



Loepfe

YarnMaster®
ZENIT+
**PROFICIENT
YARN
CLEARING**



- Proven
- Reliable
- Accurate



YarnMaster ZENIT⁺

Yarn clearing at its best

The optoelectronic YarnMaster ZENIT⁺ guarantees 100 % online quality monitoring during the winding process to produce consistently high-quality yarns. With its three dedicated sensors, a single sensing head can be used for any application. The simple and precise clearer settings meet the highest requirements.

Your added value

Loepfe's optical yarn clearer provides reliable results under all production conditions. The precise detection and classification of faults enable the production of constant yarn quality thereby maximizing profitability. Steady output turns every spinning mill into a reliable partner within the whole production chain. In addition, the detailed quality and production reports provide information on options for optimizing the preparation and spinning process. Spinners can rely on peak technological performance from ZENIT⁺.

Meets your needs

Fully cleared yarn to meet market demand.

- Detection of raw material related faults
- Fault classification with detection of spinning process related faults (NSLT)
- Precise detection of foreign matter in raw white and dyed yarn as well as smallest shade variations
- Secure detection of white and transparent polypropylene
- Automatic removal of Off-Standard bobbins
- Reliable quality control for fancy and core yarns
- Automated dust compensation with alarm functions based on smart thresholds
- Recallable settings ensure easy operation and reproducible high-quality
- Maintenance friendly for low operating costs



Sensing head YarnMaster® ZENIT⁺

Smart facts

Optical measurement of the yarn provides consistent results.

Application range

- For all staple fiber yarns and materials
- Yarn count: Ne 2.4–320, Nm 4.1–540
- Winding speed: up to 2000 m/min
- For all splicer types
- One sensing head covers it all

Comprehensive overall control

- Easy and precisely adjustable settings
- First information directly on the sensing head
- Quality and production data available in real time and shown in graphical reports
- Dashboard function informs about important cutting limits, off-limits and user defined alarms
- Scatter plot view shows a graphical representation of the yarn faults distribution
- Trend analysis provides information about preparation and spinning process related faults

24/7 online laboratory

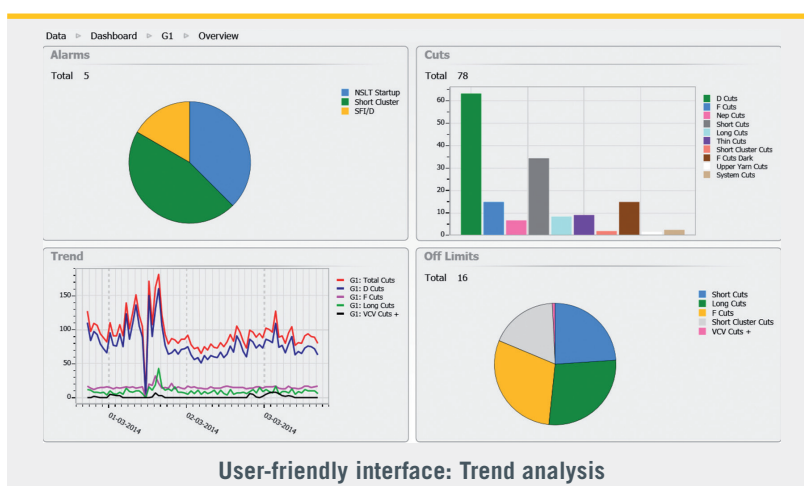
100 % online evaluation of quality data directly during the production process.

- Preventive maintenance
- Information on raw material
- Information on machine condition
- Diameter variations VCV
- Diameter variations SFI, SFI/D
- IPI diameter-related imperfections

Off-standard bobbins

No longer rely on random samples thanks to automatic removal of Off-Standard bobbins.

- Yarn surface characteristics as SFI, SFI/D, VCV, IPI, Cluster
- OffCount
- OffColor
- NSLT



Foreign Matter F sensor

Foreign matter of any color and material are reliably detected.

