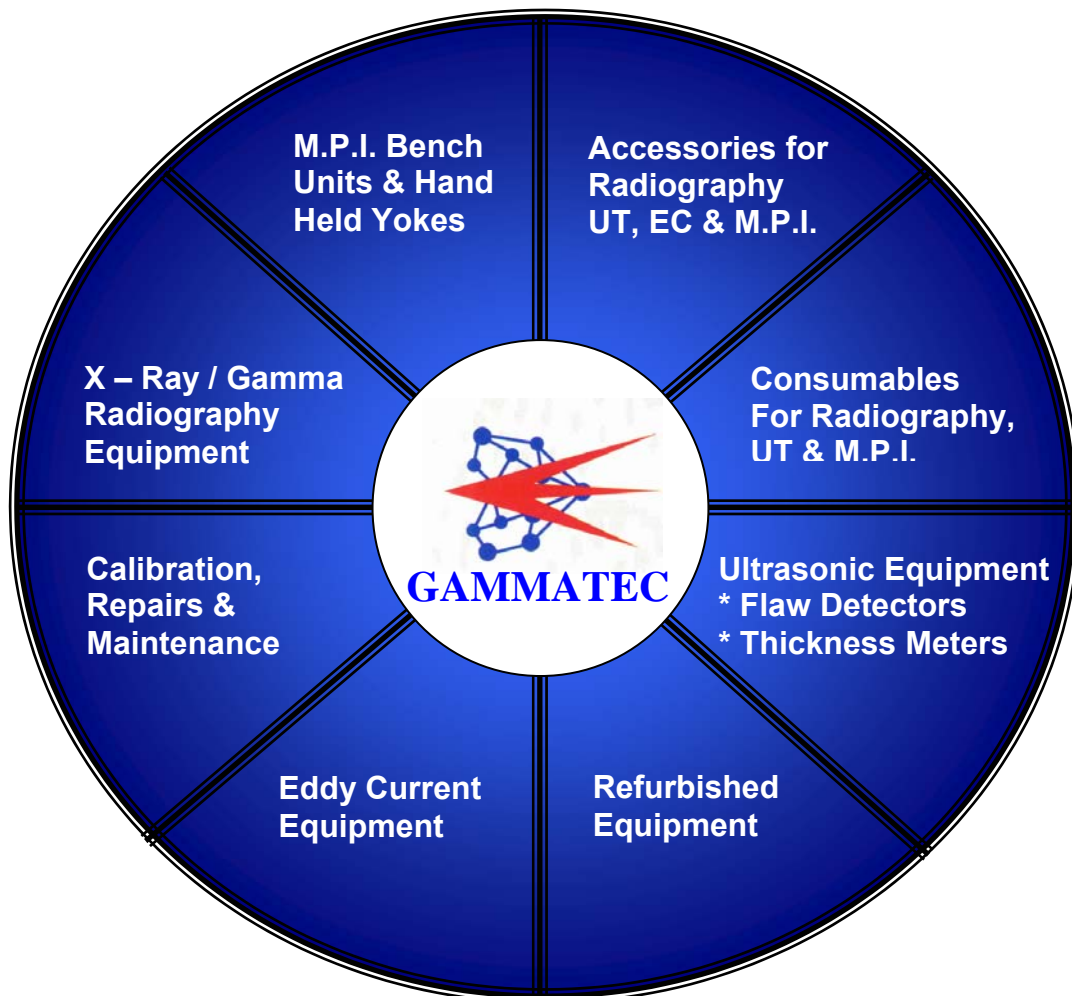


Gammatec Engineering (Pty) Ltd

Established 1982

Turn-Key Non Destructive Testing Solutions



Gammatec Engineering Pty Ltd

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CONTENTS

Valued Customer

This catalogue has been compiled to assist you in quickly locating the item of equipment, accessory or consumable you require and provides a short description of the item as well as the **Product Code**. Please specify the Product Code when making an enquiry or placing an order as this will enable us to respond more quickly.

If this catalogue does not contain the item of equipment, accessory or consumable you require, please contact us and we will source it for you.

To locate the item you require on CD-ROM simply go to the appropriate section, e.g. RADIOGRAPHY (GAMMA) and Ctrl+click on either EQUIPMENT, ACCESSORIES or CONSUMABLES. Alternatively, there is a glossary on the last page of the printed version of this catalogue which will direct you to the item you require.

SECTION	INSPECTION METHOD	EQUIPMENT	ACCESSORIES	CONSUMABLES
1	ACOUSTIC EMISSION	SYSTEMS		
2	DYE PENETRANT			CONSUMABLES
3	EDDY CURRENT	EQUIPMENT	ACCESSORIES	
4	MAGNETIC PARTICLE	EQUIPMENT	ACCESSORIES	CONSUMABLES
5	RADIOGRAPHY (X-RAY)	EQUIPMENT		
6	RADIOGRAPHY (GAMMA)	EQUIPMENT	ACCESSORIES	CONSUMABLES
7	RADIOGRAPHY (GENERAL)		ACCESSORIES	CONSUMABLES
8	RADIATION SAFETY	EQUIPMENT		
9	DARKROOM	EQUIPMENT	ACCESSORIES	CONSUMABLES
10	ULTRASONICS	EQUIPMENT	ACCESSORIES	CONSUMABLES
11	HARDNESS TESTING	EQUIPMENT		
12	PAINT / COATING INSPECTION	EQUIPMENT	ACCESSORIES	
13	PIPE / CABLE LOCATION	EQUIPMENT		
14	TEMPERATURE MEASUREMENT	EQUIPMENT		CONSUMABLES
15	VISUAL INSPECTION	EQUIPMENT	ACCESSORIES	
16	WELDING INSPECTION		ACCESSORIES	
17	REPAIRS, SERVICE & CALIBRATION			
18	GLOSSARY			

SYSTEMS

The use of Acoustic Emission to save costs and reduce down time on a plant.

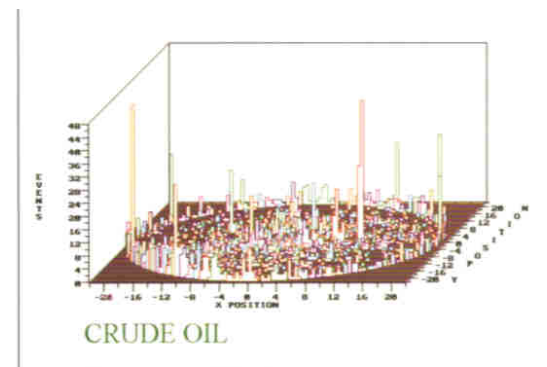
We believe that our range of Acoustic Emission equipment, by Physical Acoustics Ltd, could have significant benefits to your organisation. Coupled with the cost effectiveness of acoustic emission this technique has become ever more popular the world over. The majority of tests carried out using Acoustic Emission (AE) is *MONPAC* and *TANKPAC*.

TANKPAC

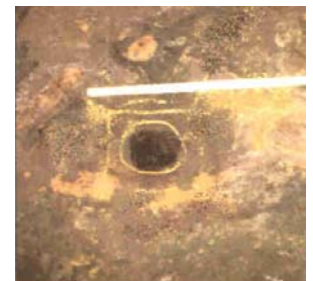
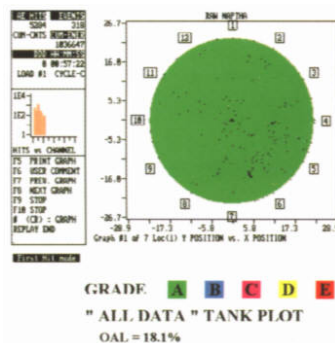
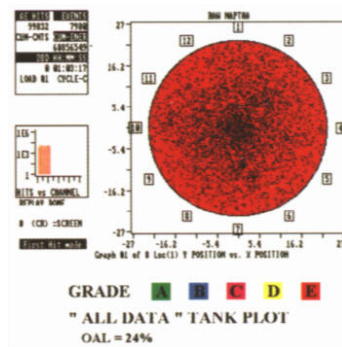
The cost of shutting down and cleaning storage tanks ready for internal inspection is costly and timely. If no repairs are required the costs have been largely wasted and could have been better spend on other projects, or not at all.

PAC, together with it's major customers have developed a method of evaluating overall floor condition without removing the tanks from service. The evaluation is based on experience from follow up internal inspection and in many case the floor scanning of tanks monitored under carefully controlled conditions.

TANKPAC is not an inspection method, but a sorting system which can separate good tanks from bad ones and in so doing concentrate maintenance where it is most needed. Highly sensitive sensors are placed along the perimeter of the tank wall. Following a period of conditioning during which the valves are closed and the heaters/agitators are turned off the tank is monitored for a period of time. The fracture of corrosion products is detected together with leaks which are active during the monitoring phase. Defects may be located using a method of triangulation however the most important information from a maintenance point of view is the overall condition of the tank floor which is graded by the AE software from "A" to "E". A being the best result and E being the worst.



AE '3D view' of an 'E' grade crude oil tank



One of the 20+ holes after cleaning

MONPAC

This is an expert system for evaluating the condition of metal pressure systems and tanks based on over 2000 tests. Monsanto developed the procedures and applicability, PAC the instrumentation and software. *MONPAC* is now widely used in the chemical and oil industries. Benefits of the method are largely seen in the reduced inspection costs and minimal down time of each vessel resulting from improved information about the plant condition.

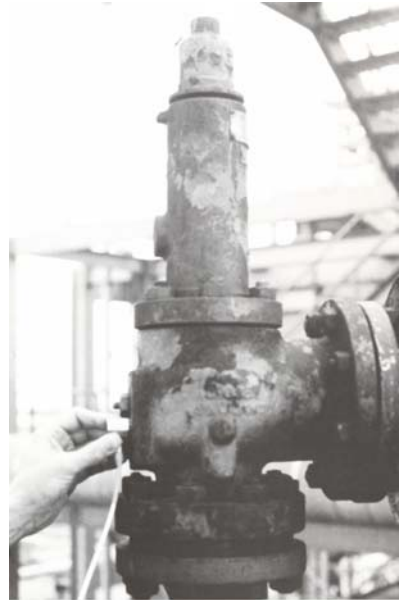
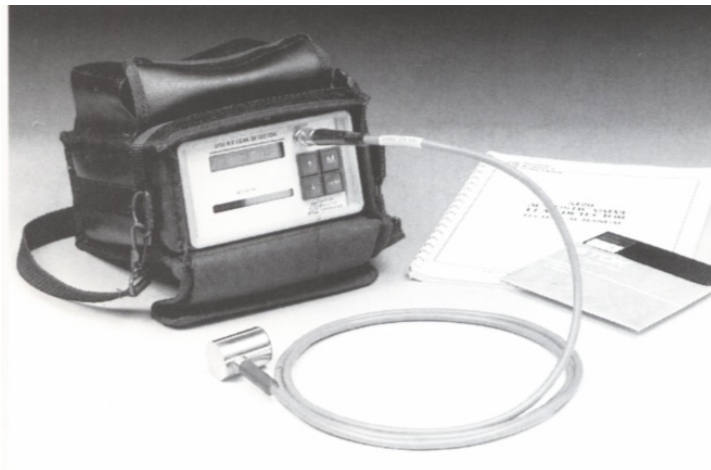
MONPAC is particularly effective on spheres, columns and for tank shell integrity but may be used on complete process systems. The software returns a colour coding for the severity of emissions, complete with associated recommendations. Testing is carried out by trained engineers familiar with all *MONPAC*'s procedures.

Location of defects is made possible using the triangulation method i.e. three sensors and their respective arrival times to each sensor. Additional software is available on request and can be used in conjunction with *MONPAC*'s powerful software base.

VPAC

VPAC enables estimation of through – valve leakage based on measurements made using a PAC model 5131 Valve Leak Detector together with data on the size and valve type and differential pressure. It was developed for use on refineries, chemical plants and offshore platforms. Primarily the technology is for estimating gas losses, gas to gas or liquid to gas. Limited leakage is also included in the technology package. The system is virtually immune to environmental and process noise by virtue of the advanced sensor technology. This ensures that measurements are easily made on line with no requirement for extensive training of operators.

- Identifies through – valve gas losses.
- Estimates leak rate.
- Totally non – intrusive.
- On – Line measurement.
- Filed Proven by BP.
- 10-Year Database.
- Portable.
- Intrinsically Safe.
- Simple Operation.
- 300 Point Memory.
- PC Loss Calculator.



▪ CONSUMABLES

▪ ARDROX CLEANER

Product Code	Description
NCC0031	10 x 400ml Ardrox 5319
NCC0053	10 x 400ml Ardrox HF-R / 9PR5 Halogen Free
NCC0054	4 x 5 litres Ardrox HF-R / 9PR5 Halogen Free

▪ ARDROX DEVELOPER

Product Code	Description
NCD0015	10 x 400ml Ardrox HF-D / 9D1B Halogen Free
NCD0016	4 x 5 litres Ardrox HF-D / 9D1B Halogen Free

▪ ARDROX PENETRANT

Product Code	Description
NCP0027	10 x 400ml Ardrox 907P Red Water Washable
NCP0019	4 x 5 litres Ardrox 907P Red Water Washable
NCP0020	1 x 25 litre Drum Ardrox 970P24 Water Washable Fluorescent
NCP0033	10 x 400ml Ardrox HF-P / 996PA Halogen Free
NCP0034	4 x 5 litres Ardrox HF-P / 996PA Halogen Free
NCP0051	1 x 25 litre Drum Ardrox 985P13 Post Emulsifiable Fluorescent

▪ ELY CLEANER

Product Code	Description
NCC0127	10 x 400ml ELY S76 Low Halogen
NCC0128	1 x 5 litres ELY S76 Low Halogen
NCC0129	10 x 400ml Chemserve Solvene 55
NCC0130	4 x 5 litres Chemserve Solvene 55
NCC0135	1 x 5 litres Chemserve Solvene 55

▪ ELY DEVELOPER

Product Code	Description
NCD0024	10 x 400ml ELY LD 7 Low Halogen
NCD0025	1 x 5 litres ELY LD 7 Low Halogen

▪ ELY PENETRANT

Product Code	Description
NCP0053	10 x 400ml ELY Checkmor 222 Solvent Removable
NCP0054	1 x 5 litres ELY Checkmor 222 Solvent Removable
NCP0059	10 x 400ml ELY Checkmor 200 Water Washable
NCP0060	1 x 5 litres ELY Checkmor 200 Water Washable
NCP0062	10 x 400ml ELY Britemor 4455 Water Washable Fluorescent
NCP0063	1 x 25 litres ELY Britemor 4455 Water Washable Fluorescent
NCP0064	1 x 25 litres ELY Britemor 600 Post Emulsifiable Fluorescent

ARDROX	ELY
5319	Solvane 55
HF-R / 9PR5	S 76
HF-D / 9D1B	LD 7
907P	CHECKMOR 200
970P24	BRITEMOR 4455
HF-P / 996PA	
985P13	BRITEMOR 600
	CHECKMOR 222

▪ EQUIPMENT

▪ MIZ-27ET MULTI-CHANNEL EDDY CURRENT INSTRUMENT WITH COLOUR DISPLAY

Combining high speed, state-of-the-art testing capabilities with a revolutionary new active matrix colour display, the multi-channel, multi-frequency MIZ-27ET makes inspections faster and easier than ever to perform. With the MIZ-27ET's flexible configurations and options, you can easily tailor its power and capabilities to meet your specific budget and application requirements.

