LEADING IN
PRODUCTION
EFFICIENCY

DÜRR

Integrated products into a painting system (incl. PaintSupply, dosing)

October 24.2019
Bietigheim-Bissingen

Timo Eglauer

Concept ready2integrate

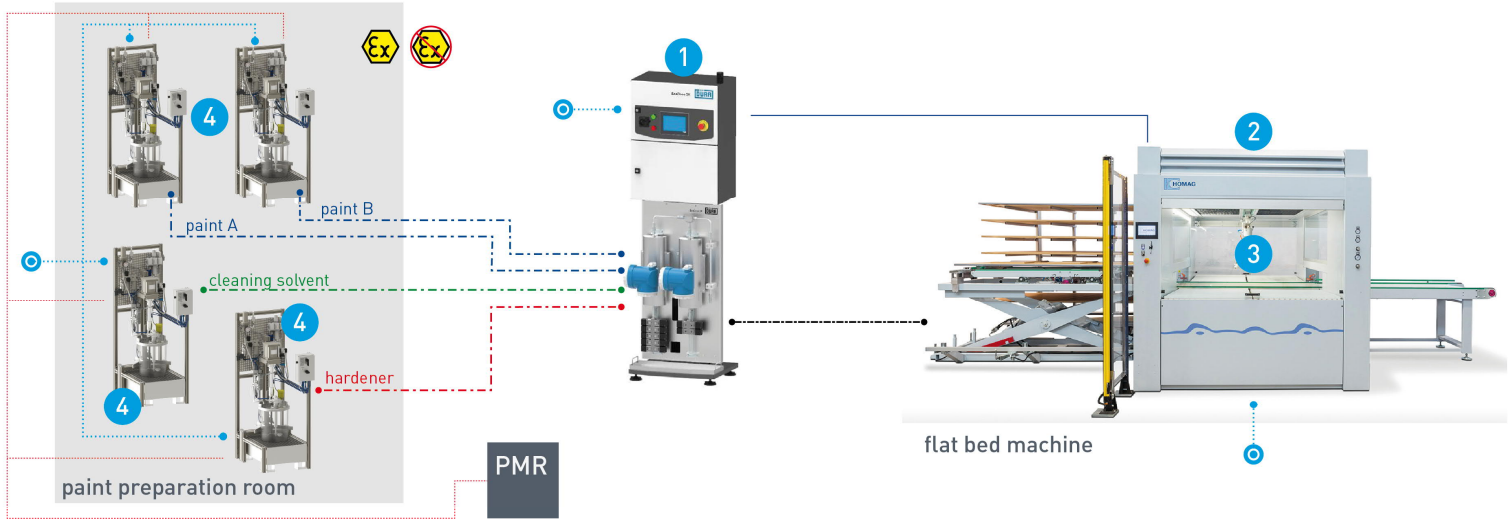
Scope of Integrator

- Configuration of the equipment inside Web Shop
- Order material
- Installation
- Commissioning
- Training

LEADING IN PRODUCTION EFFICIENCY

www.durr.com

High pressure 2K dosing & flat bed machine integration scheme



APPLICATION COMPONENTS

1 EcoDose 2K
2 Flet bad machine
3 Automatic spray guns
4 Small paint supply

ELECTRIC LINES

Ethernet
Sensor signal

MEDIA

Fluid
Compressed air
Compressed air source

Technical features

EcoDose 2K

- 3 separate sections: electrical, pneumatic and fluidic
- For solvent and water-borne components
- Low pressure (20 bar) or high pressure (200 bar)
- Gear flow meters or Coriolis flow meters
- For manual spray gun or automatic spray gun
- Automatic Dürr color change modular valves
- Continuous control of flow for each component
- 2 independent flushing circuits for component A and B
- Dosing precision < +/- 2%
- Mixing ratio 1:0 to 30:1 (1K and 2K possible)
- Working principle based on D.I.T. (Direct Injection Technology) for channel A and B with 1-2 ml per cycle
- Up to 10 colors and 3 catalysts

