

*Advancing the Science of Sealing*

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**POWER GENERATION INDUSTRY — FOSSIL FUEL**

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*PRODUCT RECOMMENDATION GUIDE*



**Garlock**

SEALING TECHNOLOGIES®

an Enpro Industries company

# Power Generation Product Recommendation Guide

## Fossil Fuel Power Plant - Primary Systems

### Compression Packing

- 1303** Style 1303-FEP spool stock packing combines flexible graphite with a nonscoring Inconel\* filament for a superior valve stem packing material
- 1333** Style 1333-G spool packing combines flexible graphite foil with extrusion-resistant graphite filament; for pumps and low-pressure valves
- 8093** Style 8093 DSA patented design\*\* packing and Style **8094** DSA packing can run with no flush water and dramatically reduce fluid leakage in condensate pumps and circulating water pumps
- 9000** Style 9000-S EVSP Simplified patented design\*\* expandable valve stem packing sets, ideal for high-temperature, high-pressure valves, as well as circulating water and condensate
- F5** TORNADO PACK™ F-5 soot blower sets, with special material on the braid to support the lance but prevent scoring
- HJ** The HYDRA-JUST™ seal provides cool, dry operation with no product dilution, significantly reducing overall water consumption and has the versatility to handle a wide range of system upsets excelling in hostile environments and abrasive conditions

### Expansion Joints

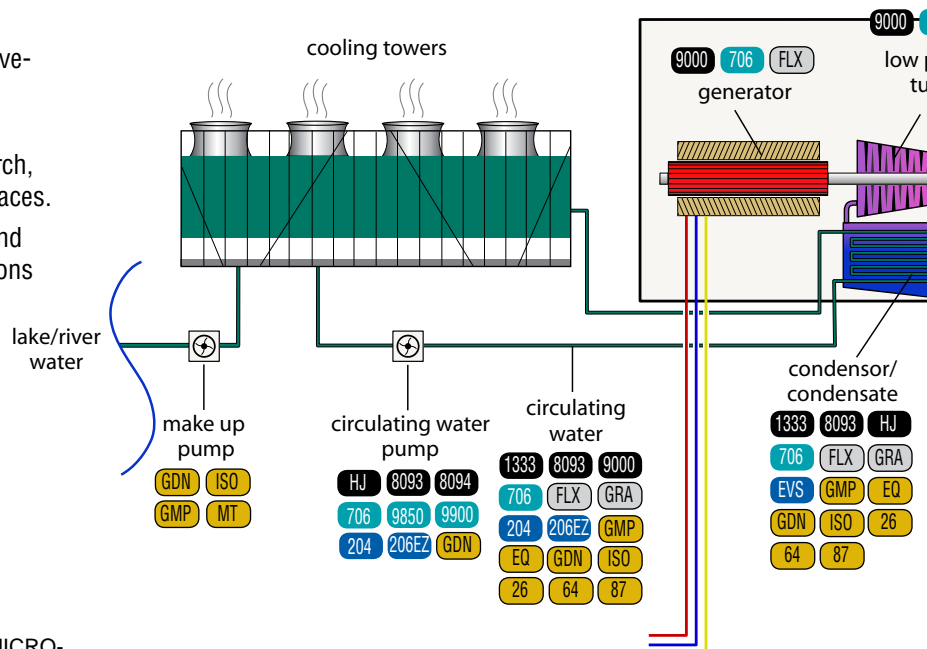
- 104GS** The high strength nylon fabric reinforcement combined with carbon steel support rings and body wire enable the 104GS to withstand some of the most demanding system requirements regardless of industry.
- 204** Style 204 expansion joints, designed to absorb movement and misalignment in circulating water piping systems and service water applications
- 206EZ** Style 206 EZ-FLO® Contain a single wide flowing arch, eliminating the need for filled arches on slurry surfaces.
- 8400** Style 8400 belt-type expansion joints, in either round or rectangular configuration, for flue duct applications under 400°F (205°C)
- EVS** 204 EVS (Extreme Vacuum Service), specifically designed for the difficult combination of extreme vacuum and complex dynamic requirements of condensate systems. Unique arch support ring provides stability against arch collapse

### Sheet Gasketing

- 706** ST-706 inorganic gasketing for high-temperature steam in turbine crossovers; and condensate, boiler feed, and circulating water applications
- 3750** LEAK-GARD™ Style 3750 compressed fiber gasketing for tight seal in gear boxes and lube oil systems
- 5500** IFG® 5500 inorganic fiber gasketing for saturated steam, oils, refrigerants, mild chemicals, aliphatic hydrocarbons, gasoline, inert gases and water
- 9850** Hi-Temp Style 9850 is ideal for intense heat, high pressure, hot oils and saturated steam environments
- 9900** G-9900 withstands extreme temperatures, pressures and chemicals while significantly reducing emissions to meet stringent Clean Air Act requirements

### Metallic Gaskets

- FLX** FLEXSEAL® spiral wound gaskets designed for ANSI flanges from Class 150 to 2,500, suitable for all metal flange applications†
- GRA** GRAPHONIC® gaskets with flexible graphite facing on corrugated metal core seals with low bolt stress; ideal for worn or damaged flange surfaces
- KAM** Kammprofile metal gaskets manufactured with a serrated metal core and flexible graphite facing, for demanding higher pressure applications



FLEXSEAL, GRAPHONIC, ISO-GARD, KLOZURE, Model 64, MICRO-TEC, MILL-RIGHT, and P/S are registered trademarks of Garlock Inc. EQUALIZER, LEAK-GARD, and TORNADO PACK are trademarks of Garlock Inc.

