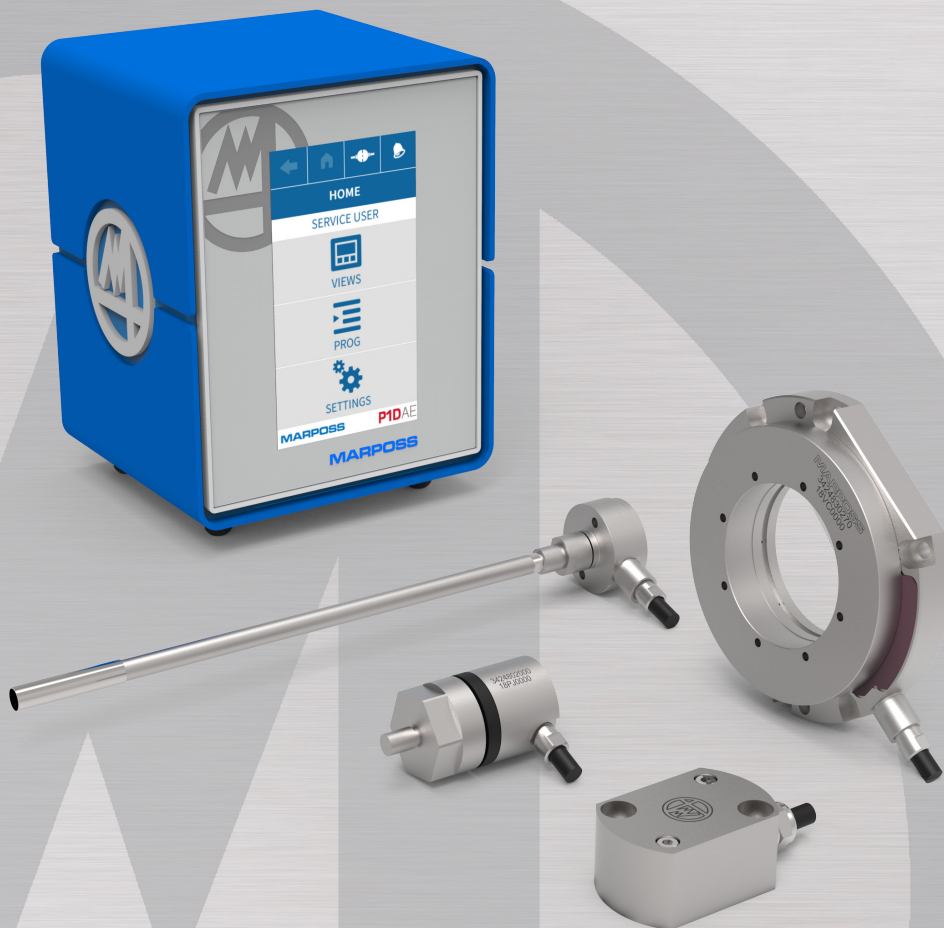


P1DAE

*MONITORING SYSTEM
FOR GRINDING MACHINES*



MARPOSS

Description

P1dAE is the MARPOSS entry-level system for checking the grinding wheel-part touch and grinding wheel dressing process, which are typical elements of grinding machine working cycles. The system is based on the use of acoustic emission sensor technology, which can also be used monitor the machine in order to limit the damage caused by potential collisions.

P1dAE accompanies the MARPOSS P3SE system, from which it derives its various functions and signal processing capabilities, as well as the method for interfacing with the machine. Additionally, the self-learning system used to identify the frequency band having the best signal to noise ratio, which was already available on the P3SE system, has been further refined, rendering the device even more flexible and accurate.

P1dAE includes several other features that are not normally available on entry-level systems, such as the multilevel login function for more secure management of data and settings, and the self-diagnostics function that proves very useful for quick problem solving. The P1dAE complies with modern ergonomic criteria and fits perfectly with the new characteristic style introduced for new MARPOSS brand products.

