WARNING
Caution is required with the operation of high flow valve blocks on unloaded actuators, uncontrolled stroke speed may result in actuator damage.

In order to stroke the unloaded actuator the following method should be used, this will stroke the actuator away from selected block, to stroke in opposite direction use other block, on spring return units only 1 block is fitted.

1) Disconnect solenoid supply pipe and connect to constant air supply (figure 1 A).

2) Use the manual override on the solenoid valve, single coil (figure 2) for dual coil (figure 3), spring return (figure 4).

3) Remove plug from manual port, fit 1/8" fitting and connect regulated air supply (figure 1 B).

4) Increase pressure to stroke actuator (figure 1 C).

5) After required stroke remove added air connections, set all overrides OFF and reconnect solenoid supply.

Figure 1

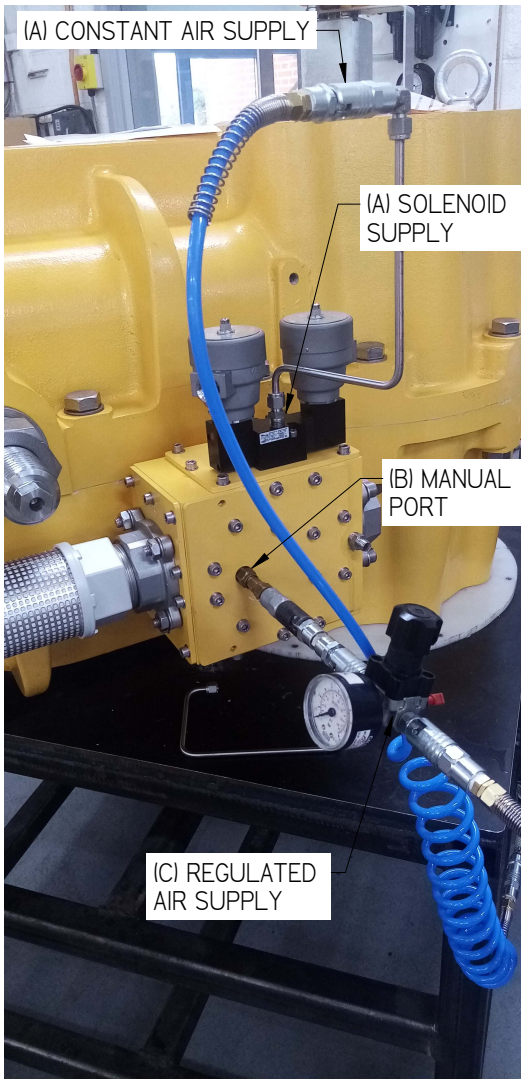


Figure 2 - Single coil

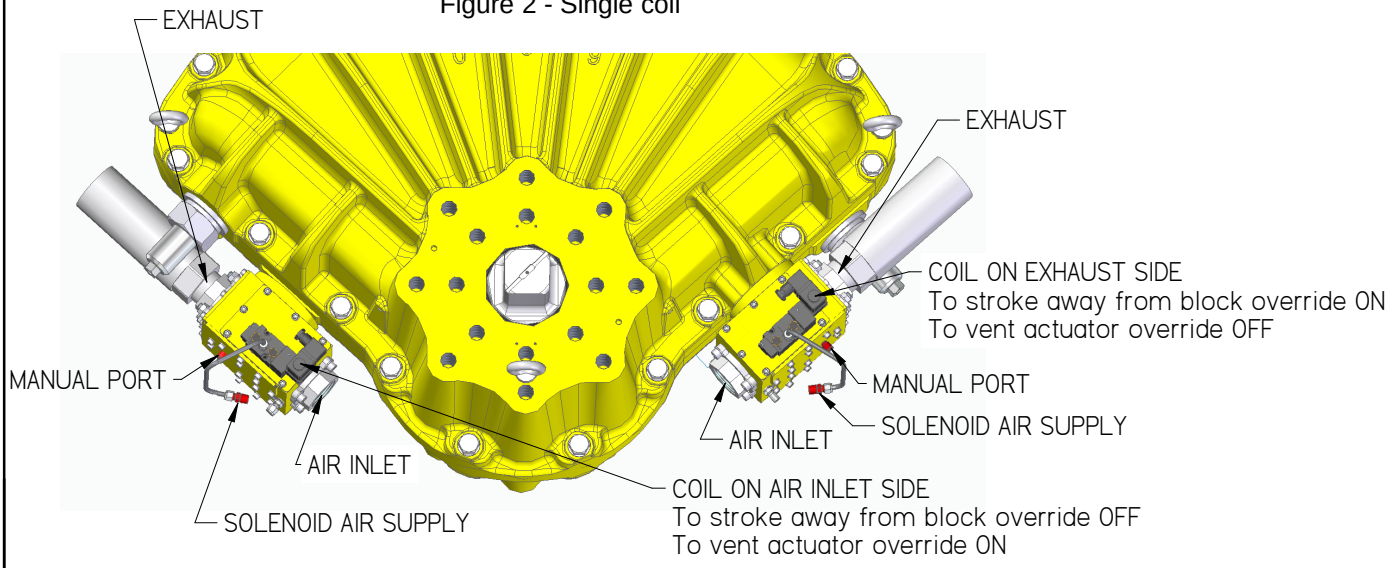


Figure 3 - Dual coil

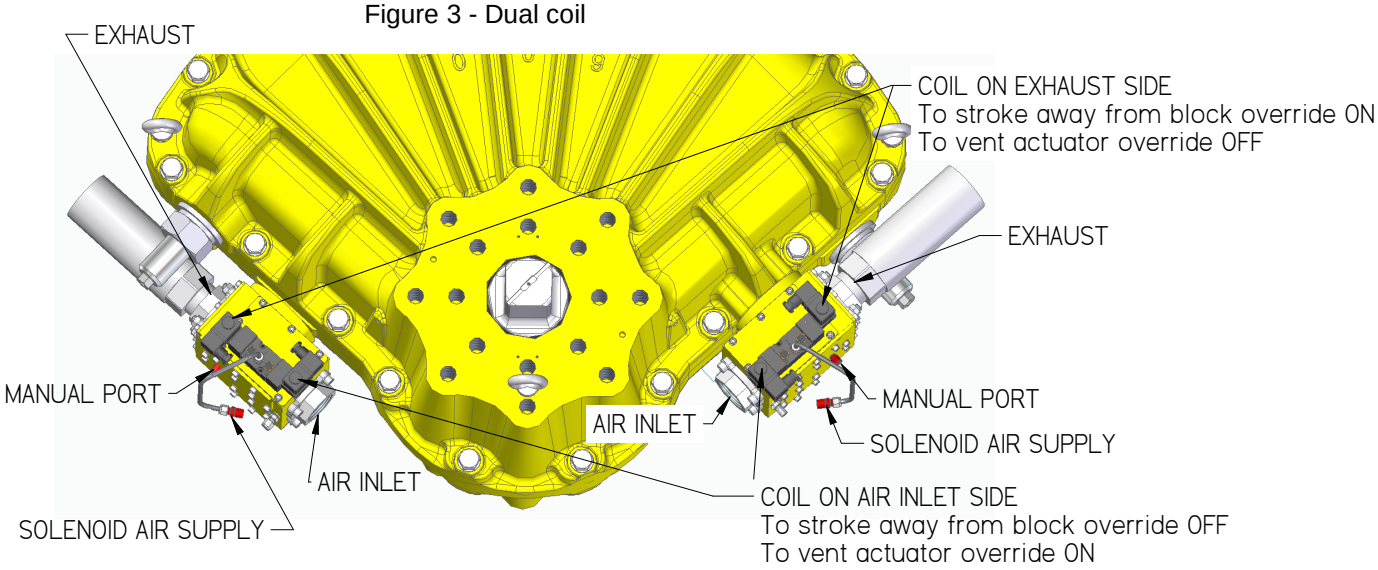
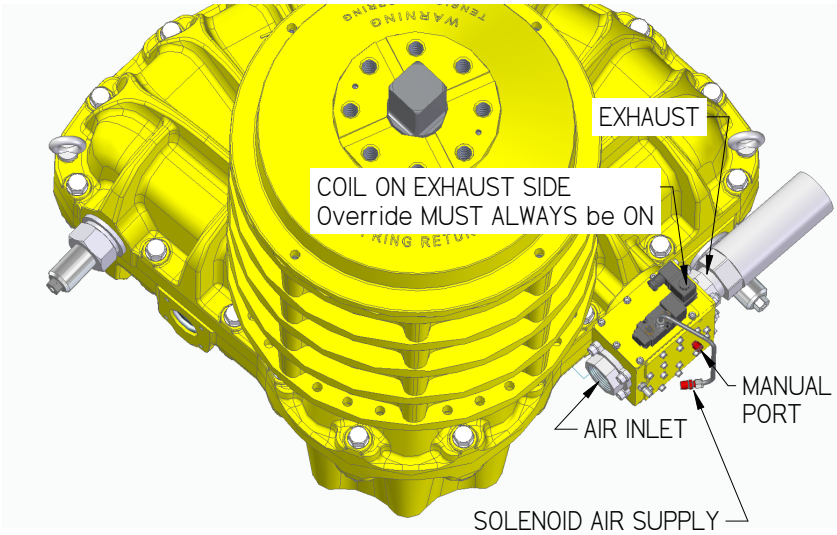