It features one to eight channel configurations from four coil sets (one analogue board), or 16-channel configuration with eight coil sets (two analogue boards). It offers a frequency range of 100 Hz to 1 MHz, and high digital sample rates enabling test speeds of up to 260 inches per second or seven meters per second.

▪ MIZ-21A HANDHELD EDDY CURRENT INSTRUMENT

With its wide frequency range – from 50 Hz to 8 MHz - and excellent signal-to-noise ratio, the MIZ-21A (Dual frequency) instrument allows you to perform a wide variety of tests on aircraft structures, engine components, and wheels. Detect surface and subsurface fatigue cracking, corrosion, and heat damage or determine material type. Work under all types of conditions with this small, handheld, battery-operated instrument.



▪ DC-2 DIGITAL CONDUCTIVITY INSTRUMENT

DC-2 Instrument measures the electrical conductivity of non-ferromagnetic metals. For convenience, the instrument is packaged in a compact lightweight case with easy-to-use function buttons. Measurements display in either MS/m or %IACS.

Standard package includes:

DC-2 Conductivity Instrument with Zetec Certification.

Battery string

Memory back-up battery

Battery charger \ eliminator

Charger cable

Power cord

DC-2 Digital conductivity instrument operating guide

Hard shipping case

5 Certified conductivity coupons with black Delrin case



• **NEW ZETEC PRODUCTS** •

MIZ21SR – The first multi-mode Eddy Current and Bond Tester in one!

Now you can carry one handheld instrument and access multiple test methods. Eddy current, two types of bond testing plus conductivity and paint thickness measurement are all combined in one compact handheld tester. Enhanced technology provides superior flaw detection.

This hand held tester is packaged in a tough, cast aluminium case for durability. For fast learning and ease of use, the user interface features are common for both eddy current testing and bond testing. The sharp, high contrast display offers excellent resolution and readability in all lighting conditions.

MIZ21B – The most advanced Eddy Current tester with dual frequency capabilities!

Take advantage of the latest eddy current technology in a convenient handheld package. Test for cracks, corrosion, heat damage and more. Dual frequency capability and digital conductivity testing are included in the MIZ21B.

MIZ21R – The power of a bench top bond tester in a handheld package!

Here's the smallest, lightest, most conventional way to perform bond testing. The MIZ21R can do everything a bench top unit can do; yet it costs less and is much easier to use. Detect impact damage, disbands, de-laminations and other anomalies in honeycomb and composite materials.

Improved sensitivity to flaws makes testing more accurate. Zetec's display technology offers excellent contrast and resolution.



- **EDDY CURRENT ACCESSORIES**
- **ZETEC PROBES AND STANDARDS**

Complete range of Zetec Probes and Standards available.

- **EQUIPMENT**
- **ELECTROMAGNETIC YOKES**

OUR TRADITIONAL WORLD CLASS YOKES

The Gammatec Electromagnetic yoke features dual coils, which provide maximum lifting power without uncomfortable heating. The acid-proof, impact resistant body ensures ruggedness and has been designed with operator comfort in mind making it easy to hold and operate.



Product Code	Description
NCY0004	110V - Gammatec MK II Articulating Legs
NCY0005	220V - Gammatec MK I Fixed Legs
NCY0006	220V - Gammatec MK II Articulating Legs
NCY0007	110V - Gammatec MK I Fixed Legs
NCY0009	250V - Gammatec MK II Articulating Legs

The new MY-2 is the smallest, lightest hand-held yoke on the market – encapsulation in a rugged rubber housing makes it the most durable too. The MY-2 electromagnetic yoke is a rugged, high performance instrument featuring a powerful AC magnetising field. The adjustable poles, one handed operation, light weight and small size make it ideal for inspecting components of different geometry - welds, castings and onsite inspection / repairs especially where there is limited access.



Product Code	Description
NCY0002	220V – Gammatec MY-2 Articulating Legs
NCY0011	110V – Gammatec MY-2 Articulating Legs

- **CONVERTER**

Product Code	Description
NCC0012	Electromagnetic Yoke AC / DC Converter

- **CASE**

Product Code	Description
NCC0013	Carry Case for PM2000 Permanent Magnet Yoke
NCC0038	Carry Case for Gammatec MK I, MK II and MY-2 Electromagnetic Yokes

- **PERMANENT MAGNET YOKES**

The Gammatec permanent magnet yokes are light weight, ergonomically designed and very powerful.

Product Code	Description
NCY0008	Gammatec PM2000 Articulating Leg Permanent Magnet Yoke



Product Code	Description
NCY0003	Gammatec PM2004 Permanent Magnet Yoke with Cable



- **SPARE PARTS**

Product Code	Description
NCK0010	PM2000 Permanent Magnet Keeper c/w with spare Magnets and Feet

▪ BENCH CRACK DETECTION UNIT

Gammatec IMP Multi-directional MPI Bench Unit

The Industrial Magnetic Particle (IMP) Bench unit produces an overall multi-directional magnetism, eliminating the use of traditional electrical contact pads and encircling coil methods. This serves to ensure that defects can be detected whatever their position in relation to the magnetic field. Arcing is eliminated so that the test pieces are not damaged.

The IMP bench unit can be supplied as a fixed installation or castor mounted to provide one-man mobility. Every unit is custom built to suit the client's application.



▪ MAGNETIC COILS AVAILABLE IN VARIOUS DIAMETERS

▪ MAGNETIC PARTICLE ACCESSORIES

▪ APPLICATORS

Product Code	Description
NCA0014	Rubber Magnetic Particle Powder Applicator
NCB0022	750ml Polyethylene Spray Bottle

▪ CENTRIFUGE STAND AND TUBE

Product code	Description
NCS0027	Gammatec MPI Centrifuge Stand
NCT0028	Magnetic Particle Centrifuge - ASTM 100ml, pear shaped

▪ INDICATORS & CALIBRATION BLOCKS

Product Code	Description
NCI0002	Burmah Castrol Magnetic Flux Type I (Brass)
NCI0003	Burmah Castrol Magnetic Flux Type II (Silver)
NCI0014	ASME Magnetic Particle Field Indicator (Pie Gauge)
NCI0015	TSI Model CC-800B Crack Depth Meter
NCI0016	Berthold Spoon Magnetic Field Indicator
NCI0019	Magnetometer Mod 25 Residual Field Indicator
NCB0033	MTU No. 3 MPI Test Block



▪ GAUSSMETERS

Product Code	Description
NCM0003	FW BELL Model 5070 including 4" Transverse Probe STH57 – 0404



▪ SPECTACLES

Product Code	Description
NCS0037	UV Absorbing Spectacles

▪ ULTRAVIOLET LIGHTS

Gammatec's Ultraviolet Light is a rugged, high intensity, low cost black light used for the detection of low-level fluorescence in Non Destructive Testing Techniques.

Product Code	Description
NCL0005	Gammatec UV 100 Ultraviolet Light (220V)
NCL0015	Gammatec UV 100 Ultraviolet Light (110V)

▪ SPARE PARTS

Product Code	Description
SB0047	Spare Bulb for UV 100 light
SL0011	Spare filter lens for UV 100 light



▪ ULTRAVIOLET LIGHT METERS

Product Code	Description
NCM0004	Goldilux Mod GAP-1 "Smart" Radiometer with built-in detector
NCM0017	Goldilux Mod GUV-0 UV Light Meter (excluding probe)
NCM0023	Goldilux Mod GUV-1L UV Light Meter with built-in detector
NCP0029	Goldilux Mod GUVAP-1L Probe for use with GUV-0 UV Light Meter



▪ YOKE TEST WEIGHTS

Product Code	Description
NCW0023	18kg MPI Test Weight (with wooden carry case)
NCW0024	4.5kg MPI Test Weight (with wooden carry case)

▪ MAGNETIC PARTICLE CONSUMABLES

▪ ARDROX BACKGROUND

Product Code	Description
NCB0012	10 x 400ml Ardrox 8901W – White
NCB0013	4 x 5 litres Ardrox 8901W – White
NCB0054	1 x 5 litres Ardrox 8901W - White

▪ ARDROX INK

Product Code	Description
NCI0010	10 x 400ml Ardrox 800/3 Black Magnetic
NCI0011	4 x 5 litre Ardrox 800/3 Black Magnetic
NCI0018	1 x 5 litre Ardrox 800/3 Black Magnetic
NCI0012	10 x 400ml Ardrox 8530 Fluorescent Magnetic
NCI0013	6 x 500ml Ardrox 8540 Fluorescent Magnetic

▪ ARDROX POWDER

Product Code	Description
NCP0023	1 x 1 kg Ardrox 8510 Fluorescent Powder to be mixed with Kerosene

▪ ELY BACKGROUND

Product Code	Description
NCB0016	10 x 400ml ELY WCP712 White
NCB0017	1 x 5 litres ELY WCP712 White

▪ ELY INK

Product Code	Description
NCI0052	10 x 400ml ELY Supramor 4 Black
NCI0053	1 x 5 litres ELY Supramor 4 Black
NCI0054	10 x 400ml ELY Lumor X3 Fluorescent
NCI0055	1 x 1kg ELY Lumor J(W) Fluorescent

ARDROX	ELY
8901W	WCP 712
800/3	SUPRAMOR 4 BLACK
8530	LUMOR X3
8540	LUMOR X40 W
	FERROMOR ND 5 GREY
	FERROMOR ND 8 YELLOW

▪ ELY POWDER

Product Code	Description
NCP0091	1 x 5kg ELY Ferromor ND 5 Grey
NCP0092	1 x 25kg ELY Ferromor ND 5 Grey
NCP0093	1 x 5kg ELY Ferromor ND 8 Yellow
NCP0094	1 x 25kg ELY Ferromor ND 8 Yellow
NCP0095	1 x 500g ELY Lumor J Fluorescent to be mixed with Kerosene

▪ X-RAY EQUIPMENT

Gammatec carries the full range of Balteau Industrial X-ray Equipment and Accessories. This includes Balteau 's range of Portable Directional, Panoramic, Forward Throw and Constant Potential Units. Gammatec is also able to supply Pipeline Crawler Units of various makes.

▪ BALTOSPOT (Portable X-ray Generators)

Directional X-ray Generators.

CERAM 35 (Metal Ceramic Tube)

* Peak Voltage kV	= 100 – 300kV
* Tube Current	= 1 to 5mA
* Duty Cycle	= 100% at 25°C
* Penetration	= 56mm (steel)
* Weight	= 29kg
* Cooling	= Gas

CERAM 235 (Metal Ceramic Tube)

* Peak Voltage kV	= 50 – 235kV
* Tube Current	= 1 to 5mA
* Duty Cycle	= 100% at 25°C
* Penetration	= 44mm (steel)
* Weight	= 27kg
* Cooling	= Gas

GFD 165 (Glass Tube)

* Peak Voltage kV	= 50 – 160kV
* Tube current	= 3/5mA
* Duty Cycle	= 50/50
* Penetration	= 18mm
* Weight	= 14Kg
* Cooling	= Gas

Panoramic X-ray Generators

GFC 305 (Glass Tube)

* Peak Voltage kV	= 100 – 300kV
* Tube Current	= 3/5mA
* Duty Cycle	= 50/50
* Penetration	= 48mm (steel)
* Weight	= 38kg
* Cooling	= Gas

GFC 205 (Glass Tube)

* Peak Voltage kV	= 200kV
* Tube Current	= 3/5mA
* Duty Cycle	= 50/50
* Penetration	= 25mm (steel)
* Weight	= 28kg
* Cooling	= Gas

GFC 165 (Glass Tube)

* Peak Voltage kV	= 160kV
* Tube Current	= 3/5mA
* Duty Cycle	= 50/50
* Penetration	= 14mm (steel)
* Weight	= 14.3kg
* Cooling	= Gas



The above include the following:

CF 2000 Control Desk
X-ray Generator with Guard Ring
Centering Rod and Diaphragm Holder
Telescopic Centering Rod
Hand-X Remote Control Unit
Hand-X Power Control Unit
Mains Cable (10m)
Connection Cable (20m)
Bag for Cables and Accessories
Users Guide Book
Quality Test Report

▪ HAND-X (REMOTE CONTROL UNIT)

Portable Radio Controlled unit with integrated Geiger Muller Detector (up to 100m). The Hand-X will calculate the x-ray parameters for you.

Printer connection for fast exposure and reporting

▪ REAL-TIME RADIOGRAPHY

The Lixi Profiler utilizes a Gadolinium-153 isotope, engineered detection technology and proprietary software to provide the Non Destructive Testing (NDT) community with a unique tool for pipe inspection. It is hand-held, easy to learn, and simple to operate. The unique combination of technology and packaging found in the Profiler allows you to perform your pipe inspection work like never before.

No costly and messy removal and replacement of insulation, no need to cut a test hole and clean and prep the pipe surface - the Profiler is used with the insulation in place. No time and expense spent dealing with film - results for the Profiler are available immediately. No roping off the work area for radiation safety - the Profiler utilizes Gadolinium 153, a relatively low energy source. No wondering if the spot tests you ran caught the problem - the Profiler can be used on all of the pipe, not just in spot areas.

The Profiler allows you to do the job faster, more completely, and more cost-effectively than any other method. Time is money.

