

**ACE**

# ***PET SHOCK ABSORBERS***

***Soft Touch Models Designed for  
PET Container Industry Equipment***



***Ideal for Stretch Rod and Mold Applications***

***Increase Cycle Rates  
Increase Productivity  
Increase System Performance  
Reduce Damage-Causing Impact Forces***



# PET Shock Absorbers



Model PBS 600-2865  
Quick-Change Mount Shock  
Shown actual size

**ACE Controls high-performance, soft touch Industrial PET Shock Absorbers** have been specifically designed to handle the demanding stretch-rod and mold applications of PET container production equipment for the food and beverage industries and more.

These durable shock absorbers provide initial soft touch contact, fast through-stroke time and a longer stroke, resulting in the elimination of the damage causing impact forces created by the moving load.



ACE PET Shocks will allow your equipment to run faster and longer with considerably reduced component wear. End of stroke set-down forces are minimized as well, resulting in reduced downtime and increased production.

## Lifetime Warranty

ACE Controls Inc. products are guaranteed to be free of defects in materials and workmanship. ACE will repair or replace any of its products determined to have a defect in materials or workmanship at any time for the life of the product.

## PET Shock Absorber Features

- Initial soft-contact
- Fast through-stroke time
- Quick change capability on PBS 600-2865 model
- Rugged design to handle stretch rod applications

## PET Shock Absorber Benefits

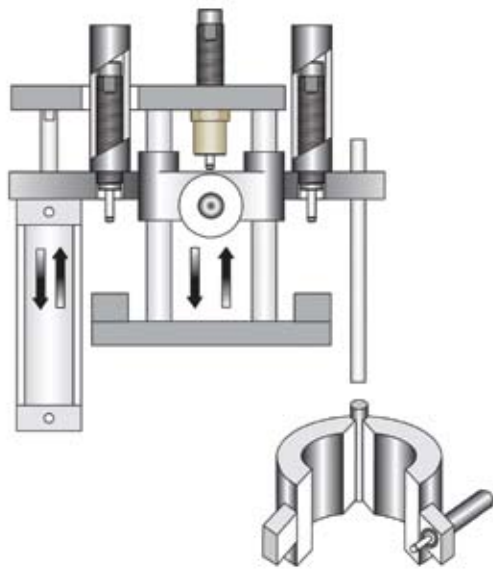
- Increased production
- Increased system performance
- Reduced downtime
- Reduced reaction forces
- Reduced component wear
- Reduced damage-causing impact forces
- Reduced operational equipment noise
- Lifetime warranty against material and workmanship



# PET Shock Applications

## Series 1 Type B Slide...

Mid-Generation Machine with Mechanical/Air Cylinder  
Operated Stretch Rods - Type 1 Mold Housing



**Mid-generation PET machines** have both a mechanical cam and air cylinder to operate the stretch rod slide. The cylinder's position rod is stationary and the cylinder body moves up and down with the slide.

**The stretch rod has 3 shock absorbers, 1 for up-stroke and 2 for down-stroke.** The up-stroke shock absorber is screwed into a shock holder collar and tightened into the guide rod's end block.

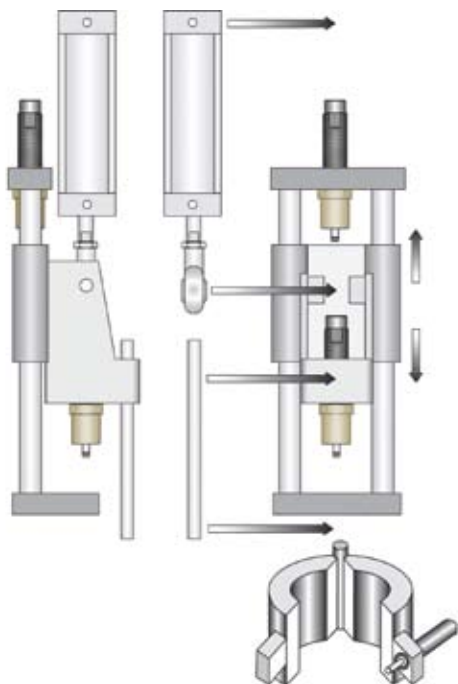
**The two down-stroke shocks are hidden from sight.** They are mounted inside of two tubes that are attached to the moving slide.

