

2. FLANGE ALIGNMENT SOLUTIONS

The Equalizer™ patented range of alignment tools addresses the rotational or lateral misalignment that can occur within flange joints. Compared with traditional, manual approaches, the Equalizer™ tools offer a much safer, quicker and effective means of realigning flanges.



APPLICATIONS

Our Flange Alignment tools can be used to resolve lateral or rotational misalignment during:

- commissioning
- construction
- routine maintenance
- shut-downs or outages
- testing
- valve change-outs

SPECIAL FEATURES

- operate on most pipe configurations
- use on horizontal or vertical flanges including ANSI/ASME, API, BS, DIN and SPO

- suitable for offshore and onshore applications

OPERATING BENEFITS

Using our Flange Alignment tools:

- saves time
- saves cost
- optimises staffing
- promotes work continuity
- encourages safer working practice
- enables efficient operation
- lightweight and portable - ideal for remote locations or confined environments
- dispenses with need for cranes, tirsors and hooks



FA1™

MECHANICAL FLANGE ALIGNMENT TOOL

This portable, robust lightweight tool is a simple solution for small low-pressure flange misalignment requirements. It is hand-actuated using the crank handle.



TOOL CAPABILITIES

ALIGNING FORCE

- 10kN (1T)

APPLICATION RANGE

- Minimum Bolt Hole Diameter: 16.0mm (0.63")
- Maximum Aligning Distance: 26.0mm (1.02")

TOOL WEIGHT

- 1.6kg (3.5lb)



STANDARD KIT



FLANGE TOOL INNOVATION

PRODUCT DATA SHEET

FA1TM

MECHANICAL FLANGE
ALIGNMENT TOOL

ALIGNING FORCE:
1T (10kN)

TOOL WEIGHT:
2.1kg (4.63lb)

KIT COMPONENTS

- 1 x FA1TM Tool
- 1 x Mini Ratchet Strap
- 1 x Instruction Manual

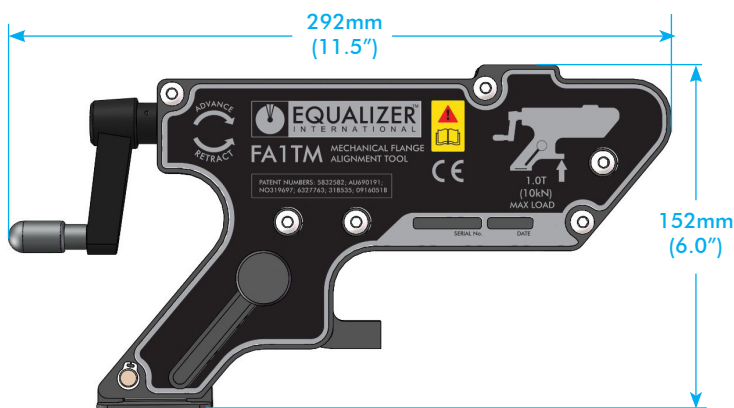
Product Code: FA1TMSTD



WEIGHTS AND DIMENSIONS

Tool Weight: 2.1kg (4.63lb)
Gross Weight: 2.3kg (5.07lb)

Box Dimensions:
180.0mm x 330.0mm x 220.0mm
(7.1" x 13.0" x 8.7")



