



WACHS SUBSEA

APPLICATION REPORT

The Ins and Outs of Casing Cutting Wachs Machine Tools Cut Outside and Inside

Volume 1 ▶ Issue 4



Figure 1 - Wachs EICC is ideal for casing cuts offshore and onshore

The Project

With the increasing depth and pressure of today's wells, multiple casing strings are often run. When driving the production casing (in either a new well or a repair), the casing typically is driven below the wellhead to the depth and finish determined by the wellhead manufacturer. In situations where the casing cannot be driven to the specified depth or the casing requires a final bevel to aid in sealing, a machine tool is required to externally cut the conductor and internally cut (or bevel) the production casing before BOP installation.



Figure 2 - EICC shown cutting the external conductor



Figure 3 - Adaptors available for most manufactured wellheads

The Challenge

Downtime on an unproductive well is measured in thousands or hundreds of thousands of dollars per day, and if safety concerns or environmental damage are involved these lost dollars are the least of an engineer's worries. Companies are constantly challenged to limit expensive, unproductive downtime when installing or repairing production casing.



Figure 4 - Internal cutting module lowered to cutting depth

The Solution

E.H. Wachs EICC (External Internal Casing Cutter) provides a safe, fast and reliable method for cutting both outside and inside at the wellhead. This makes it the ideal device for new installations, field repairs or emergency preparedness, both onshore and offshore. The EICC combines Wachs split frame technology with a removable internal casing cutter to cut a wide range of casing at various depths, both above (external) and below (internal) the



Figure 5 - Completed external and internal cut and bevel

wellhead (see figure 6). The EICC split frame component mounts around the exposed casing O.D. above the wellhead (figure 2), with the internal casing cutter mounting to the split frame and lowered for internal cuts below the wellhead (figure 4).

Ring sizes are available to cut and bevel most grades and weights of the exposed external casing (or drive pipe/conductor) up to a 42" (1067mm) diameter. The internal casing cutter component is available in sizes to cut 7" (179mm) to 13-3/8" (340mm) casings, at depths up to 72" (1829mm) below the wellhead. The front drive pinion housing allows cutting as close as 4.5" (114mm) to the wellhead, requiring minimal axial and radial clearances. The EICC is based on Wachs proven LCSF split frame, and is available with hydraulic or pneumatic drive.

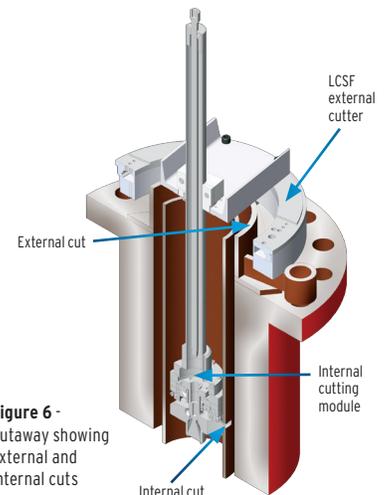


Figure 6 - Cutaway showing external and internal cuts

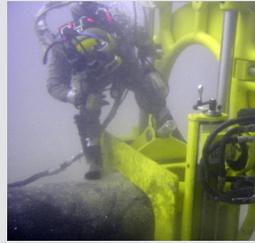




**WACHS
SUBSEA**

Executive Summary

Wachs Subsea specializes in Subsea Cutting Solutions™, with a wide range of products to support the maintenance and repair activities of the offshore oil and gas industries. All Wachs products are designed for safe operation in hazardous or explosive environments, and built to withstand corrosion and the extreme pressure found at today's working depths.



The EICC is just one example of the specialized, portable machine tools we manufacture for onsite machining. Ideally suited to cut off production casings that are stuck or need to be cut below the wellhead, the Wachs EICC machine quickly and safely cuts and bevels the outer conductor and inner production casing while minimizing downtime.

Offering a full range of Diamond Wire Saws, Guillotine® pipe saws, Split Frame pipe cutters and our industry leading Combination Prep Tool for deepwater pipeline repair, we build machines that work onshore, offshore, above the surface or below the surface, with topside, diver or ROV controls.

Contact a Wachs Subsea product specialist today at +1.713.983.0784 to discuss the ins and outs of your next offshore project, or email us at info@wachssubsea.com.



Wachs Subsea Products Clockwise:
Diamond Wire Saw • ROV Diamond Wire Saw
Combination Prep Tool • Offshore HPU

Wachs Subsea® LLC

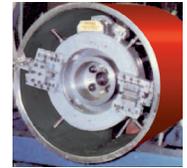
- ▶ Offshore and Subsea Portable Machine Tools
- ▶ Subsea Cutting Solutions, Sales and Rentals
- ▶ Diamond Wire Saws, Guillotine® Pipe Saws, Split Frames
- ▶ Offshore Hydraulic Power Units, ROV Tools and Accessories
- ▶ Onsite Technicians, Factory Training, Engineered Products



DEEPWATER
DIAMOND WIRE SAW

The Inside Scoop

We are well known for our products that cut the outside of pipes and vessels. But did you know we're equally adept at cutting inside, similar to the EICC? Our machines are adaptable - pictured is our LCSF O.D. mount split frame cutting from the inside out. If you have an application that requires this brand of innovative technology, you now have the inside scoop.



Contact a Wachs representative today, your pipe cutting solution provider, for details on all of our Superior Equipment Complete Support.™



 Corporate Locations
 Wachs Subsea
 Sales Locations

Contact Us

WACHS E.H. WACHS®
A Division of ITW
Superior Equipment. Complete Support.™

E.H. Wachs
Worldwide Headquarters
600 Knightsbridge Parkway
Lincolnshire, Illinois 60069 USA

E-mail: info@ehwachs.com
Worldwide: +1.847.537.8800
In the US & Canada: 1.800.323.8185

E.H. Wachs is a Division of ITW