GARLOCK

- EXPANSION JOINTS-

EXPANSION JOINTS:

Garlock Rubber Expansion Joints offer superior performance, reliability, and service life.

Expansion joints are especially engineered products inserted in a rigid piping system to achieve one or more of the following:

- Absorb movement
- Improved thermal stability
- Relieve system strain due to thermal change, load stress, pumping surges, wear or settling
- Reduce mechanical noise
- Compensate for misalignment
- Eliminate electrolysis between dissimilar metals

continue reading...

GARLOCK

- EXPANSION JOINTS-

EXPANSION JOINTS:

At Garlock, the range of our engineering emphasis extends from the selection of the fabric used for reinforcement to the choice of materials used in actual expansion joint construction. Rigid laboratory and field tests of Garlock expansion joints are what back up our assurances of long life and reliable service.

An important word on safety: all Garlock expansion joints carry safety ratings exceeding product specifications in such areas as pressure and movement.

Garlock nonmetallic expansion joints and flexible couplings are ideally suited for hundreds of applications in a wide range of industries, including:

- Power Generation
- Pulp and Paper

continue reading...

GARLOCK

- EXPANSION JOINTS-

EXPANSION JOINTS:

- Chemical Processing
- Water/Waste Water
- Marine
- Mining
- Heating, Ventilating, and Air Conditioning

Garlock Expansion Joints offer superior performance, reliability, and service life. This in turn improves plant safety, increases the mechanical integrity of equipment, and allows customers to gain a competitive advantage in the market-place.

GARLOCK

- EXPANSION JOINTS-

Wide Arch Design / General Service
Applications Wide Arch Rubber Expansion Joints

Garlock Wide Arch Molded Rubber Expansion Joints for general service applications where more movement is needed. General service expansion joints must withstand a variety of different operating conditions across multiple industries.

Garlock Wide Arch Rubber Expansion Joints are designed to handle these most common requirements, and more. Garlock Wide Arch Molded Rubber Expansion Joints are trusted and reliable, successfully serving all major industries.

All Garlock expansion joint styles have been rigorously lab and field-tested, and engineered to ensure long life and reliable service.

GARLOCK

- EXPANSION JOINTS-

EZ-FLO® Style 206
Rubber Expansion Joints

EZ-FLO® expansion joints contain a single wide flowing arch, eliminating the need for filled arches on slurry services. Garlock EZ-FLO® expansion joints have successfully served all major industries, including pulp and paper, steel, waste and water, HVAC, power generation, chemical, petrochemical and marine.

Benefits:

- Self-flushing design eliminates media buildup and reduces fluid turbulence
- High pressure and vacuum-resistance ensures longer life and reduces inventory requirements
- Lightweight design installs easily, costs less to ship

continue reading...

GARLOCK

- EXPANSION JOINTS-

EZ-FLO® Style 206
Rubber Expansion Joints

Design:

- Tube- Standard chlorobutyl liner extends to outer edge of the flange for excellent chemical resistance- Flowing arch design adds pressure resistance and reduces product buildup
- Body- Rubber impregnated tire cord and polyester cross-wrapped in bias-ply construction
- Cover- Homogeneous layer of chlorobutyl elastomer extends to the outside edge of the flange- Coated with a weather-resistant protectant
- Custom Drilling- ANSI, DIN, AWWA, BS, JIS, and special drilling patterns available on request

Optional Configurations:

- Extended Face-to-Face
- Offsets, lateral, angular, and torsional

continue reading...

