

EQUALIZER FLANGE MAINTENANCE TOOLS

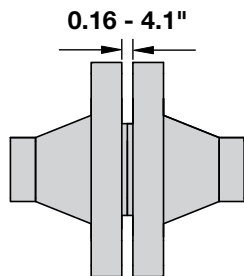
SOLUTIONS FOR YOUR FLANGE ALIGNMENT,
FLANGE SPREADING AND FLANGE PULLING APPLICATIONS.



The Equalizer™ range of patented flange spreading tools have been developed to aid and simplify the maintenance of flange joints. No longer will those tasked with separating flanges have to rely on using ropes and pulleys, podgers, tiffors, come-alongs or hammers – there is a safe, quick and effective alternative, the Equalizer™

range of spreaders. These spreaders use mechanical and hydraulic principles for separating flanges and can spread small, medium or large flange joints. Tool selection is made on the basis of the access gap between the flange faces, the flange size and the required scope of work.

SWi Flange Spreading Wedges:

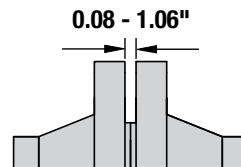


An innovative flange spreading wedge for use on small, medium or large flange joints with a minimum access gap of 0.16". The SWi range includes ATEX approved options.

The SWi range has set the new standard for spreading flange joints powerfully, efficiently, effectively and safely. The tools offer the following features and benefits:

- Wider spreading - using the Standard Stepped Block accessories means the SWi range offers up to 30% more flange spreading distance than a traditional SW tool.
- Unrivalled power - the tools now offer up to 27 ton of spreading force when used in pairs, which provides additional confidence when spreading.
- Narrower jaws - the SWi5TE tools are only 1.97 inches wide to help them fit more easily between flange bolts.
- Fully rotational handle – the handle swivels 360° around the wedge head, so that the SWi tools can be used comfortably in all orientations.
- Easier maintenance – end-users will appreciate the ease with which the tools can be maintained. The supplied hex-key and a two-step process is all that's required to disassemble and reassemble the tools.
- No pinch points – the SWi range of tools has been engineered to overcome finger pinch-points.

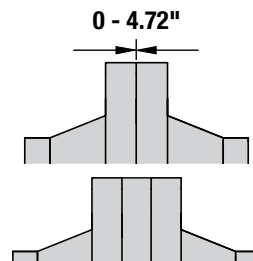
MG Flange Spreading Tool:



A mechanical tool for small diameter, low pressure flanges with a minimum access gap of 0.08 inch.

For use on smaller, lower pressure flange joints, this portable and flexible tool can be assembled in two alternative configurations that gives it twice the application range from one tool. The tool is locked onto the flange joint by the spreading bar preventing the risk of it falling from the flange joint.

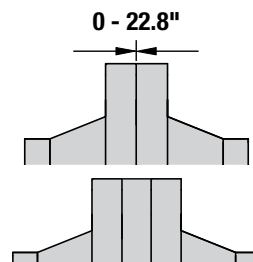
SG Flange Spreading Tools:



A unique flange spreader that is ideal for situations where there is no access gap or where there is a spacer, a wafer or butterfly valve positioned between the flanges.

Equalizer's unique Secure-Grip tools spread by locking into the flange bolt holes and pulling the mating flanges away from each other, the Secure Grip flange spreaders are locked on to the flanges when under load making them arguably the world's safest flange spreading tools.











VC Valve Change-Out Tools:



Using the same technology as the SG flange spreaders, the VC range has been developed for valve removal applications.

The Equalizer™ VC Range of Valve Change-Out tools has been developed to assist in the removal of valves, spades/spacers or gaskets from large flange joints. The span of the tool is longer than a standard Secure-Grip Flange Spreader and is adjustable to enable the tool to operate in a range of applications.

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▼ SWi2025TI



SWi

**FLANGE
SPREADING WEDGES**

Spreading Force:

8.7 - 27 ton

Spreading Distance:

0.16 - 4.1 inch

Maximum Operating Pressure:

10,000 psi *

* Only relevant for hydraulic tools

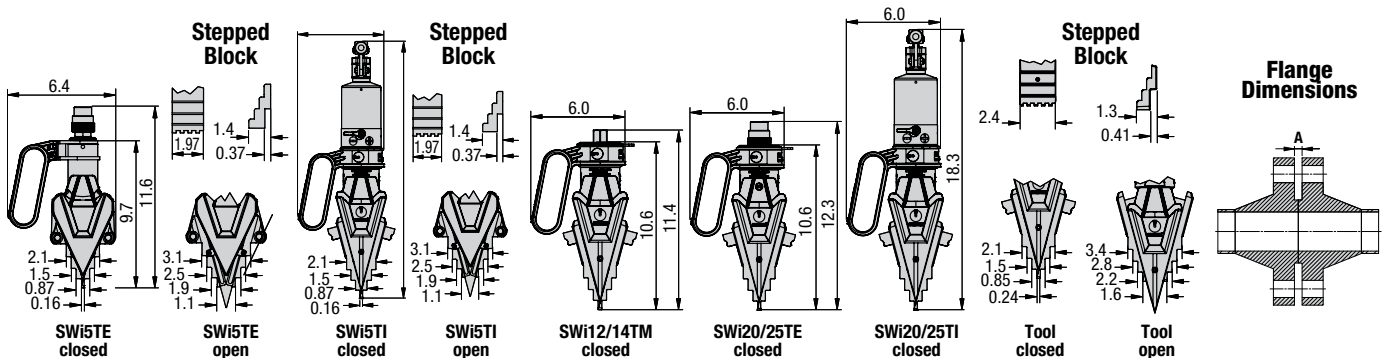


CAUTION

A minimum of two Flange Spreading Tools must be used when opening flange joints.

This will enable the operator to maintain an equal spreading distance across the flange faces.

- Practical, portable and lightweight
- Revolving handle to aid horizontal or vertical spreading
- Removable handle for improved access
- No finger pinch point
- Increased step-depth on upper steps
- Safety lanyard length, 39 inches
- Forged key components for strength and reliability
- Rapid disassembly and assembly
- Narrow jaw teeth – improved tool wear



Model Number	Type	Maximum Spreading Force Per Tool (ton)	Spreading Distance Maximum * (in)	Flange Dimensions	Jaw Width (in)	Tool Weight (lbs)	Kit Weight (lbs)	Case Dimensions (in)	Tool Number
				Minimum Access Gap A (in)					
SWi5TE-S	External Hydraulic	8.7	4	0.16	1.97	11.4	19.1	22.8 x 13.4 x 7.1	SWi5TE
SWi5TE-T	External Hydraulic	8.7	4	0.16	1.97	11.4	31.7	22.8 x 13.4 x 7.1	SWi5TE
SWi5TI-S	Integral Hydraulic	8.7	4	0.16	1.97	15.4	23.1	22.8 x 13.4 x 7.1	SWi5TI
SWi12/14TMSTDSPB	Mechanical	15.7	4.1	0.24	2.4	13.7	28.7	22.8 x 13.0 x 6.5	SWi12/14TM
SWi20/25TEMINSPB	External Hydraulic	27	4.1	0.24	2.4	14.1	25.6	22.8 x 13.0 x 6.5	SWi20/25TE
SWi20/25TESTDSPB	External Hydraulic	27	4.1	0.24	2.4	14.1	45.6	36.2 x 19.7 x 8.1	SWi20/25TE
SWi20/25TEMAXSPB	External Hydraulic	27	4.1	0.24	2.4	14.1	72.8	36.2 x 19.7 x 8.1	SWi20/25TE
SWi20/25TISTDSPB	Integral Hydraulic	27	4.1	0.24	2.4	18.7	20.4	22.8 x 13.0 x 6.5	SWi20/25TI

* Using stepped blocks.

