ISRA
V I S I O N

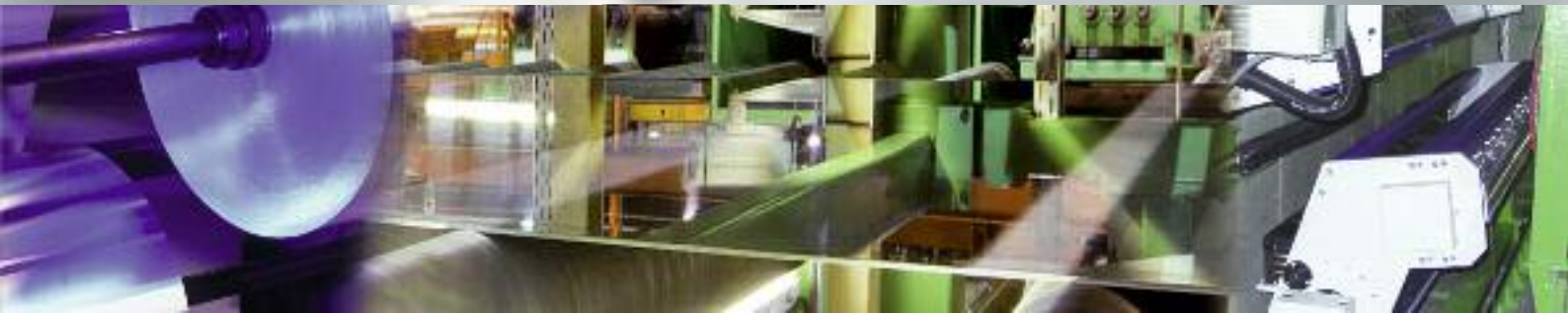# SURFACE MASTER

Breaking the Limits
of Automatic Surface Inspection
The New Standard for Aluminium

100%
Correct Quality
Decisions

parsytec
Surface Quality Yield Management

SURFACE MASTER
Surface quality assessment at its best

Fast, reliable, and extremely efficient:
Production and product optimization with SURFACE MASTER

SURFACE MASTER - the best system to perform continuous process and production optimization along the complete production chain – for overall efficiency. **SURFACE MASTER** is based upon the experience of over 400 global installations for metals surface inspection. Leading aluminium producers worldwide rely on ISRA VISION PARSYTEC inspection solutions.

SURFACE MASTER provides aluminium manufacturers with most important information enabling them to significantly improve their production and thereby increase yield significantly.

SURFACE MASTER integrates seamlessly into any process environment, providing perfect inspection and yield monitoring at all stages of production, leading inevitably to unbeatable product quality.

The new **SURFACE MASTER** product line increases your capabilities for aluminium flat rolling processing:

✓ Most powerful image processing capabilities
  for most reliable defect detection
✓ Advanced, multi-stage classification technologies for
  highest classification accuracy
✓ Surface data quality enhancement leads to typical
  100% correct quality decisions
✓ Pre-set classification for fast and low cost implementation
✓ Real time quality view for process improvement
✓ Intuitive classifier for line specific defects —
  tailored to your needs
✓ Certified quality auditing tools
  to ensure long term high performance
✓ Additional value:
  ▪ width measurement
  ▪ quality data archive and process analysis
  ▪ texture and surface analysis
  ▪ real time alarms to reduce scrap and improve production
  ▪ defect tracking and marking
    for improved downstream processing

All this is accomplished by on-top innovations like:

✓ Company wide quality & yield management with
  Quality Management System (QMS)

SURFACE MASTER

SURFACE MASTER
Enhanced data quality – the key to success

Unique multi-stage classification of SURFACE MASTER reaches new dimensions in performance, classification rates, speed, and set-up time

Fastest tuning, **easiest intuitive** operating, highest, **most efficient** classification, enhanced **data quality** with relevant data only, ending up in **highest inspection performance** — we made it our business to cover these requirements. Save time and money, and avoid wasting time with other systems.

The advanced **multi-stage classification** technology as one of the core modules of **SURFACE MASTER** provides excellence in defect recognition which goes beyond inspection. This fast, accurate, flexible classifier innovation, is combined with a learning classifier for line specific defects and the Instant Classifier™ pre-set classification for standard applications resulting in highest classification performance.

