KIRK

PRECISION

The Creation of the Kirk Precision

The Kirk Precision is the brainchild of Frank Kirk, a gifted design engineer with many years experience in the Automobile and Aerospace industries. Frank Kirk saw the possibilities of using recent advances in magnesium casting technology to overcome the problems encountered by the bicycle manufacturing industry in trying to economically mass produce a precision built, lightweight frame.

Designed with the aid of a very sophisticated computer The Kirk Precision gives the rider a highly responsive, comfortable ride – and Kirk's unique bicycle manufacturing process gives the frame great strength and torsional stiffness as well as a consistent accuracy of alignment to a tolerance unachievable in a conventional high volume production cycle frame – giving inspiration to the name – **KIRK PRECISION.**

Magnesium Castings used in 100 atmosphere diving suit

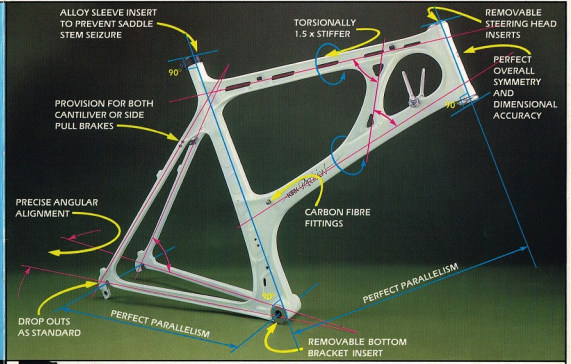
Components used in British Aerospace Jaguar

Magnesium High performance car wheels

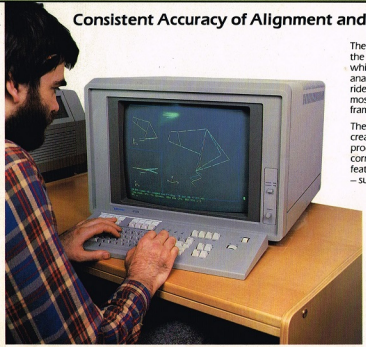
Why Magnesium?

Magnesium is the lightest structural material known to man – and the astonishing fact is that we are literally surrounded by the substance – 2% of the Earth's Crust is magnesium – with incredibly vast quantities in our seas. Just one cubic metre of Sea Water contains 1.3 Kgs of magnesium – and although the present global useage of magnesium is approximately a quarter of a million tonnes per year, our resources are so vast that even if we used four times that amount for a million years we would only use up .01% of all the magnesium in our oceans. It is also easily recycled making it virtually inexhaustible.

Magnesium is used for manufacture of components where weight and strength characteristics are of paramount importance – especially in the Aerospace and Automobile industries.



Consistent Accuracy of Alignment and Performance



The Kirk Precision frame was designed with the aid of a very sophisticated computer – which produced mathematical models to analyse the criteria of production, stress, ride performance and styling to match the most sophisticated conventionally built frame.

The consistent accuracy of the frame creates perfect alignment of the wheels producing a bicycle with true running and cornering characteristics and allows unique features to be incorporated into the design – such as drop out backwheels. Due to the low specific weight and other properties of magnesium it has been possible to design a frame comparable with a light weight racer but with very much higher durability, strength and torsional stiffness. Longevity has been proven on test rigs simulating full power loadings of 250 lbs at the pedals for the equivalent of over 100,000 miles, representing approximately quarter of a million miles of normal road use. After this arduous test the frames performance was unchanged.

Precision Tested

Kirk Precision frames were tested by brittle lacquer and sophisticated strain gauge methods – these tests proved that the computer model was remarkably accurate in predicting stress levels.

Torsional stiffness tests were made by comparing a conventional race quality frame with the Kirk Precision – proving the Kirk to be one and a half times stiffer.

In addition to rig tests the Kirk frame was dynamically tested on a variety of road surfaces by Olympic standard racing cyclists.

The results of these tests and the feelings of the riders confirmed that the Kirk Precision gave a highly responsive, comfortable ride – even under the most torturous conditions.

Size, Geometry, Finishes, Prices and Delivery on application to the Address Below.

KIRK-PRECISION

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