- Detection of colored foreign matter in raw white and dyed yarn
- Detection and elimination of smallest shade variations

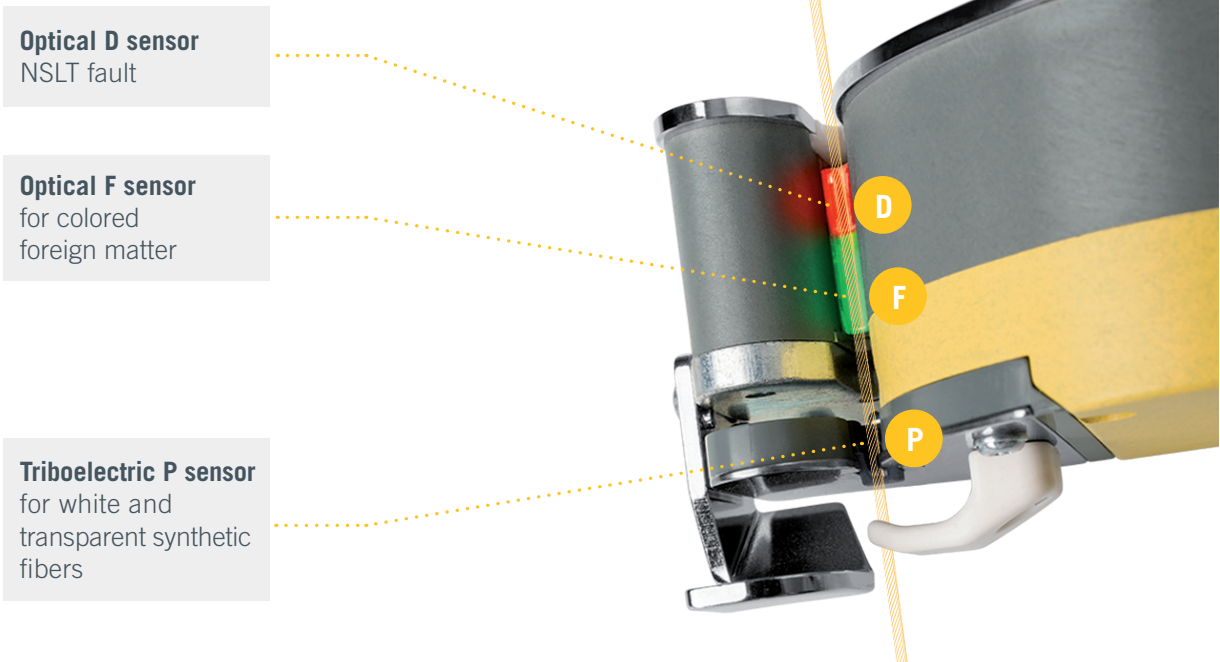
The yarn is illuminated from several sides to detect faults. The signals resulting from reflection and transmission are converted through algorithms into luminosity differences. The reference thereby is the brightness of the yarn color. Depending on the color, the clearer adapts to the basic brightness of the yarn during adjustment.

Polypropylene P sensor

The invisible becomes visible with the triboelectric P sensor.

- Detection of raw white and transparent polypropylene
- Detection of white PP faults in blended cotton yarn
- Detection of even the finest synthetic foreign matter

While the yarn passes the P sensor, the fibers exchange electrons with the sensor. This effect is referred to as the „triboelectric effect“. When a synthetic fiber passes the electrode of the sensor, it is detected because of the triboelectric charge difference.



Optical D sensor
NSLT fault

Optical F sensor
for colored
foreign matter

Triboelectric P sensor
for white and
transparent synthetic
fibers

D

F

P

Functionalities

YarnMaster® ZENIT⁺

D	DF	DFP	
			P CLEARING <ul style="list-style-type: none"> Clearing of synthetic foreign matter PP, PE foils, PES
			F CLEARING <ul style="list-style-type: none"> Clearing and classification of foreign matter, dark and bright Foreign matter clusters, dark and bright Organic filter
			OFFCOLOR (OPTIONS) <ul style="list-style-type: none"> Shade variations
			LABPACK (OPTIONS) <ul style="list-style-type: none"> Imperfections IPI, IPI alarm Surface index SFI Off-Standard bobbin detection SFI/D Variable CV channel (VCV)
			QUALITY DATA
			Management Cockpit <ul style="list-style-type: none"> Dashboard view of trend, alarms, cut distribution, Off-Limits
			Yarn clearing <ul style="list-style-type: none"> Channel clearing: NSLT Class clearing: NSLT Splice channel clearing: NSLT Splice class clearing: NSLT
			Classification <ul style="list-style-type: none"> Yarn faults: NSLT Splice faults: NSLT Scatter plot
			Count monitoring <ul style="list-style-type: none"> Yarn count channel Short count channel
			Off-Standard <ul style="list-style-type: none"> Cluster channel for nep/short/long/thin Class alarm Off-Limit alarm
			Reports <ul style="list-style-type: none"> Shift reports Shift calendar
			Administration <ul style="list-style-type: none"> Total 99 articles Total 30 groups
			Service <ul style="list-style-type: none"> Remote access (through MillMaster TOP) Online help Import/export data TK software update Message window with intervention

(D) optical Infrared, (F) optical, (P) Triboelectric

Data management

MillMaster® TOP

Data management cockpit

MillMaster TOP monitors YarnMaster ZENIT+ yarn clearer data online and in real-time. The data of all connected machines and winding units are combined and shown in value-added reports. The quality process is managed comfortably and offers a variety of control and optimization functions for the preparation and spinning process.

