

High Performance Lubricants for Paper Processing



BECHEM
LUBRICATION
TECHNOLOGY



Paper manufacturing process

The transformation of pulp to bales of paper is an intricate mechanical and chemical process with sophisticated machines at its core

The objective of every Maintenance team would be to run the integrated units seamlessly without any breakdowns and surpass production targets. An important link in the continuous working of these machines is optimal lubrication. Lubrication requirements for machinery involved in various processes are diverse. Be it the chipping or the severe pulping and refining process to the pressing and drying process, the moving machine parts are subjected to heavy loads, seething temperatures, high speeds and often need to operate under wet, humid and dusty environments. The bearings and gears are always under the threat of severe wear and corrosion.

To ensure efficient production process, it is imperative that the perfect lubricant is chosen.

Specialty Lubricants from BECHEM

BECHEM's range of specialty lubricants have been globally recommended for severe applications in heavy industries such as Steel and Cement to critical applications in intensive industries such as Automotive and Food & Pharma.








Analyzing applications that require special care in paper processing, BECHEM's Application Engineering team has defined the lubricant range that can enhance productivity and dismiss breakdown concerns. These applications are subjected to repeated stresses, heavy loads and continuous wear. Additionally, the lubricant needs to withstand water, steam, dust and reactive chemicals to ensure an optimal lubricating film between the friction partners.

While a regular lubricant would not be able to withstand these harsh operating conditions, BECHEM's specialty lubricants have consistently proven their performance by extending application life and re-lubrication intervals.













Applications




-  Roller bearings
-  Plain bearings
-  Open gears
-  Closed gears

Properties

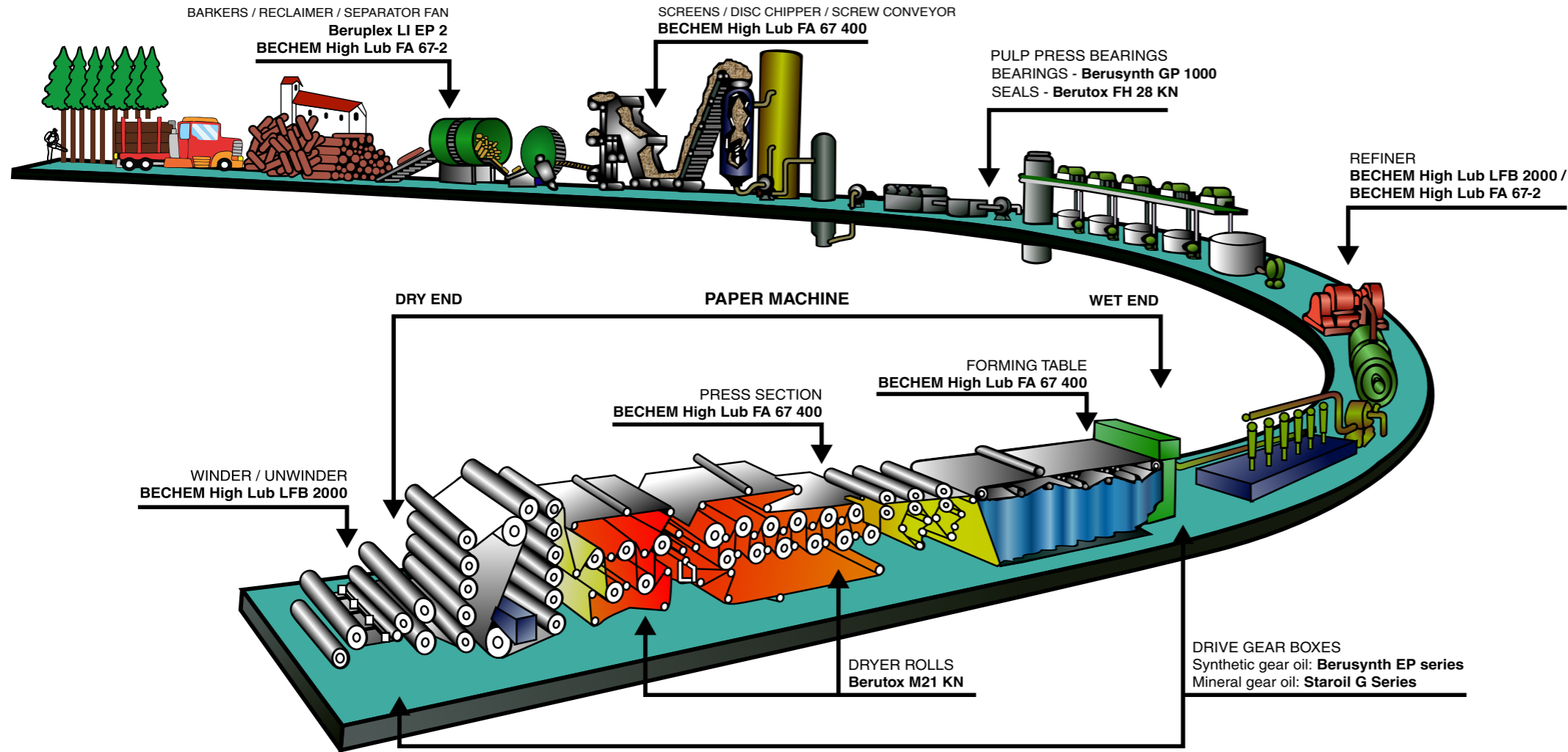
-  High temperature
-  Low temperature
-  High loads
-  High speeds
-  Good pumpability
-  Resistant to water
-  Corrosion protection

