Joyce stainless steel screw jacks are specifically designed for positioning and lifting applications that are located in wet, corrosive or other harsh environments. In most cases, these jacks can be easily retrofitted into applications where non-stainless steel jacks have already been installed.

They are available in 2-ton through 25-ton capacities with either single lead (SWJ) or double lead (DSWJ) lifting screws. SWJ series jacks are self-locking under full lifting capacity. DSWJ series jacks offer increased travel speeds and may require a brake motor or other external locking device to hold position.

- All exposed surfaces and components feature 316 or 17-4 stainless steel construction and bronze (bushings and traveling nut).
- Nitrile rubber seals protect all internal mechanisms.
- Tapered roller or ball thrust bearings provide rugged reliability.

They are available with one of four standard screw ends or special ends to meet your requirements. Double input shafts are standard. An optional anti-backlash feature (page 181) compensates for thread wear, assuring minimum play between lifting screw and wormgear for smooth, precise operation. All jack designs can be fitted with protective boots.

Joyce can customize stainless steel jacks to meet your specifications.

Stainless steel jacks are widely used in many industries including the following:
- Food handling
- Paper mill
- Printing
- Defense
- Coastal installations
Joyce offers Stainless Steel Screw Jacks in several designs including:
• Translating
• Keyed for non-rotation
• Keyed for traveling nut (KFTN)
• Double clevis
A guide for ordering is on pages 60 and 61.
**STAINLESS STEEL JACKS**  
**ORDERING INFORMATION**

**Instructions:** Select a model number from this chart.

<table>
<thead>
<tr>
<th>2-Ton</th>
<th>2-Ton Reverse Base</th>
<th>5-Ton</th>
<th>10-Ton</th>
<th>15-Ton</th>
<th>20-Ton</th>
<th>25-Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWJ62</td>
<td>RSWJ62</td>
<td>SWJ810</td>
<td>SWJ815</td>
<td>SWJ820</td>
<td>SWJ1125</td>
<td>SWJ3225</td>
</tr>
<tr>
<td>SWJ122</td>
<td>RSWJ122</td>
<td>SWJ2410</td>
<td>SWJ2420</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWJ242</td>
<td>RSWJ242</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSWJ62*</td>
<td>DRSWJ62*</td>
<td>DSWJ819*</td>
<td>DSWJ820*</td>
<td>DSWJ1125*</td>
<td>DSWJ3225*</td>
<td></td>
</tr>
<tr>
<td>DSWJ122**</td>
<td>DRSWJ122*</td>
<td>DSWJ129*</td>
<td>DSWJ2415*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSWJ242**</td>
<td>DRSWJ242*</td>
<td>DSWJ245*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Important Note:** *Not self-locking, may lower under load. Brake motors or external locking systems are recommended.
- D: Double Lead Screw.
- R: Reverse Base Jack (only available on 2-ton jacks).
  (For 25:1 ratio contact Joyce.)

Sample Part Number: **RSWJ62U2S-6.00-STDX-STDX-B**

Jack Configuration:
- **U** = Upright
- **I** = Inverted

End Conditions:
- **T1** = (plain end)
- **T2** = (load pad)
- **T3** = (threaded end)
- **T4** = (male clevis)

Stainless Steel Screw Jack Rise
Rise is travel expressed in inches and not the actual screw length.

Jack Designs:
- **S** = Translating
- **K** = Keyed for Non Rotation
- **N** = Traveling Nut
- **D** = Double Clevis*
- **A** = KFTN Trunnion*
- **T** = Trunnion*

*Contact Joyce with your requirements.

---

**Contact Joyce with your requirements**

joycedayton.com

sales@joycedayton.com

800-523-5204
**STAINLESS STEEL JACKS SHAFT CODES**

**Instructions:** Select the appropriate shaft codes for both right and left hand shafts. One shaft code must be specified for each side of the jack.

**Screw Stops (p. 170-173)**
Stainless steel screw stops are optional on stainless steel jacks. When specified, the closed height of the jack and the protection tube length may be increased. When boots are added to stainless steel jacks, the closed height of the jack may be increased.

