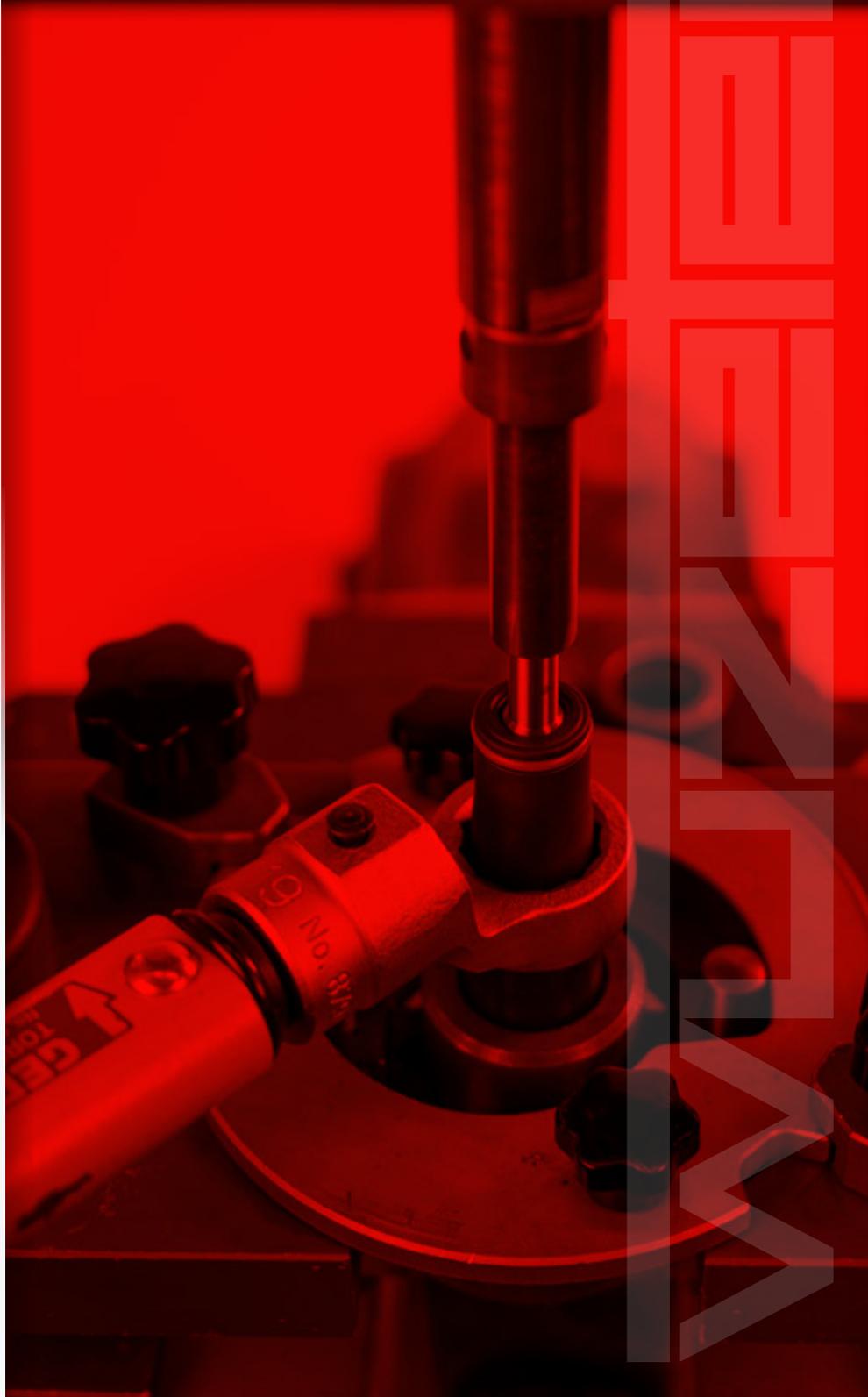


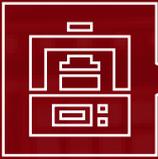
**WUZETEM**



# Instructions for the installation and removal of replacement nozzles

for PD Bosch Gen I injectors





All changeover work (installation and removal of the nozzle) should be performed using a suitable press, depending on the manufacturer.



