

# Cushioneer's Quality Manufacturing and Unique Design Provide You with the BEST in Long-Lasting Impact Absorption

## Cushioneer Applications

CUSHIONEERS are designed to smoothly decelerate fast moving equipment. The plunger rod on a CUSHIONEER moves relatively fast at the beginning of its stroke and *steadily slows* as the moving load depresses the plunger rod. If you need to control the speed (velocity) of your equipment, you should select a KINECHEK from our bulletin S-66. The plunger rod on a KINECHEK moves smoothly at a *constant velocity* throughout its entire stroke length. CUSHIONEERS are ideal for use on devices operated by air cylinders, moving carriages, falling weights, spring returned mechanisms, flying die cutoffs, packaging machinery, book binding equipment, anything that must move fast and stop quickly.

## Leakproof

A CUSHIONEER is absolutely leakproof in any position because its plunger is hermetically sealed by a patented, frictionless, rolling diaphragm. It won't leak a drop of fluid a year unless damaged, so no external fluid reservoir is needed. CUSHIONEERS are so clean they are used on food processing equipment, business machines, and optical devices, as well as on production machinery.

## Eliminate Shock and Noise

CUSHIONEERS bring fast moving parts of machines to an instant stop without bang or bounce. Your machinery can run faster than ever before—trouble free. They are small and streamlined, handy to mount in tight spots where room is limited, yet powerful enough to solve most of the shock problems in industrial plants. Simple to install—just mount so device to be stopped strikes plunger squarely.

## Powerful-Miniaturized

CUSHIONEERS are smaller for their load capacity than conventional shock absorbers, and their stopping action is creamy-smooth, not jerky. Excellent for high speed, slow speed, heavy or light loads, and you don't have to make repeated adjustments when temperature varies because CUSHIONEERS do not contain ordinary hydraulic oil. Instead, they are filled with a superior silicone fluid which is much more constant in viscosity during temperature changes.

## Instant Plunger Return

Plunger rod shoots back out instantly when load movement reverses. This feature makes CUSHIONEERS unequalled for use with high speed machines. The frictionless plunger returns outward so quickly that it stays in contact with the reversing load to the limit of the plunger stroke. Therefore, the CUSHIONEER is always ready when the next impact blow strikes. See Tables for plunger return times.

## Cushioneers Save You Money

They protect your machines against wear, permit speed-ups, and save maintenance expense by not requiring periodic replenishment of fluid or seals. There are no sliding seals to wear and leak. Air bubbles can never enter the fluid to interfere with operation. An average life of millions of cycles is due to a leakproof diaphragm, all-metal piston mated to a steel cylinder, and stainless steel plunger rod—all permanently lubricated.

## No Maintenance Necessary

CUSHIONEER rolling diaphragm seals will successfully withstand endurance tests of 10,000,000 cycles without leaking. These tests ensure that the CUSHIONEER will operate for millions of cycles without noticeable wear. An integral rod wiper protects the seal and other internal parts of the CUSHIONEER from contamination by cutting oils, moisture and dust. All moving parts are permanently lubricated and contribute to an extremely long life without maintenance.

## Quality Standard

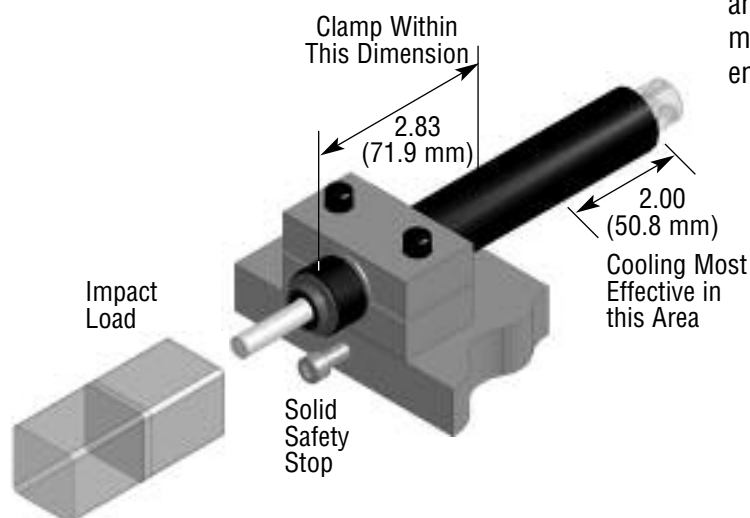
Deschner Corporation is the originator of the "Cushioneer®" leakproof hydraulic shock absorber. These miniaturized shock absorbers have been in use since 1960. They are unequalled in their design sophistication and quality of manufacture. Each and every Cushioneer is thoroughly tested and must meet rigid performance standards before it is approved for shipment. This is your assurance of receiving a product of the highest possible quality.

# CUSHIONEER—just install it and forget it!

# Important Information

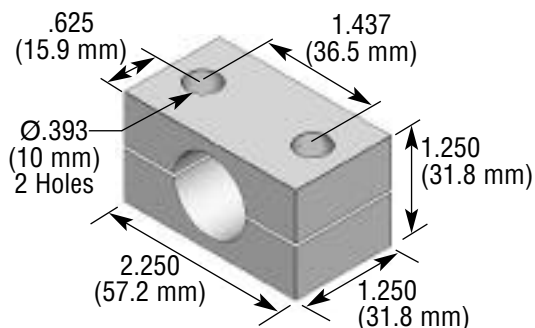
**MOUNTING ARRANGEMENTS** Mount on flat surfaces with block A10031 at either snap ring groove, or use spacer for intermediate position. Thrust is taken by snap ring furnished. Can be mounted in round holes and retained by snap rings in light duty installations. If application is severe, body should be clamped radially by split mounting to prevent body working in hole. Do not use set screws to retain body.

**SAFETY STOP** To avoid damaging Cushioneer, to protect your equipment, and for quickest plunger return after a working stroke, provide a solid safety stop to stop the moving load approximately 1/32" (0.8 mm) before CUSHIONEER plunger reaches bottom of its own stroke.



**IMPORTANT** End of CUSHIONEER plunger is hardened for wear resistance. Align CUSHIONEER accurately with direction of load movement so that moving load contacts plunger squarely during entire stroke of plunger. Load should never slide on end of plunger or cause plunger to twist during its stroke, otherwise plunger seal and bushing life may be shortened.

**CUSHIONEERS** get hot because they convert impact energy to heat. The seals in a cool unit last longer than those in a hot unit. Operating temperature should be held below 130°F (54°C) if a seal life of millions of operations is expected. Exhaust blast from an air cylinder is excellent for keeping a CUSHIONEER cool and ensures a normal length of life for the seals. For maximum effectiveness, have air strike within 2" of end of housing as shown, but not on nameplate.



A10031 Mounting Block Accessory  
Consists of upper & lower halves which are identical and symmetrical around center line.

**Guarantee and Limitation of Liability** Every hydraulic unit is fully guaranteed against defects in workmanship or material. Within one year from the date of shipment to the original purchaser, any unit which has proven defective will be repaired without charge, F.O.B. factory, when unit is shipped prepaid to factory. The Company is not responsible for any damage resulting from tampering, abuse, or incorrect application. The Company's liability on any claim of any kind, including negligence, for any loss or damage arising

out of, connected with or resulting from the design, manufacture, sale, delivery, resale, installation or installation advice, inspection, repair, operation, or use, of any equipment described herein, shall in no case exceed the price allocable to the equipment which gives rise to the claim and shall terminate four years after the date of original shipment. The purchaser, by acceptance of any of the Company's products described herein, assumes all liability of the consequence of the use of those products.



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