

## For Example Only

### 1. Application

- A. Drill  $D_C$  3/8" "
- B. Material  $K_C$  (1020S7L) = 290,000 See page 59
- C. Tooling
- 1) Speed  $V_C$  150 SFM (Reference Tool Company or page 58)
- 2) Feed  $f_n$  .009 ipr
- D. Stroke  $>$  3-7/8" "

### 2. Parameters

- A. Thrust  $F_T$  230 ( $F_T = .235 \times D_C \times K_C \times f_n$ )
- B. Torque  $M_C$  367 ( $M_C = .375 \times D_C \times K_C \times f_n$ )
- C. HP  $P_C$  1.11 ( $P_C = D_C \times K_C \times f_n \times V_C / 132,000$ )
- D. RPM  $N$  1528 ( $N = SFM \times 3.82 / D_C$ )

### 3. Power feed unit selection

When using standard unit, choose power source (air or hydraulic), spindle nose and RPM.  
**Example:** Assuming that we choose the shortest stroke unit that will work.

Power Source	Model	Thrust	HP	RPM
Air Hydraulic	2427	475#	2	3800
Hydraulic	6415	680#		
Servo Hydraulic	6629	2750#		

## For Example Only (3 Shown)

### Specifying a Unit – If using a taylor made unit for your needs.

#### A. Choose Power Source

Air Hydraulic    Hydraulic    Hydraulic Servo  
 2427              6415              6629

#### B. Choose Spindle (NOTE: Standard spindles for these units have 600 #/in torque capacity.

- AK              - BJ              - SP  
 #2 Morse      1-3/8" AA GQ    1-3/8" AA Coolant Through

#### C. Choose Drive (NOTE: A high torque, low RPM situation has not occurred, no gear reduction required. On 6629 unit, coolant through was chosen. Please choose a coolant through drive for this application. (If using belt/pulley, choose -A inline)

-A              -A              -C  
 Inline        Inline        Coolant Through

#### D. Choose Belt & Pulley from chart, using 5-step 3V pulley, 2.3 HP @ 1500 RPM is available using 1200 RPM motor.

-A              -G1530        -H  
 5-step pulley    Single sheaves    Timing belt 1:1

#### E. Choose Motor

-M              -Q              -JJ  
 2HP 1200        3HP 1800        30A Servo

#### F. Choose a Belt Housing

-A1              -C1              -B1

#### G. Choose Special Options

#### H. Model Numbers Are Specified

2427 - AK - A - A - M - A1  
 6415 - BJ - A - G1530 - Q - C1 - Spindle Support  
 6629 - SP - C - H - JJ - B1 (Coolant Through)

## Work Area

### 1. Application

- A. Drill  $D_C$  \_\_\_\_\_
- B. Material  $K_C$  \_\_\_\_\_
- C. Tooling
- 1) Speed  $V_C$  \_\_\_\_\_
- 2) Feed  $f_n$  \_\_\_\_\_
- D. Stroke  $>$  \_\_\_\_\_

### 2. Parameters

- A. Thrust  $F_T$  \_\_\_\_\_
- B. Torque  $M_C$  \_\_\_\_\_
- C. HP  $P_C$  \_\_\_\_\_
- D. RPM  $N$  \_\_\_\_\_

### 3. Results

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## Work Area

### Specify a Unit

#### A. Choose Power Source

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#### B. Choose Spindle (pgs. 36-37)

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#### C. Choose Drive (pgs. 38-39)

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#### D. Choose Belt & Pulley (pgs. 40-41)

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#### E. Choose Motor (pgs. 42-44)

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#### F. Choose Belt Housing (pg. 45)

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#### G. Choose Special Options (pgs. 46-49)

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#### H. Model Numbers Are Specified

Model Spindle Drive Belt/Pulley Motor Belt Housing Special

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