Technical features

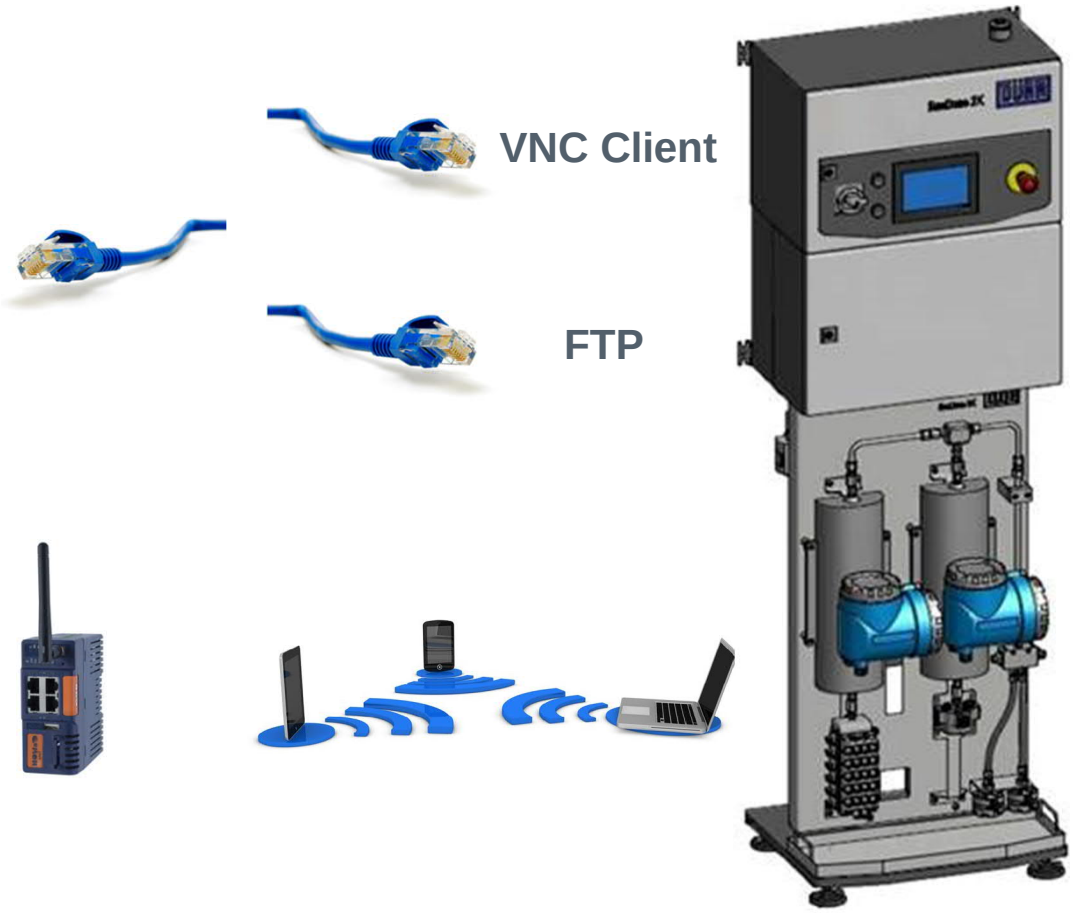
EcoDose 3K

- 3 independent flushing circuits for component A, B, and C
- Mixing ratio 1:0:0 to 30:1:1 (1K, 2K and 3K possible)
- Working principle based on D.I.T (Direct Injection Technology) for channel A,B,C with 1-2 ml per cycle
- Up to 10 colors, 3 catalysts and 3 thinners

Industry 4.0

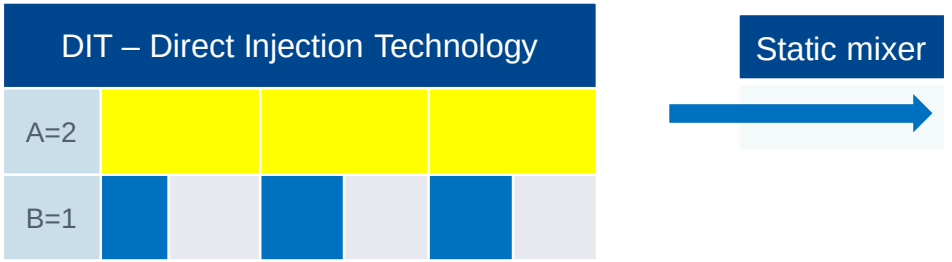
- **Included in standard configuration**, Ethernet UDP remote screen to any pc, PLC, etc.
- Preparation of process data from EcoDose on the internal interface

- Standard option available for wifi router to connect any device (smartphone, tablet, pc, …)
- Complete remote control (as per vnc)
- **Possibility of remote assistance and service**



Benchmark Dürr Eco Dose

1. DIT – Direct Injection Technology – dosing precision
2. Closed Loop Flow Control
3. Continuous flow control of each component in cc
4. Pot-Life control and monitoring
5. High-Quality components from Dürr automotive sector
6. Different measuring devices for the flow rate (Coriolis or Gear Cell)
7. Fluid panel easy designed (good maintenance)
8. Separate fluid board possible
9. High variance in our standard configurator
10. Dürr Service worldwide available 24/7



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Live Demo

General functions on HMI
EcoDose2K

Concept ready2integrate

Scope of Integrator

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- Order Material
- Implement Dürr equipment in external control
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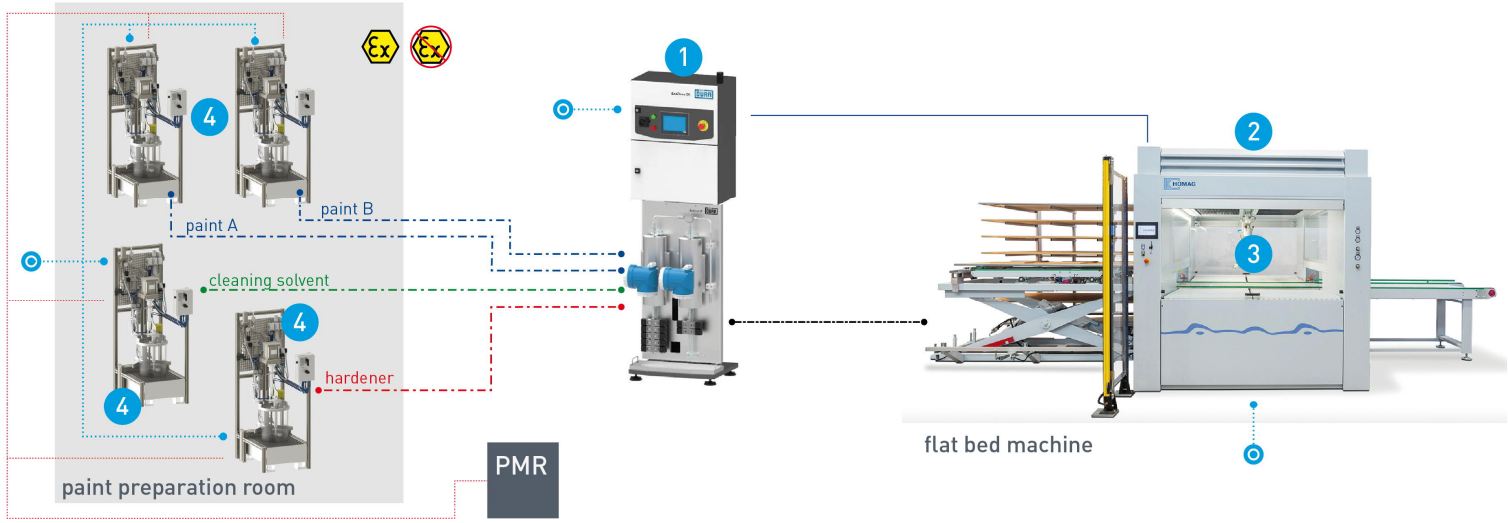
High pressure 2K dosing & flat bed machine integration scheme



