# HANGERS PIPING ANCHORS AND GUIDES SECTION

### **30° SWING, SPRING HANGERS**

To complete an envelope, secondary walls must be introduced with the same consideration given to mass and air gap as covered in the floor discussion. The problem is simpler, because the walls normally support only their own weight and they need not have the structural strength of the floor. Poured concrete or concrete block walls should approach the floor density. It is most important that block joints are properly filled with mortar and painting the walls so the construction is more nearly airtight helps.

The best approach is resting these walls on the perimeter of the floating floor so the floor isolation system serves the walls as well. If this is not possible, the second choice is supporting the isolated wall on the structural slab with continuous LDS pads, and providing a caulked fiberglas seal between the floating floor and the wall as described for the perimeter in the previous specifications.



Hangers shall consist of rigid steel frame containing a minimum 11/4"(32mm) thick LDS rubber element at the top and a steel spring with general characteristics as in specification B seated in a steel washer reinforced LDS rubber cup on the bottom. The LDS rubber element and the cup shall have molded bushings projecting through the steel box. In order to maintain stability the boxes shall not be articulated as clevis hangers nor the LDS rubber element stacked on top of the spring. Spring and hanger lower hole diameters shall be large enough to permit the hanger rod to swing through a 30° arc from side to side before contacting the cup bushing and short circuiting the spring. Submittals shall include a hanger drawing showing the 30° capability. Hangers shall be type 30N as manufactured by Mason Industries, Inc.



## **RW30 - Swing Spring Hangers**

Hangers shall be as described in 10, but they shall be supplied with a combination rubber and steel rebound washer as the seismic up stop for suspended piping, ductwork, equipment and electrical cable trays. Rubber thickness shall be a minimum of 1/4" (6mm). Submittals

shall include a drawing of the hanger showing the installation of the rebound washer. Hangers shall be type RW30N as manufactured by Mason Industries, Inc.



# W30 - Swing Spring Hangers

Ceiling Hangers shall be fail safe and include a steel frame containing a nominal 1" deflection steel spring seated in an AASHTO Bridge Bearing Quality Low Dynamic Stiffness Rubber Cup with a rubber bushing extending through the box to prevent metal to metal contact between the steel suspension rod and the frame. Dynamic Stiffness of the cup shall not exceed 1.4. The ID of the bushing must allow a 30° swing from side to side before rod contact. Springs shall be factory pre-compressed to 70% of the assigned deflection. Hangers shall be Mason Industries 30CC for 1-1/2" x 1/2" channel, W30 for wire, W30CC for wire and 1-1/2" x 1/2" channel. Submittals shall confirm AASHTO Quality and Dynamic Stiffness in addition to deflection.



#### 30N - Hangers

Hangers shall consist of rigid steel frame containing a minimum 1-1/4" (32mm) thick LDS rubber element at the top and a steel spring with general characteristics as in specification B seated in a steel washer reinforced LDS rubber cup on the bottom. The LDS rubber element and the cup shall have molded bushings projecting through the steel box. In order to maintain stability the boxes shall not be articulated as clevis hangers nor the LDS rubber element stacked on top of the spring. Spring and hanger lower hole diameters shall be large enough to permit the hanger rod to swing through a 30° arc from side to side before contacting the cup bushing and short circuiting the spring. Submittals shall include a hanger drawing showing the 30° capability. Hangers shall be type 30N as manufactured by Mason Industries, Inc.