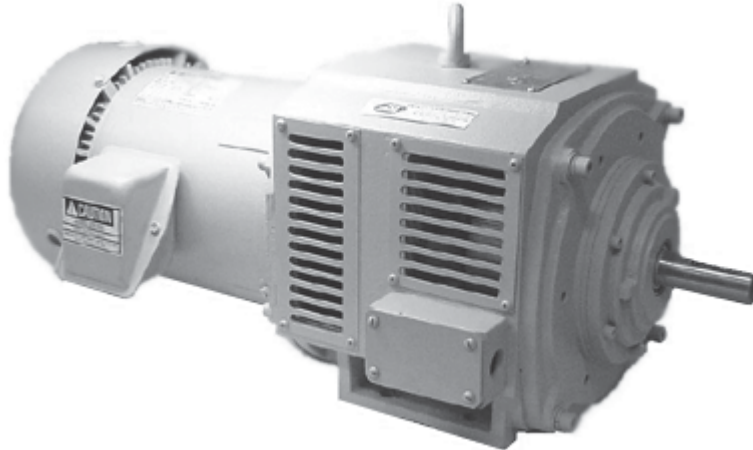


**"DCD" Ajusto-Spede® Drives  
3 through 75 HP**

**MODELS DCD-132 THROUGH DCD-225 DRIVES  
Drive Information**



**Description**

Dynamatic® Model DCD Drives is a combination of an air-cooled, adjustable speed clutch and a flange mounted AC induction motor. Simple low cost dependability. Interchangeable with Models TCD and CD. Consult factory for more details. The DCD Drive transmits torque at variable speeds. There is no physical contact between input and output members. This results in smooth response, thereby eliminating shock loading and extending equipment life. All

drives have an integral tachometer generator mounted around the output shaft to provide a feedback signal to the drive's controller. The controller provides the DC excitation for the clutch coil. The feedback signal from the tachometer generator is used as a reference signal within the controller to maintain accurate speed regulation. The controllers for the drives are described starting on Page 72 of this catalog.

| Features                                  | Customer Benefits  |
|---|--|
| Simple, rugged, reliable                  | Long life cycle  |
| Operates in hostile environments          | Lower maintenance costs                                    |
| No routine maintenance                    | Worry free operation                                       |
| New improved torque tube                  | High torque output   |
| One-year warranty on DCD mechanical units | Lower operating costs                                      |
| Aggregate/asphalt duty                    | Dependable and reliable                                    |
| Self-cleaning rotor                       | Dirt/dust free operation                                   |
| Standard design                           | Replacements for competition                               |
| Interchangeable parts                     | Parts cost less, directly interchangeable with competition |

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**Specifications for DCD-132 Through DCD-225 Drives**