## Garlock Klozure® Bearing Isolators

- EQ** EQUALIZER™ and ISO-GARD® bearing isolators, made of filled PTFE, provide excellent chemical and temperature resistance; GUARDIAN™ metallic isolator has patented cam-lock system; all ideal for non-flooded, rotary shaft applications, such as pump bearing frames, electrical motors, and gear boxes
- MT** MICRO-TEC® unitized bearing isolator with microcellular technology provides excellent bearing protection in highly-contaminated environments, including ash handling conveyors and pulverizers, as well as boiler feed pumps

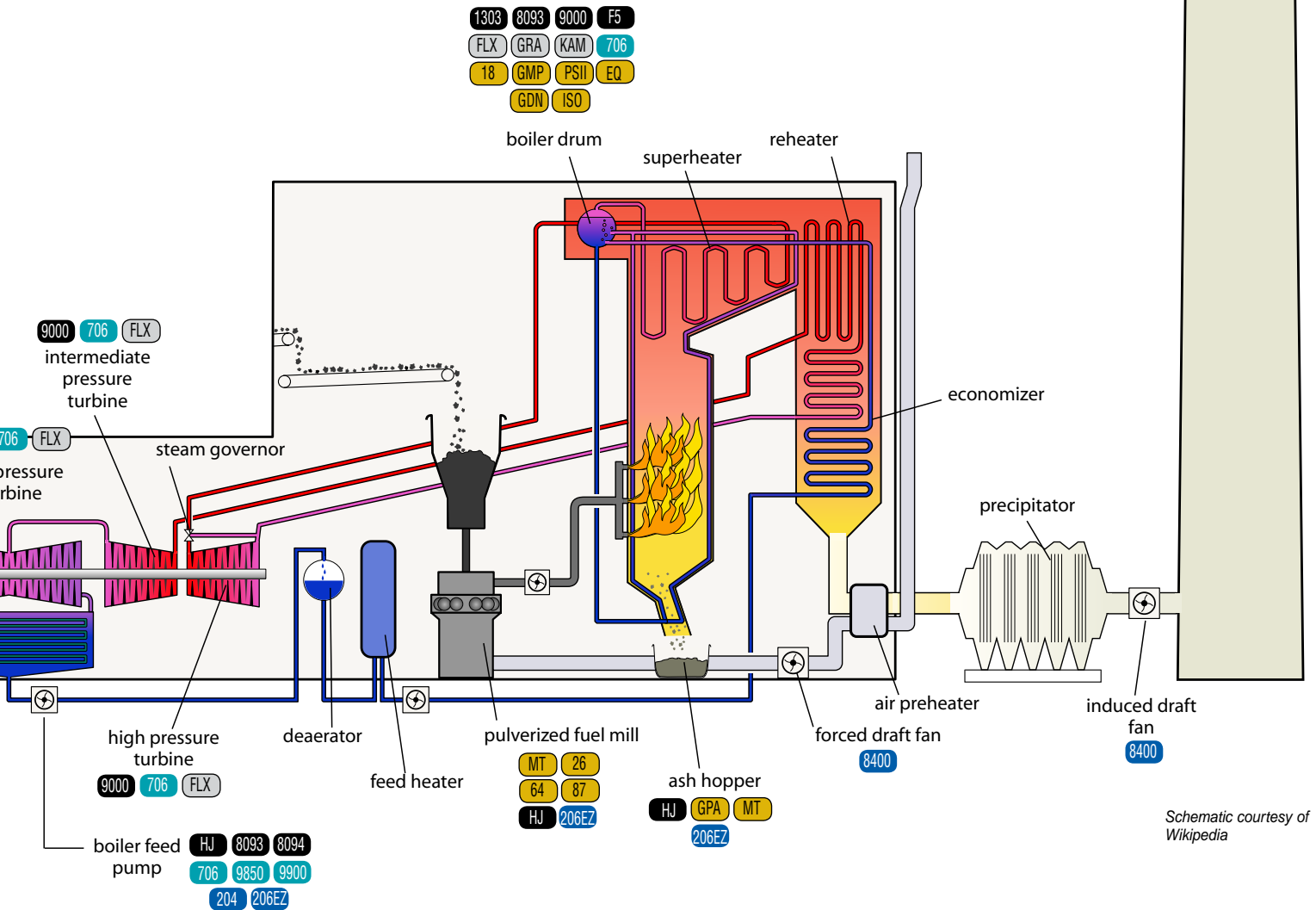
## Garlock Klozure® Oil Seals

- 26** Models 26, 64®, and 87 radial lip oil seals for pulverizers, condensate and circulating water systems. All seals are available in Mill-Right® N, Mill-Right® ES and Mill-Right® V high-performance materials.
- 64**
- 87**