**Mechanical Counters (p. 180)**
CNT0=0.001" Increments  
Note: Contact Joyce for availability and options.

**Hand Wheels (p. 180)**

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>HW04</td>
<td>4&quot;</td>
</tr>
<tr>
<td>HW06</td>
<td>6&quot;</td>
</tr>
<tr>
<td>HW08</td>
<td>8&quot;</td>
</tr>
<tr>
<td>HW10</td>
<td>10&quot;</td>
</tr>
<tr>
<td>HW12</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>

Recommended for self-locking jacks only.

**Geared Potentiometers (p. 175)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POTA</td>
<td>0-10V</td>
</tr>
<tr>
<td>POTB</td>
<td>4-20mA</td>
</tr>
<tr>
<td>POTC</td>
<td>0-10V w/2 switches</td>
</tr>
<tr>
<td>POTD</td>
<td>4-20mA w/2 switches</td>
</tr>
</tbody>
</table>

**Encoders (pp. 176-177)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCA</td>
<td>Absolute Encoder 0-10 VDC, programmable</td>
</tr>
<tr>
<td>ENCB</td>
<td>Absolute Encoder 4-20mA, programmable</td>
</tr>
<tr>
<td>ENCC</td>
<td>Absolute Encoder CAN Open</td>
</tr>
<tr>
<td>ENCD</td>
<td>Absolute Encoder SSI</td>
</tr>
<tr>
<td>ENCS</td>
<td>Stainless Steel Incremental Encoder 1024 PPR</td>
</tr>
<tr>
<td>ENCX</td>
<td>Incremental Encoder 200 PPR</td>
</tr>
<tr>
<td>ENCY</td>
<td>Incremental Encoder 1024 PPR</td>
</tr>
</tbody>
</table>

**Motors**

<table>
<thead>
<tr>
<th>Size</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4 HP</td>
<td>K</td>
</tr>
<tr>
<td>1/3 HP</td>
<td>A</td>
</tr>
<tr>
<td>1/2 HP</td>
<td>B</td>
</tr>
<tr>
<td>3/4 HP</td>
<td>C</td>
</tr>
<tr>
<td>1 HP</td>
<td>D</td>
</tr>
<tr>
<td>1-1/2 HP</td>
<td>E</td>
</tr>
<tr>
<td>2 HP</td>
<td>F</td>
</tr>
<tr>
<td>3 HP</td>
<td>L</td>
</tr>
<tr>
<td>5 HP</td>
<td>G</td>
</tr>
<tr>
<td>7-1/2 HP</td>
<td>H</td>
</tr>
<tr>
<td>10 HP</td>
<td>I</td>
</tr>
<tr>
<td>15 HP</td>
<td>J</td>
</tr>
</tbody>
</table>

**Motors for Systems and Direct Drives (pp. 178-179)**

- All standard motors are 3-phase, 208-230/460 VAC or 230/460 VAC. Other motor options are available. Specify the appropriate motor size from the chart on the right.
- Refer to the "Additional Options" chart on the preceding page as needed.
- Brake motors (M2) are recommended for jacks that are not self locking and jacks with double lead screws.
- If the motor frequency will be varied to provide a “soft” start, an inverter duty motor may be required.

**Motor Mounts (pp. 178-179)**

Ordering Example:

**MMA**

- **MMA**=56C Motor code from chart at left
- **MMB**=140TC For servo motor mounts see p. 178
- **MMC**=180TC
- **MMD**=210TC

**Recommended for self-locking jacks only.**

**Screw Stops and Boots (p. 170-173)**

Stainless steel screw stops are optional on stainless steel jacks. When specified, the closed height of the jack and the protection tube length may be increased. When boots are added to stainless steel jacks, the closed height of the jack may be increased.

