If you need more information on our complete line of expansion joints, here are four quick and easy access points:

- Visit our comprehensive website: www.wrmeadows.com
- Contact W. R. MEADOWS, INC. via email: info@wrmeadows.com
- Call toll free: 1-800-342-5976
- Fax: 1-847-683-4544

Ideal Applications:
- Sidewalks
- Driveways
- Streets
- Single- and Multi-Level Floor Slabs
- Airport Runways
- Flatwork
- Commercial and Industrial Applications
- Bridge Structures

Whatever your needs... we have the solution.
Concrete expands and contracts with temperature and moisture changes. When the temperature rises or the moisture content of the concrete increases, expansion takes place. When temperatures drop, the concrete will contract. The provision to accommodate movement at predetermined locations with proper joint applications prevents the development of stresses that could crack the concrete.

Joint type and spacing will vary with each project according to the type of structure, climatic conditions, and anticipated stresses in the concrete. The coefficient of thermal expansion in concrete is 0.0000055 per linear inch of concrete per degree Fahrenheit of temperature change, yielding approximately .56 inches of movement per 100 feet with a 100° F (38° C) temperature range. To estimate expansion, multiply length in inches x number of degrees of anticipated temperature differential x 0.0000055. Use the resulting anticipated movement to determine correct thickness of the control joint and proper spacing for placement of the joint. Thinner joints (½”, 3/8”, or ½”) (6.35 mm, 9.53 mm, or 12.7 mm) spaced at frequent intervals offer greater control than thicker joints spaced at greater intervals. The basic concept is to provide ample room for the concrete to expand and contract without creating damaging stresses and resultant cracking.

W. R. MEADOWS is the innovator in expansion joint technology. Our ASPHALT EXPANSION JOINT was developed in 1926 and to this day is still used in concrete surfaces throughout the world to help minimize damage as concrete expands and contracts. A wide array of product types are available, including patented (U.S. patent numbers 7,815,772; 8,057,638; 8,038,845; 8,241,463; 6,068,804)

**EXPANSION JOINTS**

**Concrete Technology**

- **FIBRE EXPANSION JOINT** is composed of cellular fibre structure bonded together and uniformly saturated with asphalt to assure longevity. FIBRE EXPANSION JOINT is versatile, resilient, and non-vaporizing. When compressed to half of its original thickness, it will recover to 90% of its original thickness. (U.S. patent numbers 7,815,772; 8,057,638; 8,038,845; 8,241,463; 6,068,804)

**SPECIFICATIONS:**
- **ASTM D1715**
- **AASHTO M 213**
- **CRD-C 508 (Corps of Engineers)**
- **Federal Specification FH-M-341F, Type I**
- **FAA Item P-610.2-7**

**FIBRE LITE™** is a unique, light-duty forming material and expansion joint. Time tested across the United States and Canada, this product is perfect for forming walkways, patios, pool aprons and driveways. FIBRE LITE® is a composition of sealants, including polymerized sealants.

**SPECIFICATIONS:**
- **ASTM D1715**
- **AASHTO M 213** (with exemption for asphalt content)

**ASPHALT EXPANSION JOINT** is used where asphalt saturated rubber and mineral fillers formed under heat and pressure between two asphalt-saturated liners. It is waterproof, permanent, flexible, and self-sealing.

**SPECIFICATIONS:**
- **ASTM D95**
- **AASHTO M 33**
- **Federal Specification FH-M-341F, Type I**
- **FAA Item P-610.2-7**

**CERAMAR®** is a flexible, fabric expansion joint filler composed of a unique blend of ceramics, polyethylene in a very small, closed-cell structure. Gray in color, CERAMAR® is a lightweight, highly flexible, and resilient material that produces a straight-line crack on the surface of concrete slabs and locks into the aggregate to permit expansion up to 140% of original thickness after installation, which permits the fillers to compensate for concrete shrinkage. Normal humidity conditions after installation activate the self-expanding properties of the cork. Product may be cut on jobsite to exact size required. Product is ideal for water-retaining structures.

**SPECIFICATIONS:**
- **ASTM D1715 (Section 5.5-4), with compression requirement modified to 10-25 psi (0.17 - 0.37 MPa)**
- **AASHTO M 153, Type II**
- **ASTM D1714**

**DECK-O-FOAM®** expansion joint filler is a flexible, lightweight, non-staining, polyethylene, closed-cell expansion joint filler. It is a chemically-resistant, ultraviolet stable, non-absorptive, low density, economical, compressible foam that offers an extended service life in both interior and exterior applications. Product is ideal for decorative concrete installations.