info@equalizerinternational.com
www.equalizerinternational.com

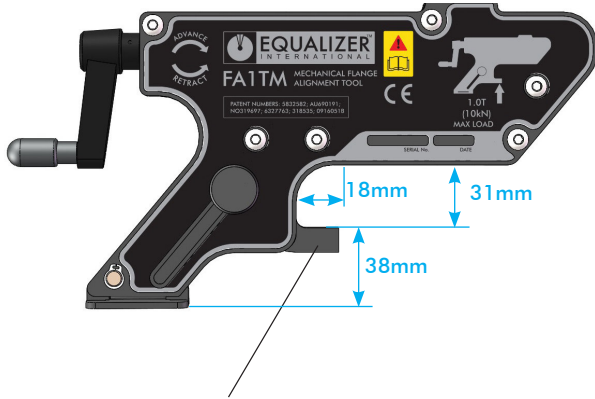
FA1™

MECHANICAL FLANGE ALIGNMENT TOOL

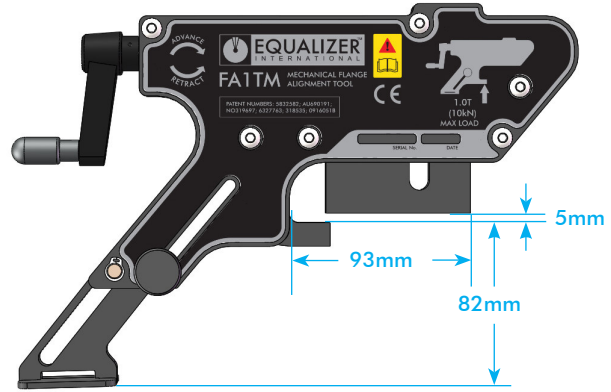


FLANGE TOOL INNOVATION

Minimum Extension



Maximum Extension



Minimum applicable Bolt Hole Diameter 16mm (0.63")

RANGE OF APPLICATION

ASME	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"	14"
150#						FA1™	FA1™	FA1™	FA1™	FA1™	FA1™	FA1™	FA1™	FA4™	FA4™	FA4™
300#					FA1™	FA1™	FA1™	FA1™	FA1™	FA1™	FA1™	FA1™	FA4™	FA4™	FA4™	FA4™
400#						FA1™	FA1™	FA1™	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™	FA9™	FA9™
600#					FA1™	FA1™	FA1™	FA1™	FA4™	FA4™	FA4™	FA4™	FA4™	FA9™	FA9™	FA9™
900#	FA1™	FA1™	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™		FA4™	FA4™	FA4™	FA9™	FA9™	FA9™	FA9™
1500#	FA1™	FA1™	FA1™	FA4™	FA4™	FA4™	FA4™	FA4™			FA9™	FA9™	FA9™	FA9™	FA9™	FA9™
2500#	FA1™	FA1™	FA4™	FA4™	FA4™	FA4™	FA4™	FA9™		FA9™	FA9™	FA9™	FA9™	FA9™	FA9™	

ASME	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"
150#	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™	FA9™	FA9™	FA9™	FA9™	FA9™	FA9™	FA9™
300#	FA9™	FA9™	FA9™	FA9™	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™	FA9™	FA9™	FA9™	FA9™	FA9™	FA9™
400#	FA9™	FA9™	FA9™	FA9™	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™	FA9™	FA9™	FA9™	FA9™	FA9™	FA9™
600#	FA9™	FA9™	FA9™	FA9™	FA4™	FA4™	FA4™	FA4™	FA4™	FA4™	FA9™	FA9™	FA9™	FA9™	FA9™	FA9™
900#	FA9™	FA9™	FA9™	FA9™	FA9™	FA9™	FA9™									
1500#	FA9™	FA9™	FA9™													
2500#																

For other flange types, please contact Equalizer International.



FA4™

MECHANICAL LINEAR AND ROTATIONAL FLANGE ALIGNMENT TOOL

This mid-range mechanical tool is for use on medium diameter, medium pressure flanges, and can address both rotational and radial misalignment. It is actuated by the supplied torque-wrench.



