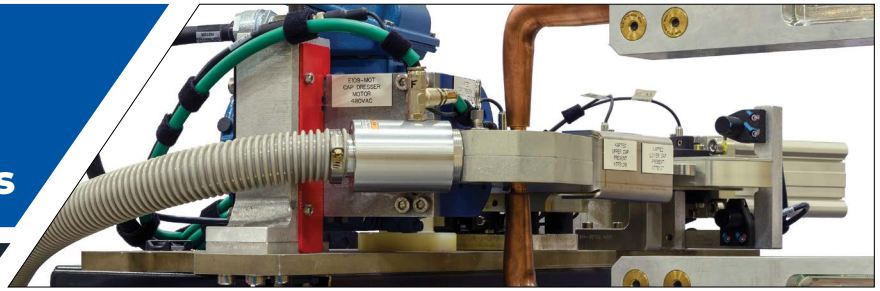


# KapTec™

## Cap Maintenance Systems



## Improve uptime & reduce maintenance cost

CenterLine's KapTec™ product family is designed to automate the cap servicing operations across a wide variety of applications. It is designed to dress caps as well as automate the cap removal and replacement process.

Compared to manual cap changes, KapTec™ offers:

- improved uptime
- reduced maintenance requirements
- improved electrode adapter life

### STANDARD FEATURES

- Modular design improves serviceability; core components are common across the entire KapTec™ product line.
- Integrated cap presence detection to verify correct cap removal and installation.
- Extracted cap collection with easy removal.
- Compact design minimizes floor space requirement.
- Available in Dresser-only configuration.
- With magazine cover included, caps are protected from expulsion and debris before installation onto electrode adapters.



Fully integrated Dresser & Changer

### ADVANTAGES

- Patented high capacity weld cap magazines.
- Patented floating weld cap extractor.
- Dress and change caps on any gun.
- Common core components minimize spare parts inventory.
- Minimize operator exposure to inside of the cell.
- Better electrode adapter life (no manual cap removal).
- Quick weld cap refill with spare snap-in magazines.
- Designed to resist corrosion damage due to poor water quality with material selections, and coatings.



Exceptional performance changing caps when welding using adhesive.

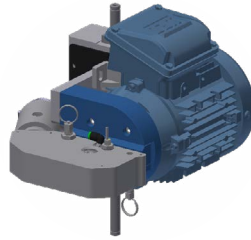
- ① Cap extractor jaw is designed to be self-tightening with large hardened teeth that are not easily plugged with adhesive. ② The cover design prevents adhesive and weld expulsion from contaminating the magazines.

## Common Core Components

### Weld Cap Dresser with Shroud

(Includes Hose and Chip Container)

- Toolless shroud removal and holder replacement.
- Poka-yoke Cutter designs available.
- Integrated rotation sensor.
- Low force self-equalizing design dresses caps equally.
- Low profile shroud accepts most adapters, from a variety of approach angles.
- Motor UL, CE, CSA.
- Integrated chip collection with vacuum system and large chip container.
- Dresser compliance is a compact design that uses 2 gas springs vs. 4 coil springs, it has +/- 15mm of compliance. The gas springs have built in hard stops that offer repeatable zero position, and more consistent lighter force over the length of travel than the coil springs to ensure even cap dressing.



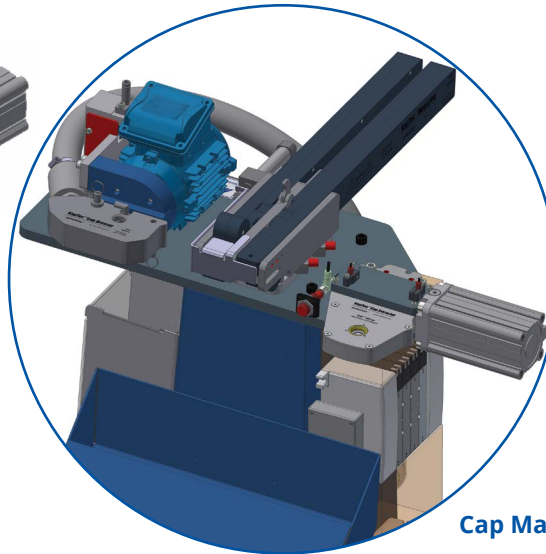
### Weld Cap Cutters and Holders

- Cutters and Holders are designed for weld cap profile.
- Holder is SAE 8620 tempered steel body, quick change bayonet style, no tool required.
- Cutters are coated HSS for optimal cap dressing life.
- Holders have a large opening for chip management.
- Slot for reading rotation sensor.



### Cap Extractor

- Isolated cap removal motion (no weld gun/robot intervention required).
- Integrated proximity sensors to verify proper removal cycle.
- Patented floating extract mechanism provides compliance to remove caps more effectively.