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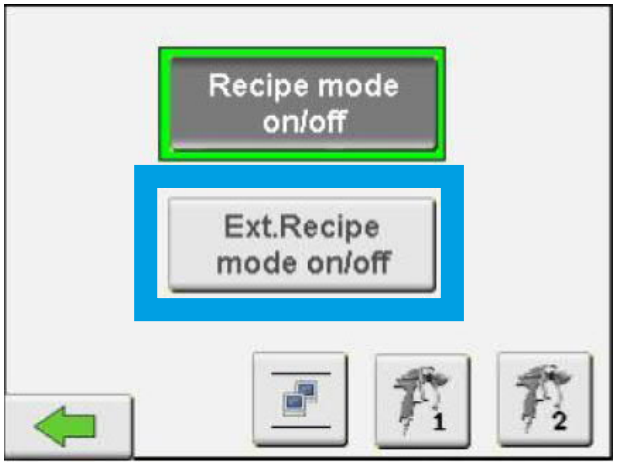
External recipe mode

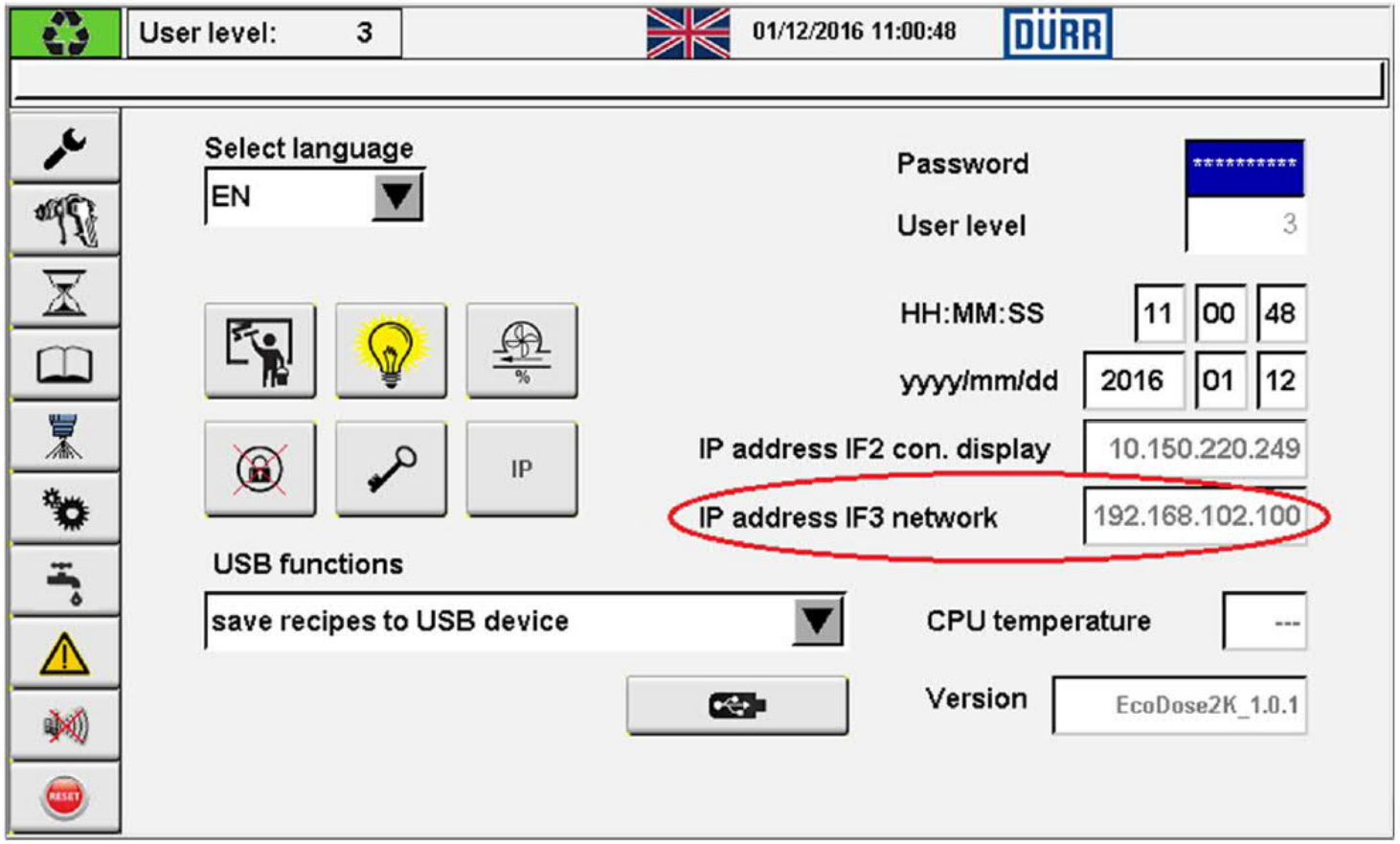
In external recipe mode control commands are sent from a master controller.

