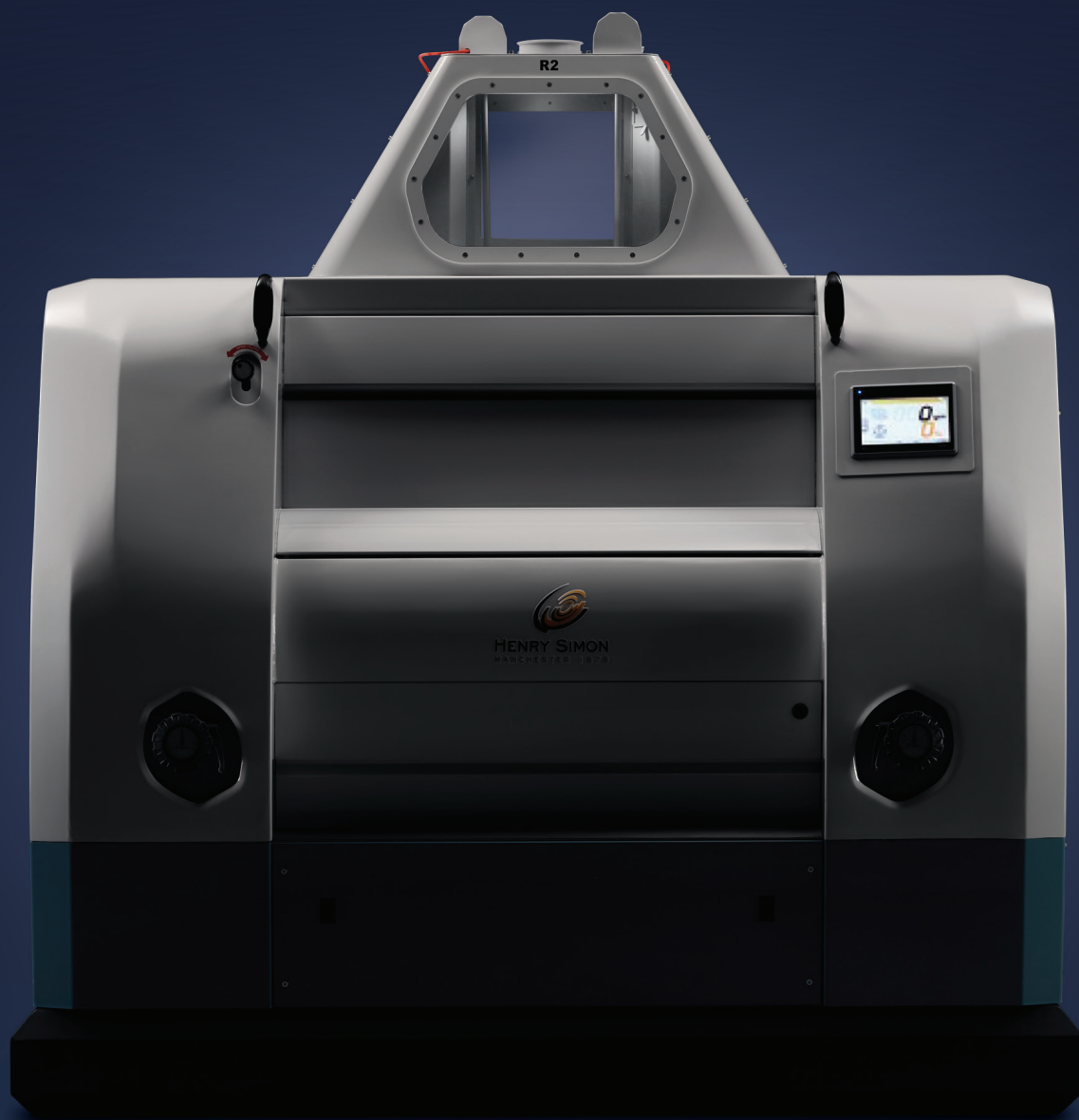


ROLLER MILL HSRM



HENRY SIMON
MANCHESTER 1878

Having the same spirit for innovation since 1878...