Equalizer Flange Spreading Tools

SWi5TE - Hydraulic Flange Spreading Wedge

SWi5TE-S - SWi5TE S Kit



- 1 x SWi5TE Flange Spreading Tool
- 1 x Standard Safety Block
- 1 x Lanyard
- 1 x Moulded Plastic Carry Case with Protective Foam Inserts

SWi5TE-T - SWi5TE T Kit



- 2 x SWi5TE Flange Spreading Tools
- 2 x Standard Safety Blocks
- 2 x Lanyards
- 1 x Moulded Plastic Carry Case with Protective Foam Inserts

1640016-01 - SWi5TE Stepped Block Kit



- 1 x Pair of SWi5TE Stepped Blocks
- 2 x M6 CSK Hex Screw
- 2 x Retaining Washer
- 1 x SWi5TE Large Safety Block
- 2 x Hex Key

SWi12/14TM - Mechanical Flange Spreading Wedge

SWi1214TMSTDSPB - SWi12/14TM STD Kit



- 1 x SWi12/14TM Flange Spreading Tool
- 1 x Torque Wrench with 22 mm Socket
- 1 x Set of Safety Blocks
- 1 x Pair of Stepped Blocks
- 1 x Lanyard
- 1 x Hex Key
- 1 x Moulded Plastic Carry Case

SWi20/25TE - Hydraulic Flange Spreading Wedge

SWi2025TEMINSBP - SWi20/25TE MIN Kit



- 1 x SWi20/25TE Flange Spreading Tool
- 1 x Set Safety Blocks
- 1 x Pair of Stepped Blocks
- 1 x Lanyard
- 1 x Hex Key
- 1 x Moulded Plastic Carry Case

SWi2025TESTDSPB - SWi20/25TE STD Kit



- 1 x SWi20/25TE Flange Spreading Tool
- 1 x 10,000 psi Hydraulic Hose, 6.5' with 90° Elbow
- 1 x 10,000 psi HP350S Single-Port Sealed Hand Pump with Gauge
- 1 x Set Safety Blocks
- 1 x Pair of Stepped Blocks
- 1 x Lanyard
- 1 x Hex Key
- 1 x Moulded Plastic Carry Case

SWi2025TEMAXSPB - SWi20/25TE MAX Kit



- 2 x SWi20/25TE Flange Spreading Tools
- 2 x 10,000 psi Hydraulic Hoses, 6.5' with 90° Elbow
- 1 x 10,000 psi HP550D Twin-Port Sealed Hand Pump with Gauge
- 2 x Set Safety Blocks
- 2 x Pair of Stepped Blocks
- 2 x Lanyards
- 2 x Hex Keys
- 1 x Moulded Plastic Carry Case

SWi5TI - Integral Hydraulic Flange Spreading Wedge

SWi5TI-S - SWi5TI S Kit



- 1 x SWi5TI Flange Spreading Tool
- 1 x Standard Safety Block
- 1 x Lanyard
- 1 x Moulded Plastic Carry Case with Protective Foam Inserts

1640016-01 - SWi5TE Stepped Block Kit



- 1 x Pair of SWi5TE Stepped Blocks
- 2 x M6 CSK Hex Screw
- 2 x Retaining Washer
- 1 x SWi5TE Large Safety Block
- 2 x Hex Key

SWi20/25TI - Integral Hydraulic Flange Spreading Wedge

SWi2025TISTDSPB - SWi20/25TI STD Kit



- 1 x SWi20/25TI Flange Spreading Tool
- 1 x Set of Safety Blocks
- 1 x Pair of Stepped Blocks
- 1 x Lanyard
- 1 x Hex Key
- 1 x Carry-Strap
- 1 x Moulded Plastic Carry Case

▼ SWi20/25TEEX



SWi



ATEX CERTIFIED FLANGE SPREADING WEDGES

Spreading Force:

15.7 - 27 ton

Spreading Distance:

0.24 - 4.1 inches

Maximum Operating Pressure:

10,000 psi *

* Only relevant for hydraulic tools

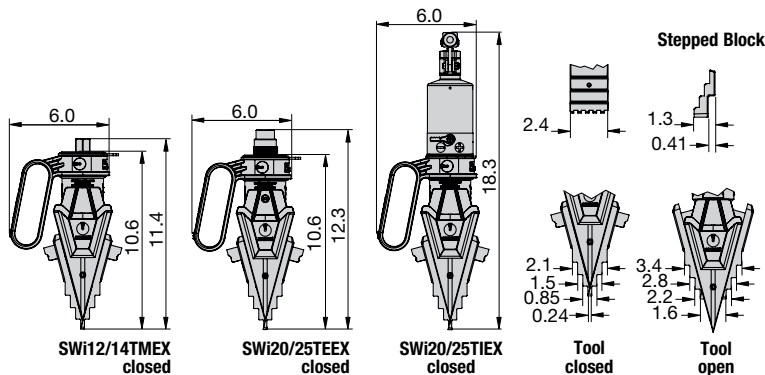


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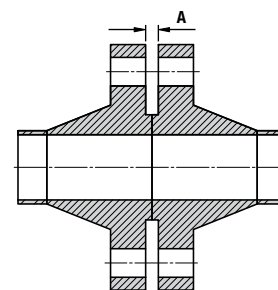
A minimum of two Flange Spreading Tools must be used when opening flange joints.

This will enable the operator to maintain an equal spreading distance across the flange faces.

- ATEX certified
- Practical, portable and lightweight
- Revolving handle to aid horizontal or vertical spreading
- Removable handle for improved access
- No finger pinch-point
- Increased step-depth on upper steps
- Safety lanyard length, 39 inches
- Forged key components for strength and reliability
- Rapid disassembly and assembly
- Narrow jaw teeth – improved tool wear



Flange Dimensions



Model Number	Type	Maximum Spreading Force Per Tool (ton)	Spreading Distance Maximum * (in)	Flange Dimensions	Jaw Width (in)	Tool Weight (lbs)	Kit Weight (lbs)	Case Dimensions (in)	Tool Number
				Minimum Access Gap A (in)					
SWi1214TMSTDEX	Mechanical	15.7	4.1	0.24	2.4	13.7	37.5	22.8 x 15.7 x 7.1	SWi12/14TMEX
SWi2025TEMINEX	External Hydraulic	27	4.1	0.24	2.4	14.1	33.1	22.8 x 15.7 x 7.1	SWi20/25TEEX
SWi2025TESTDEX	External Hydraulic	27	4.1	0.24	2.4	14.1	60.6	26.8 x 22.0 x 7.1	SWi20/25TEEX
SWi2025TEMAXEX	External Hydraulic	27	4.1	0.24	2.4	14.1	85.5	36.6 x 23.6 x 7.1	SWi20/25TEEX
SWi2025TISTDEX	Integral Hydraulic	27	4.1	0.24	2.4	18.7	38.6	22.8 x 15.7 x 7.1	SWi20/25TIEX

* Using stepped blocks.