**Stainless Steel Jacks Shaft Codes**

<table>
<thead>
<tr>
<th>Model</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS7-402</td>
<td>LT</td>
</tr>
<tr>
<td>LS8-402</td>
<td>LA</td>
</tr>
<tr>
<td>LS8-404</td>
<td>LB</td>
</tr>
</tbody>
</table>

**Available Positions**

<table>
<thead>
<tr>
<th>Left Side Shaft Options</th>
<th>Right Side Shaft Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2*</td>
<td>2*</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>6*</td>
<td>6*</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

- 2, 5, 10, 15, and 20 ton stainless steel jacks are available with positions #1, #3, and #5.
- 25 ton stainless steel jacks are available with positions #1, #4, #7, and #8.
- *These positions are not standard. Contact Joyce with your requirements.
- Note: Limit Switch housings are not stainless steel. Choose STEEL IT® epoxy paint option instead.
Stainless Steel Screw Jack Column Loading Chart


The horizontal portion of each line represents the jack’s maximum dynamic capacity. Under static conditions, these lines can be exceeded. Please contact factory for assistance.
## STAINLESS STEEL JACKS SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
<th>Screw Diameter (inches)</th>
<th>Thread Pitch/Lead</th>
<th>Warm Shaft Turns for 1” Travel</th>
<th>Warm Gear Ratio</th>
<th>Screw Thread Diameter</th>
<th>Starting Torque (Inch Lbs.)</th>
<th>Operating Torque (Inch Lbs.)</th>
<th>Efficiency Rating % Approx</th>
<th>Screw Torque (Inch Lbs.)</th>
<th>Basic Jack Weight (lbs.)</th>
<th>Jack Weight per Inch Travel (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R)SWJ62</td>
<td>2 ton</td>
<td>.250 pitch</td>
<td>ACME 2C</td>
<td>20</td>
<td>6:1</td>
<td>24</td>
<td>.041W@ 500 RPM</td>
<td>.029W@ 500 RPM</td>
<td>24.2</td>
<td>.096W</td>
<td>15</td>
<td>0.3</td>
</tr>
<tr>
<td>(R)SWJ242</td>
<td>5 ton</td>
<td>.375 pitch</td>
<td>STUB ACME</td>
<td>30</td>
<td>8:1</td>
<td>16</td>
<td>.065W@ 300 RPM</td>
<td>.046W@ 200 RPM</td>
<td>23.1</td>
<td>.195W</td>
<td>32</td>
<td>1.3</td>
</tr>
<tr>
<td>(R)SWJ245</td>
<td>10 ton</td>
<td>.333 pitch</td>
<td>.667 lead ACME</td>
<td>45</td>
<td>8:1</td>
<td>12</td>
<td>.070W@ 200 RPM</td>
<td>.062W@ 200 RPM</td>
<td>31.9</td>
<td>.228W</td>
<td>50</td>
<td>1.4</td>
</tr>
<tr>
<td>(R)SWJ2410</td>
<td>15 ton</td>
<td>.333 pitch</td>
<td>.667 lead ACME</td>
<td>60</td>
<td>8:1</td>
<td>16</td>
<td>.088W@ 200 RPM</td>
<td>.075W@ 200 RPM</td>
<td>24.5</td>
<td>.272W</td>
<td>77</td>
<td>1.9</td>
</tr>
<tr>
<td>(R)SWJ2420</td>
<td>20 ton</td>
<td>.375 pitch</td>
<td>.750 lead ACME</td>
<td>75</td>
<td>8:1</td>
<td>10.67</td>
<td>.098W@ 200 RPM</td>
<td>.086W@ 200 RPM</td>
<td>18.3</td>
<td>.313W</td>
<td>164</td>
<td>3.1</td>
</tr>
<tr>
<td>(R)SWJ2425</td>
<td>25 ton</td>
<td>.500 pitch</td>
<td>ACME 2C</td>
<td>75</td>
<td>8:1</td>
<td>16</td>
<td>.098W@ 200 RPM</td>
<td>.086W@ 200 RPM</td>
<td>18.3</td>
<td>.313W</td>
<td>164</td>
<td>3.1</td>
</tr>
</tbody>
</table>

**Important Note:** Series DSWJ models may lower under load. Brake motors or external locking systems are recommended.

(R): Reverse Base Jack.