FEATURES

- Faster scans
- Easy to learn
- Safe to use
- Portable & Lightweight
- Rugged
- Gadolinium-153 Isotope
- Computer with Profiler software
- Clear arm openings of 6, 13, and 18 inches
- Battery powered (2 "C"), 18 hour battery life

APPLICATIONS

- Pipe wall thinning
- Weld location
- Pipe blockages
- Integrity in ammonia systems
- Inspection of wood, rubber, and composite materials

INDUSTRIES

- Oil & Gas Refineries
- Chemical Production
- Power Generation
- Food Processing
- Paper Manufacturing
- Mining
- Pharmaceutical Manufacturing
- Aerospace



▪ EQUIPMENT

▪ NEW ISOTOPE PROJECTORS

Product Code	Description
NCP0073	Industrial Nuclear IR-100 Isotope Projector
Capacity	120Ci (Ir.192)
Weight	24.1kg (53 lbs)
Source Channel	'S' Tube design
Lock system	Posi-lock
Certification	U.S.D.O.T. certificate USA/9185/B(U)96 with OPL
Outer Casing	Stainless Steel



▪ REFURBISHED ISOTOPE PROJECTORS

Tech / Ops 660 Projectors without Posilok System
 Tech / Ops 660A & B Projectors with Posilok System
 Gammamat Model Ti, Ti-F and Ti-FF Projectors
 Industrial Nuclear, Gammavolt, Teletron, Kowolux and Spec 2T Projectors



▪ OVERPACKS

Product Code	Description
NCP0088	Tech/Ops Mod 660 / 660B Isotope Projector transport Overpack (OPL)

▪ GAMMA ACCESSORIES

▪ CENTERING DEVICES

Product Code	Description
NCC0014	100 to 750mm Source Centering Device (Pipespider)
NCC0102	350 to 1200mm Source Centering Device (Pipespider)
NCC0109	200 to 900mm Source Centering Device (Pipespider)

▪ COLLIMATORS

For use with Tech/Ops Mod 660, Sentinel Mod 880 and Industrial Nuclear Projectors – Directional

Product Code	Description
NCC0066	GAM799 Tungsten Collimator with 60° Conical Side Beam. To fit Guide Tube Tip (Dia 38mm x Length 48mm).
NCC0065	GAM827 Tungsten Collimator with 60° Conical Side Beam with Male fittings to fit Guide Tube Extension (Dia 52mm x Length 90mm).



For use with Tech/Ops Mod 660, Sentinel Mod 880 and Industrial Nuclear Projectors – Panoramic

Product Code	Description
NCC0072	GAM836 Tungsten Collimator with 20° x 360° Panoramic Beam and male fittings to fit Guide Tube Extension (Dia 42mm x Length 68mm)
NCC0145	GAM846 Tungsten Collimator with 20° x 360° Panoramic Beam and male fittings to fit Guide Tube Extension



COLLIMATORS FOR OTHER PROJECTOR TYPES AVAILABLE ON REQUEST

▪ QUICK COUPLINGS

Product Code	Description
NCC0005	Gammamat Mod Ti Series Projector Guide Tube
NCC0009	Gammamat Mod Ti/TSI/SE Series Projector Drive Hose
NCC0025	Tech/Ops Mod 660 and Sentinel Mod 880 Projector Drive Hose
NCC0006	Teletron / Gammavolt / Kowolux Projector Guide Tube
NCC0092	Spec 2T Projector Guide Tube
NCC0091	Spec 2T, Industrial Nuclear Projector Drive Hose
NCS0007	Gammamat Mod Ti/TSI/SE Series Drive Hose and Guide Tube Quick Coupling Spanner

▪ DRIVE CABLES

For use with Tech/Ops Mod 660, Sentinel Mod 880 and Industrial Nuclear Projectors

Product Code	Description
NCC0011	20m long Cable with Ballpoint
NCC0049	15.2m long Cable with Ballpoint
NCC0118	30m long Cable with Ballpoint

For use with Gammamat Mod Ti/TSI/SE Series Projectors

Product Code	Description
NCC0017	15.2m long Cable with Ballpoint
NCC0030	20m long Cable with Ballpoint

For use with Teletron / Gammavolt / Kowolux Projectors

Product Code	Description
NCC0007	20m long Cable with Ballpoint
NCC0008	15.2m long Cable with Ballpoint

▪ GO-NO-GO GAUGES

NCG0004	Tech/Ops Mod 660, Sentinel 880 and Industrial Nuclear Drive Cable Ballpoint
NCG0006	Gammamat Mod Ti/TSI/SE Series Drive Cable Ballpoint
NCG0010	Teletron / Gammavolt / Kowolux Drive Cable Ballpoint

▪ GEARBOXES

Product code	Description
NCG0027	Gammatec MKIII Gearbox for use with Tec/Ops, Sentinel and Industrial Nuclear Drive Hoses
NCG0008	Gammatec MKIII Gearbox for use with Gammamat Ti / TSI / SE Series Drive Hoses

▪ GUIDE AND EXTENSION TUBES

For use with Tech/Ops Mod 660, Sentinel Mod 880 and Industrial Nuclear Projectors – Guide Tubes

Product Code	Description
NCT0032	7' (Yellow) Guide Tube
NCT0034	3m (Yellow) Guide Tube
NCT0045	7' x 3/8" Black Guide Tube

NCA0013 **Adaptor** for use with Sentinel Mod 880 Projectors and Tech/Ops Guide Tubes.

For use with Tech/Ops Mod 660, Sentinel Mod 880 and Industrial Nuclear Projectors – Extension Tubes

Product Code	Description
NCT0003	7' x 3/8" Black Extension Tube
NCT0013	3m x 3/8" Black Extension Tube
NCT0030	7' (Yellow) Extension Tube
NCT0216	15m (Yellow) Extension Tube
NCT0033	1.0m (Yellow) Transfer Tube for use with Source Transfer Containers and Emergency Storage Pots

For use with Gammamat Mod Ti Series Projectors – Guide Tubes

Product Code	Description
NCT0035	3m (Yellow) Guide Tube (Excluding Tip and Quick coupling)
NCT0039	7' (Yellow) Guide Tube with Tip and Quick coupling
NCT0051	5m x 3/8" Black Guide Tube
NCT0068	7' x 3/8" Black Guide Tube

For use with Gammamat Mod Ti Series Projectors – Extension Tubes

Product Code	Description
NCT0017	3m x 3/8" Black Extension Tube

For use with Teletron / Gammavolt / Kowolux Projectors – Guide Tubes

Product Code	Description
NCT0018	3m x 1/2" Black Guide Tube

For use with Spec 2T Projectors – Guide Tubes

Product Code	Description
NCT0210	7' (Yellow) Guide Tube with Tip and Quick Coupling

For use with Spec 2T Projectors – Extension Tubes

Product Code	Description
NCT0041	7' (Yellow) Extension Tube

▪ GUIDE TUBE TIPS

Product Code	Description
NCT0001	80mm Teletron / Gammavolt / Kowolux Guide Tube Tip (Aluminium)
NCT0002	80mm Gammamat Mod Ti, Ti-F and Ti-FF Guide Tube Tip (Aluminium)
NCT0040	5/8" Spec 2T Guide Tube Tip (Brass)

▪ DRIVE HOSES

For use with Tech/Ops Mod 660, Sentinel Mod 880 and Industrial Nuclear Projectors

Product Code	Description
NCH0009	7.62m Black Drive Hose with Fittings
NCH0021	10m Black Drive Hose with Fittings
NCH0040	15m Hard Drive Hose with Fittings

For use with Gammamat Mod Ti / TSI / SE Projectors

Product Code	Description
NCH0024	7.62m Black Drive Hose with Fittings
NCH0025	10m Black Drive Hose with Fittings

For use with Teletron / Gammavolt / Kowolux Projectors

Product Code	Description
NCH0026	7.62m Black Drive Hose with Male Connector
NCH0004	7.62m Black 'Return' Hose with Stop Fitting
NCH0010	10m Black Drive Hose with Male Connector
NCH0027	10m Black 'Return' Hose with Stop Fitting

▪ WINDING MECHANISMS

Gammatec's Push / Pull Remote Control Winding Mechanisms are designed for winding out Isotopes on all recognised Gamma Projectors used in Industrial Radiography inspection. The units are available in either Reel or Pistol grip version and are durable, tough and yet lightweight in construction.

Winding Mechanisms for use with Tech/Ops Mod 660 and Sentinel Mod 880 Projectors – Reel Type

Product Code	Description
NCW0002	Gammatec MK III Gearbox 2 x 7.62m Black Drive Hoses with Swivel Fittings and Quick Coupling 1 x 15.2m Drive Cable with Ballpoint
NCW0004	Gammatec MK III Gearbox 2 x 10m Black Drive Hoses with Swivel Fittings and Quick Coupling 1 x 20m Drive Cable with Ballpoint
NCW0007	Gammatec MK III Gearbox 2 x 15m Hard Drive Hoses with Swivel fittings and Quick Coupling 1 x 30m Drive Cable with Ballpoint



Winding Mechanisms for use with Tech/Ops Mod 660 and Sentinel Mod 880 Projectors – Pistol Grip Type

Product Code	Description
NCW0009	Gammatec MK III Gearbox 2 x 7.62m Black Drive Hoses with Swivel Fittings and Quick Coupling 1 x 15.2m Drive Cable with Ballpoint
NCW0010	Gammatec MK III Gearbox 2 x 10m Black Drive Hoses with Swivel Fittings and Quick Coupling 1 x 20m Drive Cable with Ballpoint

Winding Mechanisms for use with Gammamat Mod Ti/TSI/SE Series Projectors – Reel Type

Product Code	Description
NCW0003	Gammatec MK III Gearbox 2 x 7.62m Black Drive Hoses with M12 x 1 Fittings and Quick Coupling 1 x 15.2m Drive cable with Ballpoint
NCW0001	Gammatec MK III Gearbox 2 x 10m Black Drive Hose with M12 x 1 Fittings and Quick Coupling 1 x 20m Drive Cable with Ballpoint

Winding Mechanisms for use with Gammamat Mod Ti/TSI/SE Series Projectors – Pistol Grip Type

Product Code	Description
NCW0011	Gammatec MK III Gearbox 2 x 7.62m Black Drive Hose with M12 x 1 Fittings and Quick Coupling 1 x 15.2m Drive Cable with Ballpoint
NCW0012	Gammatec MK III Gearbox 2 x 10m Black Drive Hose with M12 x 1 Fittings and Quick Coupling 1 x 20m Drive Cable with Ballpoint

Winding Mechanisms for use with Teletron / Gammavolt / Kowolux Projectors – Reel Type

Product Code	Description
NCW0005	Gammatec MK III Gearbox 1 x 7.62m Black Drive Hose with M12 x 1 Fittings and Quick Coupling 1 x 7.62m Black Return Hose with M12 x 1 Fittings and Stop 1 x 15.2m Drive Cable with Ballpoint
NCW0006	Gammatec MK III Gearbox 1 x 10m Black Drive Hose with M12 x 1 Fittings and Quick Coupling 1 x 10m Black Return Hose with M12 x 1 Fittings and Stop 1 x 20m Drive Cable with Ballpoint

Winding Mechanisms for use with Teletron / Gammavolt / Kowolux Projectors – Pistol Grip Type

Product Code	Description
NCW0013	Gammatec MK III Gearbox 1 x 7.62m Black Drive Hose with M12 x 1 Fittings and Quick Coupling 1 x 7.62m Black Return Hose with M12 x 1 Fittings and Stop 1 x 15.2m Drive Cable with Ballpoint
NCW0014	Gammatec MK III Gearbox 1 x 10m Black Drive Hose with M12 x 1 Fittings and Quick Coupling 1 x 10m Black Return Hose with M12 x 1 Fittings and Stop 1 x 20m Drive Cable with Ballpoint

Winding Mechanisms for use with Spec 2T and Industrial Nuclear Projectors – Reel Type

Product Code	Description
NCW0025	Gammatec MK III Gearbox 2 x 10m Black Drive Hoses with Swivel Fittings and Quick Coupling 1 x 20m Drive Cable with Ballpoint
NCW0026	Gammatec MK III Gearbox 2 x 15m Hard Drive Hoses with Swivel Fittings and Quick Coupling 1 x 30m Drive Cable with Ballpoint

▪ WINDING MECHANISM REELS

Product Code	Description
NCR0003	Gammatec Push Pull Remote Control Winding Mechanism Reel
NCR0006	Tech/Ops Aluminium Push Pull Remote Control Winding Mechanism Reel

▪ WINDING MECHANISM MAINTENANCE

Gammatec Winding Mechanisms are manufactured to exacting standards and will provide many years of service, even in the harshest of climates. Regular maintenance will, however, enhance and prolong the performance of your Winding Mechanism. The following maintenance kit is recommended:

Gammatec Winding Mechanism Spares Kit - Projector type: Tech/Ops Mod 660 & Sentinel 880

Product Code	Description
SG 0016	Gear (Brass)
SB 0011	Bearings (Sealed)
SL 0002	Liner (Spring Steel)
NCC0049	Inner Drive Cable (15.2m)
NCG0004	GO-NO-GO Gauge
NCG0044	Grease (MIL-G-23827A)
	Bearing Punch (Stainless Steel)
	Drift (Stainless Steel)
	Maintenance Instructions

▪ GAMMA CONSUMABLES

▪ IRIIDIUM 192 ISOTOPES

Iridium 192 Isotopes for Industrial Radiography Sources are available for use with all recognised and approved Radiographic Projectors. The sources are manufactured and tested to comply with special form certification and licensed by the local competent authority of the IAEA.