Through the interface the following functions could be externally controlled:

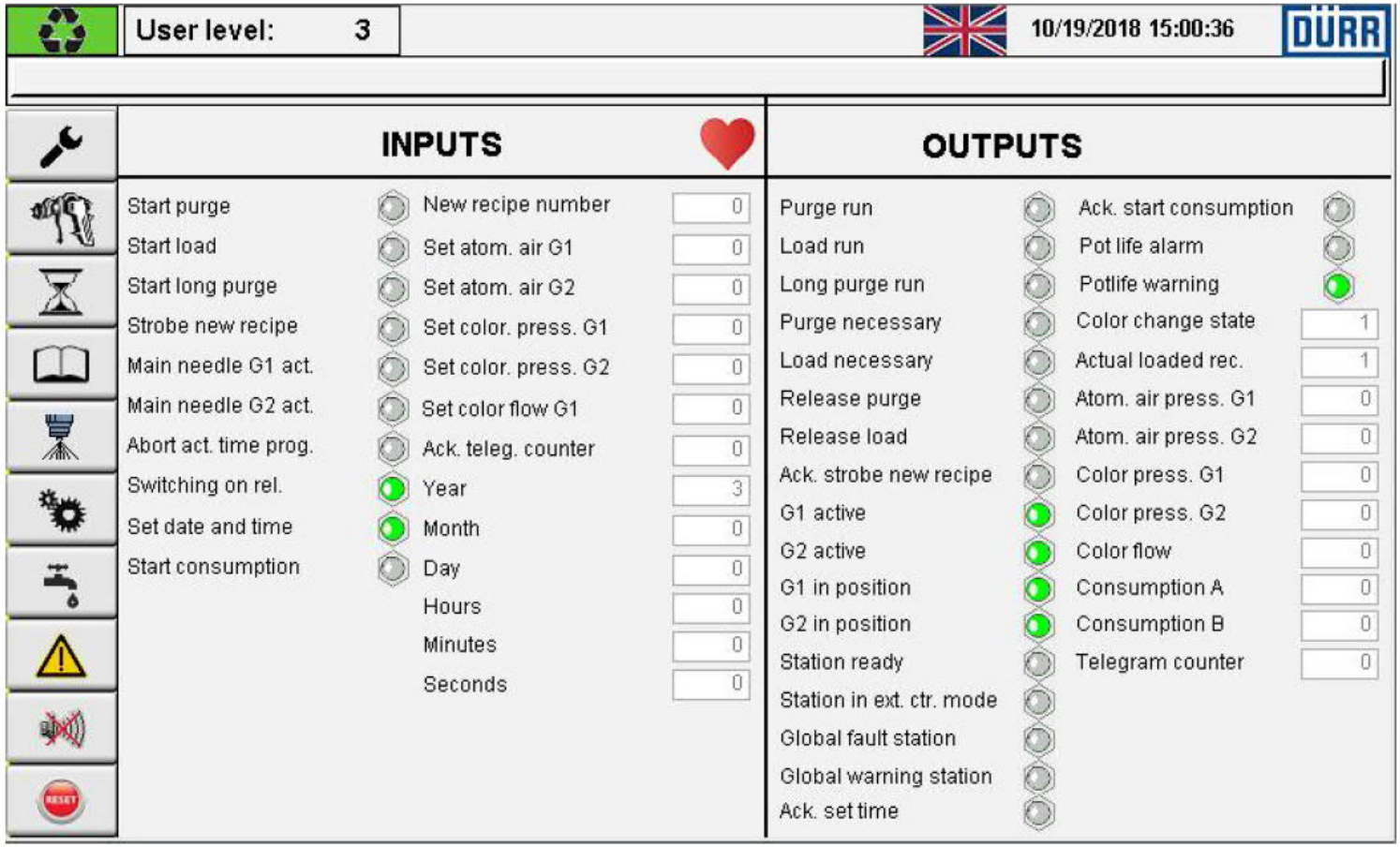
- Selecting recipe dataset
- Switching the station (on/off)
- Starting individual cycle programs (load, purge and long purge)
- Change the recipe in use (color change)
- Synchronizing date and time



