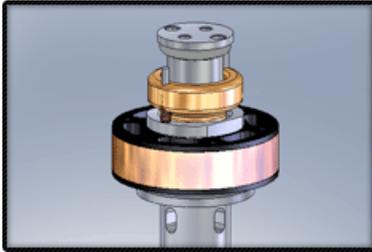


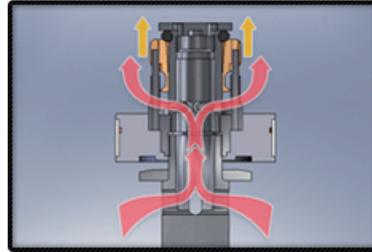


Intiminators

HYDRAULIC MANIPULATION



RIV Closed



RIV Opened

RICOR had to be able to ensure that the RIV would be 'smart enough' that it couldn't be 'tricked' into selecting the wrong circuit at the wrong time before the system could be considered viable in a competitive off-road environment. The RIV Piston also had to be able to transition seamlessly between the chassis and wheel circuits because any benefits that variable-rate damping may provide would be totally negated if the transitions between those damping rates upset the handling characteristics of the vehicle.

Those proved to be two very difficult problems to solve, but hydraulically manipulating the RIV turned out to be the key to making the whole system work reliably, instantaneously and automatically. The RIV is hydraulically biased to select the chassis circuit over the wheel circuit if it detects wheel and chassis motion occurring simultaneously. This makes the RIV system virtually infallible even in the unlikely event of any type of malfunction within the RIV piston assembly and it also improves performance dramatically. Hydraulically manipulating the RIV also proved to be an important element in making smooth transitions between the chassis and wheel circuits.

PRIMARY REBOUND CIRCUIT:

In the default mode, all of the shock fluid flows through the external bypass tubes. We refer to this as the Primary Circuit or the Chassis Circuit. This circuit is tuned to provide stability while cornering, accelerating, braking and rebounding from chassis compression. The primary circuit is also tuned without any regard for comfort or compliance over rough terrain.

SECONDARY REBOUND CIRCUIT:

When the RIV Piston senses wheel motion (as opposed to chassis motion), the primary circuit is bypassed and the secondary circuit, or the wheel circuit, is activated. The secondary circuit is tuned to keep the tires in contact with the ground and increase traction while traveling over rough terrain. Just the opposite of the primary circuit, the secondary circuit is tuned without regard for handling or vehicle stability. However, this is NOT uncontrolled wheel travel. The secondary circuit is fully adjustable and can be custom-tuned without affecting the handling performance of the primary circuit in any way.