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TYPE M, WF, GS, AND
K FRAMES WITH SLF,
C AND ND MOUNTS

FAN AND MOTOR
BASES

DATA SHEET DS-800

Vibration attenuation is dependent on base rigidity as well as isolator deflection. If a base becomes distorted because of weight distribution, belt pull or the torque introduced by a direct drive, the equipment will wear out more quickly and vibrate excessively because of the loss of alignment. Some of the symptoms are flapping belts, bouncing motor ends, noisy bearings and in extreme cases the fan wheel rubbing against the fan housing. Base resonance is another difficulty that can result from poor frame construction. If base members are light and long they will tend to resonate at low frequencies that may be sympathetic or close to the operating speeds of the fan or motor.

The vibration isolators supporting the base can only prevent the passage of a percentage of the vibratory energy above them. Thus good rigid bases that help to keep the equipment running with a minimum of vibration will result in more successful installations.

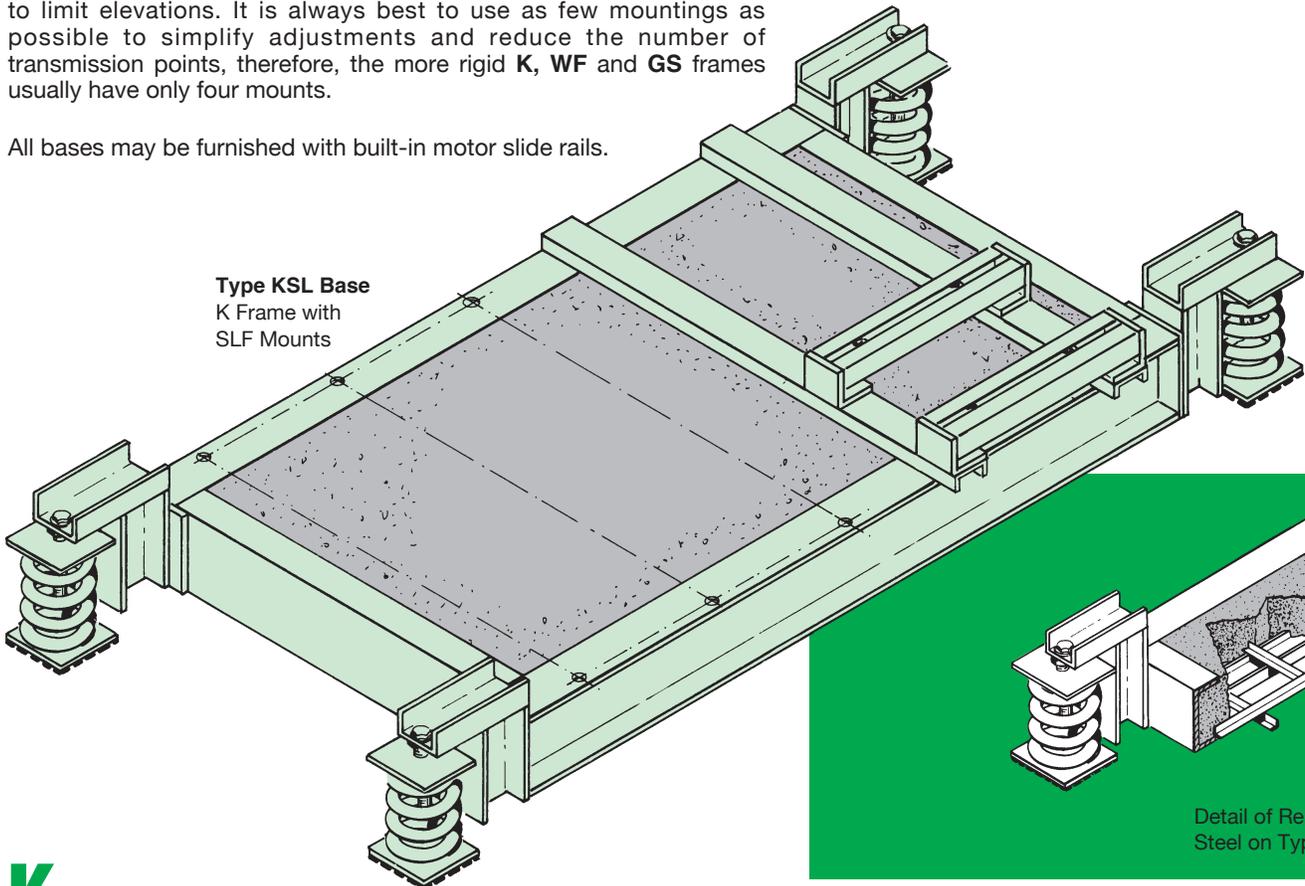
All of our bases may be used with Type **SLF** and **C** spring mountings, air springs, or **ND** neoprene mounts depending on the degree of isolation required. In most cases height saving brackets are employed to limit elevations. It is always best to use as few mountings as possible to simplify adjustments and reduce the number of transmission points, therefore, the more rigid **K**, **WF** and **GS** frames usually have only four mounts.