GARLOCK

- EXPANSION JOINTS-

EZ-FLO® Style 206
Rubber Expansion Joints

- Custom drilling: ANSI, DIN, AWWA, BS, JIS, and special drilling patters available on request

Special Liner and Cover Materials:

- Neoprene
- EPDM
- Hypalon**
- Nitrile
- Natural (tube only)
- FDA tubes of EPDM, neoprene and natural

Specifications:

Min. Temperature: -20°F (-29°C)
Max. Temperature: 300°F (150°C)
Max. Pressure: 250psi (17bar)
Max. Inner Diameter: 120in. (3000mm)

GARLOCK

- EXPANSION JOINTS-

Abrupt Arch Design / Full Vacuum Applications

Rubber Expansion Joints for Abrupt Arch Design / Full Vacuum Applications

Garlock abrupt arch rubber expansion joints for full vacuum applications. Garlock offers fully customizable abrupt arched expansion joints for rigid piping systems.

A variety of elastomer and fabric combinations meet the demands of temperature, pressure and media. Garlock Aburpt arch rubber expansion joints can be custom-designed for greater movement capability and easier installation.

All Garlock expansion joint styles have been rigorously lab and field-tested, and engineered to ensure long life and reliable service.

GARLOCK

- EXPANSION JOINTS-

Style 204
Spool-Type Rubber Expansion Joints

Spool-type expansion joints that connect pipe flanges in concentric or eccentric tapers, to join piping of unequal diameters. Style 204 spool-type expansion joints can be constructed as single- or multiple-arch types. They connect pipe flanges in concentric or eccentric tapers, to join piping of unequal diameters.

Benefits:

- Fully lab- and field-tested for long life and exceptional reliability
- Seamless flange face eliminates need for gaskets
- High pressure and vacuum-resistance increases safety and ensures suitability for wide range of applications
- Can be custom-designed for greater movement capability and easier installation
- Variety of elastomer and fabric combinations meet the demands of temperature, pressure and media

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 204
Spool-Type Rubber Expansion Joints

Design:

- Tube- Chlorobutyl resists cracking due to high temperatures, weathering, oxidation and chemicals- Abrupt arch configuration provides maximum movement, and pressure and vacuum resistance- Seamless tube creates a positive flange seal without gaskets

- Body- Chlorobutyl/polyester construction with welded, treated metal body rings for dimensional stability

- Cover- Chlorobutyl extends to outside flange diameter- Durable coating resists weathering and oxidation

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 204
Spool-Type Rubber Expansion Joints

Optional Configurations:

- Multiple Arch- For higher movements
- Filled Arch- To eliminate media buildup
- Oversized Arch- For higher movements
- Concentric and Eccentric Tapers- To connect piping of unequal diameter
- Custom Drilling- ANSI, DIN, AWWA, BS, JIS, and special drilling patterns available on request
- Extended Face-to-face
- Offsets, lateral, angular, and torsional

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 204
Spool-Type Rubber Expansion Joints

Special Liner and Cover Materials:

- Hypalon**
- EPDM
- Nitrile
- Neoprene
- Natural (tube only)
- FDA tubes of EPDM, neoprene and natural

Specifications:

Min. Temperature: -20°F (-29°C)
Max. Temperature: 400°F (205°C)
Max. Pressure: 165psi (11bar)
Max. Inner Diameter: 120in (3000mm)
Vacuum Rate: 30in. Hg (750mm Hg)

GARLOCK

- EXPANSION JOINTS-

Style 204 EVS

Extreme Vacuum Service Rubber Expansion Joint

Spool-type expansion joints that connect pipe flanges in concentric or eccentric tapers, to join piping of unequal diameters. Extreme Vacuum Service.

Ideal for systems with the dual challenges of extreme vacuum and aggressive dynamic as well as condensate pump applications with less than ideal support and long cantilevered pipe runs.

Ideal For:

- Systems with the dual challenges of extreme vacuum and aggressive dynamics
- Condensate pump applications with less-than-ideal support or long cantilevered pipe runs

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 204EPS

Extreme Pressure Service Rubber Expansion Joints

Extreme Pressure Service. Used in applications where necessary rated pressures exceed those of the Garlock Style 204 & 204HP designs.

Style 204EPS (Extreme Pressure Service) is a fully customizable abrupt arched expansion joint for rigid piping systems. This rubber expansion joint is to be used in applications where necessary rated pressures exceed those of the Garlock Style 204 & 204HP designs. Style 204EPS is available in concentric or eccentric designs.

