

How to: Pull a Fin Die

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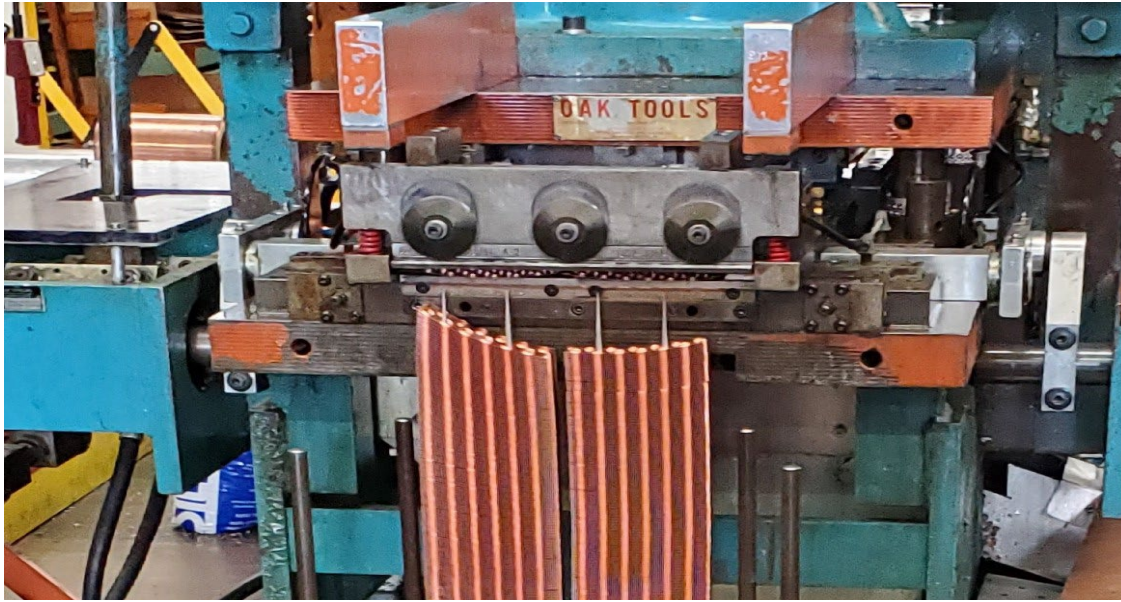
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INTRODUCTION

This is a set of basic instructions to remove a fin die from a fin press. Different dies will have different features that may require additional steps or a change in the order of the steps. Always follow the OEM's recommendations, and all company Lock Out -Tag Out policies.



STEPS

After removing the thread of material, inch the press around to the “6 O’clock position, this positions the press ram at its lowest point and closes the die.

Loosen all of the bolts that hold the top half of the die to the ram approximately 0.50 inches. Then inch the press back to the top, 12 O’clock position.

Disconnect all the hoses and polylines that connect the two halves of the die together.

Remove the bolts that connect the bottom half of the die to the bolster of the press. Also remove the die locator pins.

Install the four die brackets supplied with the die, to the bottom die shoe on the bottom half of the die. Do not tighten completely.

Using the hydraulics of the press, raise the crown halfway to its maximum. Double check that you have disconnected all 8 hoses and polylines connecting the two halves of the die. Once this check is complete, raise the crown to its fullest height.

Inch the press around to the 6 O’clock position. Check all of the die brackets to be sure they are leaning out. This will allow the top half of the die to clear the upper edge of the die brackets.

Using the hydraulics, lower the crown to the point where the edge of the upper die shoe is slightly lower than the upper edge of the die brackets.

Now snug the bolts holding the die brackets to the lower die shoe. The brackets should be straight up and down. The die shoe for the top half of the die should be below the top edge of the die brackets and inside all four brackets.

Still using the hydraulics, lower the crown until the upper half of the die is resting on the step in the die brackets. This is achieved when the bolts holding the top half of the fin die to the ram, that were previously loosened 0.5 inches, begin to rise clear of the ram itself.

Be careful not to lower the crown so much as to press the die against the brackets. This will damage the brackets and could damage the die.

Attach all four of the die brackets to the upper die shoe and tighten both bolts, top and bottom, on each (4) bracket.

Detach all hoses and lines that connect the fin die to the press and any other external source.

Remove cut-off arms from the upper die shoe.

Disconnect the feed mechanism from the press to the die.

Once all of the die's physical connections to the press have been removed, use the hydraulics to lift the whole die clear of the press bolster.

Position the die take-out table under the die using the die locator pins. Using only the hydraulics lower the die on to the die take out table using the same method used to lower the top half of the die onto the die brackets.

Again, be careful not to press the die against the table as this will damage the table.

Once the die is resting fully on the table remove the bolts that are used to secure the top half of the die to the ram. These bolts will have been loosened in step 2. It may also be necessary to remove the die locator pins.

Raise the crown of the press to its full height to maximize clearance and push the die clear of the press bed area.

KEY RECOMMENDATIONS

Recommendation #1



Familiarize yourself with the fin die you are removing. Be sure you have taken into account any special features the fin die might have that will affect the way it is disconnected and removed.

Recommendation #2



If you are not familiar with the operation of the fin press, have an experienced operator available. Be sure to communicate clearly as to the next step and be sure that both of you are using the proper LOTO devices.

Recommendation #3



Use care when raising and lowering the die with the crown hydraulics. Be sure the necessary lines and hoses have been disconnected and do not accidentally press the die against any surface.



CONCLUSION

Care must always be used to prevent damage to the fin die and internal tooling when removing from the fin press. Follow the manufacturer's recommendations for each individual fin die. Follow all personal safety procedures as dictated by the facility. Every fin die may have a requirement specific to its design and function. Be sure you have familiarized yourself with the specific fin die you are working with.

Key Takeaways

- Follow all company safety procedure
- Follow all OEM recommendations
- Be familiar with features of the fin die being removed
- Use caution to both stay safe; and, to protect the die and tooling.