

EN

Maintenance Instructions

Needle gripper SNG-AP / SNGi-AE

Note

These maintenance instructions were written in the German language.
This document should be kept in a safe place for future reference.

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General Safety Instructions

 WARNING	
	<p>Ignoring the maintenance instructions</p> <p>Personal injuries / damage to plants / systems</p> <ul style="list-style-type: none"> ▶ Before performing maintenance on the gripper, the maintenance instructions must have been read and understood. This also applies to gripper-specific

Maintenance

The inside of the gripper can become dirty during operation.

ATTENTION	
	<p>Contamination of the guides and needle openings</p> <p>Damage to the gripper</p> <ul style="list-style-type: none"> ▶ During maintenance clean all signs of contamination. ▶ Observe the recommended maintenance intervals, see section 0

Open the maintenance openings on the gripper module as described in chapter 0, remove the needle holders and remove the dirt with a compressed-air gun.

 CAUTION	
	<p>Maintenance of the gripper under compressed air</p> <p>Personal injury and/or damage to property</p> <ul style="list-style-type: none"> ▶ Disconnect the gripper completely from the supply lines ▶ Secure the machine / plant / system so that it cannot be switched on again

 CAUTION	
	<p>Hot heat sink on the SNG-AE variant</p> <p>This presents a burn hazard</p> <ul style="list-style-type: none"> ▶ Let the gripper cool down

 CAUTION	
	<p>The needle holder can be forced out by compressed air (blown out)</p> <p>Damage to the eyes</p> <ul style="list-style-type: none"> ▶ Remove the needle holders before starting the cleaning procedure ▶ Wear protective glasses

 CAUTION	
 	<p>Air flow due to blowing out with compressed air</p> <p>Damage to the eyes</p> <ul style="list-style-type: none"> ▶ Do not look into the exhaust air flow ▶ Wear protective glasses

 CAUTION	
 	<p>Emission of respirable particles</p> <p>Damage to lungs and respiratory tract</p> <ul style="list-style-type: none"> ▶ Wear respiratory protection

Maintenance Schedule

The maintenance intervals are very dependent on the individual operating conditions. The following information provides initial values that can be shortened or extended as necessary. In particular, operation under difficult conditions, such as

- conditions with high levels of dust or loose particles from workpieces, or
- high levels of needle wear, due to hard or abrasive workpieces, for example,

can make it necessary to considerably shorten the maintenance interval.



Clean all signs of contamination during any form of maintenance.
Recommended cleaning interval every 1 million cycles.

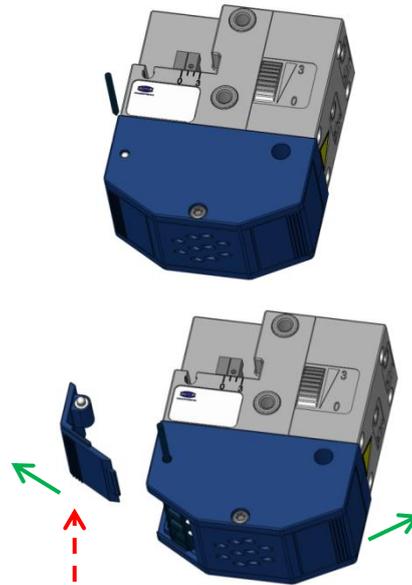
Opening and sealing the maintenance openings

 WARNING	
 	<p>Extending needles</p> <p>Injuries caused by pricks, cuts and scratches</p> <ul style="list-style-type: none"> ▶ Wear cut resistant gloves

Unlocking and removing the cover

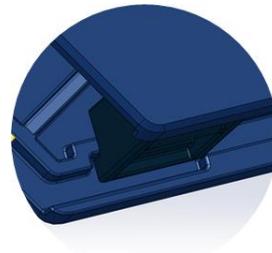
Press the bolts of the spring-loaded pressure piece out of the holes with a sharp object (e.g. a pen, screwdriver).

