

Hitachi adaptors for mobile metal analyzers

PMI-MASTER Pro2, PMI-MASTER Smart and TEST-MASTER Pro



[Complete Guide](#)

Spark OES excels at providing full chemistry of critical alloy elements at low detection limits beyond the capability of handheld X-ray and LIBS analyzers: carbon, phosphorus, sulfur, boron, arsenic and tin in low alloy and stainless steels, and nitrogen in duplex steels.

When you need to measure wires, welds, small parts, and irregular surfaces, adding an adaptor to your probe makes taking accurate measurements possible.

We've got a choice of adaptors depending on what you need to measure and we've made it easy to exchange the adaptors without specialist tools, so your productivity isn't impacted.

Adaptor capability

Easily and securely get data for real-time decision making even if you have:



Complex or irregular shapes



Wires from 1mm diameter up



Small shapes (minimum spark gap 5mm)



Curved materials with any diameter

Changing adaptors is easy

You don't need any tools to add or exchange an adaptor on a Hitachi probe to give you best results



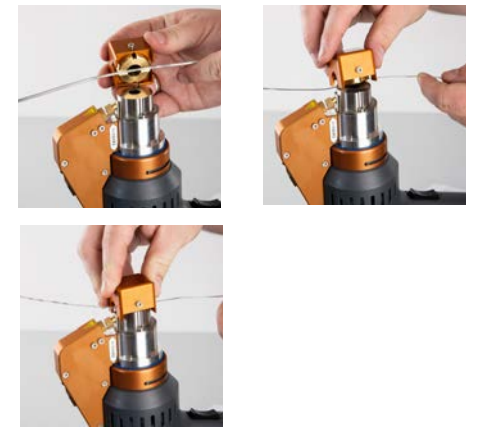
UVTouch with boron nitrate insert



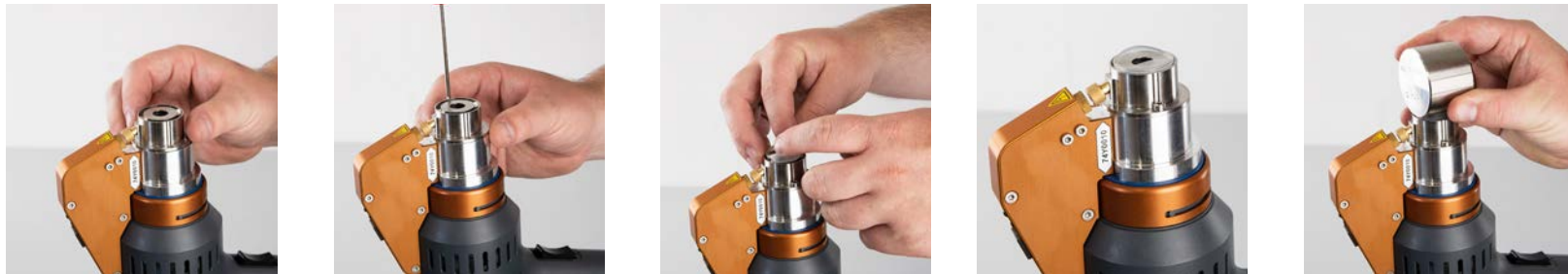
UVTouch with rubber seal



Arc



Spark



Spark with rubber seal

Application:

measuring a curved surface of a wire or pipe

To take a measurement on the curvature of a wire or a pipe, a centering adaptor is needed. These adaptors can measure wire and pipes with diameters between 1mm to more than 30mm. They'll ensure that samples are correctly positioned over the centre of the electrode for an accurate measurement.

Part Number	Description and usage	Probe compatibility	Instrument compatibility		
			PMI-MASTER PRO 2	PMI-MASTER SMART	TEST-MASTER PRO
10000533	Measures wires with diameters of 1-10 mm	UVTouch	X	X	
10016044	Measures wires with diameters of 1-10 mm	Spark	X	X	
10011358	Measures wires with diameters of 1-10 mm	Spark			X
10016062	Measures wires with diameters of 1 - 10mm	UVPro			X
10000534	Measures wires with diameters up to 36mm	Spark	X	X	
10000509	Measures wires with diameters up to 36mm	Spark	X	X	
10015075	Detachable arc adaptor to measure wires	Arc	X	X	X

Part Number	Description and usage	Probe compatibility	Instrument compatibility		
			PMI-MASTER PRO 2	PMI-MASTER SMART	TEST-MASTER PRO
1000542	Measures wires with diameters of 1-10mm	Spark	X	X	
10016147	Measures wires with diameters of 3-10 mm	UVTouch	X	X	
10016153	Measures wires with diameters of 3-10 mm	Spark	X	X	
10011359	Measures wires with diameters of 3-12 mm	Spark			X
10016061	Measures wires with diameters of 3- 12 mm	UVPro			X

Application: measuring the forehead of a wire or a pipe

Measuring the forehead of a wire or pipe is easy with the right adaptor. These centering devices enable the measurement of wires and tubes with diameters of 1mm to 12mm. They'll ensure that samples are correctly positioned over the centre of the electrode for an accurate measurement.



