

Magnus 800 Series 300

Delta Course

Internal Self-StudyGuide

English

653-01396B-EN
Internal 741-00093B-EN

Copyright

© Kodak, 2007 All rights reserved.

This document is also distributed in Adobe Systems Incorporated's PDF (Portable Document Format). You may reproduce the document from the PDF file for internal use. Copies produced from the PDF file must be reproduced in whole.

Trademarks

Kodak, and Creo are trademarks of Kodak.

Adobe, Acrobat, Adobe Illustrator, Distiller, Photoshop, PostScript, and PageMaker are trademarks of Adobe Systems Incorporated.

Apple, AppleShare, AppleTalk, iMac, ImageWriter, LaserWriter, Mac OS, Power Macintosh, and TrueType are registered trademarks of Apple Computer, Inc. Macintosh is a trademark of Apple Computer, Inc., registered in the U.S.A. and other countries.

PANTONE, Hexachrome, PANTONE Hexachrome, and PANTONE MATCHING SYSTEM are the property of Pantone, Inc.

PEARL, PEARLdry, PEARLgold, PEARLhdp, and PEARLsetter are registered trademarks of Presstek, Inc.

XEROX is a trademark of XEROX CORPORATION.

FCC Compliance

Any Kodak equipment referred to in this document complies with the requirements in part 15 of the FCC Rules for a Class A digital device. Operation of the Kodak equipment in a residential area may cause unacceptable interference to radio and TV reception, requiring the operator to take whatever steps are necessary to correct the interference.

Equipment Recycling



In the European Union, this symbol indicates that when the last user wishes to discard this product, it must be sent to appropriate facilities for recovery and recycling.

Contact your local Kodak representative or refer to http://www.kodak.com/go/recycle for additional information on the collection and recovery programs available for this product.

Limitation of Liability

The product, software or services are being provided on an “as is” and “as available” basis. Except as may be stated specifically in your contract, Kodak expressly disclaims all warranties of any kind, whether express or implied, including, but not limited to, any implied warranties of merchantability, fitness for a particular purpose and non-infringement.

You understand and agree that, except as may be stated specifically in your contract, Kodak shall not be liable for any direct, indirect, incidental, special, consequential or exemplary damages, including but not limited to, damages for loss of profits, goodwill, use, data or other intangible losses (even if Kodak has been advised of the possibility of such damages), resulting from: (i) the use or the inability to use the product or software; (ii) the cost of procurement of substitute goods and services resulting from any products, goods, data, software, information or services purchased; (iii) unauthorized access to or alteration of your products, software or data; (iv) statements or conduct of any third party; (v) any other matter relating to the product, software, or services.

The text and drawings herein are for illustration and reference only. The specifications on which they are based are subject to change. Kodak may, at any time and without notice, make changes to this document. Kodak assumes no liability for technical or editorial errors or omissions made herein, and shall not be liable for incidental, consequential, indirect, or special damages, including, without limitation, loss of use, loss or alteration of data, delays, or lost profits or savings arising from the use of this document.

http://graphics.kodak.com/

Internal 741-00093B-EN

August 21, 2007 9:49 am

Contents

Course Description v

Using This Guide vi

Steps to Success vi
Guide Structure vii

Course Overview 1

Introduction 1
Course Outcomes 1

Module 1: The Difference Between Magnus 800 S300 Devices and S100 Devices 3

Lessons in This Module 3

Lesson 1: Identify the General Characteristics of the S300 Devices 4
Overview 4
Naming Conventions 5

Lesson 2: Identify the Changes in the Installation Procedures 6
The Interface Between the Platesetter and the Autoloader 6

Lesson 3: Identify the Changes in the Platesetter 7
The Front Panel 7
The Loading Platform Shutter 8
Loading Platform Detectors 9
Power Supply 9
The Unloading Platform 10
Carriage Home Detector 11
The Pneumatic System 12
Unloading Platform Color 13
The Punch Bin 14
Plate Holders for Small Plates 14
The Paper Bin 15

Lesson 4: Identify the Changes in the Autoloader 16
The E-box 16
The Weights 17
The Vacuum Generators 17
The SCU Locking Mechanism 17
Top Covers' Guides 18
Loading Conveyor Latch 18
The SCU Trolley Industrial Design 19

Lesson 5: Identify the Changes in the MCU 20
The Motors' Contactors 20

Lesson 6: Identify the Changes in the PC 21
The PC Model 21

Self-Assessment 23

Evaluation of Internal Self-Study Course 25

Course Description

Course description	This course describes the differences between the Magnus 800 series 300 machines and the Magnus 800 series 100 machines.
Duration	Approximately 2 hours
Target audience	The following Kodak personnel *who already attended the Magnus 800 for Early Production course* can benefit from attending this course: • CTP Product Support Managers from Customer Solution Centers all over the world (CSC PSM) • CTP Product Support Specialists from Customer Solution Centers all over the world (CSC PSS) • Field Service Engineers and Field Specialists • Application Engineers & Specialists • CTP Production team leaders and PD workers • CTP Trainers
Learner Prerequisites	Magnus 800 for Early Production course.

