

## **HYDRAULIC PRESS SAFETY-Some Rules for Keeping Your Body and Tools Safe and Whole**

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### **USE THE PRESS ONLY FOR PROCEDURES THAT YOU HAVE BEEN TAUGHT HOW TO DO SAFELY**

Like a car, operators need to have training. It is safe when used carefully, but accidents can happen if the press is not used correctly.

### **STAND IN FRONT OF THE FRAME for protection. Take care if someone is standing in the path of the open faces of the press. WEAR SAFETY GLASSES OR A FACE SHIELD.**

Things can break under the pressures used in the hydraulic press. Plexiglas will withstand incredible pressure if it is fully supported by the platens, but if it is hanging over the edge, and the urethane pad starts to push on the area that is hanging over, the tools can become shrapnel.

### **ALWAYS CENTER THE WORK.**

Not only will this create a more even impression, but the platen will not tilt under the pressure. Remember that the platen "floats" on the ram, which makes it self-leveling, to some extent, but also means that a tool placed off center can squirt out of the press like a bullet!

### **ALWAYS BOLT TOOLING IN PLACE.**

A tool can fly out of the press if it is not attached. Tooling attachment holes are in the top platen of the press for this reason. This is especially important for tools that are taller than their width.

### **DO NOT OVEREXTEND THE RAM.**

**THE STEEL RISER BLOCK AND SPACER BLOCKS MUST BE USED, UNLESS THE TOOLS ARE TOO TALL.**

### **ALWAYS PROTECT THE STEEL PLATENS WITH KEVLAR FACE PLATES.** Do not press directly against the steel faces of the press.

If there is not room for the spacer block and face plate, use a piece of brass or nickel to protect the steel.

**Also**, One of the functions of the top spacer is to cover the tooling holes. These holes can damage your tools.

### **URETHANE SHOULD BE AT LEAST TWICE AS THICK AS THE DEPTH YOU ARE PUSHING INTO.**

If the urethane is too thin, it shatters. Punches are best used with a contained block of urethane .

Ideally, push only to a depth of 1/3 of the thickness of the urethane.

### **NEVER, EVER, USE CAST IRON IN A PRESS.**

Learn from this guy's experience: "I still have a minute piece embedded in my hand. Seems like I was in too much of a hurry to go get a piece of steel for a spacer and grabbed a cheap drill vise that was handy. It exploded at about 5,000 pounds! Shrapnel every where."

### **AVOID USING TOOLS IN THE PRESS THAT WERE NOT MADE FOR USE IN THE PRESS**

It is not safe to use a metalsmithing stake--- that was intended to be hammered on--- in the press. The cast stakes are not designed for use in this fashion; they may shatter. They can also be difficult to fasten to the press.

### **AVOID USING HYDRAULIC PRESS TOOLS FOR OTHER USES IN THE STUDIO**

For instance, a mushroom punch made for the press will stand up to tons of pressure, but may break off its stem if hammered on in a vise.

### **DO NOT EXCEED THE PROPER PRESSURE FOR THE JOB.**

Always try the lowest recommended pressure, and check the work. It is nearly always possible to repeat at a higher pressure.

### **DO NOT OPERATE THE PRESS UNDER THE INFLUENCE OF ALCOHOL, DRUGS, MEDICATIONS, or FATIGUE.**

### **KEEP THE WORK AREA NEAT AND CLEAN. Cluttered work areas invite injuries.**

### **REMEMBER TO ALWAYS WATCH AND LISTEN TO WHAT IS HAPPENING BETWEEN THE PLATENS.**

**THE GAUGE IS AN ADDITIONAL GUIDE, NOT THE ONLY THING TO WATCH WHEN PUMPING.**

**WATCH** what is happening inside the press!

**WATCH** the gauge at the same time. If the pressure suddenly increases, stop and check the situation.

**FEEL** ---As you pump, the pressure generally should gradually increase. Stop if there is a sudden increase in difficulty.

**LISTEN** for any noise that doesn't "sound right". Stop and figure out the cause of any odd noise.

**USE COMMON SENSE.** If you think it might be a bad idea, don't do it!

**ALWAYS LET THE RAM DOWN WHEN FINISHED FOR THE DAY.** The ram is oily and attracts dust and grit, which can then get inside the jack.

### **NEVER PRESS IN A HURRY**

**USE THE PROPER TOOL FOR THE JOB**

**THINK BEFORE PUMPING THE PRESS**