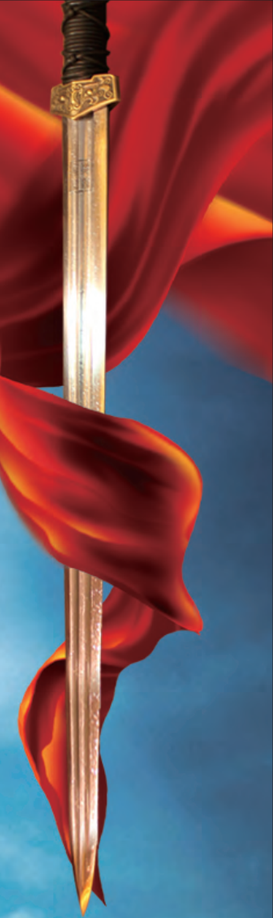
Sharpen the Sword for the Right Job

For more information and enquiries, please contact us at :

富 迈 机 械
FUMA MACHINERY

Fuma Machinery Company Limited

Supremacy Sword



-Closed System Condensate Return

-Intelligent Thermal Control System

-Huge Saving of Steam Consumption

Ultimate Thermal Control for Corrugation

FUMA DUKE INTELLIGENT THERMAL CONTROL SYSTEM

Constant Level Boiler Control

High Precision Transducer

FUMA DUKE INTELLIGENT THERMAL CONTROL SYSTEM

Closed Condensate System

Utilization of Secondary Steam

Intelligent Thermal Control System

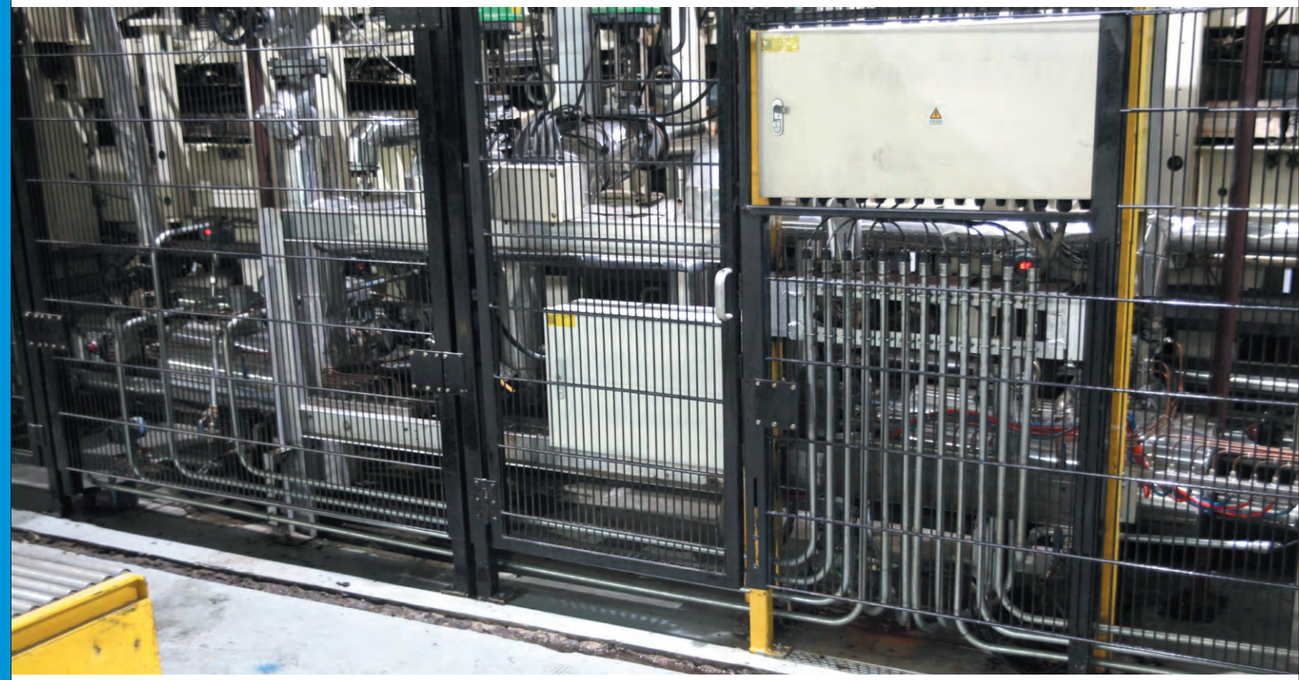
Casading Energy Utilization

LIKELY PROBLEMATIC AREAS IN EXISTING STEAM SYSTEM ?

