

## Hot Products:

# REAL RACE CAR POWER STEERING

**Design, production,  
sales and service.**

**USA:**  
woodwardsteering.com  
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PRECISION POWER STEERING  
**CASPER**  
1 307 472 0550

**Europe:**  
hydroline.nl  
**HYDROLINE**  
PRECISION POWER STEERING  
**ZEEWOLDE**  
31 36 538 72 80

## Type MR Rack and Pinion

MR series power rack and pinion for GT, Grand Am, and proprietary supercar applications  
Typical end-user cost: €1950.00 - 2850.00 add € 175.00 for gundrilled rackshaft.



This completely integral power steering uses the Woodward system of interchangeable valve torsion bars. With this system the power assist response rate can be adjusted in small increments, enabling the steering to be quickly and easily matched to the loading of the tire patch for the maximum possible sensitivity. For example: should an improvement in aerodynamic downforce result in heavier steering, this can be overcome by changing out parts of the servovalve, without

dismantling the rack and pinion unit or even removing it from the car. Steering sensitivity can be reduced in the same way, without resorting to increased positive caster or other measures.

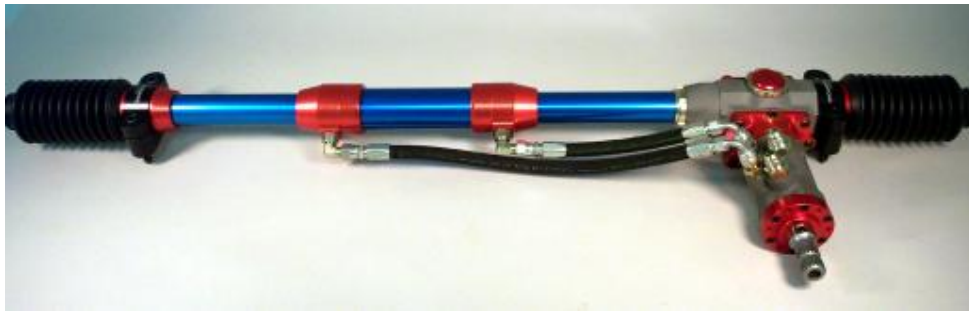
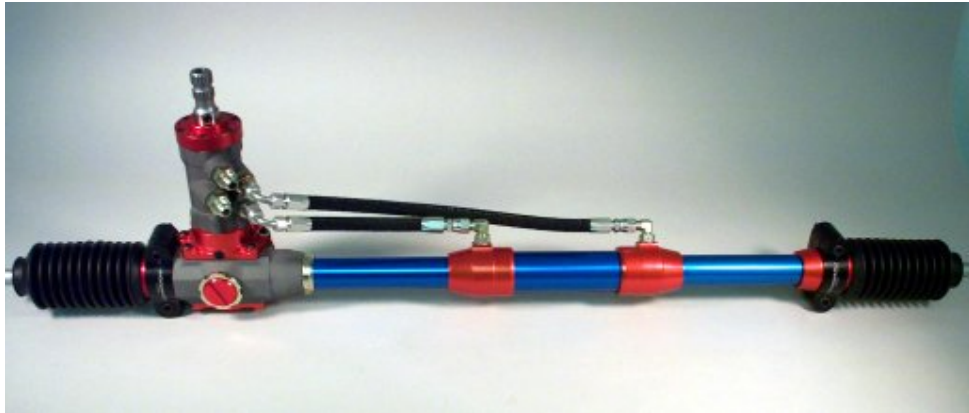


This extremely versatile design also allows the housing length to be adjusted slightly so as to locate it positively against the chassis brackets to achieve the most efficient load transfer; likewise, the hydraulic ports can be oriented to accommodate the most convenient routing of hoses.



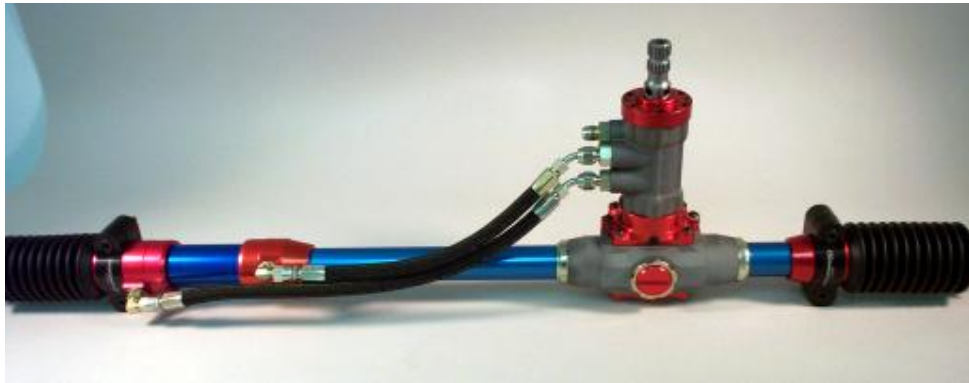
check the website for updates and current pricing  
or call : +31 36 538 72 80 / email: tech@hydroline.nl