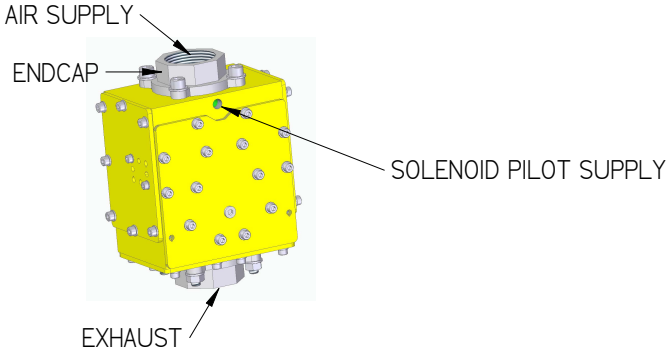
Figure 4 - Spring return



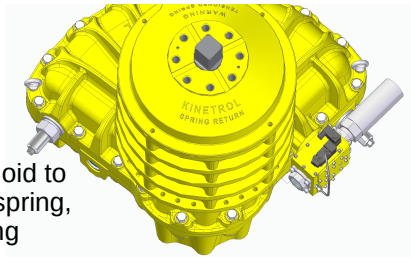
WARNING:
Energised spring - ensure unit is securely fastened. Solenoid override and solenoid air supply MUST ALWAYS be ON, use pressure regulator to increase pressure to stroke actuator away from block and reduce pressure to stroke towards block.
If solenoid override or air supply is turned off while actuator is pressurised actuator will spring return at high speed potentially causing damage.

WARNING - ONLY WHEN ACTUATOR IS UNDER LOAD the 2" air inlet supply can be used.

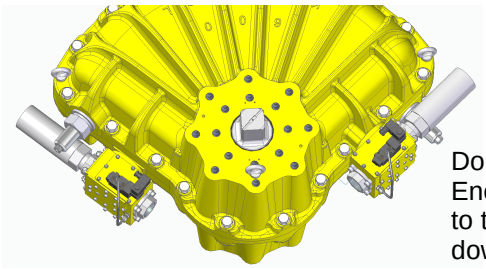
Air supply connection
Each high flow block requires an air supply, ensure that tightening torque is reacted on endcap hexagon and not transmitted to block.



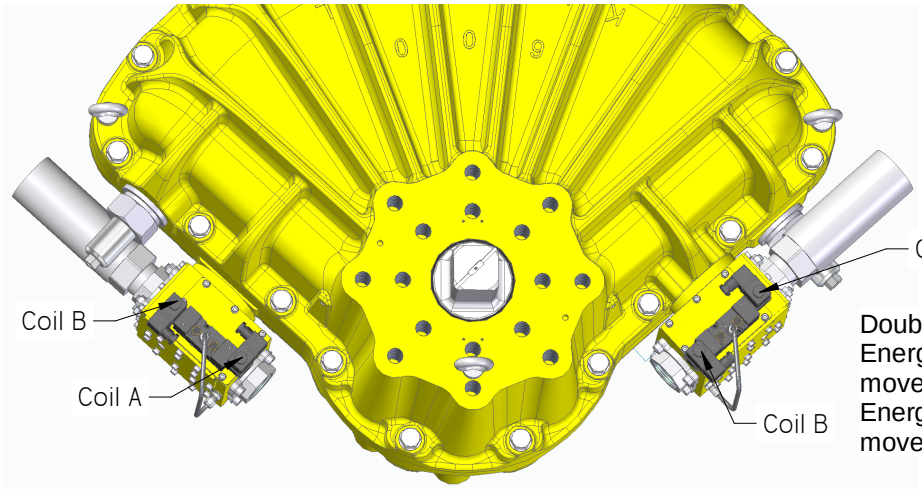
Energise solenoid coils as shown below to stroke actuator



Spring Return
Energise solenoid to move against spring, clockwise spring shown.

