Handling Devices
Made for the interaction of man and machine

Ingersoll Rand offers:
- Standard and custom solutions
- Manual and powered tilt and rotation packages
- Innovative designs from the simplest to the most complex device

Zimmerman Series Handling Devices

The Ingersoll Rand Handling Device

ADVANTAGE

- Safety — Most Ingersoll Rand handling devices come equipped with a safety interlock system that will not allow the operator to accidentally disengage the part during transfer
- Ergonomics — Handling devices can be designed with manual or powered tilt and rotation packages, which allow the operator to orient the part to the proper position with minimal effort
- Flexibility — Through a variety of pneumatic packages, each system is matched to a control package that is tailored to the lifting and positioning task

Standard 4-cup vacuum handling device:

- Safety Interlock prevents accidental release of load
- Improve productivity through effective box or flat part pickup, orientation, transfer, and positioning
- Adjustable handle and controls reduce operator fatigue
- Protects surface quality with positive secure vacuum gripping and setdown
- Gives operator complete control throughout the handling operation

Ingersoll Rand Series Handling Devices

Part Number | Cup Centerline Dimensions | Lift Capacity | Cup Diameter
--- | --- | --- | ---
87306338 | 5” x 7” (127 mm x 178 mm) | 6 (porous) 45 lb (20.4 kg) 18 99 lb (44.9 kg) 25 (non-porous) 120 lb (54.4 kg) | 3” (76 mm)
87306486 | 10” x 14” (254 mm X 356 mm) | 6 (porous) 45 lb (20.4 kg) 18 99 lb (44.9 kg) 25 (non-porous) 120 lb (54.4 kg) | 3” (76 mm)

To be used with “BW” series pneumatic balancers. Alternate layout and vacuum cup sizes available on request.

Note: Vacuum cups require a flat, non-porous surface. Consult factory for applications with porous surfaces.
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- **Flexibility** — Through a variety of pneumatic packages, each system is matched to a control package that is tailored to the lifting and positioning task

Standard 4-cup vacuum handling device:

- Safety interlock prevents accidental release of load
- Improves productivity through effective box or flat part pickup, orientation, transfer, and positioning
- Adjustable handle and controls reduce operator fatigue
- Protects surface quality with positive secure vacuum gripping and setdown
- Gives operator complete control throughout the handling operation

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Cup Centerline Dimensions</th>
<th>Lift Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Vacuum - in Hg</td>
</tr>
<tr>
<td>8735G638</td>
<td>5” x 7” (127 mm x 178 mm)</td>
<td>4 (porous)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 (non-porous)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 (non-porous)</td>
</tr>
<tr>
<td>8735G646</td>
<td>10” x 14” (254 mm x 356 mm)</td>
<td>4 (porous)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 (non-porous)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25 (non-porous)</td>
</tr>
</tbody>
</table>

To be used with “BW” series pneumatic balancers. Alternate layout and vacuum cup sizes available on request.

Note: Vacuum cups require a flat, non-porous surface. Consult factory for applicability with porous surfaces.
**Zimmerman Series Handling Devices**

**Signature bundle handlers**

- Designed to meet the needs of the printing industry in handling logs from 23” – 48” and up to 250 lb.
- Single (10” stroke) and dual (30” stroke) air cylinders with 900 lb clamping force at 90 psi.
- Safety interlock prevents accidental release of load.
- Standard paddles for end boards up to 12” x 12” (extended paddle configurations available — contact factory).
- Power rotation and self-levelling packages available — contact factory for further information.
- Lightweight aluminum construction.

**Zimmerman Series Handling Devices**

**Rotary action handlers**

- Provides effortless 90-degree manual rotation of rolls up to 300 lb.
- Non-destructive rubber band style as well as pin style noses engage the ID of the core.
- Safety interlock prevents accidental release of load.
- Offered in both lightweight aluminum and rugged steel construction.
- Integrated up/down controls work seamlessly with Ingersoll Rand Pneumatic Balancers.

