

iXRAY
X-ray systems



iXRAY

The products of the iXRAY family support our customers in capturing sensitive product and quality data with high precision and in adapting their processes to the increasingly stringent quality requirements. iXRAY also offers the possibility to classify multilayer products and aluminium composite pipes. This not only advances the digitization and automation of the extrusion line, but also saves valuable raw materials, reduces scrap rates, and increases sustainability.

INSPIRE

beyond measurement



WE GIVE EXTRUSION TECHNOLOGY A FRESH APPROACH

For more than 40 years, the name „iNOEX“ has been associated with pioneering technology and ground-breaking inventions for measurement and control technology. With innovative strength, a willingness to push boundaries and a wide range of products and services, we aim to inspire our customers.

Based on our values and principles, our cooperation is characterized by a clear mission statement and a focus on customer needs. We work on this every day with enthusiasm and passion.

As pioneers and experts, we offer our customers added value in the pipe, hose, film, cable, and profile extrusion industry. Our high-quality products, equipped with outstanding user-friendliness, offer intelligent and innovative solutions that stand as key factors for sustainable success.

WE INSPIRE THROUGH INNOVATIONS

Product firsts and the latest technological developments are the hallmarks of iNOEX GmbH. The know-how of our employees contributes to this development competence. The iXRAY series, which celebrated its launch at the K trade fair 2019, is another part of this innovative success.

During the development of the iXRAY systems, the focus was placed on the wall thickness and diameter measurement of multilayer pipes. The µm-accurate reproducibility of the products and quality assurance during extrusion are also in the foreground here. The X-ray equipment of the iXRAY series has been designed in such a way that there is no risk to the operator. Due to its low radiation power, it operates far below the permitted legal limits. Further safety aspects ensure completely harmless use.