Equalizer Flange Spreading Tools

SWi12/14TMEX -
ATEX Certified Mechanical
Flange Spreading Wedge



II 2G Ex h IIB T5 Gb
II 2D Ex h IIIC T185°F Db

SWi1214TMSTDEX - SWi12/14TMEX STD Kit



- 1 x SWi12/14TMEX Flange Spreading Tool
- 1 x ATEX Torque Wrench with 22 mm Socket
- 1 x Set of Safety Blocks
- 1 x Pair of Stepped Blocks
- 1 x Lanyard
- 1 x Hex Key
- 1 x Aluminium Carry Case with Protective Foam Inserts

SWi20/25TEEX -
ATEX Certified Hydraulic
Flange Spreading Wedge



II 2G Ex h IIB T5 Gb
II 2D Ex h IIIC T212°F Db

SWi2025TEMINEX - SWi20/25TEEX MIN Kit



- 1 x SWi20/25TEEX Flange Spreading Tool
- 1 x Set Safety Blocks
- 1 x Pair of Stepped Blocks
- 1 x Lanyard
- 1 x Hex Key
- 1 x Aluminium Carry Case with Protective Foam Inserts

SWi20/25TIEX -
ATEX Certified Integral Hydraulic
Flange Spreading Wedge



II 2G Ex h IIB T5 Gb
II 2D Ex h IIIC T212°F Db

SWi2025TISTDEX - SWi20/25TIEX STD Kit



- 1 x SWi20/25TIEX Flange Spreading Tool
- 1 x Set of Safety Blocks
- 1 x Pair of Stepped Blocks
- 1 x Lanyard
- 1 x Hex Key
- 1 x Carry-Strap
- 1 x Aluminium Carry Case with Protective Foam Inserts

SWi2025TESTDEX - SWi20/25TEEX STD Kit



- 1 x SWi20/25TEEX Flange Spreading Tool
- 1 x 10,000 psi ATEX Hydraulic Hose, 6.5 ft. with 90° Elbow
- 1 x 10,000 psi HP350S ATEX Single-Port Sealed Hand Pump with Gauge
- 1 x Set Safety Blocks
- 1 x Pair of Stepped Blocks
- 1 x Lanyard
- 1 x Hex Key
- 1 x Aluminium Carry Case with Protective Foam Inserts

SWi2025TEMAXEX - SWi20/25TEEX MAX Kit



- 2 x SWi20/25TEEX Flange Spreading Tools
- 2 x 10,000 psi ATEX Hydraulic Hose, 6.5 ft. with 90° Elbow
- 1 x 10,000 psi HP550D ATEX Twin-Port Sealed Hand Pump with Gauge
- 2 x Set Safety Blocks
- 2 x Pair of Stepped Blocks
- 2 x Lanyards
- 2 x Hex Keys
- 1 x Aluminium Carry Case with Protective Foam Inserts



These tools have been designed for use in potentially explosive atmospheres which is:

- Group II (Non-mining equipment)
- Equipment **category 2** where explosive atmosphere is likely to occur in normal operation
- Can be applied in **zones 1** and **2** of gaseous explosive atmospheres and in **zones 21** and **22** of dust explosive atmosphere
- **Gas G** or **Dust D** with type of protection **Ex h** for non-electrical equipment
- Suitable for use with **Group IIB** of a gases and vapours (Ethylene group) and **Group IIIC** of dust (conductive dust)

- For hydraulic tools **T5** means that minimum ignition temperature of gas or vapor **>212°F**; **T212°F** means that minimum ignition temperature of a dust cloud **≥302°F** and minimum ignition temperature of a 0.2 inch (5mm) dust layer **≥347°F**
- For mechanical tools **T6** means that minimum ignition temperature of gas or vapor **>185°F**; **T185°F** means that minimum ignition temperature of a dust cloud **≥261.5°F** and minimum ignition temperature of a 0.2 inch dust layer **≥ 320°F**

These tools have been designed and manufactured in accordance with the following transposed harmonized European standards:

- **EN ISO 80079-36:2016** Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements;
- **EN ISO 80079-37:2016** Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - Non-electrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k"

▼ SG11TM



SG

**FLANGE
SPREADING TOOLS**

Spreading Force:
4.2 - 16.9 tons

Spreading Distance:
0 - 4.53 inches

Maximum Operating Pressure:
10,000 psi *

* Only relevant for hydraulic tools



Range of Application

For a detailed range of application please request the Secure-Grip Mechanical or Hydraulic Operator Instruction Sheet.



CAUTION

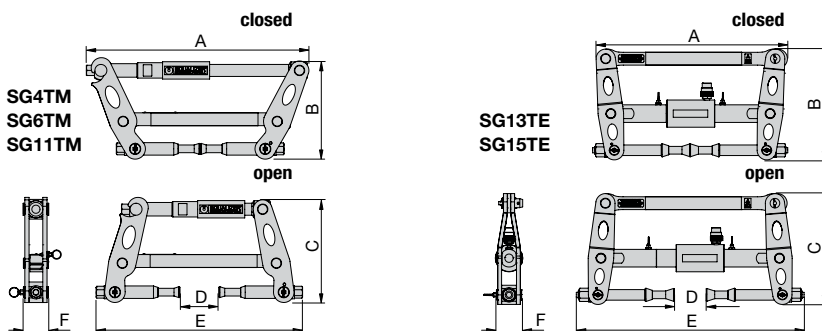
A minimum of two Flange Spreading Tools must be used when opening flange joints.

This will enable the operator to maintain an equal spreading distance across the flange faces.

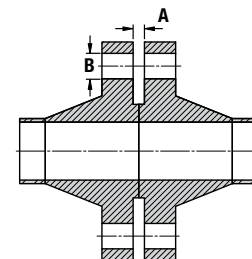
- For use on all flange types with bolt-hole sizes ranging from 0.69 inches to 2.44 inches
- Unique expanding collet technology
- Little or no access gap required
- Secure bolt-hole locking mechanism

OPERATING BENEFITS

- Time-saving, simple operation
- Measurable, controlled flange spreading force
- Virtually universal, the Secure-Grip Flange Spreader range covers ANSI, DIN, SPO, ASME, API and BS flanges



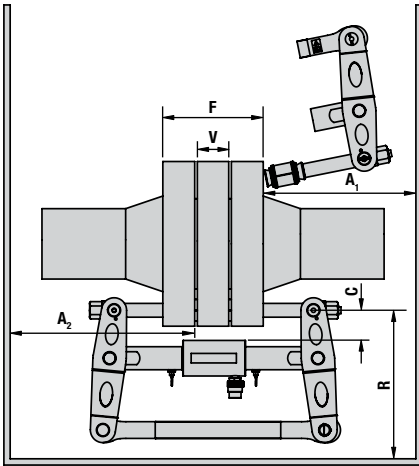
Flange Dimensions



Model Number	Type *	Maximum Spreading Force Per Tool (ton)	Spreading Distance Maximum (in)	Flange Dimensions (in)		Tool Dimensions (in)						Tool Weight (lbs)	Kit Weight (lbs)	Case Dimensions (in)	Tool Number
				Minimum Access Gap A	Bolt-hole Diameter B	A	B	C	D	E	F				
SG4TMSTD	M	4.2	2.95	0	0.69 - 0.91	15.7	7.5	7.2	3.0	15.2	1.9	9.9	28.2	20.5x14.8x6.5	SG4TM
SG6TMSTD	M	6.7	3.15	0	0.94 - 1.18	18.4	9.6	9.9	3.1	17.5	2.0	16.5	35.3	25.2x21.3x6.5	SG6TM
SG11TMSTD	M	12.4	3.54	0	1.18 - 1.54	20.3	9.8	10.4	3.5	18.2	2.4	23.1	44.1	25.2x21.3x6.5	SG11TM
SG13TESTD	H	14.6	4.53	0	1.50 - 1.93	20.3	11.9	12.4	4.5	24.8	2.8	47.4	89.3	35.0x22.4x6.5	SG13TE
SG15TESTD	H	16.9	3.94	0	1.87 - 2.44	23.6	13.6	15.0	3.9	28.3	3.1	57.3	99.2	35.0x22.4x6.5	SG15TE

