Compression Packing

Klinger has a comprehensive range of compression packing's which are suitable for centrifugal or reciprocating pumps and valves.
Klinger's range includes patented specialised compression packing and concepts which assist our customers to meet, and in most cases exceed the stringent fugitive emission targets set by various environmental bodies such as the EPA and customers themselves.
Klinger's large braiding facilities produce packing in square, round or rectangular profiles, with or without specialised cores in various materials such as rubber and steel.
Certain grades of materials can be produced in sections up to 130mm square.
Klinger styles of braiding are Klingerlock, Plaited, Braid over Braid and Braid over core.
Klinger are also the sole appointed distributor for the Asia Pacific region for the SealRyt Corporation of the USA and for Robco Inc of Canada for Australia and New Zealand as well as certain designated Asian countries.

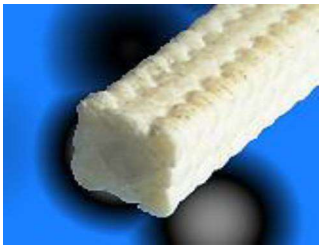
Klinger are able to provide:

- A reliable and effective range of compression packing's that have universal application throughout industry
- Utilising the most modern production techniques and materials
- To give the user predictable life expectancy
- Provide a complete range of packing to replace traditional products.
- To aid in the correct selection of the most appropriate packing for any given application
- To provide the user with the full technical support from full installation documentation through chemical compatibility and past application success
- To reduce inventory and stock holding costs through product rationalisation.

- A full range of packing extractors with replaceable tips is also available.

Note: Packing's should not be subjected to the maximums of temperature, pressure and speed simultaneously. For further advice contact Klinger.

Style K10



Material:

Acrylic yarn and PTFE

Application:

Water, mild acids and alkalis, mild slurries.

Service Capabilities

Temperature Degree C	–100 to 260
pH capability	2 – 12
Max rotary Pressure	30 bar
Max static Pressure	100 bar
Max rotary Speed	10 m/sec
Max reciprocating pressure	20 bar
Max reciprocating speed	2 m/sec

Style K11

Material:

Acrylic yarn and graphite dispersion

Application:

Water, mild acids and alkalis, mild slurries. Suitable where the use of a non contaminating packing is not important.

Service Capabilities

Temperature Degree C	–100 to 300
pH capability	4 – 10
Max rotary Pressure	40 bar
Max static Pressure	100 bar
Max rotary Speed	15 m/sec
Max reciprocating pressure	25 bar
Max reciprocating speed	2 m/sec

Style K13DL

Material:

Flax yarn and Doulon Lubricant

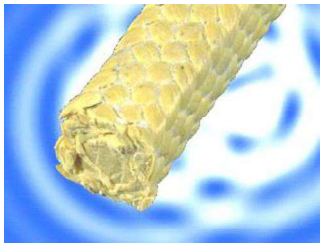
Application:

Water, mild acids and alkalis, slimes and slurries, stern tubes. Resistant to water rot especially salt water.

Service Capabilities

Temperature Degree C	0 to 90
pH capability	4 – 9
Max rotary Pressure	20 bar
Max static Pressure	70 bar
Max rotary Speed	15 m/sec
Max reciprocating pressure	30 bar
Max reciprocating speed	4 m/sec

Style K25



Material:

Aramid yarn and PTFE lubrication

Application:

Suitable for a wide range of chemicals and heavy slurry applications.
Excellent as a bull ring material and in combination with other fibres. Ensure that the packing is well lubricated if used in moderate and high speed pumps due to its hard wearing properties.

Service Capabilities

Temperature Degree C	–100 to 260
pH capability	2 – 12
Max rotary Pressure	30 bar
Max static Pressure	200 bar
Max rotary Speed	15 m/sec
Max reciprocating pressure	100 bar
Max reciprocating speed	2 m/sec

Compression Packing

Style K54F

Material:
Virgin PTFE yarn

Application:
Can be used in virtually all media including strong acids and alkalis.
Also suitable for use on Oxygen valve applications.
Water and food compatible.

Service Capabilities

Temperature Degree C	–240 to 260
pH capability	0 – 14
Max rotary Pressure	20 bar
Max static Pressure	200 bar
Max rotary Speed	3 m/sec
Max reciprocating pressure	100 bar
Max reciprocating speed	2 m/sec

Style K54S

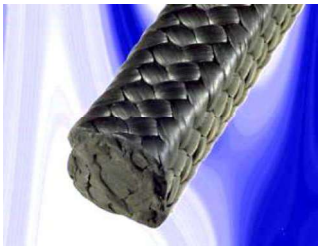
Material:
PTFE yarn and lubricants

Application:
Can be used in virtually all media including strong acids and alkalis.
Suitable for use in potable water and food applications.
Most glands packed with this packing requires little adjustment after the initial installation.

