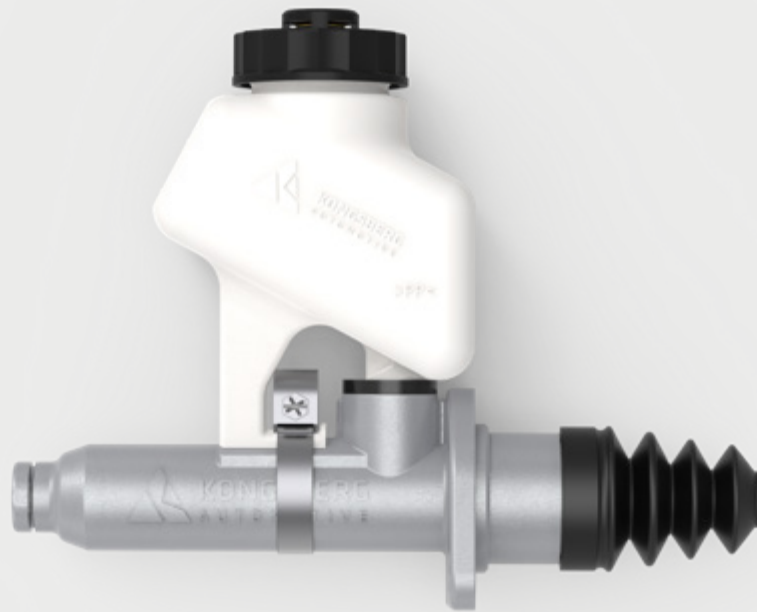


# MASTER CYLINDER

CLUTCH ACTUATION SYSTEM FOR MANUAL TRANSMISSION



## AT A GLANCE

- > UNMATCHED PERFORMANCE, QUALITY AND RELIABILITY
- > LIGHTWEIGHT ALUMINUM HOUSING
- > MODULAR DESIGN PERMITS CUSTOMIZATION TO FIT MOST APPLICATIONS AND CONFIGURATIONS
- > PRODUCT FAMILY WITH 5 HYDRAULIC DIMENSIONS, Ø 20 MM, Ø 22 MM, Ø 24 MM, Ø 26 MM AND Ø 28 MM

## PRODUCT DESCRIPTION

The master cylinder converts the mechanical movement generated by the clutch pedal, into a fluid displacement.

The master cylinder can be combined with just a slave cylinder on vehicles which do not have an onboard pressurized air system. On vehicles with pressurized air available, the master cylinder can be combined with a clutch servo. Alternatively, with a slave cylinder together with an inline booster.

All master cylinders made by Kongsberg Automotive comes with an aluminum housing precisely machined for perfect dimensional results. The housing is subjected to a surface finishing treatment ensuring toughness and durability. The final assembly is done meticulously by our highly skilled and dedicated employees.

Kongsberg Automotive has produced master cylinders for OEMs across the world since 1985. We take pride in making quality products!



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## PRODUCT SPECIFICATIONS

PARAMETERS	SPECIFICATIONS
FLUID	BRAKE FLUID: SAE J 1703, DOT3, DOT4 OR DOT 5, EXCEPT SILICON BASED BRAKE FLUID
HYDRAULIC PRESSURE	NORMAL OPERATION 7 – 40 BAR, MAX 120 BAR
TEMPERATURE	NORMAL USE: -40°C – +80°C
DURABILITY	VALIDATED TO 3 MILL ACTUATIONS
CORROSION RESISTANCE	MIN 96 H TO RED RUST (ISO9227)

## DISPLACED FLUID VOLUME [CUBIC MILLIMETERS]

DIAMETER (mm)	Ø 20	Ø 22	Ø 24	Ø 26	Ø 28
MAX STROKE (mm)					
31	9205	11138	13255	15556	18042
34	10147	12278	14612	17149	19889
36	10776	13039	15517	118211	21120

## FEATURES

- > ROBUST AND DURABLE DESIGN
- > ALUMINUM HOUSING PROVIDING HIGH STIFFNESS AND NOISELESS OPERATION
- > INTEGRATED RELIEF VALVE ACCOMMODATING QUICK FILLING AND BLEEDING MODULAR REGULATING VALVE WHICH ENABLES TUNING OF THE PEDAL EFFORT
- > SEALING SOLUTIONS WITH LOW STICK SLIP AND HYSTERESIS
- > INTEGRATED RETURN SPRING ENABLING FILLING AND BLEEDING WITH VACUUM EQUIPMENT
- > OPTIONAL FEATURES:
  - » INTEGRATED RESERVOIR
  - » INTEGRATED QUICK CONNECTORS
  - » DUST PROOF SOLUTIONS FOR OPERATION ON THE OUTSIDE OF THE CABIN

## BENEFITS

- > MODULAR DESIGN PERMITS CUSTOMIZATION TO FIT PERFORMANCE REQUIREMENTS, PACKAGING BOUNDARIES AND INTERFACE NEEDS
- > HIGH HYDRAULIC EFFICIENCY FOR OPTIMAL COMFORT
- > THE SAME MASTER CYLINDER CAN BE USED FOR BOTH BOOSTED- AND NON-BOOSTED SYSTEMS
- > SHORT VEHICLE INSTALLATION TIME
- > LOW MAINTENANCE COST
- > SILENT OPERATION
- > LOW WEIGHT