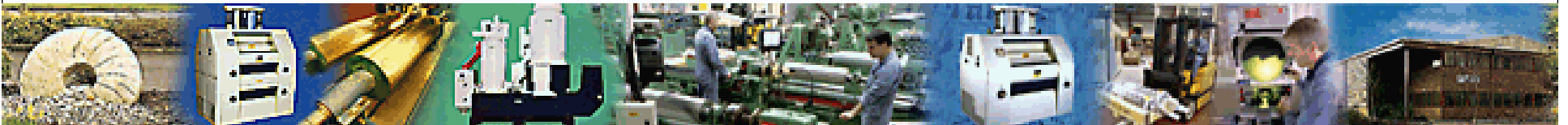


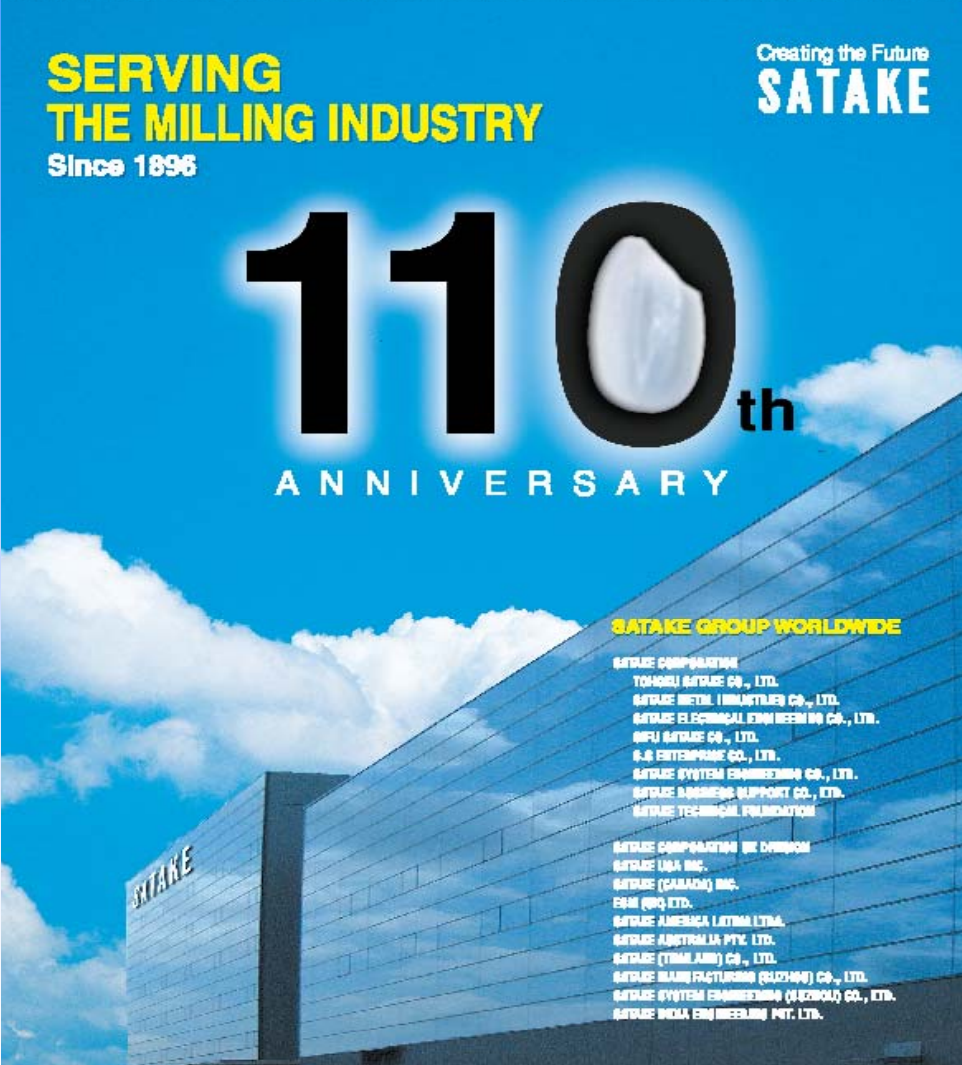
# SATAKE

Corporation UK Division

## Middle East and Africa District 20<sup>th</sup> Annual Conference ANTALYA - TURKEY



# BUILDING A NEW MILL



**SERVING  
THE MILLING INDUSTRY**  
Since 1896

Creating the Future  
**SATAKE**

**110<sup>th</sup>**  
ANNIVERSARY

**SATAKE GROUP WORLDWIDE**

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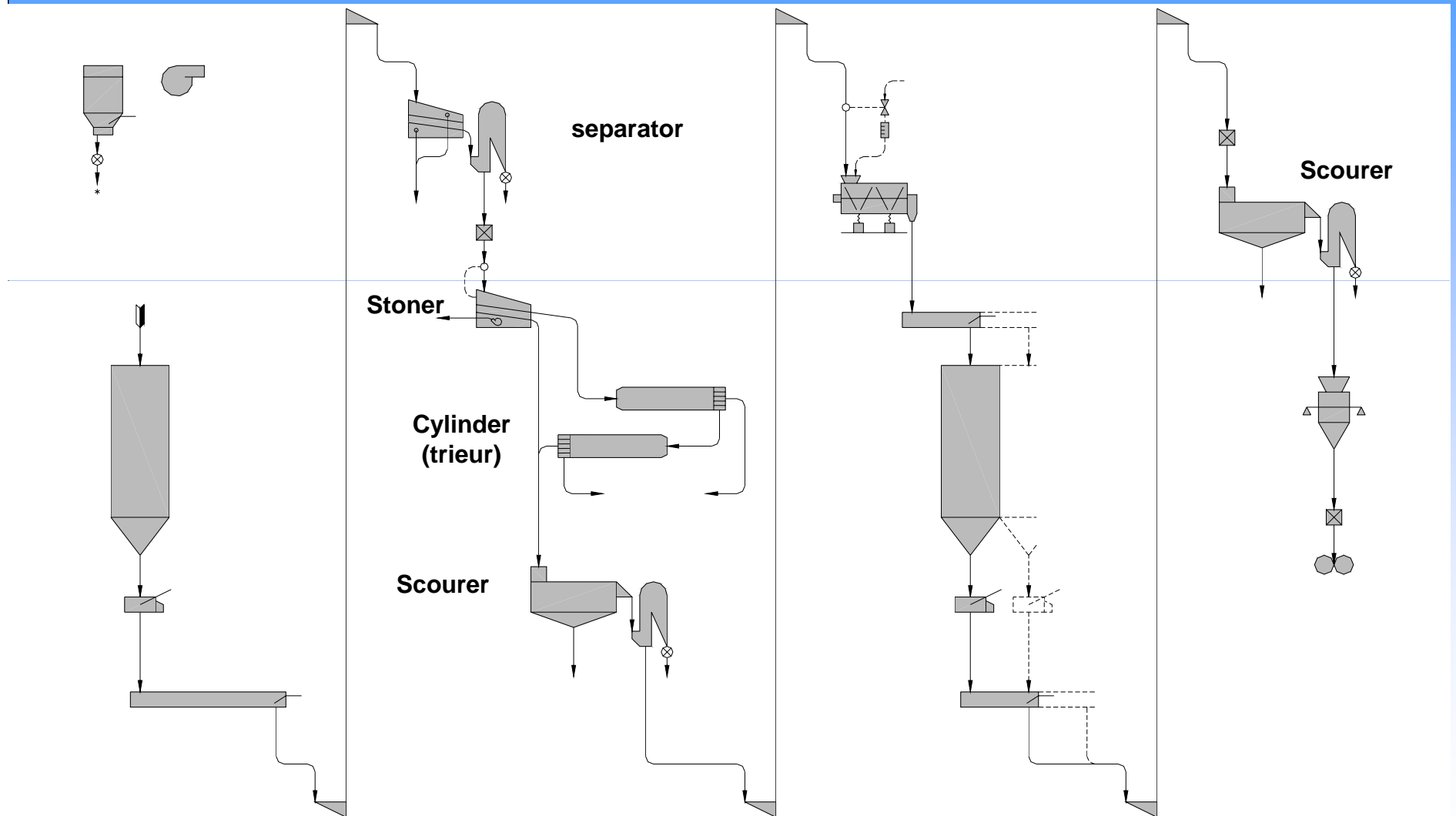
## **ADVANCES IN CEREAL PROCESS TECHNOLOGY AND PLANT CONTROL SYSTEM HAS LED:**

