

DuPont™ Krytox® Singlefacer Conversion from Oil to Krytox® Lubrication

PRODUCT INFORMATION

Many corrugating companies around the world have converted from oil and are enjoying the benefits of DuPont™ Krytox®. Krytox® grease was designed to perform for long uninterrupted periods at the temperature you run your corrugating machine. Why use anything less?

Requirements for Conversion

Mechanical

What it takes to convert your machine to use Krytox® successfully depends on several factors, including the type of bearings used, the seals and housings built in, and your own mechanical standards and operations. On some machines, seals or housings may need to be modified. On others, the original equipment will be sufficient to be sure the Krytox® will stay where it belongs.

Conversion is typically not a major mechanical task, but there are procedures that need to be followed to get good results. DuPont can help guide you through the process. We recommend that you consult with those who have been involved in conversions for many years to determine whether conversion is right for you.

Time

With proper planning, and the assignment, management, and parallel operation of sufficient manpower, a complete conversion of a singlefacer from oil to Krytox® can be completed within 3 days. The time spent doing the conversion will be paid back many times over in faster future roll changes, because the Krytox® grease won't carbonize. No more heavy work to wrestle the bearings off the shaft, no painstaking work to chisel or torch out the remnants of the old lubricant prior to reassembly.

Typical Steps in a Conversion

- Shut down machine and allow it to cool
- Disconnect oil lines
- Remove and strip down rolls
- Clean all parts thoroughly to remove hydrocarbon grease and all preservatives



DuPont™ Krytox® Packed in a Roll Bearing.

- Lubricate high-temperature bearings (and housings) with Krytox®
- Install C-4 clearance bearings
- Reassemble rolls
- Install new pin or button fittings

Successful Conversions*

Rolls: Preheater
Preconditioner
Corrugator
Pressure

Machines including:
Langston XD and 101
S&S HKD and HKE
Koppers 300, 400 and 600 series fingerless
HooperSwift 200

Pneumatic and hydraulic loading mechanisms.

OEMs That Changed Their Machine Design from Oil Lubrication to Utilize the Advanced Technology of Krytox®

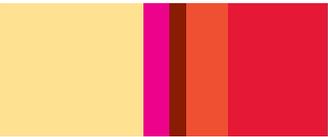
Agnati, MHI, BHS, Peters, Isowa, SCM, Langston, MarquipWardUnited, Fosber



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* Two machines for which we do not recommend conversion are:

- Langston XA model, which has cavities that are too shallow and clearances that are too great to maintain a lip seal.
- Older SCM models that have no space for grease reserves.



DUPONT™ KRYTOX® SINGLEFACER CONVERSION

Under what circumstances should I consider converting my machine from oil lubrication?

- If you want to reduce the likelihood of bearing failure
- If you have a straight-through oil or oil recirculation lubrication system
- If you're tired of having your corrugator crew tied up for hours each week monitoring and maintaining the equipment necessary to pump, filter, and cool all that oil
- If you use a lot of oil that you have to store, move around, and worry about its proper disposal
- If you have disposal limits that you are at risk of exceeding (a costly experience, up to \$25,000 per day) because of oil spillage into drains
- If your nonmetallic seals are being chewed up by the black carbon residue that forms from oil exposed to the high temperatures, resulting in oil spilling down the sides of the machine
- If you want to avoid the unsafe situation of having your operator threading the machine while standing on an oily surface
- If your operation is being shut down, even occasionally, by things going wrong in the lubrication system itself, such as faulty sensors
- If you have had a bearing failure with any other lubricant. To our knowledge, there have been no bearing failures anywhere in the world with Krytox® when it was used properly.
- If you're tired of dealing with difficult-to-remove rolls

Krytox® Conversion FAQs (Frequently Asked Questions)

Are there machines for which conversion is not appropriate?

Only a very few of the oldest designs.

When's the best time to schedule a conversion?

At roll change or any time you have to replace the bearings.

Is the conversion itself a difficult mechanical task?

No, but there are some procedures that need to be followed for a successful outcome.

My OEM tells me that a conversion kit will cost \$25M and up for my machine. Does it have to cost this much?

No. More cost-effective options are available.

Why do I need to use C-4 clearance bearings?

With Krytox® grease, the lubricant stays in the bearing while you are running. As a result, the bearing will run slightly warmer, so you need to allow space for the additional expansion that will occur.

Why do you recommend pin or button head grease fittings?

To avoid contamination of Krytox® by other lubricants used on the line.

Once I'm using Krytox®, what ongoing maintenance is required?

Just occasional relubrication of each bearing, typically once every 1–3 months. Add grease while the bearing is warm and slowly rotating until clean grease begins to come out.

DuPont Performance Lubricants

Extreme conditions. Extreme performance.

For more information or for technical assistance, please call **1-800-424-7502** or contact us at **krytox@usa.dupont.com**

For international sales and support contacts, visit us at **www.lubricants.dupont.com**

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