

## MARK 87 SWAGER

POWERFUL AND DEPENDABLE FOR SWAGING UP TO 7/8IN. WIRE ROPE

- ESCO's open jaw design allows fast, easy, work access for more efficient swaging. Operator can easily observe and completely control the swaging process.
- ESCO's unique mechanical design leverages relatively low 2000PSI hydraulic force to deliver up to 200 tons of swaging force. Lower system pressure allows longer component life, less maintenance and lower operating costs.
- The limit switch feature, standard on all ESCO swagers, automatically uses only the force needed to close the dies. Reduces the strain on the swager resulting in increased service life.
- Power units operate at less than 85 db – no hearing protection required.
- Single vane (12 GPM) pump speeds cycle times to support efficient production.
- Power unit has convenient filter gauge to indicate when the filter needs attention. Top mounted filter cartridge is easy to access. Hour meter aids in scheduling maintenance checks. Sight glass indicates oil level and temperature. Power unit controls can be locked out for safety.
- Only the main pin requires lubrication, all other pins have dry bushings.
- The MK87 uses 2" x 3-1/2" dies. Dies change



quickly and easily with ESCO's slide in – slide out die holder design.

- Operating information, parts and service are available for current and older model ESCO swagers.
- ESCO swagers are warranted for one year from purchase against defects in material and workmanship. Castings are warranted for two years against failure due to defects.

### Optional Equipment

- Power unit can be wired for non-standard electric service.
- Lubrication grease.



Electrically operated foot controls provide precise control. Controls can be positioned for maximum operator comfort.



Sight glass indicates the hydraulic oil level and temperature.



To simplify maintenance, the power unit features a filter gauge to indicate when the filter should be changed.

## Specifications:

### MK 87 Swager (Part No. 4090087)

Weight	2100 lb / 953 kg
Swager height	51" / 1295mm
Swager width	27" / 686mm
Swager length	45.5" / 1130mm
Die work height from floor	33.5" / 851mm
Cylinder diameter	5.5" / 140mm
Recommended floor area (Swager and Power Unit)	5' x 9' / 1.5m x 2.75m

### Hydraulic Power Unit

Weight (dry)	470 lb / 213 kg
Power unit length	36" / 915mm
Power unit width	24" / 610mm
Power unit height	45" / 1143mm
Motor	10HP / 7.5kW
Electrical service	230-460V, 3 phase, 60HZ
Rated current	26.8amps @ 230 / 13.4amps @ 460
Reservoir	30 US Gal / 113 liters
Output - single vane pump	12 GPM - 2150 PSI / 45.5 LPM - 145 BAR

### Swaging Capabilities Sleeves

SS 1pc 3/4"
SS 2pc 7/8"
SS Sing. 5/8"
CS Sing. 3/4"

### Ferrules

Midget
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### Sockets

SS 5/8"
Forged 5/8"

## Dies for ESCO Mark 87 Swager

**Die Size: 2" x 3-1/2"**

**Open Channel Dies for SS Fittings: 1/8" - 7/8"**

**Tapering Dies for Carbon Steel Sleeves: 1/4" - 3/4"**

**Ferrule Dies: Midget**

**Forged Socket Dies: 1/4" - 5/8"**

**Note:** Dies are not included with the swager. ESCO Mark 87 dies are not interchangeable with other ESCO swager dies.

**Note:** See ESCO Swage Instruction Manual for proper die selection and swage techniques.

## ESCO 4 Step Swaging

### 1. Wire Rope

ESCO swage fittings are designed for use on 6 x 19 or 6 x 37 Classification, Right Regular Lay, EIP, IWRC, and F.C. (for some aluminum sleeves) wire ropes manufactured to U.S. specifications. If other wire ropes are used, sample assemblies should first be swaged and properly tested.

### 2. Fittings

Design the rigging for the job. Always select the correct rope size and the correct fitting type and size to meet the requirements of the specific application.

### 3. Dies

To ensure desired performance, the fittings must be swaged in the correct die. Check dies periodically for wear using ESCO "GO/NO-GO" gauges.

**IMPORTANT:** Clean dies and the die area before swaging. Grit and dirt will accelerate wear and can cause die breakage. Use EP No. 1 or No. 2 extreme-pressure grease to lubricate the dies and/or fittings before swaging.

### 4. Swaging

Follow the procedures in the ESCO Swaging Instructions Manual carefully. To ensure proper gripping strength of the swage fittings, the dies must close fully on the final pressing.

**IMPORTANT:** Do not allow sharp flashing to form. If excessive flash starts to form, do not close dies fully; work the fitting in subsequent pressings until the dies can be closed fully. Rotate the fittings 45 degrees (one-eighth of a turn) for the second pressing. Do not position the flash in the bottom of the die channel.

**⚠ WARNING:** When performing the work described in these instructions, use proper personal protection equipment to help avoid injury. Always wear hard hat, gloves, safety shoes, eye protection, hearing protection and fall protection that complies with regional, national and worksite requirements (e.g., OSHA, MSHA) when working with this equipment. To avoid injury to bystanders, keep them a safe distance from the work area.

**⚠ WARNING:** Do not use any ESCO Swager in any manner other than that specified in the appropriate ESCO Swaging Operator's Manual and the ESCO Swaging Instructions Manual. Improper use may cause damage to the swager, swaging dies, or personal injury.

The main power switch of this swager may be locked in the OFF position to prevent unwanted starts.