

# MDX1000 Specification

<b>Analysis method</b>	Multi-Dispersive X-ray Fluorescence (MDXRF) comprising of Wavelength Dispersive X-ray Fluorescence (WDXRF)- <b>MDX 1060</b> and/or Energy Dispersive X-ray Fluorescence (EDXRF) – <b>MDX 1080 +</b> .
<b>Mode of Operation</b>	Simultaneous or simultaneous/sequential
<b>Element range</b>	Fluorine 9 to Uranium 92 (Carbon and Oxygen also available).
<b>Number of elements</b>	1-80 elements (qualitative), 1-50 elements (quantitative).
<b>Concentration range</b>	ppm to 100%
<b>Sample form</b>	Solids, liquids, powders, granules, papers, films etc.
<b>Sample size</b>	Liquids and powders 20ml. Solids 1.2-2.03" (30-51.5mm) diameter, 1.6" (40mm) maximum height. A range of Oxford Instruments sample holders and an optional sample spinner are available.
<b>Safety window</b>	Secondary safety window can be fitted for liquid analysis.
<b>X-ray detection options</b>	
<b>Fixed (WDXRF) channels</b>	Measure up to 12 elements simultaneously with use of "double monochromators", covering the elemental range Fluorine 9 to Uranium 92 for quantitative analysis (Carbon and Oxygen also available). Note: Curved crystal monochromators with higher sensitivity are available.
<b>Flexi (EDXRF) channel</b>	Solid state EDXRF detector covers the elemental range Aluminium 13 to Uranium 92 for qualitative, semi-quantitative and full quantitative analysis. Note: Only one flexi-channel can be fitted which occupies the space of two fixed channel monochromators. Ten fixed channels are still available with use of double –monochromators for some elements.
<b>Sample chamber</b>	Vacuum operation with helium path option.
<b>X-ray excitation</b>	Medium power 200W, 50kV end window X-ray tube. X-ray tube target optimised by application. Rh standard, other targets available. Cooled by internal oil circulation, no external water supply required.
<b>Interface</b>	External RS232 port.

<b>Software</b>	Oxford Instruments <i>XpertEase</i> Windows™ software package. Special features include pre-programmed analytical parameters, full spectrometer control, quantitative analysis with comprehensive X-ray mathematical models, keyboard operation for routine analysis.
<b>Operating environment</b>	Temperature: 50-86°F (15-30°C.) Humidity: 20-80% relative (non-condensing).
<b>Power requirements</b>	198-252V ac, 50/60 Hz single phase 8 Amps.
<b>Computer and printer</b>	IBM compatible computer, 533 MHz Pentium III processor, 8.2GB hard disk, 128MB RAM, including 15" SVGA colour monitor, 105 key keyboard, 2 button mouse and associated ink jet printer. Due to rapid changes in computer technology the computer system supplied may differ from the above specification but will be equivalent or better.
<b>Dimensions</b>	Spectrometer: Height 47.5"      120 cm Width 30"        75 cm Depth 38"        96 cm Weight 400lb      180 kg

In the interests of continued improvement, Oxford Instruments reserves the right to change any part of the description and specification without notice.