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We are committed to

Total Customer Satisfaction

through

QUALITY, RELIABILITY and
EMPLOYEE INVOLVEMENT.

Knight Global | Warranty Information

Knight warrants that its products and parts shall meet all applicable specifications, performance requirements, and be free from defects in material and workmanship for one year, (Servo Systems for two years, Pneumatic Lift Tables for 5 years), from the date of invoice, unless otherwise noted. One exclusion would include any purchased components not manufactured by Knight and their specific individual warranties. Paint defects, scratches and marring from shipping are also excluded.

This warranty shall not cover the failure or defective operation caused by inadequate training provided by customer regarding the operation and / or maintenance of the tool, misuse, negligence, misadjustment, or any alteration not approved by Knight. Knight’s obligation is limited to the replacement or repair of Knight’s products at a location designated by Knight. Buyer is responsible for all associated internal removal and reinstallation costs as well as freight charges to and from Knight Industries. Knight’s maximum liability shall not in any case exceed the contract price for the products claimed to be defective.

Any field modification made to Knight Products or Systems without the written authorization by Knight Global shall void Knight’s warranty obligation.

Knight warrants the Servo Hoist, Arms, and Tractors to be free from defects in material or workmanship for a period of two years or 6000 hours use from the date of shipment.

Knight Distributors/ Agents are not authorized to circumvent or change any of these terms and conditions of this warranty unless prior approval is received in writing by Knight Global Management. Verbal statements made by Knight Distributors/ Agents do not constitute warranties.

On a design and build job, the customer is the owner of the equipment once they authorize shipment. The purchased equipment can not be returned for reimbursement or credit.

DISCLAIMERS: OTHER THAN AS SET FORTH HEREIN, NO OTHER EXPRESSED WARRANTIES, AND NO IMPLIED WARRANTIES, ORAL AND WRITTEN, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE BY KNIGHT GLOBAL WITH RESPECT TO ITS PRODUCTS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

KNIGHT GLOBAL SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR ANY INCIDENTAL, SPECIAL AND/OR CONSEQUENTIAL DAMAGES WHATSOEVER, WHETHER OR NOT FORESEEABLE, INCLUDING BUT NOT LIMITED TO DAMAGES FOR LOST PROFITS AND ALL SUCH INCIDENTAL, SPECIAL AND/OR CONSEQUENTIAL DAMAGES ARE HEREBY ALSO SPECIFICALLY DISCLAIMED.

KNIGHT GLOBAL WILL NOT BE LIABLE FOR ANY LOSS, INJURY OR DAMAGE TO PERSONS OR PROPERTY, NOR FOR DAMAGES OF ANY KIND RESULTING FROM FAILURE OR DEFECTIVE OPERATION OF ANY MATERIALS OR EQUIPMENT FURNISHED HEREUNDER.
Knight Pneumatic Arms
Knight Pneumatic, Extension, Vertical and Servo Arms Series provide a wide variety of configurations to lift, rotate, balance, move and transfer product to and from conveyors, dunnage, assembly lines and much more. Knight arms allow for the positioning of a fixture or end effector within a specified work cell or typical work area using overhead or floor mounted workstation cranes.

Overview
Pneumatic Arms Series
Knight Pneumatic arms use a parallelogram structure that articulates at the vertical planes. This design allows vertical positioning of a fixture or end effector. Knight Global offers a wide range of arm types, capacities and configurations to handle many types of end tooling.

Pneumatic arms are used to lift, rotate, balance, move and transfer product to and from conveyors, dunnage, assembly lines and more.
Knight AAA4000 Light Duty Articulating Arm

Knight Global’s AAA4000 Overhead Mounted Light Duty Articulating Arm is a parallelogram arm that utilizes a single cylinder in the rear of the arm to achieve greater lifting capacity. The AAA4000 travels inside Knight’s RAD4110, RAD6110, or RAD7510 Aluminum Series Rail Systems. This Arm is for secure tools and light lifting applications.

The AAA4000 Articulating Arm is used to lift, rotate, balance, and move product from conveyors, dunnage, assembly lines and more. The AAA4000 features a variety of control configurations.

Features
- CE Compliant **
- Travels inside Knight’s RAD4110, RAD6110, or RAD7510 Series Rail.
- Variety of Control Configurations.
- Overhead Carriage Sizes:
  - 24 in. [609mm] or 36 in. [914mm].
- Max. Vertical Mast Length:
  - Up to 9 ft. [2743mm].
- Max. Arm Length: Up to 36 in. [914mm].
- Max. Extension Boom Length:
  - Up to 36 in. [914mm].
- Max. Vertical Arm Travel:
  - Up to 36 in. [914mm].
- Max. Lifting/Balance Capacity:
  - Up to 50 lbs. [23kg] at 60 psi [4.1bar].

**CE compliance is not a standard feature on Knight Global Pneumatic Arms. Please contact us for more details.

Benefits
- Pedestal Mounted or Linear Rail Configurations Available.
- Reduces Operator Fatigue.
- Arm travels on the “X”, “Y”, and “Z” Axis.
- Absorbs Torque Reaction.
- Fixed or 360° Rotation.
- Optional Pivot Brake.
- Optional Parking Brake.
- Optional Clutch Brake.
AAA4000 Series

**Extension Arm (B)**
(2) DISC BRAKES

**Extension Arm (C)**
(1) DISC BRAKE

**Extension Arm (D)**
(2) CLUTCH BRAKES

**Extension Arm (E)**
(1) CLUTCH BRAKE

210 Degrees of Rotation
Either Left or Right Side Extension Arm Rotation (L/R)

**Optional**
- Knight RAD7510 Air Tractor
  - Model #: TRAS5000
- Knight RAD4110 Air Tractor
  - Model #: TRAS5000
- Knight Rail Brake
  - Model #: MRAA4359

**ORDER # EX: 4_24_B24L_F_H99_J_L24**

**Optional [Omit if not required]**

<table>
<thead>
<tr>
<th>Arm Desc.</th>
<th>Arm Length</th>
<th>Arm Extension</th>
<th>Connector</th>
<th>Mast</th>
<th>Bearing</th>
<th>Carriage</th>
</tr>
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<tbody>
<tr>
<td>4X</td>
<td>X</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
</tr>
</tbody>
</table>

F = AAA4002
G = AAA4007
Specify Length (inches) HXX
J = yes
K = no
L24 L36

Knight Global’s AAA4000 Pedestal Mounted Light Duty Articulating Arm is a parallelogram arm that utilizes a single cylinder in the rear of the arm to achieve greater lifting capacity. This Arm is for secure tools and light lifting applications.

The AAA4000 Articulating Arm is used to lift, rotate, balance, and move product from conveyors, dunnage, assembly lines and more.

Knight offers fixed and rotational arm configurations.

Features

- CE Compliant **
- Pedestal Mounted.
- Adjustable Arm Heights.
- Variety of Control Configurations.
- Max. Pedestal Height: Up to 6 ft. [1828mm].
- Max. Arm Length: Up to 36 in. [914mm].
- Max. Extension Boom Length: Up to 36 in. [914mm].
- Max. Vertical Arm Travel: Up to 36 in. [914mm].
- Max. Lifting/Balance Capacity: Up to 50 lbs. [23kg] at 60 psi [4.1bar].

**CE compliance is not a standard feature on Knight Global Pneumatic Arms. Please contact us for more details.

Benefits

- Overhead Mounted or Linear Rail Configurations Available.
- Reduces Operator Fatigue.
- Arm travels on the “X”, “Y”, and “Z” Axis.
- Absorbs Torque Reaction.
- Fixed or Rotational.
- Optional Pivot Brake.
- Optional Parking Brake.
- Optional Clutch Brake.
Arm Extensions

Extension Arm (B)
(2) DISC BRAKES

Extension Arm (C)
(1) DISC BRAKE

Extension Arm (D)
(2) CLUTCH BRAKES

Extension Arm (E)
(1) CLUTCH BRAKE

Arm Configurations

250 Degrees of Rotation
Either Left or Right Side Extension Arm Rotation

210 Degrees of Rotation
Either Left or Right Side Extension Arm Rotation (L/R)

ORDER # EX: P4_24_B24L_F_H99

Optional [Omit if not required]

<table>
<thead>
<tr>
<th>Arm Desc.</th>
<th>Arm Length</th>
<th>Arm Extension</th>
<th>Connector</th>
<th>Pedestal Height</th>
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</thead>
<tbody>
<tr>
<td>P4</td>
<td>XXX</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
</tr>
</tbody>
</table>

| 24         | 36         | B24L, B24R    | F = AAA4002 | Specify Height (Inches) |
| 23        | 24         | B23L, B23R    | G = AAA4007  | HXX               |
| 22        | 24         | B22L, B22R    |           |                  |
| 21        | 24         | B21L, B21R    |           |                  |
| 20        | 24         | B20L, B20R    |           |                  |
| 19        | 24         | B19L, B19R    |           |                  |
| 18        | 24         | B18L, B18R    |           |                  |
| 17        | 24         | B17L, B17R    |           |                  |
| 16        | 24         | B16L, B16R    |           |                  |
| 15        | 24         | B15L, B15R    |           |                  |
| 14        | 24         | B14L, B14R    |           |                  |
| 13        | 24         | B13L, B13R    |           |                  |
| 12        | 24         | B12L, B12R    |           |                  |
| 11        | 24         | B11L, B11R    |           |                  |
| 10        | 24         | B10L, B10R    |           |                  |
| 9         | 24         | B09L, B09R    |           |                  |
| 8         | 24         | B08L, B08R    |           |                  |
| 7         | 24         | B07L, B07R    |           |                  |
| 6         | 24         | B06L, B06R    |           |                  |
| 5         | 24         | B05L, B05R    |           |                  |
| 4         | 24         | B04L, B04R    |           |                  |
| 3         | 24         | B03L, B03R    |           |                  |
| 2         | 24         | B02L, B02R    |           |                  |
| 1         | 24         | B01L, B01R    |           |                  |

Specify Height (Inches) in XXX.
Knight AAA4000 Light Duty Linear Rail Articulating Arm

Knight Global’s AAA4000 Linear Rail Mounted Light Duty Articulating Arm is a parallelogram arm that utilizes a single cylinder in the rear of the arm to achieve greater lifting capacity. This Arm is for secure tools and light lifting applications.