TOOL CAPABILITIES

ALIGNING FORCE

with 33N.m (50ft.lb) of torque applied:

- 40kN (4T)

APPLICATION RANGE

- Minimum Bolt Hole Diameter: 25.0mm (1.00")
- Maximum Wing Reach: 113.0mm (4.45")

TOOL WEIGHT

- 8.6kg (19.0lb)



STANDARD KIT



FLANGE TOOL INNOVATION

PRODUCT DATA SHEET

FA4TM

MECHANICAL LINEAR AND
ROTATIONAL FLANGE
ALIGNMENT TOOL

ALIGNING FORCE:

With 68N·m (50ft·lb) of torque applied:
4T (40kN)

TOOL WEIGHT: 8.6kg (19.0lb)

KIT COMPONENTS

- 1 x FA4TM Tool
- 1 x 68N·m (50ft·lb) Torque Wrench
- 1 x 22mm Socket
- 1 x Ratchet Strap
- 1 x Instruction Manual
- 1 x Carry-Case

Product Code: FA4TMSTD

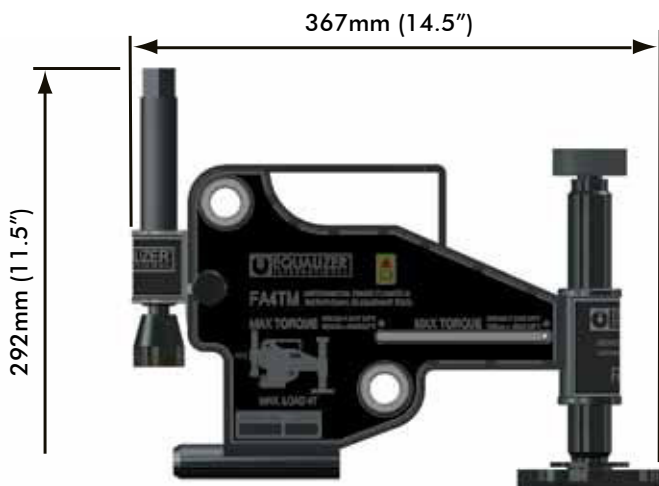


WEIGHTS AND DIMENSIONS

Tool Weight 8.6kg (19.0lb)
Case Weight 2.5kg (5.5lb)
Gross Weight 12.2kg (26.9lb)

Carry-Case Dimensions:

600 x 370 x 200mm
(23.6"x14.6"x7.9")



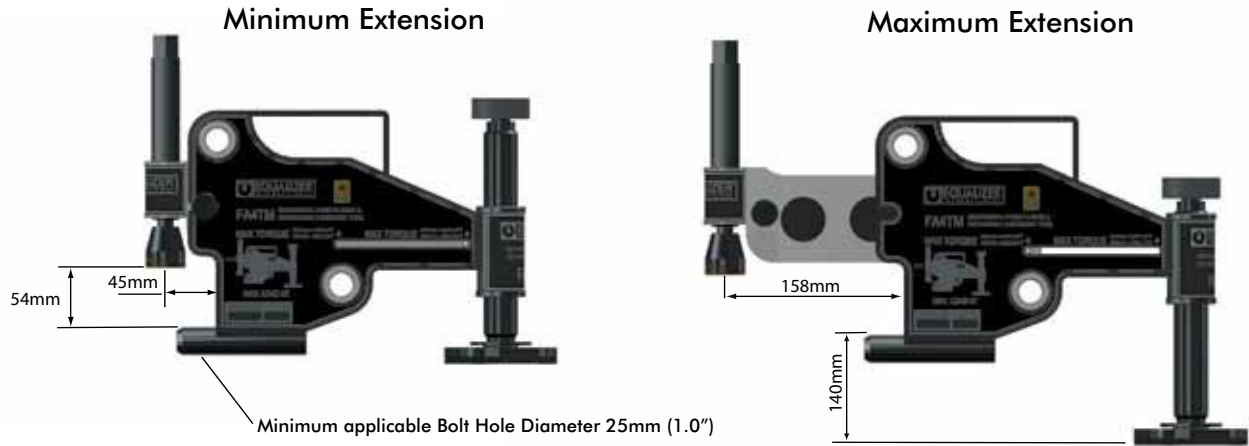
info@equalizerinternational.com
www.equalizerinternational.com

