


MASON INDUSTRIES, Inc.
Manufacturers of Vibration Control Products

 350 Rabro Drive
 Hauppauge, NY 11788
 631/348-0282
 FAX 631/348-0279

 2101 W. Crescent Ave., Suite D
 Anaheim, CA 92801
 714/535-2727
 FAX 714/535-5738

Info@Mason-Ind.com • www.Mason-Ind.com

**VCS-100
 NON SEISMIC
 SPECIFICATION
 APPLICATION
 DRAWINGS**
VCSA
VCSA-110-1 BULLETIN

It is sometimes difficult to visualize equipment installed in accordance with the letter recommendations in our VCS-100 "Specification Selection Guide". This booklet is indexed in the same order as the Selection Guide and should help to fill that gap. The letter references on

the drawings are the same as the specification paragraphs. We hope these illustrations will help.

Page	Equipment	Isolation Description
2	Centrifugal Chiller	Directly Mounted on Restrained Spring Mounts
3	Centrifugal Chiller	Directly Mounted on Twin Sphere Air Spring Mounts
4	Reciprocating Direct Drive Compressor	Height Saving Brackets and High Deflection Springs
5	Steam Generator	Directly mounted on Restrained Spring Mounts
6	Double Suction Pump	Concrete Filled Base with Height Saving Brackets and High Deflection Springs
7	End Suction Pump	Steel Base with Height Saving Brackets and High Deflection Springs
8	End Suction Pump	Steel Base with Height Saving Brackets and Air Springs
9	HVAC Unit	Suspended from Hangers
10	HVAC Unit	Steel Base with Height Saving Brackets and High Deflection Springs
11	HVAC Unit	Directly mounted on 1" Deflection Springs
12	Vertical Tank Type Compressor	Directly mounted on Concrete Filled Base with 1" Deflection Springs
13	Horizontal Tank Type Compressor	Directly mounted on Restrained Spring Mounts
14	Direct Drive Blower	Bolted to Rails supported by Spring Mounts
15	Utility Blower	Directly mounted on Spring Mounts
16	Centrifugal Blower	Concrete Filled Base with Height Saving Brackets and High Deflection Springs
17	Centrifugal Blower	Concrete Filled Base with Built In Corners and 1" Deflection Springs
18	Floor Mounted Axial Blower	With Thrust Restraints and directly mounted on Spring Mounts
19	Axial Blower	With Thrust Restraints and suspended by Hangers
20	Large Multi-sectioned Cooling Tower	Steel Base and Beam Supports using Wind Resistant Air Spring Mounts
21	Large Multi-sectioned Cooling Tower	Steel Base and Beam Supports using Wind Resistant Steel Spring Mounts
22	Packaged HVAC Cooling Tower	Steel Base with Wind Resistant Twin Sphere Air Spring Mounts
23	Rooftop Packaged HVAC Cooling Tower	Steel Base and Wind Resistant Spring Mounts
24	Large Transformer	Steel Base with Air Spring Mounts

CR - CONTROL RODS
USED ONLY WHEN SAFEFLEX
CANNOT BE PREEXTENDED
TO PRESSURIZED LENGTH
DURING INSTALLATION

FRICION PAD
BOLTING NOT
REQUIRED

SLR RESTRAINED SPRING MOUNT
WITH SPECIFIED DEFLECTION.
SPECIFICATION D

SAFEFLEX SFDEJ
EXPANSION JOINT
INSTALLED ON EQUIPMENT
SIDE OF THE SHUTOFF VALVES
SPECIFICATION O

CENTRIFUGAL CHILLER directly mounted on **SLR-MT** Restrained Twin Sphere Air Spring Mounts to simplify rigging and maintain emergency elevation. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise.

