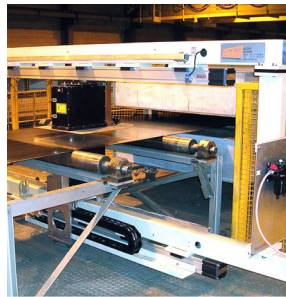


# METALS INDUSTRIES

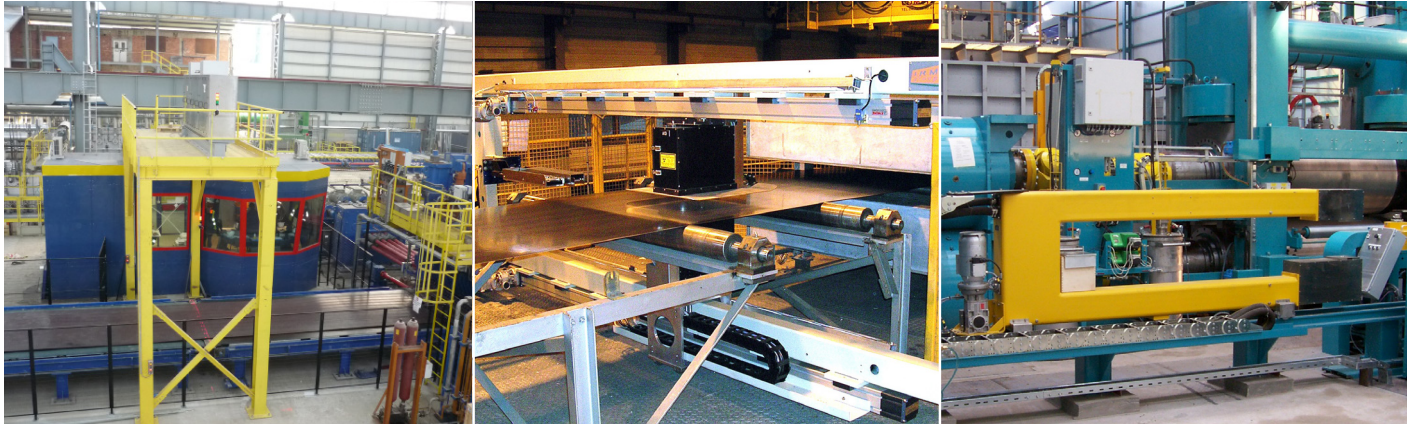


Advanced  
Measurement  
Solutions



# Enhanced Metals Industry Solutions

## from sinter mix to finished coils



- ▶ Sinter Plant
- ▶ Continuous Caster
- ▶ Roughing Mill
- ▶ Hot Rolling Mill
- ▶ Finishing Mill
- ▶ Pickling Line
- ▶ Cold Rolling Mill
- ▶ Electrolytic Tinning
- ▶ Galvanizing Line
- ▶ Process Line

In 2011 the IRM group was acquired by Spectris plc and merged with NDC to offer a complete range of metals measurement solutions from sinter mix to finished coils.

NDC Technologies group provides gauging systems that measure the flatness, width, thickness and coatings of metal strip and plate. These gauges have a sound reputation for their high-value measurements of flat sheet metal used in the manufacture of consumer goods and industrial materials. With NDC, these measurements are complemented by infrared technologies that provide expanded measurement capabilities for aqueous, organic, wax and oil coatings for the finishing processes. In addition, moisture can be measured throughout the sinter process.

Together, this new team delivers greater value to the metals industry through continued investment in new technologies, combined with a stronger customer support organization.

# Excellence in Metals Gauging Measurement

## Complete metals gauging solutions

for superior results from your process



### ► CM710e NON-CONTACTING NEAR INFRARED GAUGE

**Applications:** Simple sinter, multi stage sinter line and coke breeze

CM710e

Infrared optical moisture gauge for direct sinter mix measurement



### ► T100 OPTICAL THICKNESS GAUGE FOR HEAVY MATERIALS

**Applications:** Continuous casters, reheating furnaces, hot mill roughers and plate mills (steel, aluminum and other metals)

T100-HD

Heavy duty centerline thickness gauge (Hot steel applications)

T100-HD Dual

Heavy duty dual gauge (2 C-Frames controlled by the same control cabinet)

T100-HP

High-performance thickness gauge (Aluminum hot mill and steel cold mill applications)

T100-HP Dual

High-performance dual gauge (2 C-Frames controlled by the same control cabinet)



### ► XRT-1 X-RAY MEDIUM ENERGY THICKNESS GAUGE

**Applications:** Hot and cold rolling mills and process lines

XRT-1

Centerline gauge basic version

XRT-1 P

Scanning gauge

XRT-1 2F

Dual gauge (2 C-frames with one control cabinet)

XRT-1 2F/P

Dual gauge with 1 centerline and 1 scanning C-frame



### ► XRT-2 X-RAY HIGH ENERGY THICKNESS GAUGE

**Applications:** Hot and cold rolling mills and process lines

XRT-2

Centerline gauge basic version

XRT-2 P

Scanning gauge

XRT-2 2F

Dual gauge (2 C-frames with one control cabinet)

