

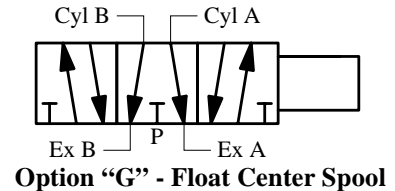
STANDARD VARIATIONS OF AAA VALVES

The “standard variations” listed in this section use standard tooling and standard parts, and are readily available on valve orders from quantity 1 and up. They do require special assembly, and therefore do carry a price addition.

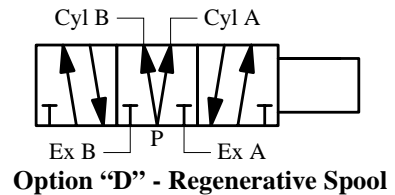
OPTIONAL SPOOLS

Closed center spools are standard on all AAA 3-position valves, and will always be furnished unless another spool type is specified on your order. The following optional spools can be obtained by adding the appropriate suffix letter following the regular valve model number. NOTE: If several optional features are desired on the same valve, add all appropriate suffixes to the end of the regular valve number in any convenient order.

FLOAT CENTER SPOOL — OPTION “G”. Both cylinder ports are vented to the exhaust ports when the spool is centered. On applications where the power cylinder must “float”, subject to externally applied forces, this spool is used to relieve the “pressure lock” on the cylinder. It may also be used in small control valves which are piloting a large valve in which the spool is spring centered. To specify, add suffix “G” to regular valve model number. (Example: SY3G)

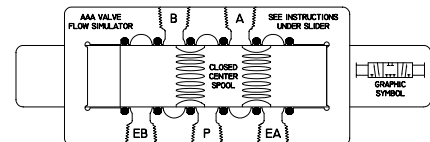


REGENERATIVE SPOOL — OPTION “D”. In center position both cylinder ports are connected to pressure. A common application is for the spool of a small control valve piloting a larger valve with a pressure centered spool. Example: AAA 3-position valves on pages 37 through 39 have pressure centered spools. On internally piloted solenoid, and differential pilot style valves, minimum operating pressure is 80 psi. To specify, add suffix “D” to regular valve number. (Example: SY3D)



AAA VALVE VISUAL AID

FLOW SIMULATOR. A slider device for visualizing 4-way flow through AAA 2-position or 3-position valves. Constructed of light cardboard. Slider (representing valve spool) slips through slots in the body, and shows the action of a closed center spool on one side, float center spool on the other side. Ask for a free copy from your AAA valve distributor.



SPECIAL COATINGS AND PLATINGS

TUFRAM® -

A special surface process called TUFRAM® can be applied to all aluminum and aluminum alloy parts giving them enhanced surface properties. These properties include improved corrosion resistance, abrasion resistance, chemical resistance, moisture resistance, increased hardness, USDA-approved, and FDA-approved. This process is ideal for AAA valves that are used in very harsh environments. For example, wash down areas in food processing plants that use caustic solutions for clean up, off shore oil platforms that are subject to salt water spray, chemical processing plants, or valves that must mount outdoors. Please contact us for more information on the use of TUFRAM® on your application.

Electroless Nickel Plate -

Some steel or steel alloy parts used in the construction of AAA valves can be nickel plated to enhance corrosion resistance, chemical resistance, and moisture resistance. Contact us about your application and we will help determine if nickel plating would be cost effective and beneficial.

Stainless Steel -

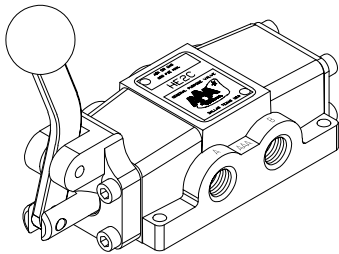
Some parts used in the construction of AAA valves can be replaced with stainless steel to enhance corrosion resistance, chemical resistance, and moisture resistance. Contact us about your application and we will help determine if this would be cost effective and beneficial.

STANDARD VARIATIONS CONTINUED

SPECIAL VARIATIONS AND MODIFICATIONS

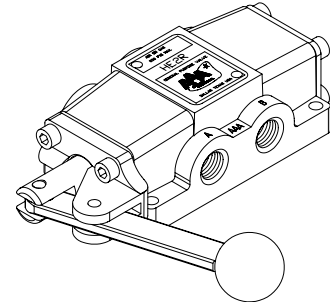
AAA valves are versatile; they lend themselves to many possible modifications to suit special valving requirements. For example, the modifications shown below can be obtained by adding the suffix number to the standard valve model number. These modifications are standard, but some modifications may require special tooling or assembly, so they are only available in production quantities. If you have a special requirement, consult the factory to see if one of the standard modifications, not involving special tooling, would be satisfactory. Contact us, you will be amazed at what we can do!

