SVCS-110 SEISMIC SPECIFICATION APPLICATION DRAWINGS

SVCSA

Seismic Applications are basically the same as Non-Seismic but complicated by the need to keep equipment in place. Whenever we show our Z-1011 heavily cushioned snubbers, the input to the equipment will not exceed 4 g. All mountings, hanger-cables or snubbers are designed to resist the seismic force in any zone or specification. Many of the mountings and hangers are the same as in static locations but designated by numbers in the Selection Guide rather than letters to distinguish the two applications. We hope these illustrations will help.

Norm Mason

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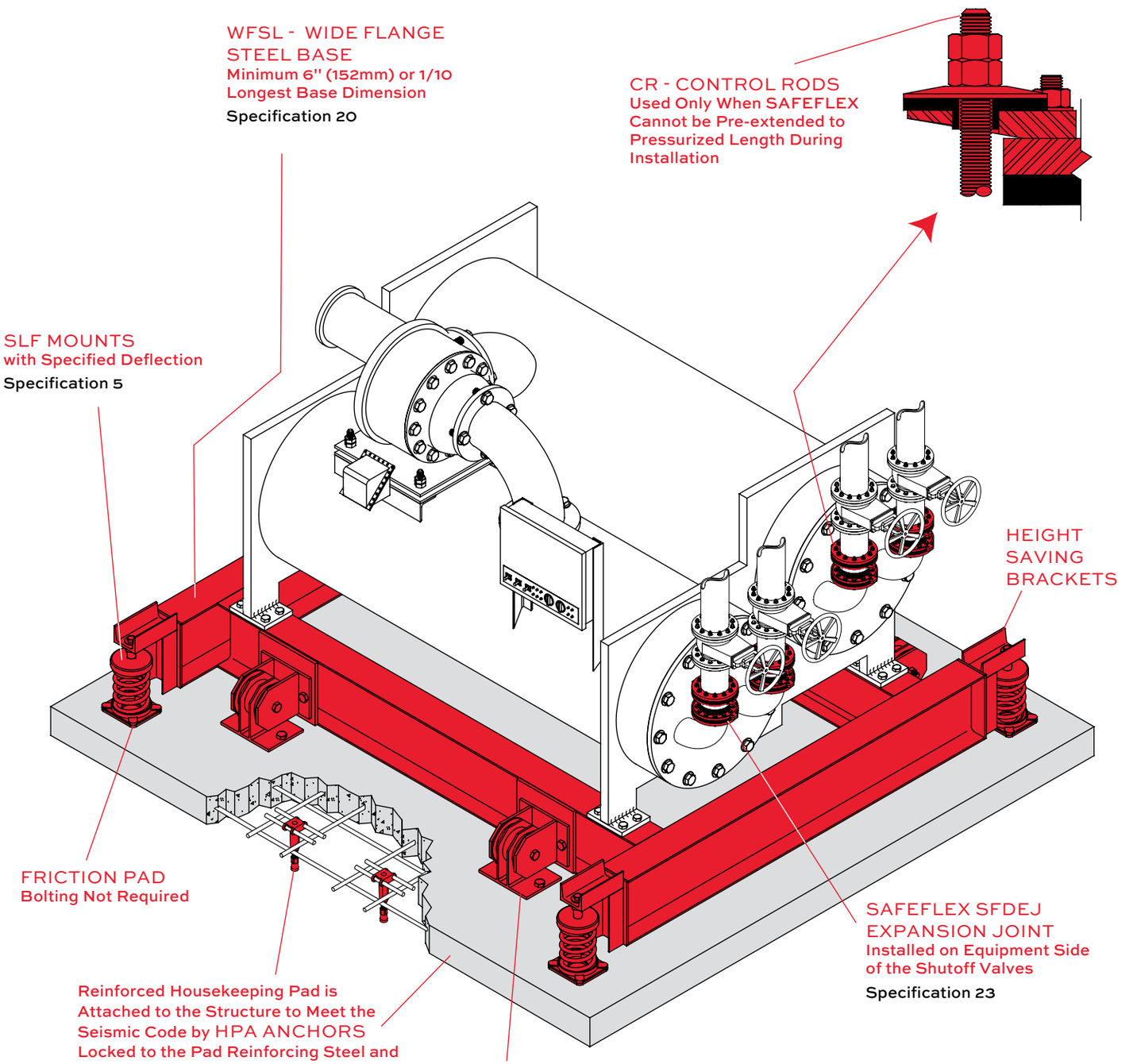
NOTE: All floor mounted systems are on seismically attached Housekeeping Pads. All pipelines include Safeflex expansion joints to allow seismic movement.
NOTE: See Bulletin SVCS-110-7 Part 2 pages 3•41 – 3•56 for Specification text and drawings.

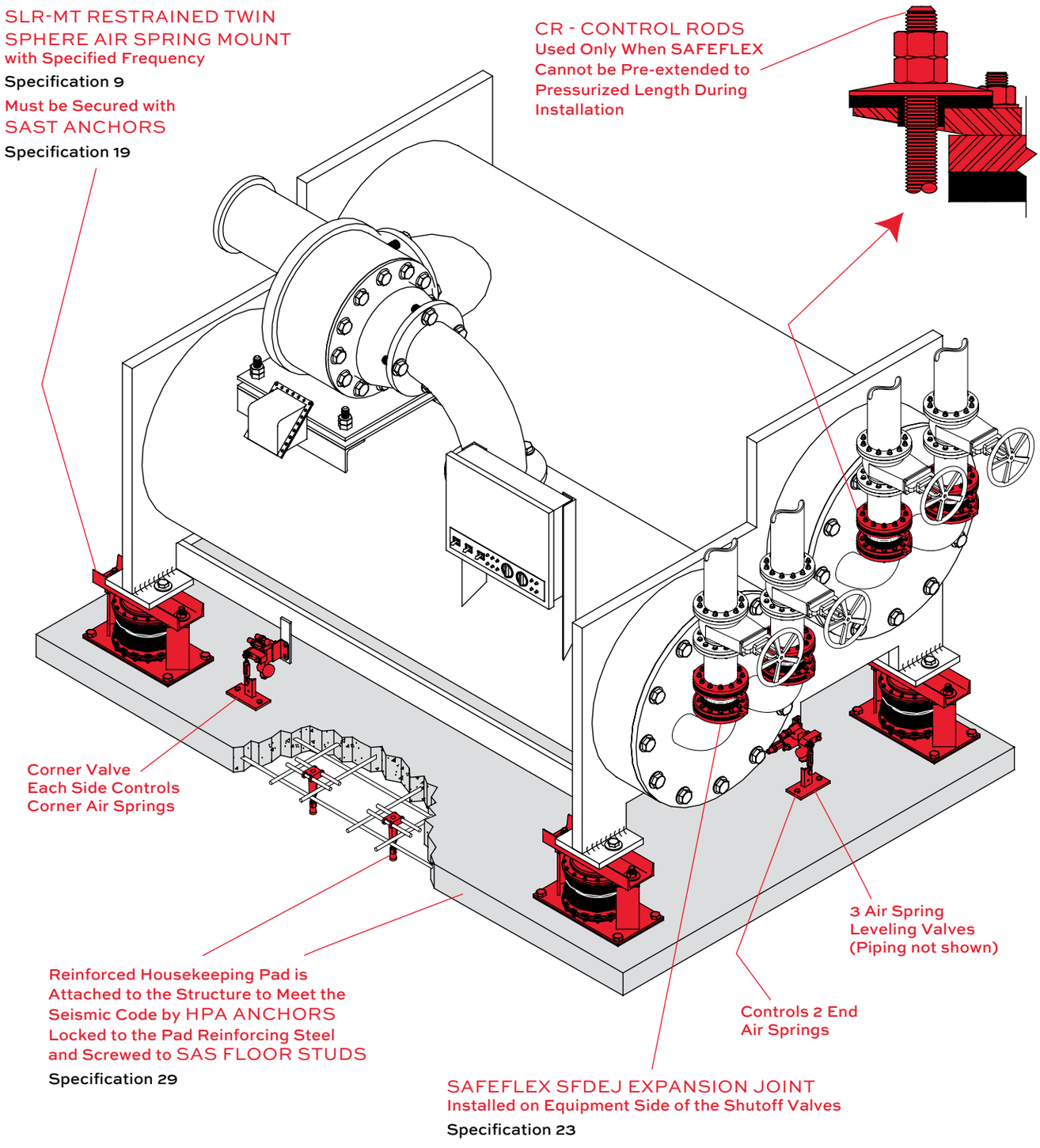
CENTRIFUGAL CHILLER

Centrifugal Chiller on a **WFSL** Base with Height Saving Brackets and high deflection **SLF** Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured By **HPA** Anchors. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



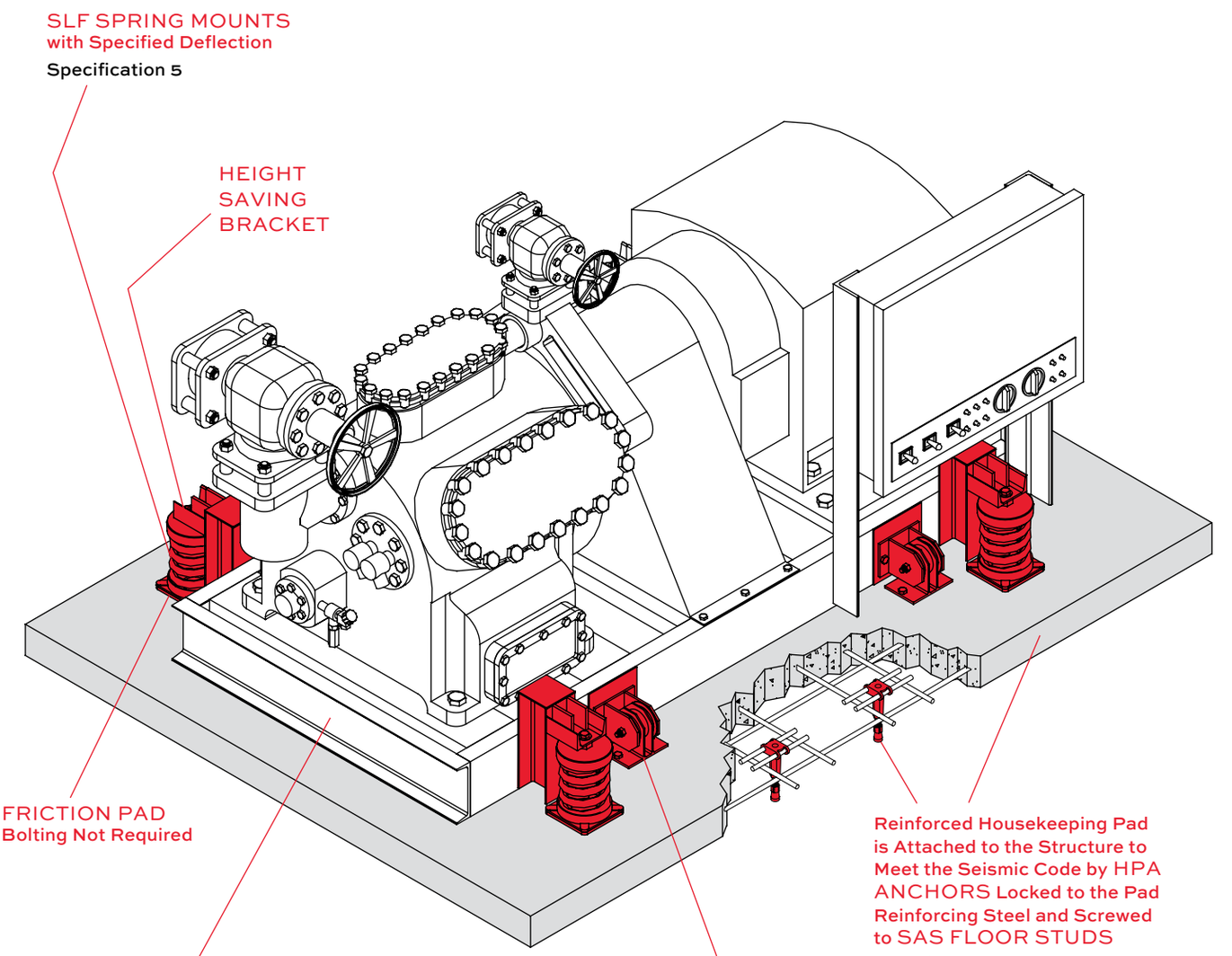
CENTRIFUGAL CHILLER

Centrifugal Chiller directly mounted on seismically rated **SLR-MT** Restrained Twin Sphere Air Spring Mounts. Reinforced housekeeping pad secured by **HPA** Anchors. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



