



Klinger 35 Die-Formed Graphite Rings

K35 die-formed rings are a result of industries requirement to find durable products able to offer improved sealing throughout a range of applications. This is the basis of K35 rings

■ *The material has excellent thermal conductivity and thermal resistance. K35 die-formed rings are therefore unaffected by fluctuations during application, such as thermal cycling. Graphite is stable to 430⁰C in oxidising conditions (+2500⁰C in non-oxidising).*

■ *The manufacturing process ensures a product that is volumetrically stable - without fillers or binders. K35 rings are also essentially impermeable and without porosity.*

■ *K35 rings offer a leak free sealing solution for high performance valve applications which require excellent pressure and temperature characteristics.*

■ *K35 rings have outstanding chemical resistance and are unaffected by the majority of chemical media employed within industry.*

■ *Graphite is a self-lubricating material. This ensures that there is no abrasion or wear of valve shafts or stems.*

■ *Klinger 35 rings carry both **WRC** and **BAM** approvals for use in potable water and oxygen application and is certified for low emission use to **TA Luft** standard (contact our technical department for further information)*



Certificate No FM.10571

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Service Capabilities

When used in equipment in good mechanical condition and installed using our product guidelines the undernoted values apply:

■ Minimum operating Temperature	-240°C
■ Maximum operating temperature	430°C
■ Maximum steam temperature	650°C
■ pH	0-14
■ Maximum static pressure	350 bar
■ Maximum dynamic pressure	20 bar
■ Maximum running speed	5 m/s

Note: K35 rings should not be subjected to the maximums of temperature, pressure and speed simultaneously, for further advice please contact our technical department.

Forms of Supply

We make virtually any size, section or density of K35 rings depending upon clients requirements.

Many years of application experience has put us in a strong position to enjoy contractual arrangements with both OEM's and end users. We have an extensive bank of tooling and many semi and automated presses.

Manufacturing data required:

- I. OD, ID and height with tolerances
- II. Section or profile
- III. For sets - depth of stuffing box
- IV. Endless, halved or single split rings
- V. Density
- VI. Quantity of sets or pieces

Examples of Industrial Environments

Klinger 35 rings have been specially designed for multipurpose use in all high temperature and pressure valves, examples of its use are:

- Chemical Plant & Chemical Processing
- Power Stations
- Refineries
- Boiler houses
- Steel Mills
- Low emission service
- Cryogenic applications

Sealing Technical Advice

If you require additional technical information or would like Klinger to advise you on your particular application, then please contact our Technical Department at the address shown.

It is advantageous to provide the following details:

1. Type of valve or pump eg. gate etc.
2. Working and test pressure
3. Temperature
4. Rate of pressure & temperature increase
5. Medium and concentration
6. Special requirements
7. Details of stuffing box design