- Set-up, commissioning and tuning designed for operators not scientists – easy to understand and to operate
- Integrated, intelligent and intuitive tools to manage image defect collections and classifiers – simple to utilize, highly reliable
- Classifier tuning without influence on running production including extensive check of tuning results for risk free switch from test to active classifier

Facts you can rely on — technologically and valuable

- **Best quality inspection performance**
  - ✓ Intelligent defect data filtering and imaging
  - ✓ Team of hierarchical, multi-stage classifiers
  - ✓ Efficient non-defect detection by pre-classification
  - ✓ Roll mark detection by focused LED illumination
  - ✓ Inspection immunity to pass-line deviations
  - ✓ Low contrast defect detection
  - ✓ Edge defect detection for high material saving

- **Highest system availability**
  - ✓ High-end, state-of-the-art standard components
  - ✓ Optimium components redundancy
  - ✓ Easy to exchange spare parts
  - ✓ Global support network 24/7
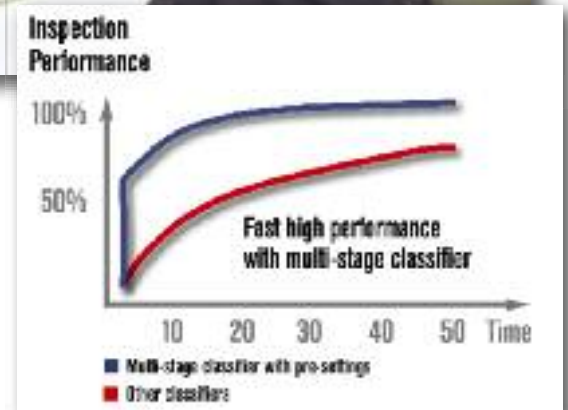
Save time and money:
Multi-stage classification provides best performance at shortest set-up time
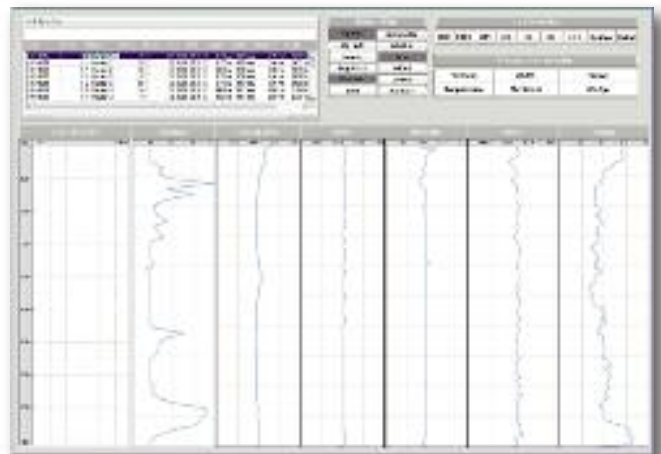
For highest efficiency: process analysis at one view

Ingot   Hot Rolling   Cold Rolling   Annealing
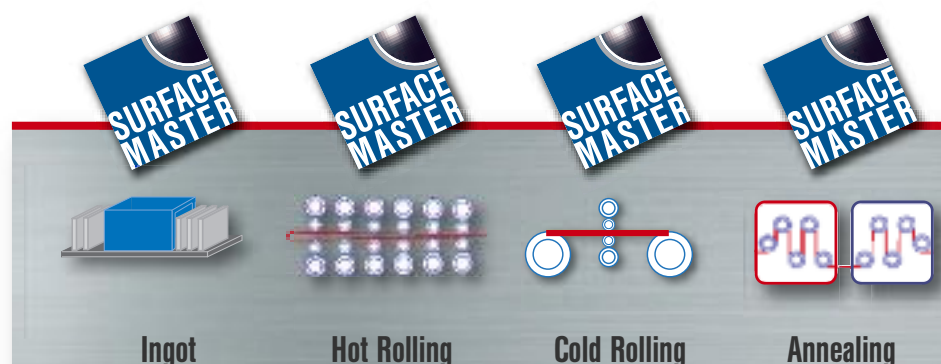
SURFACE MASTER
Empowers aluminium production

