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FOMA NDT FILMS

ساخت کمپانی فوما کشور جمهوری چک

www.foma.eu

فیلم های فوما دارای تاییدیه از موسسات زیر بوده و در Vendor این مراکز به ثبت رسیده است :



- * تاییدیه موسسه بین المللی BAM آلمان
- * تاییدیه شرکت ساخت و پشتیبانی کالای نفت تهران
- * تاییدیه کیفیت شرکت ملی گاز ایران
- * تاییدیه کیفیت شرکت مهندسی توسعه گاز ایران
- * تاییدیه کیفیت شرکت ملی نفت مرکزی ایران



((کمپانی فوما با یک قرن تجربه در صنعت فیلم های پرتونگاری - کیفیت تصویر عالی - قیمت مناسب))

نوع فیلم	ویژگی و کار برد	معادل با			کلاسه بندی محصول بر اساس استانداردهای بین المللی			بسته بندی		فیلم فاکتور برای Ir-192
		فوجی	آگفا	کداک	EN	ASTM	ISO	رول	شیت	
R2	دانه بندی بسیار ریز - کنتراست بسیار بالا سرعت پایین کاربرد در صنایع حساس نظیر صنایع هواپیما سازی و الکترونیک	IX25	D2	DR50	C1	Special	T1	-	+	280
R3	دانه بندی بسیار ریز - کنتراست بسیار بالا سرعت پایین کاربرد در صنایع حساس نظیر صنایع هواپیما سازی و الکترونیک	IX29	D3	M100	C2	I	T2	-	+	175
R4	دانه بندی بسیار ریز - کنتراست بسیار بالا سرعت متوسط کاربرد در صنایع هواپیما سازی ، صنایع اتمی ، استراکچرها و سر جوشهای بسیار حساس - صنایع هواپیما سازی ، صنایع اتمی ، ...	IX50	D4	MX125	C3	I	T2	+	+	120
R5	دانه بندی ریز ، کنتراست بالا ، سرعت استاندارد کاربرد : بازرسی خطوط حساس جوش و ریخته گری ، صنایع کشتیرانی و صنایع ساختمانی	IX80	D5	T200	C4	I	T2	+	+	70
R7	دانه بندی متوسط ، کنتراست بالا ، سرعت بالا کاربرد : بازرسی خطوط جوش و ریخته گری ، صنایع کشتیرانی و صنایع ساختمانی	IX100	D7	AA400	C5	II	T3	+	+	35
R8	دانه بندی درشت ، کنتراست خوب ، کاربرد : بازرسی از مواد با ضخامت بالا و کاربردهای خاص	IX150	D8	CX	C6	III	T4	-	+	12

FOMA BOHEMIA spol.s r.o. is a manufacturer of photographic materials and Films with about more than 90 years of production (since 1921). At present FOMA BOHEMIA spol. s r.o. exports industrial X-ray films to more than 50 countries worldwide, e.g.to the United States of America (USA),United Kingdom(UK) Spain, Germany, Sweden, Italy, Poland, China, India, Russia, Algeria, Iran Indonesia , Africa, Australia , and ...



مشخصات فنی فیلم های رادیو گرافی صنعتی فوما

Image quality and classification of film system

NDT films suitable for a specific type of application/work are subdivided by the EN 584 -1 Standard according to minimally guaranteed parameters into six groups,denominated C1toC6. To include a film into a group,four parameters specifying ability of the film to differentiate details in the radiograph are relevant:

- local gradient at optical density D min +4
- local gradient at optical density D min +4
- film granularity at optical density D min +2
- system parameter G/o,which is defined as the ratio of gradient and granularity at optical density D min +2 , an represents the useful-to-disturbing ratio.

Requirements of the EN 584- 1 Standard on a Radiographic Film System

Class according to EN 584-1	G D _{min.+2}	$\geq 3,5$ G D _{min.+4}	$\geq 6,4$ $\geq 5,0$	$\leq 0,028$ $\leq 0,032$
C1	$\geq 4,5$		σ	$\leq 0,039$
C3	$\geq 4,1$	$\geq 7,5$		G/ σ
C4	$\geq 4,1$	$\geq 6,8$	$\leq 0,018$	
C5	$\geq 3,8$	$\geq 6,8$	$\leq 0,023$	≥ 300
C6				

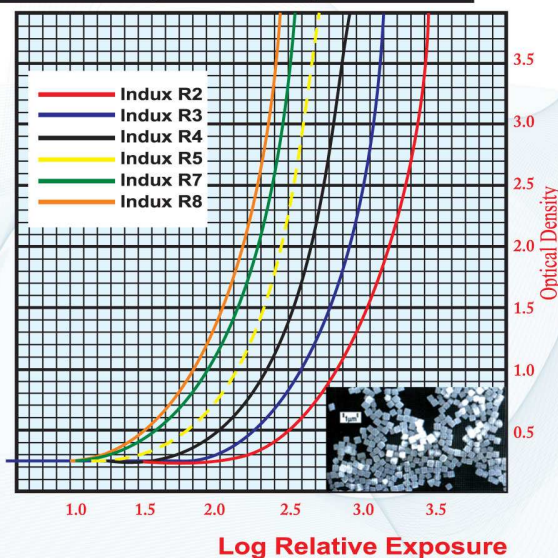
Film type	INDUX R2	INDUX R3	INDUX R4	INDUX R5	INDUX R7	INDUX R
Characteristic						
EN 584 -1 class	C1	C2	C3	C4	C5	C6
ASTM E1815 class	special	I	I	I.	II.	III.
ISO 11699	T1	T2	T2	T2	T3	-

Film Composition

INDUX line Films are Manufactured by Coatind of a light-sensitive Silver Bromo- Iodide Emulsion on Both Sides of a Bluish Polyester Base 0,175 mm thick. The Emulsion layers are Protected against Mechanical Impacts by Effective Protective Gelatine layers Featuring Anti-static Propertise. The Sensitivity of Film to Visible Light is reduced by Means of a Desnsitization Dye Being Added to the Emulsion Layers.

Optimum Image Quality

In General , there is Applicable to photographic Materials That the Lower Is the Film Speed, the Lower is Granularity, and the higher is Resolving power. The Same App Lies to films for Industrial Radiography. Therefore, the correct Choice of film is Important in View of Exposure Time, Size of the Inspected Part, and Required Resolution of Defects Presented.





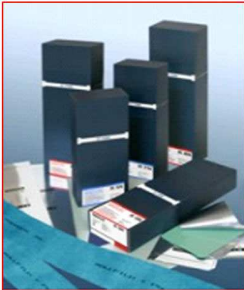
فیلم های شیت در سایزهای مختلف

Sheet films

The Foma NDT SYSTEM includes complete speed series of INDUX sheet line films for industrial radiography, such as INDUX R2, INDUX R3, . INDUX R4, . INDUX R5, . INDUX R7, . INDUX R8

Daylight Packaging (fOMAPAK) - one-sheet vacuum-sealed packaging with lead screens of 0,025mm thickness, light-tight, air-tight and waterproof. Sizes: 6 x10, 6 x12, 6 x16, 6 x 24, 6 x 30, 6 x 40, 6 x 48, 10 x10, 10 x12, 10 x16, 10 x 24, 10 x 30, 10 x 40 and 10 x 48 cm in boxes of 50 sheets. Size 30 x 40 is available in Boxes via 25 sheets.

Darkroom packaging (KB) Sizes: 6x24, 6x40, 6x48, 6x24, 10x12, 10x24, 10x40 10x48 and 10x72 cm in boxes of 100 sheets Sizes: 18x24, 24x30, 10x40 and 35x43 cm interleaved (IF, FW) in boxes of 50 sheets.



Manual and automatic chemicals

FOMADUX line processing chemicals for manual and automatic processing, automatic processors and additional assortment. The wide range of speeds and quality classes makes it possible for the user to find a film suitable for practically any type of radiographic work, using x-ray appliances and radionuclides.



داروی ظهور و ثبوت اتوماتیک و دستی

Personal Monitoring Film

Specialy designed double-emulsion film for the monitoring of the radiation dosage received by personel exposed to gamma-,X- and beta-rays.The film is manufactured 3 x 4 cm in size being sealed in light-tight wrapping to be fitted into a film badge.



فیلم دزیمتری فردی اشعه (فیلم بج)

Film Calibration

FOMASTEP 30 is etalon of optical densities for calibration of densitometers, intended for evaluating of processed NDT x-ray films. There are 16 fields of 10x15mm size with graduated optical densities on the etalon, which fully cover the range of optical densities $D = 0 \sim 4,2$.



فیلم کالیبراسیون

AsTM Reference Films

Standard Reference Radiographs Films for Inspection of Cast and weld These reference images illustrate various categories types, and severity levels of discontinuities occurring in welds and cast.

Radiation sources: (Ir-192 , Co-60, X-ray , Accelerator , digital)
objects:(Steel Aluminum, Magnesium, Nickel, Bronze, Titanium)



انواع تصاویر مراجع رادیوگرافی



تاییدیه های بین المللی و داخلی فیلم های فوما

To: FOMA BOHEMIA SPOL. SR. O.
Attn: General Manager
Subject: NIGC VENDORS LIST EXTENSION LETTER

Dear Sir,

Referring to your letter, please be informed that your company will be remained on the NIGC V.L., as a manufacturer of following product / products for one more year.

- Film For Radiography (Fomadv X NDT R4-R5-R7)

Hope for future business relations.

N.B: The validity of this letter is for one year, from the date of issue.

Best Regards,
Farzad Mohajeri
Farzad Mohajeri

Sourcing, Commercial Research & Contractor Manager

Cc: PARTOKARAN TABESH Co.

NIGC Main Building south Aban St. Karamkhan Zand Ave. Tehran Iran
P.O.Box 11365-4994 & 15875-4533, Tel: (+9821) 86270, Fax: (+9821) 8627 47 90
Internet Site: www.nigc.ir E-mail: info@nigc.ir

تاییدیه شرکت ملی گاز ایران

Industrial Radiographic Film System
Certificate No. BAMZBF002/2011

Hereby it is certified by the BAM Certification Body that the industrial X-ray film system with the designation

Indux R7 CERT
Fomadv R7 CERT
processed in the
developer AGFA G 135,
automatic film processing with immersion time of 100 seconds,
developer temperature 28 °C,

of the manufacturer
FOMA BOHEMIA spol. s r.o.
Hradec Králové / Czech Republic

The certification was performed on the basis of certification contract No. BAM - ZBF - 0001 - 2011 - FOMA according to the requirements of the EN 45011 (1998) standard and comprises a type examination with surveillance of the products as well as of the production site (BAM Certification Systems Ia and Ib - at least half-yearly surveillance of the products and quarterly surveillance of the measuring data from the continuous production as well as an additional yearly surveillance of the production site). The products certified by BAM may be labeled with the BAM certification mark "BAM Geprüft und überwacht" and/or "BAM Certified and under surveillance". The certificate is valid until 30 June 2016.

The certificate is based on the test report No. 8.37212 of 2010-12-01.

for BAM Bundesanstalt für Materialforschung und -prüfung
Unter den Eichen 87, 12205 Berlin, 2011-07-01

Dr.-Ing. J. Thiele
BAM Certification Body

Dr. U. Ewert
Assessor

Distribution list:
1st Certificate holder: 2nd BAM Certification Body

The BAM Certification Body has been accredited according to standard DIN EN ISO 9001:2008 by the DSA-1001 (Deutsche Gesellschaft für Zertifizierung mbH). The accreditation is valid for the scope given in certificate 001-20-000-01.

This certificate may only be published in full wording and without any addition. A separate written consent shall be obtained from the Management for any amended reproduction or the publication of any extracts. The German version is ultimately legally binding. Please refer to the German version.

34 Safety in technology and chemistry

تاییدیه موسسه بام آلمان

ELEKTROTECHNICKÝ ZKUSOBŇÍ ÚSTAV

CE - CERTIFICATE
of full quality assurance system

for MED 60649

The Electro-Technical Testing Institute, Notified Body No. 0104, has decided that Quality System applied by

manufacturer:
FOMA BOHEMIA spol. s r.o.
ul. J. Kralovského 1004, 501 04 Hradec Králové, Czech Republic

for design, manufacture and final inspection of medical devices

Radiographic films

comparing with provisions of Annex 2 section 2 of Governmental Order No. 336/2004 Coll. (Annex E section 3 of the Czech Standard EN 45011:2008) amendments.

This decision is based on the results presented in report No. 365466-01-01-A of 26.10.2005

in accordance with § 5 of Governmental Order No. 336/2004 Coll. (Annex E section 3 of Directive 93/42/EEC), and amendments the above specified medical device must be labeled CE 1014.

The notified manufacturer is subject to a surveillance audit by the notified body in accordance with section 5 of Annex 2 of Governmental Order No. 336/2004 Coll. (Annex E section 3 of Directive 93/42/EEC) and amendments, and validity of the Certificate is subject to regular supervision. The manufacturer must inform the notified body about any changes resulting in significant modifications of quality system or scope of included medical products. In the event that the conditions under which the Certificate has been issued are violated, the notified body may suspend the Certificate's validity or cancel the Certificate.

The validity of Certificate is limited to: 30.11.2010

The Certificate MED 109012 is cancelled hereby.

8.11.2003

Page: Pavel Kralovský
Certification and Inspection Manager

Stamp

کواهینامه CE

تاریخ: ۸/۱۰/۹۶
شماره: ۱۳۷۳۸۱۱۲
پوست:

مدیر عامل محترم شرکت پرتو کاران تابش

موضوع: شرکت FOMA BOHEMIA SPOL. SR. O. (جمهوری چک)

با سلام،
بازگشت به نامه شماره ۸۸۴/۹۶ مورخ ۹/۱۰/۹۶، به اطلاع می‌رساند شرکت موضوع فوق شرکت پرتو کاران تابش را به عنوان توزیع کننده خود در ایران معرفی نموده است. در بانک اطلاعات منابع خارجی این اداره جهت اطمینان از اعتبار شرکت، در تاریخ ۱۳۷۳/۱۰/۱۰ اقدام به بازدید از شرکت نمودیم. در این بازدید، با توجه به نتایج بازدید، شرکت را جهت عضویت در لیست تأمین کنندگان، به شرکت پرتو کاران تابش معرفی نمودیم. در صورت نیاز، می‌توانید با شرکت پرتو کاران تابش تماس بگیرید.

- Film For Radiography (Fomadv X NDT R4-R5-R7)

با احترام،
فرید مجاری
رئیس اداره بررسی منابع، مدیریت بازرگانی و خدمات

تاییدیه شرکت ملی گاز ایران

تاریخ: ۱۳۸۱/۱۰/۰۴
شماره: ۵۷۱۶
پوست:

مدیر محترم شرکت پرتو کاران تابش

موضوع: تایید شرکت FOMA

با سلام،
احتراماً در پاسخ به نامه شماره ۸۸۴/۹۶ مورخ ۸/۱۰/۹۶، به اطلاع می‌رساند شرکت پرتو کاران تابش، جهت عضویت در لیست تأمین کنندگان، به شرکت پرتو کاران تابش معرفی نمودیم. در صورت نیاز، می‌توانید با شرکت پرتو کاران تابش تماس بگیرید.

با احترام،
فرید مجاری
رئیس اداره بررسی منابع، مدیریت بازرگانی و خدمات

تاییدیه شرکت ملی نفت ایران

تاریخ: ۱۳۸۱/۱۰/۰۴
شماره: ۵۷۱۶
پوست:

شرکت پرتو کاران تابش

موضوع: بررسی فیلم های FOMA

با سلام و احترام،
مطلب به درخواست آن شرکت طی نامه شماره ۸۸۴/۹۶ مورخ ۹/۱۰/۹۶، به اطلاع می‌رساند شرکت پرتو کاران تابش، جهت عضویت در لیست تأمین کنندگان، به شرکت پرتو کاران تابش معرفی نمودیم. در صورت نیاز، می‌توانید با شرکت پرتو کاران تابش تماس بگیرید.

