



2P & 4P MDCR Pumps

Diesel

BENEFITS

Compact and light weight
Durable and reliable
High volumetric efficiency
Smooth and quiet operation

Wide range of fuel qualities
Excellent resistance against debris
and low lubricity fuels
Modular and flexible design for
scalable displacement



**Efficient
Performance**



**Flexible
Design**



**Low
Emissions**

The high-pressure Modular Diesel Common Rail (MDCR) fuel pump family builds on Stanadyne's patented eccentric drive technology to deliver ruggedly reliable performance in harsh environments for demanding applications at fuel rail pressures of up to 3,000 bar. The MDCR pump is ready to support four-to-16-cylinder diesel engine programs for light-duty to severe duty, on- and off-highway, marine, military, and power generation applications.

**ENABLING CLEAN PROPULSION THROUGH
ENGINE INNOVATION**

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TECHNICAL SPECS

2-Piston Modular Diesel Common Rail Pump

| General | Requirements |
|---------------|----------------------------------|
| Fuel Metering | Electronic |
| Fuel Delivery | 681 to 1250 mm ³ /rev |
| Pressure | 2,500-3,000 bar |
| Drive Ratio | Up to 2:1 |
| B10 Life | 25,000 hours |
| Weight | 6.0 kg |

4-Piston Modular Diesel Common Rail Pump

| General | Requirements |
|---------------|-------------------------------------|
| Fuel Metering | Electronic |
| Fuel Delivery | 1,362 to 4,000 mm ³ /rev |
| Pressure | 2,500-3,000 bar |
| Drive Ratio | Up to 2:1 |
| B10 Life | 25,000 hours |
| Weight | 9.98 kg |

UNIQUE FEATURES

INNOVATIVE ECCENTRIC DRIVE

- The Stanadyne eccentric roller smooths driveline torque fluctuations reducing engine design requirements. The eccentric roller mechanism eliminates scrubbing contact at critical interfaces relative to traditional pump designs

HIGHER EFFICIENCY AND CLEANER COMBUSTION

- High-pressure capability enables extremely fine fuel atomization for cleaner and more complete combustion
- Smoother lift rates also result in low waste heat emission resulting in increased durability and longevity across a wide range of fuel qualities

MODULAR DESIGN

- Compact, lightweight aluminum body in two- and four-plunger configurations with interchangeable pumping elements and mounting arrangements

BEST-IN-CLASS RELIABILITY

- The roller motion constantly replenishes fuel lubrication for reduced friction, increased cavitation resistance, and low lubricity fuel tolerance
- Independently certified for 25,000 hours of B10 life

PATENT PENDING

