Global supply of

- Best-value fluid seals & gaskets
- Standard & custom-designed products
- Bolting technology
- Vibration damping & control
Sealing guide for the iron & steel industry

Introduction

James Walker is a dynamic global manufacturer and distributor that supplies a vast range of specialised products to the iron and steel sector on a global basis.

From raw materials handling systems and iron and steelmaking processes, through casting plant and rolling mills, to giant forging and extrusion presses — we have a long-proven track record as a leader in fluid sealing and associated technologies.

Our world-leading expertise and capability are led by design and materials technology, plus the willingness to solve sealing problems for equipment manufacturers, plant operators and maintenance contractors.

To achieve this, we embrace the complete industrial cycle from research, development and manufacture, to product application and plant maintenance.

This publication follows the process route through iron and steelmaking, and itemises the James Walker products and services applicable to different plant. Our range is being constantly developed to meet customer demand, so please contact your local James Walker company — as shown on rear cover — if your need falls outside the products and services described.

Contents

P3 Global services
    Partnering contracts
P4 Quality — our prime consideration
    Leading with technology
P5 Raw materials handling & preparation
P6 Primary processes
P7 Ironmaking
P8 Steelmaking
P9 Secondary steelmaking
P10 Continuous casting
P11 Hot rolling
P12 Cold rolling, plus tube & pipe mills
P13 Pickling, coating & shearing
P14 Forging & extrusion
P15 Information
P16 Contact details

World’s longest rails — Siemens VAI hot rolling mill, Danawitz, Austria

Photo courtesy of Siemens VAI
Global services

Our role as a global supplier demands an international manufacturing base, plus highly efficient sales and distribution operations.

We have a worldwide family of companies with over 50 production, engineering, distribution and customer support sites spread across Europe, Asia, Asia Pacific, Australasia, Southern Africa, and North and South America.

At the local level, a close-knit network of James Walker companies and official distributors supplies products and services to well over 100 countries. Our highly developed IT-networks, e-commerce systems and logistics operations give customers the surety of supply they need.

Partnering contracts

E-commerce and logistics feature strongly in our long-term partnering contracts with major multi-national steel corporations. Their engineers are able to specify, select and order sealing items on-line from site, anywhere in the world, in the sure knowledge that their requirements will be swiftly and efficiently met.

These contracts are managed by dedicated managers with specialised teams of experts whose sole responsibility is to service the needs of that customer’s sites across different countries and continents. In many cases we hold stocks of customer-specific products local to their sites for immediate delivery.

Our service, however, is not limited to the supply of items to meet planned maintenance and unscheduled shutdowns.

Our metallurgical industry specialists work in close harmony with customers’ engineers and scientists to solve their complex fluid sealing problems and generate best-value solutions. This leads to the development of new products that meet ever-increasing production demands, changing health and safety regimes and new environment legislation.
Quality led by technology

Quality — our prime consideration

Quality design, quality manufacture and quality service are paramount throughout our worldwide operations. We start with the best raw materials and use advanced manufacturing techniques, with strict quality control of every process. This culture is reinforced by top-level technical support, logistics operations and a multitude of customised services.

Our quality standards are third party registered to ISO 9001 and AS/EN 9100. Industry bodies, corporations, utilities and government organisations, regularly assess our standards.

Leading with technology

By operating at the leading edge of technology, we ensure that our products and services match the ever-growing complexity of industrial plant — both for today and into the future.

Fluid sealing is not a stand-alone technology: it is based on materials development, innovative design and skilled application. It depends greatly on constant advances in elastomers, engineering plastics, metallurgy and manufacturing techniques, as well as chemistry, tribology and fastener technology.

We make best use of these capabilities to help industry improve its safety, environmental systems and revenue protection. Many of our products efficiently control fugitive emissions of volatile organic compounds to TA-Luft.

We also provide advice and products to companies that must meet the latest environmental legislation, such as the European Union’s Integrated Pollution Prevention and Control (IPPC) directive 96/61/EC.

Scientists and engineers at the James Walker Technology Centre work constantly on in-house and customer-specific research and development projects — often in conjunction with other sites of excellence — to convert innovative materials and ideas into sealing production reality. Examples of our R&D successes include:

**Walkersele® OSJ** — OSJ® is our patented technique for On-Site Joining of a seal around a shaft without stripping down the housing or shaft. This saves days of maintenance time and plant shutdown, without loss of sealing integrity or operational life.

