

The Premier Group Uses Prima Power Laser Technology for the 2012 Olympic Torch

Prima Power, the Machinery Division of the Prima Industrie Group specializing in laser and sheet metal processing machines, is proud to announce that the London 2012 Olympic Torch is manufactured using its laser technology. The Premier Group (TPG), a first-class Coventry-based supplier of turnkey engineering and manufacturing solutions for the transport field, uses Prima Power machines to cut the holes and to weld the parts of this beautiful icon of the Olympic Games.

The Olympic Torch was designed by Edward Barber and Jay Osgerby working in partnership with The Premier Group and presented on June 8th in London. One of the most important elements of the Torch is the 8,000 holes running the length of the body. These holes are both symbolic and practical. They represent the 8,000 Torchbearers who will carry the Olympic Flame on its journey around the UK from May 19 to July 27, 2012, when the Games will open at the Olympic Stadium. The holes also have a practical function, since they also offer visibility of the internal parts of the Torch and of the burner system which will keep the Olympic Flame alive, as well as reducing weight and ensuring that heat is quickly dissipated without being conducted down the handle.



Lord Coe, chairman of LOCOG, with Directors of The Premier Group, George Mollison (left) and Gez Halton (right).

pattern of holes on the Torch. We can say that the cutting of these holes was the *Olympic Challenge* for Premier. Premier took home the gold medal thanks to their experience, talent and professionalism... and with the help of the Prima Power technology.'

Another symbolic element of the Torch is its triangular shape, representing the number 3 with its different meanings linked to the Games: the three Olympic values of respect, excellence and friendship; the three words that comprise the Olympic motto, faster, higher, stronger; the three times the Olympic Games have been held in the UK, etc.

The Torch's unique shape is obtained from aluminum sheet metal blanks cut by Premier and formed using a special pressing tool. Aluminum is widely used in the automotive and aerospace industries because it is lightweight and has good tensile strength and heat resistance. This makes the Torch both lightweight and strong. The Premier Group uses the Prima Power 3D laser technology to weld the parts of the Torch together in a smooth, seamless joint and to cut holes into the welded areas.

Both welding and cutting operations on the Torch after it is formed are performed by Prima Power Optimo 3D laser machine with Vivida technology. This machine can be easily converted from cutting to welding through a quick change of the head attachment, so a single machine is used for different applications.



Sincrono, the 2D laser cutting machine by Prima Power used to cut holes on the Torch

"Because of its symbolic meaning, the number of holes on the Torch is a must," explains Ezio Basso, Prima Industrie Managing Director, Prima Power Division, "To cut 8,000 holes fast and with high quality, our Sincrono 2D laser machine may be unbeatable. The parallel kinematic structure of the machine head and its numerical control allows very high speed... even with the complex trajectories of the



Optimo, the 3D laser machine by Prima Power used to cut and weld the 2012 Olympic Torch

"It is fascinating how state-of-the-art laser technology, using light in a very modern way, will contribute to create the Olympic flame, an ancient form of light representing the most traditional and noble sports competition," concludes Basso. "We are extremely proud that our laser technology will help The Premier Group manufacture this outstanding and beautiful object."