---

### Signature bundle handlers

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Body Style</th>
<th>Control</th>
<th>Bundle Size in (mm)</th>
<th>Stroke in (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBH1-1-1</td>
<td>Single cylinder</td>
<td>Single side control</td>
<td>24-32 (610-813)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-1-2</td>
<td>Single cylinder</td>
<td>Dual side control</td>
<td>24-32 (610-813)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-1-3</td>
<td>Single cylinder</td>
<td>Red control</td>
<td>24-32 (610-813)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-1-4</td>
<td>Single cylinder</td>
<td>Side end control</td>
<td>24-32 (610-813)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-1-5</td>
<td>Single cylinder</td>
<td>Top/nosed handle control</td>
<td>24-32 (610-813)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-2-1</td>
<td>Single cylinder</td>
<td>Single side control</td>
<td>36-48 (914-1219)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-2-2</td>
<td>Single cylinder</td>
<td>Dual side control</td>
<td>36-48 (914-1219)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-2-3</td>
<td>Single cylinder</td>
<td>Red control</td>
<td>36-48 (914-1219)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-2-4</td>
<td>Single cylinder</td>
<td>Side end control</td>
<td>36-48 (914-1219)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-2-5</td>
<td>Single cylinder</td>
<td>Top/nosed handle control</td>
<td>36-48 (914-1219)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-3-1</td>
<td>Single cylinder</td>
<td>Single side control</td>
<td>48-60 (1219-1524)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-3-2</td>
<td>Single cylinder</td>
<td>Dual side control</td>
<td>48-60 (1219-1524)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-3-3</td>
<td>Single cylinder</td>
<td>Red control</td>
<td>48-60 (1219-1524)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-3-4</td>
<td>Single cylinder</td>
<td>Side end control</td>
<td>48-60 (1219-1524)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-3-5</td>
<td>Single cylinder</td>
<td>Top/nosed handle control</td>
<td>48-60 (1219-1524)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-4-1</td>
<td>Single cylinder</td>
<td>Single side control</td>
<td>60-72 (1524-1829)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-4-2</td>
<td>Single cylinder</td>
<td>Dual side control</td>
<td>60-72 (1524-1829)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-4-3</td>
<td>Single cylinder</td>
<td>Red control</td>
<td>60-72 (1524-1829)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-4-4</td>
<td>Single cylinder</td>
<td>Side end control</td>
<td>60-72 (1524-1829)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-4-5</td>
<td>Single cylinder</td>
<td>Top/nosed handle control</td>
<td>60-72 (1524-1829)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-5-1</td>
<td>Single cylinder</td>
<td>Single side control</td>
<td>72-90 (1829-2286)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-5-2</td>
<td>Single cylinder</td>
<td>Dual side control</td>
<td>72-90 (1829-2286)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-5-3</td>
<td>Single cylinder</td>
<td>Red control</td>
<td>72-90 (1829-2286)</td>
<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-5-4</td>
<td>Single cylinder</td>
<td>Side end control</td>
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<td>10 (254)</td>
</tr>
<tr>
<td>SBH1-5-5</td>
<td>Single cylinder</td>
<td>Top/nosed handle control</td>
<td>72-90 (1829-2286)</td>
<td>10 (254)</td>
</tr>
</tbody>
</table>

**Nose selection chart**

- Band nose
- Pin nose
- Custom power tilt

**Body selection chart**

- **Body Material**: Aluminum, Steel
- **Capacity**: lb (kg)
- **Max Core Length in (mm)**
- **Max Core O.D. in (mm)**

**Rotary Action Handler model driver**

- **Device Type**: RAH
- **RAH – Rotary Action Handler**: A = Aluminum, S = Steel
- **Core ID**: 020
- **Core Length**: G03 = 3”, G04 = 4”, G05 = 5”, G06 = 6”
- **Length**: 070 = 7”, 080 = 8”, XXX = Length
- **Options**: P = Part present

---

**Contact Factory** for applications that require greater than 10” stroke, dual cylinder available.
Zimmerman Series Handling Devices
Signature bundle handlers
- Designed to meet the needs of the printing industry in handling logs from 22” – 48” and up to 250 lb
- Single (10” stroke) and dual (10” stroke) air cylinders with 900 lb clamping force at 90 psi
- Safety interlock prevents accidental release of load
- Standard paddles for end boards up to 12” x 12” (extended paddle configurations available — contact factory)
- Power rotation and self-leveling packages available — contact factory for further information
- Lightweight aluminum construction
- Rubber band style nose for applications with rolls prone to telescoping.
- To be used with “BW” series Pneumatic Balancers. Consult factory for further information

Zimmerman Series Handling Devices
Rotary action handlers
- Provides effortless 90-degree manual rotation of rolls up to 300 lb
- Non-destructive rubber band style as well as pin style noses engage the ID of the core
- Safety interlock prevents accidental release of load
- Offered in both lightweight aluminum and rugged steel construction
- Integrated up/down control work seamlessly with Ingersoll Rand Pneumatic Balancers

