

Private Treaty Sale

(11) Premium Electric Motor Production Lines



From a leader in electric motors, **KRUDO Industrial** is proud to offer:

- **2 Complete Production Setups**
- **11 Premium Production Lines**
- **90+ Production Machines**

As new as 2021



Sale Details

These production setups have produced eMotors for European traditional automobile manufacturing companies and powered some of the most efficient electric motors on the market. The technology ensures superior performance and durability, and includes all necessary machinery, providing a seamless integration into your existing setup or if you are looking to develop an electric motor division.

This offer includes the following 2 Complete Production Setups:

Production Setup #1:

- 01: Stator Line #1
- 02: Housing Line #1
- 05: Rotor Line #3
- 08: Spinning Line
- 11: Final Assembly #3



Production Setup #2:

- 03: Rotor Line #1
- 04: Rotor Line #2
- 06: Housing Line #2
- 07: Stator Line #2
- 09: Final Assembly #1
- 10: Final Assembly #2




Don't Miss Out on This Opportunity! Contact **KRUDO Industrial** today to schedule a viewing or request a quote.

Your Contacts



SALES

Martin Kolodziejczyk

  +31 6 54115413
 mkolo@krudoind.com

ENGINEERING

Milad Barghidarian

  +31 6 18516165
 mdarian@krudoind.com

ADMINISTRATION

Justine Leciak

  +31 6 83903722
 jleciak@krudoind.com

Additional Details

Sales Type

Private Treaty

Location

Germany

Delivery

As is - Where is, Ex Works

Inspection

By appointment only

Line 1: Stator Line #1

3

Manufacturers : Schaeffler - PIA Automation - GROB-WERKE - STRUNK CONNECT YoM: 2020

3x Winding Machines
Preparation of End Plates
Packaging Machine
Manipulator
Tube Cutting

Preforming
Final Forming
Lacing Winding Head
Phaseinsulation

Preparation Crimping
Skew & Welding Machine
Hot Crimping Machine
Electrical Tester for Stators



1.1 - 1.3 Winding Machines



1.4 Preparation of End Plates



1.5 Packaging Machine



1.6 Manipulator



1.7 Tube Cutting



1.8 Performing



1.9 Final Forming



1.10 Lacing Winding Head



1.11 Phase Insulation



1.12 Preparation Crimping



1.13 Skew and Welding Machine



1.14 Shrinking Machine

For more information, call +31 (0) 20 261 8935 or email: sales@krudoind.com

Line 2: Housing Line #1

Manufacturers : Paul Köster - Metall Technik Schulz - Meier Prozesstechnik - sab Burkhardt YoM: 2020

4

Shrinking of Stator into Housing
Flooding System
Heating Section
Cooling Tunnel



2.1 Shrinking Machine



2.1 Shrinking Machine



2.2 Pre Shrink



2.2 Pre Shrink



2.3 Flooding System



2.3 Flooding System



2.4 Heating Section



2.4 Heating Section



2.5 Cooling Tunnel



2.5 Cooling Tunnel



2.6 Tube Cutting



2.6 Tube Cutting

For more information, please visit www.krudoind.com

Line 3: Rotor Line #1

Manufacturers : Procad - KUKA Aktiengesellschaft - eldec Induction - Epson YoM: 2013