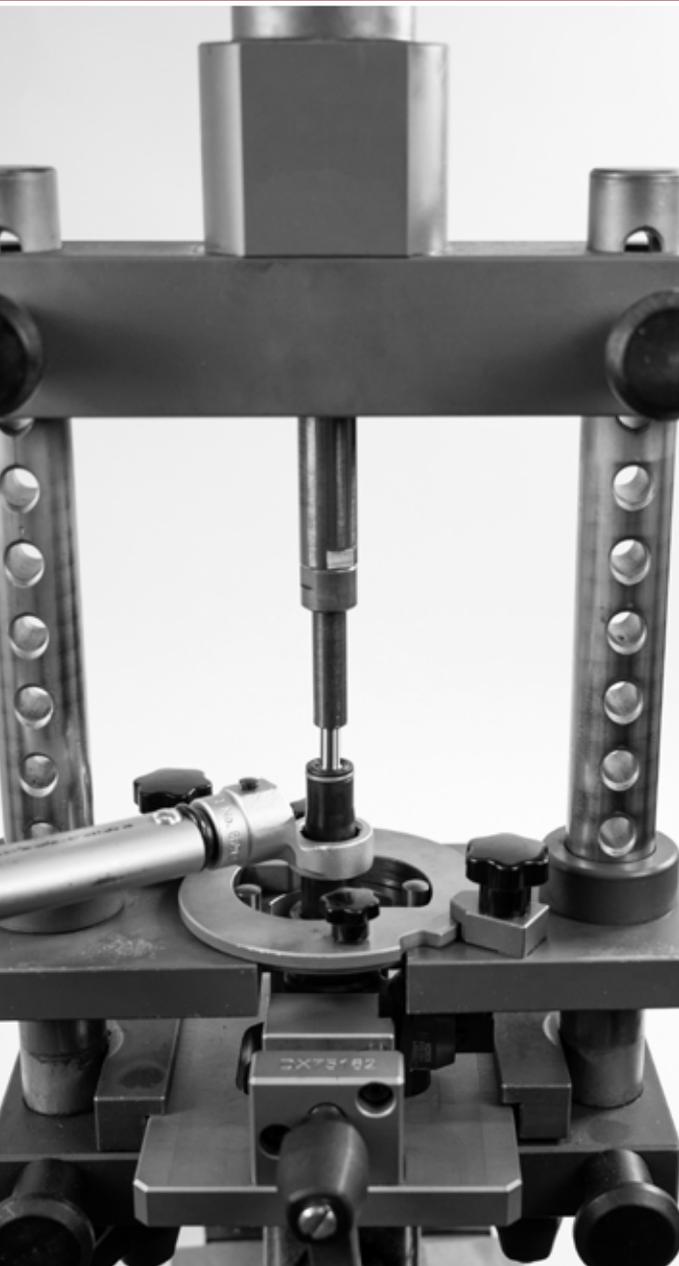
To tighten/loosen the screw of the nozzle retaining holder and nozzle nuts, use a torque wrench and/or angle disk.



When tightening the unit injector nut, always observe the parameters provided by the manufacturer of the injection system.

## Instructions for the installation and removal of replacement nozzles for PD Bosch Gen I injectors

- ▷ removal
- ▷ setting the opening pressure
- ▷ installation



**WUZETEM**

WARSZAWSKIE ZAKŁADY MECHANICZNE  
„PZL - WZM” W WARSZAWIE  
SPÓŁKA AKCYJNA

05-850 Jawczyce  
ul. Piastowska 67

head office: 22 841 32 01  
fax: 22 841 85 68  
e-mail: wuzetem@wuzetem.pl

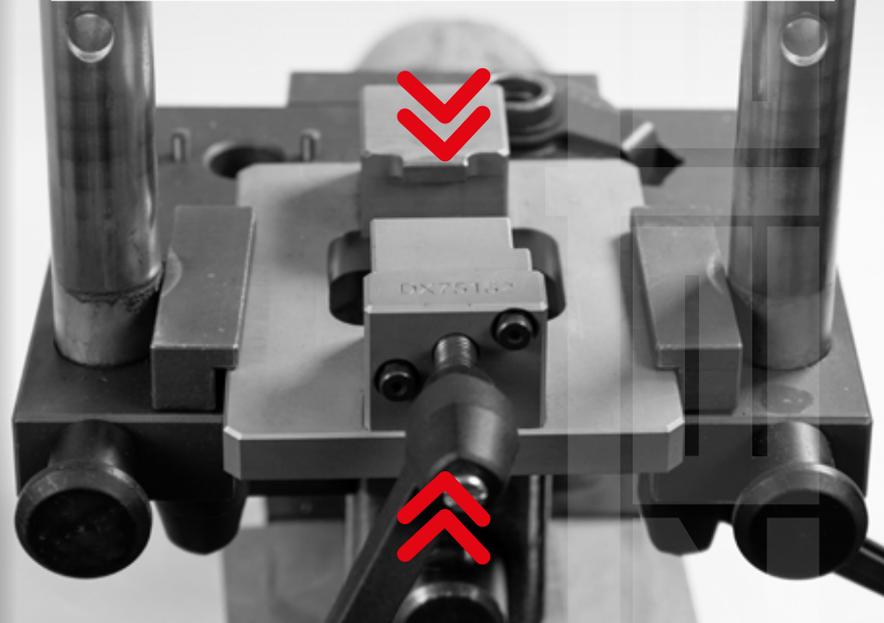
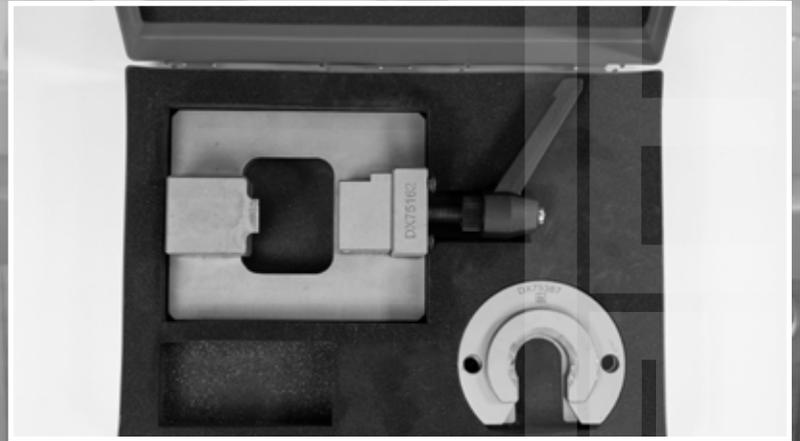
[www.wuzetem.pl](http://www.wuzetem.pl)

