

Subject: Pneumatic pump spool valve cleaning and maintenance procedure, for CRDi injector test benches - Magneti Marelli series: DS1R, DS2i, DS2R, CRU2i, CRU2R.

Because of the varying quality of compressed supply air for the injector testing benches (below table with requirements), in the event of malfunction of the pneumatic pump, it is recommended to maintain the high pressure pump spool valve every 6-12 months.

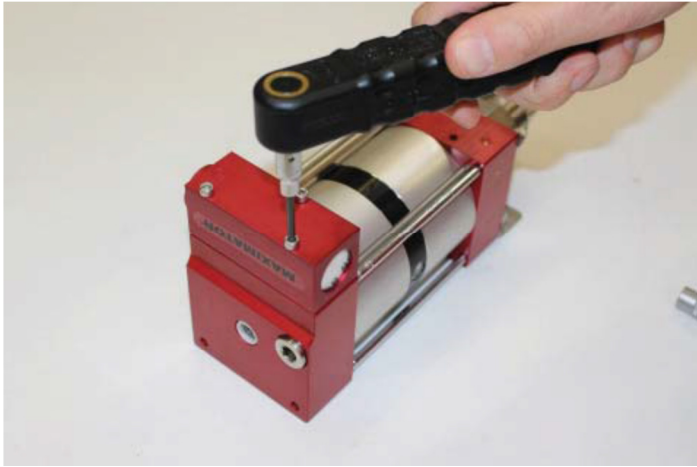
Parameter	Required value
Compressed air pressure at the inlet to the device	min. 6-8 bar for "R" series min. 8-10 bar for CRU2i
Compressor tank capacity	recommended > 200 l
Air preparation	dry, not lubricated
Air flow rate (on the discharge side of the compressor)	> 320 l/min
Parameters of the supplying hose from the compressor	length < 10 m internal diameter > 10 mm

Dirt on the valve, as pictured below, can cause problems with the achieving of the required pressure. Especially for low pressure tests (LL, DFi 230).



Cleaning procedure of the spool valve

1. Disconnect electrical and pneumatic supply from the unit. Disconnect the pneumatic hose from the pump and unscrew the 3 screws holding the valve (do not need to remove the pump from the test bench) and remove the valve.

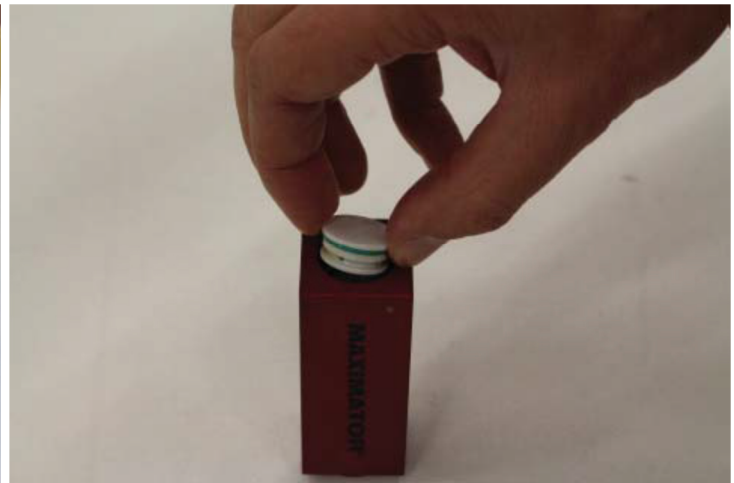
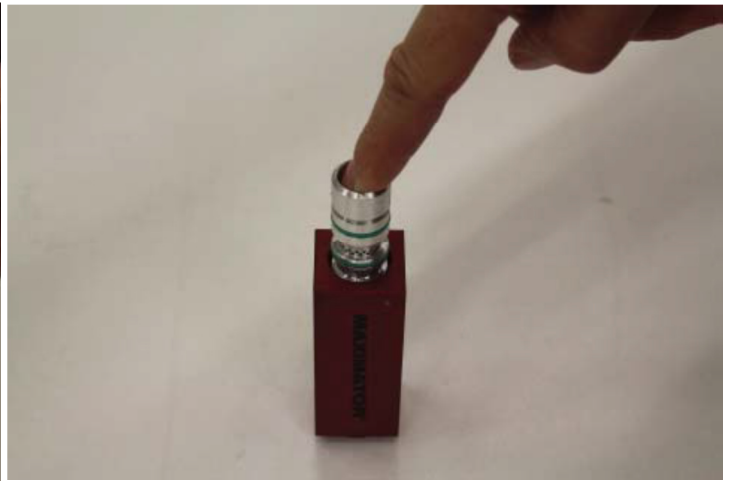
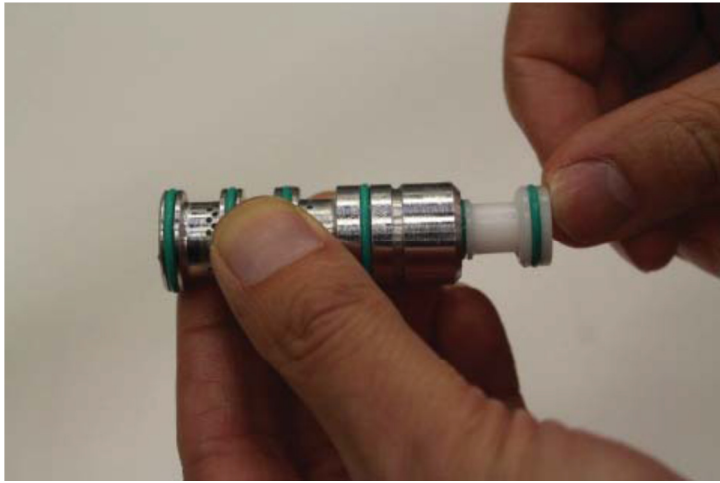