**Walkersele® Ultraglide, Supaglide & Millglide:** These enhanced or reformulated hydrogenated nitrile (HNBR) materials have been developed specifically for rotary lip seals operating in metallurgical processing environments. **Ultraglide** is our low friction, high-efficiency material that extends seal life in high speed/temperature applications. **Supaglide** offers improved performance and wear resistance at higher running speed. **Millglide** is our cost-effective HNBR for standard duties where assured performance is needed to fulfil maintenance regimes.

**Fluolion® Xtreme** — abrasion-resistant PTFE-based material used in composite seals for high-integrity metallurgical duties.

**Self-aligning gland rings** — enable heavy-duty hydraulic packings to work more efficiently under arduous conditions.

**RotaBolt®** — safety bolts that give a clear indication of tension loss across a bolted joint. They improve safety regimes and offer significant savings in maintenance costs.
Sealing products that improve plant performance at the raw materials end of the iron and steelmaking process

Harbour cranes

Gearbox bearing seals on machine house winding drums
- Walkersele® lip seal M1/D6 OSJ® and Ultraglide OSJ®.
- Bolt-on fully split cartridge seals for worn shafts.

Bolted joints on grab jaws, gearboxes, drive mechanism, mechanical & structural components
- RotaBolt® tension monitoring and control.

Burden handling plant

Stacker reclaimers

Hydraulic cylinders
- Split-type Lofilm® seals in Elast-O-Lion® hydrogenated nitrile HNBR.
- Comflex® protector bellows.

Sliding bearings
- Large diameter Walkersele® OSJ radial lip seals.
- RotaBolt® tension monitoring and control for retention bolting.

Winding gear
- Walkersele® OSJ radial lip seals.
- Bolt-on rotary cartridge seals for worn shafts.

Bucket wheels
- RotaBolt® tension monitoring and control for retention bolting.

Conveyors

Conveyor drive gearboxes
- Walkersele® radial lip seals M1/D6, M6/D6, Ultraglide D6, and OSJ®.
- Bolt-on rotary cartridge seals for worn shafts.

Ball mills

Hydraulic cylinders
- Full family of hydraulic sealing products.

Trunnion bearings
- Large diameter Walkersele® OSJ radial lip seals.
- Bolt-on rotary cartridge seals for worn shafts.

To order or get further details, call your local contact shown on rear cover or listed at www.jameswalker.biz
Primary processes

Sealing products that are well proven for process plant operating in very hot and abrasive conditions

Coking plant

Battery ovens
• Battery door seals — Valcor® Hi-Temp compression packing.
• Battery charger lid bellows — Comflex® bellows.

Coke discharge pusher rams
• Hydraulic seals in high-temperature resistant FKM.
• Comflex® protector bellows.

Pumps and valves
• Compression packings — to suit both pumps and valves for reduced maintenance stockholding.
• Mechanical seals.
• James Walker’s mechanical seal refurbishment service.

Gas extraction plant pipework
• Comflex® metallic expansion joints.
• Gaskets — Metafflex® spiral wound, Metakamm® Kammprofile-type, Supagraf® Furnasele and Metex.
• Cut gaskets from any sheet jointing material.

Conveyor drives
• Walkersite® Ultraglide radial lip seals.

Vibrating hoppers
• RotaBolt® tension monitoring and control to prevent loosening.

Sinter plant & pelletising plant

Furnaces and pipework
• Supagraf® Furnasele, Metex, Metafflex® spiral wound and Metakamm® Kammprofile-type gaskets.
• Cut gaskets from any sheet jointing material.
• Comflex® expansion joints.

Conveyor drives
• Walkersite® radial lip seals.

Rotary kilns
• Walkersite® OSJ radial lip seals.

Pumps and valves
• Compression packings — to suit both pumps and valves for reduced maintenance stockholding.
• Mechanical seals and James Walker’s refurbishment service.
We recommended these products for aggressive environments including blast furnaces, raw coal ironmaking processes, DR plant and DRC rotary kilns

_Bustle mains — stove duct connectors_
- Gaskets — Supagraf® Furnasele and Metex solid stainless steel/graphite combination gaskets.

_Tuyere stocks — downleg to elbow joints and access doors_
- Gaskets — Metaflex® spiral wound, Metakamm® Kammprofile-types and corrugated double-jacketed gaskets with graphite facings.
- Comflex® metal bellows.

_Slag tap hole drills & clay guns_
- Hydraulic seals.

_Gas lines_
- Metal jacketed gaskets.

_Skip hoist gearbox_
- Walkersele® radial lip seals.

