James Walker®

Assuring Joint Integrity in Wind Energy

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At James Walker, we specialise in assuring the integrity of critical joints in wind turbines and towers…

> improving reliability
> increasing safety
> reducing costs

…assuring integrity

Our technologies are also improving design parameters and performance...

> higher rated turbines
> higher rated towers
> extended product life

…enhancing design

James Walker®

‘100% reliable’

Assuring the integrity of all the joints in a wind turbine and tower is essential if reliability is to be maximised and maintenance and downtime reduced.

Our technologies assure the reliability of bolted joints, as well as improving the performance of critical seals.

RotaBolt® Tension Control systems uniquely assure that the correct design tension is achieved and maintained throughout the life of bolted joints. Correct tension is essential in achieving complete reliability - traditional tightening procedures do not measure tension.

High efficiency Walkersele® rotary lip seals also help to assure joint integrity and our unique on-site joining systems provide the sealing performance of an endless seal.

...assuring joint integrity

RotaBolt® 1

RotaBolt® 2

‘fit and forget’

Assured reliability means turbine builders and operators can now realistically consider the development of ‘fit and forget’, maintenance regimes for bolted joints.

With RotaBolt systems, time consuming and costly bolt checking based on re-tightening can be replaced with instant, finger-tip checks of tension.

It takes 10 hours to check just 10% of the bolts in a tower using traditional re-tightening - and then it’s not an assured check of tension.

With RotaBolt it takes just 1/2 hour to carry out a complete, assured check of every single bolt.

Using Walkersele’s unique on-site joining systems, a main rotary seal can be replaced in 1/2 hour, delivering the same sealing integrity as an endless seal.

...reducing costs

The Vision

‘safety and performance’

Our technologies deliver safe, reliable joints as well as improving design efficiencies, machine rating and production build.

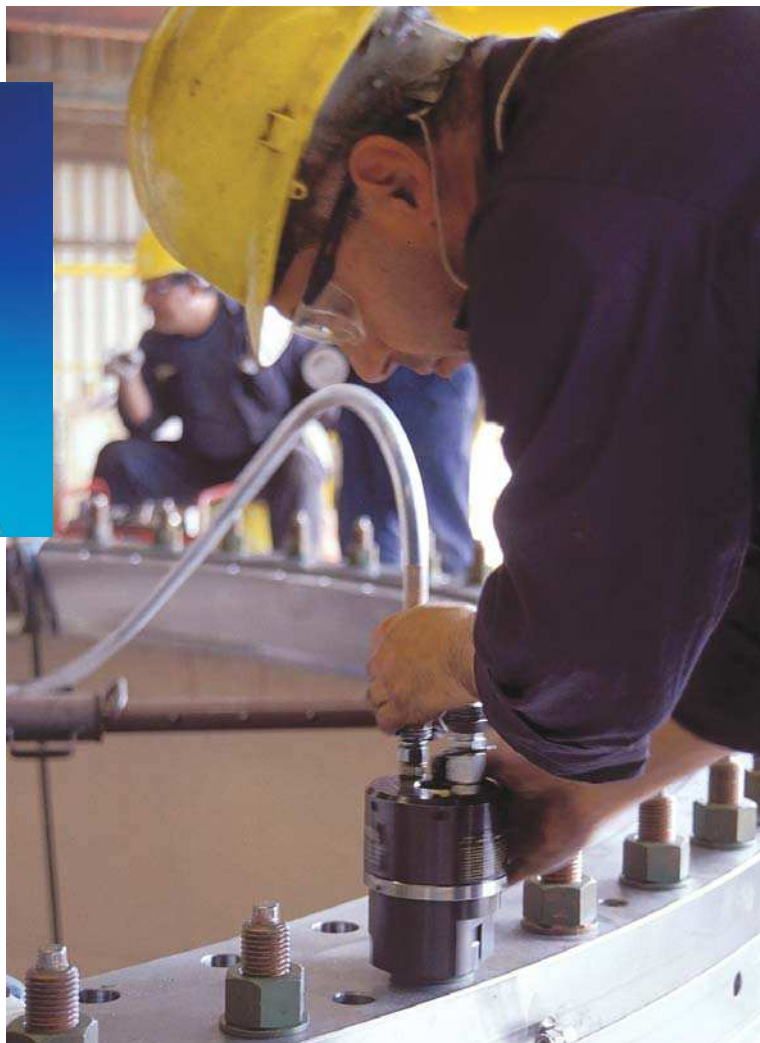
Applying tension control technology can reduce bolt content by up to 50%. This impacts on design and performance, reducing both production and installation costs - less holes to be drilled, less tightening and less checking.

Higher rated turbines and towers can be produced - RotaBolt tension control fasteners have Germanischer Lloyd approval covering wind turbines, as well as DIBt approval for tower constructions.

Product life is extended by using Walkersele high performance sealing technology on main shafts, gearboxes, blade roots and yaw bearings, and using Tico® anti-vibration mountings on gearboxes.

...enhancing design

Walkersele® OSJ2



RotaBolt®
Tension Control

James Walker®

For further information visit:

rotabolt.co.uk/windenergy

or contact:

James Walker RotaBolt Ltd

James Walker Rotabolt Ltd
Peartree Business Park
Peartree Lane
Dudley
West Midlands DY2 0UW
England

Tel: +44 (0)1384 214442

Fax: +44 (0)1384 455186

E-mail: windenergy@jameswalker.biz

FM 09646

DB4341 608/1m

Designed & produced by designbrand ltd; www.designbrandco.uk; 0845 0559216