The AAA4000 Arm is used to lift, rotate, balance, and move product from conveyors, dunnage, assembly lines and more. The AAA4000 features a variety of control configurations.

Knight offers fixed and rotational arm configurations.

Features

- CE Compliant **
- Linear Rail Pedestal or Wall Mounted.
- Variety of Control Configurations.
- Max. Arm Length: Up to 36 in. [914mm].
- Max. Extension Boom Length:
  Up to 36 in. [914mm].
- Max. Vertical Arm Travel:
  Up to 36 in. [914mm].
- Max. Lifting/Balance Capacity:
  Up to 50 lbs. [23kg] at 60 psi [4.1bar].

**CE compliance is not a standard feature on Knight Global Pneumatic Arms. Please contact us for more details.

Benefits

- Pedestal Mounted or Overhead Configurations Available.
- Reduces Operator Fatigue.
- Arm travels on the “X”, “Y”, and “Z” Axis.
- Absorbs Torque Reaction.
- Fixed or Rotational.
- Optional Pivot Brake.
- Optional Parking Brake.
- Optional Clutch Brake.
AAA4000 Series

Arm Extensions

Extension Arm (B)
(2) DISC BRAKES

Extension Arm (C)
(1) DISC BRAKE

Extension Arm (D)
(2) CLUTCH BRAKES

Extension Arm (E)
(1) CLUTCH BRAKE

Order # EX: L4_24_B24L_F

Optional [Omit if not required]

<table>
<thead>
<tr>
<th>Arm Desc.</th>
<th>Arm Length</th>
<th>Arm Extension</th>
<th>Connector</th>
</tr>
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<tbody>
<tr>
<td>L4</td>
<td>XX</td>
<td>XXX</td>
<td>F = AAA4008</td>
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<tr>
<td>24</td>
<td>36</td>
<td>B24L, B24R</td>
<td>B36L, B36R</td>
</tr>
<tr>
<td>C24L, C24R</td>
<td></td>
<td></td>
<td>C36L, C36R</td>
</tr>
<tr>
<td>D24L, D24R</td>
<td></td>
<td></td>
<td>D36L, D36R</td>
</tr>
<tr>
<td>E24L, E24R</td>
<td></td>
<td></td>
<td>E36L, E36R</td>
</tr>
</tbody>
</table>

AAA4008 Series
Knight AAA6000 Medium Duty
Low Profile Arm

Knight’s Overhead Mounted AAA6000 travels inside Knight’s RAD4110, RAD6110, or RAD7510 Aluminum Series Rail Systems. Knight’s AAA6000 Medium Duty Arm reduces fatigue by absorbing torque reaction and lifting/manipulating product effortlessly for the operator. The AAA6000 Articulating Arm is used to lift, rotate, balance, and move product from conveyors, dunnage, assembly lines and more. Knight’s AAA6000 travels on the “X”, “Y”, and “Z” axis and features a variety of control configurations.

Knight offers fixed and 360 degree rotational AAA6000 Articulating Arms. Knight Global’s AAA6000 Articulating Arm has a maximum reach (without Extension Boom) of 48 in. [1,219mm] and a maximum lifting/balance capacity of up to 430 lbs. [195kg] at 100 psi [6.8bar]. Capacities vary with reach; for more information contact a Knight Global representative.

Features
• CE Compliant **
• Travels inside Knight’s RAD4110, RAD6110, or RAD7510 Series Rail.
• Lifts, Rotates, Balances, and Manipulates product with minimal effort.
• Variety of Control Configurations.
• Overhead Carriage Sizes:
  24 in. [609mm] or 36 in. [914mm].
• Max. Arm Length: Up to 48 in. [1,219mm].
• Max. Extension Boom Length:
  Up to 48 in. [1,219mm]
  (Lengths over 48 in. Contact a Knight Representative).
• Max. Vertical Arm Travel:
  Up to 48 in. [1,219mm].

Benefits
• Pedestal Mounted Configuration Available.
• Reduces Operator Fatigue.
• Arm travels on the “X”, “Y”, and “Z” Axis.
• Absorbs Torque Reaction.
• Fixed or 360° Rotation.
• Optional Pivot Brake.
• Optional Parking Brake.
• Optional Clutch Brake.

Arm Lifting Capacity

<table>
<thead>
<tr>
<th>Reach</th>
<th>60 P.S.I.</th>
<th>80 P.S.I.</th>
<th>100 P.S.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 in. 609mm</td>
<td>240 lbs. 108kg</td>
<td>325 lbs. 147kg</td>
<td>430 lbs. 195kg</td>
</tr>
<tr>
<td>36 in. 914mm</td>
<td>190 lbs. 86kg</td>
<td>255 lbs. 120kg</td>
<td>335 lbs. 152kg</td>
</tr>
<tr>
<td>48 in. 1219mm</td>
<td>100 lbs. 45kg</td>
<td>185 lbs. 84kg</td>
<td>250 lbs. 113kg</td>
</tr>
</tbody>
</table>

**CE compliance is not a standard feature on Knight Global Pneumatic Arms. Please contact us for more details.**

**Arm capacity is reduced by weight of arm extension**

AAA6000 Series

Arm Extensions

Extension Arm (B)

Extension Arm (C)
(1) PIVOT BRAKE

Extension Arm (D)

Extension Arm (E)
(1) PIVOT BRAKE

Extension Arm (F)
(1) PIVOT BRAKE

Extension Arm (G)
(2) PIVOT BRAKE

***Arm Capacity reduced by weight of arm extension***

<table>
<thead>
<tr>
<th>Ext. Arm (B)</th>
<th>Ext. Arm (C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach</td>
<td></td>
</tr>
<tr>
<td>24”</td>
<td>11kg</td>
</tr>
<tr>
<td>36”</td>
<td>16kg</td>
</tr>
<tr>
<td>48”</td>
<td>21kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ext. Arm (D)</th>
<th>Ext. Arm (E)</th>
<th>Ext. Arm (F)</th>
<th>Ext. Arm (G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24”</td>
<td>19kg</td>
<td>26kg</td>
<td>35kg</td>
</tr>
<tr>
<td>36”</td>
<td>27kg</td>
<td>33kg</td>
<td>42kg</td>
</tr>
<tr>
<td>48”</td>
<td>35kg</td>
<td>40kg</td>
<td>48kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight of Arm Extensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ext. Arm (B)</td>
</tr>
<tr>
<td>lbs</td>
</tr>
<tr>
<td>24.3 lbs</td>
</tr>
<tr>
<td>11kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arm Description</th>
<th>Arm Length</th>
<th>Arm Extension</th>
<th>Spacer</th>
<th>Bearing</th>
<th>Carriage</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>XX</td>
<td>XXX</td>
<td>XXX</td>
<td>X</td>
<td>XXX</td>
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<tr>
<td>24</td>
<td>36</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>L24</td>
</tr>
<tr>
<td>48</td>
<td>36</td>
<td>D24, D36, or D48</td>
<td>E24, E36, or E48</td>
<td>F24, F36, or F48</td>
<td>G24, G36, or G48</td>
</tr>
</tbody>
</table>

Optional [Omit if not required]

Optional

Arm Description | Model # |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Knight Rail Brake</td>
<td>MRAA4359</td>
</tr>
</tbody>
</table>

ORDER # EX: 6_24_G48_H99_J_L24

Knight AAA6000 Medium Duty Pedestal Mounted Arm

Knight’s AAA6000 Medium Duty Arm reduces fatigue by absorbing torque reaction and lifting/manipulating product effortlessly for the operator. The AAA6000 Articulating Arm is used to lift, rotate, balance, and move product from conveyors, dunnage, assembly lines and more. Knight’s AAA6000 is ideal for limited overhead applications and features a variety of control configurations.

Knight offers fixed and 360 degree rotational AAA6000 Articulating Arms. Knight Global’s AAA6000 Articulating Arm has a maximum reach (without Extension Boom) of 48 in. [1,219mm] and a maximum lifting/balance capacity of up to 430 lbs. [195kg] at 100 psi [6.8bar]. Capacities vary with reach; for more information contact a Knight Global representative.

Features
• CE Compliant **
• Lifts, Rotates, Balances, and Manipulates product with minimal effort.
• Variety of Control Configurations.
• Max. Arm Length: Up to 48 in. [1,219mm].
• Max. Extension Boom Length: Up to 48 in. [1,219mm]
  (Lengths over 48 in. Contact a Knight Representative).
• Max. Vertical Arm Travel: Up to 48 in. [1,219mm].

