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.

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CENTRIFUGAL CHILLER directly mounted on SLR Restrainted Spring Mounts to prevent lifting when water and refrigerant is removed. SAFEFLEX Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise.
**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.

**CR - CONTROL RODS**

- Used only when **SAFEFLEX** cannot be preextended to pressurized length during installation.

**SAFEFLEX SFDEJ EXPANSION JOINT**

- Installed on equipment side of the shutoff valves.

**3 AIR SPRING LEVELING VALVES**

- (Piping not shown)

**CORNER VALVE**

- Each side controls corner air springs.

**FRICION PAD**

- Bolting not required.
RECIPROCATING DIRECT DRIVE COMPRESSOR
on manufacturers base fitted with height saving brackets
and high deflection SLF Mounts

SLF SPRING MOUNTS
WITH SPECIFIED DEFLECTION
SPECIFICATION B

MANUFACTURERS BASE
MUST HAVE STRUCTURAL
INTEGRITY TO ALLOW FOR
DIRECT ATTACHMENT

HEIGHT SAVING
BRACKET

FRICTION PAD
BOLTING NOT REQUIRED
STEAM GENERATOR directly mounted on SLR Restrained Spring Mounts to prevent lifting when water is drained.

SLR RESTRAINED SPRING MOUNT WITH SPECIFIED DEFLECTION SPECIFICATION D

FRICTION PAD BOLTING NOT REQUIRED
**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**
- **BMK BASE IS LARGE ENOUGH TO SUPPORT SUCTION AND DISCHARGE ELBOWS**
- **SLF SPRING MOUNTS WITH SPECIFIED DEFLECTION **SPECIFICATION B**
- **FRICTION PAD BOLTING NOT REQUIRED**
- **FILL PUMP BASE WITH GROUT IF CALLED FOR BY PUMP MANUFACTURER**
- **CR - CONTROL RODS USED ONLY WHEN SAFEFLEX CANNOT BE PREEXTENDED TO PRESSURIZED LENGTH DURING INSTALLATION**
- **BMK FLOATING CONCRETE BASE MINIMUM 6” (150mm) OR 1/12 LONGEST BASE DIMENSION **SPECIFICATION L**
- **HEIGHT SAVING BRACKETS**
**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.

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

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

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

**WFSL BASE IS LARGE ENOUGH TO SUPPORT SUCTION ELBOW**

**SAFEFLEX Expansion Joints** are installed in pipelines to reduce blade frequency vibration and noise.

**FRICITION PAD BOLTING NOT REQUIRED**

**SLF SPRING MOUNTS**
WITH SPECIFIED DEFLECTION
SPECIFICATION B
**END SUCTION PUMP** on WFSL Base and MT Air Springs. **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

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

**WFSL BASE** IS LARGE ENOUGH TO SUPPORT SUCTION ELBOW.

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

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

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

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

**FRICTION PAD** BOLTING NOT REQUIRED

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

**CONTROLS 2 END AIR SPRINGS**
HVAC UNIT suspended from 30N Hangers. 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

30N SPRING HANGERS
WITH SPECIFIED DEFLECTION
SPECIFICATION F

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

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.
**HVAC UNIT** directly mounted on 1" 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**

**SLF SPRING MOUNTS** with specified deflection **SPECIFICATION B**

**CR - CONTROL RODS** used only when SafeFlex cannot be preextended to pressurized length during installation

**FRICTION CUP BOLTING NOT REQUIRED**
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.

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

SLF SPRING MOUNTS WITH SPECIFIED DEFLECTION SPECIFICATION B

HEIGHT SAVING BRACKETS

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

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

FRICTION PAD BOLTING NOT REQUIRED
VERTICAL TANK TYPE COMPRESSOR directly mounted on BMK Concrete Filled Base and 1" deflection SLF Spring Mounts

HIGH CENTER OF GRAVITY WITHOUT CONCRETE BASE (POOR STABILITY)

LOWERED CENTER OF GRAVITY ON CONCRETE BASE (IMPROVED STABILITY)

