



Art comes from ability



Instead of artist's colors and canvasses, we use base oils and additives. An artist can create a masterpiece even without the best materials, but we only use first-class ingredients and know the art of procuring them.



Practice makes perfect

Talent is important, but as Thomas Edison said, "Genius is ten percent inspiration and ninety percent perspiration." Even the best paints cannot make a masterpiece without ability and expertise. The creation of a masterpiece arises from intuition, years of hard work, perseverance and fortitude.

And without mastery, even the best raw materials will not make a good lubricant.

PANOLIN masters the art of setting benchmarks in lubricant technology.

The PANOLIN Group



PANOLIN Holding AG is the umbrella organization for the entire PANOLIN Group and owner of the following companies:



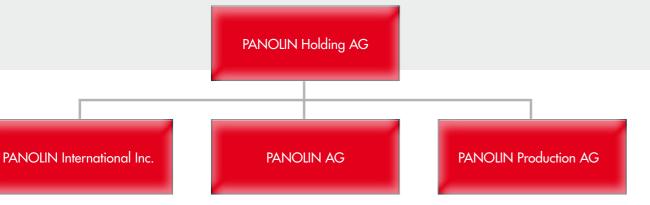
PANOLIN Production AG focuses on PANOLIN lubricants development and production. Its divisions are: technology, laboratory, procurement, accounting and IT.



PANOLIN International Inc. handles all international business.



PANOLIN AG serves the lubricants market areas of Switzerland and Principality of Liechtenstein.





Christian LämmlePANOLIN Holding AG
Chairman of the Board



Patrick Lämmle
PANOLIN International Inc.
Chairman of the Board/CEO
PANOLIN Holding AG

Board member



Silvan LämmlePANOLIN AG
Board delegate/CEO



Sarah Mohr-Lämmle PANOLIN Production AG Board delegate/CEO



Four Companies - One Claim

The PANOLIN Group is 100 % owned by the Lämmle family. Responsibilities within the Group are allocated among the four PANOLIN companies. This concept best serves market and customer needs with unmatched Group performance on a daily basis.

PANOLIN AG and PANOLIN International Inc., the two companies active on the market, are strongly customer-oriented to assist you in all lubricant matters.

To emphasize the Group unity and core skills, all four companies appear under the same logo "PANOLIN – Swiss Oil Technology".

Key data and developments



Bernhard Lämmle, 1910 – 1986

Pioneering Role in Landmark Developments

1968 Firs	t multi-grade	hydraulic oils
------------------	---------------	----------------

- 1979 First synthetic engine oil
- 1983 First environmentally-considerate hydraulic fluids
- 1983 First universal light-running engine oil
- 1995 First long-life diesel engine oils
- **2000** First long-life industrial hydraulic oils
- 2000 First low SAPS diesel engine oils
- **2007** First environmentally-considerate 4-stroke motorcycle engine oils
- **2009** Future-oriented semi-synthetic cutting fluids
- 2010 First environmentally-considerate low SAPS diesel engine oil
- 2012 First environmentally-considerate food grade lubricants

