

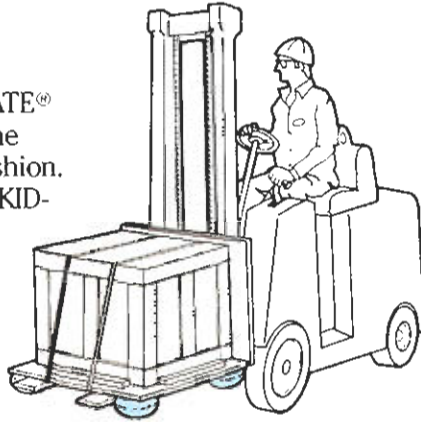
**SKID-MATE<sup>®</sup> &  
SKID-MATE+PLUS<sup>™</sup>  
CUSHIONS**



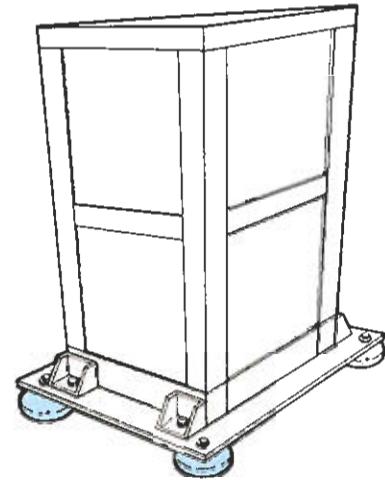
SKID-MATE® cushions are air-damped cushioning devices which can be easily mounted on a pallet base in place of wood skid runners.

SKID-MATE + PLUS™ is a SKID-MATE® cushion plus a rugged polyethylene spacer-disk, spin-welded to the cushion. The addition of the spacer to the SKID-MATE® makes the height of the SKID-MATE + PLUS™ capable of accepting all pallet jacks worldwide.

Orange only 3.38" ht.



Tall items are best shipped lying down. When this is not possible, the pallet deck and cushions should be extended out to effect a good, stable base.



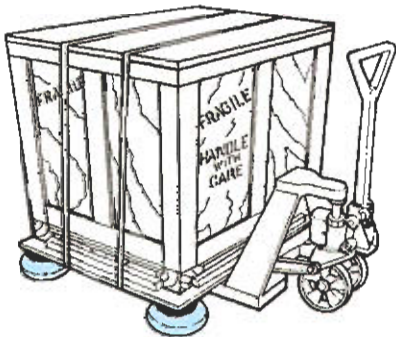
## THE APPLICATIONS

### Selecting the proper SKID-MATE® and SKID-MATE + PLUS™ Cushioning System for your applications:

It is important to consider the total weight (sum of the weight of the unit plus the weight of the pallet and crating) of the pack to be shipped.

#### Loads up to 500 lbs. (227 kgs):

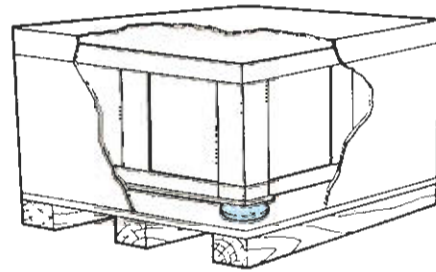
When span between pads is not greater than 36 inches (914mm). If possible, cushions should extend 1 inch (25.4mm) outside pallet deck to effect some lateral cushioning.



#### Loads over 500 lbs. (227 kgs):

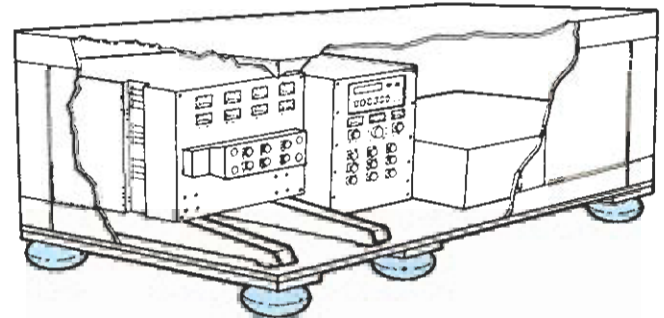
For heavier loads, careful consideration should be given to the placement of multiple rows of cushions to coincide with the center of gravity and load range.