_Bell-less top system — bi-furicated chutes, valve seats, flanges and planetary gearboxes_
- Copper jacketed gaskets.
- Silicone T seals.
- Arasele compression packing.
- Rectangular section valve seats in silicone (VMQ) or Elast-O-Lion® hydrogenated nitrile (HNBR) elastomers.

_Stave connections_
- Metaflex® spiral wound gaskets.
- High-temperature resistant ‘O’ rings.

_Blast furnace flow gates_
- Walkersele® OSJ split cartridge sealing unit.

_Gas valves_
- Supagraf® Premier and Supagraf® Control compression packings.

_Torpedo transporters_
- Tow-arm cushion/shock absorber — Tico® Loadtech Buffers.
- Tilting mechanism gearbox — Walkersele® radial lip seals.

_Pumps — in general_
- Arasele compression packing, and many other grades.
- Mechanical seals and James Walker’s refurbishment service.

_High temperature pipework systems_
- Comflex® metal bellows.
- Supagraf® Furnasele and other high temperature gaskets.
Our seals and associated products that work efficiently for long periods in high temperature abrasive environments are vital to every steelmaking process.

Basic oxygen converters

Gear drive tilting mechanism
- Walkersele® radial lip seals.

Torque arm gearbox
- Motion cushioning — snubber rubbers.

Extraction hood
- Hood seals — Valcor® Hi-Temp braided packing.

Oxygen lance and oxygen delivery system
- ‘O’ rings of silicone (VMQ) or fluoroelastomer (FKM).

Converter trunnion bearings
- Large diameter Walkersele® OSJ radial lip seals.

Charging manipulator — hydraulic cylinders
- Lofilm® hydraulic seals — in materials resistant to fire-retardant hydraulic fluid.
- Comflex® protector bellows.

Ladle tilter
- RotaBolt® tension monitoring and control.

Extraction ducts and flanges
- Comflex® HT/XA — very large, high temperature expansion joints.
- Supagraf® Furnasele, and other high temperature gaskets.

Electric arc furnaces

Extraction ducts and flanges
- Comflex® HT/XA high temperature expansion joints.
- Supagraf® Furnasele, and other high temperature flange gaskets.

Electrode regulator — hydraulic cylinders
- Lofilm® and other hydraulic seals.
- Comflex® protector bellows.

Overhead gantry cranes
- Walkersele® Ultraglide OSJ radial lip seals.
- Crane couplings — RotaBolt® tension monitoring and control.
- Crane rail strip.
These products are proven on ladle treatment stations, ladle furnaces, vacuum degassing systems, and vacuum circulating processes

Secondary steelmaking plant

**Main flanges**
- James Walker’s special design of wedge-shaped rubber/metal flange gaskets.

**RH degasser top flanges**
- James Walker’s special design of wedge-shaped rubber/metal flange gaskets.

**Allow chute flanges**
- James Walker’s special design of wedge-shaped rubber/metal flange gaskets.

**Hot take-off flanges**
- Supagraf® Furnasele, and other designs of Supagraf® graphite/steel laminated gaskets.

**RH degasser — top hydraulic jacks**
- Lionsele® G hydraulic seals in Elast-O-Lion® hydrogenated nitrile (HNBR).
- L-shaped wipers.
- ‘O’ rings in Elast-O-Lion® hydrogenated nitrile (HNBR) and other high-temperature resistant elastomers.
- Comflex® protector bellows.

**Vacuum plant**
- High-temperature compression packing.
- Manhole covers — cut gaskets of Sentinel® sheet jointing.
Continuous casting

Our family of hydraulic sealing products, together with rotary seals, gaskets and fasteners, help keep continuous casters working efficiently

Continuous casters — slab, thin slab, bloom, billet & beam blank

Water cooling connections
• ‘O’ rings in silicone (VMQ).

Roller bearings
• Walkersele® radial lip seals in fluoroelastomer (FKM).
• Metallic laminar sealing rings — labyrinth seals.
• Spring-energised PTFE U-rings.
• Metallic piston rings.

Roll positioner, adjusting and straightening cylinders
• Straightening cylinders — Solosele® and Lionsele® S hydraulic seals in FR44/80 or FR66/KC300 fluorocarbon (FKM) materials.
• Chevron®/Shallex® hydraulic seals.
• Lionsele® LF hydraulic seals with bronze carrier rings/housings.
• U-rings in hydrolysis-resistant and amine-resistant polyurethane (AU/EU).
• PTFE-loaded lip seals.
• Heavy duty wipers.
• Comflex® protector bellows.

