



SYGMATM

PORTABLE MACHINES & BOLTING SOLUTIONS

LEGACY - SERIES -

WWW.SYGMAMACHINES.COM

YOUR ANSWER TO PORTABLE MILLING

The Sygma™ Legacy Series redefines portable milling with its robust, precise, and versatile machines. Featuring a modular design, they effortlessly handle various milling tasks, from linear to gantry milling. With models tailored for different needs, including precision, reliability, and heavy-duty operations, the Legacy Series offers unmatched adaptability and performance. The Legacy EOS machines further elevate milling capabilities with high precision and reliability across a range of machining tasks. In summary, the Legacy Series sets a new standard for portable milling, providing technicians with cost-effective solutions for superior performance.

Four Types of Models

The Legacy Series features four models: PPM, MM, HDM, and EOS. The PPM model is light and compact, suited for basic applications. The MM model is the standard option, versatile for various typical uses. The HDM model is adapted for heavier tasks, offering greater durability for demanding applications. The EOS model is a CNC machine, designed for precise and automated machining, ideal for intricate and detailed work.



Milling Head Options for Portable Milling

The portable milling machine offers three types of power options for its milling heads: electric, hydraulic, and pneumatic. Depending on the model, you can select either a basic or advanced milling head, or in some cases, only a basic option. For advanced milling heads, pneumatic versions are not available; only electric and hydraulic options are offered.

The basic milling head is a compact unit featuring standard seals and bearings, making it suitable for applications that do not demand extremely high precision. In contrast, the advanced milling head is designed with special bearings and seals, providing much greater stability at higher speeds and allowing for significantly more accurate operations than the basic milling head. This makes the advanced option ideal for high-precision applications.

For more detailed information on the differences between the milling heads, please refer to **page 6**.





MM MODELS

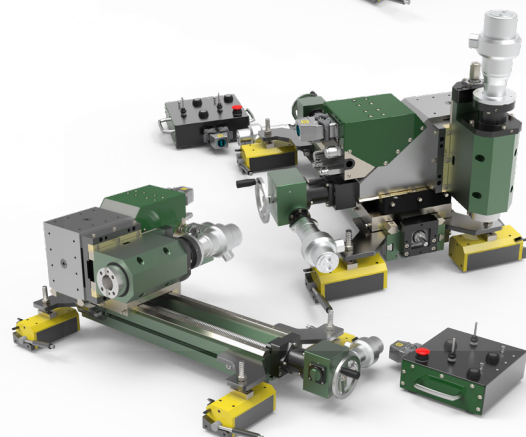
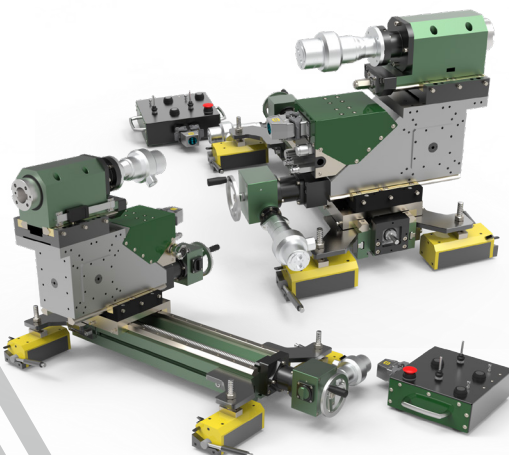
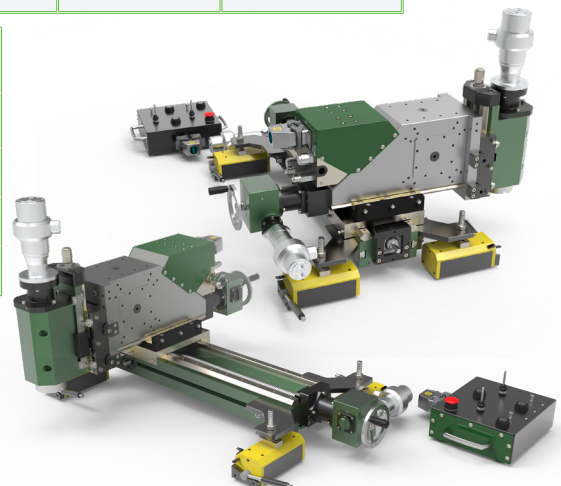
The Sygma™ Legacy MM model is our **standard line** for milling applications, renowned for its exceptional performance and reliability. Designed with **high-precision linear guides** and **pre-loaded spindles**, the Legacy MM model ensures unparalleled accuracy and smooth operation. This machine is a must-have in your machining fleet, offering not only versatility and precision but also durability and ease of maintenance. Whether you are working on intricate details or large-scale projects, the Legacy MM model adapts seamlessly to various tasks, making it an invaluable asset for any machining operation.