**SLR-MT RESTRAINED TWIN SPHERE AIR
SPRING MOUNT WITH SPECIFIED FREQUENCY.
SPECIFICATION E**

CR - CONTROL RODS
USED ONLY WHEN SAFEFLEX
CANNOT BE PREEXTENDED
TO PRESSURIZED LENGTH
DURING INSTALLATION

**CORNER VALVE
EACH SIDE
CONTROLS CORNER
AIR SPRINGS**

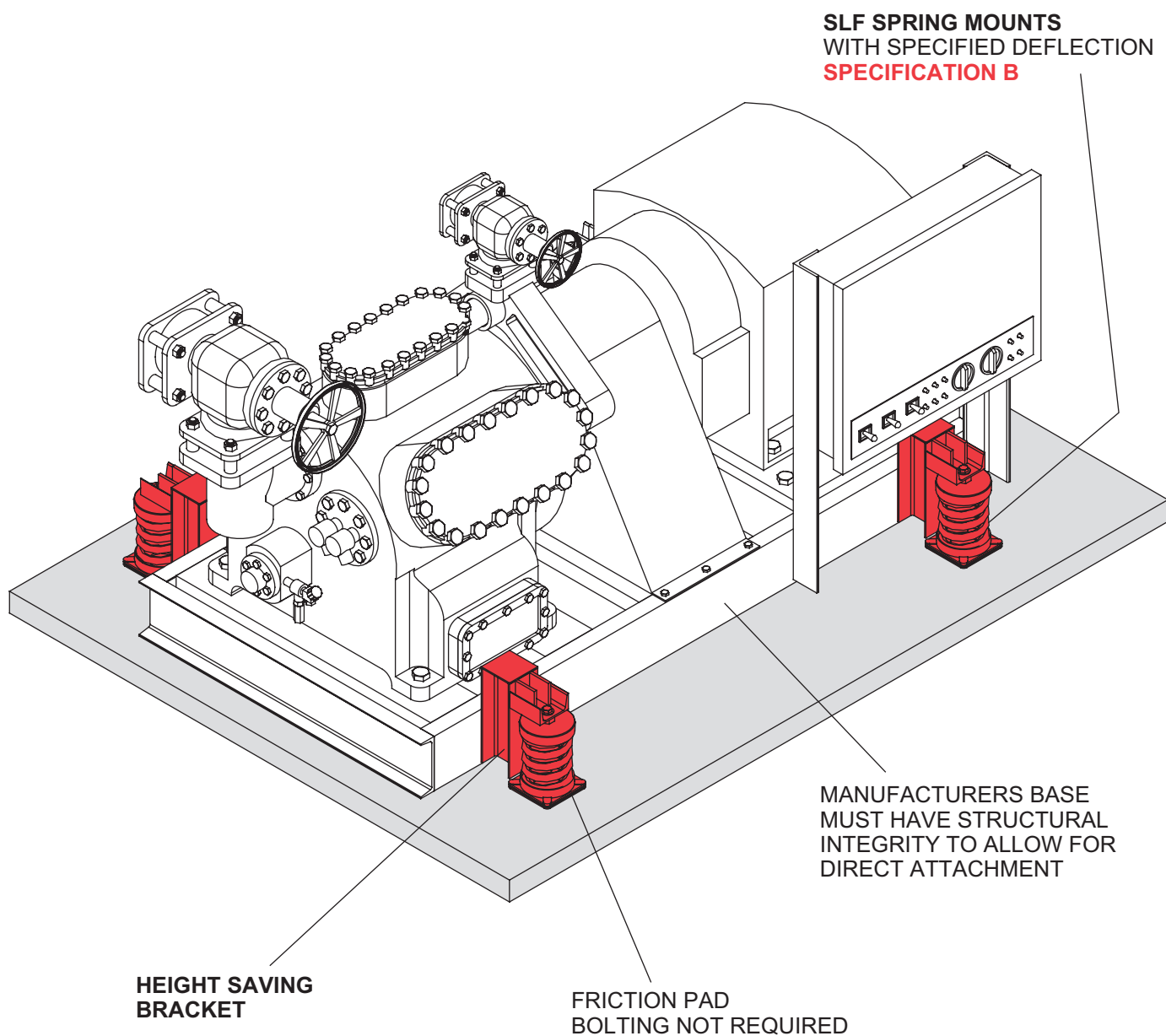
**FRICTION PAD
BOLTING NOT REQUIRED**

**SAFEFLEX SFDEJ EXPANSION JOINT
INSTALLED ON EQUIPMENT SIDE OF
THE SHUTOFF VALVES
SPECIFICATION O**

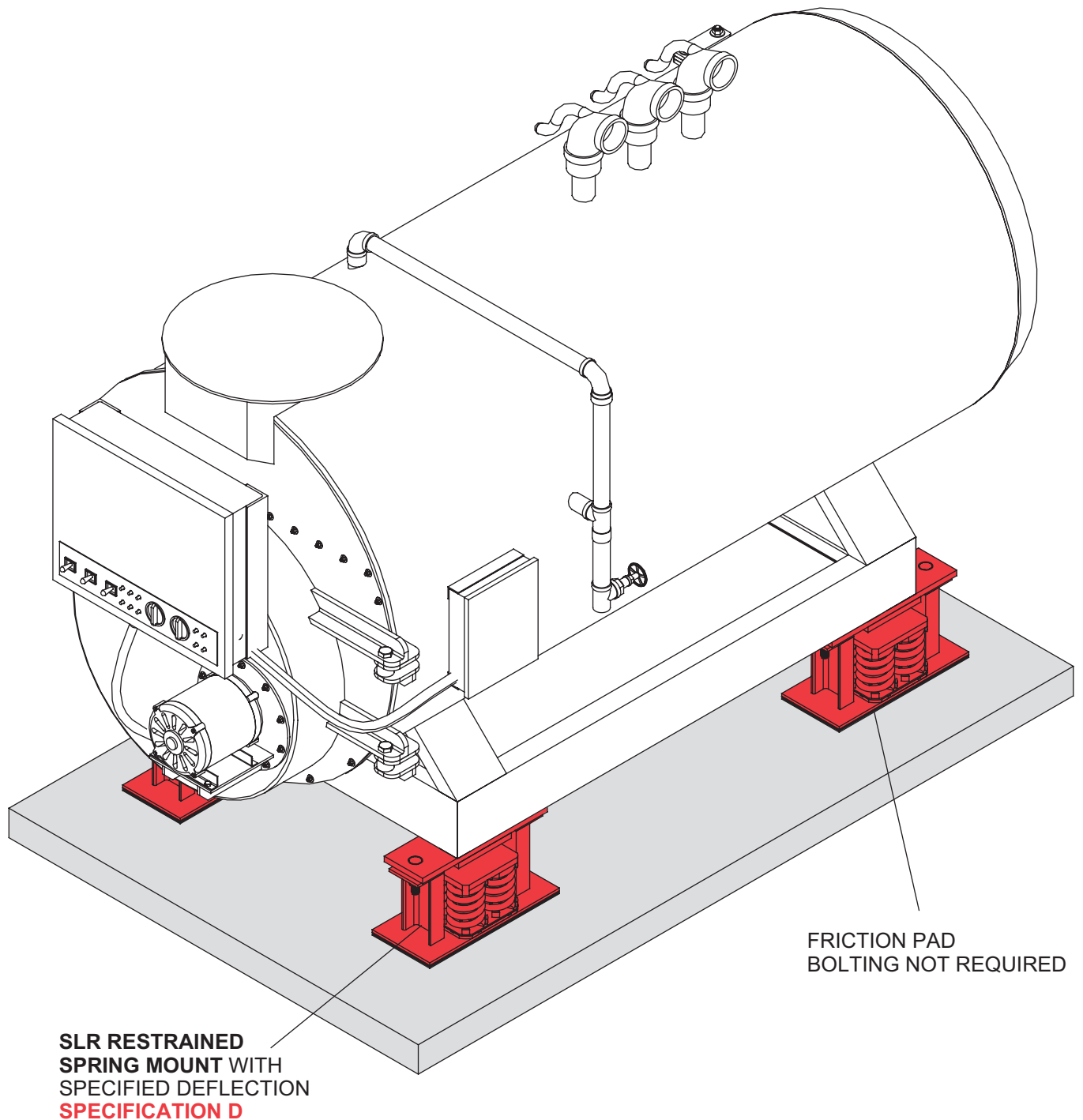
**3 AIR SPRING
LEVELING VALVES
(PIPING NOT SHOWN)**

**CONTROLS 2 END
AIR SPRINGS**

RECIPROCATING DIRECT DRIVE COMPRESSOR
on manufacturers base fitted with height saving brackets
and high deflection **SLF** Mounts



STEAM GENERATOR directly mounted on **SLR** Restrained Spring Mounts to prevent lifting when water is drained



DOUBLE SUCTION PUMP on concrete filled **BMK Base** with height saving brackets and high deflection **SLF Spring Mounts**. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise.

SAFEFLEX SFDEJ EXPANSION JOINT
INSTALLED ON EQUIPMENT SIDE
OF THE SHUTOFF VALVES
SPECIFICATION O

CR - CONTROL RODS
USED ONLY WHEN SAFEFLEX
CANNOT BE PREEXTENDED
TO PRESSURIZED LENGTH
DURING INSTALLATION

FILL PUMP BASE
WITH GROUT IF
CALLED FOR BY
PUMP MANUFACTURER

FRICTION PAD
BOLTING NOT
REQUIRED

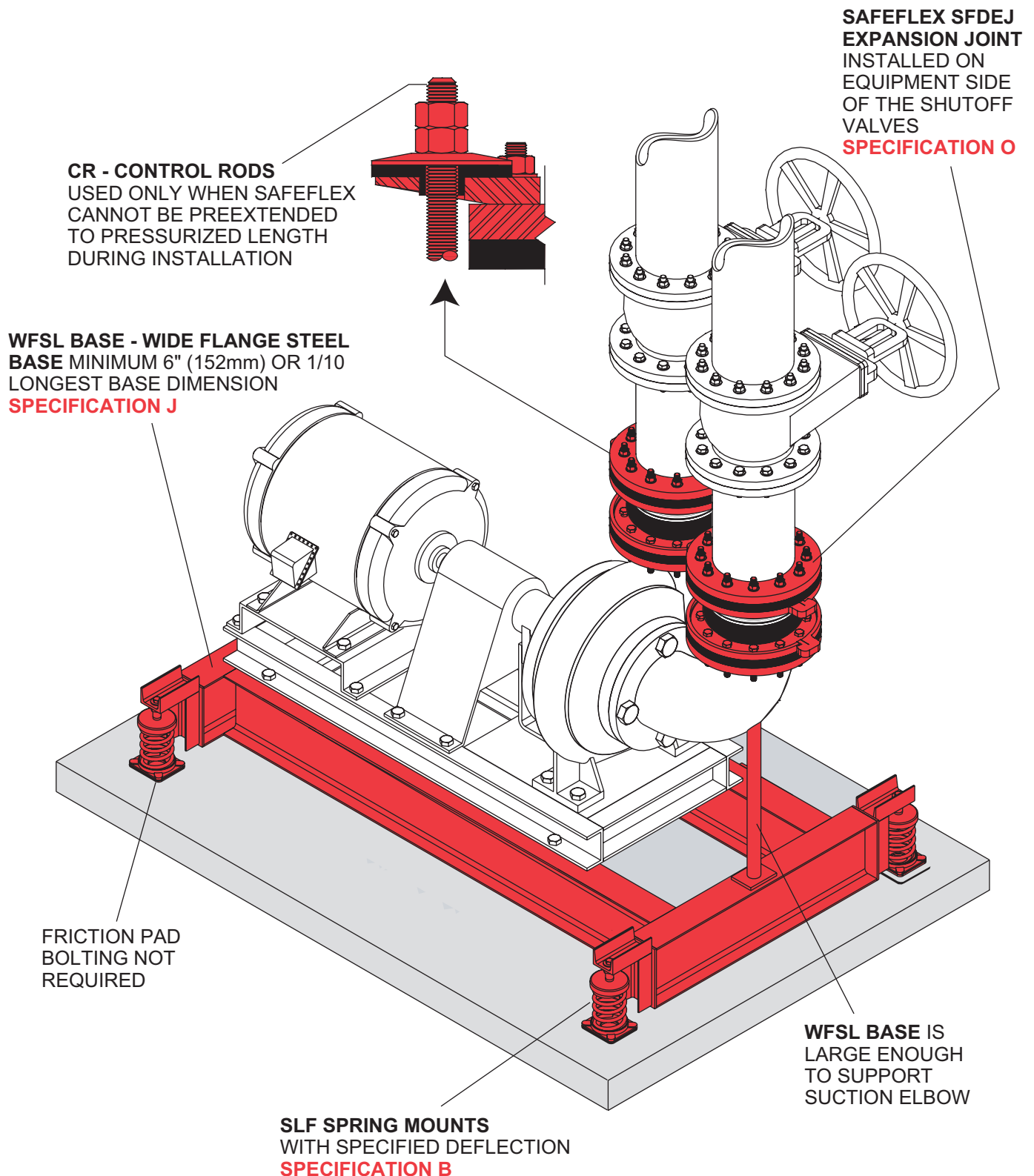
BMK FLOATING CONCRETE BASE
MINIMUM 6" (150mm) OR
1/12 LONGEST BASE DIMENSION
SPECIFICATION L

HEIGHT SAVING
BRACKETS

SLF SPRING MOUNTS
WITH SPECIFIED DEFLECTION
SPECIFICATION B

BMK BASE IS
LARGE ENOUGH
TO SUPPORT SUCTION
AND DISCHARGE ELBOWS

END SUCTION PUMP on **WFSL Base** with height saving brackets and high deflection **SLF Spring Mounts**. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise.



END SUCTION PUMP on **WFSL** Base and **MT** Air Springs.
SAFEX Expansion Joints are installed in pipelines to
reduce blade frequency vibration and noise.

CR - CONTROL RODS
USED ONLY WHEN SAFEX
CANNOT BE PREEXTENDED
TO PRESSURIZED LENGTH
DURING INSTALLATION

WFSL BASE - WIDE FLANGE STEEL
BASE MINIMUM 6" (152mm) OR 1/10
LONGEST BASE DIMENSION.
SPECIFICATION J

SAFEX SFDEJ
EXPANSION JOINT
INSTALLED ON
EQUIPMENT SIDE OF
THE SHUTOFF VALVES
SPECIFICATION O

WFSL BASE IS
LARGE ENOUGH
TO SUPPORT
SUCTION ELBOW.

