



## Controlled Underwater Demolition in Germany

In an unusual demolition project the TAI Taucher, Atemschutz, Industriearbeiten GmbH (Diving, Respiratory Protection and Industrial Works) demonstrated the efficiency and advantages of the Darda Splitting Cylinder C 12 N and the Combi-Shears HCS 6 C. In a large underwater pit measuring 20 x 20 m, old concrete structures were recovered from a water depth of 8 m by these handheld demolition tools.

The 2.5 m long, 1 m diameter concrete foundation piles, together with remains of the reinforced foundation had to be removed as gently as possible and other demolition techniques, were rejected as they were too time-consuming and uneconomic. A coordinated solution of hand-held demolition tools, consisting of a core drill, a Darda Splitting Cylinder and Darda Combi-Shears HCS 6 C proved to be ideal.

A diver started by carrying out horizontal core drilling at the predetermined breaking points of the concrete parts to be demolished. After that he inserted the wedge set of the Darda splitting cylinder into the drill-hole. During the hydraulic operation the wedge pushes itself against the counter wedges, pressing them against the wall of the drill-hole. The Darda's splitting force of 3,507 kN broke the reinforced concrete within seconds at the drilled hole.

The small and light hydraulic Combi-Shears HCS 6 C then tackled the remains of the foundations, with steel reinforcing from 6 to 12 mm. With its shear set and a cutting force of 214 kN this device can cut steel reinforcement up

to 18 mm diameter. With the help of the HCS 6 C the diver could cut through the unbroken steel. The HCS 6 C Combi-Shears proved to be significantly faster and safer than hydraulic angle grinders.

After each splitting and severing process a crane lifted the demolished parts from the water, recovering 30 m<sup>3</sup> of reinforced concrete. On land the concrete was further crushed for transportation with the Splitter and the Combi-Shears. Including all preparatory and follow-up work the demolition was finished in two 8h working days.

[www.darda.de](http://www.darda.de)



## AE CU5000 Multi processor successfully used at Austrian railway bridge demolition

A concrete crusher from Arden Equipment was used successfully at a railway bridge demolition project in Vienna, Austria. The prestressed concrete deck had a one metre thickness. The rebar were made of stranded

wires 40mm in diameter.

For the demolition job the multi processor CU5000 from Arden Equipment was used successfully.

The multi processors range from Arden



**A huge demolition work achieved faster than expected**

Equipment includes six models to fit excavators from 3,5 to 70 t, available with a range of 7 sets of jaws to comply with all the

demolition jobs.

The CU5000 used at the railway demolition project in Vienna was introduced at the last Intermat show.

[www.arden-equipment.com](http://www.arden-equipment.com)

### Technical data

Weight :	5,000 kg
Height:	3,240 mm
Jaws opening :	1,320 mm

The excavator  
Komatsu PC 450 LC  
Selection of jaws:

CB jaws, the concrete crusher with rebar's cutter, fitted with 2 x 3 removable teeth.

F1:	700 t
F2:	208 t
F3:	147 t