Using This Guide

Steps to Success

A Path to Follow

- Allow yourself approximately 2 hours to complete the course.
- Find a quiet place to study the material.
- Notify your colleagues that you are working through the self-study guide. Arrange your schedule so that you will be able to complete all the components of the course, either all at once or in blocks of time.
- Read the self-study guide.
- Perform the hands-on activities.

Need Help With Content?

If you need help, consult the documentation materials or contact a service representative.

You can contact service representatives at the following locations:

Canada	1-800-472-2727
America	1-800-800-2500
Europe	+32-2-352-3090
Asia Pacific	+852-2839-8800
Japan	+81-3-3531-2201
Australia	+612-9879-4744
Internet Address:	http://graphics.kodak.com/

Guide Structure

This guide is divided into modules, each of which includes the following components:

- Introduction
- Lessons
- Review (optional)
- Summary
- Learner self-assessment form

Each lesson includes the following components:

- How This Lesson Will Help You
- Topics in This Lesson

Course Overview

Introduction

The aim of this course is to update the service people who are already familiar with Magnus 800 with all the changes that were made in the series 300 devices.

This course consists of 1 module and lasts 2 hours.

Course Outcomes

1. Identify the differences between the Magnus 800 S100 and the Magnus 800 S300 devices
2. Install the Magnus 800 S300 device
3. Service the Magnus 800 S300 device
4. Troubleshoot and support the Magnus 800 S300 device
5. Instruct the customer/user how to maintain the Magnus 800 S300 device

MODULE 1

The Difference Between Magnus 800 S300 Devices and S100 Devices

How This Module Will Help You

This module will give you an overall view of the changes and innovations that were made in the Magnus Series 300 (S300) devices.

Lessons in This Module

slide 1-1

Lesson 1: Identify the General Characteristics of the S300 Devices

Lesson 2: Identify the Changes in the Installation Procedures

Lesson 3: Identify the Changes in the Platesetter

Lesson 4: Identify the Changes in the Autoloader

Lesson 5: Identify the Changes in the MCU

Lesson 6: Identify the Changes in the PC

Lesson 1 Identify the General Characteristics of the S300 Devices

slide 1-2



How This Lesson Will Help You

This lesson will give you a general overview of the changes that were made in the S300 devices.



Topics in This Lesson

- Overview
- Naming Conventions

Overview

As a result of accumulated data and experience from the existing series 100 and pre-EP devices, series 300 was designed in order to improve Magnus 800, and to lower the production costs. The S300 devices support the thermal 1.7 imaging head (TH1.7) as well as the TH2.

The following areas remain the same:

- Spec
- General features
- Connectivity
- Media qualification
- Motors, detectors, sensors, rollers, vacuum cups, and filters

All S300 the spare parts are backward compatible.

Changes were made in the following areas:

- The installation process
- The platesetter structure
- The autoloader structure
- The MCU structure
- The PC

- The S300 platesetters can be upgraded to support smaller plates. [Along drum axis: 305mm (12 in) and around drum circumference 330mm (13 in)]. An upgrade kit is available in the price book. Note that for the upgraded platesetters, the orientation of the small plates on the drum will change from *landscape* to *portrait*.

Naming Conventions

This guide uses the following naming conventions:

- Series 300 - all Magnus 800 devices from serial number M80300 and up
- Series 100 - all Magnus 800 devices from serial number M80023 to M80299
- Pre-EP - all Magnus 800 devices from serial number M80006 to M80022

Lesson 2 Identify the Changes in the Installation Procedures

slide 1-3

How This Lesson Will Help You

This lesson maps the changes that were done in the installation process.

Topics in This Lesson

- The Interface Between the Platesetter and the Autoloader

The Interface Between the Platesetter and the Autoloader

In order to improve and shorten the installation process, an interface jig connecting the autoloader to the platesetter was added. The jig allows a quick positioning of the Autoloader and gives way to routing the wires in an organized fashion.

The jig is composed of the autoloader's forklift channels, two additional brackets, and a cover.



For the complete Magnus 800 Single-Cassette Autoloader S300 installation guide on TechPlanet:
http://techplanet.creo.com/cedirlink/redirectlink.asp?ID=19073

Lesson 3 Identify the Changes in the Platesetter

slide 1-4

How This Lesson Will Help You

This lesson maps the changes that were made in the mechanical, electronics and pneumatic systems of the Magnus 800 platesetter.

Topics in This Lesson

- The Front Panel
- The Loading Platform Shutter
- Loading Platform Detectors
- Power Supply
- The Unloading Platform
- Carriage Home Detector
- The Pneumatic SystemUnloading Platform Color
- The Punch Bin
- Plate Holders for Small Plates
- The Paper Bin

The Front Panel

The user front panel in now made of one piece instead of two (top and bottom in the S100 platesetters.)

