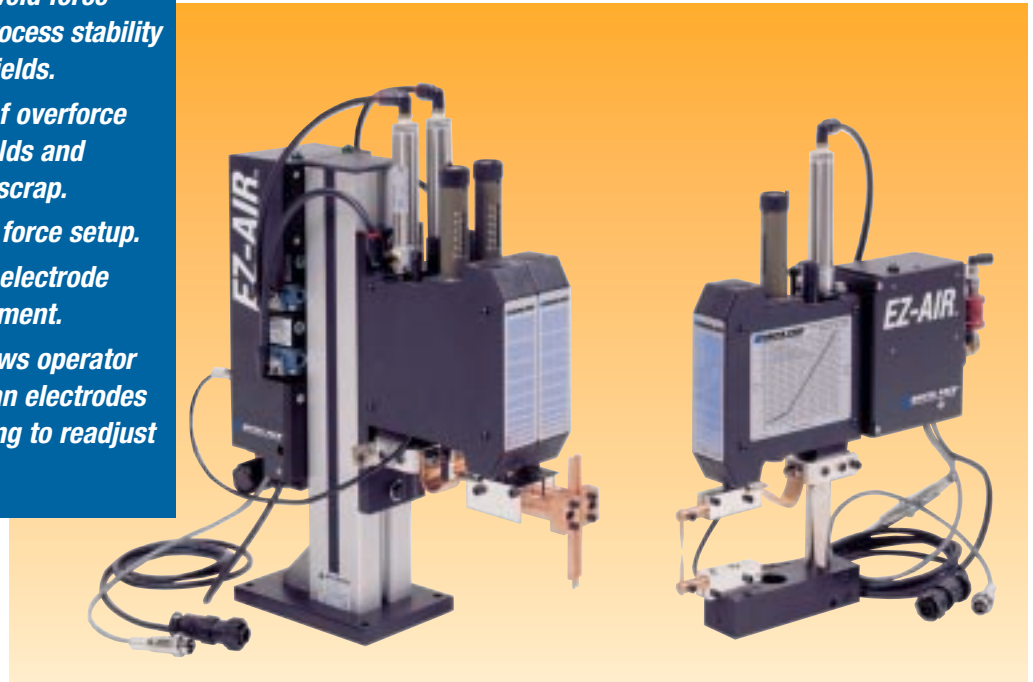


## EZ-AIR™ FORCE CONTROL TECHNOLOGY

### FEATURES:

- Repeatable weld force control for process stability and higher yields.
- Elimination of overforce for better welds and reduction of scrap.
- EZ one-knob force setup.
- Independent electrode speed adjustment.
- EZ clean allows operator to safely clean electrodes without having to readjust the force.



The EZ-AIR weld force control system simplifies the set-up process to a single adjustment and helps prevent weld over-force by closing off the input air when the actual weld

force reaches the programmed weld force level, delivering accurate force control which is repeatable across multiple weld heads without complex setup or operator training.

- Firing force is important because it controls contact resistances and, therefore, heat generation at the electrode-to-part and part-to-part interface.
- Superior force control = process stability and higher production yield with reduced maintenance time.

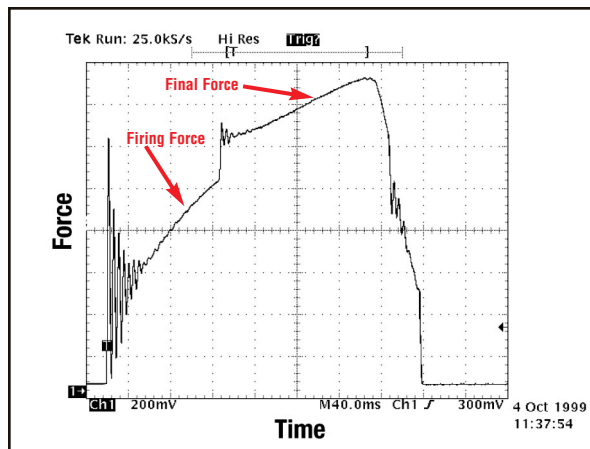
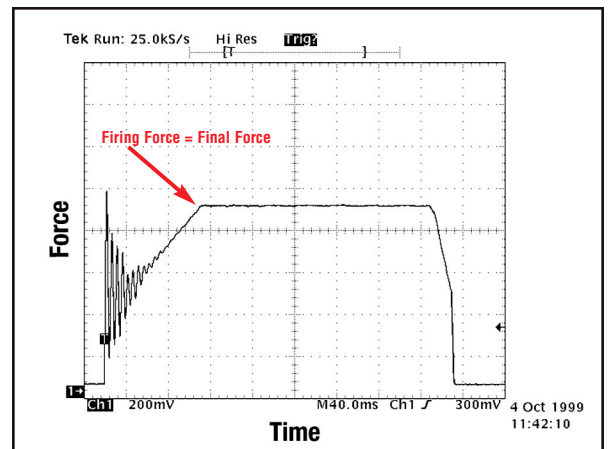


