

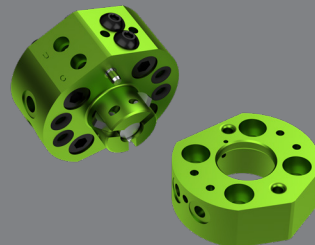
# Epsilon XCHANGE® Tool Changer

## ER31.5/ET31.5

ER31.5/ET31.5 is an automatic tool changing assembly for exchanging robotic end-of-arm tooling (EOAT) on the fly.

### Advantages

- High Strength Aluminum Alloy Body
- Cam Locking Mechanism with **Lifetime Guarantee\***
  - Self-Centering
  - Wear Compensating
  - Self-Cleaning
  - Positive Cam Retraction
- Couple/Uncouple Sensing Optional



## SPECIFICATIONS

| Model               | Rated Payload      | Operating Moment (Mx, My) | E-Stop Moment (Mx, My)   | Operating Torque (Mz)    | E-Stop Torque (Mz)       | Diameter or width x length           | Height coupled | Repeatability | User flow | Weight                 |
|---------------------|--------------------|---------------------------|--------------------------|--------------------------|--------------------------|--------------------------------------|----------------|---------------|-----------|------------------------|
| <b>E31.5</b>        | 10 kg<br>22 lb     | 52 Nm<br>460 in-lb        | 79 Nm<br>699 in-lb       | 30 Nm<br>266 in-lb       | 60 Nm<br>531 in-lb       | Ø46 mm<br>Ø1.81 in                   | 36 mm<br>1 in  | ± 0.04°       | 0.18 Cv   | 0.13 kg<br>0.29 lb     |
| <b>E50</b>          | 25 kg<br>55 lb     | 88 Nm<br>779 in-lb        | 168 Nm<br>1487 in-lb     | 120 Nm<br>1062 in-lb     | 375 Nm<br>3319 in-lb     | Ø85 mm<br>Ø3.35 in                   | 48 mm<br>2 in  | ± 0.02°       | 0.27 Cv   | 0.59 kg<br>1.30 lb     |
| <b>E63</b>          | 50 kg<br>110 lb    | 112 Nm<br>991 in-lb       | 168 Nm<br>1487 in-lb     | 220 Nm<br>1947 in-lb     | 375 Nm<br>3319 in-lb     | Ø85 mm<br>Ø3.35 in                   | 48 mm<br>2 in  | ± 0.02°       | 0.27 Cv   | 0.60 kg<br>1.32 lb     |
| <b>E80</b>          | 90 kg<br>198 lb    | 465 Nm<br>4116 in-lb      | 890 Nm<br>7877 in-lb     | 640 Nm<br>5664 in-lb     | 1585 Nm<br>14028 in-lb   | Ø152 mm<br>Ø5.98 in                  | 72 mm<br>3 in  | ± 0.01°       | 0.37 Cv   | 2.74 kg<br>6.04 lb     |
| <b>E100</b>         | 120 kg<br>265 lb   | 548 Nm<br>4850 in-lb      | 890 Nm<br>7877 in-lb     | 960 Nm<br>8497 in-lb     | 1585 Nm<br>14028 in-lb   | Ø152 mm<br>Ø5.98 in                  | 72 mm<br>3 in  | ± 0.01°       | 0.37 Cv   | 2.68 kg<br>5.91 lb     |
| <b>E125LP</b>       | 225 kg<br>496 lb   | 1737 Nm<br>15374 in-lb    | 2875 Nm<br>25446 in-lb   | 2020 Nm<br>17879 in-lb   | 3953 Nm<br>34987 in-lb   | Ø190 mm<br>Ø7.48 in                  | 94 mm<br>4 in  | ± 0.01°       | 0.92 Cv   | 5.43 kg<br>11.97 lb    |
| <b>E125</b>         | 350 kg<br>772 lb   | 2576 Nm<br>22800 in-lb    | 4817 Nm<br>42634 in-lb   | 4180 Nm<br>36996 in-lb   | 5110 Nm<br>45227 in-lb   | 175.0 x 224.0 mm<br>6.89 x 8.82 in   | 120 mm<br>5 in | ± 0.01°       | N/A       | 9.22 kg<br>20.33 lb    |
| <b>E160</b>         | 525 kg<br>1158 lb  | 3775 Nm<br>33412 in-lb    | 5787 Nm<br>51219 in-lb   | 4800 Nm<br>42484 in-lb   | 5945 Nm<br>52618 in-lb   | 242.9 x 280.5 mm<br>9.56 x 11.04 in  | 120 mm<br>5 in | ± 0.01°       | N/A       | 13.86 kg<br>30.16 lb   |
| <b>E160 (STL)**</b> | 600 kg<br>1323 lb  | 4300 Nm<br>38058 in-lb    | 9095 Nm<br>80498 in-lb   | 4800 Nm<br>42484 in-lb   | 5945 Nm<br>52618 in-lb   | 242.9 x 280.5 mm<br>9.56 x 11.04 in  | 120 mm<br>5 in | ± 0.01°       | N/A       | 13.89 kg<br>30.62 lb   |
| <b>ES160</b>        | 800 kg<br>1764 lb  | 5649 Nm<br>49998 in-lb    | 11322 Nm<br>100208 in-lb | 5280 Nm<br>46732 in-lb   | 6690 Nm<br>59211 in-lb   | 242.9 x 280.5 mm<br>9.56 x 11.04 in  | 120 mm<br>5 in | ± 0.01°       | N/A       | 18.03 kg<br>39.75 lb   |
| <b>ES200</b>        | 1500 kg<br>3308 lb | 15097 Nm<br>133620 in-lb  | 17998 Nm<br>159296 in-lb | 11660 Nm<br>103200 in-lb | 14590 Nm<br>129132 in-lb | 310.0 x 358.0 mm<br>12.20 x 14.09 in | 120 mm<br>5 in | ± 0.01°       | N/A       | 28.53 kg<br>62.90 lb   |
| <b>ES315</b>        | 2300 kg<br>5072 lb | 43135 Nm<br>381777 in-lb  | 75533 Nm<br>668523 in-lb | 31144 Nm<br>275648 in-lb | 48882 Nm<br>432642 in-lb | 425.0 x 490.8 mm<br>16.7 x 19.3 in   | 171 mm<br>7 in | ± 0.01°       | N/A       | 103.24 kg<br>227.61 lb |

