

Jaguar Machine Training

Configurable Gravity Handler for Large Devices



Course Description

This training material introduces the student to the Jaguar test handler. The training is offered in three levels from the perspective of an Operator, a Maintenance Technician and an Advanced Technician:

- Level 1 - Basic: Focused on basic operational procedures: loading/unloading parts, troubleshooting, and general equipment safety
- Level 2 - Intermediate: Maintenance focused course intended to get the student familiar with the product. Operational requirements, setup and alignment, device workflows, and mechanical/electrical diagnosis
- Level 3 - Advanced: Maintenance focused course intended to get the student familiar with the product. Complex mechanical/electrical diagnosis, motor tuning, setup and alignment

Course Outline

- Introduction and Process Overview
- Software
- Machine Platform
- Machine Input and Output
- Machine Modules
- Adjustments
- Q&A, Test, Wrap Up

Course Length

- Level 1: Basic - two days (sixteen hours)
- Level 2: Intermediate - five days (forty hours)
- Level 3: Advanced - five days (forty hours)

Prerequisites

- Level 2: Level 1 training and a minimum of thirty days experience with the Jaguar test handler
- Level 3: Level 2 training and a minimum of six months experience with the Jaguar test handler

Recommended

- English - written and spoken



Automotive



Mobility



IoT/IoV & Optoelectronics



Computing & Network



Industrial & Medical



Consumer

- Ultrafast and precise plunger
- Handling of InCarrier Carrier
- Simple device kit exchange in <15 mins with existing kit recipe set-up
- High parallel power upgrade
- Bare die test configuration
- Various MEMS and sensor options

Jaguar Machine Training

Level 1: Basic

Day 1

1 - Introduction

- Introduction of the Handler
- Handler Safety
- Start Up Handler

Day 2

2 - Manual Control - Sensor and Actor

- Manually diagnostic the machine part in order to clear jamming
- Sensor reference
- Motor movement

3 - Service - Single Step Mode

- 2D Camera adjustment
- Strip Camera adjustment
- Contactor Camera adjustment

4 - Loader/Unloader

- Load and Unload the Cassette
- Sensor reference for Cassette present.
- Pusher Strip

5 - Service Mode

- Practice Load and Unload the Strip using Service Mode running

6 - Temperature Control System

- Basic Overview
- Temperature Setting

7 - Recover Handler and Troubleshooting

- Troubleshooting, Rootcause and solution

8 - Q&A

- Q&A, Test, Wrap Up

Level 2: Intermediate

Day 1

1 - Basic Theory, Safety and Operation

- Main Modules overview
- Handler Safety
- Operator Interface Overview

2 - Service Mode - Cycle Strip and Adjustment

- Strip Flow - setting up and running in service mode
- Manual Control/Service Mode - sensors, actors, and motors
- Saving setting changed and capture Handler Log Files

Day 2

3 - Mechanical Adjustment Loader/Unloader

- Cassette stopped adjustment, strip center position vs conveyor
- Strip on conveyor, sensor adjustment
- Cassette Gripper adjustment
- Strip Pusher alignment
- Teaching stack motor zero position and adjustment
- Teaching drawer motor zero position and adjustment
- Sensor adjustments, magazine present

4 - Base Handler Adjustment

- Load/Unload shuttle Setup
- Cylinder speed and sensor position adjustment in service mode
- Plunger home sensor position and adjustment
- Strip width spindle adjustments
- Manual control of conveyor motor for checking strip movement and speed
- Conveyor sensor adjustment for strip present

Day 3

5 - Base Handler - Plunger vs L/UL Shuttle, Z Sensor Adjustment

- Handover strip
- Z-sensor mechanical and function

6 - ZD Camera Adjustment

- Hardware - adjusting, lighting, contrast
- Software - gain, light, exposure
- Strip stop position setting vs 2D Camera

7 - Strip Camera Adjustment

- Init handler using single step mode to adjust plunger fiducial positioning

8 - Contactor Camera Adjustment

- Init handler using single step mode to adjust semicircle and contactor fiducial positioning

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Jaguar Machine Training

Level 2: Intermediate (cont/d)

Day 4

9 - Electrical/Pneumatics/CAN module comm.

- Difference between DI, DO, DIO
- Setting module address

10 - LN₂ System

- Hardware and Electrical functionality
- Temperature setting and calibration

Day 5

11- Troubleshooting and Q&A

- Error Troubleshooting, Rootcause and solution
- Q&A, Test, Wrap Up

Level 3: Advanced

Day 1

1- Basic Theory, Safety and Operation

- Main Modules
- Safety
- Operator Interface Overview

2 - Basic Preventative Maintenance

- Replace conveyor belting
- Replace/Service
- Replace/Service plunger dome sealing

Day 2

3 - Alignment and Adjustment of the Plunger

- Plunger head planarity measurement
- Adjustment plunger vs Load/Unloader shuttle

4- Mechanical and Pneumatic Adjustment

- Loader/Unloader
- Base Handler

Day 3

5 - Kit Setup with Contactor

- Kit depended SW setting
- Contactor depended SW setting

6 - Vision System

- Hardware - adjusting lighting contrast
- Software - gain, light, exposure
- Strip stop position setting vs 2D camera

7 - Axis Coil and Scanner Head Measurement

- X axis and scanner head measurement
- Y axis and scanner head measurement
- Phi axis and scanner head measurement

Day 4

8 - Electrical/Pneumatics/CAN module comms.

- DI, DO, DIO module address setting
- CAN Bus comm troubleshooting, measuring for 120 ohm terminating resistor
- Vacuum sensor setting
- Pressure sensor setting
- Sensor amplifier setting
- OPI Interface S/W download
- Configuraiton vision IPC vs new camera
- Parker Controller Parameter configuration
- Baumer Motor configuration

Day 5

9 - LN₂ System

- Hardware and Electrical overview
- Temperature setting and calibration

10 - Troubleshooting and Q&A

- Error Troubleshooting, Rootcause and solution
- Q&A, Test, Wrap Up

Who Should Attend

- Level 1 : Operator
- Level 2: Maintenance Technician
- Level 3: Advanced Technician

Training Locations

- Level 1 - Basic: on-site customer class
- Level 2 - Intermediate: on-site customer class or Cohu training facility
- Level 3 - Advanced: on-site customer class or Cohu training facility

Customized classes and on-site customer classes are available to suit your training needs.

More Information/Registration

- Contact training@cohu.com

Training Course Catalog

- Visit our handler training catalog to view our other training offerings www.cohu.com/handler-training