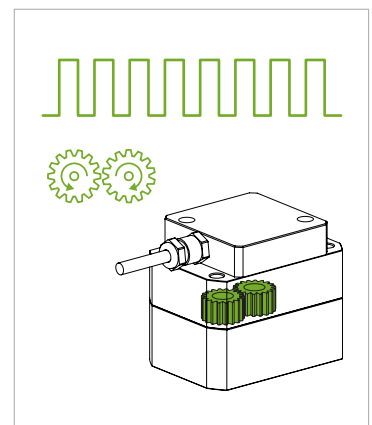
The AMS-V version is more accurate and faster than the AMS-K – it measures the adhesive consumption via the gear flow. The AMS-V measuring cell is available in a version integrated into the glue distributor or as an external unit. AMS-V external is placed outside the adhesive melter between two heated hoses and is particularly suitable for use with large equipment (e.g. JumboFlex, RobaDrum) as well as for simple retrofitting of existing adhesive systems.

## Process reliability, production efficiency and cost transparency

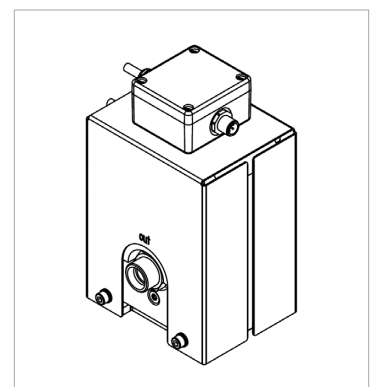
By monitoring the amount of adhesive applied, the adhesive can be reduced to a minimum while still producing a reliably glued product. This increases process reliability and line efficiency. The reduction in adhesive and product waste also results in significant cost savings.



Adhesive measuring system AMS-K



Adhesive measuring system AMS-V



Adhesive measuring system AMS-V external

## TECHNICAL DATA AMS-K

Design	Piston pump KPC 12 AMS	Piston pumps KPV 5, KPV 12 and KPV 16
Adhesive melter	Concept Diamond/Stream	Vision S/S Pro/M/M Pro
Adhesive viscosity	500 to 10'000 mPas	500 to 10'000 mPas
Measuring range <sup>1)</sup>	Up to 52 kg/h	Up to 23 kg/h / Up to 68 kg/h / Up to 110 kg/h
Measuring accuracy <sup>2)</sup>	± 5 %	± 5 %

<sup>1)</sup> Measuring range depends on adhesive type, adhesive viscosity, temperature and pressure of the piston pump.

<sup>2)</sup> Corresponds to the accuracy of the measuring system, without taking the overall system into account. Influencing factors such as hose length, hose diameter, adhesive viscosity, pressure drop and speed affect the measuring accuracy.

# AMS ADVANTAGES AT A GLANCE

## Clear evaluations

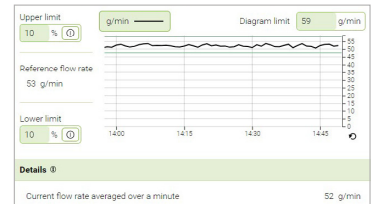
The measurement data is displayed graphically using the InfoPlus software. Evaluations of the adhesive application quantity per product or over a specific period (minute, hour, day or month) can be clearly displayed, as can the number of products produced. In addition, the measurement data provides information on filter blockages on the adhesive melter or application head and the application nozzle. The evaluation enables the optimization of settings and processes, which leads to a reduction in costs or prevents unplanned downtimes.

## Practical analyses

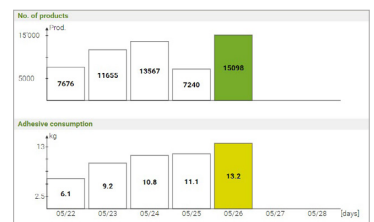
By analyzing the evaluations, individual production lines can be easily compared with each other, new adhesives and glue patterns can be evaluated or information for procurement and spare parts management can be determined. The measurement data can also be exported for further analysis via a USB interface on the adhesive melter or transferred to a higher-level system via a communication interface (Profibus, Ethernet or real-time Ethernet).

