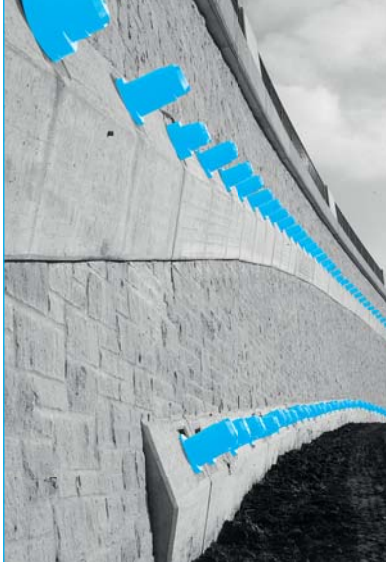


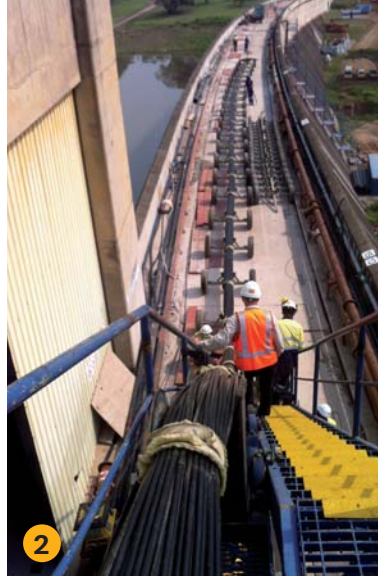
P R E S T R E S S E D
C O N C R E T E
T E C H N O L O G Y



Ground Anchors at Hazelmere Dam Raising

■ made
■ in
■ Germany





Ground Anchors at Hazelmere Dam Raising project

Hazelmere Dam in South Africa, approx. 30 km north of Durban was reinforced and raised 7 m during 2015-2017 to nearly double the reservoir's capacity.

Specialist Ground Anchoring contractor SRG from Australia were contracted to install and stress the high-capacity Ground Anchors with up to 91 x 279 kN MBL strands and up to 95 m length.

To stress the anchors SRG commissioned PAUL to manufacture stressing jacks of 15,000 kN and 22,000 kN load capacity and 1,000 mm stroke each to enable the stressing process to be completed in a single stroke.

A total of 40 anchors 61 x 0.62" were stressed by the 15,000 kN jack. The larger anchors up to 91 strands (equalling the world's highest capacity permanent ground anchors) were stressed by the 22,000kN jack.

The 22,000kN stressing jack is the biggest capacity PAUL ever built. Both jacks were delivered on site including calibration certificate issued by national authorities.

Why choose PAUL Stressing Jacks?

- PAUL Stressing Jacks are manufactured from high-tensile steel in a well-proven production process
- Robust construction that has proved itself for decades for maximum service life
- Suitable for use in any kinds of weather – insensitive to environmental influences
- Contact and slide faces of pistons super-finished and hard-chrome plated; seals, slide rings and guide bands of PTFE
- Basic jack chrome-plated and interior parts electrogalvanized for efficient corrosion protection
- Easily exchangeable interior parts eliminating the need for dismantling the jack = minimum changeover times and simple work
- Easy maintenance and replacement of clamping jaws thanks to ready accessibility
- Excellent reputation for reliability, PAUL machinery is used with many renowned prestressing systems worldwide.



4



5



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1 2

61 x 0.62" anchor during installation

3 4

TENSA M 22,000 kN stressing jack, 1,000 mm stroke for 91 x 0.62"

5 6 7 8 9

TENSA M 15,000 kN stressing jack, 1,000 mm stroke for 61 x 0.62"

Facts

Project Data	
Place:	South Africa
Contractor:	SRG Limited (Australia)
Implementation:	October 2016
Length of dam:	478 m
Height of dam:	44 m
Number of anchors (total)	83

15,000 kN Equipment	
Stressing jack	TENSA M 15,000 kN
Stroke	1,000 mm
Number of strands (max.)	61
Number of anchors (max. 61 strands):	40

22,000 kN equipment	
Stressing jack	TENSA M 22,000 kN
Stroke	1,000 mm
Number of strands (max.)	91
Number of anchors (max. 91 strands):	43

PAUL stressing equipment at YouTube:
[stressing-channel.paul.eu](https://www.youtube.com/channel/paul.eu)



Project partner



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We are an Australian complex services company. We solve the challenging and difficult problems that others can't. Our vision is to make the complex simple for our customers.

We have people working across Australia and the world bringing our unique blend of innovation, precision, technical excellence and safety to every civil, mining and building project we touch.

Since 1961, we have worked on many of the iconic stadiums, skyscrapers, bridges, dams, structures and mining projects, both here in Australia, and overseas.

That's because we're not afraid to challenge what is considered possible.