**SPECIFICATIONS:**
- **ASTM D4819, Type II**
- **ASTM D4819-D2**
- **ASTM D4819, Type II-D2, B5, D2, L6, S3, T13, T24**
- **ASTM D4819, Type II-D2, B5, D2, L6, S3, T13, T24**

**DECK-O-JOINT®** is a decorative molded joint for use whenever concrete is placed. It is economical, long lasting and trouble-free. DECK-O-JOINT® resists acids, alkalis, chlorine, etc. A light hose down keeps it bright and clean.

**CORK EXPANSION JOINT** is produced from clean, seasoned, granulated cork bonded with a synthetic resin. It is highly resilient, will compress without extrusion, and recovers to 75% of its original thickness after 50% compression.

**SPECIFICATIONS:**
- **ASTM D4819, Type II**
- **AASHTO M 153, Type II**
- **CRD-C 508 (Corps of Engineers)**
- **Federal Specification FH-M-341F, Type II, Class B**
- **FAA Item P-610.2-7**

**SPOUSE RUBBER EXPANSION JOINT** is produced to a uniform thickness and density from gray-colored, top-quality, blown sponge rubber. It is easily compressible and has a recovery of 95% or more of the original thickness and a density of not less than 30 pounds per cubic foot (480.56 kg per cubic meter).

**SPECIFICATIONS:**
- **ASTM D1715, Type II**
- **AASHTO M 153, Type I**
- **CRD-C 508, Type I (Corps of Engineers)**
- **Federal Specification FH-M-341F, Type II, Class A**
- **FAA Item P-610.2-7**

**SNAP-CAP®** is a keyed tongue and groove construction joint. KEYWAY reveals impact and will not strip or wrap. It strips quickly and can be reused or left in place.

**SPECIFICATIONS:**
- **ASTM D1715, Type II**
- **AASHTO M 153, Type III**
- **CRD-C 508 Type III (Corps of Engineers)**
- **Federal Specification FH-M-341F, Type II, Class C**
- **FAA Item P-610.2-7**

**W. R. MEADOWS** is the innovator in concrete expansion joint technology. Our ASPHALT EXPANSION JOINT was developed in 1926 and to this day is still used in concrete surfaces throughout the world to help minimize damage as concrete expands and contracts. A wide array of product types are available, including patented (U.S. patent numbers 7,815,772; 8,057,638; 8,038,845; 8,241,463; 6,068,804)

**SPECIFICATIONS:**
- **ASTM D4819, Type II**
- **AASHTO M 153, Type I**
- **CRD-C 509, Type I (Corps of Engineers)**
- **Federal Specification FH-M-341F, Type II, Class B**
- **FAA Item P-610.2-7**

**SELF-EXPANDING CORK EXPANSION JOINT** produces its own internal pressure to permit expansion up to 140% of original thickness after installation, which permits the fillers to compensate for concrete shrinkage. Normal humidity conditions after installation activate the self-expanding properties of the cork. Product may be cut on jobsite to exact size required. Product is ideal for water-retaining structures.

**SPECIFICATIONS:**
- **ASTM D1715, Type II**
- **AASHTO M 153, Type III**
- **CRD-C 509 Type III (Corps of Engineers)**
- **Federal Specification FH-M-341F, Type II, Class C**
- **FAA Item P-610.2-7**

**KEYWAY** is lightweight, flexible and an easy way to mold lengthy and grooved construction joint. KEYWAY reveals impact and will not strip or wrap. It strips quickly and can be reused or left in place.

**SPECIFICATIONS:**
- **ASTM D1715, Type II**
- **AASHTO M 153, Type II**
- **CRD-C 509, Type II (Corps of Engineers)**
- **Federal Specification FH-M-341F, Type II, Class A**
- **FAA Item P-610.2-7**

**SPEED-E-JOINT®** offers an ideal solution to controlling cracks in concrete. It is a self-adhesive contraction joint that produces a straight-line crack on the surface of concrete slabs and locks into the aggregate just below the surface. SPEED-E-JOINT® is strong, economical and eliminates waste in constructing control lines. It is quick and easy to install. The top section pulls free once the joint has been placed correctly in the wet concrete.
Concrete expands and contracts with temperature and moisture changes. When the temperature rises or the moisture content of the concrete increases, expansion takes place. When temperatures drop, the concrete will contract. The provision to accommodate movement at predetermined locations with proper joint applications prevents the development of stresses that could cause the concrete to crack.