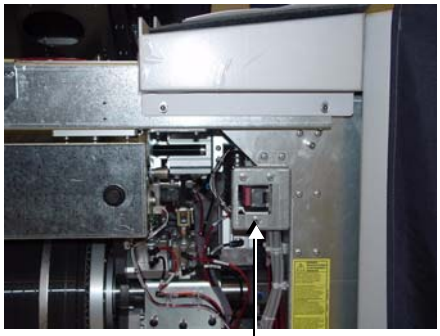


S100 Platesetter - two panels

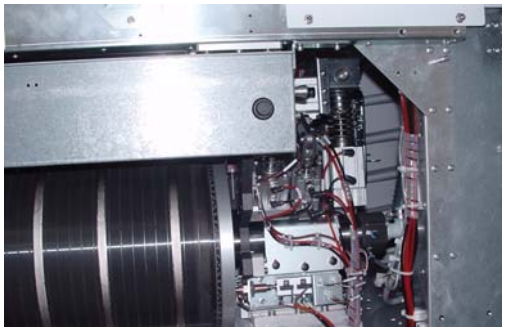


S300 Platesetter - one panel

Please note that as a result, the S300 platesetters *do not* have a safety switch on the right front upper corner.



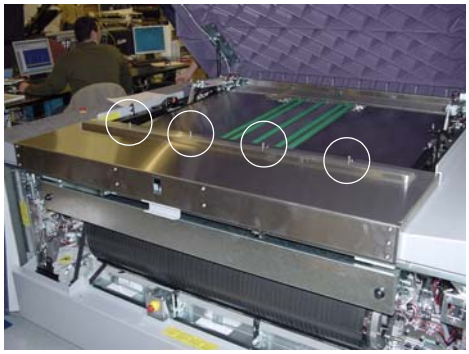
Safety switch on S100



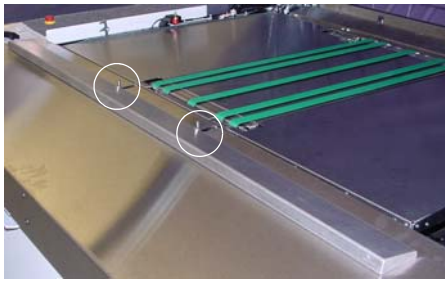
No safety switch on S300

The Loading Platform Shutter

The number of pins composing the loading platform shutter has been reduces from *four* to *two*.

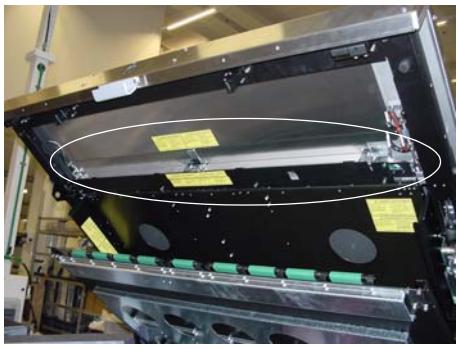


Four-pin shutter on S100

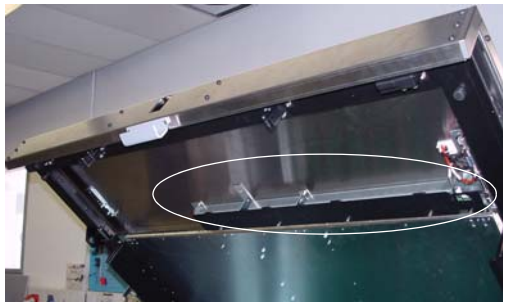


Two-pin shutter on S300

As a result, the shutter mechanism under the loading table is now shorter.



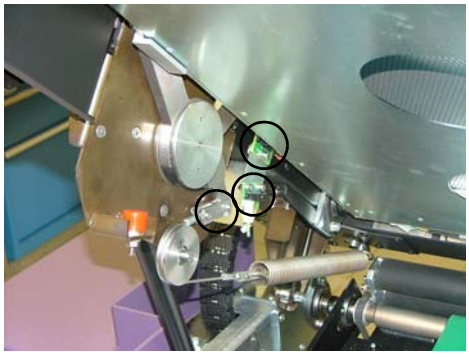
Long shutter mechanism on



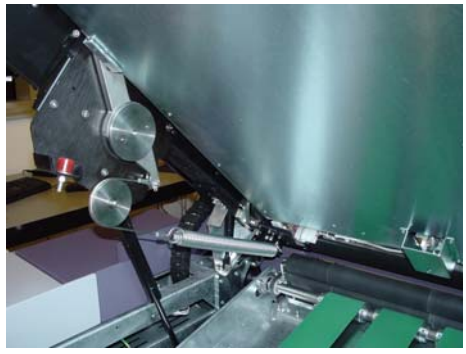
Short shutter mechanism on S300

Loading Platform Detectors

The three slot detectors located at the left hand side of the loading platform were removed since they were redundant. The three identical detectors at the right hand side remain as they were.



S100 loading platform with the slot detectors



S300 loading platform without the slot detectors

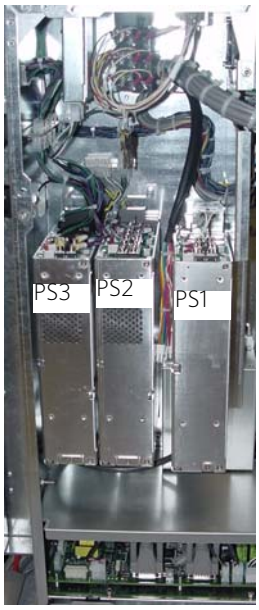
Power Supply

In the S300 devices, the autoloader's power supply was removed from the autoloader and is located in the platesetter. As a result, the S100 PS3 power supply unit was replaced with a new one.