■ **New reporting and analyzing tools**
- ✓ New interactive online live view showing specific defects with the possibility to add operator observations
- ✓ Advanced reporting: coil quality, shift quality, diagnosis, performance
- ✓ For best decision making: Quality EXPERT5i software solutions to support quality decisions that reduce time and scrap

■ **Extended quality audit capabilities:**
- ✓ Certified calibration procedures
- ✓ Long-term performance monitoring
- ✓ Advanced self-diagnostics with reporting of component faults

■ **Easy integration and fast start-up:**
- ✓ SMARTFRAME technology
- ✓ Standard interfaces: electrical and mechanical
- ✓ Standard data bases
- ✓ Predefined parameter set-up
- ✓ Classification right from the start: Instant Classifier™
- ✓ Semi-automatic defect tuning
- ✓ Certified start up-approach

■ **Additional functionalities**
- ✓ Width measurement
- ✓ Quality data archive
- ✓ Texture and process analysis

■ **Quality and yield management system QMS**
- ✓ REAL TIME production assistance and intelligent decision support
- ✓ Automatic alarming
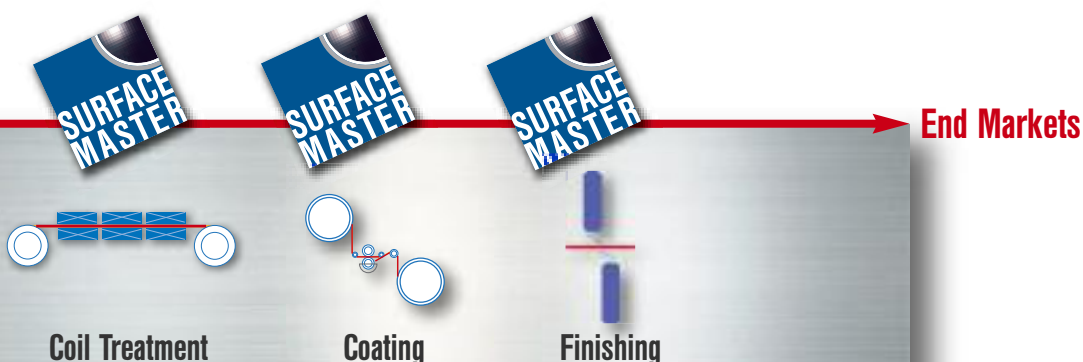- ✓ Quality bench marking
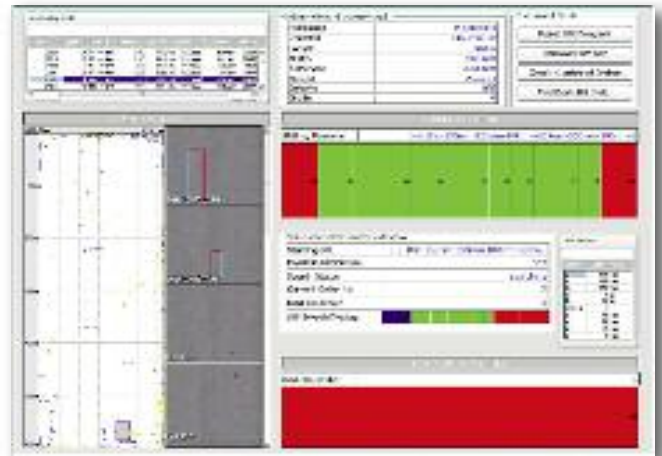
For highest yield: optimization of the slitting plan with the use of surface quality data and flexible quality rules
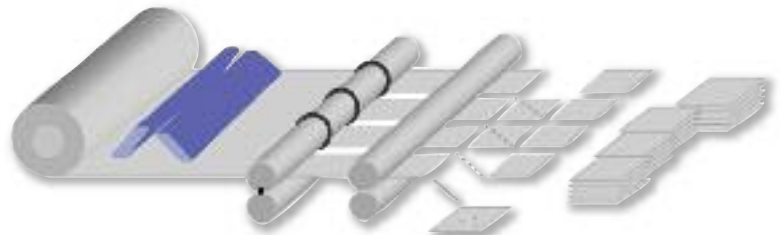
Surface Inspection   Cutter   Sorting
Automatic sheet sorting for cut-to-length and slitting lines