The new HSRM Roller Mill combines the best of Henry Simon experience in grain milling technology for over 140 years.

The roller mill is used in the grinding process of grains and cereals such as wheat, maize (corn), rye, spelt, barley, and sorghum; as well as spices (black pepper, mustard, etc.), pulses (lentils, etc.), and similar foods.

The roller mill is carefully designed considering each detail to meet high quality, hygiene, and safety standards.

HSRM Roller Mill is also equipped with Advanced Sensor Technology™ to ensure ultimate milling performance.

HSRM Roller Mill is engineered and developed by Henry Simon R&D team in collaboration with ITALDESIGN – one of the most famous industrial design offices worldwide.

The roller mill's new exterior design with improved ergonomics and functionality, was recognized and crowned by Grapas Awards in 2018, Good Design Awards in 2018, and German Design Awards in 2021.



2018



2018

GOOD DESIGN

2021



Designed by

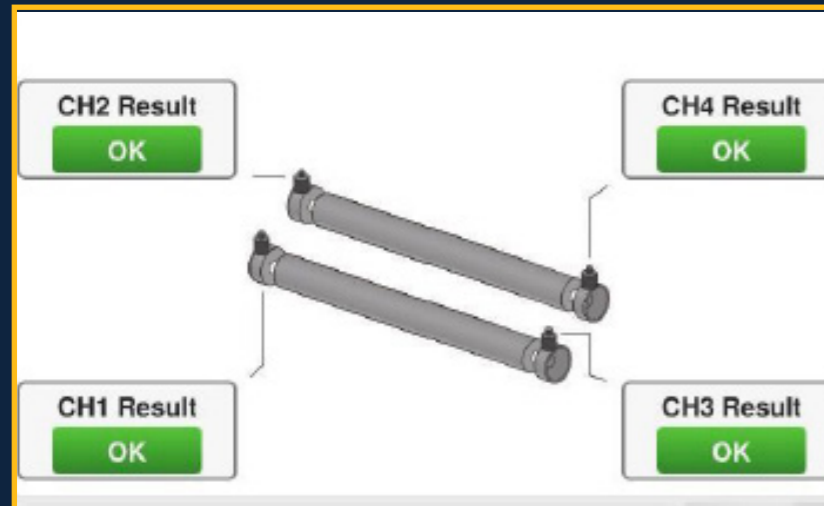


TECHNOLOGY

Advanced Sensor Technology™ is designed for real-time tracking of machine's operating status and environmental processing conditions; to ensure higher reliability, operational safety, and consistent quality in the milling process.

