

Infralytic

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德国 Infralytic 英飞立

油膜测厚仪

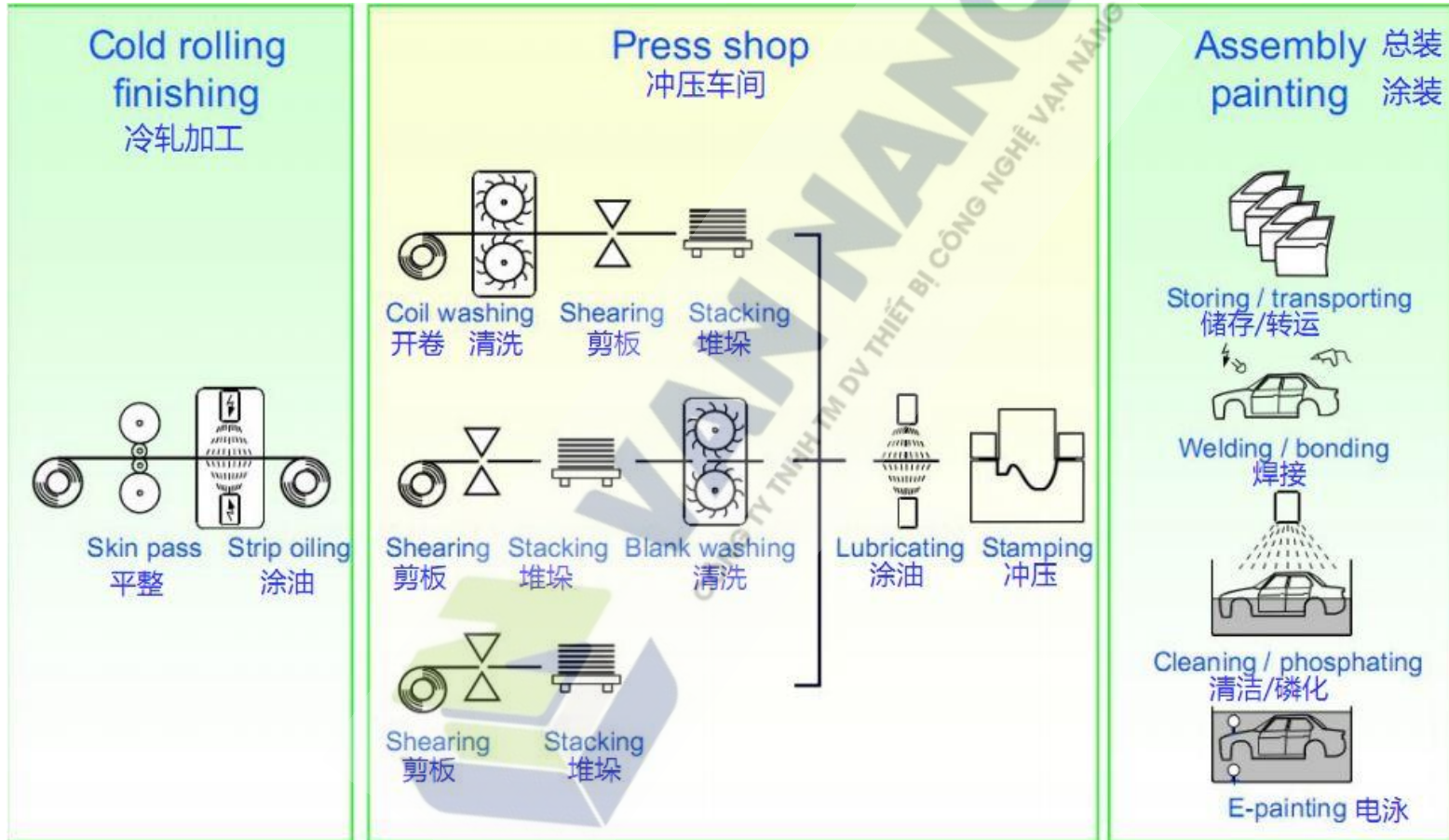
Oil Film Thickness Sensor

Infralytic GmbH



油膜在板材成形中的应用

Applications of lubricants in sheet forming



油膜过厚或过薄的影响

Effect of oil Over applied and Under applied



过厚 Over applied

- 油斑和油品浪费 Oil dent and waste
- 分张不良 Sticky at destacking
- 无法完全清洗 Difficult degreasing
- 影响后续粘和工序 Compatibility with adhesives borderline
- 有害气体的焊烟过多 Too much welding smoke with noxious gas