Quality Management System QMS enables highest productivity for aluminium mills

SURFACE MASTER   **SURFACE MASTER**   **SURFACE MASTER**   **End Markets**

Coil Treatment   **Coating**   **Finishing**

SURFACE MASTER
Next generation aluminium surface inspection

Discover the details of the new generation aluminium surface inspection — Unrivaled in scope

- **for 100% correct quality decisions,**
  improved inspection performance by **data quality** enhancement
- **for reliable and fast defect classification,**
  advanced, high-end **multi-stage classifier**
- **for reliable production,**
  highest system availability … **24/7** … **up to 99.8%**
- **for complete quality information at one view,**
  new online reports and visualization
- **for highest user acceptance,**
  trusted and reliable quality audit capabilities and features
- **for best efficiency: down to ONE month pay back period,**
  simpler lower cost integration and faster implementation

NEW

The base for 100% correct quality decisions:

Distiller
Separation of relevant quality data from not essential one

Distiller
Each step „cleans" the data by a factor from 10 to 100

Only relevant data – generated by intelligent merging and filtering – is used for decision making!

Select to YOUR needs:

The new generation is available in three different product classes: inspection systems creating value that pays back on your investment – even at the standard level!
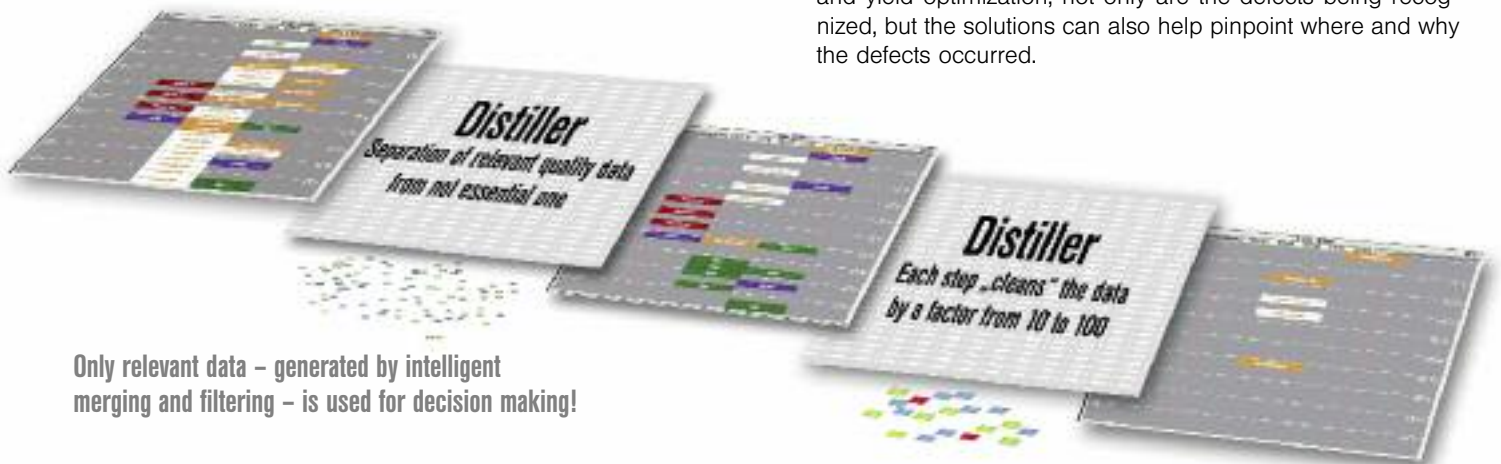
- **SURFACE MASTER** Standard
  High-performance entry level inspection system class, including all typically usual benefits.
- **SURFACE MASTER** Advanced
  Upper inspection system class with advanced performance and ready for inspection networks.
- **SURFACE MASTER** Premium
  Cutting edge ultimate high end inspection system class, with incredible performance — no wish remains open.

Get the key to the future.