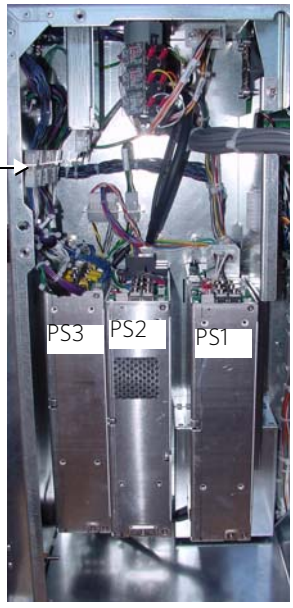
The S300 SP3 power supply unit:

- has the same rating
- is produced by the same manufacturer
- is backward compatible

- has a different form factor
- has two additional connectors

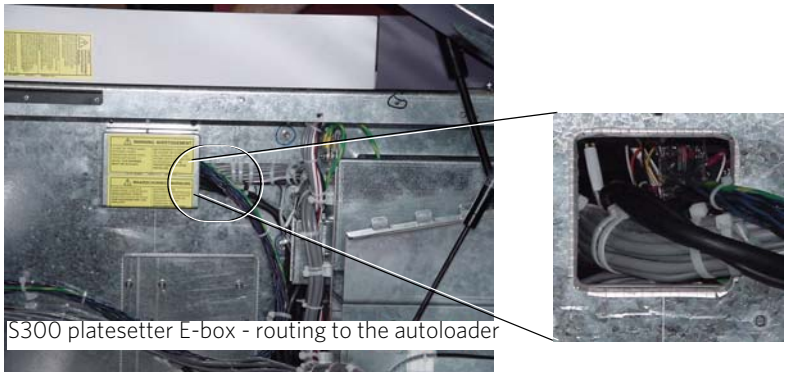


S100 platesetter power supply



S300 platesetter power supply

As a result, an additional harness needs to be routed from the autoloader to the platesetter. The wiring to the autoloader is routed via the upper opening.



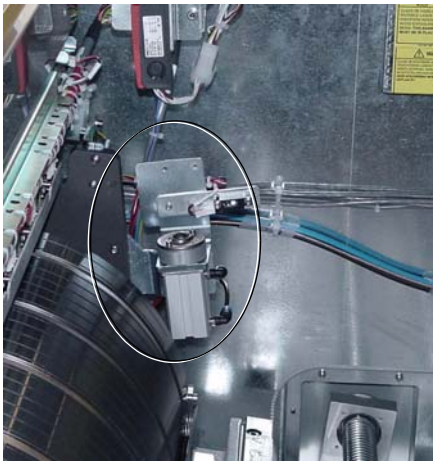
S300 platesetter E-box - routing to the autoloader

For detailed explanations, refer to the Magnus 800 Single-Cassette Autoloader S300 installation guide on TechPlanet:
http://techplanet.creo.com/cedirlink/redirectlink.asp?ID=19073

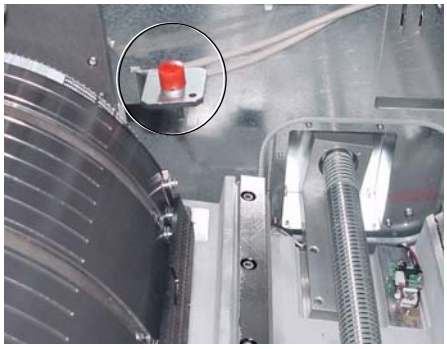
The Unloading Platform

In the S300 devices, the left hand side unloading actuator was removed. Since the unloading platform is not as heavy as originally expected, only the right hand side actuator is now responsible for lifting the platform.

A bumper is located where the left hand side unloading actuator used to be in the S100 devices.



S100 the left hand side unloading actuator

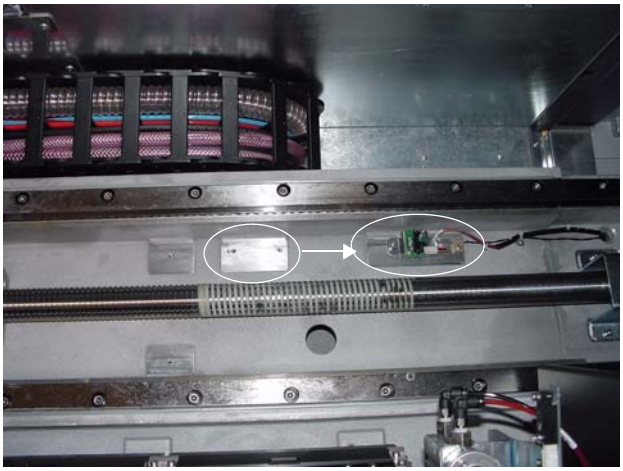


S300 the left hand side bumper

Carriage Home Detector

The Carriage Home Detector is relocated in the S300 devices to make the carriage compatible for the thermal 3 imaging head (TH3). It is now located to the right of its original location.

As a result, the home position flag became longer.



