“EFFECTIVE RESOURCES FOR EXECUTION of 
SEISMIC RESTRAINT SYSTEMS FOR 
NON-STRUCTURAL COMPONENTS IN NEW 
and RETRO-FIT CONSTRUCTION”

- SPECIFIC FOCUS ON DISTRIBUTED 
  MECHANICAL, ELECTRICAL and 
  PLUMBING SYSTEMS
A CONCERN VOICED IN PREVIOUS MCEER CONFERENCES RE. SEISMIC RESTRAINTS FOR UTILITIES:

“A GULF EXISTS BETWEEN S.E.’s RESPONSIBLE FOR THE STRUCTURE and M.E.P. ENGINEERS RESPONSIBLE FOR THE UTILITIES.”
PROBLEM IS EXACERBATED BY LACK OF DIRECTION WITHIN SUB-TRADE CODES.

LITTLE OR NO INDICATION IS GIVEN THAT TRADES MUST REFER TO STRUCTURAL CODES FOR GUIDANCE.
SUCH GULFS RESULT IN DIMINISHED OVERSIGHT OF UTILITY SEISMIC RESTRAINT SYSTEMS and SUBSEQUENT INEFFECTIVE SYSTEM PROTECTION
THE SOLUTION

EXPERIENCED SEISMIC RESTRAINT PRACTITIONERS PRO-ACTIVE IN THE DESIGN, MANUFACTURE, INSTALLATION AND INSPECTION OF RESILIENT SEISMIC SYSTEMS

DO SUCH PRACTITIONERS EXIST?

YES
OWNERS, DESIGNERS, BUILDING OFFICIALS, INSPECTORS, CONTRACTORS, ETC. NEED TO BE AWARE THAT EFFECTIVE, IMPLEMENTABLE RESOURCES ARE READILY AVAILABLE TO PROVIDE SEISMIC RESTRAINT PROVISIONS
Recommended Minimum Required Services From Seismic Source

- **Seismic Site Reviews/ Surveys**
- **Seismic Location Layouts Performed On Project Dwgs.**
- **Restraint Hardware Packaged In Kit Form**
- **Kits Labeled To Match Restraint Layout On Project Dwgs.**
- **Engineered Restraint Solutions**
- **Engineered Installation Details**
- **Full Service Engineering Capable**
- **Installer, Supervisor, Inspector Training**
- **Final Walk Thru**
International Seismic Application Technology

Dedicated to assisting engineers, contractors and project teams achieve code compliance in a cost effective manner.
Commercial, Institutional, Industrial, Hi-Tech and Essential Facilities
“International Seismic Application Technology”

- A Manufacturer of Seismic Restraint Hardware
- A Provider of Extensive Engineering Support Services For Installing Contractors
Efficacy Of Utilizing An Experienced Practitioner With Broad Based Services Has Been Validated By The More Than 2,200 Projects "ISAT" Has Been Asked To Participate In Over The Past 5 Years Alone.
ISAT Features “Rod Capture” Bracket Seismic Restraint Technology

- Connects directly to vertical support rods
- No disassembly required
- Reduces labor and installation costs
- Style “RCHW” hinged bracket for rigid channel or aircraft cable brace arms
- Style “RCC” for aircraft cable brace arms
- ICBO Evaluation Report # PFC-5566
- Including testing laboratory inspection label
Style “RCHW” Rod Capture Bracket

1. EASY TO INSTALL
AFTER UTILITIES HVAC, ELECTRICAL, MECHANICAL OR CEILING GRIDS ARE SUSPENDED.
ISAT Design, Installation and Inspection Manual

OSHPD APPROVED OPA-0485

I.S.A.T.
ENGINEERED SEISMIC BRACING OF SUSPENDED UTILITIES

- PLUMBING
- MECHANICAL PIPING
- MECHANICAL EQUIPMENT
- HVAC DUCTS
- CABLE TRAYS & BUS DUCTS
- ELECTRICAL CONDUITS
- CONDUIT RACKS

MAIN OFFICE: (877) 999-ISAT
FACSIMILE: (714) 523-0845
3rd Edition ISAT Manual

In Compliance With 1997 UBC and 1998 CBC Section 1632

OSHPD Pre-Approval #OPA-0485


Available In Fall, 2006
2006 IBC Compliant
ISAT Engineering and Installation Details

Covering Full Range of MEP Trades With A CAD Library of Over 200 Installation Details For Suspended Utilities:

- Plumbing and Process Piping
- Medical Gas Piping
- Mechanical Piping
- Mechanical Equipment
- Electrical Conduit
- Electrical Cable Trays and Bus Duct
- Vibration Isolated Systems
- Fire Protection Systems
ISAT Pre-Engineered
Seismic Restraint Bracing Tables

Up to 2.00 Gs Horizontal Force for:

- Pipe to 16”, Conduit to 6” in diameter
- Trapeze racks with rigid bracing up to 225 lbs/lf
- Trapeze racks with cable bracing up to 175 lbs/lf
- Suspended equipment up to 7,500 lbs
Engineered Seismic Restraint Layout on Project Drawings
Factory Assembled Bracing Kits

Get it done right the first time!

- All the correct parts
- Complete installation details
- Lowers installation costs
- Speeds up installation
- Aids in the inspection process
- Eliminates costly rework
ISAT Bracing Kits Correspond to Shop Drawing Bracing Layout
ISAT Seismic Layouts
An Invaluable Inspection Tool
Comprehensive On-Site Support

- Seismic Site Reviews
- Submittal Preparation
- Value Engineering
- Custom Solutions
- Installation Training
- Installation Coordination
- Problem Resolution
- Post Installation Site Reviews
International Seismic Application Technology
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