|                                      |  |  |
|--------------------------------------|--|--|
| <b>Motor</b>                         | HP and RPM<br>Totally Enclosed Fan Cooled (TEFC)<br>NEMA Design B<br>Class F insulation, Class B rise<br>1.15 service factor<br>***Input power - see note below<br><br>One-year warranty   | See selection table – page 51<br>Standard<br>Standard<br>Standard<br>Standard<br>208/220 through 380V, 3 phase, 50 Hz<br>230 through 460V, 3 phase, 60 Hz<br>575V, 3 phase, 60 Hz<br>Standard  |
| <b>Clutch</b>                        | Stationary coil<br>Coil voltages<br>Rated for constant torque<br>Starting torque<br>Intermittent torque<br>AC tachometer generator<br>Cooling<br>one-year warranty   | Standard<br>90 VDC - Standard; 45 VDC - Optional<br>Standard<br>Approximately 250%<br>Approximately 250%<br>Standard<br>100% self ventilated<br>Standard   |
| <b>Controllers (Sold Separately)</b> | Model DSI-700, EC-2000 and PDC-2000<br>Closed loop speed control<br>Speed regulation<br>Regulated speed range<br>Input power<br><br>Enclosure<br>Panel mount, open construction<br>Output voltage, to clutch coil<br>One-year warranty | Can be used with DCD-132 through DCD-160<br>Standard<br>0.5% Standard; 0.1% Optional (EC-2000 only)<br>34 to 1 available<br>Line transformer (sold separately) - <b>motor winding transformer not available</b><br>NEMA 1 - Standard; NEMA 12 - Optional<br>Optional<br>90 VDC<br>Standard |
| <b>Status Indication</b>             | Speed indicating signal  | 0-60 VAC from tachometer generator for optional meter  |
| <b>Environmental Ratings</b>         | Storage temperature<br>Operating temperature<br>Maximum operating temperature<br>Altitude  | -20° to 65° C (-4° to 149° F) Standard<br>0° to 40° C (32° to 104° F) Standard<br>65° C (De-rating required)<br>1000 m (3300 Ft.) Standard   |
| <b>Codes and Standards</b>           | Mechanical NEMA, as applicable<br>Mechanical CSA<br>Controllers CSA  | Standard<br>Approved<br>Approved   |
| <b>Reliability Testing</b>           | Mechanical<br>100% dynamometer tested<br>Controllers<br>Pre-tested components<br>Computer test and pre-calibrated PCBs   | Standard<br><br>Standard<br>Standard   |

**\*\*\*NOTE: New factory standards for motor input power, two (2) options available:**  
 1) 208/220 through 380 VAC, 3 phase, 50 Hz.; 230 through 460 VAC, 3 phase, 60 Hz.  
 2) 575 VAC, 3 phase, 60 Hz.

**"DCD" Ajusto-Spede® Drives  
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**Ordering Information**

The simple low-cost Model DCD drive includes a TEFC AC induction motor, with 230 through 460 VAC, 3 phase, 60 Hz., 208/220 through 380 VAC, 3 phase, 50 Hz. or 575 VAC, 3 phase, 60 Hz. input. The C-face motor is flange mounted to the maintenance free eddy-current coupling. The DCD Drive can produce up to 300% starting torque and can operate with several Dynamatic® speed controllers. The DCD Models are interchangeable with higher priced TCD, or CD models. Contact the factory for more details.

A controller is required, but not included. A Drive/Controller Compatibility and Selection Chart can be found starting on Page 70. Controllers and modifications can be found starting on Page 72. Operator stations can be found starting on Page 117.