با احترام،
فرید مجاری
رئیس اداره بررسی منابع، مدیریت بازرگانی و خدمات

تاییدیه شرکت مهندسی و توسعه گاز ایران

انواع دوربین های رادیوگرافی QSA-Sentinel آمریکا

DELTA
150 Ci

The lightest 150 Ci device currently available

SIGMA
130 Ci

Optimized for use with industry-standard Ir-192 and Se-75 source activities

ELITE
50 Ci

Ideal for use with low-energy isotopes and lower activity Ir-192 sources

OMEGA
15 Ci

Designed to minimize weight and maximize offshore capability with Ir-192 and Se-75



Isotope	Se-75	Ir-192	Co-60	Yb-169	Cs-137
Assembly Model Number	A424-25W	A424-9	A424-19	91810	A424-30
Gamma Energy Range	66-401keV	206-612keV	1.17-1.33MeV	8-308keV	N/A
Half-Life	120 Days	74 Days	5.27 Years	32 Days	30 Years
Approximate Steel Working Thickness	3-29mm	12-63mm	50-150mm	2-20mm	N/A
Device/Source Maximum Capacity					
880 Delta	150Ci 5.55TBq	150Ci 5.55TBq	65mCi 2.40GBq	20Ci 0.74TBq	380mCi 14GBq
880 Sigma	150Ci 5.55TBq	130Ci 4.81TBq	25mCi 925MBq	20Ci 0.74TBq	380mCi 14GBq
880 Elite	150Ci 5.55TBq	50Ci 1.81TBq	25mCi 925MBq	20Ci 0.74TBq	380mCi 14GBq
880 Omega	80Ci 3.00TBq	15Ci 0.55TBq	N/A	30Ci 1.11TBq	N/A

USA

انواع کولیماتور

Korea



Item	Description	Weight	Attenuation
TCN799	Tungsten	1.75 lb 0.79 kg	Co-60: 0.46 Ir-192: 0.05
TCN827	Tungsten	4.3 lb 1.95 kg	Co-60: 0.26 Ir-192: 0.009
TCN828	Tungsten	9.5 lb 4.32 kg	Co-60: 0.17 Ir-192: 0.003
TCN846	Tungsten	4.3 lb 1.95 kg	Co-60: 0.18 Ir-192: 0.0045

Model	TSC-19	TSC-19P
Shielding Material	Tungsten	Tungsten
Diameter	30mm	32mm
Length	54mm	58mm
Weight	400g	360g
Beam angle	30° conical 60° conical 90° conical 120° conical Side throw	360° Panoramic



تجهیزات جانبی



Colenta

انواع دستگاه های ظهور و ثبوت اتوماتیک Colenta اتریش

شرکت پرتوکاران تابش نمایندگی انحصاری کمپانی Colenta اتریش
بزرگترین و معتبرترین تولید کننده انواع دستگاه های ظهور و ثبوت اتوماتیک



INDX 43/3-5 Specifications

Processing applications:
Film thickness:
Material width:
Material length:

Rolls/Cut sheets of industrial x-ray films
0,10mm (4mil)- 0,18mm (7mil)
min. 7,5 cm max. 43cm
min. 10cm

Capacities for	Time in Developer [sec]	Cycle Time (dry to dry) [min]	Intake speed [cm/min]
INDX 43 / 3MW	32 176	2' 36" 14' 18"	77 14
INDX 43 / 5MW	30 165	2' 08" 11' 45"	115,4 21



INDX 43/2.0b Specifications

Processing applications:
Film thickness:
Material width:
Material length:

Rolls/Cut sheets of industrial x-ray films
0,10mm (4mil)- 0,18mm (7mil)
min. 7,5 cm max. 43cm (17inch)
min. 12 cm

Capacities for	Time in Developer [sec]	Cycle Time (dry to dry) [sec]	Intake speed [cm/min]
INDX 43 / 2.0b	min32 max170	97 659	95 14



INDX 900 Specifications

max. Film width:
min. Film width:
Tankbody PA:

36cm/14inch
10cm/4inch
Dev/Fixer/Wash 2,3 lt. each

Capacities for	Time in Developer [sec]	Cycle Time (dry to dry) [sec]	Intake speed [cm/min]
INDX 900 NDT	min30 max150	162 816	38 8



INDX 37 Dryer Specifications:

Tankbody PA:
Dryer Temperature:
Water replenishment:
Capacity at cycle time
from: 212 sec.
to: 70 sec.
(adjustable in 5cm/min steps)

Wash 3,4 Litre
approx 50°C
automatic bottle feed
in-feed speed
15 cm/min
45 cm/min

Capacities for	Max Film Width:	Min Film Length
INDX 37 NDT Dryer	36cm/14inch	10cm/4 inch

دستگاه اشعه ایکس پرتابل با امکان کارکرد باتری و برق ساخت کمپانی **Medex** بلژیک

GemX - ray generator for portable NDT applications

دستگاه اشعه ایکس پرتابل ساخت کمپانی **Medex** بلژیک با طراحی و تکنولوژی منحصر به فرد جهت استفاده در :



- * بازرسی در صنعت نفت و گاز
- * بازرسی در صنایع نظامی و امنیتی
- * بازرسی در صنایع هواپیما سازی
- * بازرسی در صنایع الکترونیک و مخابرات

قابلیت‌های دستگاه :

- * کاربرد با برق و باتری
- * سبک و قابل حمل
- * ایمنی پرتوی بالا
- * جایگزین مناسب برای رادیوگرافی گاما
- * قابلیت استفاده با فیلم و سیستم دیجیتال CR & DR
- * اندازه لکه کانونی کوچک (0/5mm) - ایجاد کیفیت بالا
- * کنترل با کابل و بدون کابل (Wireless Control)
- * چرخش ۳۶۰ درجه
- * سیستم کاملاً هوشمند

- All-terrains
- Ultra-portable
- Mini focal spot
- Remote control
- Battery powered

GemX-200 Specifications :

- * Type) 50 - 200 kV
- * Selectable mA : 0.1 - 2 mA
- * Oil insulated
- * Duty cycle at 20 C > 50%
- * Weight : 22 kg
- * Sizes : 350 * 220 * 300 mm
- * 28-35 Vdc power entry
- * Constant potential
- * Focal spot : 0.5 * 0.7mm
- * Beam angle : 60 x 60
- * Powered from mains & battery
- * 360 handle
- * Wired or wireless control
- * **NEW**: ethernet communication



GemX-160 Specifications :

- * Type 1) 20 - 160 kV
- * Type 2) 50 - 160 kV
- * Selectable mA : 0.1 - 2 mA
- * Oil insulated
- * Duty cycle at 20 C > 25%
- * Weight : 15 kg
- * Sizes : 282 * 278 * 188 mm
- * 28-35 Vdc power entry
- * Constant potential
- * Focal spot : 0.5 * 0.5mm
- * Beam angle : 45 x 45
- * Powered from mains & battery
- * 360 handle
- * Wired or wireless control



MEDEX
LONCIN S.A.

GemX options

Power supply :

- 28-35 Vdc
- Standard LiPo batteries
- Advanced LiPo batteries [**NEW : +60% energy**]
- Universal Vac power supply

Control possibilities :

- Integrated keyboard on the GemX
- Wired remote control
- Wireless remote control
- Rs232 communication protocol
- Ethernet communication for computer control [**NEW**]
- [standard protocol for easy customer software integration]

Accessories :

- Wired flashing light and beepers
- Wireless flashing light and beepers
- Laser pointer
- Lead cap for safe warm-ups
- Tripod
- Dosimeters
- ABS carrying case

Advantages :

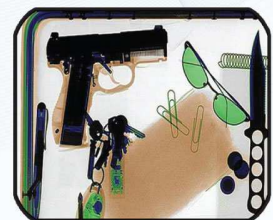
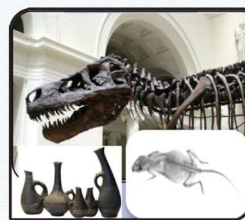
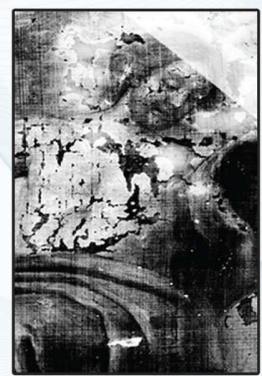
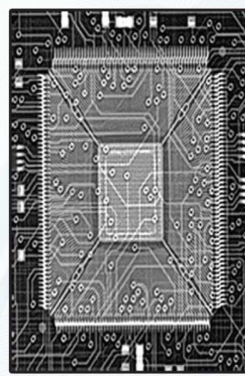
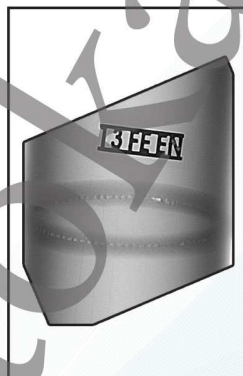
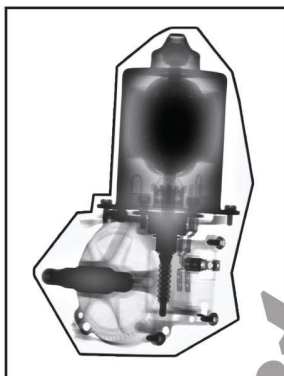
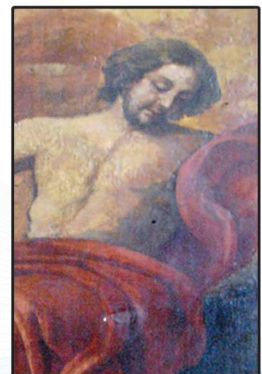
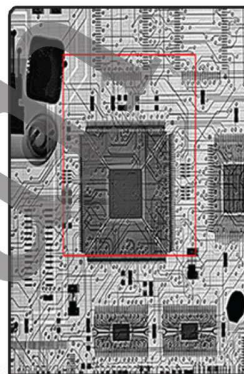
The mini focal spot, the large beam angle, the power and the rhythm of work of **GemX** provide impressive dose and X-ray images.

The 360 handle [direct the beam in any direction and fix the generator very easily on pipes], the magnets on the remote control and on the laser pointer, the possibility to have the **GemX** on the tripods, are great features which make your job easy on the site.

Together with the **X-RIS DeReO** solutions, **GemX** gives the possibility to change kV and mA during the X-ray shot in order to adjust penetration and contrast. As a portable equipment, this is a unique feature which will save you lot of time, especially when you X-ray a new object.

GemX safety

- GemX complies with international standards
- Flashing lights and buzzers available
- Clever security communication protocols ensure safety even in the wireless mode
- GemX does not contain any green house gas under high pressure.



سیستم تصویر ساز رادیوگرافی دیجیتال (Digital Flat Panel)

ساخت کمپانی X-Ris بلژیک

((سیستم رادیوگرافی دیجیتال به روش مستقیم))

کاربردها :

- * بازرسی در صنعت نفت و گاز
- * بازرسی در صنایع نظامی و امنیتی
- * بازرسی در صنایع هواپیما سازی
- * بازرسی در آثار باستانی
- * بازرسی در صنایع الکترونیک و مخابرات

DeReo



Applications :

Inspections of anything, anywhere, at anytime

- Weld inspections on pipelines, pipes, plates in power infrastructures in petro-chemical industries, in aeronautics, aerospace, ...
- Castings for defects identification such as porosities, thermal cracking and inclusions.
- Structure of composite materials
- Historical assets (in Museum, in laboratories, in universities, ...)

Key features:

portability

- X-ray pictures anywhere. Possibility to use the DeReo in a shielded cabinet and to remove it at any time and use the DeReo as a portable equipment on site.

Large area

- Active area of 41 x 41 cm for big objects

Quick set-up

- X-ray pictures at any time

Digital

- Direct results
- Very easy set-up and use thanks to the automatic real time filter magnifier and to the wide contrast latitude of digital technologies
- Userfriendly **Maestro** software
- Post processing
- Tiff & jpg format
- Easy archive & reporting
- No more consumables (films and chemistry) & dark room needed
- Excellent resolution (20D μ m] and excellent signal noise ratio (SNR)
- 14 or 16 bits version
- Gadox or CSI screen
- Automatic and fast averaging

Image quality

- Impressive penetration capability
- Option : adjustable sensitivity

Highest sensitivity

- Possibility to X-ray composite material up to several centimeters of steel

Large kV range

- Possibility to slide the DeReo between 2 objects

Thin

Real Time

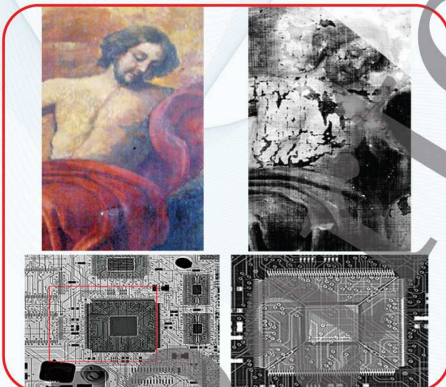
- Real time X-ray videos for perfect and fast image adjustment. No more concern about the kV and mA selection thanks to the real time video [1 frame per second)

Flexibility

- Works with the **GemX** X-ray generators and with any kind of X-ray generator or gamma source. Synchronisation is not needed. Additional shielding is required above 160 kV.

Affordable

- Very high-end system with very unique features to come



DeReO Flat Panel

Active Area : 41 x 41 cm
Resolution : 200 μ m
Grey Scale : 14 bits (16 bits in option)
Gadox or SCI screen
Total dimension : L610 x H600 x 30 mm
Weight : < 11,8 kg
No kV limit
Real time :
- 1 frame per second
- 4 frames per second (option)

Maestro Software

Real time filter magnifier
Access to the LUT (look-up-table)
Zoom in, zoom out S. screen adjustment
Black & white reverse

Picture rotation
Horizontal / vertical flip
Cropping
Measurement/ profile

Any language available on request
(to be confirmed by X-IRIS)
X-RIS is opened to discuss the development
of new software tools upon request



سیستم پردازش تصویر دیجیتال

DeReO workstation

- Laptop
- Screen '15.6" or better
- Dual core 32-bits or 64-bits processor + integrated graphics equ.
- RAM DDR 3 Go
- Windows XP 32-bits or Windows 7 (32-bits or 64-bits)
DeReO options

DeReO options

Real Time
Wireless modules
Battery power
Control of **GemX** via Maestro software
IP66 Carrying case

GemX portable CP X-ray generators

- Wireless remote control :
- Battery (30 min of X-ray) or mains :
- Voltage range :
- Current :
- Mini focal spot :
- Window :
- Insulation :
- Penetration :

- All-terrain 360° handle :
- Accessories :
Dosimeters

20 x 43 cm [8 x 17 inch]

GemX-160 [14 kg]

Yes
Yes
20 - 160 kV
0.1 - 2 mA
0.5 x 0.7 mm
Be or Al
Oil [2h of X-ray/day]
Up to 36 mm of Fe
Yes
Tripod, leadcap, laser pointer,...

GemX-200 [20 kg]

Yes
Yes
50 - 200 kV
0.1 - 1.5 mA
0.5 x 0.7 mm
Al
Oil [3h of X-ray/day]
> 70 mm of Fe
Yes
Tripod, leadcap, laser pointer, ...