It is available in 3 versions (rack, stand-alone and remote panel) and comes complete with a modern, 4.3-inch touchscreen, which is designed to be both elegant and resistant to typically hostile mechanical machining environments.

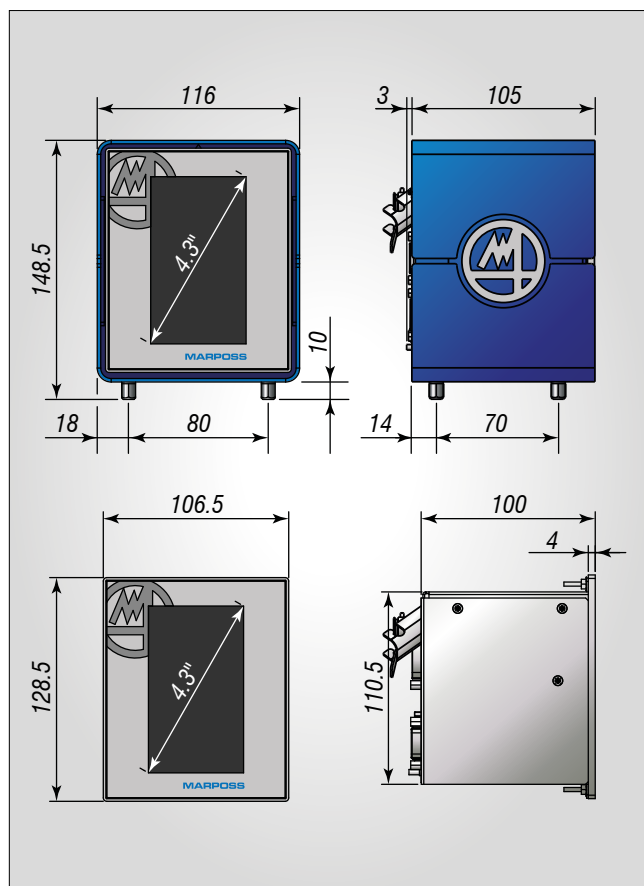
Main features

- Air Gap Elimination
- Collision monitoring with fast stop feature to limit damage
- Dressing process monitoring
- FFT analysis of acoustic emissions



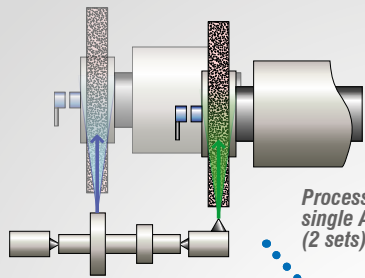
P1dAE unit

Compact, user-friendly and sturdy, these are the intrinsic features of the P1dAE. The unit can be installed outside of the machine tool or integrated in the operator panel.

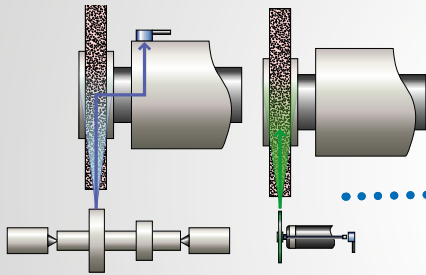


STRUCTURE	<ul style="list-style-type: none"> • Stand-alone • Rack • Mainframe with remote panel
DISPLAY	4.3" LCD (480 x 272) with capacitive touch screen
VERSIONS	<ul style="list-style-type: none"> • 1 channel • 2 channels
FUNCTIONS	<ul style="list-style-type: none"> • Gap & Crash monitoring • FFT analyses
POWER SUPPLY	24V DC $\pm 20\%$ - SELV type
POWER CONSUMPTION	10 W
STATUS LEDS	On the connectors panel <i>(mainframe version only)</i>
OPERATING TEMPERATURE	5 to 45 °C
STORAGE TEMPERATURE	-25 ÷ 70 °C
WEIGHT	~0.9 kg (rack) / ~2 kg (stand alone)
PROTECTION DEGREE <i>IEC 60529</i>	IP54 <i>(only front panel)</i>
MACHINE LOGIC INTERFACE (I/O)	Sub-D 15 pin connector. 24 Vdc external Opto-isolated signals Protected outputs
ANALOGUE OUTPUT	0.01 V
I/O SIGNALS	<ul style="list-style-type: none"> • Sink or Source • Input current 9 mA • Output current 50 mA (max)
INTERFACE	<ul style="list-style-type: none"> • RS232 • Ethernet
ELECTRICAL SAFETY STANDARDS	EN 61010-1
EMC STANDARDS	EN 61326-1