- **Process simplification**
- **Reduction in building costs**
- **Reduced operating cost**
- **Reduced maintenance down time and costs**
- **Whiter and cleaner flour of consistent quality**
- **Integrated Plant control and Management system**

# **THE PROCESS SIMPLIFICATION HAVE BEEN IN THE**

- PREPARATION OF WHEAT BEFORE MILLING**

# WHEAT CLEANING SYSTEM



# ***HIGH CAPACITY***

## **Colour Sorting Technology**

**LOW COST**

**HIGH CAPACITY (35000 Kg/Wheat Per Hour)**

**OWN SOFTWARE SYSTEM**

**AUTOMATIC CALIBRATION**

**EASY CHUTE CHANGE**

**HIGH RESOLUTION**

**REMOVES DISCOLOURED CONTAMINATION:**

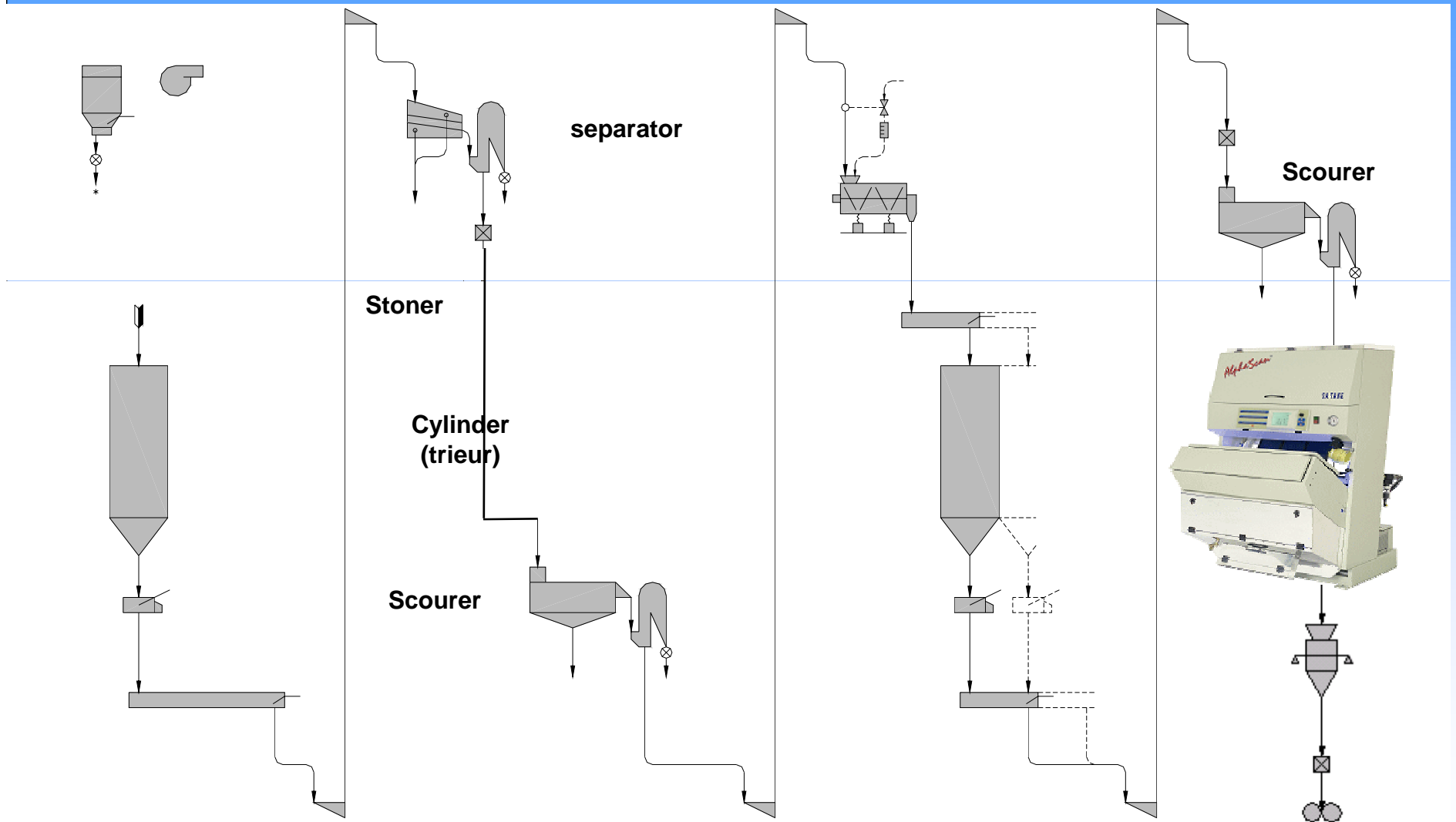