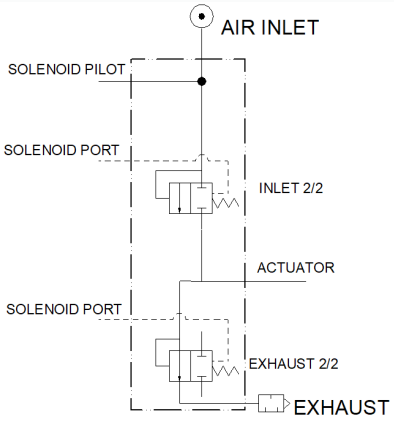


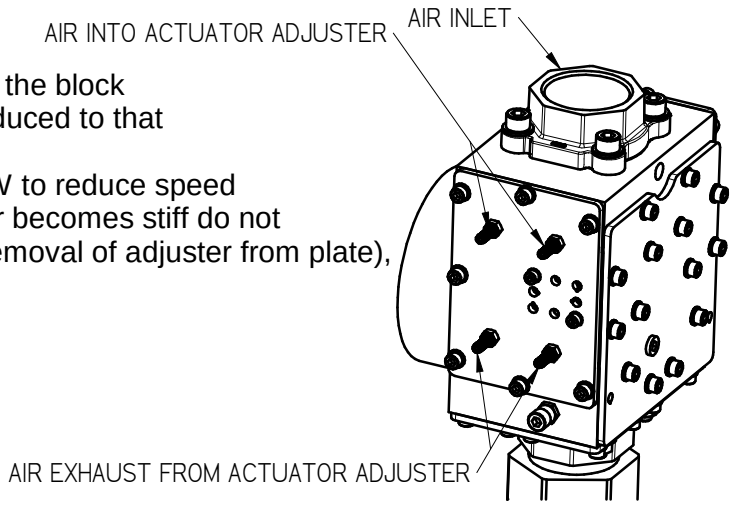
Double acting - fail down
Energise both solenoids to travel upscale, fail down clockwise shown.



Double acting - dual coil
Energise both A coils to move anti-clockwise, Energise both B coils to move clockwise.

Within the high flow block there are 1 to 4 pistons that are controlled by the solenoid valve. These will either lock the actuator, open the air inlet or exhaust.





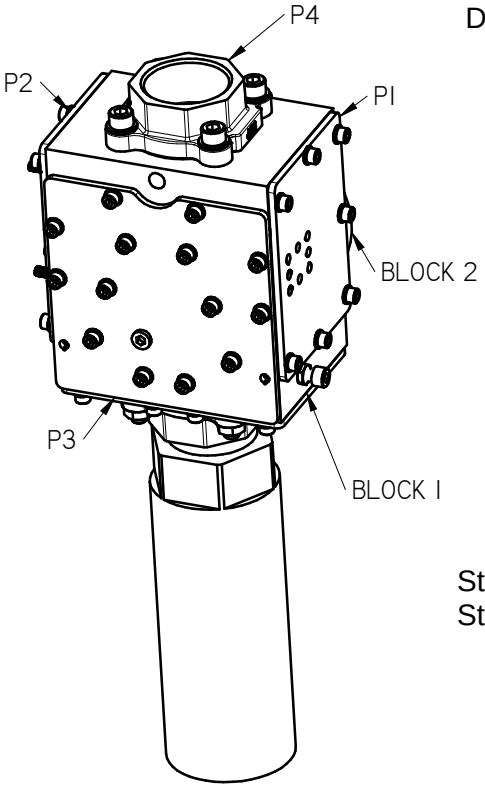
Stroke speed adjustment

There are flow restrictors on the pistons in the block allowing the speed of the block C to be reduced to that of block B, and block B to that of block A.

To adjust loosen the nut, wind adjuster CW to reduce speed or ACW to increase speed - when adjuster becomes stiff do not wind ACW any further (this is to prevent removal of adjuster from plate), re-tighten nut.

High flow block overhaul

Springs, dynamic and static seals can be replaced, end seals on the piston are not removable new end seals are supplied assembled to new pistons. Contact Kinetrol for details.



Dynamic seal replacement guide

Dynamic seals are located under plates P1 & P2.

1) Remove solenoid.
2) Remove securing screws CAUTION: there are springs under each plate.
3) Remove springs
4) Remove pistons, long nose pliers can be used to pull pistons out using twisting motion.
5) Remove o-rings (3) from block body.
6) Clean piston bores
7) Apply grease to piston bore, piston and o-rings.
8) Insert new o-rings (3) into block body.
9) Insert new pistons into block.
10) Insert new springs into pistons.
11) Insert new plate o-rings (7 & 8).
12) Replace plate P1 / P2 & tighten screws, use chemical thread lock.

Static seal replacement guide

Static seals are located:

a) Under inlet flange P4
   1) remove 4 screws and replace o-ring.
b) Under plate P3 and between block 1 & block 2 and actuator
   1) Remove P3 screws and remove plate.
   2) Remove 4 block mount screws and remove block 1, ensure block 2 is supported..
   3) Grease and replace o-rings.
   4) Replace 4 block screws, use chemical thread lock torque to 60Nm.
   5) Insert new o-rings.
   6) Replace plate P3 & tighten screws use chemical thread lock.