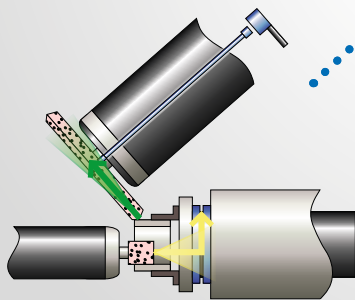
Application examples



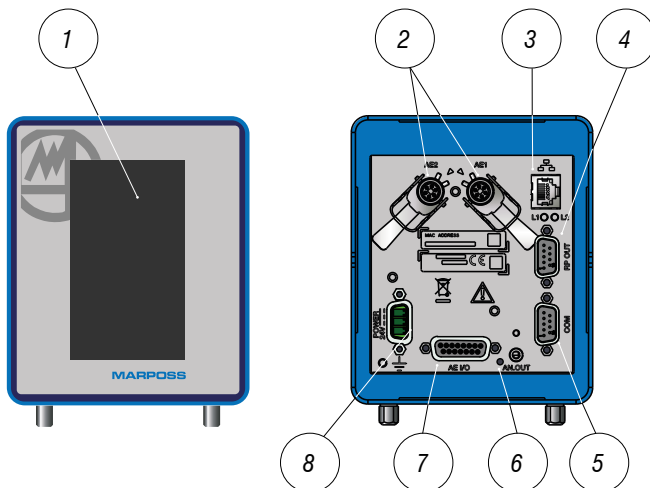
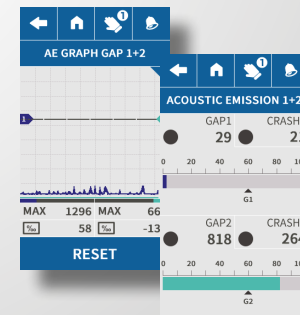
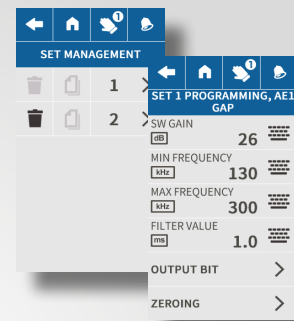
Process and Dressing with single AE sensor (2 sets)



Process and Dressing with two AE sensors (2 switching channels)



Process with two AE sensors (2 simultaneous channels)



1	4.3" touch-screen panel
2	AE sensor connectors
3	Ethernet port
4	Remote panel connector (optional)
5	COM = RS232 serial interface
6	Analogue output
7	I/O = Input/Output signals 15 pins
8	24 Vdc power supply unit



www.marposs.com

For a full list of address locations, please consult the Marposs official website

D6105900G0 - Edition 08/2023 - Specifications are subject to modifications
© Copyright 2018-2023 MARPOSS S.p.A. (Italy) - All rights reserved.

MARPOSS, and Marposs product names/signs mentioned or shown herein are registered trademarks or trademarks of Marposs in the United States and other countries. The rights, if any, of third parties on trademarks or registered trademarks mentioned in this publication are acknowledged to the respective owners.

Marposs has an integrated system for Company quality, environmental and safety management, with ISO 9001, ISO 14001 and OHSAS 18001 certification. Marposs has further been qualified EAQF 94 and has obtained the Q1-Award.



Download the latest version of this document