过薄 Under applied

- 模具磨损 Tool wear/Abrasion occurs
- 板材表面损伤 Formation of cracks and splits
- 无法有效防锈防腐蚀 Corrosion protection not sufficient
- 额外的补油工序 Additional spot lubricant necessary

如何测量油膜厚度

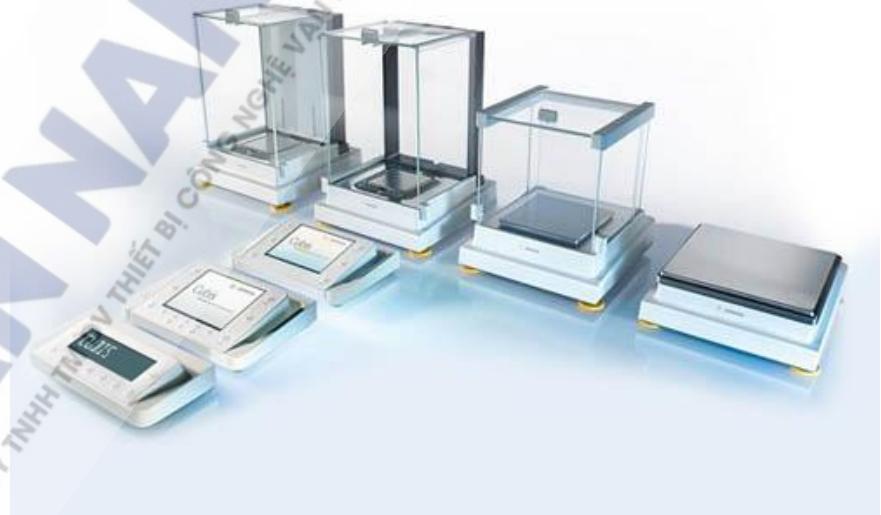
How to measure oil film thickness

称重法 Weighing: g/m^2
(mg/m^2 , mg/ft^2)

擦拭称重
Wiping

烘干称重
Stoving

萃取称重
Extraction



NG2油膜测厚仪

Oil film thickness Sensor NG2

油膜测厚仪是一种利用红外滤光技术，快速、准确测量金属表面油膜厚度的便携式仪器。
Oil Sensor is a kind of portable instrument which can quickly and accurately measure oil film thickness on metal surface by infrared filtering technology.

