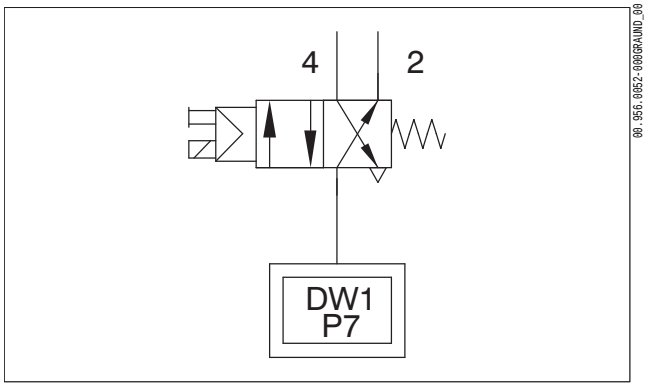
BAUMPRINT 18 PNUEMATIC DIAGRAM

00.956.0202-000UTKENU_06

Preface

1.1 Notes for the user



00.956.0052-000GRAUND_00

Fig. 1 Valve with same function location and place of installation

Target group

This pneumatic diagram is intended for use by the authorized service staff of our Dealers
The pneumatic diagram shall help them to perform service work quickly and efficiently on the customer's premises.

Explanations for the pneumatic diagram

The pneumatic diagrams contain symbols as those shown in Fig. .

The symbols for valves inform about

- the function location,
- the place of installation and
- the valve description.

In the following pneumatic diagram, the function location and the place of installation of the valve are in the **same** place so that only

- the function location e.g. PU1 (Fig.) and
- the valve description e.g. P7 (Fig.) are given.

Topicality

The information provided in this manual corresponds to the series version of the press at the time of publication of this document. We reserve the right to make changes in accordance with the progress of modern technology.

Please contact your Baum Dealers if you are unsure about any of the information contained in this document.

Copyright clause

Essential parts, devices and assemblies as well as software, control and measuring devices of our printing presses are internationally protected by copyright, patents and other intellectual property laws and regulations.

The reproduction, distribution and utilization of this document as well as the communication of its contents to others without express authorization is prohibited. Offenders will be held liable for the payment of damages. All rights reserved in the event of the grant of a patent, utility model or design.

Copyright, manufacturer's address

Baumfolder Corp

P.O. Box 728

Sidney Ohio 45365

Preface

Table of Contents

A General information

General information

1 Basic safety instructions

1.1 Performing service work in compliance with regulations

Only authorized and qualified personnel may perform service work. The following sections need to be observed by all authorized and qualified personnel when performing service work.

1.2 Description of authorized and professionally qualified personnel

Authorized and professionally qualified personnel are persons with the following characteristics:

- Authorization and commissioning by the Heidelberg Service.
- Appropriate technical expertise obtained through Baum Dealers
- Observation of the safety instructions and safety-relevant information in the operating manual.
- Sufficient knowledge of relevant:
  - national legal requirements,
  - standards and directives,
  - rules of technology,
  - regulations on safety, accident prevention, occupational health and safety and environmental protection.
- Ability to perform the required skilled work in a safe and successful manner.
- Ability to recognize any (residual) dangers that might occur during their expert work and to eliminate them through appropriate safety measures, or at least to reduce them to a minimum.

1.3 Installation of the printing press

- The permissible capacity of lifting tools, gantries and floor conveyors must not be exceeded.
- When handling lifting tools, make sure that all relevant safety regulations are observed.
- When using a gantry, make sure that the installation instructions for the corresponding gantry are observed.
- When using industrial trucks for lifting and moving printing press components, the operator of the vehicle needs to be in possession of the respective driving license. The safety regulations for handling floor conveyors must be observed.

1.4 Working on the press

1.4.1 General information

- The general and press-specific safety instructions in the operating manual must be observed at all times.
- Never manipulate or override safety equipment.
- If non-Baum manufactured equipment is attached or installed which is not offered by the Baum range of products or does not correspond to the specifications of Baumfolder Corp, Baumfolder Corp. will assume
  no liability and will accept no guarantee claims whatsoever.
- Installation, conversion and demounting of the press may only be performed by an authorized Baum Dealer.
  The operator must observe all applicable national safety and accident prevention regulations.
- All work on the printing press, associated units, electrical equipment and pneumatic and hydraulics systems must be carried out while the press is at standstill and switched off whenever possible.
- If you wish to operate the press despite the fact that protective devices have been removed (e.g. side frame guard) or control boxes are open, the following safety precautions are to be taken:
  - Point out dangerous actions, e.g. by providing warning signs with clear warnings (“Do not switch on the press!").
  - Instruct another person to secure the operating range and the press environment.
  - Pay special attention to rotating and moving parts.
- When demounting and mounting heavy parts or subassemblies, make sure to use appropriate supports and safety features to prevent possible dangerous situations.