5

Pin Pressing
Rotor Handling
Inbalance Check
Package Heating
Shaft Shrinking

Pressing
Resin Dosing
Magnet Assembly
Packaging Loading



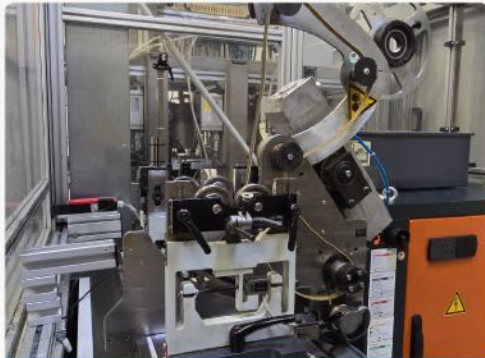
3.1 Pin Pressing



3.2 Rotor Handling



3.2 Rotor Handling



3.3 Inbalance Check



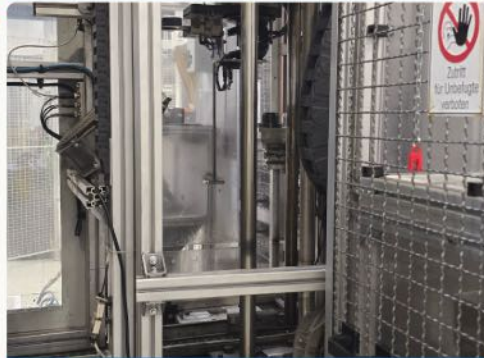
3.4 Package Heating



3.5 Shaft Shrinking



3.5 Shaft Shrinking



3.6 Pressing



3.7 Resin Dosing



3.7 Resin Dosing



3.8 Magnet Assembly



3.9 Packaging Loading

For more information, call +31 (0) 20 261 8935 or email: sales@krudoind.com

Line 4: Rotor Line #2

6

Manufacturers : Procad - KUKA Aktiengesellschaft - Carl Schenck - Epson - eldec Induction YoM: 2020

Shaft Loading
Balancing
Pin Pressing
Rotor Handling
Package Loading

Shaft Shrinking
Cooling Tunnel
Conveyer Section
Pressing
Pressing
Lasering

Resin Dosing
Magnet Assembly
Oven
Cooling Tunnel



4.1 Shaft Loading



4.2 Balancing



4.3 Pin Pressing



4.4 Rotor Handling



4.5 Package Loading



4.6 Shaft Shrinking



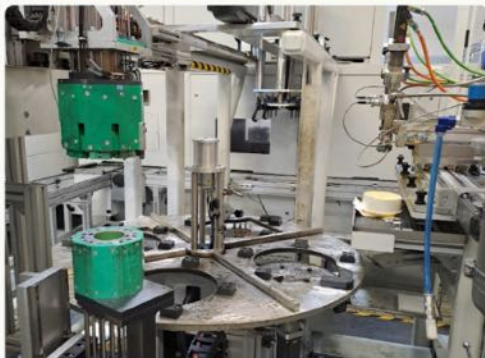
4.8 Conveyor Section



4.9 Pressing



4.11 Resin Dosing



4.12 Magnet Assembly



4.13 Oven



4.14 Cooling Tunnel

For more information, please visit www.krudoind.com

Line 5: Rotor Line #3

Manufacturers : Procad - KUKA Aktiengesellschaft - Epson - eldec Induction - CeraCon YoM: 2020

Shaft Loading
Package Loading
Shaft Shrinking
Cooling Tunnel
Pressing

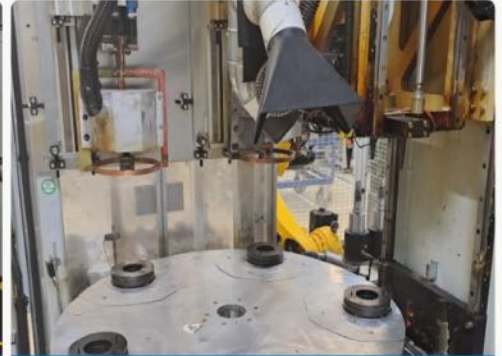
Pin Pressing
Magnet Assembly
Oven
Cooling Tunnel
Rotorline M1