* M = Mechanical
H = Hydraulic

Equalizer Flange Spreading Tools



SG

**FLANGE
SPREADING TOOLS**

Model Number	Flange Joint Thickness F			Valve / Spacer Thickness V			Flange Clearance C		Radial Space R		Axial Space (for installation) A ₁		Axial Space (installed) A ₂		Tool Number
	Min. (in)	Max. (in)	Measured: From / To	Min. (in)	Max. (in)	Measured: From / To	Max. (in)	Measured: From / To	Min. (in)	Measured: From / To	Min. (in)	Measured: From / To	Min. (in)	Measured: From / To	
SG4TMSTD	2.4	7.3	Outside face of flange / Outside face of flange	0*	1.8*	Inside face of flange / Inside face of flange	2.0	Bolt-hole circle / Largest OD of valve/spacer	6.7	Bolt-hole circle / Closest obstruction	6.7	Outside face of flange / Closest obstruction	7.9	Inner face of flange / Closest obstruction	SG4TM
SG6TMSTD	2.4	8.3		0*	2.0*		2.2		9.1		7.9		9.2		
SG11TMSTD	3.8	9.4		0*	2.4*		2.4		9.4		8.8		10.2		
SG13TESTD	4.7	12.2		0*	3.7*		2.8		11.0		12.2		10.2		
SG15TESTD	5.5	15.7		0*	3.1*		3.1		14.6		15.0		12.4		

* Short Collet Holder Kits (SCH) are available which can offer improved range of application.

SG4TM MECHANICAL TOOL KIT



- 1 X SG4TM Tool
- 1 X 6" Vernier Calliper
- 1 X 3/8" Drive Torque Wrench and 16 mm Socket
- 1 X Safety Block
- 2 X M16 (5/8") Collets
- 2 X M20 (3/4") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

SG6TM MECHANICAL TOOL KIT



- 1 x SG6TM Tool
- 1 X 6" Vernier Calliper
- 1 X 3/8" Drive Torque Wrench and 21 mm Socket
- 1 x Safety Block
- 2 x M24 (7/8") Collets
- 2 x M27 (1") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

SG11TM MECHANICAL TOOL KIT



- 1 x SG11TM Tool
- 1 X 6" Vernier calliper
- 1 x 1/2" Drive torque wrench and 24 mm socket
- 1 x Safety block
- 2 x M30 (1-1/8") Collets
- 2 x M33 (1-1/4") Collets
- 2 x M36 (1-3/8") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

SG13TE HYDRAULIC TOOL KIT



- 1 x SG13TE Tool
- 1 x 10,000 psi HP550S Single Port Sealed Hand Pump with Gauge
- 1 x 10,000 psi Hydraulic Hose, 78.7"
- 1 x 6" Vernier Calliper
- 1 x 1/2" Square Drive Flexible Handle
- 1 x 1-1/8" Socket
- 1 x Safety Block
- 2 x M39 (1-1/2") Collets
- 2 x M42 (1-5/8") Collets
- 2 x M45 (1-3/4") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

SG15TE HYDRAULIC TOOL KIT



- 1 x SG15TE Tool
- 1 x 10,000 psi HP550S Single Port Sealed Hand Pump with Gauge
- 1 x 10,000 psi Hydraulic Hose, 78.7"
- 1 x 12" Vernier Calliper
- 1 x 1/2" Square Drive Flexible Handle
- 1 x 1/2" Socket
- 1 x Safety Block
- 2 x M48 (1-7/8") Collets
- 2 x M52 (2") Collets
- 2 x M56 (2-1/4") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

▼ SG18TE & SG25TE



SG

**FLANGE
SPREADING TOOLS**

Spreading Force:
20.2 - 28.1 tons

Spreading Distance:
0 - 4.72 inches

Maximum Operating Pressure:
10,000 psi

- Applicable for larger-sized flanges
- Actuated by an external hand pump
- Suitable for bolt holes from 2.34 to 4.25 inches



Range of Application

For a detailed range of application please request the Secure-Grip In-Line Hydraulic Operator Instruction Sheet.

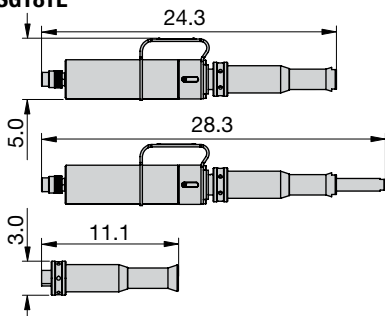


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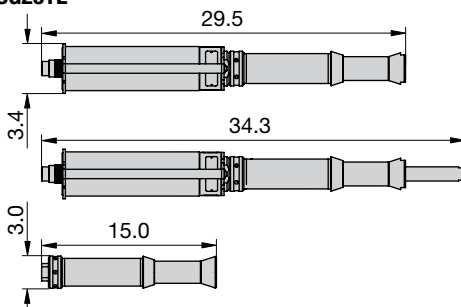
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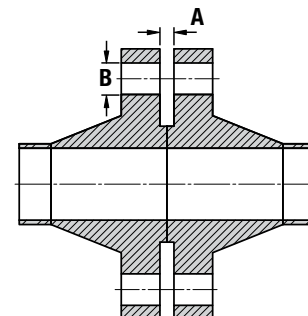
SG18TE



SG25TE

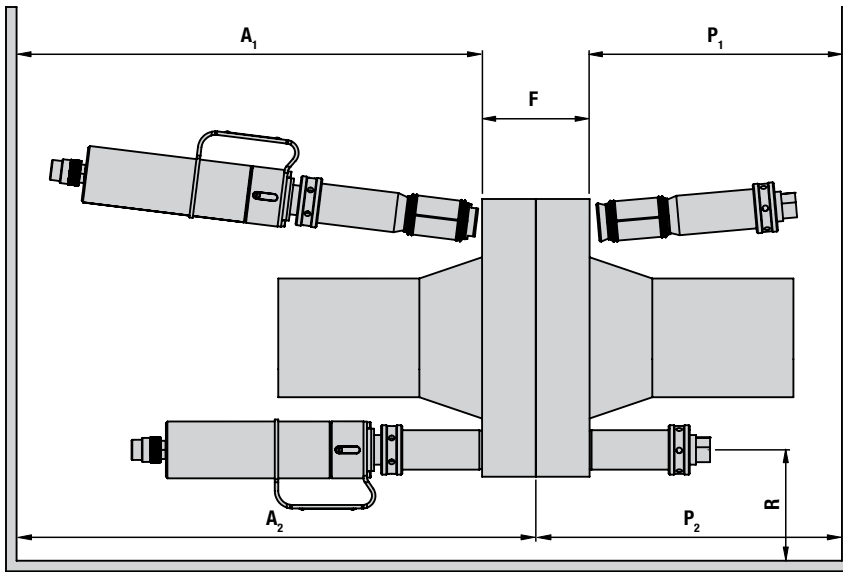


Flange Dimensions



Model Number	Type	Maximum Spreading Force Per Tool (ton)	Spreading Distance Maximum (in)	Flange Dimensions (in)		Tool Weight (lbs)	Kit Weight (lbs)	Case Dimensions (in)	Tool Number
				Minimum Access Gap A	Bolt-hole Diameter B				
SG18TESTD	Hydraulic	20.2	3.93	0	2.34 - 2.95	30.9	99.2	35 x 22.4 x 6.5	SG18TE
SG25TESTD	Hydraulic	28.1	4.72	0	2.95 - 4.25	52.9	110.2	35 x 22.4 x 6.5	SG25TE