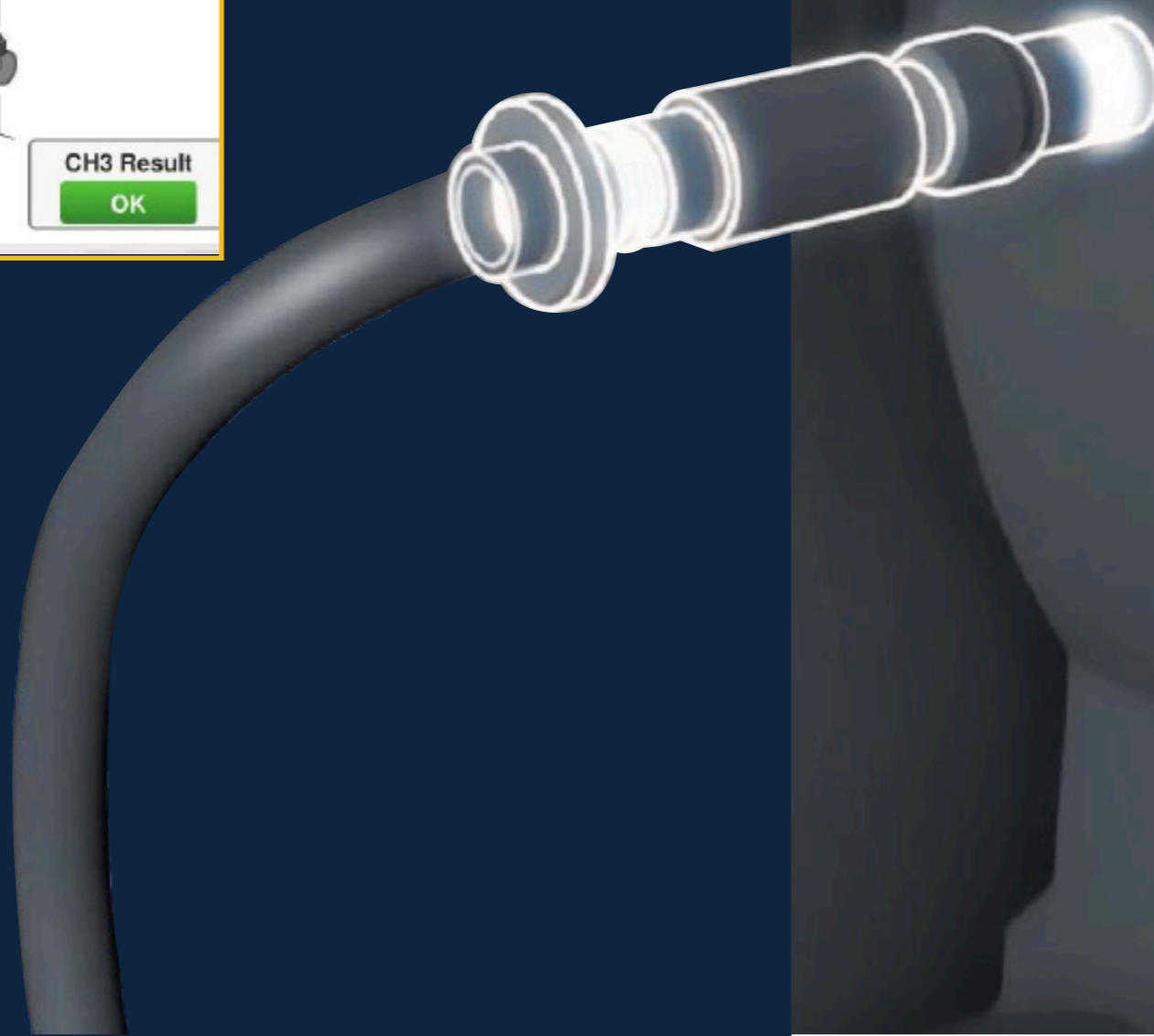
HSRM Roller Mill is equipped with a total of 12 different sensors placed at product feeding, grinding, and discharge systems, as well as the main drive mechanism to ensure ultimate milling performance.

Let's meet with Henry Simon's sensor technology...



- HUMAN DETECTION SENSOR
- AMBIENT SENSOR
- MOTOR LOAD SENSOR
- STOCK LEVEL SENSOR
- FEED ROLL ROTATION SENSOR
- MAIN ROLL ROTATION SENSOR
- MAIN ROLL POSITION SENSOR
- MAIN ROLL TEMPERATURE SENSOR
- VIBRATION SENSOR (PMD)
- AIR PRESSURE SENSOR
- TIMING BELT TEMPERATURE SENSOR
- HOPPER CLOG SENSOR

ADVANCED
SENSOR
TECHNOLOGY



TECHNOLOGY

Ambient Sensor

The sensor pack is designed to monitor environmental processing conditions including the ambient temperature, humidity, and atmospheric pressure; which may directly affect the product and processing quality.