S300 relocation of the Carriage Home Detector

The Pneumatic System

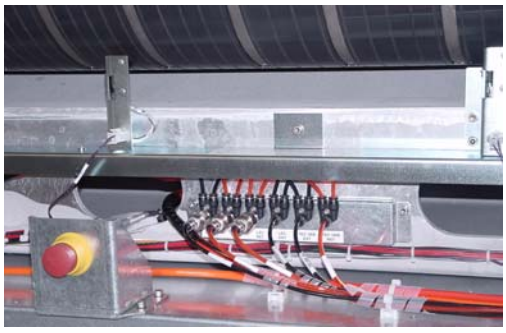
Front Branching Box

In order to simplify the tubing and remove any unnecessary air distribution units, the front branching box was changed. The location of some of the fixed orifices was moved the to the air cylinders.

In addition, the emergency switch bracket was shortened.



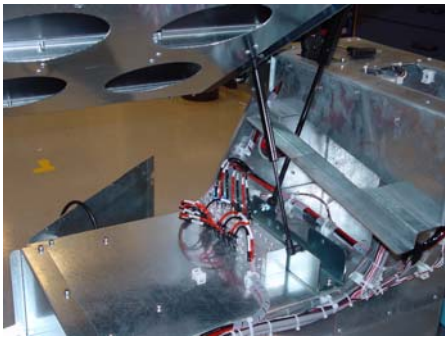
S100 front branching box and emergency switch bracket



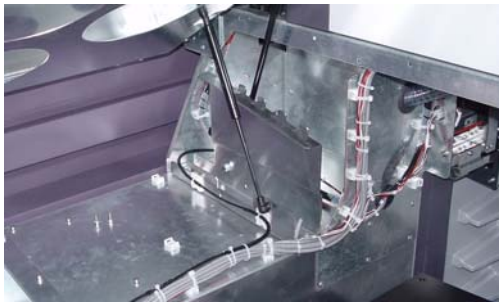
S300 front branching box and emergency switch bracket

Rear Branching Box

In order to simplify the tubing and remove any unnecessary air distribution units, the rear branching box was removed altogether. The location of all of the fixed orifices was moved the to the air cylinders.



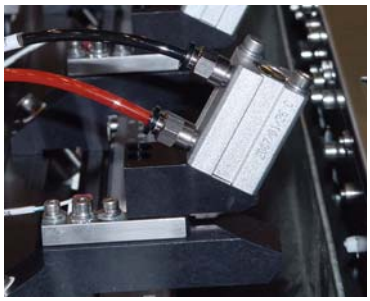
S100 rear branching box



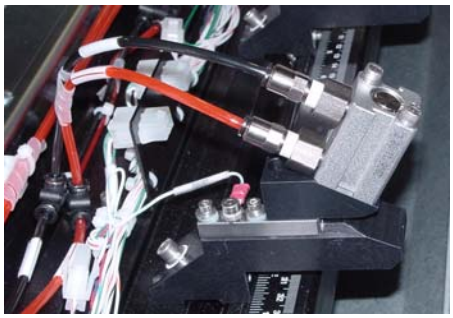
S300 - no rear branching box

Cylinders

All the fixed orifices from the rear branching box, as well as some from the front branching box were moved to the air cylinders.



S100 - cylinder without fixed orifices



S300 - cylinder with fixed orifices

Vacuum Pump Contactor

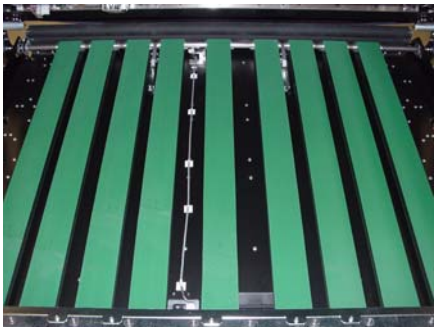
The electrical contactor that was used in the S100 platesetters appeared to be unreliable. For this reason, in the S300 platesetters the contactor was replaced. Instead of using an *ABB* contactor, a *Siemens* contactor is used.

The new vacuum pump control box unit which includes the new contactor is backward compatible.

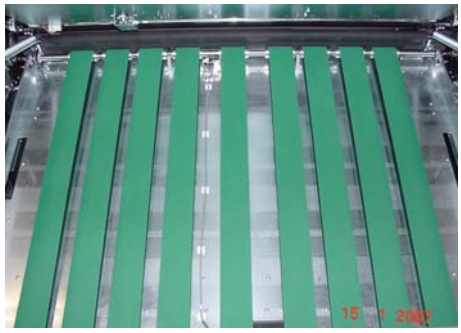
Note: you cannot replace any single contactor. When there is a need, you will have to replace the entire control box unit.

Unloading Platform Color

The color of the unloading platform in the S100 platesetters is black anodized. In the S300 platesetters it was changed to be uncoated silver color.



S100 unloading platform - black



S300 unloading platform - silver

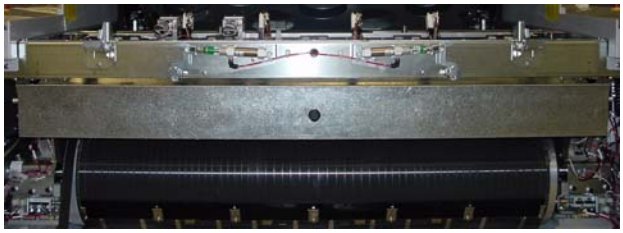
The Punch Bin

The punch bin of the S300 machines was slightly modified. Instead of two push buttons (as in the S100 devices), it now has only one push button.

