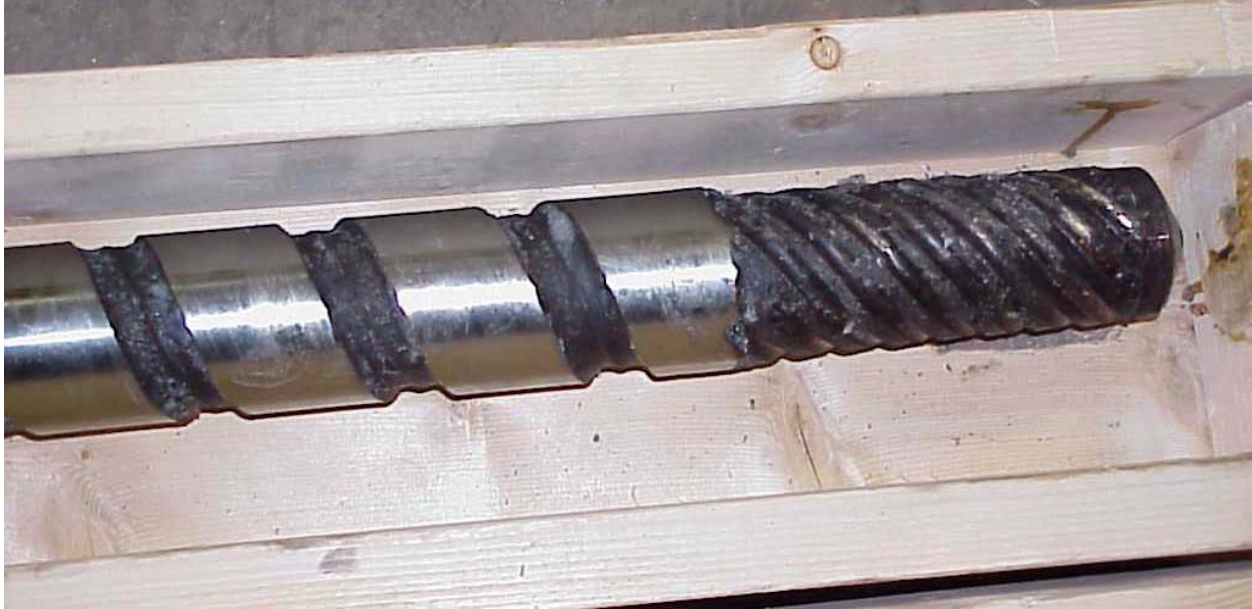


How Long Has It Been Since You've Seen Your Feed Screw?

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A year or two is a good answer. Many converters do not ever pull their screw unless they are experiencing a problem. It is difficult to know exactly what is going on with the screw if you don't look at it once a year. The photo below was what a very surprised converter found:



As expected, the screw was having a difficult time producing a decent quality and quantity of melt. This screw was about 10 years old and had never been pulled. It was damaged beyond repair and a new screw had to be made. If they had pulled the screw once a year or every other year, they would have found the damage and been able to repair the screw. Instead they had to wait for a new screw to be made (on emergency breakdown, at an increased cost).

Optex has guided many people through the basics of pulling a feed screw, which can be a very arduous task. Some of these basics are:

1. Purge the extruder with a thermally stable resin such as LDPE or PP.
2. Remove the head of the extruder (Screen changer or valve and feed pipes).
3. Remove all polymer from the hopper
4. Use an acrylic type purge such as Ultimax 9100 (see www.purgingcompounds.com for information and a video for screw cleaning)
5. Extruder temperature should be 450-550F. This type of purge will not melt, but the resin in the system will stick to it, leaving the screw very clean.

6. You will only need about 2 lbs. of purge per inch of extruder, feed it in slowly to the extruder.
7. The screw should be run dry before removal.
8. Once the compound is out of the system, the screw can be pulled.
9. The extruder should have either a manual or hydraulic screw pusher. Attach this to the screw end. Keep the barrel heat on the system. If the screw has not been removed in a while, it may take a hydraulic jack and patience to get the screw moving. Generally, once the shank comes out of the gearbox, the rest of the job is easier.
10. Wipe the screw down to remove any residue and clean the barrel.
11. Examine the screw for wear and damage. Record measurements over the flights to have a baseline to check against each year.

Note: The screw pusher should be checked to be sure that it is in working order. The nose end of the pusher should rotate.

Screw removal and inspection should be a part of yearly preventative maintenance. Catching a problem with the screw early could save time and money down the road.