Iridium 192 Isotope Specifications:

- Sources: high purity Iridium >99.9%
- Capsule: Stainless steel 316 L
- Half-life: 74.0 days



Hot Cells at Isotope Centre

▪ RADIOACTIVE ISOTOPES IN SINGLE ENCAPSULATED FORM ON DISPOSABLE PIGTAIL

Product Code	Description	Dimensions
103/019	200Ci Ir.192	3mm x 4mm
103/018	130Ci Ir.192	3mm x 3mm
103/017	120Ci Ir.192	3mm x 3mm
103/016	110Ci Ir.192	3mm x 3mm
103/015	100Ci Ir.192	3mm x 2.5mm
103/014	90Ci Ir.192	3mm x 2.5mm
103/013	80Ci Ir.192	3mm x 2mm
103/012	75Ci Ir.192	3mm x 2mm
103/011	70Ci Ir.192	3mm x 2mm
103/010	65Ci Ir.192	3mm x 1.5mm
103/009	60Ci Ir.192	2mm x 2.5mm
103/008	55Ci Ir.192	2mm x 2.2mm
103/007	50Ci Ir.192	2mm x 2mm
103/006	45Ci Ir.192	2mm x 1.5mm
103/005	40Ci Ir.192	2mm x 1.5mm
103/004	35Ci Ir.192	2mm x 1.5mm
103/003	30Ci Ir.192	2mm x 1mm
103/002	25Ci Ir.192	2mm x 1mm
103/001	20Ci Ir.192	2mm x 1mm

▪ RADIOACTIVE ISOTOPES IN SINGLE ENCAPSULATED FORM ON RE-USEABLE PIGTAIL

Product Code	Description	Dimensions
103/044	200Ci Ir.192	3mm x 4mm
103/043	120Ci Ir.192	3mm x 3mm
103/042	100Ci Ir.192	3mm x 2.5mm
103/041	90Ci Ir.192	3mm x 2.5mm
103/040	80Ci Ir.192	3mm x 2mm
103/039	75Ci Ir.192	3mm x 2mm
103/038	70Ci Ir.192	3mm x 2mm
103/037	65Ci Ir.192	3mm x 1.5mm
103/036	60Ci Ir.192	2mm x 2.5mm
103/035	55Ci Ir.192	2mm x 2.5mm
103/034	50Ci Ir.192	2mm x 2mm
103/033	45Ci Ir.192	2mm x 1.5mm
103/032	40Ci Ir.192	2mm x 1.5mm
103/031	35Ci Ir.192	2mm x 1.5mm
103/030	30Ci Ir.192	2mm x 1mm
103/029	25Ci Ir.192	2mm x 1mm
103/028	20Ci Ir.192	2mm x 1mm

▪ RADIOACTIVE ISOTOPES IN DOUBLE ENCAPSULATED FORM ON DISPOSABLE PIGTAIL

Product Code	Description	Dimensions
103/027	120Ci Ir.192	3mm x 3mm
103/026	100Ci Ir.192	3mm x 2.5mm
103/025	80Ci Ir.192	3mm x 2mm
103/024	70Ci Ir.192	3mm x 2mm
103/023	60Ci Ir.192	2mm x 2.5mm
103/022	50Ci Ir.192	2mm x 2mm
103/021	40Ci Ir.192	2mm x 1.5mm
103/020	30Ci Ir.192	2mm x 1mm
103/052	80Ci Se.75	3.2mm x 3.7mm
103/051	70Ci Se.75	3.2mm x 3.7mm
103/050	60Ci Se.75	2.9mm x 3.3mm
103/049	55Ci Se.75	2.9mm x 3.3mm
103/048	50Ci Se.75	2.9mm x 3.3mm
103/047	40Ci Se.75	2.5mm x 2.9mm
103/046	30Ci Se.75	2.5mm x 2.9mm
103/045	20Ci Se.75	2.0mm x 2.3mm

▪ RADIOACTIVE ISOTOPES IN DOUBLE ENCAPSULATED FORM FOR USE AS PILOT SOURCES FOR CRAWLERS

Product Code	Description	Dimensions
103/059	10mCi Cs.137	6 x 8mm Cpsl
103/058	25mCi Cs.137	6 x 8mm Cpsl
103/057	50mCi Cs.137	6 x 8mm Cpsl
103/056	100mCi Cs.137	8 x 10mm Cpsl
103/055	200mCi Cs.137	8 x 10mm Cpsl
103/054	300mCi Cs.137	8 x 10mm Cpsl
103/053	500mCi Cs.137	8 x 10mm Cpsl

COBALT-60 ISOTOPES AVAILABLE ON REQUEST

▪ ACCESSORIES

▪ LEAD MARKER BOXES

Product code	Description
NCB0004	32 Compartment PVC
NCB0023	18 Compartment PVC
NCB0041	12 Compartment PVC

▪ TECHNICIANS TOOLBOXES

Product code	Description
NCB0003	54.5 x 25.5 x 26cm High Impact Plastic

▪ EXPOSURE CALCULATORS

Product Code	Description
NCC0064	CDC Gamma Radiation Exposure (Slide Rule Type)

▪ MAGNETS

Product code	Description
NCM0001	Eclipse 815 Horseshoe – Pull 37kg (max)
NCM0002	Eclipse 816 Horseshoe – Pull 47kg (max)
NCM0010	Eclipse 813 Horseshoe – Pull 12kg (max)
NCM0022	Eclipse 812 Horseshoe – Pull 9.0kg (max)



▪ LEAD MARKERS

▪ ARROWS (Sharp)

Product code	Description
NCA0003	6mm
NCA0004	9mm
NCA0005	12mm

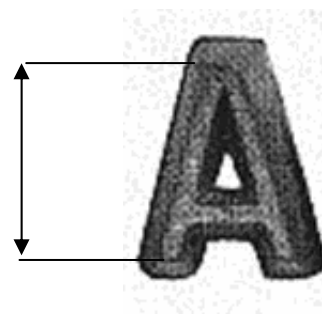
LETTERS A – Z (Sharp)

Product code	Description
NCL0002	6mm
NCL0003	9mm
NCL0004	12mm

▪ NUMBERS 0 – 9 (Sharp)

Product code	Description
NCN0001	6mm
NCN0002	9mm
NCN0003	12mm

6mm
9mm
or
12mm



▪ PENETRIMETERS

▪ WIRE PENETRIMETERS

Product Code	Description
NCP0008	EN 462-1 1 Fe EN 50mm
NCP0012	EN 462-1 6 Fe EN 50mm
NCP0015	EN 462-1 10 Fe EN 50mm
NCP0076	EN 462-1 13 Fe EN 50mm
NCP0007	EN 462-1 1 Cu EN 50mm
NCP0010	EN 462-1 6 Cu EN 50mm
NCP0014	EN 462-1 10 Cu EN 50mm
NCP0077	EN 462-1 13 Cu EN 50mm
NCP0009	EN 462-1 1 AL EN 50mm
NCP0011	EN 462-1 6 AL EN 50mm
NCP0013	EN 462-1 10 AL EN 50mm
NCP0078	EN 462-1 13 AL EN 50mm
NCP0068	ASTM E 747 Set 1A (6.35 - 19.0mm)
NCP0069	ASTM E 747 Set 1B (19.0 - 44.50mm)
NCP0070	ASTM E 747 Set 1C (44.5 - 102.0mm)
NCP0071	ASTM E 747 Set 1D (102.0 - 254.0mm)

▪ PLATE PENETRAMETERS

Product Code	Description
NCP0035	ASTM E 1025 - ID 5 (6.35mm)
NCP0036	ASTM E 1025 - ID 7 (8.84mm)
NCP0037	ASTM E 1025 - ID 10 (12.70mm)
NCP0038	ASTM E 1025 - ID 12 (15.87mm)
NCP0039	ASTM E 1025 - ID 15 (19.05mm)
NCP0040	ASTM E 1025 - ID 17 (21.59mm)
NCP0041	ASTM E 1025 - ID 20 (25.40mm)
NCP0042	ASTM E 1025 - ID 25 (31.75mm)
NCP0043	ASTM E 1025 - ID 30 (38.10mm)
NCP0044	ASTM E 1025 - ID 35 (44.45mm)
NCP0045	ASTM E 1025 - ID 40 (50.80mm)
NCP0046	ASTM E 1025 - ID 45 (57.15mm)
NCP0047	ASTM E 1025 - ID 50 (63.50mm)

▪ TAPES

▪ ADHESIVE TAPE

Product Code	Description
NCT0019	24mm x 40m Roll Masking Tape (per box)
NCT0200	Light Proof 36mm x 30m PVC Tape (black)

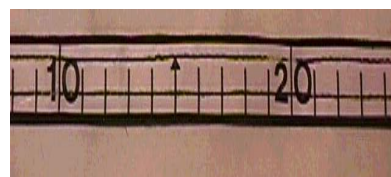
▪ LEAD MARKER TAPE

▪ 5cm SPACING

Product Code	Description
NCT0168	0.5m
NCT0007	1.0m
NCT0176	1.5m
NCT0056	2.0m
NCT0103	3.0m
NCT0012	4.0m
NCT0104	5.0m
NCT0025	6.0m
NCT0111	10.0m
NCT0112	15.0m
NCT0185	20.0m

10cmSPACING

Product Code	Description
NCT0113	1.0m
NCT0008	2.0m
NCT0009	3.0m
NCT0212	4.0m
NCT0010	5.0m
NCT0011	10.0m
NCT0005	12.0m
NCT0167	15.0m
NCT0201	20.0m
NCT0202	25.0m



▪ MEASURING TAPE

Product Code	Description
NCT0026	3m Stanley Measuring Tape

▪ STOPWATCHES

Product Code	Description
NCW0019	Stop Watch

▪ RADIOGRAPHY CONSUMABLES

Product Code	Description
NCM0013	Pentel 100W – White Broad Tip Permanent – Sulphur Free
NCM0029	Yellow Paint Markers – Sulphur Free (10/pk)

- EQUIPMENT
- PERSONAL MONITORING
- ALARMS

Product Code	Description
NCA0015	SM3 Personal Radiation Alarm
NCA0008	NDS Model ND15 Personal Radiation Alarm
NCA0009	NDS Model RA500 Personal Radiation Alarm

▪ DOSIMETERS

Product Code	Description
NCD0003	Arrow-Tech Mod 138 Quartz Fibre Pocket Dosimeter. Range 0 –200mR
NCD0011	Siemens Model EPD Mk2 Digital Dosimeter
NCD0012	MPG Mod DMC2000S Electronic Pocket Dosimeter



Introducing the new MPG Mod DMC 2000 S Personal Electronic Dosimeter

- Dose and Dose rate
- LCD Display
- User friendly - Lightweight - Waterproof
- Stand alone device or integrated into a Dosimetry System
- Audible and Visual Alarms
- Large internal Histogram memory
- Self-testing (Battery, Detector & Parameters)
- Hands free, pass-by exchange
- Optional Teledosimetry or use as an Area Monitor

Physical Characteristics

- Compliant to IEC 1283, ANSI 4220A
- PTB approved
- Display units: mSv or mrem
- Measurement range:
 - o Dose: 1µSv to 10Sv (0.1mrem to 10rem)
 - o Rate: 0.1µSv/Hr to 10Sv/hr (0.01mrem/hr to 1000 rem/hr)
 - o Display: 0.01mSv/hr to 10 Sv/hr or 0.001mSv/hr to 10Sv/hr (extended option)
- Linearity:
 - o <± 10% up to 1Sv/hr (100rem/hr)
 - o <± 25% up to 10Sv/hr (1000rem/hr)
- X and Gamma energy range: 50keV to 6Mev
- Accuracy: <± 5% (Cs137, 0.2mSv/hr)

Electrical Characteristics

- Standard calculator battery LiMnO₂ CR2450 one year battery life

Mechanical Characteristics

- Dimensions: 84 x 48 x 17.5mm
- Weight with battery: < 70g
- Worn by a replaceable clip

Environmental Characteristics

- Temperature range: -10°C to 50°C
- Humidity: <90% at 42°C
- Storage: -30°C to 71°C
- Shock, vibration and drop resistant, waterproof
- EMC: complies and exceeds standards by a large margin

Customisation

- Setup can be accessed by authorised user with DOSIMASS software.



The DMC 2000S features flat energy response to X-rays and Gamma field from 50keV to 6Mev and linear response to dose rate fields from natural background up to more than 10Sv/hr. The pass-by data exchange feature gives unequal operational flexibility



▪ RADIATION ACTIVATED AUDIOVISUAL ALARMS

Product Code	Description
NCA0012	Gamma ERA99-A Environmental Radiation Alarm The ERA99-A is a robust, portable unit designed to give a visible and audible indication of environmental radiation. Operation is by means of sealed push buttons. ON activates the unit to its standby position with an Amber flashing beacon. Depressing the PRE-WARN button causes a continuous audible tone. In the event of radiation, the unit will automatically switch to a Red flashing beacon and give a ten to twenty second continuous audible tone in excess of 100 db. The OFF button removes power from the unit. Provision is also made for driving up to five slave indicators.



Product Code	Description
NCS0045	Gamma ERA99-A Environmental Radiation Alarm – Slave Unit Similar in appearance to the ERA99-A the Slave Unit has only a single Red beacon. The Slave Unit is connected to the ERA99-A by a 10m long cable and is activated when the presence of radiation in excess of 7.5µSv/hr triggers the alarm in the ERA99-A.



▪ PORTABLE WARNING EQUIPMENT

Product Code	Description
NCL0007	Hazard Yellow Flashing Light – Battery operated

▪ RADIATION AREA SURVEY METERS

Product Code	Description
NCM0007	NDS Mod ND2000. 3 ranges, 0-1000,0-100,0-10. Readings in mR/hr and µSv/hr. Including calibration certificate
NCM0033	NDS Mod ND2500. 4 ranges 0-1000,0-100,0-10, 0-1. Readings in mR/hr and µSv/hr. Including calibration certificate
NCM0012	NDS Mod ND500A. 4 ranges 0-500, 0 – 50, 0 – 5, 0 – 0.5. Readings in mR/hr. Including calibration certificate.



