

NLB 4500 X-Y Concrete Cutter Speeds Dam Refacing Project

On a recent construction job, a contractor was required to remove deteriorated concrete from sluice dividers at a hydroelectric power dam. The project consisted of 4" (101.6 mm) depth removal of concrete on the top and sides of each of the six divider walls. Using the NLB 4500 X-Y axis concrete cutter for the hydrodemolition, the contractor was able to remove 4,000 psi (276 bar) strength concrete at a rate of 100 square feet (308 square meters) per hour. The high-pressure water was supplied by NLB Model 20256 pump unit, which delivered 20,000 psi (1380 bar) and a flow of 22 gpm (83 lpm).

The NLB 4500 X-Y axis concrete cutter is a portable hydrodemolition unit for vertical and overhead surfaces. This unit is hydraulic powered and may be directly attached to a variety of lifting devices such as an excavator.

The X-Y cutter features up to 4' (1.2 m) of movement left to right and up to 3' (.914 m) of movement up and down between positionings. The Model 2200 SPIN JET® rotary seal used on the cutting nozzle is designed for use up to 20,000 psi (1380 bar) and can handle flows up to 70 gpm (lpm). The rotary seal is enclosed in a steel work module. Hydraulic drive provides power for efficient SPIN JET rotation and X-Y movement. Nozzle distance adjustment is achieved through adjustable legs. The rotary seal is easily serviced in the field.

With high production concrete removal capabilities, the NLB 4500 X-Y cutter is ideal for work on bridge piers and columns, dams, or any other vertical concrete surface.



Unsound concrete is effortlessly removed from the vertical dam surface.



The NLB X-Y unit attaches easily to the arm of an excavator.

The Leader in High-Pressure Water Jet Technology