((بدون نیاز به فیلم و صرف هزینه های مصرفی، رادیوگرافی کنید))

ceReo



سیستم رادیوگرافی دیجیتال کامپیوتری Computed Radiography

ساخت کمپانی X-Ris بلژیک

((سیستم رادیوگرافی دیجیتال به روش کامپیوتری نمودن تصویر))

کاربردها :

- * بازرسی در صنعت نفت و گاز
- * بازرسی در صنایع نظامی و امنیتی
- * بازرسی در صنایع هواپیما سازی
- * بازرسی در آثار باستانی
- * بازرسی در صنایع الکترونیک و مخبرات

Applications :

Inspections of anything, anywhere, at anytime according to the situation

Customs

- Inspections of parcels, cars (door, trunk, tires, engine parts, ...), pieces of luggage for the search of illegal materials and equipments or in the frame of counter smuggling

Counter-surveillance

- Inspections of walls and furnitures for the search of bugs and miniature cameras

Forensic

- X-ray of dead tissues and objects on a crime scene or in laboratories

Key features :

Portability

- X-ray pictures anywhere

Quick set-up

- X-ray pictures at anytime

Digital

- Very easy set-up and use thanks to the automatic real time filter magnifier and to the wide contrast latitude of digital technologies
- Userfriendly **Maestro** software
- Direct results
- Post processing
- Tiff & jpg format
- Easy archive & reporting
- No more consumables (films and chemistry) and no more dark room needed

Image quality

- High resolution (down to 21 pm) and high contrast (16 bits)

Large kV range

- Possibility to X-ray a large range of different objects and materials, from light materials up to 70 mm of Fe @ 200 kV

Thin & flexible Image plate

- Possibility to wrap the film around the object
- Possibility to slide the image plate between 2 objects

Affordable

- High specifications but low investment costs

X-ray source compatibility

- The **CeReO** works with the Gem S. with the Golden and with any other X-ray source

CeReO image plate

Image plate size :
Environmental operating conditions :
- Temperature :
- Humidity :

- 20 x 43 cm (8 x 17 inch)
- 15 to 34°C (59° to 93° F)
- 30% to 80%, non-condensing

Resolution :
Grey scale :
Scanning speed :
Image display time :
- Resolution of 170 µm :
- Resolution of 85 µm :
- Resolution of 42 µm :
- Resolution of 21 µm (option) :

- (21), 42, 85, 170 µm
- 16 bits
Up to 40 image plates/h

Weight :
Sizes :
Power supply :
Environmental operating conditions :
- Temperature :
- Humidity :

- ± 50s
- ± 100s
- ± 200s
- ± 400s
- 16 kg [35 lbs)
- 39.3 cm x 49.4 cm x 27.b cm
- Universal (100-240 VAC, 50/60 Hz)
- Temperature : 0° to 40° C (32° to 104° F]
- Humidity : 6% to 94%, non-condensing



سیستم پردازش تصویر دیجیتال

Maestro Software

Access to the LUT (look-up-table)
Real time filter magnifier
Zoom in, zoom out & screen adjustment
Black & white reverse

Picture rotation
Horizontal / vertical flip
Cropping
Measurement/ profile

Any language available on request
(to be confirmed by X-IRIS)
X-RIS is opened to discuss the development
of new software tools upon request

CeReO workstation

- Laptop
- Screen '15.6" or better
- Dual core 32-bits or 64-bits processor + integrated graphics equ.
- RAM DDR 3 Go
- Windows XP 32-bits or Windows 7 (32-bits or 64-bits)
DeReO options



CeReO options

Additional image plates. Size :
Image plate protective envelope
IP66 Carrying case

GemX portable CP X-ray generators :
- Wireless remote control :
- Battery (30 min of X-ray) or mains :
- Voltage range :
- Current :
- Mini focal spot :
- Window :
- Insulation :
- Penetration :
- All-terrain 360° handle :
- Accessories :
Dosimeters

20 x 43 cm [8 x 17 inch]

GemX-160 [14 kg]
Yes
Yes
20 - 160 kV
0.1 - 2 mA
0.5 x 0.7 mm
Be or Al
Oil [2h of X-ray/day]
Up to 36 mm of Fe
Yes
Tripod, leadcap, laser pointer,...

GemX-200 [20 kg]
Yes
Yes
50 - 200 kV
0.1 - 1.5 mA
0.5 x 0.7 mm
Al
Oil [3h of X-ray/day]
> 70 mm of Fe
Yes
Tripod, leadcap, laser pointer, ..



((بدون نیاز به فیلم و صرف هزینه های مصرفی ، رادیوگرافی کنید))



«کیفیت بسیار بالای دستگاههای Radioflex را با قیمت های مناسب تجربه کنید»

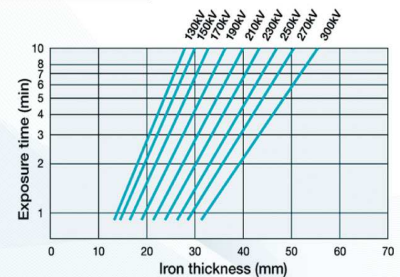
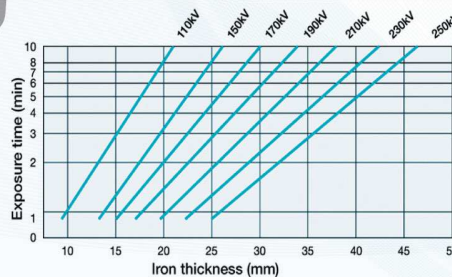
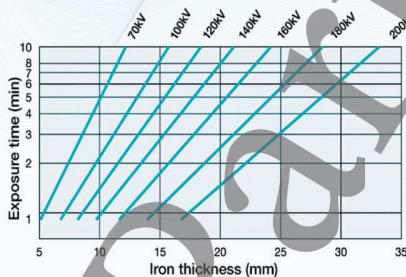
Radioflex

Model	Teyp	Tube Voltage	Tube Current	Duty Cycle	Max. Penetration in Fe	Tube Type	Weight (kg)		Dimension (mm)		Focal Spot Size (mm)
							ژنراتور	کنترلر	ژنراتور	کنترلر	
RF300M2F	Panoramic	150-300 kV	5 mA	100 % 6 min -10°C to +40°C	55 mm	Class	50.2	17.2	356(W) x 356 (D) x 825(H)	360(W) x 340 (D) x 208(H)	Nominal 2.5 x 2.5
RF300EGM2	Directional	130-300 kV	5 mA	100 % 10 min -10°C to +45°C	55 mm	Ceramic	36.5	17.2	320(W) x 320 (D) x 678(H)	360(W) x 340 (D) x 208(H)	Nominal 2.5 x 2.5
RF250EGM2	Directional	110-250 kV	5 mA	100 % 10 min -10°C to +45°C	47 mm	Ceramic	28	17.2	320(W) x 320 (D) x 632(H)	360(W) x 340 (D) x 208(H)	Nominal 20 x 20
RF200EGM2	Directional	70-200 kV	5 mA	100 % 10 min -10°C to +45°C	33 mm	Ceramic	21	16.5	262x262x217	360(W) x 340 (D) x 208(H)	Nominal 20 x 20
Rf200 SPS	Directional	80-200 kV	3 mA	100 % 6 min -10°C to +40°C	28 mm	Ceramic	15	14.5	200x200x520	360x340/185	Nominal 20 x 20
Rf1 00GSB	Directional	20-100 kV	5 mA	100 % 6 min -10°C to +40°C	28 mm	Class	22	21.5	262x262x570	425x380x245	Nominal 1.5 x 1.5



Main Functions/Specifications of Controller

Function	Specification
Timer display (Error display)	Digital: 1 sec, -9 mins. 59 secs. (1-second steps) Error code displayed when error occurs Waiting time displayed when X-ray generation halted (optional)
Auto-aging	Required aging time: Automatic setting for long and short halt
Safety circuits	Safety keys witch Output terminal for door interlock Output terminal for X-ray generation warning Pre-warning buzzer function before X-ray generation (optional)
Power saving mode	Tube current selection switch (STD mode, LOW mode)
Others	"Time-up buzzer .Line voltage monitor "Remote controller (optional)





دستگاه اشعه ایکس ساخت کمپانی YXLON آلمان

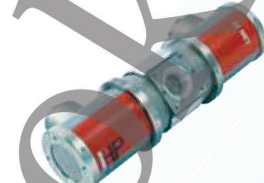


		160W	160E/0.4	200	200PC	225	300HP	300HP
Tube Voltage	kV	10-160	10-160	60-200	50-200	70-225	50-300	50-300
Adjustment step length	kV/step	1	1	1	1	1	1	1
Tube current	mA	2.0 - 6.0	2.0 - 6.0	0.5 - 4.5	0.5 - 4.5	0.5 - 4.0	0.5 - 3.0	0.5 - 3.0
Adjustment step length	mA/step	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max.Power	W	640	640	900	600	900	900	600
Focal spot size	acc.1EC336	0.4	0.4	1.5	0.3x3.0	1.5	1.5	0.3x3.0
Focal spot size	acc.EN12543	1.0	1.0	3.0	0.4x4.0	3.0	3.0	0.4x4.0
Beam angle		40°x 40°	40°x 55°	40°x 55°	40°x 360°	40°x 55°	40°x 55°	40°x 360°
Inherent filtration		1mmBe	1mmBe	1mmBe	"0.4mm Fe/Ni/Cu"	1mmBe	1mmBe	"0.4mm Fe/Ni/Cu"
Additional filters		3mm Al	3mm Al	3mm Al	3mm Al	"4mm Alequivalent"	"4mm Alequivalent"	4mm Al
Duty cycle Pmax	at 20°C	100%	70%	100%	100%	100%	100%	100%
Penetrable	mmFe	32	32	43	40	45	65	65
Anode cooling		强制风冷	强制风冷	强制风冷	强制风冷	强制风冷	强制风冷	强制风冷
LxDiameter(with handle)	mm	295x556	284x616	295x670	295x673	295x709	295x775	295x712
Weight(with handle)	kg	20.5	22.0	26.5	26.0	27.8	33.0	37.0
Control Unit size	mm	465x154x323	465x154x323	465x154x323	465x154x323	465x154x323	465x154x323	465x154x323
Weight	kg	11.3	11.3	11.3	11.3	11.3	11.3	11.3

COMET

Technology with Passion

دستگاه اشعه ایکس پرتابل و موبایل ساخت کمپانی COMET سوئیس



Product number	XY-320/23	XY-320/26	XY-320111 P	XY-350/23	XY-350/26	XY-400/25	XY-420/26	XY-450/26	XY-450/HP
voltage range	30-320	30-320	30-320	30-350	30-350	30-400	30-420	30-450	30-450
Step lengthth (mA)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max. Power (IV)	640/1600	1500/4200	800/1800	640/1600	150/4200	1500/4200	900/4500	900/4500	700/1500
Current adjustment (mA)	2.0/5	4.0/13	3.0/7	3.0/6	3.0/13	3.0/10	2.0/10	2.0/10	1.8/5
Step lengthth (mA)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Focus size EN12543 (mm)	d=1.9/d=3.6	d=3.0/d=5.5	d=0.4/d=1.0	d=1.9/d=3.6	d=3.0/d=5.5	d=3.0/d=7.0	d=2.5/d=5.5	d=2.5/d=5.5	d=0.4/d=1.0
Radial angle(°)	40	40	40/30	40	40	38	40	40	40/30
Max.penetrateable A3 steel	81	83	81	85	87	93	100	110	105
Working model	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous



HUA RIELECTRIC CO.,LTD.

انواع تیوب های اشعه ایکس مارک HRNDT چین



کمپانی Dan Dong HuaRi Electronic معتبرترین و بزرگترین
سازنده دستگاههای اشعه ایکس رادیوگرافی در کشور چین

اولین و تنها تولید کننده دستگاههای اشعه ایکس فرکانس بالا

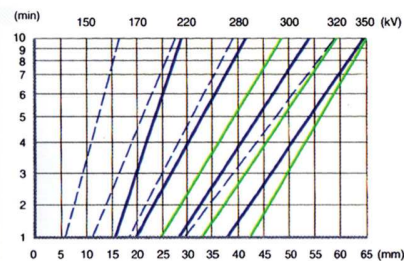
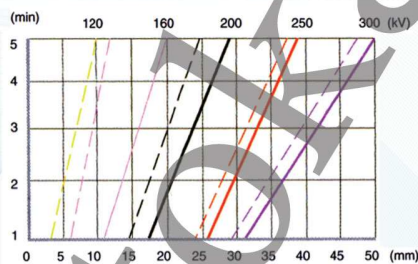
اولین تولید کننده کنترلر IGBT



Voltage range(kV)	Current(mA)	Focussize(mm)	IEC336		Power(kVA)	Radial angle	Penetrable(mm)	Generator weight(kg)	
XXQ:Glass Directional Tube			Native	Exotic		Native	Exotic		
XXQ-120	40-120	3	1.5 x 1.5	—	≥1.5	40°	—	10	8
XXQ-160	70-160	5	1.5 x 1.5	—	≥2.0	40°	—	19	16
XXQ-200	120-200	5	1.5 x 1.5	—	≥2.5	40°	—	29	23
XXQ-250	150-250	5	2.0 x 2.0	—	≥3.6	40°	—	39	34
XXQ-300	170-300	5	3.5 x 3.5	25 x 30	≥3.6	40°	40°	50	40
XXQ-320	170-320	5	—	2.2x2.6	≥3.6	—	40°	60	43
XXG:Directional Tube									
XXG-160	70-160	5	1.5 x 1.5	1.5x1.5	≥2.0	40°	40°	19	18
XXG-200	120-200	5	2.0 x 2.0	2.0x2.0	≥2.5	40°	40°	29	21
XXG-250	150-250	5	2.0 x 2.0	2.0x2.0	≥3.6	40°	40°	39	31
XXG-300	170-300	5	2.5 x 2.5	2.5x2.5	≥3.6	40°	40°	50	38
XXG-350	170-350	5	—	2.5x2.5	≥3.6	—	40°	65	38
XXG-250A	150-250	5	2.0 x 2.0	2.0x2.0	≥3.6	40°	40°	39	23
XXG-300A	170-300	5	2.5 x 2.5	2.5x2.5	≥3.6	40°	40°	50	32
XXGH-250	150-250	5	1 x 2.0	—	≥3.6	25° x360°	—	37	31
XXH:Glass Panoramic Tube									
XXH-120	40-120	3	1.0x 3.5	5.5	≥1.5	30° x 360°	40° x 360°	7	8
XXH-160	70-160	5	1.0 x 3.5	5.5	≥2.0	30° x 360°	40° x 360°	12	16
XXH-200	120-200	5	1.0 x 3.5	5.5	≥2.5	30° x 360°	40° x 360°	24	23
XXH-250	150-250	5	1.0 x 2.5	5	≥3.6	30° x 360°	40° x 360°	34	34
XXH-300	170-300	5	1.0 x 3.5	5	≥3.6	30° x 360°	40° x 360°	40	40
XXH-320	170-320	5	—	5	≥3.6	30° x 360°	40° x 360°	50	43
XXH-200A	120-200	5	1.0 x 3.4	—	≥2.5	25° x 360°	—	27	23
XXH-250A	150-250	5	1.0 x 2.4	5	≥3.6	25° x 360°	25° x 360°	37	34
XXH-300A	170-300	5	1.0 x 3.5	—	≥3.6	25° x 360°	—	47	40



تاییدیه CE



تاییدیه ISO





HUA RIELECTRIC CO.,LTD.