5.1 Shaft Loading



5.2 Package Loading



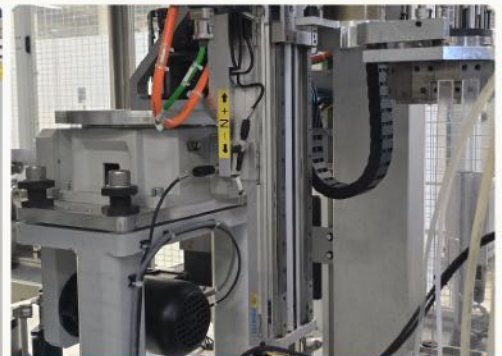
5.3 Shaft Shrinking



5.4 Cooling Tunnel



5.5 Pressing



5.6 Pin Pressing



5.7 Magnet Assembly



5.7 Magnet Assembly



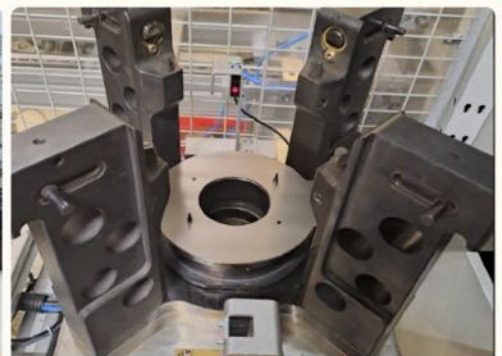
5.8 Oven



5.8 Oven



5.9 Cooling Tunnel



5.10 Rotorline M1

For more information, call +31 (0) 20 261 8935 or email: sales@krudoind.com

Line 6: Housing Line #2

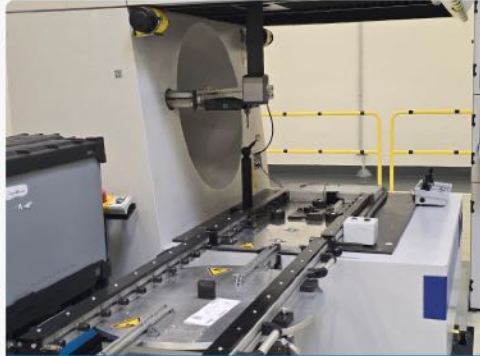
Manufacturers : Carl Zeiss IMT - Emco - ROFIN-SINAR Laser - Thyssenkrupp - CeraCon - PIA Automation **YoM: 2013**

3D Measuring Machine
2x Turning Machines
Laser

Thyssen Sealing Press
Cooling Tunnel
PIA Shrinking Machine



6.1 3D Measuring Machine



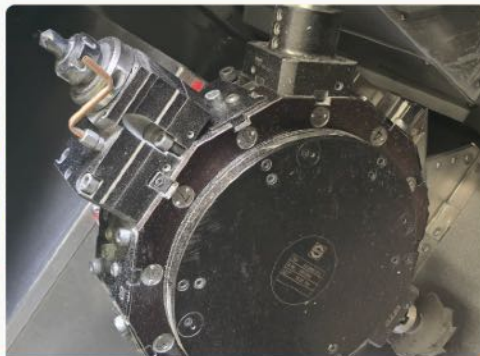
6.1 3D Measuring Machine



6.2 Measuring Machines



6.4 Turning Machines



6.4 Turning Machines



6.6 Laser



6.7 Thyssen Sealing Press



6.7 Thyssen Sealing Press



6.8 Cooling Tunnel



6.8 Cooling Tunnel



6.9 PIA Shrinking Machine



6.9 PIA Shrinking Machine

For more information, please visit www.krudoind.com

Line 7: Stator Line #2

9

Manufacturers : Schaeffler - STRUNK CONNECT - GROB-WERKE - SCHLEICH - Meier Prozesstechnik YoM: 2013

3x Winding - Inserting Machines
Packaging and Isolation
2x Preforming Machines
Hot Crimping Machine
Final Forming Machine

Lacing Winding Head
Skew & Welding Machine
Electrical Stator Tester
2x Impregnation Machines



7.1 Winding - Inserting Machines



7.2 Winding - Inserting Machines



7.3 Packaging and Isolation



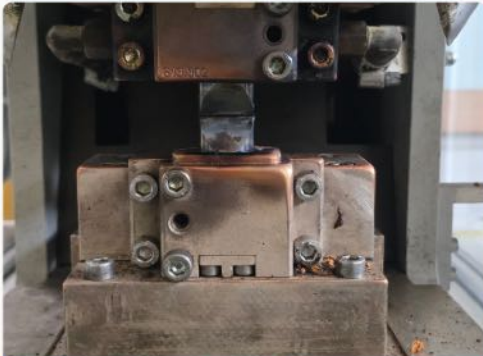
7.4 Winding - Inserting Machine



7.5 Preforming Machines



7.6 Preforming Machines



7.7 Hot Crimping Machine



7.8 Final Forming Machine



7.9 Lacing Winding Head



7.10 Skew & Welding Machine



7.11 Electrical Stator Tester



7.12 Impregnation Machines

For more information, call +31 (0) 20 261 8935 or email: sales@krudoind.com

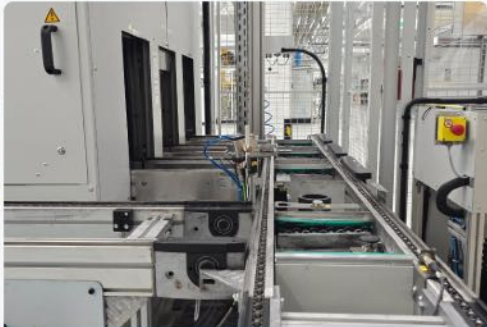
Line 8: Spinning Line

Manufacturers : Hofmann Mess - Procad - Duotemp Kältetechnik - Carl Schenck YoM: 2021