1.4.2 Working on the electrical equipment

- When working on the electrical equipment of printing presses and associated units:
  - Disconnect the equipment from the mains, if possible.
  - Never replace components and subassemblies while the mains voltage is on!
  - Do not remove the PE conductor (protective earth PE).
  - If it was necessary to disconnect PE conductors leading from and to components do not forget to reconnect these afterwards.

1.4.3 ESD protective measures (protective measures for electro-static discharges)

- Discharge static charges by suitable measures (e.g. antistatic wrist band).
- Install and remove electronic subassemblies with care and attention.
- Store and transport the electronic subassembly in an ESD container at all times.
- When unpacking, check the protective container for ESDs for damage and replace, if there is any damage.
- Store the subassemblies at the following temperatures:
  - 25 °C minimum
  + 80 °C maximum.
- Before removing electronic subassemblies, the system must be disconnected from the mains and prevented from being switched back on again.
- After shutting down the equipment, wait for the discharge time to elapse.
  Recommended value for capacitor power parts with an intermediate circuit voltage of up to 400 V: approx. 15 minutes.

1.4.4 Special information on UV dryers and the relevant inks and varnishes

- Never look directly into UV tubes. If you wish to operate the press despite the fact that protective devices have been removed, all necessary radiation protection measures (e.g. safety goggles) must be in place.

1.4.5 Working on pneumatic and hydraulic systems

- When working on pneumatic and hydraulic systems:
  - Make sure that the system is depressurized before opening a pneumatic or hydraulic system .
  - During service work, secure the systems against unauthorized power-on.

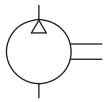
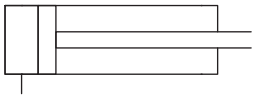
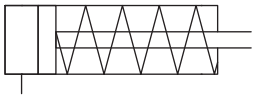
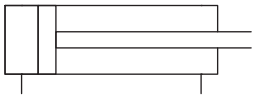
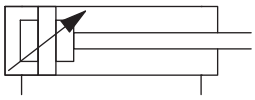
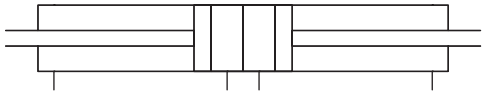
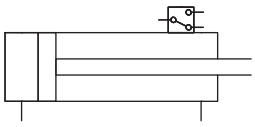
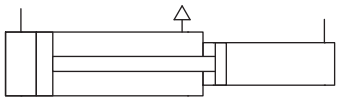
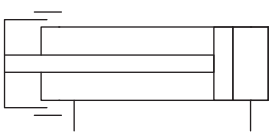
1.4.6 First start-up and restart after service work

- When putting the press into operation or replacing equipment and components, check all safety devices for correct functioning according to the Operating Manual, chapter "Protective devices".
- The position switches must be adjusted according to the adjusting instructions in the service manual, chapter "Safety".

2 Explanations for the pneumatic diagram

2.1 Pneumatic symbols

2.1.1 Energy conversion

Pneumatic symbols	Designation
	Compressor
	Single-acting cylinder, return stroke by external force
	Single-acting cylinder, return stroke by built-in compression spring
	Double-acting cylinder with single-ended piston rod
	Double-acting cylinder with adjustable cushioning at both piston ends
	Dual double-acting cylinder (special version)
	Double-acting cylinder with contact-free signaling
	Pressure intensifier
	Double-acting cylinder with additional guiding of the piston rod

