# HENRY SIMON
## MANCHESTER 1878

# ADVANCED SENSOR TECHNOLOGY
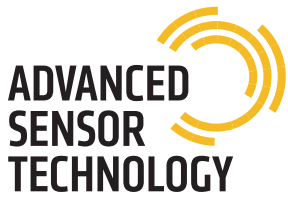
# ADVANCED SENSOR TECHNOLOGY

**ADVANCED SENSOR TECHNOLOGY**

Every day, across the world, people need healthy food to survive. We need clean, rich in nutrition and well processed food to ensure our health, comfort and, not least, our productivity. Henry Simon is dedicated to find solutions to these challenges by providing the intelligent milling products and services. The Advanced Sensor Technology; enables the Henry Simon machinery to monitor its operating conditions in order to provide intelligent milling to improve the quality of the product.

## Human Detection Sensor

It detects the operator's physical presence when he/she is in the vicinity of the machine, activates the touch panel and waits in standby mode for the operator's command in order to save time and energy.

## Stock Level Sensor

It enables the control of the feed flow rate by monitoring the stock level inside the feed tank and regulates the feed roll speed accordingly, for optimum and efficient product feeding.

## Feed Roll Rotation Sensor

It keeps track of the rotational speed of the feed rolls, moreover, it warns the operator for any unexpected stoppage due to electrical supply issues, etc. for uniform and efficient milling.

## Main Roll Position Sensor

It is designed to confirm whether the main rolls are in an engaged or disengaged position to assure operational safety.

## Main Roll Rotation Sensor

It monitors the rotational speed of the main rolls and warns the operator to take precautionary actions when an unexpected malfunction of the main rolls occur due to belt problems, material clogging, etc.

## Vibration Sensor (PMD)

This sensor serves as a predictive maintenance tool by warning the operator of any changes in vibration levels of the main roll bearings by continuous detection.

## Ambient Sensor

The sensor pack is designed to monitor the environmental working conditions of the machine; consists of ambient temperature, humidity, atmospheric pressure, illuminance sensors and configured by a microphone. Additionally, includes a 9-axis sensor to track the rotational speed and the oscillation data for a safer operation (available only in HSPU and HSQP).
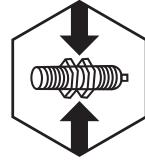
## Air Pressure Sensor

It is designed to detect any air pressure loss in the pneumatic system, which is directly related to the grinding pressure on the main rolls. It warns the operator if such a case occurs, enabling the operator to take precautionary actions to minimize the unscheduled downtime.

## Hopper Clog Sensor

It ensures the proper product flow in the machinery by detecting any clogging inside the lower hopper assuring the machine to operate smoothly.

## Main Roll Temperature Sensor

It is specifically designed to monitor the surface temperature of the main rolls; to ensure even heat distribution and prevent overheating of the main rolls, which will directly affect the grinding efficiency.
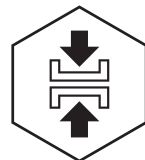
## Digital Manometer

It monitors the aspiration air pressure to ensure proper airflow inside the machine for an efficient operation.
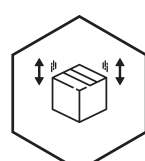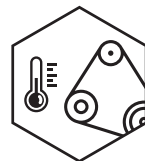
## Slip Sensor

It works to detect any slippage of the plansifter related to initial installation position during its normal operation for operational safety.