### Magazine Holder

(Cap Cover is shown - available as an option\*)

- Latch to lock magazines in place with sensor feedback.
- Empty magazine detection.
- Toolless magazine change prevents incorrect magazine installation.
- Compliant mounting assists with seating caps on adapters.
- Comes with Cap Cover.

\*Required on KapTec™ Robot Carried unit; not available on KapTec™ Robot Carried Lite.



**KapTec™ Cap Extractor**  
controline www.cntrline.com  
5/8" 16mm  
Assembly 100010

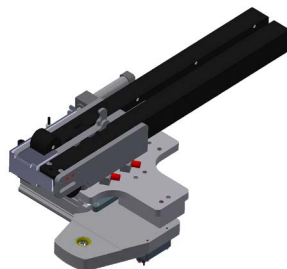
Extraction jaw mechanism floats in a plane normal to the center axis of the jaws.

The jaw mechanism floats in the direction of the taper axis.

1.0mm travel to release the weld cap.

### KapTec™ Robot Carried

- Required when changing caps on weld guns with angled adapters.
- Uses all the common core components.
- Easily configured for robot end-of-arm mounting.
- Cap Cover standard.
- Weight with magazines full of caps, 45lbs.



### Cap Magazine

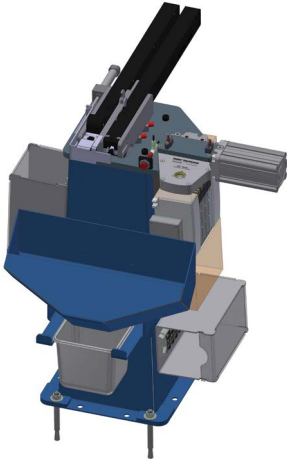

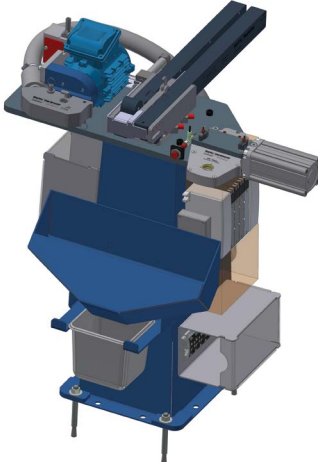
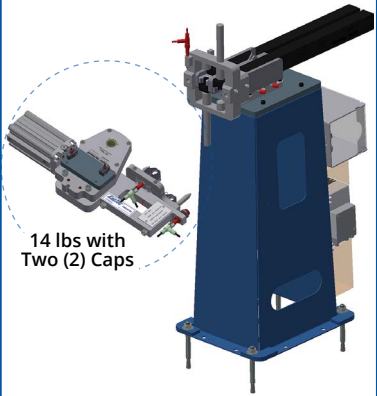
Magazines do support short caps.  
Magazines do not support male caps.

- High capacity 32 pcs of each 5/8" (16mm) or 3/4" (19mm) caps.
- Optional capacity 21 pcs of 5/8" (16mm) caps or 18 pcs of 3/4" (19mm) caps.
- Robust design, protected against debris ingress.
- Protects against upside down caps from being loaded.
- Constant spring force prevents caps from tipping over or jamming.
- Common magazine design reduces spare parts and eliminates the risk of installing the magazine in the wrong location. The magazines have integrated Poka-yoke for 5/8" and 3/4" caps.
- Insert designed to be easily installed if magazine fingers or tongue are damaged.