**The fast operating speeds** require shock absorbers to eliminate the damage-causing impact forces created by the moving load.

**Type 1 mold housings are the most common.** The shock is mounted on one half of the mold housing and the striker is located on the opposite half.

## Series 1 Type C Slide...

Mid-Generation Machine with Air Cylinder  
Operated Stretch Rods - Type 1 Mold Housing



**On this machine version the mechanical cam has been eliminated** and only the air cylinder is used to operate the stretch rod slide. The cylinder body is stationary and the piston rod moves the slide up and down.

**Without the mechanical cam, operational speeds increased, requiring shock absorbers to eliminate the damage-causing impact forces created by the moving load.**

**The stretch rod has 2 shock absorbers, 1 for up-stroke and 1 for down-stroke.** The up-stroke shock absorber is screwed into a shock holder collar and tightened into the guide rod's end block. Machines with cylinder cushions may have the up-stroke shock removed. The down stroke shock absorber is screwed into a shock holder collar and tightened into the moving slide.

The down-stroke shock absorber is likely to have some installation issues due to overall length. Consult ACE for shock absorber selection and installation requirements.

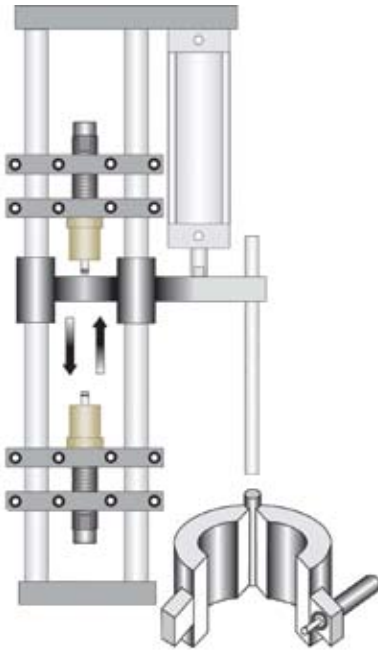


Model PBS 600MH-2866  
Popular Choice for  
Mold Housing Installations  
Shown actual size

# PET Shock Applications

## Series 1 Type D Slide...

Late Generation Machine with Air Cylinder  
Operated Stretch Rods - Type 1 Mold Housing



**On this machine version the mechanical cam has been eliminated** and only the air cylinder is used to operate the stretch rod slide. The cylinder body is stationary and the piston rod moves the slide up and down.

**Without the mechanical cam, operational speeds increased, requiring shock absorbers to eliminate the damage-causing impact forces created by the moving load.**

**The stretch rod has 2 shock absorbers, 1 for up-stroke and 1 for down-stroke.** Machines with cylinder cushions may have the up-stroke shock removed. Both shock absorbers are screwed into a shock holder collar and tightened into adjustable bars on the guide rods.

**In 1995 the first dual cavity machine was introduced capable of producing 50,000 bottles per hour.** Currently, it is assumed the applications are similar, except the quantity of shock absorbers may be higher.

**Type 1 mold housings are the most common on all models.** The shock is mounted on one half of the mold housing and the striker is located on the opposite half.