To remove the punch bin from the machine you need to open the bin door first. The brackets supporting the bin were modified as well.



S100 punch bin



S300 punch bin

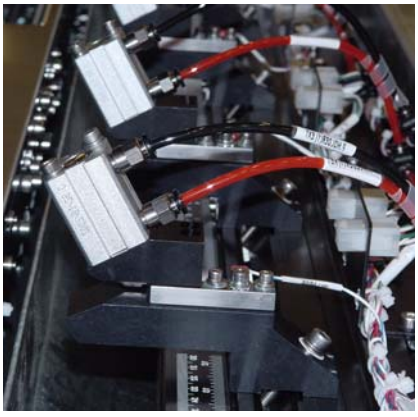
Plate Holders for Small Plates

The S300 plate holders for small plates were redesigned.

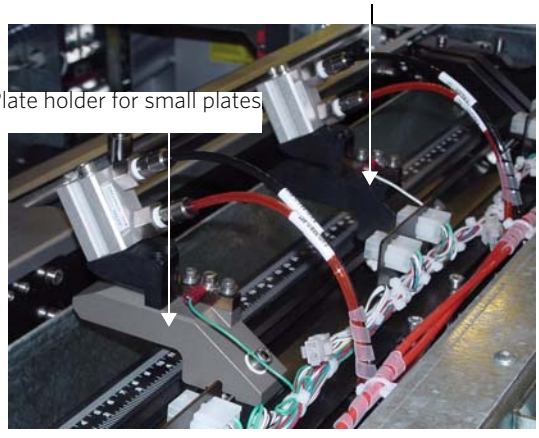
The S100 plate holders had a shim which moved the plate holder back by 0.5 mm. This shim introduced some tolerance problems and in some cases even caused problems achieving the punch to image accuracy.

The new S300 design uses a different base which is 0.5 mm shorter, and therefore shims are not required any longer.

To recognize the difference between the two designs, the color of the small plate holder base was changed from black anodized to clear anodized. (The color of the plate holder base for large plates remains black anodized.)



S100 plate holders for small plates



S100 plate holders for small plates

The Paper Bin

The paper bin of the S300 machines was modified. Instead of wheels (as in the S100 devices), it now has plastic legs.

keeping the paper bin static helps the slip sheets fall properly into the bin.

Lesson 4 Identify the Changes in the Autoloader

slide 1-5



How This Lesson Will Help You

This lesson maps the changes that were made in the mechanical, electronics and pneumatic systems of the Magnus 800 autoloader.

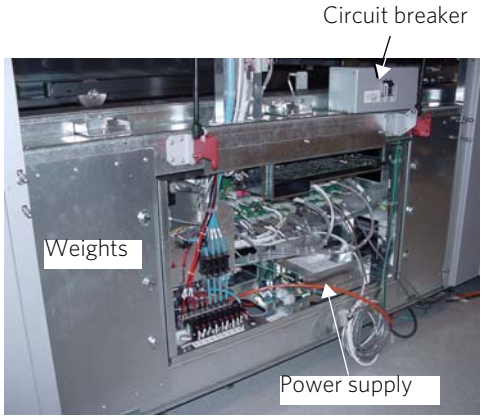


Topics in This Lesson

- The E-box
- The Weights
- The Vacuum Generators
- The SCU Locking Mechanism
- Top Covers' Guides
- Loading Conveyor Latch
- The SCU Trolley Industrial Design

The E-box

The power supply to the autoloader is coming from the platesetter in the S300 devices. As a result, the power supply unit and the circuit breaker were removed altogether from the autoloader. In the S300 devices, the autoloader receives only low voltage.



S100 autoloader E-box



S300 autoloader E-box

The Weights

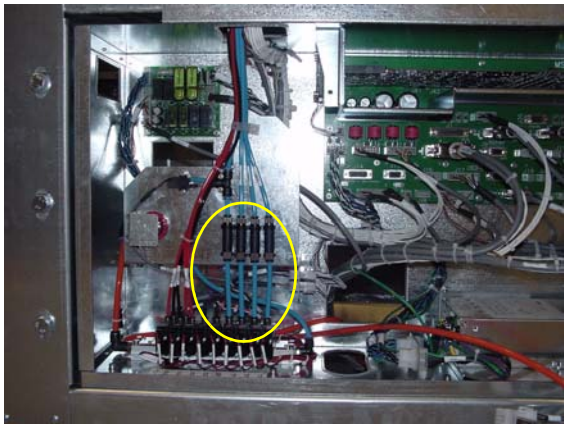
Since an interface jig (see page 6) was added between the autoloader and the platesetter in the S300 devices, 400 kg of steel weights which were used for stabilizing the autoloader in the S100 devices were taken out.

This reduction of weight makes the autoloader easier to maneuver on site, and lowers the shipping costs.

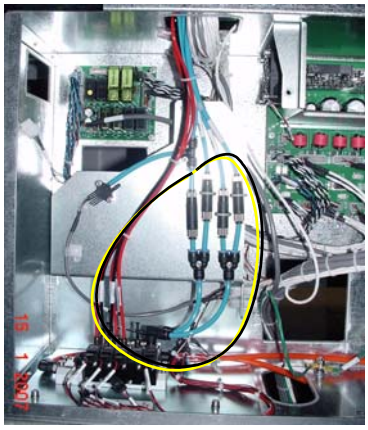
The Vacuum Generators

In the S300 autoloader, three out of the four vacuum generator valves were removed. This simplifies the vacuum system and reduces the air usage.