## Motor Load Sensor

It is designed to monitor the main motor load as the percentage during the machine operation for prevention against any possible damage due to excessive motor load of the machine.
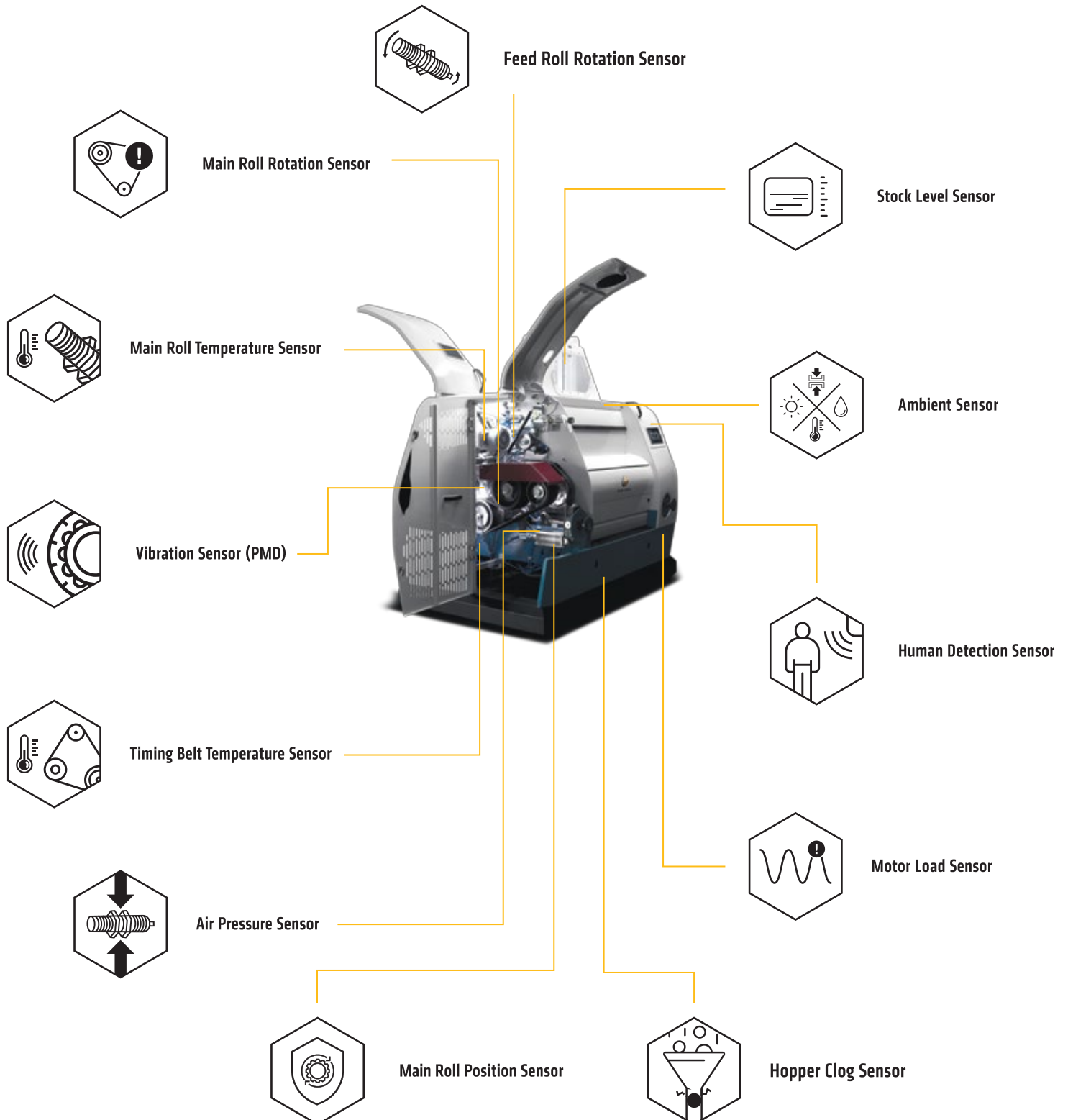
## Timing Belt Temperature Sensor

It is designed to detect the overheating of the timing belt, which is considered as an early prevention signal for any failure on the drive system.

# HSRM | ROLLER MILL

The HSRM Roller Mill is intelligently designed with the state-of-the-art control systems for precise and effective grinding operation for the wheat, maize (corn) and various grains. This is a new generation roller mill equipped with Advanced Sensor Technology, which enables to track the machine status in real time, moreover records data for optimum machine operating conditions.

## Features & Advantages

- Central lubrication system
- Quick roll change mechanism
- Low energy consumption
- Quiet operation

Feed Roll Rotation Sensor

Main Roll Rotation Sensor

Stock Level Sensor

Main Roll Temperature Sensor

Ambient Sensor

Vibration Sensor (PMD)

