

# Instruction Manual

Compac spring press, model CSC. Air operated

---

**Important: Read this before use!**

Please study, understand, and follow all instructions in this instruction manual before operating the press! Make sure that every employee that use the machine has studied, understood, and followed all instructions! Failure to follow this warning may result in personal injury and/or property damage.

## Safety:

Always place safety guard as per the picture to the right before operating the press. Never operate the press without the safety guard as this may lead to serious accidents or even death.



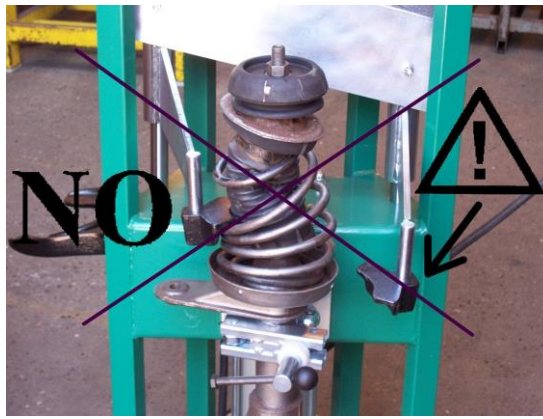
**NO!**



**YES!**

Always wear safety glasses, safety shoes and safety gloves while operating the press. Do not place hands between frame and moving parts as this may result in personal injury and/or property damage.

**WARNING:** Always use ***BOTH*** swivel jaws simultaneously and ensure that the safety lips on both jaws grab firmly around the coils before compressing the spring. Always use a suitable size spring holder. Ensure the spring holder supports the spring correctly.



Use the press for pressing springs on McPherson struts only!

Always ensure that the spring holders are attached with all three bolts in the allocated holes in the front of the frame.

**WARNING:** Incorrect use of the press may result in items being shot out at high speed and may result in personal injury and/or property damage.

## Installation:

Mount feet and wheel holder bars. See position 13, 14 and 20 on the spare parts drawing. Place pos. 20 between the frame and pos. 13. Place pos. 20 between the frame and pos. 14. The wheels should point towards the rear of the press.



Connect air hose to the press.

Ensure that the air pressure is between 8 - 13 bar (116 - 188 psi) and that the airflow is minimum 225 litres per minute.

Never use air pressure of more than 13 bar (188 psi)!

Operate the press without any load to its maximum stroke and return. Check for any malfunction or air leaks.

## Operating instruction:

How to operate the pump:

1. Step on the LEFT side of the foot operation to move the swivel jaws DOWNWARDS.
2. Step on the RIGHT side of the foot operation to move the swivel jaws UPWARDS.

How to operate the press to compress and decompress a McPherson spring:

1. Select the correct spring holder and place it in the three holes in the front of the table. Ensure that the bolts grab firmly in both holes.
2. Place the McPherson spring system in the spring holder.
3. Move the swivel jaws to the correct height and place ***BOTH*** jaws on the coils.
4. **WARNING:** Always use both jaws simultaneously and ensure that the safety lip on ***BOTH*** jaws are grabbing firmly around the coils before activating the press.
5. Once spring system is mounted correctly then activate the press to compress the spring.
6. Once the spring is compressed to the required height stop activating the press.
7. Once the job is done simply press the RIGHT side on the foot operation to decompress the spring system.

## Maintenance and service:

Lubricate moving part and pivot points regularly including the vertical support tubes where the arms for the swivel jaws move up and down.

Clean the vertical support tubes where the arms for the swivel jaws move up and down regularly to avoid dirt, dust and other particles.

The press must always be connected to a lubricator and a water separator, placed no longer than 16 meters (40 feet) away. Otherwise it invalidates the warranty.

Avoid dirt, dust and other particles getting into the air system.

A skilled person must inspect the press visually for any leakages or damages.

Repeat inspection at least every 12 month.

If the press is out of use for longer period then disconnect the air hose.

Use only original spare parts.

## Trouble shooting:

<i>TROUBLE SHOOTING GUIDE</i>		
Symptom	Cause	Relief
The press is not operating when foot operation is activated.	Not enough air or air pressure is too low.	Check air supply according to recommendations as per the "Installation" chapter.
Stroke of cylinder is too short.	Not enough air or air pressure is too low.	Check air supply according to recommendations as per the "Installation" chapter.
The press does not reach maximum pressure.	Not enough air or air pressure is too low.	Check air supply according to recommendations as per the "Installation" chapter.
The press will not make enough pressure.	Not enough air pressure.	Increase air pressure to max. 13 bar (188 psi)
The press is not capable of keeping the spring compressed and returns unintentionally.	There is a fault in the operating valve placed inside position 12.	Contact the dealer where you bought the press.
The arms for the swivel jaws will not move horizontally.	Moving parts require lubrication.	Lubricate according to recommendations as per the "Maintenance and service" chapter.