10000533



10016147



10015075

Application: complex and irregular shapes

We offer a range of seals specifically designed for round and irregular surfaces, with both vertical and horizontal layouts for ease of use.

Part Number	Description and usage	Probe compatibility	Instrument compatibility		
			PMI-MASTER PRO 2	PMI-MASTER SMART	TEST-MASTER PRO
1000693	Vertical adaptor seals for tube diameter 15-30 mm	All	X	X	X
1000694	Vertical adaptor seals for tube diameter 30-60 mm	All	X	X	X
1000695	Vertical adaptor seals for tube diameter 60-100 mm	All	X	X	X
1000572	Horizontal adaptor seals for tube diameter 20-30 mm	All	X	X	X
1000573	Horizontal adaptor seals for tube diameter 30-60 mm	All	X	X	X
1000574	Horizontal adaptor seals for tube diameter 60-100 mm	All	X	X	X
1000571	Adaptor seal for rough surfaces	All	X	X	X



1000693



1000699

Application: inserts for small part measurements

For very small sparts, you'll need to use an adaptor which comes with a boron nitrate insert to prevent electrical discharges between the electrode and the adaptor. The clamps provided with the adaptor ensure electrical contact between the sample surface and the adaptor during measurement to give you a precise result.

Small part adaptors

Part Number	Description and usage	Probe compatibility	Instrument compatibility		
			PMI-MASTER PRO 2	PMI-MASTER SMART	TEST-MASTER PRO
10022864	Adaptor for small parts with boron nitride insert	UVTouch	X	X	
10022865	Adaptor for small parts with boron nitride insert	Spark	X	X	



10022864

Application: other

We offer other adaptors as well for more bespoke applications including measuring inside curvatures of pipes and welds. Conical adapters are used if you need to measure in hard to reach places like corners as they reduce the external dimensions of the spark head to make it much easier to handle.

Conical and other adaptors

Part Number	Description and usage	Probe compatibility	Instrument compatibility		
			PMI-MASTER PRO 2	PMI-MASTER SMART	TEST-MASTER PRO
10000541	15 mm adaptor with a narrow head to measure inside curvatures and welds	UVTouch	X	X	
10000509	36 mm conical adaptor to measure in spark mode	Arc/Spark Combi	X	X	
10000267	Detachable straight adaptor for easy cleaning of electrode	Arc	X	X	X
10000243	Detachable conical adapter for easy cleaning of electrode	Arc	X	X	X



1000541



1000243



1000509

A choice of probes

Tailored to your specific application, different probes and operation modes offer complete analysis, grade identification and sorting of metals.



UVTOUCH

Analyze UV elements and low carbon content. It also offers L grade separation and nitrogen in duplex steels. The probe includes a touch screen for easy instrument control and convenient analysis.



SPARK

Reliable spark analysis of standard elements including carbon.



ARC

Sort metals in seconds with arc in air atmosphere. No argon needed.



ARC/SPARK COMBI

The best of both worlds, your probe will include both arc and spark modes.



UVPRO

Available for TEST-MASTER Pro only, it's the probe of choice when you need low detection levels of carbon, phosphorous, sulphur, boron, arsenic and tin in low alloy and stainless steels. It also offers L grade separation.

A choice of instruments

Our range of mobile instruments offers results you can trust, alongside easy operation and data management.



PMI-MASTER PRO2

Ultimate mobile metal analysis on the go. Choose for accurate carbon analysis, from L grade stainless steels to low alloy and carbon steels.



PMI-MASTER SMART

A portable laboratory providing complete metal analysis. Choose for analysis of steels and other alloying materials like aluminium, nickel and copper.



TEST-MASTER PRO

The industry standard for high throughput metal analysis. Choose for high throughput, reliable metal analysis with ease.



Our Service

Our global network of service hubs offers a full range of technical support to keep you up and running.



Telephone help-desks
For a fast response to your problem.



Online diagnostics
In-depth support over the internet.



Rental instruments
To keep you working if your analyzer is not.



Recertification and maintenance
Ensures your analyzer produces the right result year after year.



Training
Understand your analyzer and its features.



Extended warranties
Avoid unplanned costs.



Consumables and accessories
From spare batteries to benchtop stands.