XRT-2 2F/P

Dual gauge with 1 centerline and 1 scanning C-frame

XRT-2 Triple

Triple gauge for centerline profile measurement with centerline redundancy



### ► XRT-3 X-RAY HIGH ENERGY THICKNESS GAUGE

**Applications:** Hot rolling mill lines

XRT-3

Centerline gauge basic version

XRT-3 P

Scanning gauge

XRT-3 2F

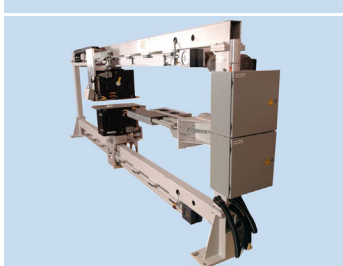
Dual gauge (2 C-frames with one control cabinet)

XRT-3 2F/P

Dual gauge with 1 centerline and 1 scanning C-frame

XRT-3 Triple

Triple gauge for centerline profile measurement with centerline redundancy



### ► FVXR-1 X-RAY COATING WEIGHT GAUGE

**Applications:** Galvanizing lines (galvanized, galvannealed and galvalume), tin, copper and nickel coating

FVXR-1/O Zn

Galvanizing line, O-frame

FVXR-1/S Zn

Galvanizing line, split-frame

FVXR-1/O Zn/Al

Galvanizing line Zn and Al, O-frame

FVXR-1/O Sn

Tin coating lines, O-frame

FVXR-1/O Zn ICON

Galvanizing line, O-frame with % Fe sensor (galvannealed)

FVXR-1/O Zn HR

Galvanizing line, O-frame with ridge detection

FVXR-1/O Cu/Ni

Copper/Nickel lines, O-frame

# Company overview

## Combining industry-best performance and reliability with a global support structure

NDC Technologies, based in Irwindale California, develops and manufactures measurement and control equipment for a wide range of process industries. The company also manufactures in Essex, UK, Dayton, Ohio and has a Technical Center of Excellence in Loncin, Belgium with direct sales and support operations in China, Japan, Germany, France, Italy and Brazil.

Our global client base consists of some of the world's most successful companies who rely on NDC to ensure that their product performance, process yield and quality meet the stringent standards demanded by their customers.

### NDC comprises four divisions:

**Web Solutions** service the converting, extrusion, calendering and nonwovens industries, providing real-time measurement of key product parameters such as product thickness, coating thickness & basis weight.

**Sensors** service the food, chemical, pharmaceutical, mineral, bulk materials and tobacco industries with on-line and at-line measurements system for constituents such as moisture, fat and protein content.

**Metals** service the steel and non-ferrous metals industry, delivering rugged measurements systems for key parameters such as thickness, width, flatness, edge shape and metals coatings.

**Laser and Ultrasonics** produce non-contact gauges for the on-line and off-line measurement of diameter and ovality, wall thickness and eccentricity, length and speed, and other dimensional monitoring of products in the wire and cable, fiber optics, pipe and tube, building, nonwovens, paper, plastic, and metals industries.

NDC is part of Spectris plc, the leading supplier of productivity-enhancing instrumentation and controls.



NDC is represented in over 60 countries worldwide. ISO9001:2008 [www.ndc.com](http://www.ndc.com)

spectris

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In line with its policy of continuous improvement, NDC reserves the right to revise or replace its products or services without prior notice. The information contained in this document may not represent the latest specification and is for indicative purposes only.

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# Accurate, Reliable Performance

Rugged, maintainable application-matched gauges  
that withstand hostile metals environments



## ▶ ROMETER OPTICAL FLATNESS GAUGE

**Applications:** Hot mill finishers and coilers, steckel mills, plate mills, cold strip mills and process lines (steel)

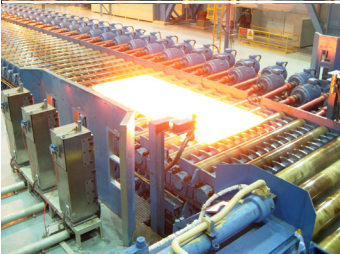
ROMETER F200	2 or 3 planes, high performance measurement and control for strip and plate mills.
ROMETER FQC-1	Flatness measurement for quality control (hot strip mills)
ROMETER FQC-2	Flatness mapping for quality control (plate mills)
	All ROMETER gauges can include an integrated W100 width gauge



## ▶ W100 OPTICAL WIDTH GAUGE (TOP MEASUREMENT)

**Applications:** Hot mill roughers, finishers and coilers, steckel mills, plate mills, cold mills and process lines (steel)

W100	For strips
W100-P	For plates
W100-A	For cold mills and process lines
W100-PSG	Width gauge with plan-view (head and tail contour, camber and length)
W100-CSOT	Width gauge with crop shear set-point optimization
	All W100 gauges can include a Flatness measurement package



## ▶ W10 OPTICAL WIDTH GAUGE (SIDE MEASUREMENT)

**Applications:** Continuous casters, reheat furnaces, hot mill roughers and plate mills (steel, aluminum, other metals)

W10x2	Basic width gauge version
W10x3 WS	Width gauge with skew measurement
W10x3 C	Camber gauge
W10x4xL	Width gauge with Skew, Camber and Length measurements