FRICTION PAD
BOLTING NOT
REQUIRED

CORNER VALVE EACH SIDE
CONTROLS CORNER AIR SPRINGS

MT TWIN SPHERE AIR SPRINGS
MUST BE INSTALLED WITH AIR
SPRING LEVELING VALVES.
SPECIFICATION C

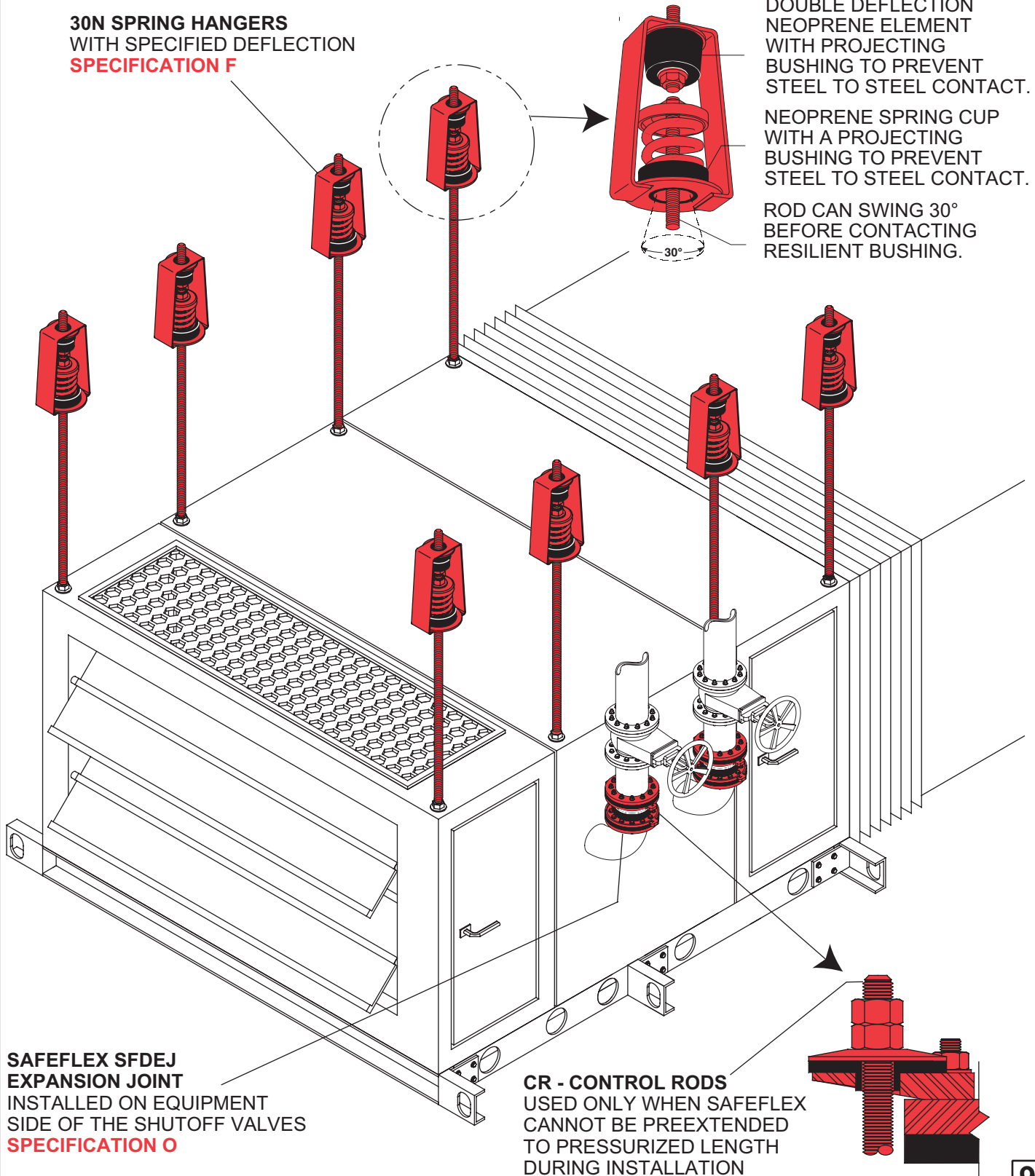
CONTROLS 2 END
AIR SPRINGS

3 AIR SPRING
LEVELING VALVES
(PIPING NOT SHOWN)

HVAC UNIT suspended from **30N Hangers**.
SAFEFLEX Expansion Joints are installed in pipelines
to reduce blade frequency vibration and noise.

30N SPRING HANGERS
WITH SPECIFIED DEFLECTION
SPECIFICATION F

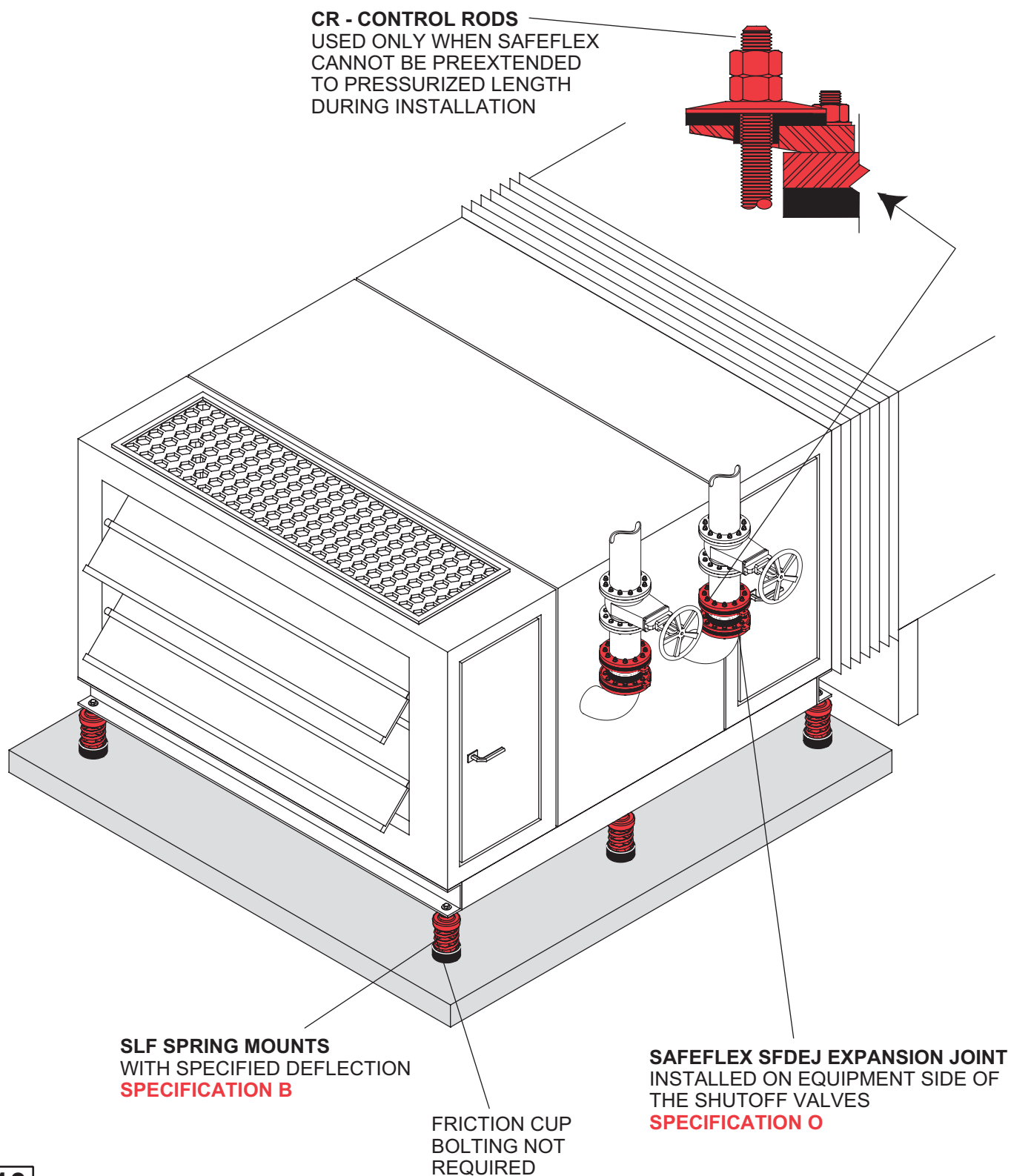
DOUBLE DEFLECTION
NEOPRENE ELEMENT
WITH PROJECTING
BUSHING TO PREVENT
STEEL TO STEEL CONTACT.
NEOPRENE SPRING CUP
WITH A PROJECTING
BUSHING TO PREVENT
STEEL TO STEEL CONTACT.
ROD CAN SWING 30°
BEFORE CONTACTING
RESILIENT BUSHING.



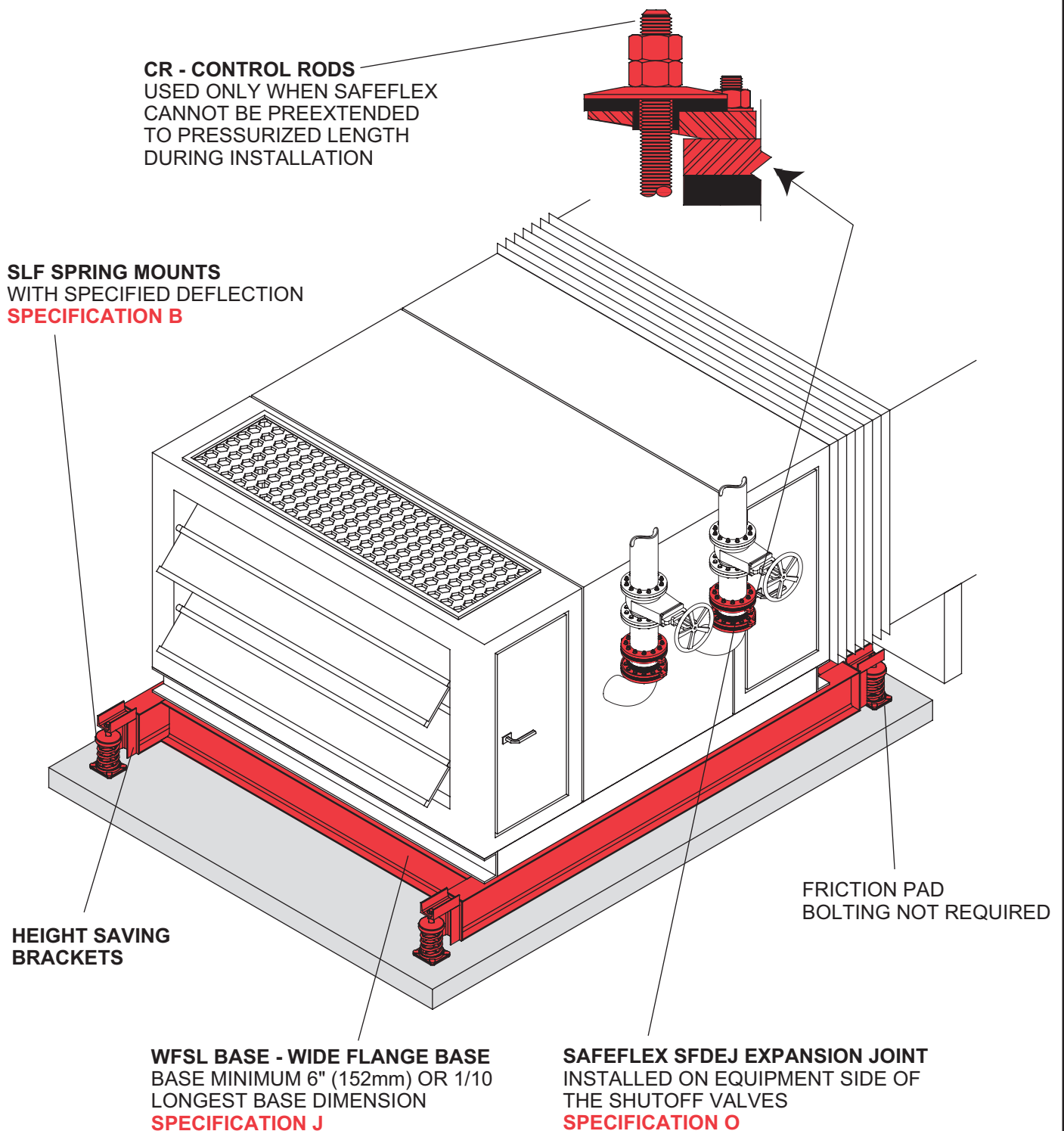
SAFEFLEX SFDEJ
EXPANSION JOINT
INSTALLED ON EQUIPMENT
SIDE OF THE SHUTOFF VALVES
SPECIFICATION O

