

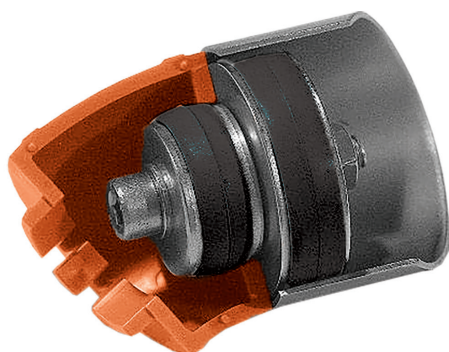
1. Contents



The icengineworks® modeling block adapters (BA) are modular devices designed to firmly and safely anchor the icengineworks® modeling blocks to the starter tubes in exhaust flanges during the design of exhaust headers. One block adapter is required per cylinder or exhaust header runner. They are specifically designed to match a given icengineworks® modeling block EHSeries (by OD) and the ID of its intended metal tubing. Each BA consists of 2 small-OD stainless steel disks, 1 small-OD rubber spacer, 2 large-OD stainless steel disks (one with a nutsert), 2 large-OD rubber spacers and stainless steel hardware.

Please read below recommendations to set up your block adapters to best suit your design conditions.

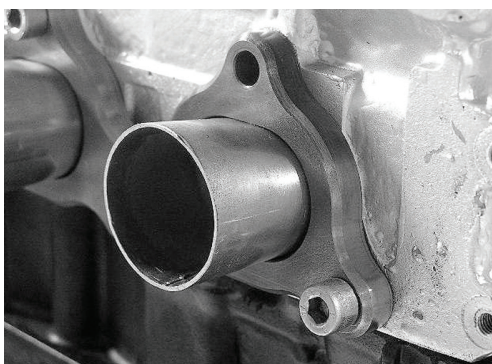
2. How the icengineworks® Modeling Block Adapters Work



The small-OD end of the block adapter fits through the female side of any matching OD-EHSeries icengineworks® modeling block. It needs to be inserted all the way in until the modeling block face sits against the large-OD metal washer at the center of the adapter. When the bolt gets tightened, the rubber disks expand trapping the icengineworks® modeling block in place. The block adapter's thick small-OD washers place the swelling rubber disks slightly under the plastic icengineworks® modeling block wall thickness. This action allows the block adapter to pin the modeling block down without damage.

On the other end, the large-OD rubber disks, trapped between the two large-OD metal washers, expand against the starter tube inner walls when the bolt is tightened (see the picture showing a cross-section).

3. Tailoring the icengineworks® Modeling Block Adapters



The icengineworks® block adapters provide the fastening power to support the strings of icengineworks® modeling blocks and can be configured to cover common starter tube wall thickness. The modular design allows the user to tailor them to the starter tube design in the engine.

Starter tubes with 'longer' transitions typically offer deeper circular profiles at their open ends. In these cases, using the 2 rubber disks may result in a firm installation.

On the other hand, starter tubes that are short and feature a shallow circular profile may have room for only 1 large-OD rubber disk inside. You may have to try which arrangement fits your needs best.

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The actual design of the icengineworks® modeling blocks and the information and procedures described on the website and in this manual are subject to change without notice.



To add or remove rubber disks, undo and remove the bottom washer with the nutsert. Remove, or add a rubber disk as the case may be. Replace the large metal washer with the nutsert.

4. Installing the icengineworks® Modeling Block Adapters

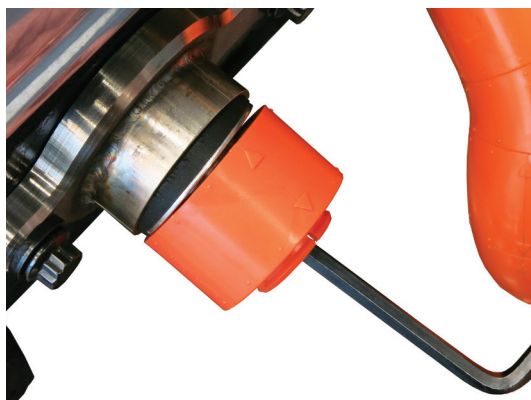


The following installation steps are those shown in Step 3 of the icengineworks® modeling blocks Instructions Manual included in each modeling block set.

Choose the type of icengineworks® modeling block, straight or curved, to start the assembly for each runner. Any block type works just as good.

Insert the small-OD end of the block adapter through the female side of the icengineworks modeling block and tighten the bolt somewhat to get it to stay. Use the special 5mm Allen wrench included.

Next, insert the large-OD end into the starter tube while making sure that there are no gaps between the icengineworks® modeling block and the large-OD inner metal disk at the center of the block adapter.



Begin tightening the bolt by holding with one hand the Allen wrench on the bolt, and holding with the other the block adapter/modeling block assembly flush against the starter tube. Some slippage may occur initially. Also, depending on the metal tube wall thickness, some pre-loading may be required on thin gages.

The plastic modeling block should sit perfectly flat against the edge of the starter tube for maximum precision. Once anchored, you can rotate the modeling blocks by holding them firmly and turning them to the desired position.

To remove, simply loosen the bolt and pull the modeling block/block adapter assembly away from the starter tube. Keep loosening the bolt until you can pull the block adapter out of the icengineworks® modeling block.