- ERGOT
- BLACK SEEDS
- BLACK TIP GRAIN
- DARK STONES
- LIGHT STONES



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# WHEAT CLEANING

## INTRODUCTION OF COLOUR SORTER



# DURUM WHEAT

**INCOMING PRODUCT:**



**ACCEPT AFTER RESORT: 99.09%**



# SOFT WHEAT

**INCOMING PRODUCT:**



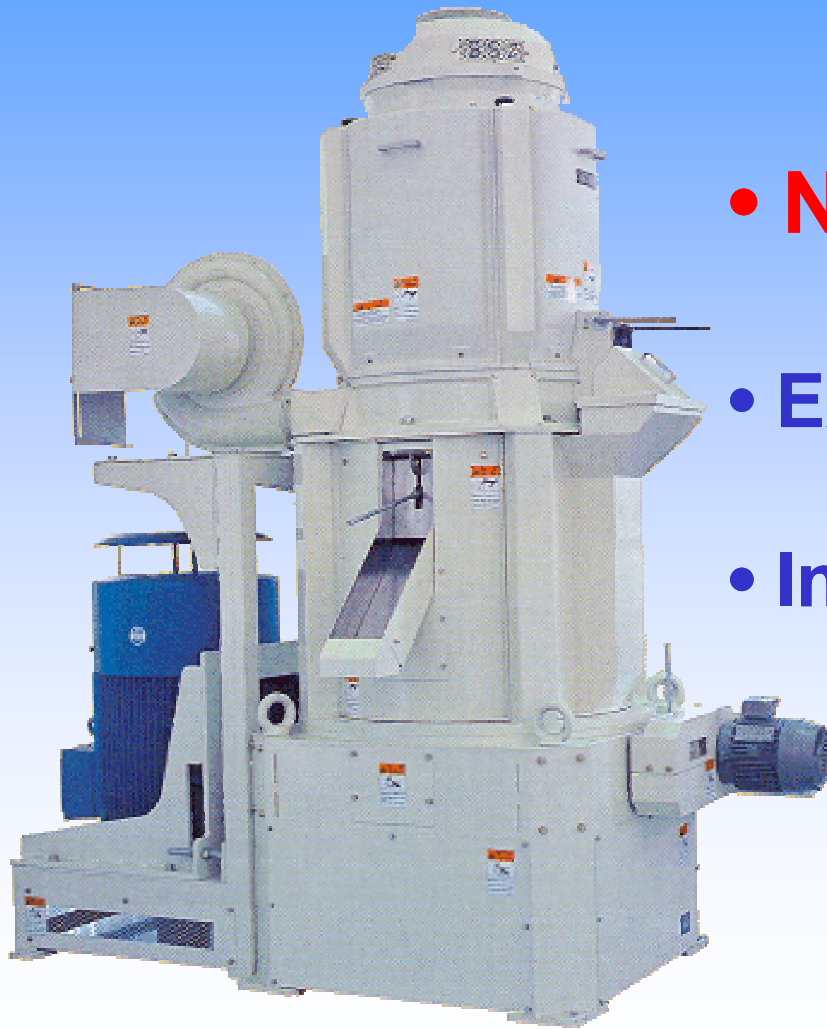
**ACCEPT (NO RESORT): 99.2%**



# PeriTec - Debranning

## APPLICATIONS:

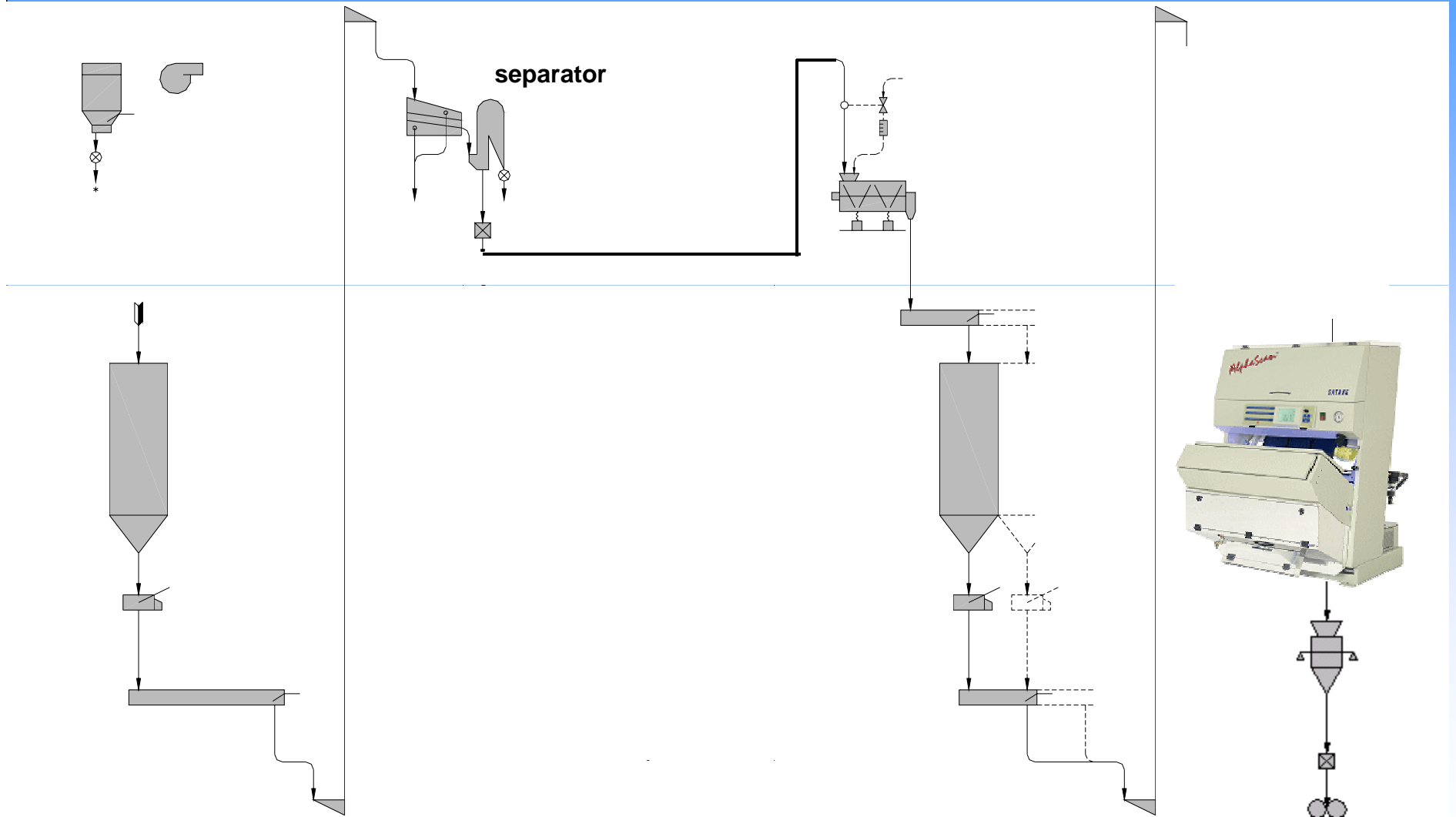
- **New Milling Plant**
- Existing Plant modernisation
- Increasing plant capacity