Benefits
• Overhead Mounted Configuration Available.
• Eliminates need for overhead system.
• Reduces Operator Fatigue.
• Arm travels on the “X”, “Y”, and “Z” Axis.
• Absorbs Torque Reaction.
• Fixed or 360° Rotation.
• Optional Pivot Brake.
• Optional Parking Brake.
• Optional Clutch Brake.

*CE compliance is not a standard feature on Knight Global Pneumatic Arms. Please contact us for more details.

Arm Lifting Capacity

<table>
<thead>
<tr>
<th>Reach</th>
<th>60 P.S.I.</th>
<th>80 P.S.I.</th>
<th>100 P.S.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 in. 609mm</td>
<td>240 lbs. 108kg</td>
<td>325 lbs. 147kg</td>
<td>430 lbs. 195kg</td>
</tr>
<tr>
<td>36 in. 914mm</td>
<td>190 lbs. 86kg</td>
<td>265 lbs. 120kg</td>
<td>335 lbs. 152kg</td>
</tr>
<tr>
<td>48 in. 1219mm</td>
<td>100 lbs. 45kg</td>
<td>185 lbs. 84kg</td>
<td>250 lbs. 113kg</td>
</tr>
</tbody>
</table>

*** Arm Capacity varies by reach of Arm; Arm Capacity reduced by weight of arm extension ***

AAA6000 Series

Arm Extensions

Extension Arm (B)

Extension Arm (C) (1) PIVOT BRAKE

Extension Arm (D)

Extension Arm (E) (1) PIVOT BRAKE

Extension Arm (F) (1) PIVOT BRAKE

Extension Arm (G) (2) PIVOT BRAKE

Pedestal Options

Pedestal Options

ORDER # EX: P6_24_G48_H_K99

**Optional [Omit if not required]**

Weight of Arm Extensions

| Ext. Arm (B) Arm Length | Ext. Arm (C) Reach | Ext. Arm (D) Ext. Arm (E) Ext. Arm (F) Ext. Arm (G) |
|-------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|
| 24.3 lbs. 11kg          | 24" 609mm         | 42 lbs. 19kg    | 61 lbs. 27kg    | 59 lbs. 26kg    | 77 lbs. 35kg    |
| 35.8 lbs. 16kg          | 36" 914mm         | 47 lbs. 21kg    | 66 lbs. 30kg    | 63 lbs. 28kg    | 82 lbs. 37kg    |
| 48 lbs. 21kg            | 48" 1219mm        | 52 lbs. 23kg    | 72 lbs. 32kg    | 68 lbs. 30kg    | 87 lbs. 44kg    |

***Arm Capacity reduced by weight of arm extension***

Knight AAA9000 Heavy Duty Overhead Mounted Arm

Knight’s Overhead Mounted AAA9000 travels inside Knight’s RAD4110, RAD6110, or RAD7510 Aluminum Series Rail Systems. Knight’s AAA9000 Medium Duty Arm reduces fatigue by absorbing torque reaction and lifting/manipulating product effortlessly for the operator. The AAA9000 Articulating Arm is used to lift, rotate, balance, and move product from conveyors, dunngage, assembly lines and more. Knight’s AAA6000 travels on the “X”, “Y”, and “Z” axis and features a variety of control configurations.

Knight offers fixed and 360 degree rotational AAA9000 Articulating Arms. Knight Global’s AAA9000 Articulating Arm has a maximum reach (without Extension Boom) of 60 in. [1,524mm] and a maximum lifting/balance capacity of up to 600 lbs. [272kg] at 100 psi [6.8bar]. Capacities vary with reach; for more information contact a Knight Global representative.

**Features**
- CE Compliant **
- Lifts, Rotates, Balances, and Manipulates product with minimal effort.
- Variety of Control Configurations.
- Max. Arm Length: Up to 60 in. [1,524mm].
- Max. Extension Boom Length: Up to 48 in. [1,219mm]
  (Lengths over 48 in. Contact a Knight Representative).
- Max. Vertical Arm Travel: Up to 60 in. [1,524mm].

**Benefits**
- Pedestal Mounted Configuration Available.
- Reduces Operator Fatigue.
- Arm travels on the “X”, “Y”, and “Z” Axis.
- Absorbs Torque Reaction.
- Fixed or 360° Rotation.
- Optional Pivot Brake.
- Optional Parking Brake.
- Optional Clutch Brake.

**Arm Lifting Capacity**

<table>
<thead>
<tr>
<th>Reach</th>
<th>60 P.S.I.</th>
<th>80 P.S.I.</th>
<th>100 P.S.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in. 914mm</td>
<td>400 lbs. 181kg</td>
<td>600 lbs. 272kg</td>
<td>600 lbs. 272kg</td>
</tr>
<tr>
<td>48 in. 1219mm</td>
<td>300 lbs. 136kg</td>
<td>425 lbs. 192kg</td>
<td>525 lbs. 238kg</td>
</tr>
<tr>
<td>60 in. 1524mm</td>
<td>225 lbs. 102kg</td>
<td>350 lbs. 158kg</td>
<td>400 lbs. 181kg</td>
</tr>
</tbody>
</table>

***Arm Capacity varies by reach of Arm; Arm Capacity reduced by weight of arm extension ***

**Arm Extensions**

**Weight of Arm Extensions**

<table>
<thead>
<tr>
<th>Ext. Arm (B)</th>
<th>Reach</th>
<th>Ext. Arm (C)</th>
<th>Ext. Arm (D)</th>
<th>Ext. Arm (E)</th>
<th>Ext. Arm (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>64.6 lbs.</td>
<td>29.3kg</td>
<td>24&quot; 609mm</td>
<td>53 lbs. 28kg</td>
<td>99.5 lbs. 49kg</td>
<td>91.2 lbs. 41kg</td>
</tr>
<tr>
<td>36&quot; 914mm</td>
<td>62.2 lbs. 29kg</td>
<td>109 lbs. 50kg</td>
<td>100 lbs. 45kg</td>
<td>146 lbs. 60kg</td>
<td></td>
</tr>
<tr>
<td>48&quot; 1219mm</td>
<td>71.4 lbs. 32kg</td>
<td>118 lbs. 53kg</td>
<td>110 lbs. 50kg</td>
<td>156 lbs. 70kg</td>
<td></td>
</tr>
</tbody>
</table>

***Arm Capacity reduced by weight of arm extension***

**Arm Accessories**

- **Extension Arm (B)**
  - (1) PIVOT BRAKE

- **Extension Arm (C)**
  - (1) PIVOT BRAKE

- **Extension Arm (D)**
  - (1) PIVOT BRAKE

- **Extension Arm (E)**
  - (1) PIVOT BRAKE

- **Extension Arm (F)**
  - (2) PIVOT BRAKE

**Optional Accessories**

- **Spacer**
- **Bearing**
- **Trolleys**

**ARM ACCESSORIES**

**Description**

<table>
<thead>
<tr>
<th>Description</th>
<th>Model #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knight Rail Brake</td>
<td>MRAA4359</td>
</tr>
<tr>
<td>TRA5500</td>
<td>MRTA4009</td>
</tr>
<tr>
<td>TRA5000</td>
<td>MRTA6123</td>
</tr>
<tr>
<td>RAD7510 Air Tractor</td>
<td>MRTA7723</td>
</tr>
<tr>
<td>RAD4110 Air Tractor</td>
<td>ATA2603</td>
</tr>
<tr>
<td>EXT. Arm (B)</td>
<td>ATA2604</td>
</tr>
</tbody>
</table>

**ORDER # EX:** 9_36_F48_G99_H_J24

**2705 Commerce Pkwy., Auburn Hills, Michigan 48326 - Ph: (248) 377-4950 - www.knightglobal.com**
AAA9000 Series

Knight AAA9000 Heavy Duty Pedestal Mounted Arm

Knight’s Floor Mounted AAA9000 Heavy Duty Arm reduces fatigue by absorbing torque reaction and lifting/manipulating product effortlessly for the operator. The AAA9000 Articulating Arm is used to lift, rotate, balance, and move product from conveyors, dunnage, assembly lines and more. Knight’s AAA9000 is ideal for limited floor mounted applications and features a variety of control configurations.

Knight offers fixed and 360 degree rotational AAA9000 Articulating Arms. Knight Global’s AAA9000 Articulating Arm has a maximum reach (without Extension Boom) of 48 in. [1,219mm] and a maximum lifting/balance capacity of up to 600 lbs. [272kg] at 100 psi [6.8bar]. Capacities vary with reach; for more information contact a Knight Global representative.

Features
- CE Compliant **
- Lifts, Rotates, Balances, and Manipulates product with minimal effort.
- Variety of Control Configurations.
- Max. Arm Length: Up to 60 in. [1,524mm].
- Max. Extension Boom Length: Up to 48in. [1,219mm]
  (Lengths over 48 in. Contact a Knight Representative).
- Max. Vertical Arm Travel:
  Up to 60 in. [1,524mm].

**CE compliance is not a standard feature on Knight Global Pneumatic Arms. Please contact us for more details.

Benefits
- Overhead Mounted Configuration Available.
- Eliminates need for overhead system.
- Reduces Operator Fatigue.
- Arm travels on the “X”, “Y”, and “Z” Axis.
- Absorbs Torque Reaction.
- Fixed or 360° Rotation.
- Optional Pivot Brake.
- Optional Parking Brake.
- Optional Clutch Brake.

