# Finer S - Edition 26
# **Proven technology, better than ever**




Innovations for a **better world.**

BÜHLER

# Chocolate processing solutions with roll refining
# **Refining chocolate with absolute control**

Perfect chocolate is not created in a single step. It is the result of a precisely controlled process – dosing, mixing, refining, and conching. Bühler's DoMiReCo system brings these steps together into one integrated solution – ensuring efficiency, consistency, and full process control. The Finer S defines particle size with absolute precision – creating the foundation for texture, taste, and efficient downstream processing.

Bühler has been building chocolate refiners since 1919, shaping the chocolate industry worldwide. Now, Finer S – Edition 26 is set to take it to the next level.

### Superior quality

Unmatched fineness and narrow particle size distribution for smooth texture and full flavor.

### Precision and consistency

Constant fineness down to 12 µm.

### Unbeatable grinding efficiency

Smooth texture and full flavor by narrow particle size distribution, fully reproducible. Consistent fineness quality thanks to special roll design (crown).

### Perfect quality over roll length

Fineness Control and Performance control for consistent fineness quality, maximum performance, and increased roll lifetime. All made possible by smart fineness and roll coverage optical sensors.

### Save money by consistent quality

Consistent fineness and controlled conching avoids the need for additional fat additions in the conching process, which are often used to correct final chocolate consistency (viscosity and yield value).



# Finer S – Edition 26
# Designed for performance, quality, and control

1



## Modern hygienic design and enhanced safety

Modern hygienic design improves cleanability and accessibility.
New door grid and stainless steel design improve safety and operation.

2



## Intuitive and easy operation

Easy-to-use Web-UI with minimal training in less than 1 hour.

3



## Energy efficient and increased process stability

Up to 3% energy savings and reduced $CO_2$ footprint by new generation IE5 drives.
Hydraulic pressure on demand system reduces energy use of hydraulic system by 50%.

4

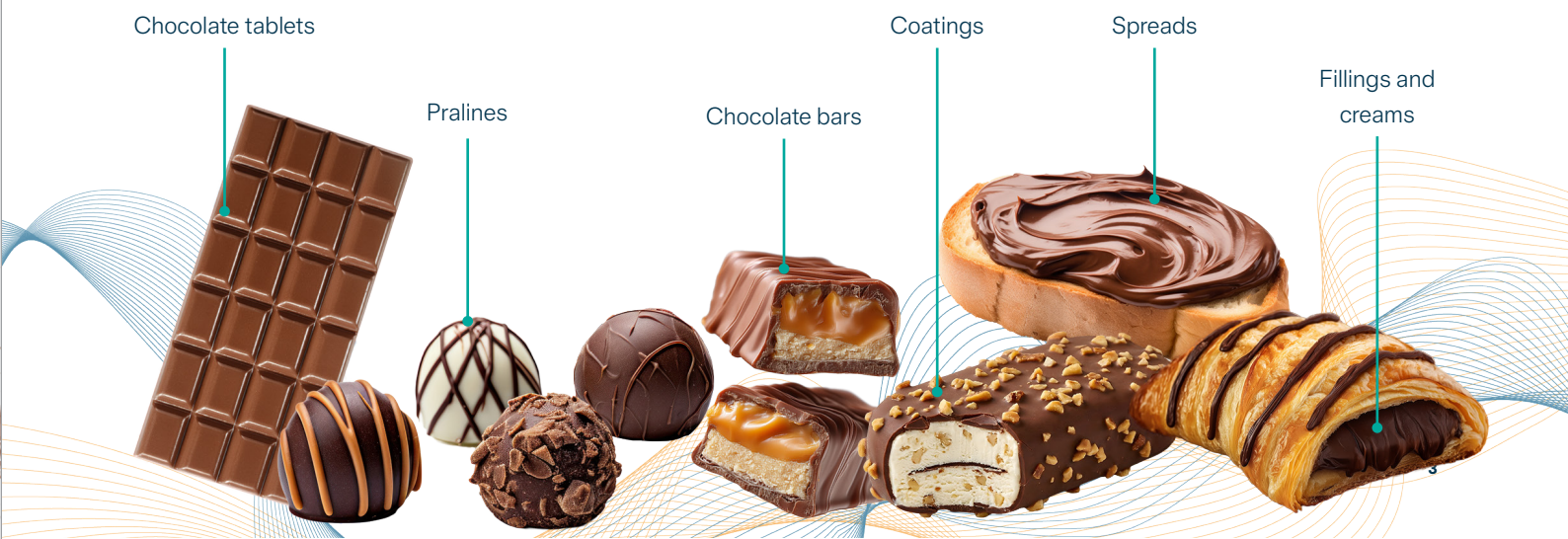


## Faster maintenance and diagnostics

Up to 30% faster diagnostics with IO-Link sensors and simplified maintenance and wiring.

The finer the particles, the more intense the chocolate tastes, melts smoother, and offers the most impressive depth of flavor on the palate.