FA4™

MECHANICAL LINEAR AND ROTATIONAL
FLANGE ALIGNMENT TOOL



FLANGE TOOL INNOVATION

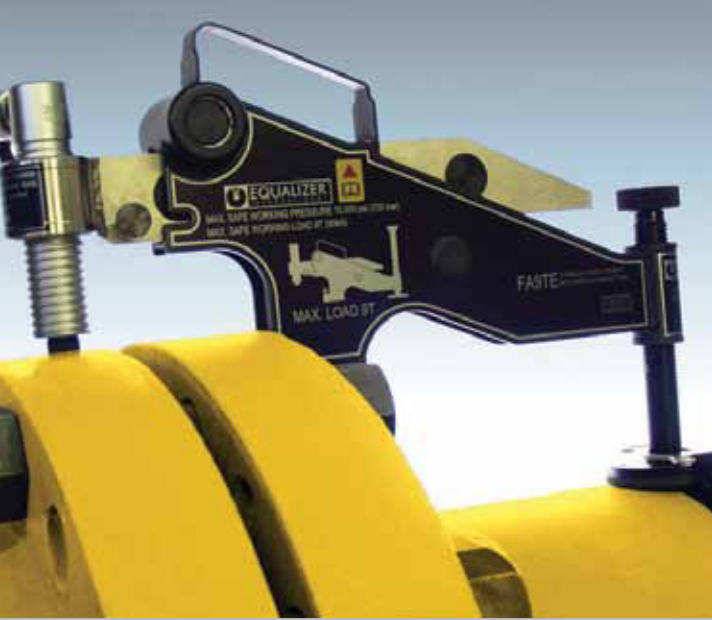


RANGE OF APPLICATION

ASME	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"	14"
150#						FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM
300#					FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM
400#						FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE
600#					FA1TM	FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE
900#	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM		FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE
1500#	FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM			FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
2500#	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE		FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	

ASME	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"
150#	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
300#	FA9TE	FA9TE	FA9TE	FA9TE	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
400#	FA9TE	FA9TE	FA9TE	FA9TE	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
600#	FA9TE	FA9TE	FA9TE	FA9TE	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
900#	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE									
1500#	FA9TE	FA9TE	FA9TE													
2500#																

For other flange types, please contact Equalizer International.



FLANGE TOOL INNOVATION

PRODUCT DATA SHEET

FA9TE

HYDRAULIC LINEAR AND
ROTATIONAL FLANGE
ALIGNMENT TOOL

ALIGNING FORCE:
10,000psi (700bar) 9T (90kN)

TOOL WEIGHT: 14.5kg (32.0lb)

KIT COMPONENTS

- 1 x FA9TE Tool including Hydraulic Cylinder
- 1 x 10,000 psi (700 bar) Hydraulic Hose, 2m (78.75")
- 1 x 10,000 psi (700 bar) HP350S Sealed Hand Pump with Gauge
- 1 x Instruction Manual
- 1 x Carry-Case
- 1 x Ratchet & Strap

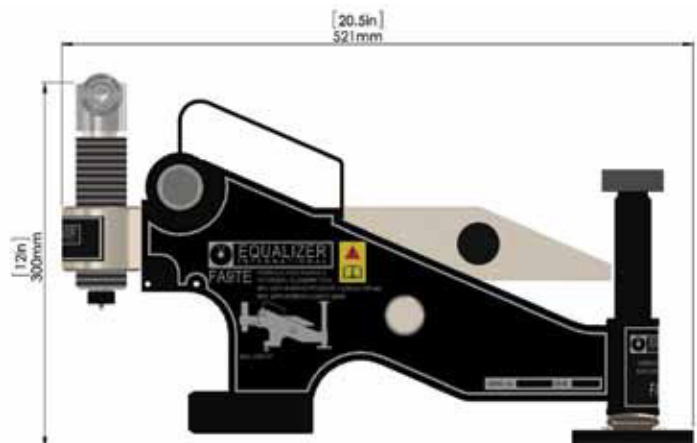
Product Code: FA9TESTD



WEIGHTS AND DIMENSIONS

Carry-Case Dimensions
920 x 520 x 210mm
(36.2" x 20.5" x 8.3")

