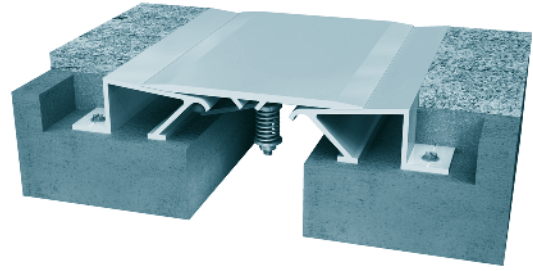




# 400 Series

## Center Bar Seismic Systems for Floors, Walls and Ceilings



Movement Rating $\pm 50\%$	
Product Guide	
	

### Taking Care of Building Movement

Because of how the world works, buildings move. Temperatures change causing buildings to expand and contract. Earthquake activity shifts buildings horizontally, vertically and diagonally. And winds force structures to sway.

To accommodate this movement, buildings must be designed with openings or expansion joints, to absorb the movement. That's where architectural joint systems can help. Architectural joint systems are transitions across these building openings, allowing people and traffic to safely move through the building. These systems are also engineered to move with the building.



The 400 Series architectural joint systems are designed with centering bars that maintain plate position while accommodating seismic movement.

There are numerous types of systems for various applications. To select the system that meets your needs, visit Engineered Metal Products tab at **inprocorp.com** and click on the Engineered Metal Products SpecWizard.



IPC.841/REV.5

# 400 Series

## Suggested Specifications

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Furnish Expansion Joint Systems in accordance with the drawings and general provisions of the Contract.

#### 1.02 WORK INCLUDED

- A. Furnish complete JointMaster/InPro Corporation Expansion Joint Systems.
1. Interior floor expansion joint systems.
  2. Interior wall expansion joint systems.
  3. Interior ceiling expansion joint systems.
  4. Roof expansion joint systems.
  5. Exterior wall expansion joint systems.
  6. Exterior floor expansion joint systems.
  7. Parking deck expansion joint systems.
  8. Fire Rated Assemblies.

#### 1.03 RELATED WORK

- A. Related work which is specified elsewhere.
1. Cast-In-Place Concrete: Section 03300.
  2. Unit Masonry: Section 04810.
  3. Structural Steel: Section 05120.
  4. Lightgage Metal Framing: Section 05400.
  5. Roof Expansion Assemblies - 07716
  6. Sheet Metal Flashing and Trim: Section 7620.
  7. Cement Plaster: Section 09210.
  8. Gypsum Wallboard: Section 09260.

#### 1.04 REFERENCES

- A. Publications listed herein are part of this specification to the extent referenced. The criteria established in the specifications shall take precedence over the standards referenced herein. (An example of a reference standard is given below.)
1. American Society for Testing and Materials (ASTM):
    - a. ASTM B 221, Standard Specifications for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.

#### 1.05 DEFINITIONS

- A. Define industry and product terms as necessary.

#### 1.06 SYSTEM DESCRIPTION

- A. Joint systems shall permit limited movement of joint without disengagement.
1. Specify x-axis joint movement (horizontal).
  2. Specify y-axis joint movement (vertical).
  3. Specify z-axis joint movement (lateral).
- B. Allowable load on floor joint cover plate shall be [50] [100] [200] psf uniform load and [300 pounds concentrated load] [2,000 pounds concentrated load for heavy duty systems] with maximum 12,000 psi stress (6063-T5 aluminum extrusions) or 28,000 psi stress (6061-T6 aluminum plate) or 16,000 psi stress (5052-H32 aluminum sheet) or 36,000 psi stress (stainless steel plate) at full open position.
1. Deflection shall be [1/16] [1/8] inch at neutral position.
  2. In the absence of load selections the minimum load will apply - [50] psf with [1/8] inch deflection.
- C. Fire Rated Assemblies shall have been tested by Underwriters Laboratories, in accordance with [ANSI/U.L. No. 263 and ASTM E 119/E 814] [UL 2079] [including hose stream test at full rated period]. Underwriter's Laboratories shall classify assemblies. Fire rating shall be 2 hours or not less than the fire rating of adjacent construction.

#### 1.07 QUALITY ASSURANCE

- A. Manufacturer: Furnish assemblies from one (1) manufacturer with a minimum of five (5) years of experience in the design, engineering and fabrication of expansion joint systems.
- B. Installer: Firm with not less than three (3) years of successful experience in the installation of systems similar to those required by this project and acceptable to the manufacturer of the system.

