



1 Intro

1.1 Safety first, second, and third

1.1.1 Pinch safety

1.1.2 Completely unforgiving

1.1.3 Use Guards

Limits unpredictable workpiece behavior – if the machine wants to do something you will not prevent it.

1.1.4 Not toys, no joking around

Unexpected operation can have dire consequences

1.2 Mild steel and softer –

NO HARDENED METAL NO BAR STOCK

1.3 Report issues on Talk “Issues and requests category”

1.3.1 Tagging “@Team_Metal_Shop”

1.4 Manuals

On committee drive under “N:\metalworking\Manuals”

2 GEKA Usage

May need to Plug in as it shares the power outlet with other devices.



2.1 Review controls

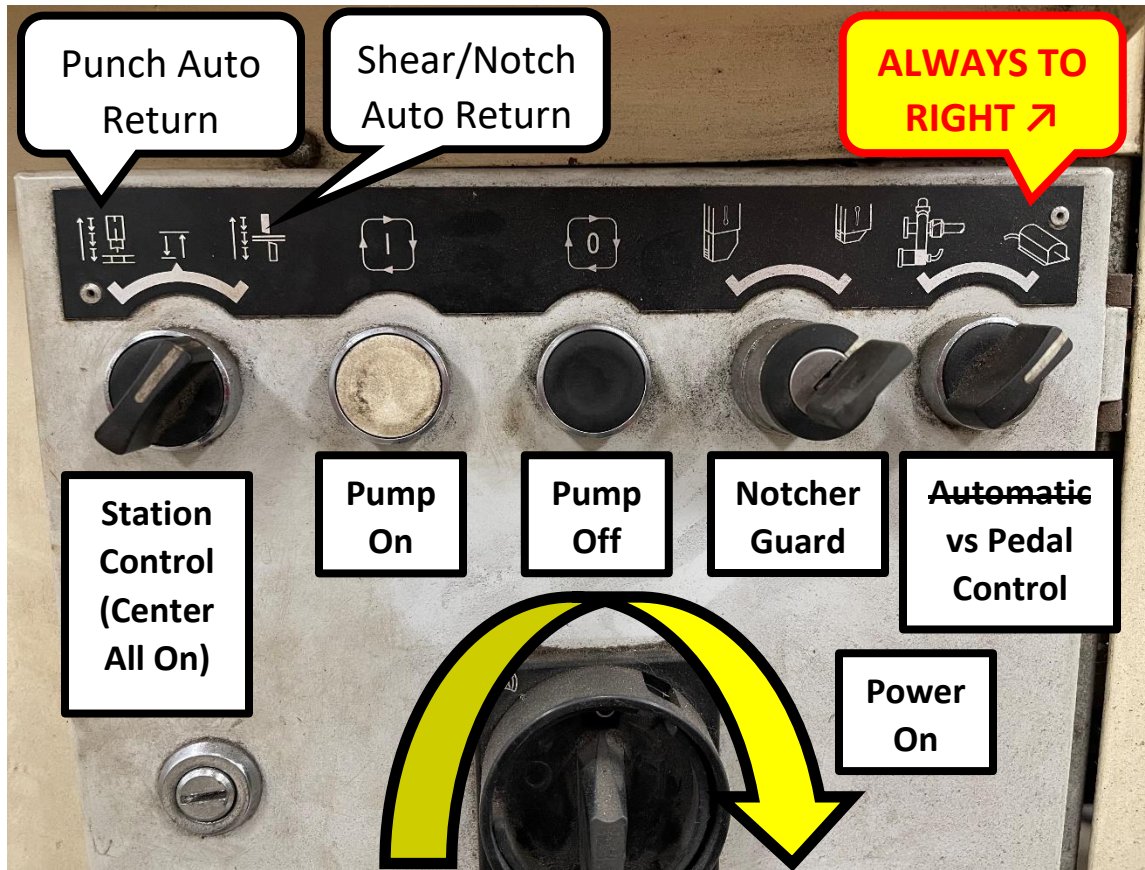


Figure 1 Geka Ironworker Controls

2.2 Incremental “Inch” mode/ full stroke mode

Manual calls this “return mode”

2.3 Pump on/off

White (1) is ‘machine start’ (Hydraulic pump start)

No pressure is generated until a foot pedal is operated.

Black (0) is ‘stop’ (Hydraulic pump off)

2.4 Notcher Guards Enabled

2.5 Emergency Stops

Large red mushroom head button – mash for stop. Twist (?) and pull to restart.

2.6 Foot Pedal Mode (only!)

Make sure machine is in foot pedal mode.



Machine has unfortunately named “electric stop” mode that **starts** a machine cycle. This is a production feature that ***we should not use.***

2.6.1 Foot Pedals

Have three positions

- Up is “Stop”
- Middle is “Inching” Low speed and reduced pressure
- Bottom is “Full Speed and pressure”

2.7 Safety

2.7.1 Guards

Always use them. Limits unpredictable workpiece behavior – if the machine wants to do something **you** will not prevent it.

Hard metal tools can shatter.

2.8 Material Limits

Max Thickness 5/8”

The manual section 3.2.1 on Source provides formulae for calculating maximum thickness for other materials and conditions.

<https://source.dallasmakerspace.org/display/METAL/GEKA+Hydracrop+55+Ironworker>

2.9 Mild steel and softer –

2.9.1 **NO HARDENED METAL**

2.10 Turn on

2.10.1 Badge in

2.10.2 Make Sure Big Rotary Power Switch is on

2.10.3 Press White Pump Start [1] button

2.11 Turn off

2.11.1 Badge out to turn off

2.11.2 Don't rely on timer

2.12 Two semi-independent sides, one user at a time

2.13 Incremental or “inch” mode

2.14 Hole punch set and parameters

2.14.1 Diameter no smaller than metal thickness

So NO 1/4” holes punched in 3/8” plate.

Material limits calculations in manual section 3.2.1

2.14.2 Punch full Holes

No ‘nibbling’



2.14.3 Punch lube

First and every few holes

2.15 Shearing and angles

2.16 Notching

Must use both blades – **NEVER** use notcher for shearing

2.17 Cleanup and store punches

2.18 Safety

Blades and punches are hardened steel – misuse can cause them to shatter generating hardened steel projectiles

You get to pay for your medical bills and repair of the machine

3 Pexto Usage

3.1 Safety

Pinch points:

- hold down bar
- shear bar

3.2 Material Limits

3.3 Mild steel and softer –

3.3.1 **NO HARDENED METAL**

3.3.2 Max thickness

- Mild Steel - 10 gauge – 0.1345” (3.416 mm) thick
- Stainless Steel – 14 gauge - 0.0751” (1.9075 mm) thick

3.3.3 **NO BAR STOCK!**

Even if it fits it will damage the blade and **you** will get to buy the replacement (and they are not cheap!)

3.3.4 Power On/Off

The blue light is always very dimly illuminated even when off. When on it is quite bright.

3.3.4.1 *Turn On*

Swipe badge and verify success with blue light.

If machine doesn't start check e-stop (rotate to release.)

3.3.4.2 *Turn Off*

- Badge out (there is no timeout, you must badge out.)
- Verify Blue light is off.



Geka/Pexto Notes

Metal Shop

3.4 Cleanup and power down

3.5 Safety