

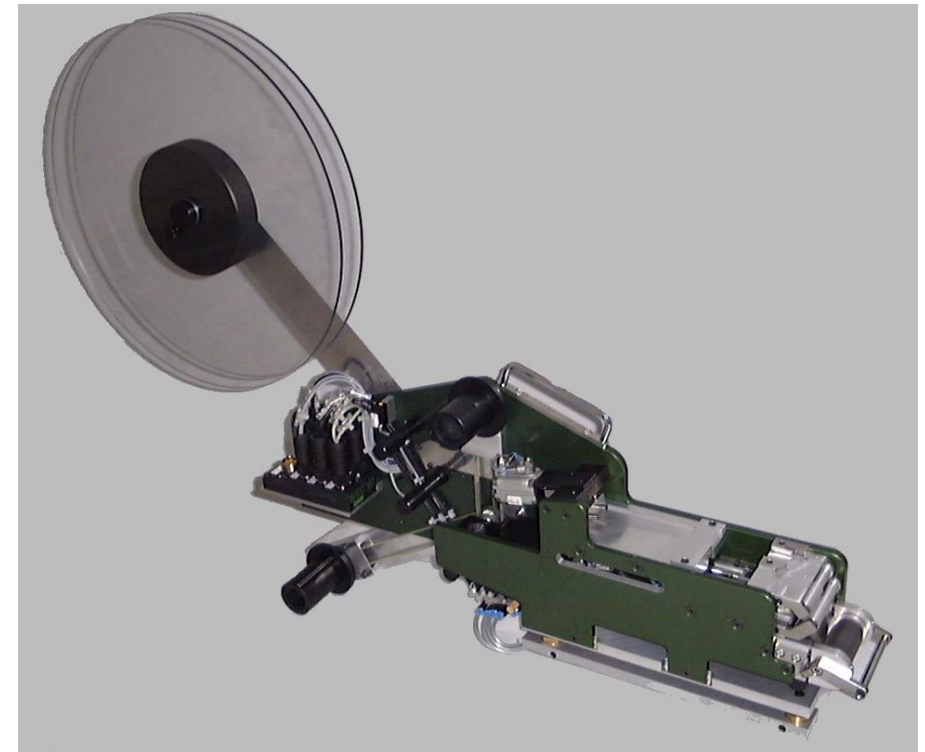
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# DEPRAG

## Operating instructions

### Tape Feeder

0111-P-2



# DEPRAG

## DEPRAG SCHULZ GMBH u. CO.

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CERTIFIED AS PER DIN EN ISO 9001

Dec-03 Technical alterations reserved

## Dear Customer:

Congratulations; you chose the enclosed Tape Feeder (designated in this OP-Instruction as TZG) from an extensive DEPRAG product line. This machine is the result of more than 60 years experience in the design and manufacturing of pneumatic tools and assembly machines for the industrial market. We offer a complete program of pneumatic tools, such as Drills, Tappers, Grinders, Screwdrivers, Impact Wrenches, Metal Working Tools and Hammers. As a competent partner, DEPRAG has the solution to all requirements in the area of screw assemblies, from the simple hand-tool to a complete X-Y-Z Screwdriving Cell.

We kindly ask, that you read these operating instructions carefully, so that you will be able to use this tool safely and for many years to come. If you need additional information, please contact your DEPRAG Representative or contact us direct at DEPRAG. We will be happy to answer any questions. We hope you will be pleased with your new machine!

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## 11. All important data at a glance

Manufacturer: DEPRAG-SCHULZ GMBH & CO.  
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Subsidiary: DEPRAG INC.  
Address: 645 Hembry Street  
Lewisville, TX 75057  
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<b>Type</b>	<b>TZG 0111</b>
<b>Part Number</b>	.....
<b>Serial Number</b>	.....
<b>Voltage</b>	24 VDC
<b>Output</b>	30VA
<b>Operating Air Pressure</b>	max. 6 bar
<b>Protection Class</b>	1
<b>Weight</b>	c. 17 kg
<b>Noise Level</b>	< 60 dB(A)

## 10. EC-Declaration of Manufacturer

### EC-Declaration of Manufacturer in accordance with the CE-Machine-Guideline 98/37/EG, appendix II B

DEPRAG SCHULZ GMBH u. CO.  
P.O. Box 1352

92203 Amberg, Germany

declares, that the construction of

the feeder

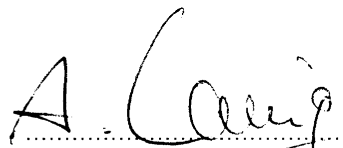
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is appointed to the assembly with another machine and the start of operation of this other machine is prohibited until it is proved that it is in accordance with the CE-Machine-Guideline i.d. F. 98/37/EG:

Applicable Standard:

- EN 292
- 73/23/EWG

Amberg, 19.12. 2003

  
Dipl. Ing. (FH) A. Lanig  
Mr. Design Dept.