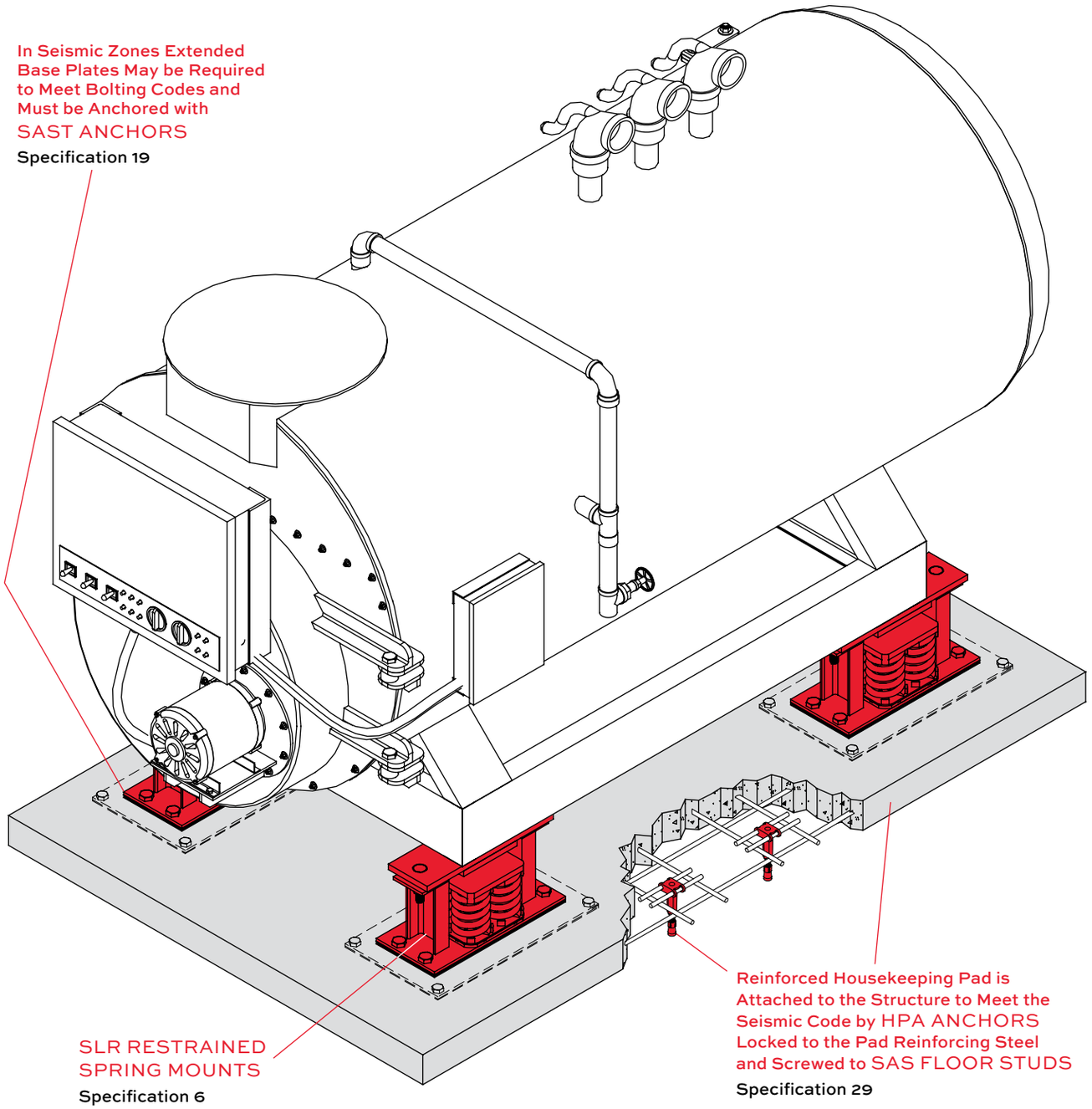
RECIPROCATING DIRECT DRIVE COMPRESSOR

Reciprocating Direct Drive Compressor with height saving brackets on high deflection **SLF** Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors.



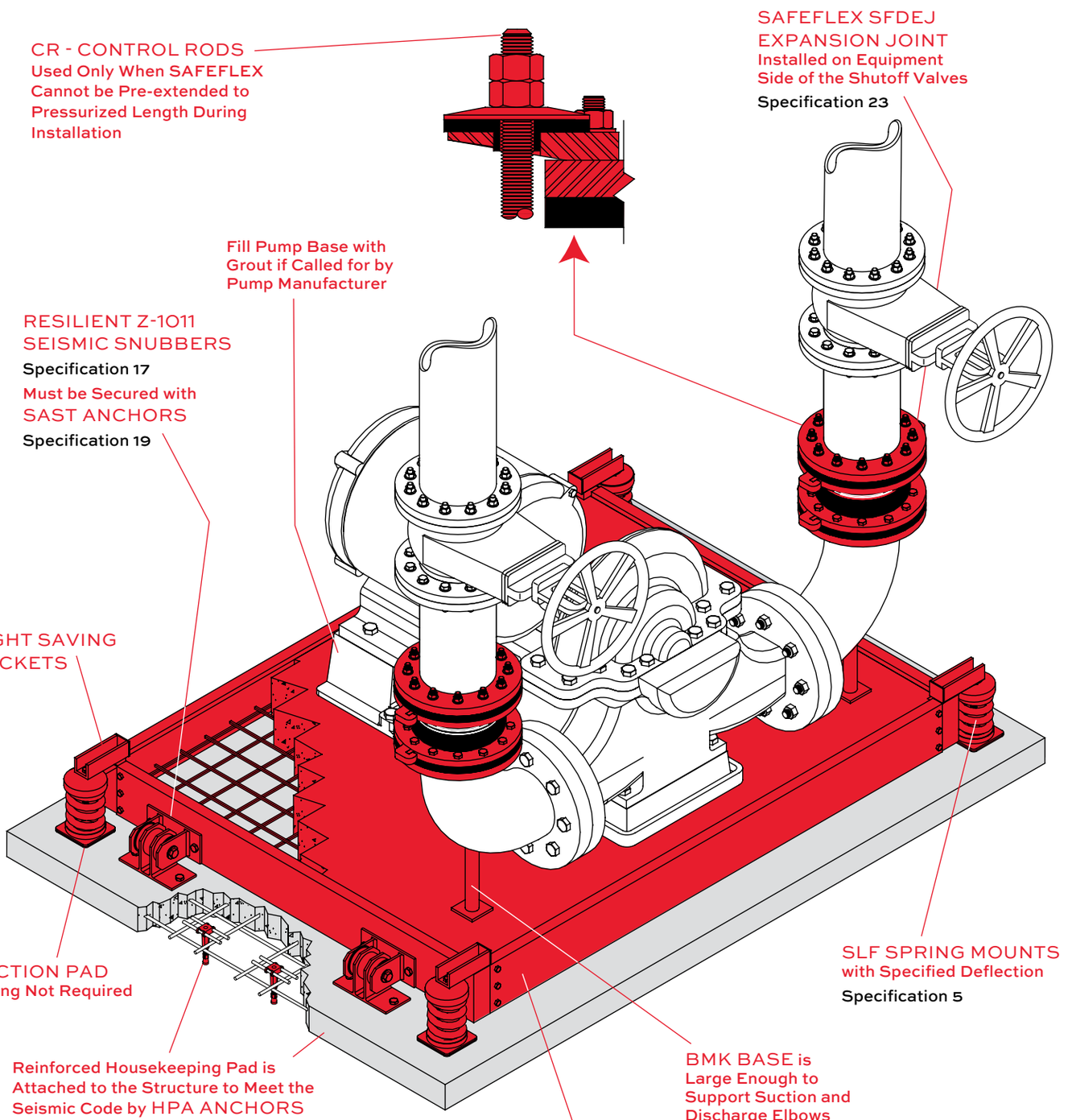
STEAM GENERATOR

Steam Generator directly mounted on **SLR** Restrained Spring Mounts.
Reinforced housekeeping pad secured by **HPA** anchors.