**Selection Table - 60 Hz**

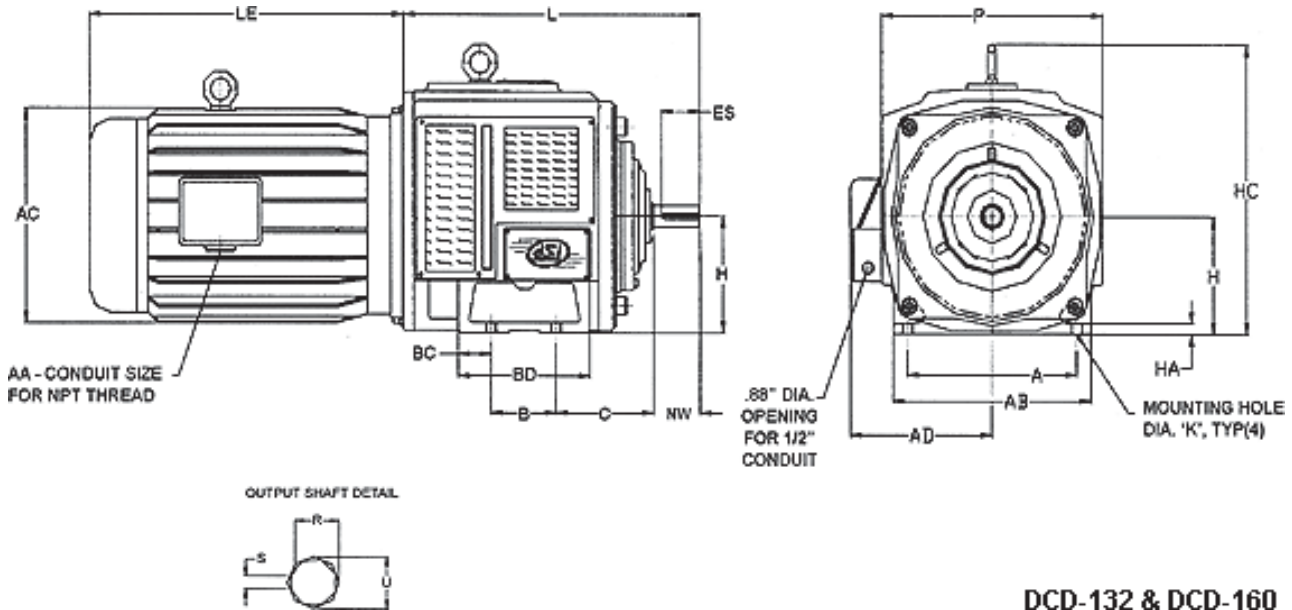
| HP  | Speed Range (RPM) | Model Number    | Motor Frame Size | Poles | Torque (Lb. Ft.) |
|-----|-------------------|-----------------|------------------|-------|------------------|
| 3   | 0-1630            | DCD-132030-4141 | 182TC            | 4     | 9.2              |
| 5   | 0-1500            | DCD-132050-4141 | 184TC            | 4     | 15.0             |
| 5   | 0-3300            | DCD-132050-4121 | 184TC            | 2     | 7.5              |
| 7.5 | 0-3300            | DCD-132075-4121 | 213TC            | 2     | 11.3             |
| 10  | 0-3250            | DCD-132100-4121 | 215TC            | 2     | 15.3             |
| 7.5 | 0-1630            | DCD-160075-4141 | 213TC            | 4     | 22.5             |
| 10  | 0-1580            | DCD-160100-4141 | 215TC            | 4     | 30.0             |
| 15  | 340-1550          | DCD-160150-4141 | 254TC            | 4     | 45.0             |
| 15  | 0-3300            | DCD-160150-4121 | 254TC            | 2     | 22.5             |
| 20  | 0-3250            | DCD-160200-4121 | 256TC            | 2     | 30.3             |
| 25  | 640-3250          | DCD-160250-4121 | 284TSC           | 2     | 37.8             |

\*\*\*Consult Factory for Options and competition comparison chart

| DCD Technical Data |                |       |                 |                 |                       |                 |                 |
|--------------------|----------------|-------|-----------------|-----------------|-----------------------|-----------------|-----------------|
| Model Number       | Motor Power HP | Poles | Speed Range RPM | Clutch Volts DC | Clutch OHMS@ 20 DEG C | Clutch AMPS Hot | Clutch HP Disp. |
| DCD-132030-4141    | 3              | 4     | 1630-0          | 90              | 27                    | 2.2             | 3               |
| DCD-132050-4141    | 5              | 4     | 1500-0          | 90              | 22                    | 2.7             | 5               |
| DCD-132050-4121    | 5              | 2     | 3300-0          | 90              | 27                    | 2.2             | 5               |
| DCD-132075-4121    | 7.5            | 2     | 3300-0          | 90              | 22                    | 2.7             | 7.5             |
| DCD-132100-4121    | 10             | 2     | 3250-0          | 90              | 22                    | 2.7             | 10              |
| DCD-160075-4141    | 7.5            | 4     | 1630-0          | 90              | 19.5                  | 3.3             | 7.5             |
| DCD-160100-4141    | 10             | 4     | 1580-0          | 90              | 19.5                  | 3.3             | 10              |
| DCD-160150-4141    | 15             | 4     | 1550-340        | 90              | 19                    | 3.4             | 11.9            |
| DCD-160150-4121    | 15             | 2     | 3300-0          | 90              | 19.5                  | 3.3             | 15              |
| DCD-160200-4121    | 20             | 2     | 3250-0          | 90              | 19.5                  | 3.3             | 20              |
| DCD-160250-4121    | 25             | 2     | 3250-640        | 90              | 19                    | 3.4             | 20.5            |

