



KLINGER Mining Solutions

» Chemical » High Pressure » High Temperature » Clean/Cooling Water » Slurry and Dewatering







GLOBAL LEADER

LOCAL PARTNER



KLINGER Mining Solutions - Select the correct product for the application.

VALVES - OUR RECOMMENDED RANGE



DIAPHRAGM

A diaphragm valve consists of a valve body with two or more ports, an elastomeric diaphragm, and a "weir", "saddle" or seat upon which the diaphragm is compressed to stop the



SLURRY KNIFE GATE

A slurry knife gate valve is a component that utilizes a blade to cut through clogging or heavy slurries.



DUAL PLATE CHECK

Dual plate check valve is a non-return valve that is much stronger, lighter and smaller than the conventional swing



BUTTERFLY VALVE

Butterfly valves are used where space is limited. The pressure loss through a butterfly valve is small in comparison with the gate valve.



PLUG VALVE

Plug valves are valves with cylindrical or conically tapered "plugs" which can be rotated to control flow through the



GGC - STANDARD GATE, GLOBE AND

KLINGER stock a wide variety of standard gate, globe and check valves



LEVEL EQUIPMENT - GLASSES

KLINGER manufactures a wide variety of level equipment including sight glasses, level gauges, magnetic level gauges and many more. These are manufactured to customer specification



CONTROL COMPONENTS - ACT & PROXY

KLINGER stock a wide range of control components including actuators, pneumatic semi-smart and smart positioners, solenoid valves and magnetic, micro and proximity switch boxes.



SAFETY EQUIPMENT

Safety devices are a critical aspect to any fluid control system used to prevent damage to industrial plant and equipment. KLINGER supply a full range of pressure safety valves and bursting discs.















deltasteamsystems

denadon_SDD

<u>*YDF</u>

KLINGER

AUTOMOTIVE



KLINGER STATITE - A low cost, bitumen impregnated sealing material, used extensively in the automotive and mechanical power transmission industries.



FABRIC CONCERTINA BELLOWS - Offer protection from contaminate ingress thereby preventing rod scoring and extending the seal life of the hydraulic cylinder.



KLINGERSIL C8200 - An economical sealing material designed for aggressive chemical environments. Resistant to acids, alkalis, ketones, aldehydes and refrigerants.



KLINGER TOPCHEM 2003 - A chemically resistant sealing material for strong acid and alkali applications with medium to low mechanical requirements at medium to low temperatures. For worn or damaged flanges.



KLINGER TOPCHEM 2005 - A chemically resistant sealing material for strong acid applications with high mechanical and temperature requirements. For use in the chemical processing of mineral ore and the demineralising of boiler feed water.



KLINGER HYGRADE LS

A soft flexible sealing material with high compressibility. Resistant to most chemicals. Ideal for use with glass-lined and enamel flanges.



SEALEX® JOINT SEALANT

Specially processed, 100% pure PTFE on a roll, provides soft, highly compressible gasketing for longer life and trouble free sealing.



PTFE BELLOWS

Our PTFE bellow range is used to compensate for thermal expansion in pipelines, for the protection of fragile process equipment such as carbon, plastic or glass in highly corrosive environments.



PTFE LINED PIPE

Combines the chemical resistance of PTFE with the pressure carrying capabilities of mild steel or stainless steel pipes. Liners provide for the safe handling of corrosive fluids.



PLASTIC MACHINED COMPONENTS

Appear in bushings, wear pads, seals, rollers, connectors, soot blower kits, envelopes, valve seats and more



SAFETY SPRAY SHIELDS

Fabric spray shields are designed to prevent injuries and damage to equipment by containing sprays resulting from leaks.



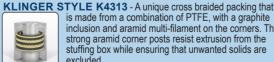
G-FLEX REPAIR COUPLINGS

A high pressure stainless steel repair coupling used



on most common pipe materials.

KLINGER STYLE K20 - KLINGER Style K20 has the ability to handle a wide range of chemicals as well as light slurry applications. Style K20 is manufactured from glass and acrylic yarns and lubricated with our proprietary Doulon® lubricant, providing excellent heat transfer and lubricating properties for extended life and low



is made from a combination of PTFE, with a graphite inclusion and aramid multi-filament on the corners. The strong aramid corner posts resist extrusion from the stuffing box while ensuring that unwanted solids are

KLINGER STYLE K25 - Aramid yarn packing impregnated with a PTFE dispersion. It is recommended for use in media containing suspended solid abrasive particles. For use in pumps, mixers, valves and knife gate valves. Ideal for heavy duty slurry applications in the mining



KLINGER STYLE K7302DL - Various high strength modified aramid yarns result in a packing with high lubrication retention ability resulting in low shaft or sleeve wear.

Ideal for use in high pressure and high speed pumping applications. KLINGER Style K7302DL is the market leading slurry packing. Also available with a PTFE lubricant Style K7302. Exclusive to KLINGER.



