

RAND REFINERY

SOUTH AFRICA

LOCATION

Rand Refinery, the world's largest single site gold refining and smelting complex, and the largest manufacturer of 400 oz London Good Delivery bars since 1921, is based in Germiston, about 16 km east of Johannesburg, and about 20 km south of O.R. Tambo International Airport.

Gold refining and the manufacture of bars and other value-added precious metals products take place at the company's premises in Germiston.

OWNERSHIP

Rand Refinery is a private company. Its shareholders are AngloGold Ashanti Limited (53%), Gold Fields Limited (35%), DRDGOLD Limited (10%) and Avgold Limited (2%).

ACCREDITATION

1921 London Bullion Market Association (LBMA)
1974 CME Group – Market Contract: COMEX
1993 Tokyo Commodity Exchange (TOCOM)
2005 Dubai Multi Commodities Centre (DMCC)

Rand Refinery also manufactures London Good Delivery silver bars.

In 2004, the LBMA appointed Rand Refinery Limited as one of five Referees to the LBMA London Good Delivery system.

Certification

ISO 14001: 2004 – Environmental Management System
OHAS 18001: 2007 – Occupational Health and Safety Management System
ISO 9001: 2008 – Quality Management System

BACKGROUND

Rand Refinery, established in 1920, became an entirely independent company in 1993, its Board of Directors appointed directly by its shareholders.

Over the previous 73 years, the company had been closely associated (as an affiliated company) with the Chamber of Mines of South Africa, known by this name since 1968.

Since 1921, when the original refinery was opened, gold refining and bar manufacture has taken place on the same site in Germiston. Over the past 93 years, it has refined nearly 50,000 tonnes of newly-mined gold, almost one third of all gold ever mined worldwide.

When the new refinery complex was opened in 1989, it was the world's first refinery to automate the manufacture of 400 oz bars from the time molten gold is poured into the crucible.



Rand Refinery operates the world's largest gold refining and smelting complex.



Rand Refinery launched its new logo in September 2011,



The company has manufactured London Good Delivery 400 oz bars since 1921.



Over the past decade, the company has expanded its range of gold-related products and services.

In 1998, a new small bar production facility was established, as well as a high security gold transit vault at O.R. Tambo International Airport.

In 1999, a new service to supply semi-manufactured gold products for the jewellery manufacturing industry was initiated.

Since 2003, the company has provided premises in the Gold Zone, as well as precious metals, for the Intsika Skills Beneficiation project, which offers jewellery design and manufacturing training for formerly unemployed black women over an 18-month period.

In 2008, a project to install robots for the manufacture of 1000 g and 100 g bars was initiated. As robots can operate on a 24-hour continuous basis, the refinery's capacity to produce 1,000 bars per day was increased.

Since 2009, the company has also provided well-equipped workshops, equipment and precious metals in the Gold Zone for the Ekurhuleni Jewellery Project, which is a Small to Medium Manufacturing Enterprise/Black Economic Empowerment incubator for qualified emerging young black jewellery manufacturers.

In 2011, company established Rand Refinery Asia (Pte) Limited in Singapore as a trading office.

Since 1967, the company has also manufactured all blanks for the Krugerrand range of gold bullion coins, producing more than 56 million blanks (1,400 tonnes) to date. Since 1998, it has also been responsible for the marketing of Krugerrands worldwide, when it absorbed the responsibilities of International Gold Corporation, established as the gold marketing arm of the Chamber of Mines of South Africa in 1971.

Apart from gold, the company produces silver bars, also recovering platinum group metals from its refining processes

Number of employees: 513

GOLD SERVICES

Rand Refinery focuses on:

- (1) Refining
- (2) Electrolytic refining
- (3) Smelting
- (4) Analytical services
- (5) Beneficiation
- (6) Vaulting services
- (7) Products for jewellery manufacturing and dental industries



Pouring molten gold.



The company has refined almost one third of all the gold ever mined.



