



Splitting and Cleaning Your Slot Die

TOOLS

When preparing to clean your fixed slot die, it is important to have the necessary materials on hand to ensure the die is cleaned properly. The tools that will aid you in this procedure are as follows:

 An Assortment of Hex Keys and/or Socket Heads

*Ensure that the key or socket head is the correct size for your particular die bolts.

- Bottle Brushes
- Breaker Bar
- Cup or Catch Pan
- Lint-free Wipes
- Non-abrasive Scrub Pads
- Protective Gloves

*Ensure that the gloves are made of a material suitable for handling the fluid in the die, as well as the cleaning solvent that you'll be using.

- Push Bolts
- Solvent for Final Cleaning

*Ensure that the solvent is compatible with your process and die material.

- Turning Bars
- Torque Wrench

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IMPORTANT

Power tools should <u>never</u> be used on the flow surfaces of the die as damage is highly likely to occur, no matter how careful you are with them.

It is also important to pay close attention when working around the die to not impact the front edge, lands, manifold, or seal surfaces. Any damage to these areas could ultimately impact the quality of your final product.

All jewelry, including watches, should be removed prior to doing any work on your die.

DISASSEMBLY PROCEDURE

To begin, place a catch pan or cup directly below the feed adaptor. Before disconnecting the feedline to drain the die, make sure the pressure has been removed from the delivery system.

Once the fluid has stopped flowing from the die, the feed adaptor can also be removed. Using a hex key, remove the four bolts for the adaptor and place it onto a table or in a bucket to be cleaned.



Once the feed adaptor has been removed, you can begin to loosen and remove the top bolt of each offset block. These bolts can be placed in a small bin so they remain clean and easily accessible at the time of reassembly.

Next, use the breaker bar to loosen all of the die's body bolts. There is no sequence that needs to be followed during this operation, but it is typically done from one end of the die to the other.

After the body bolts and offset bolts have been removed, the die offset shims can be removed from the back of the die. Once this is complete, the die is ready to be opened.

To open the die, insert the turning bars (using two hands) and push bolts into the upper die body. The push bolts can be threaded by hand until the first sign of resistance. Then, using a hex key, continue turning the push bolt until the seal is broken between the die bodies.

After the seal has been broken, the turning bars can be used to pivot the upper die body open. Depending on the size of the die, this may require the assistance from an additional person.

<u>Note</u>: it is important to have the lint-free wipes within reach when the upper die body is opened, as you will want to catch as much of the fluid as possible before it goes into the die's body bolt holes.





CLEANING PROCEDURE

With the die opened, it is time to clean the fluid from the upper die body's internal surface. Once the majority of the fluid has been cleaned, the surface can be detailed using the appropriate solvent to remove any remaining residue.

Once the upper die body has been cleaned, the body shim can be removed and cleaned as well.

The lower die body features the die's manifold and throat. Before any remaining fluid can be pushed through the manifold, it is recommended that a piece of tape be placed across the body bolt holes to prevent any fluid from getting into the threads.

After the majority of the fluid has been removed from the manifold and throat, the lower body can be detailed in the same fashion as the upper body.





Note: if you're dealing with a fluid that is difficult to remove, a non-abrasive scrub pad may be used.

IMPORTANT

If the scrub pad used includes any amount of abrasive material, it will scratch your die.

REASSEMBLY PROCEDURE

With both die bodies and the body shim completely clean, the equipment is ready to be reassembled.

<u>Note</u>: this is always a good time to inspect your equipment for any damage.

The body shim can be placed on the die's lower body using the alignment pins.

Next, making sure the push bolts have been removed from the upper body, the turning bars can be used to slowly pivot the upper body back on top of the lower body, taking care that the seal surfaces touch gently.

The turning bars can then be removed and placed back into their storage location.

<u>Note</u>: two hands should always be used when removing the turning bars to prevent any damage from occurring.

Place the required offset shims between the back of the die and the offset block, then rethread the offset bolts. Refer to your die manual for the torque specification of these bolts.

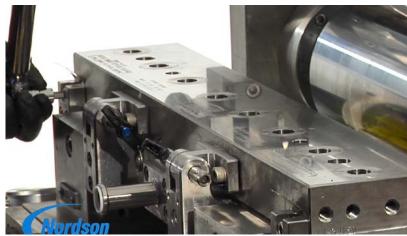
<u>Note</u>: the torque sequence for the offset bolts should be from one side of the die to the other.

Once the offset bolts have been torqued, the die body bolts can be placed back into the die and hand tightened. The initial torque specification for these bolts is engraved on your die's upper body.

<u>Note</u>: the torque sequence for the body bolts is engraved in the die and should always be done in this order, starting at the center of the die.

Once the initial torque is complete, your torque wrench can be set to the final torque specification and the same procedure as above can be followed.







ADDITIONAL TRAINING

To view a training video showing this entire procedure, please contact <u>info@nordsonfluidcoating.com</u> or click on "Support" at <u>www.nordsonfluidcoating.com</u> and log-in to or register for the "Support Services" section.

CONTACT

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