Value and Benefits:

- Fully laboratory and field tested for long life and exceptional reliability
- Seamless tube ensures a reliable seal from flange to flange

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 204EPS

Extreme Pressure Service Rubber Expansion Joints

- High pressure and vacuum resistance increases safety and ensures suitability for a wide range of applications
- Can be custom designed for greater movement capability and easier installation
- Variety of elastomer and fabric combinations meet the demands of temperature, pressure and media

Design:

- Tube

- Wide selection of elastomers available which are resistant to temperatures, weathering, oxidation and chemicals
- Abrupt arch configuration provides maximum movement, and pressure and vacuum resistance

- Body

- Composite fabric construction with welded, treated metal body rings for dimensional stability

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 204EPS

Extreme Pressure Service Rubber Expansion Joints

Special liner and cover materials:

> CSM
> EPDM
> Nitrile
> Neoprene
> Natural Rubber
> FDA materials available
> Fluoroelastomer
> Chlorobutyl

Temperature:

> Chlorobutyl/Polyester w/Natural Gum +180ºF (82ºC)
> Standard Chlorobutyl/Polyester +250ºF (+120ºC)
> Chlorobutyl/Fiberglass/Kevlar +300ºF (+150ºC)
with EPDM tube and cover
> Fluoroelastomer w/Fiberglass/Kevlar +400ºF (+205ºC)

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 204EPS

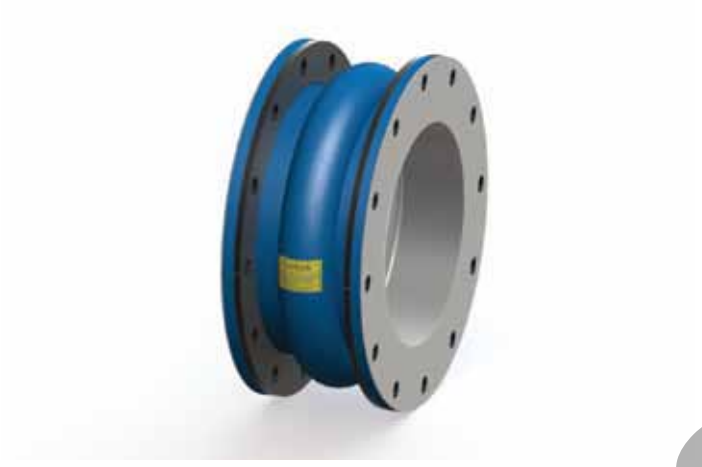
Extreme Pressure Service Rubber Expansion Joints

** Kevlar is a registered trademark of DuPont, Hypalon is a registered trademark of DuPont Dow Elastomers

Typical industries:
> Marine - ABS witnessed hydrotesting available on request
> Mining - Filled arch or extra thick tube configurations available
> Power Gen - Safety related product offering available in the form of 8420HP

GARLOCK

- EXPANSION JOINTS-



Style 204HP

High Pressure Spool-Type Rubber Expansion Joint

High Pressure. Similar to Style 204 but with higher pressure ratings.

Style 204HP spool-type expansion joints can be constructed as single- or multiple-arch types. They connect pipe flanges in concentric or eccentric tapers, to join piping of unequal diameters. Style 204HP (High Pressure) is similar to Style 204 but with higher pressure ratings.

Benefits:

- Fully lab- and field-tested for long life and exceptional reliability
- Seamless flange face eliminates need for gaskets
- High pressure and vacuum-resistance increases safety and ensures suitability for wide range of applications.