2. Remove the Seger's ring and gently disassemble the valve to the single part



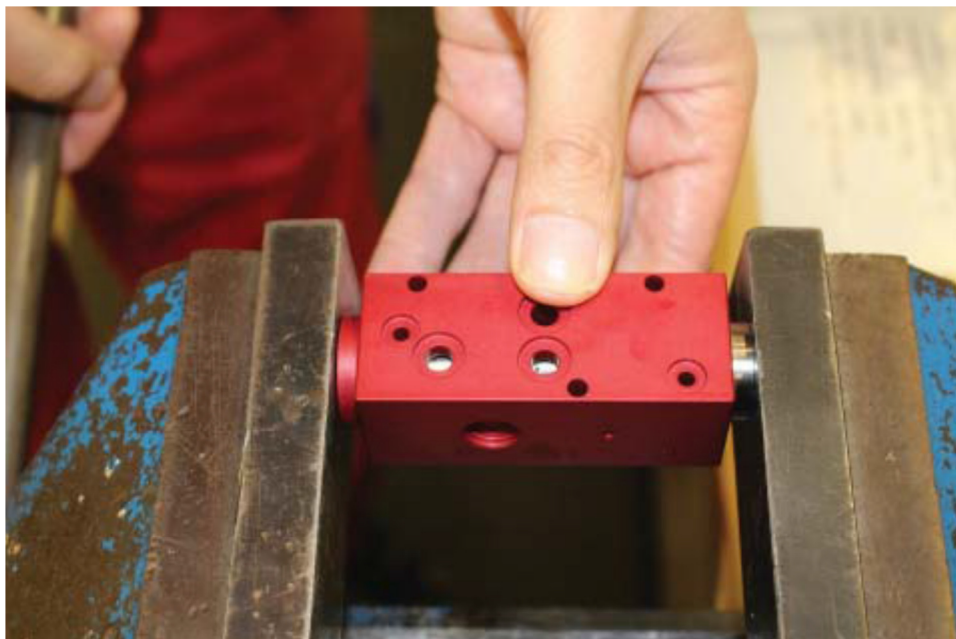
3. Clean all parts of the valve (with f.e. extraction gasoline), check o-rings (if they are worn, replace them) and during assembly lubricate parts, especially o-rings, with f.e. technical Vaseline





4. Install a new Seger's ring and then adjust the appropriate guide sleeve to push it in place (eg with a vice).





5. Put the o-rings on the bottom of the valve (greased with technical vaseline) and tighten the valve back to the pump. Connect the air hose.



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