



# HyperCyl<sup>®</sup>

*By Aries Engineering Company, Inc.*



# **HZS Series Pneumatic Schematics**

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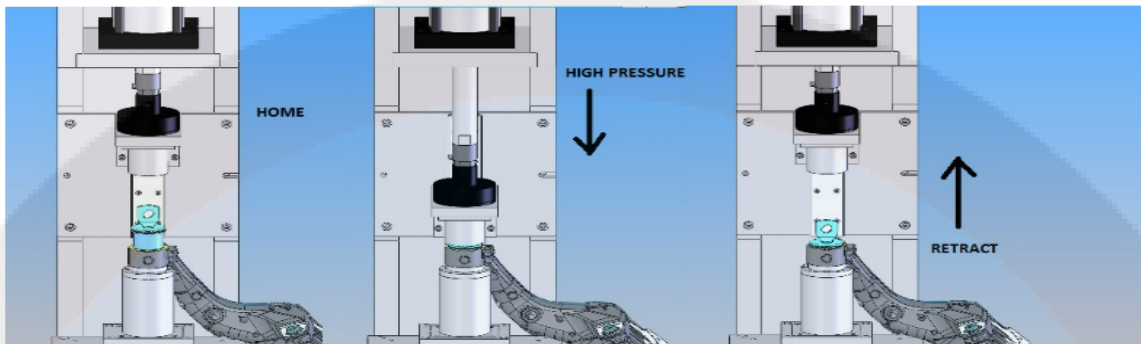
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# Master Control Sequence

*The HZS series HyperCyl® cylinder requires only one (1) pneumatic 2-way directional control valve.*



Control sequence to be followed in order 1 through 3

Step number	Description of operation	A2 port condition	B2 port condition
1.	Home (Retracted)	Exhausted	<b>Pressurized</b>
2. (Cycle Start)	High Pressure Extend	<b>Pressurized</b>	Exhausted
3. (Cycle End)	High Pressure Retract	Exhausted	<b>Pressurized</b>
	(Cylinder now at Step 1)		

Notes for 3 position exhaust-centered valves, for e-stops or light curtain breaches:

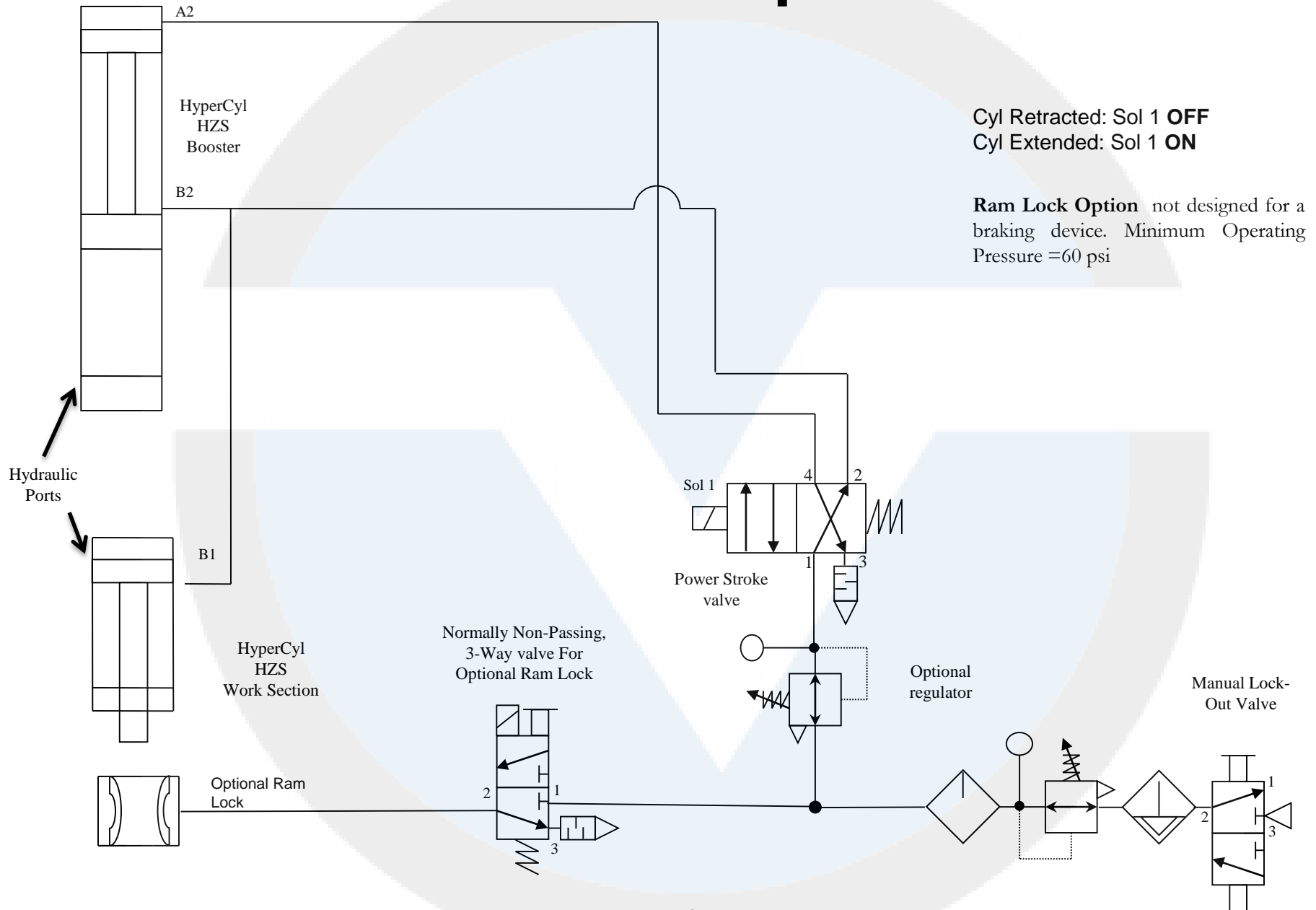
**In cycle** (steps 1 through 3).

