



Immediate Release
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**BORGWARNER'S COMPACT EGR VALVES HELP IMPROVE FUEL ECONOMY
AND REDUCE EMISSIONS FOR HYUNDAI-KIA'S 1.6-LITER GDI KAPPA ENGINE**

*BorgWarner's New EGR Technology Specifically Designed
for Today's Advanced Gasoline and Hybrid Powered Vehicles*

Auburn Hills, Michigan, July 21, 2016 – BorgWarner supplies its advanced exhaust gas recirculation (EGR) valve for the new Hyundai Ioniq sedan and the Kia Niro crossover sport utility vehicle. These gasoline and hybrid vehicles are powered by the 1.6-liter gasoline direct-injected (GDI) Kappa engine, expected to drive a growing line-up of hybrid models from the automakers. BorgWarner's compact, optimized EGR valve contributes to the vehicles' lower emissions and 3 percent increase in fuel economy.

“Our years of gasoline and diesel EGR experience along with our deep engine system knowledge drove us to develop a new EGR valve designed specifically for the unique requirements of today's advanced gasoline engines,” said Brady Ericson, President and General Manager, BorgWarner Emissions Systems. “BorgWarner's new low-pressure EGR technology offers automakers a compact, reliable and cost-effective method for improving fuel economy and reducing emissions, and is fast becoming the standard solution for gasoline hybrid propulsion systems. We are pleased to contribute our EGR technology to a growing list of Hyundai and Kia vehicles.”

Precisely regulating EGR throughout a range of rpms and loads reduces high temperatures in the combustion chamber, enabling a variety of strategies aimed at improving engine efficiency and fuel economy. For example, using cooled EGR manages pumping losses to help the engine run more efficiently, improves combustion timing for a leaner burn without knocking and helps avoid using enriched fuel/air mixtures, which saves fuel. The technology also reduces carbon monoxide (CO) and nitrogen oxide (NOx) emissions as well as particulate matter (PM). Unlike competitive models, BorgWarner's

BorgWarner Inc. (BorgWarner's Compact EGR Valves Help Improve Fuel Economy and Reduce Emissions for Hyundai-Kia's 1.6-liter GDI Kappa Engine) – 2

EGR valve delivers superior accuracy by measuring valve lift directly. The simplified, low-leak design also resists sticking and uses fewer parts in the gear train, resulting in a compact, cost-effective solution with 25 percent faster response compared with previous models.

About BorgWarner

BorgWarner Inc. (NYSE: BWA) is a product leader in highly engineered components and systems for powertrains around the world. Operating manufacturing and technical facilities in 74 locations in 19 countries, the company delivers innovative powertrain solutions to improve fuel economy, reduce emissions and enhance performance. For more information, please visit borgwarner.com.



BorgWarner's EGR valve for gasoline hybrid propulsion systems improves fuel economy and reduces emissions for the new hybrid Hyundai Ioniq and Kia Niro.

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