### Part No. Body Style Control Bundle Size in (mm) Stroke in (mm)

**SBH1-5-3** Single cylinder Top swivel handle control 40-48 (1016-1219) 10 (254)

**SBH1-4-3** Single cylinder Side and end control 40-48 (1016-1219) 10 (254)

**SBH1-3-3** Single cylinder End control 40-48 (1016-1219) 10 (254)

**SBH1-2-3** Single cylinder Dual side control 40-48 (1016-1219) 10 (254)

**SBH1-1-3** Single cylinder Single side control 40-48 (1016-1219) 10 (254)

**SBH1-5-2** Single cylinder Top swivel handle control 32-40 (813-1016) 10 (254)

**SBH1-4-2** Single cylinder Side and end control 32-40 (813-1016) 10 (254)

**SBH1-3-2** Single cylinder End control 32-40 (813-1016) 10 (254)

**SBH1-2-2** Single cylinder Dual side control 32-40 (813-1016) 10 (254)

**SBH1-1-2** Single cylinder Single side control 32-40 (813-1016) 10 (254)

**SBH1-5-1** Single cylinder Top swivel handle control 24-32 (610-813) 10 (254)

**SBH1-4-1** Single cylinder Side and end control 24-32 (610-813) 10 (254)

**SBH1-3-1** Single cylinder End control 24-32 (610-813) 10 (254)

**SBH1-2-1** Single cylinder Dual side control 24-32 (610-813) 10 (254)

**SBH1-1-1** Single cylinder Single side control 24-32 (610-813) 10 (254)

### Body selection chart

<table>
<thead>
<tr>
<th>Body Material</th>
<th>Capacity lb (kg)</th>
<th>Max Core Length in (mm)</th>
<th>Max Core O.D. in (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>500 (226.5)</td>
<td>24 (609)</td>
<td>42 (1067)</td>
</tr>
<tr>
<td>Aluminum</td>
<td>300 (136.1)</td>
<td>24 (609)</td>
<td>42 (1067)</td>
</tr>
</tbody>
</table>

### Nose selection chart

<table>
<thead>
<tr>
<th>Nose Style</th>
<th>Capacity lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band nose</td>
<td>6 Pin 300 (163.1)</td>
</tr>
<tr>
<td>Pin nose</td>
<td>3 Pin 100 (45.4)</td>
</tr>
</tbody>
</table>

Other options available upon request:
- Stepped nose for multiple cores
- “V” groove for pin cart applications
- Special paint / plating
- Spindle end locator
- Adjustable bail
- Heavy duty pivot for steel rotary action handler offers capacity up to 450 lb

Example: **RAH0030HTP**

<table>
<thead>
<tr>
<th>Device-Action Handler</th>
<th>Body Material A</th>
<th>Core ID 020</th>
<th>Core Length in (mm)</th>
<th>Nose Style T</th>
<th>Options P</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAH - Rotary Handler</td>
<td>A = Aluminum</td>
<td>030 = 3”</td>
<td>070 = 7”</td>
<td>3 Pin</td>
<td>P = Part present</td>
</tr>
<tr>
<td></td>
<td>S = Steel</td>
<td>030 = 3”</td>
<td>070 = 7”</td>
<td>Single</td>
<td>P = Side clamp (available only w/ steel body)</td>
</tr>
</tbody>
</table>

---

(800) 998-0872 • irtools.com/lifting
Ingersoll Rand is a world leader in the manufacture of ergonomic, in-process, manual and powered custom material handling systems. We offer a complete range of handling devices, from the simplest to the most complex custom device. We specialize in providing turnkey solutions utilizing our complete line of standard and custom products to create a combination that empowers individuals to work more comfortably and effectively.

Motor vehicle
Agricultural equipment
Furniture / household

Zimmerman Series Handling Devices
Custom devices

Cheese — food processing
Canning table
Stainless steel roll

Contact factory for thousands more application photos and videos. E-mail requests to asub_proposal@irco.com.

Zimmerman Series Torque Tubes

The Ingersoll Rand Torque Tube

Advantage

Guided lifting — Cylinder guides up/down motion, preventing load from swaying
Effortless vertical travel — Super linear bearings provide smooth, effortless motion
Versatility — Four models available for both torque reaction and lifting applications
Torque reaction — 4 Delrin® wheels for torque reaction and safe loading in all four directions
Adaptable — Universal mounting plate for bolt-on integration of tool holders and handling devices

Suspension tube models

Torque Capacity
ft-lbs (Nm)
Lift Capacity
kg @ 7 kg/cm²
Weight
lb (kg)

Part No. Description Torque Capacity Lift Capacity Weight
Light duty 54621109 74 (100) 100 24 (10) 28 (12) BA regulator
54044417 368 (500) 100 45 75 (34) 36 (164) BA regulator
Medium duty 54644193 368 (500) 150 68 90 (40) 36 (164) BA Up/Down
Heavy duty 54644179 368 (500) 200 80 120 (54) 36 (164) BA Up/Down

Optional cylinder air supply

Part No. Description
40700 Cylinder air supply package

Torque tube with integrated vacuum handling device

Carriages

Part No. Description
40710 Carriage — basic, no trolleys
40719 Carriage assembly — light / medium
39288-1 Carriage assembly — ZRAZ (rotation trolley)
39288-2 Carriage assembly — ZRAZ / ZRASK
39288-3 Carriage assembly — ETA (rotation trolley)
39288-4 Carriage assembly — ETA (rotation trolley)
39288-5

Carriage parts

Refer to assembly catalog: IRRP-1027-252

Standoff tool holders available.