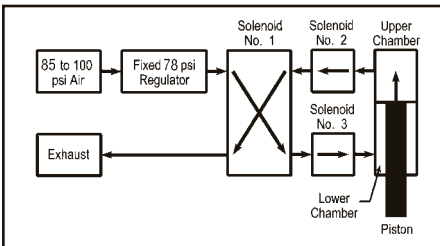
Figure 1, above, shows an incorrect balance of firing force to air pressure set by an operator after cleaning the electrodes, on a traditional weld head, resulting in poor set-up and force control.



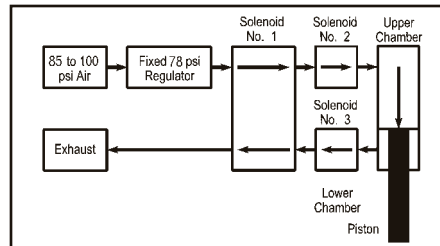
EZ-AIR insures correct set-up and good force control as seen in Figure 2, above. The Unitek Peco EZ-AIR requires no balancing of air pressure as the air pressure is constant once the firing force is reached.

## EZ-AIR TECHNOLOGY – ACTIVE FORCE CONTROL

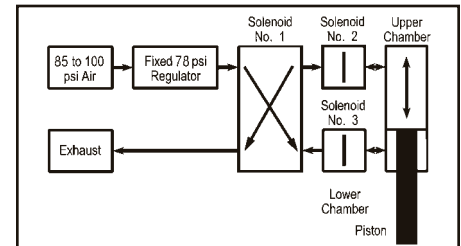
The following series of simplified diagrams explain how the EZ-AIR weld force control system works through independent control of upper and lower air chambers.



*Electrode Up Position* – air pressure in the lower chamber keeps the piston in the up position. Waste air exhausts from the lower chamber.



*Electrode Moves Down* – air pressure in the upper chamber forces the piston down. Waste air exhausts from the lower chamber.



*Electrode Reaches Weld Force* – both solenoid valves close within 4ms and air pressure is trapped in both the upper and lower chambers. Weld force remains constant since the air cylinder piston cannot move. Compression spring provides instantaneous follow-up.



**EZ/DAK Dual Air Kit**

**EZ/SAK Single Air Kit**

*EZ-AIR force control technology is available with Unitek Peco Thinline weld heads as original equipment and as a retrofit for previously purchased Thinline air actuated weld heads. See the Ordering Guide for more information.*

## EZ-AIR SPECIFICATIONS

DESCRIPTION	SPECIFICATION
Force Adjustment Range Models: 80A/EZ, 86A/EZ, 88A/EZ	0.5 to 20 lbs (2.2 to 89N)
Force Adjustment Range Models: 83A/EZ, 84A/EZ, 89A/EZ	6 to 40 lbs (27 to 178N)
Force Adjustment Range Models: 180A/EZ	5 to 100 lbs (22 to 445N)
Valve Driver Input	24 VAC
Input Air Pressure	85 to 130 psi (482 kPa to 896 kPa), unlubricated air

## ORDERING GUIDE

<b>With a Weld Head</b>	Specify XXA/EZ where XXA is the weld head (80, 83, 84, 86, 88, 89, 180). Example: 80A/EZ for an 80 Thinline Weld Head.
<b>As a Retrofit Kit</b>	Specify EZ/SAK for use with a head with a single air cylinder. Specify EZ/DAK for use with a head with dual (two) air cylinders.

### Your Local Representative



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