CR - CONTROL RODS
USED ONLY WHEN SAFEFLEX
CANNOT BE PREEXTENDED
TO PRESSURIZED LENGTH
DURING INSTALLATION

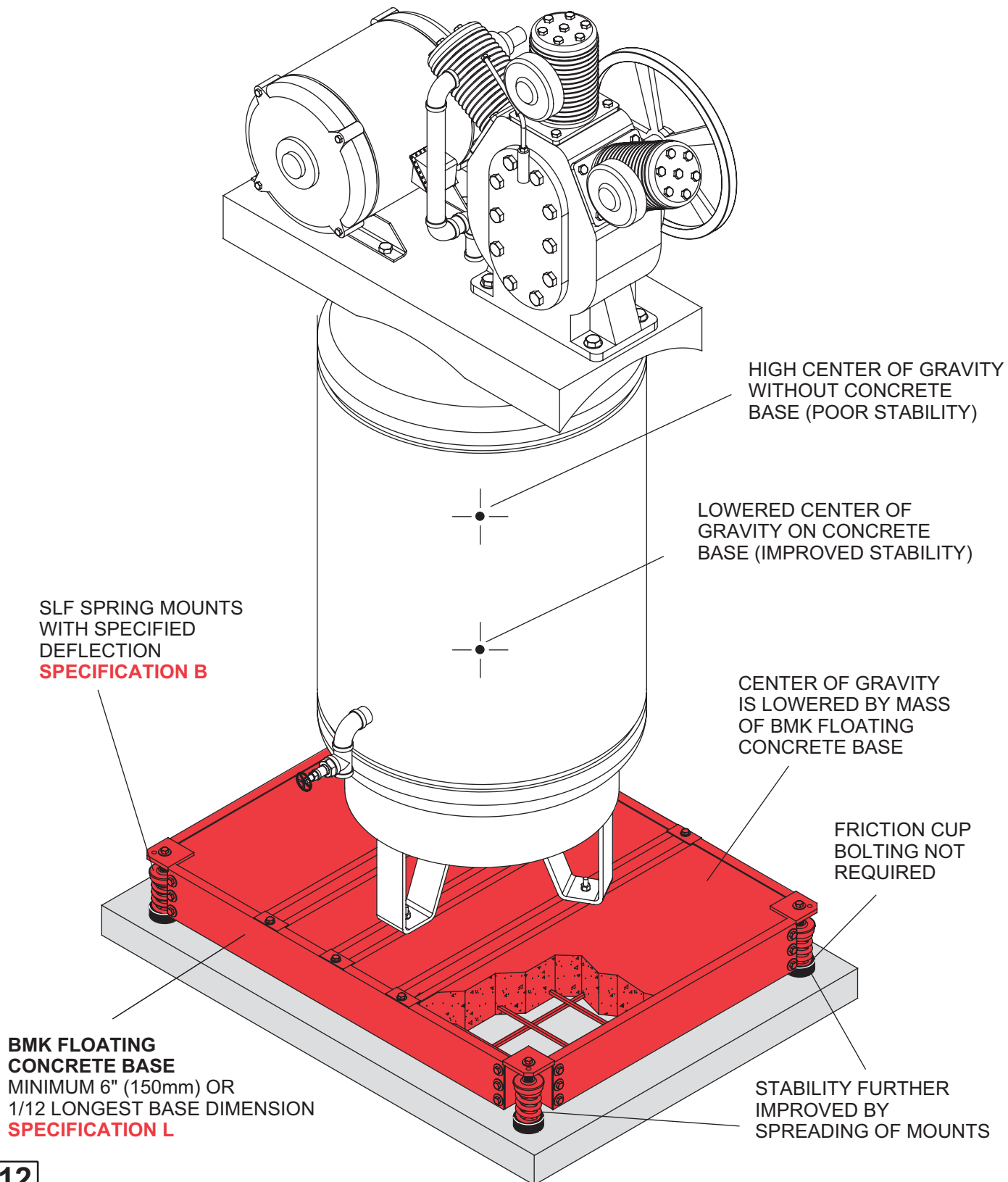
HVAC UNIT directly mounted on 1" deflection **SLF Spring Mounts**.
SAFEFLEX Expansion Joints are installed in pipelines to reduce
blade frequency vibration and noise.



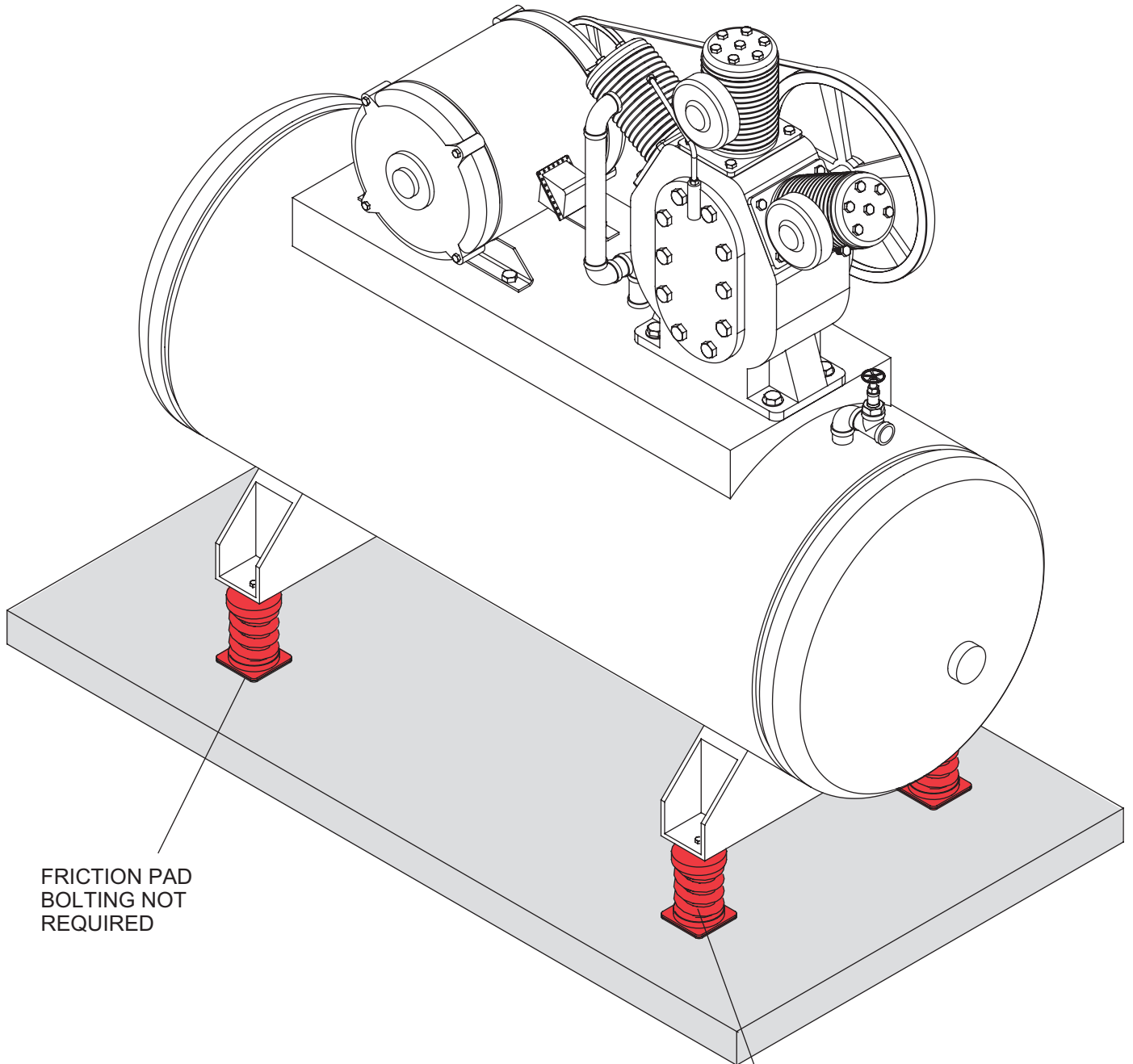
HVAC UNIT on **WFSL** Steel Base with height saving brackets and high deflection **SLF** Spring Mounts. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise.