▪ DOSIMETER CHARGER

Product Code	Description
NCC0020	Jordan Nuclear JN750-5 Pocket Dosimeter charger

▪ ISOTOPE EMERGENCY STORAGE POTS

Product Code	Description
NCP0084	Lead Shielding – Two Channel Emergency Storage Pot for use with Tech/Ops Mod 660 & Sentinel 880 pigtails – Capacity 2 x 100Ci Ir.192 isotopes (Weight 93kg)
NCP0086	Lead Shielding – One Channel Emergency Storage Pot for use with Tech/Ops Mod 660 & Sentinel 880 pigtails – Capacity 1 x 30Ci Ir.192 isotope (Weight 28kg)
NCP0083	Lead Shielded – Single Cavity Emergency Storage Pot. Used for emergency storage of severed Guide Tube with isotope inside
NCF0022	Optional Funnel attachment to fit One and Two Channel Emergency Storage Pots for fast pigtail insertion



▪ LEAD SHOT

Product Code	Description
NCS0060	Lead Shot 2kg bags
NCS0028	Lead Shot 5kg bags

▪ LEAD SHEET

Product Code	Description
NCS0031	Lead sheet to suit customer requirements

▪ TUNGSTEN IMPREGNATED SHIELDS

Product Code	Description
NCB0032	Gammatec Flexible Tungsten Shielding Blanket
NCT0169	Gammatec Flexible Tungsten Shielding Guide Tube

▪ RADIATION WARNING SIGNS

▪ FLAGS

Product Code	Description
NCF0003	195 x 280mm Triangular PVC Black on Yellow with rope channel. Magenta Trefoil. (English / Arabic)
NCF0018	195 x 280mm Triangular PVC Black on Yellow with rope channel. (English)

▪ SIGNS

Product Code	Description
NCS0016	Metal - 400 x 500mm "DANGER RADIATION AREA" Black on Yellow (English)
NCS0056	Metal - 187 x 152mm "Danger Radiation – Type B(U) Package" for use with Tech/Ops Mod 660 / 660B Isotope Projector OPL
NCS0059	Metal - 400 x 500mm "DANGER RADIATION KEEP OUT" Black on Yellow with Mauve Trefoil (English / Arabic)
NCS0058	Metal - 320 x 400mm "DANGER RADIATION AREA" (English)
NCS0061	Metal - 320 x 400mm "DANGER RADIATION AREA" (English / Arabic)
NCS0080	Magnetic - 250 x 250mm "RADIOACTIVE 7" PVC Black on White and Yellow (English)



▪ BARRIER TAPE

Product Code	Description
NCT0015	Barrier Tape - 90mm x 75m Roll Heavy duty PVC Black on Yellow - Anti twist (English)
NCT0136	Barrier Tape - 90mm x 75m Roll Heavy duty PVC Black and Magenta on Yellow - Anti twist (English/Arabic)

▪ ISOTOPE HANDLING TONGS

Product Code	Description
NCT0057	1.0m Long
NCT0004	1.5m Long
NCT0029	2.0m Long
NCT0117	3.0m Long



▪ PROTECTIVE WEAR

▪ APRONS

Product Code	Description
NCA0010	Single Sided X-Ray Protective Lead Apron
NCA0011	Double Sided X-Ray Protective Lead Apron

▪ COLLARS

Product Code	Description
NCC0077	Lead Lined (Thyroid) .50mmPb

▪ GLOVES

Product Code	Description
NCG0028	Lead Lined Protective Gloves

▪ INSTALLED RADIATION WARNING SYSTEMS

Systems made to customers requirements.

▪ EQUIPMENT

▪ DENSITOMETERS

Lightweight, easy to use portable Densitometers for measuring the transmission density of x-ray film. These units have been designed for use in on-site mobile darkrooms, laboratories and offices.

Product Code	Description
NCD0007	Gammatec Mod GD-1 Pencil Type Digital Film Densitometer.
NCD0021	Gammatec Mod GD-2 Digital Film Densitometer. Programmable State-of-the-Art electronics Zero Button Backlit display for easy reading "Hold" feature for density readings



▪ FILM DRYERS

Product Code	Description
NCD0022	Gammatec NDT Industrial Film Dryer

Automatic NDT industrial Film Dryer

The affordable, compact and easy to use wash and drying solution for the varied and specialised manual developing applications.

NDT FILM DRYER

Max Film Width	36cm/14inch
Min Film Length	10cm/4inch
Tank Body PA	Wash 2.8 litre
Dryer Temperature	approx 50 C
Weight	23 Kg

Water replenishment by automatic bottle feed
Capacity at cycle time intake speed from 5.3min (320sec)
15cm/min to 1.8min (108sec)
45cm/min (adjustable in 5cm/min steps)

Electrical Power Supply	230V, 50/60hZ, 1200w
Water Supply	by supplied water bottle

AUTOMATION FOR YOUR MANUAL FILM DEVELOPING NEEDS.

The affordable, compact and easy to use wash and drying solution for varied and specialised manual developing applications.

- Speed – variable
- Low noise, Warm air drying with over-temp protection
- Low maintenance precision gear drive - no worm drive used
- Staggered "minimum contact" roller system ensures safe, clean and dry x-ray film production
- Lightweight and compact for easy handling
- Low power requirements, low operating costs
- Easy to clean - removable Rack System (no loose parts)



Product Code NCC0105	Description Manual Film Drying Cabinet Size 100cm x 60cm x 60cm including Heater Fan, Thermostat and Timer (capacity ±40 hangers)
NCC0141	Manual Film Drying Cabinet Size 100cm x 100cm x 60cm including Heater Fan, Thermostat and Timer (capacity ±80 hangers)
CD0001	Automatic Film Dryer - AGFA Structurix DR Roller type



▪ FLASH IDENTIFICATION

Product Code NCF0020	Description Film Identification Flasher Unit – 25 x 75mm aperture
NCF0021	Film Identification Flasher Unit – 25 x 150mm aperture



▪ WHITE LIGHT METERS

Product Code NCM0024	Description Goldilux Mod GAL-3L White Light Meter (excluding probe)
NCM0030	Goldilux Mod GAL-2H White Light Meter (with built-in detector) High Range
NCM0031	Goldilux Mod GAL-2L White Light Meter (with built-in detector) Low Range
NCP0028	Goldilux Mod GALP-1 Probe for use with GAL-3L White Light Meter



▪ PROCESSORS

Product Code NCP0079	Description AFP Mini NDT Film Processor
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The AFP MINI – NDT Processor is a full feature compact industrial X-ray Processor which meets all the needs of the modern NDT Department. The unit features a 14" feed width.

Includes:
Stand
7 Gallon tanks
Connector Hose
Starter spare parts kit



Kodak models available on request

▪ DARKROOM SAFELIGHTS

Product Code NCL0009	Description 8" x 10" Pyramid Type including 15W Bayonet Bulb and Filter lens – 220V
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▪ FILM DEVELOPING TANKS

Product Code NCT0006	Description Fibreglass - 50 litre Single Compartment Tank with Lid
NCT0140	Fibreglass – Multi-compartment Tank with Stand and Lid
NCT0020	Grey PVC – Multi-compartment Tank with Stand and Lid
NCT0138	Grey PVC - 25 litre Single Compartment Tank with Lid
NCT0139	Grey PVC - 50 litre Single Compartment Tank with Lid
NCT0088	Stainless Steel - Multi-compartment Tank with Stand

▪ THERMOMETERS

Product code NCT0119	Description Floating Plastic Spirit Type
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▪ TIMERS

Product code NCT0014	Description Darkroom Table Top Timer with Alarm – Battery operated
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▪ VIEWERS

Gammatec Industrial Film Viewers provide accurate viewing of gamma and x-ray radiographs for on-line mobile darkrooms, laboratories and offices. To view the films, the operator simply switches the unit on, places the film on the 100 x 400 mm illuminated screen and performs the task required by the procedure.

Masks of various sizes are available on request. Combination viewers feature a built in Digital Densitometer with a pencil type probe and are available on request.

Product Code	Description
NCV0001	Gammatec High Intensity Viewer Screen Size: 100 x 400mm Viewing Density: 4.2D Dimmer Switch: Yes Foot Switch: Yes Fan: Yes Body: High Impact PVC Power: 220V
NCV0002	Gammatec Combination Viewer / Densitometer Screen Size: 100 x 400mm Viewing Density: 4.2D Dimmer Switch: Yes Foot Switch: Yes Fan: Yes Body: High Impact PVC Power: 220V
NCV0005	Gammatec Industrial Wall Mounted Bulbs: Compact Fluorescent Screen Size: 350 x 430mm Viewing Density: 3.8D Dimmer Module: Yes Fan: Yes Body: Aluminium Casing Power: 220V



▪ OTHER EQUIPMENT

Product code	Description
NCP0052	Film Chemical Mixing paddle - Perspex
NCS0019	Film squeegee
NCH0019	1kW x 300mm Long – Poker Type Chemical Tank Immersion Heater
NCB0024	25 Compartment Cardboard Rollpack Film Storage (410 x 410 x 100mm Deep)
NCR0005	750mm long S/Steel Film Processing Spiral Rod

▪ SILVER RECOVERY

Product Code	Description
NCR0004	Silver Recovery Unit - 10 litre tank - 600 litre plating capacity - complete with replacement cell.

▪ DARKROOM ACCESSORIES

▪ DENSITY STRIP

Product Code	Description
NCS0036	KODAK Calibrated Film Density strip for Densitometer Calibration

▪ FILM ARCHIVING

Product Code	Description
NCK0015	Kodak Thiosulfate Test Kit

▪ FILM CASSETTES

DOUBLE PVC

Product Code	Description
NCC0063	50 x 400mm (25 pair / pack)
NCC0140	60 x 400mm (25 pair / pack)
NCC0133	70 x 200mm (25 pair / pack)
NCC0132	70 x 400mm (25 pair / pack)
NCC0046	75 x 400mm (25 pair / pack)
NCC0057	100 x 200mm (25 pair / pack)
NCC0075	100 x 240mm (25 pair / pack)
NCC0029	100 x 400mm (25 pair / pack)
NCC0074	100 x 480mm (25 pair / pack)
NCC0078	150 x 400mm (25 pair / pack)
NCC0036	165 x 345mm (25 pair / pack)
NCC0028	180 x 430mm (10 pair / pack)
NCC0062	300 x 400mm (10 pair / pack)
NCC0027	350 x 430mm (5 pair / pack)

OTHER SINGLE PVC

Product Code	Description
NCC0106	100 x 240mm (Yellow) (25 p/pk)
NCC0108	100 x 480mm (Yellow) (25 p/pk)
NCC0131	70 x 25m Roll (Yellow)

▪ FILM HANGERS – STAINLESS STEEL

Product code	Description
NCH0008	350 x 430mm Single Channel
NCH0035	180 x 430mm Double Channel
NCH0012	60 x 240mm Triple Channel
NCH0013	60 x 400mm Triple Channel
NCH0034	70 x 400mm Triple Channel
NCH0016	100 x 200mm Triple Channel
NCH0022	100 x 240mm Triple Channel
NCH0029	100 x 400mm Triple Channel
NCH0031	100 x 480mm Triple Channel
NCH0033	150 x 400mm Double Channel
NCH0037	300 x 400mm Single Channel

SINGLE PVC

Product Code	Description
NCC0018	70 x 150mm (25 per / pack)
NCC0022	70 x 200mm (25 per / pack)
NCC0023	70 x 240mm (25 per / pack)
NCC0024	70 x 300mm (25 per / pack)
NCC0125	70 x 400mm (25 per / pack)
NCC0026	70 x 480mm (25 per / pack)
NCC0003	100 x 140mm (25 per / pack)
NCC0004	100 x 150mm (25 per / pack)
NCC0124	100 x 160mm (25 per / pack)
NCC0015	100 x 200mm (25 per / pack)
NCC0107	100 x 240mm (25 per / pack)
NCC0016	100 x 300mm (25 per / pack)
NCC0067	100 x 400mm (25 per / pack)
NCC0113	100 x 480mm (25 per / pack)
NCC0120	150 x 200mm (25 per / pack)
NCC0121	150 x 400mm (25 per / pack)
NCC0137	175 x 430mm (25 per / pack)
NCC0143	180 x 430mm (10 per / pack)
NCC0122	200 x 300mm (25 per / pack)
NCC0123	300 x 400mm (10 per / pack)
NCC0115	350 x 430mm (5 per / pack)
NCC0076	100 x 400mm (Yellow) (25 p/pk)

HANGER CLIPS

Product code	Description
NCC0037	Bar Film Hanger Clip
NCC0089	Bottom Weight Clip for Bar Hanger

▪ LEAD INTENSIFYING SCREENS

RADAC 0.125mm

Product Code	Description
NCS0074	70 x 200 (25 pair / pack)
NCS0071	70 x 400 (25 pair / pack)
NCS0069	100 x 160 (25 pair / pack)
NCS0032	100 x 200 (25 pair / pack)
NCS0046	100 x 240 (25 pair / pack)
NCS0013	100 x 400 (25 pair / pack)
NCS0042	100 x 480 (25 pair / pack)
NCS0072	100 x 360 (25 pair / pack)
NCS0003	130 x 180 (25 pair / pack)
NCS0063	150 x 400 (25 pair / pack)
NCS0024	180 x 240 (10 pair / pack)
NCS0022	180 x 430 (10 pair / pack)
NCS0070	300 x 400 (5 pair / pack)
NCS0023	350 x 430 (5 pair / pack)

RADAC 0.10mm

Product code	Description
NCS0006	100 x 200 (25 pair / pack)
NCS0043	100 x 240 (25 pair / pack)
NCS0004	100 x 400 (25 pair / pack)
NCS0050	100 x 480 (25 pair / pack)
NCS0018	130 x 180 (25 pair / pack)
NCS0026	180 x 240 (10 pair / pack)
NCS0039	180 x 400 (10 pair / pack)
NCS0015	180 x 430 (10 pair / pack)
NCS0038	300 x 400 (5 pair / pack)
NCS0005	350 x 430 (5 pair / pack)

RADAC ROLLS

Product Code	Description
NCS0066	70mm x 30m x 0.125mm

STANDARD 0.125mm

Product Code	Description
NCS0073	70 x 400 (25 pair / pack)
NCS0086	100 x 200 (25 pair / pack)
NCS0089	100 x 240 (25 pair / pack)
NCS0091	100 x 400 (25 pair / pack)
NCS0095	100 x 480 (25 pair / pack)
NCS0081	130 x 180 (25 pair / pack)
NCS0082	180 x 430 (10 pair / pack)
NCS0096	350 x 430 (5 pair / pack)

STANDARD 0.10mm

Product Code	Description
NCS0083	50 x 400 (25 pair / pack)
NCS0085	100 x 200 (25 pair / pack)
NCS0087	100 x 240 (25 pair / pack)
NCS0090	100 x 400 (25 pair / pack)
NCS0092	100 x 480 (25 pair / pack)
NCS0030	114 x 127 (25 pair / pack)
NCS0084	130 x 180 (25 pair / pack)
NCS0094	180 x 430 (10 pair / pack)
NCS0034	203 x 254 (25 pair / pack)
NCS0093	350 x 430 (5 pair / pack)

STANDARD ROLLS

Product Code	Description
NCS0025	400mm x 19m x 0.10mm
NCS0049	400mm x 19m x 0.125mm
NCS0041	70mm x 50m x 0.125mm
NCS0075	100mm x 50m x 0.125mm

▪ ROLLPACK FILM SPIRALS

Product code	Description
NCS0001	Stainless Steel - 70mm x 3m
NCS0002	Stainless Steel - 70mm x 5m
NCS0011	Stainless Steel - 100mm x 5m
NCS0064	Stainless Steel - 100mm x 3m
NCR0005	750mm S/S Rollpack Spiral Processing Rod



▪ DARKROOM CONSUMABLES

▪ DEVELOPER

Product Code Description

NCD0008	2 x 5 litre Autex Manual Film Developer Concentrate (to make 2 x 25 litres)
NCD0014	2 x 5 litre GFI Automatic Film Developer / Replenisher Bi-pak Concentrate (to make 2 x 20 litres)