## ▶ IG710S NON-CONTACTING NEAR INFRARED GAUGE

**Applications:** Process lines

IG710S	Scanning optical coat weight gauge for water-based coatings, organic coatings, solvent-based coatings and polymer laminations
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## ▶ SR710S NON-CONTACTING NEAR INFRARED GAUGE

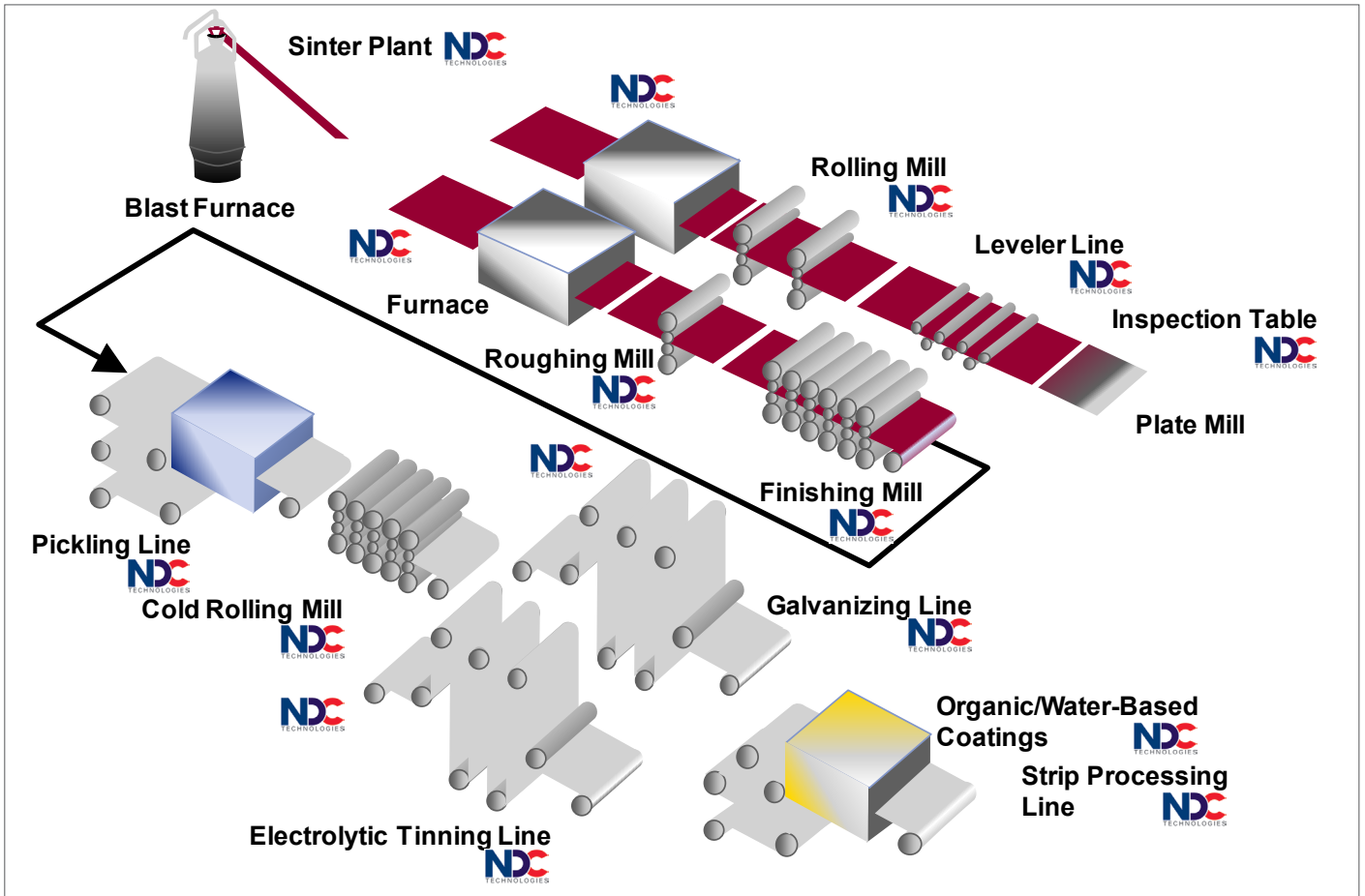
**Applications:** Process lines

SR710S	Scanning optical coat weight gauge for clear and lightly pigmented thin organic laquer coatings, adhesive coatings. Wax on aluminum or steel and thin water-based coatings
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# Proven, Capable Solutions

## NDC applications for the metals industries

...the difference is experience



Metals gauging systems require a trained, professional service organization to help maximize the results throughout their lifecycle. Now that the combined IRM group/NDC customer support team has effectively quadrupled its metals service organization, it can offer substantially more service programs and greater resources. Customers can take advantage of the team's project management, system commissioning, customer training, spares logistics and maintenance programs in order to keep their systems operating at peak performance.

So contact our team today and let us show you how we can deliver the service you are looking for. Wherever your mill, we are close by to support you.