**"DCD" Ajusto-Spede<sup>®</sup> Drives  
3 through 75 HP**

**Outline Drawings – DCD-132 & DCD-160**



**DCD-132 & DCD-160**

| Model   | Poles | Max Speed (RPM) | Motor Power (HP) | Wt. Lbs. | Overall & Mounting Dimensions |       |      |       |     |       |      |       |      |     |       |      |                 |
|---------|-------|-----------------|------------------|----------|-------------------------------|-------|------|-------|-----|-------|------|-------|------|-----|-------|------|-----------------|
|         |       |                 |                  |          | A                             | B     | C    | H     | K   | AB    | AD   | BD    | BC   | HA  | HC    | L    | L <sub>fl</sub> |
| DCD-132 | 4     | 1630-0          | 3                | 232      | 8.50                          | 3.15  | 4.84 | 5.20  | .50 | 10.63 | 6.90 | 6.25  | 1.50 | .56 | 13.00 | 14.7 | 14.7            |
|         | 4     | 1500-0          | 5                | 247      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |
|         | 2     | 3300-0          | 5                | 249      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |
|         | 2     | 3300-0          | 7.5              | 286      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |
|         | 2     | 3250-0          | 10               | 300      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |
| DCD-160 | 4     | 1630-0          | 7.5              | 475      | 10.0                          | 3.935 | 3.86 | 6.299 | .59 | 12.80 | 8.55 | 11.03 | 5.14 | .55 | 15.00 | 17.2 | 21.26           |
|         | 4     | 1580-0          | 10               | 498      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |
|         | 4     | 1550-340        | 15               | 590      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |
|         | 2     | 3300-0          | 15               | 582      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |
|         | 2     | 3250-0          | 20               | 625      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |
|         | 2     | 3250-640        | 25               | 760      |                               |       |      |       |     |       |      |       |      |     |       |      |                 |

| Model   | Hp  | Frame | AC    | LE**  | AA   | 2E    | 2F    | KK  |
|---------|-----|-------|-------|-------|------|-------|-------|-----|
| DCD-132 | 3   | 182TC | 8.8   | 14.95 | .75  | --    | --    | --  |
|         | 5   | 184TC | 8.8   | 14.95 | .75  | --    | --    | --  |
|         | 7.5 | 213TC | 10.25 | 17.12 | 1.00 | --    | --    | --  |
|         | 10  | 215TC | 10.25 | 17.12 | 1.00 | --    | --    | --  |
| DCD-160 | 7.5 | 213TC | 10.25 | 17.12 | 1.00 | 8.50  | 5.50  | .41 |
|         | 10  | 215TC | 10.25 | 17.12 | 1.00 | 8.50  | 7.00  | .41 |
|         | 15  | 254TC | 12.70 | 22.60 | 1.25 | 10.00 | 8.25  | .53 |
|         | 20  | 256TC | 12.70 | 22.60 | 1.25 | 10.00 | 10.00 | .53 |
|         | 25  | 284TC | 14.50 | 24.75 | 1.25 | 11.00 | 9.50  | .53 |

| Output Shaft Data |       |       |       |       |       |
|-------------------|-------|-------|-------|-------|-------|
| Model             | ES    | NW    | U     | S     | R     |
| DCD-132           | 1.75  | 2.75  | 1.125 | .25   | .987  |
| DCD-160           | 2.375 | 3.375 | 1.375 | .3125 | 1.201 |