External recipe mode



External recipe mode



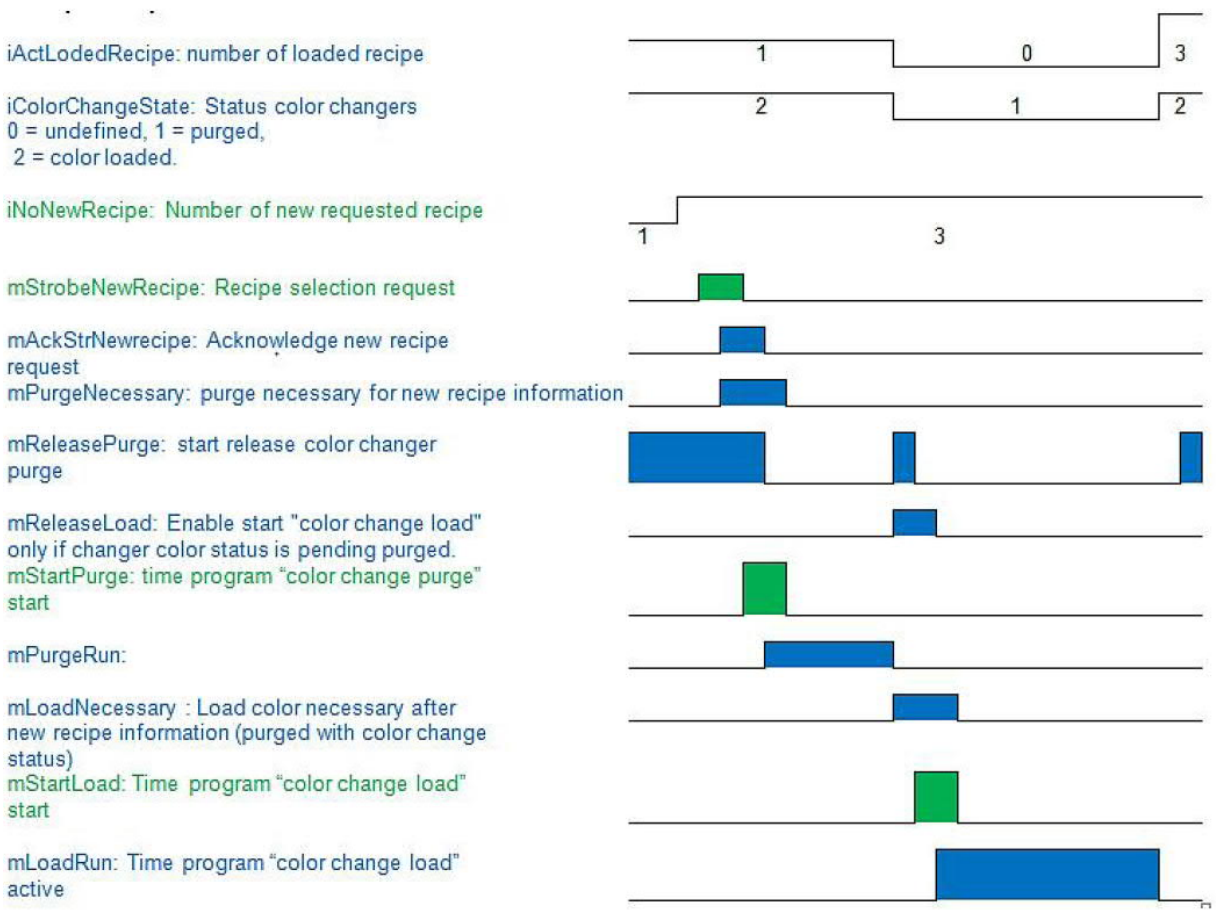
Signal exchange

	INPUT FROM EXTERNAL CONTROLLER		
0.0	iAckTelCount	INT	Acknowledge telegram counter => Ext
2.0	iDateYear	INT	Date year => Ext
4.0	bDateMonth	BYTE	Date month => Ext
5.0	bDateDay	BYTE	Date day => Ext
6.0	bTimeHours	BYTE	Time hours => Ext
7.0	bTimeMinutes	BYTE	Time minutes => Ext
8.0	bTimeSeconds	BYTE	Time seconds => Ext
9.0	iSpareO_9	BYTE	
10.0	iSpareO_10	INT	
12.0	iSpareO_12	INT	
14.0	iSpareO_14	INT	
16.0	iSpareO_16	INT	
18.0	iSpareO_18	INT	
20.0	mrelStOn	BOOL	Release switch on EcoDose2K from main station

	OUTPUT TO EXTERNAL CONTROLLER		
0.0	iTelCount	INT	Telegram Counter. It has to be copied to AckTelCounter on the remote controller
2.0	iAlarmGrpIfoGlb1	INT	Alarm group information byte 0/1 (global alarm)
4.0	iAlarmGrpIfoGlb2	INT	Alarm group information byte 2/3 (global alarm)
6.0	iAlarmGrpIfoApl1	INT	Alarm group information byte 0/1 (application specific alarm)
8.0	iAlarmGrpIfoApl2	INT	Alarm group information byte 2/3 (application specific alarm)
10.0	iSpare_10	INT	
12.0	iSpare_12	INT	
14.0	iSpare_14	INT	
16.0	iSpare_16	INT	
18.0	iSpare_18	INT	
20.0	mSatatOn	BOOL	Station On

