APPLICATION INFORMATION N° 402
POWER GENERATION

# LOW / HIGH POWER HEATERS ESKOM HENDRINA POWER PLANT, SOUTH AFRICA

Trimod Besta

Level measurement A brand of Bachofen AG
www.trimodbesta.com

**Market segment: Power Generation**

## Application

Trimod´Besta level switches mounted in float chambers are used in low power (LP) and high power (HP) heaters of the coal fired Eskom Hendrina Power Station in South Africa. This power station has ten 200 MW units with a total installed capacity of 2'000 MW.

Hendrina Power Station came into operation between June 1970 and December 1976. It is one of Eskom›s oldest operating power stations and the only one with 10 units.

When it was built, it had the longest turbine hall of any Eskom power station. Between 1995 and 1997 half of Hendrina's 10 units were refurbished and now boast some of the most advanced system control technology in the world. The station's 5-in-1 control room was the first in the southern hemisphere.

## Requirement for level switches

- Operating temp. up to 400°C
- Heat resistant flanges and float chambers
- Very dusty environment

## Technical details

- Capacity: 2000 MW (10 x 200 MW units)
- Design efficiency at rated turbine MCR: 34.2%
- Ramp rate: 33.3% per hour
- Average availability over last 3 years: 88.8%
- Average production over last 3 years: 11'718 GWh

## Location

Approx. 40 km south of Middelburg in Mpumalanga

## Why Trimod´Besta?

Bachofen AG offered not only special switches for high temperature applications (max. 400°C) but also tailor made float chambers in heat resistant carbon steel.

## Installed level switch types

The material of the float chambers is heat resistant carbon steel 15Mo3. The level switches are equipped with heat exchangers and partially with composites flanges made of heat resistant carbon steel 13CrMo44 or stainless steel.

Type: HAA 22C01 041 and HAA 01 041

Level switch type: HAA 22C01 041
with float chamber: I021-1C0RC1

Level switch type: HAA 01 041
with float chamber: S021-0RC1

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