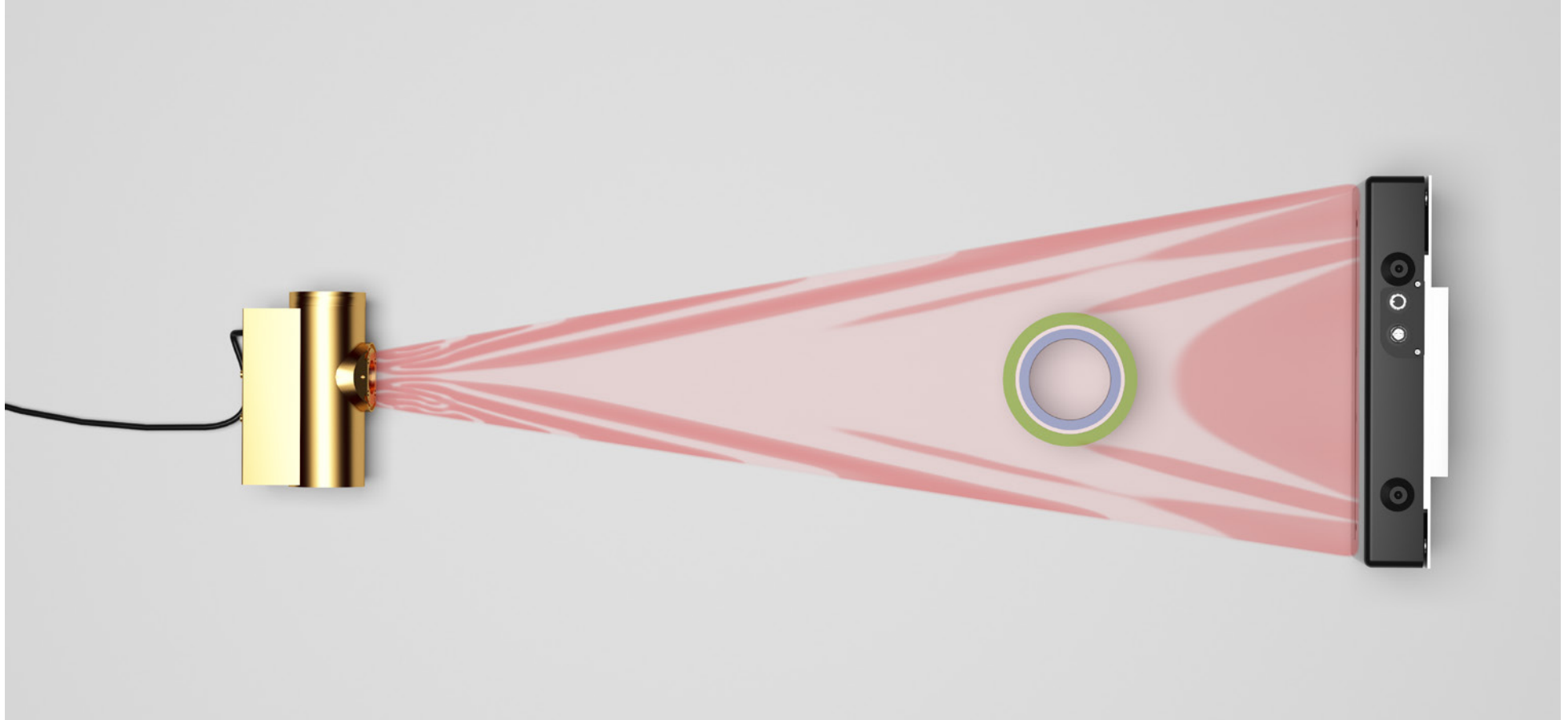
WE ARE COMMITTED TO SUCCESS

When you choose iNOEX, you get not only outstanding products but also individual service solutions. We offer service at the highest level and competent support throughout the entire product life cycle. We are always there for you - worldwide and at any time.

With our manufacturing know-how and experience, we identify potential, determine the most suitable technology, and optimize your processes. With comprehensive services to improve your efficiency and production performance, your success is our target.

Customer satisfaction is our top priority. We always think and act with our customers in mind. Our expert service supports you quickly, reliably, and competently. We are there for you personally - via service hotline or directly on site.

