

GROUND TEST

TECHNICAL SPECIFICATIONS

CPT RIG SYDNEY



OVERVIEW

The Sydney 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 cm² 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 20 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:	7.4 m
Weight:	15.7 t
Height, rams up:	5.15 m
Height, rams down:	3.65 m
Work area length:	7.5 m

RIG SPECIFICATIONS

Engine:	6 cyl Caterpillar
Thrust:	13000 kg (std) 20000 kg (opt)
Ram stroke:	1.7 m
Jack legs:	Four (0.6 m stroke)

CPT SPECIFICATIONS

Resolution:	Isuzu/FSS400 4x4
Cone (q_c):	100 MPa (max)
Sleeve (f_s):	1.5 MPa (max)
Pore pressure (U):	2 MPa (max)
Inclinometer (I_x/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