Top zone rollers
• Walkersele® Ultraglide D7 radial lip seals.

Electromagnetic stirrer on bloom caster
• Supagraf® Tanged T10 gaskets.

Length measuring device wheel
• Supagraf® Tanged T10 gaskets.

Concast slew bearings
• Walkersele® OSJ radial lip seals.

Concast foundation blocks
• RotaBolt® tension control fasteners.

Steam exhaust fan
• Holding bolts — RotaBolt® tension monitoring and control.

Slab straightener gearbox
• Holding bolts — RotaBolt® tension monitoring and control.

Crane coupling bolts
• RotaBolt® tension monitoring and control.

Cooling water pumps and valves
• Compression packings — to suit both pumps and valves for reduced maintenance stockholding.
• Mechanical seals for pumps.
• James Walker’s mechanical seal refurbishment service.

Spray cooling chamber roller bearings.
• Walkersele® M8/D6 and M8/D7 radial lip seals.

Family of hydraulic sealing products

Supagraf® Tanged T10 gaskets

Walkersele® Ultraglide OSJ radial lip seal

RotaBolt® Vision
We developed Walkersele® Ultraglide radial lip seals specifically for hot rolling mills. Together with hydraulic sealing products, they lead our activities in this most demanding environment.

Steckel, hot-strip, compact, plate, section/bar & reversing mills

**Work roll chocks**
- Walkersele® Ultraglide/Supaglide/Millglide D6, and M1/D6 radial lip seals.
- Lantern rings.
- Devlon® thermoplastic thrust collars and chock wear plates.

**Chock covers**
- Nebar® cork-elastomer gaskets.

**Back-up chocks**
- Walkersele® radial lip seals.

**Automatic gauge control (AGC) units**
- Lionsele® P composite double-acting hydraulic piston seal.
- Walkersele® M1/D7 Shallowback lip seal — acting as a wiper.
- Solosele® G hydraulic seals in NM59/80 and GHN/FC materials — for static hydraulic duties.
- Solosele® G-AE hydraulic seals on vertical rolling cages AGC.
- Composite seals.
- Comflex® protector bellows.

**Screw down drives**
- Comflex® protector bellows.

**Roller tables**
- Gearboxes and approach table rollers that are driven — radial lip seals, such as Walkersele® M1/D6, M6/D6 and Ultraglide/Supaglide/Millglide D6. Also, Devlon® thermoplastic components.

**Roll balance cylinders and roll bend cylinders**
- Hydraulic seals — Chevron*/Shallex®, Solosele® and dish rings that are compatible with non-flammable phosphate-ester fluids.
- Comflex® protector bellows.

**Hydraulic manipulators**
- Hydraulic seals — Lofilm® HD and Chevron*/Shallex®.
- Comflex® protector bellows.

**Downcoilers/tension reels**
- Drive gearbox — Walkersele® radial lip seals.
- Positioning cylinders — Chevron*/Shallex® and Twinset hydraulic seals.

**Dynamic shaped rolls**
- External lip Walkersele® Ultraglide radial lip seals.

---

Plate mill guides, breast roll bearing bolts, Holset coupling bolts, flying shear holding-down bolts, and bar mill vertical shaft drive couplings.
- RotaBolt® tension monitoring and control.

**Water descalers**
- Metaflex® spiral wound gaskets.
- ‘O’ rings of high performance elastomers.
- Mechanical seals and James Walker’s refurbishment service.

**Rotary pumps**
- Arasele, and other abrasion-resistant compression packings.
- Mechanical seals and James Walker’s refurbishment service.

**Wire/rod mills**

**Finishing blocks**
- No-twist rod mill seals (NTRMS) in specially developed nitrile (NBR) or Elast-O-Lion® hydrogenated nitrile (HNBR) elastomers.
Cold rolling, plus tube & pipe mills

A prime task of sealing products used in cold rolling processes is to prevent products being spoilt by fluid leakage. James Walker is a world leader in this field.

Cold rolling mills

Work roll chocks
• Walkersele® M1/D6 and Millglide D6 radial lip seals.
• Devon® thermoplastic thrust collars and chock wear plates.

Chock covers
• Nebar® cork-elastomer gaskets.

Back-up chocks
• Walkersele® radial lip seals.