PANOLIN International



Globally at home







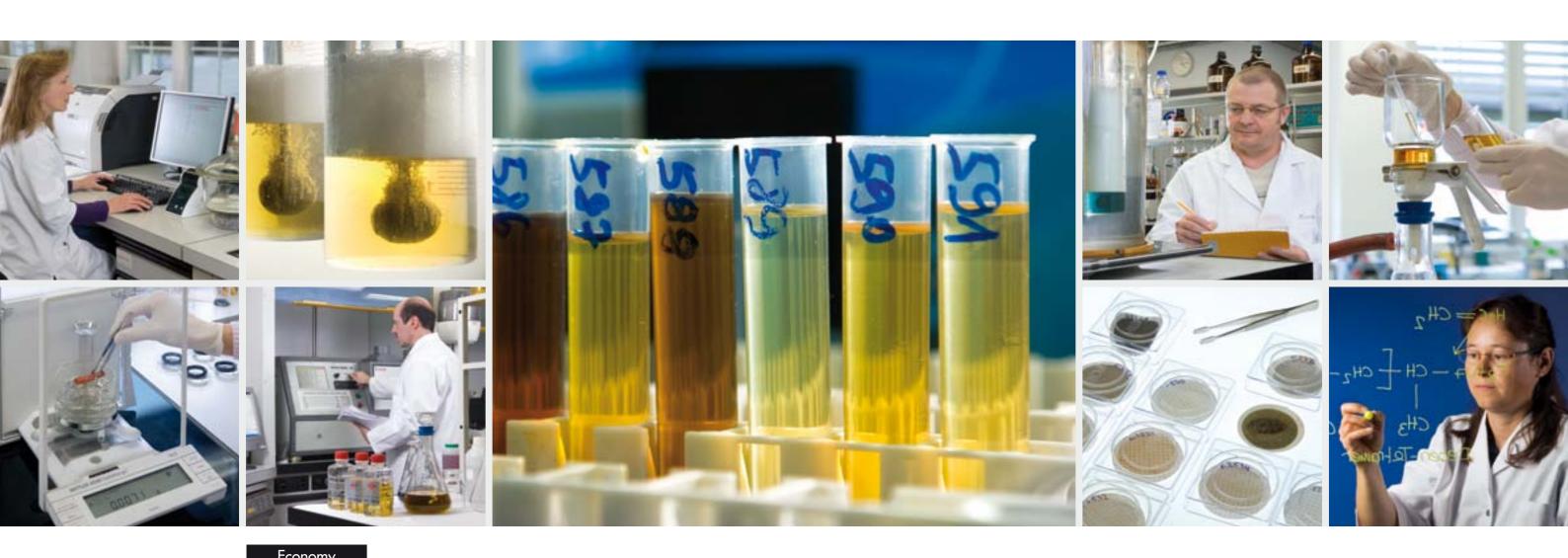
Apart from the Swiss headquarters in Madetswil, PANOLIN has three Group subsidiaries in Sweden, France and in the USA.

Furthermore, various partner companies on all five continents ensure global market presence and the worldwide availability of PANOLIN lubricants.

Three blending providers produce lubricants that adhere to strict PANOLIN standards for the Asian, Australian and North American markets.



PANOLIN Tec Center





Putting ideas into practice

Our development team is challenged every day in many ways. Industrial clients want a product that will last "forever". Racing enthusiasts want to boost engine power. And new environmental laws always have to be complied with.

11

One of their most demanding tasks is putting our ideas into practice. Ideas for new products that may not currently be in demand, but will seem indispensable in a few years' time.

And with every development we have one major objective in mind: combining profitability, technology and the environment together as much as possible.

Keeping an eye on Nature



The PANOLIN Group headquarters are located in Madetswil near Zurich, Switzerland.

This is where the two sustainable, environmentally-friendly concepts "GREENMACHINE" and "GREENMARINE" were developed.





Motivated

PANOLIN headquarters are situated in a picturesque countryside setting, so we are naturally motivated to protect the environment. For more than three decades, our environmentally considerate lubricant developments have decisively impacted the market.

13

The environmentally considerate products developed in Madetswil are internationally acclaimed, as documented by numerous national and international eco-labels.

Made in Switzerland, made in ...









Our TQM (Total Quality Management) ensures that you can depend on the PANOLIN quality wherever you use our lubricants.



From Madetswil across the globe

Initially, every drop of PANOLIN oil was produced in Madetswil, but as business expanded worldwide, it became necessary to manufacture some of our products closer to our customers.

However far away, "Swiss Oil Technology" still applies. Our technicians make up the formulations locally, and our laboratory has to approve a production sample before starting delivery.

Our speciality formulations are kept secret. The concentrate produced up by our blending masters is mixed by an external provider with the base oils we prescribe.

PANOLIN lubricants ...



















PANOLIN lubricants are used in numerous sectors:

- 1 Automotive
- 2/4 Sports and racing
 - **3** Transport
 - **5** Plastics industry
 - **6** Food industry
 - **7** Textile industry
 - 8 Metalworking industry

... in tough daily use

Without lubricants, the economy would grind to a halt. However, not everyone needs the same oil.

Requirements vary as widely as applications. All users want longer oil change intervals and dependable protection of their plant or machinery. But they set very different priorities. Skin-friendly lubricants and cutting fluids are important in the metalworking industry. Racing drivers want the ultimate performance from their engine – which can be decisive for victory. Impeccable food grade compliance is indispensable for the foodstuff and pharmaceutical industries. And the list goes on.

