

ALPesa Gen2

Whole milling for whole grain wheat

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Designation: Global Product Manager



Agenda



- Innovative technology
- Fact check
- Atta produced in Buhler solutions



- AIPesa Gen2 Innovation
- Functional Properties of Atta
- Complete turnkey solution



- Atta staple food
- Overview of Atta solutions
- Key driver of Atta industries
- Indian Package industries team



- Future consumer market
- Test your recipe
- Milling your way

Atta - Staple food



Atta isn't just flour,
it's every family's legacy.



Atta remains the heart of Indian meals - served
as chapati, roti, parata, puri, and more.

~112 MMT
Wheat produced annually

>60%

Wheat consumed as
- whole wheat atta flour

*Source – Indian Express

Overview – Atta Milling Solutions

Traditional Technology

Mids 19th Century

Mid 20th Century

Early 21st Century



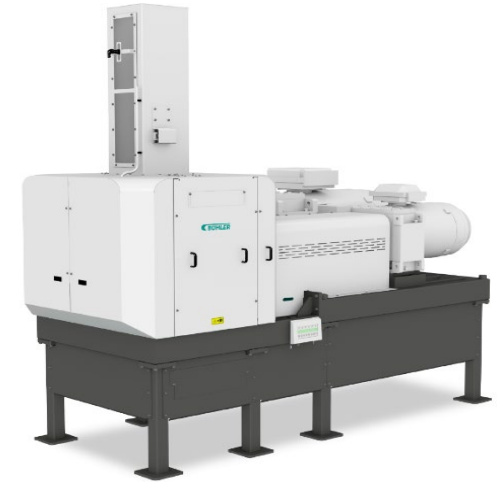
Natural Stone



Disc/Chakki mills



Industrial Chakki
Stone mill



PesaMill





Rapid Urbanization

Rising Disposable Incomes

Retail and E-Commerce