Humidity



Temperature

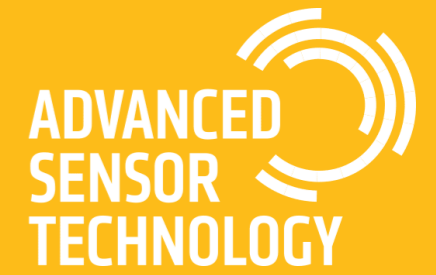


Atmospheric Pressure

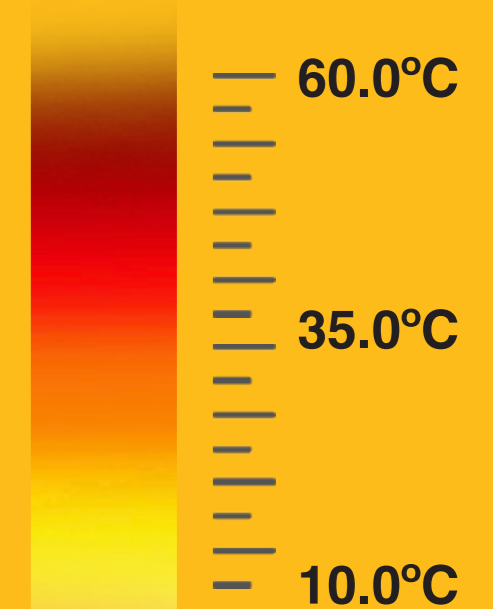
Main Roll Temperature Sensor

The sensor is used for the surface temperature monitoring of main rolls, in case of overheating that may directly affect the grinding efficiency.

Heat distribution of main rolls can be displayed as camera view or graphic view on the touchscreen panel.



Temperature Distribution



TECHNOLOGY

FEEDING SYSTEM

Stock Level Sensor

A gravimetric sensor precisely measures the stock level inside the feeding bunker, and regulates the feed roll speed accordingly.

Feed Roll Rotation Sensor

The sensor tracks the rotational speed of feed rolls, and warn about any unexpected stop due to electric supply, etc.

Hopper Clog Sensor

The sensor ensures proper material flow in the roller mill, by detecting and warning about any clogging inside the discharge hopper.

GRINDING SYSTEM

Main Roll Rotation Sensor

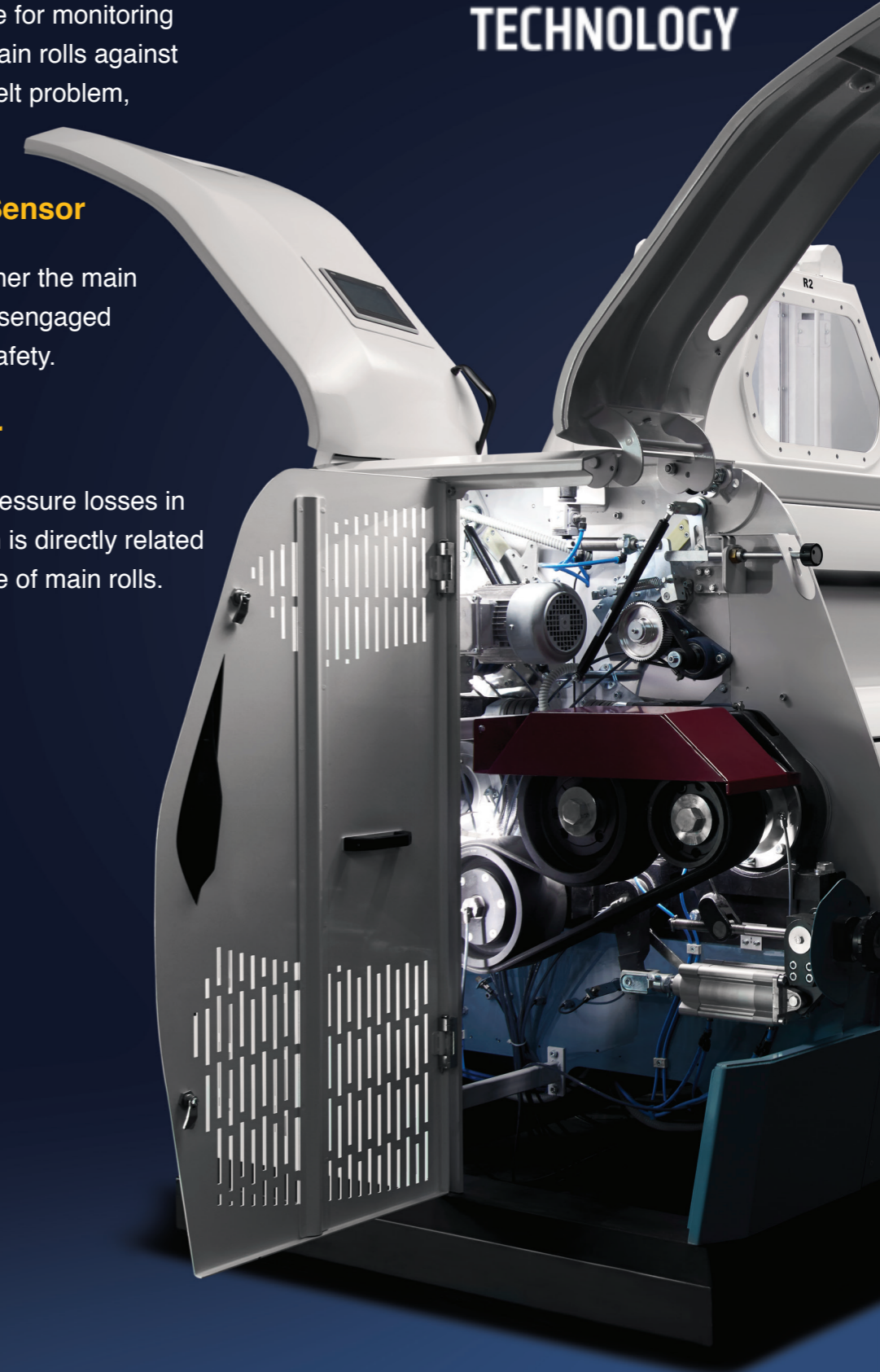
The sensor is responsible for monitoring the rotational speed of main rolls against any malfunction due to belt problem, clogging etc.

