

Guided Boring - 4812A System



The 4812A jacking frame was developed as a direct result of the design and capability demands desired by our customers. The 4812A jacking frame accommodates pipe up to two-meters in length with a maximum OD of 48 inches (1,219 mm). The frame's jacking thrust is advanced through a single and continuous action. Low guide rails allow for ease of pipe placement.

Two power pack systems are available to operate the 4812A jacking frame. The P275T Power Pack features a six-cylinder, liquid-cooled, 275 HP (205 kW) diesel engine. The P275T can operate all PCH sizes. The P150Q is a slightly smaller power pack but still houses a multitude of robust features. It has three hydraulic-circuits for independent control of the auger and cutter bit drives and jacking thrust. The P150Q has a four-cylinder, liquid-cooled 154 HP (115 kW) diesel engine. The P150Q operates our best-selling PCH 22.5-inch (572 mm) and PCH 28.5-inch (724 mm) models. Both power packs meet tier three standards and operate with an in-shaft remote pendant.

The PCH 36-inch (914 mm) and PCH 44-inch (1,118 mm), were designed to work with our large GBM system; the 4812A jacking frame, P275T Power Pack, five-foot dual-walled pilot tubes and 16-inch (406 mm) casings and augers. When used as a cohesive system, longer pipes, fewer joints and faster bores represent cost savings for the contractor and project owner.

The PCH offers more flexibility in soil conditions for rapid and accurate bores. The jetting ports in the cutter face attach to a single hose that distributes water to its four nozzles. There are three pipe lubrication ports located in the rear of the machine. All PCHs feature independent cutter face and auger drive motors for lower jacking force and a faster advance rate.

Specifications

Product	Minimum Shaft Size	Maximum Thrust	Maximum Torque	Weight
4812A	12" (3.7 m)	200 ton (181 mt)	20,000 lbf-ft (27,120 N-m)	19,000 lbs (8,636 kg)

Product	Minimum Shaft Size	Pipe OD	Maximum Torque	Weight
PCH 36	12" (3.7 m)	36*** (914 mm)	20,000 lbf-ft (27,120 N-m)	7,300 lbs (3,319 kg)
PCH 44	12" (3.7 m)	44*** (1,118 mm)	20,000 lbf-ft (27,120 N-m)	11,000 lbs (5,000 kg)

Product	HP	Fuel Tank Capacity	Hydraulic Reservoir	Weight
P150Q	154 HP (115 kW)	100 gal (378 L)	50 gal (189 L)	8,500 lbs (3,855 kg)
P275T	275 HP (205 kW)	275 gal (1,041 L)	80 gal (303 L)	12,500 lbs (5,670 kg)

Product	Length	OD	Thrust/Torque	Assembly Weight
16" HD Thrust Casings	62.5" (1.59 m)	16" OD (406 mm)	200 ton (181 mt)	841 lbs (175 kg)
60" Pilot Tubes	60" (1.5 m)	4.1" (104 mm)	12,000 lbf-ft (16,272 N-m)	3,900 lbs (1,769 kg)

*Note: Akkerman standard sizes can be customized to suit project needs.
**Bolt-on increase kits are available to meet specific pipe diameters.



The 4812A frame is capable of installing up to 48-inch (1,219 mm) pipe, two-meters in length. It features independent jacking, rotation and cutter bit operation.

The P275T Power Pack features a six-cylinder, liquid cooled, 275 HP (205 kW) diesel engine with three variable piston pumps for independent operation of the jacking, rotation and PCH.

The P150Q Power Pack features a four-cylinder, liquid cooled, 154 HP (115 kW) engine with three variable-piston pumps for independent operation of the jacking, rotation and PCH.

The large diameter PCH 36 and 44-inch OD models (914-1,118 mm) reduce jacking force and lubricate spoils at the face of the bore for ease in removal.

Our 16-inch HD (406 mm) thrust casing assembly is specially sized to withstand increased jacking force.

The 60-inch (1,524 mm) pilot tubes feature a unique dual-walled design. The 2-inch (51 mm) ID inner tube diameter allows for target viewing during the drive while the 2.4 square inch annular space (1,548 sq. mm) allows for fluid passage.