



“ We have been using Millers Oils for over ten years now and have always found them to be a very reliable and cooperative supplier. They are very helpful with any technical problems we may have and always do their best to assist us in any way they can. ”

John Crabtree - Bowers Metrology Ltd

Millers Oils is a leading independent blender of oils and lubricants, operating since 1887 in Brighouse, West Yorkshire. We pride ourselves on our award-winning innovation and our independence which allows maximum flexibility to meet our customers' needs.

- Tech help desk support for enquiries and trouble-shooting: receive a response within the hour during office hours.
- State of the art laboratory for research and development of new technologies, plus oil sampling services for preventative maintenance.
- Dedicated sales, fluid management and customer service teams.

Millers Oils Head Office

Millers Oils Ltd
Brighouse, West Yorkshire,
HD6 3DP, UK
T: +44 (0) 1484 713201
F: +44 (0) 1484 721263
E: oil.management@millersoils.co.uk

www.millersoils.co.uk



MillersOilsLtd

Millers Oils Scotland

Millers Oils Ltd
Caledonian House,
3 Old Quarry Road, Westfield
Industrial Estate, G68 9NB
T: +44 (0) 1236 280 107
E: glasgow@millersoils.co.uk

All products and information are reflective of the latest specifications at the time of going to print. The company reserves the right to change formulations and specifications without prior notice.

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MILLERS-Xtra

SERVICES FOR THE PLASTICS INDUSTRY

Millers-Xtra is the industry-leading 360° fluid management partnership from Millers Oils. Used by smart plastics manufacturers to maximise their production capability, our skilled technicians deliver a bespoke service throughout the full life cycle of the oil to minimise downtime and realise cost-savings.

Our service continues long after our oil has been delivered, to enable you to focus on what really matters to your business. Millers-Xtra services include initial oil fills, oil sampling for preventative maintenance, oil filtration, clean outs and service fills - supporting throughout the full life cycle of the oil.

YOUR BENEFITS:

- Reduced unscheduled down-time with our high quality oils and condition monitoring service
- Extended oil change intervals and equipment life
- Peace of mind: our technicians take away the stress of fluid management, so you can focus on your core business.

INITIAL OIL FILLS

Millers Oils works with Original Equipment Manufacturers to supply and fill high quality hydraulic oil for injection, blow and compression moulding machines:

STEP 1: Before the fill, Millers Oils send relevant paperwork including liability insurance, risk assessments and method statements for full audit compliance.

STEP 2: On arrival, Millers-Xtra technicians meet the appointed representative, complete any site inductions and fill out the required paperwork, ensure they have the correct PPE for the site and drive to the designated area of work.

STEP 3: Millmax hydraulic oil and the one-micron mobile integrated ISO reader filter pump, along with any other tools that might be needed, are removed safely from the van using a specially adapted side lifter – no need for forklifts – and taken to the injection moulding machine by barrel cart.

STEP 4: Making sure access to the sump is clear, Millers-Xtra technicians then check the inside of the sump where possible, removing panels if needed, and ensure the sump is clean and ready to fill.

STEP 5: The filter pump is then set up and connected to the Millers-Xtra technician's laptop so the ISO cleanliness code can be monitored as the oil is filled and filtered. The oil is filtered for as long as is required until the recommended OEM ISO code or better is achieved. Fill & filtration times depend on machine sump capacities.

STEP 6: On completion, the ISO code is recorded and e-mailed to the customer, and a sample of the oil is sent back to the Millers Oils lab for additional testing to confirm cleanliness, leaving the customer with not just clean oil but also peace of mind.

SAMPLES

Regular oil samples keep the maintenance department informed of the machine's condition, and maintenance can be planned around production, saving both time and money.

