



Lubricants Factory & Refinery Complex

BONUM OLEO, S.A.

Bonum Oleo, S.A. (Bolesa), is a Panamanian company created by its shareholders with more than 54 years of experience in the petrochemical sector, dedicated to the manufacture of lubricants and regeneration of used oils, to supply different products in the local and international market.

Our Lubricant Factory is a modern plant with the highest technology, meeting and exceeding standards in quality, safety and environment, in addition to competitive advantages that allow us to be leaders in Latin America.

LOCATION

Bonum Oleo is strategically located in the Republic of Panama and has two operational offices: (1) The Headquarters, where our modern plant is located, and (2) Storage and Distribution Office, located within the Panama Canal area, in Rodman Port. Also, we are very close to the Tocumen International Airport (main airport of Panama), allowing immediate delivery of products to our customers.



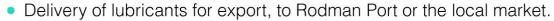




OPERATIONAL OFFICES

HEADQUARTERS – LUBRICANT FACTORY Main Activities

- Storage of base oils and additives with a total capacity of 1.728 m³.
- Blend and filling of lube oils.
- Refining of used lube oils.
- Storage of finished packaged products.





STORAGE AND DISTRIBUTION – RODMAN PORT Main Activities

- Receive tanker ships with required base oils.
- Bulk storage of base lube oils with total capacity of 2.800 m³.
- Reception and storage of used oils supplied by ships transiting the Panama Canal.



- Storage of finished packaged products.
- Dispatching lubricants for ships in transit for direct consumption.

BLENDING

The Blending area of the lubricants plant has the latest facilities, allowing to develop a wide variety of different products, satisfying the needs of each client.

It is equipped with 4 mixers of latest generation, coupled to independent circuits dedicated to product families without the possibility of interaction between them.

Technology

- Blending system 100% automated
- Dosages records by weight and mixers cells, with an error of no more than 0.01%
- Independent dosages per additive
- Remote control operation through a digital SCADA
- Mixing tanks equipped with speed controlled mechanical agitators
- Recirculation system by not-shearing pumps
- Heating control and nitrogen injection
- Dedicated blending circuits per family

Viscosity Improvers

We have a reactor to manufacture viscosity improvers additives, with the ability to produce 30 tons per batch.



BLENDING

Blending Capacity

9 tons/hour (approval included)

Internal Tanks

- Twelve tanks to storage bulk additives, with 32 m³ of capacity per tank
- Five storage tanks for finished product

FLUSHING AND PURGE MANAGEMENT

- Each mixing circuit has facilities for washing tanks and process lines mixtures, which ensures the integrity of the final product.
- The independence of the four mixer circuits, allowing the deduction for each family system, minimizing the generation of washes and eliminating risks of cross-contamination.
- Plant ensure a policy of "zero" inventory of flush or purges, but it has the ease of transferring this product to the refining system.

AUTOMATION

Process monitoring is remote from the control room by a digital SCADA, which facilitates real-time information, and constant monitoring of safety and quality controls.



FILLING

FILLING AREA Capacities

Line 1	Drum	55 U.S.	gal.	(208 L)	60 units/hour		
				(205 L)	61 units/hour		
	IBC	275 U.S.	gal.	(1.040 L)	12 units/hour		
Line 2	Pail	5 U.S.	gal.	(18.92 L)	500 units/hour		
				(20 L)	473 units/hour		
Line 3	Small Packages	1 U.S.	quart	(0,946 L)	6.340 units/hour		
				(1 L)	6.000 units/hour		
		1 U.S.	gal.	(3,785 L)	1.585 units/hour		
				(4 L)	1.500 units/hour		
Line 4	Aqueous products	products for vehicle care, as antifreeze,					
		brake fluids and anti-corrosion					
Line 5	Bulk / Flexibags	4.000 U.S. gal./hour (15.000 L/hour)					





ASSEMBLY AREA FOR DRUMS OF 55 GALLONS

The Plant has a compact drum assembly line prebuilt minimizing shipping costs of raw material.



REGENERATION OF USED OILS

Bonum Oleo, is presented as an eco friendly company by using "Green Technology" as an alternative for a responsible disposal of used oils, and avoid the environmental impact that would cause this hazardous waste if not treated adequately.



Additionally, our regeneration processes allow us to best use of resources (material and energy) as our technology is able to extract from used oils 70% of new base oils and the remaining 30% as industrial fuel.

VALUE OF USED OIL RECOVERY



ENVIRONMENTAL BENEFIT

Reduction of the environmental impact generated by direct disposal of used oil by minimizing emissions of CO² from disposal by incineration processes.



REGENERATION

From used oil we get a raw material to be used for the manufacture of a new lubricant



RECYCLING

The fraction of non-regenerable of used oils will be utilized for the manufacture of other added-value products such as marine and industrial fuels.



SAVING

Regenerated oils requires 85% less energy than regular process to get the same basis from petroleum.

Saving by reducing dependence of imported raw material for such local input.

REGENERATION OF USED OILS

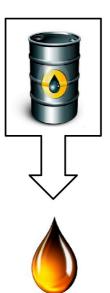
The technology used by Bonum Oleo for regeneration of used oils is based on multiple phases of treatment with refining techniques at various stages, without the use of chemicals.

Refining Capacity: • 1.500 Liters/hour

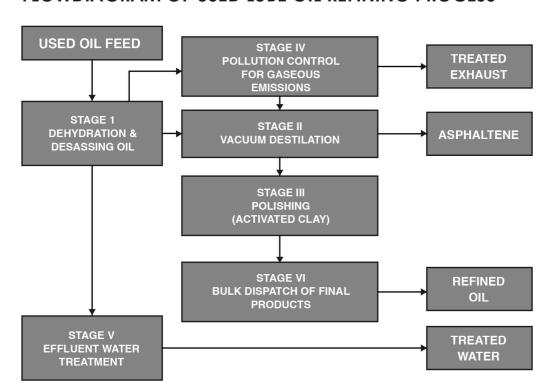
• Refined Base Oil (Grupo I Plus)

Bunker Fuel Oil (Grade A)

The emissions resulting from the process are channeled to a treatment system in order to ensure minimum emission levels below local and international environmental regulations.