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# WHEAT CLEANING

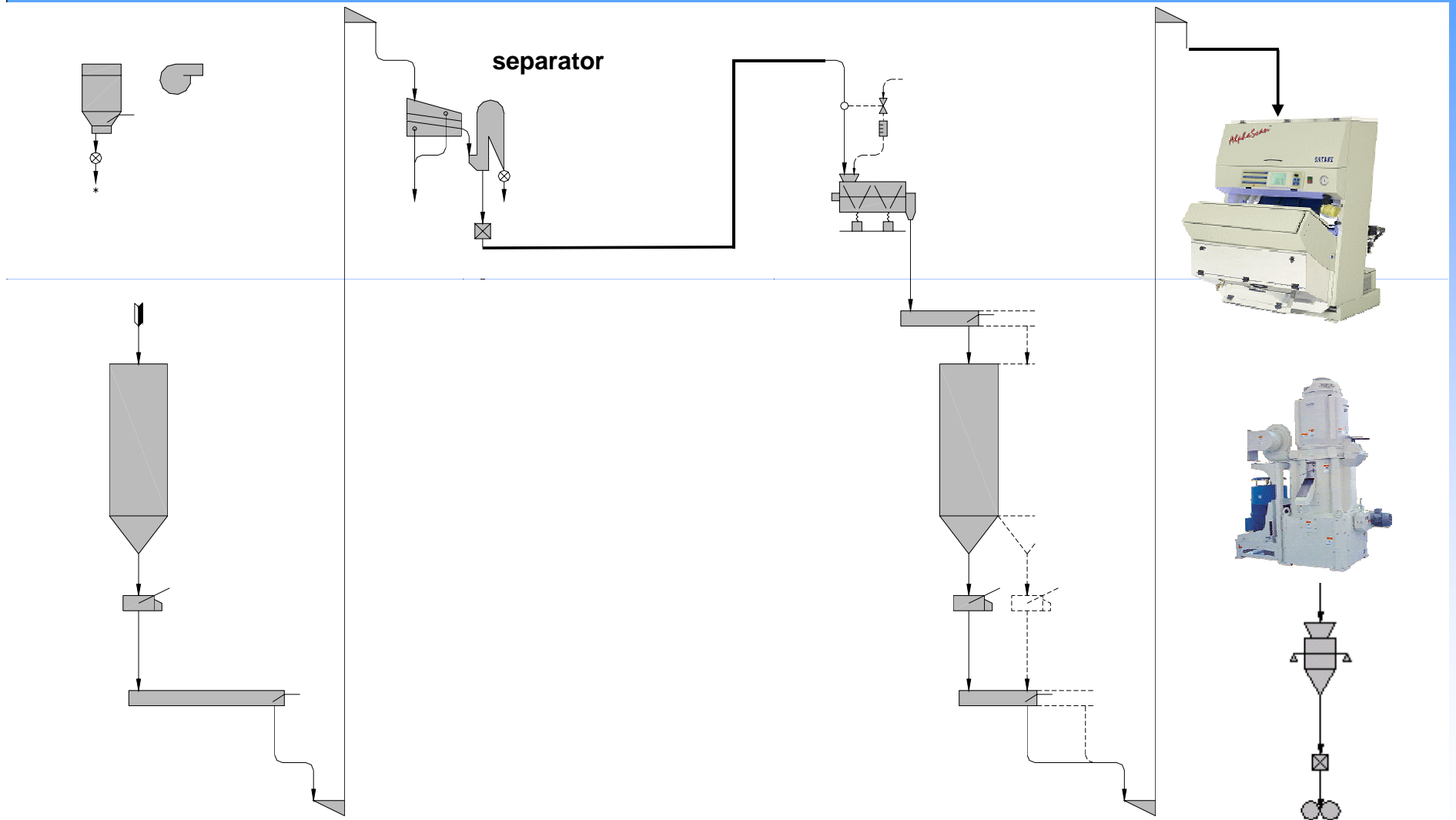
## INTRODUCTION OF DEBRANNING



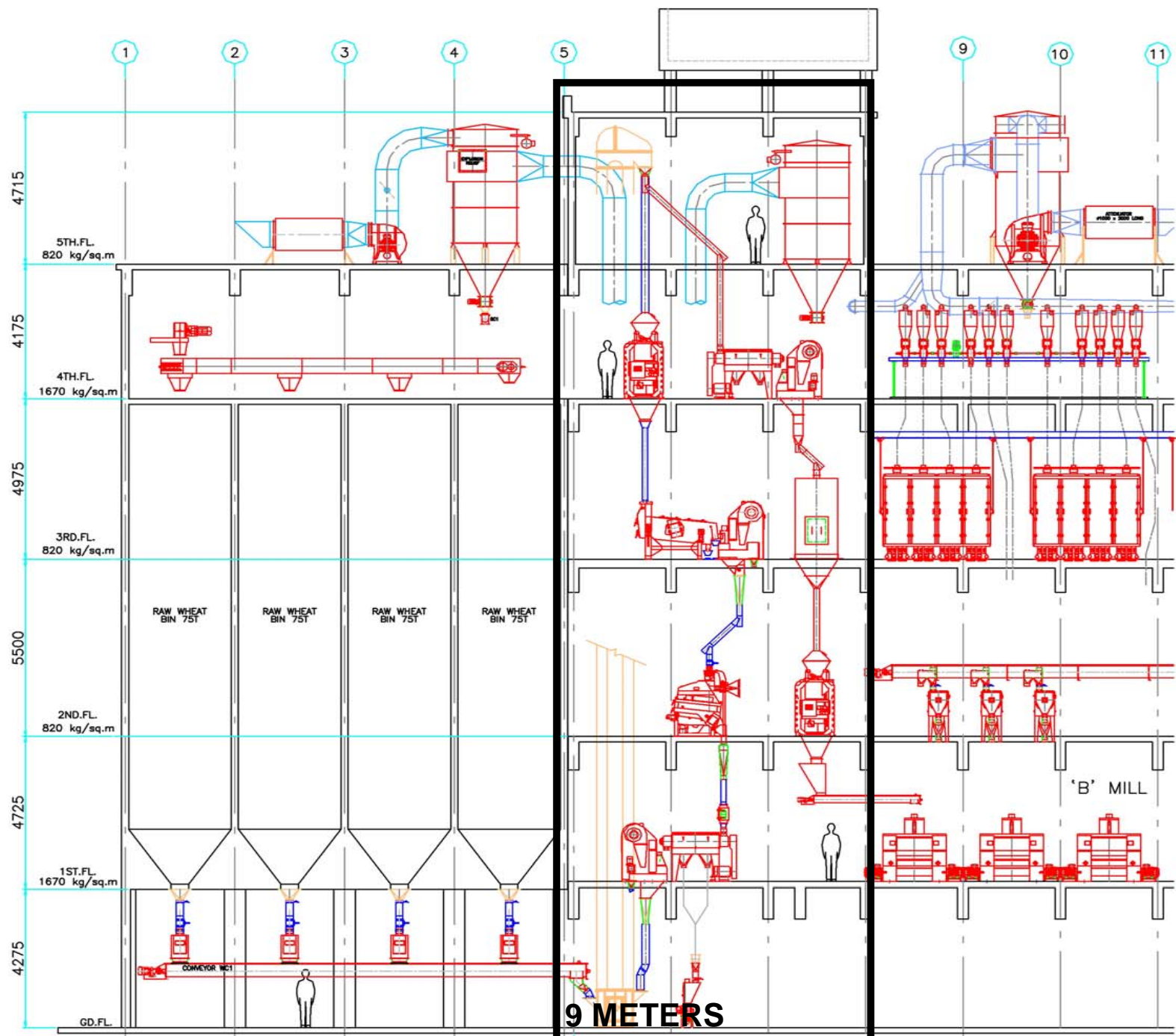
**SATAKE**

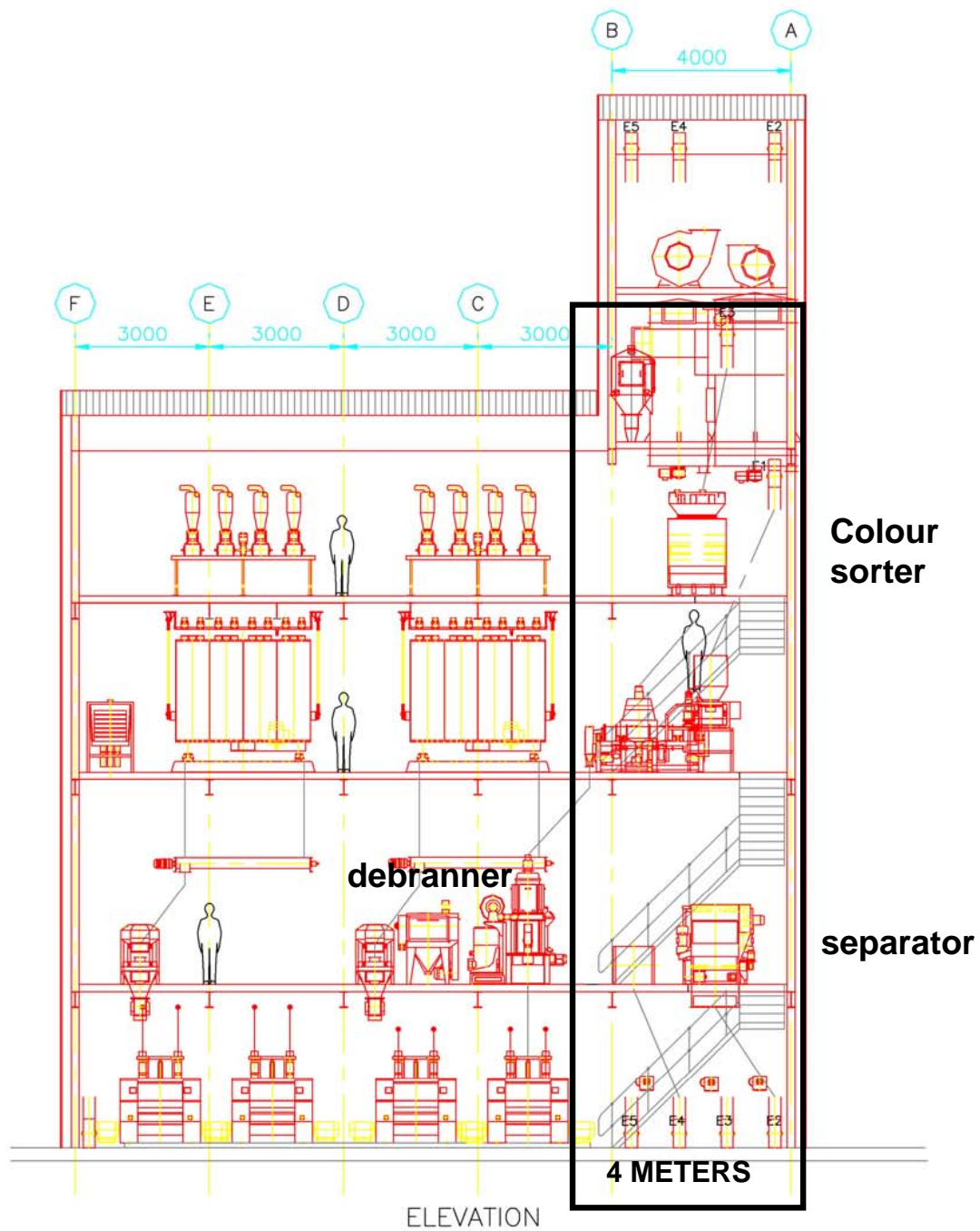