Arm Lifting Capacity

<table>
<thead>
<tr>
<th>Reach</th>
<th>60 P.S.I.</th>
<th>80 P.S.I.</th>
<th>100 P.S.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 in. 914mm</td>
<td>400 lbs.</td>
<td>600 lbs.</td>
<td>600 lbs.</td>
</tr>
<tr>
<td></td>
<td>181kg</td>
<td>272kg</td>
<td>272kg</td>
</tr>
<tr>
<td>48 in. 1219mm</td>
<td>300 lbs.</td>
<td>425 lbs.</td>
<td>525 lbs.</td>
</tr>
<tr>
<td></td>
<td>136kg</td>
<td>192kg</td>
<td>238kg</td>
</tr>
<tr>
<td>60 in. 1524mm</td>
<td>225 lbs.</td>
<td>350 lbs.</td>
<td>400 lbs.</td>
</tr>
<tr>
<td></td>
<td>102kg</td>
<td>158kg</td>
<td>181kg</td>
</tr>
</tbody>
</table>

*** Arm Capacity varies by reach of Arm; Arm Capacity reduced by weight of arm extension ***

Arm Extensions

Extension Arm (B) (1) PIVOT BRAKE

Extension Arm (C)

Extension Arm (D) (1) PIVOT BRAKE

Extension Arm (E) (1) PIVOT BRAKE

Extension Arm (F) (2) PIVOT BRAKE

Weight of Arm Extensions

<table>
<thead>
<tr>
<th>Ext. Arm (B)</th>
<th>Reach</th>
<th>Ext. Arm (C)</th>
<th>Ext. Arm (D)</th>
<th>Ext. Arm (E)</th>
<th>Ext. Arm (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>64.6 lbs. 29.3kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24&quot; 609mm</td>
<td>53 lbs. 24kg</td>
<td>99.5 lbs. 45kg</td>
<td>91.2 lbs. 41kg</td>
<td>136 lbs. 63kg</td>
<td></td>
</tr>
<tr>
<td>36&quot; 914mm</td>
<td>62.2 lbs. 28kg</td>
<td>109 lbs. 50kg</td>
<td>100 lbs. 45kg</td>
<td>146 lbs. 68kg</td>
<td></td>
</tr>
<tr>
<td>48&quot; 1219mm</td>
<td>71.4 lbs. 32kg</td>
<td>118 lbs. 53kg</td>
<td>110 lbs. 50kg</td>
<td>155 lbs. 70kg</td>
<td></td>
</tr>
</tbody>
</table>

***Arm Capacity reduced by weight of arm extension***

ORDER # EX: P9_24_F48_G_I99

G = Yes
H = No
 Specify Height (Inches) IXX

**Refer to Table 1 (pg1) for example**

AAA9000 Series

Knight ATA4000 Vertical Mast Arm

Knight Global’s ATA4000 Vertical Mast Arm has fixed control handles that improve ergonomics by eliminating the need for an operator to bend or reach. The Vertical Mast Arm is typically used in applications that require significant UP and DOWN travel and precision placement. Knight’s ATA4000 can be used with any Knight Balancer or chain hoist. Knight’s Vertical Mast Arm rotates 360 degrees or can be fixed mounted for the operator.

Knight Global’s ATA4000 has an available bearing clutch parking brake that attach to the Vertical Mast Arm. The ATA4000 Vertical Mast Arm has a maximum capacity of 500 lbs. [226kg] and a maximum torque of 853 ft/lbs. [1,156Nm]. Maximum Travel varies with each application; Contact a Knight representative for more information.

Features
- CE Compliant **
- Handles in a fixed ergonomic position on the mast.
- Various Control Configurations.
- Rail Length Available: Up to 15 ft. [4.6m].
- Max. Torque: Up to 853 ft./lbs. [1,156Nm].
- Max. Vertical Travel: Varies
- Max. Capacity: Up to 500 lbs. [226kg].

Benefits
- Can be used with a Knight Balancer or Chain Hoist.
- Reduces Operator Fatigue.
- 360° Rotation or Fixed Mounted.
- Optional Parking Brake.
- Optional Bearing Clutch

**CE compliance is not a standard feature on Knight Global Pneumatic Arms and Balancers. Please contact us for more details.

***Arm Capacity varies by reach of Arm; Arm Capacity reduced by weight of arm extension***
Knight Global Arm Accessories contain a wide variety of accessories that include; Trolleys for Rail Systems, Air Balancer Pulleys, Hooks and Safety Cable Kits.

<table>
<thead>
<tr>
<th>TRA5000 Series Air Tractor</th>
<th>TRA5500 Series Lube-Free Motor</th>
<th>MRTA4009 Load Trolley with Yoke</th>
<th>MRTA6123 Load Trolley with Yoke</th>
<th>MRTA7723 Load Trolley with Yoke</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Maximum Speed: 1.9 ft. per min [1.3mph].</td>
<td>• Maximum Speed: 1.9 ft. per sec. [1.3mph].</td>
<td>• Fiberglass filled High Impact Nylon Wheels.</td>
<td>• Double-Shielded bearings keep dirt out, and do not require lubrication.</td>
<td>• Transfers loads along the horizontal axis.</td>
</tr>
<tr>
<td>• Assists operator in pushing, pulling and positioning loads.</td>
<td>• Less maintenance and longer service life expected by running on a lube-free motor.</td>
<td>• Slide Guide Rollers with integrated bearings.</td>
<td>• Min/Max Continuous Service Temp at 100% load: -20 degees F to 248 degees F.</td>
<td>• Primarily used to attach the balancer to an overhead rail system.</td>
</tr>
<tr>
<td>• Maximum Towing Capacity: Up to 2,000 lbs. [908kg].</td>
<td>• Maximum Towing Capacity: Up to 2,000 lbs. [908kg].</td>
<td>• Max. Capacity: Up to 1,100 lbs. [499kg].</td>
<td>• Max. Capacity: Up to 3,000 lbs. [1,360kg].</td>
<td>• Max. Capacity: Up to 550 lbs. [250kg].</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ATA2603 Flat I-Beam Load Trolley</th>
<th>ATA2604 S-Beam Load Trolley</th>
<th>ASA9510 Parking Brake</th>
<th>ASA9522 Clutch Bearing Brake</th>
<th>AAA4005 Arm Stop Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Travels along a 3.25 in. [82.55mm] or 3.33 in. [84.58mm] I-Beam.</td>
<td>• Travels along a 2.66 in. [67.56mm] flange or a 4.00 in. [101.6mm] S-Beam.</td>
<td>• Attaches to a pneumatic arm carriage to allow an arm to be parked when not in use.</td>
<td>• Attaches to a pneumatic arm carriage to allow an arm to be parked when not in use.</td>
<td>• Attaches to pneumatic arms</td>
</tr>
<tr>
<td>• Suspends Knight's ATA2600 or ATA2700 Torque Tubes.</td>
<td>• Suspends Knight's ATA2600 or ATA2700 Torque Tubes.</td>
<td>• Can be integrated with fixture controls to accommodate the user.</td>
<td>• Can be integrated with fixture controls to accommodate the user.</td>
<td>• Manual stopping system.</td>
</tr>
<tr>
<td>• Carbon Steel “Galvanized Wire Rope” GWC.</td>
<td>• Carbon Steel “Galvanized Wire Rope” GWC.</td>
<td>• Carbon Steel “Galvanized Wire Rope” GWC.</td>
<td>• Carbon Steel “Galvanized Wire Rope” GWC.</td>
<td></td>
</tr>
</tbody>
</table>
Knight KEAA2000 Dual Bridge Extension Arm

Knight Global’s KEAA2000 Series Dual Bridge Extension Arms enable the operator to extend beyond the working limits of an overhead rail system within a workstation. A Knight Pneumatic/Air Balancer mounts to the extension arm allowing for a controlled lifting and lowering of loads. Knight’s KEAA2000 travels inside Knight’s RAD4110, RAD6110, or RAD7510 Aluminum Series Rail Systems.

Features

• CE Compliant upon Request **
• Dual Bridge Configuration.
• Travels inside Knight’s RAD4110, RAD6110, or RAD7510 Series Rail.
• Various Control Configurations.
• Angular Adjustment in 10° increments. (10° UP / 10° DOWN)
• Horizontal Adjustments:
  Up to 6.8 in. [172mm]. in 2.3 in. Increments.
• Requires Non-Lubricated Clean/Dry Air.
• Max Balancing Capacity:
  Up to 700 lbs. [317kg].
• Standard Travel:

Benefits

• Chain Configuration.
• Expands the reach work area of a typical balancer.
• Allows for 360° rotation.
• Controls Sold Separately (Up/ Down or Balance).

