

Back pressure

1) **Introduction:**

The performance of the simalube is influenced by several parameters. One of them is called "back pressure". This parameter has a great influence for the correct delivery of the lubricant.

2) **Definition:**

Back pressure is the resistance of the lubricant flow.

3) **Lubricant flow:**

Each component such as fittings, hoses, tubes, reductions, etc. ..., used for the delivery of the lubricant, will have some influence on the lubricant flow.

The lubricant characteristics, the NLGI class / viscosity, will also affect the flow.

4) **Goal:**

The design of the piping should be done to minimise back pressure.

5) **Check of the back pressure:**

The back pressure can be checked as follows.



Prepare a grease gun with:

- The same grease type as used in simalube.
- Y-fitting, tubes and a pressure gauge. For ex.: 0-10 bar.
- Grease gun tubing for the connection to the grease nipple shown below.

Back pressure

		Mount the grease nipple on the lubrication point. The nipple must have a smooth bore. (The non-return system can be drilled out)
		or Use a quick connection system
Fill-up the lubrication line with the gun and read the pressure on the gauge. The pressure will slowly reduce once pumping is stopped.		Fill-up slowly and gently. The pressure must drop to "0", after the filling action. This can take few minutes until the residual pressure has been released.

6) **Consequence of back pressure:**

The simalube works best with a back pressure of around 1.2 bar. Higher values will reduce the flow. Flow will stop completely if it reaches the maximum simalube output pressure of 5 bars.

A back pressure of over 6 bar can damage the simalube.

By unscrewing an activated and running simalube the back pressure is suddenly released and the gas pressure in the chamber will cause an immediate and complete delivery of the lubricant. This is normal.

7) **Reducing the back pressure:**

It is often possible to reduce the back pressure of the lubrication system by:

- redesigning the piping in order to avoid sharp angles (use swept bends), avoid accessories with small IDs, move reduction fittings as close to the lube point as possible, etc. ...
- changing the lubricant to one with a lower NLGI class or viscosity.

8) **Overcoming back pressure:**

Installing the "IMPULSE" booster pump allows a system back pressure of up to 10 bar to be overcome, whilst providing an ideal back pressure to the attached simalube.