Considerate to the environment





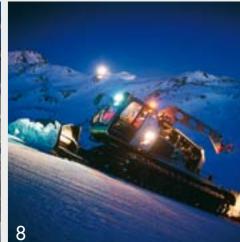




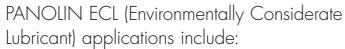












- 1 Municipal operations
- 2 Rail track laying
- 3 Construction and mining
- **4** Forestry
- 5 Hydromechanical works
- **6** Hydroelectric power plants
- 7 Agriculture
- 8 Alpine railways and machinery

Core competence - ECL

Our Environmentally Considerate Lubricants are increasingly used with great success.

PANOLIN GREENMACHINE products optimize environmentally-considerate machine operation to the highest technical standards of safety, dependability and cost-effectiveness. They are rapidly biodegradable, minimize CO_2 emissions and conserve resources thanks to long filling life. These are important principles of our sustainability concept.

Our biodegradable food-grade products uphold our innovation strength by creating a new category of lubricants.

Waterside and marine











Image supplied courtesy of Gwynt y Môr Offshore Wind Farm Limited



















A logical step

PANOLIN HLP SYNTH has been in use for more than 35 years in countless earthmoving machines whether in, on or out of the water. It was followed by other special lubricants for hydromechanical works and hydroelectric power plants.

With all of this water-related experience, and searching for new challenges – an enormous scope for marine applications was discovered. Innumerable ships are underway day and night; dredging machines keep harbors, water basins and canals free of gravel and sludge; installation ships busily set up wind power plants ...

PANOLIN launched a product line that covers the needs of the marine industry: PANOLIN GREENMARINE.

Masterpieces in oils





Rembrandt van Rijn, 1606 – 1669 "The Man with the Golden Helmet"



Sandro Botticelli, 1445 – 1510 "The Birth of Venus" MUSEO NACIONAL DEL **PRADO**

Albrecht Dürer, 1471 – 1528 "Self-Portrait, Madrid"

Louvre



Leonardo da Vinci, 1452 – 1519 "Mona Lisa" Jan Vermeer, 1632 – 1675 "The Girl with the Pearl Earring"

Masterpieces are not by chance

The Mona Lisa and other outstanding masterpieces deserve our greatest respect as the fruits of intensive labor by great artists.

These masterpieces can be admired in the world's most reputed art galleries.

But there are also other masterpieces in oils ...

Our masterpieces









Niagara falls – On the USA/Canadian border enormous water masses thunder down 58 metres into the depths.

Panama Canal – Connecting the Atlantic and Pacific Oceans, it saves ships from navigating round Cape Horn at the southern tip of Chile, and shortens the voyage from New York to San Francisco by about 15,000 kilometres.

PANOLIN highlights

Our masterpieces are not on show in the Louvre or other reputed galleries, but PANOLIN lubricants are tirelessly at work in various world-famous attractions.

Ever since its inauguration in 1999, the **London Eye's** hydraulic systems have been filled with PANOLIN fluid. Not until well over 100,000 operating hours was this hydraulic fluid first changed.

Niagara falls are circumnavigated through the Welland canal. The eight 496-ton lock gates are opened and closed by hydraulic systems using PANOLIN fluid.

Thanks to the 170 PANOLIN-filled hydraulic units on the **Panama Canal** lock gates, it only takes about 15 hours to pass through.

Our masterpieces









Mont Saint-Michel – This French monastery island, a UNESCO World Culture Heritage, attracts three and half million visitors every year.

Sae Man Geum – This large-scale Korean project with its 33-kilometre dam not only reclaimed a lot of land, but also created a gigantic freshwater reservoir.

Pilatus – Lucerne's famed mountain in Switzerland is a tourist attractionat 2132 m.a.s.l. with "2132 options over the sea". One of the most spectacular is a trip with the world's steepest cogwheel railway from Alpnachstad to the Pilatus summit.

PANOLIN highlights

Mont Saint-Michel stays an island thanks to a PANOLIN-filled sluice gate system. This collects seawater at high tide, and releases it to wash away the sand and silt under high pressure at low tide.

Sae Man Geum – The ten sluice gates on Garyuk weir and eight on Sinsi are operated twice daily by PANOLIN-filled hydraulic systems.

Pilatus – At 48° gradient, the Pilatusbahn is the world's steepest cogwheel railway. The entire rack and pinion system including drive gear is lubricated by PANOLIN.

We put forth a tremendous amount of effort to create such dependable products. Therefore, they can indeed be called "Masterpieces in oils!"

PANOLIN CH-8322 Madetswil Tel. +41 (0)44 956 65 65 Fax +41 (0)44 956 65 75 www.panolin.com info@panolin.com