Tool	= 14.5kg (32.0lb)
HP350S Hand Pump	= 4.5kg (9.9lb)
Hydraulic Hose	= 1.0kg (2.2lb)
Carry-Case	= 11.0kg (24.3lb)
GROSS KIT WEIGHT	= 26.5kg (58.5lb)



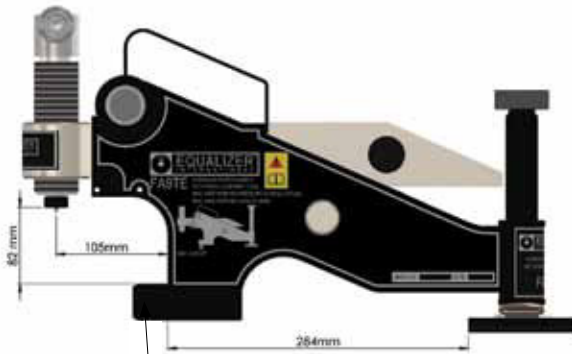
FA9TE

HYDRAULIC LINEAR AND ROTATIONAL
FLANGE ALIGNMENT TOOL



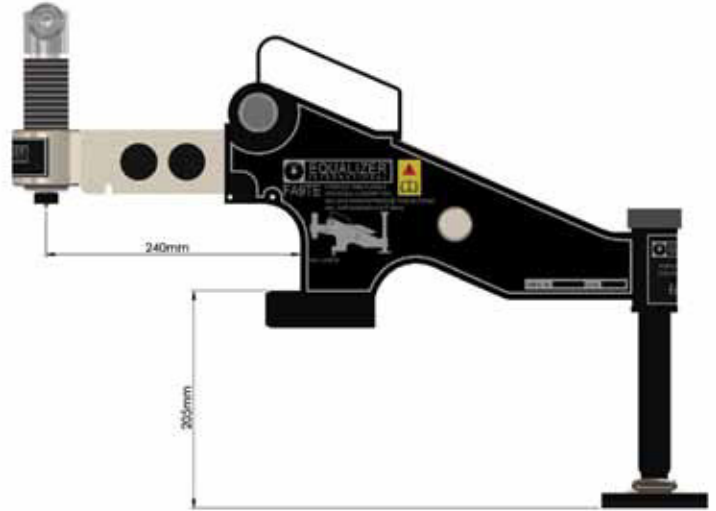
FLANGE TOOL INNOVATION

Minimum Extension



Minimum applicable bolt hole diameter 35.5mm (1.40")

Maximum Extension



RANGE OF APPLICATION

ASME	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"	10"	12"	14"	
150#						FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	
300#					FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	
400#						FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	
600#					FA1TM	FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE
900#	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM		FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	
1500#	FA1TM	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM			FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	
2500#	FA1TM	FA1TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE		FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE		

ASME	16"	18"	20"	24"	26"	28"	30"	32"	34"	36"	38"	40"	42"	44"	46"	48"
150#	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
300#	FA9TE	FA9TE	FA9TE	FA9TE	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
400#	FA9TE	FA9TE	FA9TE	FA9TE	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
600#	FA9TE	FA9TE	FA9TE	FA9TE	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA4TM	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE
900#	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE	FA9TE									
1500#	FA9TE	FA9TE	FA9TE													
2500#																

For other flange types, please contact Equalizer International.



