



THE MATEX LINE

Materials control



setsmart
KEP TECHNOLOGIES

INDUSTRIAL CONTROL

KEP Technologies is a full solution provider. With **SETSMART** we offer a range of advanced standard and customized industrial control solutions with end-to-end project management, as required.

We are confident that with KEP Technologies you will find a dedicated industrial control solution with the performance needed to accurately control your materials production. This being the case no matter which of our below market segments you may work in.

MARKETS

Our materials control solutions are relevant to any industry that wants to guarantee the composition and properties of their products.

Our solutions particularly concern manufacturers of parts made of alloys that have a magnetic phase.

HARD METALS

Carbon balance of cemented carbides e.g. for cutting or machining – Residual austenite of hardened steels for grinding and milling of rocks and minerals.

MAGNETIC MATERIALS

Control of the composition of magnets or of soft magnetic composites.



THE KEP TECHNOLOGIES ADVANTAGE

Each MATEX solution incorporates three essential elements to ensure the best Industrial Control for Smart Industry - Smart Control, Measurement Versatility and Quality Results. We know that solutions providing these benefits will deliver the highest value to our customers

SMART CONTROL With various options for automation, statistical data analysis, feedback loops for manufacturing machines.

MEASUREMENT VERSATILITY With one solution : multiple specifications controlled on one part and multiple types of parts can be controlled.

QUALITY RESULTS High accuracy and high precision transducers to meet and surpass your control requirements.



In addition to our core product offer, we are able to provide customized solutions by harnessing the engineering and project management expertise of our highly skilled organization.

THE MATEX LINE

MATEX solutions offer a perfect control over the specifications of the materials you use or deliver to your customers.

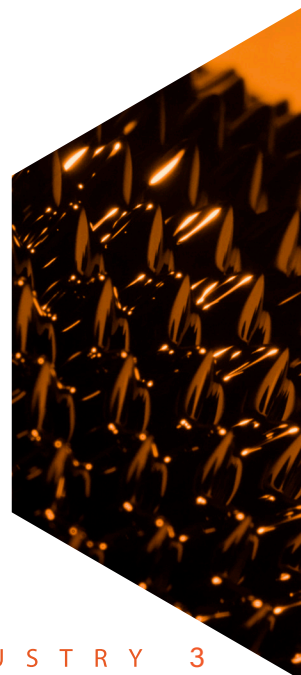
Their use allows you to deliver the highest quality products and respect the most demanding composition specifications.

The MATEX range integrates core concepts from Industry 4.0 such as options for :

- Measurement automation
- Statistical treatment of measurement data

They contribute to making your control processes reliable and to better managing your resources, allowing operators to be reassigned to alternative, value-added work.

All solutions in the MATEX family can be adapted to your specific control needs.



MATEX PHASE

CONTROL OF HARD MATERIALS' MAGNETIC PHASES



ESSENTIAL MEASUREMENT

For controlling hard and specialty metals : content of residual austenite, cobalt or nickel, carbon balance

MEASUREMENT ACCURACY AND PRECISION

Even with large samples, and with samples containing large amounts of magnetic phase