FOR ADDITIONAL VARIATIONS OF 1/4" & 3/8" VALVES, SEE PAGE 14



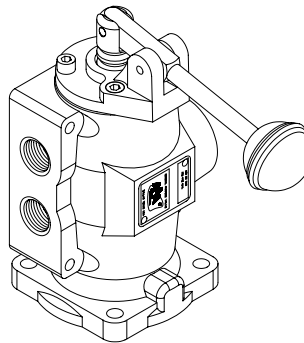
OPTION "C"

Manual lever valve equipped with curved handle.



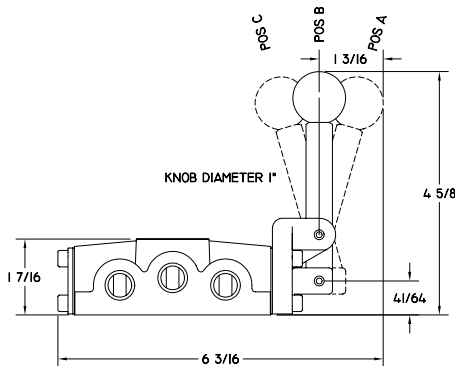
OPTION "R"

Manual lever valve equipped with handle turned 90°. Standard rotation is towards the 2 port side.



OPTION "N"

1/2" manual lever valve equipped with special endcap for vertical mounting. Not recommended for friction position valves.

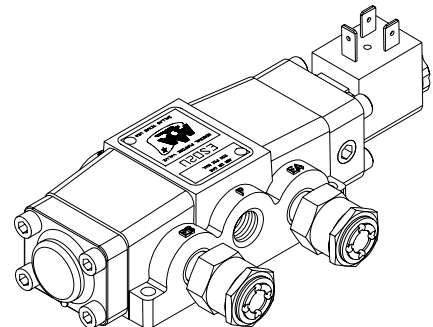


REVERSE OPERATION

On most manually operated 2 position, spring return valves, standard free position is position "C". Valves can be ordered so free position is "A". Must be specified at time of order.

OPTION "Q"

Any friction, 2 position manual lever or palm valve with detents in position "C" and "A".



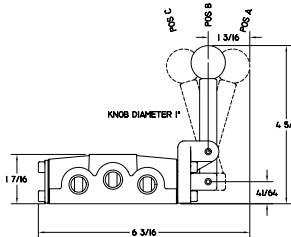
OPTION "U"

Any valve equipped with AAA Products muffer/flow controls. See page 47 for more information.

EXAMPLES OF SPECIAL VALVES MANUFACTURED TO MEET OUR CUSTOMERS NEEDS

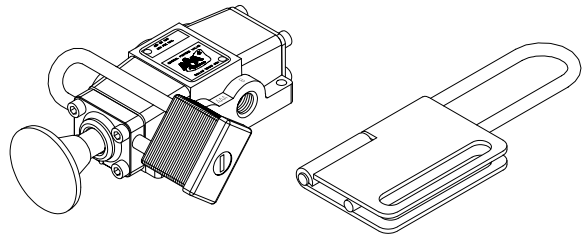


We have supplied valves in many applications where we have changed from a standard NPTF port to a SAE O-Ring port. We have supplied valves with special O-Rings, special solenoid override mechanisms, special solenoid coil voltages and coil leads. We have supplied more special valves than standard valves listed in this catalog. We have placed in our catalog the standard valve configurations in hopes that you will ask "Yes, but can you do-?" Consult the factory to find out.

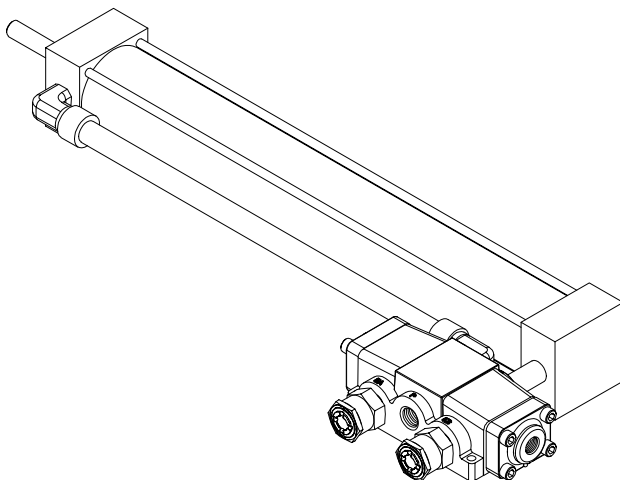
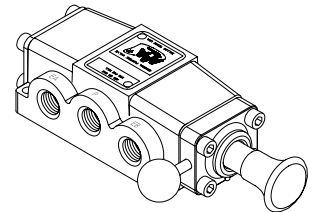


Example 1: Customer wanted a valve that was manual lever, 3 position, and would spring to center when then handle is released from position "A", but would remain in position "C" when released from position "C". We manufactured a special stud that allowed the spool to be detented in position "C" and used a spring to return to center when in released in position "A". This function is available on the 1/4", 3/8", 1/2", 3/4", 1", 1-1/2" and 2" valve sizes.

