

## Overview

The Hydra-GREEN™ Ram Forming machine (HG-70 RF) is an end-forming machine utilizing a sequenced vise and ram nose to create a desired form. Featuring the proven dependability and forces of AddisonMckee's FM machines with servo-driven hydraulic gear pumps, it is specifically designed to perform expanding, reducing, beading, flaring, and doming operations on tubing.

In typical operation, the tube is clamped in the vise on the front of the head while the ram extends, forcing the tooling into or over the end of the tube.

The HG-70 RF may also be used as an ER (Expand-Reduce) head by using standard segmented tooling.

## Specifications

Tube outside diameter (standard)	3" 75 mm Max / 1" 25.4 mm Min
Hydraulic tank capacity	20 US Gallons / 76 Liters
Hydraulic system Pressure	1500 PSI / 102 Bar
Overall Width	33.9" / 861 mm
Overall Height	53.1" / 1349 mm
Overall Length	87.5" / 2223 mm
Machine Weight	2700 Lbs / 1225 Kg
Power (typical)	460 VAC / 3ø / 60 Hz 40 KVA / 50 FLA

## Startup and Operation

Before attempting to operate your machine, you should familiarize yourself with the controls.

### Warning

Keep hands clear of the tooling during setup and operation. Never allow more than one individual at a time to setup the machine. Danger of injury or amputation of fingers or hands exists in any pinch point, especially the stop nut area

**Power On** • This button starts the servo-drive system. When the button is illuminated, it means that the servo-drive system is active. The button will fast-blink when servo-drive is booting up.

**Mode Setup/Off/Run** • This switch requires a key to operate. SETUP is used in order to make changes in the setup while the guards are open. If the switch is in the OFF position, the machine will not run. The RUN position is used in order to operate the machine in automatic cycle. If a guard is opened while in RUN mode, the machine will stop running.

**Coolant - Off/On** • This selector switch is used to turn the coolant on or off.

**Jog Vise – Open/Close** • This switch is used to jog the vise of the RF head in the open or closed direction for setup purposes.

**Jog Ram – Ret/Ext** • This switch is used to jog the ram of the RF head in the extended or retracted direction for setup purposes.

**Emergency Stop** • This mushroom button is used to interrupt down the electric servo-drive system as required. Any time it is operated the servo-drive power is interrupted and will stop. It is a detent button and must be pulled out in order to reset. The servo-drive power can only be restarted by actuating the POWER ON button.

**Opto-Touch** • The Opto-Touch option is for the machine head. It consists of a pedestal and two touch buttons. These buttons will start the cycle of the RF head. They must be activated at the same time and held until the clamp is completely closed. The pedestal is connected to the machine by a quick disconnect at the electrical cabinet. **WARNING: The pedestal should be located in a position that allows the operator to safely operate the machine without the ability to physically interfere with the cycle of the RF head. Danger of injury or amputation to fingers or hands exists in any pinch point.**

