

Spoilt for choice?

The industrial lubricants sector is wide and varied and offers many different products for a number of applications. It's an industry populated by many different companies all of whom claim to offer the best product for the job. This article looks at what four leading suppliers are offering steelmakers

A major supplier of industrial lubricants to the steel industry is Condat, based in France. The company claims to be a market leader for more than 25 years in the field of fire-resistant fluids formulated from organic ester bases. The company continues to develop and adapt its lubricants to meet with current market expectations with a view to offering its customers 'superior protection' from fire risks.

Condat's business, claims Franck Dufresne, the company's steel industry business developer, is focused strongly on steel mills and hot rolling lines. "We supply fire-resistant fluids and heavy load greases that answer the constraints and demands of major actors in the field," he said.

Condat is busy globally, but the greatest growth at present is in the Middle East, according to Dufresne.

Condat supplies all the major steelmakers, including ArcelorMittal, POSCO, Tata Steel and the Riva Group.

According to the company, its Condat D fluids have the latest Factory Mutual Global approval tests and have been certified as 'approved fire resistant fluids'.

More specifically, Condat D46 and D68 hydraulic fluids have been widely used for many years in all industries, including the steel industry, where employee and equipment protection against fire is essential.

Condat claims that its D fluids prevent fire propagation and are self-extinguishing. They 'significantly reduce the risks presented by the use of a mineral oil in

hydraulic installations, for example, when a pipe breaks or when oil is sprayed out due to leaks near a flame.

The company claims that its D fluids offer high oxidation resistance, anti-wear properties and a high viscosity index. They are biodegradable and non-toxic and classified as WGK1 in relation to the latest standards issued by the French Hygiene Institute. "They allow users to limit their pollutant rejects and to adopt an environmentally friendly policy," the company said.

Condat offers a range of products for steelmakers including HFC and HFA Fire Hydraulic fluids, continuous casting and hot rolling greases and coupling and spindling greases.

The steel industry provides the most demanding environment for industrial lubricants as it combines high temperatures, fire risk, the presence of water and or contaminants. With this in mind, steel manufacturers are always looking for ever more efficient greases in order to increase the longevity of their equipment while simplifying their maintenance operations – and this, claims Condat, is where its Millennium 505 product comes into play.

Millennium 505, claims Condat, makes it possible to ensure lubrication under very severe constraints (high temperatures, loads, water and so on). "This last generation chemistry grease consists of calcium sulfonates with a colloidal structure. It provides special properties and reaches a high level of performance without

using a high percentage of additives. This grease chemistry allows effective, multi-purpose and long-lasting lubrication and, thanks to its lubricant film, is still efficient at high temperatures," explained Condat.

Millennium 505 is said to offer excellent behaviour over a wide range of temperatures – crucial in the steel industry – as well as resistance to heavy loads, outstanding anti-wear properties, strong adhesion, 'excellent' stability in the presence of water or emulsion and 'excellent' anti-corrosion properties too.

Condat's Millennium 505 is a high temperature grease that is claimed to be ideally suited to continuous casting, cold rolling and hot rolling mills. It is used for the lubrication of plain bearings, rolling bearings, chocks and axles and offers mechanical stability under severe rolling as well as the ability to work with water presence of up to 40%, ensuring an effective lubrication, according to Condat. It is also highly shock and vibration resistant, thus avoiding breakages.

Condat claims that its 505 product is compatible with other more conventional greases and meets the demands of the heavy end of the steel manufacturing processes, simplifying and reducing the costs of maintenance operations.

Specialised lubricants for steel mills

According to ExxonMobil, productivity demands on metal manufacturing have never been greater. The company claims that steel mills require specialised lubricants

Voices from the past

This month's Perspectives page takes a look back to 2018 and the selected responses from a range of leading suppliers to the global steel industry

1. What is your view on the current state of the global steel industry?

Specialised steel organisations forecast a growth of 50% by 2050 and global steel use has grown more than seven-fold since 1950. By 2050, steel use is projected to increase by 1.5 times that of present levels, to meet the needs of our growing global population. All this has encouraged CONDAT to make this market a priority for its range of industrial lubricants.

2. Is the steel industry well-placed to take advantage of digital manufacturing?

The steel industry has modernised over

the years and it is certain that digital manufacturing will play an increasingly important role in the years ahead. Digital will certainly have its place in the future of the industry. There are a lot of possible applications for the steel manufacturing process, like quality control on finished products, control of the process chain, online control of the fluids (air, water, oil, emulsions) and predictive maintenance.

3. If you possessed a superpower, how would you use it to improve the global steel industry?

I will use it to make this industry cleaner and make all governments worldwide have

the same level of requirements in terms of environmental impact. I will also use this power to improve safety for the workers as it remains a really difficult and risky job. Thank god, companies are not waiting for my superpower as they have already committed a lot of resources in this action.

Franck Dufresne, steel industry business developer, CONDAT.
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