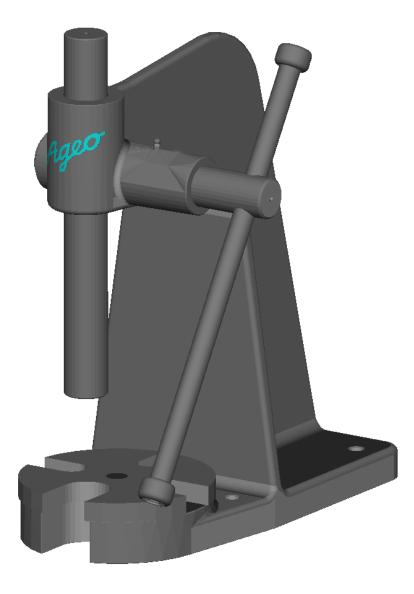


OPERATING MANUAL

Machine No.:

Model:

DP 500 DP 1000 DP 1000V DP 1500 DP 2000 DP 3000



Contents:

- Operating instructions
- Copyright
- Declaration of EG-Conformity
- Spare parts

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Appendix: Spare parts

Operating Instructions for Mandrel press AGEO – DP serial

1. Instruction

The AGEO-Mandrel press is a machine tool designed for daily operation, which has proven itself for decades. It is mainly used to push in or press out turning mandrels, bushings, roller bearings, bolts and pins, etc. and can also to be used for assembly work.

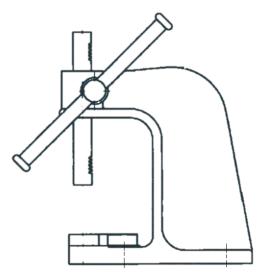
Bending jobs can be achieved with the relevant special tools. For smaller spaces of splines and similar profiles with corresponding broaches we recommend AGEO - mandrel press with ratchet drive

The length of the lever is so designed that the operator can easily apply the correct working pressure.

2. <u>Mounting:</u>

Before the AGEO-Mandrel press is used it must be bolted down on a suitable even, fortified industrial base, workbench or working table using suitable anchoring plugs.

This is crucial and essentially required to prevent tilting danger, which could cause serious injuries to the person using the press or in the vicinity.



If floor is uneven or not sufficiently fortified, the press may become unstable and could present a grave hazard for hands, feet or other parts of the body.

The approved safety regulations and guidelines are to be applied for the lifting and the transport of the AGEO-Mandrel press.

Safety regulations:

According to the European Union and the country in which the machine is to be operated.

3. **Operation**

Before the press is used, all unpainted parts must be freed of the anticorrosive protection. The moving parts and the guides must always be lightly greased.

The hand lever will operate the AGEO-Mandrel press. When the machine is not being operated, the press ram / plunger must be lowered to a point where an accidental movement of the ram / plunger is not possible.



4. <u>Warning notice</u>

Maintenance or repair must always be carried out by qualified persons with knowledge of

- safety regulations

- accident prevention regulations

- guidelines and approved rules of engineering (i.e. VDE-regulations, DIN EN- standards).

The qualified person must

- be able to evaluate the assigned job

- recognize and eliminate possible danger

- have the permission of the work safety officer to carry out the required work and requirements.

Please note:

* NEVER lengthen the lever with a tube or the like to increase the force of the press plunger. Otherwise there is danger of damaging machine parts through overload, and / or injury to the operator (by failure of components).

* NEVER force the lever into the start position, as this will damage the release bolt and possibly the associated mechanics. In this case, a normal work cycle is no longer possible and the danger of the operator being injured by the lever rises considerably.

* The hand wheel to adjust the press plunger may ONLY be moved when the lever is in the start position. Otherwise lever and press plunger may move downwards unintentionally, possibly causing injury to the operator.

ALL OPERATORS MUST BE INFORMED OF THIS FACT.

The manufacturer will not take responsibility for any damage!

5. <u>Performance and Maintenance</u>

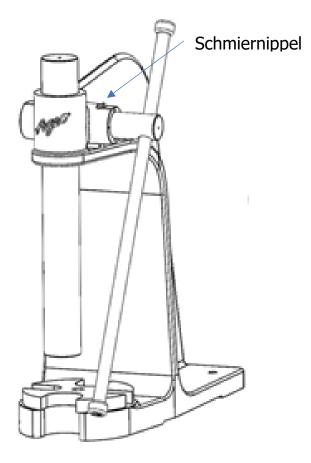
Performance:

The AGEO press is devised for a maximum performance of

-	5kN	(ca. 500 kg)
-	10kN	(ca. 1.000 kg)
-	10kN	(ca. 1.000 kg)
-	15kN	(ca. 1.500 kg)
-	20kN	(ca. 2.000 kg)
-	30kN	(ca. 3.000 kg)
	- -	- 10kN - 10kN - 15kN - 20kN

Maintenance:

Every 10 to 14 days, the machine must be lightly greased with a grease press at the lubrication nipples. To lengthen the operating life of the press plunger (ram/toothed rack), they should be kept clean and lightly greased.