Main Roll Position Sensor

The sensor notifies whether the main rolls are in engaged or disengaged position for operational safety.

Air Pressure Sensor

The sensor detects air pressure losses in pneumatic system, which is directly related with the grinding pressure of main rolls.



TECHNOLOGY

MAIN DRIVE SYSTEM

Vibration Sensor (PMD)

The sensor is used as a predictive maintenance tool, that predicts any failure of roll mechanism by detecting any change in vibration levels of main roll bearings.

Motor Load Sensor

The sensor tracks the main motor load for protection against any possible damage, with consumed amperage information of main roll drive motors on the touchscreen panel.

Timing Belt Temperature Sensor

The sensor detects overheating of the timing belt, which can be an early prevention signal for any failure on the main drive system.



INTELLIGENT TOUCH PANEL

The screenshot shows a 7-inch touchscreen interface for a roller mill. The main display area is divided into two sections. The top section, labeled "Feed Roll Rotation Speed", features a large digital readout of "000 rpm" in black and "000%" in orange. The bottom section, labeled "Main Motor Load Percentage", shows a similar digital readout. To the left of the main display are several circular icons: a green one with a gear and a refresh symbol, a grey one with a gear and a refresh symbol, and a grey one with a gear and a refresh symbol. A status bar at the bottom left shows the time "04:19" and a red notification icon with the number "3".

Two callout boxes provide additional details. The top callout, titled "Level Setting", shows a horizontal bar with percentage markers at 17%, 50%, and 76%, and buttons for "Set Minimum", "Set Maximum", "Reset To Default", and "Apply Changes". The bottom callout, titled "Main Motor Load Percentage", shows a diagram of a roller mill with labels for "Feed Roll Rotation Control", "Main Roll Control", and "Air purge".

HSRM Roller Mill is integrated with a 7" intelligent touchscreen panel for managing and monitoring of the basic operating data (motor load, feed roll speed, hopper product level etc.), as well as other sensor related information.

The touch panel is also equipped with Human Detection Sensor, which detects the operator's physical presence when he/she is in the vicinity of the machine, and activates the touch panel. The sensor aims at both energy saving and extending the usage life of the panel.

