

▼ 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.

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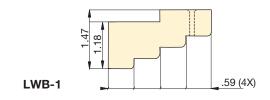
#### **Split-Flow Manifolds**

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.

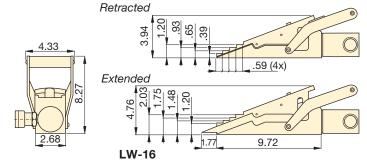
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▼ For lifting heavy equipment with minimum floor clearance the LW-16 is the ideal tool.





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

<sup>\*</sup> Use optional stepped block LWB-1 to increase wedge lifting height 1.18 inches.

# **Hydraulic Wedgie and Spread Cylinders**

▼ 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)\*

## 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



### **RC-Series DUO Cylinders**

10 ton RC-Series DUO cylinders (except RC-101) fit into A-92 Spreader Attachment.

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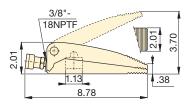


#### **Best Match Hand Pump**

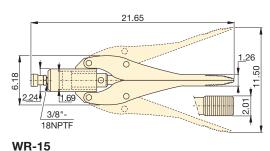
To power your WR5 and WR15 the **P-392** hand pump is an ideal choice.

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#### WR-5



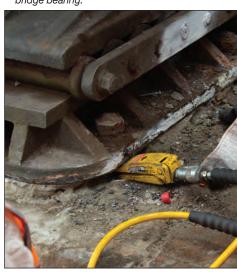
A-92\*

| 9.63                                       |      |
|--|------|
| 2.75                                       | 2.00 |
| 2 <sup>1</sup> / <sub>4</sub> "-14UNS 1.38 | 6.25 |

| Spreader<br>Capacity | Tip<br>Clearance |       |       | Oil<br>Capacity | Wt.   |       |
|----------------------|------------------|-------|-------|-----------------|-------|-------|
| (ton)                | (in)             |       | (in)  | (in²)           | (in³) | (lbs) |
| 1.00                 | .50              | WR-5  | 3.70  | 1.00            | .61   | 5.0   |
| .75                  | 1.26             | WR-15 | 11.50 | 2.25            | 3.91  | 25.0  |
| 1.00                 | 1.38             | A-92* | 6.25  | _               | _     | 8.0   |

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.



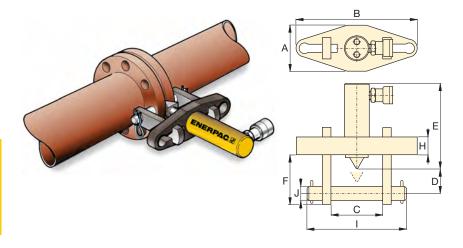
## **Pin Type Hydraulic Flange Spreaders**



▼ 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:

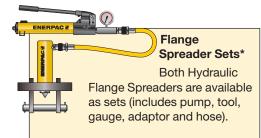
5-10 tons

Spread:

2.75 - 8.50 inches

Maximum Operating Pressure:

10,000 psi



| Set Model<br>Number | Spreader<br>Model Number | Pump Model<br>Number |  |  |
|---------------------|--------------------------|----------------------|--|--|
| STF-56H             | FS-56                    | P-392                |  |  |
| STF-109H            | FS-109                   | P-392                |  |  |
| STF-109A            | FS-109                   | PATG-1102N           |  |  |



#### 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 | Pipe Size (in) |        |  |  |  |  |  |
|---------------|----------------|--------|--|--|--|--|--|
| (psi)         | FS-56          | FS-109 |  |  |  |  |  |
| 150           | 5-20           | 22-42  |  |  |  |  |  |
| 300           | 2.50-14        | 16-28  |  |  |  |  |  |
| 400           | 2.50-12        | 14-24  |  |  |  |  |  |
| 500           | 2.50-10        | 12-20  |  |  |  |  |  |
| 900           | .50-6          | 8-16   |  |  |  |  |  |
| 1500          | .50-3.50       | 4-8    |  |  |  |  |  |
| 2500          | .50-2.50       | 3-4    |  |  |  |  |  |

| Maximum             |           | Standard | Cap.  | Stroke | Oil   | Model   |      | Dimensions (in) |      |      |      |      |      | Weight |       |      |       |
|---------------------|-----------|----------|-------|--------|-------|---------|------|-----------------|------|------|------|------|------|--------|-------|------|-------|
| Flange<br>Thickness | Size      | Wedge    |       |        | Cap.  | Number  |      |                 | (    |      |      |      |      |        |       |      |       |
| (in)                | (in)      | (in)     | (ton) | (in)   | (in³) |         | Α    | В               | Min. | Max. | D    | E    | F    | Н      | -1    | J    | (lbs) |
| 2 x 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 x 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    |

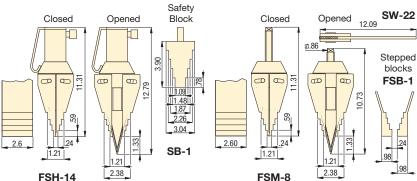
<sup>\*</sup> Available as Tool-Pump Set, see note on this page.

## **Hydraulic and Mechanical Industrial Spreaders**

▼ Shown: FSH-14 and FSM-8 with safety blocks SB1



- 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



| 1011-1-                    |                  |      |                              | I OIVI-O   |                 |        |  |
|----------------------------|------------------|------|------------------------------|------------|-----------------|--------|--|
| Max.<br>Spreading<br>Force | Spreading Number |      | Max.<br>Spread <sup>1)</sup> | Туре       | Oil<br>Capacity | Weight |  |
| (ton)                      |                  | (in) | (in)                         |            | (in³)           | (lbs)  |  |
| 8                          | FSM-8            | .24  | 3.16                         | Mechanical | -               | 14.3   |  |
| 14                         | 14 FSH-14*       |      | 3.16                         | Hydraulic  | 4.76            | 15.7   |  |

<sup>1)</sup> Using stepped blocks FSB-1.

### FSM/FSH/STF Series

Tip Clearance / Maximum Spread\*:

0.24/3.16 inches

Maximum Spread Force:

8-14 tons

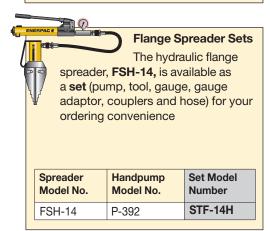
Maximum Operating Pressure:

**10,000** psi (FSH-14)



#### Stepped Blocks FSB-1

Use this pair of stepped blocks to increase wedge opening up to 3.16 in. (81 mm). Fits both FSH-14 and FSM-8.



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



<sup>\*</sup> Available as Tool-Pump Set, see note on this page.