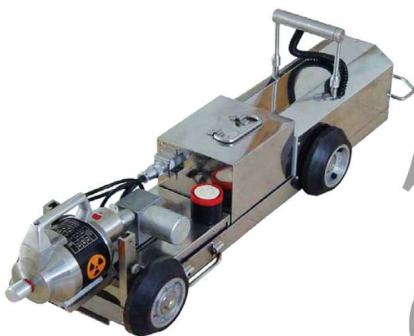
HR-NDT اولین تولید کننده دستگاه کرالر در چین

کرالهای سری HR :

- * مجهز به سنسور سنجش رطوبت
- * کرالر هوشمند و قابل برنامه ریزی
- * طراحی سفارشی کرالر متناسب با نیاز پروژه
- * سرعت بالای انجام عملیات به همراه ایمنی بالا
- * قابلیت کنترل عملکرد دستگاه بوسیله کنترلر مغناطیسی
- * تنظیم هوشمند ماکزیمم سرعت کرالر با توجه به شیب لوله
- * محاسبه و ذخیره میزان انرژی لازم جهت خروج از لوله در هنگام اتمام انرژی باتری بصورت تمام اتوماتیک

HR - Pipeline Crawler Specifications

Model	HR-91	HR-91	HR-92	HR-90
Available Diameter mm	190 – 400	219 – 400	380 – 900	610 – 1400
Max.Gradient	15°	40°	40°	40°
Speed	15m/min	15m/min	15m/min	18m/min
X-ray Generator	1605	1605	2005,2505	3005
Focal Spot Size mm	1.0*3.5	1.0*3.5	1.0*3.5	1.0*3.5
Radiation angle	30°*360°	30°*360°	30°*360°	40°*360°
Max.penetrable mm	12(A3 steel)	12(A3 steel)	23,34	40(A3 steel)
Locate Mode	Pilot Command magnetic	Pilot Command magnetic	Pilot Command magnetic	Pilot Command magnetic



Exposure Device Available	Ir-192, Se-75
Shielding	Depleted Uranium
Focal Size	Φ3.0×Φ3.0mm
Max. Exposure Time	30 minutes
Pipe Diameter Range	273-500mm; 350-1000 mm; 500-1400mm
Power Supply	DC 24V(22Ah)
Creeping Speed	12-15m/min
Creeping Distance	8Km
Outline Dimensions	1.2m×0.25m×0.25m
Total Weight	75Kg

دستگاه کرالر گاما

سیستم های بازرسی اتوماتیک



System consists of X-ray unit, industrial imaging, image processing, mechanical platform, electric control system, local monitor parts. Apply to boiler welding pipe.etc

سیستم بازرسی جوش لوله در حال چرخش



دستگاه اشعه ایکس پرتال با لامپ سرامیکی ساخت کمپانی DNDT چین



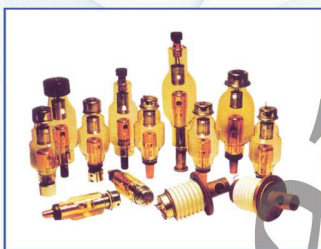
XX-line of portable X-ray unit designed to the principle of low cost and high reliability, which is characteristic in convenient to carry, easy to operate, and highly automated. X-ray tube and HT coil are all produced by DANDONG NDT which guarantees system consistency. weight is further reduced with the use of SF insulation. Forced cooling fan guarantees the longevity of X-ray tube, which makes the product suitable for field and highly above work. K03/K05 control unit is microprocessor controlled with module of controlled silicon voltage adjustmen and frequency conversion technique. The functions of fully automatic warm -up program, failure display, over voltage and mis-star protection, the stability and service life are much improved.

Ceramic tube directionl portable X-ray generator

Model	OUtput voltage (kV)	Input (kW)	Focus size (mm)	Beam angle	Max. Penetration (mm)	Weight of generator (kg)	Dimension of generator (mm)
XXG-1605	60~160	1.5	0.8 x 0.8	40+5°	19	14.5	225x225x550
XXG-2005	100~200	2.0	2.0 x 2.0	40+5°	30	18	285x285x615
XXG-2505	150~250	2.5	2.0 x 2.0	40+5°	40	30.5	320x320x640
XXG-3005	170~300	3.0	2.5 x 2.5	40+5°	50	36.5	345x345x670
XXG-3505	180~350	3.5	2.5 x 2.5	40+5°	60	38	345x345x670

Flat/ Cone target ceramic tube panoramic portable X-ray generator

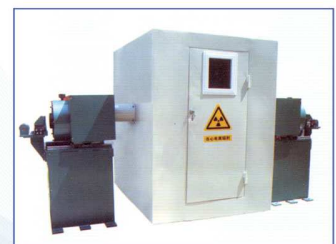
Type	Target	Tube voltage	Tube current	Focal size	Beam angle	Size (mm)	Target	Weight (kg)
XXGH/XXGHA2005	200kV	200kV	5mA	1.0 x 2.0	25 / 30 x 360°	655 x 280	(W)	20
XXGH/XXGHA2505	250kV	250kV	5mA	1.0 x 2.0	25 / 30 x 360°	720 x 320	(W)	33
XXGH/XXGHA3005	300kV	300kV	5mA	1.0 x 2.5	25 / 30 x 360°	820 x 340	(W)	41



Ceramic X-Ray Tube



Aluminium Wheel X-Ray



Circum Welding-Butt Welds

Constant Potential Industrial X-ray Machine

XYD lines product is based on the principle of oil insulated double voltage rectify. To be the most economic machine which could provide X-ray continuously, this series machine is well used in whole China's market.

1 - kV step: 0.1 kV/10kV

2- mA step : 0.01 mA/1mA

3- kV/mA accuracy + 2%

4- Exposure time setting: 0-999.9min 60s



Specification & scope

Model	Stability	Voltage	Focal spot	HT Generator	Controller	Cooler	Max Penetration
XYD160	1%	10-160kV	0.5/1.0	XFC180	XYK01	XLS4000	28(20)
XYD225	1%	10-225kV	0.5/1.0	XFC225	XYK01	XLS4000	45(33)
XYD320	1%	10-320kV	1.9/3.6	XFC360	XYK01	XLS5000	71(50)
XYD350	1%	10-350kV	1.9/3.6	XFC360	XYK01	XLS5000	85(59)
XYD400	1%	10-400kV	3.0/7.0	XFC450	XYK01	XLS5000	97(70)
XYD420	1%	10-420kV	2.5/5.5	XFC450	XYK01	XLS5000	102(73)
XYD250	1%	10-450kV	2.5/5.5	XFC450	XYK01	XLS5000	105(80)

Portable Electron Cyclotron Accelerator

- * Small focus size, High film radiography sensitivity
- * Small volume, light weight, Convenient moving
- * Microcomputer controlling, Easy for repairing
- * Low price with high ability
- * Energy: 4-6-7.5-10 MeV
- * Max Penetration: 350 mm Fe
- * Focal spot: About 0.2 x 3 mm



Linear Accelerator : 2 to 15 Mev

- * Small focus size, High film radiography sensitivity
- * Microcomputer controlling, Easy for repairing
- * Low price with high ability
- * Energy : 2-4-6-9-15 MeV
- * Max Penetration : 480 mmFe
- * Focal spot : 1.5 - 2 mm



Portable micro-focus X-ray source



Linear Accelerator



Cp series X-ray Flat panel Detector

ICNDT®

مزایای استفاده از لامپ های LED :

* شدت نور بالاتر * ایجاد حرارت بسیار کمتر * طول عمر بالاتر * وزن کمتر * یکنواختی شدت نور در سطح *

مدل FV-2008 : دارای لامپ LED



Specification

Description	Quantity	Max Luminan $\geq 150,000\text{Cd/M}^2$ (471.000Lux)	Uniformity: $g \geq 0.9$
Foot Pedal	1		
2A Fuse	1	Diffusion factor: $\sigma' \geq 0.95$	Viewer window: 220*80mm
Screwdriver	1	Surface temp. rise $\leq 18^\circ\text{C}$ After 12 hours cent inues maximum luminance	POWER: 85-264VAC 47~63Hz. (Full range)
Instruction (English)	1	Dimension: 396*209*210mm (L*W*H)	Weight: 5.8kg
Guarantee and report (English)	1		
Light mask (150*60mm)	1		
Light mask (150*45mm)	1		CE Approved

مدل FV-2009 : دارای لامپ LED



مدل FV-2009T : دارای لامپ LED

به همراه دانسیتومتر پرتابل



Specification

Description	Quantity	Max Luminan $\geq 73,000\text{Cd/M}^2$ (229.000Lux)	Uniformity: $g=0.95$
Foot Pedal	1		
Carrying bag	1	Diffusion factor: $\sigma' = 0.95$	Viewer window: 200*60mm
Instruction (English)	1	Surface temp. rise $\leq 15^\circ\text{C}$ After 12 hours cent inues maximum luminance	POWER: 85-264VAC 47~63Hz. (Full range)
Guarantee and report (English)	1	Dimension: 17.9*5.5*2.6'' 455*140*65mm (L*W*H)	Weight: 5.5pounds(2.5kg)
Light mask (150*45mm)	1		
Light mask (150*60mm)	1		

CE Approved

مدل FV-2010 : دارای لامپ LED



Specification

Description	Quantity	Max Luminan $\geq 105,000\text{Cd/M}^2$ (329.700Lux)	Uniformity: $g=0.95$
Foot Pedal	1		
Light mask (400*70mm)	1	Diffusion factor: $\sigma' = 0.95$	Viewer window: 400*100mm (15.8*inch)
Instruction (English)	1	Surface temp. rise $\leq 18^\circ\text{C}$ After 12 hours cent inues maximum luminance	POWER: 85-264VAC 47~63Hz. (Full range)
Guarantee and report (English)	1	Dimension: 600*80*160mm 23.6*3.1*6.3inch (L*W*H)	Weight: 4kg (8.8 lbs)

CE Approved

مدل LQD-3B : دارای لامپ فلورسنتی



Specification

Strongest light	$\geq 31800\text{cd/m}^2$	Power	220V $\pm 10\%$ 50HZ
Uniformity	$g=0.7$	Surface temperature	40°C (104°F)
Consumed power	<160W	Observation screen	300 x 80mm
Dimension	460 x 130 x 155mm	Size of light screen	200 x 45mm 50x 10mm
Weight	8.5Kg		CE Approved

دانشیته سنج فیلم ساخت **LCNDT** چین

LCNDT®



LCNDT Kit Specification

Density Range : 0.00-4.50 D
Fibre Optic Aperture : 3mm
Resolution : 0.01D
Accuracy : ±0.03 D
Repeatability : 0.02 D
Display : 4 digit LCD
Power Supply : (AA/1.5V)x2
Battery Life : Alkaline 2500Hrs
Battery Life : 1200 hours
Size : 160mm x 65mm x 23mm
Weight : 260g

DT-200 Kit Specifications:

Range: 6 50 Cd/ m²- 3 20 000 Cd/ m²
Density: 0. 00 - 5. 00D*
Opt ical Aperture: 3 mm di amet er
Probe Temperat ur e compensat ed
Display: 4digit LCD
Accuracy: ± 0. 03 D
Resolution: 0. 01D
Detector : Silicon photodiode
Powersupply: (AA/1. 5V) x2- Al kaline Battery
Battery life: 1200 hours



Xograph

دانشیته سنج فیلم ساخت **Xograph** انگلستان

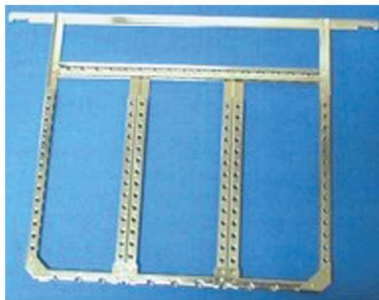


Digit-X Kit Specification

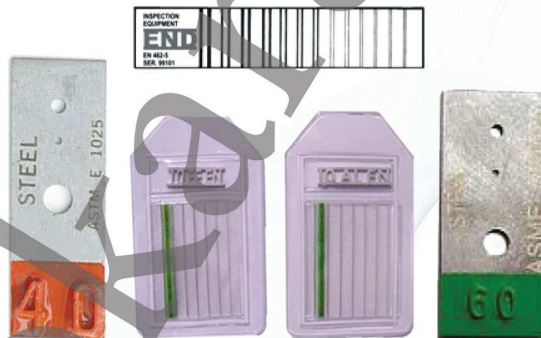
Density Range : 0.00 - 4.000D
Fibre Optic Aperture : 3mm
Resolution : 0.010 D
Accuracy : 0.050 D
Repeatability : 0.020 D
Drift : 0.0005/min

Power Supply : 9vPP3 Battery
Battery Life : Alkaline 2500Hrs
Battery Life : 250 Hrs
Size : 210*60*40mm
Weight : 175g

تجهیزات رادیوگرافی



انواع هنگرهای تخت



شاخص کیفیت تصویر



انواع هنگرهای حلقوی

تجهیزات رادیوگرافی



چراغ تاریخانه



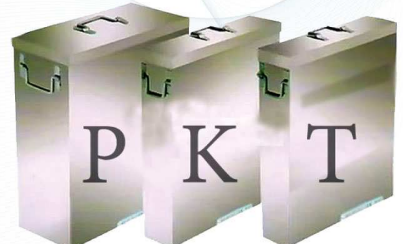
چراغ تاریخانه



تایمر



حروف سربی



ست تانک ظهور و ثبوت

انواع دستگاههای اندازه گیری اشعه (دزیمتر فردی - محیطی)



دزیمتر محیطی **FH40G** جهت اندازه گیری
پرتوهای γ - x ساخت **Thermo** آمریکا

دزیمتر محیطی **Thermo 2100s** جهت اندازه گیری
پرتوهای α - β - γ - x ساخت **Thermo** آمریکا



FH40G-10
Dose rate : 10nSv/h-1Sv/h
Energy : 30keV-4.4MeV

FH40GL-10
Dose rate : 10nSv/h-100mSv/h
Energy : 30keV-4.4MeV



دزیمتر محیطی مدل **X5C-plus**
ساخت **Graetz** آلمان

دزیمتر محیطی مدل **Fluke 451B** جهت اندازه گیری α - β - γ - x
مدل **451P** برای اندازه گیری γ - x ساخت **Fluke** آمریکا



Dose rate: 1 μ Sv/h-20mSv/h
Dose : 0-10Sv
Energy : 40keV - 1.3MeV



دزیمتر محیطی **RDS-200** جهت اندازه گیری γ - x
ساخت کمپانی **Rados** فنلاند

دزیمتر محیطی **RDS-31**
ساخت کمپانی **Rados** فنلاند



Dose rate : 0.01 μ Sv/h-10Sv/h
Dose : 001 μ Sv-10Sv
Energy : 50keV-3MeV

Dose rate : 0.01 μ Sv/h-0.1mSv/h or 1 μ rem-10rem/h
Dose : 0-0.1 μ Sv/h- 10Sv or 1 μ rem- 1000rem
Energy : 48keV-3MeV

انواع دستگاههای اندازه گیری اشعه (دزیتر فردی - محیطی)



DGM-1500 دزیتر محیطی مدل

ساخت کمپانی **Kata** فنلاند

دزیتر محیطی **Inspector** جهت اندازه گیری
 α - β - γ -x ساخت کمپانی **S.E** آمریکا



Dose range: 0.01-1000 μ Sv/h
Alpha > 2.5MeV
Beta > 50KeV
Gamma & X > 40KeV

Dose rate : 0.1 μ Sv/h - 100mSv/h
Dose : 0 - 1Sv
Energy : 30keV - 1.25MeV



دزیتر قلمی **Arrowtech** ساخت آمریکا

Graetz ED150 دزیتر فردی
ساخت کمپانی **Graetz** آلمان



Dose : 0,1 μ Sv - 10 Sv
Dose Rate : 0,1 μ Sv/h - 1.5 Sv/h
Energy : 50keV - 2,0 MeV

Range : 0-2mSv
Energy Range : Gamma and
X-Ray Form 16keV to 6MeV



CATCH-II هشداردهنده صوتی
ساخت کمپانی **Kyungdo** کره

Bleeper SV/III دزیتر فردی مارک
ساخت کمپانی **Vertec** انگلستان



Dose Range : LCD 1 μ Sv to 999999 μ Sv
Response : Linear to 50 mSv/h (5R/h)
Energy range : 45 keV to 6 MeV

X & Gamma : 80 keV ~ 1.2 MeV
Light Warning
Vibration Warning
Sound Warning

دستگاه عیب یاب اولتراسونیک سه بعدی (Phased Array) مدل Phascan 2000 ساخت کمپانی DOPPLER

Phased Array Flaw detector Phascan 32 128

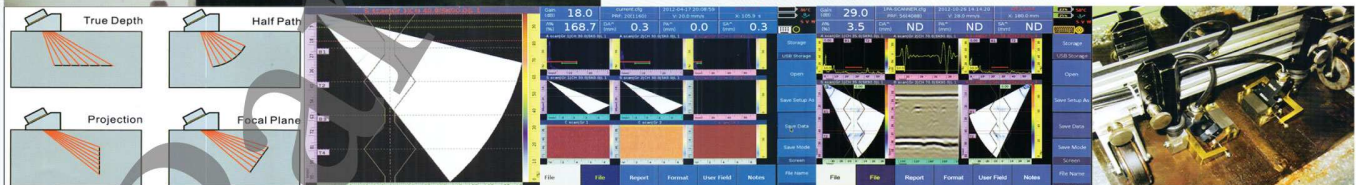
Parameter	PA module	Conventional UT
Config	pulser/receiver	32/128
	range	9900μs
	velocity	635-15240m/s
Pulser	test mode	PE/PC
	voltage	50 V/100V
	pulse shape	negative square wave
	pulse width	30-500 ns
	rise time	<8ns
	PRF	20KHz
	delay	10μs/2.5ns
	damping	NA
	gain	0-80dB
Receiver	bandwidth	0.5-15MHz
	input impedance	200Ω
	input capacitance	60pF
	delay	10μs/2.5ns
Scan/Display	type	linear/sectorial/static/depth
	display mode	A/B/C/S
	unit	mm/inch
DAC	points	16
TCG	points	16
	max gain slope	20dB/μs
	dynamic range	40dB
Gate	gates	A/B/I
	threshold	0-98%
Gate	trig mode	peak/edge
Report		HTML
Data Storage	Storage devices	USB devices/SD card
	size	10.4 inch
Display Screen	Resolution	800*600pixel
	type	TFT LCD touch screen
I/O Port	USB	3
	internet	10/100M
	video output	DVI / VGA compatible
	encoder	applicable
Language		English/Chinese/French/Russian
Power Supply	battery	Lithium Ion Battery
	charging	charging on the host while operating
	Battery life	6h
Housing	dimensions	325mm*230mm*130mm
	weight	4.5Kg(without battery)

۱۵ ماه گارانتی ، آموزش رایگان در کمپانی Doppler



PA2000 portable phased array flaw detector is a new generation of phased array inspection equipment developed by DOPPLER. Having powerful detection capability, Pa2000 can greatly improve detection reliability by achieving a variety of scanning modes and focus modes. Inspection can be performed at different depths simultaneously, which makes the inspection task more flexible and efficient. Together with DOPPLER phased array probes we can help to solve a variety of complex problems.