#iINSPIRATION #iINNOVATION #iINTEGRITY



iXRAY

X-ray technology

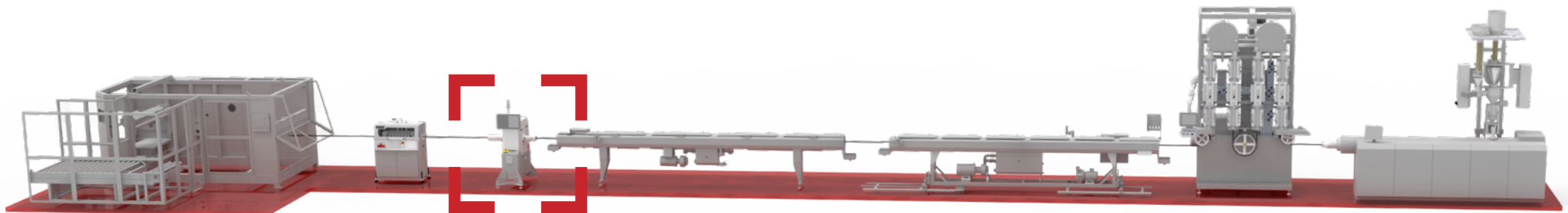
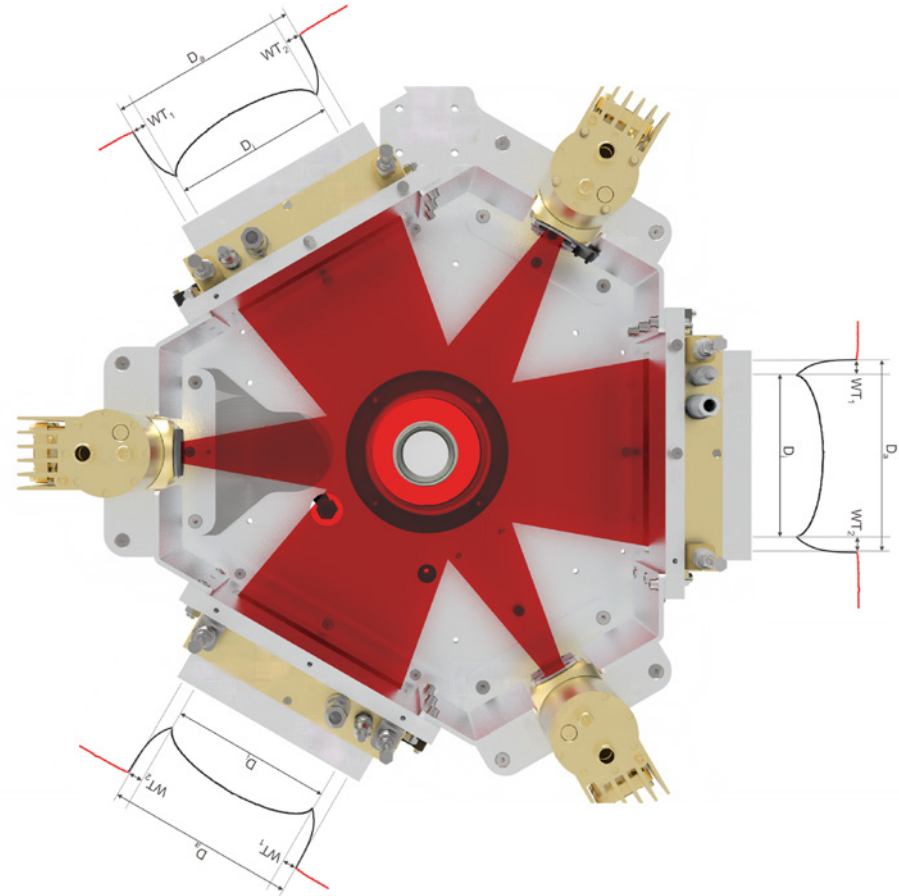
X-ray technology is a robust and highly precise measuring instrument. It is used in wall thickness and diameter measurement for single and multi-layer pipes and hoses as well as cables and rubber applications.

Modern X-ray components combined with the latest semiconductor sensor technology allow precise spatial resolution and repeatability in the μm range. The technology is used for multilayer tubes such as aluminium composite tubes, pressure hoses with fabric inserts, rubber hoses, foamed products, medical hoses and tubes as well as cables. The μm -accurate reproducibility of the products and quality assurance during extrusion are the main focus here.

Furthermore, the X-ray units do not present any hazard to the operator. The radiation output is far below the permitted legal limits and other safety aspects ensure safe use.

ADVANTAGES AND FEATURES

- Wall thickness and diameter measurement for single and multi-layer pipes and hoses
- Process optimization and material savings
- Thin-point control in combination with SAVEOMAT gravimetric systems
- Low radiation power far below the permitted legal limits as well as other safety aspects
- Standardized process data interface (OPC-UA)





