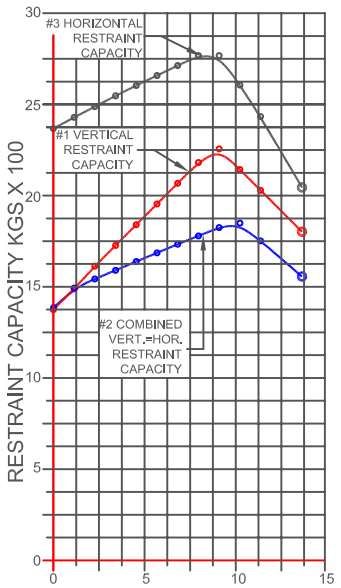



FIGURE 2
STEEL ATTACHMENT

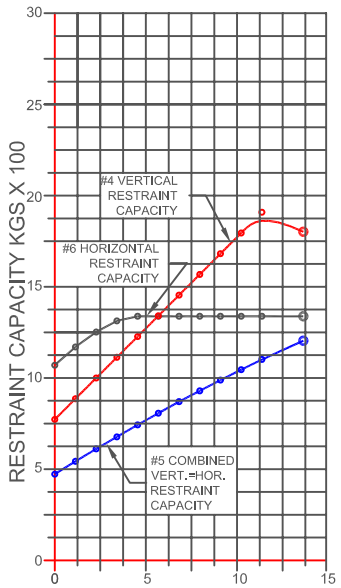
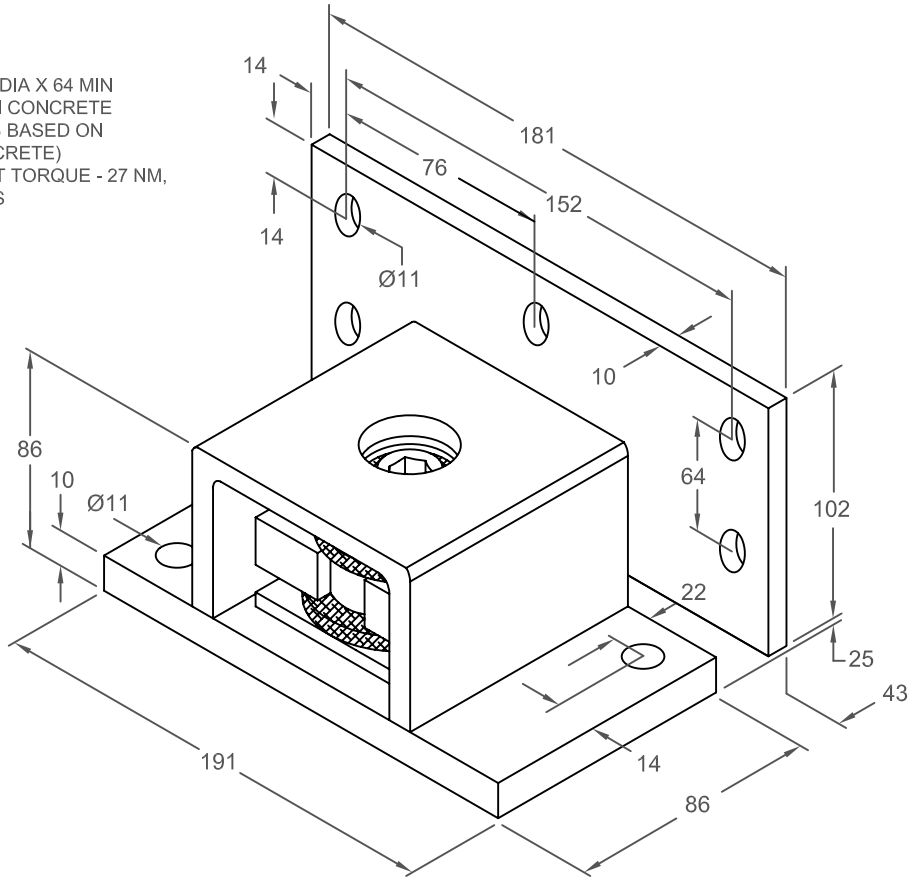