Joint type and spacing will vary with each project according to the type of structure, climatic conditions, and anticipated stresses in the concrete. The coefficient of thermal expansion in concrete is 0.000005 per linear inch of concrete per degree Fahrenheit of temperature change, yielding approximately .06 inch of movement per 100 feet with a 100°F (38°C) temperature range. To estimate expansion, multiply length in inches x number of degrees of anticipated temperature differential x 0.000005. Use the resulting anticipated movement to determine correct thickness of the control joint and proper spacing for placement of the joint. Thinner joints (1/4", 3/8", or 1/2") (6.35 mm, 9.53 mm, or 12.7 mm) spaced at frequent intervals offer greater resistance to cracking.

**W. R. MEADOWS** is the innovator in expansion joint technology. Our ASPHALT EXPANSION JOINT was developed in 1926 and to this day is still used in concrete surfaces technology. Our ASPHALT EXPANSION JOINT was developed to accommodate movement and to this day is still used in concrete surfaces technology. Our ASPHALT EXPANSION JOINT was developed to accommodate movement and this is an expansion joint that provides a time and cost-saving method for forming straight, uniform and debris-free joints of the proper configuration, ready to use. The top of SNAP-CAP pulls free and can be discarded. The exposed concrete surfaces are sealed by the elastomeric adhesive to the sides, it is ideal for both horizontal and vertical concrete projects.

**Self-Expanding Cork Expansion Joint**

- **SPECIFICATIONS:**
  - ASTM D2172, Type I
  - ASTM D 153, Type III
  - CRD-C 509 Type I (Corps of Engineers)
  - Federal Specification HM-F-341F, Type II, Class A
  - FAA Item P-610-2.7

**Cork Expansion Joint**

- **SPECIFICATIONS:**
  - ASTM D1752, Type I
  - ASTM D1752, Type II
  - ASTM D1752, Type III
  - AASHTO M 213, Type II
  - AASHTO M 213, Type III
  - CRD-C 509 Type I (Corps of Engineers)
  - Federal Specification HM-F-341F, Type II, Class B
  - FAA Item P-610-2.7

**Sponge Rubber Expansion Joint**

- **SPECIFICATIONS:**
  - ASTM D1752, Type II
  - ASTM D 153, Type I
  - CRD-C 509 Type I (Corps of Engineers)
  - Federal Specification HM-F-341F, Type II, Class A
  - FAA Item P-610-2.7

**Keyway Expansion Joint**

- **SPECIFICATIONS:**
  - ASTM D1752, Type I
  - ASTM D1752, Type II
  - ASTM D1752, Type III
  - CRD-C 509 Type I (Corps of Engineers)
  - Federal Specification HM-F-341F, Type II, Class B
  - FAA Item P-610-2.7

**Self-Expanding Cork Expansion Joint**

- **SPECIFICATIONS:**
  - ASTM D2172, Type II
  - ASTM D 153, Type III
  - CRD-C 509 Type II (Corps of Engineers)
  - Federal Specification HM-F-341F, Type II, Class A
  - FAA Item P-610-2.7

**Spongeline Expansion Joint**

- **SPECIFICATIONS:**
  - ASTM D1752, Type II
  - ASTM D1752, Type III
  - CRD-C 509 Type I (Corps of Engineers)
  - Federal Specification HM-F-341F, Type II, Class A
  - FAA Item P-610-2.7

**Cork Expansion Joint**

- **SPECIFICATIONS:**
  - ASTM D1752, Type I
  - ASTM D1752, Type II
  - ASTM D1752, Type III
  - CRD-C 509 Type I (Corps of Engineers)
  - Federal Specification HM-F-341F, Type II, Class B
  - FAA Item P-610-2.7

**Spongeline Expansion Joint**

- **SPECIFICATIONS:**
  - ASTM D1752, Type II
  - ASTM D1752, Type III
  - CRD-C 509 Type I (Corps of Engineers)
  - Federal Specification HM-F-341F, Type II, Class A
  - FAA Item P-610-2.7
If you need more information on our complete line of expansion joints, here are four quick and easy access points:

- Visit our comprehensive website: www.wrmeadows.com
- Contact W. R. MEADOWS, INC. via email: info@wrmeadows.com
- Call toll free: 1-800-342-5976
- Fax: 1-847-683-4544

Ideal Applications:
- Sidewalks
- Driveways
- Streets
- Single- and Multi-Level Floor Slabs
- Airport Runways
- Flatwork
- Commercial and Industrial Applications
- Bridge Structures

Whatever your needs... we have the solution.