The S300 autoloader will still have four vacuum generators, although all of them are connected to the same valve. As a result, the air regulator was removed. The air pressure measurements are taken from the left vacuum generator.



S100 autoloader air distribution



S300 autoloader air distribution

The SCU Locking Mechanism

In the S300 autoloader the cassette locker was cancelled. Instead, the shutter mechanism is used for locking the cassette inside the autoloader.

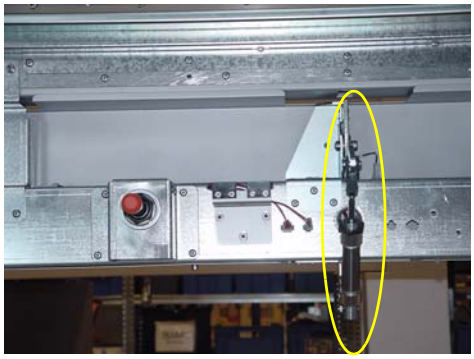
As a result, the following changes were made:

- one shock absorber was removed
- the cassette in autoloader adjustment mechanism was modified
- the cassette *will not* "jump" outside the autoloader when the operator releases it

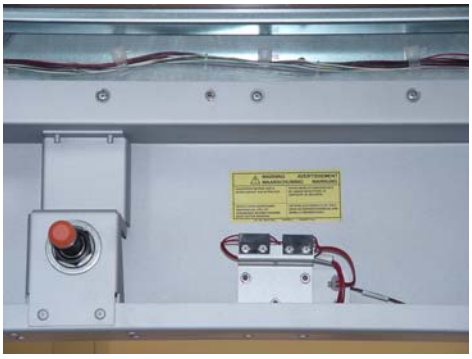
The functionality of the three magnetic switches in the S300 autoloader:

- Two are used in the safety loop

- One signals the cassette presence to the software



S100 - with SCU locking mechanism



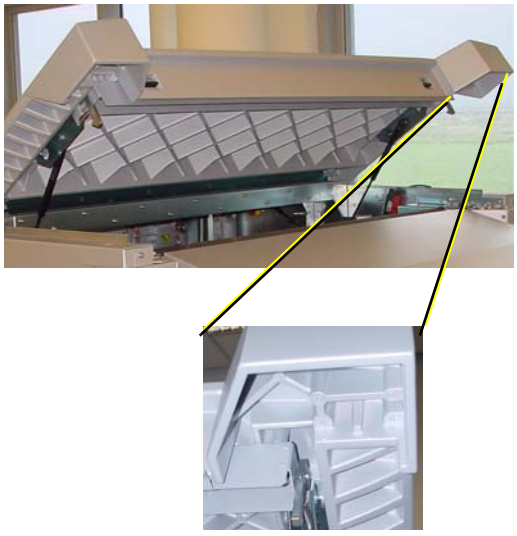
S300 - without SCU locking mechanism

Top Covers' Guides

In the S100, the metal guides on the autoloader front and rear covers that were used for ensuring that the load applied to the covers will be transferred to the chassis, were removed in the S300 since these guides were not as effective as expected.



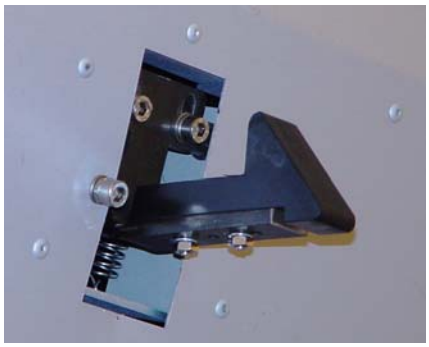
S100 - with safety switch guides



S300 - without safety switch guides

Loading Conveyor Latch

In the S300 autoloader, the design of the loading conveyor latch was slightly changed. This change allows better serviceability.



S100 - loading conveyor latch



S300 - loading conveyor latch

The SCU Trolley Industrial Design

In S300, the handle design of the SCU trolley was changed. It now has a look which is similar to the MCU user door handle.



S100 - trolley handle



S300 - trolley handle

Lesson 5 Identify the Changes in the MCU

slide 1-6

How This Lesson Will Help You

This lesson maps the changes that were made in the mechanical, electronics and pneumatic systems of the Magnus 800 MCU.

