# 2. FLANGE ALIGNMENT SOLUTIONS

The Equalizer<sup>™</sup> patented range of alignment tools addresses the rotational or lateral misalignment that can occur within flange joints. Compared with traditional, manual approaches, the Equalizer<sup>™</sup> 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, tirfors and hooks





FLANGE TOOL INNOVATION

# FA1TM 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)







FA4TM

## 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





FA9TE HYDRAULIC LINEAR AND ROTATIONAL ALIGNMENT TOOL

This hydraulic tool is for use on larger diameter, higher pressure flanges, and can address both rotational and radial misalignment. It is actuated by an external hydraulic pump.





#### **TOOL CAPABILITIES**

ALIGNING FORCE

with 700bar (10,000psi) hydraulic pressure applied:

• 90kN (9T)

APPLICATION RANGE

- Minimum Bolt Hole Diameter: 31.5mm (1.25")
- Maximum Wing Reach: 135.0mm (5.31")

TOOL WEIGHT

• 14.5kg (32.0lb)



STANDARD KIT



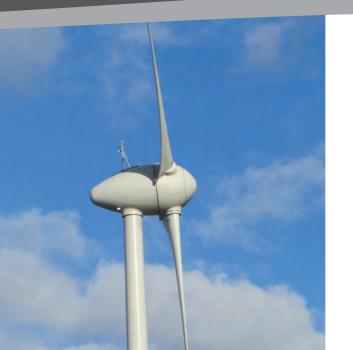


FLANGE TOOL INNOVATION

# TFA15TI

### WIND TURBINE TOWER HYDRAULIC FLANGE ALIGNMENT TOOL

The Equalizer<sup>™</sup> TFA15TI hydraulic flange alignment tool has been developed to aid the alignment of large flanges on the inside of wind turbine towers. This tool will make the installation of wind turbine tower sections simpler, safer and more efficient.





#### TOOL CAPABILITIES

#### ALIGNING FORCE

with 700bar (10,000psi) hydraulic pressure applied:

• 150kN (15T)

#### APPLICATION RANGE

- Minimum Bolt Hole Diameter: 45.0mm (1.78")
- Misalignment:

0.0mm - 65.0mm (0.00" - 2.56")