All bases may be furnished with built-in motor slide rails.



Type WFSL Base
WF Frame with
SLF Mounts

WF fan and motor bases are specifically designed for rigidity without concrete fill, as structural beam members form the rectangular perimeter framing. Our design criteria is a minimum beam depth of 1/10th the longest dimension of the base so that deeper, heavier members are automatically provided for larger equipment.



Type KSL Base
K Frame with
SLF Mounts

Detail of Reinforcing
Steel on Type K Frame

K frames are rigid floating concrete platforms. While the extra weight of the concrete mass does not reduce the vibration transmission, it does reduce the operating amplitude, reaction to fan trust and start and stop motion. The standard base consists of a structural channel or beam frame, height saving brackets, reinforcing rods welded in place and drilled steel members with sleeves welded below the holes to receive equipment anchor bolts where the anchor bolts fall in concrete locations. Our recommended depth criteria is 1/12th the longest dimension of the base.

The frame is placed on roofing felt or plastic sheeting and filled with concrete. After the equipment is set, the mounting adjustment bolts both raise and level the base to the operating height.

GS bases are exceptionally heavy **WF** designs built to specific Government Specifications.

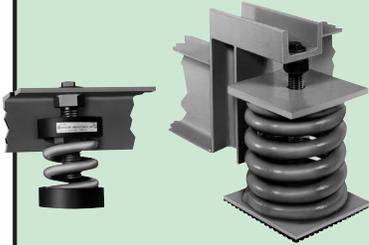
M rectangular fan and motor bases are lightweight frames built to no specific criteria. Steel members may be light beams, angles or channels selected on the basis of the most economical useable design.

MOUNTS

Complete Base Designation is the Frame plus the Mount i.e., KSL, KND, WFC, etc.

STEEL FAN and MOTOR FRAMES

SL (SLF) Unhoused Spring Mounts



Type SLF spring mounts are designed with extremely stable springs enabling them to resist the fan thrust without the use of supplementary housings. Since there are no snubbers or chocks of any kind, isolation values approach the theoretical. All mounts have acoustical pads and leveling bolts and need not be bolted down. Static deflection up to 5.0" can be attained using stock springs. Larger deflections can be provided if specified.

C Housed Spring Mounts



Type C spring mounts are designed so that neoprene sponge inserts limit movement during start and stop and prevent contact between the projections of the upper and lower semi-steel casting. These inserts are designed for a minimum of damping in all directions. This is a good design for engineers that prefer housed mountings.