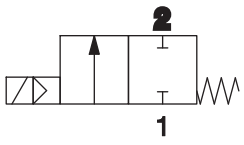
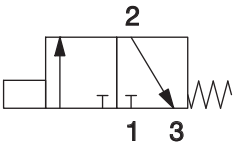
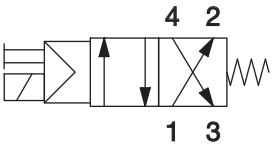
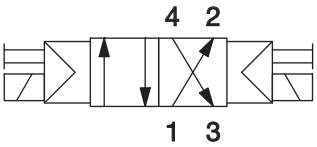
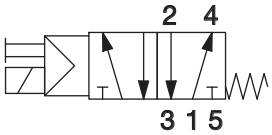
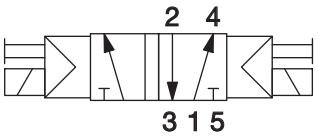
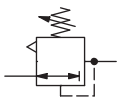
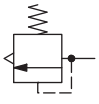
Tab. 1 Energy conversion

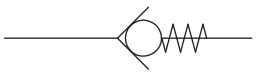
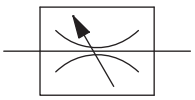
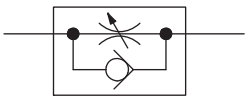
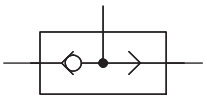
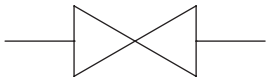
2.1.2 Control valves

Designation of the connections

Connections	Meaning
1	Supply, pressure port
2, 4	Power ports
3, 5	Outlet, bleeding
12, 14	Control ports

Tab. 2 Connections

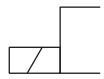
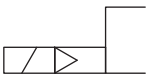
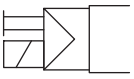
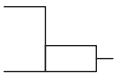
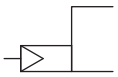
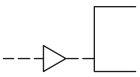
Pneumatic symbols	Designation
	2/2-directional control valve, closed in starting positions 1 and 2
	3/2-directional control valve, closed in starting position 1, 2-3 open
	4/2-directional control valve, open in starting positions 1-2 and 4-3
	4/2-directional control valve, open in starting positions 1-2 and 4-3, but bistable
	5/2-directional control valve, open in starting positions 1-4 and 2-3, 5 closed
	5/2-directional control valve, open in starting positions 1-4 and 2-3, 5 closed, but bistable
	Pressure control valve with relief port
	Pressure relief valve

Pneumatic symbols	Designation
	Check valve, spring-loaded
	Reducing valve, adjustable
	One-way restrictor, adjustable
	Shuttle valve
	Shut-off valve

Tab. 3 Control valves

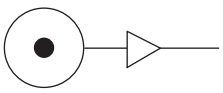
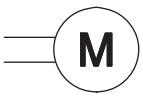
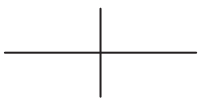
2.1.3 Actuation methods

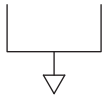
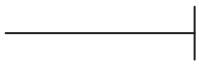
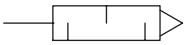
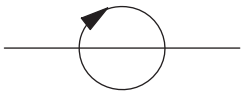
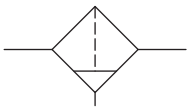
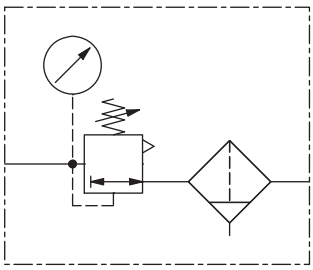
Pneumatic symbols	Designation
	General actuation
	Actuation by turning
	Actuation via pushbutton
	Actuation via tappet or feeler
	Notch for fixing the switching position
	Actuation by spring

Pneumatic symbols	Designation
	Actuation by electromagnet
	Actuation by electromagnet and pneumatic pilot valve
	Actuation by electromagnet or manually; in either case via pneumatic pilot valve
	Reset by pressurization
	Actuation by pressurization, indirectly via pilot valve
	Actuation by pressurization, directly

Tab. 4 Actuation methods

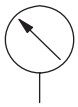
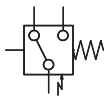
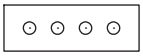
2.1.4 Energy transfer and preparation

Pneumatic symbols	Designation
	Pneumatic pressure source
	Electric motor
	Working line
	Line connection, with contact
	Line cross-over; lines are not connected with each other

Pneumatic symbols	Designation
	Bleeding without connection
	Bleeding with connection
	Pressure port closed (blind plug)
	Rapid-action coupling with mechanically opening check valve
	Silencer
	Rotary tube
	Air container
	Filter with manual draining
	Conditioning unit, consisting of filter with water separator, pressure control valve, pressure indicator and manual draining