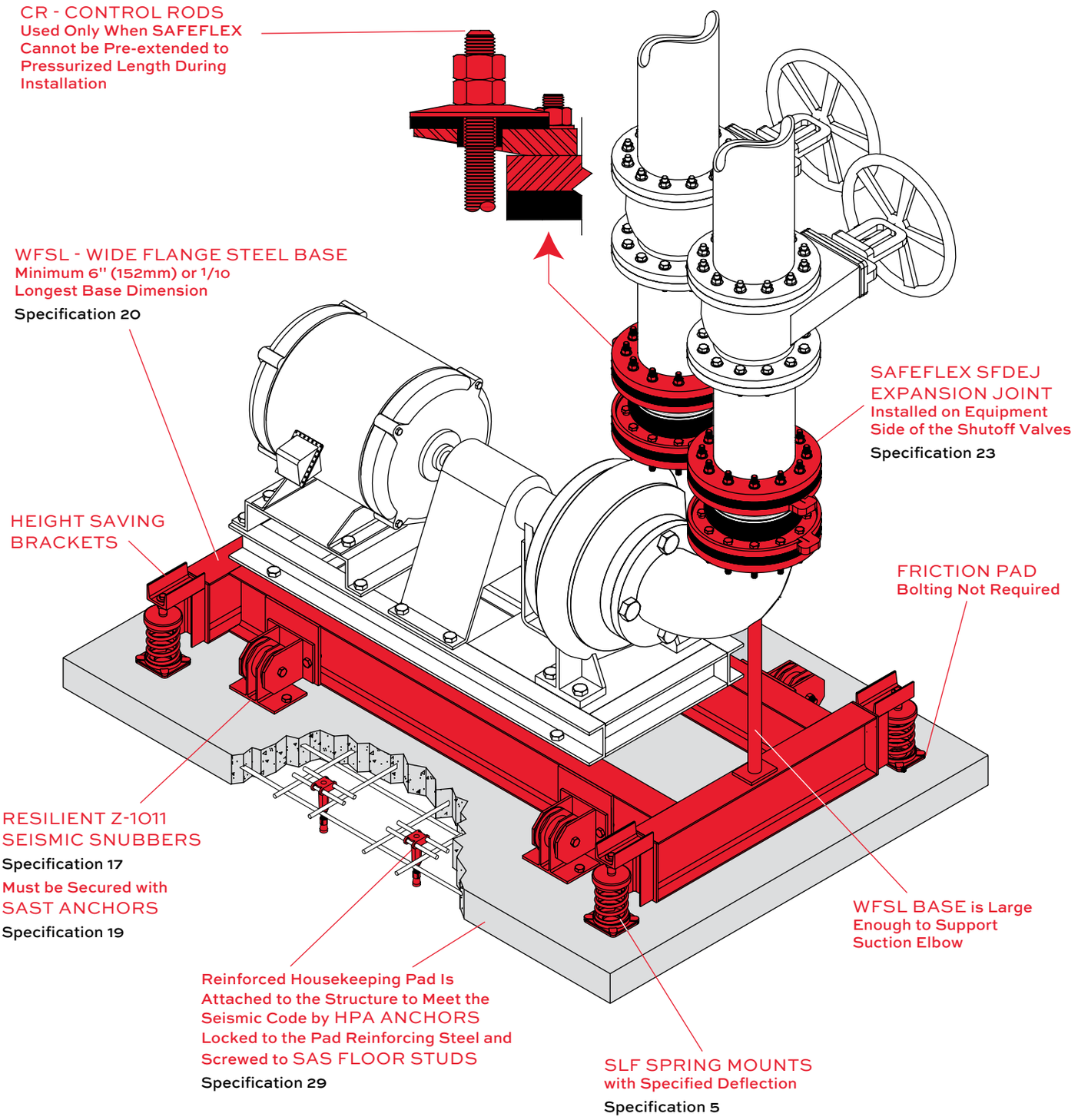
DOUBLE SUCTION PUMP

Double Suction Pump on concrete filled **BMK** Base with height saving brackets, high deflection **SLF** Spring Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



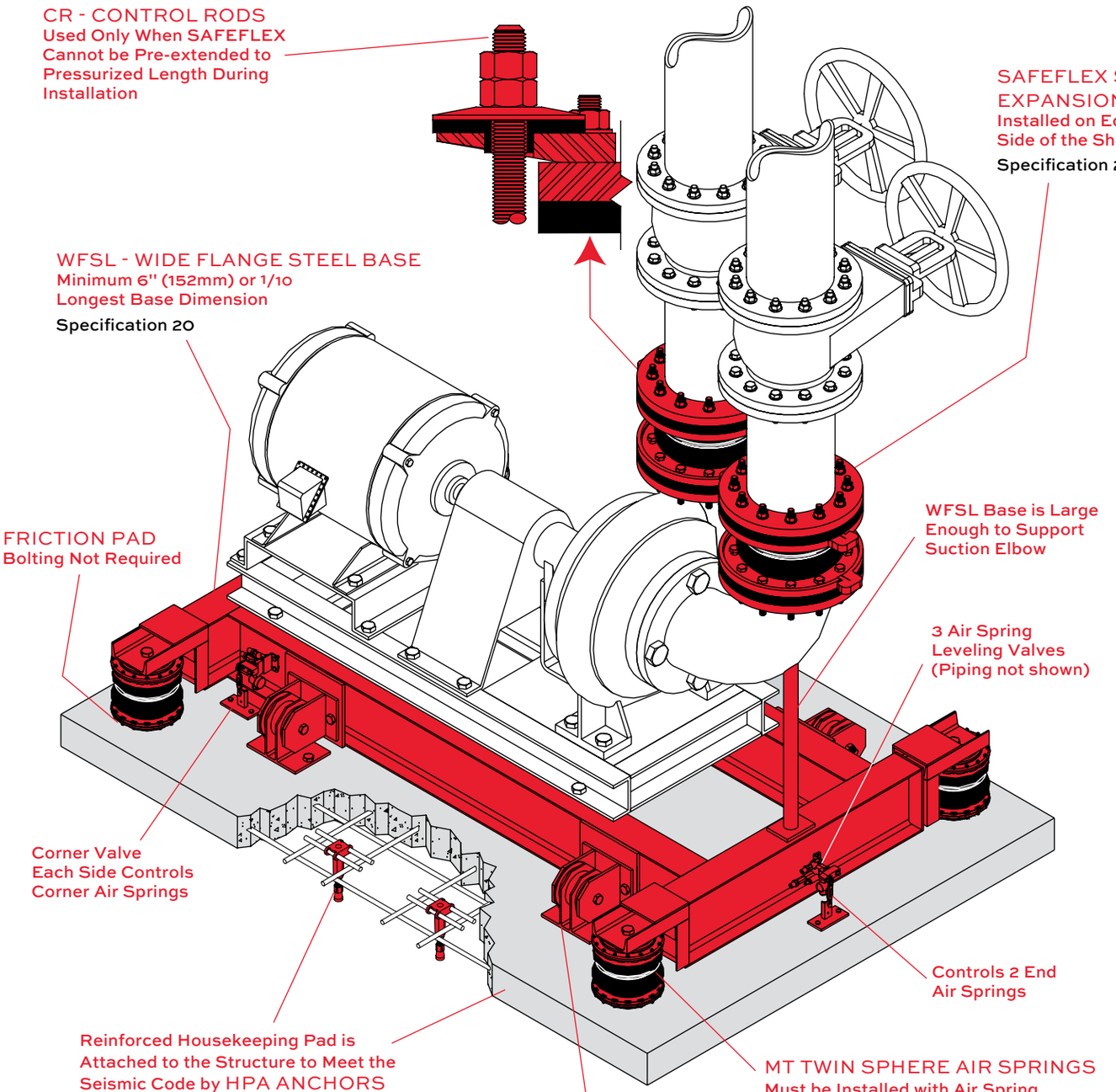
END SUCTION PUMP

End Suction Pump on **WFSL** Base with height saving brackets, high deflection **SLF** Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



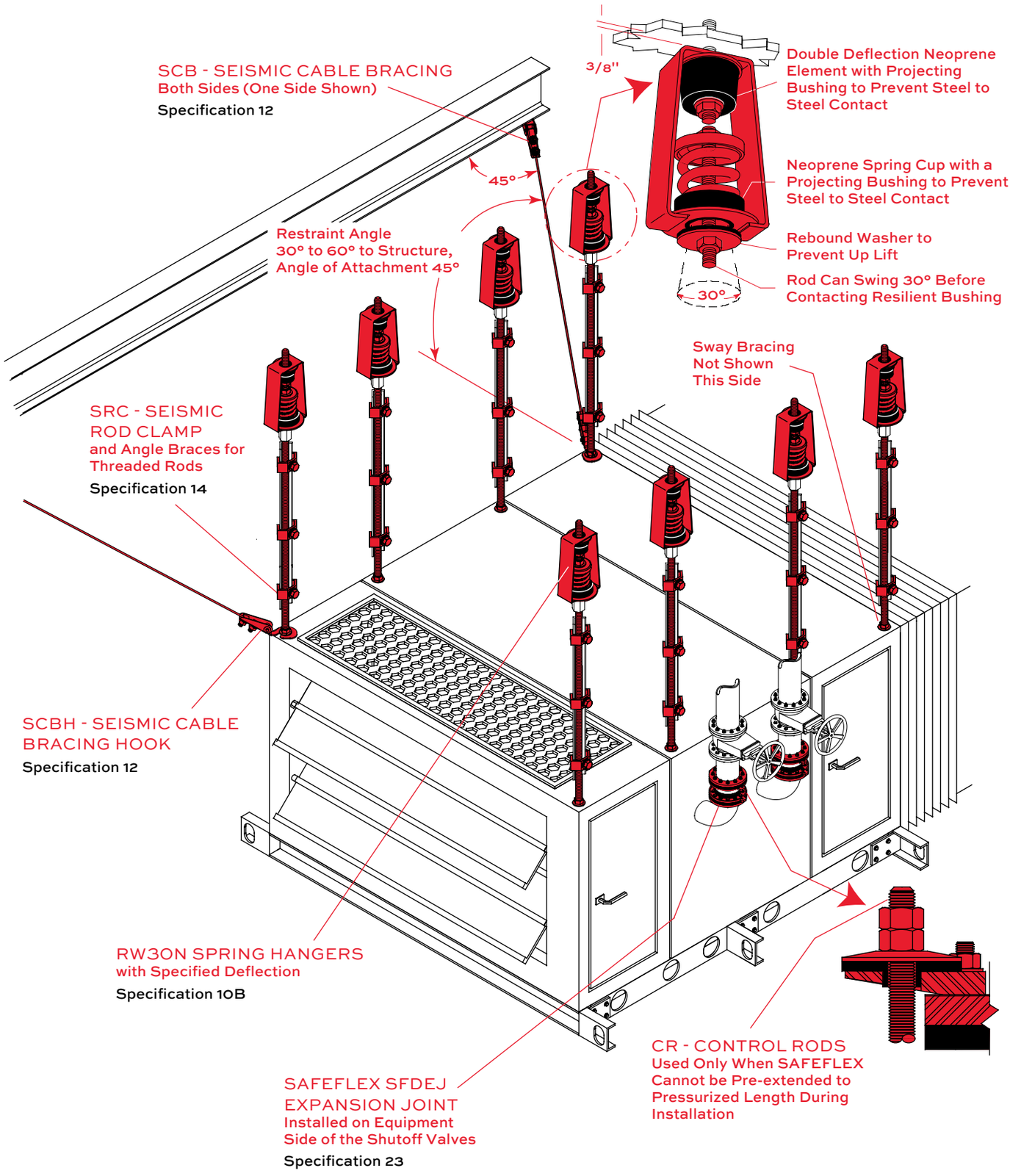
END SUCTION PUMP

End Suction Pump on **WFSL** Base with height saving brackets, **MT** Air Springs and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



