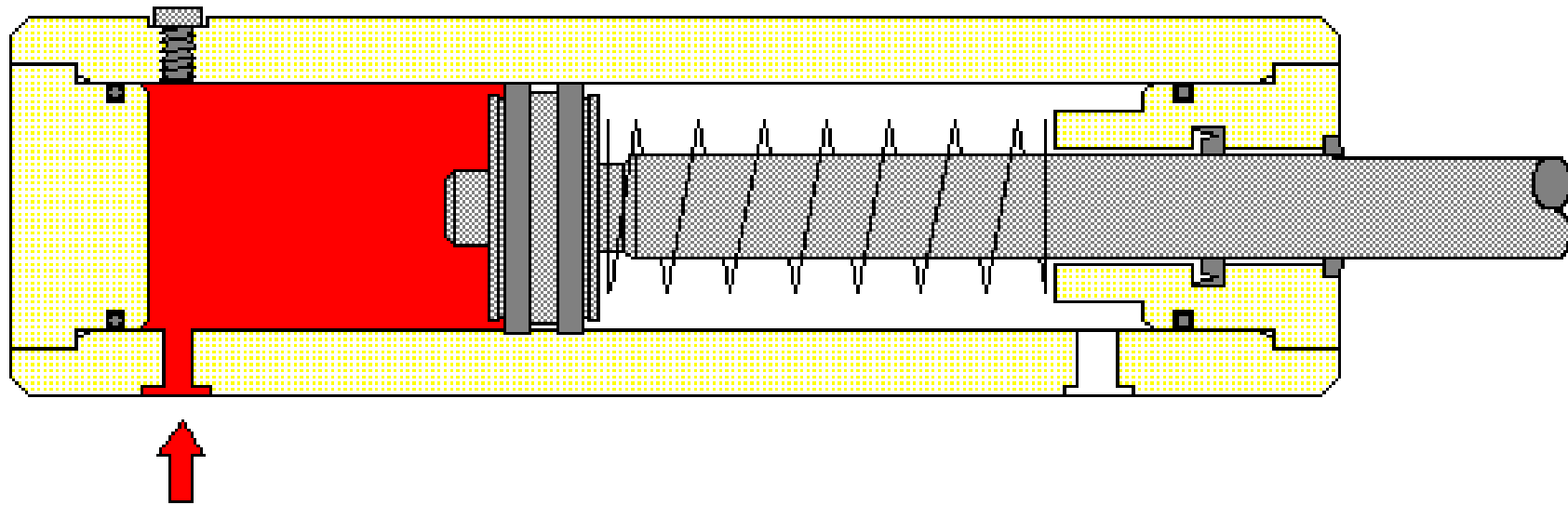
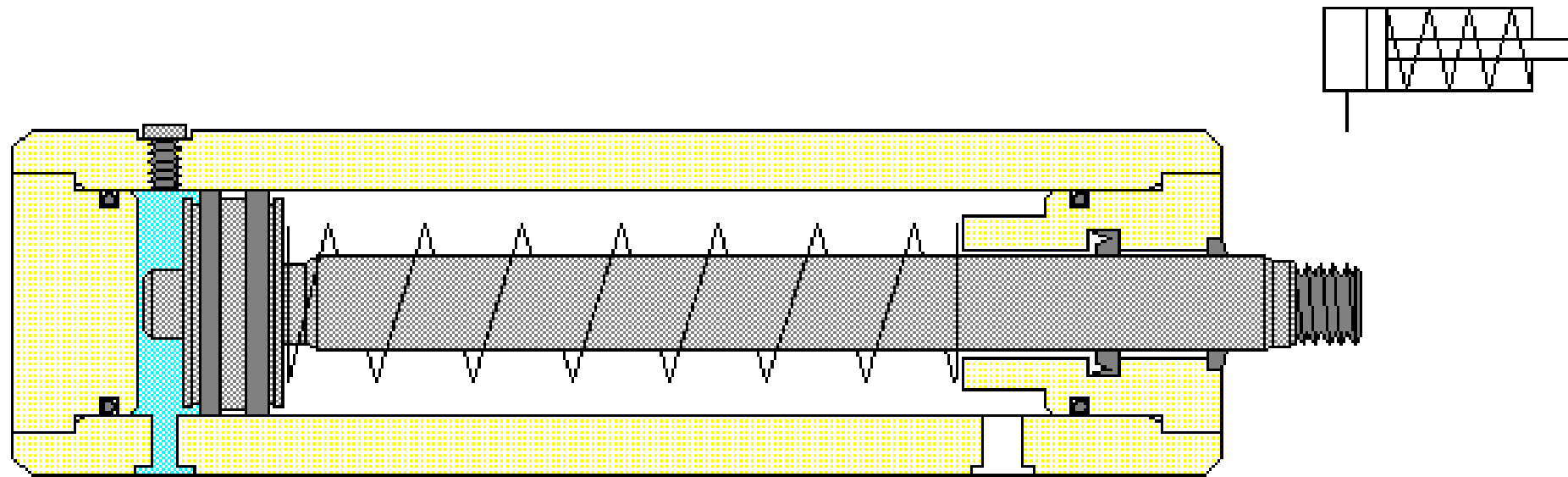