District Court for the Capital City of Warsaw  
in Warsaw, 14th Commercial Division  
of the National Court Register (KRS)  
KRS number: 0000320810  
Share capital: PLN 20,000,000.00  
Paid-up capital: PLN 20,000,000.00  
NIP (Tax Identification Number): 525-000-08-60  
REGON (National Official Business Register  
Number): 012078978

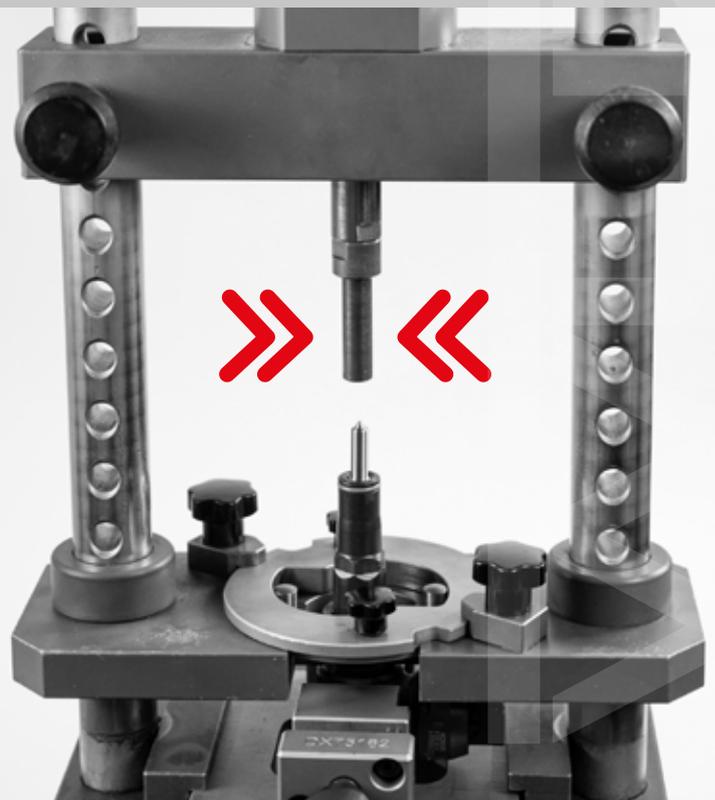
All trademarks belong to their rightful owners  
and are used for information only.

# removal

- 1 Use a suitable **mounting spacer** and place it in the **holder** of the station.



- 2 Take the suitable nozzle retaining **holder adapter** and **install it** on the station

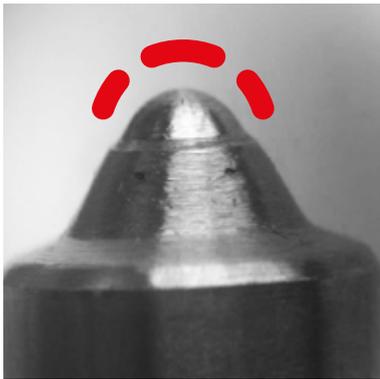


# removal

3

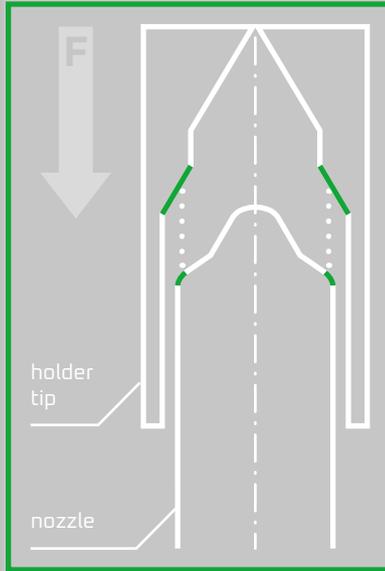
The tip of the nozzle retaining holder should rest on a surface below the spherical part of the nozzle (see the drawing on the right).

If it is supported higher, this will greatly increase the risk of misalignment between the tip and the nozzle, potentially causing damage to the nozzle.

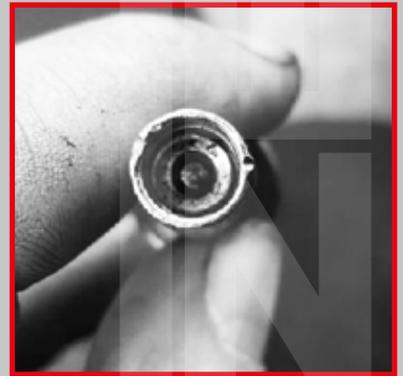
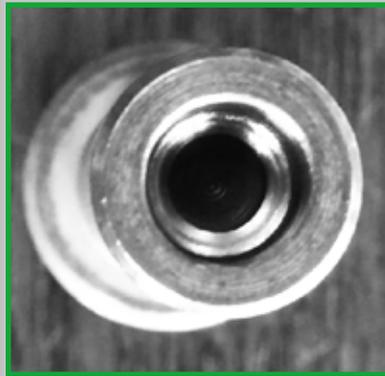
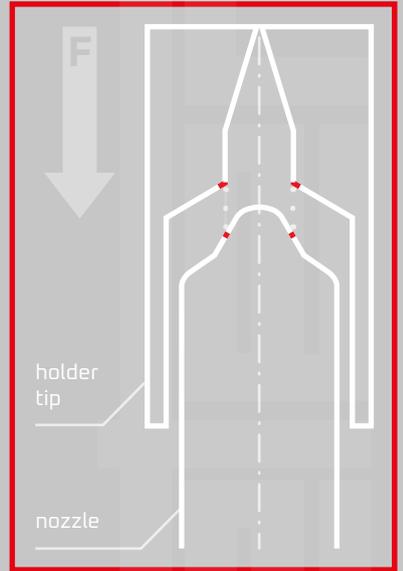