#### Floating deck pallet designs:



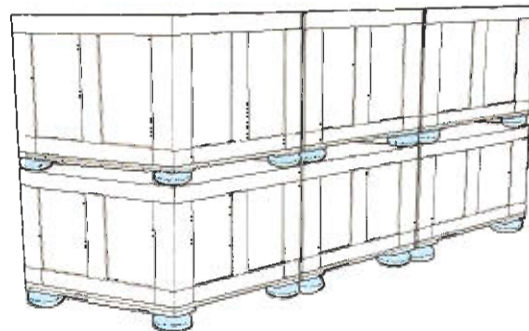
#### Loads with off-set center of gravity:

Contact Hardigg Industries for further information.



#### Stacking:

When items must be stacked 2 units high, select the proper SKID-MATE® or SKID-MATE + PLUS™ cushion to handle twice the single-pallet loading.



- Cut packaging design and assembly time.
- Reduce costly damage from handling hazards during shipment of valuable equipment.
- Provide protection where it's needed most, i.e. during loading and unloading when appropriate handling equipment is not available.
- Reduce costly field service calls and repairs that can result from shock and vibration during transit.
- Save in material and application costs — wood or wood/foam skid-runners are not required.
- Eliminate the need for expensive air-ride vans.
- Permit 4-way entry pallet design.
- Quickly adds shock protection to existing crating or pallets without costly redesign.

## THE FIELD — TEST RESULTS

### Durability and Wear-Resistance:

Even after being dragged and pushed under full load over 3,000 ft. (914m.) across concrete floor and floor joints. (Cushions can distort the ride over floor joints and take direct impingement of lift truck forks.)

### Shock-Resistance:

Cushioning level under 15Gs at 24-inch (609mm) rotational drop measured at center of gravity. Orange: 15Gs at 12-inch flat drop.

### Vibration-Resistance:

Typical natural frequency values are shown in graphs on back page. For more detailed information, contact Hardigg Industries, Inc.

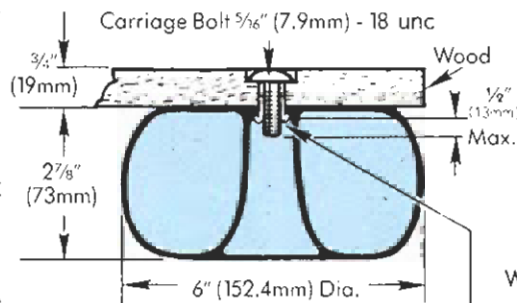
### High and Low-Temperature storage:

Cushions are suitable for storage at -40°F to +130°F (-40°C to +54.4°C.)

### Chemical and Solvent-Resistance:

Cushions are made of chemically inert material.

### Standard Method of Attachment

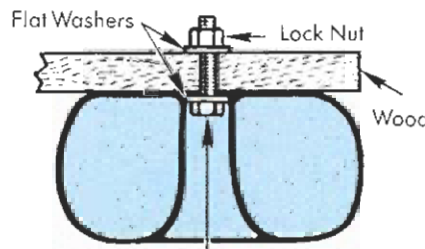


Cushion supplied with 5/16" (7.9mm) - 18 "T-Nut" as standard.

Use of carriage bolt and T-Nut leave pallet deck free of protruding bolts.

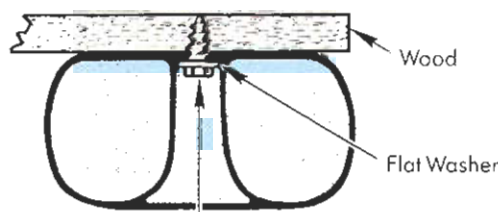
CAUTION: Use proper length bolts.

### Optional Methods of Attachment — Special Order (Hardware Not Supplied)



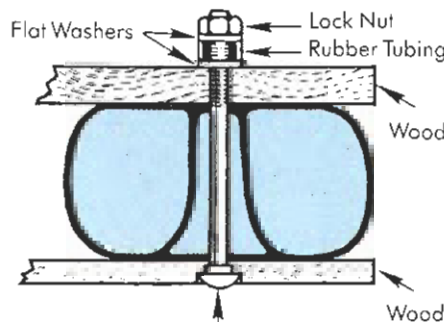
Use 3/8" (9.5mm) - 16 Hex Head Machine Bolt

Drill for a 3/8" (9.5mm) Dia. bolt hole. Use this method if the protrusion of the bolt and nut do not interfere with the bottom surface of the unit being packed.



Use 3/8" (9.5mm) Dia. 1" (25.4mm) 1 g. Hex Head Lag Screw.

This method of attachment is recommended for last minute cushion "ADD-ON" to adjust for final gross weight of crating. Wood should be pre-drilled before screw is installed.