FAST AND EASY CONTROL

Quick (within seconds) and automated tests, independent of the operator's skills

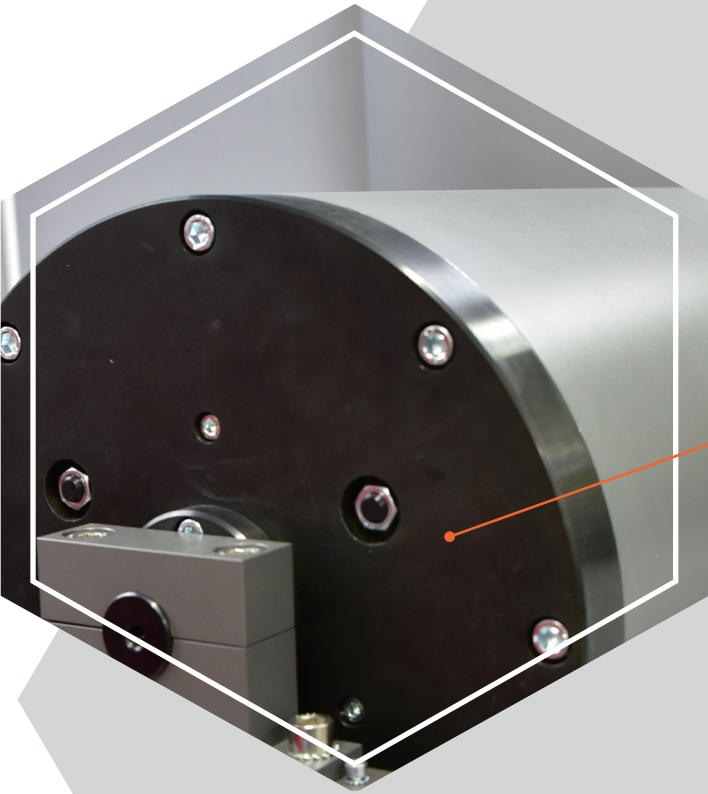
PERFORMANCE

Measurement accuracy	+/- 1% full scale
Detection limit	Equivalent to 1mg cobalt
Maximum sample dimensions (H / D / L)	30 / 20 / 20 mm
Magnetic field	1 T (= 800 kA/m)
Test time (weighing excluded)	Within seconds

GENERAL

Compliant with testing standards	IEC 60404-14 - Methods of measurement of the magnetic dipole moment of a ferromagnetic material specimen by the withdrawal or rotation method ASTM B886 - Determination of Magnetic Saturation (Ms) of Cemented Carbides
Dimensions (H / D / L)	1100 / 1280 / 840 mm
Power supply	230 V – 50/60 Hz – 50VA

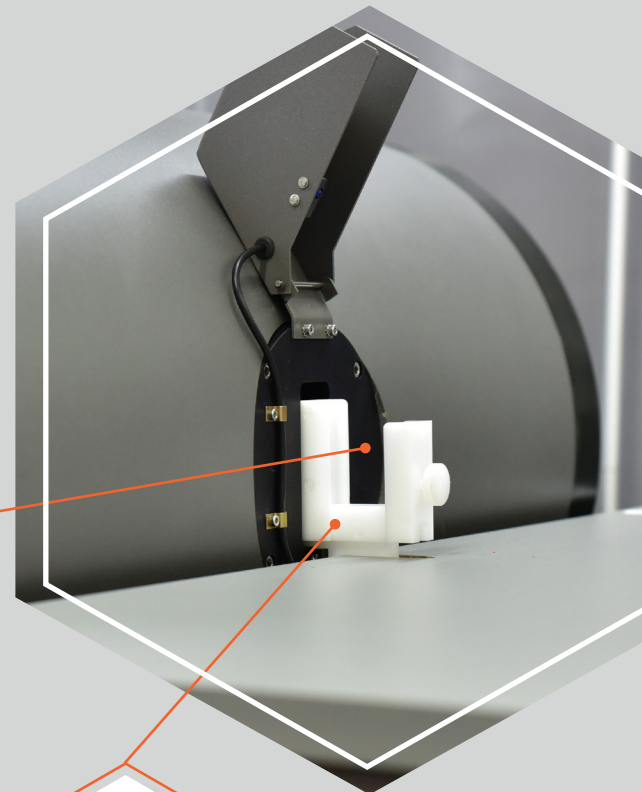
HARD METALS CONTROL



MATEX PHASE

is equipped with :

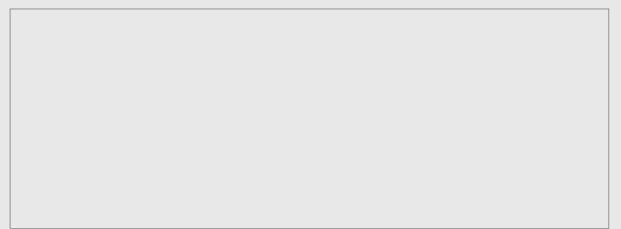
- A powerful and permanent magnet to magnetize the sample
- Coils that measure the quantity of magnetic phase in the sample when it is removed from the permanent magnet



The tested samples are **metallic alloys** (e.g. cemented carbides, martensitic steels, soft magnetic composites, or magnets) whose **magnetic phase is important**.

Software can record measurement data and optionally sample mass.

An automated sample holder inserts then removes the samples in the magnetic field in a repeatable way.



Switzerland - France - China - United States - India - Hong Kong
For contact details: www.setsmartsolutions.com or setsmart@kep-technologies.com

Setsmart is a registered trademark of KEP Technologies Group