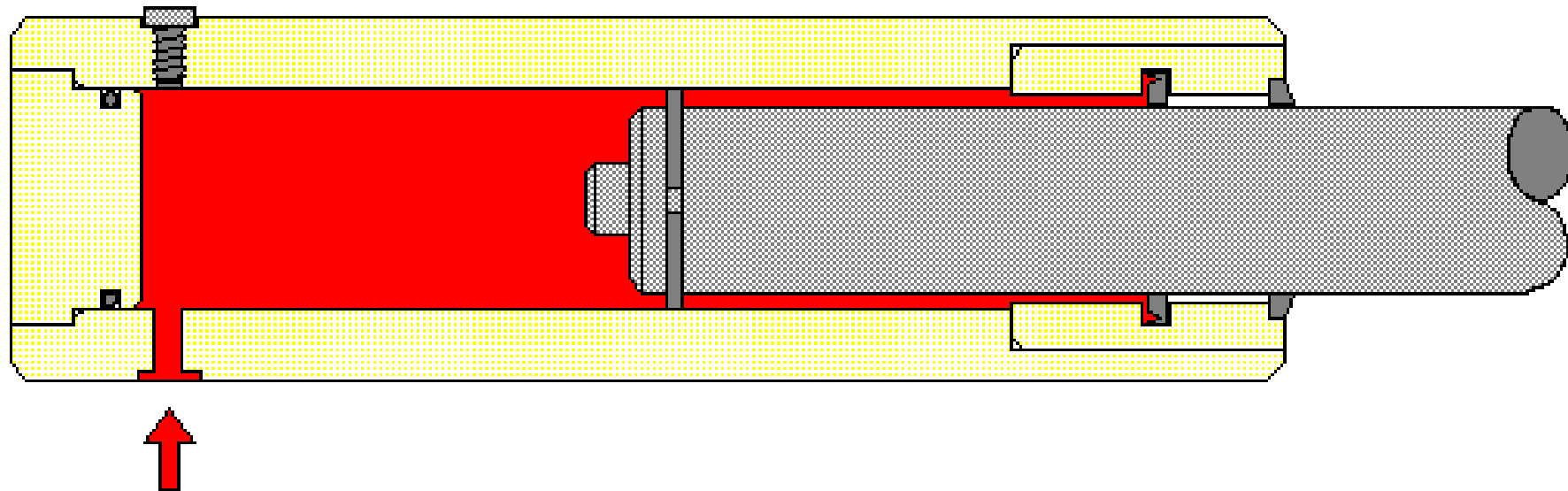
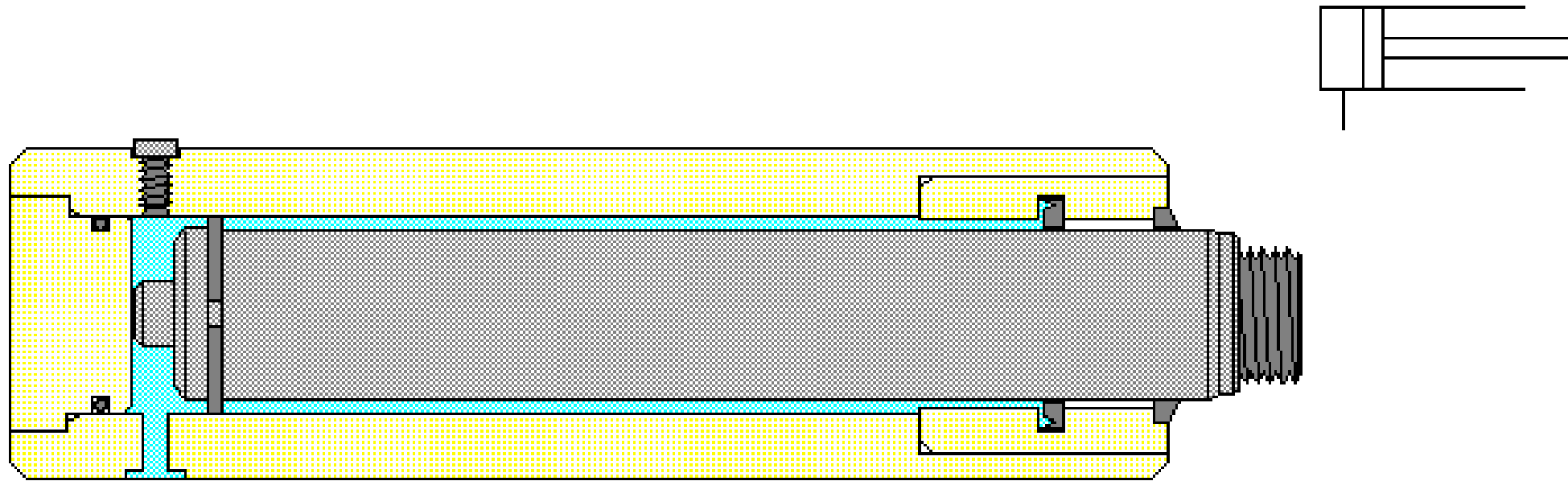