快速：一秒内完成测量

Quick: within 1sec

准确：基于实验室标定的测量

Accurate: Measurement based on lab calibration

重量轻、易携带

Portable with low weight

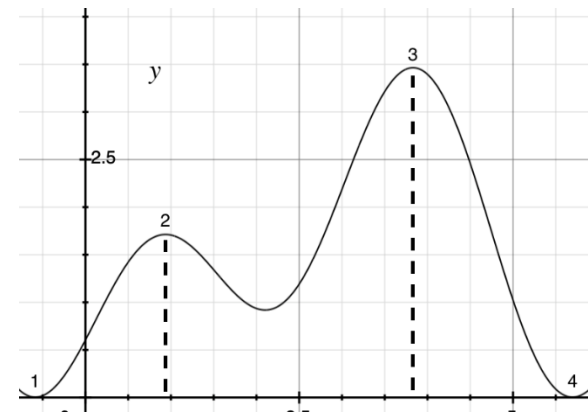
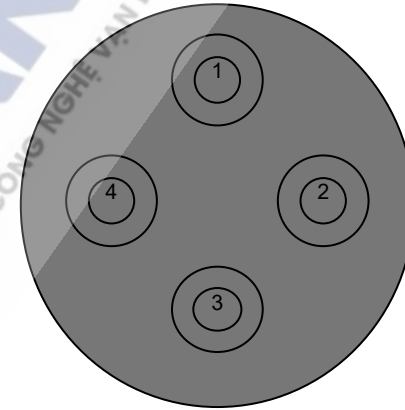
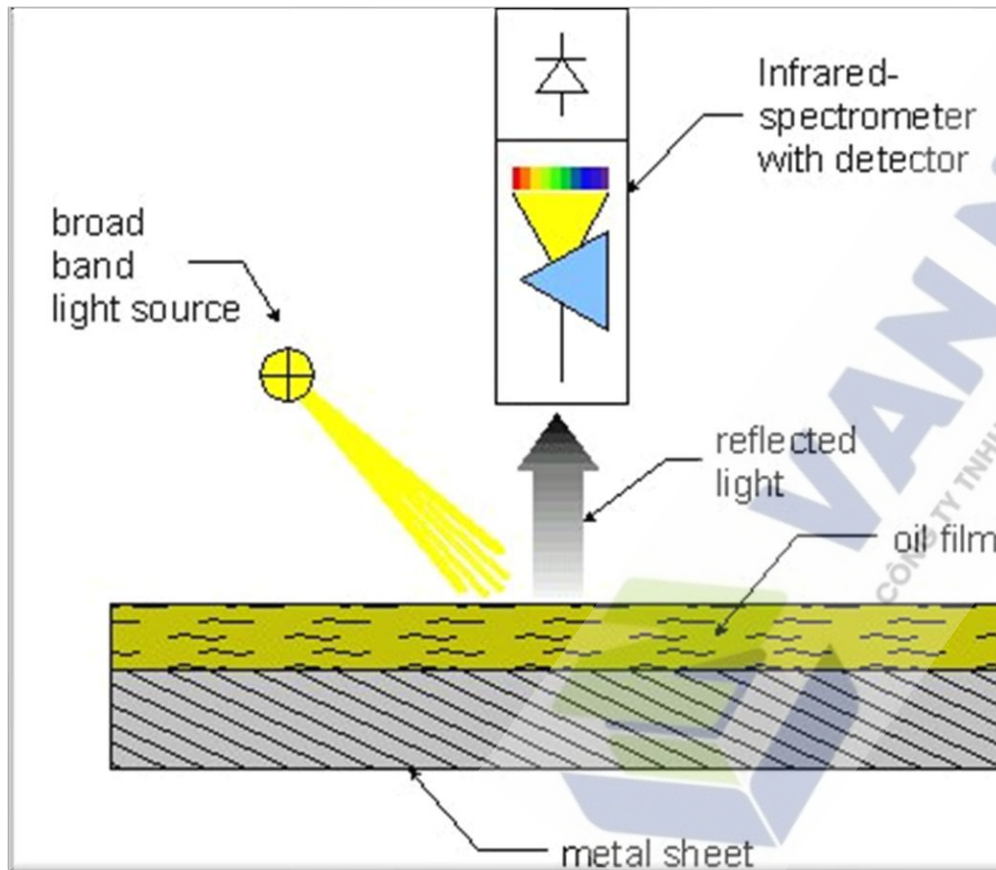
易操作、易读取

