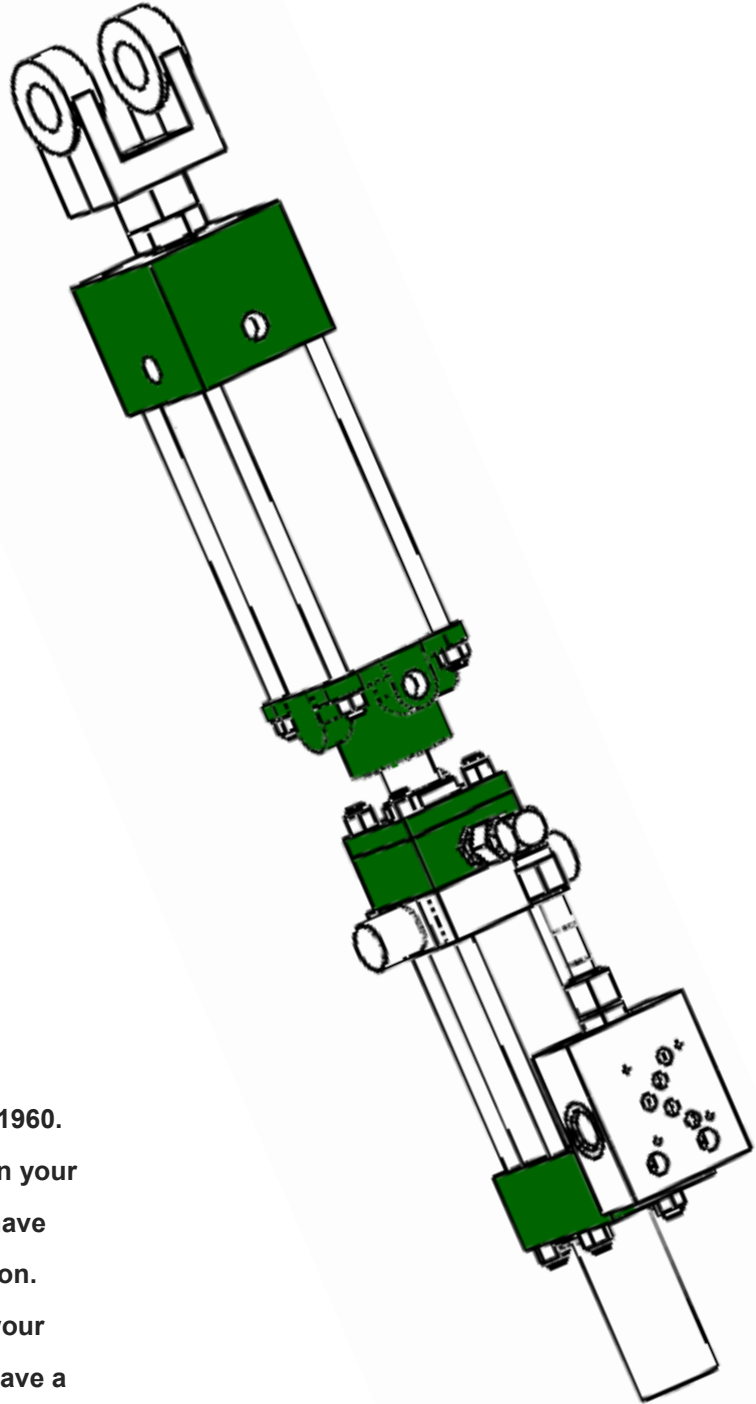


Wood Industry Quad Band Saw Hold Down

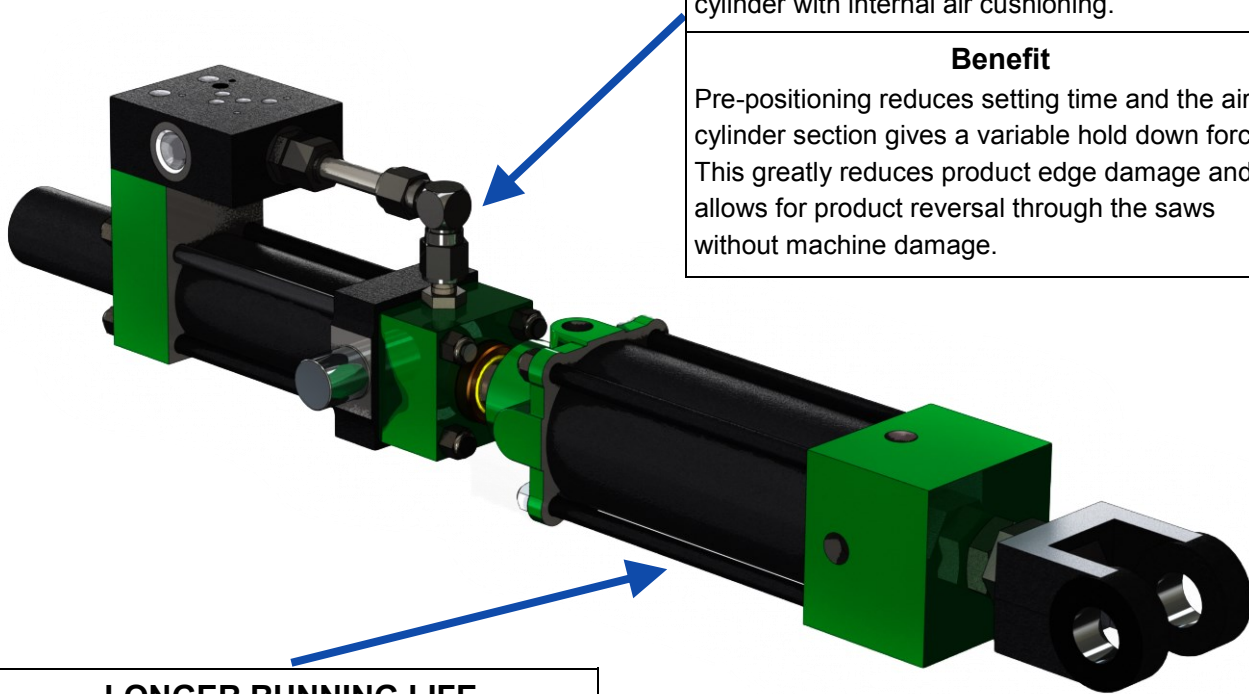
Royal cylinders have been operating successfully in severe applications since 1960. When you have Royal Cylinders working in your operations, you can be assured that you have the best cylinder running in your application. Our guiding purpose at Royal is to solve your problem, not just sell you a cylinder. We have a wealth of experience in understanding your application needs and configuring cylinders that meet or exceed them.



Pre-Positioning Hold Down Cylinder with Compliance

Royal's combination cylinders provides fast and accurate pre-positioning with a variable hold down force. Pre-positioning reduces the time to get the hold down into position, limits over extension and allows the hold down force to be varied.

POSITIONING AND CUSHIONING
<p>Challenge</p> <p>Single function hold down cylinders are too slow if run by air and too rigid if run by hydraulics hold down. No prepositioning causes leading and trailing edge product damage from over extension as well as machine damage in the event of product reversal.</p>
<p>Innovation</p> <p>We created a hydraulic positioner/air combination cylinder with internal air cushioning.</p>
<p>Benefit</p> <p>Pre-positioning reduces setting time and the air cylinder section gives a variable hold down force. This greatly reduces product edge damage and allows for product reversal through the saws without machine damage.</p>



LONGER RUNNING LIFE
<p>Challenge</p> <p>Air cylinders in this application experience heavy side load causing premature wear.</p>
<p>Innovation</p> <p>Air cylinder portion designed to withstand high loads. Cylinder is fitted with extra cushioning, bumpers and modified gland.</p>
<p>Benefit</p> <p>Longer life between rebuilds and consistent response.</p>