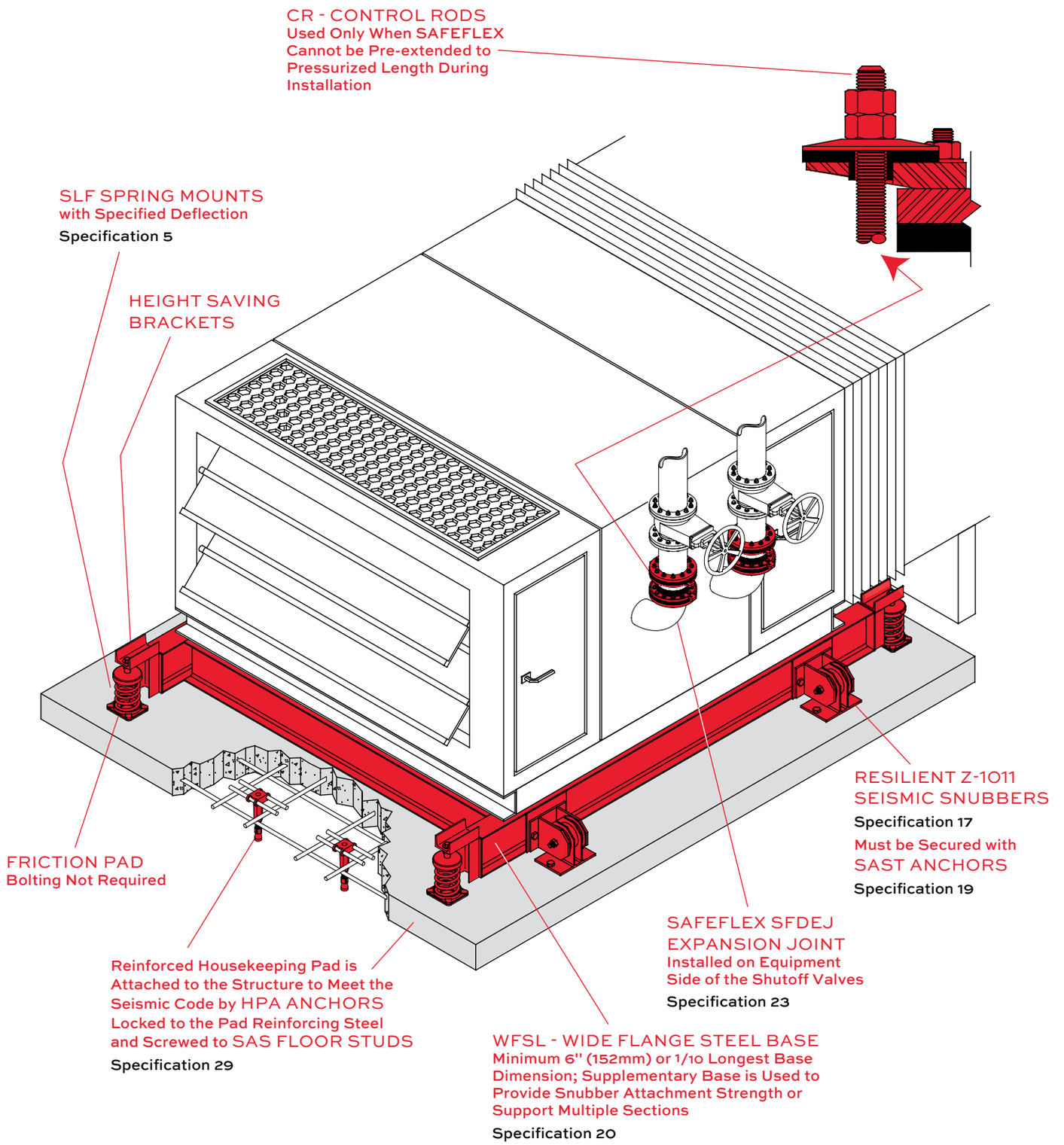
HVAC UNIT

HVAC Unit suspended from **RW30N** Hangers and restrained by **SCB** Cable Assemblies in four corners. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



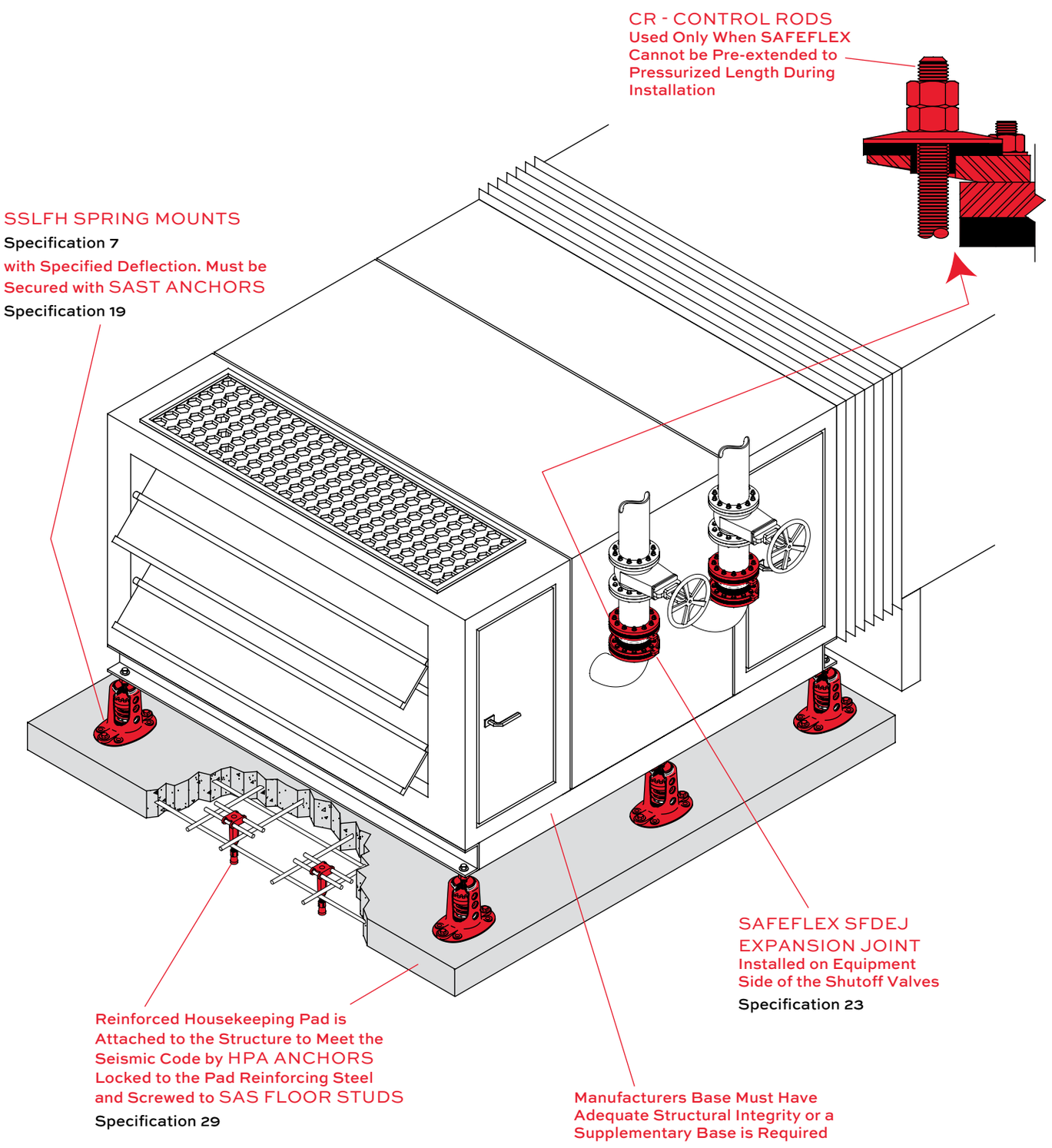
HVAC Unit

HVAC Unit on steel base with height saving brackets, high deflection **SLF** Spring Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



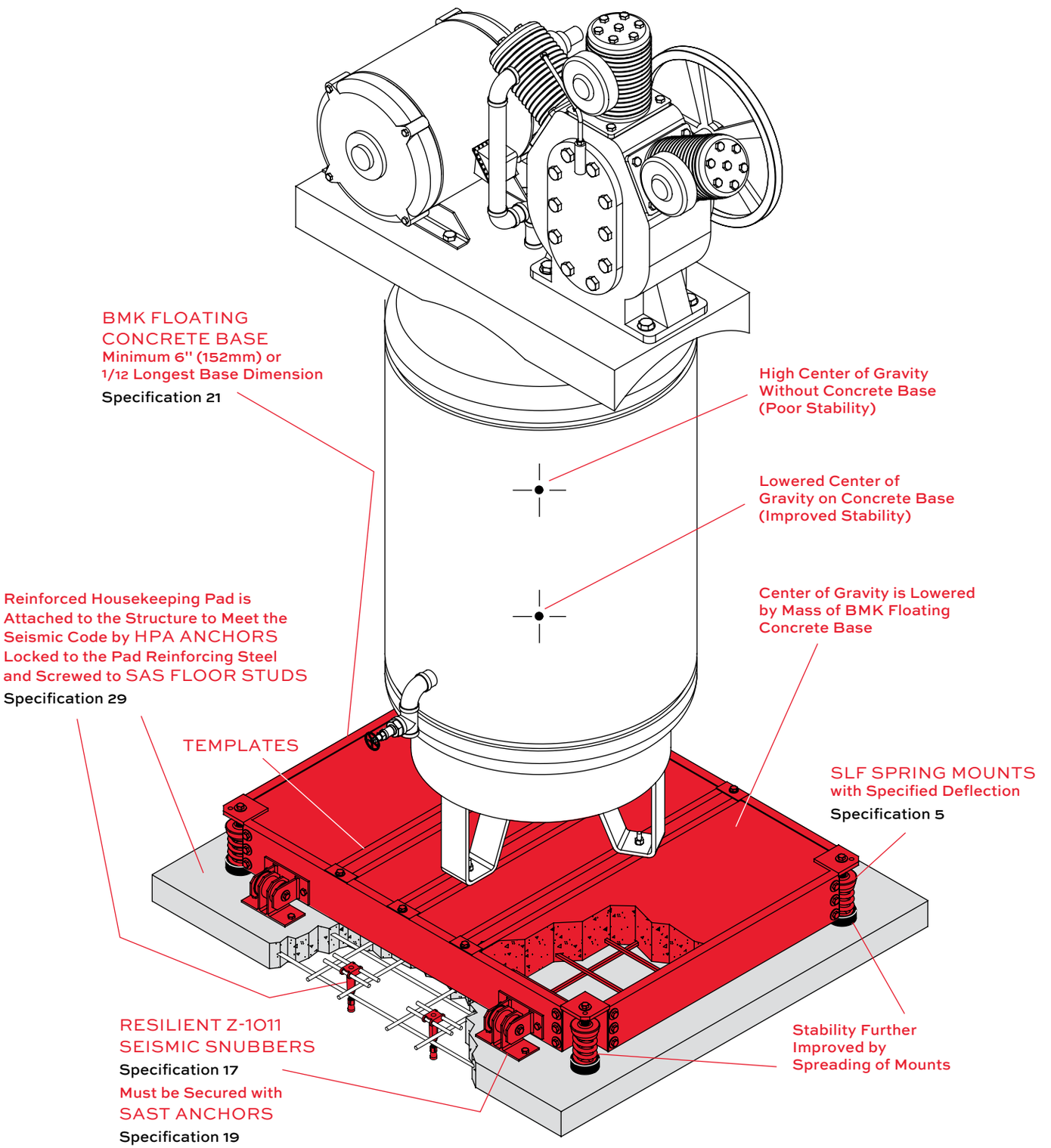
HVAC Unit

HVAC Unit directly mounted on 1" (25mm) deflection **SSLFH** Spring Mounts. Reinforced housekeeping pad secured by **HPA** Anchors. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



