



ADAPTER SET FOR REMOVING INJECTORS

Manual

60384665 / 60384660 / 60384662 / 60384663



PICHLER
built to succeed.

SAFETY NOTICE

To understand the functioning of the tools, is it necessary to read the manual first!

- > Read these instructions before assembling, during installation and throughout use and in the proper sequence
- > Always refer to the OEM manufacturer's instructions and service manuals for the latest data and to maintain the correct sequence
- > These work instructions and the recommended tools are meant to serve as aides only and are by no means a guarantee for certain results.
- > This tool kit is a special collection and it has been tested and used successfully on several occasions. It is of the utmost importance to maintain the correct procedure as per the instructions
- > The use of the tools should only be carried out by qualified personnel!



ATTENTION

Special caution



CORRECT



LIGHT BULB

Hint or recommendation



WRONG



SAFETY GOGGLES

Wearing safety goggles
necessary



INJECTOR ADAPTER KIT **PREMIUM**

60384665

No.	Part. No.	Pcs.	Description
1	52601110	1	Flexible magnetic lifter, size 1
2	6038472E	1	Injector Needle Extractor
3	74251005	1	Socket 1/2", 6 Point, Plane, 7/8"
4	60384172	1	Allen Socket 10 with Hole
5	60384420	1	Pin Socket 3 pins for Denso Injectors
6	60384423	1	Pin set 3 pc. for pin socket 6038442
7	58506050	1	Tap holder adapter, square, 9.2 mm A/F 13 mm
8	60383317	1	Tap M17x1 (Custom made)
9	60384413	1	Box Nut Adaptor
10	60384417	1	Adapter With Internal and External
11	60384424	1	Pull-out adapter for injectors Outer M17x1 / IG M18x1.5 Inner
12	60384410	1	Screw-in adapter OT M16x1 to IT M18x1.5*
13	60384406	1	Screw-in adapter OT M27x1 to IT M18x1.5*
14	6038424	1	Ball Joint Adapter M18x1.5
15	60384405	1	Screw-on adapter IT M14x1.5 to IT M18x1.5*
16	60384407	1	Screw-in adapter OT M20x1 to IT M18x1.5*
17	60384408	1	Screw-in adapter OT M25x1 to IT M18x1.5*
18	60384419	1	Extraction Adapter female M10 - female M
19	60384404	1	Adapter outer thread M10 / outer thread M18x1,5



INJECTOR ADAPTER SET 15 PC **STANDART**

60384660

No.	Part. No.	Pcs.	Description
1	52601110	1	Flexible magnetic lifter, size 1
2	74251005	1	Socket 1/2", 6 Point, Plane, 7/8"
3	60384172	1	Allen Socket 10 with Hole
4	60384420	1	Pin Socket 3 pins for Denso Injectors
5	60384423	1	Pin set 3 pc. for pin socket 6038442
6	60384413	1	Box Nut Adaptor
7	60384417	1	Adapter With Internal and External Thread
8	60384424	1	Pull-out adapter for injectors Outer M17 M17x1 / IG M18x1.5 Inner
9	60384410	1	Screw-in adapter OT M16x1 to IT M18x1.5*
10	60384406	1	Screw-in adapter OT M27x1 to IT M18x1.5*
11	6038424	1	Ball Joint Adapter M18x1.5
12	60384405	1	Screw-on adapter IT M14x1.5 to IT M18x1.5*
13	60384407	1	Screw-in adapter OT M20x1 to IT M18x1.5*
14	60384408	1	Screw-in adapter OT M25x1 to IT M18x1.5*



INJECTOR ADAPTER KIT **ADDITION**

60384662 - WITHOUT CASE

60384663 - WITHO CASE

No.	Part. No.	Pcs.	Description
1	6038472E	1	Injector Needle Extractor
2	58506050	1	Tap holder adapter, square, 9.2 mm A/F 1
3	60383317	1	Tap M17x1 (Custom made)
4	60384419	1	Extraction Adapter M10 - M
5	60384404	1	Adapter outer thread M10 / outer thread M18x1,5