Human Detection Sensor

Timing Belt Temperature Sensor

Motor Load Sensor

Air Pressure Sensor

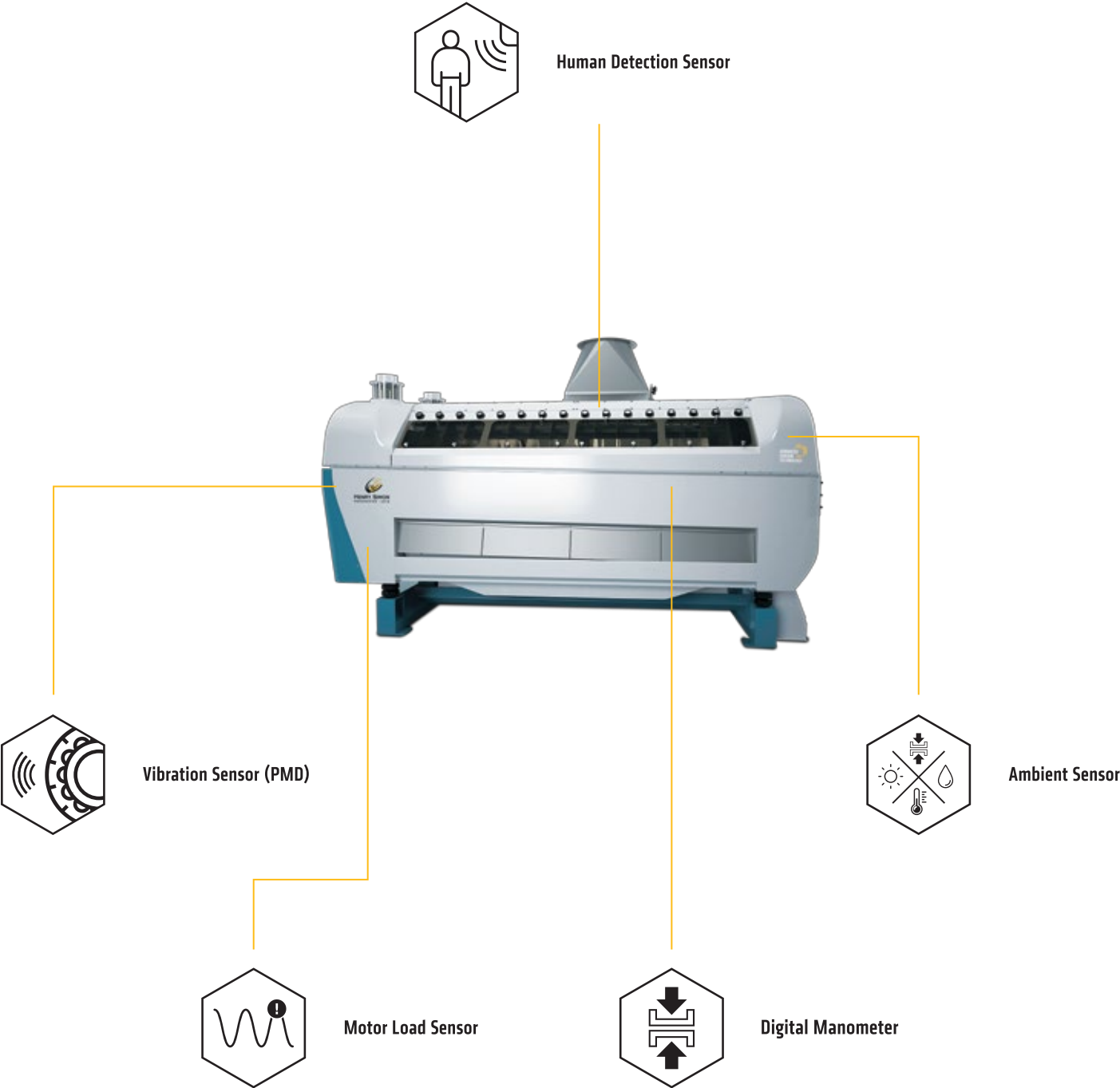Main Roll Position Sensor

Hopper Clog Sensor

# HSPU | PURIFIER

HSPU Purifier is used for semolina purification and classification process in flour mills. The machine has a robust design equipped with Advanced Sensor Technology, enables the machine to operate with optimum efficiency.

