DYNAMATIC CES P R E S S D R I V E S A N D D I G I T A L C O N T R O L S

The constant energy system (CES) Mechanical Press Drive is a combination of an air-cooled variable speed drive, a brake, a belt ring flywheel and a shaft-mounted tachometer in a common housing.

CES press drives can function within a wide stroking range while exercising full control of the slide within individual strokes. The press drive can produce sufficient inertia for normal, double and triple action press applications.

CES Press Drive features can be fully utilized by blanking, deep draw transfer, progressive die, follower, synchronized and multiple action presses.

Clutch/brake design of the CES Press Drive help avoid “tearing” of pressed metal parts, optimizes parts per minute production.

Single CES system saves capital and maintenance costs compared to multiple servomotor design.

Dynamatic® specifications and engineering data

<table>
<thead>
<tr>
<th>Press Drive Model #</th>
<th>Peak-Torque (lb. ft)</th>
<th>Continuous Clutch Heat Dissipation Capacity @ Max Rated Flywheel Speed (°)</th>
<th>Max Rated Flywheel Speed (°)</th>
<th>Flywheel Energy (inch tons) (°)</th>
<th>Inertia (lb. ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Clutch</td>
<td>Brake</td>
<td>Clutch Amps (°)</td>
<td>Brake Amps (°)</td>
<td>RPM</td>
</tr>
<tr>
<td>30-21</td>
<td>6300</td>
<td>3150</td>
<td>18</td>
<td>9</td>
<td>40 HP @ 600 RPM</td>
</tr>
<tr>
<td>30-32</td>
<td>9375</td>
<td>6250</td>
<td>27</td>
<td>18</td>
<td>60 HP @ 600 RPM</td>
</tr>
<tr>
<td>30-42</td>
<td>12700</td>
<td>6350</td>
<td>36</td>
<td>18</td>
<td>75 HP @ 600 RPM</td>
</tr>
<tr>
<td>37-21</td>
<td>17950</td>
<td>8975</td>
<td>30</td>
<td>15</td>
<td>80 HP @ 600 RPM</td>
</tr>
<tr>
<td>37-32</td>
<td>27500</td>
<td>18330</td>
<td>45</td>
<td>30</td>
<td>120 HP @ 600 RPM</td>
</tr>
<tr>
<td>37-42</td>
<td>37500</td>
<td>18750</td>
<td>60</td>
<td>30</td>
<td>150 HP @ 600 RPM</td>
</tr>
<tr>
<td>49-42</td>
<td>65000</td>
<td>32500</td>
<td>90</td>
<td>45</td>
<td>220 HP @ 600 RPM</td>
</tr>
<tr>
<td>49-63</td>
<td>95000</td>
<td>47500</td>
<td>135</td>
<td>68</td>
<td>280 HP @ 600 RPM</td>
</tr>
</tbody>
</table>

1) Normal intermittent ratings shown
2) Dissipation capacities vary linearly with flywheel RPM
3) Max rated flywheel speed corresponds to 7500 ft/min belt speed when using bonded sets of multiple V-Belts
4) Total energy stored in the flywheel at 110% rated flywheel RPM

Typical speed torque curve for Model 37-42

Clutch capacity 230 volts D.C. 61 amperes
Brake capacity 230 volts D.C. 30.6 amperes

Dynamatic®
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Your complete source for:

- New digital control upgrades
- Quick-ship control board repair service
- Full line of drop-in replacement control options
- Certified original CES parts

**Dynamatic® digital CES press drive controllers**

Dynamatic® CES Press Drive controllers are solid state closed loop velocity controllers specifically designed for Eddy Current CES mechanical press drives, creating a simple, safe, and reliable drive system.

The CES controller is readily adaptable to position control in large production presses. The system utilizes a position transducer (digital shaft encoder) to measure press position (crank angle) and compares this feedback information with a digital position reference.

Easily applied to single or multiple action presses where speed control is desirable. The system offers many unique features not available with other press drive designs for use on draw presses, blanking presses, transfer presses and on synchronized presses with automated handling equipment.

**100% Factory Tested**

Only Dynamatic digital CES press drive controls and all individual components are 100% factory tested under simulated load-operating press control conditions using a custom-built burn in test chamber designed to operate at all voltages, under full load, using actual coils from a working CES mechanical drive. The test chamber exposes the controller to rigorous vibration and extreme heat similar to the working press environments, meeting or exceeding the highest industry standards on any press drive controllers available today.

Accept no alternatives
Specify Dynamatic® CES quality products.

**Certified Factory Re-manufacturing**

Drive Source International offers quality re-manufacture and repair for all Eddy Current drives and controllers. We have been designing, building and refurbishing systems for over 65 years and know more about our equipment than anyone else. We have original specifications, drawings, documentation, test requirements and update information. To keep your business running strong, you need the kind or re-manufacture/repair that only the original manufacturer can offer.

- All Eddy Current drives and controllers
- Our experienced drive technicians dismantle and assess your drive and all individual components
- Replace all damaged & worn components with new factory warranted parts
- Circuit board analysis, repair and testing per Dynamatic standards

Don’t trust the heart of your press to just anyone... insist on Dynamatic® quality