## Series 2 Type F Slide...

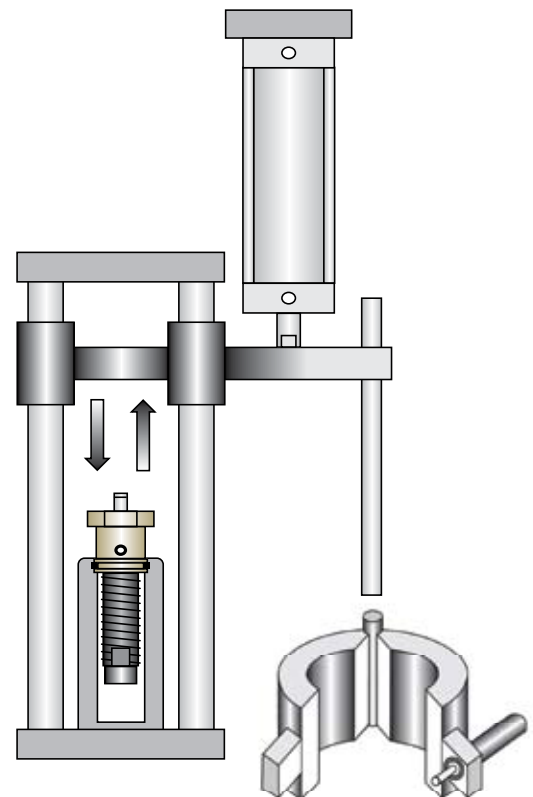
Current Generation Machine with Air Cylinder  
Operated Stretch Rods - Type 1 Mold Housing

**The series 2 model is a new generation machine that was introduced in 1998.** The need for shock absorbers to eliminate the damage-causing impact forces created by the moving load remains.

**The stretch rod has 1 shock absorber for the down-stroke.** The down-stroke shock absorber is mounted in a changeable shock holder. The shock is screwed into the holder and locked in place with a set screw that is tightened against the threads. The shock holder is then slipped into the stanchion and held in place with an o-ring.

**On dual cavity machines it is assumed that the applications are the same or similar, however the quantity of shock absorbers may be higher.**

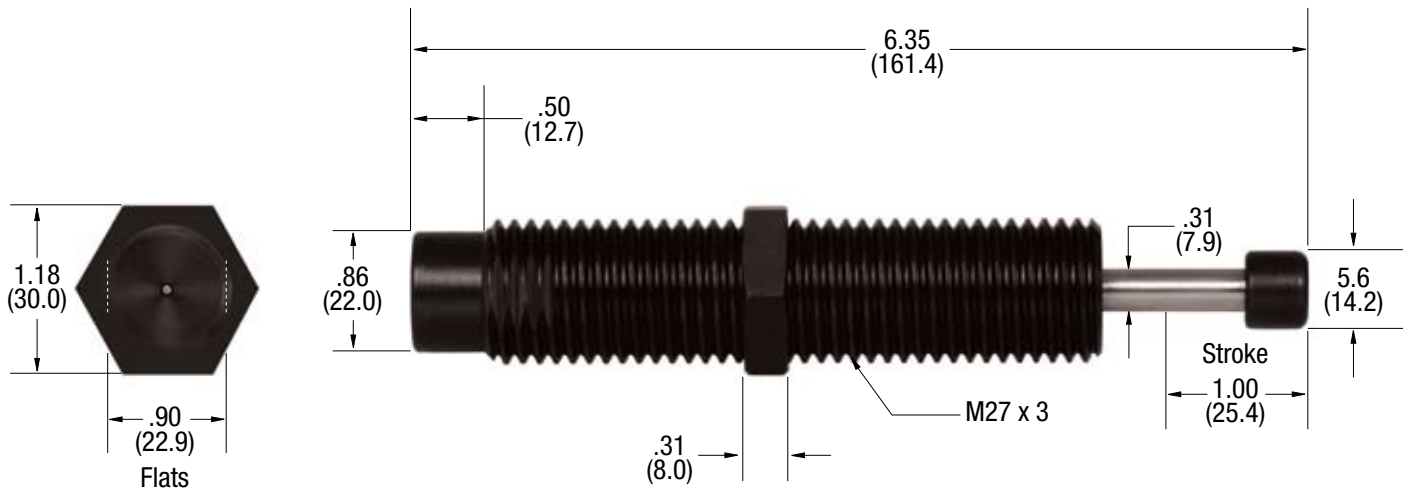
**Type 1 mold housings are the most common on all models.** The shock is mounted on one-half of the mold housing and the striker is located on the opposite half.