▪ FIXER

Product Code Description

NCF0027	2 x 5 litre Autex Manual Fixer Concentrate (to make 2 x 25 litres)
NCF0029	2 x 5 litre GFI Automatic Film Fixer / Replenisher Concentrate (to make 2 x 20 litres)

▪ REDUCER

Product Code Description

NCP0058	500g Bottle Potassium Cyanide
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▪ STARTER

Product Code Description

NCD0023	1 x 1litre GFI Automatic Film Developer (Starter)
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▪ FILM

Product Code Description

NCF0010	Kodak MX125 10 x 20cm NIF (200/Box)
NCF0011	Kodak MX125 10 x 40cm NIF (100/Box)
NCF0017	Kodak MX125 10 x 24cm NIF (100/Box)
NCF0016	Kodak MX125 10 x 48cm NIF (100/Box)
	Kodak MX125 18 x 43cm NIF (100/Box)
	Kodak MX125 35 x 3cm NIF (100/Box)
	Kodak MX125 60mm x 100M LPKRL
	Kodak MX125 70mm x 100M LPKRL
NCF0006	Kodak AA400 10 x 20cm NIF (200/Box)
NCF0007	Kodak AA400 10 x 40cm NIF (100/Box)
NCF0015	Kodak AA400 10 x 24cm NIF (100/Box)
NCF0014	Kodak AA400 10 x 48cm NIF (100/Box)
NCF0008	Kodak AA400 18 x 43cm NIF (100/Box)
NCF0009	Kodak AA400 35 x 43cm NIF (100/Box)
	Kodak AA400 60mm x 100M LPKRL
NCF0012	Kodak AA400 70mm x 100M LPKRL
NCF0028	Kodak AA400 70mm x 150M NIF BKRL
NCF0031	Kodak AA400 100 x 150M NIF BKRL
	Kodak T200 10 x 40cm NIF (100/Box)



**PROFESSIONAL INDUSTREX
FILMS**



- **FILM DIGITISATION**

KODAK INDUSTREX ACR-2000i Digital System with integrated plate eraser



The KODAK INDUSTREX ACR-2000i Digital System combines portability with flexible phosphor imaging plates for a CR system that can cut down your time on each job. No more chemicals in the field. No more time wasted while film is developed. Just wrap the flexible plate around your subject, expose, and process. Digitally. Quickly.

Our “go anywhere” ACR-2000i Digital System is small and portable so you can pack it in your pickup. Or take it on a ship. Or push it on a cart through a factory. Just plug your ACR-2000i into a power source and the system is ready to read images. With a satellite internet connection you can even beam images back to the home office. On the road, use a laptop for reviewing images to make sure you have the results you need.

- **EQUIPMENT**
- **PHASED ARRAY**

Product Code	Description
CT0007	Harfang Phased Array System

What is the X-32 ?

The X-32 is the World's first hand-held, battery-operated ultrasound phased array instrument for NDE. It supports up to 32 channels, both for pulsing and receiving and is compatible with standard Hypertronics connectors. With its own internal storage, the X-32 can make a real-time continuous recording of the inspection. The X-32 software unit is based on bulletproof Linux operating system.

Advantages of the X-32

FASTER inspections:

- Simultaneous multi-angle and multi-depth inspection with one probe
- Reduced manual movement for a greater inspected volume
- Reduced inspection time
- Reduced personnel exposure to radiation

EASIER inspections:

- Hand-held and lightweight instrument
- Intuitive, user-friendly interface
- Real-time A-scan and scrolling B-scan
- Fastest sectorial scan rendering (s-scan) of the industry

MORE RELIABLE inspections:

- 32 active elements for high volume resolution to precisely size and map flaws
- Up to 2048 focal laws for maximum coverage with maximum resolution
- Full programmability for better inspection of complex geometries

Accessories

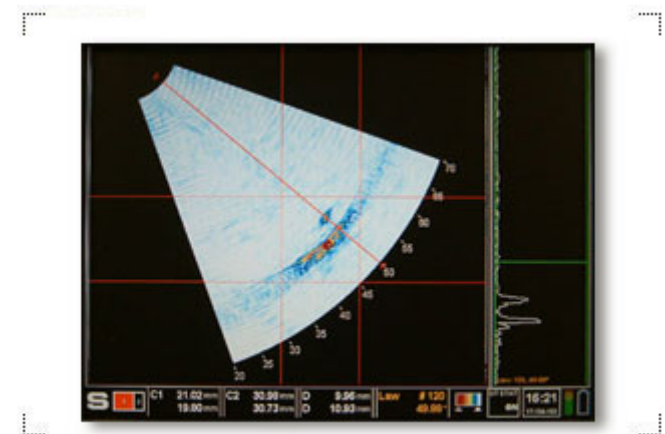
- External AC power adaptor
- Flexible splash proof keyboard
- Mouse
- General-purpose 32-element probe
- PhaseFX-Pro license for laptop use

Phased array applications

Phased array ultrasonic examination is used for several applications for in service inspection of power plants and petrochemical plants, as well as for the inspection of various manufactured goods from the automotive and aerospace industries.

Some applications include particular additional benefits that are made possible only by phased array technology. For example, using an array to examine the blade attachment hook of a turbine rotor disc will also provide improved characterization of the configuration of the disc rim, which is normally not known in advance. Also, array examination of reactor pressure vessel welds eases discrimination between subsurface flaws and those that are actually surface-connected. This discrimination is important because these two flaw categories have different consequences in terms of the flaw evaluation and the re-inspection schedule.

For the industries using large scale steel structures, the advantages of using ultrasonic phased array speak for themselves: increased maneuverability of the ultrasonic beam, greater area of insonification from a fixed position, improved resolution due to larger aperture, thus a reduced inspection time.



▪ PORTABLE FLAW DETECTORS

Product code
NCD0002

Description

Sonatest SITESCAN 140 Digital Ultrasonic Flaw Detector

- Square wave pulser
- Broad Band amplifier for high frequency, high damped transducers.
- Choice of colour display with reference waveform for defect identification, or high visibility LCD.
- DAC and AWS curves.
- HELP function.
- Storage of set-ups, A-Scan and thickness results.
- Video and analogue outputs.
- RS 232 Interface.
- Up to 15 Hrs operation from Li-ion battery pack (LCD version)
- Waterproof (IP67 protection)
- Low weight: 2.5Kg



CD0002

Sonatest SITESCAN 240 Digital Ultrasonic Flaw Detector

- Square wave pulser
- Broad Band amplifier for high frequency, high damped transducers.
- Narrow band amplifier filters at 1MHz; 2MHz; 5MHz and 10 MHz.
- Choice of colour display with reference waveform for defect identification, or high visibility LCD.
- DAC and AWS curves.
- Time corrected gain
- HELP function.
- Storage of set-ups, A-Scan and thickness results.
- Video and analogue outputs.
- RS 232 Interface.
- Up to 15 Hrs operation from Li-ion battery pack (LCD version)
- Waterproof (IP67 protection)
- Low weight: 2.5Kg

CD0015

Sonatest Masterscan 340 Digital Ultrasonic Flaw Detector

- 400 V Square – wave pulser
- > 20 MHz Bandwidth.
- Choice of colour display with reference waveform for defect identification, or high visibility LCD.
- DAC, TCG, AWS, DGS.
- HELP function.
- Storage of set-ups, A-Scan and thickness results.
- Video and analogue outputs.
- RS 232 Interface.
- Up to 15 Hrs operation from Li-ion battery pack (LCD version)
- Waterproof (IP67 protection)
- Low weight: 2.5Kg

The above units include the following:

- Battery Pack
- Battery charger
- Canvas bag with shoulder straps
- Clear cover for display window
- Operators manual
- Calibration certificate
- Certificate of conformance
- **2 Years Warranty**

THICKNESS GAUGES

Product Code NCG0026 **Description**
DAKOTA MX-3
 Standard Transducer and Cable
 Couplant
 Operation Manual
 Plastic Carry Case
 Calibration Certificate
5 Year Warranty (excluding Transducer)
Features:
 Measuring Range: 0.63 to 500mm. (Inch or mm display)
 Field calibration for all materials
 High speed scanning. Displays thinnest reading of the scanned area.
 Backlit display
 Bar graph indicates stability of reading.
 Single and two-point calibration included.



NCG0037 **DAKOTA MX-5 DL (Data Logging)**
Includes the following:
 Standard Transducer and Cable
 Couplant
 Operation Manual
 Plastic Carry Case
 Calibration Certificate
5 Year Warranty (excluding Transducer)
Features:
 As for the MX-3 including:
Differential mode:
 Enter acceptable thickness value, unit will display the \pm difference from the value entered.
Alarm mode:
 Enter a minimum acceptable thickness value. If measurement falls below minimum, a red LED will illuminate with sound Bleeper. If measurement is above, a green LED will illuminate.
Internal data logger:
 Automatic numeric data logging system to 1 to 1000 readings.
RS-232
 Data output to serial printer or computer

NCG0035 **DAKOTA PX-7 Precision Thickness Gauge**
 Combining all the features of the MX range the PX-7 and PX-7DL are high precision measuring instruments. The gauges have a **measuring range of 0.15 to 25.4mm**. Using a single element delay tip transducer, the gauges will measure thin materials in **Echo-to-Echo mode** and automatically switch to interface echo mode when measuring thicker materials and plastics.

NCG0039 **DAKOTA MMX-6 Multimode Thickness Gauge**
 Versatility and Convenience! The MMX series defines versatility and convenience by combining features like: Fast Scan, Alarm (audible / visual) and data logging, along with Multi-mode for reading through and eliminating the thickness of painted or coated materials. The MMX demonstrates convenience by making all these features available to the user with just the touch of a button.

Dakota Thickness Gauges

	MX3	MX5	MX5DL	PX7	PX7DL	MMX-6	MMX-6DL
Prod Code	NCG0026	NCG0042	NCG0037	NCG0035	NCG0038	NCG0039	NCG0040
Range	0.63 – 500mm	0.63 – 500mm	0.63 – 500mm	0.15 – 25.4mm	0.15 – 25.4mm	0.63-500mm 2.54-25.4mm	0.63-500mm 2.54-25.4mm
Resolution	0.01mm	0.01mm	0.01mm	0.01mm	0.01mm	0.01mm	0.01mm
Velocity Range	1250 – 10000m/s	1250 – 10000m/s	1250 – 10000m/s	1250 – 10000m/s	1250 – 10000m/s	1250 – 10000m/s	1250 – 10000m/s
Measuring Mode	Interface to Echo	Interface to Echo	Interface to Echo	Interface to Echo and Echo to Echo	Interface to Echo and Echo to Echo	Interface to Echo and Echo to Echo	Interface to Echo and Echo to Echo
Differential Mode	No	Yes	Yes	Yes	Yes	Yes	Yes
Alarm Mode	No	Yes	Yes	Yes	Yes	Yes	Yes
Scan Mode	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data Output	No	Yes	Yes	Yes	Yes	Yes	Yes
Data Logging	No	No	Yes	No	Yes	No	Yes
Warranty	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years

All units come standard with a probe, plastic carry case, couplant, operating manual and certification.

Product code **Description**
 NCG0019 **SADT MOD SA40**
Low cost ultrasonic thickness gauge

Includes:
 Probe and cable
 Carry case
 Battery
 Calibration certificate
 Couplant
 Instruction booklet



NCG0001 **SONAGAGE II**
Ultrasonic Thickness Gauge

Includes:
 5MHz Transducer
 Operator manual
 Plastic carry case
 Couplant bottle
 Battery
 Calibration certificate

SONATEST P-GAGE
Ultrasonic Thickness Gauge for through paint measurement

Includes:
 2.25MHz, 15mm transducer
 Transducer cable
 9V Battery
 Carry case
 Couplant bottle
 Operators manual
 Calibration certificate

NCG0003 **ALPHAGAGE**
A-Scan Ultrasonic Corrosion thickness gauge

Includes:
 Storage for up to 8000 thickness readings
 Unique help function
 Resolution 0.01mm
 Through paint measurement
 Compatible with any standard flaw detector probe
 Suitable for harsh environments
 Infrared data port for PC's and peripherals with Windows software for PC interfacing
 Standard package includes: Battery pack, Charger, Calibration Certificate and User Manual

▪ UNDERWATER THICKNESS GAUGE

CYGNUS 1 HAND HELD DIGITAL ULTRASONIC UNDERWATER THICKNESS GAUGE

Measures metal thickness to determine wastage or corrosion underwater – accurately, quickly and without removing surface coatings.