RUBBER INSERTIONS

Fabric reinforced general purpose rubber, not suitable for use in fuels, oils and other hydrocarbons



KLINGERSIL C4243

An economical sealing material for use in general industrial applications.



KLINGERSIL C4430

A sealing material with high temperature resistance in steam, oils, fuels, hydrocarbons and other chemicals. Suitable for potable water.



KLINGER MAXIFLEX GASKETS

A gasket with excellent high pressure, temperature and chemical stance, used in critical service. Very tolerant of cyclic applications and misaligned flanges.



MINING

SOLUTIONS BY

APPLICATIONS

HIGH

TEMPERATURE

An asbestos free sealing material

stainless steel reinforced Mica and

forms a solid graphite bush within

pressure low emission seal. Ideal

the stuffing box creating a high

for use in steam and cryogenic

applications. K3222 is available

as K3222W and K3222K with wire

with tanged or pegged 316

temperatures of 900°C.

KLINGER STYLE K3222 - A cross braided

expanded graphite packing. KLINGER Style K3222

reinforcing for use in high pressure valves

KLINGER STYLE K466M - A universal

outstanding thermal stability at

KLINGER MILAM PSS

Universal tap in saddles for rigid pipe materials





COUPLINGS Fully rubber lined

UNIFIT SERIES

Universal coupling and

flange adaptors to suit

most common pine



KLINGER PSM - A sealing

material with excellent chemical

and thermal capabilities. Used

in mining, steam and various

chemical processes.

integrity, multi-laminate

thermal and chemical

sealing material with excellent

resistance. Manufactured from

multiple layers of 316 stainless

steel and high purity graphite.

A gasket with excellent high

pressure temperature and

chemical resistance, used in

critical service. Very tolerant

furnaces, rotary kiln seals, brickwork

bumper seals and electrode seals

in arc furnaces. Available in round.

square or rectangular cross section.

Fabric expansion joints are flexible

relief and seal in gaseous media in

Metal expansion joints consist of a

flexible bellow element with end fittings

such as flanges or butt welds to allow

for connection to the adjacent piping or

connectors designed to provide stress

of cyclic applications and

misaligned flanges.

KLINGER STYLE 7301 - A dry general purpose

from 3mm up to 200mm.

packing for doors, cover seals on boilers, ovens.

ducting systems.

equipment.

FABRIC EXPANSION JOINTS

STAINLESS STEELS

SIGRAFLEX HOCHDRUCK - A high

KLINGER MAXIFLEX GASKETS

repair coupling used on most common pipe materials.

RUBBER BELLOWS (EXPANSION JOINTS)

component misalignment.

adjacent piping or equipment.

STAINLESS STEEL BELLOWS

FLANGE INSULATION KITS

Commonly used to absorb vibration, compensate for pipeline

movement, reduce system noise and compensate for pipeline

Metal expansion joints consist of a flexible bellow element with end

fittings such as flanges or butt welds to allow for connection to the

Provide an effective seal and electrical isolation of flanges, to prevent

Restrained couplings, flange

for HDPE and PVC pipes.

AND RESTRAINED

restrained joint that allows

axial adjustment in flanged

A high pressure stainless steel

G-FLEX REPAIR

COUPLINGS

ADAPTORS - A fully

adaptors, end caps and harnesses

DISMANTLING JOINTS

galvanic corrosion and aid in the cathodic protection of the piping



STAINLESS STEEL SPRAY SHIELDS



equipment by containing sprays resulting from leaks



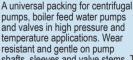
Metal expansion joints consist of a flexible bellow element with end fittings such as flanges or butt welds to allow for connection to the adjacent piping or

expanded graphite packing. KLINGER Style K3222



K3222 is available as K3222W and K3222K with wire reinforcing for use in high pressure valves.

KLINGER STYLE K466M





Universal coupling and flange

RESTRAINED ADAPTORS

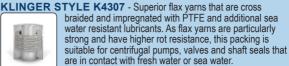


flanged assemblies.



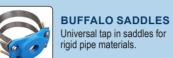
purpose gland packing manufactured from high quality natural yarns and lubricated with graphite wax. KLINGER Style K2168 is suitable for less demanding applications

KLINGER STYLE K2168 - A low cost general



KLINGER STYLE K49 - A high quality, cross braided PTFE yarn

with graphite inclusion that gives the packing several distinct advantages: high speed, low shaft and sleeve wear, no graphite migration and no contamination of the process media.



EASITEE

tap in tee pieces.

COOLING WATER



G-FLEX INSTALL

ULTRA CLAMPS





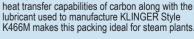
STAINLESS STEEL BELLOWS



KLINGER STYLE K3222 - A cross braided

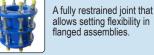
forms a solid graphite bush within the stuffing box creating a high pressure low emission seal. Ideal for use in steam and cryogenic applications.

shafts, sleeves and valve stems. The excellent





DISMANTLING JOINTS AND



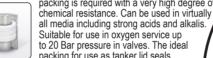
allows setting flexibility in



KLINGER STYLE K49 - A high quality, cross braided PTFE yarn with graphite inclusion that gives the packing several distinct advantages; high speed, low shaft and sleeve wear, no graphite

migration and no contamination of the process media.