Models {
Phascan 32 128PR
Phascan 32 128
Phascan 32 64
Phascan 16 64



Dual independent channels for high-performance TOFD detection, 32/128 pulser/receiver channels for phased array
can be used with a variety of phased array probes and wedges to achieve a variety of detection modes and functions
with the four kinds of scanning methods namely linear, sectorial, depth and static
True Depth, sound path, projection, and focal plane four kinds of focus types available
Optional display mode of A / S / B / C, etc
Negative square-wave emission, with resolution up to 2.5ns
PRF up to 20KHz
Delay and sensitivity calibration can be performed on each beam
104" TFT LCD color touch screen, resolution 800*600 pixel
Convenient setup wizard
Powerful data analysis
Accurate calibration
Perfect focus imaging

انواع پراب های تراسونیک سه بعدی **Phased Array** کمپانی **DOPPLER**

استاندارد و کیفیت معادل پراب های کراوترامر (**Krautkramer**)

انواع پراب های تراسونیک سه بعدی



انواع **WEDGE**



انواع **CONNECTOR**



کمپانی Doppler از بزرگترین و معتبرترین تولید کنندگان انواع

دستگاههای عیب یاب التراسونیک دو بعدی و سه بعدی (Phased Array) ، ضخامت سنج

دستگاه عیب یاب التراسونیک مدل Anyscan



DOPPLER

به همراه ۳ عدد پراب زاویه ای و ۱ عدد نرمال
کیف حمل ، دفترچه راهنما و برگ کالیبراسیون
۱۵ ماه گارانتی



ITEM	PARAMETER
Linearity error of horizon:	≤ 0.1%
Linearity error of vertical:	≤ 3%
Surplus sensitivity:	≥ 62dB
Dynamic range:	≥ 40dB
Far field resolution:	≥ 30dB
Operating method:	Single element, Dual element
Transmitter pulse:	A30: 400V negative spike wave A36: square wave/negative spike wave
Working frequency range:	0.5 ~ 22MHz, frequency optional
Pulse repetition frequency:	40/250/1000Hz
Sampling frequency:	400MHz hardware real-time sampling
Detection range:	A30: 0.5 - 9999mm(steel LW), A36: 0.5-15000mm(steel LW) adjustable continuously, switchable steps
Sound velocity range:	1000 ~ 15000m/s, adjustable continuously, switchable steps
Scan delay:	A30: -10 ~ 2000mm A36: -10 ~ 5000mm
Probe delay:	0.00 ~ 199.9 μs
Damping:	50/100/200/500Ω
Gain adjust:	0 ~ 110dB, 0/0.1/0.5/1.0/2.0/6.0dB step adjustment
Rectification:	Positive, Negative, Full wave, RF
LCD display:	5.7" high brightness TFT LCD, 640 x 480 pixels
Measurement mode:	Flank or peak
Parameter storage:	Store 30 groups common-use detection parameters and 470 groups test result data
Alarm:	Hardware alarm, sound and light two methods, alarm models including positive mode, negative mode and DAC mode
Communication Interface:	A/B USB
Operating temperature range:	-10 ~ +50°C
Battery specification:	Lithium battery, continuance supply power for more than 6 hours
Complete appliance weight:	1.4KG (including battery)
Protection level:	IP 54

دستگاه های عیب یاب سنج التراسونیک Doppler			
Instrument model	A20	A30	A36
Comparison function			
Spike wave	√	√	√
Square wave			
Weld graph illustrative	√	√	√
Series store	√	√	√
RF	√	√	√
Chinese/English	√	√	√
Peak holding	√	√	√
Envelope	√	√	√
Surface amend	√	√	√
Auto gain	√	√	√
DAC		√	√
AVG			√
AWS			√
Noise immersion			√
Hot key	√		√
Noise immersion	√		√
Shuttle key	√		

- * DAC & AVG & AWS function
- * Curve surface amend function
- * Square wave emitting function (A36)
- * Envelope* & Auto gain function
- * Illustrated function for the weld test
- * Intelligent instrument calibration
- * Channel setting and data storage
- * Gate magnify function & Zoom function
- * Echo compare function
- * Noise immersion function
- * Hot keys & Peak holding



دستگاه های ضخامت سنج التراسونیک Doppler			
ITEM	ACCUR-5 PARAMETER	ACCUR-1 PARAMETER	ACCUR-3 PARAMETER
Operating Principle	Pulse echo with dual element transducers	Standard mode: P-E (pulse-echo) Coating mode: E-E (echo-echo)	I-E (interface-echo) mode with single-crystal delayed probe E-E (echo-echo) mode with single-crystal delayed probe
Measuring Range	0.60mm to 508mm(0.025" to 20.00") Depending on material, probe and surface condition	1.0mm to 300mm in Standard mode 3.0mm to 18.0mm in coating mode	1.5mm to 20mm in I-E mode 0.3mm to 10mm in E-E mode
Measuring Range	Selectable 0.01mm, 0.1mm(selectable 0.001", 0.01")	H< 100.0mm : 0.01mm/0.1mm H ≥ 100.0mm : 0.1mm	H < 10mm : 0.001mm/0.01mm/0.1mm H ≥ 10mm : 0.01mm/0.1mm
Display	2.4" color OLED, 320 X 240 pixels, contrast 10,000:1 500/10 9999m/s (0.0197 to 0.3937in/s)	128x64 dot-matrix LCD screen with EL backlight (42mmx57mm) 1000 to 9999 m/s	128x64 dot-matrix LCD screen with EL backlight (42mmx57mm) 1000 to 9999 m/s
Data logger capacity	400 files, 100,000 readings	5 files, 500 readings	5 files, 500 readings
V-Path Correction	Automatic		

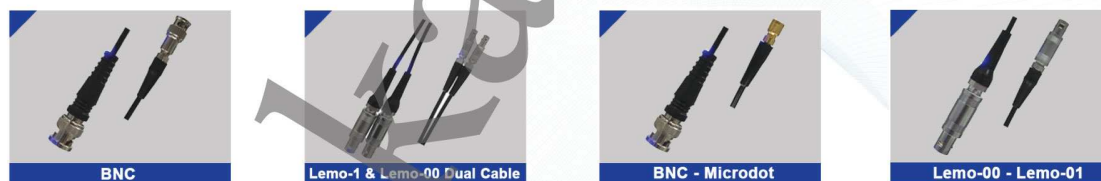
انواع پراب های تراسونیک کمپانی DOPPLER

بزرگترین و معتبرترین تولیدکنندگان انواع پراب تراسونیک در دنیا با بیش از ۵۰۰ نوع پراب استاندارد و کیفیت معادل پراب های کراوترامر (Krautkramer)

انواع پراب های تراسونیک



انواع کابل

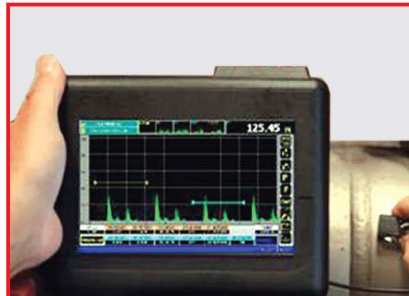


انواع کوپلنت و تست بلاک ها





Danatronics Thickness Gauge
UPG-07 Series Made By USA



Danatronics UT flaw detector
iFlaw Made By USA



Danatronics Thickness Gauge
UPG-09 Series Made By USA



GE(Krautkramer)UT flaw detector
USM 32X Made by USA



GE(Krautkramer)UT flaw detector
USM GO series Made by USA



GE(Krautkramer)Thickness Gauge
DM5 Series Made by USA



Olympus UT flaw detector
EPOCH 600 Made by USA



Olympus Phased Array
OmniScan MX2 Made by USA



Olympus UT flaw detector
EPOCH 1000 Made by USA



Olympus Thickness gauge
45MG & 38DL - 35RDC - USA



Starmans Phased Array Detector
DIO 1000 Made By CZ



Starmans UT flaw Detector
DIO 1000 Made By CZ

Time انواع ضخامت سنج التراسونیک ساخت کمپانی



TT150

Technical Specification

Measuring range- 5MHz transducer 2.5MHz transducer 7MHz transducer	0.8~225mm (3~300mm 0.75~60mm)
Display resolution	0.1mm
Sound speed	1000~9999m/s
Temperature	-10~60 C
Display	4 digital LCD
Probe Diameter	6mm-10mm-26mm
Battery Working time	250hours

Features :
Suitable for any metallic and non-metallic materials

TT300A



Suitable for most metallic and non-metallic materials ultrasonic can go through
Auto-calibration of zero point

Technical Specification

Measuring range	0.75mm-225.0mm (steel)
Tolerance	± 0.5% H+0.01mm
Lower limits of steel pipes	20mm x 3.0mm 15mm x 2.0mm
Display resolution	0.1mm/0.01mm or 0.01/0.001inch
Sound velocity	1000m/s~9999m/s
Battery life	100 hours without backlight
Sound speed	1000m/s~9999m/s
Sound temperature	-10 C~+60 C

TT360



Measuring range	Transducer 5P 10: 1.2~225mm (steel in T-E testing mode) 3~20mm(steel in E-E mode) Transducer TSTU17:0.6mm~50mm (steel in T-E testing mode) Transducer TSTU32:5mm~300mm (steel in T-E testing mode)
Display resolution	0.001mm or 0.01mm
Sound speed	1000~9999m/s
Measuring accuracy	± 1%H+0.1mm(H : thickness of tested plate)
Data output	Rs232
Calibration plate	4.0mm(steel)
Sound temperature	-10 C~60 C

Echo to Echo measurement,
Users can get the thickness of steel plate even though it is covered by coating

TT700



Features :
Especially suitable for testing the thin workpieces I-E testing mode and E-E testing mode High-accuracy survey of both metal and non-materials.

Measuring range	0.15~20mm
Display resolution	0.001 mm and 0.01 mm selectable
Sound velocity range	1000m/s~9999m/s
Operating temperature	0~40 C
Dimension(mm)	152 x 74 x 35
Weight(g)	220
Power supply	AA batteries 1.5V(2 Pcs)

TT340



TT340: equipped with TSTU32 transducer for casting iron

Measuring range	
Lower limits of steel pipes	20mm x 3.0mm
Display resolution	0.1mm or 0.01inch
Sound velocity	1000m/s~9999m/s
Battery life	100 hours without backlight
Sound speed	1000m/s~9999m/s
Surface temperature	-10 C~+60 C

TT100,TT120,TT130

Measuring range	0.75 - 300.00mm (steel)
Measuring range for steel pipes	Min.3.0mm thickness - 20 diameter
Diameter of transducer	10mm - 6mm - 12mm
Sound velocity range	5900 m/s
Surface temperature	-10 C to+300 C
Operation time	250 hours

TT100, TT130 of various materials with sound speed range 1000-9999m/s
TT120, are easy-operation models with only two keys suitable for thickness testing of steel
TT120 : High-temperature model with range up to 300 C
Optional 2.5MHz, 5MHz and 7MHz transducers are available



مواد مصرفی و تجهیزات آزمونهای MT , PT
۳۰ سال تجربه

BYCOTEST
PT Non-Destructive Testing MT

Bycotest Part of the
MAGNAFLUX
A Division of Illinois Tool Works Inc.
Made in UK



Penetrant RP 20 اسپری نافذ

High Sensitive red penetrant
Water Washable and Solvent Removable
Non-corrosive According to ASME B&PV
Code and EN-ISO 3452 2
Meets the requirements of most of the
international norms for penetrants

Developer D30A اسپری ظاهرکننده

High-Sensitive Developer for Penetrant
Inspection with Coloured or Fluorescent
Penetrant
Non-Corrosive According to ASME
B&PV Code and EN-ISO 3452 2
Meets the norms for penetrant products
Suitable for use in rooms with inferior ventilation



Cleaner C5 اسپری پاک کننده

Petroleum Based Cleaner and Penetrant Remover
Non-Corrosive, Non-Sulphurous and
Non-halogenic According to ASME B&PV Code
and EN ISO 3452 - 2
Suitable for Universal Industrial Cleaning
Slowly Evaporating
Non-Aromatic

Cleaner C10 اسپری پاک کننده

Alcohol Based, Cleaner and Penetrant Remover
Non-Corrosive, Non-Sulphurous and
non-Halogenic According to ASME B&PV
Code and EN-ISO 3452 - 2
Suitable for Univesal Industrial Cleaning
Quick Evaporating
Non-Aromatic
Panint Remover for Contrast Paint Bycotest 104A

Fluorescent FP42 اسپری فلورسنت نافذ

Medium sensitive fluorescent penetrant
Water Washable and Solvent Removable
Sensitivity Level 2 According to AMS
2644 (MIL-I-25135)
Non-Corrosive According to ASME
B&PV Code and EN-ISO 3452 - 2
Meets the requirements of most of the
international norms for penetrants

Fluorescent 101 اسپری ذره مغناطیسی

High Sensitive, Fine Grained Fluorescent
Magnetic powder in Petroleum Suspension
Meets the Technical Requirements in
SAE AMS 3046
Non-Corrosive Non-Sulphurous and
non -Halogenic According to ASME B&PV
Code and EN ISO 9934 - 2
The carrier fluid has a very low background
Florescence and is non-Aromatic and it also
Meets SAEAMS 2641 type 1 (flash point >93 °C)
Aerosol can with 360 ° C valve for safe spray



Ink 103 اسپری ذره مغناطیسی سیاه

High Sensitive Find grained Black
Magnetic powder in Petroleum Suspension
Meets the Technical Requirements in
SAE AMS 3043
Non-Corrosive, Non-Sulphurous and
non-Halogenc According to ASME B&PV
Code and EN ISO 9934 - 2
The Carrier Fluid is non-Aromatic and
Meets SAEAMS 2641 type 1
(flash point >93o C)
Aerosol can with 360o C valve for safe
spray function in all positions

White 104A اسپری ذره مغناطیسی سفید

White Contrast Paint for Magnetic
Particle Inspection
Meets high demands of Occupational Health
Alcohol-based ,Weak odour
Non-Corrosive, non-Sulphurous and
non-Halogenic According to ASME
B&PV Code and EN ISO 9934 - 2
Good Adhesion on Metals
Sprays away moisture on the surface
Shall be removed and diluted by bycotest C10



از سال ۲۰۰۸ کمپانی Bycotest توسط کمپانی Magnaflux خریداری شده و محصولات تحت این نام تولید می گردد.