Automatic gauge control (AGC) units
• Lionsele® P composite double-acting hydraulic piston seal.
• Walkersele® M1/D7 Shallowback lip seal — acting as a wiper.
• Solosele® G hydraulic seals in NM59/80 and GHN/FC materials — for static hydraulic duties.
• Solosele® G-AE hydraulic seals on vertical rolling cages AGC.
• Composite seals.
• Comflex® protector bellows.

Screw down drives
• Comflex® protector bellows.

Roller tables
• Gearboxes and approach table rollers that are driven — radial lip seals, such as Walkersele® M1/D6, M6/D6 and Ultraglide/Supaglide/Millglide D6. Also, Devon® thermoplastic components.

Roll balance cylinders and roll bend cylinders
• Hydraulic seals — Chevron®/Shallex®, Solosele® or dish rings.
• Comflex® protector bellows.

Hydraulic manipulators
• Hydraulic seals — Lofilm® HD and Chevron®/Shallex®.
• Comflex® protector bellows.

Downcoilers/tension reels
• Drive gearbox — Walkersele® radial lip seals.
• Positioning cylinders — Chevron®/Shallex® and Twinset hydraulic seals.
• Mandrel segments in Devon® thermoplastics.

Dynamic shaped rolls
• External lip Walkersele® Ultraglide radial lip seals.

Coupling and hold-down bolts
• RotaBolt® tension monitoring and control.

Electrical grade sheet mill wipers
• Speciality grade felt wipers.

Tube & pipe mills

Uncoilers
• Walkersele® radial lip seals.
• Hydraulic seals.

Forming presses
• Heavy duty hydraulic seals — Lofilm® HD.

Tube testers
• Polyurethane (EU/AU) tube test seals, regularly used at pressures exceeding 100MPa/1000bar.
• Rubber/fabric composite tube test seals, maximum pressure rating 69MPa/690bar.
Pickling lines need acid-resistant sealing products — such as mechanical seals, compression packings and chemically compatible gaskets

**Pickling lines**

**Pumps and valves**
- Mechanical seals.
- Compression packings — acid resistant grades to suit both pumps and valves for reduced maintenance stockholding.
- Acid resistant gaskets — stabilised PTFE, Metaflex® spiral wound and Metakamm® Kammprofile.
- Flange protectors.
- James Walker’s mechanical seal refurbishment service.

**Hot dip galvanising, colour coating, and tinning lines**

**Rollers**
- Walkersele® radial lip seals.
- Devlon® thermoplastic components.

**Pumps and valves**
- Mechanical seals.
- Compression packings — to suit both pumps and valves for reduced maintenance stockholding.
- James Walker’s mechanical seal refurbishment service.

**Sink rolls**
- Sink roll seals — specially designed mechanical seals.
- James Walker’s mechanical seal refurbishment service.

**Shearing lines & slitting lines**

**Flying shear**
- Hydraulic sealing products.
- Holding down bolts — RotaBolt® tension monitoring and control.

**Cold strip slitting machine**
- Slitting rubbers — large rectangular section rubber rings.

---

To order or get further details, call your local contact shown on rear cover or listed at www.jameswalker.biz
Forging & extrusion

We have a long history of sealing and buffering the world’s largest presses. New designs and materials keep us ahead of the field — with traditional products still available for older equipment.

Forging & extrusion presses

Press installations
• Tico® pit installations — for the reduction, damping and isolation of noise and vibration.

Main ram
• Heavy duty hydraulic seals — Lofilm® HD and Lion®
  Expanding with Self-aligning Gland Rings.

Approach and drawback rams
• Hydraulic seals — Lion® Expanding, Lofilm®, and Chevron®/Shallex®.

Manipulator rams and positioning cylinders
• Hydraulic seals — Lofilm®, Chevron®/Shallex®, and Lionsele® G.

Forging hammers
• Tico® pit installations — for the reduction, damping and isolation of noise and vibration.
• Anvil mats — Tico® Hi-Duty RF/PA pads.

Massey hammers
• Tico® pit installations — for the reduction, damping and isolation of noise and vibration.
• Spiggot joints — Tico® Hi-Duty PF/PA pads.
• Anvil pads — Tico® Hi-Duty RF/PA pads.

Beche hammers
• Counter-blown buffers — Tico® Loadtech.

High-speed reciprocating pumps
• Lion® Expanding and Chevron®/Shallex® packing sets in special materials.

Alternative rod pumps
• Ramiex compression packing with PTFE intermediate washers.