# WHEAT CLEANING

## INTRODUCTION OF DEBRANNING



**SATAKE**

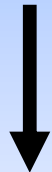




# **Advances in the process Technology**

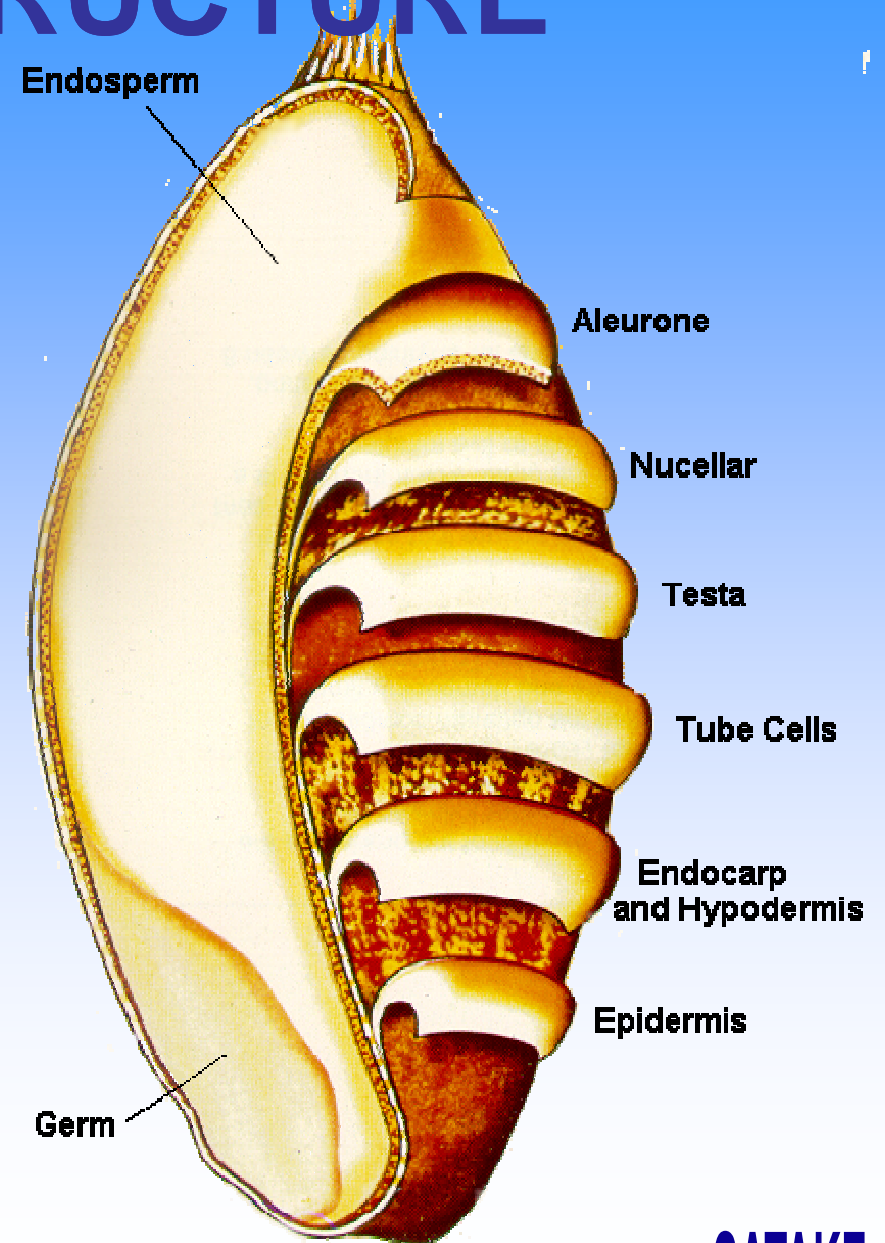
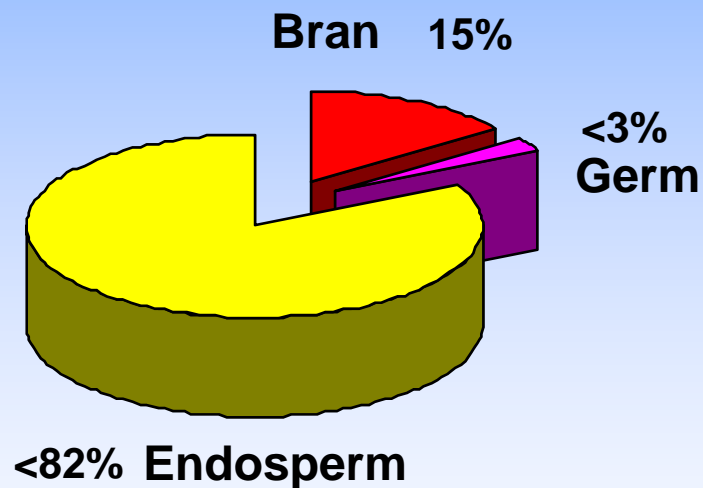