▪ ULTRASONIC ACCESSORIES

▪ CALIBRATION AND TEST BLOCKS

Product Code	Description
NCB0006	A2 (V1) 25mm (with wooden carry case)
NCB0007	A4 (V2) 12.5mm (with wooden carry case)
NCB0008	A4 (V2) 20mm (with wooden carry case)
NCB0009	A5 - 50 x 75 x 305mm "Beam" Calibration (with wooden carry Case)
NCB0010	A6 - 25 x 50 x 150mm (with wooden carry case)
NCB0011	A7 - 74 Rad x 75mm (with wooden carry case)
NCB0034	Steel Step wedge - 5 Steps (2-10mm)
NCB0037	Steel Step wedge - 10 Steps (1-10mm)
NCB0055	Steel Step wedge - 7 Steps (2-20mm)
NCB0056	ASME (19mm) Basic (with wooden carry case)
NCB0057	IOW DAC Block - 50mm (1.5mm Hole)



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ULTRASONIC PROBE CABLES

1.5m long Single Cables

Product Code	Description
NCC0033	Lemo 1 / Lemo 1
NCC0041	Lemo 1 / Lemo 00
NCC0042	Lemo 1 / Subvis
NCC0093	Lemo 00 / Lemo 00
NCC0043	BNC / Lemo 00
NCC0044	BNC / Subvis
NCC0069	BNC / Microdot
NCC0101	BNC / Lemo 1
NCC0035	Microdot / Lemo 1
NCC0096	Microdot / Lemo 00

NCC0050 15m long BNC / BNC

1.5m long Twin Cables

Product Code	Description
NCC0094	Lemo 1 / Lemo 1
NCC0045	Lemo 1 / Lemo 00
NCC0032	Lemo 1 / Subvis
NCC0039	Lemo 00 / Subvis
NCC0097	BNC / Lemo 00
NCC0048	BNC / Subvis
NCC0098	BNC / BNC
NCC0099	BNC / Microdot
NCC0047	BNC / Lemo 1
NCC0095	Microdot / Lemo 1
NCC0040	Microdot / Lemo 00

NCC0139 15m long Lemo 00 / Lemo 00



▪ SONATEST TRANSDUCERS

▪ LONGITUDINAL BEAM

SINGLE CRYSTAL (LOW DAMPED)

Product Code	Description
NCT0063	SLC 2-10 (2mHz 10mm Dia)
NCT0070	SLC 2-20 (2mHz 20mm Dia)

NCT0064	SLC 4-10 (4mHz 10mm Dia)
NCT0071	SLC 4-20 (4mHz 20mm Dia)

SINGLE CRYSTAL (PROTECTIVE MEMBRANE)

Product Code	Description
NCT0093	SLF 1-25 (1mHz 25mm Dia)
NCT0102	SLF 2-10 (2mHz 10mm Dia)
NCT0069	SLF 2-20 (2mHz 20mm Dia)
NCT0094	SLF 2-25 (2mHz 25mm Dia)

NCT0079	SLF 4-10 (4mHz 10mm Dia)
NCT0146	SLF 4-15 (4mHz 15mm Dia)
NCT0055	SLF 4-20 (4mHz 20mm Dia)
NCT0096	SLF 4-25 (4mHz 25mm Dia)

NCT0073	SLF 5-10 (5mHz 10mm Dia)
NCT0109	SLF 5-20 (5mHz 20mm Dia)

SINGLE CRYSTAL (HIGH DAMPED)

Product Code	Description
NCT0131	SLG 2-10 (2mHz 10mm Dia)
NCT0148	SLG 4-10 (4mHz 10mm Dia)
NCT0218	SLG 5-10 (5mHz 10mm Dia)

SINGLE CRYSTAL (HIGH DAMPED)

Product Code	Description
NCT0090	SLH 2-10 (2mHz 10mm Dia)
NCT0130	SLH 2-15 (2mHz 15mm Dia)
NCT0161	SLH 4-10 (4MHz 10mm Dia)
NCT0091	SLH 5-10 (5mHz 10mm Dia)
NCT0191	SLH 5-25 (5mHz 25mm Dia)

SINGLE CRYSTAL (CERAMIC FACE)

Product Code	Description
NCT0053	SLM 2-10 (2mHz 10mm Dia)
NCT0188	SLM 2-25 (2mHz 25mm Dia)

NCT0152	SLM 4-10 (4mhz 10mm Dia)
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NCT0087	SLM 5-20 (5mHz 20mm Dia)
NCT0189	SLM 5-25 (5mHz 25mm Dia)

NCT0149	SLM 10-10 (10mHz 10mm Dia)
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TWIN CRYSTAL (MEDIUM DAMPED)

Product Code	Description
NCT0086	CD 2-10 (2mHz 10mm Dia)

NCT0065	CD 5-10 (5mHz 10mm Dia)
NCT0153	CD 5-20 (5mHz 20mm Dia)

TWIN CRYSTAL (PROTECTIVE MEMBRANE)

Product Code	Description
NCT0099	CDF 1-25 (1mHz 25mm Dia)

NCT0100	CDF 2-10 (2mHz 10mm Dia)
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NCT0084	CDF 4-20 (4MHz 20mm Dia)
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NCT0101	CDF 5-10 (5mHz 10mm Dia)
NCT0110	CDF 5-20 (5mHz 20mm Dia)
NCT0092	CDF 5-25 (5mHz 25mm Dia)

TWIN CRYSTAL (GEMINI SERIES)

Product Code	Description
NCT0147	GEM 2-10 (2mHz 10mm Dia)

NCT0151	GEM 5-10 (5mHz 10mm Dia)
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▪ ANGLE BEAM

SINGLE CRYSTAL (MINIATURE)

Product Code	Description
NCT0046	SA 2-45 (2mHz 45 Deg)
NCT0048	SA 2-60 (2mHz 60 Deg)
NCT0049	SA 2-70 (2mHz 70 Deg)
NCT0106	SA 5-45 (5mHz 45 Deg)
NCT0107	SA 5-60 (5mHz 60 Deg)
NCT0108	SA 5-70 (5mHz 70 Deg)

SINGLE CRYSTAL (MEDIUM DAMPED)

Product Code	Description
NCT0164	SAO 2-45 (2mHz 45 Deg)
NCT0165	SAO 2-60 (2mHz 60 Deg)
NCT0166	SAO 2-70 (2mHz 70 Deg)
NCT0132	SAO 4-45 (4mHz 45 Deg)
NCT0133	SAO 4-60 (4mHz 60 Deg)
NCT0134	SAO 4-70 (4mHz 70 Deg)

SINGLE CRYSTAL (ORION SERIES)

Product Code	Description
NCT0081	Orion 2-45 (2mHz 45 Deg)
NCT0082	Orion 2-60 (2mHz 60 Deg)
NCT0083	Orion 2-70 (2mHz 70 Deg)
NCT0144	Orion 4-45 (4mHz 45 Deg)
NCT0143	Orion 4-60 (4mHz 60 Deg)
NCT0142	Orion 4-70 (4mHz 70 Deg)

▪ PHOENIX TRANSDUCERS

▪ LONGITUDINAL BEAM

TWIN CRYSTAL

Product Code	Description
NCT0208	TC 4-10 (4mHz 10mm Dia)
NCT0209	TC 4-20 (4mHz 20mm Dia)

▪ ANGLE BEAM

SINGLE CRYSTAL

Product Code	Description
	SSW 4/45 (4mHz 45 Deg)
NCT0206	SSW 4/60 (4mHz 60 Deg)
NCT0207	SSW 4/70 (4mHz 70 Deg)

▪ CONSUMABLES

▪ COUPLANTS

Product Code	Description
NCC0021	1 x 5litre (Low Temp) Ultrasonic
NCC0079	High Temp Ultrasonic (200ml Tube)
NCC0111	0.5 litre (Low Temp) Ultrasonic

SINGLE CRYSTAL (LARGE)

Product Code	Description
NCT0160	LSA 2-45 (2mHz 45 Deg)
NCT0159	LSA 4-45 (4mHz 45 Deg)
NCT0145	LSA 4-60 (4mHz 60 Deg)

SINGLE CRYSTAL (HIGH TEMPERATURE)

Product Code	Description
NCT0158	HSA 4-60 (4mhz 60 Deg)

TWIN CRYSTAL (MEDIUM DAMPED)

Product Code	Description
NCT0126	CDA 2-45 (2mHz 45 Deg)
NCT0127	CDA 2-60 (2mHz 60 Deg)
NCT0066	CDA 2-70 (2mHz 70 Deg)
NCT0085	CDA 5-45 (5MHz 45Deg)
NCT0157	CDA 5-60 (5mHz 60 Deg)
NCT0156	CDA 5-70 (5mhz 70 Deg)

▪ THICKNESS GAUGE TRANSDUCERS

Product Code	Description
NCT0038	Dakota 2.25MHz x ¼" Dual Element - MX series gauges
NCT0042	Dakota 5MHz x 3/16" Dual Element - MX series gauges
NCT0043	Dakota 5MHz x ¼" Dual Element - MX series gauges
NCT0031	Dakota 10MHz x 3/16" Dual Element - MX series gauges
NCT0037	Dakota 10MHz x ¼" Dual Element - MX series gauges
NCT0044	SADT XT-5 5MHz x 7mm Dual Element - SA40 gauge
NCT0199	SADT PT-5 5MHz x10mm Dual Element - SA40 gauge
NCT0215	SADT CT-2.5 2.5MHz x 12mm Dual Element - SA40 gauge
NCT0219	SADTGT -5 5MHz Dual Element - SA40 gauge - High Temperature
NCC0058	Sonatest D 5-5 Twin Comp with integral cable
NCT0190	Sonatest SG-1 5MHz ¼" Std Transducer with integral cable

▪ EQUIPMENT

Product code	Description
CT0003	POLDI Impact Hardness Tester. With test bar and set of Comparison tables. Additional test bars and material hardness available.
CT0008	TELEBRINELLER Impact Hardness Kit complete. Additional test bars and material hardness available.
NCT0217	SADT Hartip 3000 portable digital hardness tester The Hartip 3000 is a state of the art hand held Leeb hardness tester. Hardness is measured as the quotient of the tungsten carbide impact body's rebound velocity over its impact velocity. Hardness values are automatically converted to Brinell, Rockwell, Vickers and Shore <u>Includes</u> Probe (impact device D) and cable Hardness test block Carry case Battery Operators manual Calibration certificate <u>Optional accessories</u> Micro printer Impact device DC, D+15, G, C, E, DL Software Special support rings Leather case PC / printer cable



▪ ACCESSORIES

Product code	Description
NCB0049	Hardness Test Calibration (Leeb value)
NCP0072	Hardness Tester Impact Device Probe 'D'

- **EQUIPMENT**
- **HOLIDAY DETECTORS**

Product Code	Description
NCD0006	Gatronic Holiday Detector
	<u>SPECIFICATION:</u>
	Test voltages – 5, 10, 15, 20, 25 kV standard, variations on request
	Pulse frequency – 30 Hz nominal
	Power supply – 12V 3.8 AH. Lead Acid Battery for 12 hours continuous operation
	Dimensions – 260 x 230 x 90mm
	Weight – 3.0kg (Instrument) 0.9kg (Probe handle)
	<u>COMPOSITION:</u>
	Standard package comprises of:
	Base instrument
	Probe handle and 1500mm lead
	300mm Brush probe
	10m Earth lead
	Battery



- **PINHOLE DETECTORS**

Product Code	Description
NCD0004	Gatronic Pinhole Detector
	<u>SPECIFICATION:</u>
	Output voltage – Variable 0 – 100VDC – 5%
	Sensitivity – 150,000 ohms/volt
	Power supply – 12V 3.6 AH. Lead Acid Battery for 12 hours continuous operation
	Dimensions – 260 x 230 x 90mm
	Weight – 3.0kg (Instrument)
	<u>COMPOSITION:</u>
	Standard package comprises of:
	Base instrument
	Probe handle and 1500mm lead
	10m Earth lead
	Charger unit and Earphones

- **PAINT / COATING INSPECTION**

Gammatex carries the full range of Elcometer and other selected inspection and measurement instruments:

Surface preparation

Surface Profile Comparators
Keane-Tator Surface Profile Comparators
Thickness Gauges
Testex Tape
Pipe Pit Gauges
Surface Profile Gauges

Climate monitoring

Digital Thermometers
Hygrometers
Magnetic Thermometers
Dew-point Calculators
Dew Meters

Wet Film and Powder

Wet Film Combs
Powder Film Combs
Paint Inspection Gauges

Abrasion

Taber Abrasers
Taber Shear / Scratch Testers

Adhesion

Mechanical Adhesion Testers
Hydraulic Adhesion Testers
Cross Hatch Cutters
Cross Hatch Templates
Universal Paint Inspection Gauges

Gloss

“Novo Gloss” Gloss meters
“Micro-Gloss” Gloss meters
“Novo Curve” Gloss meters

Inspectors accessories

Publications
Inspection Mirrors
Safety Torches

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Inspection Kits

Site inspection requires a range of portable testing equipment. In order to make these products easily available and transportable, Elcometer have developed a range of Coating Inspection Kits. All gauges are conveniently stored in a hard plastic protective carrying case and are supplied with full operating instructions.



COATING THICKNESS GAUGES

Product Code	Description
NCG0002	Elcometer Model 456

For precise measurement of coatings, the new Elcometer 456 heralds radical new advances in both design and performance. Ergonomic styling for the ultimate in hand-held comfort. Full, menu driven, graphics display for ease of use. Greater than 60 readings per minute for fast results. Enhanced memory capability for data storage. Unrivalled accuracy and repeatability for the ultimate hand-held performance. Integral and plug-in probe options for total versatility plus a choice of three models and a host of other carefully developed benefits that really do place the future of coating thickness measurement in the palm of your hand.



456 RANGE

FEATURES	456 BASIC	456 STANDARD	456 TOP
Multiple Calibration Adjustment Options (Including factory calibration reset)	.	.	.
Backlight	.	.	.
Metric / Imperial units	.	.	.
Beeper	.	.	.
LED Indicator	.	.	.
Statistics (No. of readings, Mean, Highest / Lowest readings, Standard Deviation, Co-efficient Variation)	.	.	.
Infrared Data Output (HP IR Printer)	.	.	.
Cable Data Output (Printer, Computer & Data Logger)	.	.	.
Readings Memory		250 in one batch	40,000 in up to 999 batches
Average and Counted Average		.	.
Individual Reading Review		.	.
PC Software		EDTS	EDCS EDTS
Limits		.	.
Clock and Alarm			.

PROBE SPECIFICATIONS

Ferrous (F) operation using electromagnetic induction probes for all non-magnetic coatings on a ferrous (magnetic) substrate, e.g. Steel, cast iron, ferritic and duplex stainless steel substrates.

Non-Ferrous (N) operation using eddy current probes for non-conductive coatings on non-ferrous metal substrates, e.g. Aluminium, brass, zinc, stainless steel, copper, titanium substrates.

Dual (FNF) operation combines the Ferrous and Non-Ferrous operation in a single probe. The gauge has user selection for auto or manual substrate determination.

SCALE	RANGE		RESOLUTION		ACCURACY		
	Metric	Imperial	Metric	Imperial	%	Metric	Imperial
F1	0 – 1,500µm	0 – 60mils	0.1µm up to 100µm 1.0µm 100-1,500µm	0.01mil up to 4mils 0.1mil 4-60mils	±1-3% or	±2.5µm or	±0.1mil
F2	0 – 5mm	0 – 200mils	0.01mm	1 mil	±1-3% or	±0.02mm or	±1.0mil
F1 2 F1 mode:	0 – 5mm 0 – 1,500µm	0 – 200mils 0 – 60mils	0.1µm up to 100µm 1.0µm 100 1500µm	0.01mil up to 4mils 0.1mil 4-60mils	±1-3% or	±2.5µm or	±0.1mil
F2 mode:	0 – 5mm	0 – 200mils	0.01mm	1mil			
F3	0 – 13mm	0 – 500mils	0.01mm	1mil	±1-3% or	±0.05µm or	±2.0mil
N1	0 – 1,500µm	0 – 60mils	0.1µm up to 100µm 1µm 100-1500µm	0.01mil up to 4mils 0.1mil 4-60mils	±1-3% or	±2.5µm or	±0.1mil
FNF1	0 – 1,500µm	0 – 60mils	1µm	0.1mil	±1-3% or	±3.0µm or	±0.1mil

■ ACCESSORIES FOR ELCOMETER 456 COATING THICKNESS GAUGES

EDTS

Data collection for transferring to spread sheets for 456 Standard and Top models.