FUNCTIONALITY

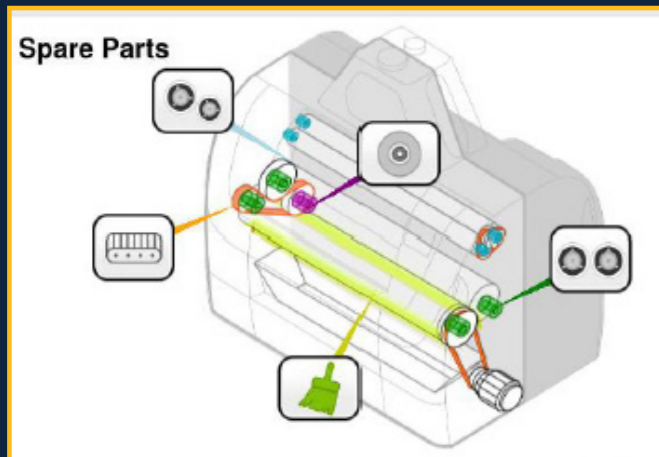
HSRM Roller Mill presents innovative solutions that makes the maintenance easier and more practical; and also provides significant reduction in downtimes.

Quick Roll Change

Main roll change operation of HSRM roller mill can be easily performed in just 20 minutes with a significant reduction in downtimes.

The operation requires no lifting devices or special tools, as it is possible to use only a standard tool set.

Also, the lower chamber of feed rolls can be easily dismantled as a group with only a single movement.



Maintenance Software

HSRM Roller Mill has been equipped with a special maintenance software, which enables monitoring the replacement time of consumables (rolls, brushes, belts etc.).

Central Lubrication System

The system allows one-point and automatic lubrication of bearings with a proper distribution at nearly 30 different points; as a time saving, convenient, and reliable maintenance solution.



STANDARDS & OPTIONS

Variants

- 800 mm, 1.000 mm or 1.250 mm roll length
- 250 mm (standard) or 300 mm roll diameter
- Double Deck version to save from space
- Direct Pick-Up Version