**“PeriTec” - Debranning**



**Milling process is simplified**

# WHEAT STRUCTURE



# VCW Debranner

## - the Key Machine of PeriTec -

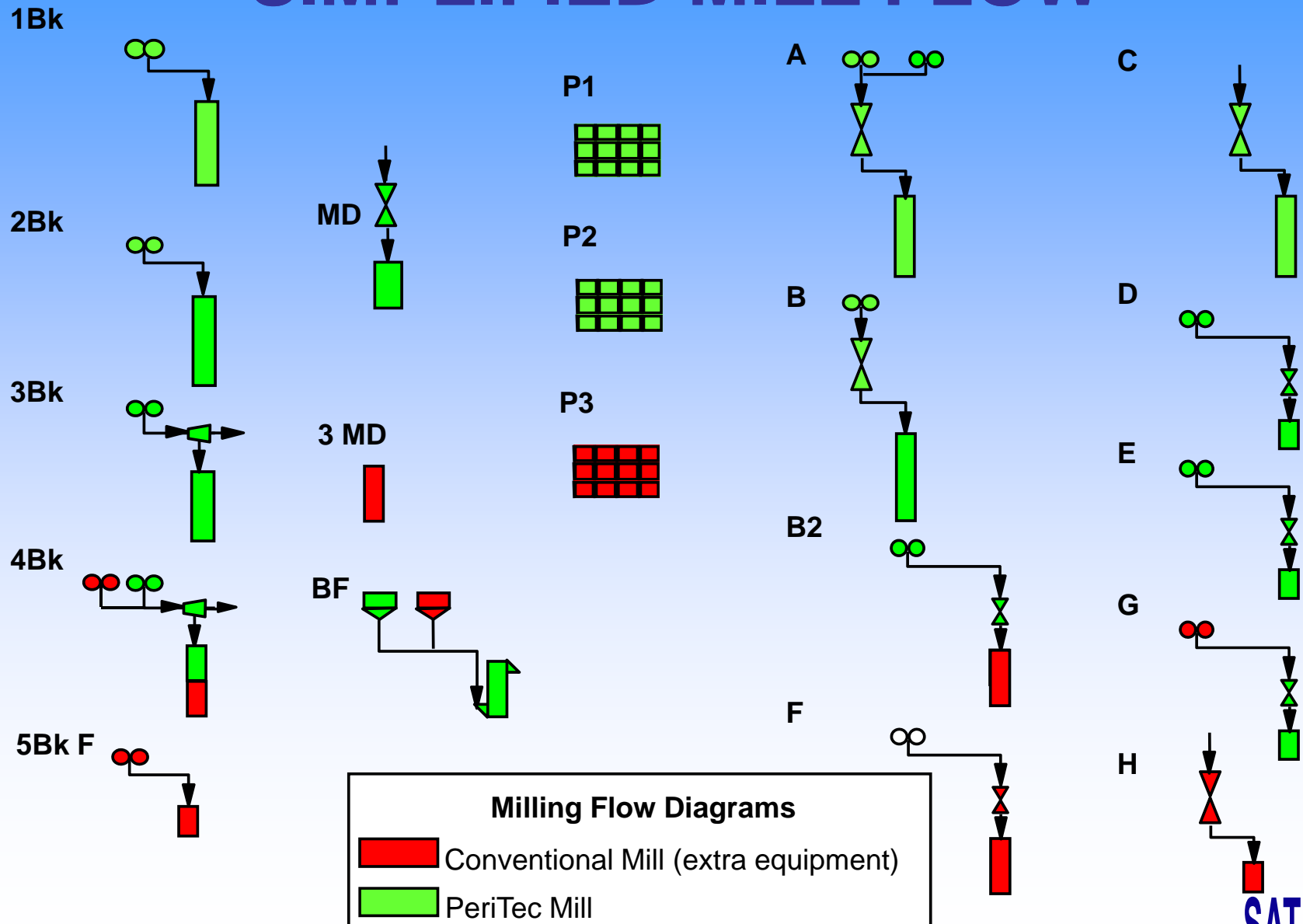
The “PeriTec” process sequentially strips the bran layers from wheat kernel

- Allows controlled rate of bran removal
- **From 1.0% ~ 8% and even higher if desired.**

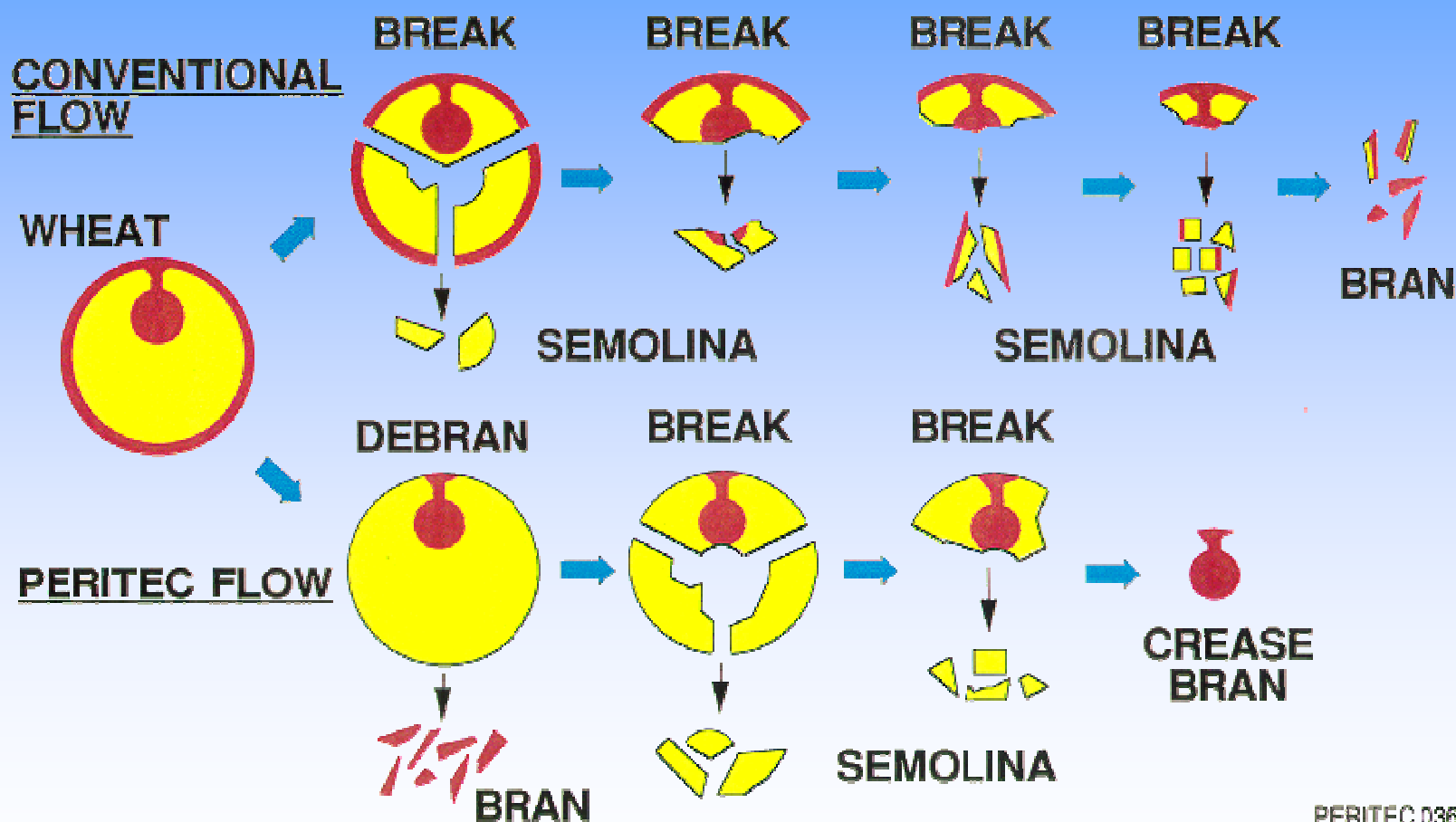
Minimizes abrasion into the aleurone layer and endosperm