Equalizer Flange Spreading Tools



SG

**FLANGE
SPREADING TOOLS**

Model Number	Flange Joint Thickness F			Radial Space R		Axial Space (for installation) A ₁		Axial Space (installed) A ₂		Axial Plug Space (for installation) P ₁		Axial Plug Space (installed) P ₂		Tool No.
	Min. (in)	Max. (in)	Measured: From / To	Min. (in)	Measured: From / To	Min. (in)	Measured: From / To	Min. (in)	Measured: From / To	Min. (in)	Measured: From / To	Min. (in)	Measured: From / To	
SG18TESTD	7.5	17.7	Outside face of flange/ Outside face of flange	2.2	Bolt-hole circle / Closest obstruction	24.4	Outside face of flange/ Closest obstruction	35.4	Inner face of flange/ Closest obstruction	11.1	Outside face of flange/ Closest obstruction	11.1	Inner face of flange/ Closest obstruction	SG18TE
SG25TESTD	8.3	22.4		2.2		29.5		43.3		15.0		15.0		SG25TE

SG18TE HYDRAULIC TOOL KIT



- 1 x SG18TE Tool
- 1 x Spreading Plug
- 1 x 10,000 psi HP550S Single Port Sealed Hand Pump with Gauge
- 1 x 10,000 psi Hydraulic Hose, 6.5'
- 1 x 12" Vernier Calliper
- 1 x 0.5" Spacer Plate
- 1 x 5mm Allen Key
- 1 x 2.0" Spacer
- 1 x Safety Block
- 2 x M60 (2-3/8") Collets
- 2 x M64 (2-1/2") Collets
- 2 x M70 (2-3/4") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

SG25TE HYDRAULIC TOOL KIT



- 1 x SG25TE Tool
- 1 x Spreading Plug
- 1 x 10,000 psi HP550S Single Port Sealed Hand Pump with Gauge
- 1 x 10,000 psi Hydraulic Hose, 6.5'
- 1 x 12" Vernier Calliper
- 1 x 0.5" Spacer Plate
- 1 x Safety Block
- 1 x Aluminium Carry Case with Protective Foam Inserts

SG25TE COLLETS (AVAILABLE SEPARATELY)

Model Number	Description
673601-01	2 x M76 (3") Collets
673901-01	2 x M80 (3-1/4") Collets
674501-01	2 x M84 (3-3/8") Collets
674801-01	2 x M90 (3-1/2") Collets
675101-01	2 x M95 (3-3/4") Collets
675601-01	2 x M100 (4") Collets

▼ VC10TE



VC

VALVE
CHANGE-OUT TOOLS

Spreading Force:
11.2 tons

Spreading Distance:
0 - 22.8 inches

Maximum Operating Pressure:
10,000 psi



CAUTION

A minimum of two Flange Spreading Tools must be used when opening flange joints.

This will enable the operator to maintain an equal spreading distance across the flange faces.



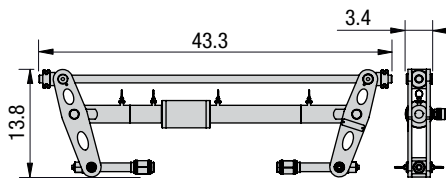
The Actuator and Extension

Subassembly can be assembled into 4 different configurations to suit a variety of applications. For a detailed range of application please request the VC10 Operator Instruction Sheet.

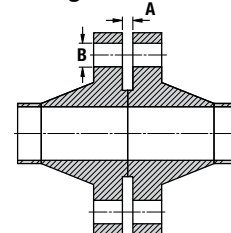
- Assists in the removal of wafer/butterfly valves, spades/spacers or gaskets from large flange joints
- Tool span is longer than a standard Secure-Grip Flange Spreader
- Adjustable to enable the tool to operate in a range of situations

PATENTED SECURE-GRIP SYSTEM:

- Unique expanding collet technology
- Secure bolt-hole locking mechanism
- Unique technology makes the Secure-Grip arguably the safest flange spreader available in the world today
- Virtually universal, the Secure-Grip Flange Spreader range will cover ANSI, DIN, Norsok L005, ASME, API and BS Flanges
- Time-saving, simple operation



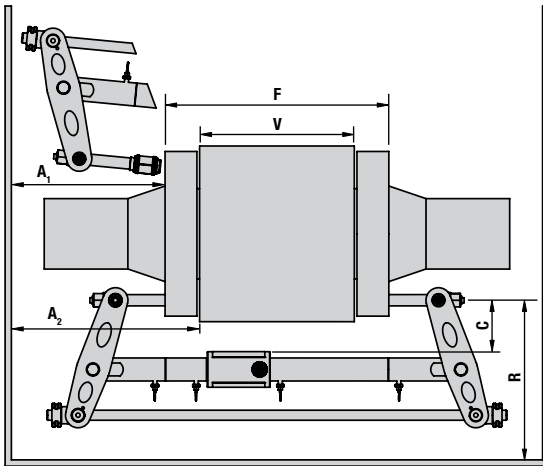
Flange Dimensions



Model Number	Type*	Maximum Spreading Force Per Tool (ton)	Spreading Distance Maximum (in)	Flange Dimensions (pulg)		Tool Kit Weight (2 per Maxi Kit) (lbs)	Pump Kit Weight (lbs)	Gross Kit Weight (lbs)	Tool Case Dimensions (in)	Pump Case Dimensions (in)	Tool No.
				Minimum Access Gap A	Bolt-hole Diameter B						
VC10/13TESTD	H	11.2	22.8	0	1.50 - 1.93	110	60	170	21.7 x 47.2 x 6.7	21.7 x 47.2 x 6.7	VC10/13TE
VC10/13TEMAX	H	11.2	22.8	0	1.50 - 1.93	110	66	287	21.7 x 47.2 x 6.7	21.7 x 47.2 x 6.7	VC10/13TE
VC10/15TESTD	H	11.2	22.0	0	1.87 - 2.44	117	60	176	21.7 x 47.2 x 6.7	21.7 x 47.2 x 6.7	VC10/15TE
VC10/15TEMAX	H	11.2	22.0	0	1.87 - 2.44	117	66	300	21.7 x 47.2 x 6.7	21.7 x 47.2 x 6.7	VC10/15TE
VC10/18TESTD	H	11.2	20.2	0	2.34 - 2.95	128	60	187	21.7 x 47.2 x 6.7	21.7 x 47.2 x 6.7	VC10/18TE
VC10/18TEMAX	H	11.2	20.2	0	2.34 - 2.95	128	66	322	21.7 x 47.2 x 6.7	21.7 x 47.2 x 6.7	VC10/18TE
VC10/25TESTD	H	11.2	19.3	0	2.95 - 4.25	128	60	187	21.7 x 47.2 x 6.7	21.7 x 47.2 x 6.7	VC10/25TE
VC10/25TEMAX	H	11.2	19.3	0	2.95 - 4.25	128	66	322	21.7 x 47.2 x 6.7	21.7 x 47.2 x 6.7	VC10/25TE

* H = Hydraulic

Equalizer Flange Spreading Tools



VC

**VALVE
CHANGE-OUT TOOLS**

Model Number	Flange Joint Thickness F			Valve / Spacer Thickness V			Flange Clearance C	Radial Space R	Axial Space (for installation) A ₁	Axial Space (installed) A ₂	Tool Number
	Min. (in)	Max. (in)	Measured: From / To	Min. (in)	Max. (in)	Measured: From / To	Measured: From / To	Measured: From / To	Measured: From / To	Measured: From / To	
VC10/13TESTD	4.3	27.2	Outside face of flange / Outside face of flange	0*	22.8*	Inside face of flange / Inside face of flange	Bolt-hole circle / Largest OD of valve/spacer - max. 5.1"	Bolt-hole circle / Closest obstruction - min. 14.2"	Outside face of flange / Closest obstruction - min. 11.8"	Inner face of flange / Closest obstruction - min. 14.6"	VC10/13TE
VC10/13TEMAX	4.3	27.2		0*	22.8*						VC10/13TE
VC10/15TESTD	5.1	27.2		0*	22.0*						VC10/15TE
VC10/15TEMAX	5.1	27.2		0*	22.0*						VC10/15TE
VC10/18TESTD	6.9	27.2		0*	20.2*						VC10/18TE
VC10/18TEMAX	6.9	27.2		0*	20.2*						VC10/18TE
VC10/25TESTD	7.9	27.2		0*	19.3*						VC10/25TE
VC10/25TEMAX	7.9	27.2		0*	19.3*						VC10/25TE

* Short Collet Holder Kits (SCH) are available which can offer improved range of application.