VERTICAL TANK TYPE COMPRESSOR directly mounted on
BMK Concrete Filled Base and 1" deflection **SLF Spring Mounts**



HORIZONTAL TANK TYPE COMPRESSOR
directly mounted on high deflection **SLF** Spring Mounts



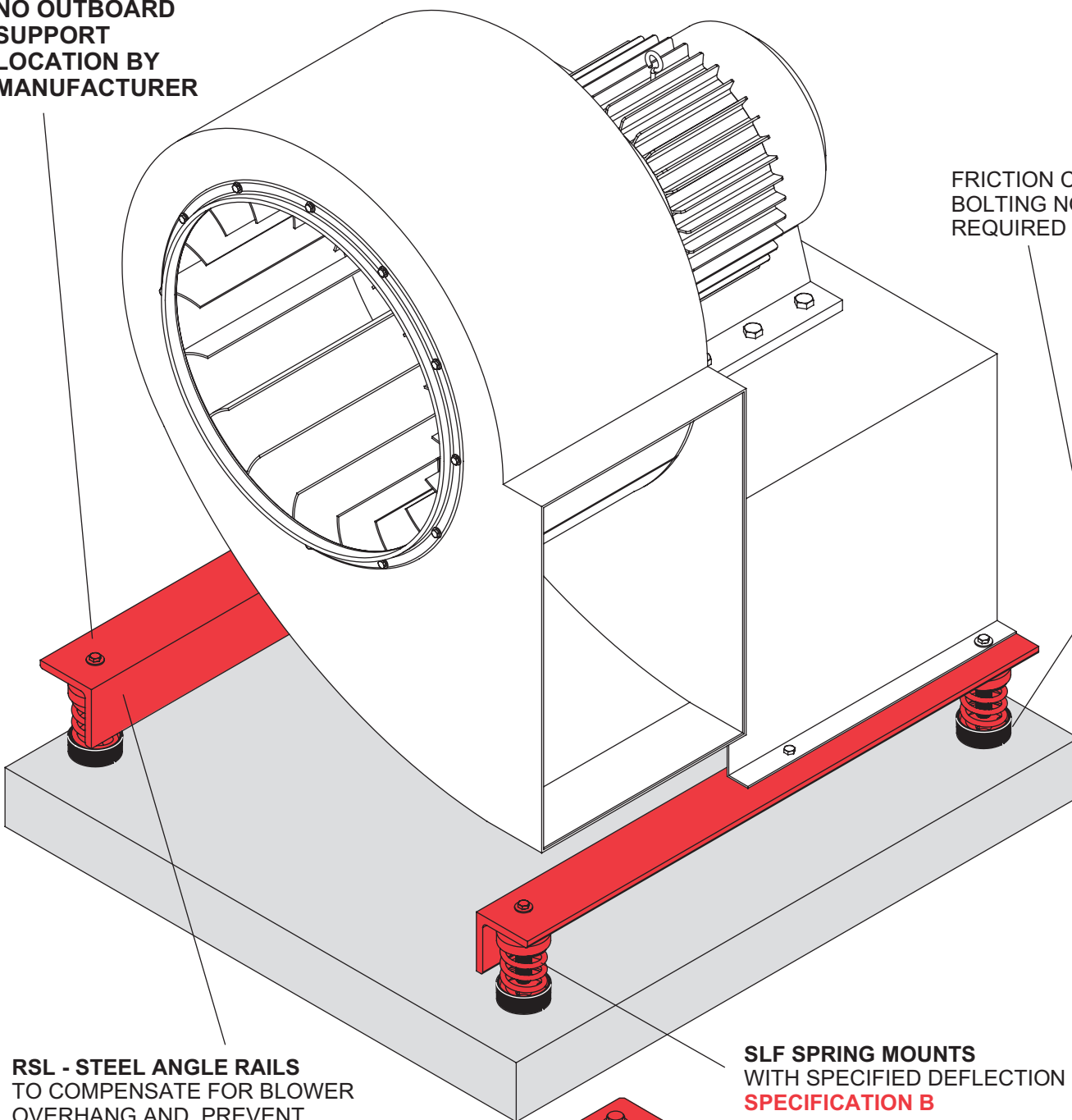
FRICTION PAD
BOLTING NOT
REQUIRED

SLF SPRING MOUNT
WITH SPECIFIED DEFLECTION
SPECIFICATION B

DIRECT DRIVE BLOWER directly mounted on **RSL Rails** with 1" deflection **SLF Spring Mounts** for typical indoor or wind protected installation.
(See note for **SLR Isolators** in windy areas)