# PET Shock Dimensions

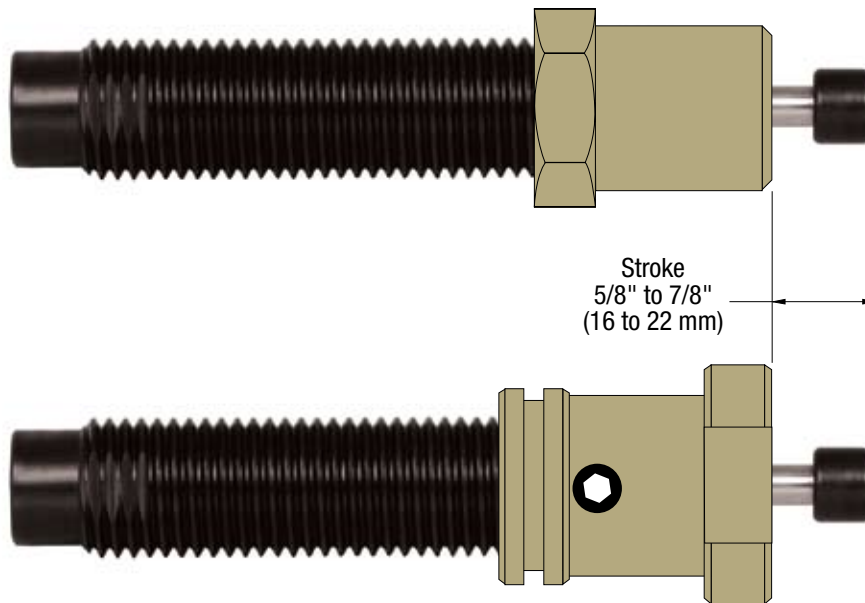
## PBS 600M-2718

Dimensions in inches and (millimeters)



Base model installations with lock nut...position the shock absorber to use 7/8" (22 mm) of stroke. Rod projection with button is 1.47" (37.3 mm). Do not install the shock absorber to use more than 7/8" (22 mm) of stroke.

### Series 1 - Soft Touch Shock Holder Installations



### Series 2 - Soft Touch Shock Holder Installations

When utilized on stretch rod applications for series 1 & 2 machines, model PBS 600M-2718 is only used with a shock holder. It should be installed to use all of the available stroke. Shock holder depths vary and the rod stick-out will be from 5/8" to 7/8" (16 to 22 mm).

Do not install the shock absorber assembly if the rod projection is more than 7/8" (22 mm). If rod projections are over 7/8" (22 mm) for series 2 applications, consider using the Quick Change Mount (QCM) model.

Consult ACE Controls for alternate models to meet the required rod projection of 5/8" to 7/8" (16 to 22 mm).

ACE Controls Inc. is focused on continuous improvement. ACE therefore reserves the right to change models, dimensions or specifications without notice or obligation.