Population Growth

Key driver of the package atta flour

Nutritional Demand

Health Consciousness

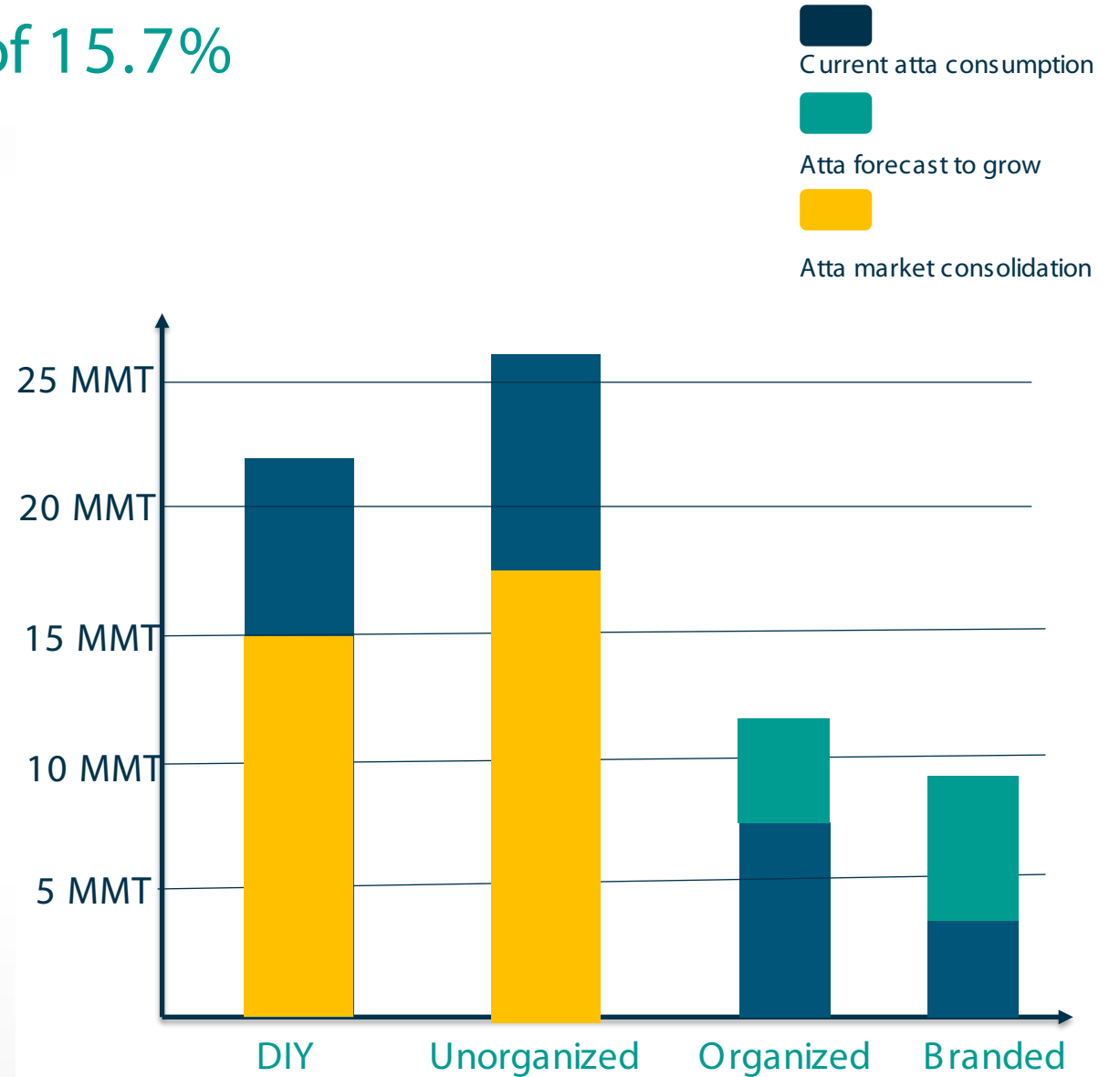
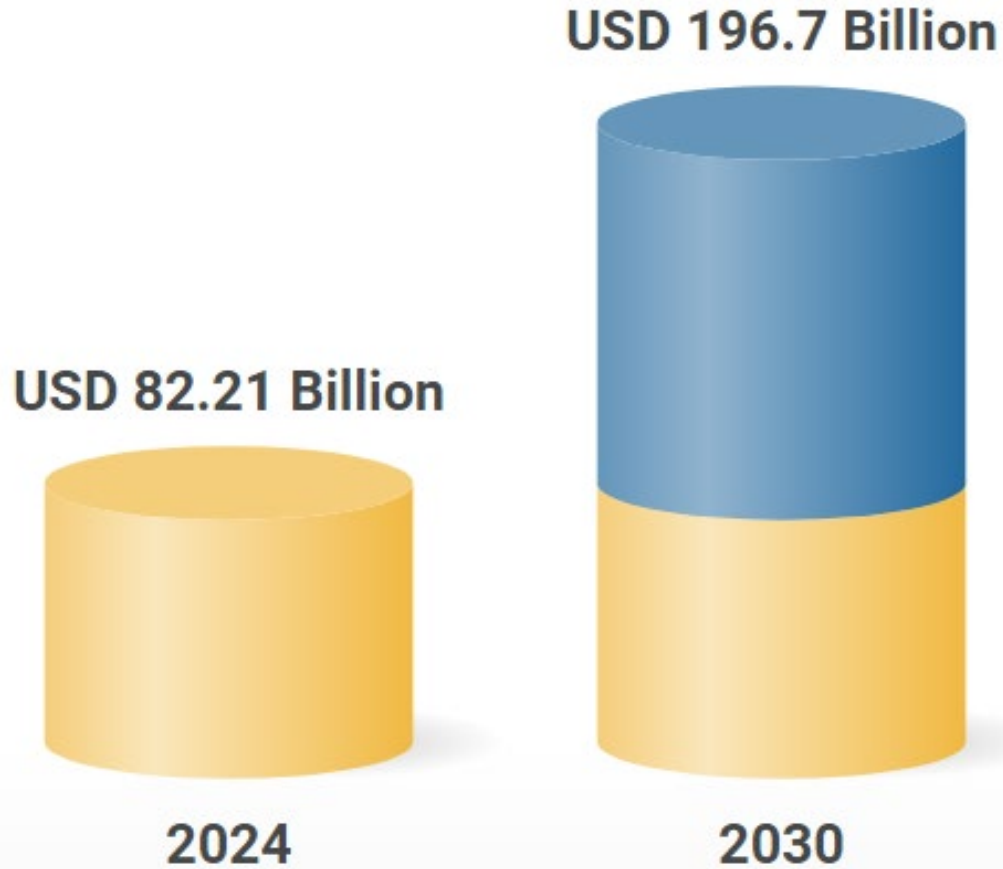
Hygiene and Sanitation

Preferred Branded Package



Indian Packaged Atta Market

Market forecast to grow at a CAGR of 15.7%



Source: www.researchandmarkets.com/reports/6025916

*Assuming the current market size of atta approx. 56 to 65 MMT

Industrial Solutions



Innovative Milling Solutions

State-of-the-art technology



Pesa Mill

MDGA-400	130 – 150 TPD
MDGA-200	65 – 75 TPD



ALPesa Mill

Plug and play solutions

MDGM-125A	15 – 18 TPD
MDGM-125G	

Advantages

- High flexibility
- Consistency Atta quality
- Maximum food safety (Stone-less technology)
- 10% Energy savings
- Reduced Operating Cost
- Compact footprint
- Easy operation and maintenance

Fact Check of Buhler Solutions



“Are today’s consumers paying a premium for ‘stone-ground’... or are they paying for taste, safety, and consistency? What happens when PesaMill gives them all three — better and higher margins?”

