



vibro-meter

**SPECIALIST
IGNITION SYSTEMS**

INDUSTRIAL & MARINE



INNOVATION IN IGNITION SYSTEMS

Founded in 1904 as a manufacturer of spark plugs for automobiles, Vibro-Meter UK (formerly Lodge Ignition) became a pioneer of ignition, prominent in its development and innovative in its concepts and designs.

Vibro-Meter UK has remained central to ignition development throughout the century, extending the capabilities of ignition systems and providing creative solutions to industrial ignition problems.

Vibro-Meter UK enjoys a world-wide reputation for quality, reliability and comprehensive support in the provision of standard and customised ignition systems.

World class products

Vibro-Meter UK's capabilities cross a wide and diverse range of ignition applications: from small gas burners, through flarestacks and large power burners, to microturbines and highly specialised flameproof systems for industrial turbines. The product range includes sophisticated equipment for use in hazardous environments, atmospheres and extremes of temperature and climate.



Multiple output high tension ignition unit

Quality

Because ignition systems are safety critical, it is crucial that they meet the most stringent quality standards.

Vibro-Meter UK enjoys a reputation for the supply of high quality products. We jealously guard our reputation by aggressively pursuing quality control at all times.

Quality goes beyond the supply of reliable products and covers all our activities, including the control and monitoring of manufacturing and sales procedures. Vibro-Meter UK has a fully-equipped, specialist quality control and inspection department. As well as quality approvals from major organisations, Vibro-Meter UK operates in accordance with ISO9001 (certificate number 12144) and all flameproof equipment is approved by the relevant certifying authority.



High energy igniters

WORLD LEADERS IN IGNITION SYSTEM TECHNOLOGY

Vibro-Meter UK leads the world in the design and manufacture of ignition systems for gas turbines, microturbines, petrochemical and industrial burners.

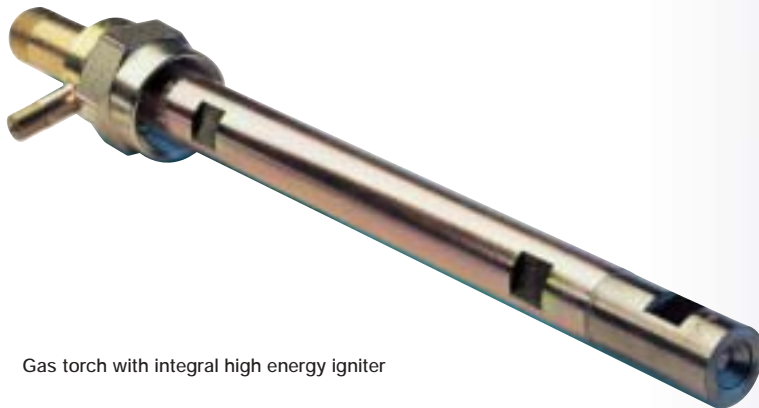
The diversity of applications and the levels of sophistication and quality throughout the products are only possible through proven expertise, innovation and flexibility. These qualities underpin our ability to produce customised ignition systems.

Our expertise lies in providing superior technological solutions to any ignition problem. Backed by a wealth of experience, our skilled engineers use the most advanced equipment to identify, evaluate and satisfy customers' needs.

A modern, purpose-built facility in Rugby is dedicated to ignition systems and components. We use the latest generation CAD systems, fully-integrated computer networks and CNC manufacturing (including special equipment for assembly, brazing, welding and furnacing). Ongoing training throughout the company sustains a knowledgeable, motivated and empowered workforce.

Continued commitment to investment in materials and technology ensures innovative solutions tailored to customers' needs. This is underpinned by:

- cellular production methods for optimum efficiency;
- highly skilled and trained personnel in all areas of the business;
- full traceability of raw materials and services;
- dedication to total quality and continuous improvement methodology;
- lean manufacturing philosophy.



Gas torch with integral high energy igniter



Multiple output solid state high energy ignition unit



High tension igniters

HIGH ENERGY IGNITION SYSTEMS AND COMPONENTS

High energy systems are designed to ignite heavier oils in adverse conditions and are also suitable for gas ignition where damp conditions could cause the shorting of a high tension system.

High energy ignition units

Vibro-Meter UK has a range of high energy ignition units with stored energy levels of up to 16 joules. They are designed for use with high energy igniters and torches for the direct firing of oils and gases. Units are available to suit various input voltages/energy levels/discharge rates and with single, twin or multiple outputs for many diverse applications. New units can be tailored to particular requirements.

High energy igniters

Vibro-Meter UK high energy igniters have proved themselves in the power generation, gas turbine and marine industries, and a wide variety of boiler-house applications. Igniters are typically manufactured from either Nimonic or stainless steel, although high temperature versions may use other suitable materials. Igniters can be supplied in a variety of lengths and mountings to suit the application.

The design of an igniter involves several key features including the combination of resistance to thermal shock, good mechanical strength, allowance for differential expansion and integrity of the semi-conductor surface. The most critical is the semi-conductor pellet across which the discharge occurs. Vibro-Meter UK igniters are designed to meet all these requirements.

High energy cables

Screened cables with a variety of fittings are available for use with igniters and torches. They enable the igniter or torch terminal end and the supply unit to be safely connected, providing the correct low-resistance earth return to the ignition unit. Standard cable uses PTFE insulated inner conductor suitable for temperatures up to +260°C. The outer conduit can be supplied in stainless steel with a Viton rubber covering for aggressive applications (reducing temperature capability to +200°C).

