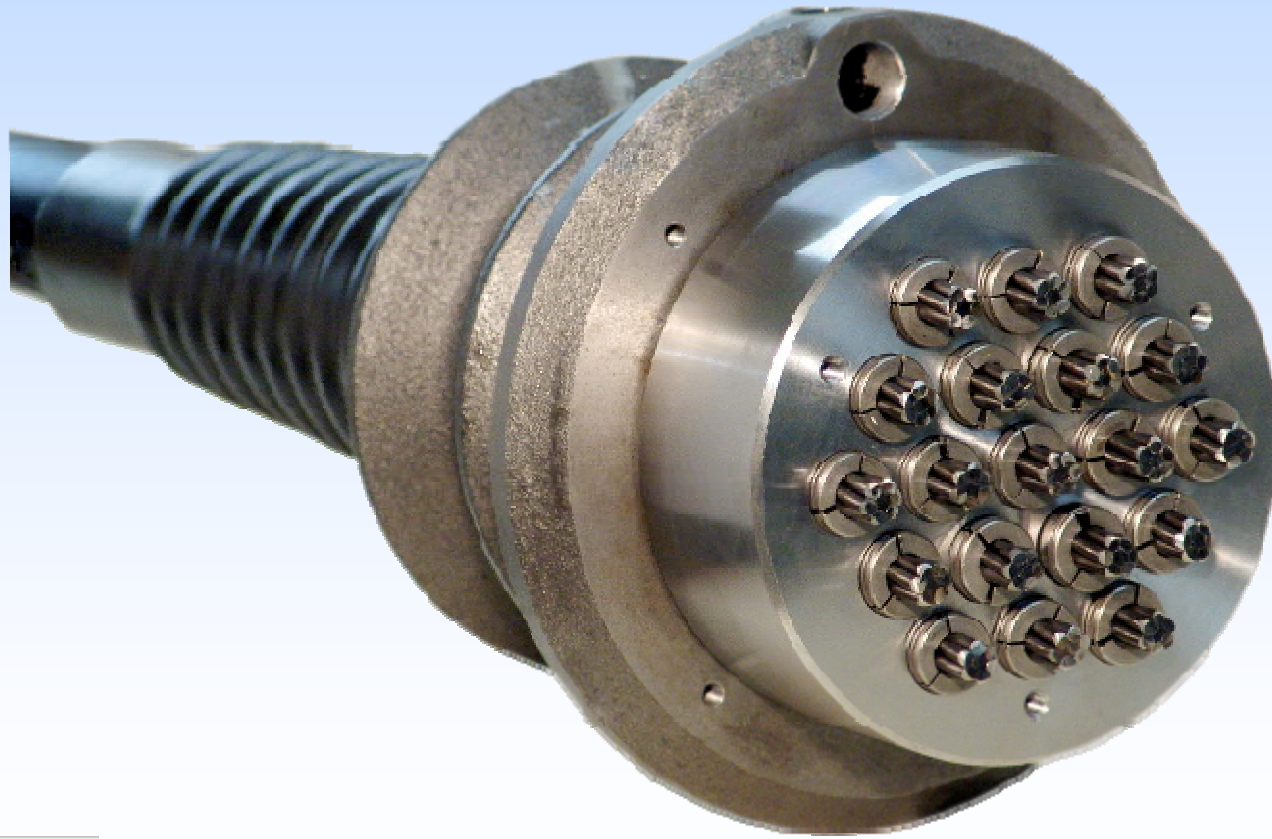


ptia



Welcome

Latest Developments in Post-Tensioned Structures

David Pash, President PTIA

Why set up the PTIA?

- We have an unregulated industry needing accreditation
- We see evidence of serious quality problems in design and construct
- We must maintain a safe working environment for our people
- To ensure ongoing advances in materials and techniques
- To formalise safe and environmentally friendly work standards
- To ensure personal development opportunities for our people