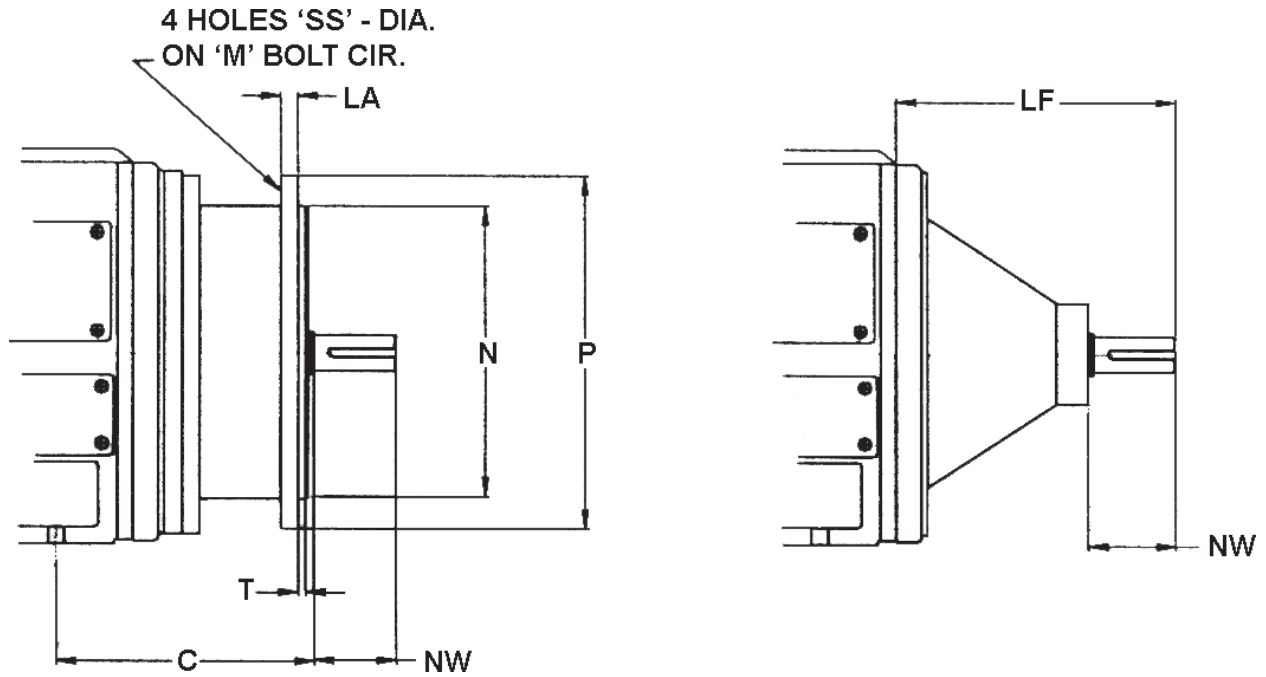
**Notes:**

- Terminal box mounting is optional on right or left side.
- Totally enclosed covers are available for several models.
- Alternate flanges are available for basic and freestanding models (see page 55).
- Weight is approximate and includes motor.
- fl Dimension includes flange (see page 55)
- \*\* LE Dimension Listed is guaranteed Maximum. Motor may be shorter.

DIMENSIONS ARE IN INCHES

**"DCD" Ajusto-Spede® Drives  
3 through 75 HP**

**Alternate Flange Outline Dimensions**



| Model   | C    | LA  | LF   | M     | N    | P    | T   | NW    | SS |
|---------|------|-----|------|-------|------|------|-----|-------|----|
| DCD-132 | 4.84 | .74 | 7.4  | 6.10  | 8.46 | 9.84 | .16 | 2.75  | .6 |
| DCD-160 | 7.87 | .63 | 8.74 | 10.43 | 9.06 | 14.0 | .16 | 3.375 | .6 |

DIMENSIONS ARE IN INCHES