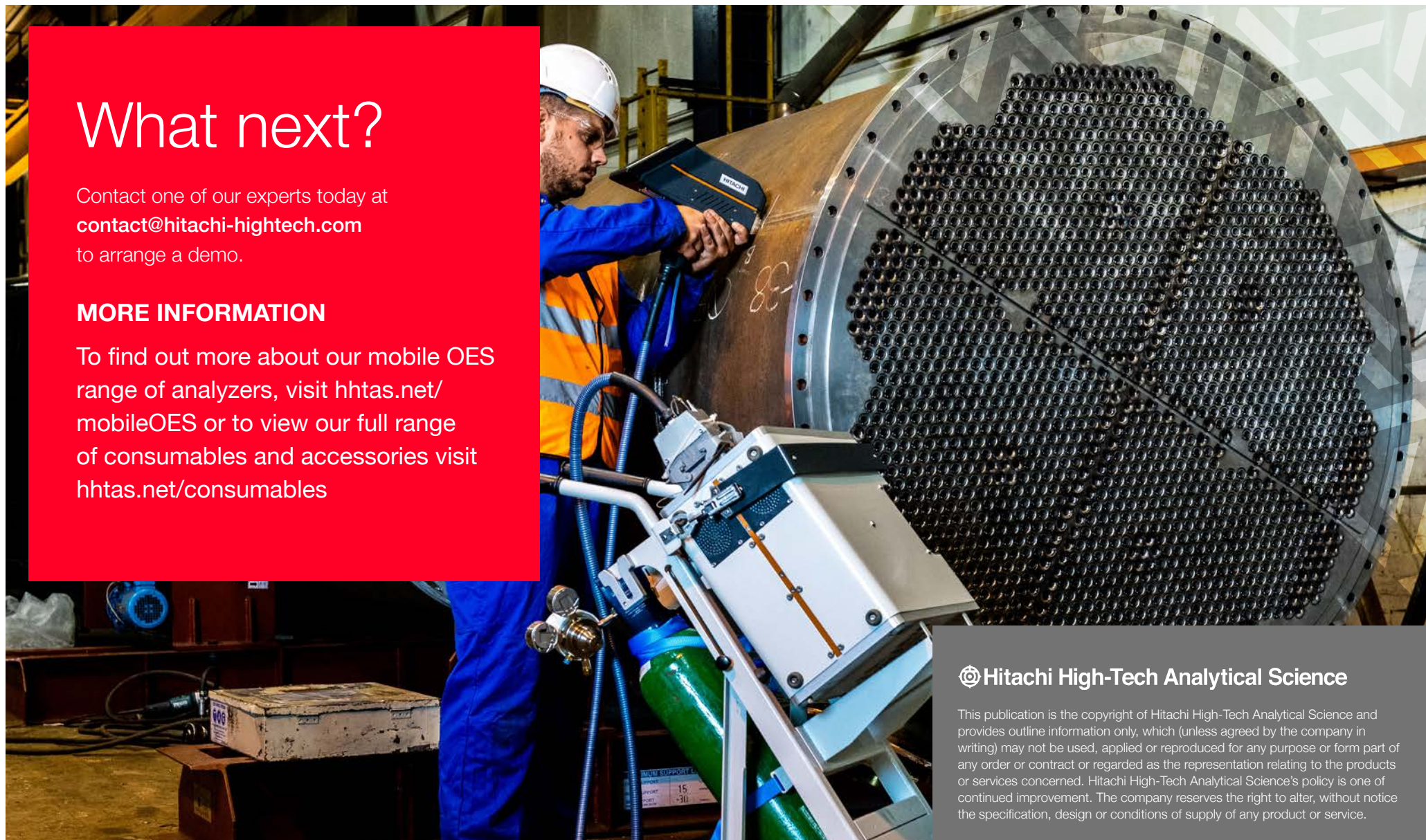
Repairs
Fast and efficient turnaround.

What next?

Contact one of our experts today at contact@hitachi-hightech.com to arrange a demo.

MORE INFORMATION

To find out more about our mobile OES range of analyzers, visit hhtas.net/mobileOES or to view our full range of consumables and accessories visit hhtas.net/consumables



Hitachi High-Tech Analytical Science

This publication is the copyright of Hitachi High-Tech Analytical Science and provides outline information only, which (unless agreed by the company in writing) may not be used, applied or reproduced for any purpose or form part of any order or contract or regarded as the representation relating to the products or services concerned. Hitachi High-Tech Analytical Science's policy is one of continued improvement. The company reserves the right to alter, without notice the specification, design or conditions of supply of any product or service.

Hitachi High-Tech Analytical Science acknowledges all trademarks and registrations.

© Hitachi High-Tech Analytical Science, 2021.
All rights reserved.



348399