FLOWDIAGRAM OF USED LUBE OIL REFINING PROCESS



LABORATORY

Bonum Oleo's Laboratory is structured under the ISO 17025 standards, with the advantage of having all new high-tech equipment and a team with over 20 years experience in Lubricants Factories, which ensures products with reliable quality.

Main Laboratory Tests

Kinematic Viscosity 40°C / 100°C	ASTM D 445
Apparent Viscosity to Low Temp (CCS)	ASTM D 5293
Water Separability	ASTM D 1401
Determination of metals (ICP)	ASTM D 5185
Density	ASTM D 4052/D 1298
Flash Point COC	ASTM D 92
Flash Point PM	ASTM D 93
Pour Point	ASTM D 97
Foam Test	ASTM D 892
ASTM Color	ASTM D 1500
Viscosity Index	ASTM D 2270
Humidity	ASTM D 6304
NB	ASTM D 2896
NA4	ASTM D 664
Brookfiel Viscosity	ASTM D 2983
Rust Test	ASTM D 665
Air Release	ASTM D 3427
Apparance	ASTM D 4176
Water Content	ASTM D 406
Ash Sulphated	ASTM D 4082
Pentane Insoluble	ASTM D 893
FTIR	ASTM D 7418

The Laboratory offer the service of analysis and interpretation of used oils in order to assure the preventive maintenance programs of our customers.



WAREHOUSE

WAREHOUSE CAPACITY

Bonum Oleo, has storage facilities for self-owned raw materials or third parties, with the following capacities:

Rodman Base:

- 5 tanks for base oils with a total capacity of 2.800 m³.
- 1 tank for used oils with a capacity of 190 m³.
- 500 pallet racks for finished products.

Headquarter:

- 8 tanks for base oils with a total capacity of 1.365 m³.
- 12 tanks for additives with a total capacity of 420 m³.
- 1 tank for used oils with a capacity of 350 m³.
- 500 pallet racks for finished products.

WAREHOUSE - IN BOND

Bonum Oleo, is certified for In Bond custom storage intended for the management of final products to be re-exported from Panama to other countries. This warehouse is free of import taxes or custom service fees and is available to our customers who will export their products.

HEADQUARTER BONUM OLEO – INDUSTRIAL FREE ZONE

The headquarter of Bonum Oleo, will be enabled with a special customs regime that allows the storage, handling and processing of raw material without import taxes.

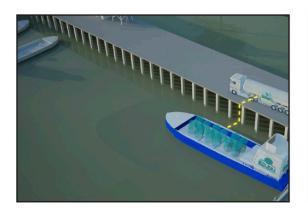


LOGISTIC

MARINE DISPATCH - RODMAN PORT

Bonum Oleo, has a storage and dispatch facility within the area of the Panama Canal, allowing us a fast and timely deliveries to ships in transit through the Panama Canal.

The required lubricants are dispatched directly using a barge owned by Bonum Oleo, which sails to the anchorage zone of ships in transit, at not more than 5 nautical miles away from the pier.





AVERAGE DELIVERY TIME

From Europe to Latin American Countries

7	Dispatch	Customs	Sea Freight	Total Time
	45 days	7 days	23 days	75 days

EX: LIVORNO-ITALY > CARTAGENA-COLOMBIA > CALLAO-PERU: 23 DAYS SEA FREIGHT

From Panama to Latin American Countries

Dispatch	Customs		Sea Freight		Total Time	
15 days	6 days		7 days		28 days	

EX: PANAMA > CALLAO-PERU: 7 DAYS SEA FREIGHT

FINANCIAL BENEFITS

- All transactions in the region are in US dollar
- More than 70 banks
- Eliminate exchange risk
- Eliminate losses exchange rate
- Lower transaction cost
- Minimum risk of devaluation
- Stability in costs, profit margins and prices
- Stability in inventory accounting

FREE TRADE AGREEMENTS

Panama has free trade agreements with comprehensive coverage of transparent provisions allowing greater access to different markets on favorable terms, which provide opportunities

Various Free Trade Agreements

Preferential access to different markets Favorable tax and customs conditions



- Mexico
- Costa Rica
- Guatemala
- Colombia
- Nicaragua
- Peru
- Cuba
- El Salvador

- Canada
- **United States**
- Singapur
- China (Taiwan)
- Israel
- Honduras
- Dominican Republic
- Chile

WHY CHOOSING BONUM OLEO?

BONUM OLEO offers the opportunity to develop new markets within the lubricants business, as we have key differentiators as follows:



STRATEGIC LOCATION

- Reduced logistic costs
- Best trade routes around the world
- Short delivery times
- Custom facilities (maritime or air)
- Several free trade agreements.

HIGH TECHNOLOGY

- Automated process unique in the Region
- Latest technology of equipment and systems
- A Green Technology Innovative.





EXPERIENCE

- 54 years of experience
- Know-how in lubricants
- Flexibility with our clients.

SUSTAINABLE RESPONSABILITY

- Environmentally responsible process
- Adequate disposal of used lube oils
- We regenerate non-renewable products.





HIGH QUALITY

- Work under ISO standards
- Inter-laboratory certificate with clients.

FINANCIAL

- Financial centre with more than 70 banks
- Transactions in a single currency
- Monetary stability
- Minimal risk for devaluation.



OUR VALUES



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