## Vertical Lifting Wedge

$\nabla$ Shown: LW-16 with SB-2 and optional LWB-1


- Requires .39 inch access gap
- Lifting force 16 ton at 10,000 psi hydraulic pressure
- Automatic mechanical retraction (single acting)
- Securely raises or lowers 16 tons with no slippage
- Lifting wedge LW-16 includes safety block SB-2
- Use in tandem to lift 32 tons, or 64 tons
- . 83 inch of vertical lift from each step (maximum lift to 2.72 inches with optional LWB-1 stepped block)


## LW

Series

Minimum Clearance:
.39 inches
Maximum Lift Height:

### 2.02*-2.72* inches

## Maximum Force:

## 16 tons

Maximum Operating Pressure:
10,000 psi
Best Match Manual Pump
To power your Enerpac
Lifting Wedge, The Enerpac
P-392 Hand Pump or
P-392FP Foot Pump is an
ideal choice.


Split-Flow Manifolds
Split Flow Valves to control two or four lifting wedges simultaneously.

AM-21 with 3 ports 3/8" NPTF. AM-41 with 5 ports 3/8" NPTF.

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LWB-1


For lifting heavy equipment with minimum floor clearance the LW-16 is the ideal tool.


Retracted


Extended


| Max. <br> Lifting <br> Force <br> (ton) | Model <br> No. | Minimum <br> Clearance <br> Gap | Max. Lift <br> per Stage | Max. <br> (iftiting <br> Height <br> (in) | (in) | Max. Lifting Height <br> Using Stepped <br> Block <br> (in) | Oil <br> Capacity |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| (in3) | Weight |  |  |  |  |  |  |
| (lbs) | LW-16 | .39 | .83 | 2.02 | 2.72 | 4.75 | 15.4 |

* Use optional stepped block LWB-1 to increase wedge lifting height 1.18 inches.


## Hydraulic Wedgie and Spread Cylinders

$\nabla$ Shown clockwise from top: WR-15, WR-5, A-92


- Single-acting, spring return
- WR-15: For long stroke spreading applications
- WR-5: For use in very confined work areas
- A-92: Spreader attachment screws onto RC-Series 10-ton cylinders (except RC-101)*

WR-5



WR-15

| Spreader <br> Capacity | Tip <br> Clearance <br> (ton) | Model <br> (in) |  | Maximumber <br> Spread <br> (in) | Cylinder <br> Effective <br> Area <br> (in²) | Oil <br> Capacity <br> (in³) |
| :---: | :---: | :--- | :---: | :---: | :---: | :---: |
| 1.00 | .50 | WR-5 | 3.70 | 1.00 | .61 | (lbs) |
| .75 | 1.26 | WR-15 | 11.50 | 2.25 | 3.91 | 25.0 |
| 1.00 | 1.38 | A-92* | 6.25 | - | - | 8.0 |



A-92*

## A, WR

Series
Capacity:

### 0.75-1.00 ton

Tip Clearance:
0.50-1.38 inches

Maximum Spread Range:

### 3.70-11.50 inches

Maximum Operating Pressure:
10,000 psi


## Best Match Hand Pump

To power your WR5 and WR15 the P-392 hand pump is an ideal choice.

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* Maximum system pressure must be limited to half the rated pressure (5000 psi)
- A WR-5 Wedgie cylinder is used to loosen a bridge bearing.



## Pin Type Hydraulic Flange Spreaders

Shown: FS-56


- Lightweight, ergonomic design for ease of use
- Adjustable jaw widths from 2.75" to 8.50" for a wide range of applications
- Single-acting, spring return RC Series cylinders for fast trouble-free operation



## FS, STF

Series


Capacity:
5-10 tons

## Spread:

### 2.75-8.50 inches

Maximum Operating Pressure:
10,000 psi


## Wedge Spreaders

Friction-free, smooth and parallel wedge movement with unique interlock wedge design. Eliminates flange damage and risk of spreading arm failure.

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Flange Spreader Matching Chart

| ASA <br> Rating <br> (psi) | Pipe Size (in) |  |
| :---: | :---: | :---: |
|  | FS-56 | FS-109 |
| $\mathbf{1 5 0}$ | $5-20$ | $22-42$ |
| 300 | $2.50-14$ | $16-28$ |
| 400 | $2.50-12$ | $14-24$ |
| $\mathbf{5 0 0}$ | $2.50-10$ | $12-20$ |
| $\mathbf{9 0 0}$ | $.50-6$ | $8-16$ |
| $\mathbf{1 5 0 0}$ | $.50-3.50$ | $4-8$ |
| $\mathbf{2 5 0 0}$ | $.50-2.50$ | $3-4$ |


| Maximum Flange Thickness (in) | Stud <br> Size | Standard Wedge | Cap. | Stroke | $\begin{aligned} & \text { Oil } \\ & \text { Cap. } \end{aligned}$ | Model Number | Dimensions (in) |  |  |  |  |  |  |  |  |  | Weight |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | c |  |  |  |  |  |  |  |
|  | (in) | (in) | (ton) | (in) | (in ${ }^{3}$ ) |  | A | B | Min. | Max. | D | E | F | H | 1 | J | (lbs) |
| $2 \times 2.25$ | .75-1.13 | .13-1.13 | 5 | 1.50 | 1.50 | FS-56* | 3.00 | 8.25 | 2.75 | 6.10 | 1.28 | 7.71 | 3.45 | 1.00 | 8.10 | . 75 | 26 |
| $2 \times 3.63$ | 1.25-1.63 | .13-1.13 | 10 | 2.13 | 4.80 | FS-109* | 4.25 | 11.00 | 4.10 | 8.50 | 1.98 | 6.00 | 4.50 | 1.50 | 10.75 | 1.25 | 40 |

* Available as Tool-Pump Set, see note on this page.


## Hydraulic and Mechanical Industrial Spreaders



- Integrated wedge concept: friction-free, smooth, parallel wedge movement eliminates flange damage and spreading arm failure
- Unique interlocking wedge design: no first step bending and risk of slipping out of joint
- Requires very small access gap of only . 24 inch ( 6 mm )
- Stepped spreader arm design: each step can spread under full load
- Few moving parts means durability and low maintenance
- Safety block SB-1 and ratchet spanner SW-22 included with FSM-8
- Safety block and Enerpac RC-102 cylinder included with FSH-14

| Max. <br> Spreading <br> Force <br> (ton) | Model <br> Number | Tip <br> Clearance <br> (in) | Max. <br> Spread | Type | (in) | Oil <br> Capacity <br> (in 3$)$ |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{8}$ | FSM-8 | .24 | 3.16 | Meight |  |  |
| (lbs) |  |  |  |  |  |  |
| $\mathbf{1 4}$ | FSH-14* | .24 | 3.16 | Hydraulic | 4.76 | 15.7 |

Two FSH-14 spreaders used simultaneously with Enerpac handpump, hoses and AM-21 split-flow manifold.


[^0]
[^0]:    ${ }^{1)}$ Using stepped blocks FSB-1.

    * Available as Tool-Pump Set, see note on this page.