Topics in This Lesson

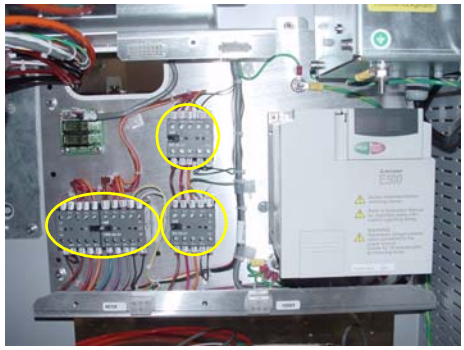
- The Motors' Contactors

The Motors' Contactors

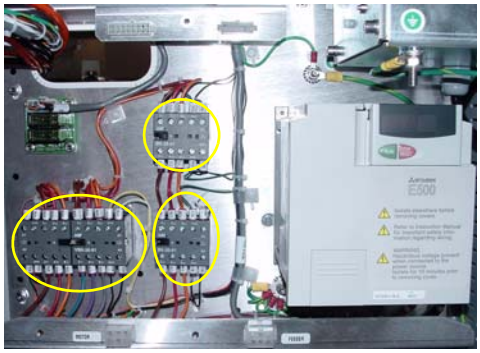
The electrical contactors for both the elevator motor and the feeder motor which were used in the S100 MCU appeared to be unreliable. For this reason, in the S300 MCU the contactors were replaced. Instead of using *ABB* contactors, *Siemens* contactors are used.

The new E-box assembly that includes the new contactor and the Mitsubishi controller is backward compatible.

Note: you cannot replace any single contactor. When there is a need, you will have to replace the entire assembly.



S100 E-box assembly



S300 E-box assembly

Lesson 6 Identify the Changes in the PC

slide 1-7



How This Lesson Will Help You

This lesson maps the changes that were made in the Magnus 800 PC.



Topics in This Lesson

- The PC Model

The PC Model

Since the model that was used in the S100 devices has been designated as an end-of-life product, and IBM sold it's entire PC business to Lenovo, the S300 PC model was changed from *IBM x206m* to *Lenovo M55e Tower: 9637*

This way, the supplier stays practically the same, and both the service level agreement and the PC performance stay as they were.

The S300 PC still has Windows 2003 server operating system, but the boot image CD has changed due to the PC chipset change. The new boot image CS contains the operating system and the common applications.

The PC Spec

- Model: IBM ThinkCentre M55e - Tower
- CPU: Intel Pentium D 925 Processor (3.0GHz 800MHz FSB 2x2M L2)
- IDE Controller: Serial ATA/Ultra ATA-100
- Hard Disk: 80 GB 7200rpm Serial ATA
- Memory: 1GB PC2-5300 SDRAM (2 X 512M)
- Optical Drive: DVD Recordable with WinDVD s/w
- Graphic Controller: Intel GMA Integrated Graphics
- Sound Controller: Integrated SoundMax w/SPX Audio (ADI 1986 HD)
- Network Controller: Gigabit Ethernet- Integrated
- Mouse: Lenovo Optical Wheel Mouse USB
- Keyboard: Lenovo Preferred Pro Full Size Keyboard - English
- Serial Ports: 2
- Floppy: None
- Warranty: 3 years next business day on site

- Operating System: Windows 2003 Server



For the full Lenovo M55e Tower: 9637 user guide, please refer to:
http://www-307.ibm.com/pc/support/site.wss/MIGR-65136.html

Self-Assessment

This self-assessment activity will help you:

- Confirm your knowledge of the differences between the Magnus 800 S100 devices and the Magnus 800 S300 devices.
- Identify areas for more practice

How well are you doing?

How do you rate your ability to do the tasks in each lesson?

Lesson	Poor	Fair	Good	Excellent
Identify the General Characteristics of the S300 Devices	☐	☐	☐	☐
Identify the Changes in the Installation Procedures	☐	☐	☐	☐
Identify the Changes in the Platesetter	☐	☐	☐	☐
Identify the Changes in the Autoloader	☐	☐	☐	☐
Identify the Changes in the MCU	☐	☐	☐	☐
Identify the Changes in the PC	☐	☐	☐	☐

Areas where you feel you need more training and practice:

1.

2.

3.

Evaluation of Internal Self-Study Course

Our goal is to make this course as relevant and effective as possible for our customers. We value your feedback highly and request that you complete this evaluation form and send it to **sigalit.barzilai@kodak.com**.

Your name:	
Title:	
Company's name:	
Phone number:	
Course:	Magnus 800 Series 300 - Delta course
Date:	

Course:

	(1) Not at all	**(2)**	**(3)**	**(4) Completely**
Addressed your needs	☐	☐	☐	☐
Presented the topics in the most logical order	☐	☐	☐	☐
Provided exercises that reinforced "need to know" topics	☐	☐	☐	☐
Improved your confidence with the product	☐	☐	☐	☐

Course Material:

	(1) Don't Agree	**(2)**	**(3)**	**(4) Fully Agree**
Is well written and easy to understand	☐	☐	☐	☐
Contains useful information	☐	☐	☐	☐
Is well designed and organized	☐	☐	☐	☐
Is suitable for independent study	☐	☐	☐	☐

	(1) Don't Agree	(2)	(3)	(4) Fully Agree
Includes enough theory	☐	☐	☐	☐
Includes enough practice and exercises	☐	☐	☐	☐

How do you rate this course on a scale of 1 (very bad) to 6 (excellent)?

_____

Are there any subjects that you think should be added to the course or given more attention?

_____

_____

_____

Are there any exercises that you think should be added to the course?

_____

_____

_____

Comments:

_____

_____

_____

_____

Kodak

Eastman Kodak Company
343 State Street
Rochester, NY 14650 U.S.A.

© Kodak, 2006. All rights reserved.
TM: Kodak

To learn more about solutions from Kodak, visit http://graphics.kodak.com/.

Subject to technical change without notice.