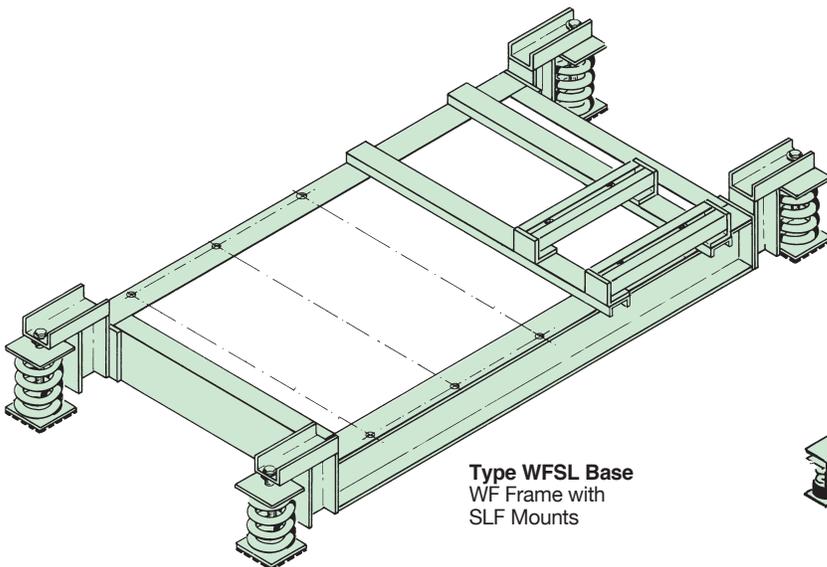
ND Double Deflection Neoprene Mounts



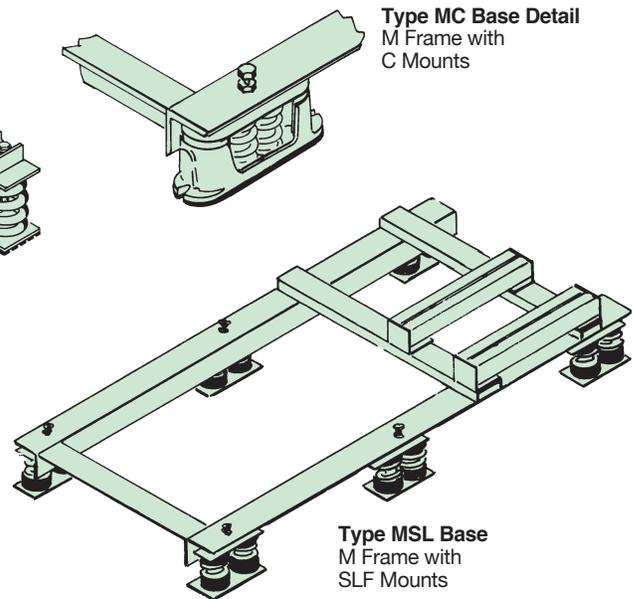
Type ND neoprene mounts are designed for both high static deflections and simplified installations. The rubber is loaded in both shear and compression to provide the desirable straight line rubber-in-shear deflection curves as well as overload protection. They are molded assemblies with skid resistant rubber ridged baseplates and need not be bolted to the floor on most installations.

K Form for Concrete	KSL BASE 0.5-5.0" DEFL (page 4,7)	KC BASE 0.5-1.0" DEFL (page 4,7,8)	KND BASE 0.2-0.5" DEFL (page 4,7)
WF Structural Beam Frame	WFSL BASE 0.5-5.0" DEFL (page 6,7,8)	WFC BASE 0.5-1.0" DEFL (page 6,7,8)	WFND BASE 0.2-0.5" DEFL (page 6,7,8)
GS Government Specification Frame	GSSL BASE 0.5-5.0" DEFL (page 6,8)	---	GSND BASE 0.2-0.5" DEFL (page 6,8)
M Lightweight Frame	MSL BASE 0.5-1.0" DEFL (page 1) 1.1-1.5" DEFL (page 2) 1.6-5.0" DEFL (page 3)	MC BASE 0.5-1.0" DEFL (page 1,2) 1.1-1.5" DEFL (page 7,8)	MND BASE 0.2-0.5" DEFL (page 1,7,8)

(Page numbers in parenthesis refer to FAN and MOTOR BASE Price List B-80)



Type WFSL Base
WF Frame with SLF Mounts



Type MSL Base
M Frame with SLF Mounts

Type MC Base Detail
M Frame with C Mounts