Example 2: Customer wanted a valve that was palm button, 2 position, would spring return, but have the ability to use a padlock lockout. We provided a standard KO3, (2-position, spring returned to "out" position when knob is released by operator) with a modified stud and endcap. We provided a unique locking bar that would accept a single padlock or several padlocks when required. This lockout is available on certain valve models and sizes.

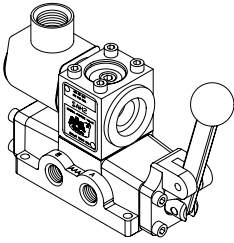


Example 3: Customer wanted a palm valve with a smaller knob, 2 position, friction position, and with a pinlock in position "C". This valve was also going to be used in a "Highway" application where the valve was going to be subjected to fine dust, rain, and salt. We recommended the customer use a standard KO2E with a smaller knob, and replace some internal parts that are steel to stainless steel. Also we added internal wipers and plugs to reduce dust contamination and moisture seepage. Consult the factory or your distributor on special applications and especially where the valve must endure harsh condition.



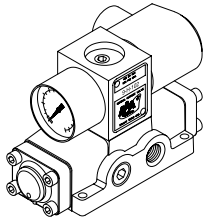
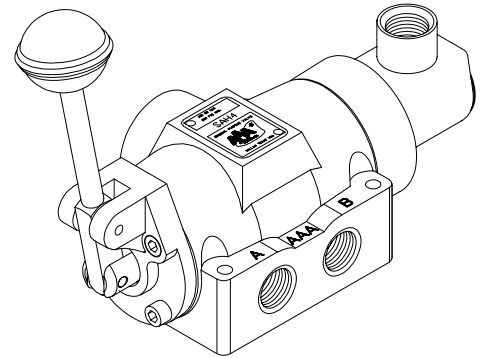
Example 4: Customer needed a solution that was compact, easily serviced, and simple plumbing and mounting. We provided cylinder, valve combination that fit their application. This assembly is used in a saw mill for clamping of lumber. This is a simple 2 position, spring return, pilot operated valve. When the valve receives a low pressure signal, the clamp is activated. The clamp is deactivated when the pilot signal is removed. We provided for them the entire assembly or just the valve depending upon their needs. The assembly can also use a solenoid valve when the signal needs to be electrical rather than low pressure air.

ADDITIONAL CUSTOMER VARIATIONS



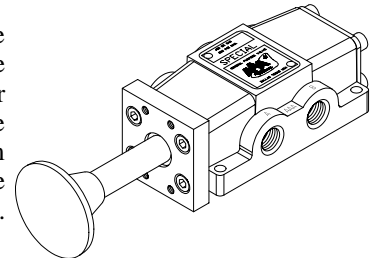
Example 5: Customer wanted an alternate solenoid operated, 2 position valve with a manual lever override. We provided the customer a modified SO2 and added a lever to allow the customer to override the operation of the solenoid or to shift the valve with out the solenoid. This handle override is available on certain models and sizes.

Example 6: A typical trucking application is called a "Belly Dump". This is an application where the driver in the cab can initiate the opening of a bottom clam shell trailer by pushing a button. The operator can also regulate the opening manually by using a lever on the valve. This valve is a 2 position, spring return, solenoid operated valve with an alternate manual lever. This valve is rugged and reliable for trucking operation.



Example 7: In the designing and manufacturing of a rod threading machine, we needed to have a pressure gauge mounted in-line. We found the best solution was to mount it directly to the valve. If you have similar design problems, let us help solve them.

Example 8: Customer was having a problem with both quality and delivery of a valve used in a machine they used through out their manufacturing facility. The original valve was an O.E.M (original equipment manufacture) product and was designed to fit their machine. We overcame their quality and delivery problem with this almost standard, off the shelf valve. We designed and manufactured a mounting plate so a standard KO2 (1/4" palm actuated, spring return) with an extended palm knob valve would match the old valve mounting and operational envelope. They no longer have a quality nor a delivery problem. (Plus, they don't need as many replacement valves on the shelf.)



TRANSITION PLATES

Another area where we can help you, is the converting of one sub plate valve mount pattern to another. We have designed and built many transition plates to accommodate either outdated valves, or when the customer was not pleased with the current valve manufacturer. Below is some examples of mounting patterns that we have accommodated. We can also custom design manifolds or group assemblies.