When parts and components of the press reach the end of their economic lifetime, e.g. by wear, corrosion, mechanical stress, fatigue and/or through

other causes, they must be dismantled and disposed of according to national and international laws and guidelines.

The same applies to all used lubricants, grease and other materials.



Intentional or unintentional re-utilisation of worn parts, such as pinion shaft, pawl, etc. could endanger persons, machines and environment. All local laws must be applied.

When ordering spare parts, please advise the

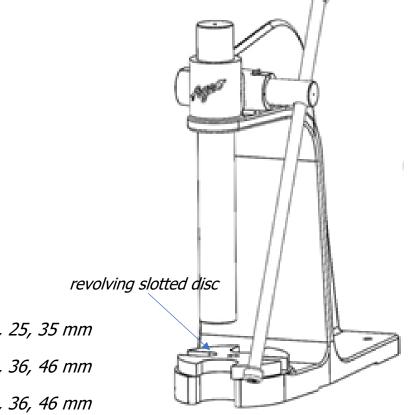
- model of the press
- machine number
- year of construction

This information can be found on the machine's name.

6. Special accessories

6.1 <u>Revolving slotted a disc as standard equipment</u>

As standard equipment, this press has a revolving slotted disc serving as base for the press plunger (ram/toothed rack). The four different open slots (clearance sizes depending on model of press, see below) serve as a quick aide to push out or press in bearings, bushings, rings, or bushes from shafts or similar.



- DP 500 15, 20, 25, 35 mm
- DP 1000 20, 28, 36, 46 mm
- DP 1000V 20, 28, 36, 46 mm
- DP 1500 20, 28, 36, 46 mm
- DP 2000 35, 50, 65, 80 mm
- DP 3000 35, 50, 65, 80 mm



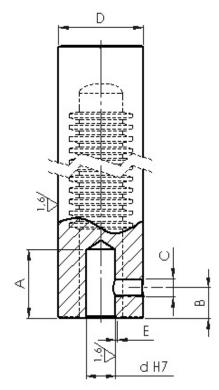
Beware of crushing or cutting fingers or hands.

6.2. Tool receiving socket in plunger (similar DIN810)

The plunger (ram/toothed rack) from a mandrel press can be furnished with a drilled hole to allow mounting of special tools (=tool receiving socket). The tool receiving socket is fitted centrically on the underside of the plunger. To secure the tool the grub screw on the side of the plunger is fastened to prevent the tool dropping out of the socket.

Note: Depending on the tool used the total weight of the plunger will change on account of the extra weight. When first using a tool always test and if necessary adjust the preload force of the plunger as stated in 3.2. of this operating manual.

The size of the tool receiving socket depends on the model of the press.

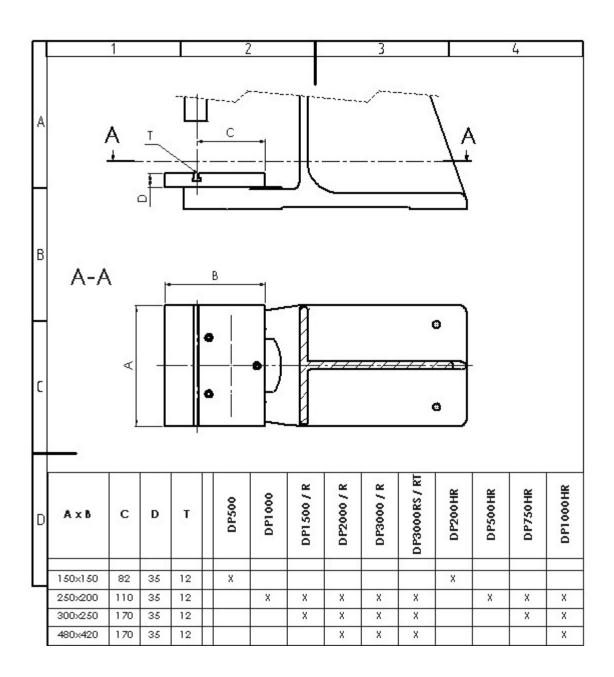


d H7	A B	P	с	Possible in ram Ø				E
			D 32	D 40	D 58	D 78	E	
10	28	12	M 8	X	X	X	X	1x45°
12	32	12	M 8	X	X	Х	X	1×45°
16	36	20	M 10	V///¥////	X////X/////	X	X	1x45°
20	45	20	M 12	1		X	X	1,6x45°
25	50	25	M 12			////\$////	X	1,6x45°
32	60	28	M16			X	111178/11/1	1,6x45°
40	75	40	M 20				X	2x45°
50	85	40	M 20				X	2x45°

6.3. <u>Clamping plate with T-slot</u>

Instead of the slotted disc we can offer a clamping plate with T-slot (DIN 650) in different sizes. A clamping plate with T-slot is convenient for mounting special devices, equipments and tools.

