Linear Dampers consist of a mechanically driven piston mounted in a housing assembly. The housing contains rate control valves, reservoirs, and other components like servicing provisions. Dampers can be combined with other functions such as trim control or component extension by solenoid command.

**Applications Include:**
- Helicopter Main Rotor Head Damper
- Pedal Damper and Trim Actuator
- Landing Gear Damping

**Operational Characteristics:**
- Single or stepped damping profiles
- High frequency dithering
- Electrical trim control and position override

**Design Characteristics:**
- Hydraulically balanced piston with mechanical override
- Multiple operating fluid options
- Internal controls provide precise resisting force as a function of piston velocity
  - Active and passive damping rate valves
  - Bypass valves
- Multiple mounting options
- High side load tolerance
- External adjustment of damping force available

**Key Features:**
- Integral reservoirs
- Thermal expansion protection
- Fill indication
- Servicing provisions
- Self-contained or integral with hydraulic system

**Platforms**
- S-76
- S-92

**Who Is Arkwin?**
Arkwin Industries is the technical expert in all things hydraulic for aerospace and defense. We design, test, manufacture, and support precision hydraulic and fuel system components for civil and military fixed-wing aircraft, helicopters, spacecraft, turbine engines, and other special applications.

Our reputation for quality and reliability, as well as our location, allow us to attract some of the best engineering, technical, and manufacturing talent available.
S-92 MRD Performance Curve