01

Blind Taste Tests Don’t Lie

Consumer market survey in different regions 8 out of 10 housewives could NOT tell the difference between PesaMill atta and chakki atta

02

Zero Grit, 100% Trust

One grain of stone grit in a child’s roti can destroy a brand overnight. With PesaMill, that risk disappears forever.

03

Atta flour is it same

The atta flour will not be the same as the traditional process, but it will be better in softness, taste & wheaty aroma as per regional preference

04

Will the Consumer Market accept Pesa Mill

The market is driven by brand image, atta quality like softness, freshness, taste, food safety, and price

05

Miller acceptance & mindset

Right training & onboarding made the process seamless, easy operation & maintenance-friendly machine

06

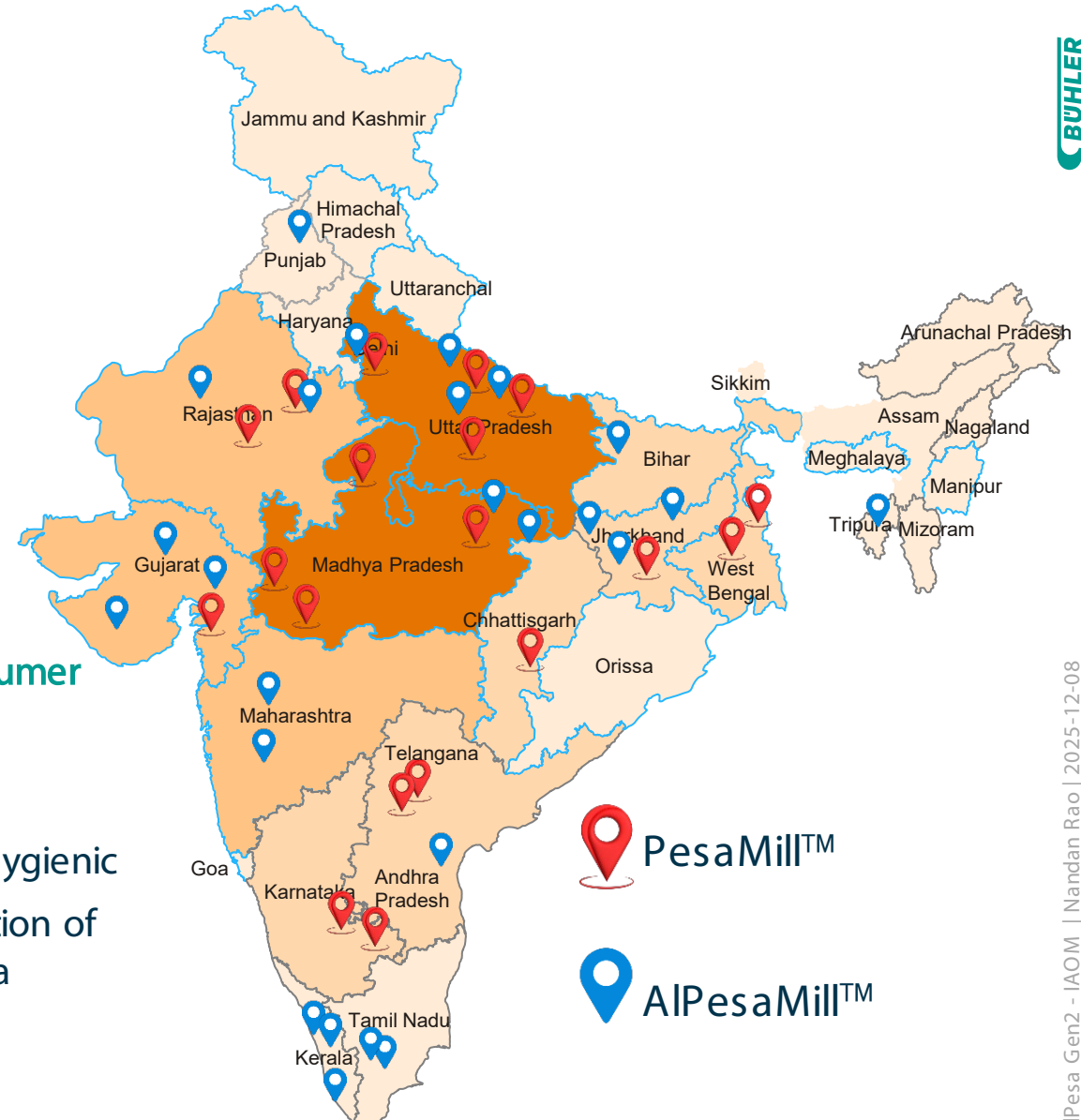
Price advantage

PesaMill cuts conversion cost by 1.5x compared to the traditional process. The investor gets rich, the consumer gets better quality — who loses?

VOC - Buhler Solutions

Plant	Capacity (TPD)	Whole wheat atta per year (Tons)	Total atta produced 5 years
Pesa Mill	130	~630,000	3.15 Million Tons
AlPesa Mill	15	~172,000	0.86 Million Tons

*Considering 70% of utilization



Voice of Investor



Voice of Miller



Voice of Consumer

- ✓ Reduced OPEX
- ✓ Automated solutions
- ✓ Less Energy bills
- ✓ Atta market growth
- ✓ Diversification

- ✓ Consistency quality
- ✓ Zero CCL4 test
- ✓ Flexible to extract flour & Starch damage
- ✓ Easy operations & maintenance

- ✓ Soft, taste roti
- ✓ High-fiber atta
- ✓ Food safe and Hygienic
- ✓ Zero contamination of Silica grits in atta

PesaMill™
 AlPesaMill™



Features Innovation



Enhanced Reliability

Product Innovation



Performance

Process Innovation



Engineering

ALPesa Gen2



AlPesa Gen2

A stand-alone product that can be engineered to regional requirements

A technology concept, the Pre-breaker with a dual-stacked grinding chamber, was reinvented to meet higher throughput and flexibility in achieving the extraction rate of Atta flour, Bran, Granulation & starch damage.