# Hydraulic actuator

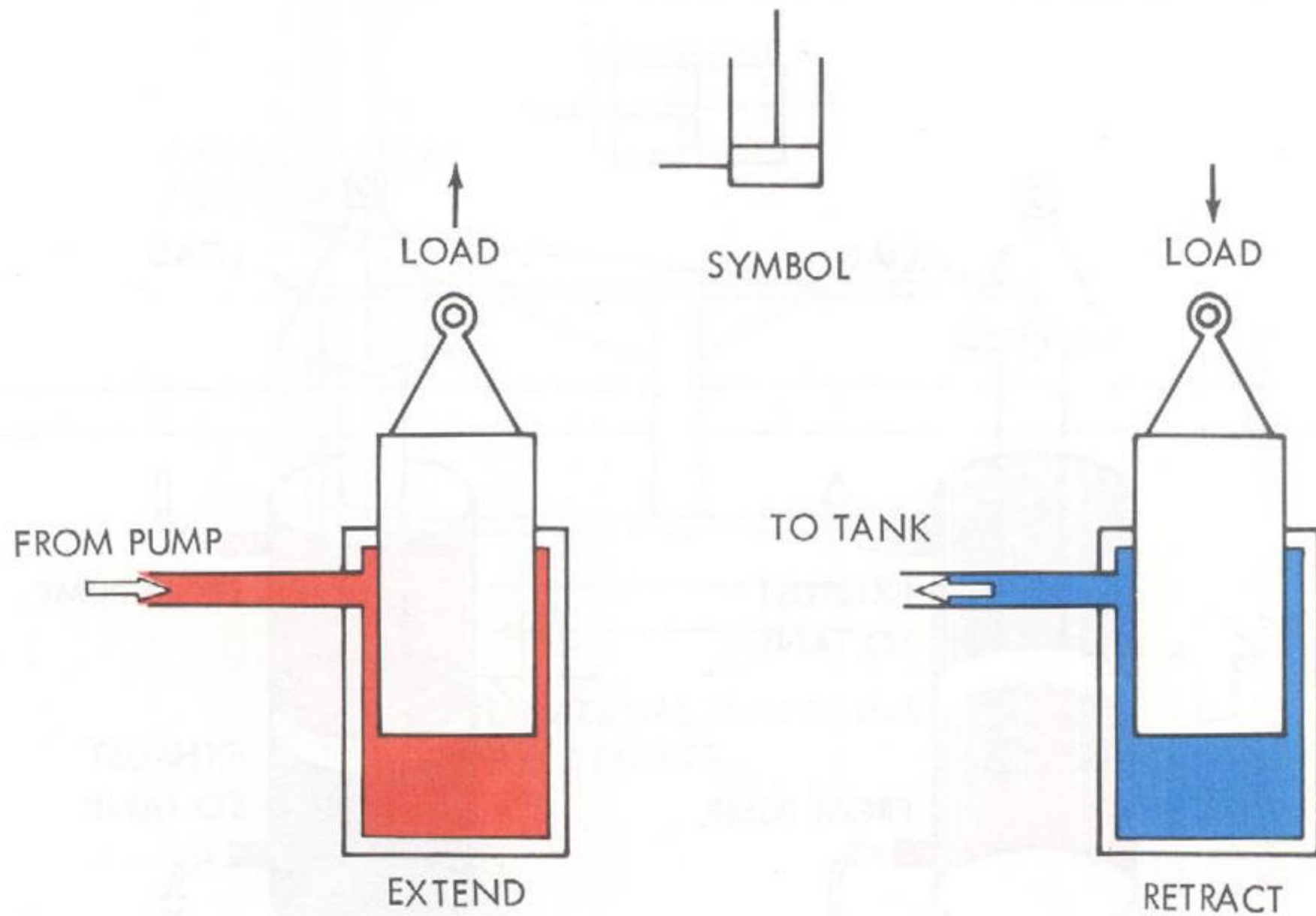
By :Dr rza moradi