Carriage — basic, no trolleys
Use for 80 Nm or less
40710

Carriage assembly — light / medium
Use for 150 Nm or less
40719

Torque tube with integrated vacuum handling device

Suspension kit, Dual trolley
Use for 150 Nm or less
39288-2

Torque tube with integrated vacuum handling device

Suspension kit, Single trolley
Use for 80 Nm or less
40710

Motor vehicle
Custom devices

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Zimmerman Series Torque Tubes

The Ingersoll Rand Torque Tube

<table>
<thead>
<tr>
<th>ADVANTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guided lifting — Cylinder guides up/down motion, preventing load from swaying</td>
</tr>
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<td>Effortless vertical travel — Super linear bearings provide smooth, effortless motion</td>
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<tr>
<td>Versatility — Four models available for both torque reaction and lifting applications</td>
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<tr>
<td>Torque reaction — 4 Delrin® wheels for torque reaction and safe loading in all four directions</td>
</tr>
<tr>
<td>Adaptable — Universal mounting plate for bolt-on integration of tool holders and handling devices</td>
</tr>
</tbody>
</table>

Torque tube models

| Part No. | Description | Torque Capacity | Lift Capacity | Weight lb (kg) |
|----------|-------------|-----------------|--------------|----------------|----------------|
| 54044227 | BRJ-TT-100  | 72 (100)        | 60           | 40 (18)        | 25 (11)        |
| 54044417 | BRJ-TT-150  | 135 (200)       | 100          | 75 (34)        | 45 (20)        |
| 45621109 | BRJ-XA-500  | 135 (200)       | 150          | 90 (40)        | 50 (22)        |

Suspension options:

Suspension kits — single and dual trolleys

<table>
<thead>
<tr>
<th>Rail Profile</th>
<th>Part No.</th>
<th>“A” Dimension (in mm)</th>
<th>Weight lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SINGLE TROLLEY — USE FOR 80 Nm OR LESS APPLICATIONS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ZRA1</td>
<td>16705</td>
<td>6.13 (156)</td>
<td>10.50 (4.76)</td>
</tr>
<tr>
<td>ZRA2/3</td>
<td>16706</td>
<td>7.00 (172)</td>
<td>10.50 (4.76)</td>
</tr>
<tr>
<td>ZRA3 / 3.5</td>
<td>16707</td>
<td>7.75 (197)</td>
<td>10.50 (4.76)</td>
</tr>
<tr>
<td>DRA</td>
<td>16424</td>
<td>6.75 (172)</td>
<td>10.50 (4.76)</td>
</tr>
<tr>
<td>DRA6</td>
<td>16425</td>
<td>7.75 (197)</td>
<td>10.50 (4.76)</td>
</tr>
<tr>
<td>7-TROLLEYS</td>
<td>16420</td>
<td>3.75 (95)</td>
<td>15 (6.8)</td>
</tr>
</tbody>
</table>

DUAL TROLLEY — USE FOR 150 Nm OR LESS APPLICATIONS |

| ZRA1        | 16705   | 6.13 (156)            | 10.50 (4.76)   |
| ZRA2        | 16706   | 7.00 (172)            | 10.50 (4.76)   |
| ZRA3 / 3.5  | 16707   | 7.75 (197)            | 10.50 (4.76)   |
| DRA          | 16424   | 6.75 (172)            | 10.50 (4.76)   |
| DRA6         | 16425   | 7.75 (197)            | 10.50 (4.76)   |
| DRA10        | 16426   | 9.50 (241)            | 13.10 (5.95)   |

Optional cylinder air supply

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>540457</td>
<td>Cylinder air supply package</td>
</tr>
</tbody>
</table>

Carriages

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carriage — basic, no trolleys</td>
<td>4070D</td>
</tr>
<tr>
<td>Carriage — 4&quot; carriage / beam</td>
<td>4070D</td>
</tr>
<tr>
<td>Carriage assembly — ZRA1 trolley</td>
<td>39328-6</td>
</tr>
<tr>
<td>Carriage assembly — ZRA2 / ZRA3</td>
<td>39328-2</td>
</tr>
<tr>
<td>Carriage assembly — ETA-B (reaction trolley)</td>
<td>39328-8</td>
</tr>
<tr>
<td>Carriage assembly — ETA-B (reaction trolley)</td>
<td>39328-8</td>
</tr>
<tr>
<td>Carriage assembly — ETA-B (reaction trolley)</td>
<td>39328-8</td>
</tr>
</tbody>
</table>

Note: For use on Torque Tube part no. (724) and (45621).