CONTENT

1. BOSCH INJECTORS WITH SOLENOID WITH EXTERNAL THREAD M27X1 AND INTERNAL THREAD M17X1	7
2. DENSO INJECTORS - SOLENOID HEIGHT: CA. 67 MM/ 11 MM	9
3. DENSO INJECTORS - SOLENOID HEIGHT: CA.48 MM/ 3 MM	11
4. DENSO INJECTORS - PIËZO CONTROLLED	13
5. SIEMENS / CONTINENTAL INJECTOR - SOLENOID CONTROLLED	14
6. BOSCH, DELPHI-, ETC. INJECTORS - WITH EXTERNAL TREAD M14X1.5	16
RECOMMENDED ACCESSORIES	19

1. BOSCH INJECTORS WITH SOLENOID WITH EXTERNAL THREAD M27X1 AND INTERNAL THREAD M17X1

EXTRACTION OF THE INJECTOR USING BOTH INTERNAL AND EXTERNAL THREAD:



Part.Nr.: **60384415**

Internal thread M17x1

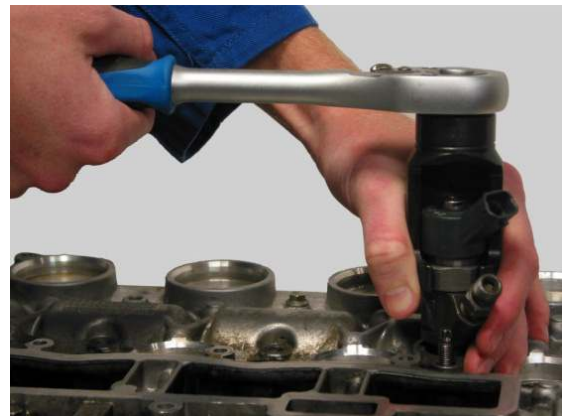
Thread for the solenoid
M27x1

Unscrew the solenoid with an Injector Socket (**6038423** not included in the kit), a fork spanner or any other suitable tool.



ATTENTION

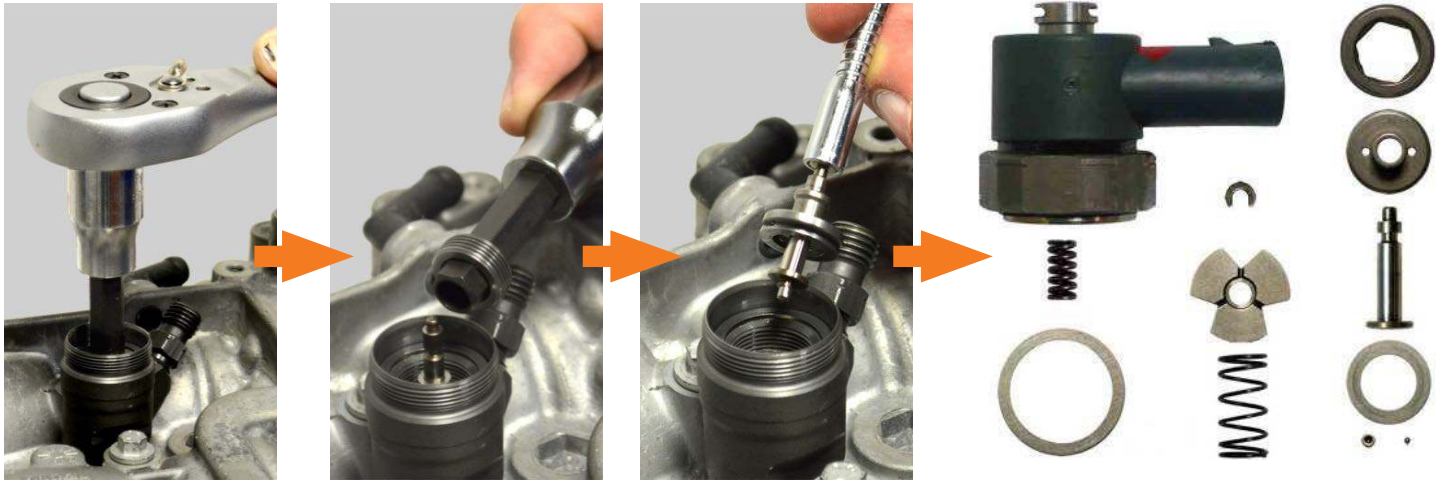
Spring and small parts may fall out!



