

# GO E-mill™

## *A Trouble Free Mill*

### **10 Great Reasons To GO E-MILL™**

- 3 HP "Baldor" High Efficient Motor For High Torque Output
- C.N.C.Vector Type A.C. Frequency Drive
- Infinite 0-4500 RPM Constant Spindle Speed, Change In No Time (0-4 Sec.)
- Machine Can Run On Single or Three Phase Without Changing The Wiring
- Low Maintenance & Down Time Cost Because No Plastic Insert, Key & Moving Pulley
- No R.P.M. Changer Break Down, But Accurate Reading On R.P.M. To Prolong Tool Life
- Electronic & Mechanical Brake For Fast Spindle Stop
- No Belt Slippage For High Efficient Torque Output
- Boring & Tapping Application
- Save Energy Costs Up To 35%



**ACER** Group

**Acer/Springwood Industrial, Inc.**

1062 N. Kraemer Place  
Anaheim CA 92806  
Tel: (714) 632-9701  
Fax: (714) 632-9730

**Acer/Klim Industrial, Inc.**

244 N. Randolphville Rd.  
Piscataway NJ 08854  
Tel: (732) 752-9100  
Fax: (732) 752-9101



# ACER E-mill™ “A Trouble Free & Energy Saving Mill”

Due to the recent California Energy Crisis, a lot of Californians are looking for ways to cut down on their electric bills. Californians are also looking for ways to conserve energy. We at ACER are proud to announce that our “Trouble Free Mill” the Electronic Variable Speed E-mill is “Energy Saving”. ACER E-mill is the leading edge in milling machine technology. Compared to conventional mills, ACER E-mills new innovative design has eliminated over 50 parts from the standard Bridgeport design. ACER E-mill’s are equipped with U.S. made “Baldor” Super E high efficient 3Hp motor, “Toshiba” 5Hp AC frequency inverter drive, and “Allen Bradley” electrical components. ACER Electronic Variable Speed E-mill is the most energy efficient mill in the industry. In our goal to deliver product and services of excellence to our customers, we at ACER tested our E-mill to our conventional mills for energy consumption. The Electronic Variable Speed E-mill proved to save the average consumer 40% to 65% on their energy bills. ACER has listed their finding in this article. ACER E-mill has set the standards for milling machine for years to come.

## 1/4” DEEP 3/4” 4 FLUTE END MILL

### ACER Conventional Mill (3VS)

### ACER E-mill (3VS)

\*Models Tested 3VS was 3 Phase 230 Voltage Machines \*  
(Suggested Retail Price: \$8,775.00 as tested)

#### Metal 4140 Cut

No Load  
250 rpm  
 $W = \sqrt{3} \times U \times I \times 0.8$  (efficiency coefficient)  
watts/ 1000 = kW  
kW x 4 hour run time x 230days  
kWh/ year

3.2 amp  
3.9 amp (1 inch cut/min)  
 $W = \sqrt{3} \times 230 \times 3.9 \times 0.8$   
= 1242 watts = 1.24 kilowatts  
1.24 x 4 = 4.96 x 230  
= 1140.8 kilowatts hour annually

1.0 amp  
2.1 amp (1 inch cut/min)  
 $W = \sqrt{3} \times 230 \times 2.1 \times 0.8$   
= 660 watts = 0.66 kilowatts  
0.66 x 4 = 2.64 x 230  
= 607.2 kilowatts hour annually

Saving

**47% energy saved**

#### Aluminum Cut

No Load  
1400 rpm  
 $W = \sqrt{3} \times U \times I \times 0.8$  (efficiency coefficient)  
watts/ 1000 = kW  
kW x 4 hour run time x 230days  
kWh/ year

3.2 amp  
3.7 amp (4 inch cut/min)  
 $W = \sqrt{3} \times 230 \times 3.7 \times 0.8$   
= 1179 watts = 1.179 kilowatts  
1.179 x 4 = 4.72 x 230  
= 1085.6 kilowatts hour annually

1.0 amp  
1.5 amp (4 inch cut/min)  
 $W = \sqrt{3} \times 230 \times 1.5 \times 0.8$   
= 478 watts = 0.478 kilowatts  
0.478 x 4 = 1.91 x 230  
= 439.3 kilowatts hour annually

Saving

**60% energy saved**

#### Plastic Cut

No Load  
1600 rpm  
 $W = \sqrt{3} \times U \times I \times 0.8$  (efficiency coefficient)  
watts/ 1000 = kW  
kW x 4 hour run time x 230days  
kWh/ year

3.2 amp  
3.4 amp (12 inch cut/min)  
 $W = \sqrt{3} \times 230 \times 3.4 \times 0.8$   
= 1083 watts = 1.083 kilowatts  
1.083 x 4 = 4.33 x 230  
= 996.36 kilowatts year annually

1.0 amp  
1.2 amp (12 inch cut/min)  
 $W = \sqrt{3} \times 230 \times 1.2 \times 0.8$   
= 380 watts = 0.38 kilowatts  
0.38 x 4 = 1.52 x 230  
= 349.6 kilowatts year annually

Saving

**65% energy saved**

SPRINGWOOD INDUSTRIAL, INC.  
1062 N. Kraemer Place  
Anaheim, CA 92806  
Tel: (714) 632-9701  
Fax: (714) 632-9730

KLIM INDUSTRIAL, INC.  
244 N. Randolphville Road  
Piscataway, NJ 08854  
Tel: (732) 752-9100  
Fax: (732) 752-9101