Description signal exchange

Example: recipe selection from 1 to 100



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Live Demo

Small Supply System

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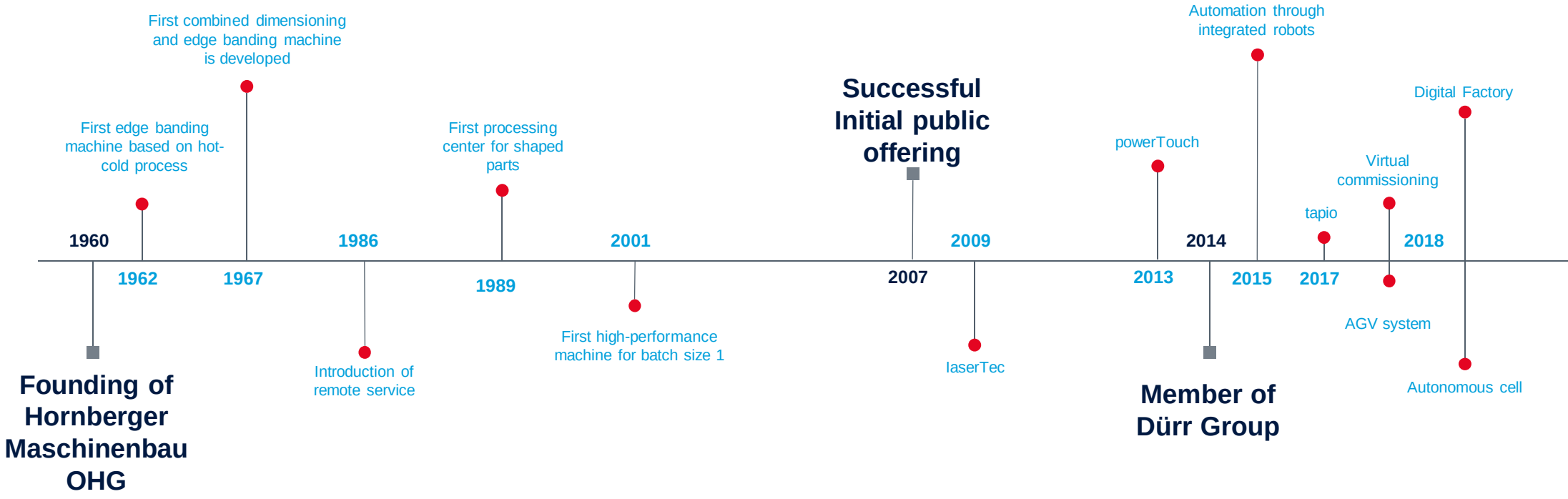
Dürr Integratorsday 2019