از سال ۲۰۰۸ کمپانی **Bycotest** توسط کمپانی **Magnaflux** خریداری شده و محصولات تحت این نام تولید می گردد.

BYCOTEST
PT Non-Destructive Testing MT

Bycotest Part of the
MAGNAFLUX
A Division of Illinois Tool Works Inc.
Made in UK

Part No	Product	Description	Sales unit
PENETRANT TESTING			
RED DYE PENETRANTS WATER-WASHABLE AND SOLVENT			
008A240	BYCOTEST RP20	High sens.acc to ISO EN 3452	12 x 400 mL aerosols
060C078	BYCOTEST RP20	High sens.acc to ISO EN 3452	5 L plastic can
060C080	BYCOTEST RP20	High sens.acc to ISO EN 3452	200 L drum
008A241	BYCOTEST RP20 LT	Low temp penetrant	12 x 400 mL aerosols
060C084	BYCOTEST RP20 EXP		200 L drum
FLUORESCENT PENETRANTS WATER-WASHABLE AND SOLVENT			
008A242	BYCOTEST FP42	Level 2 acc to AMS 2644	12 x 400 mL aerosols
060C071	BYCOTEST FP42	Level 2 acc to AMS 2644	5 L plastic can
060C066	BYCOTEST FP400	Level 3 biodegradable	5 L plastic can
060C095	BACTOTRACER		25 L plastic can
DEVELOPERS			
008A243	BYCOTEST D30	Alcohol Based	12 x 400 mL aerosols
060C041	BYCOTEST D30	Alcohol Based	5 L plastic can
008A244	BYCOTEST D30A	Alcohol Based	12 x 400 mL aerosols
060C046	BYCOTEST D30A	Dry developer	5 L plastic can
060C056	BYCOTEST D38		1 kg
ACCESSORIES FOR PENETRANT TESTING			
PSM-5	PSM-5 Panel, Penetrant System Monitor	TAM Panel, Sherwin	1 pce
070C001	Aluminum Test Block	Aluminum Crack Block acc to ASME	1 pce
506251	Nickel Chromium 10 micron Test Panels		Set of 2 blocks
506252	Nickel Chromium 20 micron Test Panels		Set of 2 blocks
506253	Nickel Chromium 30 micron Test Panels		Set of 2 blocks
506254	Nickel Chromium 50 micron Test Panels		1 pce
004G003	Air-Water Spray Gun		
MAGNETIC PARTICLE TESTING			
BLACK MAGNETIC PARTICLES			
008A249	BYCOTEST103	Black Magnetic Ink	12 x 400 mL aerosols
WHITE CONTRAST PAINTS			
008A250	BYCOTEST 104	Quick drying	12 x 400 mL aerosols
008A251	BYCOTEST 104A	Low odour	12 x 400 mL aerosols
060C002	BYCOTEST 104A	Low odour	5 L plastic can
FLUORESCENT MAGNETIC PARTICLES			
008A248	BYCOTEST101	Fluorescent Magnetic Ink	12 x 400 mL aerosols
060C010	BYCOTEST BY2700+SA90	Fluorescent mag powder conc incl water conditioner	1 L (for 100 L solution)
060C007	BYCOTEST BY2700+PM75	Fluorescent, petroleum based ready to use	5 L plastic can
060C011	BYCOTEST BY2700	High sensitive fluo powder for use in petroleum or water	0,25 kg
060C091	BYCOTEST XBY4000	Fluo mag powder for 10L	100 mL bottles
060C003	BYCOTEST XBY4100	Fluorescent mag powder	1 kg
060C020	BYCOTEST BY6000	Coarse dry magnetic powder	25 kg
060C026	BYCOTEST BY7000	Fixable, white/fluorescent, dry magnetic powder	22,7 kg (50 Lbs)

جهت کسب اطلاعات بیشتر از محصولات کمپانی بایکوتست و دریافت تأییدیه و گواهینامه های کیفیت به سایت www.bycotest.com مراجعه فرمائید.

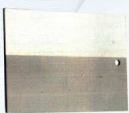
از سال ۲۰۰۸ کمپانی **Bycotest** توسط کمپانی **Magnaflux** خریداری شده و محصولات تحت این نام تولید می گردد.

BYCOTEST
PT Non-Destructive Testing MT

Bycotest Part of the
MAGNAFLUX
A Division of Ilcos Tool Works Inc.
Made in UK

Part No	Product	Description	Sales unit
CARRIER FLUIDS			
060C086	SA90	Water Conditioner, concentrate	5 L plastic can (for 500L)
060C074	PM75	Petroleum Based Carrier Fluid, ready to use	25 L plastic can
CLEANERS, PENETRANT REMOVERS AND CONTRAST PAINT REMOVERS			
008A245	BYCOTEST C5	Petroleum based	12 x 400 mL aerosols
060C036	BYCOTEST C5	Petroleum based	5 L plastic can
008A246	BYCOTEST 010	Alcohol based	12 x 400 mL aerosols
0600O31	BYCOTEST C10	Alcohol based	5 L plastic can
008A247	BYCOTEST C15		12 x 400 mL aerosols
ACCESSORIES FOR MAGNETIC PARTICLE TESTING			
001Y025	MAGNAFLUX Y1	Yoke magnet, 230V 50 Hz	1 pce
001Y020	MAGNAFLUX Y6	Yoke magnet, 230V 50 Hz	1 pce
001Y005	MAGNAFLUX YM5	Permanent magnet	1 pce
026T042	MTU No 3 (Type 1 acc to EN ISO 9934-2)	Reference Test Piece	1 pce
008M006	Berthold penetrameter		1 pce
008M005	Magnetic Indicator Strips, Type A (Aerospace)		Set of 5 pcs
008M002	Field indicator, Calibrated, 0-20 Gauss		1 pce
004C003	Centrifuge Tube 100mL acc to ASTM D96	0-15 mL with 0,05 mL increments	1 pce
044C004	Centrifuge Tube Stand		1 pce
008D003	Dry Magnetic Powder Spray Bulb		1 pce
075C004	Spare legs to Yoke magnet Y6		Set of 2 pcs
004G004	Polyspray, Hand Sprayer for MPI inks		1 pce
UV LAMPS (Accessories)			
032B023	MAGNAFLUX ZB 100F	UV lamp, 220V	1 pce
002L075	100W Medium Base Spare Bulb	For UV lamp ZB100F	1 pce
017G001	UV Absorbing Spectacles		1 pce

تجهیزات و قطعات آزمون های MT & PT

	UV light meter		MDI Test Block
	Magnetic Field Measurement		MTU Test Block
	Iflux strip silver type 2		ASME Pie Gauge
	Test Block		CROSS BERTHOLD
	ASTM Centrifuge tube		Magnetic field indicator
			Permanent magnet Magnaflux YM5

قطعات و تجهیزات جانبی آزمون PT , MT

لامپ UV سقفی - کمپانی Srem فرانسه



ELN 5061B : 600mm - 5 UV light & 1 Visible Light
ELN 5121B : 1200mm - 5 UV light & 1 Visible Light
ELN 3061 WATERPROOF 600mm - 3 UV light
ELN 3120 WATERPROOF 1200mm - 3 UV light
High intensity UV - A Halogen Bulb 400W
Torch Flashlight UV-ALED.UV-A 4000 mW

لامپ UV مدل ZB-100F - کمپانی MAGNAFLUX انگلیس



100W 115V 60Hz
Typical Visible Light : 10 Lux
Includes transformer, cords, GFCI
and plug Built-in fan keeps light cool

ساخت کمپانی MAGNAFLUX انگلیس

یوک AC مدل Y1 - سبک



Lighter and more ergonomic
yet features increased durability.
Current Draw : 230 Volt - 50/60 Hz.
Line Current : 1.6Amps - 230v
Yoke Weight : 4.56 lbs - 2.06 kg

یوک AC مدل Y6



Power : 230v/50-60 hz
weight : 3.1kg
AC Voltage : 220v
Lifting power : 10.5 kg

یوک AC & DC مدل Y7



Power : 220/240 V, 50/60 Hz
Current draw : 2 Amps
Pull force : 27 kg
Weight : 3/6 kg
Magnetic field : DC - pulsed

یوک AC مدل MP-A2



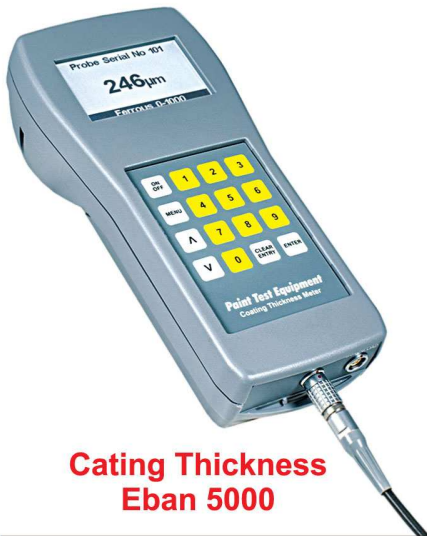
Power Supply :AC 220V/50/60 Hz
Related Current : 2.8 Amps / 4.8 Amps
Lifting Power : 5.44kg over
Magnetic Current : AC only
Weight : 2.8kg(including pole)

ساخت کمپانی kyungdo کره جنوبی

یوک AC & DC مدل MP-100



Power Supply :AC 220V/50/60 Hz
Related Current : (AC:2.12 Amps)-(DC:0.05 Amps)
Lifting Power : (AC:5.44kg over)-(DC:18.01kg over)
Magnetizing current : AC H.WDC, Weight : 2.95kg



Complies with International Standards

Ferrous Models	Non-Ferrous Models
ISO 2178	ISO 2360
ISO 2808-6	ISO 2808-6
ASTM B 499	ASTM D 1400
	ASTM B 244



Coating Thickness Meter Probe Specifications

Probe	Probe Diameter	Working Head-room	Minimum Convex Radius	Minimum Con-cave Radius	Minimum Sample Area
Ferrous Straight 0-1000μm	9mm / 360mils	75mm / 3"	4mm / 160mils	25mm / 1"	4mm / 160mils
Ferrous Right Angle 0-1000μm	9mm / 360mils	40mm / 1.5"	4mm / 160mils	25mm / 1"	4mm / 160mils
Ferrous Straight 0-2000μm / 0-5mm	15mm / 600mils	75mm / 3"	10mm / 400mils	50mm / 2"	10mm / 400mils
Ferrous Straight 0-20mm	50mm / 2"	150mm / 6"	100mm / 4"	500mm / 20"	100mm / 4"
Non-Ferrous Straight 0-1000μm	10mm / 400mils	75mm / 3"	5mm / 200mils	25mm / 1"	5mm / 200mils
Non-Ferrous Right Angle 0-1000μm	10mm / 400mils	40mm / 1.5"	5mm / 200mils	25mm / 1"	5mm / 200mils
Non-Ferrous Straight 0-2000μm	10mm / 400mils	75mm / 3"	5mm / 200mils	25mm / 1"	5mm / 200mils

Coating Thickness Meter Specifications

Part No	Substrate	Range Metric	Range Imperial	Resolution Metric	Resolution Imperial	Accuracy	Cal Cert Part No	Foil Cert Part No
C5001	Ferrous	0-1000μm	0-40mils	1μm	0.1mil	±1 to 3%	NC101	NC002
C5002	Ferrous	0-2000μm	0-80mils	1μm	0.1mil	±1 to 3%	NC101	NC002
		0-5mm	0-200mils	0.01mm				
C5003	Ferrous	1-20mm	40-800mils	0.1mm	0.1mil	±1 to 3%	NC101	NC002
C5004	Non-Ferrous	0-1000μm	0-40mils	1μm	0.1mil	±1 to 3%	NC201	NC002
C5005	Non-Ferrous	0-2000μm	0-80mils	1μm	0.1mil	±1 to 3%	NC201	NC002
C5006	Ferrous & Non-Ferrous	0-1000μm	0-40mils	1μm	0.1mil	±1 to 3%	NC101	NC002
							NC201	
C5007	Ferrous & Non-Ferrous	F0-2000μm	0-80mils	1μm	0.1mil	±1 to 3%	NC101	NC002
		F0-5mm	0-200mils	0.01mm			NC201	
		N0-2000μm	0-80mils	1μm				

همه مدلها به پرابهای اندازه گیری ، ۸ فویل کالیبراسیون ، دیسک صفر و کیف حمل مجهز می باشد

www.Paint-test-equipment.com

Surface Profile Gauge



The surface profile gauge allows the peak-to-valley height of blast-cleaned Surfaces to be accurately measured in accordance with the ASTM D4417 standard

A simple to use surface profile gauge, offering a high resolution of 1 μ m (0.1mils).

The blasted profile is measured very quickly and with a high degree of accuracy by operating the instrument as follows: place the profile gauge on the glass plate and zero the instrument. now place the gauge on the blasted profile. the foot sits on top of the peaks and the sharp stylus travels to the bottom of the valleys allowing the gauge to display the peak-to-valley height.

Surface profile gauge specifications

Part No	Range Metric	Resolution	Accuracy	cal cert Part No
R1006	0-1000 μ m 0-40mil	1 μ m 0-1mil	$\pm$ 2%	NR002

Gloss Meter



Range of models

G2001	60° Gloss Meter
G2002	20° & 60° Combined Gloss Meter

Holiday - Holiday Detector

Range of models

S4001	Holitech 0.5kV to 6kV. Resolution 0.01kV
S4002	Holitech 1kV to 20kV. Resolution 0.1kV
S4003	Holitech 1kV to 30kV. Resolution 0.1kV



Adhesion Tester



Part No	Head Type	Operating Range PSI	Operating Range MPa	ACCURACY
X1003	Standard	0-2600	0-18	$\pm$ 1%FSD
X1004	Right Angle	0-2600	0-18	$\pm$ 1%FSD

Pintech - Pinhole Tester



Part No	Range	Maximum Test Thicknees 9V	Maximum Test Thicknees 67.5V	Maximum Test Thicknees 90V	Accuracy	Sponge Size
S3002	9V/67.5/90V	300 μ m 12mils	500 μ m 20mils	500 μ m 20mils	1%	150 x 100 x 30mm



Paint Evaluation Tool Coating Thickness



A precision instrument that gives an exact measurement of the paint thickness on virtually all substrates, e.g. coatings on Concrete, Plastic, Wood, etc. Individual coats can also be measured in multiple-coated applications.

The Paint Evaluation Tool has a precision-ground, hardened steel cutting head incorporating three cutting angles, catering for coatings from $2\mu\text{m}$ to $2000\mu\text{m}$ (0.1mil to 79mils).

Measurements are made by dragging the cutting edge of the selected cutter across the coating, ensuring the cutter penetrates through to the substrate. Using the Graticule Microscope, measure one side of the angled cut to get the exact coating thickness.

Supplied with Microscope, Light Guide and Carrying Case.

Complies with International Standards

ISO 2808-5B
BS EN 3900-CS-5B

ASTM D 4138

Paint Evaluation Tool Specification

Part No	Substrate	Range Angle 5.7°	Range Angle 26.6°	Range Angle 45°	Resolution Angle 5.7°	Resolution Angle 26.6°	Resolution Angle 45°	Conformance Cert Part No
D1002	Any substrate	2-200 μm 0.1-7.9mils	10-1000 μm 0.5-39mils	20-2000 μm 1-79mils	2 μm 0.1mil	10 μm 0.5mil	20 μm 1mil	NC001
D1001	Spare Cutter Head							NC001

The Paint Inspectors Kit offers the industrial painter all the necessary equipment to carry out a full inspection of the coating process.