## Your advantages

- Process reliability by adhesive consumption monitoring
- Reliably glued products by ensuring the minimum adhesive application quantity
- Reduced costs thanks to optimized adhesive quantity and less product waste
- Notification in case of deviation from the defined tolerance range
- Clear graphical representation and data export (CSV file) via USB or communication interface
- Optimized procurement and warehousing of adhesives based on consumption data analysis



InfoPlus: Tolerance range



InfoPlus: Consumption per day

## TECHNICAL DATA AMS-V (EXTERNAL)

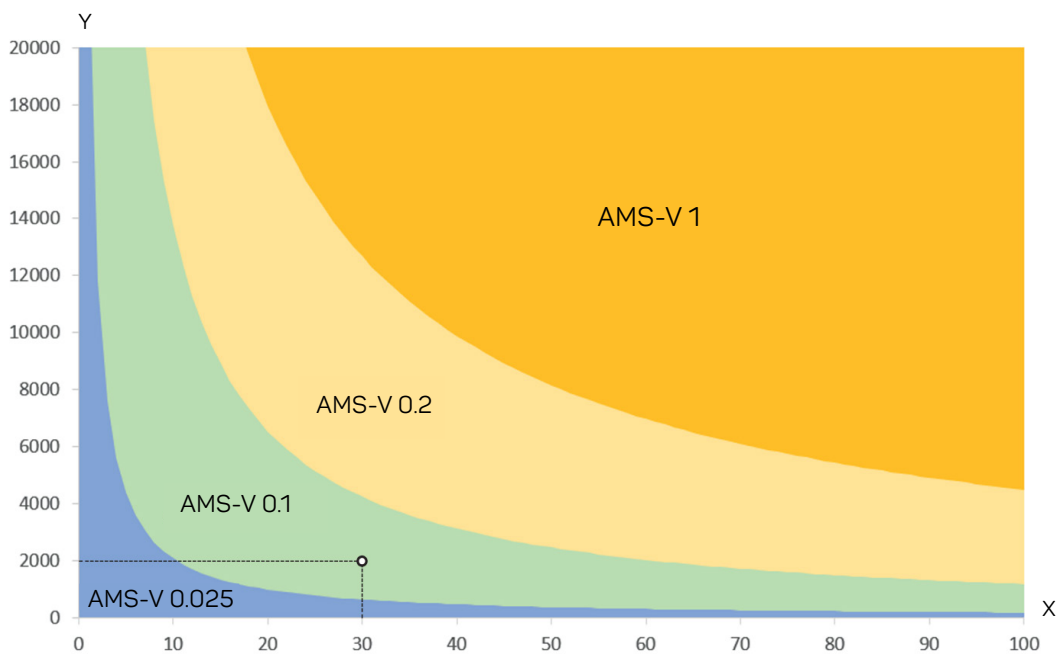
Design	AMS-V 0.025 measuring cell	AMS-V 0.1 measuring cell
Compatibility AMS-V or AMS-V external	Vision S Pro/M Pro, Concept Diamond/Stream	Vision S Pro/M Pro, Concept Diamond/Stream
Compatibility AMS-V external <sup>1)</sup>	RobaDrum, JumboFlex	RobaDrum, JumboFlex
Quantity/pulse	0.025 cm <sup>3</sup>	0.1 cm <sup>3</sup>
Measuring accuracy <sup>2)</sup>	± 0.3 % from 0.48 l/h	± 0.3 % from 2.4 l/h
Design	AMS-V 0.2 measuring cell	AMS-V 1 measuring cell
Compatibility AMS-V or AMS-V external	Vision S Pro/M Pro	-
Compatibility AMS-V external <sup>1)</sup>	RobaDrum, JumboFlex	Vision S Pro/M Pro, Concept Diamond/Stream, RobaDrum, JumboFlex
Quantity/pulse	0.245 cm <sup>3</sup>	1.036 cm <sup>3</sup>
Measuring accuracy <sup>2)</sup>	± 0.3 % from 9.6 l/h	± 0.3 % from 24 l/h

<sup>1)</sup> Other devices with separate controls are possible. Other compatible devices will follow.

<sup>2)</sup> Corresponds to the accuracy of the measuring system, without taking the overall system into account. Influencing factors such as hose length, hose diameter, adhesive viscosity, pressure drop and speed affect the measuring accuracy.

## CHOOSING THE RIGHT MEASURING CELL

The choice of the right measuring cell depends on the adhesive viscosity and the volume flow. These factors can be used to determine the appropriate measuring cell using the following diagram. As a general rule, the lower the volume flow, the higher the permitted adhesive viscosity and the lower the adhesive viscosity, the higher the permitted volume flow.



Y: Adhesive viscosity (mPas), X: volume flow (l/h)