>> BECHEM's Shortlist <<

	Product	Application	Base Oil	Thickener	NLGI Grade	Base Oil Viscosity [mm ² /s] at 40°C / 100°C	Service Temperature Range [°C]	Properties
Wood Chipper	Beruplex LI EP 2 	Various bearings	Mineral Oil	Lithium complex soap	2	180 / 6	- 30 to + 150	Long life EP grease with excellent protection against corrosion as well as high wear protection even in humid environments. Has good pumpability in central lubrication systems
	Beruplex LI EP 3 	Motor bearings, vertically mounted bearings	Mineral Oil	Lithium complex soap	3	180 / 6	- 30 to + 150	Long life EP grease with excellent protection against corrosion as well as high wear protection even in humid environments. Has good pumpability in central lubrication systems
Pulp Mill, Paper M/c	BECHEM High Lub FA 67 400 	Agitators, Wire/Felt & Press bearings	Mineral Oil	Lithium-Calcium soap	2	400 / 30	- 20 to + 130	Heavy duty long life grease with excellent water resistance and corrosion protection. Special EP package ensures high wear protection. Has good pumpability in central lubrication systems
	BECHEM High Lub LFB 2000 	Agitators	Mineral oil	Lithium soap	2	180 / 15	- 20 to + 140	High performance EP grease with emergency run properties. Has extended service temperature range with excellent pumpability and water resistance. Provides excellent protection against corrosion and wear
	Berutox FH 28 KN 	Pulp press and mill bearings	Polyalphaolefin (PAO)	Polyurea	1 to 2	400 / 40	- 30 to + 180 + 200	Fully synthetic long life lubricating EP grease with excellent consistency-temperature behaviour. Provides excellent resistance to water, chemical, steam and corrosion
	BECHEM Premium 	Wire/Felt bearings	Mineral Oil	Lithium-Calcium soap	2 *	90-110 / 10-13	- 30 to + 130	High performance long life lubricating grease. Provides excellent water resistance and good protection against corrosion. <i>*Also available in grades of 3, 1, 0, 00 and 000</i>
	BECHEM High Lub LT 2 EP-400 	Press bearings	Mineral Oil	Lithium soap	2	430 / 27	- 20 to + 140	Heavy duty grease with wide service temperature range. Provides excellent resistance to water and corrosion. Has excellent pumpability
	Berutox FB 22 	Hot air fan	Polyalphaolefin (PAO)	Barium complex soap	1 to 2	490 / 32	-30 to 180	Synthetic high performance grease for long life lubrication at high speeds. Possesses excellent consistency-temperature behaviour. Provides excellent protection against corrosion
	Berutox M 21 KN 	Dryer bearings	Mineral Oil	Polyurea	1 to 2	490 / 32	- 20 to + 160	High performance multipurpose EP grease for long life lubrication. Has excellent sealing qualities with superior resistance to water and steam. Provides excellent corrosion and wear protection. Recommended for dryer bearings of the paper machine and ID/FD fans of Utility section
Paper M/c, Utility	Ceritol PSA 12 H 	Hot air fan	Mineral Oil	Special Polyurea	1 to 2	240 / 17	- 10 to +160	High temperature grease with excellent wear and corrosion protection. Provides excellent sealing abilities. Ensures no pipe clogging in central lubrication systems even in case of thermal radiation
	Soda Recovery Plant	BECHEM Premium 1000 	Open girth gear	Mineral Oil	Lithium soap	0 *	1000 / 17	-30 to +50
Berulit GA 2500 		Open girth gear	Mineral / Synthetic oil	Aluminium complex soap	00	2500 / 100	+ 5 to + 200	High performance service lubricant for open gear drives with very high base oil viscosity. Has very high load carrying capacity. Provides excellent protection against wear