## Garlock Klozure® Mechanical Seals

- 18** Type 18 balanced cartridge seals for high-pressure boiler feed applications
- GMP** GMP-I and GMP-II single or double balanced cartridge seals designed to fit standard ANSI pumps in virtually all sections of the plant
- GPA** GPA mechanical seal with a coated metallic membrane as spring element, designed for ash slurry pumps and lime slurry service in the scrubber area
- PSII** P/S®-II multi-lip cartridge seal, ideal for lube oil pumps in the boiler area

For more information, please visit [www.klozure.com](http://www.klozure.com)



Schematic courtesy of Wikipedia

\* Inconel is a registered trademark of Inco Alloys International, Inc.  
 \*\* Patent #4,328,974  
 † For oxidizing conditions or temperatures over 950°F (510°C), consult Garlock Metallic Gaskets at 1-800-972-7638.

**Lube Oil Systems**  
 3750 5500 8100 104GS

**Ancillary Equipment**  
 EQ GDN ISO  
 26 64 87

**Heat Exchanger**  
 104GS 206EZ

### Training

Worldwide, Garlock customer training programs are available at your location or ours. They range in scope from public field seminars to programs that are tailored to meet the specific needs of your on-site contractors or plant maintenance personnel.

Garlock customers also benefit from the extensive factory training programs that our own sales, marketing and technical personnel must undergo. This rigorous training provides them with the product knowledge and hands on experience required to service your fluid sealing needs.

### Testing Capabilities

Our testing capabilities enable us to provide Garlock customers with comprehensive performance data and ensure that the products we manufacture are not only of the finest quality, but

that they also are safe. Garlock testing facilities are the most comprehensive and most sophisticated in the industry. As a result, our products are thoroughly tested to worldwide standards such as API, DIN, JIS, ASTM, and more, and are proven for the widest range of applications, temperatures, pressures and chemicals.

### Environmental Awareness

Through our global network, we stay informed of environmental standards and laws so that our sealing technologies and products will always meet or exceed your needs. We make every effort to keep our customers fully informed of changing standards and regulations.

Our products help customers remain good neighbors by conserving water and other natural resources, reducing noise pollution and increasing safety in the workplace.

### Technical Support Engineering Capabilities:

Our engineering staff will work with your maintenance and technical people to design products to meet your specific application needs.

### Research and Development:

Using some of the most technologically advanced equipment available, our research and development teams explore new opportunities presented by new materials, constructions and applications.

### Problem-solving Assistance:

Garlock team technicians are available for problem solving when and where you need them. This includes being available to monitor or assist in the installation of products in critical applications to ensure that products are properly installed, and to offer application recommendations and trouble-shooting tips.

## AUTHORIZED REPRESENTATIVE

### WARNING:

Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury. Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing.

While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice.

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**Garlock**  
SEALING TECHNOLOGIES®

an EnPro Industries company

**Garlock Sealing Technologies**  
**1666 Division Street**  
**Palmyra, New York 14522 USA**  
**1-315-597-4811**  
**1-800-448-6688**  
**Fax: 1-800-543-0598**  
**1-315-597-3039**

**www.garlock.com**

Other Garlock facilities are located in:

**Columbia, SC, USA**  
Phone 1.803.783.1880  
Fax 1.803.783.4279

**São Paulo, Brazil**  
Phone 55.11.4352.6161  
Fax 55.11.4352.8181

**Saint-Étienne, France**  
Phone 33.4.7743.5100  
Fax 33.4.7743.5151

**Singapore**  
Phone 65.6285.9322  
Fax 65.6284.5843

**Houston, TX, USA**  
Phone 1.281.459.7200  
Fax 1.281.458.0502

**Sherbrooke, Canada**  
Phone 1.819.563.8080  
Fax 1.819-563.5620

**Neuss, Germany**  
Phone 49.2131.3490  
Fax 49.2131.349.222

**Shanghai, China**  
Phone 86.021.62789702  
Fax 86.021.62787826

**Sydney, Australia**  
Phone 61.2.9793.2511  
Fax 61.2.9793.2544

**W. Yorkshire, England**  
Phone 44.1422.313600  
Fax 44.1422.313601

**Mexico City, Mexico**  
Phone 52.55.50.78.46.00  
Fax 52.555.368.0418

**Dubai, UAE**  
Phone 971.4.8833652  
Fax 971.4.8833682