Millers-Xtra sample reports include analysis on:

- **Viscosity:** this is crucial for optimum lubrication, and can change due to contamination or oxidation.
- **Additive level:** anti-wear, anti-corrosion etc additive levels become depleted over time as they fulfil their purpose in the oil.
- **Contamination:** oil can become contaminated by environmental factors such as water, dust and debris, as well as by other oils.
- **Wear metals:** wear metals in the oil offer an insight into not just the health of the oil but the health of the machine components. High levels of a certain metal can indicate that a particular component may need replacing soon.



WHY FILTER HYDRAULIC OIL?

Even new oil isn't always clean enough for the plastics industry.

Injection moulding equipment is designed to be highly sensitive, in order to manufacture plastic components with maximum precision. If the particle count of the oil in the system isn't controlled, it can lead to wear, damage and blockages that bring production grinding to a halt.

FILTRATION

The Millers-Xtra filtration rig is regularly calibrated for guaranteed accuracy, and is portable so it can be pushed through the tight confines of a factory to each machine.

The equipment pumps approximately 40 L of oil per minute through a 1 µm filter, and the integrated particle counter means that results can be e-mailed directly to our customer from the rig – all while the machine is still in operation!

The end result is clean hydraulic oil with particle count of 17/14/11 or better, for maximum power transfer with the precision required for manufacturing even the most sophisticated plastic components.

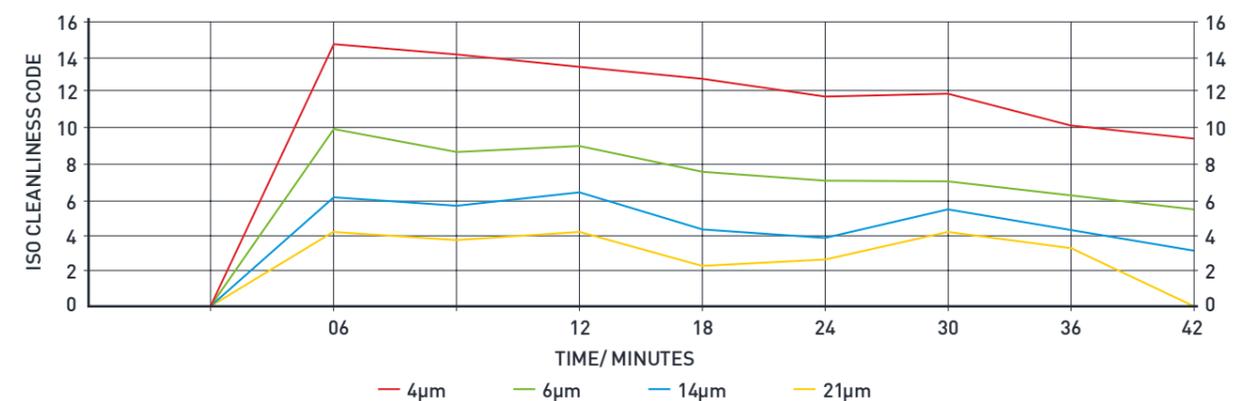
CLEAN OUTS AND SERVICE FILLS

Milliclean 1000T, a non-solvent based cleaner works while the system is still in operation:

- Before an oil change, a Millers-Xtra Technician will arrive on site, and add Milliclean 1000T to the hydraulic system at 10 – 20% sump capacity.
- Operations continue to run normally, while Milliclean 1000T acts quickly to clean all hydraulic pipework, couplings, hoses, tanks and pumps – removing lacquer, varnish and sludge.
- After a period of up to 48 hours, our Millers-Xtra Technician will return to site and drain, flush then refill the system.



TYPICAL FILTRATION RESULTS



Hydraulic Oil	Viscosities	Description
Millmax	32, 46, 68	Quality, reliable hydraulic oil, with good anti-wear and corrosion protection.
Millmax IM	32, 46, 68	Premium hydraulic oil for the injection moulding industry
Millmax IM Zinc Free	68	Premium hydraulic oil for the injection moulding industry. Zinc free for low-ash and silver/yellow metal compatibility.
Millmax Longlife	46	Premium hydraulic oil with outstanding oxidation stability.