△ The photo shows the consequences of using the wrong holder, where the contact surface is located on the spherical part of the nozzle. In this case, permanent deformation will occur even if a relatively small force is used.

✓ correct



✗ incorrect



## removal

4

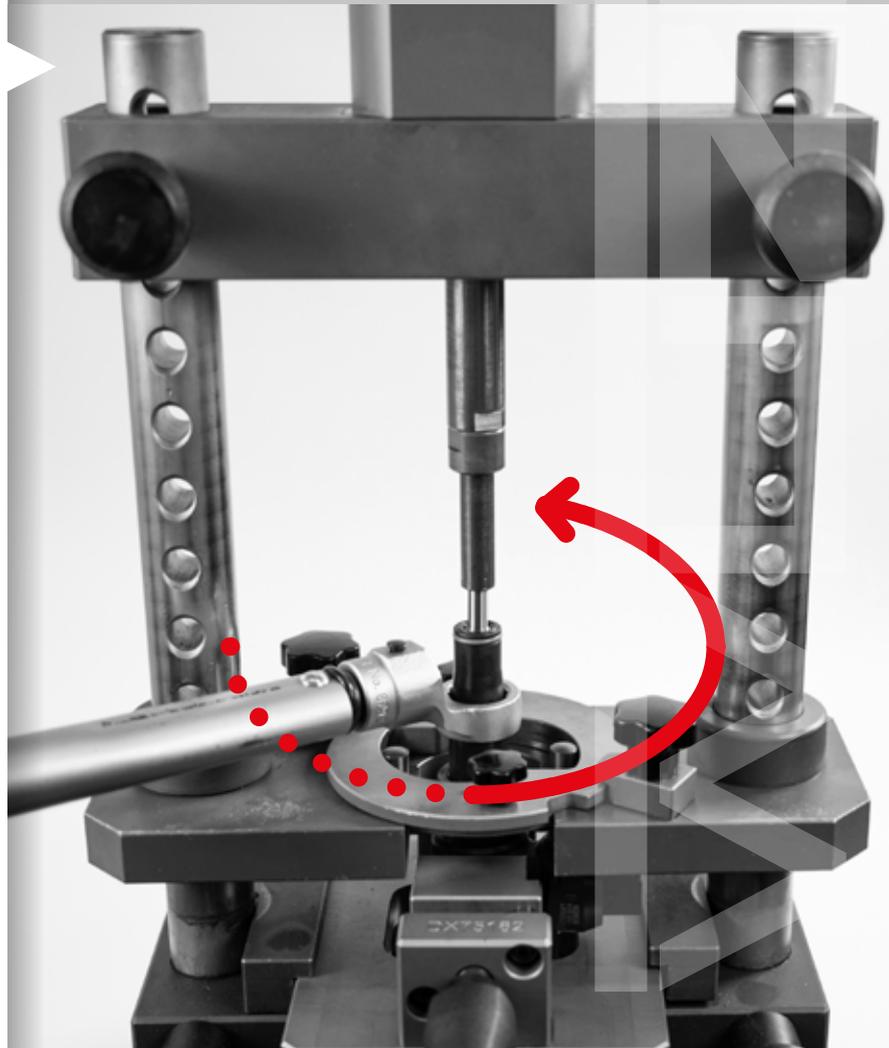
**Tighten the top screw** of the nozzle retaining holder until it is clamped against the face of the nozzle.

Tighten the screw to **30 Nm** using a torque wrench with a **30 mm** adapter.



5

**Undo the nozzle nut** using a torque wrench with a **19 mm** adapter.



# removal

**6** Undo the screw of the nozzle retaining holder and retract it into a position that enables the removal of the nut.



**7** Remove the nut and then remove the nozzle body with the needle.

**NOTE:**

During nozzle removal, make sure **not to lose any components** of the unit injector located under the nozzle.