Rand Refinery refines around 75% of Africa's newly-mined gold doré.



GOLD REFINING AND RECYCLING OF SCRAP

The company normally accepts the following gold-bearing materials for refining to specified purities up to 999.9:

- Semi-refined bullion
- Mine doré: predominantly gold
- Electrolytic slimes: derived from silver
- Precipitated gold slimes
- Loaded carbon
- Old jewellery
- Jewellery manufacturers scrap
- Computer and electronic scrap
- Old coins and medals
- Refining scrap
- Borax slag
- Gold bearing concentrates

Apart from refining more than 75% of Africa’s newly-mined gold doré, the company also processes doré and gold-bearing by-products from other countries, notably in North America and the Far East. Approximately 40% of the total amount of doré that is refined is now sourced from outside South Africa.

In the refinery, the Miller Chlorination Process is used to separate the impurities from the gold received from mines.

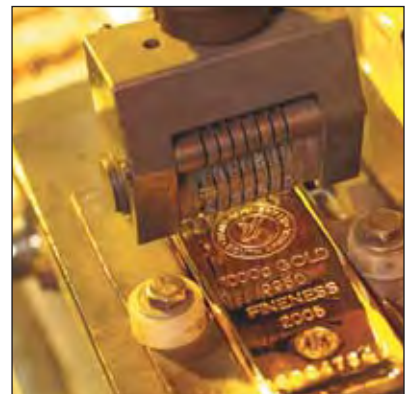
Some customers, such as jewellery manufacturers and other industrial end-users, require gold that is almost 100% pure, so further electrolytic refining is necessary.

The smelter, which is the largest precious metal smelting operation in the southern hemisphere, uses high-tech pyrometallurgical methods. The facility recovers precious metals through smelting from approximately 4,000 tonnes of low-grade materials each year.

Annual gold refining capacity is recorded at approximately 600 tonnes.



Rand Refinery has manufactured more London Good Delivery 400 oz bars than any other refiner.



Kilobars have been manufactured since 1959.

NEW OFFICIAL STAMPS

RAND REFINERY

On 400 oz bars since 2011.

RAND REFINERY

On smaller cast and minted bars since 2011.



100 g bars have been manufactured since 1985.



GOLD BARS

A standard range of 9 cast bars and 7 minted bars:

Cast: 400 oz, 100 oz, 1000 g, 500 g, 100 g, 10 tola, 5 tola, 10 tael, 5 tael
 Minted: 100 g, 50 g, 20 g, 10 g, 8 g, 5 g, 2.5 g

The company also manufactures customized bars for external entities.



TECHNICAL DESCRIPTION

Weight	Type	Fineness	Shape	Dimensions (mm)	First Issued	Serial Number System	System Introduced
400 oz	Cast	995+, 999.9	Rectangular	260 x 80 x 40 240 x 60 (base)	1921	2 letters Plus 4 numbers Plus year date	1921 2008
100 oz	Cast	995+	Rectangular	255 x 66 x 9	1988	As required	-
1000 g	Cast	999.9	Rectangular	116 x 51.5 x 9.5	1988	3 letters Plus 6 numbers Plus year date	1988 2008
1000 g	Cast	995	Rectangular	116 x 51.5 x 9.5	1988	2 letters Plus 5 numbers Plus year date	1988 2008
500 g	Cast	995, 999.9	Rectangular	88 x 39 x 9.8	2005	2 letters Plus 4 numbers	2005
100 g	Cast	995, 999	Rectangular	45 x 27 x 4	1985	-	-
10 tola	Cast	999	Rectangular	45 x 27 x 5	1986	-	-
5 tola	Cast	999	Rectangular	31 x 19 x 4	2000	-	-
10 tael	Cast	999	Rectangular	89 x 40 x 6	1987	-	-
5 tael	Cast	999	Rectangular	70 x 29 x 5	1987	-	-
100 g	Minted	999.9	Rectangular	47.73 x 27.78 x 4.60	2012	-	-
50 g	Minted	999.9	Rectangular	44.50 x 25.95 x 2.80	2012	-	-
20 g	Minted	999.9	Rectangular	31.40 x 18.10 x 2.00	2012	-	-
10 g	Minted	999.9	Rectangular	25.74 x 15.73 x 1.95	2012	-	-
8 g*	Minted	-	Rectangular	-	2012	-	-
5 g*	Minted	-	Rectangular	-	2012	-	-
2.5 g*	Minted	-	Rectangular	-	2012	-	-