Capacity
24 - 26 TPD



Increased
throughput

↓10%
reduction

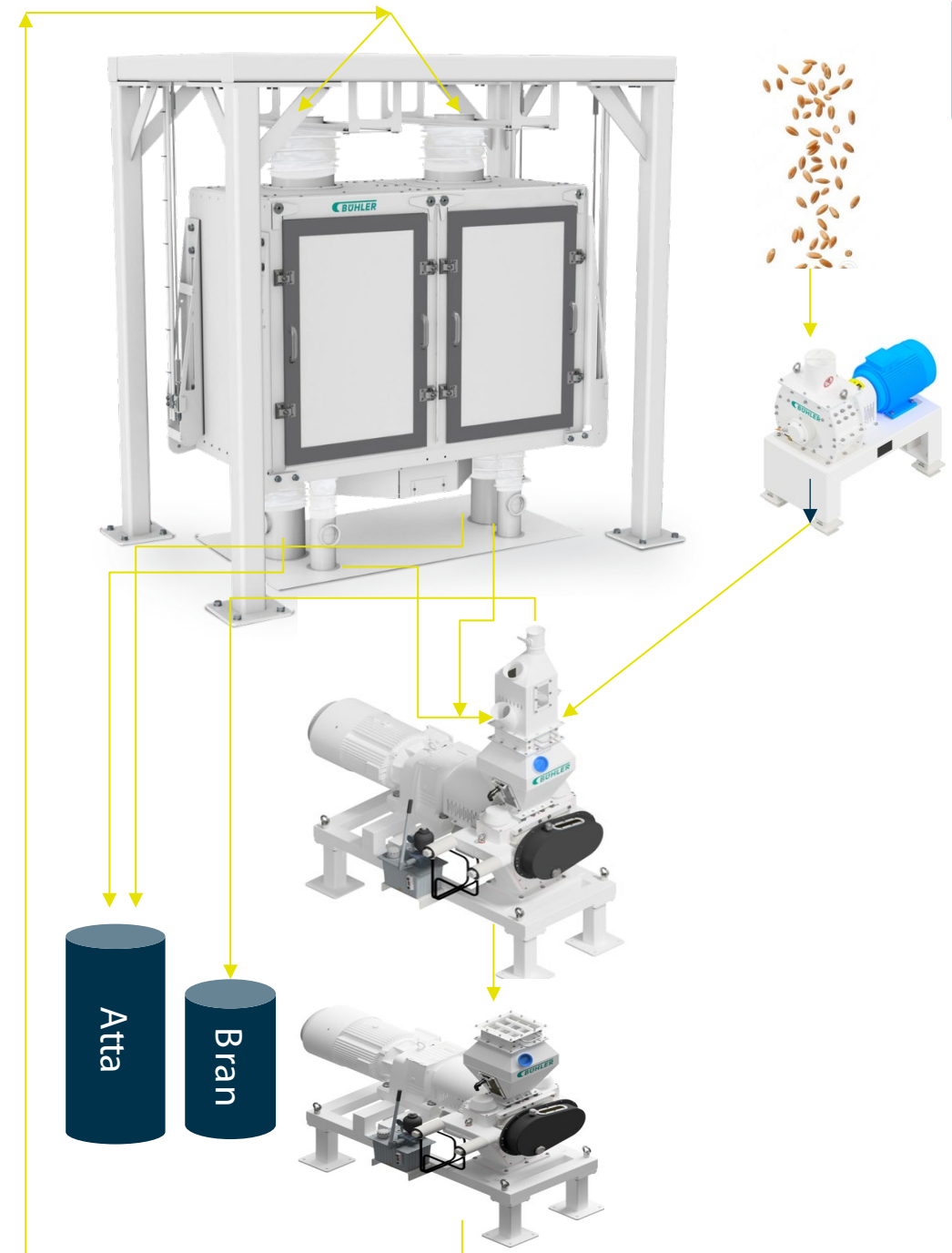


Energy
consumption

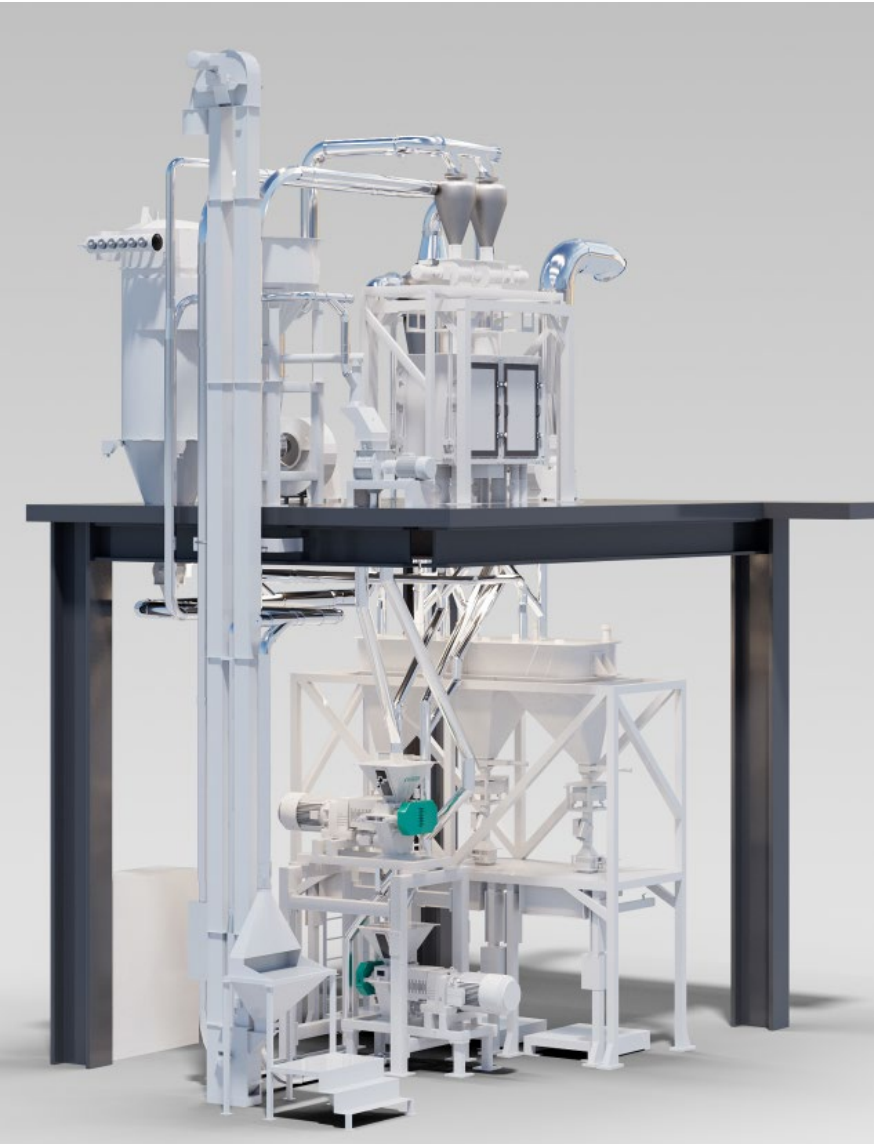
↑10%
Increased



Roller Shell
total-life



Functional Properties of Atta



*Approximate Power Calculation and tentative layout shown on the slide. These details will vary depending on site conditions, customer requirements and other engineering considerations.