[www.precision-powersteering.nl](http://www.precision-powersteering.nl)



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Available in practically any combination of length and offset, for front- or rear steering and right- or left hand drive, in stroke lengths up through 5.75 inches (146mm) and ratios of 2.02 (51mm) and 2.24 (57mm) per turn. Complete with clevis ends and mounting brackets. Delivery is now under 4 weeks. Volume discounts are available for production quantities.

**Constructor enquiries are treated in confidence.**

## Type SK Rack and Pinion Extreme Heavy Duty



Type SK Rack and Pinion with Integral Servo Your choice of servo valve and torsion bar (3 valves to choose from for baseline pressure level, 15 torsion bars for tuning the response rate, all interchangeable). Call us for recommendations for your car. Ratio up to 114mm / rev.

## Type H Rack and Pinion



Type H Rack and Pinion with Integral Servo Your choice of servo valve and torsion bar (3 valves to choose from for baseline pressure level, 15 torsion bars for tuning the response rate, all interchangeable). Call us for recommendations for your car. Ratios in stock: 1.57, 1.83, 2.09, 2.36, 2.62, 2.88, 3.14, 3.40, 3.66, 3.92 Standard rack shaft tie rods centers in stock are 17-1/4" (438mm), 18-1/4"(464mm), 19-1/4"(489mm) and 19-3/4"(502mm). Other custom lengths are available at no extra charge. Monoball rack shafts are in stock in 16-1/4"(413mm), 17-1/4"(438mm), 18-1/4"(464mm) and 19-1/4"(489mm) lengths.

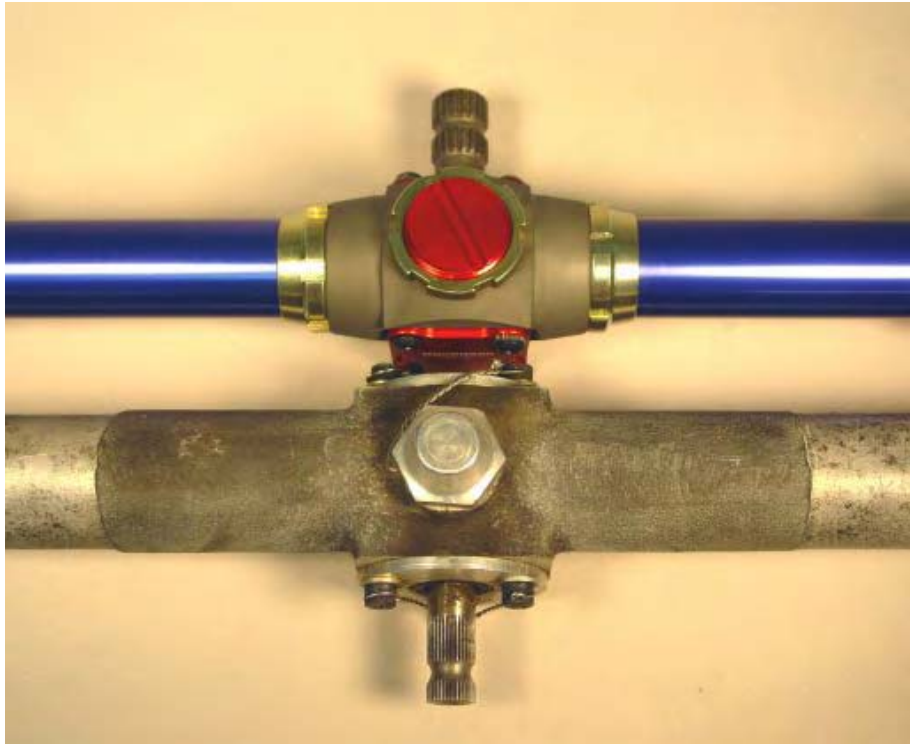
## New MC Series Ultralight Manual Rack and Pinion