Tab. 5 Energy transfer and preparation

2.1.5 Other devices

Pneumatic symbols	Designation
	Mechanical coupling, pneumatically actuated
	Coupling for air supply, pneumatically actuated
	Manometer
	Analog converter (pressure sensor)
	Pneumatic-electric pressure switch
	Switch, general
	Valve position
	Connections for valve position

Tab. 6 Other devices

2.2 Abbreviations

Abbreviation	Explanation
16-way	16-way
26-way	26-way
Feed	Feeder
Short feed	Short feeder
Long feed	Long feeder
D.S.	Drive side
S/l del	Short/long delivery
Del	Delivery
O.S.	Operator's side

Abbreviation	Explanation
MWD	Master washup device
PU	Printing unit
LPU	Last printing unit
IPU	Intermediate printing unit
ICWD	Impression cylinder wash-up device
IRWD	Inking roller washup device
BWD	Blanket washup device
Hydr. plug	Hydraulic system plug
ICE box	Imaging unit control box
CBWD	Coating blanket washup device
CU	Coating unit
Model-depend.	Depends on press model
P	Position
PND	Pneumatic diagram
UV	Ultraviolet
Perf	Perfector
C1/C2	Cylinder 1/cylinder 2
IPU	Intermediate printing unit
CVU	Cylinder/valve unit
Sen	Sensor