CENTER OF GRAVITY IS LOWERED BY MASS OF BMK FLOATING CONCRETE BASE

FRICITION CUP BOLTING NOT REQUIRED

STABILITY FURTHER IMPROVED BY SPREADING OF MOUNTS

SLF SPRING MOUNTS WITH SPECIFIED DEFLECTION SPECIFICATION B

BMK FLOATING CONCRETE BASE
MINIMUM 6" (150mm) OR 1/12 LONGEST BASE DIMENSION SPECIFICATION L
HORIZONTAL TANK TYPE COMPRESSOR
directly mounted on high deflection SLF Spring Mounts

SLF SPRING MOUNT
WITH SPECIFIED DEFLECTION
SPECIFICATION B

FRICTION PAD
BOLTING NOT REQUIRED
**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**

**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)

SLF SPRING MOUNTS
WITH SPECIFIED DEFLECTION
SPECIFICATION B

USE BOLTED SLR SPRING MOUNTS IN WINDY AREAS
SPECIFICATION D
CENTRIFUGAL BLOWER on concrete filled BMK Base™
with built in corners and 1" deflection SLF Spring Mounts

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

- MOTOR SLIDE RAILS
  - TO MATCH MOTOR FRAME

- TEMPLATES

- ANCHOR BOLT AND ANCHOR BOLT SLEEVES

- FRICITION CUP
  - BOLTING NOT REQUIRED

- SLF SPRING MOUNTS
  - WITH SPECIFIED DEFLECTION
  - SPECIFICATION B
**CENTRIFUGAL BLOWER** on concrete filled **BMK** Base with height saving brackets and high deflection **SLF** Spring Mounts

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

- **SLF SPRING MOUNTS**
  - WITH SPECIFIED DEFLECTION
  - SPECIFICATION B

- **ANCHOR BOLT**
- **ANCHOR BOLT SLEEVE**

- **MOTOR SLIDE RAILS**
  - TO MATCH MOTOR FRAME

- **TEMPLATES**
- **HEIGHT SAVING BRACKETS**

- **FRICTION PAD BOLTING NOT REQUIRED**
FLOOR MOUNTED AXIAL BLOWER with WBI/WBD Thrust Restraints directly mounted on SLF Spring Mounts. Use height saving brackets with springs over 11/2" deflection.
**AXIAL BLOWER** with **WBI/WBD Thrust Restraints**
suspended from **30N Hangers**

- 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.

**WBI/WBD Thrust Restraints**
Cross flexible connection with deflection equal to hanger deflection specification I

**30N Spring Hangers**
With specified deflection specification F

**19°**

**Air Flow**

**Threaded Rod**
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.

**SAFEFLEX SFDEJ EXPANSION JOINT**

**COLUMNS EXTENSIONS OR PEDESTALS PROPERLY REINFORCED**

**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**

**SLR-MT RESTRAINED AIR SPRING MOUNTS** with specified frequency and proper wind resistance

**SPECIFICATION E**

**STEEL BASE BY MASON**

**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.

STEEL BASE
BY MASON

HIGH DEFLECTION SLR RESTRAINED SPRING MOUNTS
WITH SPECIFIED DEFLECTION AND PROPER WIND RESISTANCE
SPECIFICATION D

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

ALL INTERFACES SECURED

STRUCTURAL SUB BASE
NORMALLY BY OTHERS

PROPERLY REINFORCED COLUMNS, EXTENSIONS OR PEDESTALS

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

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

CORNER VALVE EACH SIDE CONTROLS CORNER AIR SPRINGS

3 AIR SPRING LEVELING VALVES (PIPING NOT SHOWN)

CONTROLS 2 END AIR SPRINGS

ADDITIONAL STEEL TO HOLD AIR SPRING LEVELING VALVES

STEEL BASE BY MASON

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

PROPERLY REINFORCED COLUMNS, EXTENSIONS OR PEDESTALS

SAFEFLEX Expansion Joints are installed in pipelines to reduce blade frequency vibration and noise.
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.

HIGH DEFLECTION SLR RESTRAINED SPRING MOUNTS WITH SPECIFIED DEFLECTION AND PROPER WIND RESISTANCE SPECIFICATION D

SPRING DEFLECTION BASED ON FAN RPM WHEN LESS THAN 600 RPM

PROPERLY REINFORCED COLUMNS, EXTENSIONS OR PEDESTALS

EXTENDED BASE PLATE TO MEET BOLTING CODE

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

STEEL BASE BY MASON

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

**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