

# GROUND TEST

## TECHNICAL SPECIFICATIONS

# CPT RIG BRISBANE



### OVERVIEW

The Brisbane CPT rig is a purpose-built cone penetration test (CPT) rig mounted on a bogie drive Freightliner FL80 carrier truck. This rig is capable of carrying out in-situ testing and shallow geotechnical sampling in a wide range of soil conditions. In-situ testing uses digital data transfer provided by AP van den Berg equipment.

### CAPABILITIES

#### CPT

- To approx. 50 m depth
- 10 cm<sup>2</sup> cone tip area
- Class 1 and Class 2 testing to EN ISO 22476-1 and NEN 5140
- Available cones: friction and piezometric
- Available plug-in modules: conductivity and seismic

#### Vane shear testing

- To approx. 20 m depth
- 50mm, 65 mm and 75mm diameter vanes
- 0.1°/sec (slow) and 6°/sec (fast) vane speeds

#### Other testing

- Plate load (300 mm, 450 mm, 600 mm, and 750mm diameter)
- In-situ California bearing ratio

#### Sampling

- Well installation (10 mm diameter)
- Hand auger and near surface bulk sample

### OTHER FEATURES

- Thrust to 15 tonnes with ballast
- Flotation tyres for access to sandy or soft sites
- On-site deflation/inflation of tyres for sand sites

- Full differential locks
- Automatic transmission

### SAFETY

- Control panel and L/R side mounted emergency stops
- Spill kit, first aid kit and fire extinguisher
- Guarded entry/exit points
- Mechanical seismic hammer

### BENEFITS

- High quality data using AP van den Berg digital equipment
- Efficient mobilisation with modern carrier truck
- High thrust and rapid setup once on site



## RIG SUMMARY

### DIMENSIONS

Width:	2.5 m (excl mirrors)
Length:	8.9 m
Weight:	16.5 t
Height, rams up:	5.2 m
Height, rams down:	3.7 m
Work area length:	9.0 m

### RIG SPECIFICATIONS

Engine:	6 cyl Cummins
Thrust:	12000 kg (std) 15000 kg (opt)
Ram stroke:	1.7 m
Jack legs:	Four (0.6 m stroke)

### CPT SPECIFICATIONS

Resolution:	24 bit
Cone ( $q_c$ ):	100 MPa (max)
Sleeve ( $f_s$ ):	1.5 MPa (max)
Pore pressure (U):	2 MPa (max)
Inclinometer ( $I_x/I_y$ ):	25° (max)
Module diameter:	44 mm
Conductivity:	50 – 1500 mS/m
Temperature:	0° to 60°C
Accelerometers:	1 Hz to 100 Hz
Sensor config:	shear (L and R), compression
Seismic record:	600 msec at 5000Hz

### CARRIER TRUCK SPECIFICATIONS

Make/Model:	Freightliner/FL80
Wheels:	Steel, tubeless tyres