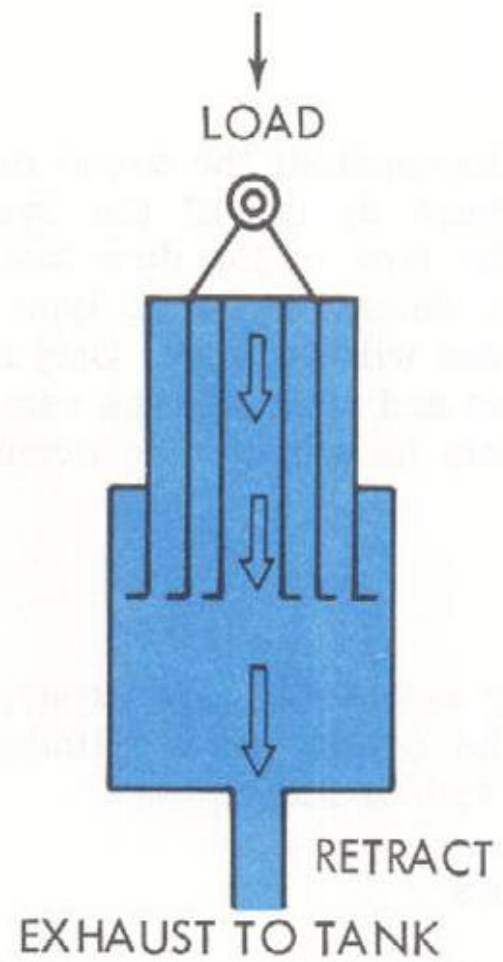
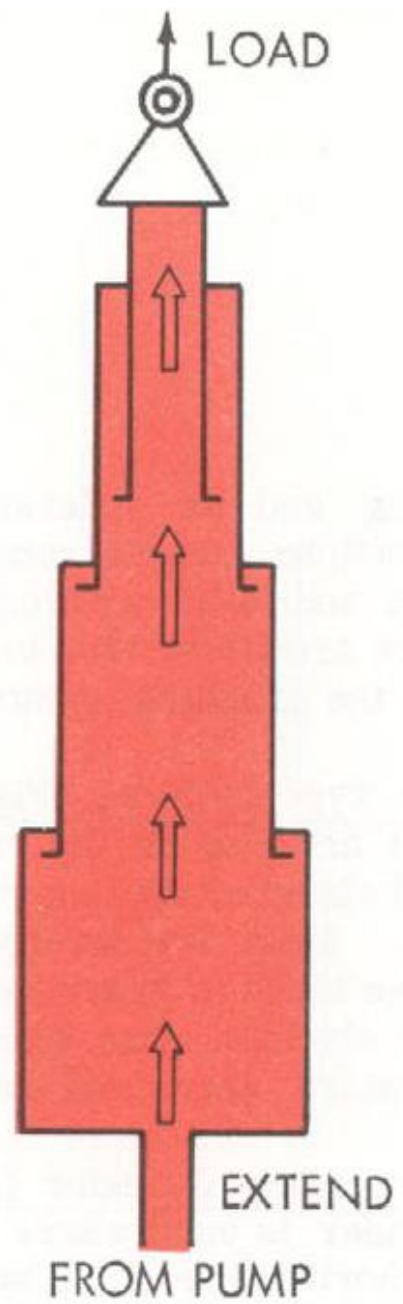