Easily Operation and readable display



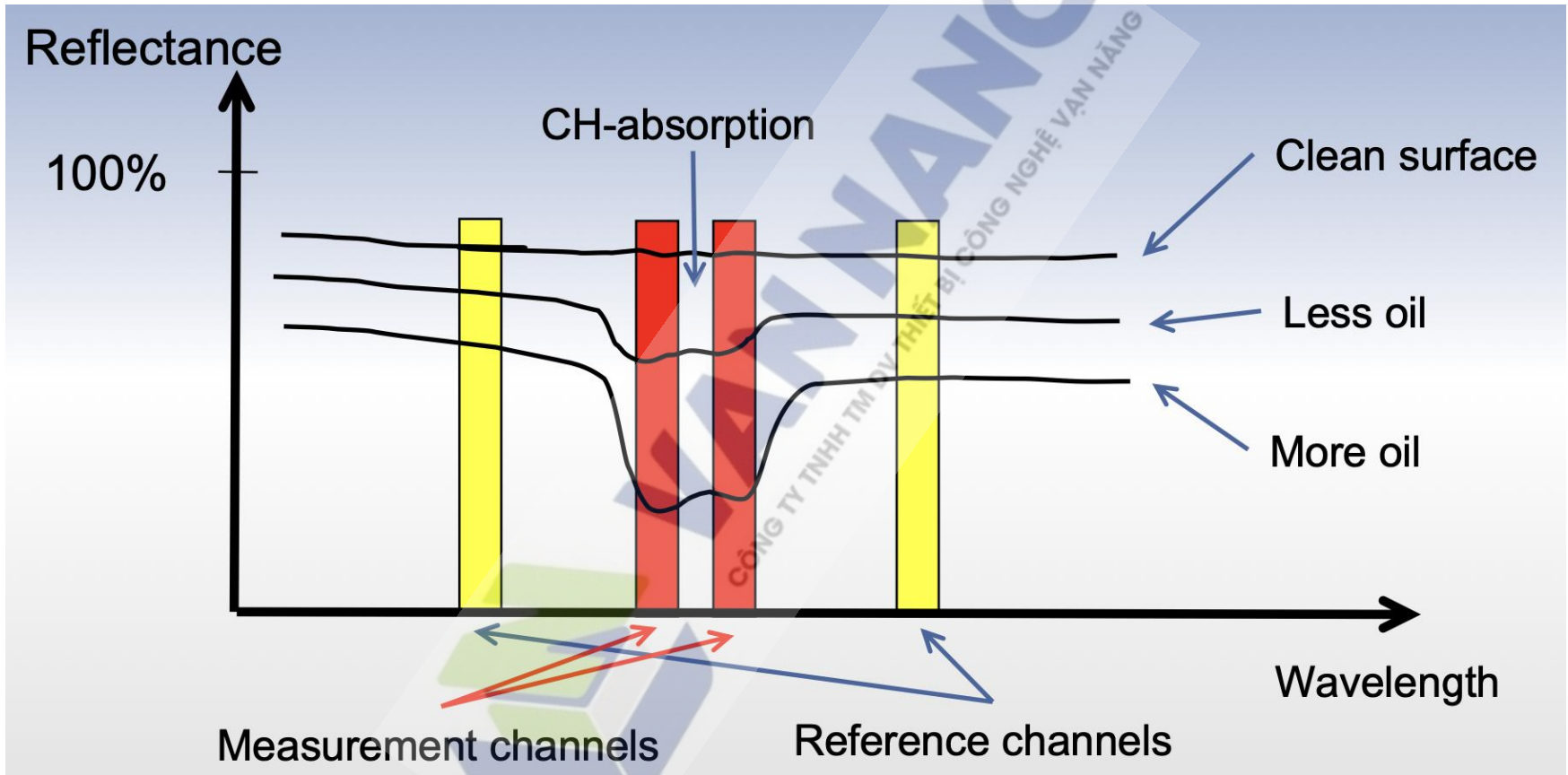
基本原理