Your added value

Loepfe's data management system provides a precise overview of the quality processes. The comprehensive reports allow for conclusions to be drawn regarding the entire yarn production process including raw material, preparation and spinning. The error sources can thus be located and quickly resolved. These targeted actions lead to optimized production, prevent costly maintenance and guarantee a consistent yarn quality.

Meets your needs

Fully optimized production for a consistent yarn quality.

- Informative and graphical reports for: Lots, shifts and intermediate shifts, spindles, groups, yarn counts, articles/lots, articles/shifts
- Trend analyses compare the output of different machines over time and ensure a continuous improvement of performance and quality
- Planning boards help achieve maximum efficiency with lot planning and winding machine scheduling
- Clearer assistant shows the influence of different settings with a precise cut forecast
- Off-Limit reports display the worst performing spindles



Smart facts

Comprehensive production data and reports.

User interface

- Customizable and recallable settings allow quick and easy operation
- Dashboard view provides data for each machine individually
- Machine overview shows a spindle-group performance indicator
- Flop view shows the worst performing production group
- Traffic lights colors indicate a quick overview about the winding room performance

Functional range

- Data available on 3 workplaces
- Automatic machine recognition
- Connection of 1440 winding position
- Compatible with different YarnMaster winding clearer generations

- Updates via cloud
- Remote access
- History of setting and group changes
- Article and clearer settings management
- Shift calendar
- Reports can be exported in standards formats

Options

- Data available on 8 workplaces
- Connection of 7200 winding position
- Extended Off-Limit, trend and comparison reports
- Planning board
- Database access
- Clearer assistant (cut forecast)
- Report configurator
- Lab report

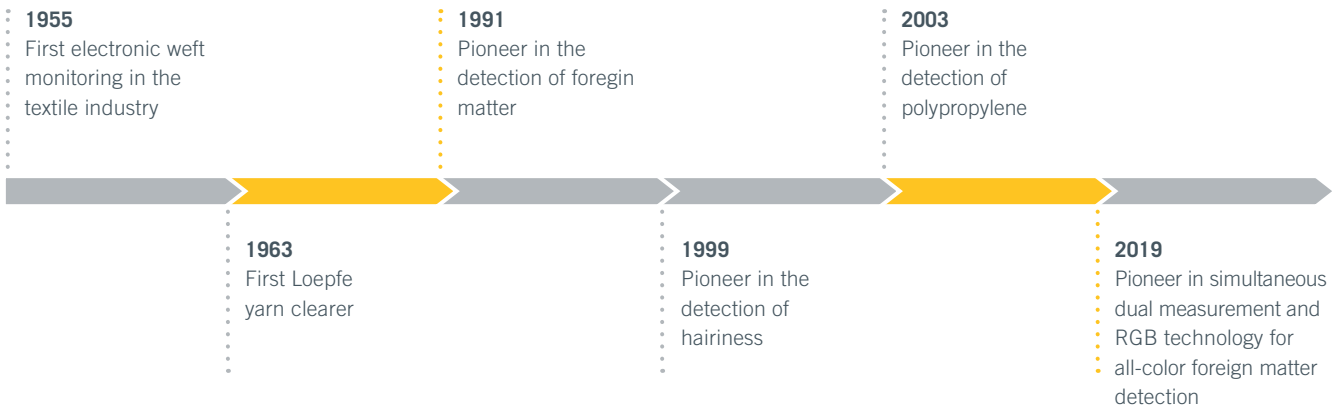


Loepfe Brothers Ltd.

The Pioneers

Since its establishment in 1955 Loepfe has been the pace-setter for innovation in textile quality control. Loepfe researches, develops and manufactures clever sensor systems in Switzerland to meet the needs of producers. Loepfe has excelled in sensor technologies for yarn and filament monitoring worldwide.

Today, Loepfe is considered world-wide as the specialist for integral quality control systems. Fifty percent of the world-wide staple yarn production are monitored by Loepfe yarn clearers.



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Loepfe is part of the Vandewiele Group. Providing cutting-edge technology and effective solutions for the textile industry. Machine manufacturers, as well as spinning and weaving mills around the world, rely on our innovation at the highest level. Quality made in Switzerland.

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