

# Technology Licensing Opportunity

Non-Confidential Summary



Industry  
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## A NOVEL HYDRAULIC PRESSURE CONVERTER

### ***Opportunity:***

This invention is an improved switched inductance converter, overcoming design inefficiencies that have prevented the adoption of inductance converters in industrial switching applications

### ***Background:***

A common problem in fluid power applications is matching of supply pressure to load pressure. In practice, a resistive valve is often used to solve this problem, but this is highly inefficient. The switched inductance converter is an alternate solution, and is the hydraulic equivalent of the electrical switched-mode power supply. It relies on fluid inertia rather than electrical inductance to adjust pressures and flows, with theoretically no losses.

Switched inductance converters can be used to efficiently match load and supply pressures, avoiding the energy wasted by using resistive valves. However, while theoretical switched inductance converters can be highly efficient, practical implementations suffer from a number of energy losses. This invention reduces these losses and greatly improves system efficiency.

This technology would have applications across the fluid power industry, including construction, agricultural and mining equipment.

### ***Invention:***

- Greatly improves efficiency of switched inductance converter
- Provides viable alternative to inefficient resistive valves

### ***For more information, please contact:***

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