	Product	Application	Base Oil	Viscosity [mm ² /s] at 40°C	Viscosity Index	Temperature range [°C]	Pourpoint [°C]	Flashpoint [°C]	Specification	Type	Properties
Pulp Mill, Paper M/c	Berusynth EP 68 to 1000 	Various gear boxes	Polyglycol	68 to 1000	196 to 278	-30 to +120 & -25 to +180	- 40 to - 30	≥ 240 to ≥ 280	DIN 51517 13	CLP PG	High-performance gear oil on polyglycol basis, for heavy-duty spur, bevel, planetary and worm gears, allows extended oil changing intervals, excellent wear protection, very high ageing resistance, reduces friction loss in the gear. Good viscosity-temperature behaviour
	Berusynth GP 68 to 1000 	Various gear boxes	Polyalphaolefin (PAO)	68 to 1000	145 to 165	-50 to +140 & -30 to +180	- 60 to - 27	≥ 245 to ≥ 280	DIN 51517 13	CLP HC	High-performance gear oil on polyalphaolefin basis for heavy-duty spur, bevel, planetary and worm gears, allows extended oil changing intervals, excellent wear protection, very high ageing resistance, miscible with mineral oil. Good viscosity-temperature behaviour
	BECHEM Staroil G 100 to 680 	Various gear boxes	Mineral Oil	100 to 680	95 to 100	-20 to +100 & -10 to +130	- 33 to - 18	≥ 230 to ≥ 270	DIN 51517 13	CLP	High-performance gear oil for spur, bevel, planetary and worm gears, excellent wear protection, very high ageing resistance, good load-carrying capacity and excellent water and air separation capacity

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BECHEM's Legacy

Established in the year 1834 in Germany, BECHEM pioneered the concept of specialty lubricants. As one of the earliest lubricant firms in Germany, BECHEM focused on constant product innovation and thorough application engineering. This guiding principle helped BECHEM evolve as a niche supplier of high performance specialty lubricants.

Based on advanced formulations, the BECHEM Group today offers specialized products for critical industrial applications across the world.





BECHEM India is a 100% subsidiary of BECHEM GMBH with its plant and corporate office located in Bangalore. With a dedicated sales team and distribution network spread across the country, BECHEM India caters to various industrial segments like Cement, Steel, Automotive, Textile, Food & Pharma and Metal Working Processes



Enhance efficiency and reliability of Paper machine with BECHEM's high performance lubricants

Awarded – BECHEM lubricants

High quality lubricants are indispensable products which are worth their investment, they are winners of prestigious awards – by making a decisive contribution to performance, energy efficiency and sustainability of products and processes.

 <p>Awarded for Berufluid – a mutual project with the Fraunhofer-Institut for Process and Technology and the Braunschweig Institute for Machine Tools and Production Technology.</p>	 <p>BECHEM was awarded a prize for tailor-made solutions for vehicles in the premium segment.</p>	 <p>As an award winner, BECHEM now belongs to the 20 most innovative companies in North Rhine-Westphalia, Germany.</p>	 <p>BECHEM received an award for innovative lifetime lubrication of various vehicle components.</p>
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Lubrication Solutions for Industry



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