**Features & Advantages**
- Light metallic sieve frames with adjustable tightening devices
- Easy to clean and hygenic design
- Quick and easy replacement of sieves

**Human Detection Sensor**

**Vibration Sensor (PMD)**

**Ambient Sensor**

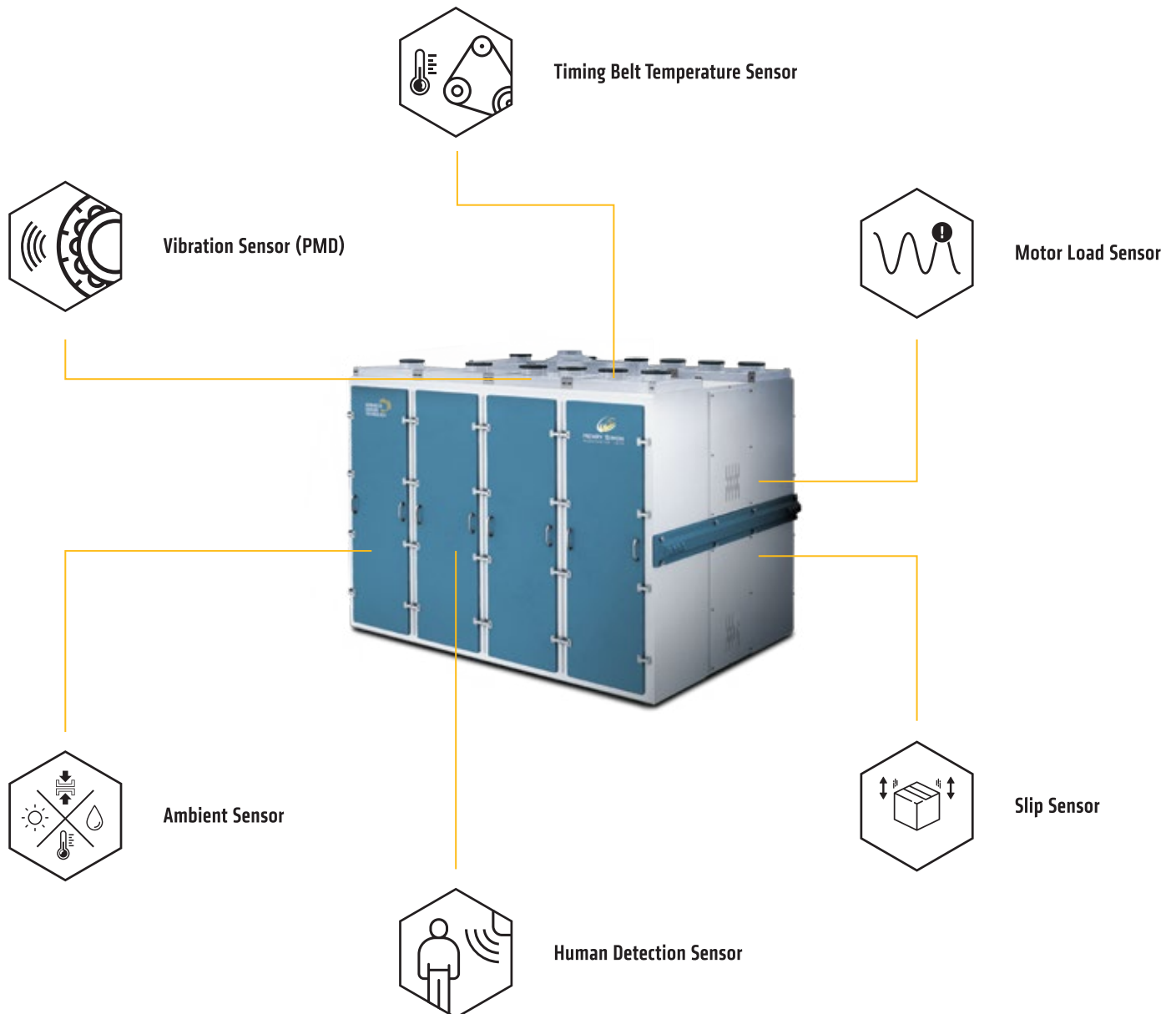**Motor Load Sensor**

**Digital Manometer**

# HSQP | QUADRO PLANSIFTER

The HSQP Plansifter is used for the sifting process of grinded wheat, maize and other grains; and classify them by the particle size. This machine is also equipped with Advanced Sensor Technology which enables the customer to track the environmental working conditions and analyses the data for optimum operation.

**Features & Advantages**
• Special chassis design and material for vibrating operations
• Up to 30 sieves per deck with G type larger sieve boxes
• Easy cleaning and maintenance
• High capacity in limited spaces

Timing Belt Temperature Sensor

Vibration Sensor (PMD)

Motor Load Sensor

Ambient Sensor

Slip Sensor

Human Detection Sensor

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