24.10.2019 in Bietigheim-Bissingen

HOMAG

YOUR SOLUTION

A success story
Development and innovations



© HOMAG

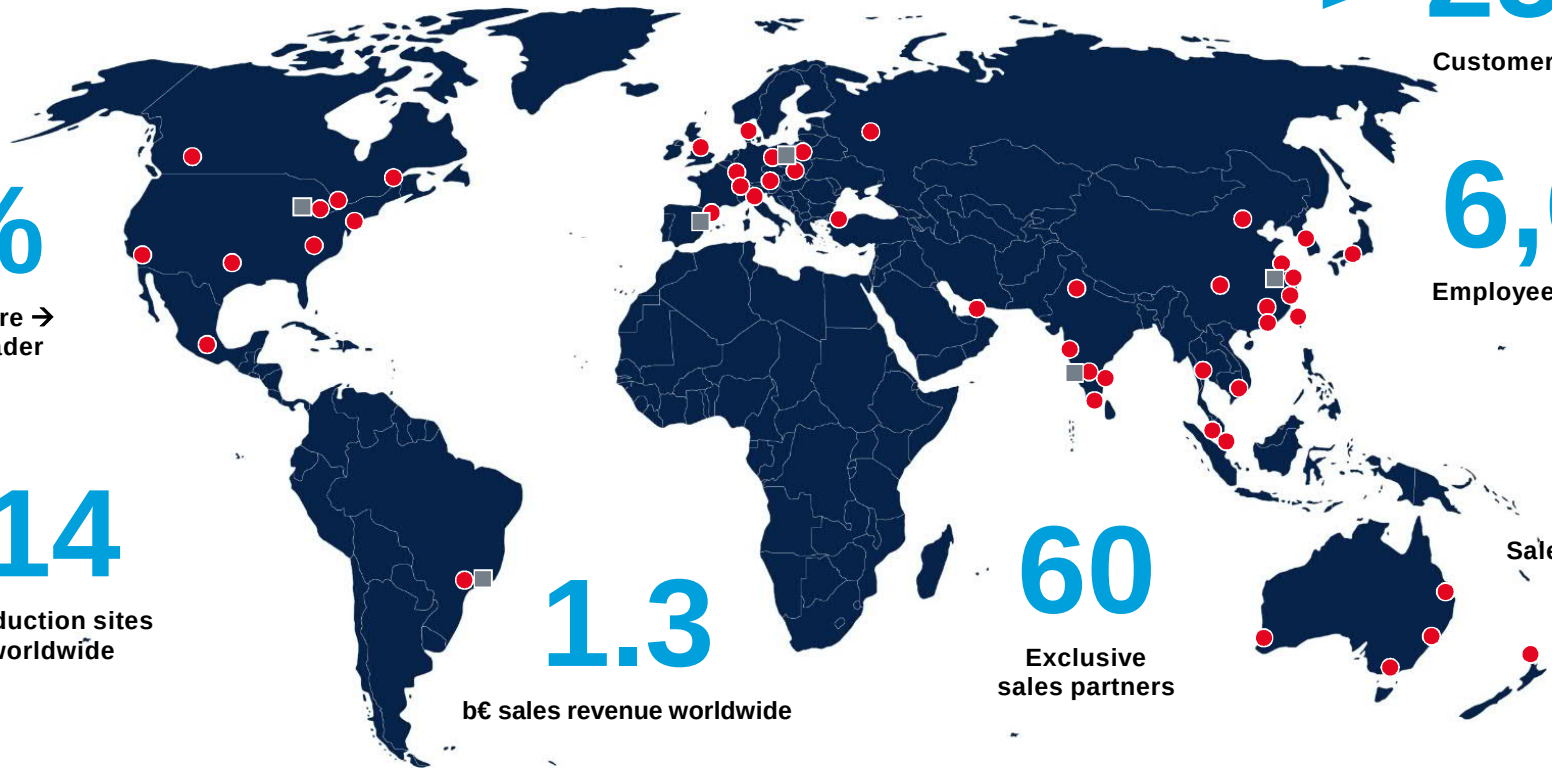
Global Player

Our production, sales and service network

> 250,000
Customers around the world

> 30%
World market share → World market leader

6,600
Employees around the world



23
Sales and service companies worldwide

14
Production sites worldwide

1.3
b€ sales revenue worldwide

60
Exclusive sales partners

Living begins with our machines
Our business model

HOMAG Group is the world's leading provider of integrated solutions for production in the woodworking industry and woodworking shops.

Furniture manufacturing (85%)

Building components (12%)

Timber frame buildings (3%)

Everything from a single source
Our technology portfolio

HOMAG integrates the complete process chain of woodworking.
This means for our customers – Long-term success through precision, innovation and process competence.

Strategy development/ Production planning

Construction

Data generation

Planning

Storage

Cutting

Collating/ Feeding

Laminating / Sanding / Laquering / Planing

Sizing / Edge-banding

Drilling/ Fitting Insertion

Assembly

Packaging

Service

Unser Oberflächen-Produkt-Portfolio

The Full-blown Surface Product Portfolio

Plattenförmige Werkstücke / Panel Processing

SCHLEIFEN / SANDING

Breitbandschleifen von oben / Wide Belt Sanders Top

SANDTEQ W-100
Der perfekte Einstieg/
The perfect entry machine

SANDTEQ W-200
Bis zu 2 Aggregate/
Up to 2 aggregates

SANDTEQ W-300
Bis zu 4 Aggregate/
Up to 4 aggregates

SANDTEQ W-700
Bis zu 5 Aggregate/
Up to 5 aggregates

SANDTEQ W-900
Bis zu 5 Aggregate und SORB TECH Maschinenbett/
Up to 5 aggregates and SORB TECH machine bed

Breitbandschleifen von oben/unten / Wide Belt Sanders from Top/Bottom

SANDTEQ B-700
Schleiflinie/Sanding Lines

Kantenschleifen / Edge Sanders

Kantenschleifen im Durchlauf/
Throughfeed Edge Sanders

LACKIEREN / FINISHING

Lackauftragen / Coating

SPRAYTEQ S-100
1 Spritzarm/1 spray arm

2 Spritzarme/
2 spray arms

Spritzen mit Roboterarm/
Coating with robotar arm

Walzenauftrag/
Roller Coater

Kantenlackieren/
Edge Coating

Trocknen / Ovens

UV-Trockner/
UV Drying Oven

Konvektionstrockner - Tunnel/
Linear Convection Oven

Konvektionstrockner - Etagen/
Vertical Convection Oven

KASCHIEREN / LAMINATING

Flachkaschieren / Flat Laminating

Folie/Foil

LAMTEQ F-200
Blattware und Folie/Sheetware and Foil

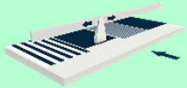
LAMTEQ F-200
Blattware und Handling/
Sheetware and Handling