General applications on press installations
• Comflex® protector bellows.
• Mechanical seals.
• James Walker’s mechanical seal refurbishment service.
These free guides give detailed technical information on the products and services covered in this publication. Please ask your local James Walker company for copies — see contact details on rear cover. Many of these guides can also be downloaded in pdf form from our website www.jameswalker.biz.

General information

Health warning: If PTFE or fluoroelastomer (eg. FKM, FFKM, FEPM) products are heated to elevated temperatures, fumes will be produced which may give unpleasant effects, if inhaled. Whilst some fumes are emitted below 250°C from fluoroelastomers or below 300°C from PTFE, the effect at these temperatures is negligible. Care should be taken to avoid contaminating tobacco with particles of PTFE or fluoroelastomer, or with PTFE dispersion, which may remain on hands or clothing. Material Safety Data Sheets (MSDS) are available on request.

Information in this publication and otherwise supplied to users is based on our general experience and is given in good faith, but because of factors which are outside our knowledge and control and affect the use of products, no warranty is given or is to be implied with respect to such information. Unless governed by type approval or contract, specifications are subject to change without notice. Statements of operating limits quoted in this publication are not an indication that these values can be applied simultaneously.

To ensure you are working with the very latest product specifications, please consult the relevant section of the James Walker website: www.jameswalker.biz.

Environmental statement: This brochure is manufactured using advanced environmentally friendly technologies and follows the strict environmental standard BS EN ISO 14001. Made from chlorine-free pulp (ECF) with post-consumer recycled fibre obtained from sustainable wood forests, and printed using vegetable-based inks, by Binfield Printers Ltd. For those who wish to reduce further their impact on the environment, this publication is also available as a PDF from: www.jameswalker.biz.
James Walker worldwide support & distribution

James Walker Asia Pacific
Tel: +65 6777 9896
Fax: +65 6777 6102
Email: sales.sg@jameswalker.biz

James Walker Australia
Tel: +61 (0)2 9721 9500
Fax: +61 (0)2 9721 9580
Email: sales.au@jameswalker.biz

James Walker Benelux (Belgium)
Tel: +32 3 820 7900
Fax: +32 3 828 5484
Email: sales.be@jameswalker.biz

James Walker Benelux (Netherlands)
Tel: +31 (0)186 633111
Fax: +31 (0)186 633110
Email: sales.nl@jameswalker.biz

James Walker Brasil
Tel: +55 11 4392 7360
Fax: +55 11 4392 5976
Email: sales.br@jameswalker.biz

James Walker China
Tel: +86 21 6876 9351
Fax: +86 21 6876 9352
Email: sales.cn@jameswalker.biz

James Walker Deutschland
Tel: +49 (0)40 386 0810
Fax: +49 (0)40 389 3230
Email: sales.de@jameswalker.biz

James Walker France
Tel: +33 (0)437 497 480
Fax: +33 (0)437 497 483
Email: sales.fr@jameswalker.biz

James Walker Inmarco (India)
Tel: +91 (0)22 4080 8080
Fax: +91 (0)22 2859 6220
Email: info@jwinmarco.com

James Walker Ireland
Tel: +353 (0)21 432 3626
Fax: +353 (0)21 432 3623
Email: sales.ie@jameswalker.biz

James Walker Italiaiana
Tel: +39 02 257 8308
Fax: +39 02 263 00487
Email: sales.it@jameswalker.biz

James Walker Mfg (USA)
Tel: +1 708 754 4020
Fax: +1 708 754 4058
Email: sales.jwmfg.us@jameswalker.biz

James Walker New Zealand
Tel: +64 (0)9 272 1599
Fax: +64 (0)9 272 3061
Email: sales.nz@jameswalker.biz

James Walker Oil & Gas (USA)
Tel: +1 281 875 0002
Fax: +1 281 875 0188
Email: oilandgas@jameswalker.biz

James Walker Ouest (France)
Tel: +33 (0)437 497 480
Fax: +33 (0)437 497 483
Email: sales.fr@jameswalker.biz

James Walker South Africa
Tel: +27 (0)31 304 0770
Fax: +27 (0)31 304 0791
Email: sales.za@jameswalker.biz

James Walker UK
Tel: +44 (0)1270 536000
Fax: +44 (0)1270 536100
Email: sales.uk@jameswalker.biz

James Walker UK Ltd
Metallurgical Industry Support Team
Gawsworth House, Westmere Drive
Crewe, Cheshire CW1 6XB, UK
Tel: +44 (0)1270 536090
Fax: +44 (0)1270 536085
Email: metal@jameswalker.biz

www.jameswalker.biz