Portable high energy systems

Vibro-Meter UK's world class, proven portable high energy ignition system is powered from a rechargeable battery pack. Extensively used as a standby system, it can also be used to ignite a number of burners where the installation of a separate, permanent igniter on each boiler would be uneconomical.



High energy ignition unit



High energy igniters



Portable high energy ignition system

HIGH TENSION IGNITION SYSTEMS AND COMPONENTS

High tension systems are designed to ignite medium distillate fuel oils and most gas installations. Power is supplied to an ignition electrode placed to form a spark gap adjacent to the burner nozzle.

High tension ignition units

Vibro-Meter UK has high tension ignition units to suit most applications from industrial burners and microturbines to power generation. These vary from conventional mains transformers supplying 10,000 volts to the high power high tension electronic series using a patented system that intelligently sets its own output voltage to suit the application. Options include direct mounting of the exciter unit onto the ignition electrode, a range of operating voltages from 6V dc to 230V mains or remote operation over distances of up to 200m.

The high power high tension unit generates up to 18,000 volts in almost continuous discharge and can operate in applications where conventional high tension systems are ineffective. Options include integral flame detection via the ignition electrode. All systems comply with the relevant EMC directives.



High power high tension ignition system

High tension ignition electrodes

Vibro-Meter UK has an extensive range of high tension ignition electrodes with a huge range of options in length and mounting configuration to suit a wide range of applications. Ignition electrodes can also be designed to suit customers' specific requirements. The range includes simple unsealed insulated electrodes, which can be supplied in a variety of sizes, with or without bodies for direct fastening into the casing or sealed electrodes for more demanding applications including liquid level sensing where pressure tightness is desirable. Our electrodes with shielded connections are available to prevent contact with live connections and provide screening for conformance with EMC directives.

High tension cables and accessories

Vibro-Meter UK can supply ready-made cable assemblies for almost every type of high tension ignition system. A wide range of cables and accessories are available for simple and sophisticated systems. Vibro-Meter UK also manufactures plug caps for connection between the ignition electrode and cable.



Portable high tension systems

The Vibro-Meter UK HTI/18 is the most portable high tension system and runs off four AA cells. Its combined unit and igniter construction provides operators with a simple and reliable source of high tension ignition and is available 24 hours a day.



High tension ignition electrodes and caps

FLAMEPROOF IGNITION EQUIPMENT

Specifically developed to meet the needs of the petrochemical, gas, power generation and coal industries, Vibro-Meter UK's flameproof ignition equipment provides special protective measures to avoid accidental combustion in hazardous environments involving flammable gases, vapours, dust and volatile liquids.

Product quality and assured performance is provided by the external licensing authority, BASEEFA and through independent design verification, equipment testing and continual monitoring of conformity. All systems comply with EMC directives.

Vibro-Meter UK supplies high energy and high tension systems and has provided custom-designed systems for a variety of hazardous applications using proven technology and certified enclosures.



Flameproof ignition unit

High energy systems

Standard Vibro-Meter UK systems comprise a range of units with various input voltages (16 joules stored energy) connected via a sealed screened cable system to a flameproof igniter head. The igniter head used depends on the application and customers' requirements. Vibro-Meter UK has also custom-built a wide variety of systems, including multiple outlets, tailored energy levels and discharge rates – all packaged to conform with international standards.

High tension systems

As with high energy systems, Vibro-Meter UK can provide a range of high tension systems, using various input voltages, with a 10,000 volt output connected via a sealed screened cable system to a flameproof igniter head. The igniter head used depends on the application and customers' requirements. Vibro-Meter UK has also custom-built a wide variety of systems to suit a variety of applications including those where the high power high tension system – rather than a conventional 10,000 volt transformer – is required.



Flameproof igniter and cable assemblies

Vibro-Meter UK has remained central to ignition development throughout the twentieth century and continues to extend the capabilities of ignition systems and provide innovative solutions to industrial ignition problems.

IGNITION EQUIPMENT

Vibro-Meter UK has enviable expertise in providing technical solutions including customised systems through engineering collaboration and design development.

Products, applications and ancillary components include:

- cable fittings
- ceramic components
- flame detection probes
- level probes
- gas torches with integral high energy igniter – diesel fuel, gas
- flameproof igniter, ignition units and cable assemblies
- high energy ignition cables
- high energy igniters
- high energy ignition units (exciters)
- single, twin or multiple output
- extension pieces for igniters
- gas engine igniters
- high tension cables
- high tension ignition electrodes
- including sealed and shielded
- high tension ignition units (exciters)
- high power high tension, transformer or multiple output
- ignition system design application and engineering support services
- lead throughs
- observation ports
- plug caps
- shielded spark plugs for military vehicles or historic aircraft
- variable output high energy ignition unit





Since its foundation in 1952 in Fribourg, Switzerland, Vibro-Meter remains the leading supplier of reliable, high-quality instrumentation systems to aerospace, marine and industrial customers worldwide, providing vibration, speed and dynamic pressure systems for civil and military applications. The company's most significant asset is its ability to engineer reliable, high-quality, customer-oriented solutions. Vibro-Meter became a member of Meggitt PLC in 1998.

With our commitment to engineering expertise, comprehensive manufacturing resources, worldwide technical support, and full service repair capabilities, help is never far away. Our international network of subsidiaries and distributors is always on hand to help.

Vibro-Meter, leader in condition monitoring on land, sea and air.

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