The clamping plate with T-slot is assembled in dead centre to the plunger.



6.4. Protection against torsion for the plunger (toothed rack)

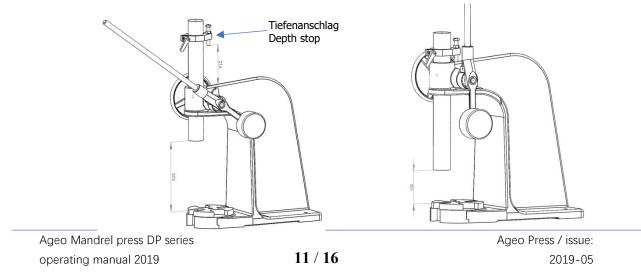
Bending, joining or assembling can lead to torsion forces. These torsion forces can alter the fitting accuracy of the tool and can also damage the plunger and / or pinion shaft. The protection against torsion for the plunger prevents this.



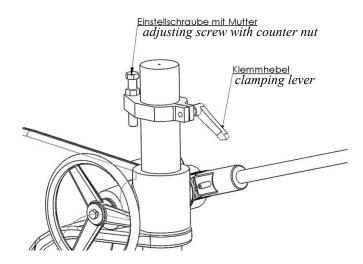
6.5. Depth stop adjustable

The adjustable AGEO depth stop for your mandrel press is solidly build and easy to use. It is generally used as a stroke limitation and can be adjusted to the needed dimension simply with only few hand movements.

By untightening the clamping lever the AGEO depth stop can be adjusted to the required level, tightening the clamping lever fixes the depth stop. Using a wrench (size depending on the mandrel press model) to loosen the adjusting screw with counter nut at the back of the depth stop is another possibility of adjustment.



After altering the position of the depth stop and initial operation the clamping lever and the counter nut of the adjusting screw <u>must</u> both be tested for stability to prevent unintentional and uncontrolled movement of the press or part of the press.



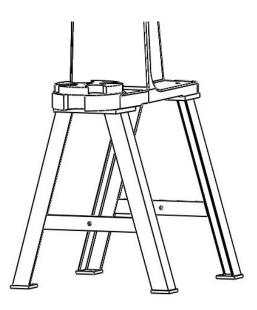
Beware: Danger of cutting and / or clamping of hands, fingers and body parts. Grave danger from flying parts!

6.6. <u>Pedestal</u>

The AGEO mandrel press (models of RS- and RT-series excepted) can be mounted on a pedestal. This is a sturdy welded construction and allows to achieve an operational height of approx. 720 mm.

The mandrel press with pedestal <u>must</u> be secured against uncontrolled tilting, sliding or slipping by bolting down on an even and fortified floor using suitable anchoring plugs, see 2. Mounting of the press, in this manual.

Under no circumstances must this be disregarded!



7. Declaration of EG-Conformity and technical documents

Copyright

The copyright for this manual and the contents remains with the manufacturer. This manual is intended only for the user company and its operators.

You may copy the manual for your own use. It contains regulations and details which may not, in full or in part,

- be copied,
- distributed, or
- disclosed to third persons.

Violations of these regulations may cause legal penalties.



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Ageo Mandrel press DP series operating manual 2019

CE

EG – DECLARATION OF CONFORMITY

In accordance with standard procedure 2006/42/EG

This model:

Name of manufacturer:

AGEO-Mandrel press

Model: DP 500 DP 1000 DP 1000V DP 1500 DP 2000 DP 3000

has been developed and manufactured in accordance with standard guidelines EG 2006/42/EG and is the responsibility of:

Ageo Press GmbH Werner-von-Siemens-Str. 35 D- 64319 Pfungstadt Germany

Following engineering standards have been applied:

- DIN EN 12100: Safety of machinery, appliances and plants.
- EN ISO 14121: Appraisal of risks.
- EN ISO 12100: Minimizing of risks.
- Complete technical documentation.
- The operating manual in English.

If necessary, special data pertaining to the machine may be submitted to official authorities.

Pfungstadt, 31.10.2018

Kirsten Press General Manager