Push the three leaf down with a screwdriver, remove the locking ring with the Flexible Magnetic Pick-up **52601110** and remove the three leaf and spring.



Unscrew the nut with the Allen Socket **60384172** and remove all detached parts.



Optional: Press the nozzle needle extractor **6038472E** onto the nozzle needle in the injector, remove the hexagonal tighten the nut with a wrench SW14 and pull out the nozzle needle body.



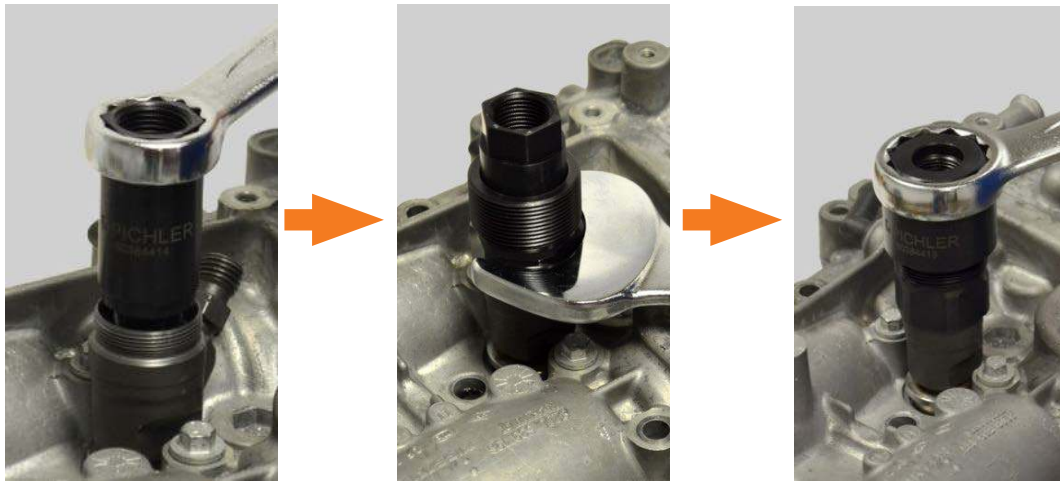
Extend the existing M17x1 thread **60383317** in the injector as deeply as possible.



Screw the Extraction Adapter **60384424** into the injector and tighten it.

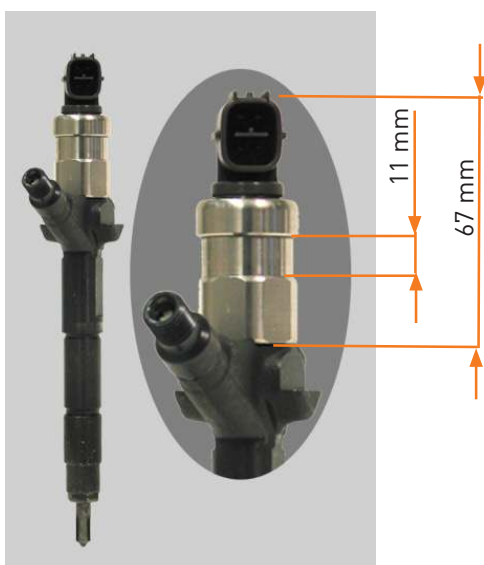
Screw the Sleeve Adapter **60384417** onto the injector and tighten it.