The cover must be pushed out of the housing at the same time as the spring-loaded bolt is actuated. The area (red arrow) is serrated.



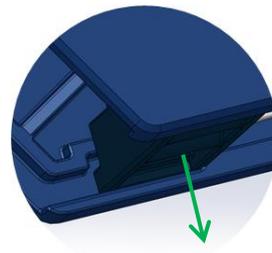
Removal of the needle holder

Needle holder start position



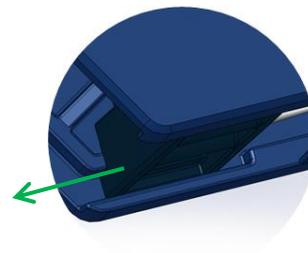
1. Removal step

Push the needle holder into the lower position. In doing so, the needle holder is released from engagement with the worm wheel.



2. Removal step

Pull the needle holder out of the housing



Inserting the needle holder

Insertion of the needle holder occurs in the same way as removal but in the reverse order.



Hold the opposite needle holder securely when inserting the needle holder. This allows the position "needle retracted" to be secured.

IMPORTANT

The position "needle retracted" was adjusted

Malfunctions and damage to the gripper is possible

- ▶ The position "needle retracted" of the gripper must be reached before needle holders can be inserted - see chapter **Fehler! Verweisquelle konnte nicht**
- ▶ No further changes to the position of the worm wheels may be made after the needle holders have been inserted

Installation of the cover

Installation of the covers occurs in the same way as removal but in the reverse order.



The pressure bolts make an audible click if the covers have been mounted correctly.

IMPORTANT

Operation of the gripper without covers

Malfunctions and damage to the gripper

- ▶ Covers of the needle holder must be ensured

Inspecting the gripper after the needle holders have been changed

If the aforementioned installation steps were carried out successfully,

- 1.) the needles do not protrude from the grip surface of the housing
- 2.) the two needle holders have the same stroke
- 3.) the needle stroke corresponds to the set stroke in the scale

Should one of the requirements not be met, the following steps are to be performed:

1. Remove the two needle holders. See 0
2. Start up the position "needle retracted" again
 1. Insert the two needle holders. See 0



We recommend a test run prior to start of operations for the gripper.

Warranty, Spare Parts and Wearing Parts

Spare parts are guaranteed in accordance with our general conditions and terms of sale and delivery, provided that these are original parts supplied by us.

We are not liable for any damage resulting from the use of non-original spare parts or accessories.

Wearing parts are not covered by the warranty.

The following list contains the primary spare and wearing parts.

Spare and Wearing Parts

Type	Designation	Content	Part no.	Legend
SNG-AP 10 0.8 V 3	Spare parts set	2 Mounting adapters needle	10.01.29.00405	S
SNG-AP 10 1.2 V 3	Spare parts set	2 Mounting adapters needle	10.01.29.00406	S
SNG-AP 10 0.8 V 10	Spare parts set	2 Mounting adapters needle	10.01.29.00407	S
SNG-AP 10 1.2 V 10	Spare parts set	2 Mounting adapters needle	10.01.29.00408	S
SNG-AP 10 1.2 V 20	Spare parts set	2 Mounting adapters needle	10.01.29.00409	S
SNG-AP 10 0.8 V 3	Spare parts set	Cover	10.01.29.00419	S
SNG-AP 10 1.2 V 3	Spare parts set	Cover	10.01.29.00419	S
SNG-AP 10 0.8 V 10	Spare parts set	Cover	10.01.29.00420	S
SNG-AP 10 1.2 V 10	Spare parts set	Cover	10.01.29.00420	S
SNG-AP 10 1.2 V 20	Spare parts set	Cover	10.01.29.00421	S

Legend: Spare part = **S** Wearing part = **W**

Disposal

After being exchanged or after final decommissioning, components and assemblies are to be disposed of in accordance with country-specific guidelines.

IMPORTANT	
	<p>Incorrect disposal of the gripper Environmental damage</p> <p>▶ Disposal according to country-specific guidelines</p>