The mid position of the valves is used only for an E-Stop condition (cycle interrupted), or shutdown. Normally, the valve is shifted to one side or the other, and not in the mid position.

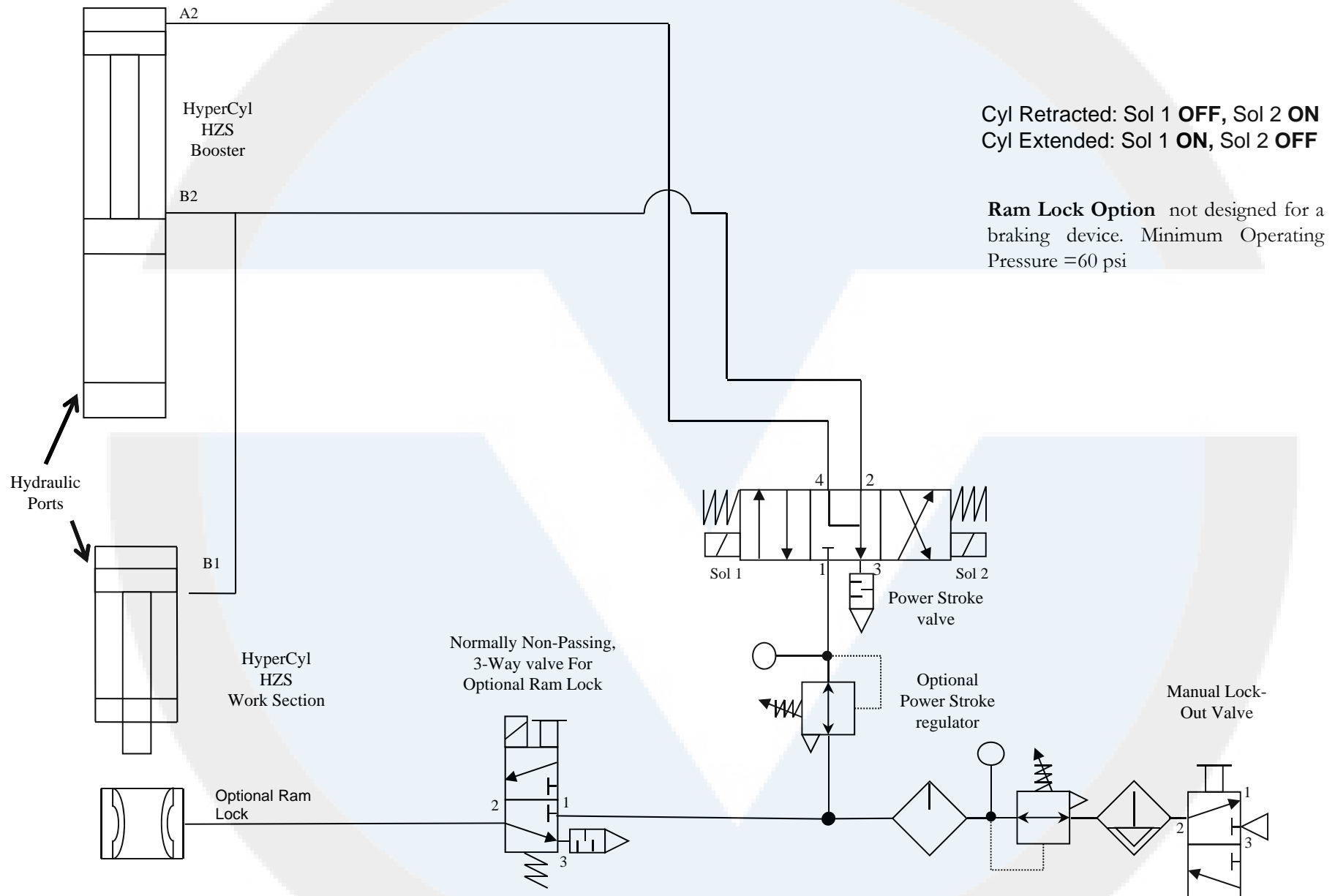
**Not in cycle** (step 1)

When not in cycle, and the e-stop is cleared, B2 must return to their pressurized condition prior to the start of the cycle. For example, the operator breaches the light curtain to load, unload, or change a part. The machine is not in cycle. The valves shift to their mid position. When the operator is clear of the light curtain, the valves must be shifted to the position in which B2 is pressurized before the start of the next cycle.

# HZS Series Option 1



# HZS Series Option 2



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