

Total Lubricants qualified for stamping

Total commissioned tests of lubricants dedicated to sheet metal working. The tests were used to determine the influence of the lubricants on tool wear and strain of the metal sheets.



© Ph. Claudel - Proxima

OUR CUSTOMER

Corporate name

Total

Business activity

Total is one of the world's leading oil and gas companies. As an oil producer, refiner, distributor and petrochemist, the group is also a key player in the natural gas and solar energy sectors. Its *Lubrifiants Industriels* (industrial lubricants) division offers a wide range of products for various activities including metal working.

Workforce

More than 100,000 employees in over 130 countries.

Total offers a wide range of lubricants that includes products specifically designed for the automobile sector, marine sector or industry. Its *"Lubrifiants industriels"* (Industrial lubricants) entity has a catalogue dedicated to sheet metal working. Its R&D centres formulate the products and carry out laboratory tests. "We did not have many tests representative of their actual use, explained David Kupiec, product engineer at Total Lubrifiants. "We wanted to obtain concrete data concerning the influence of the lubricant on tool wear and the strain

capacity of the metal sheets".

Two instrumented presses

Total therefore entrusted Cetim with testing approximately 15 lubricants in actual use conditions.

"We chose Cetim due to its mechanical expertise and because it has the necessary machines for performing this type of test", added David Kupiec. As a matter of fact, Cetim has two mechanical and hydraulic presses for stamping and drawing that can be used to monitor tool wear. Other dimensional measurements were carried

out in the laboratory and helped to monitor tool wear.

Promoting the Results

These tests provided Total with a better understanding of the properties of its lubricants thereby allowing it to better recommend them for specific industrial applications. "Further to the tests carried in our research laboratories and prior to those performed at our customers' premises in actual use conditions, new products can now undergo this qualification phase in order to limit the industrial risks. The results of these representative field tests, carried out by Cetim, a third party organisation with acknowledged expertise, will be promoted", added Mr Kupiec.

Cetim's asset



Cetim has sheet metal forming machines to perform tests in near-

industrial conditions. The measurements taken by the embedded sensors (force measurements, sheet metal strain capacity, friction coefficient as well as the embossing depth) combined with those performed in the laboratory, deliver precious information.