## One machine, multiple applications



# One system, full control
# **Smart automation with traceability built in**

Fully integrated automation architecture, from hardware to connectivity.

**Hardware**
PLC and decentralized IOs in central cabinet, IO-Link sensors for faster maintenance

**Data charts monitoring**
Visualize and analyze all process parameters for easier diagnostics

**User interface**
Intuitive, user-friendly interface, 15” touch-screen



**Easy recipe management**
Individual recipe settings with all process related parameters

**Software**
Full process control and visibility

**Walk-Away-Screen**
See most important KPI from distance

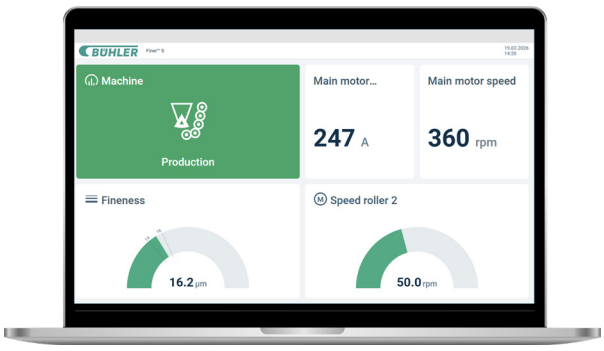
**Connectivity and integration**
Ready to connect with Bühler Insights

**User management for full access control**
User rights allow individual control levels

## Playone automation concept

Train operators in less than one hour with less dependency on skilled staff. Faster diagnostics and centralized, remote access make daily operation simpler and reduce system complexity.





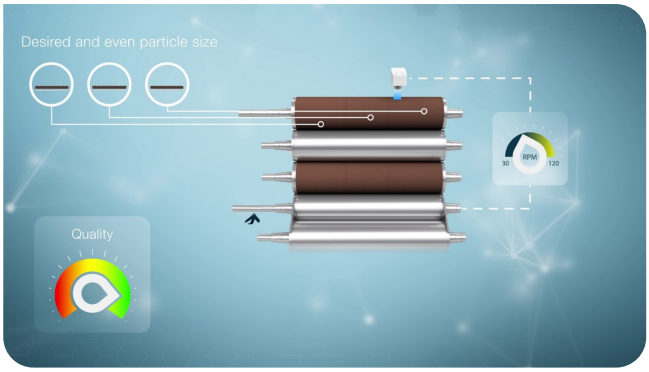
# Finer S – Edition 26
# **Fineness control and performance control**

## Fineness control

Real-time fineness monitoring by optical sensor (FineSens) to ±1 µm precision. Consistent fineness every time, independent of operator skills, without manual intervention.

## Performance control

Real-time roll coverage monitoring by optical sensor (FineFilm). Up to 15% higher throughput and up to 15% longer roll lifetime by optimized roll coverage. Reduced maintenance and operational costs.







## Total control

Together, Fineness control and Performance control deliver consistent fineness across the full roll length, reducing rework and enabling stable downstream processing: all while maintaining the highest quality standards with minimal control effort and increasing efficiency throughout the process.



# Finer S – Edition 26
# **Technical information**

## Machine specifications

| Model | Roll length | Motor size | A | B | C max |
|---|---|---|---|---|---|
| | mm | kW | mm | mm | mm |
| **1300** | 1,300 | 55-75 | 2,820 | 1,400 | 3,500 |
| **1800** | 1,800 | 75-90 | 3,320 | 1,400 | 3,500 |
| **2500** | 2,500 | 110-132 | 4,020 | 1,400 | 3,500 |





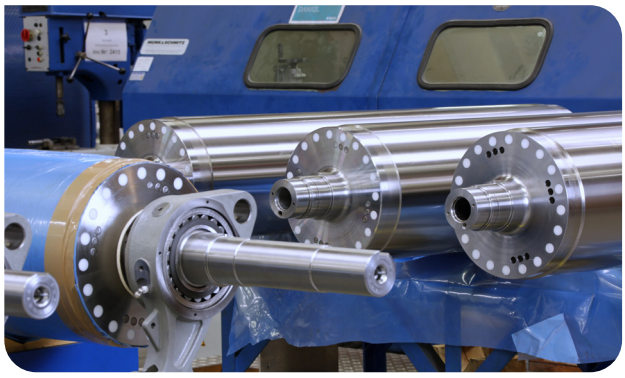

# Lifetime support and service
# **Grinding rolls**

## At the core of every perfect chocolate texture are the rolls that define its fineness, throughput and quality.

With Bühler's global refurbishment stations and service experts, rolls are restored to like-new performance, ensuring consistent quality and minimizing downtime with roll exchange in less than 3 days.

## Maximum roll lifetime

Total lifetime up to 50,000 h, ensured by a wear-resistant roll surface and optimized roll design (crown). Up to 4× re-grinding without quality loss, delivering lower lifecycle cost through extended roll usage.





## Roll refurbishment sites



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