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 204HP

High Pressure Spool-Type Rubber Expansion Joint

- Can be custom-designed for greater movement capability and easier installation
- Variety of elastomer and fabric combinations meet the demands of temperature, pressure and media

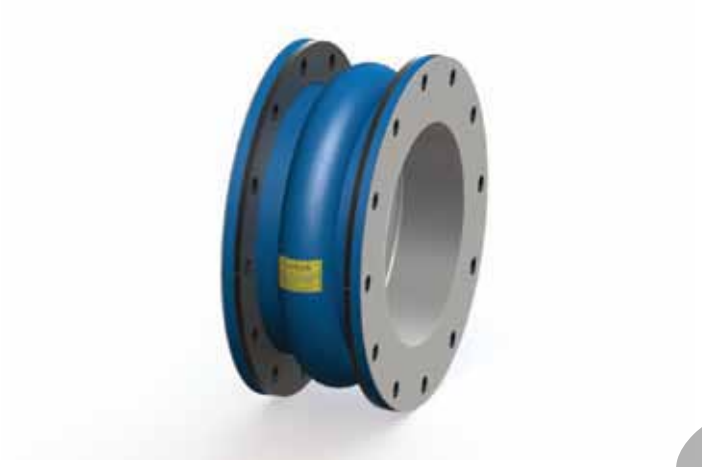
Design:

- Tube- Chlorobutyl resists cracking due to high temperatures, weathering, oxidation and chemicals- Abrupt arch configuration provides maximum movement, and pressure and vacuum resistance- Seamless tube creates a positive flange seal without gaskets
- Body- Chlorobutyl/polyester construction with welded, treated metal body rings for dimensional stability
- Cover- Chlorobutyl extends to outside flange diameter- Durable coating resists weathering and oxidation

continue reading...

GARLOCK

- EXPANSION JOINTS-



Style 204HP

High Pressure Spool-Type Rubber Expansion Joint

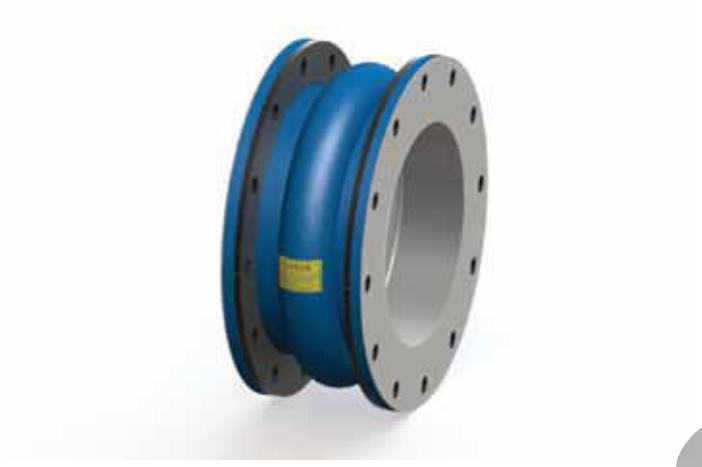
Optional Configurations:

- Multiple Arch- For higher movements
- Filled Arch- To eliminate media buildup
- Oversized Arch- For higher movements
- Concentric and Eccentric Tapers- To connect piping of unequal diameter
- Custom Drilling- ANSI, DIN, AWWA, BS, JIS, and special drilling patterns available on request
- Extended Face-to-face
- Offsets, lateral, angular, and torsional

continue reading...

GARLOCK

- EXPANSION JOINTS-



Style 204HP

High Pressure Spool-Type Rubber Expansion Joint

Special Liner and Cover Materials:

- Hypalon**
- EPDM
- Nitrile
- Neoprene
- Natural (tube only)
- FDA tubes of EPDM, neoprene and natural

Specifications:

Min. Temperature: -20°F (-29°C)
Max. Temperature: 400°F (205°C)
Max. Pressure: 200psi (14bar)
Max. Inner Diameter: 120in (3048mm)
Vacuum Rate: 30in. Hg (750mm Hg)

GARLOCK

- EXPANSION JOINTS-

FlueDuct / Low Pressure Applications

Flue Duct Expansion Joints for Low Pressure Applications

Garlock offers a wide range of flue duct type expansion joints for lightweight applications, especially for scrubbers, precipitators, baghouses, and fans in air handling systems.