## PedTec™ Integrated Solutions

### Pedestal Mounted KapTec™ Maintenance Solutions

			 <p style="font-size: small;">14 lbs with Two (2) Caps</p>
<p><b>KapTec™ Weld Tip Changer Assembly, including:</b></p> <ul style="list-style-type: none"> <li>• Cap Extractor</li> <li>• Weld Cap Magazine Holder</li> <li>• Two (2) Weld Cap Magazine styles                             <ul style="list-style-type: none"> <li>- 5/8 cap capacity – 32 caps</li> <li>- 3/4 cap capacity – 32 caps</li> </ul> </li> <li>• Cap collection tray &amp; bin</li> </ul>	<p><b>KapTec™ Weld Tip Dresser Assembly, including:</b></p> <ul style="list-style-type: none"> <li>• Tip dresser motor, including Cutter and Holder</li> <li>• Chip collection assembly, including shroud &amp; vacuum system complete with chip container</li> <li>• Safety disconnect</li> </ul>	<p><b>KapTec™ Integrated Dresser &amp; Changer, including:</b></p> <ul style="list-style-type: none"> <li>• Tip dresser motor, including cutter and holder</li> <li>• Chip collection assembly including shroud &amp; vacuum system complete with chip container</li> <li>• Cap Extractor</li> <li>• Weld Cap Magazine Holder</li> <li>• Two (2) Weld Cap Magazine styles                             <ul style="list-style-type: none"> <li>- 5/8 cap capacity – 32 caps</li> <li>- 3/4 cap capacity – 32 caps</li> </ul> </li> <li>• Cap collection tray &amp; bin</li> <li>• Safety disconnect</li> </ul>	<p><b>KapTec™ Robot Carried Lite, including:</b></p> <ul style="list-style-type: none"> <li>• Weld Cap Magazine Holder                             <ul style="list-style-type: none"> <li>- With Carried Lite cap loader add-on</li> </ul> </li> <li>• Two (2) Weld Cap Magazine styles                             <ul style="list-style-type: none"> <li>- 5/8 cap capacity – 32 caps</li> <li>- 3/4 cap capacity – 32 caps</li> </ul> </li> <li>• Carried Lite robot end-of-arm mounting plate                             <ul style="list-style-type: none"> <li>- Cap Extractor</li> <li>- Weld Cap Grippers</li> </ul> </li> </ul>
<p><b>All solutions above include:</b></p> <ul style="list-style-type: none"> <li>• KapTec™ integrated solutions are supplied complete, fully tested and integration ready.</li> <li>• Pneumatics termination on PedTec™ base, including:                             <ul style="list-style-type: none"> <li>- (1) Main air aluminum manifold to be connected to the main line</li> <li>- (1) SMC manual regulator</li> <li>- (1) SMC valve base (valve base series TBD)</li> <li>- (1) Lot SMC valves (valve series TBD)</li> <li>- <b>Not included</b> – Air lockout, main supply regulator, air filter</li> </ul> </li> <li>• Controls termination on PedTec™ base, including:                             <ul style="list-style-type: none"> <li>- I/O block(s) – for connection to main line I/O network</li> <li>- <b>Not included</b> – 24VDC power cables, communication cables to main line</li> </ul> </li> </ul>			
<p><b>Not included/Customer to provide:</b></p>			
	<ul style="list-style-type: none"> <li>• Tip dress motor starter CenterLine assumes the motor starter will be the responsibility of the customer and/or will be generally provided with the weld control.</li> </ul>		<ul style="list-style-type: none"> <li>• Robot integration, including end-of-arm I/O and pneumatics</li> </ul>
<ul style="list-style-type: none"> <li>• Installation or integration at customer facility</li> <li>• End User build specifications</li> </ul>			

## PedTec™ Integrated Solutions

### Pedestal Mounted Weld Guns with Integrated KapTec™ Maintenance Solutions

PedTec™ Solutions are pre-engineered, supplied complete, tested with 3D models and documentation for easy integration. These configured products save design, build, and commissioning time, as well as floor space.

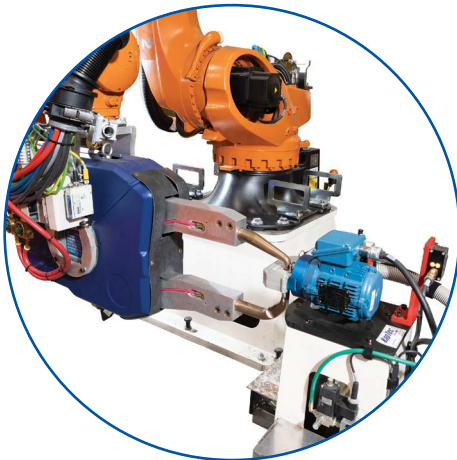
CenterLine is the only manufacturer of a patented self-contained, fully automated cap dresser and cap changer unit for single ped or dual ped guns.



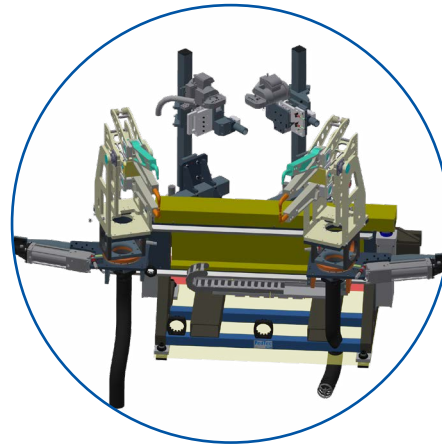
PedTec™ Pedestal Mounted Weld Gun with Integrated KapTec™ Dresser

### KapTec™ Patented Automated Maintenance Station for Pedestal Mounted Weld Guns

- Weld gun pivots to the dresser.
- Configurable for different gun geometries.
- Gun pivot is safer than a swing in dresser and requires less floor space.
- The dresser is behind the weld gun allowing easy access for servicing.



PedTec™ Pedestal Mounted KapTec™ Dresser



PedTec™ Pedestal Mounted Dual Weld Gun with Integrated KapTec™ Dressers



**CENTERLINE (WINDSOR) LIMITED**  
CENTERED ON SOLUTIONS



Platinum member

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