Construction Tie Products, Inc. is committed to supplying the highest quality masonry tie and construction systems in North America and satisfying all stringent national codes and standards for today’s building structures. CTP, Inc. promises to be a reliable product source along with on-time business integrity for all demanding builders. Call anytime for technical assistance or recommendations.

CTP MAD-2000

Masonry alignment device that provides collateral wall stability and longitudinal freedom for expansion movement

The CTP Masonry Alignment Device-2000 (CTP MAD-2000) joint stabilizing anchor is an all metal, durable anchor assembly, specifically designed to allow movement at expansion, contraction or isolation joints in masonry while maintaining the wall alignment in a direction normal to the movement.

The CTP MAD-2000 is manufactured of either stainless steel or galvanized sheet metal sleeves and connecting rods, depending on specific applications. The wire rods provide the shear resistance to maintain alignment of the joint. The CTP MAD-2000 is a great solution in new construction or retrofit masonry applications. Contributes to green building construction and restoration projects.

The CTP MAD-2000 allows for expansion of clay masonry and shrinkage of concrete or concrete masonry. It is also adaptable for connection to steel framing. It is a great solution for bridging vertical expansion joints and provides collateral stability of adjoining walls while providing longitudinal freedom for expansion movement. It is easy to install and creates an effective way to keep adjoining masonry walls from disconnecting. When constructing the masonry wall, the sleeves are completely embedded in the mortar of the bed joint or the grout of filled CMU. The sleeve design allows for the mortar to key through the specific manufactured openings. The keying action and the complete bedding of the sleeves make for a solid connection to the masonry. Two steel wire connecting rods are factory assembled within the sleeves and spaced with flexible plastic tubing to allow for movement via a telescoping action. The flexible plastic tubing insures that expansion can take place by properly spacing sleeves and preventing mortar build up during construction. The CTP MAD-2000 sleeves can be embedded in masonry bed joints or fastened to existing construction. The CTP MAD-2000 does not require site fabrication of sleeves. It can be added to existing walls if expansion joints are required. It also does not require sash grooves to transfer load.
Effective Solution for Bridging Expansion Joints

The CTP MAD-2000 Advantages

- **Typical Crack or Expansion Joint**
  - Pre-Drilled Holes for Mortar Key or Fastener Location
  - Backer Rod and Sealant
  - Typical Crack or Expansion Joint

- **Fits and Mortar Joint**
  - **Top View**
  - **Side View**
  - **Typical Brick Veneer**
  - **1"**
  - **4 1/2"**

- **Two Connecting Rods with Flexible Plastic Tubing on Both to Prevent Total Closure and Mortar Bridging**
- **Expansion/Contraction Movement**
- **Maintains Wall Alignment**

CTP MAD-2000 Product Information

**Performance**

By installing this anchorage at the expansion joint of continuous adjoining walls, or bridging the crack and expansion joint location of the existing walls, the vertical rotation of the two walls is restricted. Also, by field bending the CTP MAD-2000 just 90°, fastening a leg to a perpendicular abutment, and then embedding the remaining portion in the bed joint of an intersecting wall, provides lateral movement of the intersecting walls. The anchor assemblies are spaced at 16" to 24" centers vertically at the adjoining walls.

The CTP MAD-2000 anchorage is designed principally to resist shear forces between in-plane masonry wythes created by wind loads on the masonry surface. The anchor system consists of two specially designed steel sleeves which are placed in a collinear bed joint of adjoining walls. Each sleeve is bedded in mortar for a solid connection in the opposing masonry wythes. Thereby the assembly bridges the gap or joint between the walls. The CTP MAD-2000 sleeves are connected with two parallel connecting rods. The connecting rods are lubricated and telescopically connected in the opposing sleeves, thus allowing unrestricted longitudinal movement of the walls. The sliding action of the connecting rods provides the proper freedom of movement for full utilization of the expansion joint. The total anchorage is available in Type 304 stainless steel for exterior applications, or zinc plated for interior or less humid situations.

Retrofitting an existing masonry wall with a CTP MAD-2000 will provide a functional expansion joint at select locations. The placement of the assembly will require the removal of existing mortar in order to create a pocket for the CTP MAD-2000. Properly prepare the pocket to bed the assembly in a compatible mortar. Point and finish the concealed device after installation.

**Typical Applications**

- Bridging Vertical Expansion Joints
- Intersecting Walls - Hollow Masonry Units
- Intersecting Walls - Solid Masonry Units
- Connection to Slabs or Spandrel Beams
- Connection of New Walls to Existing Walls
- Retro-fitting Existing Veneers with Expansion Joints
- Steel or Concrete Frame Construction

Average maximum shear load = 300 lb.
Safe working shear load* = 75 lb – 150 lb.
* Safety factor 4:1 or 2:1

Stabilize Cracked Walls for Expansion Control

16" to 24" Typical Vertical Spacing
Effective Solution for Bridging Expansion Joints

CTP MAD-2000 Application Guidelines

Vertical Expansion Joints in New Walls

CTP MAD-2000 CONSTRUCTION TIE PRODUCTS, INC.

Typical Expansion Joint

Two Connecting Rods with Flexible Plastic Tubing to Prevent Total Closure and Mortar Bridging

Intersecting Solid Masonry Walls

Bent On-Site and Sleeve Installed Level with Masonry

Vertical Control Joint

Construction of New to Existing Walls

BED SLEEVES IN MORTAR

EXPANSION JOINT

FASTEN WITH APPROVED METHOD
AND BED SLEEVE IN MORTAR

VERTICAL CONTROL GAP

Steel or Concrete Frame Construction

FASTEN WITH APPROVED METHOD
AND BED SLEEVE IN MORTAR

VERTICAL CONTROL GAP

Fasten to Existing Walls

Tie Opens When Wall Shrinks Vertically

Tie Installed Closed

Vertical Control Gap

Use Approved Method of Attachment for Sleeve to Framing
Effective Solution for Bridging Expansion Joints

CTP MAD-2000 Application Guidelines

Connection to Slabs or Spandrel Beams

- Provides Lateral Support for Single Wythe Walls
- Requires Horizontal Soft Joint
- Tie Opens When Wall Shrinks Vertically and Closes When Clay Brickwork Expands Vertically

Intersecting CMU Walls - Hollow Masonry Units

- Vertical Control Joint
- Grout Fill to Hollow Cores

Order Information

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Material</th>
<th>Packaging</th>
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<tbody>
<tr>
<td>CTP MAD-2000</td>
<td>STAINLESS STEEL PER ASTM 167 TYPE 304</td>
<td>25 PIECES PER BOX</td>
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<tr>
<td>CTP MAD-2000 MG</td>
<td>MILL GALVANIZED PER ASTM A-653, G-60</td>
<td>25 PIECES PER BOX</td>
</tr>
</tbody>
</table>

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Approval

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CTP is an Engineered Anchoring Solutions Provider

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