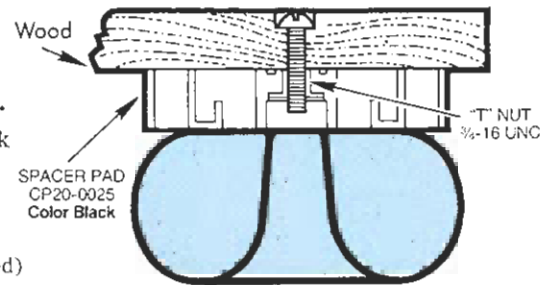


Use 3/8" (9.5mm) Dia. Carriage Bolt 6" (152.4mm) 1 g. min.

Used whenever bottom pallet cross slats are required as skid runners or stabilizers to prevent tipover on fork trucks. Slats also reduce floor loading.

SKID-MATE + PLUS™ is very easy to mount on a pallet base. It is attached to a skid with 3/8" - 16 UNC carriage bolts, which are screwed into the "T-Nut" in the spacer.

### Construction Details

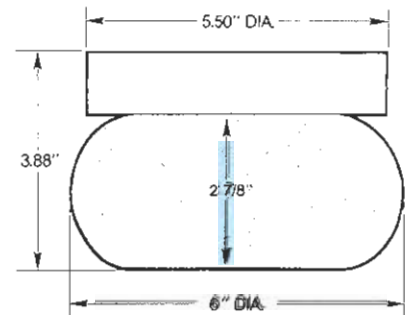


## SKID-MATE + PLUS™ is Rugged.

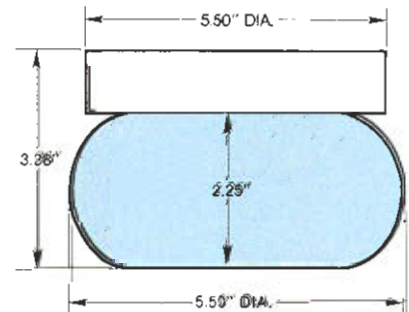
The combination of the spin-welded assembly of cushion and spacer, plus thru-bolting to spacer, provides added resistance to shear and pull-off.

### Dimension Details

(TAN, GREEN, YELLOW, BLUE)

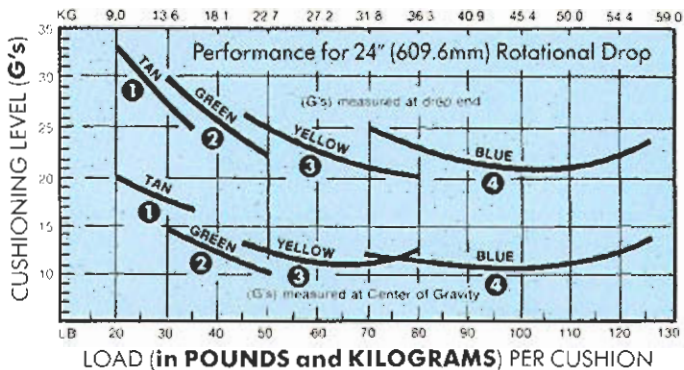


(ORANGE)



# Performance Data

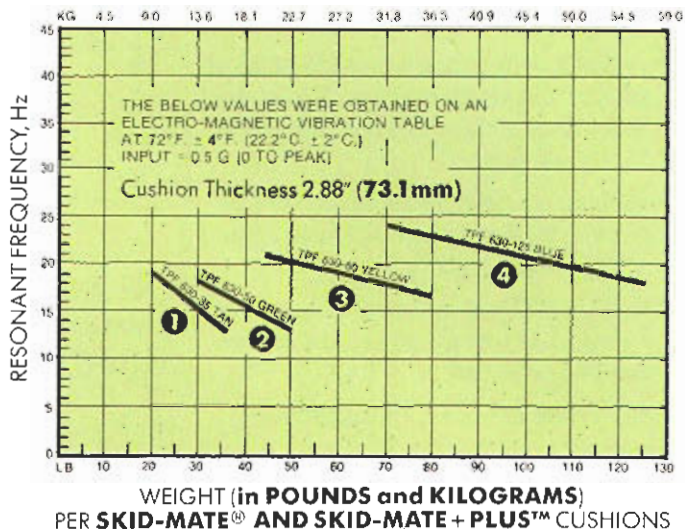
(6" [152.4mm] dia. x 2 7/8" [73mm] thick)