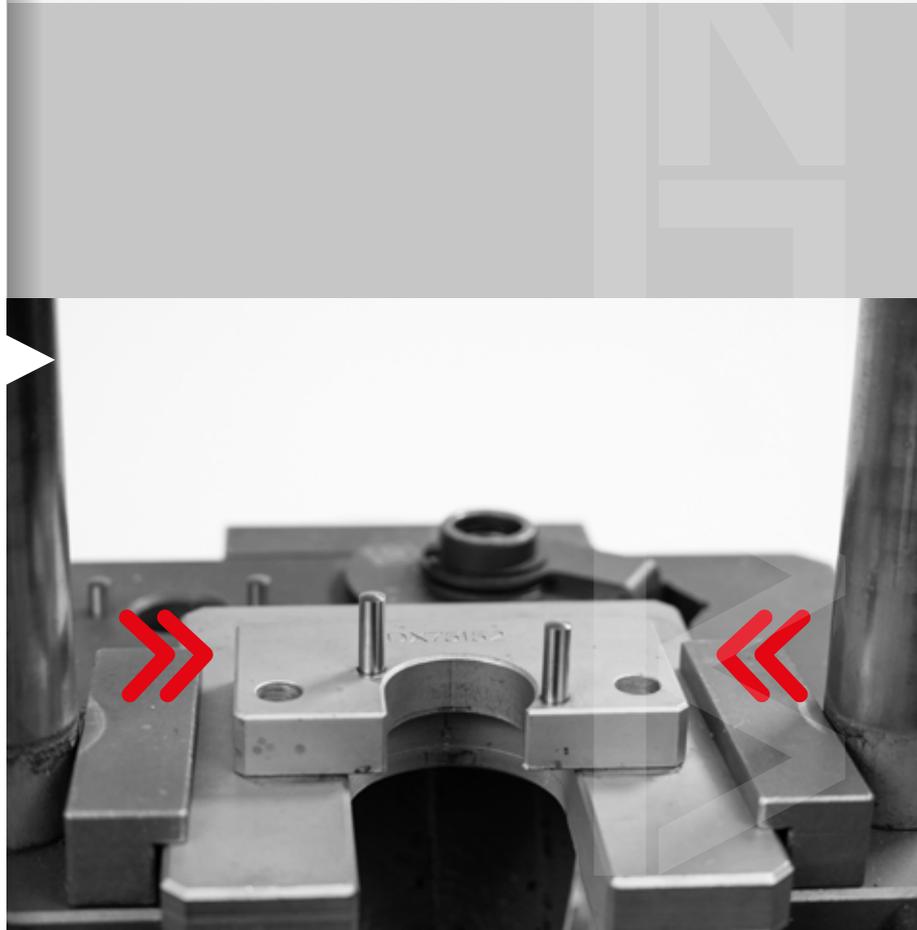
# setting the opening pressure

Before installing the unit injector on the test bench and before each replacement of the nozzle with a different nozzle, **check the nozzle opening pressure on the PRW-3 test bench injector.**

- 1** Undo the nut of the unit injector using a **19 mm** adapter and pull the stack out together with the spacers and the nozzle of the injector unit.



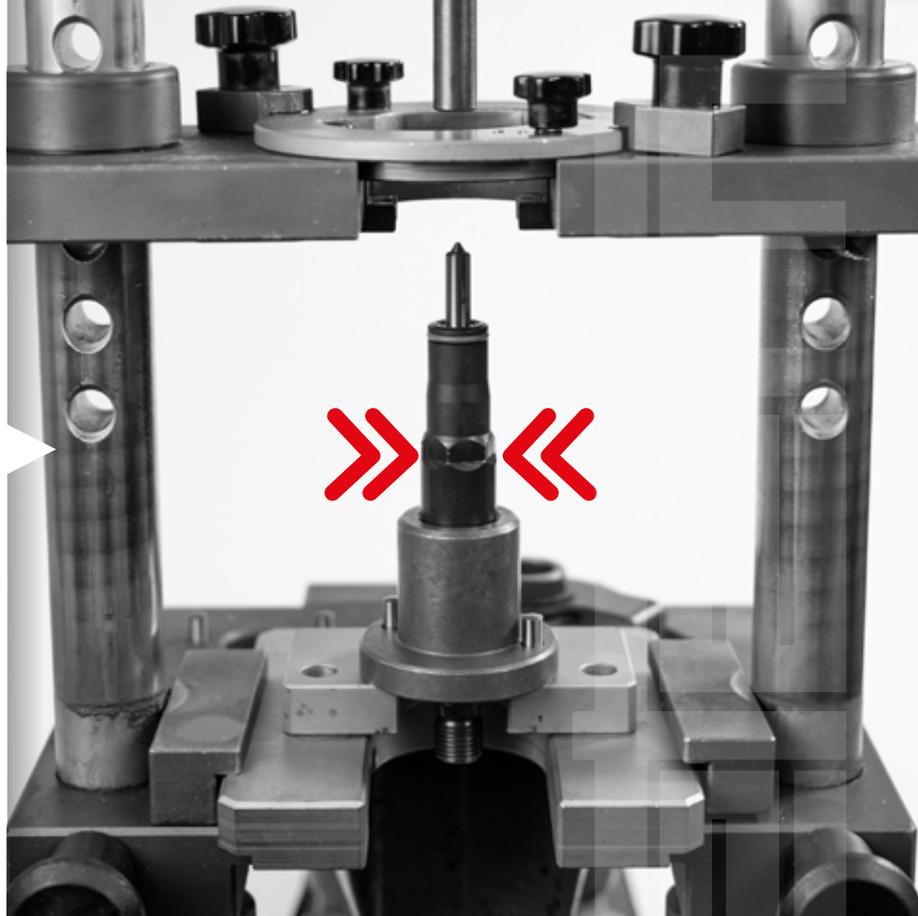
- 2** Install a suitable mounting spacer in the holder of the station.



