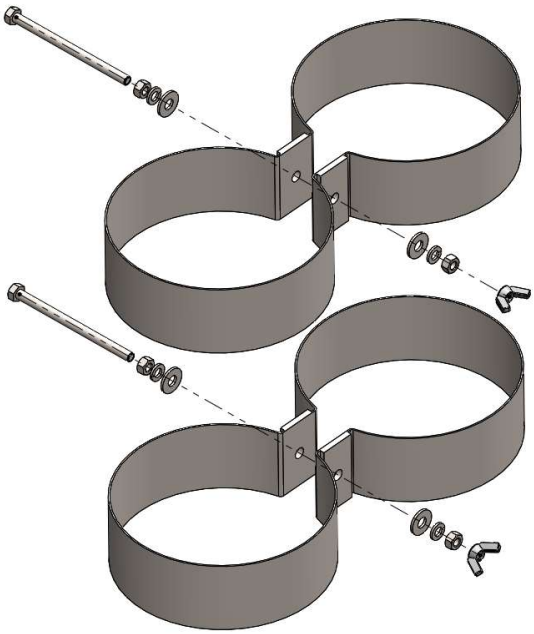
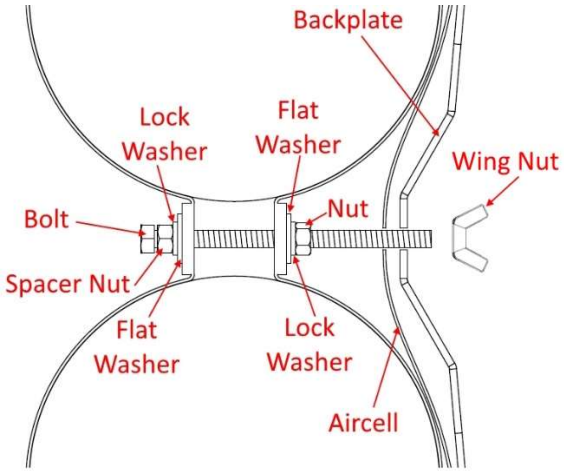
DIVE RITE®

Bolt Kit for Doubles

Item Number:
GM 1029 for 5.5 inch diameter cylinders
GM1030 for 6.9/7 inch diameter cylinders
GM1031 for 7.25 inch diameter cylinders
GM1038 for 8 inch diameter cylinders





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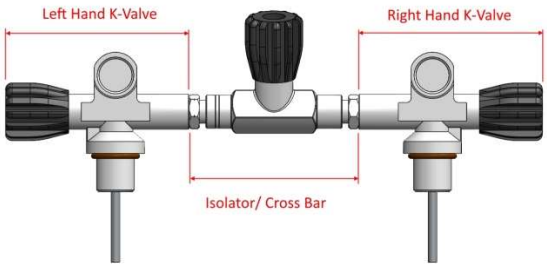
Assembling Double Cylinders

1. Look at the bands and confirm that they are circular. If the bands look egg shaped, then you may have to put them on the tanks and tighten them down to make them circular again. Remove them again before installing the valves.
2. Disassemble the manifold into its three primary components—right and left K-valves and isolator bar. Lightly lubricate all exposed threads and O-rings with oxygen compatible grease. Make certain the isolator lock nuts are tight against the center of the isolator bar body.



3. Install one K-valve into each cylinder. Tighten hand tight only. Do not use a hammer to tighten the valve as this can bend the valve stem.
4. Place the cylinders on a sturdy, flat work surface parallel to one another.
5. Carefully orient the center isolator bar so that its threads correctly align with those of the K-valves. This is important—serious manifold damage may result otherwise. The notched lock nut, indicating reverse thread direction, goes to the left hand valve.
6. Slowly turn the isolator bar so that it engages the threads of both K-valves simultaneously. This is very important. If one side does not engage you must back the isolator bar all the way out and begin again. Be patient as this may take several tries.
7. When the isolator bar threads engage properly, turning the isolator will draw the tops of the cylinders together. To keep the cylinders parallel to one another as this happens, stop periodically to gently tap the bottom of the cylinders together. You can tell when to do this

because the isolator bar will become difficult to turn when the cylinders are no longer in proper alignment. It is important not to use wrenches for this step and turn the isolator only by hand so that you can feel any resistance. Continue until the tanks are at the correct width for the bands to be installed.

8. Install the top band and slide it all the way up to, or just below, the shoulder of each cylinder (the shoulder is where the side of the cylinder begins to turn toward the valve). With the valve orifices facing upward, pull the cylinders to the edge of the table. Let the cylinders extend beyond the edge so that the band is exposed.
9. Install one nut all the way onto one of the bolts. This will be the spacer nut that will determine how much of the threaded portion of the bolt is sticking out of the front side of the band. (*Note: This spacer nut is optional and can be removed if you find the bolts are not long enough for your application.)
10. Place a lock washer and a flat washer on the bolt against the spacer nut, and then install the bolt up through the holes in the band. Install a second flat washer, lock washer, and nut against the band and tighten the nut while holding the end of the bolt with a 1/2-inch wrench. Tighten the nut until the band just starts to tighten up around the cylinders.
11. Turn the cylinders around so their bottom ends will be exposed. Install the bottom band and position it so that the bolts will be spaced 11 inches apart when measured center to center. (A back plate makes a good measuring device.) Repeat step 9 and 10 for the bottom bolt.
12. Now tighten the bolts up a little and turn the isolator. Slowly keep repeating the tightening of the bolts and manifold until you reach a point where no more than 1/8-inch/3mm of threads are showing on each side of the center section of the manifold. Make certain that the manifold threads are not binding and position the isolator knob at the desired angle.
13. Turn the isolator nuts so that they rest snugly against the K-valves. Gently lock them in place with a 21mm wrench. Care should be used as these components are brass and easily damaged by unnecessary force.
14. Examine the entire assembly. The bolts should not extend past the outside edges of the bands. If they do, you will need to loosen the bolts and adjust the spacer nut from step 9 and re-tighten. Ensure that the cylinders are parallel to one another and able to lie flat, then finish tightening the nuts.