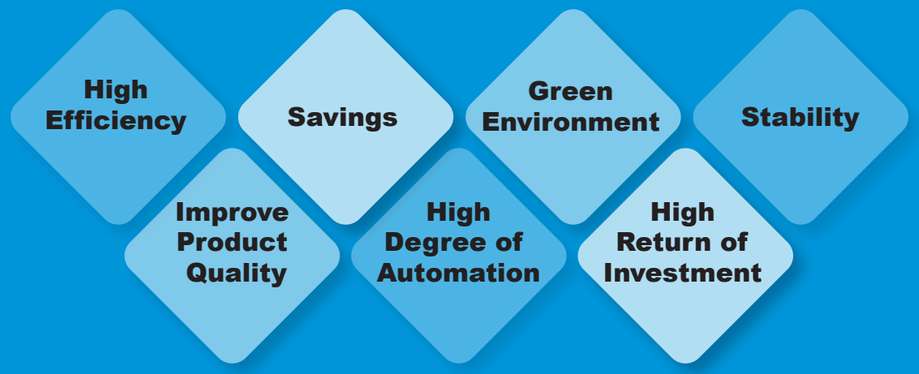
- Decrease efficiency of steam traps leading to high back pressure .
- High back pressure leading to diffculties in water separation and reduction of thermal efficiency.
- High energy wastage due to pressure issues that lead to manual exhaust.

FUMA DUKE THERMAL INTELLIGENT SYSTEM IS ABLE TO ...

- Precise control of main steam and back pressure
- Control of back pressure less than 2.5 bar
- Increase thermal efficiency to meet production requirements.
- Precise individual pressure control of singlefacers, preheaters, preconditioners and hot plates.
- Overall **15~30%** energy savings



ADVANTAGES OF FUMA DUKE THERMAL INTELLIGENT SYSTEM



- **High efficiency:** Fully utilization of condensate and secondary steam thermal energy.
- **Savings:** High utilization of thermal energy. High recovery up to 98% of condensate. Increase thermal utilization of equipment. Overall energy savings up to 15~30%.
- **Green environment:** Due to closed system, it reduces leakage, improves thermal energy utilization. Reduces harmful gas emissions. Reduces heat and noise pollution.
- **Stability:** Closed system with advanced control technology eliminates dissolved gases in the condensate.Thereby eliminates oxygen corrosion and cavitation.This enhances the life of boiler, pumps, equipment and piping.
- **Improve product quality:** Precise pressure control on singlefacers, preheaters, preconditioners and hot plates allow optimal temperature for production at lower pressure, thereby increasing flatness, better bonding and other qualities of the board.
- **High degree of automation:** Utilizes intelligent automatic control system. Allows broader parameters adjustment for more stable and better product quality production.
- **High return of investment:** Investment returns within 6~12 months due to hugh energy savings, water conservation, better product quality, extend life of boiler, pumps and other equipment.

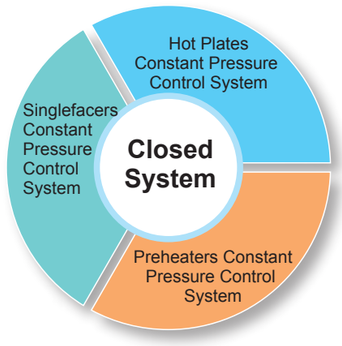
PRECISE PRESSURE CONTROL FOR CORRUGATOR

Using high performance proportional valves, seperators separating dry steam and condensate.

Reutilizing secondary steam.

Automatically adjusting optimal parameters for production.

Minimize energy wastage due to non leakage steam traps. Savings up to 15~30% as compare to traditional condensate recovery system.



COMPONENTS FOR PRECISE PRESSURE AND TEMPERATURE CONTROL

Pressure setting and precise control within ±0.2 bar at singlefacer.

Automatic pressure adjustment section of hot plates within ±0.2 bar in accordance to paper grammages.

Secondary steam from hot plates to be utilized in triple preheaters. Precise pressure control within ±0.2 bar.

Control main back pressure within 1.0~3.0 bar. This allows high heat energy utilization of more than 80%.

Hot plates constant temperature energy efficiency system

Preheater, preconditioner constant temperature energy efficiency system

Singlefacer constant temperature energy efficiency system

Corrugator constant temperature energy efficiency system

ADVANTAGES OF DUKE THERMAL INTELLIGENT CONTROL SYSTEM

Satisfied most customer requirments.

Dual redundant control for important loops. Allowing high precise normal operation.

Apart from energy savings, it improves board qualities (less warps, wash board effects, etc)

Allowing remote monitoring and maintenance of the system.

INSTALLATION STANDARDS FOR THERMAL EFFICIENCY SYSTEM

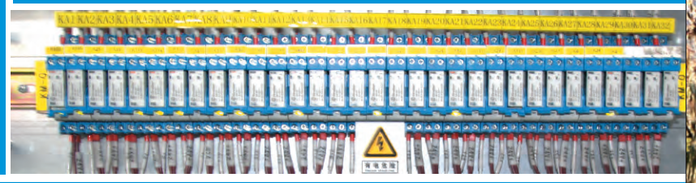
- System design by professional team that meets CE standards.
- User friendly operations through a large screen for human interface.
- Utilizing backlit buttons.
- All accessories were tested after assembly to ensure stable system operation.

EXPERT SOLUTION FOR CORRUGATION INTELLIGENT THERMAL SYSTEM

Electrical panels are in accordahnce to CE standards

- All wires were labelled for easy maintenance

- Individual noise transducer is used to prevent signals interference



FUMA DUKE INTELLIGENT THERMAL SYSTEM FUTURE OPTIONS

QDM online quality control system

- Automatic online recording
- Perform optimal production parameters
- Update of manual fine tuning
- Auto refresh and saving of optimal production parameters

Product Quality Control System

Online moisture control system

- Heat balance control system
- Moisture balance control system