

SIMPLE BORING WITH THE NEW POWER CUTTER HEAD (PCH) 44

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Akkerman Inc. of Brownsdale, MN introduces its newest and largest 93 hp PCH44 to enhance the performance of its Guided Boring Machine (GBM) system. The PCH line, exclusive to Akkerman Inc., offers more power to the cutter face for the installation of up to 48" O.D. pipe. The PCH 44 was designed to work with our new large GBM system, which includes the 4812A jacking frame, P275T power pack, theodolite guidance system, five-foot dual-walled pilot tubes and 16" augers and casings. When used as a cohesive unit, longer pipes, fewer joints and faster bores present cost savings for the contractor and project owner. In addition, the PCH process gives customers the freedom to choose pipe length based on individual job requirements.



The PCH 44 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 lubrication to its four nozzles. The three pipe lubrication ports, located in the rear of the machine, reduce jacking force. Similar methodologies in pilot tube microtunneling use a reaming head and a single motor for breaking up and removing spoils at the cutter face. This process limits use in many ground conditions and increases jacking forces. Akkerman's PCH line uses independent cutter face and auger drive motors for lower jacking force and a faster advance rate.

The powered cutter head operates in a three-pass process; first, pilot tubes are installed on line and grade using the Akkerman GBM 4812A jacking frame and theodolite guidance system. Second, the bore diameter is increased by installing the five-foot-long, 16" diameter augers and casings. The third step is to install the powered cutter head behind the augers and casings. The augers are then reversed by the PCH's hydraulic drive and push spoils to the reception shaft while cutting the tunnel to the final pipe diameter. The final product pipe is installed behind the PCH. As each section of augers and casings is removed from the reception shaft, a section of product pipe is installed in the launch shaft until the process is complete.



Other sizes of Akkerman PCH's are the 20", 22.5", and 28.5". These can be used independently, or in conjunction with an increaser kit. In the near future, Akkerman will release a PCH 36.

In 1973, Akkerman Inc. in Brownsdale, MN began providing tunnel boring machines to meet the needs of the trenchless market. Today Akkerman Inc. sells and leases new and used microtunneling, pipejacking, tunneling, guided boring and earth pressure balance equipment. Akkerman not only manufactures quality trenchless equipment, they have built a reputation for superior reliability and responsive service through a team of experienced engineers, field technicians and a large parts department. For information on how they can assist your project please visit www.akkerman.com or call 800.533.0386.