Screw the Box Nut Adapter **60384413** on to the Sleeve Adapter **60384417** and tighten it onto **60384424** with a spanner 32 (90-110 Nm).



2. DENSO INJECTORS - (SOLENOID HEIGHT: CA. 67 MM/ 11 MM)

EXTRACTION OF THE INJECTOR BY THE INTERNAL THREAD:



Part.Nr. **60384407**



Internal thread M20x1

Unscrew the solenoid with a spanner 27mm or any other suitable tool.



ATTENTION

Spring and other small parts may fall out!



Unscrew with the Socket 7/8" **74251005** the cap and remove the small parts. Screw the Adapter **60384407** in the injector and tighten it with a spanner 24.



3. DENSO INJECTORS - (SOLENOID HEIGHT: CA.48 MM/ 3 MM)

EXTRACTION OF THE INJECTOR BY THE INTERNAL THREAD:



Part.Nr. **60384407**



Internal thread M20 x 1

Unscrew the solenoid with a spanner 27mm or any other suitable tool.



ATTENTION

Spring and other small parts may fall out!



Unscrew the screw with Pin Socket **60384420** and remove the detached small parts.
entfernen.



Screw the Adapter **60384407** in the injector and tighten it with a spanner 24.



4. DENSO INJECTOR - PIËZO CONTROLLED

EXTRACTION OF THE INJECTOR BY THE INTERNAL THREAD:

Part.Nr. **60384410**

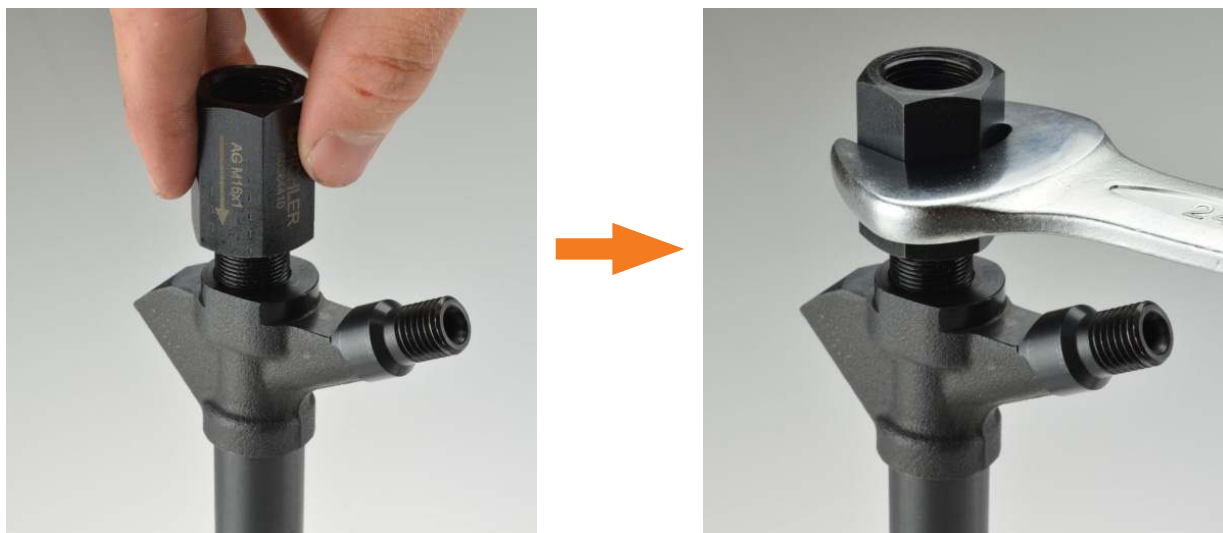


Internal thread M16x1

Unscrew the Piëzo valve with a spanner 17mm or any other suitable tool.



