

► A RACE AGAINST TIME:
TEBIS CAD/CAM BREAKS ALL RECORDS.

Red Bull Sauber Ford's constellation for the 1996 Formel 1 season was only confirmed in September 1995 – and a new racing gear box was needed for the Sauber C 15. The roll-out date for the new Formula 1 car: January, 16 1996.

Modellbau Bubeck, Europe's largest laser sintering firm, took up pole position alongside the design engineer and Tebis CAD/CAM Software. And clocked the following lap times:

09/01/95: Transfer of Sauber data and start of 3D construction using **TEBIS CAD SOFTWARE**.

11/01/95: Start of NC programming using **TEBIS CAM SOFTWARE**: in order to save time, the milling for the magnesium sand casting process was also done at this stage. **TEBIS CAQ SOFTWARE** was used to measure the entire model.

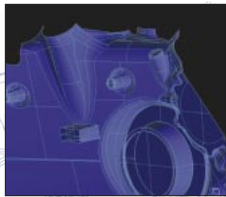
11/18/95: Completion of 3D construction, along with a 100% description of the surface and all fillets: the data was then transferred to an STL file and sintering performed using EOSint 350 P.

11/27/95: Polystyrene rapid prototyping model delivered.

12/15/95: Precision-cast aluminium cast of the rapid prototype delivered for re-machining.

01/10/96: Machined component delivered to Sauber AG in Hinwil near Zurich. The gear box was assembled and installed in the racing car.

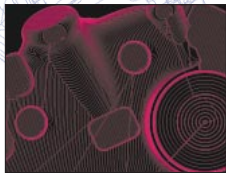
01/16/96: – 14:00: On-the-dot roll-out of the first Sauber C 15 in Le Castellet. Modellbau Bubeck won the race against time – and Tebis CAD/CAM Software stayed the entire distance.



DESIGN OF THE GEAR BOX AT A TEBIS CAD WORKSTATION.



THE SINTERED POLYSTYRENE GEAR BOX AFTER WAXING FOR PRECISION CASTING.



NC PROGRAMS WITH OPTIMIZED MILLING STRATEGIES FOR CREATING THE SAND CAST (MAGNESIUM IS USED FOR RACING CARS).

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THE CAD/CAM EXPERTS.