- ❶ SKID-MATE® Cushion TPF-630-35 TAN  
Load range = 20-35 lbs (9.1-15.9 kgs) per pad
- ❷ SKID-MATE® Cushion TPF-630-50 GREEN  
Load range = 30-50 lbs (13.6-22.7 kgs) per pad
- ❸ SKID-MATE® Cushion TPF-630-80 YELLOW  
Load range = 45-80 lbs (20.4-36.3 kgs) per pad
- ❹ SKID-MATE® Cushion TPF-630-125 BLUE  
Load range = 70-125 lbs (31.8-56.7 kgs) per pad

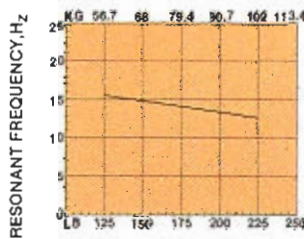
NOTE: SKID-MATE® cushioning performance is equivalent to 3" (76.2mm) of Urethane Foam.

# SKID-MATE® and SKID-MATE + PLUS™



## VIBRATION PERFORMANCE DATA

SKID-MATE® Cushion SML-520-225 ORANGE  
SKID-MATE + PLUS™ Cushion SML-520-225 ORANGE/BLACK  
LOAD RANGE = 125-225 lbs (56.7 to 102 kgs) per pad

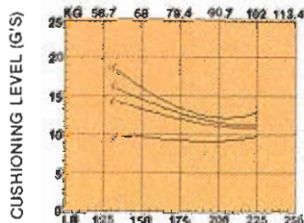


Values were obtained on a Servo-Hydraulic Vibration Table at 72°F ± 4°F (22.2°C ± 2°C)  
Input: 0.5G (0 to Peak)  
Cushion Thickness 2.25" (57.1MM)  
ORANGE SKID-MATE®  
(Size: Ø 5.50" x 2.25" HGT)  
ORANGE/BLACK SKID-MATE + PLUS™  
(Size: Ø 5.50" x 3.38" HGT)

Weight (In lbs and kgs) per SKID-MATE® AND SKID-MATE + PLUS™ Cushions

## PERFORMANCE DATA

SKID-MATE® Cushion SML 520-225 ORANGE  
SKID-MATE + PLUS™ Cushion SML 520-225 ORANGE/BLACK  
Load range = 125 to 225 lbs (56.7 to 102 kg) per pad



Data for free fall drops

Load (in lbs and kgs) per cushion



**HARDIGG INDUSTRIES, INC.**

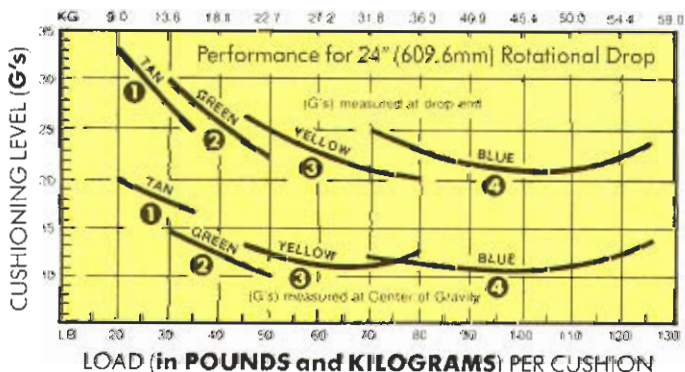
PACKAGE CUSHIONING SPECIALISTS

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South Deerfield, MA 01373-0201  
(413) 665-2163  
Facsimile: 413-665-8061  
www.hardigg.com

Printed on recycled paper.

# SKID-MATE + PLUS™ Performance Data

Nominal Size—6" (152.44mm) dia. x 4" (101.6mm) high — cushion plus black spacer.



- ❶ SKID-MATE + PLUS™ Cushion SMP-630-35 TAN/BLACK  
Load range = 20-35 lb. (9.6-15.9 kgs) per pad
- ❷ SKID-MATE + PLUS™ Cushion SMP-630-50 GREEN/BLACK  
Load range = 30-50 lbs. (13.6-22.7 kgs) per pad
- ❸ SKID-MATE + PLUS™ Cushion SMP-630-80 YELLOW/BLACK  
Load range = 45-80 lbs. (20.4-36.3 kgs) per pad
- ❹ SKID-MATE + PLUS™ Cushion SMP-630-125 BLUE/BLACK  
Load range = 70-125 lbs (31.8-56.7 kgs) per pad