# **DynaPrep MDSF** Casing Cutting





ECC simultaneously cuts and bevels casing



ECC can be inverted for cuts low to the wellhead



EICC Casing Cutter used for wellhead completion

### External / Internal Casing Cutting

Wachs proven DynaPrep MDSF Split Frame technology is the base platform for our casing cutting solutions, designed to cut a wide range of casing conductors externally above the wellhead and internally below the external cut.

The ECC split frame mounts around the exposed casing OD above the wellhead and simultaneously cuts and chamfers prior to fitting the BOP. The Wachs External-Internal Casing Cutter (EICC) module kit accommodates a wide range of casing diameters above the wellhead and ID cuts with chamfering below.



# **ECC** External Casing Cutter Kits

### Precision External Cutting

Wachs ECC External Casing Cutter Kit utilizes our proven DynaPrep MDSF Split Frame technology to cut a wide range of casing conductors externally above the wellhead. The ECC split frame mounts around the exposed casing OD above the wellhead requiring minimal axial and radial clearances. It simultaneously cuts and chamfers prior to fitting the BOP. Ring sizes are available for most grades and weights of the exposed external casing (or drive pipe/conductor) up to a 14in (356mm) diameter.

The ECC takes advantage of the wide range of standard Genuine Wachs Tooling. The ECC kit includes a right angle pneumatic drive, ATM Air Treatment Module and Front Drive Pinion Housing. Remote hand held controls via the ACM Air Control Module are optionally available.

ECC kits are available in four standard ring sizes, featuring interchangeable tool slides and machine drives to cut and bevel all wellhead casing grades, sizes and weights from 4.5in to 13 3/8in OD (with larger sizes available by special order). The ECC is portable, compact, lightweight and requires minimal axial and radial clearance. A single operator can setup and machine the casing for minimal open time.



- External casing (drive pipe/conductor) cutting and beveling up to a 14in (356mm) diameter
- Utilizes standard Wachs Genuine Tooling for severing and chamfering
- Based on Wachs field proven DynaPrep MDSF Split Frame technology
- Requires minimal axial and radial clearances; hydraulic or pneumatic drive

### **Specifications**

**Cutting Tool Surface Speed:** 60ft. per minute (18mpm)

**Drive: Pneumatic** Air Requirements: 70cfm @ 80-100psi (2cmm @ 5.6-7 Bar)

Feed Method: Starwheel feed Feed Rate: Fixed @.0026in per revolution (starwheel)

#### Standard Equipment

- DynaPrep MDSF Base Kit
- Front Mount Pinion Housing
- Right Angle Pneumatic Drive Motor
- ATM Air Treatment Module
- Fitted Storage Case
- Operating Manuals & Tools

#### **Optional Equipment**

- Extension legs
- Inverted Tool Slides
- Tooling (standard and custom)

### Casing/Conductor Cutting Range Chart

CASING SIZE	SPLIT FRAME SIZE	4.5IN (114MM)	51N (127MM)	5.5IN (140MM)	6 5/8IN (168MM)	71N (178MM)	7 5/8IN (194MM)	8 5/8IN (219MM)	9 5/8IN (244MM)	10 3/4IN (273MM)	11 3/4IN (298MM)	13 3/8IN (340MM)	PART #
ECC MDSF 8	4-8in (102-203mm)												69-5420-08
ECC MDSF 10	6-10in (152-254mm)												69-5420-10
ECC MDSF 12	6-12in (152-305mm)												69-5420-12
ECC MDSF 14	8-14in (203-356mm)												69-5420-14



Simultaneously cuts & bevels casing



ECC can be inverted for cut lines close to the flange



ECC low clearance design fits into tight operating envelope



Dedicated DuoEdge Casing Cutting Tool Holder & Insert

# **EICC** External / Internal Casing Cutter Kits

### External / Internal Precision Cutting

Wachs EICC External Internal Casing Cutter Kit is designed to cut and chamfer the casing internally below the wellhead required for specific BOP installations. It is used in combination with an ECC Kit, which makes the external cut required before installing the EICC. Once the external cut is made, the MDSF split frame from the ECC Kit serves as the drive platform for the EICC.

A wellhead adaptor is required to mount the MDSF, either our Universal adapter or a custom adapter built to your specifications, serving as the mounting point between the wellhead and the MDSF. The EICC is assembled to the MDSF and lowered into the casing, and can be configured to cut down to a depth of 60in (1524mm). A reversing air motor is required and part of the EICC Kit, run forward to advance the tooling, then backwards to retract the tooling prior to extraction and completion.