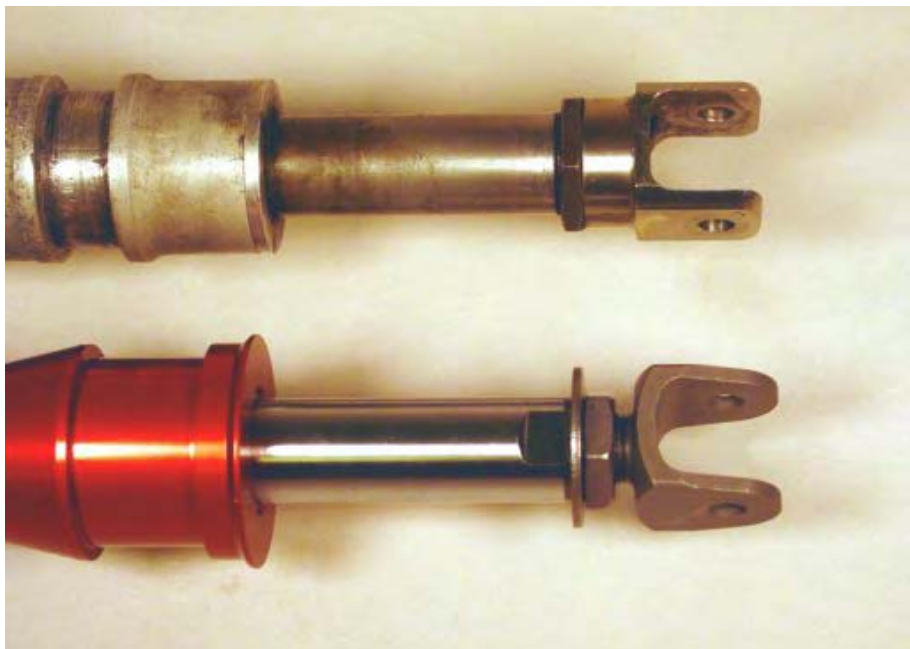
MC Series Ultralight Manual Rack and Pinion Available for front or rear steer, right or left drive, centered or offset as required, in steering ratios of 2.02 (51.3mm) /rev. and 2.24 (56.9mm) /rev. For formula cars, sports racers, lightweight GT cars and Daytona prototypes. Special short versions are available for dragsters and LSR streamliners.



The small size of the MC unit is evident in this picture. Like on the MR Series power rack, a quick, positive, non-slip gear adjustment is obtained with cam bushings (visible under the upper right cap screw).



Machining from billet allows a more compact package than a traditional sports racing rack with cast housing.



The rack shaft is hard chromed and is equipped with clevises made of heat treated 4150 CrMo alloy steel. All rack housings have machined boot lips, and all units are provided with rubber boots to protect the rack bearings from dirt and maintain effective lubrication. External travel stops can be

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installed between the washer and housing end.



Rack end clevises are available for three different rod end sizes. The lightening hole in the 5/8-18 shank has a spherical end radius to avoid internal stress raisers.

### SCA700 Nextel Cup Safety Steering Column Kit



Includes: QRSN quick release and your choice of the mounting brackets shown. Wide range of lengths available. See page 85 in the catalog for measuring information or just call our tech line.

## SCA827B Short Track Safety Steering Column



Built-in disconnect spline swaged and welded in place for maximum stiffness at minimum weight. Includes the support bearing assembly to make this unit install right in place of a typical 3/4 shaft and rod end. Also includes your choice of a QRA disconnect with aluminum pull ring (shown) or a QRS disconnect with a steel pull ring (Note: QRS style required in Busch and other NASCAR racing series).

See page 84 in the catalog for measuring information or just call our tech line.

## SCA500 Collapsible Section



Basic unit for splicing into long straight steering shafts, especially in cars with standard steering boxes located directly ahead of the driver. Also used in tandem with SCA700 for extra crush allowance. One standard length, cut or extend to fit your space. U-joints not included

## Steering Wheel Quick Releases QRSN-2

The Woodward steering wheel quick release features a state-of-the-art spline with a two-inch engaged length. This low profile "square" spline provides highly positive transmission of torque without the spreading effect of the common involute spline, and is the key to the hub's compact design and extremely light weight. Designed specifically to resist unintentional removal, it cannot eject itself accidentally even though only a minimal effort is required to release it.

All aluminum parts are red anodized, and all steel parts are gold zinc plated. The weld-on type spline adapters have a one-inch extension to permit welding without damaging the plating on the splines. The hub is drilled and tapped with three copies of the standard US bolt pattern.

provides an extremely positive grip for gloved fingers.

Besides removing weight, the extra holes allow precise alignment of the steering wheel's centered position with respect to the 20 splines of the hub. All units are supplied with lightweight button head Torx screws, with washers for mounting steering wheels of various thicknesses.

### All Woodward quick releases meet SFI specification 42.1.

Our newest development is the Jumbo Quick Release, designed for an easier reach behind a steering wheel pad, especially by safety workers from outside the car. The 4 inch (102mm) cupped pull ring with its 72 lightening holes provides an extremely positive grip for gloved fingers.



**Tech Hotline Europe :**

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