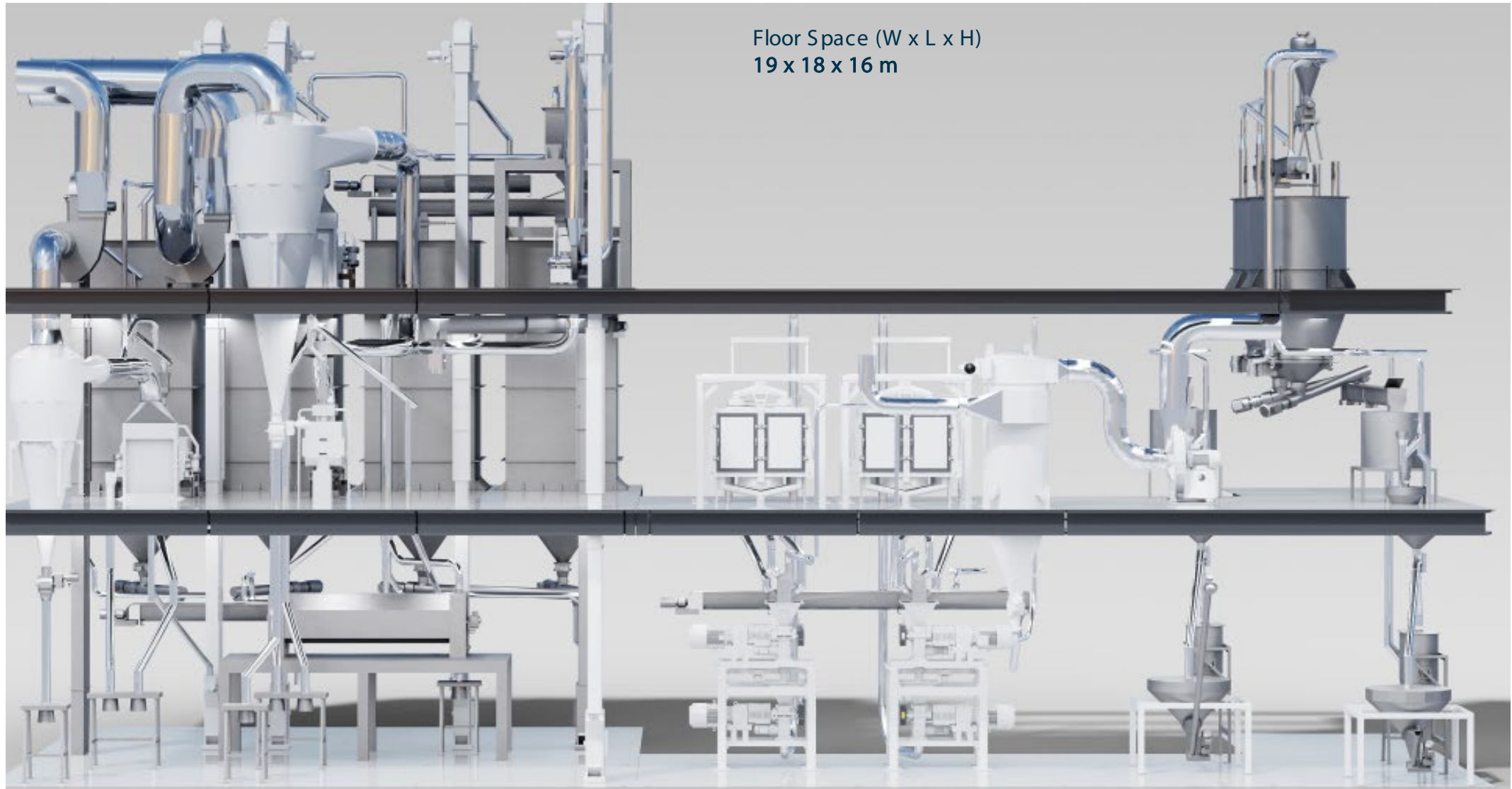
Functional properties of Atta

Parameter	Min	Mix
Starch damage (AACC, %)	15	18
Water absorption (Default moisture consistency, AACC, %)	65	75
Granulation (<118 microns)	50%	70%