Screw the Adapter **60384410** in to the injector and tighten it with a spanner 24.



5. SIEMENS / CONTINENTAL INJECTOR - SOLENOID CONTROLLED

EXTRACTION OF THE INJECTOR BY THE INTERNAL THREAD:



Part.Nr. **60384406**
(M27x1)

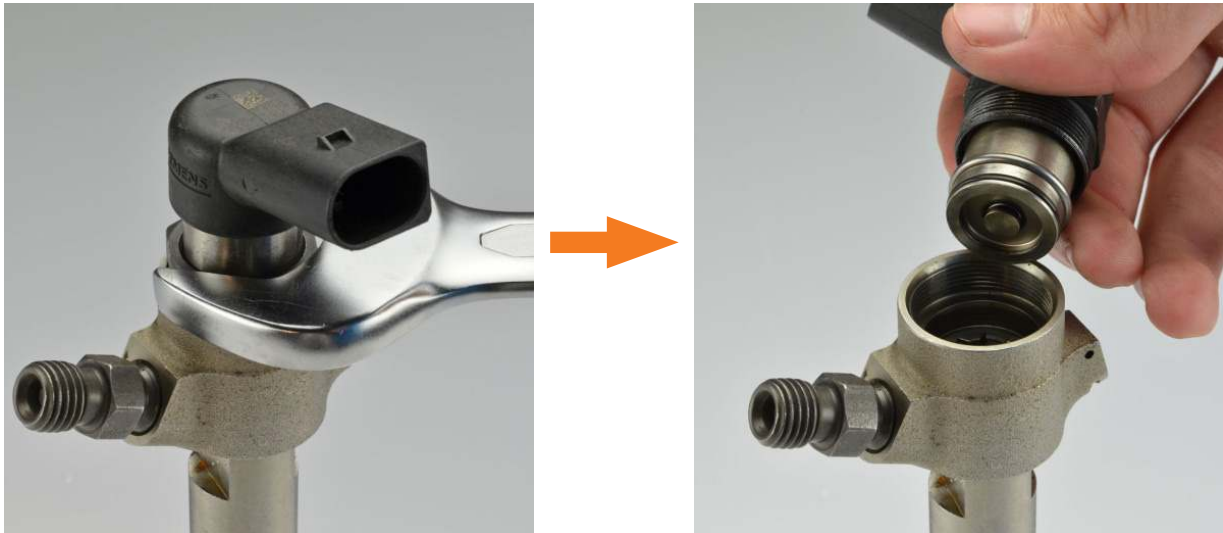


Part.Nr. **60384408**
(M25x1)