NO OUTBOARD
SUPPORT
LOCATION BY
MANUFACTURER

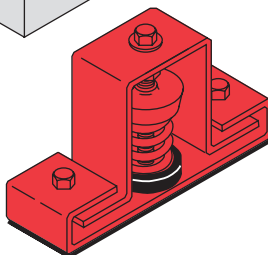
FRICTION CUP
BOLTING NOT
REQUIRED



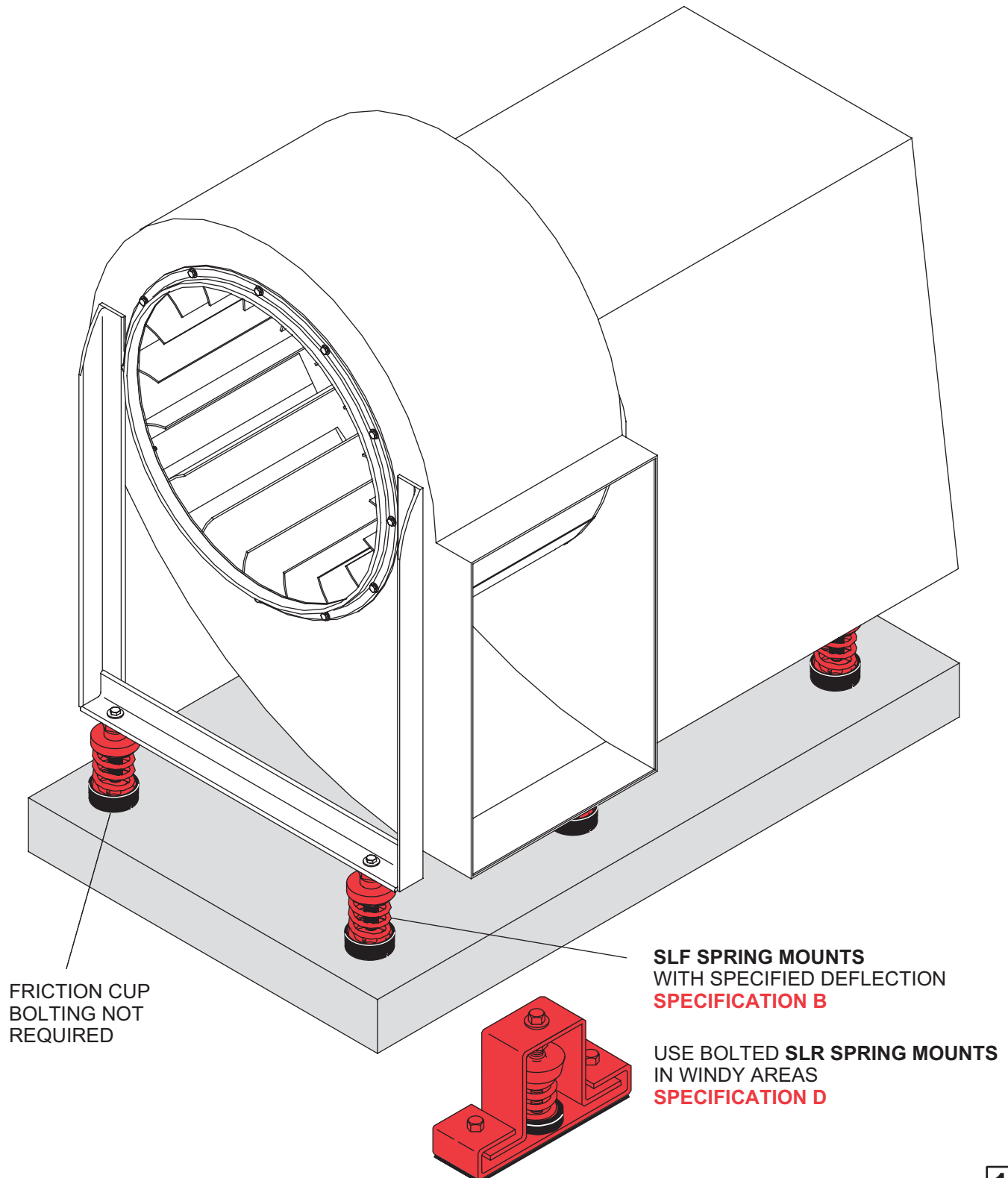
RSL - STEEL ANGLE RAILS
TO COMPENSATE FOR BLOWER
OVERHANG AND PREVENT
TIPPING

SLF SPRING MOUNTS
WITH SPECIFIED DEFLECTION
SPECIFICATION B

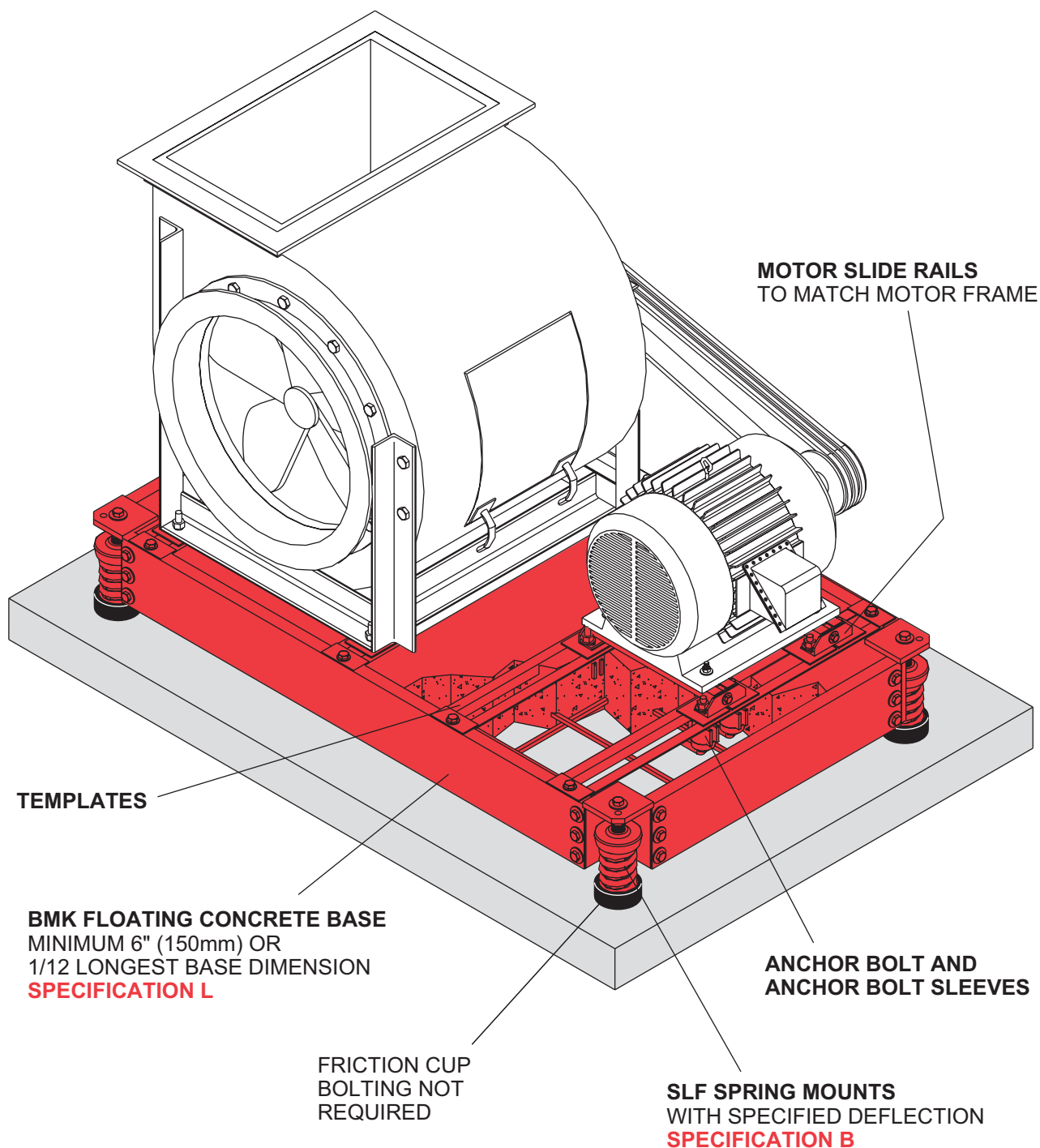
USE BOLTED **SLR SPRING MOUNTS**
IN WINDY AREAS
SPECIFICATION D



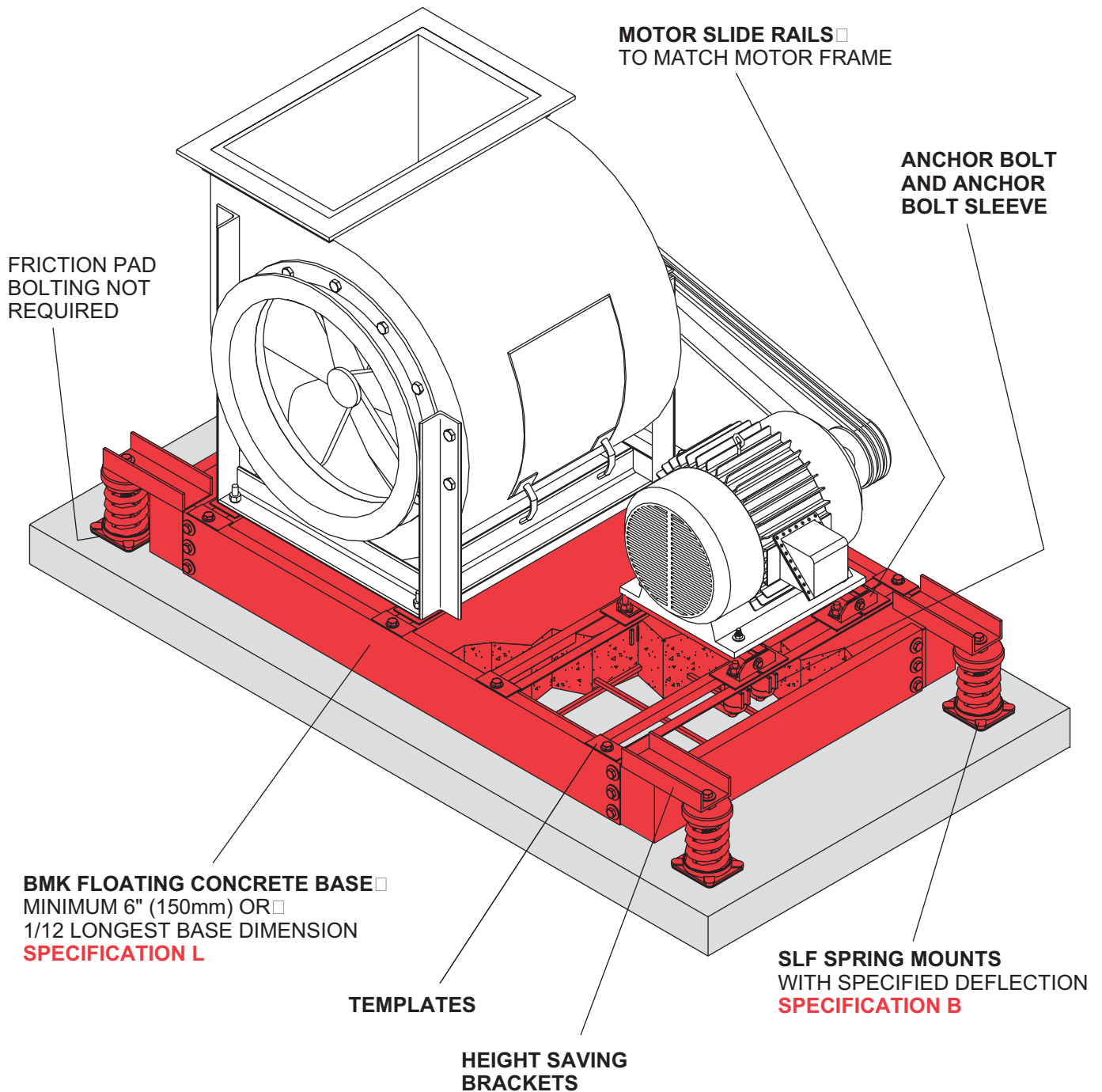
UTILITY BLOWER directly mounted on 1" deflection **SLF** Spring Mounts for typical indoor or wind protected installations.
(See note for **SLR** Isolators in windy areas)



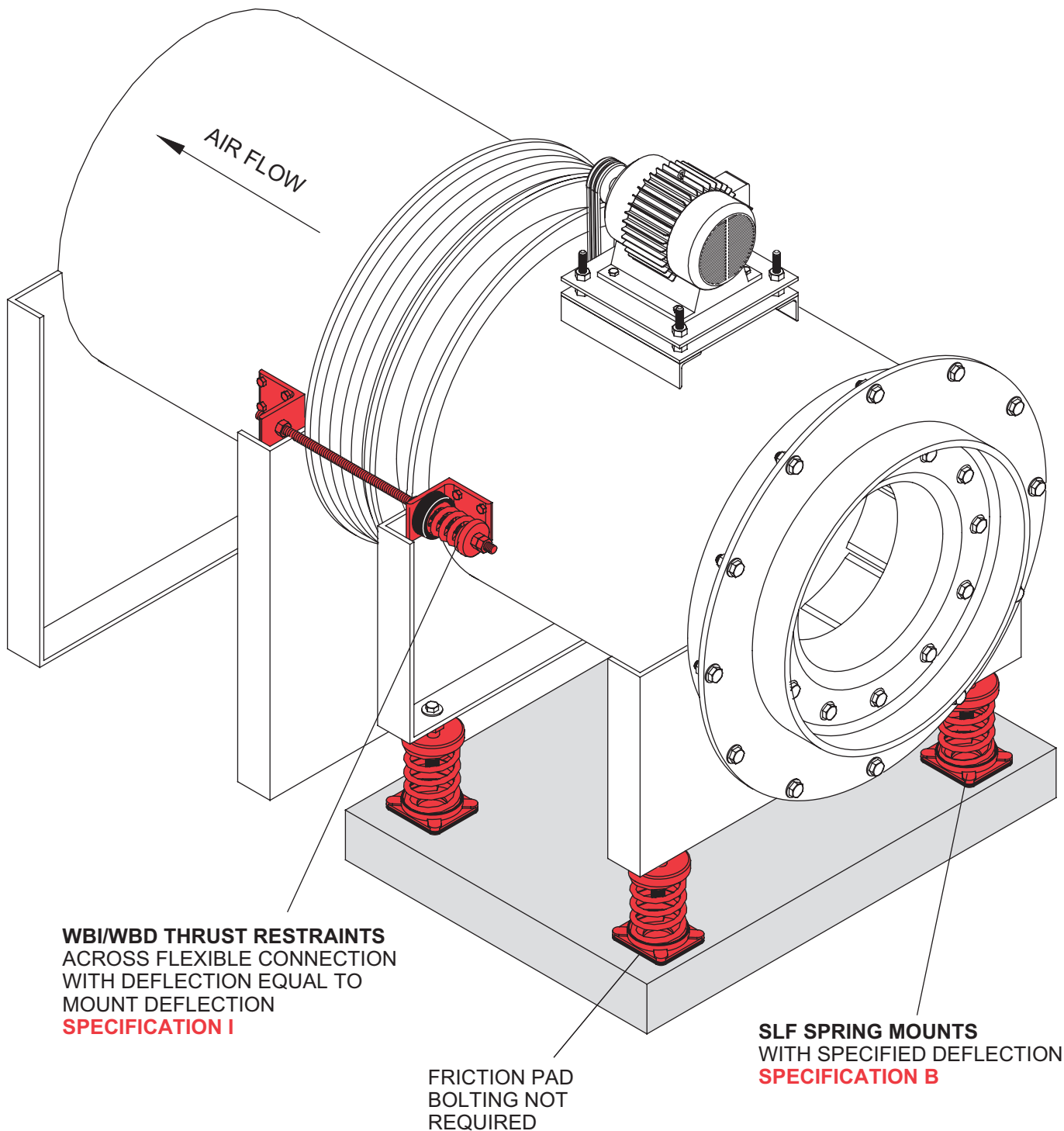
CENTRIFUGAL BLOWER on concrete filled **BMK** Base
with built in corners and 1" deflection **SLF** Spring Mounts