**CE compliance is not a standard feature on Knight Global Pneumatic Balancers. Please contact us for more details.

KEAA2000 Series Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Capacity lbs. [kg]</th>
<th>Travel in. [mm]</th>
<th>Balancer Length in. [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEAA2000-200</td>
<td>200 lbs. [90kg]</td>
<td>110 in. [2794mm]</td>
<td>16.3 in. [414mm]</td>
</tr>
<tr>
<td>KEAA2000-350</td>
<td>350 lbs. [158kg]</td>
<td>67 in. [1701mm]</td>
<td>16.3 in. [414mm]</td>
</tr>
<tr>
<td>KEAA2000-500</td>
<td>500 lbs. [226kg]</td>
<td>80 in. [2032mm]</td>
<td>21.5 in. [546mm]</td>
</tr>
<tr>
<td>KEAA2000-700</td>
<td>700 lbs. [317kg]</td>
<td>50 in. [1270mm]</td>
<td>21.5 in. [546mm]</td>
</tr>
</tbody>
</table>

*** Arm Capacity varies by reach of Arm; Arm Capacity reduced by weight of arm extension ***

Formula for Air Balancer sizing:
Example: plant air 80 psi, 350 air balancer, 80% load capability (0.80 air supply x 350 lbs. = 280 x .80 = 224 lbs. load capability).
**EXAMPLE:**
ORDER # : KEAA20_500_A36_B24
Knight KEAA2500 Single Bridge Extension Arm

Knight Global’s KEAA2500 Series Single Bridge Extension Arms enable the operator to extend beyond the working limits of an overhead rail system within a workstation. A Knight Pneumatic/Air Balancer mounts to the extension arm allowing for a controlled lifting and lowering of loads. Knight’s KEAA2500 travels inside Knight’s RAD4110, RAD6110, or RAD7510 Aluminum Series Rail Systems.

The KEAA2500 Series Extension Arm can be adjusted to (4) different positions.

Features

- CE Compliant upon Request **
- Single Bridge Configuration.
- Travels inside Knight’s RAD4110, RAD6110, or RAD7510 Series Rail.
- Various Control Configurations.
- Angular Adjustment in 10° increments. (10° UP / 10° DOWN)
- Horizontal Adjustments:
  Up to 6.8 in. [172mm], in 2.3 in. Increments.
- Requires Non-Lubricated Clean/Dry Air.

** CE compliance is not a standard feature on Knight Global Pneumatic Balancers and Arms. Please contact us for more details.

Benefits

- Chain Configuration.
- Expands the reach work area of a typical balancer.
- Controls Sold Separately (Up/Down or Balance).

<table>
<thead>
<tr>
<th>Rated Capacity</th>
<th>Travel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>100 P.S.I.</td>
</tr>
<tr>
<td>KEAA2500-200</td>
<td>200 lbs.</td>
</tr>
<tr>
<td>KEAA2500-350</td>
<td>350 lbs.</td>
</tr>
<tr>
<td>KEAA2500-500</td>
<td>500 lbs.</td>
</tr>
<tr>
<td>KEAA2500-700</td>
<td>700 lbs.</td>
</tr>
</tbody>
</table>

Formula for Air Balancer sizing:
Example: plant air 80 psi, 350 air balancer, 80% load capability 
(0.80 air supply x 350 lbs. x .80 = 224 lbs. load capability).

*** Arm Capacity varies by reach of Arm; Arm Capacity reduced by weight of arm extension***
KEAA2500 Series

Arm Accessories

Trolleys
(Custom Trolleys Available)

| KEAA1050 for 3.25 or 3.33 |
| KEAA1051 for 2.68" Flange |
| 4.00" S-Beam |
| MRTA4442 Knight 4110 Series Rail |
| MRTA6106 Knight 6110 Series Rail |
| MRTA7706 Knight 7510 Series Rail |

EXAMPLE:
ORDER #: KEAA25_500

<table>
<thead>
<tr>
<th>Arm Desc.</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEAA25</td>
<td>XXX</td>
</tr>
<tr>
<td>200</td>
<td></td>
</tr>
<tr>
<td>350</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td></td>
</tr>
<tr>
<td>700</td>
<td></td>
</tr>
</tbody>
</table>

Knight Global Arm Accessories contain a wide variety of accessories that include; Trolleys for Rail Systems, Air Balancer Pulleys, Hooks and Safety Cable Kits.

<table>
<thead>
<tr>
<th>MRTA4009 Load Trolley with Yoke</th>
<th>MRTA6123 Load Trolley with Yoke</th>
<th>MRTA7723 Load Trolley with Yoke</th>
<th>KSAA1003 Chain Wear Gauge</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="MRTA4009 Trolley" /></td>
<td><img src="image2" alt="MRTA6123 Trolley" /></td>
<td><img src="image3" alt="MRTA7723 Trolley" /></td>
<td><img src="image4" alt="KSAA1003 Gauge" /></td>
</tr>
<tr>
<td>• Travels inside RAD4110 Series Rail.</td>
<td>• Travels inside RAD6110 Series Rail.</td>
<td>• Travels inside RAD7510 Series Rail.</td>
<td>• Used to measure the wear on pneumatic air balancers 4mm/5mm galvanized chain.</td>
</tr>
<tr>
<td>• Side Guide Rollers with integrated bearings.</td>
<td>• Side Guide Rollers with integrated bearings.</td>
<td>• Side Guide Rollers with integrated bearings.</td>
<td></td>
</tr>
<tr>
<td>• Max. Capacity: Up to 1,100 lbs. [499kg].</td>
<td>• Max. Capacity: Up to 1,600 lbs. [725kg].</td>
<td>• Max. Capacity: Up to 3,000 lbs. [1,360kg].</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RWA4133 Safety Cable Kit</th>
<th>CAMIRWA4133 Nycro-Press Safety Cable Kit</th>
<th>FDA4133 Eye Bolt Safety Cable Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="RWA4133 Cable" /></td>
<td><img src="image6" alt="CAMIRWA4133" /></td>
<td><img src="image7" alt="FDA4133 Eye Bolt" /></td>
</tr>
<tr>
<td>• Carbon Steel “Galvanized Wire Rope” GWC.</td>
<td>• Carbon Steel “Galvanized Wire Rope” GWC.</td>
<td>• Carbon Steel “Galvanized Wire Rope” GWC.</td>
</tr>
<tr>
<td>• Cable Thickness: 0.25 in. [6mm].</td>
<td>• Cable Thickness: 0.25 in. [6mm].</td>
<td>• Cable Thickness: 0.25 in. [6mm].</td>
</tr>
<tr>
<td>• Crosby Saddle Clamps.</td>
<td>• Copper Zinc Plated Oval Sleeves.</td>
<td>• Crosby Saddle Clamps.</td>
</tr>
<tr>
<td>• Standard lengths: 5 ft. [1.5m].</td>
<td>• Standard lengths: 5 ft. [1.5m].</td>
<td>• Eye Bolt Connection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Standard lengths: 6 ft. [1.82m].</td>
</tr>
</tbody>
</table>
Knight KSHCA Overhead Carriage Mounted Articulating Servo Hoist Arm

Knight Global’s KSHCA Series Overhead Carriage Mounted Servo Hoist Arm is an Intelligent Assist Device (IAD) that enables an operator with the capabilities to reach outside the area directly below a rail system and to precisely locate or float a load in the “Z” direction (vertical axis) with speed, precision, quality and unmatched reliability. The KSHCA Series Servo Arm allows for an overhead varied reach within a work cell or station.

Mechanical Features
• Speeds: Up to 98 ft. per min. [30mpm].
• Maximum Lifting Capacity: Up to 1,500 lbs. [680kg].
• Maximum Reach: Up To 48 in. [1,219mm]. (Boom/ End Effector length not Included)
• Safety Rating of 125%.
• Overhead Mounted Articulating Carriage.
• Fail Safe Brake.
• Heavy Duty Roller Chain.
• Chain Lengths: 12 ft. [365cm] - 20 ft. [609cm].
• Sealed Worm Style Gearbox.
• H5 Rated (Continuous Duty Cycle).

Electrical Features
• Industry Standard 24 VDC, 2 AMP power is available for custom tooling such as: Clamps, Vacuum Cups, Switches, Proximity Limits, Lights, etc.
• Illuminated Run/ Stop Button.
• 240 VAC, Single Phase 50/60 Hz..
• Load Sensing, Pay Load and Handle Load.
• I/O Capabilities - (16) Inputs/ (8) Outputs - (8) Inputs/ (4) Outputs are free for interface controls.
• LED Status Indicators, Green and Blue Lighted Push buttons.
• LED Fault Indicators, Illuminated Run/ Stop Button, Twist to Release.
• Optional Remote Pendant or Remote Handle.

Software Features
• Programming and Diagnostic Communication Ports.
• Virtual Travel Limits.
• Speed Reduction Zones.
• Impact Limiting.
• Active Dampening.
• Standard Float Mode.
• Programmable Overload Capability.

<table>
<thead>
<tr>
<th>KSHCA Series Overhead Carriage Mounted Servo Hoist Arm Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>KSHCA-500-2301</td>
</tr>
<tr>
<td>KSHCA-1000-2301</td>
</tr>
<tr>
<td>KSHCA-1500-2301</td>
</tr>
</tbody>
</table>

Knight KSHFA Floor Mounted Articulating Servo Hoist Arm

Knight Global’s KSHFA Series Floor Mounted Servo Hoist Arm is an Intelligent Assist Device (IAD) that enables an operator to precisely locate or float a load in the “Z” direction (vertical axis) with speed, precision, quality and unmatched reliability. The KSHFA Series Servo Arm allows for an overhead varied reach within a work cell or station. Knight’s Floor Mounted KSHFA Series is most commonly used when overhead clearances or support structures will not accommodate an overhead rail system.