*W*: Load in pounds.

**Tare Torque:** Initial torque to overcome seal and normal assembly drag. This value must be added to starting torque or operating torque values.

**Starting Torque:** Torque value required to start moving the rated load (dissipates to operating torque values once the load begins moving).

**Operating Torque:** Torque required to continuously raise a given load at the input RPM listed.

Note: If your actual input RPM is 20% higher or lower than the listed RPM, please refer to JAX® Online to determine actual torque values at your RPM.

**Screw Torque:** Torque required to resist screw rotation (Translating Design Jacks) and traveling nut rotation (Keyed for Traveling Nut Design Jacks).

**Lead:** The distance traveled axially in one rotation of the lifting screw.

**Pitch:** The distance from a point on a screw thread to a corresponding point on the next thread, measured axially.

Note: This chart is provided for reference only. For specific information such as column loading, allowable continuous travel and other performance factors please refer to JAX® Online software or contact Joyce.
STAINLESS STEEL JACKS

2 TON - 1" SCREW

SWJ 62 / DSWJ 62
SWJ 122 / DSWJ 122
SWJ 242 / DSWJ 242

Typical Plan View

Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

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STAINLESS STEEL JACKS

2 TON REVERSE BASE - 1" SCREW

RSWJ 62 / DRSWJ 62
RSWJ 122 / DRSWJ 122
RSWJ 242 / DRSWJ 242

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.

Typical Plan View

Double Clevis

Inverted

Inverted keyed

Upright

Upright traveling nut

Inverted traveling nut

Upright keyed

END CONDITIONS (SHOWN AT MINIMUM CLOSED DIMENSIONS) CLOSED DIMENSIONS OF KEYED JACKS WILL DIFFER

Type 1
Type 2
Type 3
Type 4
Plain End
Load Pad
Threaded End
Male Clevis End

1 1/16
5 1/16
5 7/16
2 1/2

1 1/16
5 1/2
5 7/16
2 1/2

1 1/16
5 1/2
5 7/16
2 1/2

1 1/16

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.

2D and 3D models available on website • Ordering information on pages 60 and 61
STAINLESS STEEL JACKS

5 TON - 1 1/2" SCREW

SWJ 65 / DSWJ 65
SWJ 125 / DSWJ 125
SWJ 245 / DSWJ 245

Typical Plan View

Note: Drawings are artist's conception — not for certification; dimensions are subject to change without notice.

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STAINLESS STEEL JACKS

10 TON - 2" SCREW

SWJ 810 / SWJ 2410
DSWJ 810 / DSWJ 2410

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.

Typical Plan View

Right Side

Left Side

Double Clevis

Inverted

Inverted keyed

Upright

Upright keyed

Upright traveling nut

Inverted traveling nut

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.

2D and 3D models available on website • Ordering information on pages 60 and 61

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joycedayton.com
STAINLESS STEEL JACKS

15 TON - 2 1/4” SCREW

SWJ 815 / SWJ 2415
DSWJ 815 / DSWJ 2415

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.
STAINLESS STEEL JACKS

20 TON - 2 1/2" SCREW

SWJ 820 / SWJ 2420
DSWJ 820 / DSWJ 2420

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.

Typical Plan View

Right Side

Left Side

Double Clevis

Inverted traveling nut

Inverted

Inverted keyed

Upright traveling nut

Upright

Upright keyed

END CONDITIONS (SHOWN AT MINIMUM CLOSED DIMENSIONS)

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.

2D and 3D models available on website • Ordering information on pages 60 and 61

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joycedayton.com

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STAINLESS STEEL JACKS

25 TON - 3 3/8" SCREW

SWJ 1125 / SWJ 3225
DSWJ 1125 / DSWJ 3225

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.

Typical Plan View

Inverted

Double Clevis

Upright

Upright keyed

Upright traveling nut

Inverted traveling nut

Typical Plan View

Inverted keyed

Note: Drawings are artist’s conception — not for certification; dimensions are subject to change without notice.