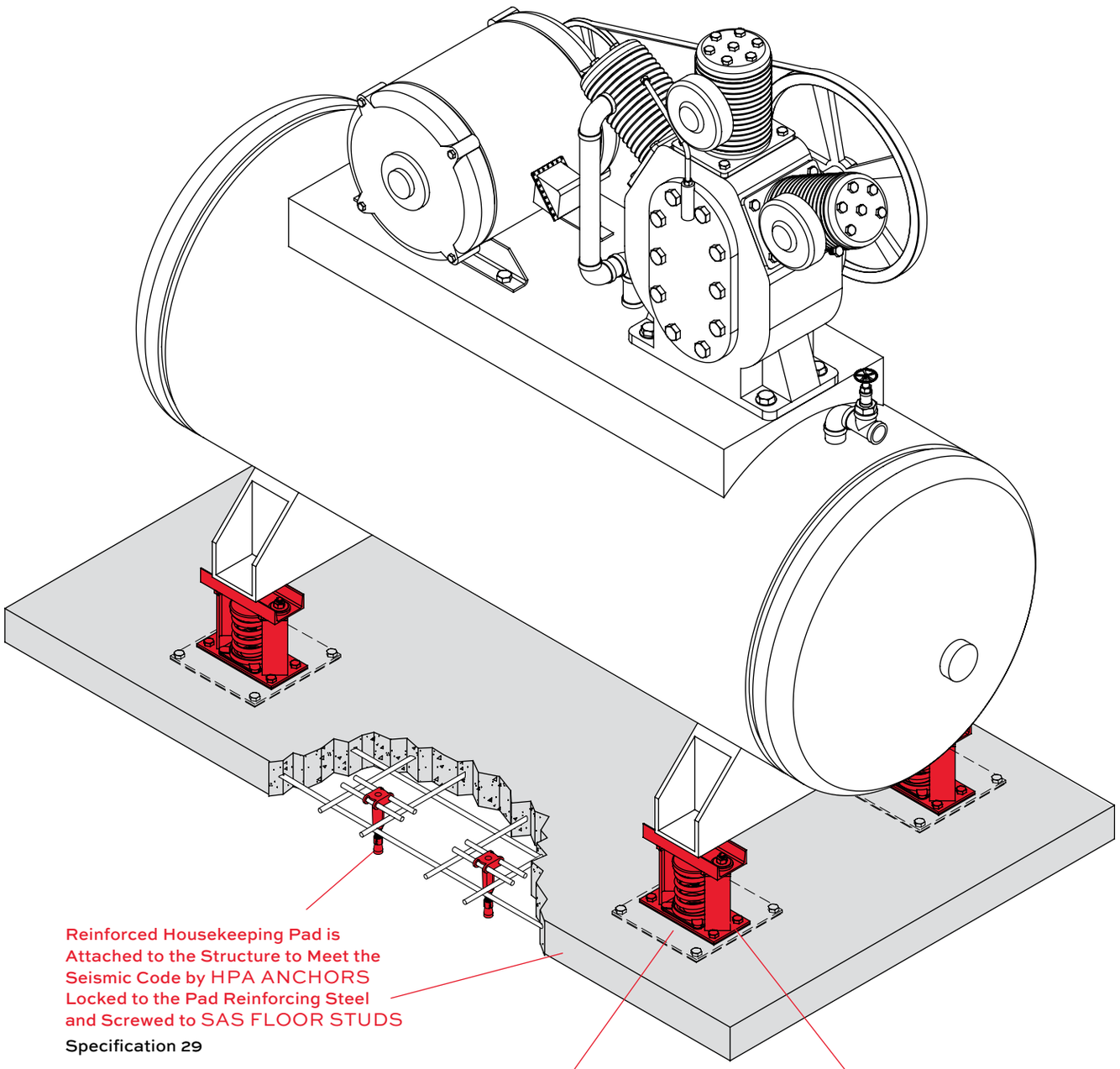
VERTICAL TANK TYPE COMPRESSOR

Vertical Tank Type Compressor directly mounted on **BMK** Concrete Filled Base, 1" (25mm) deflection **SLF** Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors.



HORIZONTAL TANK TYPE COMPRESSOR

Horizontal Tank Type Compressor directly mounted on **SLR** Restrained Spring Mounts.
Reinforced housekeeping pad secured by **HPA** Anchors.



Reinforced Housekeeping Pad is Attached to the Structure to Meet the Seismic Code by HPA ANCHORS Locked to the Pad Reinforcing Steel and Screwed to SAS FLOOR STUDS

Specification 29

In Seismic Zones Extended Base Plates May be Required to Meet Bolting Codes and Must be Anchored with SAST ANCHORS

Specification 19

SLR RESTRAINED SPRING MOUNTS

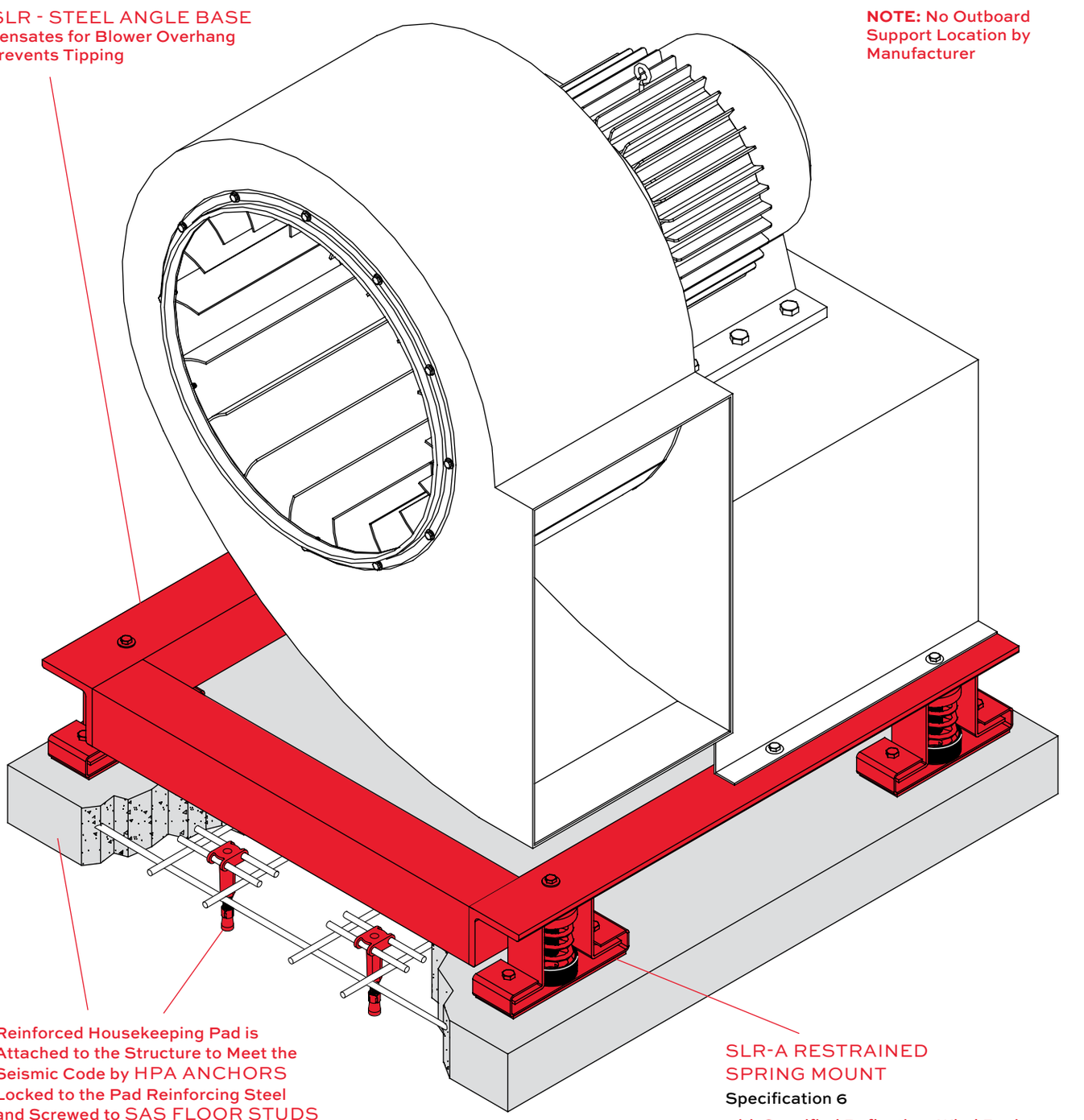
Specification 6

with Specified Deflection. Must be Secured with SAST ANCHORS

Specification 19

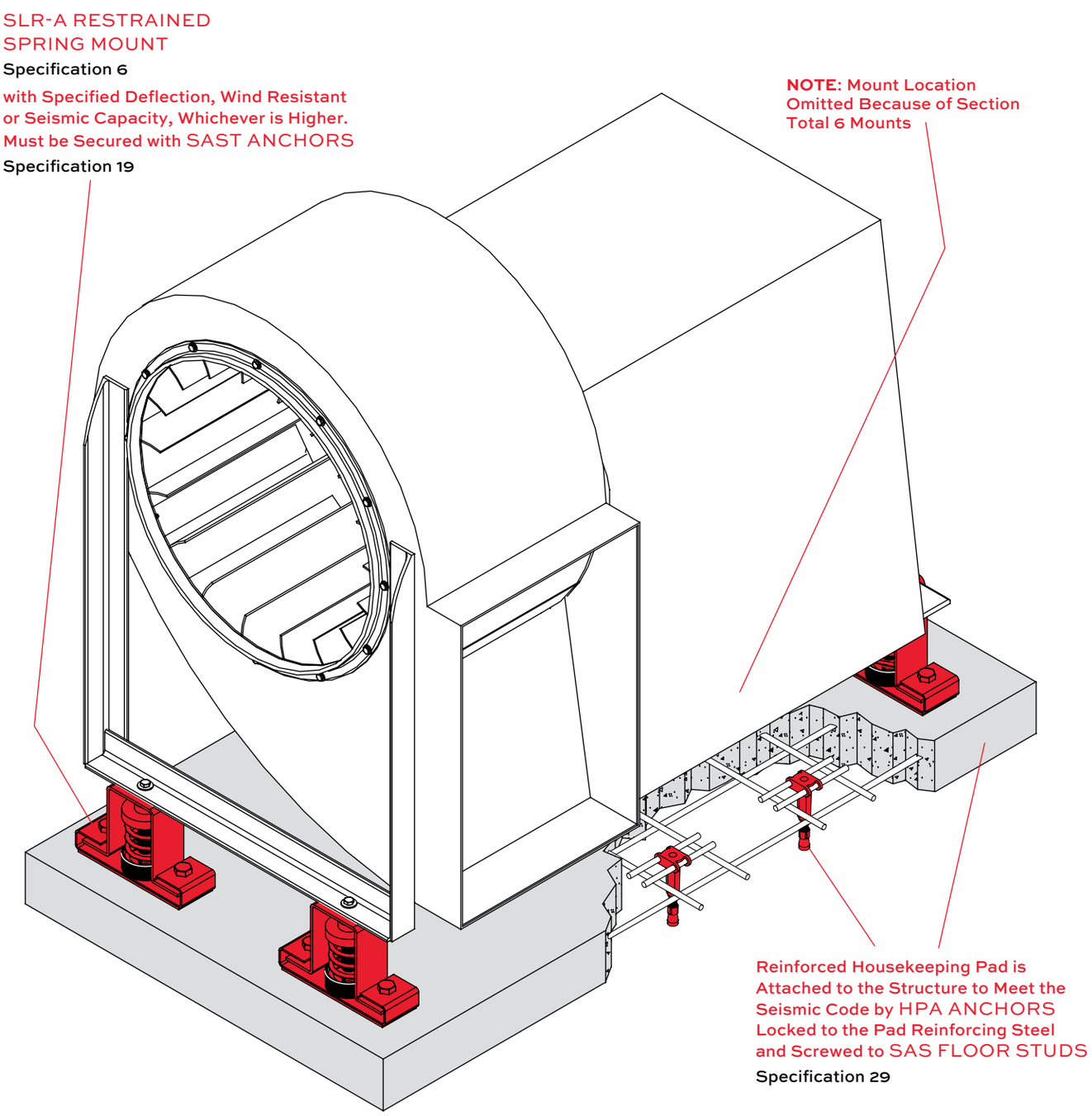
DIRECT DRIVE BLOWER

Direct Drive Blower bolted to **MS-SLR** Steel Angle Base supported by **SLR-A** Restrained Spring Mounts. Reinforced housekeeping pad secured by **HPA** Anchors.