**Mechanical Features**
- Speeds: Up to 98 ft. per min. [30mpm].
- Maximum Lifting Capacity: Up to 1,500 lbs. [680kg].
- Maximum Reach: Up to 48 in. [1219mm]. (Boom/ End Effector length not included)
- Safety Rating of 125%.
- Floor Mounted Pedestal Heights: 8 ft. [2.4m] - 10 ft. [3.0m].
- Fail Safe Brake.
- Heavy Duty Roller Chain.
- Chain Lengths: 12 ft. [365cm] - 20ft. [609cm].
- Sealed Worm Style Gearbox.
- H5 Rated (Continuous Duty Cycle).

**Software Features**
- Programming and Diagnostic Communication Ports.
- Virtual Travel Limits.
- Speed Reduction Zones.
- Impact Limiting.
- Active Dampening.
- Standard Float Mode.
- Programmable Overload Capability.

**Electrical Features**
- Industry Standard 24 VDC, 2 AMP power is available for custom tooling such as: Clamps, Vacuum Cups, Switches, Proximity Limits, Lights, etc.
- Illuminated Run/ Stop Button.
- 240 VAC, Single Phase 50/60 Hz..
- Load Sensing, Pay Load and Handle Load.
- I/O Capabilities
  - (16) Inputs/ (8) Outputs
  - (8) Inputs/ (4) Outputs are free for interface controls.
- LED Status Indicators, Green and Blue Lighted Push buttons.
- LED Fault Indicators, Illuminated Run/ Stop Button, Twist to Release.
- Optional Remote Pendant or Remote Handle.

**KSHFA Series Floor Mounted Servo Hoist Arm Specifications**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Capacity lbs [kg]</th>
<th>Maximum Speed [fpm/mpm]</th>
<th>Voltage / Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSHFA-500-2301</td>
<td>500 lbs. [226kg]</td>
<td>98.43 fpm. [30.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHFA-1000-2301</td>
<td>1000 lbs. [453kg]</td>
<td>82.02 fpm. [25.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHFA-1500-2301</td>
<td>1,500 lbs. [680kg]</td>
<td>65.62 fpm. [20.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
</tbody>
</table>

Knight KSHEA Overhead Carriage Mounted Articulating Extension Servo Hoist Arm

Knight Global’s KSHEA Series Overhead Carriage Mounted Extension Servo Hoist Arm is an Intelligent Assist Device (IAD) that enables an operator with the capabilities to reach outside the area directly below a rail system and to precisely locate or float loads in the “Z” direction (vertical axis) with speed, precision, quality and unmatched reliability. The KSHEA Series Servo Arm allows for a non-linear overhead varied reach within a work cell or station.

Knight’s Servo Hoist technology becomes an extension of an operator’s natural movements and greatly improves accuracy, responsiveness and repeatability; which increases overall safety, productivity and quality. The inherent benefits include: eliminating wasted motions, reduced reaction times, and minimal effects of inertia with heavy loads.

Mechanical Features
• Speeds: Up to 196 ft. per min. [60mpm].
• Maximum Lifting Capacity: Up to 1,000 lbs. [453kg].
• Safety Rating of 125%.
• Overhead Carriage Mounted.
• Fail Safe Brake.
• Knight's Patented Chain, for longer life.
• Chain Length, Unlimited (18 ft. Standard).
• Sealed Worm Style Gearbox.
• H5 Rated (Continuous Duty Cycle).

Software Features
• Programming and Diagnostic Communication Ports.
• Virtual Travel Limits.
• Speed Reduction Zones.
• Impact Limiting.
• Active Dampening.
• Standard Float Mode.
• Programmable Overload Capability.

Electrical Features
• Industry Standard 24 VDC, 2 AMP power is available for custom tooling such as: Clamps, Vacuum Cups, Switches, Proximity Limits, Lights, etc.
• Illuminated Run/ Stop Button.
• 240 VAC, Single Phase 50/60 Hz..
• Load Sensing, Pay Load and Handle Load.
• I/O Capabilities
  - (16) Inputs/ (8) Outputs
  - (8) Inputs/ (4) Outputs are free for interface controls.
• LED Status Indicators, Green and Blue Lighted Push buttons.
• LED Fault Indicators, Illuminated Run/ Stop Button, Twist to Release.
• Optional Remote Pendant or Remote Handle.

KSHEA Series Overhead Carriage Mounted Servo Hoist Arm Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Capacity lbs [kg]</th>
<th>Maximum Speed [fpm/mpm]</th>
<th>Voltage / Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSHEA-250-2301</td>
<td>250 lbs. [113kg]</td>
<td>196.85 fpm. [60.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHEA-350-2301</td>
<td>350 lbs. [158kg]</td>
<td>241.00 fpm. [73.5mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHEA-500-2301</td>
<td>500 lbs. [226kg]</td>
<td>98.43 fpm. [30.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHEA-750-2301</td>
<td>750 lbs. [340kg]</td>
<td>123.03 fpm. [37.5mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHEA-1000-2301</td>
<td>1000 lbs. [453kg]</td>
<td>82.02 fpm. [25.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
</tbody>
</table>

Note: Knight's 350 lb., 750 lb. and 1,000 lb. KSHEA Series arms are considered special ordered items. Contact a Knight representative for more information.
Knight KSHAEA Floor Mounted Articulating Extension Servo Hoist Arm

Knight Global’s KSHAEA Series Floor Mounted Extension Servo Hoist Arm is an Intelligent Assist Device (IAD) that enables an operator to precisely locate or float a load in the “Z” direction (vertical axis) with speed, precision, quality and unmatched reliability. The KSHAEA Series Servo Arm allows for a non-linear overhead varied reach within a work cell or station. Knight’s Floor Mounted KSHAEA Series is most commonly used when overhead clearances or support structures will not accommodate an overhead rail system.

Knight’s Servo Hoist technology becomes an extension of an operator’s natural movements and greatly improves accuracy, responsiveness and repeatability; which increases overall safety, productivity and quality. The inherent benefits include: eliminating wasted motions, reduced reaction times, and minimal effects of inertia with heavy loads.

Mechanical Features
• Speeds: Up to 196 ft. per min. [60mpm].
• Maximum Lifting Capacity: Up to 500 lbs. [226kg].
• Safety Rating of 125%.
• Floor Mounted Pedestal Heights: 8 ft. [2.4m] - 10 ft. [3.0m].
• Fail Safe Brake.
• Knight’s Patented Chain, for longer life.
• Chain Length, Unlimited (18 ft. Standard).
• Sealed Worm Style Gearbox.
• H5 Rated (Continuous Duty Cycle).

Software Features
• Programming and Diagnostic Communication Ports.
• Virtual Travel Limits.
• Speed Reduction Zones.
• Impact Limiting.
• Active Dampening.
• Standard Float Mode.
• Programmable Overload Capability.

Electrical Features
• Industry Standard 24 VDC, 2 AMP power is available for custom tooling such as: Clamps, Vacuum Cups, Switches, Proximity Limits, Lights, etc.
• Illuminated Run/ Stop Button.
• 240 VAC, Single Phase 50/60 Hz..
• Load Sensing, Pay Load and Handle Load.
• I/O Capabilities - (16) Inputs/ (8) Outputs - (8) Inputs/ (4) Outputs are free for interface controls.
• LED Status Indicators, Green and Blue Lighted Push buttons.
• LED Fault Indicators, Illuminated Run/ Stop Button, Twist to Release.
• Optional Remote Pendant or Remote Handle.

### KSHAEA Series Overhead Carriage Mounted Servo Hoist Arm Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Capacity lbs [kg]</th>
<th>Maximum Speed [fpm/mpm]</th>
<th>Voltage / Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSHAEA-250-2301</td>
<td>250 lbs [113kg]</td>
<td>196.85 fpm. [60.0mpm]</td>
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<td>KSHAEA-350-2301</td>
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<td>KSHAEA-500-2301</td>
<td>500 lbs [226kg]</td>
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<td>KSHAEA-750-2301</td>
<td>750 lbs [340kg]</td>
<td>123.03 fpm. [37.5mpm]</td>
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<tr>
<td>KSHAEA-1000-2301</td>
<td>1000 lbs [453kg]</td>
<td>82.02 fpm. [25.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
</tbody>
</table>

Note: Knight’s 350 lb., 750 lb. and 1,000 lb. KSHAEA Series arms are considered special ordered items. Contact a Knight representative for more information.
Knight KSHEB Series

Knight KSHEB Overhead Carriage Mounted Servo Hoist Arm

Knight Global’s KSHEB Series Overhead Carriage Mounted Extension Boom Servo Hoist Arm is an Intelligent Assist Device (IAD) that enables an operator with the capabilities to reach outside the area directly below a rail system and to precisely locate or float loads in the “Z” direction (vertical axis) with speed, precision, quality and unmatched reliability. The KSHEB Series Servo Arm allows for a non-linear overhead varied reach within a work cell or station.

Knight’s Servo Hoist technology becomes an extension of an operator’s natural movements and greatly improves accuracy, responsiveness and repeatability; which increases overall safety, productivity and quality. The inherent benefits include: eliminating wasted motions, reduced reaction times, and minimal effects of inertia with heavy loads.

Mechanical Features

- Speeds: Up to 196 ft. per min. [60mpm].
- Maximum Lifting Capacity: Up to 1,000 lbs. [453kg].
- Safety Rating of 125%.
- Overhead Carriage Mounted.
- Fail Safe Brake.
- Knight’s Patented Chain, for longer life.
- Chain Length, Unlimited (18 ft. Standard).
- Sealed Worm Style Gearbox.
- H5 Rated (Continuous Duty Cycle).