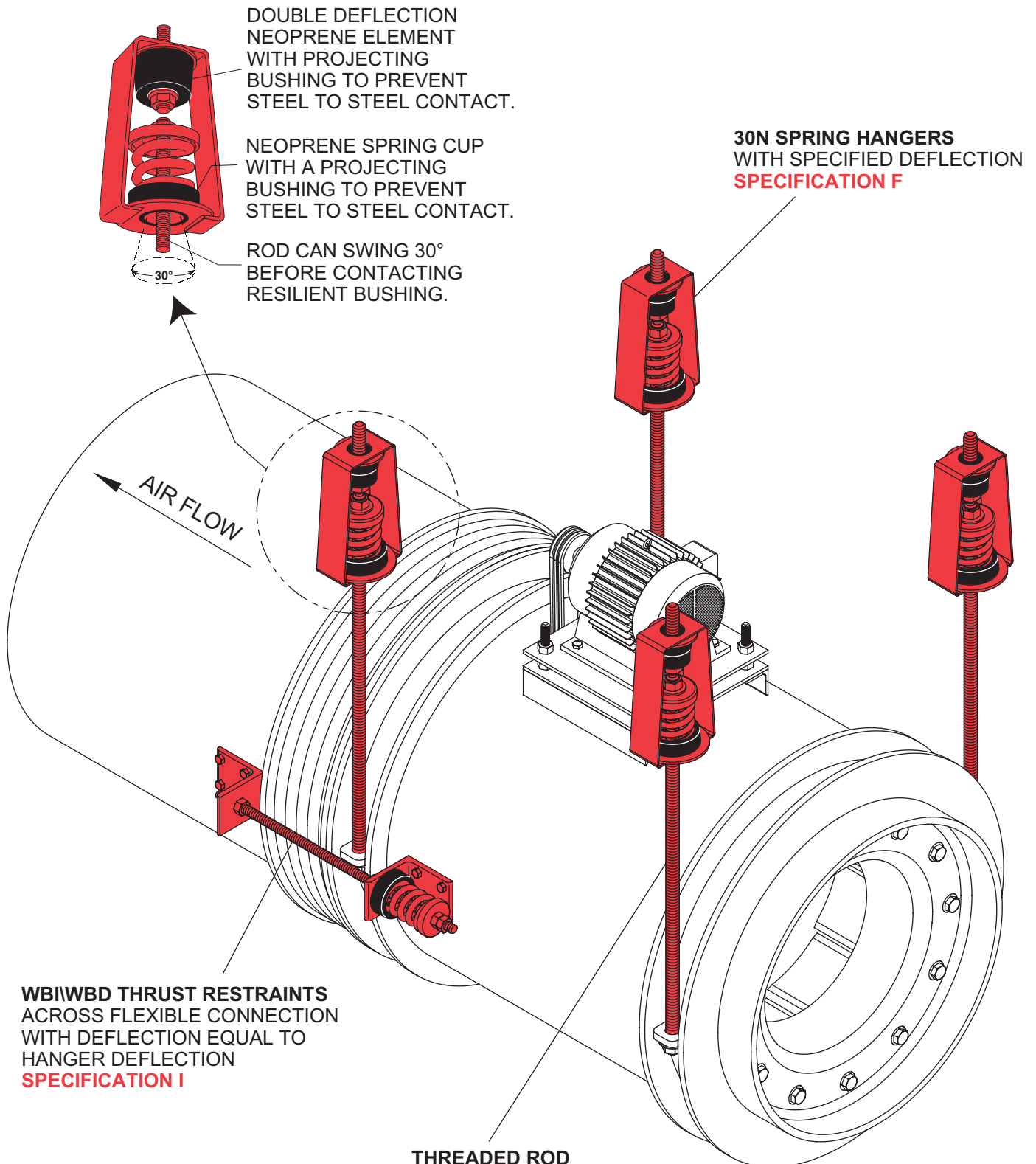
CENTRIFUGAL BLOWER on concrete filled **BMK** Base
with height saving brackets and high deflection **SLF** Spring Mounts



FLOOR MOUNTED AXIAL BLOWER with **WBI/WBD Thrust**
Restraints directly mounted on **SLF Spring Mounts**.
Use height saving brackets with springs over 11 1/2" deflection.



**AXIAL BLOWER with WBI/WBD Thrust Restraints
suspended from 30N Hangers**



LARGE MULTI-SECTIONED COOLING TOWER secured to steel base and beam supports using **SLR-MT** wind resistant Twin Sphere Air Spring Mounts. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise.

COLUMNS EXTENSIONS
OR PEDESTALS
PROPERLY REINFORCED

SAFEFLEX SFDEJ
EXPANSION JOINT
INSTALLED ON
EQUIPMENT SIDE OF
THE SHUTOFF VALVES
SPECIFICATION O

3 AIR SPRING
LEVELING VALVES
(PIPING NOT SHOWN)

STRUCTURAL SUB BASE
NORMALLY BY OTHERS

CORNER VALVE EACH SIDE.
CONTROLS 3 SIDE AIR SPRINGS

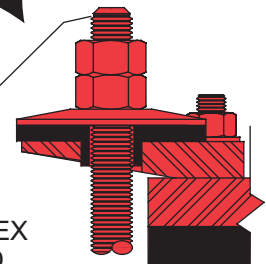
ALL INTERFACES
SECURED

STEEL BASE
BY MASON

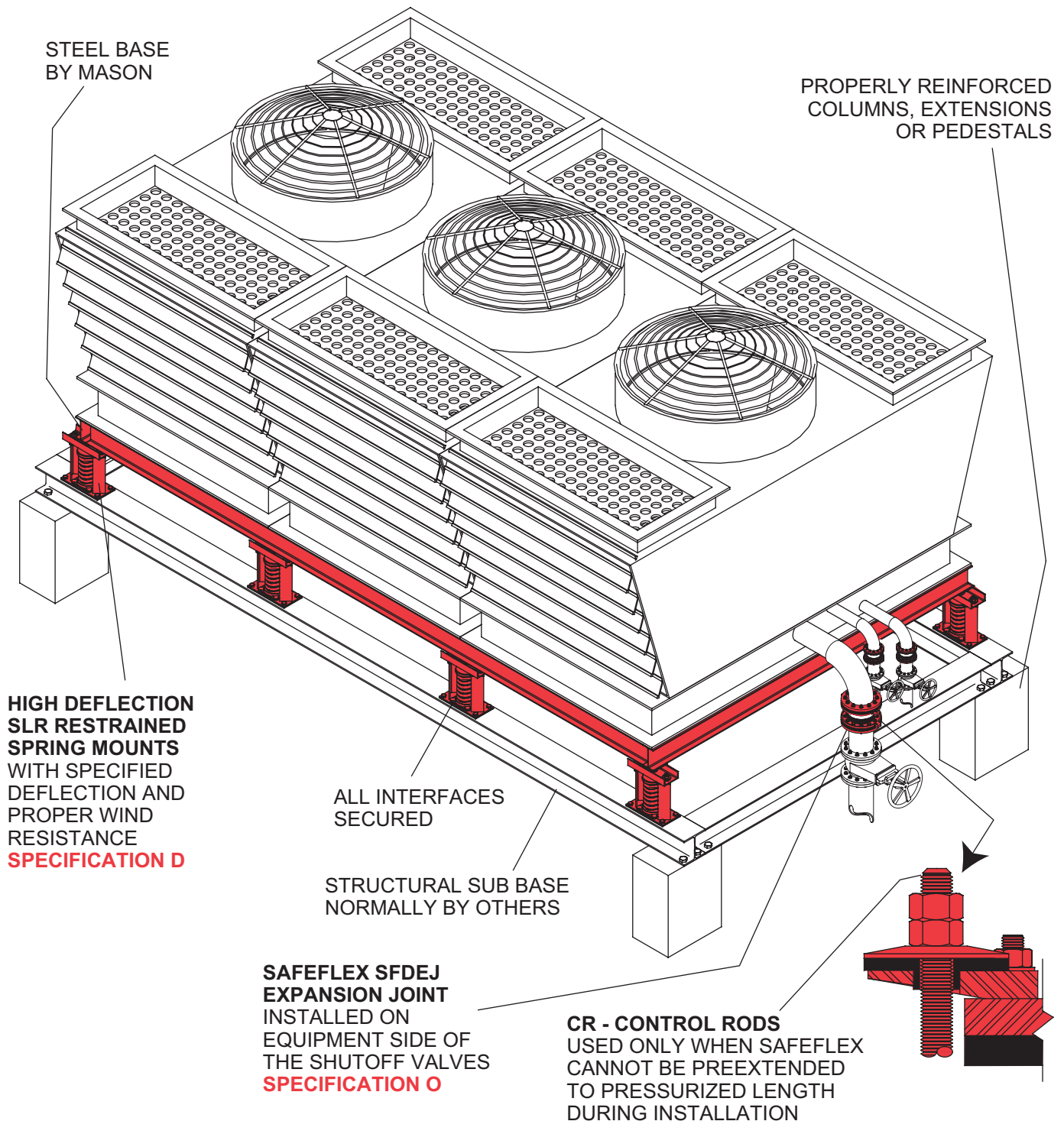
SLR-MT RESTRAINED AIR
SPRING MOUNTS WITH
SPECIFIED FREQUENCY AND
PROPER WIND RESISTANCE
SPECIFICATION E

