# MTPA – Osiris **Food-Safe Pearling** Isabelle Huggler BUHLER Innovations for a better world.

# **Market demand**

- High food safety
- High throughput
- High & uniform pearling degree
- Low wear and tear
- Low energy consumption
- Minimal footprint















# **Industry**

# **Used among various industries**

- Pasta
- High value products
- Flakes & Specialty flours
- Breweries
- Pet food applications









# **Product overview**

#### Name of the process:

Food-Safe Pearling

#### Name of the machine:

Osiris

# **Throughput:**

• 2-12 <sup>t</sup>/<sub>h</sub>

#### Sizes:

- MTPA-55
- MTPA-75
- MTPA-90





# **Feature & Function**

#### Only one product inlet, without feed screw

uniform product distribution possible by a conical rotor lid

#### Automatic retarding system, without weight force

 allows quick intervention in the product flow and pearling degree

#### Direct drive, no belts

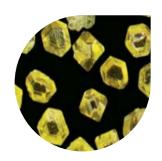
- energy saving
- maintenance friendly
- no belt wear







# **Feature & Function**



#### 10 identical pearling wheels

individually replaceable and exchangeable

#### Diamond as pearling material

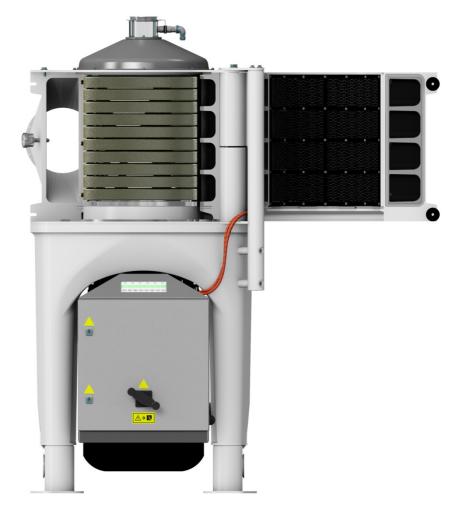
- diamond is known as the hardest pearling material
- highest pearling performance by optimized peripheral speed
- constant wheel diameter over lifetime

#### Combined air channel and sieve jacket

allows easy access for maintenance

#### **Optimized air channel**

uniform air suction over the entire rotor







# **Automation**

#### Integrated control, less cabling

reduced mounting and less cables

Control panel directly at the machine, remote control possible

The motor load is used as setting parameter

#### **Automatic retarding system**

 fast, accurate and precise regulation of pearling degree with servomotor





# **Customer Service**

#### Easy access to wear parts

- sieve
- break bars
- pearling wheels

Change of sieve and break bars is possible in less than 30 minutes

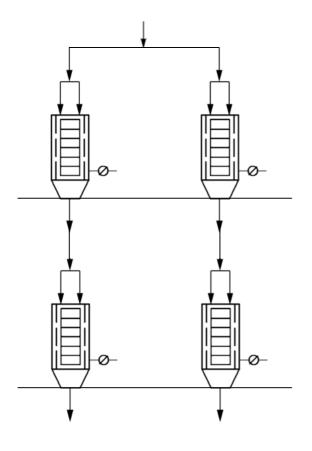
Change of pearling wheels is possible in less than 2 hours

All 10 pearling wheels are identical and can individually be replaced and exchanged



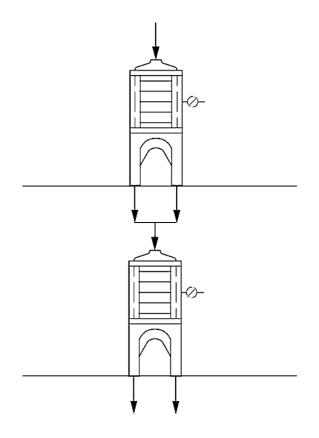


# **BSPB vs. MTPA with Durum**



# 2 BSPB can be replaced by 1 MTPA







	BSPB - Topwhite			MTPA - Osiris		
Engine power	37 kW	45 kW	55 kW	55 kW	75 kW	90 kW
Rotor	Ø340 mm			Ø550 mm		
Peripheral speed	14 - 16 <sup>m</sup> / <sub>s</sub>			43 <sup>m</sup> / <sub>s</sub>		
Pearling material	Silicon carbide Electroplated Diamond (Retrofit)			Electroplated diamond		



# **Customer benefits**

#### High throughput (2-12 <sup>t</sup>/<sub>h</sub>)

reference value with Durum:
8 <sup>t</sup>/<sub>h</sub> at 8 % pearling degree

#### Highest degree of food safety

no contamination by stone

**High energy efficiency** 

**Integrated control** 

Sturdy design

#### **Minimal footprint**

- approx. 6.6' x 6.6'
- height approx. 7.2' (with 90 kW-engine)





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# Movie