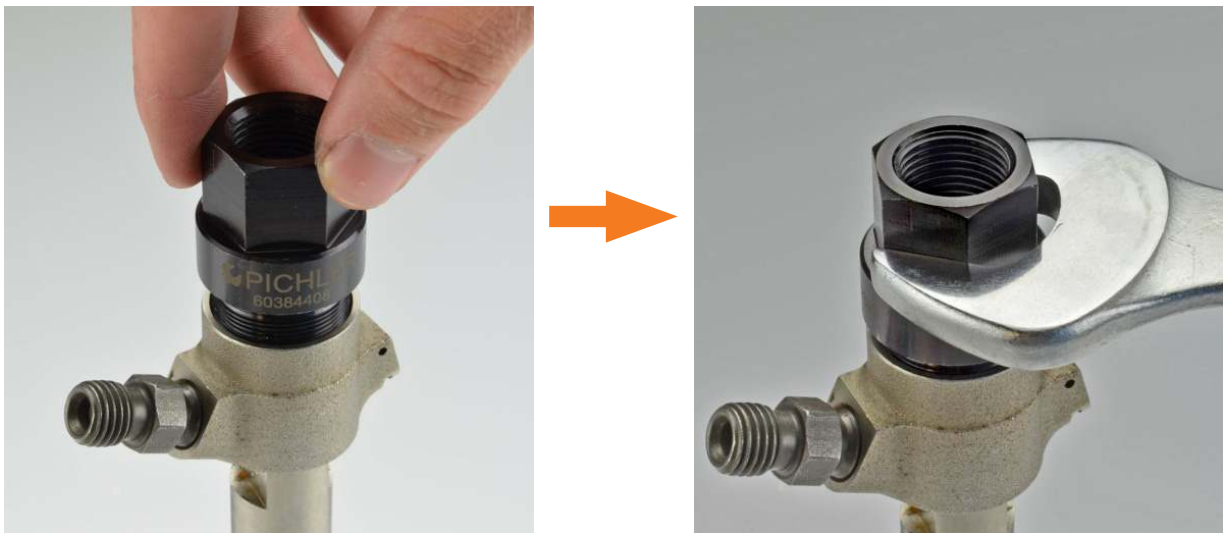


Internal thread M25x1 or
M27x1

Unscrew the solenoid with an Injector Socket 25 or 27mm ([60385250](#) / [60385270](#) not included in the kit), a spanner (25 or 27) or any other suitable tool.



Screw the correct Adapter [60384406](#) or [60384408](#) in the injector and tighten it with a spanner 24mm.



6. BOSCH, DELPHI-, ETC. INJECTORS - WITH EXTERNAL TREAD M14X1.5

EXTRACTION OF THE INJECTOR BY THE INLET CONNECTOR:



Part.Nr. **60384405**

Inlet connector M14x1.5



Screw the Adapter **60384405** on the inlet connector M14x1.5 and tighten it with a spanner 24mm.



Extraction options:

- The Universal Hydraulic Injector Removal Tool [60385395](#) / [60385400](#)



Part.Nr. [6038424](#)

or

- Using the Slide Hammer 8kg [6148800](#); The Swivel Joint 6038424 can be used in the case of limited access .



Screw the adapter **60384404** into the appropriate adapter and tighten with a wrench. Screw the sliding rod (115 mm long) with the **60390750** flying hammer pushed on onto the M10 external thread and remove the injector by hammering it.



Part.Nr. **60384404**



Part.Nr. **60390750**

If there is sufficient space, the sliding rod (205 mm long) **60384431** can be used in conjunction with the adapter **60384419**.

The longer glide path of the hammer allows for a higher force development.



Part.Nr. **60384419**



Part.Nr. **60384431**

RECOMMENDED ACCESSORIES

UNIVERSAL INJECTOR REMOVAL KIT WITH 12 TON HYDRAULIC CYLINDER

60385395



SLIDE HAMMER 8,5 KG

6148790



INJECTOR NEEDLE EXTRACTOR

6038472E



TAP M17X1 (CUSTOM MADE)

60383317



INJECTOR SHAFT CLEANING SET

9038100



SLIDE HAMMER 1350G

60390750



SLIDE BAR 205MM LONG

60384431



SLIDE HAMMER 0.7 KG

1030210



SLIDE HAMMER 8 KG

6148800



INJECTOR SOCKET

60385250 SW 25

60385270 SW 27

6038422 SW 29

6038423 SW 30



CUTTING OIL 25ML IN DROPPER BOTTLE

90417911





pichler.tools



/pichlerwerkzeug



/pichlerwerkzeug



/pichlerwerkzeug

AUSTRIA

✉ at@pichler.tools
☎ +43 512 344 552

GERMANY

✉ de@pichler.tools
☎ +49 8821 686 9780

SWITZERLAND

✉ ch@pichler.tools
☎ +41 61 981 33 55

FRANCE

✉ fr@pichler.tools
☎ +33 3 89 551 596

UK & IRELAND

✉ uk@pichler.tools
☎ +44 1335 360 759

BELGIUM

✉ be@pichler.tools
☎ +32 495 400 810

ITALY

✉ it@pichler.tools
☎ +39 472 970 042