## setting the opening pressure

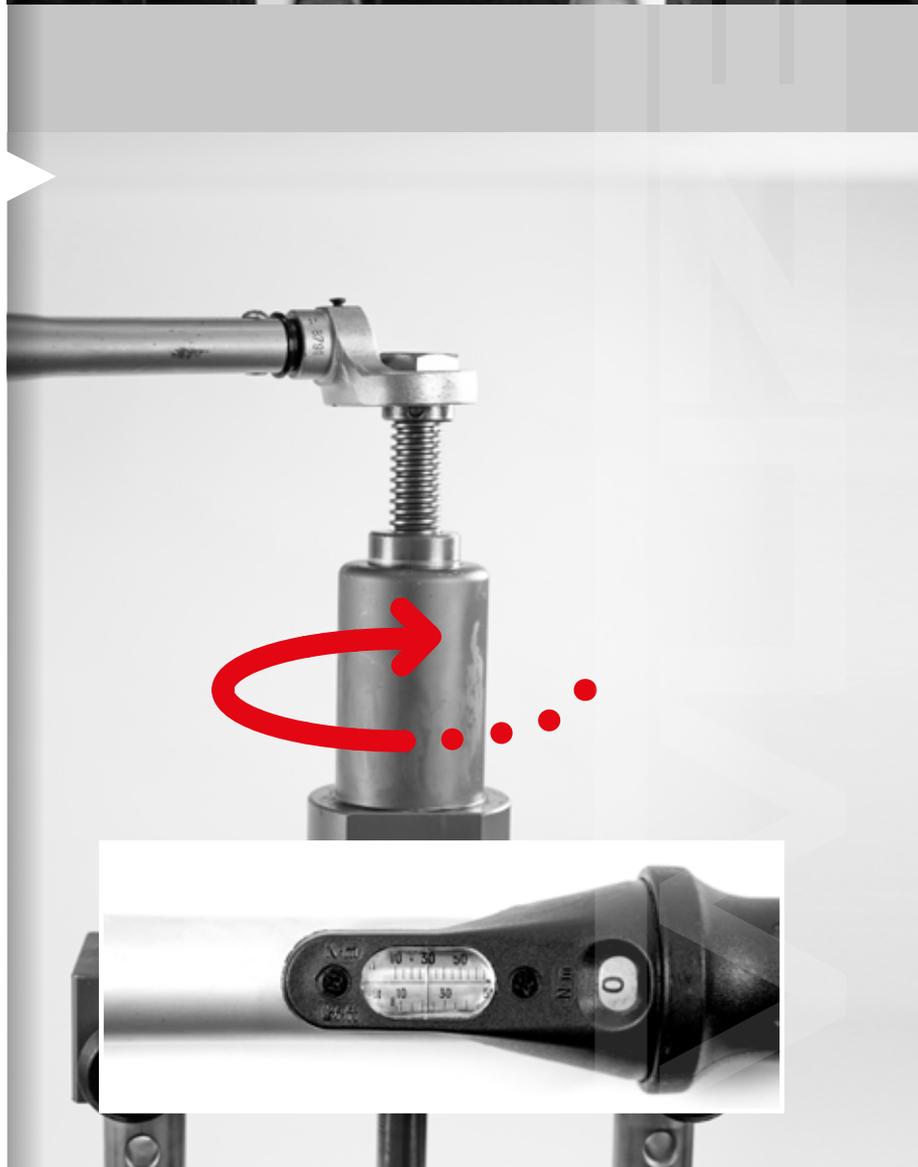
- 3** Install an adapter on the spacer together with the stack of components removed from the unit injector.

Insert the nozzle, aligning it accordingly using the alignment pins.



- 4** Pre-tighten the nut of the unit injector without using a torque wrench.

