Power Hand Tool Safety - **Die Grinder Use**

Within the past three months, three 1.5” Die Grinders were found with improper implements (attachments) installed. Two were Dewalt Model # DW887 grinders and one was a Black & Decker Model # 4287. The first was found to have a wire brush wheel (Max RPM 22,000) and the other two had grinding/cut off wheels installed (Max RPM 10,000).
All three Die Grinders were rated at an operating speed of **25,000 RPM**.

That means the attachments were being used at as much as 2½ times their rated speed (RPM). Obviously that invites a **serious** accident. Anything with a ¼” shank (including a drill bit) can be installed in a ¼” collet, but that does not mean it is safe to do so.
Die Grinders are designed to do fine, high speed, grinding/polishing of die, molds and other hard to reach areas. They offer **No Guarding** of the spinning attachment so if you use the wrong attachment; you are subject to injury from:

1. Deep penetrating fine wires (brush wheels)
2. Flying debris – sometimes with enough mass and speed to penetrate skin, arteries, and organs.
3. Lacerations from unprotected grinder/cut off wheels (which can lop off your finger before you can say “ouch!”)

And that’s if you’re wearing gloves & goggles!

Statistics say that almost 50% of all grinder related injuries in the workplace are caused by human error. Let’s not advance that statistic to over 50% here at Jlab!

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