Additionally, the MM model is available in a **gantry setup**, providing even **greater flexibility** and **capability**. The gantry configuration allows for larger workpieces and more complex operations, expanding the range of applications you can tackle with confidence. This option further enhances the machine's adaptability, making it suitable for a wide array of industrial and commercial milling needs.



Spindle System	Models	X-axis (mm)	Z-axis (mm)	Y-axis (mm)	Effective Stroke
ISO 40	MM800	800	125/250	300/ 600/ 905	750
Drive Options	MM1000	1000	125	600	900
	MM1200	1200	125/250	300/ 600/ 905	1000
	MM1600	1600	125/250	300/ 600/ 905	1500
	MM2400	2400	125/250	300/ 600/ 905	2000
	MM3200	3200	125/250	300/ 600/ 905	3000

Milling Heads		
	Basic	Advance
Direct Drive		
Offset Gearbox		
Integrated Z-axis	-	





MILLING HEADS

The Sygma milling head is the ultimate tool for onsite machining, known for its versatility. It can be mounted on Sygma milling rails and orbital milling machines, and configured with different motor options for a wide range of applications. The design includes an offset gearbox, allowing flexible motor positioning in compact areas. The bolt-on milling head features precise positioning holes, enabling different down-feed lengths without compromising stability or repeatability.

Basic vs. Advanced Milling Head

The basic milling head is a compact unit with standard seals and bearings, suitable for general-purpose milling tasks that don't require high precision. It's a cost-effective solution for many industrial applications needing reliable performance without specialized components.

In contrast, the advanced milling head features special bearings and seals for greater stability at higher speeds, allowing for much more accurate operations. This makes it ideal for high-precision applications, such as intricate machining tasks and environments where accuracy is critical. Its superior stability and precision are essential for industries demanding meticulous detail and consistency. Pneumatic milling heads are less stable at higher speeds compared to electric and hydraulic options, resulting in lower accuracy. This makes them unsuitable for tasks requiring the high precision and consistency of advanced milling heads.

Milling Head Options by Model

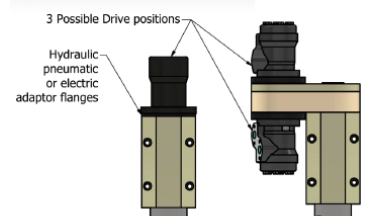
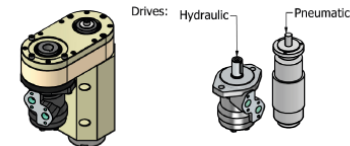
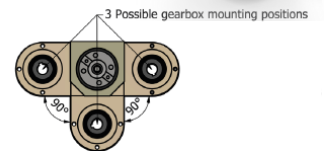
Models	Basic Milling Head			Advanced Milling Head		
	Electric	Hydraulic	Pneumatic	Electric	Hydraulic	Pneumatic
PPM	YES	YES	YES	NO	NO	NO
MM	YES	YES	YES	YES	YES	NO
HDM	YES	YES	NO	YES	YES	NO

Notes

- **PPM Model:** Only offers the basic milling head in electric, hydraulic, and pneumatic options.
- **MM Model:** Offers both basic and advanced milling heads. The advanced milling head is available in electric and hydraulic options, but not in pneumatic.
- **HDM Model:** Offers both basic and advanced milling heads. Pneumatic options are not available for either the basic or advanced milling head.

Technical Features

Features	Power Options		
	Electric	Hydraulic	Pneumatic
Revolutions	2000 rpm	1500 rpm	2000 rpm
Power	3,7kW	5,8 kW	1,65 kW
Weight	+/- 47 kg	+/- 25 kg	+/- 22 kg
Consumption	N/A	50 l/min	1900 NI/min
Power Supply	400 V	N/A	N/A
Working Pressure	N/A	100 bar	6 bar
Direct Drive	YES	YES	YES
With offset Gearbox	NO	YES	YES
Collet Spindle	ISO 40	ISO 40	ISO 40



THE NEXT GENERATION OF ON-SITE MACHINING AND BOLTING SOLUTIONS

Syigma™ stands out for its unwavering focus on **precision** and **reliability**, even in demanding environments. Our products are meticulously crafted for industrial use, exceeding industry standards. Built on the philosophy of modularity, they offer maximum adaptability and durability. Backed by industry-leading Belgian engineering, **Syigma™** empowers you to achieve your goals confidently and effortlessly.

Syigma™ Custom Product Development Services

At **Syigma™**, you've found the ideal destination for tailored product development. Our expert engineers meticulously identify your needs and specifications, conducting thorough analysis before crafting a product design that precisely aligns with your expectations.

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Follow us on:



Syigma HQ EU

Address: Ambachtsstraat 7,
3980 Tessenderlo, Belgium
Tel.: +32 492 16 21 91
Email: info@sygmamachines.com

Syigma HQ Africa

Address: Unit 11 Gazelle place, Corporate Park
South MidrandGauteng, 1683, South-Africa
Tel.: +27 78 078 0803
Email: info@sygmamachines.com