Basic Theory



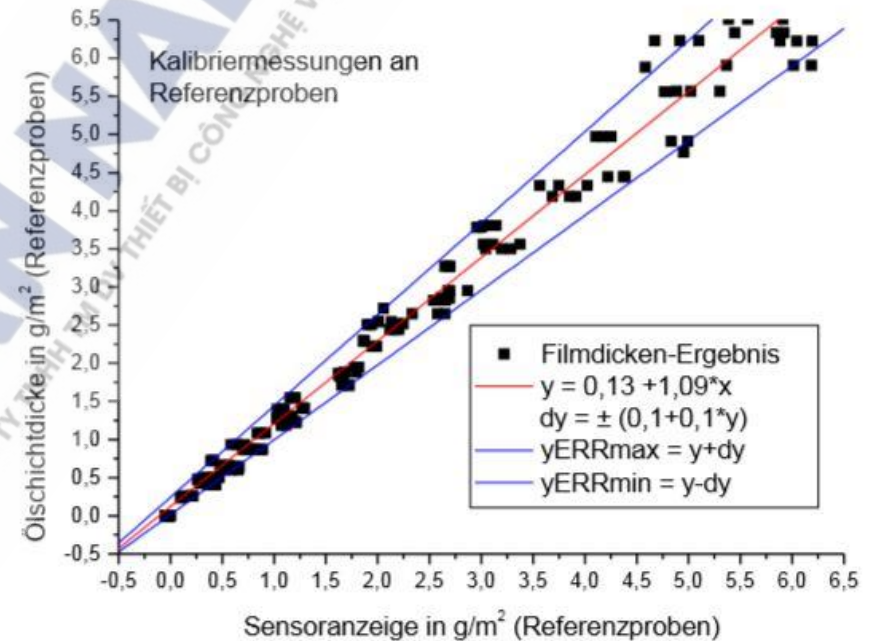
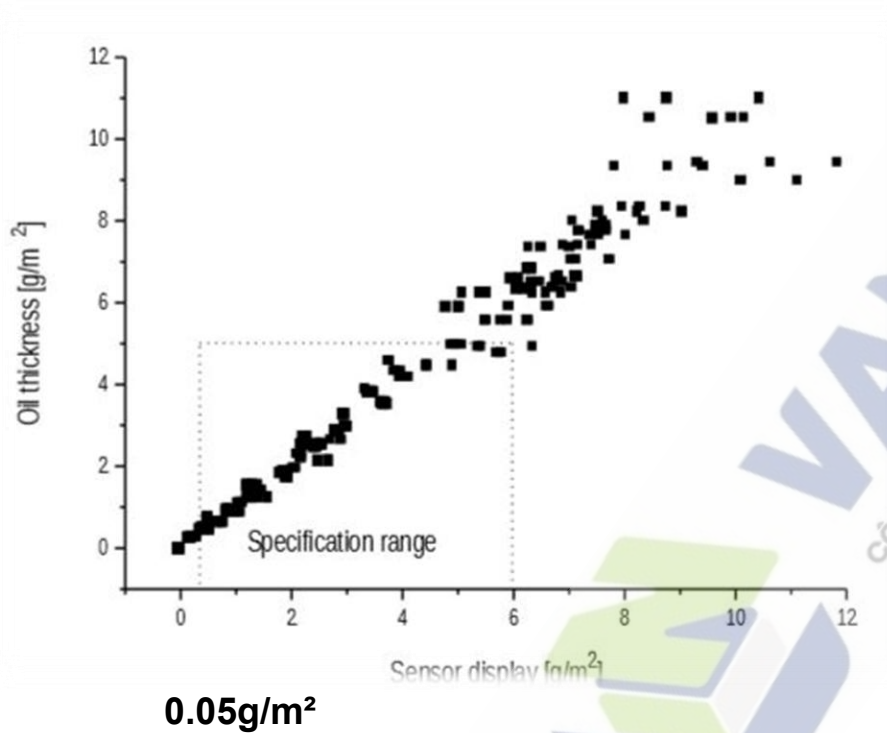
基本原理

