

## **PATENTED BY-PASS TRANSMISSION OIL COOLERS** Ideal for colder climates!

U.S Patent No. 8267162



PATENTED Internal Pressure By-Pass Design helps transmission reach operating temperature faster!



- ✓ BI-DIRECTIONAL FLOW ✓ 33% MORE EFFICIENT THAN TRADITIONAL COOLERS ✓ HIGH EFFICIENCY LOUVERED FINS AND SPECIAL OIL **TURBULATORS** 
  - ✓ 100% BRAZED ALUMINUM CONSTRUCTION OFFERS SUPERIOR STRENGTH AND RELIABILITY

Hayden® patented internal pressure by-pass coolers allow the vehicle's transmission to reach optimum operating temperature quickly by routing the fluid through the by-pass channel of the cooler until fluid temperature increases. This new design allows vehicles in colder climates to reach proper operating temps faster which improves fuel economy and helps reduce friction of internal components. Hayden's internal pressure by-pass design incorporates an integrated valve that eliminates the need for external valves and additional plumbing at installation.

↑ Open By-Pass ↓	Partial By-Pass	Closed By-Pass

The Hayden<sup>®</sup> internal pressure by-pass allows cold fluid to reach optimum operating temperature quickly by routing around the by-pass channel of the cooler until fluid temperature increases. *U.S Patent No. 8267162* 



The Hayden<sup>®</sup> by-pass series is available in 4 sizes to fit a wide range of applications from compact cars to class "A" motorhomes. All cooler brackets come pre-drilled for easy mounting and include all hardware necessary for installation. All coolers are 100% pressure tested at the factory ensuring you get the same quality and performance you have come to trust for over 60 years from the *"Leader in Performance Cooling."* 

P/N	REPLACES	FITTINGC ONNECTION	SIZE	SERVICE APPLICATION
696	LPD4451 LPD4541	3/8″Push-on	3/4″x 11″x 6″	NORMAL DUTY DRIVING (Compact and mid-size cars) • GVWR 10,000 lbs.
697	LPD4452 LPD4542	3/8″Push-on	3/4"x11"x7-1/2"	MEDIUM DUTY DRIVING (Midsize and full size cars, pick-ups) • Light towing to 2,500 lbs. • GVWR 14,000 lbs.
698	LPD4454 LPD4543	3/8"Push-on	3/4"x11"x 9-1/2"	<b>HEAVY DUTY DRIVING</b> (Pick-up trucks and vans) • Heavy duty towing to 5,000 lbs. • Class "C" motor homes, travel trailers to 24 ft. • GVWR 18,000 lbs.
699	LPD4490 LPD4544	3/8″Push-on	3/4″x11″x11-5/8"	<b>EXTRA HEAVY DUTY DRIVING</b> (Class "A" motor homes, large travel trailers, 5th wheel trailers) • Heavy duty towing to 10,000 lbs. • GVWR 22,000 lbs.