FIGURE 3
CONCRETE ATTACHMENT

FMSA REQUIRES 10 DIA X 64 MIN EMBED ANCHORS IN CONCRETE (ALLOWABLE LOADS BASED ON 20700 kPA MIN CONCRETE)
FMSA ANCHOR BOLT TORQUE - 27 NM, PULL TEST - 550 KGS




## RESTRAINT CAPACITY ENVELOPE GENERATION

### RESTRAINT ONLY (NO SPRING ELEMENT)

1) READ THE ANCHORED (CONCRETE) OR BOLTED (STEEL) ENVELOPES DIRECTLY FROM FIGURE 1 AT RIGHT

### RESTRAINT WITH SPRING SUPPORT ELEMENT (ISOLATOR/RESTRAINT)

1) DETERMINE THE MAXIMUM EQUIPMENT LOAD SUPPORTED BY THE ISOLATOR(S)
2) IF THROUGH-BOLTED (STEEL), REFER TO FIGURE 3. IF ANCHORED (CONCRETE), REFER TO FIGURE 2.
3) PLOT THE VERTICAL RESTRAINT CAPACITY FROM CURVE #1 (FIGURE 2) OR #4 (FIGURE 3) ON THE VERTICAL AXIS OF FIGURE 1.
4) PLOT THE HORIZONTAL RESTRAINT CAPACITY FROM CURVE #3 (FIGURE 2) OR #6 (FIGURE 3) ON THE HORIZONTAL AXIS OF FIGURE 1.
5) PLOT THE COMBINED RESTRAINT CAPACITY FROM CURVE #2 (FIGURE 2) OR #5 (FIGURE 3) AT THE POINT ON FIGURE 1 WHERE THE VERTICAL AND HORIZONTAL FORCES BOTH MATCH THIS VALUE.
6) CONNECTING THESE POINTS CREATES AN ENVELOPE THAT SHOWS THE RESTRAINT'S CAPACITY WHEN SUBJECTED TO EQUIPMENT SUPPORT AND SEISMIC LOADS SIMULTANEOUSLY.
7) FOR THE RESTRAINT TO BE ADEQUATE, ALL WORST CASE SEISMIC LOADS MUST FALL WITHIN THE ENVELOPE.

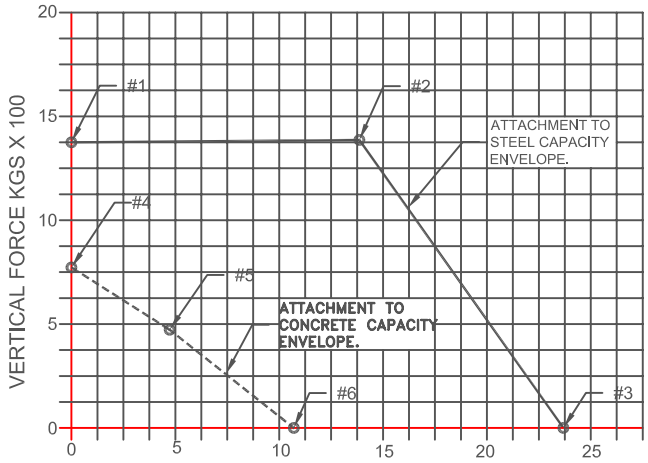



FIGURE 1
RESTRAINT CAPACITY ENVELOPE

## SPECIFICATIONS:

- 3 AXIS RESTRAINT WITH REPLACEABLE NEOPRENE SNUBBING ELEMENTS
- HOT DIPPED GALVANIZED
- HOUSINGS MAY BE USED FOR BLOCKING DURING EQUIPMENT ERECTION
- CAN BE USED WITH OR WITHOUT SPRING COIL

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| KINETICS Noise Control | Member VISCMA Vibration Isolation and Seismic Control Manufacturers Association | KINETICS NOISE CONTROL, INC<br>6300 IRELAN PL,<br>DUBLIN, OH 43017 USA<br>Ph: 614 889-0480, Fax: 614 889-0540<br>www.kineticsnoise.com | Model:<br>FMSA RESTRAINT | By: JMJ<br>Date: 10/13/03<br>Revised: / | Drawing No:<br>S-01-40.800(M) |