LAMTEQ F-300
HighPerformance

Plattenummanteln / Panel Wrapping

Finger-Pull

LAMTEQ F-300
HighPerformance



Digital Printing

Profilierte Werkstücke / Profile Processing

HOBELN / MOULDING

Profilieren / Profiling

MOULDTEQ M-300
Bis zu 8 Spindeln/
Up to 8 spindles

SCHLEIFEN / SANDING

Profilschleifen / Profile Sanders

Profilschleifen im Durchlauf/
Throughfeed Profile Sanders

LACKIEREN / FINISHING

Imprägnieren / Impregnating

Imprägnieren/
Impregnating

Lackauftragen / Coating

Spritzlackieren/
Spraying

Vakuumbeschichtung/
Vacuum Coating

Trocknen / Ovens

UV-Trockner/
UV Drying Oven

Konvektionstrockner/Convection Oven

UMMANTELN / WRAPPING

Vorbereitung Profilummanteln / Profile Wrapping Preperation

Fleece Applikation

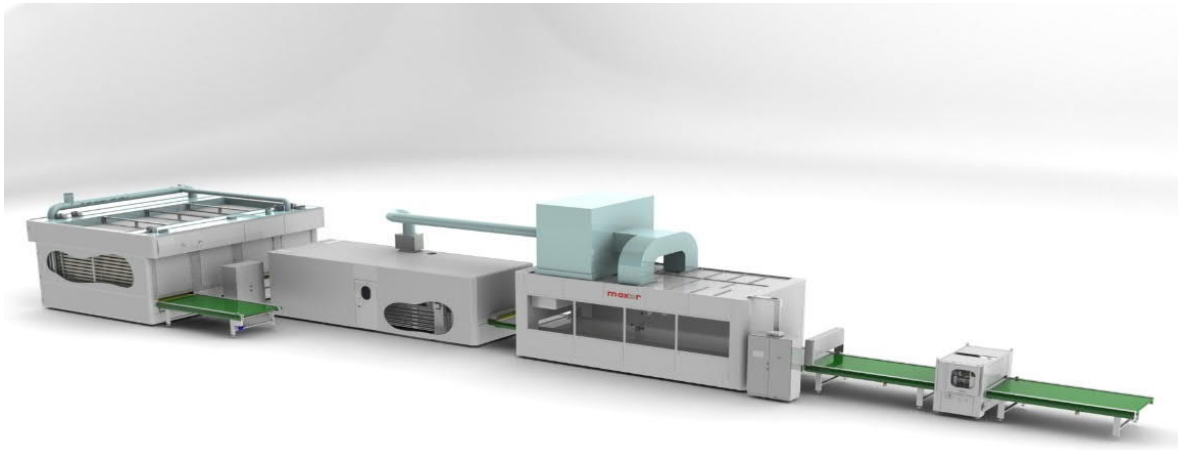
Primerauftrag/
Primer Application

Profilummanteln / Profile Wrapping

Furnierstreifen/Veneer Strips

Folie/Foil

HOMAG Product Range Coating



ENTRY LEVEL

HOMAG
YOUR SOLUTION

HIGH-END SOLUTION

SPRAYTEQ S-100
Product Portfolio

Typ	Autonomous cell, with automated workpiece handling	Vacuum conveyor belt covered with disposable paper
Ansicht		
Application technology	Single oscillating arm	
Type of feed	Reversing	Through feed
Transport	Work pieces on trays	Vacuum conveyor with disposable paper

DÜRR Application Technology
Standard for SPRAYTEQ S-100

DÜRR Pumps

EcoPump AD

EcoPump VP

DÜRR Guns

EcoGun AL AUTO

EcoGun AA AUTO

EcoGun AS AUTO Pro

DÜRR Dosing

EcoDose 2K

SPRAYTEQ S-100

One last thing – The HOMAG Surface App Suite

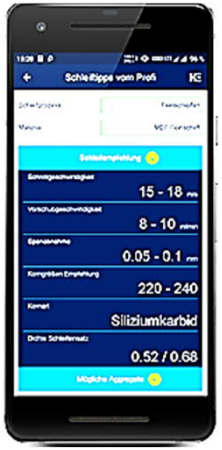
Your “digital” Swiss Army Knife:

Your benefits:

- Digital multi-functional tools
- Simple, user-friendly
- Helps plant operators with everyday tasks
- No connection to the machine – suitable for all machine brands and ages

Free of Charge!

HG Homepage



https://www.homag.com/produktdetail/intellicoating-app/

intelliSanding HC

intelliMoulding HC

intelliCoating HC

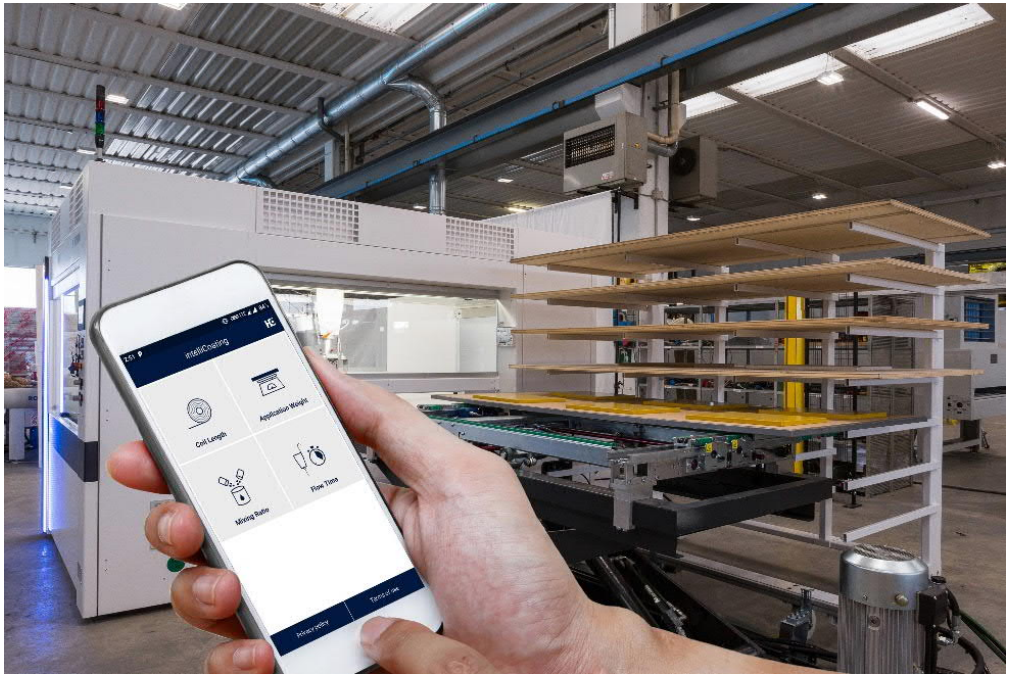
intelliLaminating HC

Laden im App Store

JETZT BEI Google Play

intelliCoating
Tools for more efficient work

- **Coil Length**
  - Calculation of the remaining running meters of the disposable paper roll
- **Application Weight**
  - Measurement of the applied quantity per m²
- **Mixing Ratio**
  - Determine the required quantities of each component of a mixed coating on the basis of a mixing ratio
- **Flow Time**
  - Measurement the viscosity of paints and varnishes according to DIN



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Station 1 - Integrated products into a painting system (incl. PaintSupply, dosing)

“Subject to change. The information in this presentation contains only general descriptions or performance characteristics, which may vary in different cases. The requested performance characteristics are only binding it they are expressly agreed in the contract.”

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