Service Capabilities

Temperature Degree C	–240 to 260
pH capability	0 – 14
Max rotary Pressure	20 bar
Max static Pressure	200 bar
Max rotary Speed	5 m/sec

Style K55



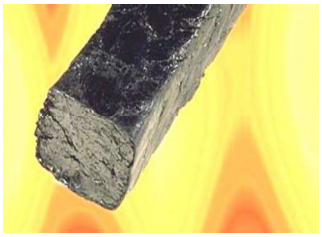
Material:
Graphite encapsulated PTFE yarn

Application:
Can be used in virtually all media including strong acids and alkalis.
K55 has very good heat dissipating properties and is easy on sleeves and shafts. Very good in mild slurries and on feed pumps

Service Capabilities

Temperature Degree C	–200 to 280
pH capability	0 – 14
Max rotary Pressure	30 bar
Max static Pressure	200 bar
Max rotary Speed	20 m/sec
Max reciprocating pressure	100 bar
Max reciprocating speed	3 m/sec

Style K3222 / K3222W



Material:
Exfoliated graphite ribbon packing

Application:
K3222 is a cost effective general purpose packing for use in non abrasive applications on pumps and valves within all industries.
It is also available in a wire reinforced version designated **K3222W** for high pressure valve applications. Not suitable for pumps.

Service Capabilities

Temperature Degree C	–200 to 430
In saturated steam Deg C	650
pH capability	0 – 14
Max rotary Pressure K3222	20 bar
Max static Pressure K3222	100 bar

(For use up to 280 bar for K3222 consult Klinger)

Max static Pressure K3222W	300 bar
Max rotary Speed K3222	20 m/sec

Style K4307

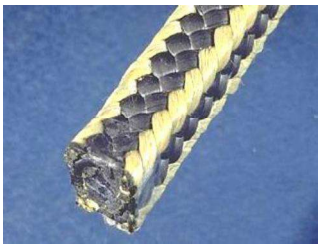
Material:
Flax fibre with PTFE/mineral lubricants.

Application:
Water, mild acids and alkalis, slimes and slurries, stern tubes. Resistant to water rot

Service Capabilities

Temperature Degree C	0 to 120
pH capability	4 – 9
Max rotary Pressure	20 bar
Max static Pressure	70 bar
Max rotary Speed	10 m/sec
Max reciprocating pressure	20 bar
Max reciprocating speed	3 m/sec

Style K4313



Material:
A hybrid packing that combines Aramid fibre and Expanded graphite PTFE.

Application:
Suitable for a wide range of chemicals and heavy slurry application pumps.
Reduced shaft wear to pure aramid packing.

Service Capabilities

Temperature Degree C	–100 to 280
pH capability	2– 12
Max rotary Pressure	25 bar
Max static Pressure	250 bar
Max rotary Speed	20 m/sec
Max reciprocating pressure	150 bar
Max reciprocating speed	2 m/sec

Compression Packing

Style K4322

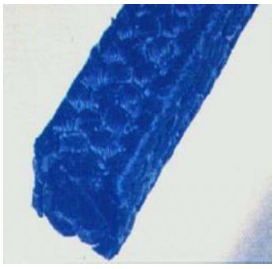
Material:
PTFE yarn with graphite lubricant

Application:
Can be used in virtually all media including strong acids and alkalis. Long lasting performance in pumps and valves.

Service Capabilities

Temperature Degree C	–200 to 280
pH capability	0– 14
Max rotary Pressure	25 bar
Max static Pressure	300 bar
Max rotary Speed	22 m/sec
Max reciprocating pressure	230 bar
Max reciprocating speed	2 m/sec

Style K4333



Material:
Polyimide fibre with PTFE lubricant

Application:
Suitable for water, oils , hydrocarbons, mild acids and alkalis. A good slurry packing in the Pulp and Paper and Sugar Industries.

Service Capabilities

Temperature Degree C	–80 to 260
pH capability	1 – 12
Max rotary Pressure	35 bar
Max static Pressure	200 bar
Max rotary Speed	15 m/sec
Max reciprocating pressure	100 bar
Max reciprocating speed	2 m/sec

Style K7302DL

Material:
Virgin texturized continuous filament man-made fibres and Doulon® lubricant.

Application:
Highly abrasion resistant it is well suited for heavy duty applications pumping slurries and abrasives in the mining industry. A very durable and conforming packing with good chemical resistance .It is used within mining, chemical, power generation, pulp and paper feed stock, waste water and sewerage, sugar mills and refineries and general service applications.

Service Capabilities

Temperature Degree C	–100 to 280
pH capability	2– 12
Max rotary Pressure	36 bar
Max static Pressure	200 bar
Max rotary Speed	16 m/sec
Max reciprocating pressure	100 bar
Max reciprocating speed	3 m/sec

Style K123P, K123SI,K123GL

Material:
Style K123P is a ceramic fibre packing .. Each yarn is reinforced with E-glass filament.
Style K123SI is as per the construction above but is reinforced with Inconel wire.
Style K123GL is as per K123P but lubricated with high temperature graphite.