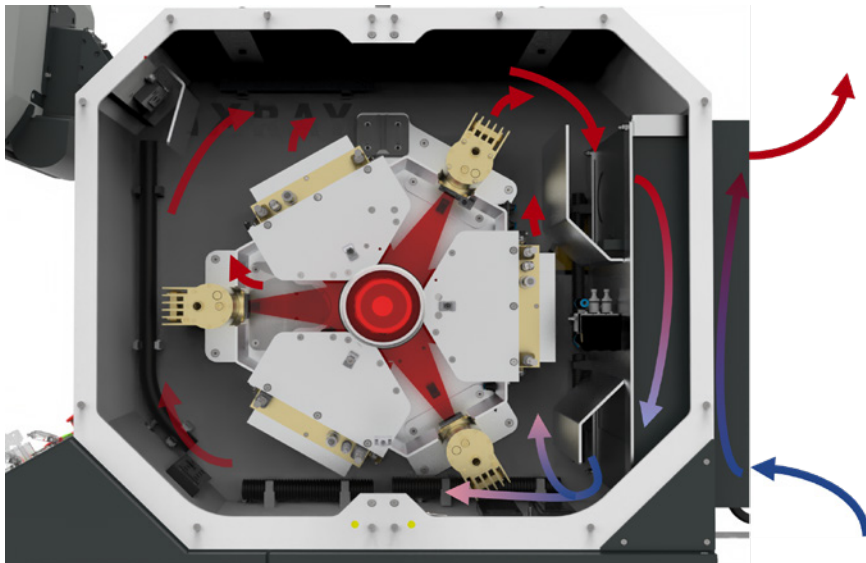
iXRAY

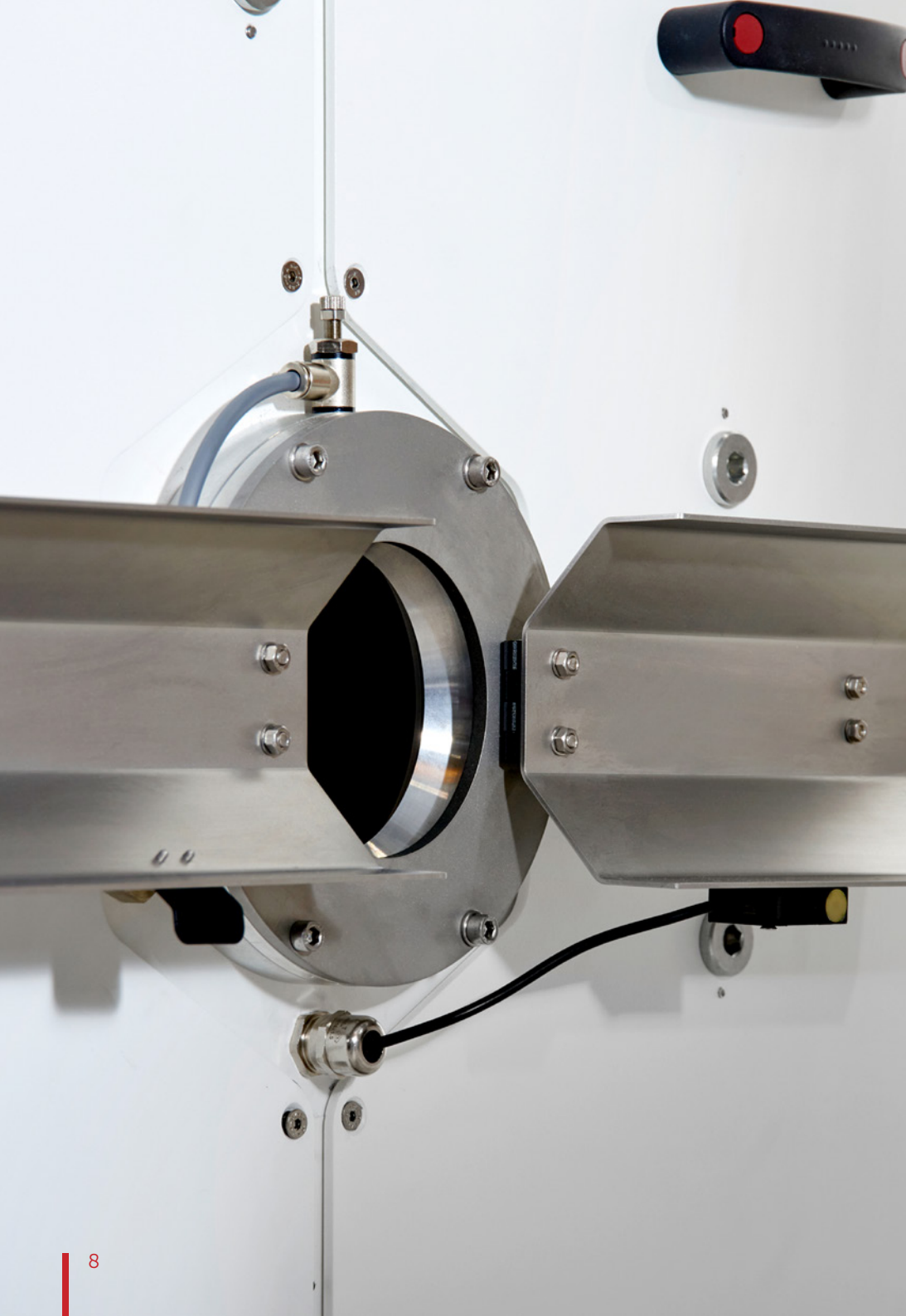
The iXRAY solves almost all measuring, automation and documentation tasks for single and multi-layer pipes and hoses. Thanks to a precise spatial resolution and repeatabilities in the μm range, the system reliably generates exact measurement data. At high line speeds, the X-ray system - optionally two or three axes - delivers precise measurement results.