# BENEFITS OF PERITEC: SIMPLIFIED MILL FLOW



# Process Comparison PeriTec and Conventional



PERITEC 036

# IMPROVED FLOUR & BAKING QUALITY

## *DUE TO:*

- Reduced bran entering the milling system
- Less pericarp and beard hair fragments
- Increased cleaner coarse semolina

## *GIVING YOU:*

- Brighter, whiter flour
- Recovery of nutritious aleurone elements
- Improved control of flour starch damage
- Increased loaf volumes
- More uniform crumb structure
- Longer shelf life

PeriTec Bread

Conventional Bread

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## **The “PeriTec” process gives you**

- **REDUCED ROLL AND SIFTING SURFACE**
- **SIMPLIFICATION OF PROCESS FLOW**



- **SMALLER BUILDING**
- **REDUCTION IN POWER CONSUMPTION FOR MILLING PROCESS**
- **REDUCED OPERATING COST**
- **WHITER AND CLEANER FLOUR**

## **ADVANCES IN CEREAL PROCESS TECHNOLOGY AND PLANT CONTROL SYSTEM**

- **Process simplification**
- **How building costs for new mills is reduced**
- **Reduced operating cost with less equipment required**

**NEW GENERATION EQUIPMENT AND  
MATERIAL USED**

**REDUCED DOWNTIME FOR  
ROUTINE MAINTENANCE**

# Improved:

# Hygiene



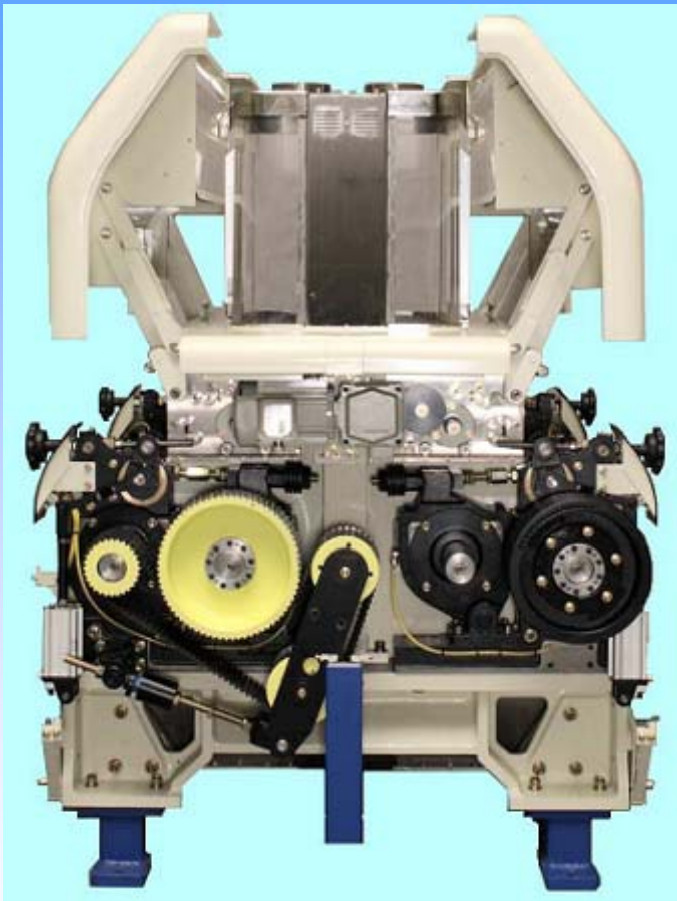
.....No Overall Height Increase



## Full Floor Access for Cleaning

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# Simplified:



# Maintenance



## Access

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# Simplified: Maintenance



Roll Change

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# INTERLOCK SIEVES

## ➤ FOOD GRADE PLASTIC SIEVES



- IMPROVED SANITATION
- NO LEAKS
- NO FELT
- SUITABLE FOR MOST OF THE EXISTING SIFTERS IN THE MARKET

**A FOOD QUALITY SIEVE  
FOR THE MILLING INDUSTRY**

- Maximum protection against mould and bacteria transfer.
- Significant reduction in 'stock build up' and condensation.
- Food quality materials in contact with the product.
- Innovative locking and sealing of sieve stack
- Interchangeable with existing sieves and sifters
- A complete range to fit all leading manufacturers sifters.

**NO FELT  
NO MAINTENANCE  
NO LEAKS  
NO EXTRA COST  
VERY HIGH WEAR RESISTANCE**

**THE FOOD QUALITY SIEVE**

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SATAKE CORPORATION UK DIVISION  
SATAKE USA

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## **ADVANCES IN CEREAL PROCESS TECHNOLOGY AND PLANT CONTROL SYSTEM**

- **Process simplification**
- **Reduced building costs** (smaller building)
- **Reduced operating cost**
- **Minimising downtime for routine maintenance**

# Plant control system



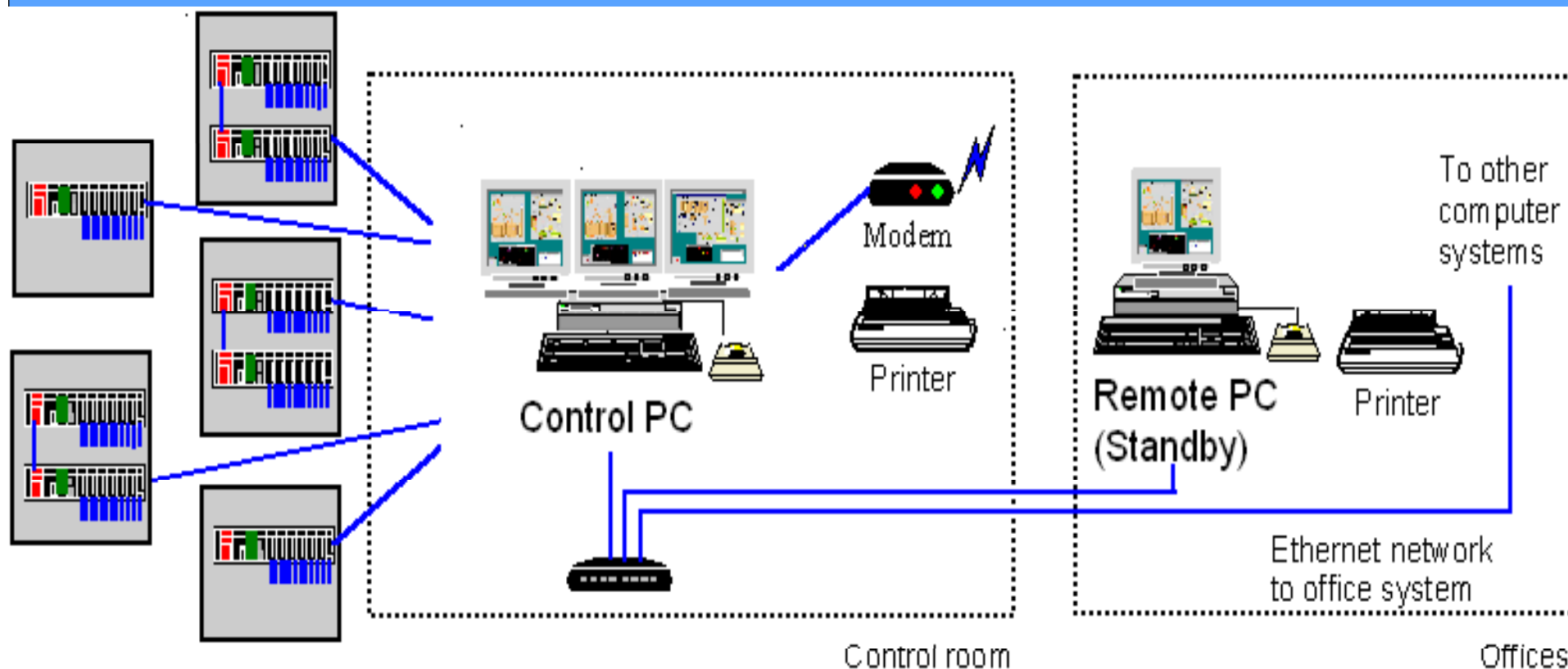
# AutoPilot<sup>4</sup>Flour : Basic Concepts