FLANGE TOOL INNOVATION

PRODUCT DATA SHEET

FA7TELW

HYDRAULIC LONG WING
FLANGE ALIGNMENT TOOL

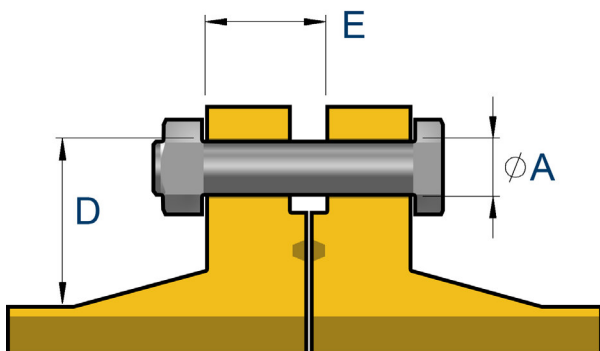
ALIGNING FORCE:
10,000psi (700bar) 9T (90kN)

TOOL WEIGHT: 16.5kg (36.4lb)

KIT COMPONENTS

- 1 x FA7TELW Tool c/w 5T Hydraulic Cylinder
- 1 x 10,000 psi (700 bar) Hydraulic Hose, 2m(78.75")
- 1 x 10,000 psi (700 bar) HP350S Sealed Hand Pump with Gauge
- 1 x Instruction Manual
- 1 x Carry-Case
- 1 x Ratchet & Strap

Product Code: FA7TELWSTD



MINIMUM AND MAXIMUM FLANGE SIZES

- Dimension A: 35.5mm (1.24") or greater
- Dimension D: 230mm (9.05") or less
- Dimension E: between 190mm (7.48") and 380mm (14.96")

info@equalizerinternational.com
www.equalizerinternational.com

FA7TELW

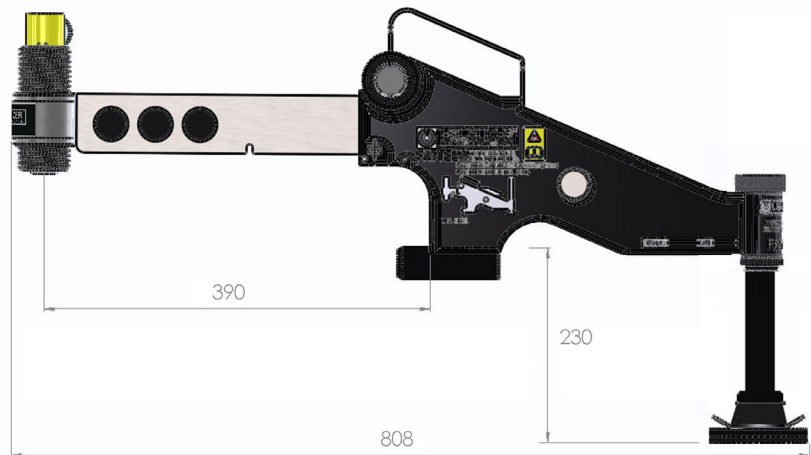
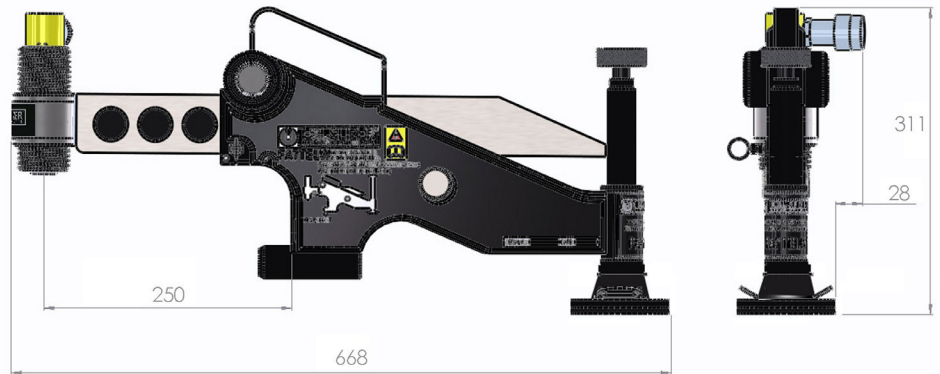
HYDRAULIC LONG WING
FLANGE ALIGNMENT TOOL