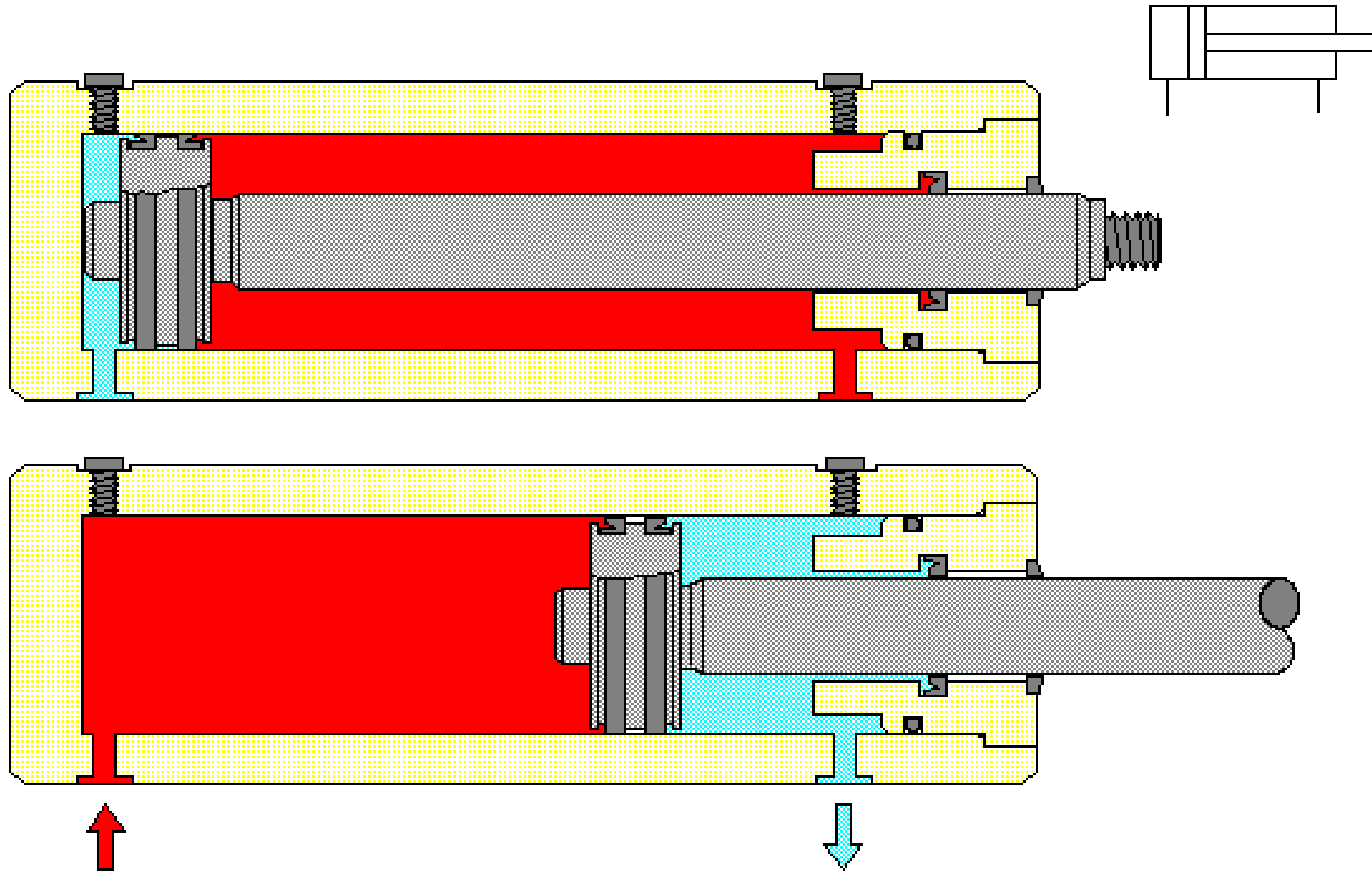
Single acting cylinder



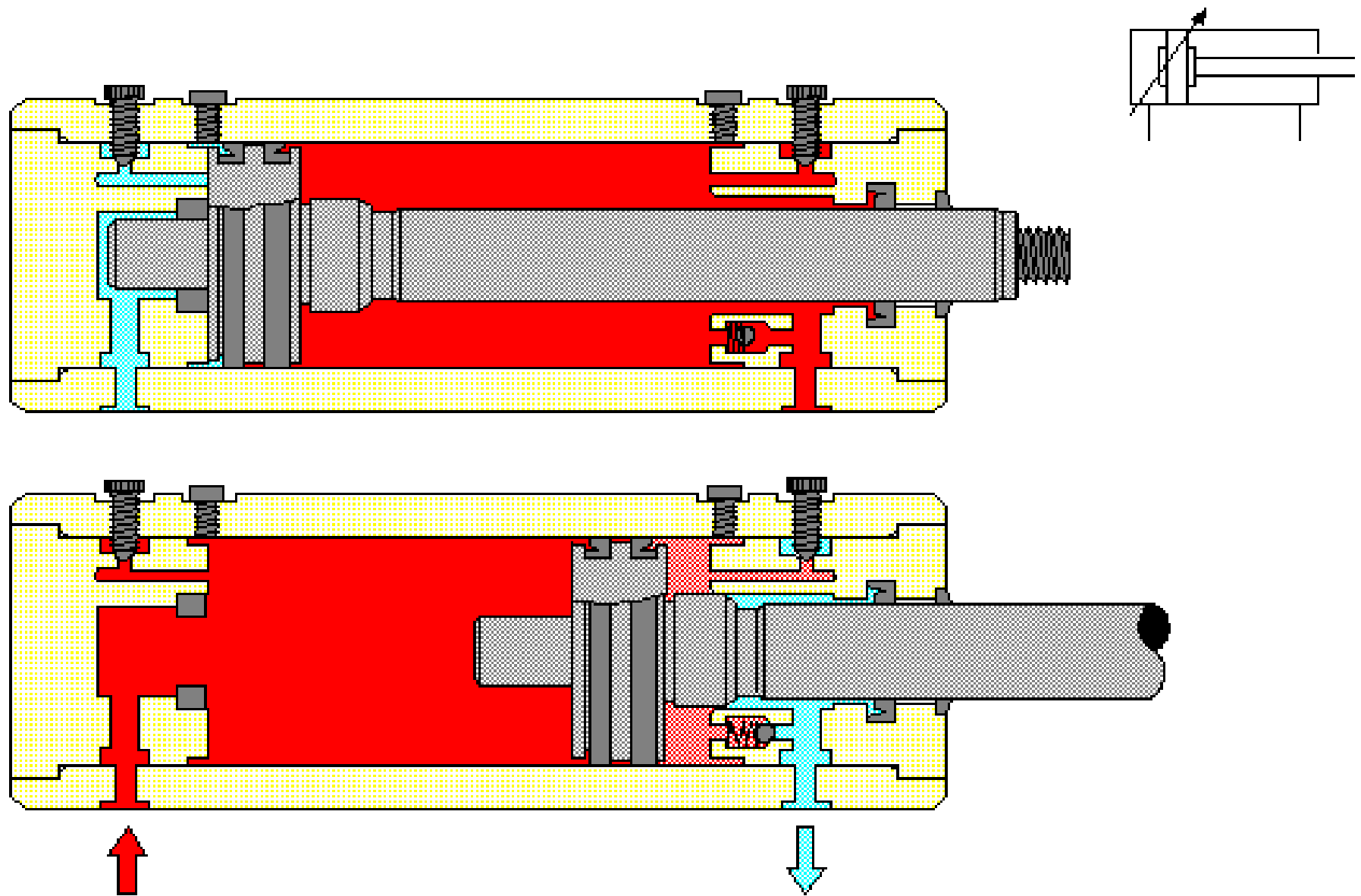
Plunger cylinder



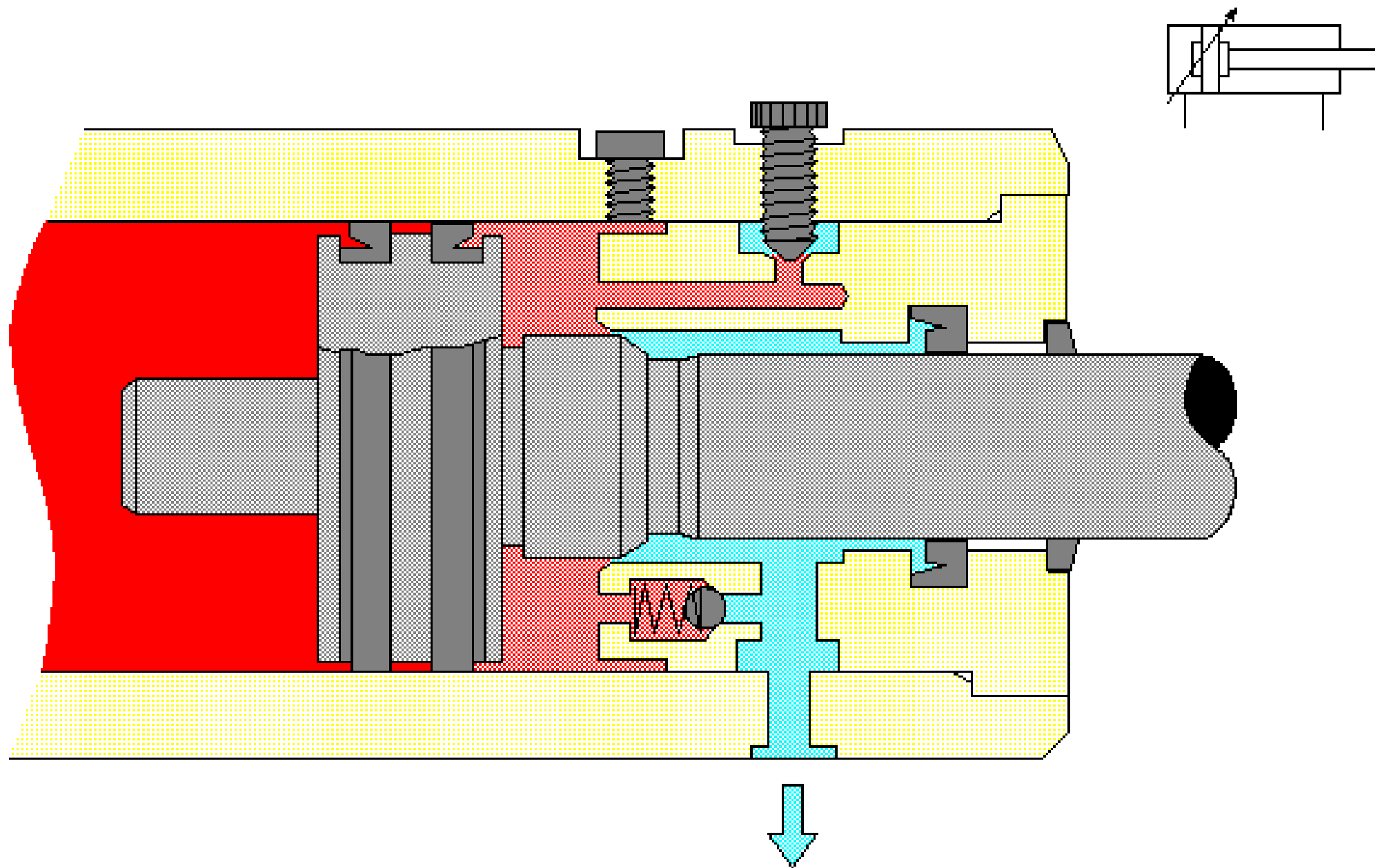




Double acting cylinder

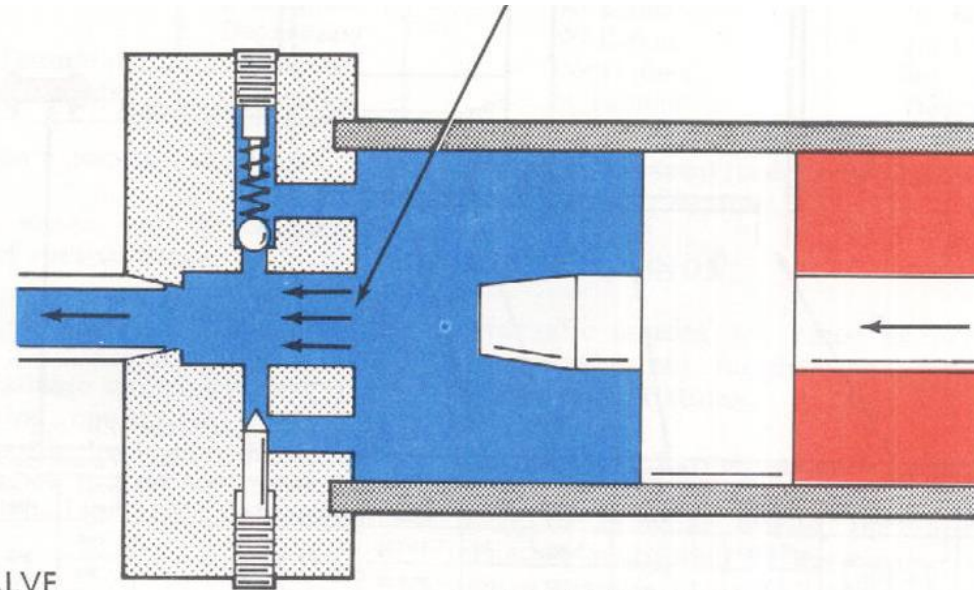


