

# CURTISS -WRIGHT

#### What is an Expansion Joint?

Expansion joints are designed to absorb movement in a rigid piping system. They are utilized to reduce vibration, mechanical noise, and relieve system strain due to various processes. These are available in molded standard joints or can be custom made for specific applications. Custom made expansion joints can be designed for specific applications and can include open or filled arches; have built in offsets for lateral, rotational, drop joints, and angular flange misalignments; and also come in eccentric or concentric designs for connecting different sized piping. There are countless material combinations for the expansion joint tube, cover, and/or liners to accommodate almost any application. We can provide standard piping joints, custom built joints, Flue Duct Joints, and high temperature fabric joints. Our joints are utilized across the fossil and nuclear power generation, chemical and petrochemical, and many other industrial markets. Expansion joints can be supplied commercially or safety related.

#### **Success Oriented Expertise**

AP Services, a product and services brand of Curtiss-Wright, specializes in fluid sealing products for the Department of Energy, Commercial Nuclear, power generation, chemical, marine, mining and many more industries. For over 30 years we have manufactured a comprehensive range of sealing solutions as well as became teaming partners with other leading suppliers for gaskets, mechanical seals, washers, expansion joints and other specialty items. We are recognized as an industry leader in providing fluid-sealing technologies and leak management solutions with unmatched customer service and quality. Our state-of-the-art manufacturing facility operates under nuclear QA programs and maintains quality qualifications under 10CFR50 Appendix B, 10CFR 21, NQA-1 and recently was awarded a "Supplier of the Year" award form the Utilities Service Alliance. Our teaming partners, Garlock, Holz Rubber and others manufacture expansion joints to fit nearly every industry need.









#### **Standard Expansion Joint Materials**

- Neoprene (chloroprene)
- Natural Rubber (polyisoprene, synthetic)
- Chlorobutyl (chloro-isobutene-isoprene)
- Buna-N / Nitrile (nitrile-butadiene)
- HBNR (hydrogenated-nitrile-butadiene)
- Hypalon (chloro-sulfonyl-polyethylene)
- Viton / Fluorel (fluorocarbon elastomer)
- EPDM (ethylene-propylene-diene-terpolymer)
- Teflon / PTFE (floro-ethylene-polymers)
- Polyurethane

## **Types of Expansion Joint Construction**

- Single Arch
- Multiple Arch
- Filled Arches
- Angular or Lateral Offset
- Sleeve Connection Style
- Taper or Reducer
- Flue Duct
- PTFE Lined
- Metal Bellows

### **Ideal Applications**

- Condensor Recirculating Pumps
- Flue Ducts
- Air Handling Systems
- Nuclear Applications 10-CFR-50 Appendix B
- Cooling Water Systems
- Absorber Recycle Pumps Lime Slurry
- Wet and Dry Scrubber Systems
- Baghouses
- FD Fans
- Condensate Booster Pump Suction
- Economizer Outlets
- SCR Inlets
- Precipitators
- HRSG Inlets
- Gas Turbine Exhaust
- Circulating Water Systems
- FGD Systems
- Sewage
- FRP Piping
- Food and Beverage FDA Compliant
- Military Spec