**Significant forces – very dangerous activity for non tested systems
and untrained operatives**



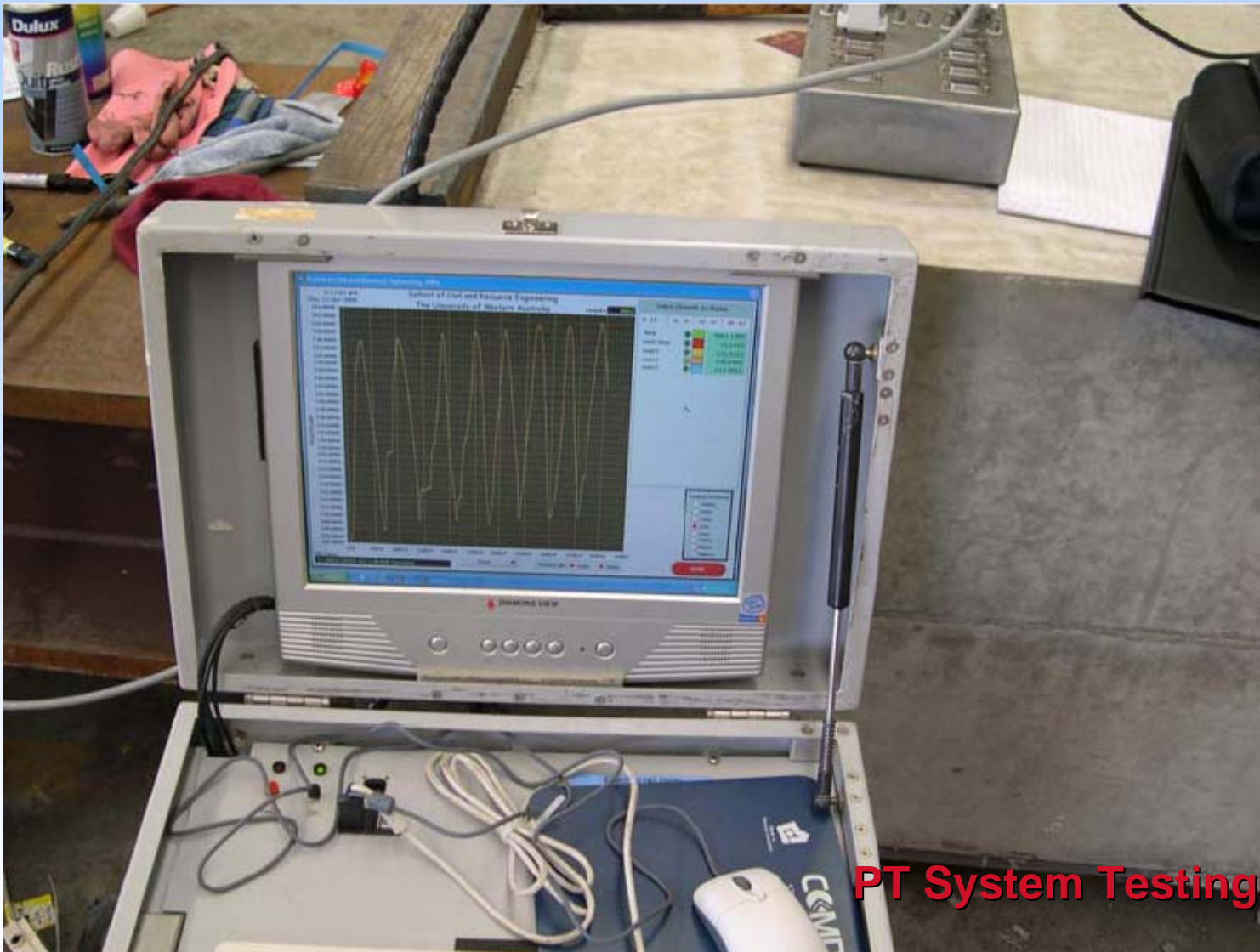
“Our guys must go home safely to their families each night”



Photo D3: Anchor block test set-up viewed from the jack end
Specimen 6105-01



PT System Testing



PT System Testing

Photo D33: Specimen 3106-03 – Cyclic testing in progress.

Open membership

- We need all stakeholders to participate in the Institute
- 5 categories of membership
 - Corporate
 - Material and Equipment Supplier
 - Consulting Engineer
 - Software provider
 - Individual

Corporate Membership

- **Open to post-tensioning contractors – our main category**
- **Membership Criteria is as follows:-**
 1. **RTA prequalified anchorage systems**
Third party certified anchorage systems
 2. **Insurances**
Professional Indemnity - \$5,000,000
Public Liability - \$20,000,000
CAR - \$7.5 million
 3. **External Audit of GST, PAYG, Payroll tax, Superannuation, Redundancy**
 4. **Registered Industrial Agreement for workforce remuneration**
 5. **Certified QA, OH&S and Environmental systems**
 6. **NPER3 registered engineers X 2**

Work Standards Committee

- Rewriting PT Code of Practice in conjunction with Workcover
- PTIA certified trainers
- Training courses
 - Cable laying and support
 - Stressing and Grouting Operators
 - Foreman and Leading Hands
 - Examinations on completion
 - Skills ticket issued by PTIA – validity one year.

Skills Tickets



Skills Ticket

No:

Valid to: /..... /.....



PTIA Skills Training for Foreman & Leading Hands responsible for managing project site based teams

Name:

D.O.B: /..... /.....

Company:

Test Date: /..... /..... Date of Issue: /..... /.....

Authorised Signatory

Skills Tickets

Skills learnt under this qualification



Green Card is a Pre-requisite.

