Transversal Scorer Drive System



The Transversal Scorer drive system was developed for Universal Corrugated B. V. / The Netherlands.



Overview

Unico's drive system for positioning a transversal scorer incorporates the following features:

- Positions the servo motors using modern digital control algorithms
- Electronically synchronizes the upper and lower scorer positions
- Measures material movement using a measuring wheel and pulse generator
- Measures scorer position using a reference switch in conjunction with a pulse generator at the motor shaft
- Provides order and system data input by means of an HMI with integrated PC installed in the operators' desk
- Indicates system status by means of the HMI
- PLC for system control and order data limiting

Standard Functions

Main Screen

- Current speed
- Current gap between scores
- Measured length
- Current order data

- Measured number of scores
- Measured number of piles
- Measured length
- Remaining lineal order length

Order Administration

- Input of up to two orders
- Data plausibility check
- Order data:
 - order number
 - scoring length
 - scoring gap

• first scoring male or female

- number of scores per pile
- number of piles per order

Operational Data

- Knife speed within cut (–5%/+10%)
- Error message display
- Stored error message display
- Delete error messages
- Input of operational data
- Access internal computer diagnostics
- Measuring wheel trim
- Distance from photocell to scorer
- Operator help functions
- Parallel inputs/outputs
- Date/time display
- Date/time input

SCORER

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Standard Functions (continued)

Modes of Operation

- Emergency stop
- Control voltage on/off (key switch)
- · Motors on/off
- · Jog forward
- · Jog reverse
- · Automatic on/off
- Order change

Additional Safety Functions

- Temperature monitoring of individual components
- · Function monitoring of individual components
- Material detection between shear and scorer
- Control of maximum production speed based upon cut length

Signal Exchange

Inputs

- · Emergency stop
- Measuring wheel in operation
- · Material between shear and scorer

Outputs

- · Scorer in operation
- · Male scoring
- Female scoring
- Presignal number of plates per pile reached
- · Number of plates per pile reached
- · Line speed too high
- Line stop

Options

Serial data transmission to a host computer system

UNICO-Worldwide



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Specifications subject to change without notice.

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