Tighten the screw of the nozzle retaining holder to **30 Nm**



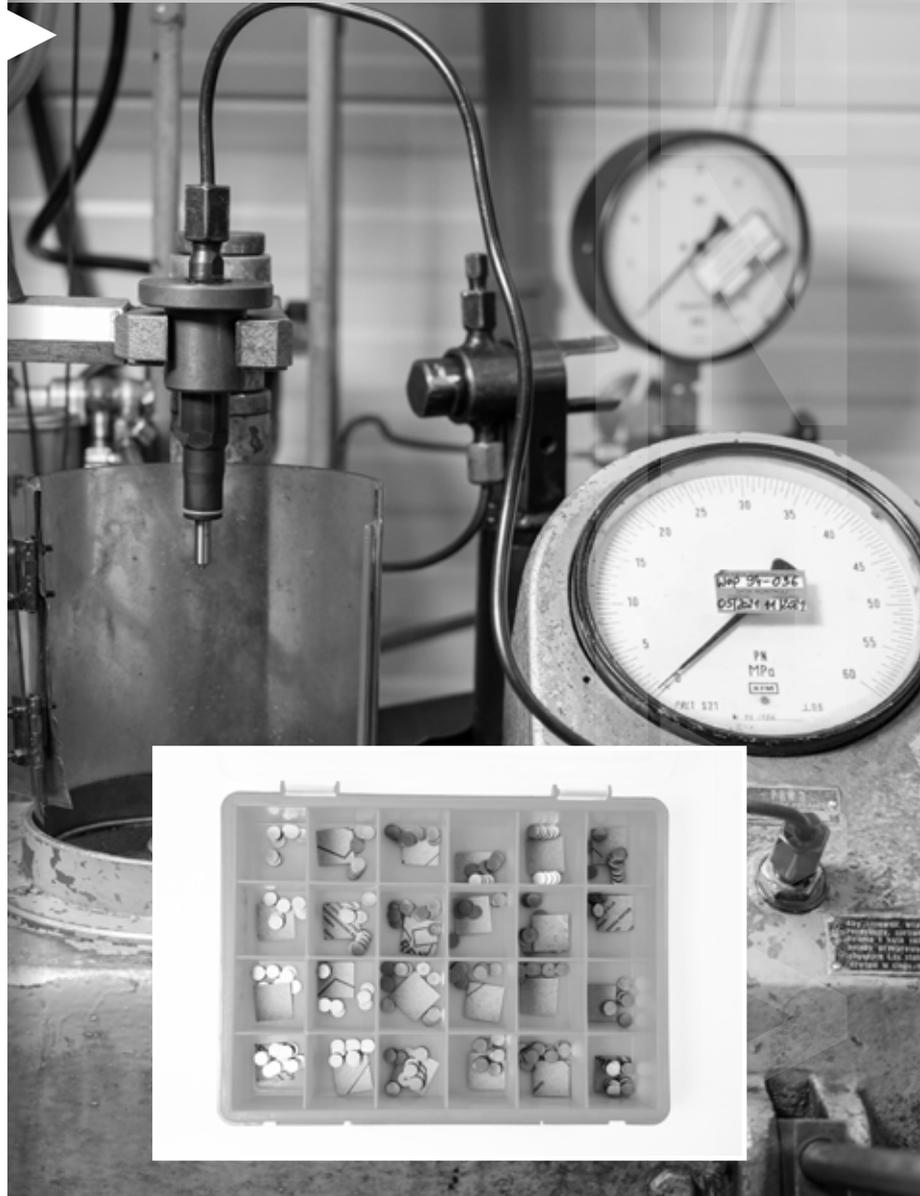
## setting the opening pressure

**5** Tighten the nut using a 19 mm adapter to the torque recommended by the manufacturer of the injection system.



**6** Install the adapter on the PRW-3 test bench injector and then check and adjust the opening pressure of the nozzle:

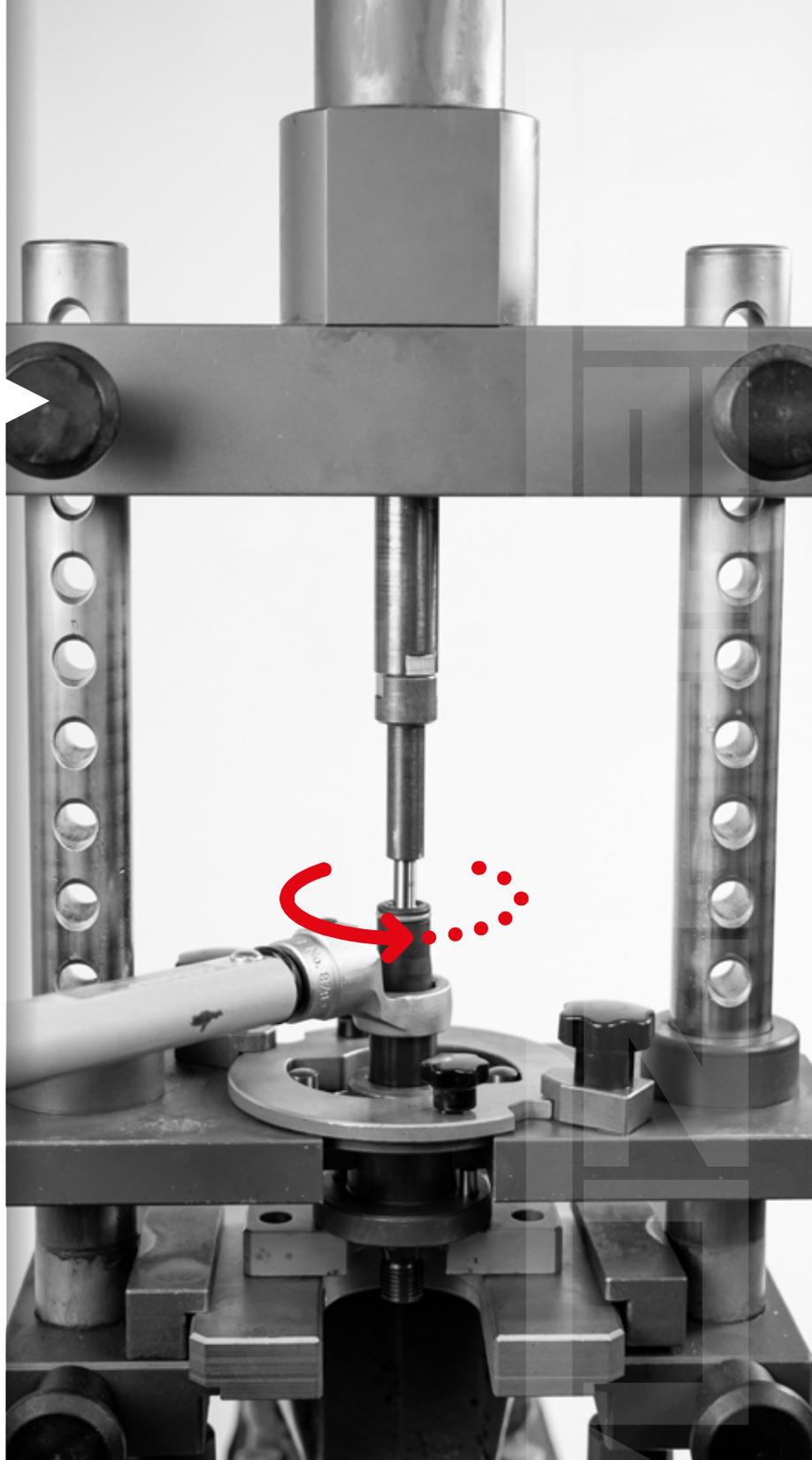
- a. **If the opening pressure is too low:**  
Undo the nut using a 19 mm adapter and replace the puck under the first spacer with a thicker one.
- b. **If the opening pressure is too high:**  
Undo the nut using a 19 mm adapter and replace the puck under the first spacer with a thinner one.