Before operating tool make sure to carefully read and observe this operating instruction.

## 1. General Safety / Technical Information

Please read carefully the provided Operating Instructions and adhere to all Safety Information, prior to use of this device.

All items which directly relate to the safety of the Operator and the error-free operation of the feeder, are marked in the Operating Instructions with:

!

If this feeder is being used by several Operators, all safety instructions have to be submitted to all of those operators.

This Tape Feeder has been designed and constructed for the sole purpose of supply mass-components. The use of this unit in any other way, is not acceptable. Furthermore DEPRAG is not liable for damages, resulting from the misuse of the instrument; the user alone is liable.

The correct use of the instrument includes compliance with all Operating-, Maintenance-, and Repair Instructions, which are considered an integral part.

The Tape Feeder can only be operated, maintained, and repaired by personnel who are familiar with the device and have been instructed about its dangers.

All relevant accident-preventions instructions, as well as general acknowledged safety rules and workers protection regulations must be adhered to.

Arbitrary changes made to the device by the user will void the liability of the manufacturer for resulting damages.

The Tape Feeder itself contains safety- and danger markings on safety related areas.

## 2. Set-up and operation of „Tape-on-reel“-feeder TZG (see picture 1)

„Tape-on-reel“-feeder will be fixed by mounting base plate of feeder onto base plate of assembly system using screws M6 DIN 912. In order to avoid sliding, additional pin holes for cylinder pins with 6 mm dia. (DIN 6325) are provided in the base plate of „Tape-on-reel“-feeder (see picture 1).

Connect valve block of feeder to compressed air supply. Make sure to keep working air pressure at 6 bar. Connect feeder to controller by screwing multipolar angular plug onto electric distributor on feeder.

## 3. Inserting the tape (see picture 1)

### Note:

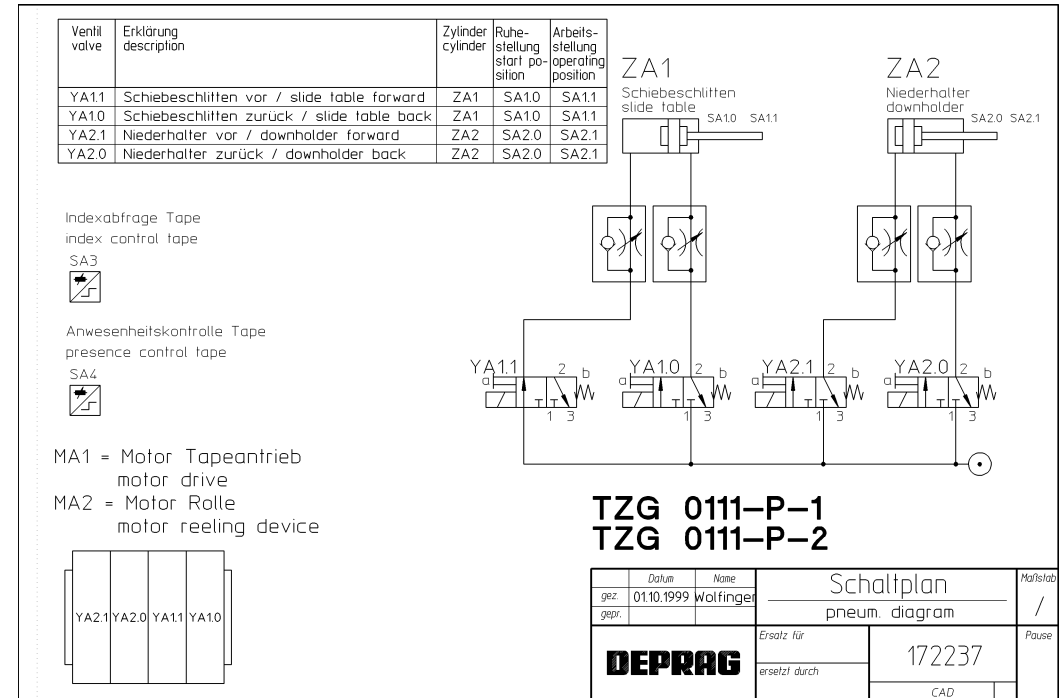
Before inserting a new tape feeder must be disconnected from air and power supply!

- Loosen knurled screw (pP7) at tape holder and remove cover.
- Insert new tape. Make sure to keep index holes on left side of feeder (if seen in direction of running tape).
- Re-attach cover and secure with knurled screw.
- Before inserting the new tape an appx. 0.75 m long area of the carrier tape must be free from feeding parts.
- The tape has to be inserted in the unit as per picture 1. Press down lever (P1) at the drive. Thus the front shaft of the two interlocked shafts will be pushed forward and the tape can be lined through.
- The cover foil will have to be attached at the respective reel of the angular device. For this a small noose can be formed around the fixing pins at the reel. Mind the reel's sense of rotation.
- Wind-up of carrier foil as per item 6 (before-mentioned).
- After line-up of tape, lever (P1) has to be re-set into starting position.