The standard systems are available for pipe dimensions from 1 to 63 mm. The iXRAY series is user-friendly and the line operator only has to select the pipe, hose, or cable recipe to start the measurement. Highest line efficiency while saving raw material is achieved by combining it with gravimetric solutions and the proven iNOEX process components. This makes the iXRAY X-ray systems a complete solution for the automation of extrusion lines.

ADVANTAGES AND FEATURES

- Measurement of wall thickness distribution, inner and outer diameter, ovality and eccentricity
- Up to 6 wall thickness values on the pipe or hose circumference
- Up to 3 diameter axes at 120° angle
- High repeatability
- No calibration necessary
- High precision X-ray tubes with anode voltage up to 60 kV
- Easy exchange of X-ray tubes possible
- Non-contact measurement, no seal, and no dimension-dependent accessories
- Simple operation with little training required





iXRAY

Features

FOLDABLE RADIATION PROTECTION TUBES

- The radiation protection tube can be opened on both sides
- Safety switch in conjunction with the safety PLC switches off the radiation in the open position
- The radiation protection tubes are optionally available with a tube guide

AIR SHOWER (OPTIONAL)

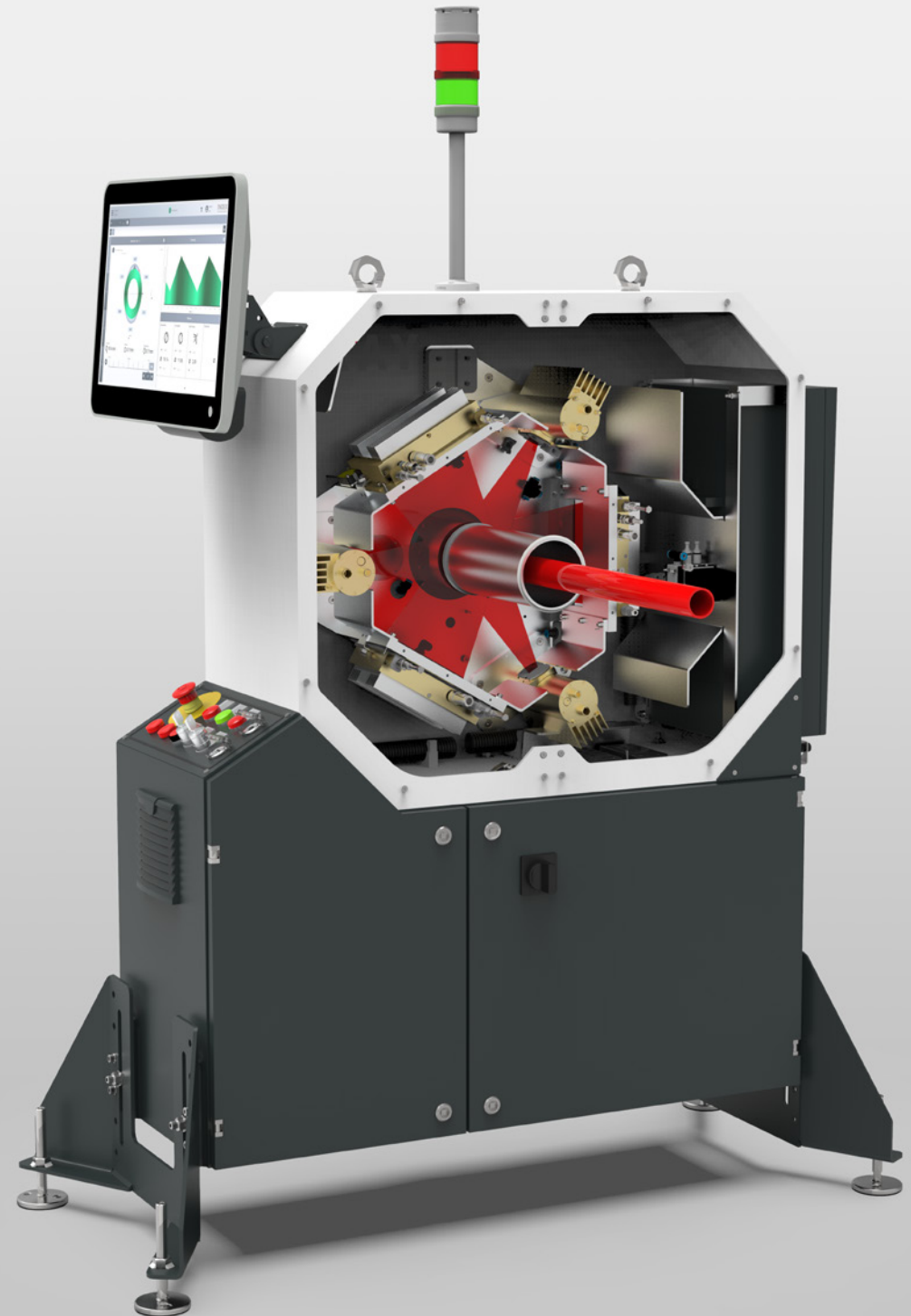
- Air shower for inlet and outlet to blow off water droplets and prevent extrusion aerosols from entering the beam path
- The blowing strength can be individually adjusted at the front and rear via an adjustable restrictor
- Switching on and off via the operating terminal or automatic switching on when the unit is switched on

PIPE GUIDE (OPTIONAL)

- Double guide wheels
- Distance manually adjustable to guide the tube through the center of the measuring chamber

MEASUREMENT AND CONTROL COMPONENTS IN CONJUNCTION WITH INOEX GRAVIMETRY

- Mass throughput control
- Weight per length control via haul-off/extruder
- Thin-point control
- Ramp function



Industrial Data Manager

powered by  iDOO

Our Industrial Data Manager facilitate comprehensive analyses and evaluations to identify optimization potentials and evaluate product-specific indicators. Installed as a virtual machine in your network, no additional hardware is required. The standardized process data interface OPC-UA transfers data from state-of-the-art measuring, controlling and automation solutions. Benefit from preconfigured and customizable dashboards and reports for each connected system and create diagrams, visualizations and data evaluations with Grafana. Export your data as .csv or .xls and keep track of live data on the database server. Use the Industrial Data Manager as a production floor monitor that provides cross-location statistics such as overall equipment effectiveness and process line capability.