Technical Specification

Attributes	Value
Foot Print (LxB) meter	6.1 x 8.5 meter
Energy consumption/ton	68 – 72 kw/ton

Compact Turnkey Solution

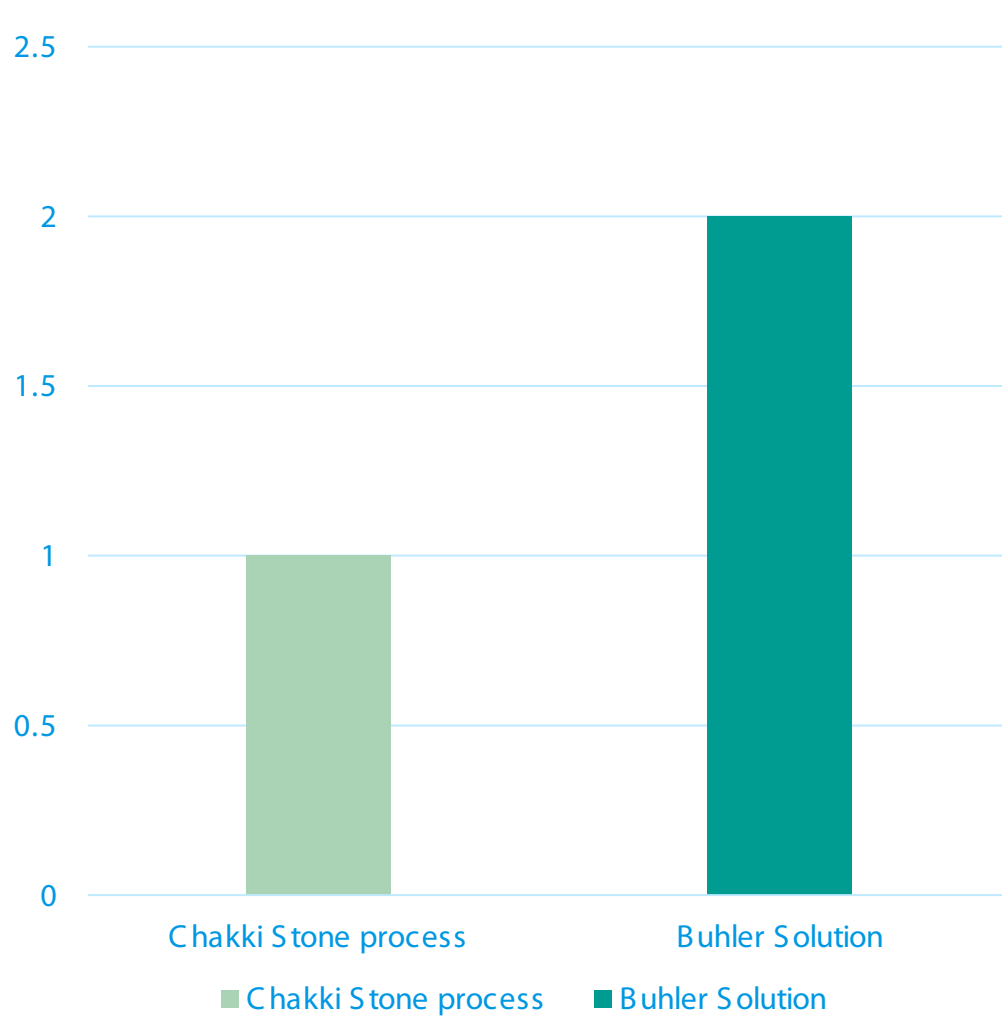


Cleaning + Conditioning

AIPesa Gen2 Mill – 50+ TPD

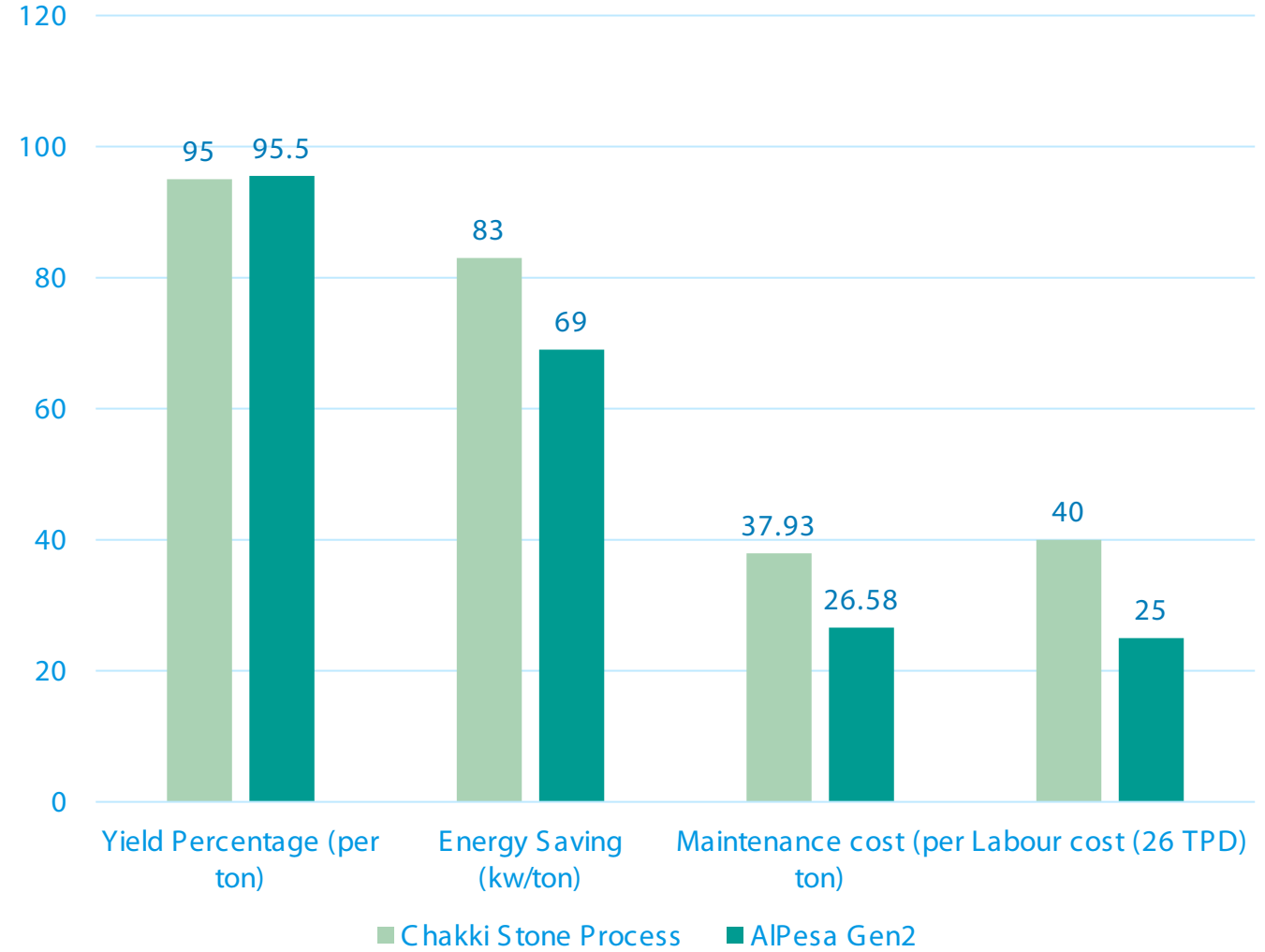
Flour Handling

CAPEX vs. OPEX



Benefits

Compact footprint, Engineered to your space



Benefits

Food safe, Hygiene solution, Automated

The Future of Consumer Market

2030 consumer wants

- Branded Package
- Zero contamination & additives
- Higher fibre in flour
- Consistent quality & baking performance
- **Lower price** with the best quality

Investors wants

- Lower OPEX
 - Energy saving: 30% less per ton,
 - Maintenance Cost Saving: < 30% per ton
 - Labor cost: < 50%
- **Higher margins** on premium & high-fibre atta
- Brand protection & future-proof plants

Miller wants

- Yield flexibility: +0.5–2% extraction
- Starch damage control
- Improved WAP
- **Atta Quality consistency**
- Roti Softness, taste, texture & Aroma
- Eliminating CCL4 test
- Superior quality with blending wheat

Application Training Centre



Test your recipe in ALPesa Gen2 Buhler Application Training Centre – Bengaluru



Test your recipe



Train your miller



Measure Energy
consumption per ton



Build your USP



Milling, your way.



ALPesa Gen2 Whole milling for whole grains.

Summary

- Authentic taste + Industrial hygiene
- Multiple textures from one line
- 10–15% lower energy & OPEX
- Scalable 26 → 50 → 76 TPD
- Future-proof against stricter food-safety laws
- One line for today's atta + tomorrow's high-fibre products





INNOVATIONS FOR A BETTER WORLD