Paint Inspection Kit

کیت کامل بازرسی رنگ



Paint Inspection Kit will allow on site testing for all five stages of the following :

- ☐ Surface Cleanliness
- ☐ Surface Profile
- ☐ Surface Cleanliness
- ☐ Coating Thickness
- ☐ Climatic Conditions

Including :

Bresle Test (P2005)

Testex Tape (R1002) and Testex Gauge (R1004)

Dust Test (P4001)

Coating Thickness Meter (C5001)

Dewpoint Meter (H3001)

تجهيزات بازرسی رنگ - کمپانی Paint Test Equipment انگلستان
Tricomb


Part No	Range Metric	Range Imperial	Number of Teeth
W2001	25 -1500 μ m	1- 59mils	45
W1003	50 - 5000 μ m	2 - 100mils	45

RH/-Dewpoint Meter


Part No	Range rh%	Range Temperature	Resolution rh%	Resolution Temp
H3001	1-100%	Air -10-70°C (14-160°F) Surface -20-80°C (-4-176°F)	0.1%	0.1°C 0.2°F
HS301	Spare Humidity Sensor 0-100%rh/-10 to 70°C (14 to 160°F)			
HS302	Spare Surface Temperature Probe -20 to 80°C (-4 to 176°F)			

Electrostatic Gun Meter


Part No	Range Voltage	Range Current	Resolution Voltage	Resolution Current	Accuracy
E2001	0-100kV	0-200 μ A	0.1kV	01 μ A	1%

Cross Hatch Catter


Part No	Cutter Size Metric	Cutter Size Imperial	Coating Thickness	Number of Teeth
X2001	1mm	40mils	Under 60 μ m	6
X2002	2mm	80mils	Over 60 μ m	6

Magnetic Thermometer

Digital Thermometer


Part No	Product	Range	Resolution	Accuracy
T2003	Digital Thermometer	-50 to 300°C	1°C	$\pm 1\%$
T2004	Digital Thermometer	-50 to 572°F	1°F	$\pm 1\%$

Bresle Test Kit


Part No	Range	Resolution	Accuracy	Cal Cert Part No
T1003	-30 to 50°C	1°C	$\pm 2\%$	NT002
T1004	0 to 120°C	1°C	$\pm 2\%$	NT002

Part No	Patches Supplied	Conductivity Meter Range	Conductivity Meter Resolution
P200550	50 Standard 50 High Adhesion	0-199 μ S/cm 0.20-1.99mS/cm	1 μ S/cm 0.01mS/cm



TT211 coating thickness gauge is an economical model integrated with F probe. It can nondestructively measure the thickness of non-magnetic coatings (such as zinc, aluminum chrome, copper, rubber, paint and so on) on ferrous metals (such as steel, iron, alloyed metals, hard magnetic steel and so on).

Technical Specifications

Operating principle	Magnetic induction
Measuring range	0 ~ 1250 μ m
3 adjustable resolution	1 μ m, 5 μ m, 10 μ m
Measuring accuracy	1 μ m $\pm$ (3%H + 1 μ m)
	5 μ m $\pm$ (3%H + 5 μ m)
	10 μ m $\pm$ (3%H + 10 μ m)
Power supply	Battery 1.5 Standard AAA type (2pcs)
Operation temperature	0 ~ 40 °C (32 °F ~ 104 °F)
Humidity	20% RH ~ 90% RH



TT210 Coating Thickness Gauge can measure the thickness of non-magnetic coatings (such as zinc, aluminum chrome, copper, rubber, paint and so on) on ferrous metals (such as steel, iron, alloyed metals, hard magnetic steel and so on). It can also measure the thickness of non-conducting coatings (such as rubber, paint, plastic, anode oxide film and so on) on the non-ferrous materials (such as copper, aluminum, zinc, tin and so on).

Technical Specifications

Probe types	F	N
Measuring methods:	magnetic induction	eddy current
Measuring range:	0 to 1250 μ m	0 to 1250 μ m 0 to 40 μ m
Minimum resolution:	0.1 μ m	
Measuring condition	Min. curvature radius (mm)	Convexity 1.5
	Min. testing area diameter (mm)	Φ 7
	Critical thickness of substrate	0.5
Working Temperature	0-40°C	



TT290 is an Ultra-small gauge can measure the thickness of non-magnetic coatings (such as zinc, aluminum chrome, copper, rubber, paint and so on) on ferrous metals (such as steel, iron, alloyed metals, hard magnetic steel and so on).

Technical Specifications

Probe Types		F
Measuring methods		Magnetic induction
Measuring range		0~1250μm
Display resolution		0.1μm
Two points calibration		± [(1%~3%) H+1]
Measuring condition	Min.curvature radius(mm)	convexity 1.5
	Min.testing area diameter(mm)	Ø7
	Critical thickness of substrate (mm)	0.5
Working temperature		0~40℃



TT270 Coating Thickness Gauge can measure the thickness of non-magnetic coatings (such as zinc, aluminum chrome, copper, rubber, paint and so on) on ferrous metals (such as steel, iron, alloyed metals, hard magnetic steel and so on). It can also measure the thickness of non-conducting coatings (such as rubber, paint, plastic, anode oxide film and so on) on the non-ferrous materials (such as copper, aluminum, zinc, tin and so on).

Technical Specifications

Probe model	F400	F1	F1/90°	F10	N1	CN02
Operating principle	Magnetic induction			Eddy current		
Measuring range (μ m)	0-400	0-1250	0-10000	0 to 1250 μ m 0 to 40 μ m	10~200	
Low range resolution (μ m)	0.1	0.1	10	0.1	1	
Measuring conditions	Min curvature of the min area (mm)	Convex 1	1.5	Flatten	10	Flatten
	Diameter of the min area (mm)	ϕ 3	ϕ 7	ϕ 7	ϕ 40	ϕ 5
	Critical thickness of substrate (mm)	0.2	0.5	0.5	2	0.3
						unlimited

مدل ۲۰۴۰&۲۰۳۰ ساخت کمپانی Danatronic آمریکا

Technical Specifications

Image sensor	CMOS image sensor
Resolution	640x480
Tip diameter	4.3-5.506-8-11mm
Inset tube length	1,2,3,5,10,20,30m(option)
Articulation:	150°up, 90°down, left and right
S/N ratio	42db
Field of view:	70°for 5.5, 6 and 8mm, 90°for 11mm
Field of view(FOV)	67°
Depth of Field	10-100mm
Display	3.5" TFT LCD 640×480 pixels
Video out format	NTSC&PAL
Image Format:	JPEG-VGA-ASF

Danatronics' new BoreEye 2040 DC series of articulating video probes offer unsurpassed image quality, portability, documentation and affordability. The DC series of waterproof CCD cameras are available in 5.5mm, 6.0mm, 8.0mm and 11.0mm with 2 or 4 way articulation in various lengths from 0.4M to 5M. The BoreEye can save stills and video on SD cards with easy export to your computer to document all your critical video inspections. The BoreEye also offers long battery life, a 3/5" high resolution TFT display, video output and variable lighting.

part number	articulation	diameter	working length	field of view	depth of view	outside material
DC2-5.5-.040	2 way	5.5mm	400mm (10")	70	10-100mm	stainless steel
DC2-5.5-100	2 way	5.5mm	1M	70	10-100mm	stainless steel
DC2-6-.040	2 way	6.0mm	400mm (10")	70	10-100mm	stainless steel
DC2-6-100	2 way	6.0mm	1M	70	10-100mm	stainless steel
DC4-6-100	4 way	6.0mm	1M	70	10-100mm	stainless steel
DC4-6-150	4 way	6.0mm	1.5M	70	10-100mm	stainless steel
DC4-6-200	4 way	6.0mm	2M	70	10-100mm	stainless steel
DC4-6-300	4 way	6.0mm	3M	70	10-100mm	stainless steel
DC4-6-600	4 way	6.0mm	6M	70	10-100mm	stainless steel
DC4-8-100	4 way	8.0mm	1M	70	10-100mm	stainless steel
DC4-8-200	4 way	8.0mm	2M	70	10-100mm	stainless steel
DC4-8-4-300	4 way	8.4mm	3M	70	10-100mm	stainless steel
DC4-8-4-600	4 way	8.4mm	6M	70	10-100mm	stainless steel
DC2-11-100	2 way	11mm	1M	90	10-100mm	stainless steel
DC2-11-1.080	2 way	11mm	1.8M	90	10-100mm	stainless steel
DC4-11-.060	4 way	11mm	600mm	90	10-100mm	stainless steel
DC4-11-100	4 way	11mm	1M	90	10-100mm	stainless steel
DC4-8-1.080	4 way	8mm	1.8M	70	10-100mm	stainless steel
DC4-11-400	4 way	11mm	4M	90	10-100mm	stainless steel
DC4-11-500	4 way	11mm	5M	90	10-100mm	stainless steel

بروسکوپ صنعتی مدل ۲۴۸۸ ساخت کمپانی Time

Technical Specifications

Image sensor	1/5" color CCDI image sensor
Lens dimensions	38(L) × 10.5(W) × 0.55(H) mm
Resolution	More than 420 TV lines
Lens	2.7mm wide angle view lens
Min. illumination	0.5 LUX@F2.0
S/N Ratio	More than 42dB
Camera Head Diam.	12mm Cable Length 1~20M(Optional)
View angle	60°
Focus angle	2~5cm (Near)/7cm~Infinity(Far)
Operating Temp	0~60°C
LCD Display	3.5" LCD
System format	NTSC/PAL
Zoom	×1.0, ×1.5, ×2.0, ×2.5

بروسکوپ صنعتی مدل ۲۴۸۶ ساخت کمپانی Time

Technical Specifications

Image sensor	CMOS image sensor
Resolution	640h×480V
Tip diameter	3.9, 5.5, 8, 10, 12, 16, 20mm(option)
Inset tube length	1,2,3,5,10,20,30m(option)
Frame rate	~30fps
S/N ratio	42db
Exposure	Automatic
Field of view(FOV)	67°
Depth of Field(DOF)	1.5cm~10cm/10cm~∞
Display	3.5" TFT LCD
Monitor	640×480 pixels
Video out format	NTSC&PAL



Inspection Mirror with Magnetic Pick-Up

TWO handy tools in one! Mirror is held firmly in place at all angles. Powerful long-life magnet.

Cat #	Mirror Dia.	Reach
A-2TM	7/8"	5-5/8" to 19-1/2"
E-2TM	1-1/4"	5-5/8" to 19-7/8"
B-2TM	1" x 2" oval	5-5/8" to 20-3/4"



Lighted Telescoping Inspection Mirror

LED light illuminates dark area for inspection. All angle ball joints hold mirror head firmly at any angle. Stainless steel handles, cushion handle will not slip in wet or oily hands.

Cat #	Mirror Dia.	Reach
A-2TM	7/8"	5-5/8" to 19-1/2"
E-2TM	1-1/4"	5-5/8" to 19-7/8"
B-2TM	1" x 2" oval	5-5/8" to 20-3/4"



Telescoping Inspection Mirror

Stainless steel telescoping handle is strong, long, and light weight. Comfortable textured cushion grip.

Cat #	Mirror Dia.	Reach
HTS-2LT	3-3/8"	6-3/4" to 30-1/4"
HTC-2LT	2-3/8"	6-3/4" to 37"
HTE-2LT	1-3/8"	6-3/4" to 35-1/2"

Wrap-Around Pouch Tool Kit Tools Included:

V-WAC / Fillet Weld Comp*
6" General Scale*
Telescoping Mirror
Penlite
Single Purpose*



American Welding Society (AWS) Tool Kit Tools Included:

0-150mm Dial Caliper
6" Scale w/ Clip
0-1" Micrometer
2" Reading Glass
7 Piece Fillet Weld Set
V-WAC Gauge*
AWS Type Gauge*



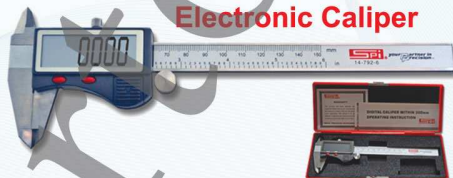
Medium Size Tool Kit Tools Included:

V-WAC Gauge*
Magnifier
AWS Type Gauge*
Hi-Lo Gauge
Micrometer w/ Ball*
Telescoping Mirror
6" Starrett Scale



Combination 0" - 10" Dial/Pit Depth Gauge

Accuracy Meets or Exceeds Federal Specs,
Available in Standard or Metric



Electronic Caliper

Brief Case Type Tool Kit/Lock & Key Tools Included:

V-WAC Gauge * Fillet Weld
WTPS Gauge * Bridge Cam
Single Purpose * 6" Starrett Scale*
Telescoping Mirror
Micrometer w/ Ball*
Hi-Lo Gauge
Skew-T Fillet Weld w/ Calc
AWS Type Gauge*
ADJ Fillet Weld*
Magnifier





آینه و کیت های بازرسی جوش ساخت کمپانی GAL آمریکا



Pit Depth Gauge

Undercuts/Pits to 1/2 Inch by 1/32 Inch Increments. Check Undercuts/Pits, Porosity, All Stainless Steel.



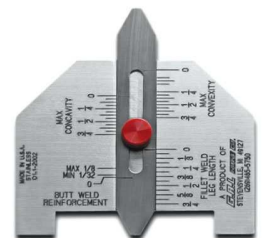
Digital Welding Gauge

With LCD display, will hold either the zero setting or measured value at any position for differential measurements.



Adjustable Fillet Weld Gauge

Unequal Leg Measurement Feature Measure Fillet Weld & Weld Throat Thickness, Available in Standard or Metric



Automatic Weld Size Weld Gauge

For Accurate Calibration of Butt Fillet Type Welds, Available in Standard or Metric



Cambridge Gauge

The following measurements are possible in either inches or millimeters: Angle of Preparation, Excess Weld Metal, Depth of Undercut, Depth of Pitting, Weld Throat Size, and more.