Heating Section
Cooling Tunnel
Balancing and Pin Pressing



8.1 Spinning Machine



8.2 Heating Section



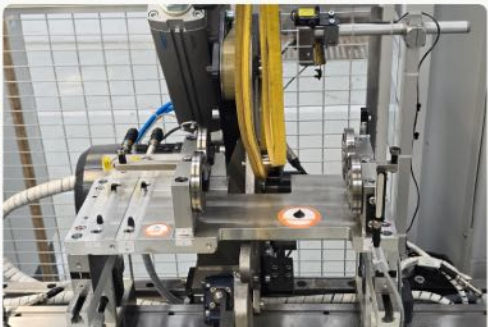
8.3 Cooling Tunnel



8.3 Cooling Tunnel



8.4 Balancing and Pin Pressing



8.4 Balancing and Pin Pressing

Line 9: Final Assembly Line #1

Manufacturers : MAGSYS magnet systeme - TBB - Rauh Hydraulik YoM: 2013

Magnetizer
Assembly of End Shield AS

TecMation
Assembly of End Shield BS



9.1 Magnetizer



9.2 Assembly of End Shield AS



9.2 Assembly of End Shield AS



9.3 TecMation



9.4 Assembly of End Shield BS



9.4 Assembly of End Shield BS

Line 10: Final Assembly Line #2

Manufacturers : MAGSYS magnet systeme - KUKA - Thyssenkrupp - AtlasCopco Tools - Innomatec YoM: 2019

Magnetizer
Handling
Assembly of Resolver Rotor
Preparation of End Shield BS
Handling #2
Assembly of Terminal Box

Assembly of Cover Terminal Box
Assembly of Signal Cable
Assembly of Support Bearing Shield
IP Test
Laser



10.1 Magnetizer



10.2 Handling



10.3 Assembly of Resolver Rotor



10.4 Preparation of End Shield BS



10.4 Preparation of End Shield BS



10.5 Handling #2



10.6 Assembly of Terminal Box



10.7 Assembly of Cover Terminal Box



10.8 Assembly of Signal Cable



10.9 Assembly of Support Bearing Shield



10.10 IP Test



10.11 Laser

For more information, call +31 (0) 20 261 8935 or email: sales@krudoind.com

Line 11: Final Assembly Line #3

12

Manufacturers : MAGSYS magnet systeme - Kistler Instrumente - Thyssenkrupp - KUKA - Zasche Handling YoM: 2020

- | | |
|--------------------------------|------------------------------------|
| Magnetizer | Preparation of EOL |
| Marriage 1 | KKL / IP Test |
| Marriage 2 | Laser / Camera Check |
| Marriage 3 | Lifting Equipment Loop 1 to Loop 2 |
| Handling | Preparation of Outer Housing |
| Assembly of Cooling Adaptation | Assembly of Rotor Cooling |
| Screwing of End Shield | Preparation of Rotor Cooling |



11.1 Magnetizer



11.2 Marriage



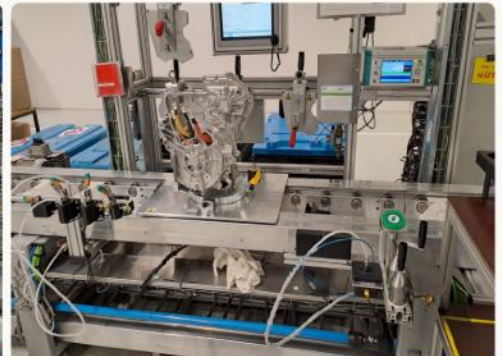
11.5 Handling



11.6 Assembly of Cooling Adaptation



11.7 Screwing of End Shield



11.9 KKL / IP Test



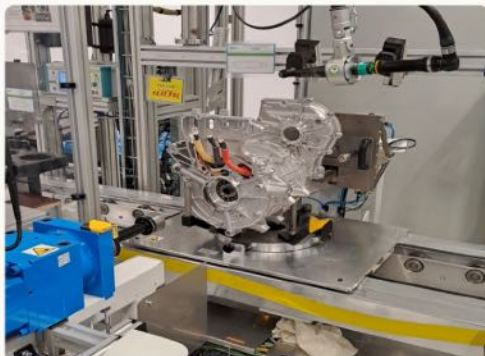
11.10 Laser / Camera Check



11.11 Lifting Equip. Loop 1 to Loop 2



11.12 Preparation of Outer Housing



11.13 Assembly of Rotor Cooling



11.14 Preparation of Rotor Cooling



11.15 EOL Test