Improve process reliability and productivity

One of the key objectives of our solutions, and especially **SURFACE MASTER** is to help make manufacturing both more productive and more cost effective. By employing leading edge surface inspection and the tools for both process monitoring and yield optimization, not only are the defects being recognized, but the solutions can also help pinpoint where and why the defects occurred.

SURFACE MASTER

Innovations for Automatic Surface Inspection
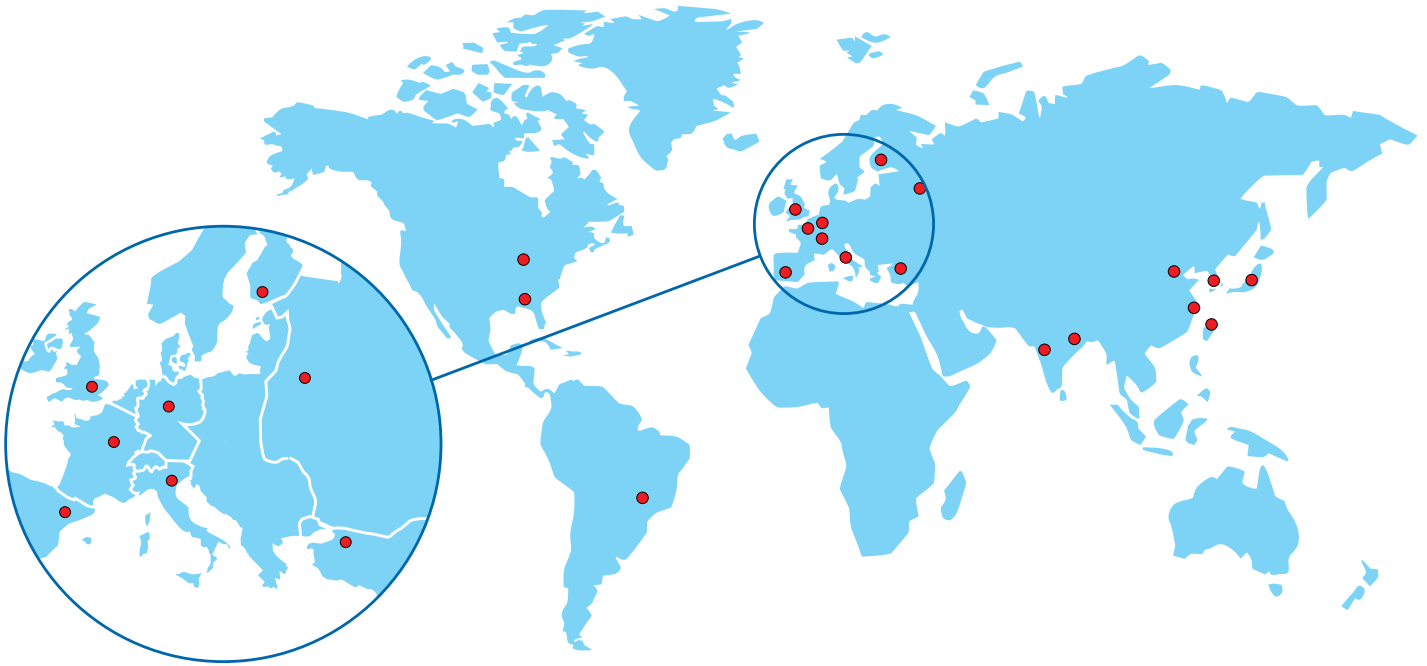
Your competent partner

A business relationship with the ISRA VISION group is the beginning of a long term partnership.

Our clients benefit from the experience of our highly qualified team of experts, who work with them to design and implement solutions for the quality inspection applications of the future.

The ISRA VISION group is a global enterprise that guarantees its customers excellence in every aspect: from consulting, service, and confidentiality, to complete solutions and worldwide support.
• We can make your business more competitive and productive
• We view ourselves as a partner and supplier of application oriented standard systems for selected industrial sectors

Challenge us.

24/7 Support & Service

On the safe side ... with ISRA **VISION** PARSYTEC

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Optimize your ROI – with the technology leader **ISRA**

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The More You See...