#### 1.08 SUBMITTALS

- A. Manufacturer's specifications, technical data, installation instructions, and detail drawings for each system.
- B. Certificates or other documentation confirming UL approved compliance with fire resistance rating of fire barrier assemblies.
- C. Sample of specified systems where required.

#### 1.09 DELIVERY AND STORAGE

- A. Provide temporary protective covers on [anodized aluminum] [stainless steel] finished surfaces.
- B. Deliver joint systems to jobsite in new, clean, unopened cartons or crates of sufficient size and strength to protect materials during transit.
- C. Store components in original containers in a clean, dry location.

#### 1.10 SEQUENCING

- A. Submittals shall be completed and submitted within a reasonable amount of time after award of subcontract.
- B. Subcontract for the work of this section shall be planned to allow sufficient time for manufacturer's production and delivery scheduling.

#### 1.11 WARRANTY

- A. Standard JointMaster/InPro Corporation limited warranty against material and manufacturing defects for a period of not less than three (3) years when installed in accordance with manufacturer's recommendations.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURER

- A. JointMaster/InPro Corporation  
S80 W18766 Apollo Drive  
Muskego, WI 53150 USA  
Phone: (800) 222-5556  
Fax: (888) 715-8407  
Email: service@inprocorp.com
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of section 01600.

#### 2.02 MATERIALS

- A. Aluminum: ASTM B 221, alloy 6063-T6.
- B. Stainless Steel Plates (optional): SS304
- C. Vapor Barrier (optional): 30 mils thick EPDM.
- D. Fire Barrier (optional): [Reactofire 900 Blanket System to UL2079 with hose stream test to walls] or [Reactofire 920 Mineral Wool and Silicone Sealant System to UL2079] required for indicated fire resistance rating.
- E. Fasteners, accessories and other materials required for complete installation in accordance with the manufacturer's instructions.
- F. Centering Bars on systems shall have semi-spheres which engage in the frame.

#### 2.03 INTERIOR JOINT SYSTEMS FOR FLOORS, WALLS AND CEILINGS

- A. Center bar seismic systems: JointMaster 400 Series - Aluminum frame with continuous center plate
1. Floor Systems
    - a. Recessed frame with tapered center plate, floor/floor - 430-A01  
Recessed frame with tapered half plate, floor/wall - 430-A02
    - b. Recessed frame with exposed fastener center plate, floor/floor - 432-A01  
Recessed frame with exposed fastener half plate, floor/wall - 432-A02
    - c. Recessed frame with tapered center plate, floor/floor - 441-A01
    - d. Surface mount frame with tapered center plate, floor/floor - 471-A01  
Surface mount frame with tapered half plate, floor/wall - 471-A02
    - e. New to existing (one recessed frame and one surface mount), floor/floor - 461-A01
  2. Wall/Ceiling Systems
    - a. Recessed frame, wall/wall - 481-A07  
Recessed frame, wall/corner - 481-A09
    - b. Surface mount frame, wall/wall - 491-A07  
Surface mount frame, wall/corner - 491-A09

#### 2.04 FABRICATION

- A. Field assemble components provided in standard lengths with pre-packaged fasteners and accessories.
- B. Fabricate special transitions and corner fittings as required.

#### 2.05 FINISHES

- A. Aluminum:
  1. Floors: Mill finish.
  2. Walls and Ceilings (Series 481 and 491): 204-R1 Commercial Clear Anodized [Custom Color Anodized] [Other] [Prime Painted]
- B. Stainless Steel: 2B

### PART 3 - EXECUTION

#### 3.01

- A. Verify that structural gap and blockout dimensions are in conformance with manufacturer's submittal data.

#### 3.02 INSTALLATION

- A. Joint systems: Install in accordance with manufacturer's instructions. Align work plumb, level and flush with adjacent surfaces. Rigidly anchor to substrate. Allowances should be made where actual structural gap at time of installation varies from nominal design gap.
- B. Set spring clips or centering bars @ 18 inches on center. Spring clips or centering bars shall engage in the frame.
- C. Fire Rated Assemblies: Where required, install to manufacturer's instructions.
- D. Vapor Barrier: Where required, install to manufacturer's instructions. Provide drainage fittings where required.

#### 3.03 PROTECTION AND CLEANING

- A. Protect installation from damage by work of others.
- B. At completion of the installation, clean exposed surfaces with non-solvent cleaner.