



Stand-alone Pushers



Stand-Alone Pushers

- Wide range of pushing capacities
- Easy to operate
- Suitable for stand-alone use
- Easy to transport on Compact Crawlers

The Pushers CPT are available as either a 35 kN, a 130 kN or a 200 kN unit. All units have a short ram stroke (between 500 mm and 600 mm) so they can be used in low overhead spaces. However, the 200 kN unit can also be supplied with a stroke of 1050 mm, which increases production. The pushers can be operated mounted on a carrier (such as the Compact Crawlers) or on a frame, in which case they are powered through hydraulic hoses connected to the carrier or a separate power pack.



Compact Crawler with 130 kN Pusher

Stand-alone Pushers for CPT

The family of CPT pushers is designed to provide long lasting trouble-free operation with maximum flexibility and for a wide range of operating conditions. In case very small pushing forces are required (for near surface investigations or in soft soils, and/or when using smaller diameter cones) 35 kN may be more than adequate, while demanding CPT soundings can be performed with units that have a 200 kN pushing capacity. For places with low overhead clearance the limited ram stroke allows them to operate without any problems, but if a full stroke is preferred that option is available as well.

The required reaction force for the pushers is generated through ground anchors to supplement the dead weight of the carrier, if applicable. Alternatively when using the ground frame the pushers can be bolted to the wall or floor. The pushers are either powered by connecting them (using hoses with quick connect couplings) to the hydraulic system of the carrier or through a standard hydraulic power pack driven by a diesel engine or an electric motor. They are supplied with either the Pitbull push-pull clamp or the strong ball clamps, which greatly simplifies the pushing and pulling the CPT rods.

The family of pushers also includes the so-called Drill'n CPT. This unit is specifically designed to be attached to a drill rig and by connecting this pusher (using the break-out clamps), the drill rig is almost instantaneously converted into a CPT rig. This allows drilling and CPT operations to be performed efficiently using the same rig.

	SP 35		SP 130		SP 200		SP 200XL	
Pushing force	35 kN	3.5 tf (long)	130 kN	13 tf (long)	200 kN	20 tf (long)	200 kN	20 tf (long)
Stroke	600 mm	24 in	550 mm	22 in	550 mm	22 in	1,050 mm	41 in
Weight	45 kg	100 lbs	100 kg	220 lbs	200 kg	440 lbs	230 kg	510 lbs



Compact Crawler 200 kN with detached SP 200



Using the SP 35 with hydraulic power pack



Compact Crawler 130 kN with detached pusher



Drill 'o CPT

Bridging the gap between drilling and CPT, the Drill'o CPT is a cost-effective way to transform your drill rig into a CPT rig capable of performing true continuous cone penetration tests. The Drill'o CPT tooling is mounted between the drill head and the drill pipe, so CPT can be performed with almost any drill rig.

The Drill'o CPT uses the vertical movement of the drill head to push the CPT cone into the ground. The maximum pushing force is therefore dependent on the rig's hydraulic system, as well as its weight to provide a reaction force.

Drill 'n CPT 200 kN

The Drill'n CPT is a fully automatic CPT tool placed in the break out clamps of a drill rig, and it allows the conversion of a drill rig into a CPT unit. It can deliver a continuous CPT sounding or provide CPT data in between sampling operations. If necessary the drill can be used to penetrate hard layers, after which the CPT operation can be continued.

The Drill'n CPT is designed to be placed and clamped in the foot-clamping device of the drill rig. Depending on the weight of the machine an additional ground anchor (or any other system to create a reaction force) can or must be used.

	Drill'n CPT 200 kN (DN 200)	
Pushing force	200 kN	20 tf (long)
Stroke	800 mm	32 in
Width	780 mm	31 in
Weight	280 kg	617 lbs



SonicCPT pusher 200 kN

By adding a vibration, sonic CPT will in many cases increase the maximum depth that can be reached with the same pushing force.

The sonic option will greatly reduce the friction along the CPT tubes and facilitate penetration through stiff layers.

The thrust beam can superimpose a vibration with a frequency between 50 Hz and 150 Hz.