

Tumbler for descaling ironwork

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With good consultation from Mr. Jeff Mohr and his encouragement, a simple and quite efficient "descaler" for small items has been put together. And its quiet! Some of your readers might be interested (*I would hope so - Ed.*)

There are two main ingredients: the tube that serves as the tumbler and container for the parts to be descaled; and the electric motor to turn the tumbler. The former is an 18 inch length of PVC pipe 8 inches in diameter. The latter is a rotisserie motor from a Bar-B-Q grill. Ends of the tumbler are closed with fitted 3/4 inch plywood. One end is permanently fixed; the other is removable, but held in place during tumbling by 4 screws. (One of the photos shows the notches cut into the wall of the PVC pipe. The end plug, containing the equally spaced screws is simply inserted and given a slight twist for fixing in place.) Exactly centered on the removable end plug is a 3/8 inch round "axle". This axle is welded to a 3 x 3 inch 3/16 plate; which in turn is fixed to the wood end plug with 4 screws. (The plate was drilled and the axle inserted with 1/4" protruding through the underside. A 3/8" shallow hole was drilled into the exact center of the plywood end plug. Thus, the fitting of the axle to the center of the plug was greatly facilitated.) The other end of the tumbler was fitted with a 5/16" square axle. It fits exactly into the "spit receiver hole" of the motor. It was "centered" and fixed to the wood plug utilizing a 3/16" plate as was the other end.

A frame for holding all this was simply two pieces of 1 X 8 common board fixed to the ends of a piece of 2 X 8. A notch was cut into one end board and a piece of copper nailed to the small end of the notch to act as a bearing. To the other end the motor was permanently attached with screws and a notch cut to allow insertion of the axle. Inside of the tumbler two pieces of 1" angle (1/8" thick) were fixed with through and through 1/8" bolts. They were 180 degrees apart.

For "tumbling materials" - small scraps of iron collected largely from the trash box at the metal cutting band saw; but small pieces from anywhere were tossed in - some 3 pounds in all. The small parts to be descaled are simply tossed into the tumbler, the end plug securely inserted, the whole thing placed into the mounting rack, plugged into the 120 V outlet, and motor turned on. Two and a half hours running time has proved very adequate. To remove the descaled pieces, remove the removable end plug, pour out- the entire contents and separate the goodies from the ballast. Return the ballast to the tumbler for next time. (The first time or three tumbling, there results a whole lot of scale to be discarded - my first: "emptying" was upon a "clean" work bench. Wow! I have used old news paper since for dumping onto. Clean-up is simply folding the paper and tossing into the trash bucket! After a few "tumbles", the ballast is "clean". The descaled pieces come out looking polished!! (and demandful of immediate priming!) Thank you Jeff Mohr!!