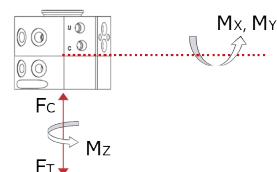
\*Guaranteed for 8 million cycles or 20 years, whichever comes first.

\*\*E160 (STL) utilizes a steel tool adaptor and an aluminum robot adaptor.

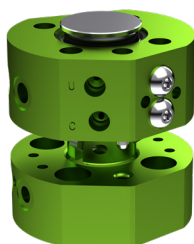
Supply Pressure **5 - 7 bar**

Operating Temperature **5 - 60°C**

Noise Emissions (Sound Pressure) **≤ 70 dB(A) in each direction**



## SECTIONAL DIAGRAM



Epsilon **XCHANGE®** automatic tool changing technology allows for exchanging robotic end-of-arm tooling (EOAT) on the fly without shutting down production lines. Not only does this add efficiency to processes requiring frequent connection/disconnection of tooling and support utilities, but also reduces the probability of human errors introduced by manual connections.



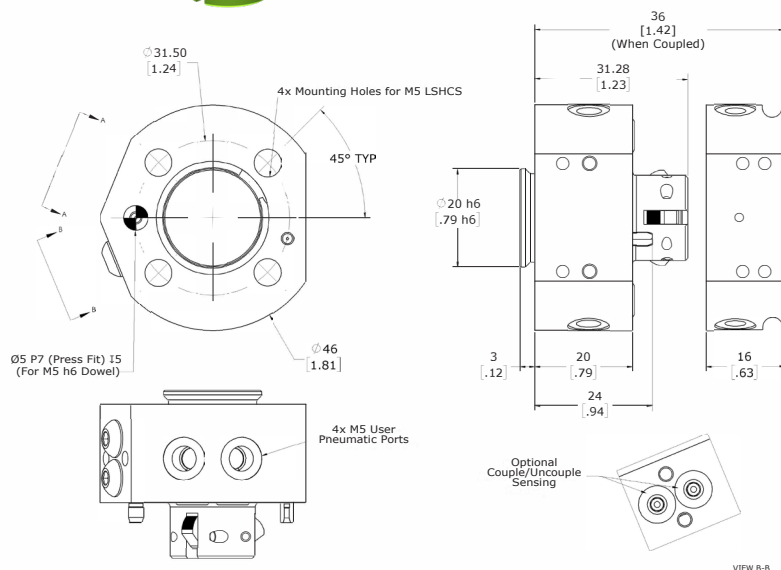
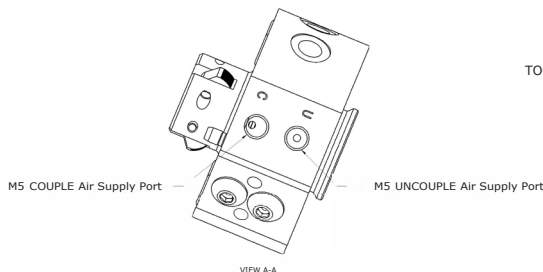
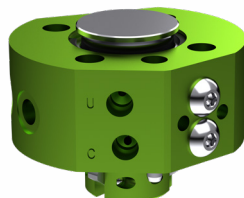
# PRODUCT INFORMATION



03.25\_Rev.02

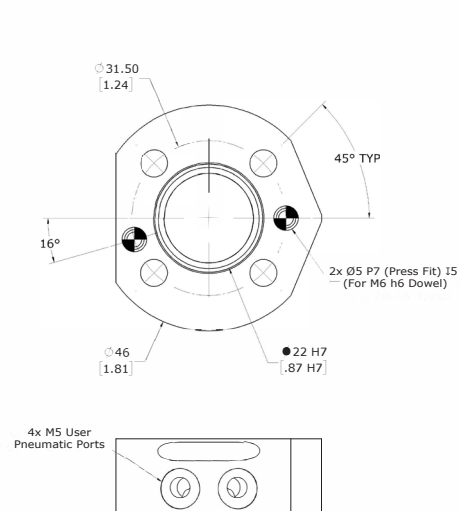
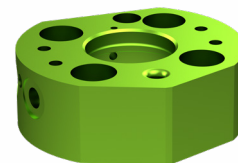
## ROBOT ADAPTOR

ROBOT ADAPTOR WEIGHT: 0.09 kg [0.20 lbs]



## TOOL ADAPTOR

TOOL ADAPTOR WEIGHT: 0.04 kg [0.09 lbs]



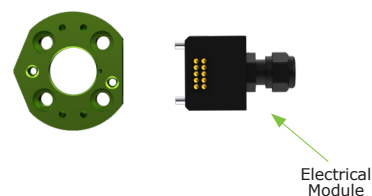
NOTE: Dimensions are mm [in]

## OPTIONAL UTILITIES

### E31.5 Robot



### E31.5 Tool



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