Service Capabilities

Temperature resistance	: 1260°C
Melting point	: 1760°C
Thermal conductivity	: 0.18WMK at 1000°C

Style K35 Tape

Material:
Exfoliated graphite riffled tape

Application:
Virtually resistant to all media with the exception of strong oxidisers. Can be fitted directly into the valve stuffing box and compressed to create a packing suitable for high temperature and pressure applications. Can be supplied plain or with adhesive backing

Service Capabilities

Temperature Degree C	–200 to 450
pH capability	0 – 14
Density :	1.0g/cm³
Purity	>98%

Sizes available
6mm x 0.5mm x 12 metres
10mm x 0.5mm x 12 metres
12mm x 0.5mm x 12 metres
15mm x 0.5mm x 12 metres
20mm x 0.5mm x 12 metres
25mm x 0.5mm x 12metres

Style K35 Die formed rings

Material:
Manufactured from exfoliated graphite tape.

Application:
Virtually resistant to all media with the exception of strong oxidisers
We are able to manufacture most sizes, section or density of ring to suit the customers requirements.
For pressure seals refer to other products section of catalogue.

Compression Packing

Style 357

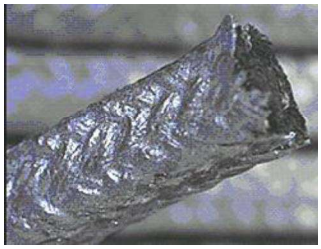
Material:
"Springy" unique carbon centre, exfoliated carbon-inserted foil, high strength carbon yarn in the corners

Application:
Highly chemical resistant and heat conductive. A very anti frictional packing. Dimensionally stable. Meets the requirements of API 622, Process Valve Packing for Fugitive Emissions.

Service Capabilities

Temperature Degree C	–196 to 454
In saturated steam Deg C	650
pH capability	1 – 14
Max rotary Pressure	35 bar
Max static Pressure	310 bar
Max rotary Speed	22 m/sec

Style 390



Material:
High purity graphite yarns densely impregnated with micron size graphite

Application:
Highly chemical resistant and heat conductive. A very anti frictional packing effective on a wide variety of services. Permits operation at minimal leakage. Non hardening.

Service Capabilities

Temperature Degree C	–196 to 400
In saturated steam Deg C	650
pH capability	1 – 14
Max rotary Pressure	35 bar
Max static Pressure	170 bar
Max rotary Speed	25 m/sec

Style 396

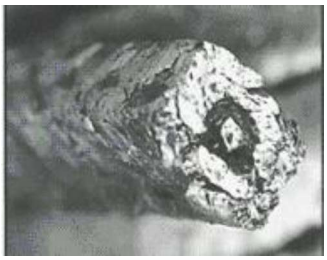
Material:
A dense flexible graphite with carbon/graphite yarns to resist extrusion

Application:
Operates successfully on pumps and valves. Very conformable packing and can be run drip free in certain applications. Excellent on feed water, caustic and condensate pumps.

Service Capabilities

Temperature Degree C	-196 to 454
In saturated steam Deg C	650
pH capability	0 –14
Max rotary Pressure	35 bar
Max static Pressure	175 bar
Max rotary Speed	22 m/sec

Style 396C



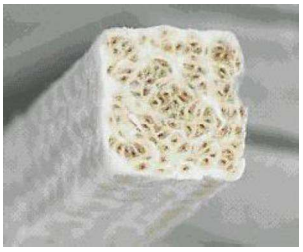
Material:
A patented inner graphite core internally sprung with helical braided Inconel wire , over braided with carbon inserted exfoliated graphite foil.

Application:
Excellent on pumps and valves especially caustic applications. Meets the requirements of API 589, 607 and 622. Klinger's Fugitive Emission packing.

Service Capabilities

Temperature Degree C	-196 to 454
In saturated steam Deg C	650
pH capability	0 –14
Max rotary Pressure	56 bar
Max static Pressure	345 bar
Max rotary Speed	22 m/sec

Style 2000



Material:
Fibre X impregnated with PTFE dispersion.

Application:
An excellent replacement for asbestos PTFE packing. It is much stronger, more chemically resistant and much easier on shafts. A clean packing for acids and alkalis and any application needing non contamination of products. Excellent on slurries..

Service Capabilities

Temperature Degree C	232
pH capability	1 – 14
Max rotary Pressure	30 bar
Max static Pressure	100 bar
Max rotary Speed	11 m/sec
Max reciprocating pressure	35 bar
Max reciprocating speed	2 m/sec

Style 2001

Material:
Fibre X monofilament impregnated with PTFE dispersion.

Application:
A medium soft strong packing, chemically resistant and easy on shafts. A clean packing for acids and alkalis and non contamination of products. Ideally suited to the Pulp & Paper industry.

Service Capabilities

Temperature Degree C	232
pH capability	1 – 14
Max rotary Pressure	30 bar
Max static Pressure	100 bar
Max rotary Speed	11 m/sec