VC10/13TE

- 1 x VC10/13TE Tool
- 2 x M39 (1-1/2") Collets
- 2 x M42 (1-5/8") Collets
- 2 x M45 (1-3/4") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

VC10/15TE

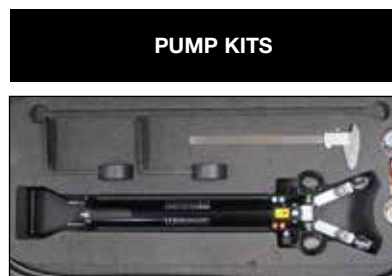
- 1 x VC10/15TE Tool
- 2 x M48 (1-7/8") Collets
- 2 x M52 (2") Collets
- 2 x M56 (2-1/4") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

VC10/18TE

- 1 x VC10/18TE Tool
- 2 x M60 (2-3/8") Collets
- 2 x M64 (2-1/2") Collets
- 2 x M70 (2-3/4") Collets
- 1 x Aluminium Carry Case with Protective Foam Inserts

VC10/25TE

- 1 x VC10/25TE Tool
- 1 x Aluminium Carry Case with Protective Foam Inserts



For STD Tool Kits

- 1 x 10,000 psi HP550S Single Port Hydraulic Hand Pump
- 1 x Hydraulic Gauge with Manifold
- 1 x 10,000 psi Hydraulic Hose, 6.5'
- 1 x Secure Grip Safety Block
- 1 x Square Drive Flexible Handle
- 1 x Vernier Calliper
- 1 x Aluminium Carry Case with Protective Foam Inserts

For MAX Tool Kits

- 1 x 10,000 psi HP1000D Twin Port Hydraulic Hand Pump
- 2 x Hydraulic Gauges with Manifolds
- 2 x 10,000 psi Hydraulic Hoses, 6.5'
- 2 x Secure Grip Safety Blocks
- 1 x Square Drive Flexible Handle
- 1 x Vernier Calliper
- 1 x Aluminium Carry Case with Protective Foam Inserts



Collet Sizing

It is important that the correct size of collet is used. An undersized collet could allow the collet holder to pull through its bore. An oversized collet has the potential to become jammed in the bolt-hole.



Range of Application

For a detailed range of application please request the Hydraulic Secure-Grip Valve Change-Out Tool Operator Instruction Sheet.

VC10/25TE COLLETS (AVAILABLE SEPARATELY)

Model Number	Description
673601-01	2 x M76 (3") Collets
673901-01	2 x M80 (3-1/4") Collets
674501-01	2 x M84 (3-3/8") Collets
674801-01	2 x M90 (3-1/2") Collets
675101-01	2 x M95 (3-3/4") Collets
675601-01	2 x M100 (4") Collets

▼ MG7TM



MG

FLANGE
SPREADING TOOL

Spreading Force:

7.6 tons

Spreading Distance:

0.08 - 1.06 inches



Range of Application

For a detailed range of application please request the MG7TM Operator Instruction Sheet.



CAUTION

A minimum of two Flange Spreading Tools must be used when opening flange joints.

This will enable the operator to maintain an equal spreading distance across the flange faces.

- Reversible leg design giving greater range of applications
- Unique double-angled wedge produces a greater spreading force without reducing spreading distance
- Robust lightweight tool
- Spreading force of 7.6 ton

OPERATING BENEFITS

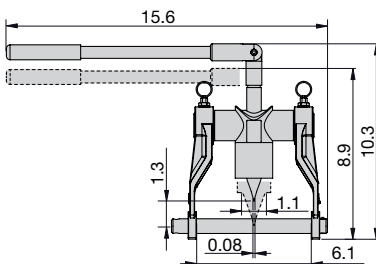
- Locks on to flange joint
- Safe, quick and easy operation
- Saves time and cost

MG7TMSTD Standard Kit

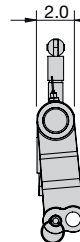
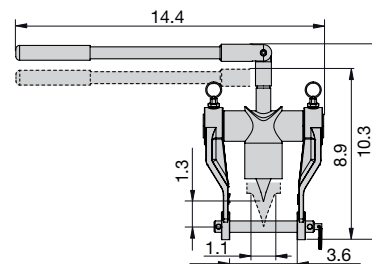


- 1 x MG7TM Tool
- 2 x Spreading Bar
- 1 x Moulded Plastic Carry Case

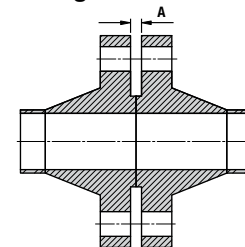
Tool retracted and advanced using large (Ø 0.8 in) spreading bar



Tool retracted and advanced using small (Ø 0.6 in) spreading bar



Flange Dimensions



Model Number	Type	Maximum Spreading Force Per Tool (ton)	Spreading Distance Maximum (in)	Flange Dimensions	Wedge Width (in)	Tool Weight (lbs)	Kit Weight (lbs)	Case Dimensions (in)	Tool Number
				Minimum Access Gap A (in)					
MG7TMSTD	Mechanical	7.6	1.06	0.08	1.8	11.02	12.13	14.2 x 11.8 x 3.5	MG7TM

Equalizer Flange Pulling Tool

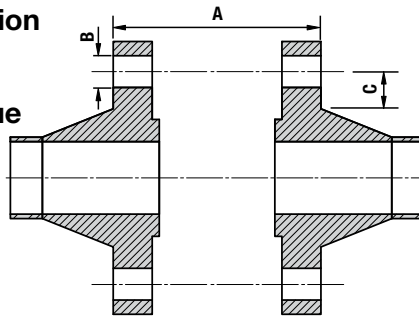
▼ FC10TE



- Applicable to all flanges with a bolt-hole diameter of 1 inch or greater, including ANSI, DIN, Norsok L005, ASME and BS flanges
- Slide and lock collet system
- Low profile tool
- Can be used on all vertical and horizontal flanges including ANSI, API, BS, DIN & Norsok L005
- Robust yet light weight
- Subsea compatible
- Reciprocating hydraulic action

OPERATING BENEFITS

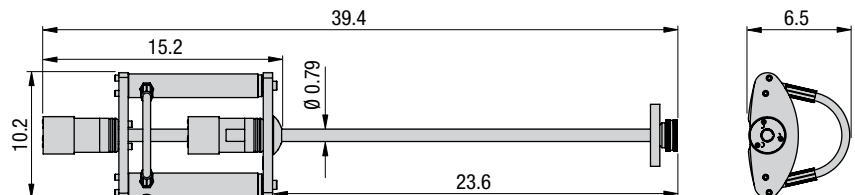
- Reduction in operator fatigue
- Reduction in pinch point
- Quick and easy to use



Flange Dimensions

Model Number	Type	Maximum Closing Force Per Tool (ton)	Closing Distance (in)	Flange Dimensions (in)			Tool Weight (lbs)	Kit Weight (lbs)	Box/Case Dimensions (in)	Tool Number
				A	B min.	C min.				
FC10TESTD	Hydraulic	11.2	22.4	0.63-22.4	1*	1.3	24.3	51.8	35.0 x 22.4 x 6.5	FC10TE
FC10TEMAX	Hydraulic	11.2	22.4	0.63-22.4	1*	1.3	24.3	80.5	35.0 x 22.4 x 6.5	FC10TE

* For hole diameter greater than 1.7 inches, please contact Enerpac.