Software Features

- Programming and Diagnostic Communication Ports.
- Virtual Travel Limits.
- Speed Reduction Zones.
- Impact Limiting.
- Active Dampening.
- Standard Float Mode.
- Programmable Overload Capability.

Electrical Features

- Industry Standard 24 VDC, 2 AMP power is available for custom tooling such as: Clamps, Vacuum Cups, Switches, Proximity Limits, Lights, etc.
- Illuminated Run/Stop Button.
- 240 VAC, Single Phase 50/60 Hz.
- Load Sensing, Pay Load and Handle Load.
- I/O Capabilities
  - (16) Inputs/ (8) Outputs
  - (8) Inputs/ (4) Outputs are free for interface controls.
- LED Status Indicators, Green and Blue Lighted Push buttons.
- LED Fault Indicators, Illuminated Run/Stop Button, Twist to Release.
- Optional Remote Pendant or Remote Handle.

KSHEB Series Overhead Carriage Mounted Servo Hoist Arm Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Capacity lbs [kg]</th>
<th>Maximum Speed [fpm/mpm]</th>
<th>Voltage / Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSHEB-250-2301</td>
<td>250 lbs. [113kg]</td>
<td>196.85 fpm. [60.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHEB-350-2301</td>
<td>350 lbs. [158kg]</td>
<td>241.00 fpm. [73.5mpm]</td>
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<td>KSHEB-750-2301</td>
<td>750 lbs. [340kg]</td>
<td>123.03 fpm. [37.5mpm]</td>
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</tr>
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<td>KSHEB-1000-2301</td>
<td>1000 lbs. [453kg]</td>
<td>82.02 fpm. [25.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
</tbody>
</table>

Note: Knight’s 350 lb., 750 lb. and 1,000 lb. KSHEB Series arms are considered special ordered items. Contact a Knight representative for more information.

Knight KSHAEB Floor Mounted Articulating Extension Boom Servo Hoist Arm

Knight Global’s KSHAEB Series Floor Mounted Extension Boom Servo Hoist Arm is an Intelligent Assist Device (IAD) that enables an operator to precisely locate or float a load in the "Z" direction (vertical axis) with speed, precision, quality and unmatched reliability. The KSHAEB Series Servo Arm allows for a non-linear overhead varied reach within a work cell or station. Knight’s Floor Mounted KSHAEB Series is most commonly used when overhead clearances or support structures will not accommodate an overhead rail system.

Knight’s Servo Hoist technology becomes an extension of an operator’s natural movements and greatly improves accuracy, responsiveness and repeatability; which increases overall safety, productivity and quality. The inherent benefits include: eliminating wasted motions, reduced reaction times, and minimal effects of inertia with heavy loads.

Mechanical Features
- Speeds: Up to 196 ft. per min. [60mpm].
- Maximum Lifting Capacity: Up to 1,000 lbs. [453kg].
- Safety Rating of 125%.
- Overhead Carriage Mounted.
- Fail Safe Brake.
- Knight’s Patented Chain, for longer life.
- Chain Length, Unlimited (18 ft. Standard).
- Sealed Worm Style Gearbox.
- H5 Rated (Continuous Duty Cycle).

Software Features
- Programming and Diagnostic Communication Ports.
- Virtual Travel Limits.
- Speed Reduction Zones.
- Impact Limiting.
- Active Dampening.
- Standard Float Mode.
- Programmable Overload Capability.

Electrical Features
- Industry Standard 24 VDC, 2 AMP power is available for custom tooling such as: Clamps, Vacuum Cups, Switches, Proximity Limits, Lights, etc.
- Illuminated Run/ Stop Button.
- 240 VAC, Single Phase 50/60 Hz..
- Load Sensing, Pay Load and Handle Load.
- I/O Capabilities - (16) Inputs/ (8) Outputs - (8) Inputs/ (4) Outputs are free for interface controls.
- LED Status Indicators, Green and Blue Lighted Push buttons.
- LED Fault Indicators, Illuminated Run/ Stop Button, Twist to Release.
- Optional Remote Pendant or Remote Handle.

### KSHAEB Series Overhead Carriage Mounted Servo Hoist Arm Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Capacity lbs [kg]</th>
<th>Maximum Speed [fpm/mpm]</th>
<th>Voltage / Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSHAEB-250-2301</td>
<td>250 lbs. [113kg]</td>
<td>196.85 fpm. [60.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHAEB-350-2301</td>
<td>350 lbs. [158kg]</td>
<td>241.00 fpm. [73.5mpm]</td>
<td>240 / 1 Phase</td>
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<td>KSHAEB-500-2301</td>
<td>500 lbs. [226kg]</td>
<td>98.43 fpm. [30.0mpm]</td>
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<td>KSHAEB-750-2301</td>
<td>750 lbs. [340kg]</td>
<td>123.03 fpm. [37.5mpm]</td>
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</tr>
<tr>
<td>KSHAEB-1000-2301</td>
<td>1000 lbs. [453kg]</td>
<td>82.02 fpm. [25.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
</tbody>
</table>

Note: Knight’s 350 lb., 750 lb. and 1,000 lb. KSHEB Series arms are considered special ordered items. Contact a Knight representative for more information.
Knight KSHVA Overhead Carriage Mounted Vertical Articulating Servo Hoist Arm

Knight Global’s KSHVA Series Overhead Carriage Mounted Vertical Servo Hoist Arm is an Intelligent Assist Device (IAD) that assists and enables an operator to reach underneath and overhead work areas with minimal effects of inertia with heavy loads in a confined work cell; while precisely locating or floating that load in the “Z” direction (vertical axis) with speed, precision, quality and unmatched reliability. The KSHVA Series Servo Arm creates a stable lifting platform, eliminating the yarding and swinging of chain or cable.

Knight’s Servo Hoist technology becomes an extension of an operator’s natural movements and greatly improves accuracy, responsiveness and repeatability; which increases overall safety, productivity and quality. The inherent benefits include: eliminating wasted motions, reduced reaction times, and minimal effects of inertia with heavy loads.

Mechanical Features

• Speeds: Up to 196 ft. per min. [60mpm].
• Maximum Lifting Capacity: Up to 1,000 lbs. [453kg].
• Safety Rating of 125%.
• Overhead Carriage Mounted.
• Fail Safe Brake.
• Knight’s Patented Chain, for longer life.
• Chain Length, Unlimited (18 ft. Standard).
• Sealed Worm Style Gearbox.
• H5 Rated (Continuous Duty Cycle).

Software Features

• Programming and Diagnostic Communication Ports.
• Virtual Travel Limits.
• Speed Reduction Zones.
• Impact Limiting.
• Active Dampening.
• Standard Float Mode.
• Programmable Overload Capability.

Electrical Features

• Industry Standard 24 VDC, 2 AMP power is available for custom tooling such as: Clamps, Vacuum Cups, Switches, Proximity Limits, Lights, etc.
• Illuminated Run/Stop Button.
• 240 VAC, Single Phase 50/60 Hz..
• Load Sensing, Pay Load and Handle Load.
• I/O Capabilities - (16) Inputs/(8) Outputs - (8) Inputs/ (4) Outputs are free for interface controls.
• LED Status Indicators, Green and Blue Lighted Push buttons.
• LED Fault Indicators, Illuminated Run/Stop Button, Twist to Release.
• Optional Remote Pendant or Remote Handle.

KSHVA Series Overhead Carriage Mounted Servo Hoist Arm Specifications

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Capacity lbs [kg]</th>
<th>Maximum Speed [fpm/mpm]</th>
<th>Voltage / Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>KSHVA-250-2301</td>
<td>250 lbs. [113kg]</td>
<td>196.85 fpm. [60.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHVA-350-2301</td>
<td>350 lbs. [158kg]</td>
<td>241.00 fpm. [73.5mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHVA-750-2301</td>
<td>750 lbs. [340kg]</td>
<td>123.03 fpm. [37.5mpm]</td>
<td>240 / 1 Phase</td>
</tr>
<tr>
<td>KSHVA-1000-2301</td>
<td>1000 lbs. [453kg]</td>
<td>82.02 fpm. [25.0mpm]</td>
<td>240 / 1 Phase</td>
</tr>
</tbody>
</table>

Note: Knight’s 350 lb., 750 lb. and 1,000 lb. KSHVA Series arms are considered special ordered items. Contact a Knight representative for more information.
Knight KSHVAA Floor Mounted Articulating Servo Hoist Arm

Knight Global’s KSHVAA Series Floor Mounted Vertical Servo Hoist Arm is an Intelligent Assist Device (IAD) that assists and enables an operator to reach underneath and overhead work areas with minimal effects of inertia with heavy loads in a confined work cell; while precisely locating or floating that load in the “Z” direction (vertical axis) with speed, precision, quality and unmatched reliability. The KSHVAA Series Servo Arm creates a stable lifting platform, eliminating the yarding and swinging of chain or cable.

Knight’s Servo Hoist technology becomes an extension of an operator’s natural movements and greatly improves accuracy, responsiveness and repeatability; which increases overall safety, productivity and quality. The inherent benefits include: eliminating wasted motions, reduced reaction times, and minimal effects of inertia with heavy loads.

**Mechanical Features**
- Speeds: Up to 196 ft. per min. [60mpm].
- Maximum Lifting Capacity: Up to 1,000 lbs. [453kg].
- Safety Rating of 125%.
- Floor Mounted.
- Fail Safe Brake.
- Knight’s Patented Chain, for longer life.
- Chain Length, Unlimited (18 ft. Standard).
- Sealed Worm Style Gearbox.
- H5 Rated (Continuous Duty Cycle).