Basic Theory

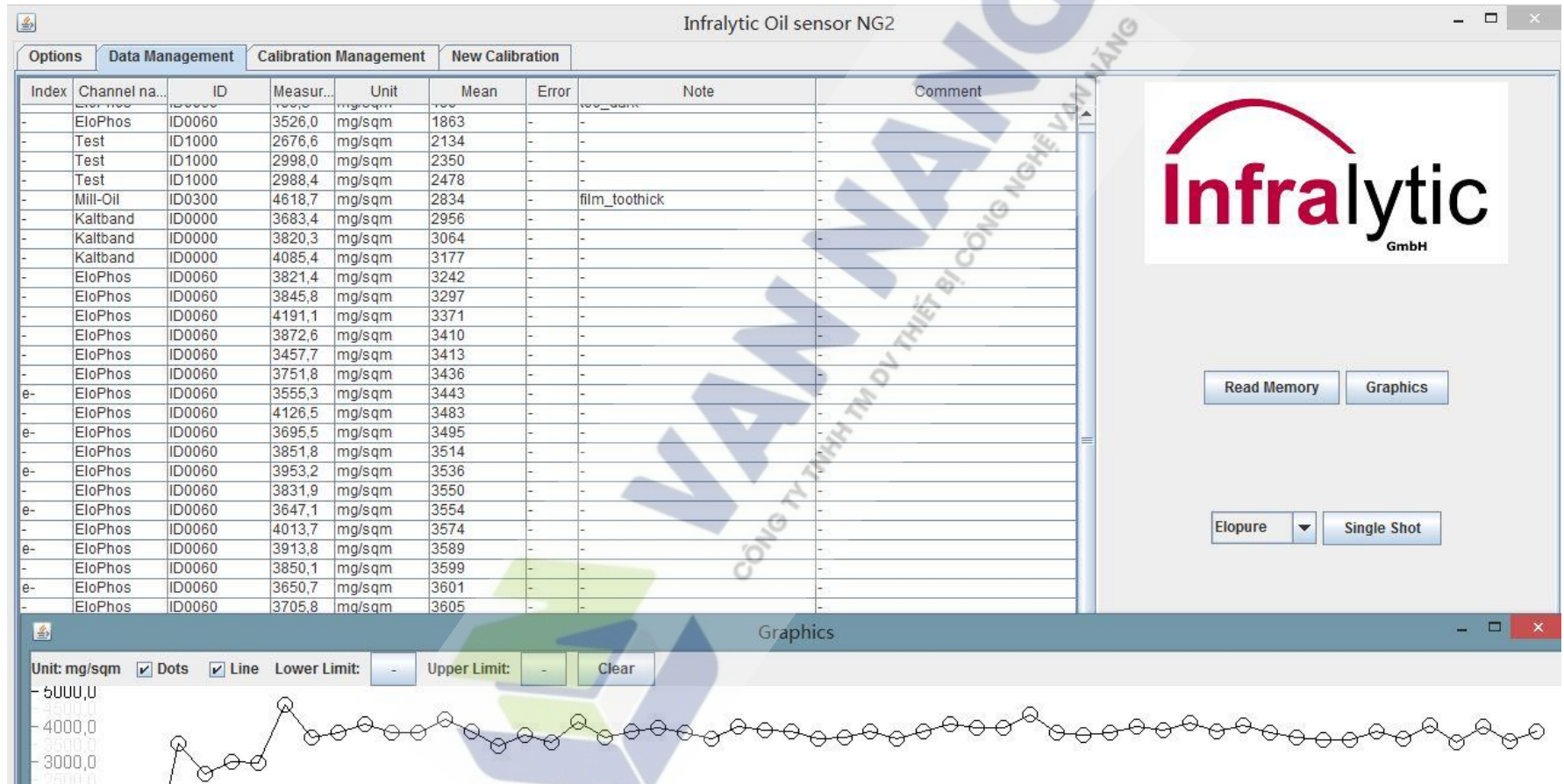


测量范围: 0.05-6g/m²

Measuring range



分辨率: 0.1mg/m²
Resolution



测量通道（最大通道数：64）

Measuring channel (Max.: 64)

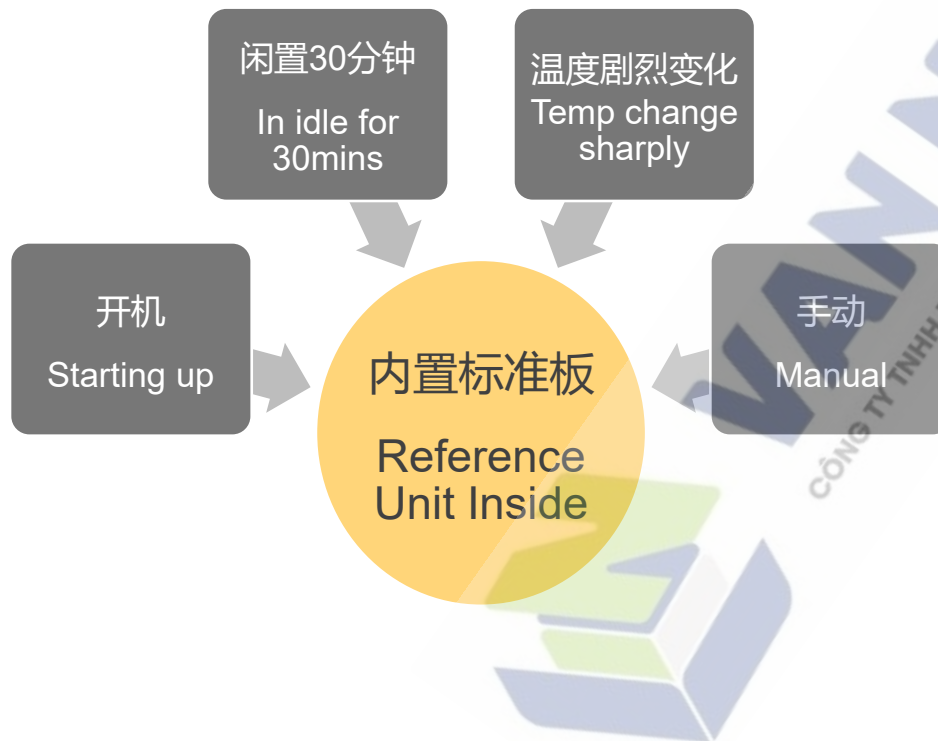
Channel 通道 #	Display 显示	Material 材质	Notes 注释
0	Elo pure	electro galvanized steel	未加工电镀锌钢板
1	Elo phos	electro galvanized steel,phosphated	磷化电镀锌钢板
2	CR	untreated cold rolled steel	冷轧钢板
3	Bonazinc	bona-zinc steel	Bona锌钢板
4	Hot zinc	hot dip galvanized steel	热镀锌钢板
5	Galvannea	Galvannealed steel	热镀锌铁合金钢板
6	Hot alu	hot dip aluminized steel	热镀铝钢板
7	Alu mill	aluminium millfinish	光面铝板
8	Alu EDT	aluminium EDT	EDT铝板
9	TEST	test channel	测试
10	Elo-BAO	electro galvanized steel	宝钢电镀锌钢板
11	AlSi-AM	aluminium silicon steel, Arcelor Mittal	安塞乐米塔尔镀铝硅钢板
12	EDT-PL39SX	EDT PL39SX, Novelis Changzhou	诺贝丽斯EDT铝板，福斯PL39SX油