## setting the opening pressure

- 7 After adjustment, follow the same procedure to **undo the nut and pull the stack out** of the adapter.

**Insert the stack** together with the spacers and nozzle **into the unit injector**.

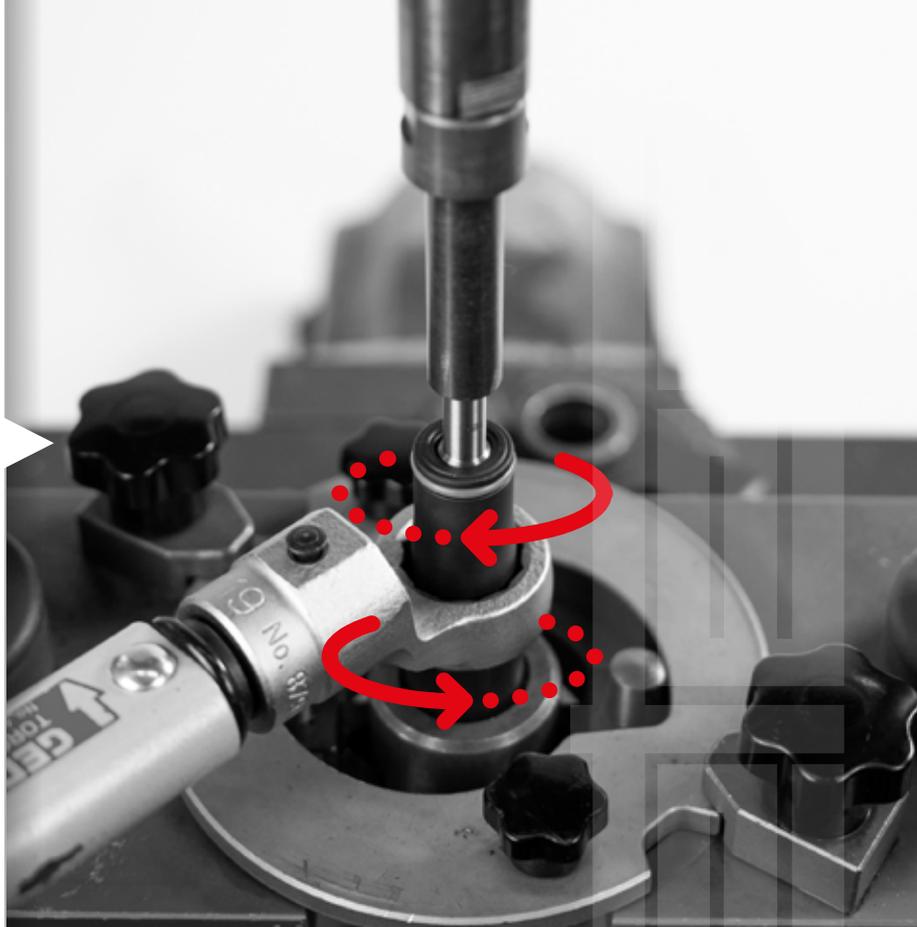


after setting the opening pressure

8

Install the stack with the nozzle on the unit injector and then **pre-tighten the nut** using a **19 mm** adapter to the torque recommended by the manufacturer of the injection system.

**Undo the nut** until the thread is completely loose.



9

**Tighten the nut to the intermediate torque** recommended by the manufacturer of the injection system to set the thread.



10

**Tighten the nut to the final torque** recommended by the manufacturer of the injection system.

**WUZETEM**

WARSZAWSKIE ZAKŁADY MECHANICZNE  
„PZL - WZM” W WARSZAWIE  
SPÓŁKA AKCYJNA

05-850 Jawczyce  
ul. Piastowska 67

head office: 22 841 32 01  
fax: 22 841 85 68  
e-mail: [wuzetem@wuzetem.pl](mailto:wuzetem@wuzetem.pl)

[www.wuzetem.pl](http://www.wuzetem.pl)

District Court for the Capital City of Warsaw  
in Warsaw, 14th Commercial Division  
of the National Court Register (KRS)  
KRS number: 0000320810  
Share capital: PLN 20,000,000.00  
Paid-up capital: PLN 20,000,000.00  
NIP (Tax Identification Number): 525-000-08-60  
REGON (National Official Business Register  
Number): 012078978