FC

FLANGE
CLOSING TOOL

Closing Force:

11.2 tons

Closing Distance:

22.4 - 0 inches

Maximum Operating Pressure:

10,000 psi



CAUTION

A minimum of two flange closing tools must be used when flange pulling. This will enable the operator to maintain an even gap between flange faces and prevent flange / gasket damage.

FC10TESTD STD Kit



- 1 x FC10TE Tool
- 1 x 10,000 psi Hydraulic Hose, 6.5' long
- 1 x 10,000 psi HP550S Single Port Sealed Hand Pump with Gauge
- 1 x Aluminium Carry Case with Protective Foam Inserts

FC10TEMAX MAX Kit



- 2 x FC10TE Tool
- 2 x 10,000 psi Hydraulic Hoses, 6.5' long
- 1 x 10,000 psi HP550D Twin Port Sealed Hand Pump with Gauge
- 1 x Aluminium Carry Case with Protective Foam Inserts

▼ TFA15TI



TFA

WIND TURBINE TOWER
FLANGE ALIGNMENT TOOLS

Hook Force:

4.5 - 30.3 tons

Aligning Distance:

1.7 - 2.6 inches

TFA4TM Mechanical Tool Kit



- 1 x TFA4TM Tool
- 1 x Torque Wrench
- 1 x Moulded Plastic Carry Case

TFA12TE / TFA15TE External Hydraulic Tool Kit



- 1 x TFA12TE or TFA15TE Tool
- 1 x Safety Lanyard
- 1 x Aluminium Carry Case with Protective Foam Inserts

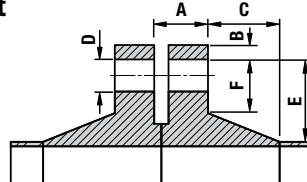
TFA12TI / TFA15TI Internal Hydraulic Tool Kit



- 1 x TFA12TI or TFA15TI Tool
- 1 x Aluminium Carry Case with Protective Foam Inserts

The TFA Wind Turbine Tower Flange Alignment Tools have been developed to aid the alignment of large flanges on the inside of wind turbine towers during their assembly or installation.

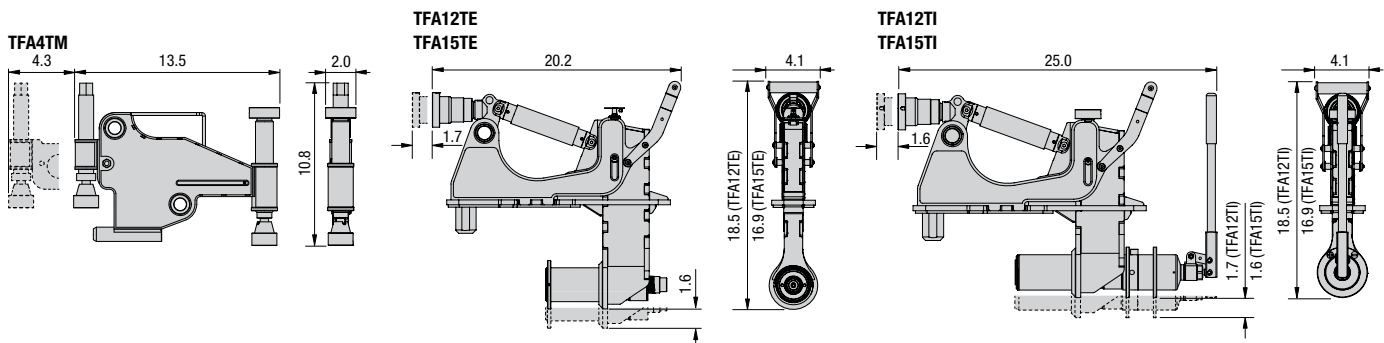
- Assists in aligning / de-ovalizing large internal pipe flanges
- Helps resolve bolt-hole misalignment within tower sections of wind turbine towers
- Can be used both on and offshore



Flange Dimensions

Model Number	Type*	Maximum Hook Force Per Tool (ton)	Maximum Aligning Distance (in)	Maximum Operating Pressure (psi)	Flange Dimensions (in)						Tool Weight (lbs)	Kit Weight (lbs)	Box/Case Dimensions (in)	Tool Number
					A	B	C	D min	E	F min				
TFA4TMSTD	M	4.5	1.7	-	1.4-5.3	0-2.2	0-9.1	0.98	0-4.1	0.94	17.9	39.7	23.6 x 14.6 x 7.9	TFA4TM
TFA12TEMIN	H	27.0	2.6	7,400	5.1-7.0	4.3-9.5	0-16.6	1.8	3.4-4.9	2.4	42.5	62.6	25.2 x 21.3 x 6.5	TFA12TE
TFA15TEMIN	H	30.3	2.6	10,000	3.5-5.4	4.3-9.5	0-16.6	1.8	3.4-4.9	2.4	41.7	61.7	25.2 x 21.3 x 6.5	TFA15TE
TFA12TISTD	H	27.0	2.6	-	5.1-7.0	4.4-9.5	0-16.6	1.8	3.4-4.9	2.4	48.3	68.3	23.0 x 35.4 x 6.3	TFA12TI
TFA15TISTD	H	30.3	2.6	-	3.5-5.4	4.4-9.5	0-16.6	1.8	3.4-4.9	2.4	47.4	67.5	23.0 x 35.4 x 6.3	TFA15TI

* M = Mechanical
H = Hydraulic

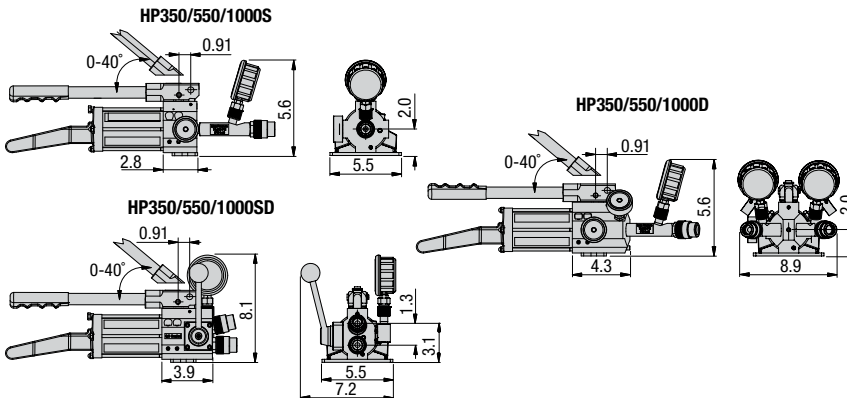


Equalizer Hand Pumps & Hoses

▼ HP350DMIN



- HP-S , HP-D and HP-SD pump ranges are operable at all angles and are highly resistant to accidental spillage of hydraulic fluid (certified)
- The Single-Port and Twin-Port Hand Pumps are also available with ATEX rating, which are certified for use in hazardous areas II 2G Ex h IIB T5 Gb, II 2D Ex h IIC T212° F Db



HP

HYDRAULIC SEALED
HAND PUMPS

Maximum Pressure Rating:

1st Stage: 197 psi

2nd Stage: 10,000 psi

Pump Type:

2-Speed



Pump Ratings

The Hydraulic Single Port, Twin Port and Double-Acting Hand-Pump (and hoses) are tailored for use with hydraulic equipment.