Infralytic NG2 油膜测厚仪：技术参数

Infralytic NG2 Oil Sensor: Technical parameters

测量对象Measuring Target:	油膜或其他可透光有机涂层 Oil layer
测量原理Basic Principle:	4波长红外滤光技术 4 Infrared filter
测量范围Measuring Range:	0.05-6g/m ²
分辨率Resolution:	0.1mg/m ²
测量误差Accuracy:	< 10%
8小时重复精度Repeatability:	> 95%
±5° 测量角度漂移Sensitivity to angle drift:	< 0.4%
测量间距Measuring Distance:	8mm +5/-2mm
单次测量时长Measuring time for single shot:	0.8S
测量焦点Measuring point:	直径7mm圆点 7mm diameter
测量通道数Max. Measuring Channels:	64
数据传输Data transportation:	串口或蓝牙 RS232 or Bluetooth
自动测量Automatic Measurement:	支持 Available
自检方式Self-check:	内置标准板 Reference Unit inside
供电方式Power Supply:	蓄电池 8-9 hours Rechargeable battery
铝板轧制方向Alu Rolling Direction:	自动识别 Compass Finder
磷化识别Phosphate Recognition:	支持Available
尺寸Dimension:	高H=335mm, 直径D=128mm
重量Weight:	3.4kg
适用温度Working temperature:	0-45°C
防护等级Protection class:	IP 65

自检程序 Self-check Program



供货范围

Delievry scope

油膜测厚仪 Oil thickness sensor - 1pc

镍氢蓄电池 Ni/MH batteries - 2pc

充电套装 Charging station - 1set

数据线及串行接口驱动 Date unit - 1set

工具箱 Transport case - 1pc

清洁套装 Cleaning ket - 1pc

便携肩带 Shoulder strap - 1pc

平板电脑（可选） Tablet PC（optional） - 1pc

外置标准板（可选） External Calibration Standard（optional） – 1set



应用环节

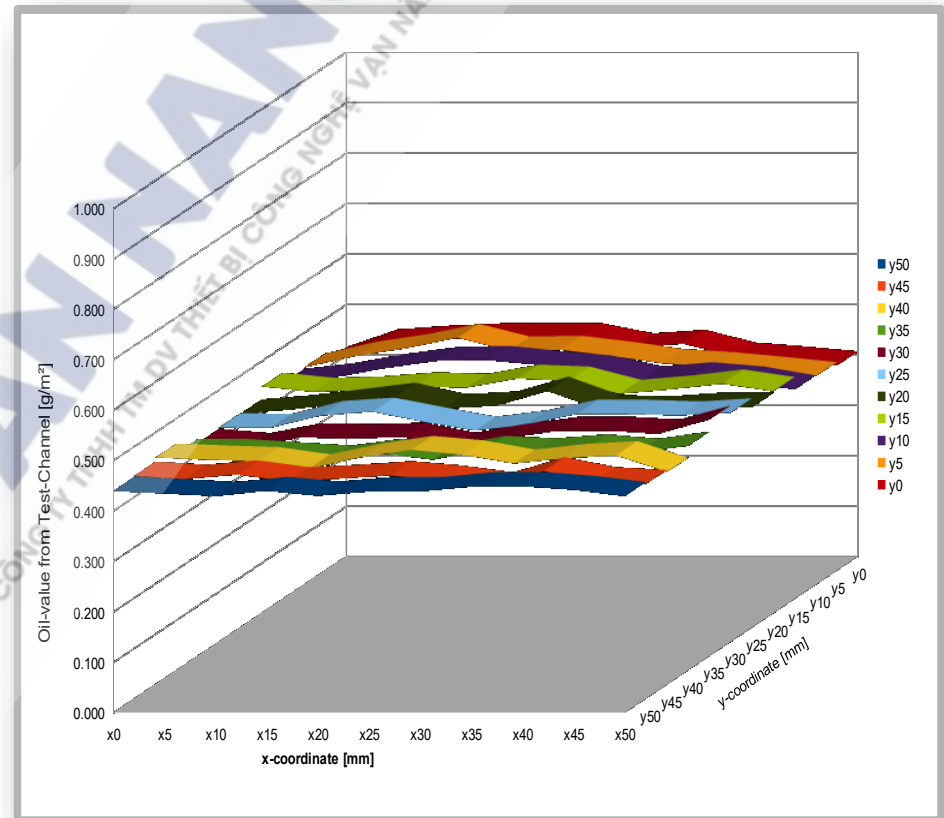
Applicable process

来料/出厂检验
Incoming/outcoming inspection

冲压过程控制
Press process control

涂油机标定
Oiler calibration

脱脂控制
Degreasing control



亚洲主要客户

Major customers in Asia

汽车 Automotive

- 一汽大众 FAW-VW
- 北京奔驰 BBAC
- 华晨宝马 BBA
- 上汽大众 SVW
- 捷豹路虎 CJLR
- 长安福特 CAF
- 一汽红旗 FAW-VW
- 长城汽车 GWM
- 吉利汽车 Geely
- 长城汽车 GWM
- 特斯拉 Tesla
- 光束汽车 Spotlight
- 理想汽车 Li Auto
- 蔚来汽车 NIO
- 江淮汽车 JAC
- 奥迪新能源 Audi-NEV
- 慕贝尔 Mubea
- 现代 (韩国) Hyundai (South Korea)
- VINFAST Group (Vietnam越南)