Tab. 7 Abbreviations

B Total overview

Total overview

A1.034.1000-000UTKENU_00

1 Overview

1.1 Total overview

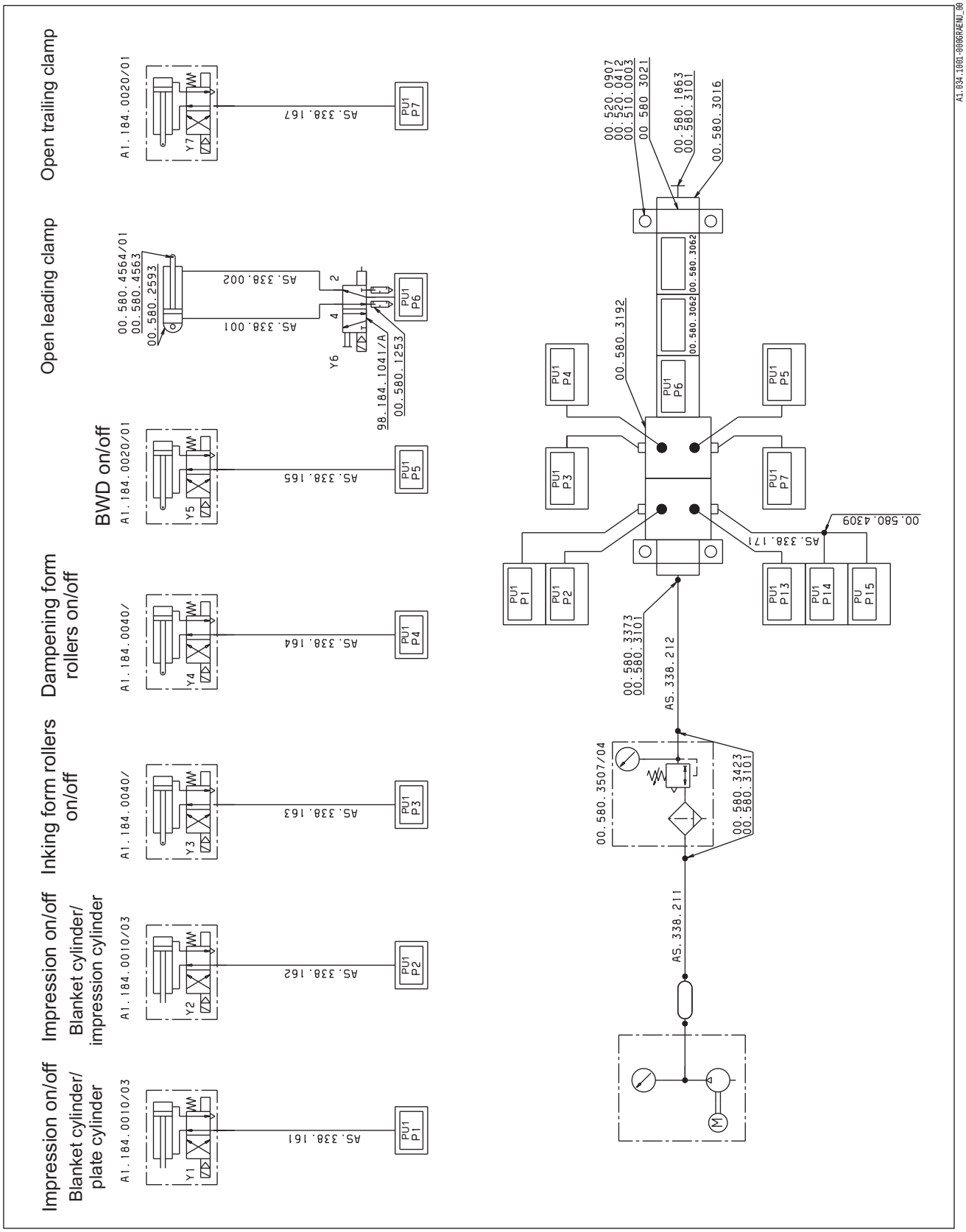


Fig. 1 Overview, part 1

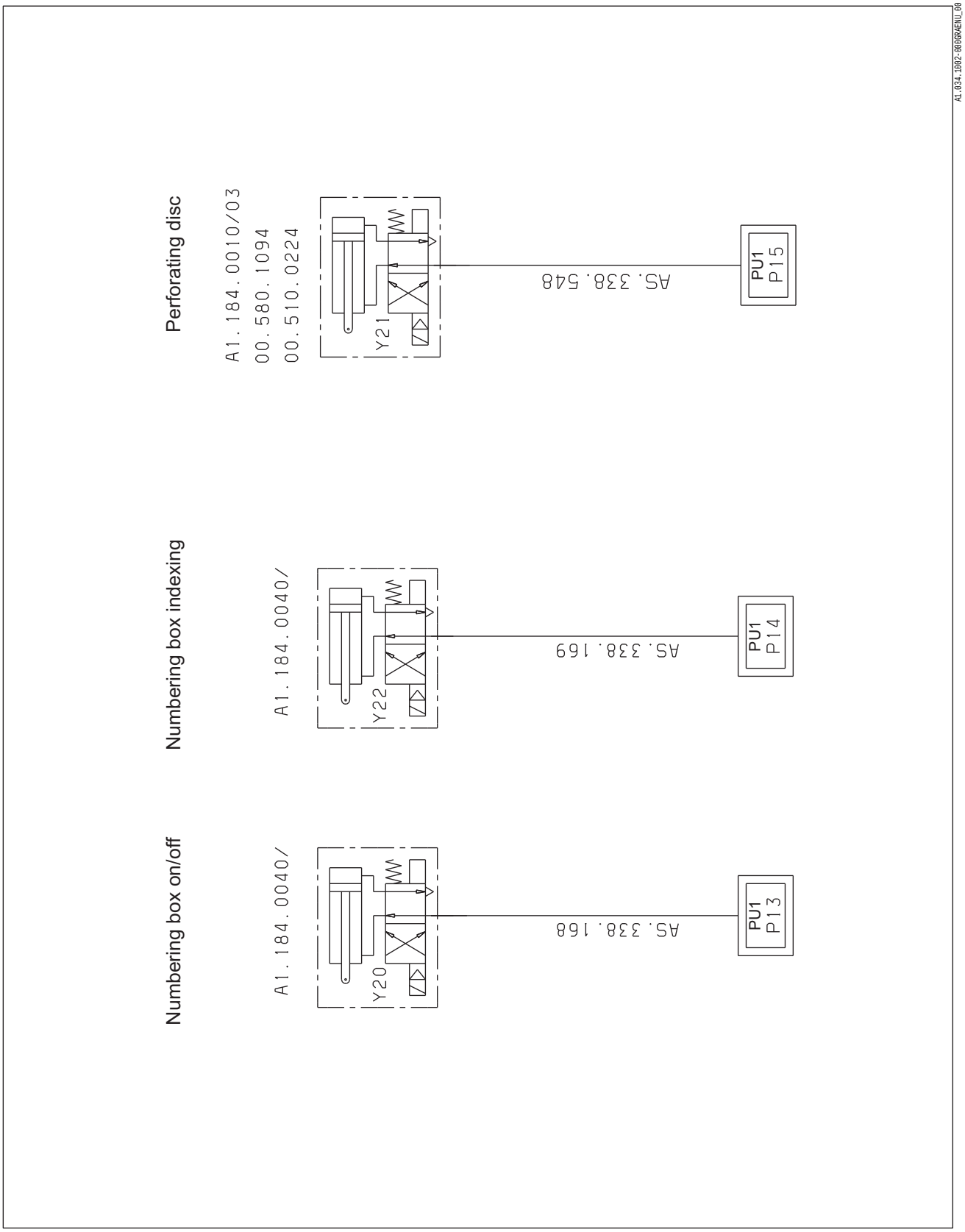


Fig. 2 Overview, part 2