**Software Features**
- Programming and Diagnostic Communication Ports.
- Virtual Travel Limits.
- Speed Reduction Zones.
- Impact Limiting.
- Active Dampening.
- Standard Float Mode.
- Programmable Overload Capability.

**Electrical Features**
- Industry Standard 24 VDC, 2 AMP power is available for custom tooling such as: Clamps, Vacuum Cups, Switches, Proximity Limits, Lights, etc.
- Illuminated Run/ Stop Button.
- 240 VAC, Single Phase 50/60 Hz.
- Load Sensing, Pay Load and Handle Load.
- I/O Capabilities
  - (16) Inputs/ (8) Outputs
  - (8) Inputs/ (4) Outputs are free for interface controls.
- LED Status Indicators, Green and Blue Lighted Push buttons.
- LED Fault Indicators, Illuminated Run/ Stop Button, Twist to Release.
- Optional Remote Pendant or Remote Handle.

<table>
<thead>
<tr>
<th>KSHVAA Series Overhead Carriage Mounted Servo Hoist Arm Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>KSHVAA-250-2301</td>
</tr>
<tr>
<td>KSHVAA-350-2301</td>
</tr>
<tr>
<td>KSHVAA-750-2301</td>
</tr>
<tr>
<td>KSHVAA-1000-2301</td>
</tr>
</tbody>
</table>

**Note:** Knight’s 350 lb., 750 lb. and 1,000 lb. KSHVAA Series arms are considered special ordered items. Contact a Knight representative for more information.

Knight Global Servo Hoist Accessories contain a wide variety of accessories that include; Trolleys for Rail Systems, Air Balancer Pulleys, Hooks and Safety Cable Kits.

<table>
<thead>
<tr>
<th><strong>EBA1171 Servo Hoist Chain Replacement Kit</strong></th>
<th><strong>EBA1172 Servo Hoist Chain Replacement Kit</strong></th>
<th><strong>EBD1547 Servo Hoist Roller Chain</strong></th>
<th><strong>EBA1219 Swivel Hook with Eye</strong></th>
<th><strong>EBA1183 and EBA1265 Quick Connect/ Disconnect</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Chain Replacement Kit" /></td>
<td><img src="image2.png" alt="Chain Replacement Kit" /></td>
<td><img src="image3.png" alt="Roller Chain" /></td>
<td><img src="image4.png" alt="Swivel Hook with Eye" /></td>
<td><img src="image5.png" alt="Quick Connect/ Disconnect" /></td>
</tr>
<tr>
<td>• Chain Length: 18 ft [548.6cm]</td>
<td>• Chain Length: 12 ft [365.7cm]</td>
<td>• Avg. Tensile Strength: 12,200 lbs [5,534kg]</td>
<td>• Positive Lock Latch is Self-Locking when hook is loaded.</td>
<td>• EBA1183 - 16mm to 7/8 in. adapter.</td>
</tr>
<tr>
<td>• Maximum Working Load: 2,000 lbs [907kg].</td>
<td>• Maximum Working Load: 2,000 lbs [907kg].</td>
<td>• Maximum Working Load: 2,000 lbs [907kg].</td>
<td>• Rated for both Wire Rope and use with Grade 80/100 Chain.</td>
<td>• EBA1265- 20mm to 1.25 in. adapter.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>EBA1213 and EBA1214 Shackle</strong></th>
<th><strong>EBA1269 Swivel Hook Shackle</strong></th>
<th><strong>EBA1020 Load Trolley</strong></th>
<th><strong>EBA1173 Load Trolley</strong></th>
<th><strong>EBA1030 Load Trolley</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image6.png" alt="Shackle" /></td>
<td><img src="image7.png" alt="Swivel Hook Shackle" /></td>
<td><img src="image8.png" alt="Load Trolley" /></td>
<td><img src="image9.png" alt="Load Trolley" /></td>
<td><img src="image10.png" alt="Load Trolley" /></td>
</tr>
<tr>
<td>EBA1214</td>
<td>EBA1269</td>
<td>EBA1020</td>
<td>EBA1173</td>
<td>EBA1030</td>
</tr>
<tr>
<td>• Max. Capacity: Up to 250 lbs [113kg].</td>
<td>• Max. Capacity: Up to 1,000 lbs [454kg].</td>
<td>• Allows for maintenance and/or inspection of a load trolley.</td>
<td>• Splice Kit is a bolt-on kit that connects or joins (2) two sections of RAD6110 series Rail without the need to weld bosses.</td>
<td>• Carbon Steel “Galvanized Wire Rope” GWC.</td>
</tr>
<tr>
<td>EBA1213</td>
<td></td>
<td>• Bolt-on kit.</td>
<td>• Cable Thickness: 0.25 in. [6mm].</td>
<td></td>
</tr>
<tr>
<td>• Maximum Capacity: Up to 1,000 lbs [453kg].</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>EBA1011 Series Electrical Coiled Cable</strong></th>
<th><strong>EBA1009 Series Electrical Straight Cable</strong></th>
<th><strong>4-Pin Micro Switch Cable</strong></th>
<th><strong>8-Pin Micro Switch Cable</strong></th>
<th><strong>EBA1145 Electrical Disconnect Enclosure Stand</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image11.png" alt="Coiled Cable" /></td>
<td><img src="image12.png" alt="Straight Cable" /></td>
<td><img src="image13.png" alt="4-Pin Micro Switch Cable" /></td>
<td><img src="image14.png" alt="8-Pin Micro Switch Cable" /></td>
<td><img src="image15.png" alt="Enclosure Stand" /></td>
</tr>
<tr>
<td>• Connects a Servo Hoist to a load monitoring module by wrapping itself around the Servo Chain.</td>
<td>• Connects a separate control handle pendant to Servo Hoists.</td>
<td>• 4-Pin Micro DC Single Key.</td>
<td>• 8-Pin Micro DC Single Key.</td>
<td>• Mounts enclosures at an ergonomically correct height.</td>
</tr>
<tr>
<td>• 90 Degree Male to Female Connectors.</td>
<td>• 90 Degree Male to Female Connectors.</td>
<td>• Available with Straight or Right Angle Connector Ends.</td>
<td>• Available with Straight or Right Angle Connector Ends.</td>
<td>• Provides mounting surface for enclosures in open workstation environments.</td>
</tr>
</tbody>
</table>

### Servo Arm Accessories (Cont.)

<table>
<thead>
<tr>
<th>EBA1407 Precision Roller Chain Wear Gauge</th>
<th>EBA1003 3KVA Electrical Disconnect Enclosure</th>
<th>EBA1085 5KVA Electrical Disconnect Enclosure</th>
<th>EBA1086 Dual 5KVA Elec. Disconnect Enclosure</th>
<th>EBA1289 7.5 KVA Electrical Disconnect Enclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td>• Used to measure the wear on Servo Arm roller chains.</td>
<td>• Used with: KSH250, 350, 500, 750 and 1000lb Servo Hoists. • Flange disconnect.</td>
<td>• Used with: KSHXY, KSHXZ, KSHTCDM and KSHXYZ Servo Tractors and Hoists. • Flange disconnect.</td>
<td>• Used with: KSH250, 350, 500, 750 and 1000lb Servo Hoists. • Flange disconnect.</td>
<td>• Used with: KSHXXYZ and KSHXYZR Servo Tractor Systems. • (2) Flange disconnect</td>
</tr>
</tbody>
</table>

### Servo Arm Controls

<table>
<thead>
<tr>
<th>EPDA9600 Two-Speed Control Handle</th>
<th>EBA1038 Two-Speed Control Handle w/ Operator Control Interface</th>
<th>EBA1131 Inline Control Handle w/ Trigger</th>
<th>EBA1141 Load Cell Fixture Handle</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
</tbody>
</table>
| • May be mounted remotely from the end effector.  
• Custom lever markings, specify when ordering.  
• Different Call-out Languages Available. | • Allows for 2-Speed Operation.  
• Operator Control Interface  
• Safety Run-Stop Button.  
• Illuminated (Blue/Green) Float and Lift | • (LMM) Load Monitoring Module.  
• Illuminated Blue/ Green Push Buttons.  
• Illuminated Red Run-Stop Button. | • Attaches directly to fixture.  
• Load Responsive Handling.  
• Handle Force Response: Less than 1.5 lbs. [0.68kg]. |

<table>
<thead>
<tr>
<th>EBA1155 Load Monitoring Module w/ Operator Controlled Interface</th>
<th>EBA1166 Load Monitoring Module w/ Pass Through</th>
<th>EBA1054 Wireless Remote</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td><img src="image6.png" alt="Image" /></td>
<td><img src="image7.png" alt="Image" /></td>
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</tbody>
</table>
| • Used in conjunction with the Dual Speed Handle Pendant or Fixture Handle.  
• (1) 6-Pin M12 Receptacle for Fixture Handle.  
• (1) 9-Pin D-Sub Serial Programming Port. | • Programmable module with a programmable port and I/O port.  
• Used in conjunction with the Dual Speed Handle Pendant, Fixture Handle or remote OCI module. | • Wireless Signal: Up to 900 ft. [300m].  
• Ultra-Durable Nylon and Fiberglass Composite Enclosures.  
• Up to (8) Eight Function/Operation Buttons. |