



Combustion



Hybrid

Explore our Technologies

Hydraulic Cam Phasing with Dual Park Technology (DLP)

for all vehicles

Hydraulic Cam Phasing with Dual Park Technology (DLP)

THE DLP CAM PHASER WITH TWO DISTINCT LOCK POSITIONS FACILITATES THE USE OF INCREASED RANGE OF AUTHORITY WHILE PROTECTING FOR ENHANCED ENGINE STARTABILITY.

- 1 Mid Park: for cold or conventional engine starts
- 2 End Park: for hot engine restarts

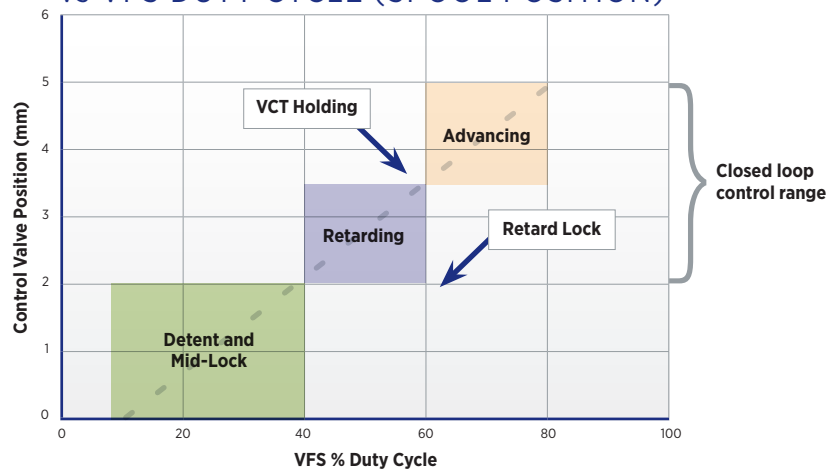
This product solution is an expansion of existing CTA MPL providing a robust hydraulic phaser targeted for the unique operating conditions of Stop/Start applications.



Design Progression of existing technology

- Use of proven CTA MPL technology with the addition of an end lockpin
- Low oil demand and fast actuation rates
- Minimal packaging and oil circuit impact
- Packages within existing phaser envelope
- Optional 3-bolt mounting or centerbolt for ease of assembly at customer engine plant
- BorgWarner exclusive passive return to start position allows for a straightforward control strategy
- Increased fuel economy
- Lower emissions
- Improved vehicle NVH

APPROXIMATE VALUES OF VCT MOTION vs VFS DUTY CYCLE (SPOOL POSITION)



Duty Cycle (approx %)	Spool Position (mm)	VCT Phaser
0-38	0-2.0	Mid Lock - Detent
38-60	2.0-3.5	Retard - End Lock
60	3.5	Holding
60-100	3.5-5.5	Advancing

For Additional
BorgWarner Information:
borgwarner.com