*Drive digitalization and unlock the value of your data with iDOO.
Experience the future of the industry.*

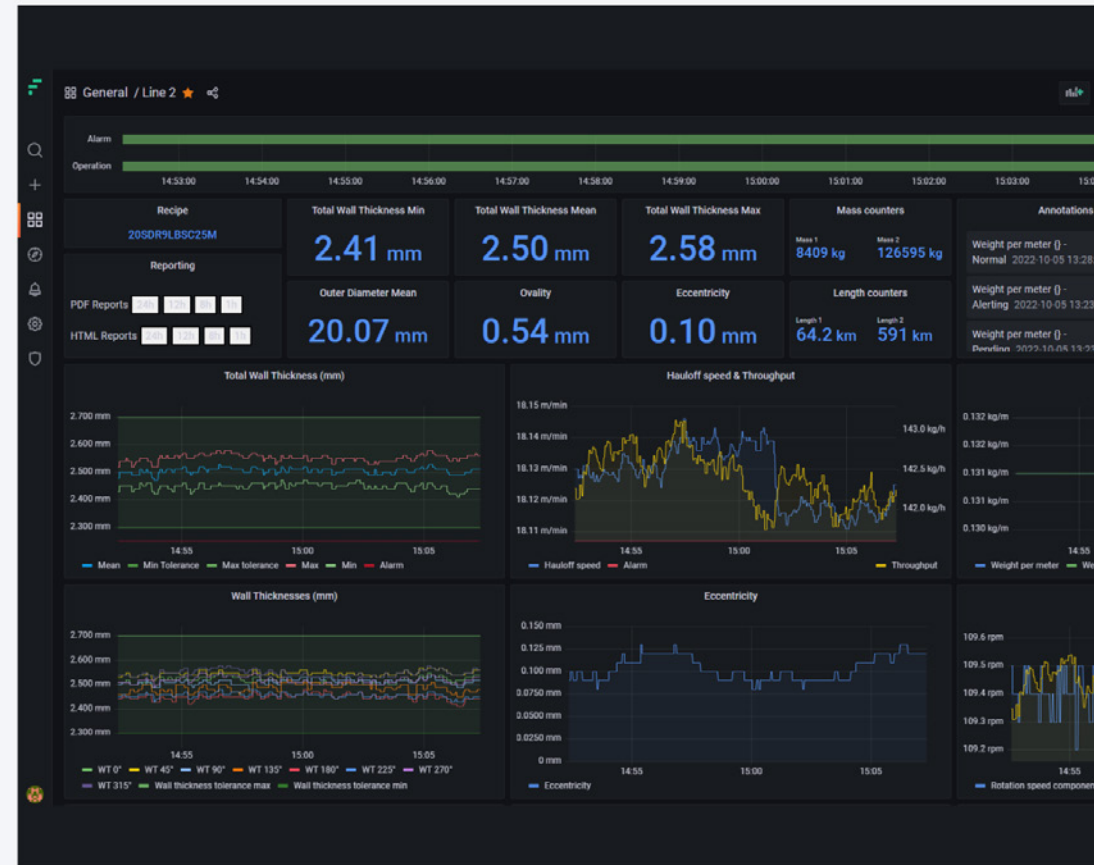
ADVANTAGES AND FEATURES

- Access to all production data
- Easy access via web browser
- Optimized for all mobile devices
- Support of quality assurance
- iDM gateway for integration with almost all types of interfaces
- Runs on almost any existing server hardware
- Data backup in case of network or server failures (up to 1 week)
- Intuitive user interface

More information



www.idoo.global



iXRAY

Products at a glance

Type	Axes	Pipe dimensions [mm]	Viewing area [mm]	Opening [mm]	Repeatability [μm]	Measuring frequency [Hz]	Min. wall thickness [mm]
iXRAY 16	2	1 – 16	23	45	3*	max. 30*	0,1
	3						
iXRAY 32	2	5 – 32	50	100	5*	max. 30*	0,3
	3						
iXRAY 63	2	6 – 63	80	100	10*	max. 30*	0,3
	3						

*Depending on material and application. For a particular application field, the respective data are specified precisely.

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