CONTROLS
2 CORNER
AIR SPRING

CR - CONTROL RODS
USED ONLY WHEN SAFEFLEX
CANNOT BE PREEXTENDED
TO PRESSURIZED LENGTH
DURING INSTALLATION



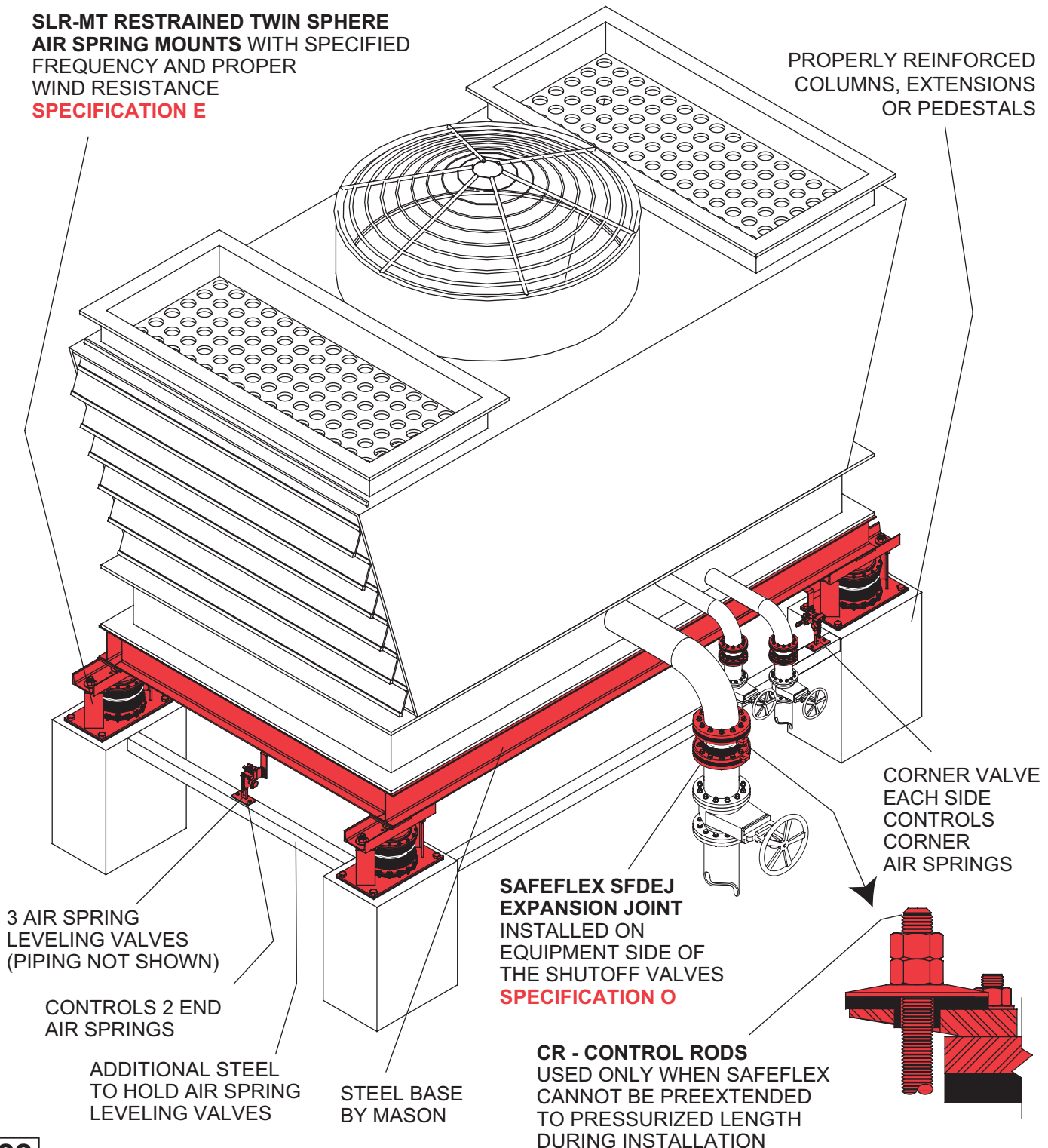
LARGE MULTI-SECTIONED COOLING TOWER secured to steel base and beam supports using high deflection **SLR** wind resistant Spring Mounts. **SAFEFLEX** Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise.



PACKAGED HVAC COOLING TOWER on steel base with
SLR-MT wind resistant Twin Sphere Air Spring Mounts.
SAFEFLEX Expansion Joints are installed in pipelines
to reduce blade frequency vibration and noise.

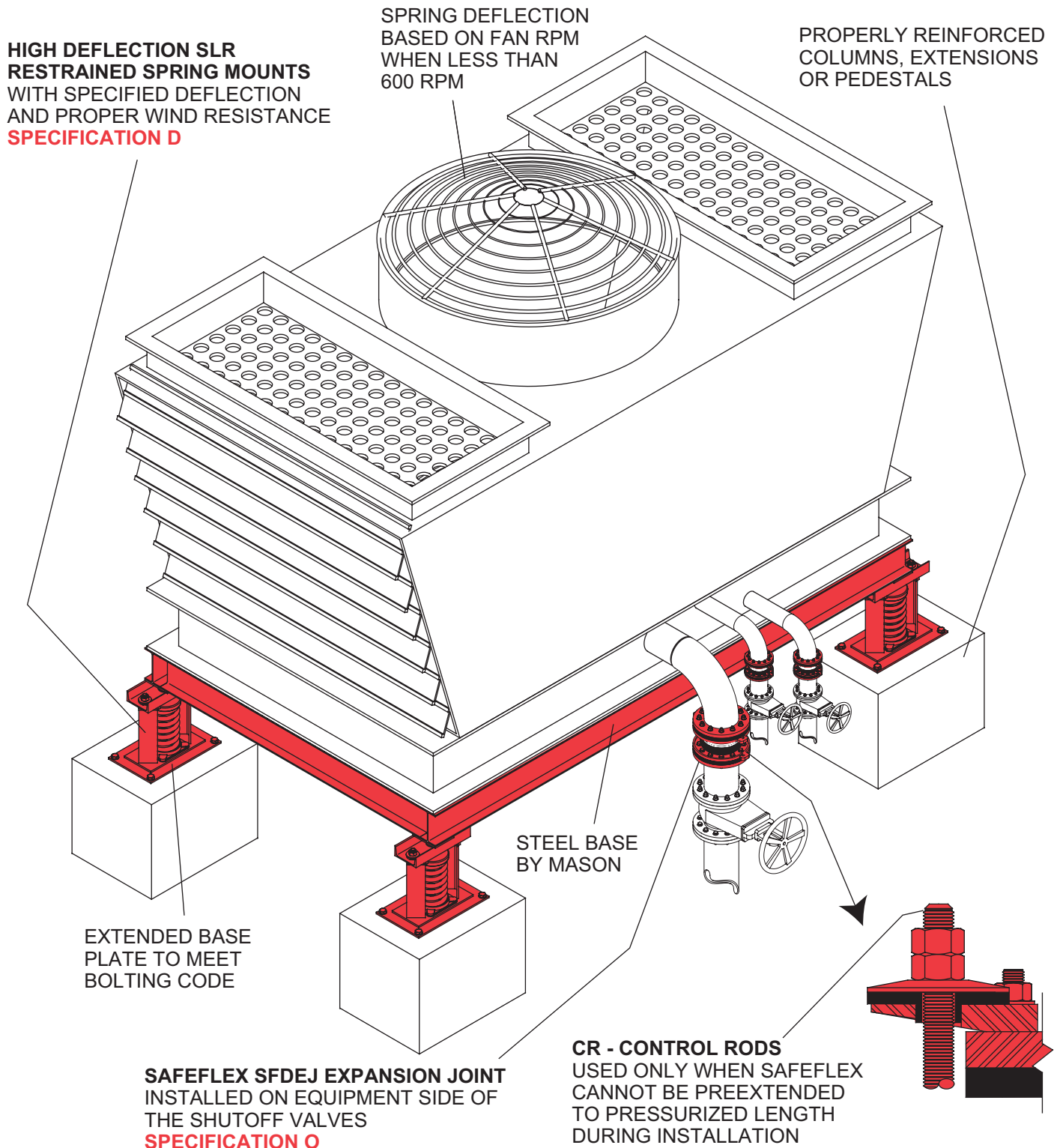
SLR-MT RESTRAINED TWIN SPHERE
AIR SPRING MOUNTS WITH SPECIFIED
FREQUENCY AND PROPER
WIND RESISTANCE
SPECIFICATION E

PROPERLY REINFORCED
COLUMNS, EXTENSIONS
OR PEDESTALS



ROOFTOP PACKAGED HVAC COOLING TOWER

on steel base and **SLR** wind resistant Spring Mounts.
SAFEFLEX Expansion Joints are installed in pipelines
to reduce blade frequency vibration and noise.



LARGE TRANSFORMER mounted on a **WFSL** or **KSL** Base supported by **MT Air Spring Mounts**. Schematic Only– Final installation to meet all safety regulations as well as electrical and other codes.

WFSL BASE - WIDE FLANGE STEEL
BASE MINIMUM 6" (152mm) OR 1/10
LONGEST BASE DIMENSION
SPECIFICATION J

FRICTION PAD
BOLTING NOT
REQUIRED

CONTROLS 2 END
AIR SPRINGS

MT TWIN SPHERE AIR SPRINGS
MUST BE INSTALLED WITH AIR
SPRING LEVELING VALVES
SPECIFICATION C

KSL BASE - STEEL CHANNEL
REINFORCED AND FILLED WITH
CONCRETE. BASE MINIMUM 6" (152mm)
OR 1/12 LONGEST BASE DIMENSION
SPECIFICATION L

ALL OTHER CALLOUTS ABOVE APPLY HERE

COILS

COOLING
FANS

CORNER VALVE
EACH SIDE
CONTROLS
CORNER
AIR SPRINGS

3 AIR SPRING
LEVELING VALVES
(PIPING NOT SHOWN)