

# ACE Group

## ***Coil Coating Line***

### **Color Coating line**

**1.300 mm FATA HUNTER COIL COATING LINE, NEW 2002**

**Manufacturer - Fata Hunter**

**Year - 2002**

**Product - Single Coat Roof Deck Coils**

**Line Direction - Right to Left**

### **General Description**

Line Speed - 61m/min

Width Range - 600mm - 1300mm

Thickness Range - 0.27mm - 1.37mm

Cross Sectional Area - 1785mm<sup>2</sup>

Cross Section Variation (from Coil to Coil) - 25%

Yield Strength Minimum - 193N/mm<sup>2</sup>

Camber (Head & Tail) Maximum 6mm in 3.00m

Incoming Flatness Maximum - 50 I-units

Exit/Entry OD - 914mm - 1829mm)

Entry ID - 470mm - 622mm

Exit ID - 470mm - 508mm

Coil Build-Up Ratio Maximum - 3.6:1

Coil Weight - 3628 kg - 22676 kg

### **Line Speeds**

Entry Section - 76m/min

Process Section - 61m/min

Exit Section - 76m/min

Thread - 15m/min

Acceleration/Deceleration Rate - Max. 60 18m/min/s

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## **Strip Tensions - At maximum cross-sectional area:**

Payoff - 2761 kg Tension 155 kg/cm<sup>2</sup> Stress  
Entry Accumulator - /2887 kg Tension /106 kg/cm<sup>2</sup> Stress  
Surface Treatment - /2510 kg Tension /141 kg/cm<sup>2</sup> Stress  
Oven - /3138 kg Tension /176 kg/cm<sup>2</sup> Stress  
Exit Accumulator - /2887 kg Tension 106 kg/cm<sup>2</sup> Stress  
Rewind - 6652 kg Tension 373 kg/cm<sup>2</sup> Stress

## **Coatings**

Solvent Coatings  
Water Based Coatings - Can be processed in the system  
Coating (Reference) Top - 0.5 mils dry film (13 m)  
Bottom - 0.5 mils dry film (13 m)  
Solids - 55% content by volume

## **Treatment Section**

- 1) Cleaning - 8.0 Seconds process time
- 2) Brush -
- 3) Cleaning - 8.0 Seconds process time
- 4) Hot rinse - 8.0 Seconds process time
- 5) Phosphoric Acid - 8.0 Seconds process time
- 6) Hot Rinse - 6.0 Seconds process time
- 7) Reverse Osmosis Rinse - 6.0 Seconds process time

## **Accumulator Storage**

Entry/Exit - 79 seconds at 61m/min

## **Coatings**

Solvent Coatings

## **Coater Entry**

Strip Temperature Maximum (46 degree C)

## **Oven**

Cure capability - The prime oven is designed to cure the reference coatings on the reference strip at the maximum process line speed Residence Time - 24 seconds in oven at maximum process line speed Peak Metal Temperature (PMT) - 250 degrees C Solvent Load - See Reference Data

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## Afterburner

Reactor Temperature Maximum - 800 degrees C  
Residence - 0.75 seconds Destruction Efficiency - 99%

## Quench Unit

Strip Exit Temperature - 54 degree C

## Coaters

Coater Coating Thickness Capability  
Top Heads - 3-60  $\mu$   
Bottom Heads (3-30  $\mu$ )  
Solids - 55% content by volume

## Utilities

Electrics  
Incoming - 460 V, 3 phase, 60 Hz  
Voltage Deviation - +/- 10%  
Frequency Deviation - +/- 3%  
A-C Motors (fixed speed) - 460 V, 3 phase, 60 Hz PLC Input/Output - 110 V, 1 phase, 60 H

## Cooling and Make-up Water

Pressure - 5.2 bar  
Temperature - 15 degrees C  
Quality - "well water"

## Structured Steam

Pressure - 2.7 bar

## Compressed Air

Design Pressure  
Maximum - 8.3 bar  
Nominal 5.5 bar  
Design 4.2 bar  
Air Quality - Dry and filtered

## Natural Gas

Calorific Value - 8,900 kcal/Nm<sup>3</sup>  
Working Pressure 34 bar

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## Environment

Temperature, Ambient

Inside - 40 degrees C

Outside 5 degrees C

## Relative Humidity -

Maximum 90%

## Elevation

Less than 204m

Line is approximately 120m long with an approximate height of 12,5m at the accumulators