Double acting cylinder with end position cushioning



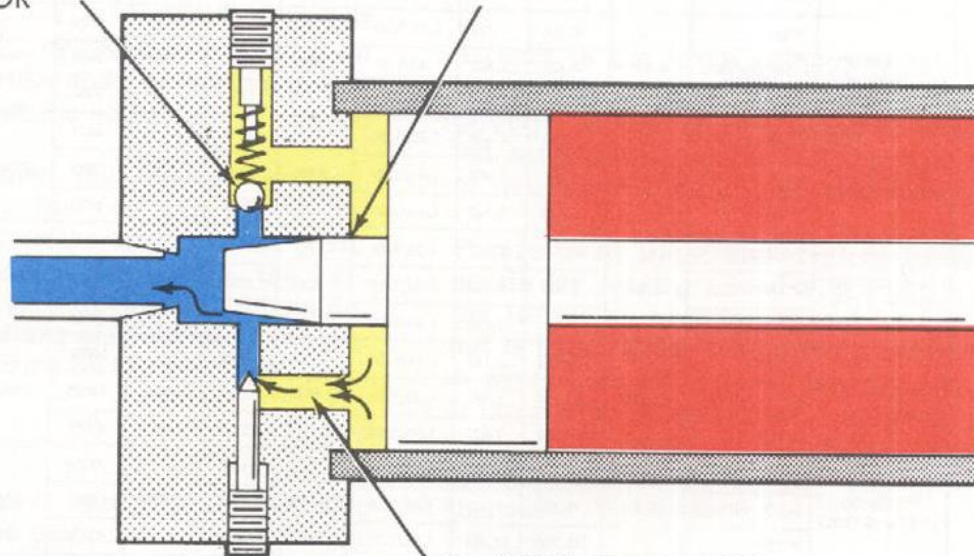
End position cushioning



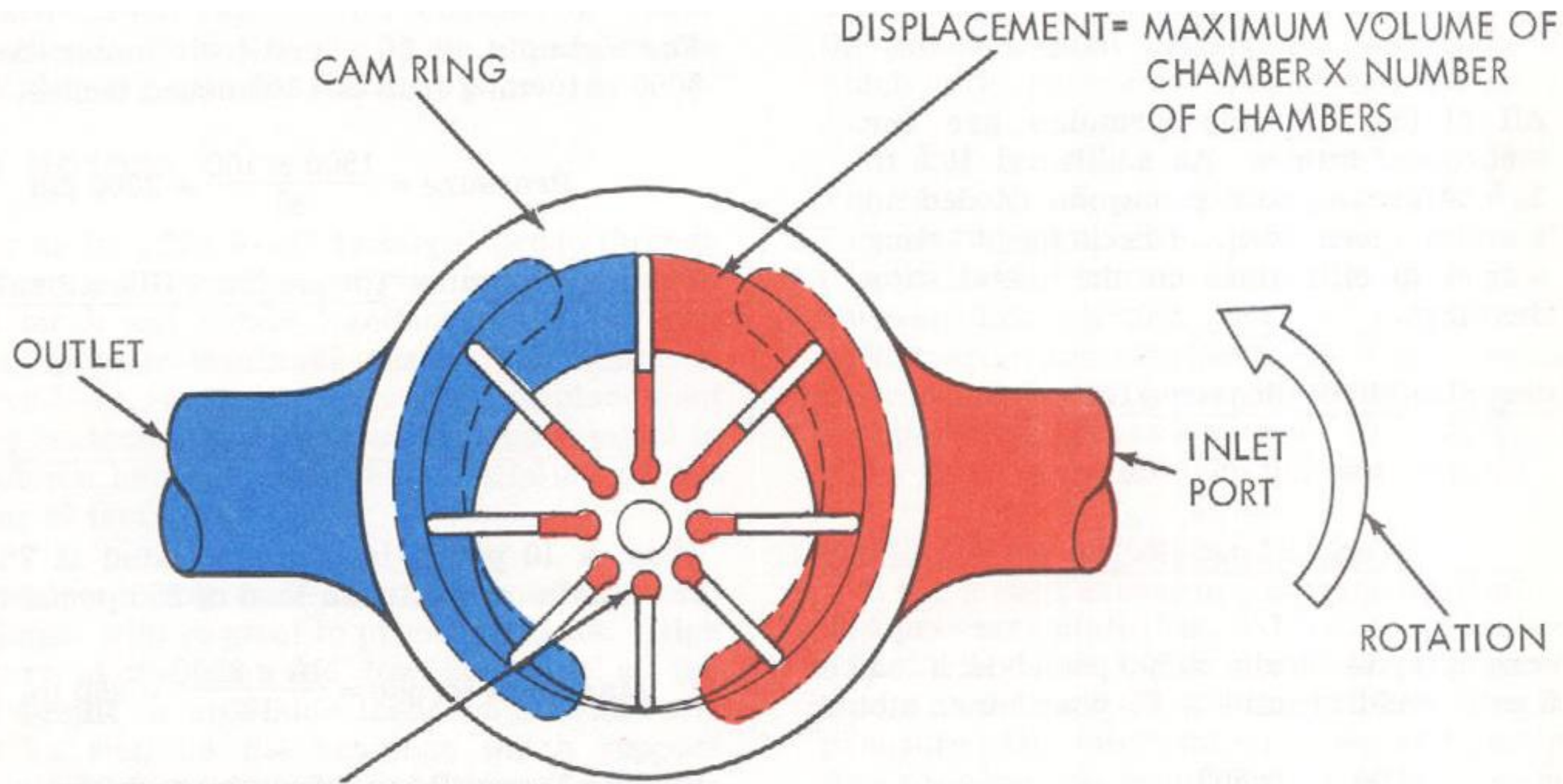


5. CHECK VALVE  
ALLOWS FREE FLOW  
TO PISTON FOR  
EXTENSION

2. PLUNGER ENTERS  
CAP...



3. NOW FLOW MUST  
TAKE RESTRICTED PATH  
CAUSING THE PISTON  
TO DECELERATE



4. THESE TWO TEETH HAVE ONLY  
TANK LINE PRESSURE OPPOSING  
THEM

3. PRESSURE BETWEEN TEETH IN  
THIS SEGMENT PUSHES BOTH WAYS  
AND DOES NOT AFFECT TORQUE  
AS OIL IS CARRIED AROUND TO  
OUTLET

3. PRESSURE BETWEEN TEETH IN  
THIS SEGMENT PUSHES BOTH WAYS  
AND DOES NOT AFFECT TORQUE  
AS OIL IS CARRIED AROUND TO  
OUTLET