EDCS

Data collection system (Windows compatible) for 456 Top Models

EDCS+

Data collection system EDCS with extra features for enhanced reporting

PRINTER IIR

HP Infra red printer (cable less)

SPC

Statistical process control

ZERO PLATES

Steel or Aluminium – Polished; size 40 x 25 x 3mm

T95012880

Precision placement Jig clw quick clamping vice – opens to 18mm (repeatable results on small components)

CABLE

Interface cables to computer for Top and Standard 456 Models with RS232

ADAPTORS

Small “V” (6-50mm), Large “V” (20-120mm) and “V” adaptor for round pipes (6 to 500mm Dia.)

TRACEABLE THICKNESS FOILS

± 1% Precision Foils

± 2% Precision Foils

± 3% Precision Foils

STEEL STRUCTURES GAUGE

Product Code

NCG0007

Description

Elcometer Model 345

The Steel Structures Gauge has been specifically designed for use on coated structural steel. It can be used to test the wide variety of coatings used to coat steel structures, for example on bridges, ships, buildings, etc.

The Elcometer 345 SSG has two operating modes:

Standard Mode: - The total coating thickness over the steel substrate is displayed.

“Offset” Mode – Only the top coat thickness is displayed. The user can enter an “offset” value, for example, equal to the surface roughness, which is automatically subtracted from the reading.



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- **EQUIPMENT**
- **DYNALOG C-SCAN INSPECTION SYSTEM**

The C-Scan 2010 is the latest development of the C-Scan series of non-contact pipeline survey systems for buried transmission pipelines. C-Scan is in regular use by the world's petroleum and gas industries, producers, pipeline constructors, operators and survey companies.

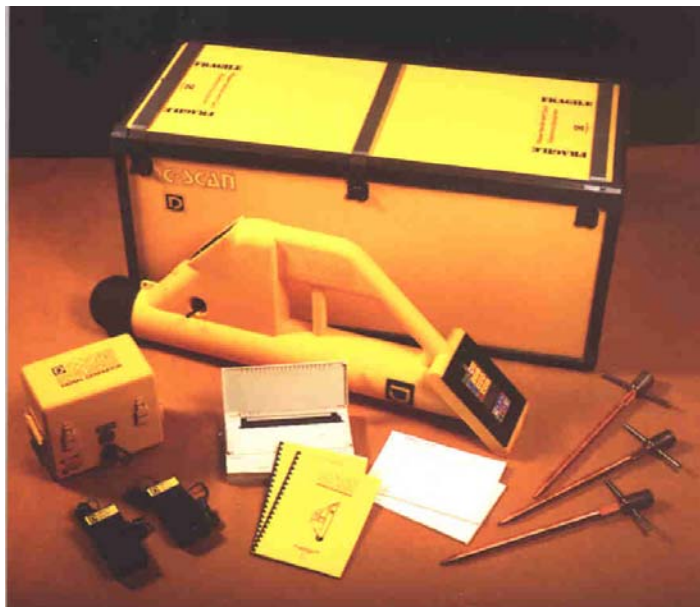
USES:

- Accurately locates the buried pipeline and displays its position and depth – even for pipelines under roads, concrete, sand, mud, growing crops, ice or water courses
- Displays the average condition of the wrap or coating between any two locations.
- Pinpoints individual wrap or coating faults for excavation and repair.
- Stores and analyses all survey data and prints out comprehensive reports, plots and maps utilising GPS interface.
- Using Dynalog's proprietary software, downloads all data to a computer for further analysis and comparisons

C-Scan 2010 - Does not require direct contact with the ground
Does not require the pipeline to be marked out
Does not require the operator to walk every meter of the pipeline

Some application areas

- Periodic surveying of buried transmission lines to monitor changes in the condition of wrap or coating.
- Accurately locating wrapping damage or faults so that repairs can be effected quickly and economically.
- Mapping of pipelines – checking location, cover, position of branches, cross-bonds, sacrificial anodes, etc.
- Check surveying of new lines – under rivers, ice, mud, undergrowth or crops to determine location and condition
- Monitoring lines for potential damage caused by engineering or construction work.
- Checking on possible movement of lines due to changing ground conditions, subsidence, soil or beach erosion or strong water currents at river crossings
- Locating unwanted 'contacts' with buried metallic debris or other underground services.



- **EQUIPMENT**

- **THERMOMETERS**

Product Code	Description
NCT0036	Major Tech Digital Thermometer
NCT0059	Elcometer Mod 113 Surface Temperature Magnetic

- **CONSUMABLES**

- **TEMPSTICKS / CRAYONS / PENCILS**

Product Code	Description
NCC0070	Temp Stick Temperature Indicator
NCC0085	Wax Crayons
NCP0080	Chinagraph Pencils

▪ EQUIPMENT

Product Code	Description
NCV0006	SnakeEye II Visual Inspection System

SnakeEye™ is modular in design so that it can be easily configured to inspect behind walls, inside ceilings, in and around pipes and machinery, under vehicles and aircraft, inside engine compartments, behind computer equipment, underneath automobile dashboards the possible uses are endless. SnakeEye™ is ideal for quick, non-destructive, qualitative inspections in hard-to-reach places.



SnakeEye™ achieves its versatility with an interchangeable camera head that can be attached to a rigid wand, a ring finger attachment or extendible cables. SnakeEye™ comes equipped with a full range of accessories and also has plug-in capabilities, one of which allows the user to connect to a standard VCR to record and playback images.



SnakeEye™ is designed to function in harsh industrial and commercial environments and is constructed of high impact, heavy duty plastic that can withstand shock and vibration. SnakeEye™ resists water, dust, and dirt particles and can also be used where grease and non-solvent based chemicals are present.



SnakeEye™ Ring Adaptor literally puts the camera on the user's finger. The ring adaptor is designed to provide finger tip control of the camera in hard to see but reachable spaces such as underneath automobile dashboards and any place your hand can reach but your vision is obstructed.



SnakeEye™ accessories are available to extend the range and utility of the remote video inspection system:

- Telescoping Articulating Wands
- Sun Shield
- AC/DC Adapter
- 12 Volt Auto Adapter
- Spare Battery Packs
- Video In/Out Adapter
- Extension Cables (available in multiple lengths)

Product Code	Description
NCV0007	Fore Eyes 2020 Hand-held Digital Pocket Video Recorder

Gammatec is pleased to introduce The ForeEyes™ 2020, portable video inspection recorder.

The ForeEyes 2020 combines a 3.5 inch (87.5 mm) TFT LCD with a 20 Gigabyte (also available up to 80 Gigabyte) hard drive to record, with narration, the equivalent to 40 full length movies.

The ForeEyes 2020 is conveniently packaged in a collapsible chest harness with removable sunshade for easy, one-hand operation of our articulating, waterproof CCD camera with variable LED light source for low lit areas of concern.

The ForeEyes 2020 weighs less than 2 lbs. (.9kg) and operates continuously for 4 hours. Once the videos are saved, simply plug in the included USB cable to save the files to the directory of your liking, including snapshots. You can even send them back to the ForeEyes 2020 to compare an inspection previously recorded.

The ForeEyes can be used anywhere you can not see with your eyes such as pipes, tanks, aircraft engines, boat hulls and propeller inspections; security applications such as under vehicles, behind dashes, inside trunks and containers as well as duct work (HVAC), chimneys and many more.



▪ INDUSTRIAL FIBRESCOPES

HANDY SCOPE COST EFFECTIVE FIBERSCOPE

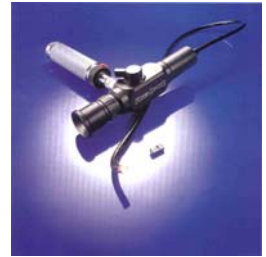
For the inspection of small hollow bodies.

Basic kit includes:

Handy Scope

Battery hand lamp

Interchangeable 90° Head



Models available

Model HS 6-600/1000	HF	SR
Effective length	600/1000mm	600/1000mm
Probe diameter	6mm	6mm
Probe sheathing	High flexibility	Semi-rigid
Focal range	5 – 300mm	5 – 300mm
Field of View	Approx. 50 degree	Approx. 50 degree
Direction of view	0 degree direct	0 degree direct
Mirror head	90 degree side view	90 degree side view
Tip articulation	180/90 degree	none
Photographic and TV use	With adaptor	With adaptor
Illumination	In-built fibre optic light conductor	
Temperature resistance	Up to 60°	
Water resistance	Probe and objective head are waterproof	

Accessories

MEP2/HS Light Guide 1500mm

AR-49/E Universal camera adaptor

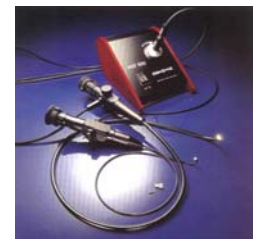
FOT 150 cold light source



▪ FIBRESCOPES TFS 3.5 – 11

Basic Equipment

In the basic kit, a fibroscope set comprises the fibroscope with integral flexible light guide 1500mm long and a suitable cold light source (to be ordered separately). The set can be configured with a number of optional accessories which are designed to simplify it's operation, extend it's range of applications and allow documentation via CCTV or photography.



Models available

Model TFS	3.5	6	8	10/11
Optic focal range	5 – 300mm	7 – 300mm	10mm - ∞	10mm - ∞
Field of view	70°	70°	70°	70°
Eyesight magnification	25 x	25 x	25 x	25 x
Object magnification 1:1 at	Approx. 25mm	Approx. 25mm	Approx. 25mm	Approx. 25mm
Distal tip bending radius	10mm	15mm	20mm	25mm
Length	30mm	40mm	60mm	70mm
Illumination	Integrated cold light via fibre optic conductor supplied by external cold light source			
Protective sheathing	Stainless steel armoured tube with additional protective tube made of special plastic			
Camera and TV adaptor	The eyepiece design permits mounting of corresponding adapters			

▪ ACCESSORIES

Probes

Model TFS	Probe ø mm	Probe length mm	Tip articulation			
			Up	down	left	right
3.5 – 40	3.5	400	180°	90°		
3.5 – 60	3.5	600	180°	90°		
3.5 – 100	3.5	1000	150°	90°		
3.5 – 140	3.5	1400	120°	90°		
6 – 60	6	600	180°	90°		
6 – 100	6	1000	180°	100°		
6 – 150	6	1500	180°	100°		
6 – 200	6	2000	150°	90°		
6 – 300	6	3000	150°	90°		
8 – 100	8	1000	140°	90°	90°	90°
8 – 160	8	1600	140°	90°	90°	90°
8 – 200	8	2000	140°	90°	90°	90°
8 – 300	8	3000	90°	90°	90°	90°
8 – 400	8	4000	90°	90°		
8 – 520	8	5200	90°	90°		
10 – 100	10	1000	140°	140°	140°	140°
10 – 160	10	1600	140°	140°	140°	140°
10 – 200	10	2000	140°	140°	140°	140°
10 – 300	10	3000	140°	140°	140°	140°
10 – 400	10	4000	140°	140°	140°	140°
10 – 520	10	5200	120°	120°	90°	90°
10 – 600	10	6000	90°	90°		
11 – 100	11	1000	120°	120°	120°	120°
11 – 160	11	1600	120°	120°	120°	120°
11 – 200	11	2000	120°	120°	120°	120°
11 – 300	11	3000	120°	120°	120°	120°
11 – 400	11	4000	120°	120°	120°	120°
11 – 520	11	5200	120°	120°	90°	90°
11 – 600	11	6000	120°	120°	90°	90°

▪ MAGNIFIERS

Product code	Description
NCM0005	Illuminated M80

▪ MIRRORS

Product Code	Description
NCM0006	Elcometer Mod 131-2A Illuminated Inspection Mirror with Flexible Stem
NCM0015	Inspection Mirrors to suit Clients requirements

Accessories



90° side viewing heads

Mirror head SPK-3.5 for TFS 3.5
Prism head PK-06 for TFS 6
Prism head PK-08/10/11 for TFS 8-11



Cold light sources

Type FOT 150 is recommended for standard applications.
High intensity light source type XL-I, for bigger cavities or video applications



Light guide adapters

To use TFS fibrescopes with light sources from other manufacturers (e.g. Wolf, Storz, ACMI, Olympus,



Camera-adapter / objectives

Universal adapter AR-49 and TV objectives



TV camera / monitor / video printer

For documentation of inspection results

- ACCESSORIES
- WELDING GAUGES

Product Code	Description
NCG0023	Misalignment Hi-Lo Gauge (Gal)
NCG0022	Weld Profile Gauge (Steel Pin)
NCG0021	Cambridge Weld Gauge (TWI)
NCG0016	Magtest Multi-purpose Welding Gauge
NCG0015	Elcometer Mod 119 Pipe Pit Gauge



Section 17 REPAIRS, SERVICE & CALIBRATION

Gammatec has fully equipped Mechanical and Electronic Workshops with highly trained staff for the repair, service and calibration of your equipment.

Our Electronic Workshops provide the following Services:

Service, Repair and Calibration of:

- Ultrasonic Flaw Detectors
- Ultrasonic Thickness Gauges
- X-Ray Units
- Radiation survey Meters
- Densitometers
- Ultraviolet Lights
- Ultraviolet Light Meters
- Acoustic Emission Equipment
- Automatic Film Dryers
- Automatic Film Processors
- Electromagnetic Yokes
- Magnetic Particle Bench Units
- Paint Thickness Gauges
- Eddy Current Equipment

Our Mechanical Workshops provide the following services:

Refurbishment, Repair and Service of:

- Push / Pull Winding Mechanisms
- Gamma Projectors (limited)
- Guide Tubes
- Collimators
- Emergency Isotope Storage Pots
- Pipe Centering Devices
- Special Fittings and Adapters.

We manufacture the following:

- Push / Pull Winding Mechanisms
- Guide Tubes
- Collimators
- Emergency Isotope Storage Pots
- Pipe Centering Devices
- Special Fittings and Adapters
- Electromagnetic Yokes
- Permanent Magnet Yokes
- Radiographic Film Viewers
- Densitometers
- Radiation Survey Meters
- Environmental Radiation Alarms
- Ultraviolet Lights
- Ultrasonic Couplant

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