## Decommissioning:

If the press should ever be scraped, then please dispose of it to the appropriate authorities.

### 1: What type of coil springs can I compress?

The coil spring compressor can compress all known McPherson coil springs with either standard or special holders. In principle, this means that the CSC (G2) can be used on any type of automobile or light truck, given a compressed air supply of 10 to 12 bar.

## 2: How many kilos of force does the coil spring compressor build up?

Thanks to the ALS System, very little force is required to compress McPherson struts. With this system, force is applied precisely to the two points on the coil spring at which it can most easily be compressed. No matter whether you have a clockwise or anti-clockwise coil spring, the two spring holders will always find the right position for easy compression above the spring.

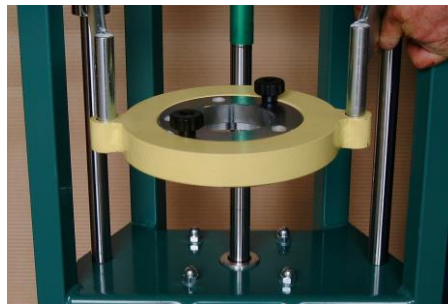
## 3: Special coil spring holders and adapters

A standard CSC (G2) has two swiveling coil spring jaws which you can remove using a hex wrench.

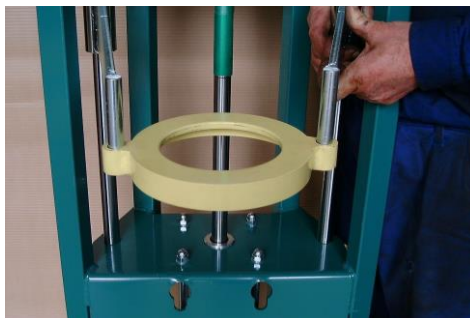


You may need to replace the standard spring holders with different holders. These could be spring holders with short lips (see the photo above) for vehicles manufactured in Japan by vendors such as Toyota and Honda. Other special spring holders are available for various vehicles.

Mercedes A, B, C and E Class:



Porsche Cayenne / VW Touareg:



You can use standard spring holders for any other make of vehicle.

There are three assembly holes on the underside of the compressor. One small spring holder and one large spring holder are provided as standard equipment.



You can use these holders for almost all known types of McPherson struts. In special cases, and typically in scenarios that involve handling Japanese coil springs, you may need an additional vice-type spring holder:



And finally, there is a special spring holder for Mercedes vehicles:



If you need to compress a coil spring, first make sure that you have selected the right equipment based on the information provided above. If you are fitting the strut at the bottom, first ensure that the diameter of the coil spring is larger than the internal lips on the selected spring holder. This is important to avoid the spring slipping under pressure.

Alternatively if you choose to use the vice to clamp the strut, make absolutely certain that it is firmly clamped to the strut.



To make sure that the lips on both spring holders are correctly seated, pull the swivel arms outward by slowly building up down-pressure. ***If the spring holders can be pulled out, the lips are not clamping properly!!***

If you are unable to pull out the spring holders, you can assume that they are correctly seated and thus secured against slipping under pressure.

Before continuing compressing the coil spring, make sure you clamp the two movable arms at the back of the balance cantilever in the required position. To do so, turn the lever at the rear of the balance cantilever clockwise.



This prevents lateral movement of the spring holder arm. When you have finished replacing the shock-absorbers do not release the lock at the rear of the balance cantilever until you have released the pressure on the spring.

## 5: Troubleshooting:

5.1 The upper spring holders will not fit between the coil windings.

Remedy: You need a set of short spring holders. (Typical of Toyota and Honda, made in Japan).

5.2 The upper spring holders fail to clamp the coil spring from above due to a large face plate.

Remedy: You need an adapter.

5.3 The compressor stroke is not long enough to adequately compress the coil spring.

Remedy: With coil springs of this type, the use of a vise is preferable as this will increase the stroke (more windings to compress).



5.4 The compressor fails to compress the coil spring.

Remedy: Increase air pressure. The compressor is incapable of compressing some McPherson struts despite a max. pressure of 13. In 99% of all cases, 10 bar pressure is sufficient.

Copyright : Compac Hydraulik A/S - 7130 Juelsminde, Denmark