- ◆ Why post-tensioning is used.
- ◆ General safety aspects for PT sites (grinders, bri-packs, etc.)
- ◆ Material types, handling techniques
- ◆ Storage and care of materials and tools
- ◆ Clean up
- ◆ Cable set-out
- ◆ Cable handling, cutting and setting up
- ◆ Cable pushing
- ◆ Cutting edge boards
- ◆ Fixing anchorages
- ◆ Fixing ducts / profiling / cable support chairs
- ◆ Equipment and maintenance of equipment
- ◆ Stressing record taking
- ◆ Overhead and special stressing applications
- ◆ Cutting off and sealing
- ◆ Grouting & Grouting record taking
- ◆ Basic reading of drawings
- ◆ Inspection requests
- ◆ Final reports / certification
- ◆ Time management & leadership issues
- ◆ Special company procedures

NOTE: THIS TICKET IS ONLY VALID WHEN WORKING UNDER DIRECTION OF THE COMPANY IDENTIFIED ON THE FRONT OF THE CARD AND THE DATE OF VALIDITY HAS NOT ELAPSED.

Technical Committee

- Updating technical developments 
- Recommended Practice – Grouting of Prestressing Ducts (CIA publication) 
- Watertight Concrete Specification 
- Penetrations in post-tensioned slabs 
- Post-tensioning in building structures 
- Practical Prestress detailing 
- Slab System Concrete Requirements for early age stressing 
- Standard slab system helical anchorage reinforcement 
- **Post tensioning Specification**



European Approval “ETAG” testing – “the 21st century standard”

BBR VT CONA CMI
Bonded Post-tensioning System



European Technical Approval
ETA – 06/0147

CE



BBR A Global Network of Experts
www.bbrnetwork.com

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IB
Mitglied der EOTA

European Technical Approval **ETA-06/0147**
English translation, the original version is in German

Handelsbezeichnung Trade name	BBR VT CONA CMI – Spannsystem im Verbund mit 04 bis 31 Litzen BBR VT CONA CMI – Bonded Post-tensioning System with 04 to 31 Strands
Zulassungsinhaber Holder of Approval	BBR VT International Ltd Bahnhofstrasse 23 CH-8603 Schwerzenbach (ZH) Switzerland
Zulassungsgegenstand und Verwendungsweck Object type and use of construction product	Litzen-Spannverfahren, intern, im Verbund, für das Vorspannen von Tragwerken Post-tensioning kit for prestressing of structures with internal bonded strands
Geltungsdauer: vom Validity: from	25.08.2006
bis zum to	31.08.2011
Herkunft Manufacturing plant	BBR VT International Ltd Bahnhofstrasse 23 CH-8603 Schwerzenbach (ZH) Switzerland
Diese Europäische Technische Zulassung umfasst This European Technical Approval contains	22 Seiten, einschließlich 12 Anhängen 22 Pages including 12 Annexes

EOTA European Organisation for Technical Approvals
Europäische Organisation für Technische Zulassungen
Organisation Européenne pour l'Agrement technique

06-250-0230-004

MPA NRW.
MATERIALPRÜFUNGSAMT NORDRHEIN-WESTFALEN

EC-CERTIFICATE OF CONFORMITY
0432-CPD-11 9181-1/1

In compliance the Directive 89/106/EEC of the Council of European Communities of 21 December 1988 in the approximation of laws, regulations and administrative provisions of the Member States relating to the construction products (Construction Products Directive - CPD), amended by the Directive 2002/95/EC of the Council of European Communities of 17 July 2002, it has been established that the construction product

BBR VT CONA CMI – Bonded Post-tensioning System with 04 to 31 Strands

placed on the market by

BBR VT International Ltd
Bahnhofstrasse 23
CH-8603 Schwerzenbach (ZH)
SWITZERLAND

and produced in the factory

BBR VT International Ltd
Bahnhofstrasse 23
CH-8603 Schwerzenbach (ZH)
SWITZERLAND

is submitted by the manufacturer

- to be further testing of samples taken at the factory in accordance with a prescribed test plan

and that the approved body – MPA NRW –

- has performed the initial type-testing for the relevant characteristics of the product
- the initial inspection of the factory and of the factory production control
- and performs the continuous surveillance, assessment and approval of the factory production control and
- annual-testing of samples taken at the factory, on 26 October 2011 at 10:00 am construction site.


This certificate attests that all provisions concerning the attestation of conformity and the performance described in the European Technical Approval

ETA-06/0147 from 25.08.2006

were applied and that the product fulfils all the prescribed requirements.

This certificate was first issued on 25.08.2006 and remains valid as long as the conditions laid down in the harmonized technical specification in reference or the manufacturing conditions in the factory or the FPC itself are not modified significantly, and latest on 31.08.2011.

Darmstadt, 07.12.2006



Dipl.-Ing. Götzsche
Head of Certification Body

English translation, the original version is in German.

MPA NRW: Marschstraße 188 - 42699 Darmstadt - Telefon: +49 (0)211 4520-0 - Telefax: +49 (0)211-95548 - Internet: www.mpa.nrw.de

European Approval “ETAG” testing – “the 21st century standard”

Thank You

David Pash, President PTIA