

▼ FSH-14 and FSM-8 with safety blocks SB-1



- For maintenance, commissioning, shutdowns, testing and valve change outs
- Integrated wedge concept: Friction-free, smooth and 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 6 mm
- Stepped spreader arm design - each step can spread under full load
- Few moving parts mean durability and low maintenance
- Safety block SB-1 and ratchet spanner SW-22 included with FSM-8 mechanical wedge spreader
- Safety block SB-1 and Enerpac RC-102 single-acting cylinder included with FSH-14 hydraulic wedge spreader.



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

## Hydraulic and Mechanical Wedge Spreaders

Portable tools to safely spread flange joints.



### Stepped Blocks FSB-1

Use stepped blocks to increase wedge opening up to 80 mm. Fits both FSH-14 and FSM-8.



### Control Manifolds

For simultaneously and even spreading of flange joints, 180° apart with FSH-14 use AM-21 or AM-41 manifolds.

See our System Components on [www.enerpac.com](http://www.enerpac.com).



### Cylinder-Pump Sets

Hydraulic cylinders and jacks can also be used to assist in pipe line positioning and aligning.

# Hydraulic and Mechanical Wedge Spreaders



## Joint Separation

Separation of stubborn joints for inspection and maintenance particularly those fitted with ring grooves or those with external forces acting on them are often difficult to separate.

The use of hammers and wedges, chain blocks and lever bars can damage joint components and present a potential safety risk.

## Parallel Wedge Spreaders

The FSH, FSM-Series parallel wedge spreaders offer controlled separation without bending or risk of slipping from the joint. These spreaders are ideally suited to flanged joint applications.

## FSH FSM STF Series



Tip Clearance / Maximum Spread <sup>1)</sup>:

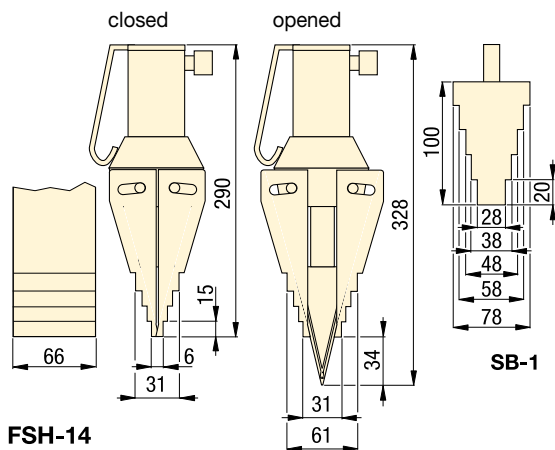
**6 mm / 80 mm**

Maximum Spread Force:

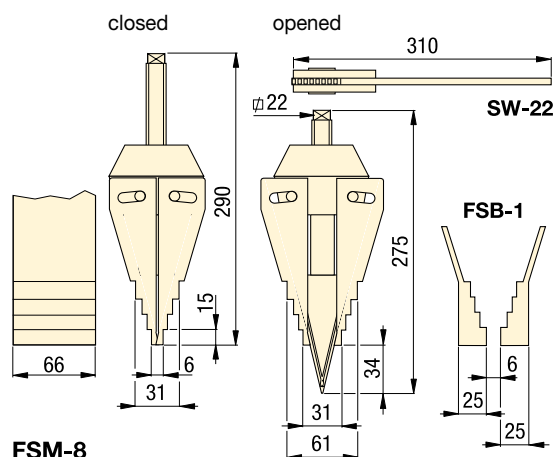
**8 - 14 ton**

Maximum Operating Pressure:

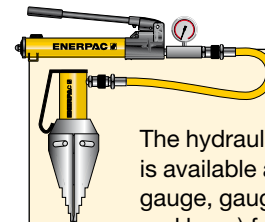
**700 bar (FSH-14)**



FSH-14



FSM-8



## Tool-Pump Sets

The hydraulic flange spreader is available as set (pump, tool, gauge, gauge adaptor, couplers and hose) for your ordering convenience.

Spreader Model Nr.	Handpump Model Nr.	Set Model Number
FSH-14	P-392	STF-14H

Maximum Spreading Force ton (kN)	Model Number	Tip Clearance (mm)	Maximum Spread <sup>1)</sup> (mm)	Spreader Type	Oil Capacity (cm <sup>3</sup> )	(kg)
14 (125)	FSH-14*	6	80	Hydraulic	78	7,1
8 (72)	FSM-8	6	80	Mechanical	-	6,5

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

\* Available as pump-tool set, see note on this page.

▼ Flange maintenance and joint separation with FSH-14 Hydraulic Wedge Spreader.