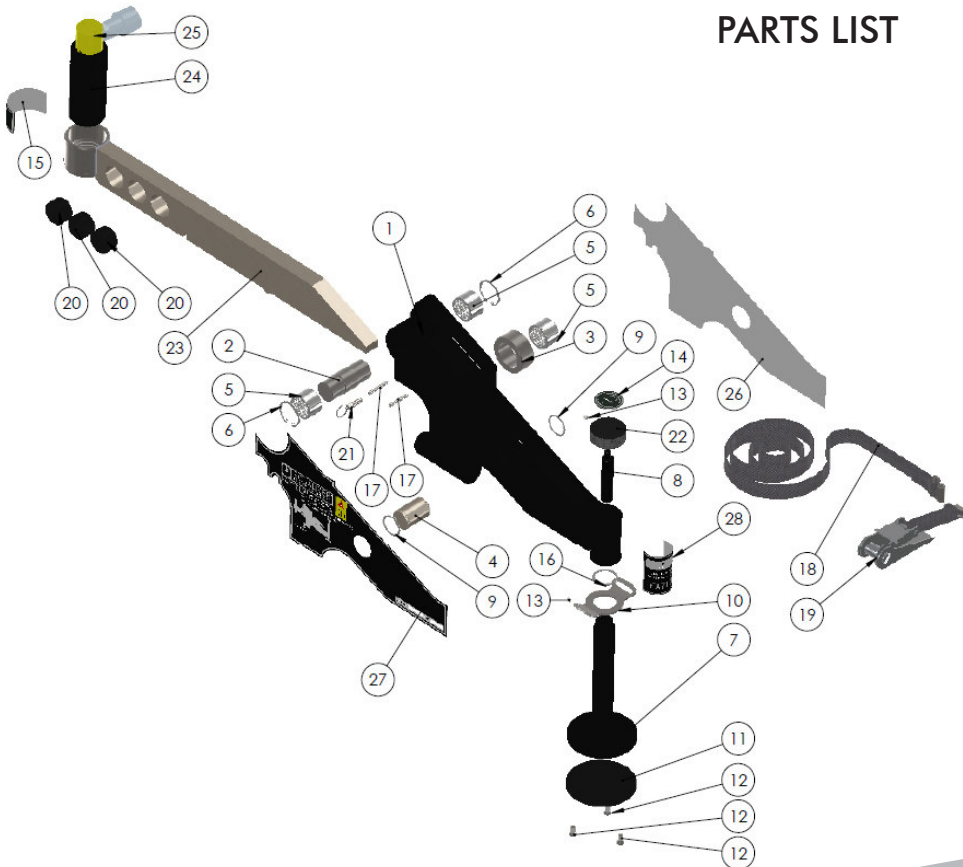
FLANGE TOOL INNOVATION

WEIGHTS AND DIMENSIONS

- Tool = 16.5kg (36.4lb)
- HP350S Hand Pump = 4.5kg (9.9lb)
- Hydraulic Hose = 1.0kg (2.2lb)
- Carry-Case = 11.0kg (24.3lb)
- GROSS KIT WEIGHT = 34.5kg (76.0lb)**



PARTS LIST



Item	Description
01	Main Body
02	Front Roller Pin
03	Rear Roller
04	Rear Roller Pin
05	Needle Bearing
06	Circlip OD 40.0
07	Leg Screw
08	Leg Screw Extension
09	Spiral Clip
10	Buckle
11	Round Base Pad Profile
12	C/Sunk Screw M6 x 14
13	Socket Set Screw M5
14	Drop Leg Knob Sticker
15	Logo for Wing
16	Spiral Clip
17	Spring Pin 5 x 36
18	Ratchet Strap
19	Ratchet
20	Plastic Insert
21	M8 Spring Plunger
22	Release Knob
23	Wing (Long)
24	Adjusting Sleeve
25	5T Cylinder
26	Body Sticker (L)
27	Body Sticker (R)
28	Logo for Boss