Source: Rand Refinery * The dimensions and purity of the 8 g, 5 g and 2.5 g minted bars vary according to customer requirements.

Serial numbering systems

400 oz: 2 letters, changed once 9,999 bars have been manufactured. 4 numbers record the bar serial number. For example, "LT 0382" means the 382nd bar made since the letters "LT" were selected. A year date has been stamped on the bars since 2008.

1000 g (999.9): 3 letters, changed once 999,999 bars have been manufactured. 6 numbers record the bar serial number. For example, "OTM 156486" means the 156,486th bar made since the current letters "OTM" were selected. A year date has been stamped on the bars since 2008.

1000 g (995): 2 letters, changed once 999,999 bars have been manufactured. 5 numbers record the bar serial number. For example, "SS 142,976" means the 142,976th bar made since the current letters "SS" were selected. A year date has been stamped on the bars since 2008.



The company launched its 500 g bar in 2005.



HISTORY OF GOLD BAR MANUFACTURE

The company has been the major supplier of 400 oz cast bars for the international gold market since 1921. Many of its bars are held by central banks around the world.

In 1959, 1000 g cast bars were issued, their dimensions changing in 1980, and again in 1988.

Between 1924 and 1940, large quantities of 10 oz bars were manufactured for issue under the name of the Bank of India, and 10 tola bars under the name of the Bombay Mint.

During the 1980s, cast bars in different weights, toll-manufactured on behalf of external entities, were issued: 100 g (1985), 10 tola (1986), 10 tael and 5 tael (1987), 100 oz (1988). The bars recorded, when requested, the company's official stamp.

In 2000, 5 tola cast bars were issued, followed by 500 g cast bars in 2005.

In 2012, the company will be issuing, for the first time on a commercial basis, a standard range of 4 minted bars: 100 g, 50 g, 20 g and 10 g. Customized 8 g, 5 g and 2.5 g bars can also be produced, on request.

In 2011, Rand Refinery launched a new logo, which is representative of the pouring of gold and a symbol of "Pure Refinement". The company's official stamps for gold bars incorporate the logo.

The company had previously (since 1921) depicted a springbuck, a small African antelope, on the official stamps for gold bars.

TRADE COMMUNICATION

General enquiries by gold dealers and industrial customers should be directed to the company's headquarters in South Africa, or its trading office in Singapore.

Rand Refinery Pty Ltd – South Africa

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Website: www.randrefinery.com

Rand Refinery Asia (Pte) Limited – Singapore

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Minted bars will be manufactured for the international market in 2012.



These long, flat bars, after rolling, will be cut with a die to produce blanks for minted bars.

HISTORICAL OFFICIAL STAMP

On cast and minted bars issued under the name of Rand Refinery from 1921 until 2011.



LONDON GOOD DELIVERY BAR



Rand Refinery has applied a new official stamp to London Good Delivery 400 oz bars since 2011.



EXAMPLE OF SMALL GOLD BARS



Illustrating the new official stamp that is being applied to kilobars and other small bars

NEW OFFICIAL STAMPS IN 2011

Rand Refinery Limited, which launched its new logo in September 2011, is in the process of applying the new official stamps to its range of gold bars.

The rebranded bars will be illustrated in this supplement when photographs become available.



Refer to disclaimer on website: www.goldbarsworldwide.com

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