Accessories

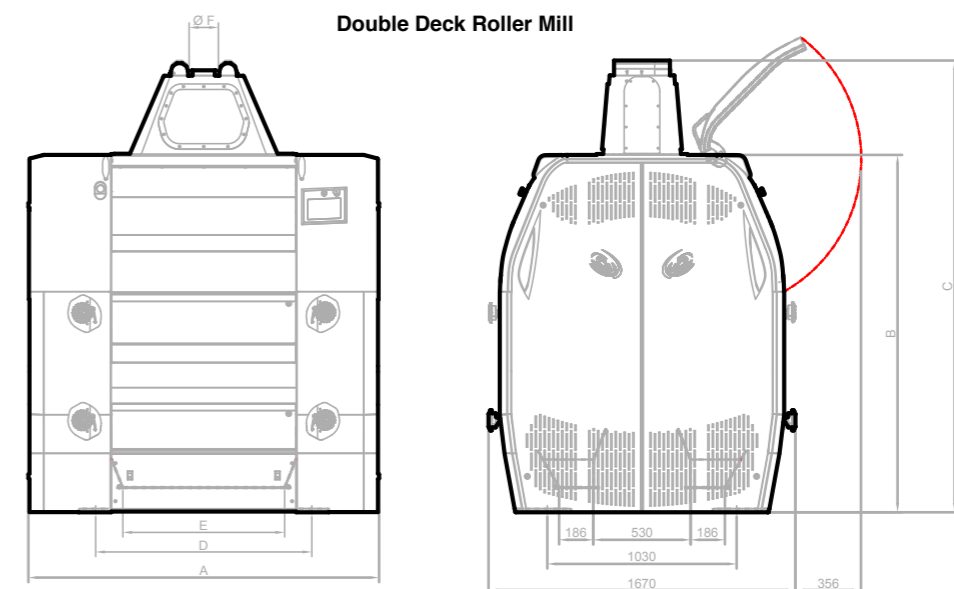
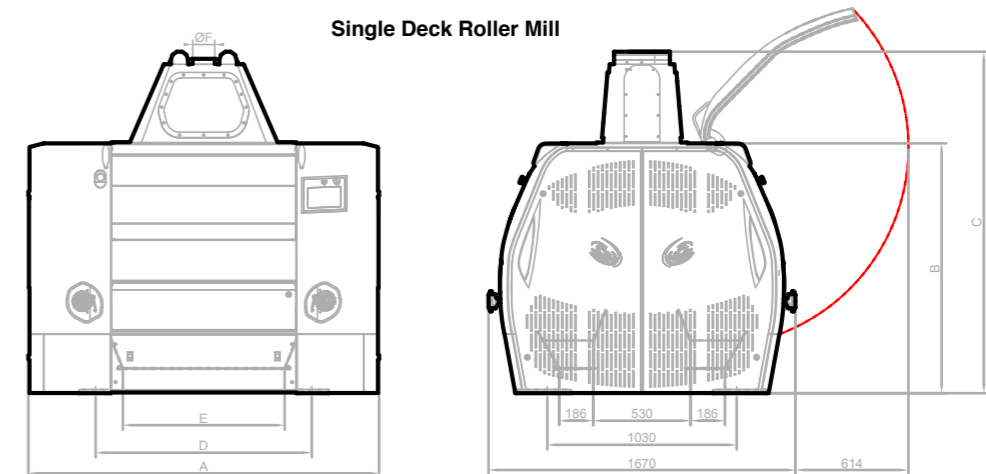
- Main drive motor, incl. pulleys and belts *
 - Motor mounting profile beams and fasteners *
 - Electrical motor trays *
 - Floor mount metal chassis incl. anchor bolts *
 - Roll disassembly trolley incl. toolbox *
 - Pulley and bearings disassembly set *
 - Discharge hoppers
- (* Only supplied as standard in turnkey projects)

Options

- Stainless Steel Product Contact Surfaces
- Central Lubrication System
- Sensor options (see the chart)

SENSOR PACKS	HSRM	HSRM S	HSRM +
Human Detection Sensor		•	•
Ambient Sensor			•
Motor Load Sensor	•	•	•
Stock Level Sensor	•	•	•
Feed Roll Rotation Sensor	•	•	•
Main Roll Position Sensor	•	•	•
Main Roll Rotation Sensor			•
Main Roll Temperature Sensor			•
Vibration Sensor (PMD)		•	•
Air Pressure Sensor			•
Timing Belt Temperature Sensor		•	•
Hopper Clog Sensor		•	•

SPECIFICATIONS



MODEL	DIMENSIONS mm.						TECHNICAL FEATURES			
	A	B	C	D	E	ØF	Feed Rolls Motor (kW)	Weight (kg)		Gross Volume (m³)
								Net	Gross	
HSRM 4xØ250/800	1708	1360	1858	976	680	Ø120 Ø150	0,75	3220	3519	7.9
HSRM 4xØ250/1000	1908	1360	1858	1176	880			3440	3761	8.7
HSRM 4xØ250/1250	2158	1360	1858	1426	1130			3680	4029	9.7
HSRM 8xØ250/800	1708	1945	2458	976	680			5552	5897	10.2
HSRM 8xØ250/1000	1908	1945	2458	1176	880			6070	6440	11.2
HSRM 8xØ250/1250	2158	1945	2458	1426	1130			6850	7251	12.5
HSRM 4xØ300/1000	1908	1360	1858	1176	880			4120	4441	8.7
HSRM 4xØ300/1250	2158	1360	1858	1426	1130			4360	4709	9.7
HSRM 8xØ300/1000	1908	1945	2458	1176	880			7430	7800	11.2
HSRM 8xØ300/1250	2158	1945	2458	1426	1130			8210	8611	12.5

*Henry Simon reserves the right to change, delete, or otherwise modify the information which is represented without any prior notice.



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