## 4. Adjusting possibilities on „Tape-on-reel“-feeder (see picture 1)

- Height adjustment of feeder possible by use of 4 brass nuts (P2) (thread pitch = 1 mm  $\Rightarrow$  1 turning by 360° = 1 mm difference in height)

## 8. Pneum. Diagram

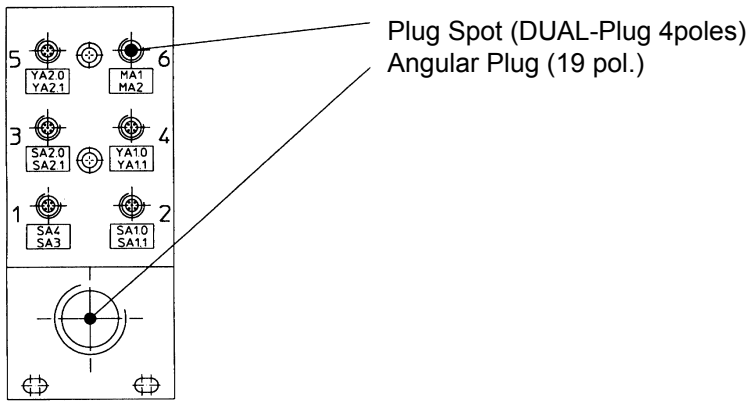


## 9. Spare parts list

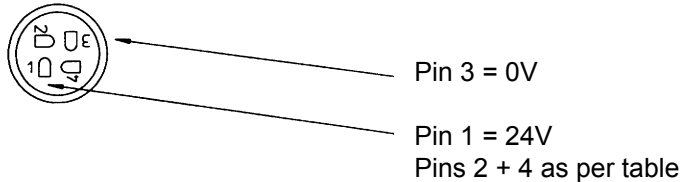
Designation:	Part ref.no.:
<b>motor MA1</b>	82 52 07
<b>motor MA2</b>	82 52 07
<b>index control SA3.0:</b>	
<b>amplifier</b>	82 39 85
<b>optical fibre cable</b>	82 18 10
<b>connection cable</b>	82 18 34
<b>presence control SA4.0:</b>	
<b>reflex light sensor</b>	82 53 22
<b>down-holder:</b>	
<b>cylinder ZA2</b>	82 35 27
<b>cylinder end switch</b>	82 53 75
<b>slide table:</b>	
<b>cylinder ZA1</b>	82 51 96
<b>cylinder end switch</b>	82 53 75

## 7. Elect. Pin Configuration

### Distributer Blok:



### DUAL-Plug 4poles



### PIN-Configuration

	Discription	DUAL-Plug 4poles	Angular Plug 19poles
Pin 1	SA4 Presence control tape	4	15
	SA3 Index control tape	2	7
Pin 2	SA1.0 Slide back	4	5
	SA1.1 Slide forward	2	4
Pin 3	SA2.0 Down holder back	4	16
	SA2.1 Down holder forward	2	8
Pin 4	YA1.0 Slide back	4	3
	YA1.1 Slide forward	2	14
Pin 5	YA2.0 Down holder back	4	17
	YA2.1 Down holder forward	2	9
Pin 6	MA1 Motor drive	4	2
	MA2 Motor reeling device	2	13
	Power supply 24V		19
	Power supply 0V		6

2. Parallelism and contact pressure of the two interlocked drive shafts toward each other can be adjusted by threaded pins (P3).
3. Stroke of slide table will be limited by stop screw (P4). Stroke has to be set as short as possible.
4. By moving the optic sensor (P5) it is possible to adjust the position of the parts to be fed on the slide table. For this purpose countersunk screw in the slide table has to be slightly loosened (not completely unscrewed). Then the optic sensor can be moved within a limited range.

### Information on the slip clutches in the two reeling units:

Transmission force of the slip clutches cannot be changed directly. The clutches are set as per the respective tapes by the manufacturer. However, if it is still necessary to change the transmission force, internal pressure springs must be exchanged.

## 5. Maintenance and inspection

**For all maintenance and inspection work feeders always must be disconnected from air and power supply before starting.**

Make sure to check and look at the feeders' moving parts in regular intervals, if necessary clean them and replace worn parts.

## 6. Quick disassembly and re-assembly of the „Tape-on-reel“-feeder

For a quick removal of the feeder all that needs to be done is to loosen screw P6. Then the feeder can be pulled out.

For re-integration the feeder will have to be put into the guiding groove on the base plate and pushed toward the front stop. Thus the exact position of the feeder is re-established.



### ATTENTION:

Some of the modules in this system are exposed without any safe-guarding due to their functions which may cause bruising and cutting accidents. When integrating the system into the final plant make sure to secure these modules by suitable safe-guarding devices (e.g. light curtains, safety enclosures, etc.).