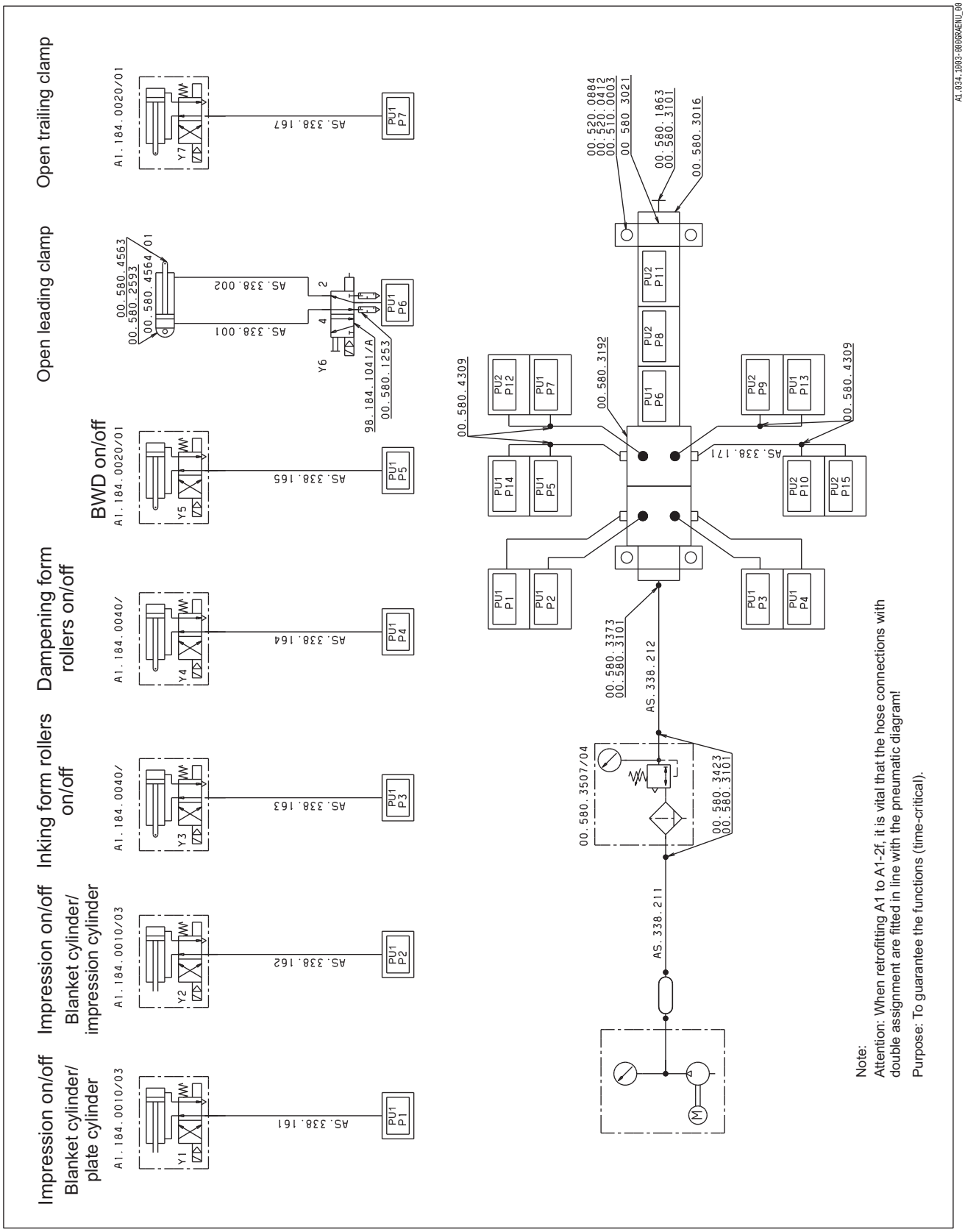


Fig. 3 Overview, part 3

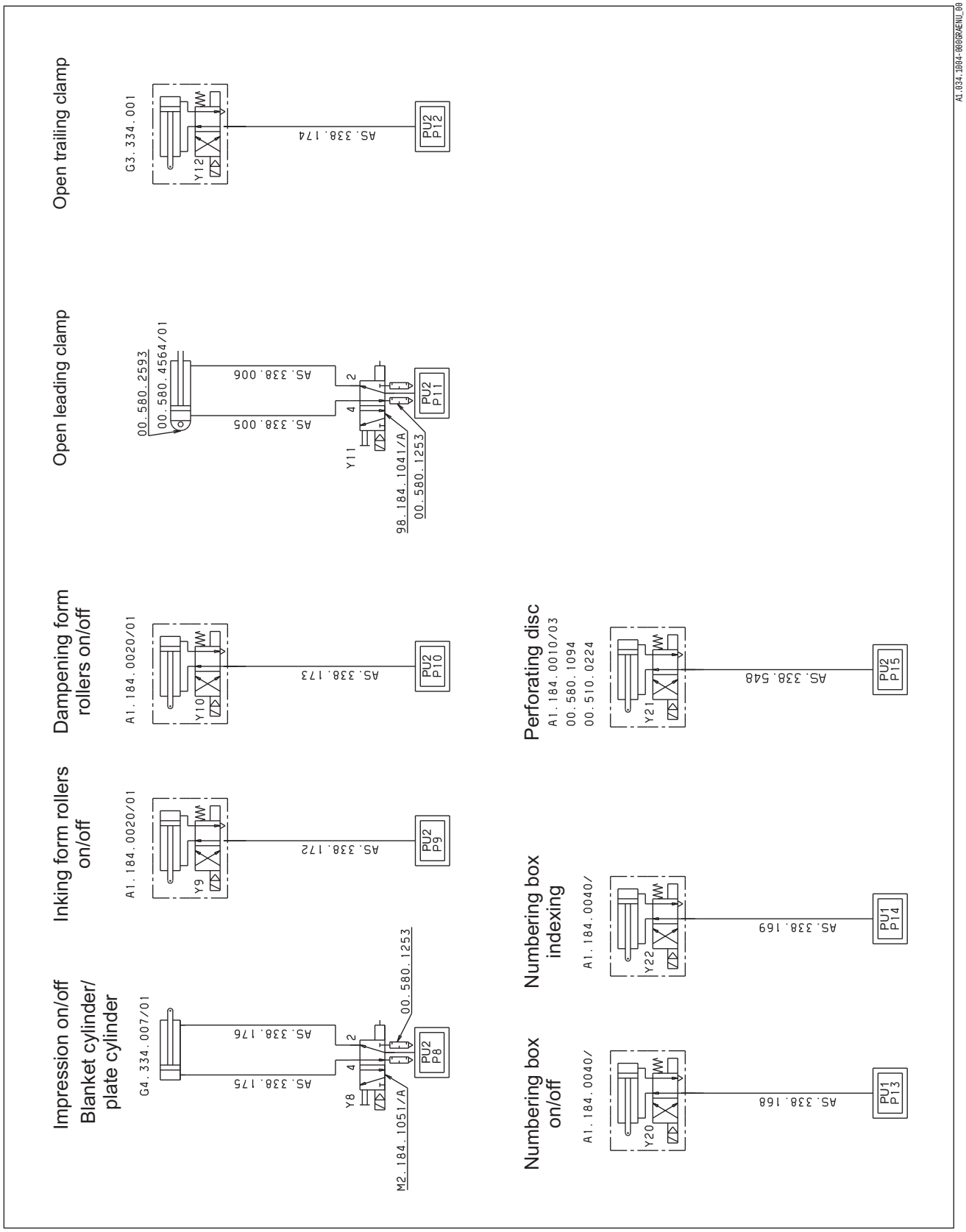


Fig. 4 Overview, part 4

Index

Baumfolder has authorized dealers located throughout the United States.

Call toll free, **1-800/543-6107** for parts or the number of your nearest authorized dealer.

BAUMFOLDER
CORPORATION
Quality Bindery Equipment Since 1917

1660 Campbell Road
Sidney, Ohio 45365-0728
Phone: 937/492-1281 or 800/543-6107
Fax: 800/452-0947
Internet: www.baumfolder.com
E-mail: baumfolder@baumfolder.com