All Garlock expansion joint styles have been rigorously lab and field-tested, and engineered to ensure long life and reliable service.

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 8400

Lightweight Applications Flue Duct Expansion Joints

Available in round, rectangular, or square configurations, as belt type (without flanges) or U-type (flanged).

Garlock offers a wide range of flue duct type expansion joints for lightweight applications, especially for scrubbers, precipitators, baghouses, and fans in air handling systems.

Style 8400 flue ducts are available in round, rectangular, or square configurations, as belt type (without flanges) or U-type (flanged), with virtually no size restrictions.

Garlock also provides on-site vulcanizations for flue ducts that require splicing into position due to obstructions or interferences that prevent continuous construction installations.

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 8400

Lightweight Applications Flue Duct Expansion Joints

Rectangular / Square Flue Ducts:

- Face-to-face dimansions: typically 6" (152 mm), 9" (229 mm) or 12" (305 mm)
- If any leg is smaller than 30" (762 mm), joint will be built on a metal form with column corners
- Consult factory for movement capabilities

Note: Other sizes also available. If more movement is required, please contact Garlock.

Round Flue Ducts:

- Supplied in any size, with or without flanges or arch
- Variety of materials available: neoprene, chlorobutyl, fluoroeslastomer, nitrile, EPDM, Hypalon*, FDA neoprene, FDA EPDM or natural/gum rubber.
- Movement capabilities depend on expansion joint size and arch configuration

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 8400

Lightweight Applications Flue Duct Expansion Joints

Belt Type Flue Ducts:

- Supplied in any size, without flanges, with or without an arch
- Available in the same materials as round flue ducts
- Movement capabilities depend on installation width and arch configuration
- Supplied open-ended (wraparound), or continuous to fit over ducting

* Hypalon is a registered trademark of DuPont Dow Elastomers.

** Kevlar is a registered trademark of DuPont.

GARLOCK

- EXPANSION JOINTS-

Style 9394

Low Pressure Applications Rubber Expansion Joint

Multi-convoluted, lightweight expansion joint designed for low-pressure applications that require significant amounts of movement, axially and/or laterally.
This multi-convoluted, lightweight expansion joint is designed for low pressure applications that require significant amounts of movement, axially and/or laterally. Its low spring rates make it ideal for air handling, load cell, and pellet/dough hopper applications.

Benefits:

- Lightweight design installs easily, costs less to ship
- Can be custom-designed for even greater movement capability
- Choice of construction materials suitable for wide range of temperatures
- Available in flanged or sleeve type design, up to 48" (1219 mm) I.D.

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 9394

Low Pressure Applications Rubber Expansion Joint

NOTE: Flanged designs require retaining rings for an effective seal. Sleeve type requires clamps; the overall length of the expansion joint should include an additional 4" (101.6 mm) for clamping space.

Pressure:

- Without external reinforcing rings: up to 3 psi (0.2 bar)
- With external reinforcing rings: up to 15 psi (1.0 bar)

Vacuum:

- Without internal reinforcing rings: up to 3 inches (75 mm) Hg
- With internal reinforcing rings: up to 15 inches (381 mm) Hg

Contact Garlock if higher vacuum or pressure ratings are required.

continue reading...

GARLOCK

- EXPANSION JOINTS-

Style 9394

Low Pressure Applications Rubber Expansion Joint

Movement Capabilities:

- 3/4" (19 mm) axial compression per convolution
- 5/8" (16 mm) axial elongation per convolution
- 5/8" (16 mm) lateral deflection per convolution

Movements are non-concurrent. Larger convolutions are available to provide more movement. Contact Garlock if above listed movements need to be exceeded.

Alternate Tube and Cover Materials

- Neoprene
- Nitrile
- Hypalon*
- Natural/gum rubber
- EPDM
- FDA Neoprene
- FDA EPDM
- Viton*