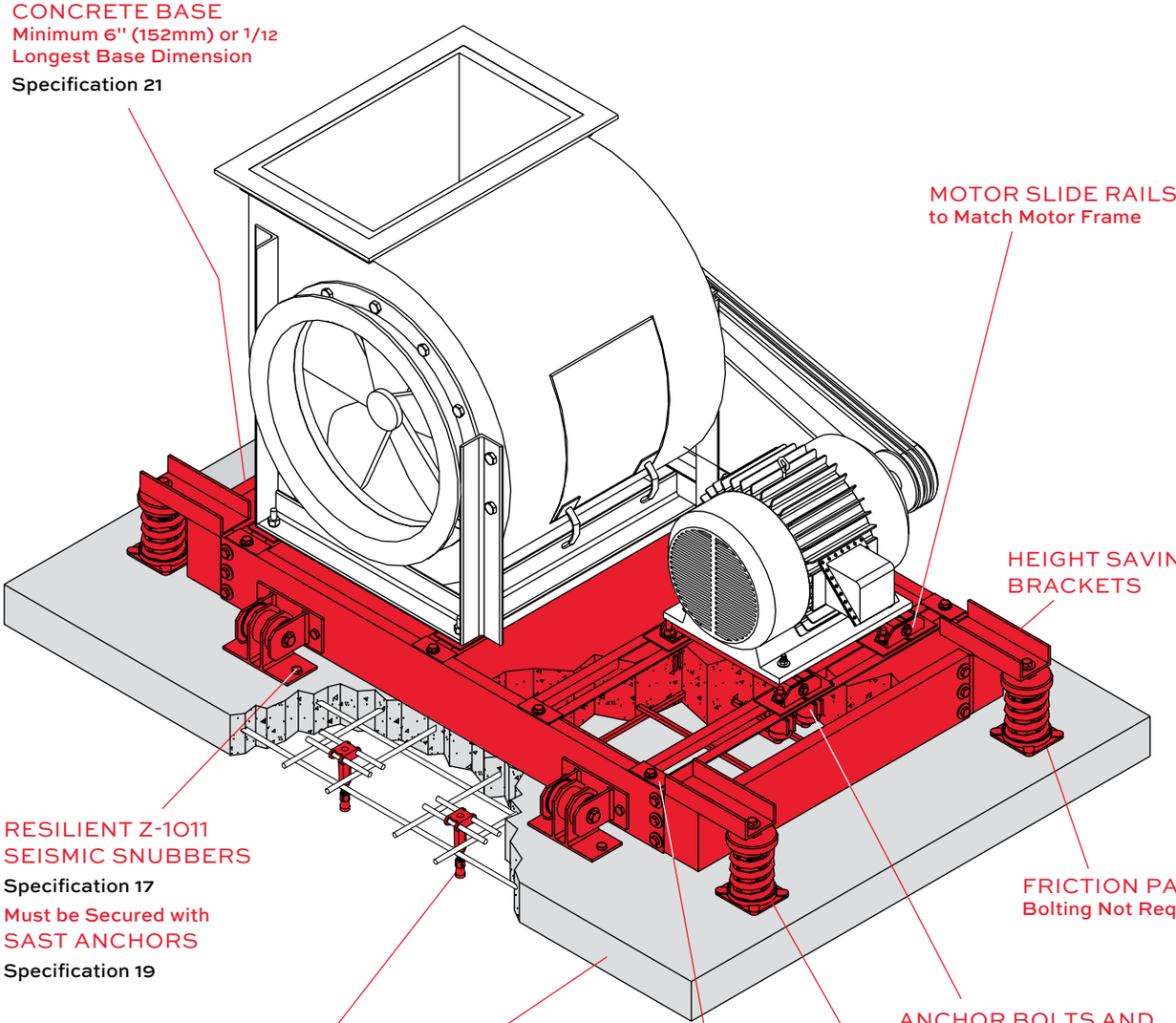
UTILITY BLOWER

Utility Blower directly mounted on seismically restrained **SLR-A** Mounts. Reinforced housekeeping pad secured by **HPA** Anchors. Also useful for non-seismic outdoor windy locations.



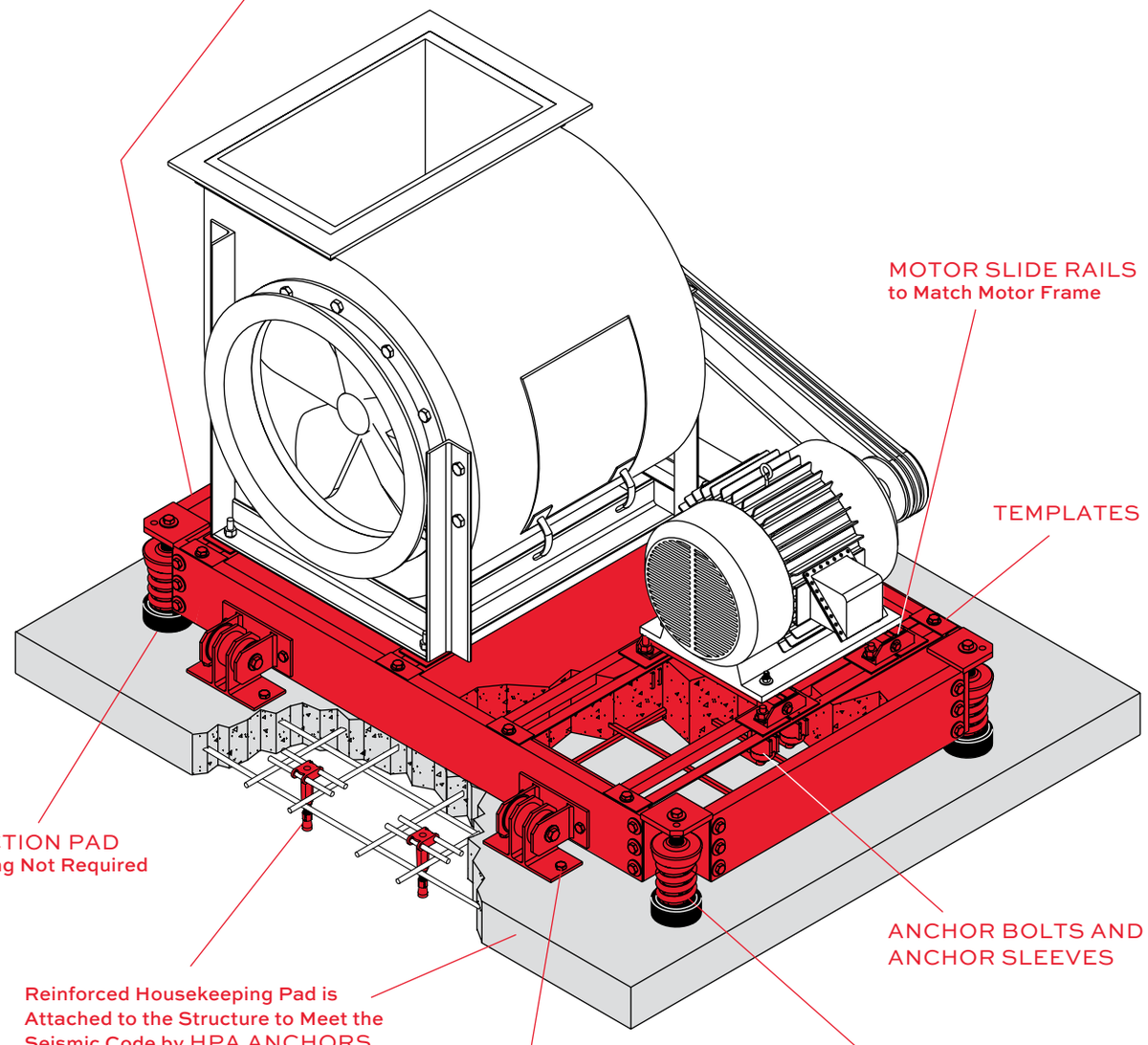
CENTRIFUGAL BLOWER

Centrifugal Blower on concrete filled **BMK** Base with height saving brackets, high deflection **SLF** Spring Mounts and **Z-1011** Seismic Snubbers. Reinforced housekeeping pad secured by **HPA** Anchors.