钢铁Steel

- 宝钢 Baosteel
- 鞍钢克虏伯 Tagal
- 武钢 WISCO
- 马钢 MA Steel
- 安丰钢铁 AnFeng Steel
- 冠洲集团 Guanzhou
- 利来钢铁 Lilai Steel
- 华安钢宝利 Gonvvama
- 华菱米塔尔 VAMA
- 南京宝住 Baosummit
- 昆山宝钢 Baojin
- 武汉红忠泽 MIZ Metal
- 广州JFE钢铁 JFE GZ
- 首钢 Shougang
- 台湾中钢 CSC
- 浦项 (韩国) POSCO (South Korea)
- 现代钢铁 (韩国) HYSCO (South Korea)
- 神户制钢 (日本) Kobelco (Japan)

铝 Aluminum

- 诺贝丽斯中国 Novelis China
- 南山铝业 Nanshan Aluminum
- 魏桥铝业 Weiqiao Aluminum
- 忠旺铝业 Zhongwang Aluminum
- 南南铝 ALNAN
- 西南铝 SWA
- 中铝瑞闽 CHALCO Ruimin
- 宝武铝业 Baowu Aluminum
- 神钢天津铝业 Kobecol Aluminum Tianjin
- 明泰铝业 Mingtai
- 中孚高精 Zhongfu Alu
- 中钢铝业 CSC Aluminum
- 诺贝丽斯 (韩国) Novelis (South Korea)

其他行业 Others

- 上海福斯 Shanghai Fuchs Lubricants
- 上海帕卡 Shanghai Parker Lubricants
- 奎克好富顿 Quaker Houghton
- 嘉实多上海 Castol Shanghai
- 中粮包装 CPMC
- 西马克中国 SMS China
- 达涅利中国 Danielli China
- 欧爱泰克涂油 Oil Tech
- 天津大学 Tianjin University
- 中联重科 Zoomlione
- 福斯 (韩国) Fuchs (South Korea)

全球用户

Customers Global

VW	PWO Tchechien	Scherdel GmbH
Daimler	RSDC, USA	Stow international, Belgium
BMW Mini	MPSA in Vigo Spain	Presswerk Artern GmbH
BMW	Ganvarri	Severstal, Columbus, Mississippi
MAN	Fa. Wuppermann Austria	Ternium Mexico
Ford	U.S. Steel Kosice	Novelis
Opel	MagnaSteyr, Graz	ACS Olpe
Nissan UK	Pro-Tec Coating Company, Ohio	Shilo Inc. Ohio USA
Skoda CZ	Gestamp South Carolina	MMK Magnitogorsk Russland
Renault Spain	Posco Korea	Misa INC. USA
Jaguar Cars UK	Ségal Tata	Böhler /Voest
Renault France	Matador, Vrable, Slowakei	PrecisionStrip
Volvo Göteborg, Schweden	Shilo Industries, Pendergrass, GA	Stanley Black& Decker
Peugeot/Citroen Bratislava	Kaldewei GmbH	ThyssenKrupp Steel
PSA Poissy, france	MAHLE Filtersysteme Austria GmbH	ThyssenKrupp Tailored Blanks
General Motors Manufacturing Poland	LagerMex(ico)	Salzgitter Stahl
Ford Türkei	SC Lub Assyst (Dacia), Rumänien	Bremer Lagergesellschaft (BLG)
Toyota UK	Tofas A.S.(Fiat, PSA), Türkei	Egner Industrieofenbau
Tata Port Talbot Plant in South Wales	Constellium Rhen Alu, Biesheim	Schuler Automation
Toyota, Onaing, France	US Steel, Gary	Voest Alpin steel
PSA Sorral, Stassbourg, France	Arcelor Mittal steel	Benteler Paderborn
GM corporate lab	Arcelor Mittal Tailored Blanks	Hysco Korea

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Thank you!

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