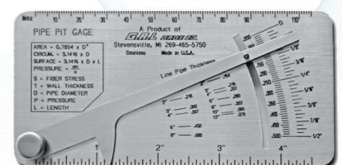
Single Purpose Hi-Lo Welding Gauge

Eliminates Rejects - Improves Productivity, Available in Standard or Metric



HI-LO Welding Gauge

Measures Internal Alignment, New Slim Design Is 30% Lighter



Pipe Pit Gauge

Range is 0 to 1/2" in 1/64" & .020 Increments, Arm Can be Locked in Place at Any Dimension, All Stainless Steel, Available in Standard or Metric



دستگاه سنجش پرتابل ساخت کمپانی Time



Model	TH170	TH172	TH174
Impact device	D integrated	C integrated	DL integrated
Hardness scales	HLD, HB, HRC, HRB, HV, HS	HLC, HB, HRB, HRC, HV, HS	HLDL, HB, HRC, HRB, HV, HS
Average Surface Roughness of Work piece	1.6 μ (Ra)	0.4 μ (Ra)	1.6 μ (Ra) Diameter =2.8mm
Max. Work piece Hardness	900HLD	960HLC	950HLDL
Min. Work piece thickness coupled	5mm	1mm	5mm
Min. Thickness of hardened layers	0.8mm	0.2mm	0.8mm
Indentation depth	Impact Devices data	Impact Devices data	Impact Devices data

Time 5330



Measuring range	(170-960)HLD (17.9-69.5)HRC
Hardness scale	HLD,HB,HS,HRA,HRB,HRC,HV
Measuring direction	360°
Tolerance	± 6HLD(when HLD=760)
Repeatability	6HLD(when HLD=760)

Time 5350



Measuring range	(170-960)HLD
Hardness scale	HLD,HS,HB,HRB,HRC,HV
Measuring direction	360°
Tolerance	±6HLD(when HLD=760)
Repeatability	6HLD(when HLD=760)
Power	5V/500mA
Humidity	≤ 90%
Operating temperature	0°C~40°C

TH120



Measuring range	(170~960)HLD
Measuring direction	360°
Hardness scale	HLD,HB,HRA,HRB,HRC,HV,HS
Display	4.3 inch AMOLED screen, 480x272 dot matrix, 24 bits true
Data storage	2000 groups
Upper and Lower limits setting	(170~960)HLD

TH140



Hardness scale	HL,HRC,HRB,HRA,HV,HB,HS
Memory	48-350 group (Impact times:32-1)
Accuracy	
Tensile strength U.T.S. range	374~2652 Mpa
Standard Impact Device	D
Optional Impact Devices	DC, D+15, G, C, DL
Humidity	90%

Standard impact device	D integrated
Hardness scales	HLD, HB, HRC, HRA, HRB, HV, HS
Measuring range	170~960 HLD
Accuracy	8HLD
Min. surface roughness of work pieces	1.6 (Ra)
Max. work pieces hardness	960HLD
Min. radius of work pieces	Rmin=50mm(with support ring Rmin=10mm)
Min. work pieces thickness coupled	5mm
Min. thickness of hardened layers	0.8mm

Impact device	G type
Impact energy	90mJ
Display	OLED screen, 320*240
Measuring range	200~750HLG
Error	±12HLG
Repeatability	12HLG
Measuring direction	360°
Hardness scales	HLG, HB, HRB

est scale available	Shore A (210) Shore D (220)
Standards	DIN53505, ASTM D2240, ISO 7619, JIS K7215
Display	Hardness result, Average value, Max. valu(Peak value lock).
Measuring range	0-100HD
Tolerance	±1HA

Test scale available	Shore A
Standards	DIN 53505, ASTM D2240, ISO 7619, JIS K7215
Measuring range	0~100HA
Measurement deviation	Within 20~90 HA, error<±1HA
Display resolution	0.2 unit

Test method	Rebound hardness testing according to ASTM standard specification A 956; dynamic measuring method; ratio of rebound (Rp) and impact (Ip) velocities with output of hardness in Leeb's hardness value HL = 1000 Rp/Ip
Impact Device	Dyna D: tungsten-carbide spherical test tip of 3 mm (0.12") diameter, length 160.5 mm (6.3"), standard impact device Dyna G: tungsten-carbide spherical test tip of 5 mm (0.2") diameter, length 265 mm (10.4") for solid test pieces, e.g. castings, forgings Dyna E: diamond test tip, length 168 mm (6.6"); for the hardness range over 650 HV
Measuring Range	Depending on material groups; e.g. low-alloy steel: 150-1000 HL; 75-1000 HV; 75-700 HB; 35-100 HRB; 20-70 HRC; 30-100 HS; 250-2200 N/mm ² 9 fixed material groups stored 5 material groups user-programmable

Test method	Rebound hardness testing according to ASTM standard specification A 956; dynamic measuring method; ratio of rebound (Rp) and impact (Ip) velocities with output of hardness in Leeb's hardness value HL = 1000 Rp/Ip
Measuring Range	Depending on material groups, e.g. low-alloy steel: 150-1000 HL; 75-1000 HV; 75-700 HB; 35-100 HRB; 20-70 HRC; 30-100 HS; 250-2200 N/mm ² 9 fixed material groups stored in the instrument



دستگاه سختی سنج ساخت کمپانی Time

TH1100



TH1101



TH220 Shore Durometer



TH200 Shore Durometer



دستگاه سختی سنج Krautkramer ساخت کمپانی GE آمریکا

Krautkramer

Dynamic Rebound Hardness Tester



DynaPocket



Brinell Hardness Tester TIME6202 Digital Brinell Hardness Tester



Brinell Scale	HBW2.5/62/5 HBW2.5/187.5 HBW5/125 HBW 5/750 HBW10/100 HBW10/1500 HBW10/3000 HBW10/250 HBW 10/500 HBW10/1000
Testing Force	62.5kgf(612.9N)100kgf(980.7N)125kgf(1226N)187.5kgf(1839N)250kgf(2452N) 500kgf(4903N)750kgf(7355N)1000kgf(8907N)1500kgf(1471N)3000kgf(29420N)
Max Height of Specimen	200mm
Main Measuring unit	0.625μm
Net Weight	About 90kg
Power supply	220V/11V,50~60Hz
Overall Dimension (mm)	550*210*750mm
Duration time	5~60s
Hardness testing Range	8~650HBW
Magnification of Microscope	20X

Rockwell Hardness Tester TH320 Digital Rockwell Hardness Tester



Hardness scales	Rockwell A,B,C,D,E,F,G,H,K,L,M,P,R,S,V Rockwell superficial 15/30/45N,T,W,X,Y
Resolution	0.1Rockwell unit
Pre-load	98.07N/10kgf, 29.42N/3kgf
Total load	588.4N/60kgf, 980.7N/100kgf, 1471N/150kgf, 147.1N/15kgf, 294.2N/30kgf, 441.3N/45kgf
Display	Matrix backlight LCD
Language	English
Operation	Menu selectable, Membrane keypad
Test process	Automatic
Load duration	2-50 seconds, Can be set, dynamic displayed and stored
standard	ISO6508.2 , ASTM E-18
Testing space	Vertical: 250mm (9.85 ")Horizontal:150mm (5.91 ") Vertical: 250mm (9.85 ")Horizontal:150mm (5.91 ")
Work piece size	External surface cylinder: Min.cp3nrim (0.120 ") Internal surface cylinder: Min.T23nmm (0.900 ")

Vickers Hardness Tester TH720 Digital Vickers Hardness Tester



Min measuring unit	1.0μm
Test force	1.0Kgf(9.8N), 3.0Kgf(29.4N), 5.0Kgf(49.0N),10Kgf(98.0N), 20Kgf (196N), 30Kgf(294N)
Max Height of Specimen	160mm
Distance of Indenter to outer wall	135mm
Net weight	About 40Kg
Power supply	110V/220V, 50-60Hz
Overall Dimension	520*190*650mm
Hardness measuring range	8~2900HV
method of testing force applied	Automatic loading, unloading testing force
Test microscope magnification	200X(Measuring),100X (observation)
Duration time	0~60s

دستگاه تست بازرسی بتون ساخت کمپانی Time

HT225-V Digital Concrete Test Hammer



Measuring range	10-60MPa
Impact energy	2.207J
Spring extension	75mm
Display	16-bit true color, 176 * 220 resolution
Data storage	480000 testing results
Mean value of steel-anvil rating	80±2
Flip tension spring rigidity	785N/m

TC500N Concrete Test Hammer



Measuring range	10 to 70N/mm2
Impact energy	2.207Nm
Spring extension	75±0.3mm
Friction of pointer system	0.65±0.15N
Length of pointer	20.0±0.2mm
Radius of spherical tip	25±1.0mm
Working length of the spring	61.5±0.3mm
Mean value of steel-anvil rating	80±2
Flip tension spring rigidity	785.0±40.0N/m

TC410 Crack Width Gauge

The main probe	Specialized CMOS camera
Controller	PDA
Display mode	Automatic calculation, save and display
Measuring range	0.01-6.50mm
Accuracy	0.02mm
Magnification	60 X
Memory	JPEG (Around 10K per image)
Image formats	Internal memory (SD card extension)
Operating temperature	-10°C~+50°C



TC300 Concrete Thickness Gauge

Measuring range	40-820mm
Accuracy	±1 mm[When thickness = (40-600mm)] ±2mm[When thickness = (601-820mm)]
Memory	32000 test data and 4000 components
Power	AA batteries (LR6) x 6
Display	Large graphic display
Operating temperature	-10°C~40°C
Relative humidity	<90%

TC200 Crack Depth Gauge

Testing range	4mm-500mm
Tolerance	≤55mm (when crack depth is less than 50mm) ≤10%W (W means the crack depth) (when the depth is more than 50mm)
Memory	25000 test data
Power	AA batteries (LR6) x 6
Display	Large graphic display
Operating temperature	-10°C~40°C
Relative humidity	<90%



TC100/TC110 Rebar Locator

Covering layer thickness measuring range	Range I :6mm-90mm	
	Range II :7mm-200mm	
Rebar diameter measuring range	?6mm-?50mm	
Tolerance of covering layer thickness	Range I	Range II
±1 mm	6mm-59mm	7mm-79mm
±2mm	60mm-69mm	80mm-119mm
±4mm	70mm-90mm	120mm-180mm
Operating temperature	-10°C~+40°C	



دستگاه تست ارتعاش ساخت کمپانی Time

TV200/TV220/TV260A Vibration Pen



Model	TV200	TV220	TV260A
Parameters	RMS of vibration velocity (mm/s)	Displacement	Acceleration, Velocity, Displacement
Testing Range	Velocity: 0.1mm/s~1.999mm/s (peak-peak)	Displacement: 0.01mm~1.999mm (peak-peak)	Acceleration: 0.01m/S ² -199.9m/S ² (peak) Velocity: 0.01 mm/s-199.9 mm/s(RMS) Displacement: 0.001 mm-1.999 mm (peak-peak)
Frequency range	Velocity: 10Hz~1kHz	Displacement: 10Hz-500Hz	Acceleration: 10Hz ~ 1kHz Velocity: 10Hz ~ 1 kHz Displacement: 10Hz ~ 500Hz
Tolerance	±5%		
Temperature	0°C~40°C		
Humidity	<85%		
Dimensions (mm)	150x22x18		
Weight (g)	55 (including batteries)		

TV310/TV320 Vibration Tester



Model	TV310	TV320
Measuring range	Acceleration 1m/s ² ~392 m/s ² (Peak) Velocity 0.1 cm/s~80cm/s(RMS) Displacement 0.01 mm~18.1 mm(peak-Peak)	0.1m/s ² ~20 m/s ² (Peak) 0.01 cm/s~4cm/s(RMS) 10.001mm~0.8mm(Peak-Peak)
Frequency range	Acceleration 10Hz~200Hz, 10Hz~500Hz, 10Hz~1KHz, 10Hz~10KHz Velocity 10Hz~200Hz, 10Hz~500Hz, 10Hz~1KHz Displacement 10Hz~500Hz	
Accuracy	±5%	
Temperature	0°C~40°C	
Relative humidity	<80%	
Dimension	171x 78.5x28 (mm)	
Power	Li battery (continuous working 20 hours)	

TV120 Vibration Tester



Application Field	Motor, compressor, bearing and other rotating machine	
Measuring parameters	Acceleration (m/s ²) Velocity (cm/s), Displacement (mm)	
Display resolution	Acceleration	0.1 m/s ²
	Velocity	0.01 m/s
	Displacement	0.001 mm
	Error	≤±5%
Testing range	Acceleration	0.1 m/s ² ~199.9 m/s ² (peak to peak)
	Velocity	0.01 cm/s~19.99 cm/s
	Displacement	0.001 mm~1.999mm (peak value)
Data memory	100 group	
Charging time	≤132min	
Continuous working time	> 16 hours	
Temperature	0~40°C	
Humidity	90%RH	

TR100



دستگاه زبری سنج ساخت کمپانی Time

Model	TR100
Roughness parameter	Ra, Rz
Tracing length	6mm
Tracing speed	1.0mm/sec
Cut-off lengths	0.25mm/0.8mm/2.5mm
Evaluation length	1.25mm/4.0mm/5.0mm
Measuring range	Ra: 0.05-10.0? Rz: 0.1-50?
Accuracy	±15%
Repeatability	≤12%
Filter	RC analogue
Pick-up	Piezoelectric
Radius and angle of the stylus point	Diamond, Radius : 10±2.5? Angle: 90°(+5° or -10°)

TR220 (P and R profile)



Model	TR200
Roughness parameters	Ra, Rz, Ry, Rq, Rt, Rp, Rmax, Rv, R3z, RS, RSm, RSk, Rmr,
Assessed profiles	Roughness profile (R) Primary profile (P)
Measuring Range	Ra: 0.025~12.5? m
Cutoff length (L)	0.25mm/0.8mm/2.5mm/Auto
Evaluation length	1~5L (selectable)
Tracing length	(1~5)L + 2L (selectable)
Digital filter	RC, PC-RC, Gauss, D-P
Max. driving length	17.5mm/0.71inch
Min. driving length	1.3mm/0.051inch
Pick-up	Standard pickup TS100, inductive, Diamond stylus radius 5?m, angle of stylus 90°
Accuracy	≤±10%
Repeability	≤6%

TIME 3221



parameter measuring	Ra, Rp, Rv, Rt, Rz, Rq, Rsk, Rku, Rc, RPc, RSm, Rmr(c), tp, Rmr, Rpm, Rz1max, RzJIS, Rmax, Htp, R0c, R0d, R0a, Pa, Pp, Pv, Pt, Pz, Pq, Psk, PkuPc, PSm, Pmr(c), Pmr, Pz1max, PzJIS, P0c, P0dRk, Rpk, Rvk, Mr1, Mr2, A
Test Principle	Inductance type
Measurement Range	400μm
Stylus tip Radius	5μm
Stylus tip Material	Diamond
Measuring force	4mN
Stylus tip Angle	90°
Radius of Skid curvature	45mm
Maximum drive range	19mm/0.748inch
Traversing speed	Measuring : Cut off length = 0.08 mm Vt=0.25 mm/s Cut off length = 0.25 mm Vt=0.25mm/s Cut off length = 0.8 mm Vt=0.5 mm/s Cut off length=2.5mm Vt=1mm/s Returning V=1mm/s
Accuracy	Less than or equal to ±10%
Repeatability	≤ 6%
Cut-Off Length	0.08mm, 0.25mm, 0.8mm, 2.5mm selectable
Evaluation Length	(1~5) L selectable

TR300



profile	R (Roughness), W (Waveness), P (Primary profile)
Measuring Range	±400μm, ±25μm
Filtering	RC, PCRC, Gauss, D-P, ISO 13565
Parameters	Ra, Rp, Rv, Rt, Rz, Rq, Rsk, Rku, Rc, RS, RSm, R1o, RHSC, Rpc, Rmr(c), RzJIS, R3y, R3z Wa, Wp, Wv, Wt, Wz, Wq, Wsk, Wku, Wc, WS, WSm, Wlo, WHSC, Wpc, Wmr(c), WzJIS Pa, Pp, Pv, Pt, Pz, Pq, Psk, Pku, Pc, PS, PSm, Plo, PHSC, Ppc, Pmr(c), PzJIS Rk: Rk, Rpk, Rvk, Mr1, Mr2
Cutoff length	0.08mm, 0.25mm, 0.8mm, 2.5mm, 8mm
Max. tracing length	40mm
Analysis graphs	ADC, BAC
Evaluation length	1L-5L
Resolution	0.001?m/50?m; 0.016?m/800?m
Accuracy	±5%

Thermo
SCIENTIFIC

Thermo - Niton XI2 Metal and Alloy Analysis

Scrap Metal Sorting
Positive Material Identification (PMI)
Alloy Quality Control (QC)
Precious Metals & Jewelry Analysis
Mining and Exploration
Exploration
Mine Mapping
Ore Grade Control
Toys & Consumer Goods
Toys
Jewelry
Furniture
Apparel



Thermo - Niton XI3 Metal & Alloy Analysis

Scrap metal sorting
Positive material identification (PMI)
Alloy quality control (QC)
Precious metals & jewelry
Mining & Exploration
Exploration
Geochemical mapping
Ore grade control
Toy & Consumer Goods Analysis
Toys
Jewelry
Apparel



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FLUKE

Raytek
A Fluke Company

TIME
ISO 9001

دماسنج غیر تماسی



AutoPro ST 25
Temperature Range:
-40 to 800 C
Distance to Spot Size (D:S): 50:1



Raytak 3i Series
Temperature Range:
-30 C to 1200 C
Distance to Spot Size : 120:1



T1130
Measuring Range :
-20 - 530°C
Optical Resolution : 12:1



T1210
Measuring Range :
-20 - 1100°C
Optical Resolution : 30:1

"U.S.A"

"China"

دوربین حرارتی

FLUKE



Ti-200 & 300 & 400
Measurement range :
-20 °C to +1200 °C
Infrared resolution: 320 x 240



Ti 50 & 55
Measurement range :
-20 °C to +600 °C
Infrared resolution: 320 x 240



Ti-100 & 110
Measurement range :
-20 °C to +250 °C
Infrared resolution: 160 x 120

"U.S.A"