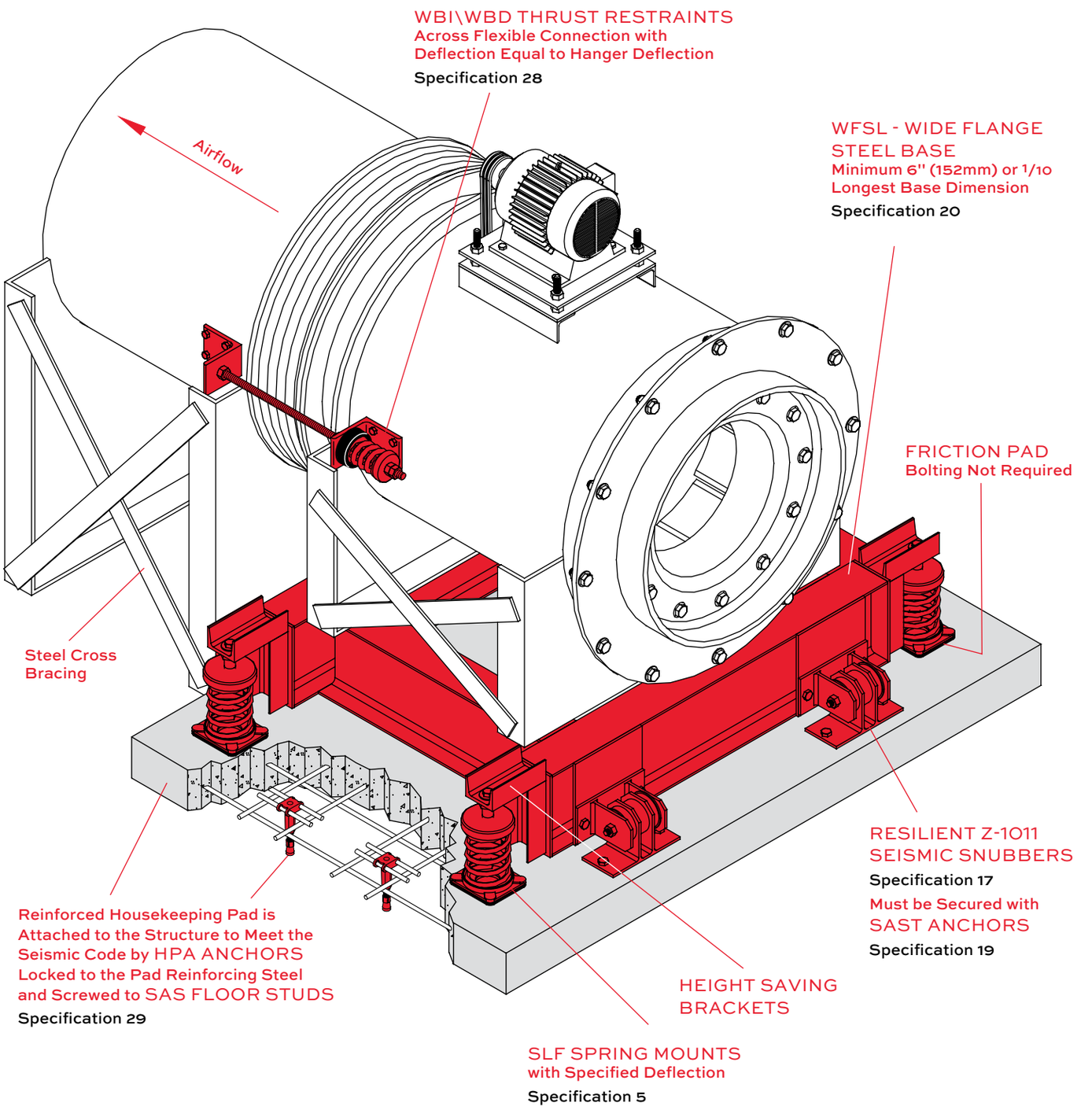
CENTRIFUGAL BLOWER

Centrifugal Blower on concrete filled **BMK** Base with built-in corners, 1" (25mm) deflection **SLF** Spring Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors.



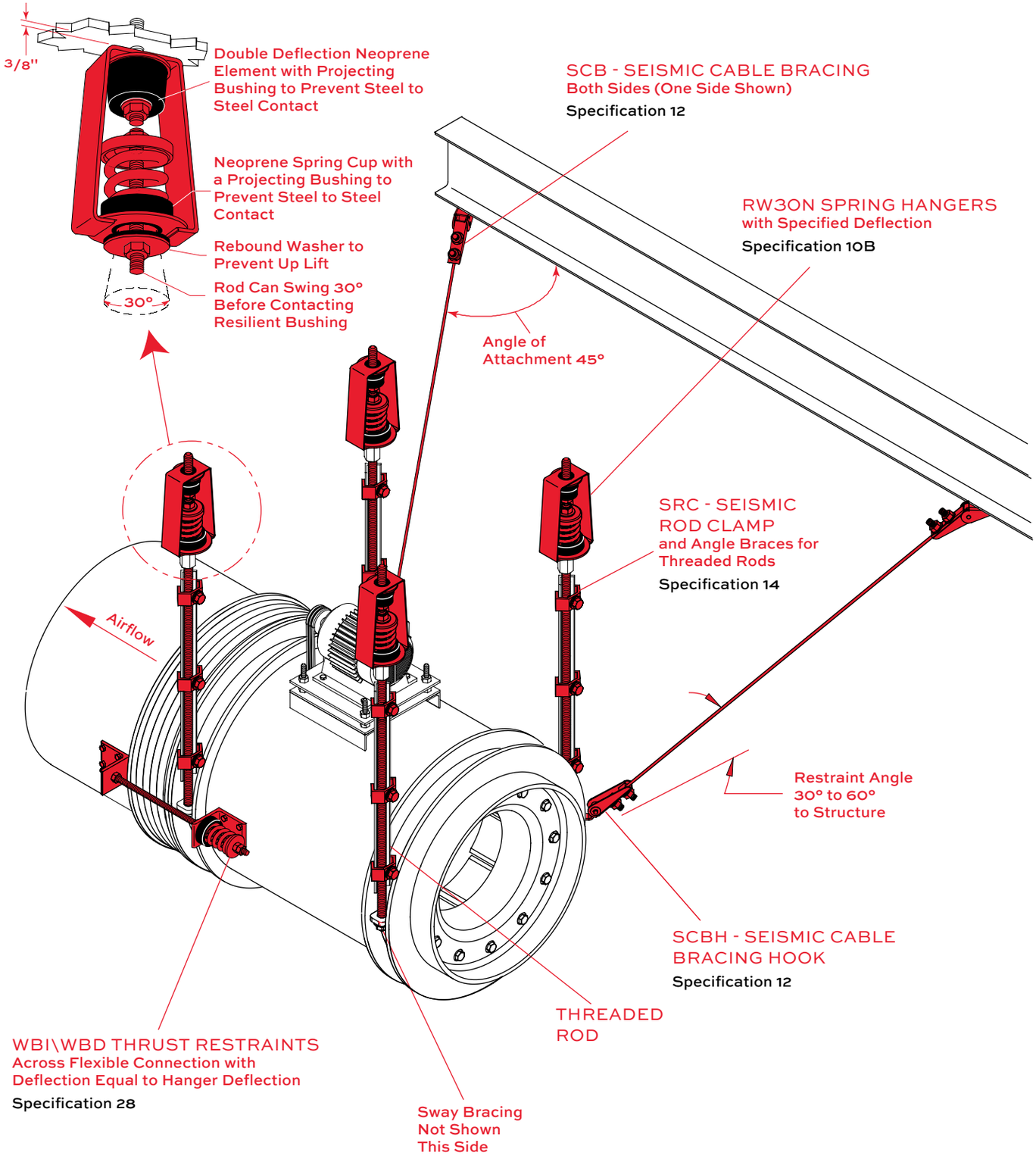
AXIAL BLOWER

Axial Blower with **WBI/WBD** Thrust Restraints mounted on **WFSL** Base with height saving brackets, high deflection **SLF** Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors.



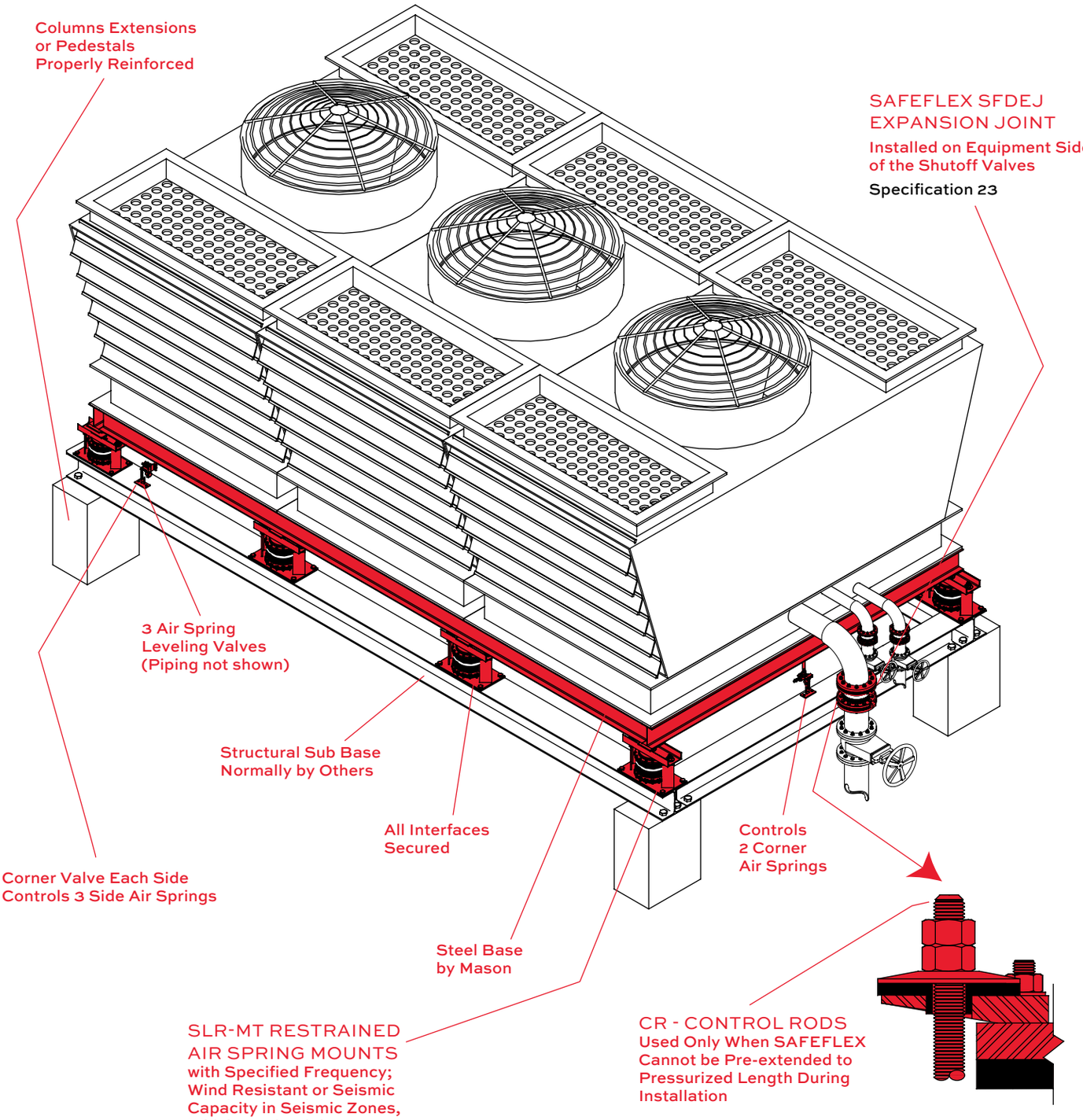
AXIAL BLOWER

Axial Blower with **WBI/WBD** Thrust Restraints suspended by **RW30N** Hangers and restrained by **SCB** Cable Assemblies.