- PC Real Time Control
- Time Critical operations in PLC
- Modular and logical design
- Windows XP, Vista, Server 2003 Operating System
- Open Database Connectivity (ODBC)
- Standard Hardware
- Standard PLCs

# AutoPilot<sup>4</sup>Flour : Standard software

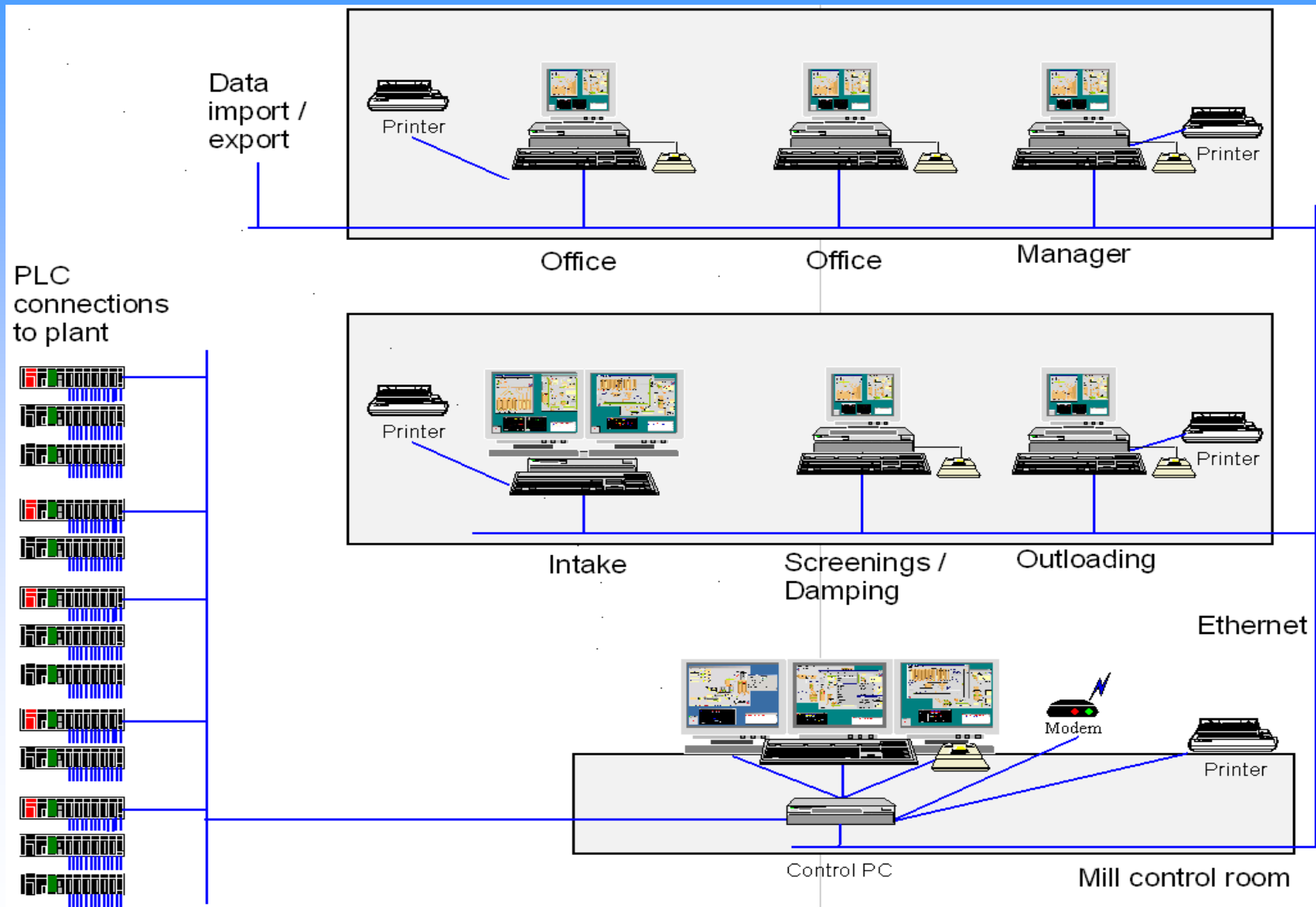
- Windows XP Pro / Vista / Server
- Microsoft SQL Server or Microsoft Access Database
- Crystal Reports
- Standard Windows Network
- iGrafx Designer Graphics
- TCP / IP networking
- Pc Anywhere / VNC remote access

# AutoPilot4Flour : A small layout

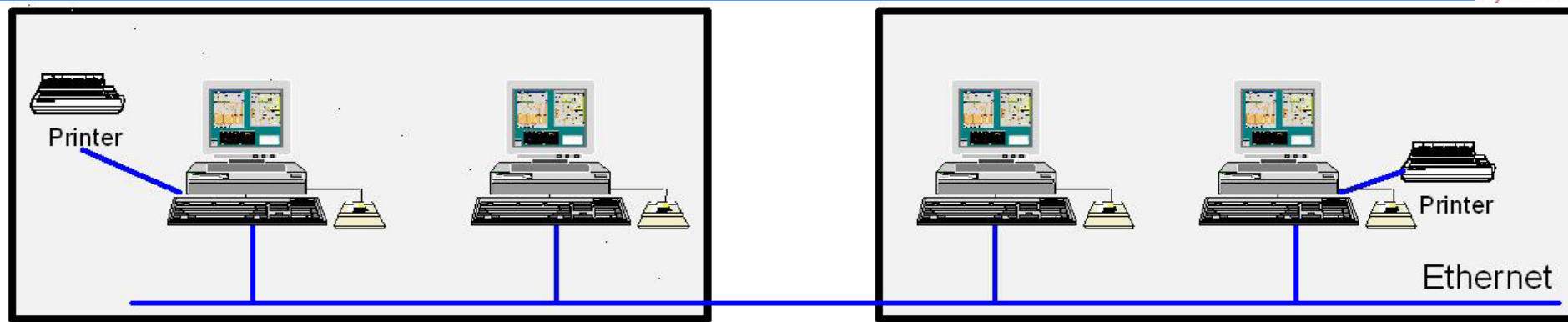


Typical small AutoPilot4Flour configuration

# AutoPilot4Flour : SYSTEM LAYOUT



# AutoPilot<sup>4</sup>Flour - integration



Accounting system

Control System



Orders / production plan  
Expected deliveries (contracts)



Truck receiving (includes quality details)  
Truck shipping (bulk and bag)  
Production data (expected and actuals)  
- receiving  
- cleaning  
- damping  
- milling  
- shipping  
- bagging

## **ADVANCES IN CEREAL PROCESS TECHNOLOGY AND PLANT CONTROL SYSTEM HAS LED:**

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