Each pump's output is regulated to 10,000 psi and is delivered from threaded 3/8" NPT output ports. The pumps and hoses can be used with any 10,000 psi rated hydraulic equipment within their oil capacity specification. The HP range of hydraulic hand-pumps have been designed with a seal oil reservoir, which allows the pumps to be used in any orientation without the risk of oil spills or air contamination.

10,000 PSI HOSES

AVAILABLE TO PURCHASE SEPARATELY

Model Number	Description
302701-01	Hydraulic Hose 78.7"
302702-01	Hydraulic Hose 157.5"
302705-01	Hydraulic Hose 118.1"
302706-01	Hydraulic Hose 196.9"
302707-01	Hydraulic Hose 236.2"
1440008-01	ATEX Hydraulic Hose 78.7"
1440013-01	ATEX Hydraulic Hose 157.5"
1440014-01	ATEX Hydraulic Hose 236.2"

Model Number	Type*	Nominal Oil Capacity (cc)	Useable Oil Capacity (cc)	Oil Volume per Stroke (cc)		Max. Handle Effort (lbf)	Piston Stroke (in)	Overall Length (in)	Box Dimensions (in)	Pump Weight (lbs)	Kit Weight (lbs)	Tool Number	
				1st Stage	2nd Stage								
Standard	ATEX												
HP350SMIN	HP350SMINEX	SA, SP	21.4	18.3	0.221	0.047	72.75	0.71	21.8	9.8 x 7.1 x 23.6	9.7	10.8	HP350S
HP550SMIN	HP550SMINEX	SA, SP	33.6	35.4	0.221	0.047	55.12	0.71	25.3	9.8 x 7.1 x 27.6	11.2	13.0	HP550S
HP1000SMIN	HP1000SMINEX	SA, SP	61.0	67.7	0.221	0.047	46.30	0.71	34.1	9.8 x 7.1 x 35.4	13.4	15.7	HP1000S
HP350DMIN	HP350DMINEX	SA, TP	21.4	18.3	0.221	0.047	72.75	0.71	22.8	9.8 x 7.1 x 23.6	14.3	15.9	HP350D
HP550DMIN	HP550DMINEX	SA, TP	33.6	35.4	0.221	0.047	55.12	0.71	26.3	9.8 x 7.1 x 27.6	15.9	17.9	HP550D
HP1000DMIN	HP1000DMINEX	SA, TP	61.0	67.7	0.221	0.047	46.30	0.71	35.2	9.8 x 7.1 x 35.4	15.7	20.5	HP1000D
HP350SDMIN	N/A	DA	21.4	18.3	0.221	0.047	72.75	0.71	18.0	9.8 x 7.1 x 23.6	11.7	12.5	HP350SD
HP550SDMIN	N/A	DA	33.6	35.4	0.221	0.047	55.12	0.71	22.8	9.8 x 7.1 x 27.6	12.6	13.2	HP550SD
HP1000SDMIN	N/A	DA	61.0	67.7	0.221	0.047	46.30	0.71	30.3	9.8 x 7.1 x 35.4	13.0	13.9	HP1000SD

* SA = Single Acting
SP = Single Port

DA = Double Acting
TP = Twin Port



Product training

Equalizer designs and builds products of the highest quality, using the best components. This quality ethos extends to training and a range of training components are offered to ensure the optimal use of the tools. In addition to online training materials, Equalizer has a hands-on training facility, class-room based training and an onsite training system with a mobile demo trailer which travels around providing on-site introductions and training. Through this, users can experience first-hand how quick, simple and easy the tools are to apply and use on a series of custom-built flanges.

Class-room based training

Commercial and technical presentations provide distributors with the necessary information to respond to a wide range of customer enquiries and challenges.



On-site training

- Custom built trailer, containing the full range of Equalizer™ tools
- Portable training rig with flange joints
- Flange aligning, spreading and pulling tool demonstrations.

Hands-on training and demonstration

Practical demonstrations and hands-on training provide distributors and customers with valuable knowledge, information and experience to safely use the full range of Equalizer products. This in turn strengthens Equalizer's reputation as the expert in tools for flange maintenance within the oil and gas, chemical, power generation, nuclear, water, mining and renewable energy sectors world-wide.



Enerpac Academy - The Power of Knowledge



The Enerpac Academy is our in-house training program, offering Enerpac product operators and maintenance staff the opportunity to be trained in the use and maintenance of high-pressure hydraulic tools.

Operating these tools requires sound knowledge of how they work and how they should be maintained. Correct use of these tools increases safety and reduces risk – both for the operator and the environment in which the tools are used. Having the right training enables the operator to use the tools safely and properly.



Enerpac Academy

- Safety focus for operators, tools and environment
- Dedicated in-house Enerpac training centers
- Both standard training courses and specialized training services
- Highly experienced trainers
- Selection of training courses with a proven (value-added) track record
- Knowledge and experience sharing

In-house Training Centers

Do you work with high-pressure hydraulic tools on a regular basis or even every day? The training courses are designed to be highly interactive with a strong hands-on element. Each training course is led by a qualified trainer, an Enerpac specialist capable of providing high quality training. A written or practical exam is part of certain training courses.



Training Center Locations

- Columbus, Wisconsin (USA)
- Ede (The Netherlands)
- Hosur, Bangalore area (India)
- Singapore
- Sydney (Australia)

Enerpac Academy offers a meticulously compiled training program covering tool knowledge, repairs and maintenance, and safe operation of Enerpac hydraulic tools. If you would like to schedule a training course, please contact Enerpac for a training calendar, application form, and brochure at www.enerpac.com.





THE RIGHT TOOL MAKES ALL THE DIFFERENCE

Enerpac bolting tools are put to work under the most intense and demanding conditions. That's why we never compromise. So you can rely on quality and precision every time for your controlled tightening and joint integrity applications.

As a global leader in high-pressure hydraulic tools, controlled force products and solutions for precision positioning of heavy loads, Enerpac products have moved and maintained some of the largest structures on earth. They are the industry standard in aerospace, infrastructure, manufacturing, mining, oil & gas, power generation and much more.

Controlled Tightening and Loosening



S-, W-, RSL-, DSX-, and HMT-Series Hydraulic Torque Wrenches



STTL-Series Safe T™ Torque Lock



Manual Torque Multipliers



Pneumatic Torque Wrenches



Cordless Torque Pumps



Electric Torque Pumps



Pneumatic Torque Pumps

Tensioning Tools



Power Generation Bolt Tensioners



HydraMax, General Purpose and Aquajack® Subsea Tensioners



Electric Tensioning Pumps



Pneumatic Tensioning Pumps



High-Pressure Hand Pumps

Joint Assembly & Joint Separation



Hydraulic Nut Cutters and Nut Splitters



Flange Alignment Tools



Mechanical Flange Face Tool



Step-Type Flange Spreaders



Valve Change-Out Tool Sets



Flange Puller Sets



Enerpac Worldwide Locations

For a complete list of addresses see: www.enerpac.com/en/enerpac-locations
User Inquiries: 800-433-2766 Distributor Inquiries: 800-558-0530

www.enerpac.com