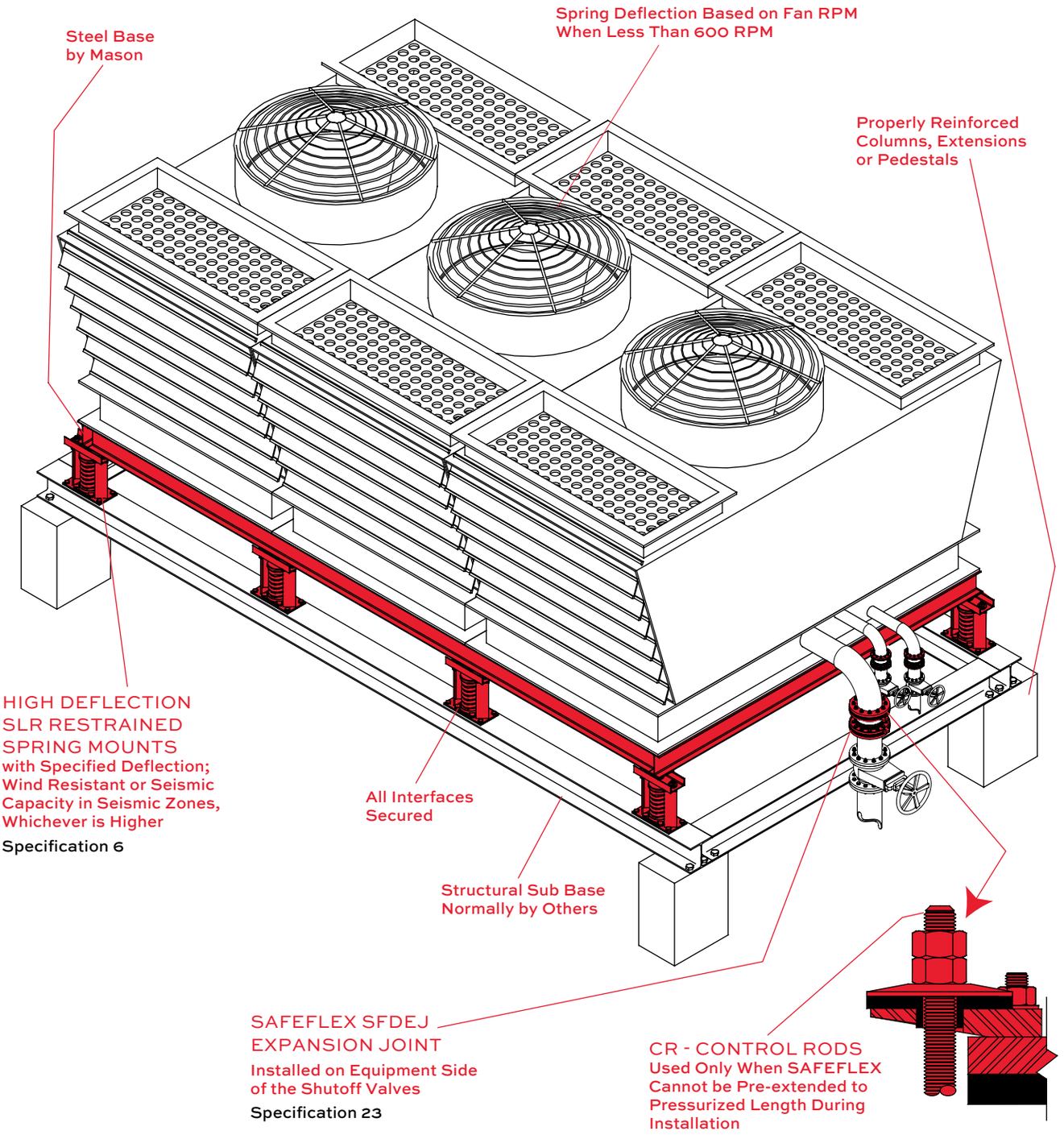
LARGE MULTI-SECTIONED COOLING TOWER

Large Multi-Sectioned Cooling Tower secured to steel base and beam supports using **SLR-MT** Restrained Air Spring Mounts. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



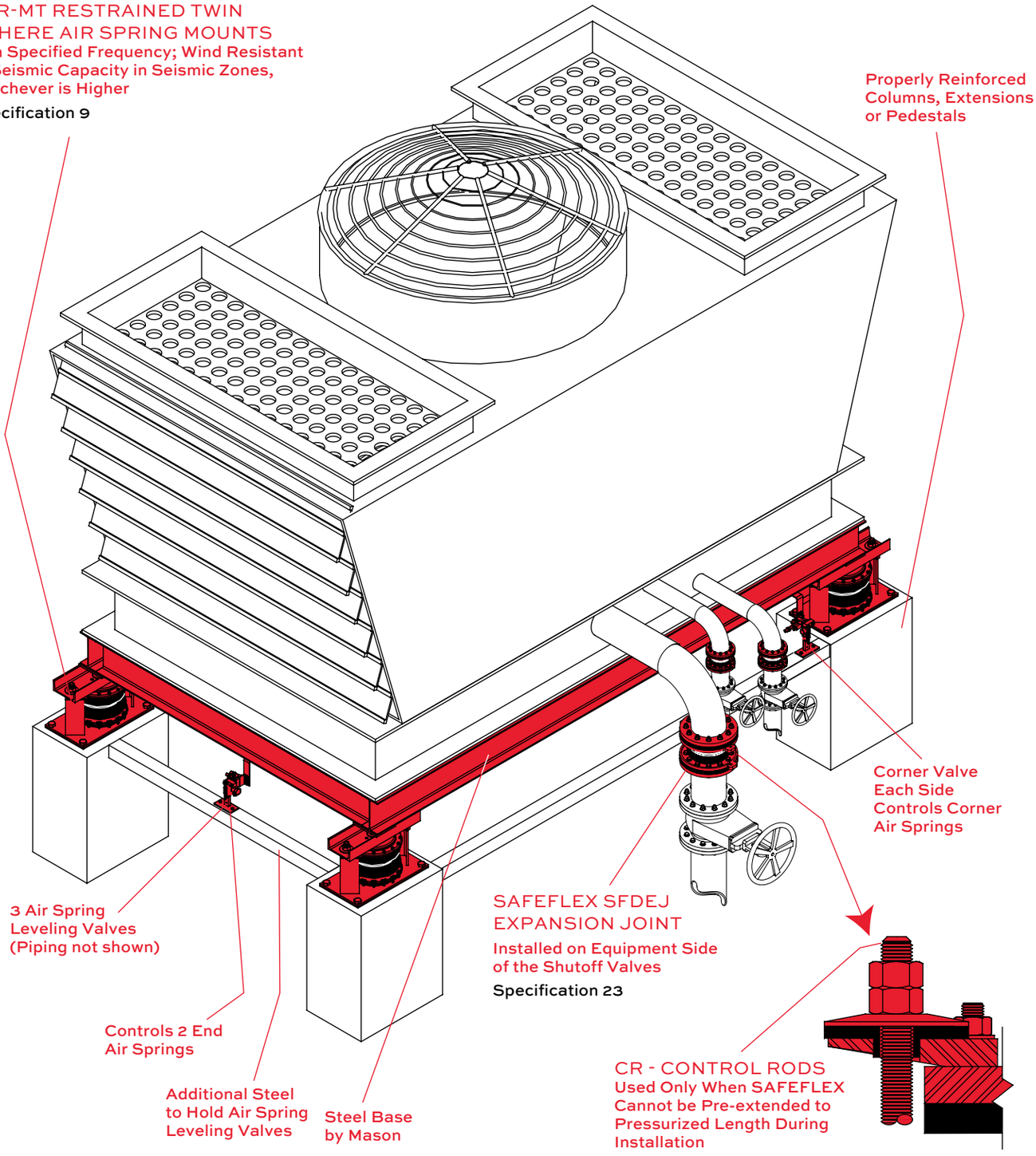
LARGE MULTI-SECTIONED COOLING TOWER

Large Multi-Sectioned Cooling Tower secured to steel base and beam supports using high deflection **SLR** Restrained Spring Mounts. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



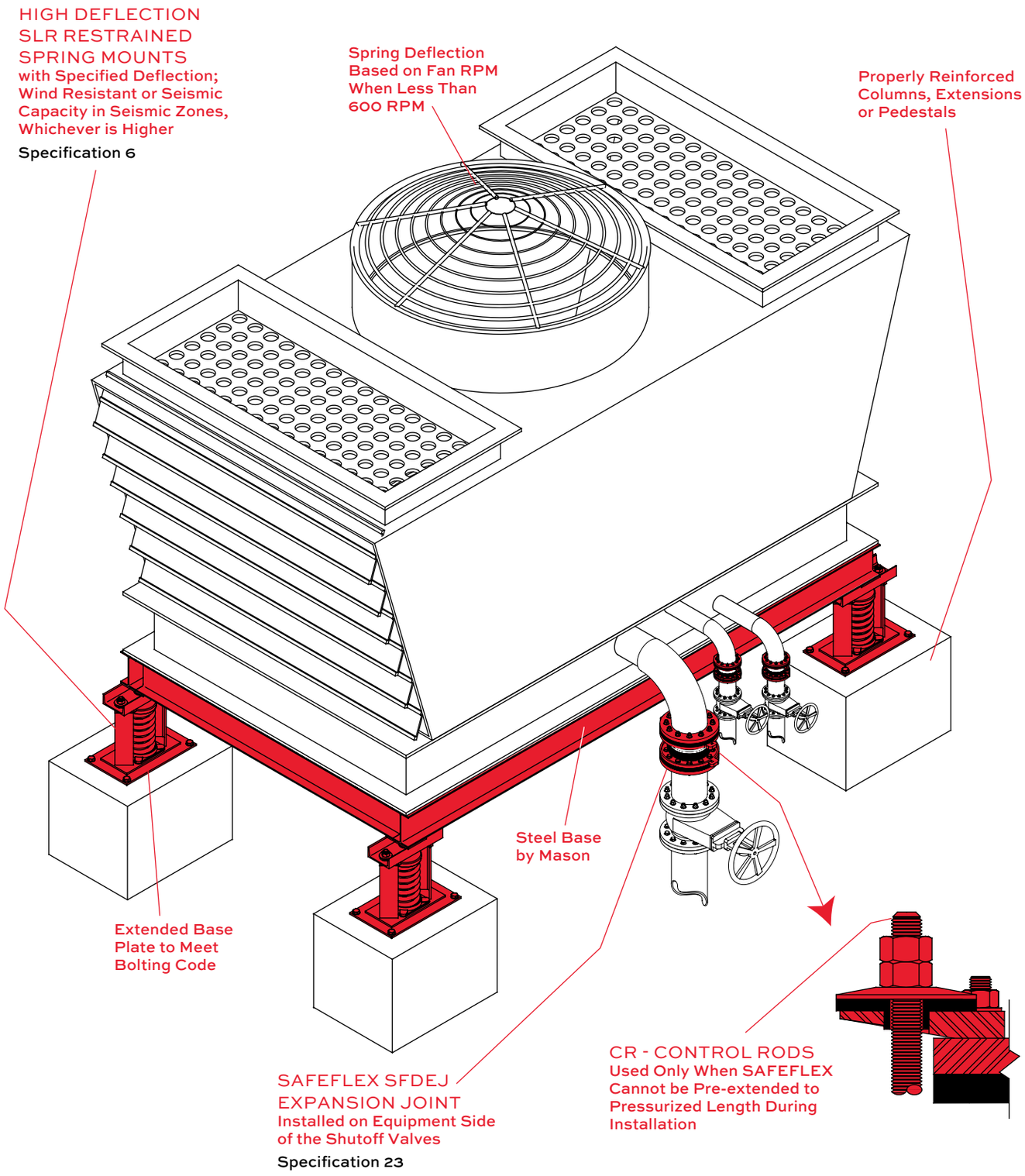
PACKAGED HVAC COOLING TOWER

Packaged HVAC Cooling Tower on steel base with **SLR-MT** Restrained Twin Sphere Air Spring Mounts. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



ROOFTOP PACKAGED HVAC COOLING TOWER

Rooftop Packaged HVAC Cooling Tower on steel base and **SLR** Restrained Spring Mounts. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise and to allow for seismic displacement.



LARGE TRANSFORMER

Large Transformer mounted on a **WFSL** or **KSl** Base supported by **MT** Air Spring Mounts and **Z-1011** Seismic Restraints. Reinforced housekeeping pad secured by **HPA** Anchors. Schematic Only - Final installation to meet all safety regulations as well as electrical and other codes.