KLINGER STYLE K54 - An excellent PTFE packing for plant wide use especially when a clean, non-contaminating packing is required with a very high degree of







KLINGERSIL C4243

An economical sealing material for use in general industrial applications.



DISMANTLING JOINTS AND RESTRAINED ADAPTORS A fully restrained joint that allows axial



POLYGRIP RANGE Restrained couplings, flange adaptors, end caps and harnesses for HDPE and PVC

UNIFIT SERIES Universal coupling and flange adaptors to

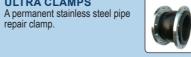
suit most common pipe materials

ULTRA CLAMPS

repair clamp.



G-FLEX REPAIR COUPLINGS A high pressure stainless steel repair coupling used on most common pipe



RUBBER BELLOWS (EXPANSION JOINTS)

packing for centrifugal pumps

boiler feed water pumps and valves

in high pressure and temperature

applications. Wear resistant and

gentle on pump shafts, sleeves

and valve stems. The excellent

Commonly used to absorb vibration, compensate for pipeline movement, reduce system noise and compensate for pipeline component misalignment.

heat transfer capabilities of carbon along with the

K466M makes this packing ideal for steam plants.

lubricant used to manufacture KLINGER Style

maintenance control is required.

INSULATION JACKETS Are used in a variety of applications

where energy saving and temperature





KLINGER is the world's leading manufacturer and supplier of industrial gaskets, mechanical gland packing, fluid control products, pipe products, expansion joints, engineering plastics and field services. Established in 1886 as a family enterprise, the group of KLINGER independent companies now has a worldwide presence in over 60 countries, providing a range of products and services to customers in the manufacturing, infrastructure, marine, oil & gas, chemical, pulp & paper, energy, food & beverage, agriculture, mining and pharmaceutical industries. In addition, KLINGER provides professional technical support and advanced training solutions. Our professional services include bolt load and torque calculations, failure analysis, joint integrity management, on-site machining, valve reconditioning, on-line leak sealing, and shutdown support.

The mining industry utilises a cluster of processes that are involved with the extraction, concentration, and processing of naturally occurring solid minerals and ores from the earth's crust. KLINGER has the products, technical expertise, footprint and stock holding to service the mining industry as a global leader and local partner.

For technical information, contact our technical team on <u>technical@klinger.co.za.</u> or contact one of our KLINGER branches nearest to you.

WADEVILLE

247 Davidson Road, Wadeville, Gauteng

T: +27 (0) 11 842 8300

E: sales@klinger.co.za

SASOLBURG

30 William Stow Street, Sasolburg, Free State

T: +27 (0) 16 976 2952

E: vaalsales@klinger.co.za

MIDDELBURG

Unit 5 Nucleus Square, 7 Spring Street, Middelburg, Mpumalanga

T:+27 (0) 10 200 9814

E: salesmburg@klinger.co.za

RICHARDS BAY

67B Dollar Drive, Richards Bay, KwaZulu Natal

T: +27 (0) 35 789 0595

E: salesrb@klinger.co.za

GQEBERHA

134 Paterson Road, North End, Ggeberha, Eastern Cape

T: +27 (0) 41 484 1424

E: salespe@klinger.co.za

CAPE TOWN

51 Columbus Crescent, Rivergate Business Park, Cape Town, Western Cape

T: +27 (0) 21 511 1337

E: cape@klinger.co.za

HONEYDEW

Cnr Johan Road & Brigatyn Avenue, Laser Park Ext 17, Honeydew, Gauteng

T: +27 (0) 11 794 7594

E: kpp.sales@klinger.co.za

SECUNDA

8 Schalk Burger Street, Secunda, Mpumalanga

T: +27 (0) 17 638 0212

E: secundasales@klinger.co.za

MBOMBELA

25 Amanzi Street, Unit 25 Riverside Industrial Park, Mbombela, Mpumalanga

T: +27 (0) 13 010 0092

E: nelspruitsales@klinger.co.za

DURBAN

340 Chris Hani Road, Briardene, Durban, KwaZulu Natal

T: +27 (0) 31 579 1041

E: salesdbn@klinger.co.za

MOSSEL BAY

17 Bolton Road, Voorbaai, Mossel Bay, Western Cape

T: +27 (0) 10 010 0797

E: salesmb@klinger.co.za

ZAMBIA

Plot No.5408 Mutentemuko Road, Heavy Industrial Area, Kitwe, Zambia

T: +26 (0) 979 154 892

E: zambiasales@klinger.co.za

























All information is based on years of experience in production and operation of sealing elements. However, in view of the wide variety of possible installation and operating conditions one cannot draw final conclusions in all application cases regarding the behaviour in gasket joint. The data may not, therefore, be used to support any warranty claims. This edition cancels all previous issues. Subject to change without notice.