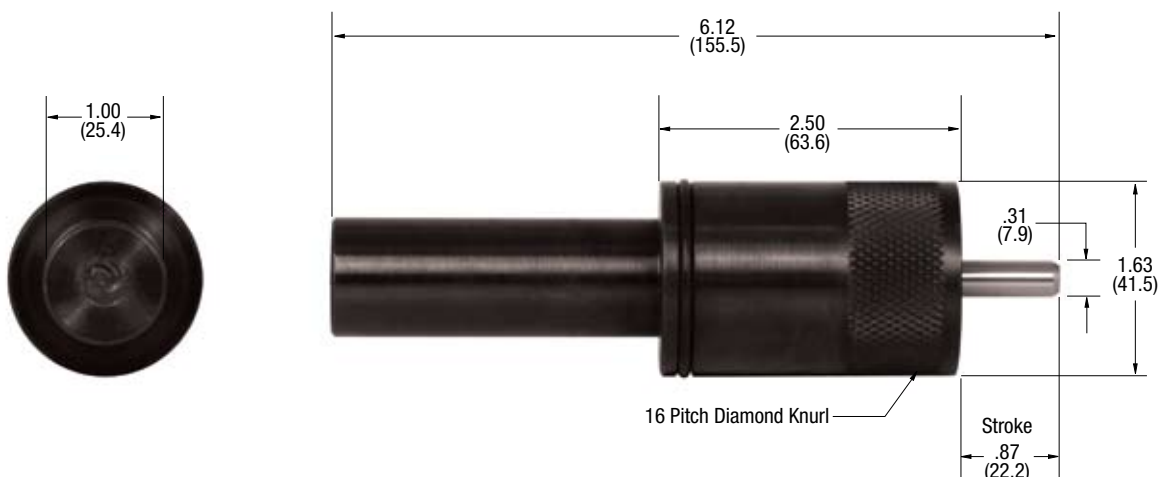


# PET Shock Dimensions

## PBS 600-2865

Includes Series 2 Quick Change Mount (QCM)

Dimensions in inches and (millimeters)

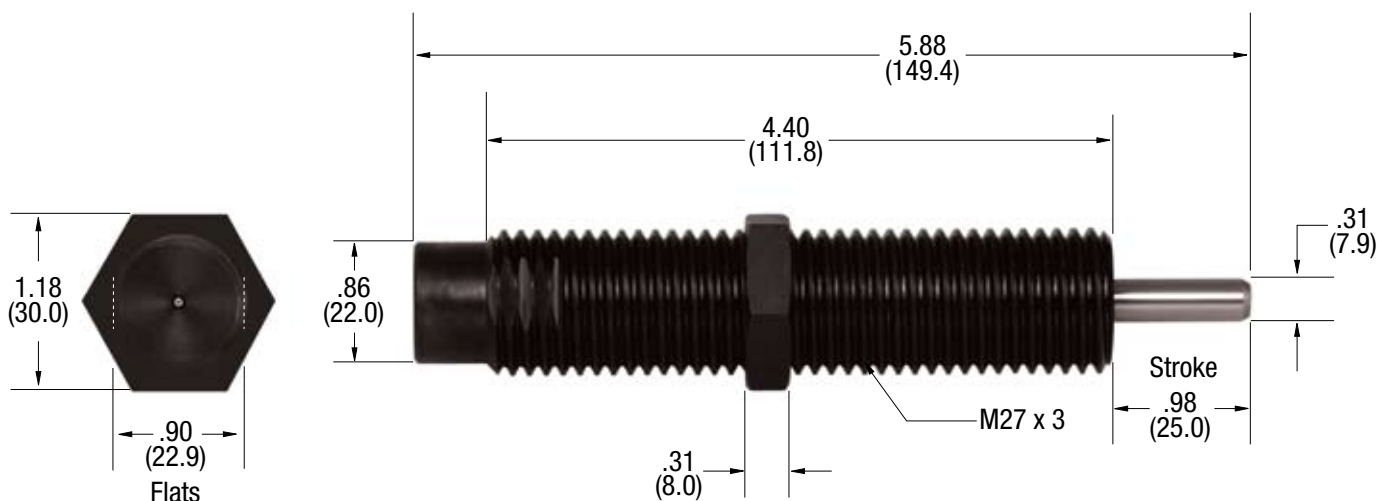


The PBS 600-2865 model provides an integral built-in shock holder with PBS 600M-2718 technology. This QUICK CHANGE shock absorber for series 2 stretch rods eliminates assembly issues associated with re-used shock holder thread quality.

Shock holders fail 2 times more frequently than shock absorbers. Superior heat treating virtually eliminates this problem during the life of the shock. **The cost savings benefit from not having to replace these holders is like getting the shock for FREE.**

## PBS 600MH-2866

Popular Choice for Mold Housing Installations



The PBS 600MH-2866 is the popular choice for mold housing installations. This dependable model is used on series 1 & 2 type 1 mold housings and some stretch rod applications where no shock holder is used.

### INSTALLATION

Install the shock absorber and firmly close the housing by hand and test for desired feel. If too stiff and will not close, adjust the shock out. If not stiff enough, adjust the shock in. When desired stiffness is achieved, measure how far the shock sticks out and you should be able to measure and set the additional stations.

**The shock absorber should always be installed to utilize all of the available stroke.**