- Cuts up to 7in through 13 3/8in API casing.
- Utilizes standard Wachs Genuine Tooling for external severing and chamfering
- Optional specialized casing cutter tooling holder and inserts available
- Cutting platform uses the Wachs field-proven DynaPrep MDSF Split Frame
- Requires minimal axial and radial clearances; requires pneumatic reversible drive motor

SPECIFICATIONS	
Mounting System	Three-leg, universal chuck
Tool Slides	Standard (7in-9 5/8in) extended range 10 3/4in-13 3/8in mechanical starwheel feed
Counter	Mechanical/rotation
Tooling	Insert & holder/chamfer
Radial Travel	.63" (16mm) radial travel per slide
Wall Capacity	Can cut up to 5/8" wall thickness
Feed Rate	.0047"/rev (.1058mm/rev)
Power	Pneumatic

### **Machining Capacity**

COMPATIBLE SPLIT FRAME	OD CASING SIZE	SPLIT FRAME SIZE	PART #
Model 814	7in - 9 5/8in (177.8 - 244.475mm)	8-14in (203.2-355.6mm)	69-4815-14
Extended Tool Slide Kit	10 3/4in - 13 3/8in (273 - 339.7mm)	8-14in (203.2-355.6mm)	60-4001-01

#### Casing/Conductor Cutting Range Chart

CASING SIZE	4.5IN (114MM)	5IN (127MM)	5.5IN (140MM)	6 5/8IN (168MM)	71N (178MM)	7 5/8IN (194MM)	8 5/8IN (219MM)	9 5/8IN (244MM)	10 3/4IN (273MM)	11 3/4IN (298MM)	13 3/8IN (340MM)	16IN (406MM)	18 5/8IN (473MM)	20IN (508MM)	24IN (610MM)	26IN (660MM)
7in - 9 5/8in																
10in - 13 3/8in																





Size range includes most common casing conductor sizes



EICC Internal Casing Cutter used for wellhead completion



Internal cutting module lowered to cutting depth



MDSF EICC Internal Cut

# **ECC/EICC** Casing Cutter Accessories

### **EICC Kits, Accessories & Motors**

DESCRIPTION	PART #
EICC Casing Cutting System for MDSF 814 Machine. Includes:  External/internal mount for cutting 7in, 7- 5/8in, 8- 5/8in and 9- 5/8in casing  Drive tube (adjustable cut depth from 6-31in)  Cutting head  Mounting chuck with extension legs to cover ID range  Drive tube-mounting adapter (Bridge mounts to MDSF 814 machine)  Trip Counter  2 parting blades  30° deburring tool  Operating tools  Shipping box  Manual	69-4815-14
9 5/8in through 13 3/8in Slide Assembly	60-4005-02
EICC Slide & Leg Extension Kit	60-4001-01
Extension Leg Assembly to mount EICC clamping chuck into 7in, 7 5/8in, 8 5/8in and 9 5/8in casing	60-4006-01
Extension Leg Assembly to mount EICC clamping chuck into 10 3/4in, 11 3/4in and 13 3/8in casing	60-4006-02
MDSF 814 EICC Adapter Kit (Includes Bridge Assembly)	69-4820-14
MDSF 1420 EICC Adapter Kit (Includes Bridge Assembly)	69-4820-20
Mechanical counter Assembly for EICC system.	69-4743-00
31in Drive Tube Assembly	60-4009-31
42in Drive Tube Assembly	60-4009-42
48in Drive Tube Assembly	60-4009-48
54in Drive Tube Assembly	60-4009-54
Pinion Front Mounted Spline Drive Assembly (incompatible with 3.5in slide set)	69-4481-01
Pneumatic Right Angle Reversible Drive Motor Assembly w/Oiler & Speed Control	69-4353-01
Universal Wellhead Adapter	60-4011-03
Custom Wellhead Adapter	60-4011-XX
Bevel Tool Saddle Assembly, Inverted Machine	69-3093-00
Parting Tool Saddle Assembly, Inverted Machine	69-3094-00
Tool Cover Assembly, Inverted Machine	69-3092-00
Inverted Tool Slide, .003in Feed x 1.50in Stroke. Parting Only.	69-4612-03
Inverted Tool Slide, .003in Feed x 1.50in Strong. Parting and Beveling.	69-4611-03

### **Casing Cutting Tooling**

DESCRIPTION	PART #
Tool Holder Kit, 45° Casing Bevel	69-7015-00
Tool Holder Kit, 60° Casing Bevel	69-7016-00
Tool Insert, 45° Casing Inside Bevel	69-7017-00
Tool Insert, 60° Casing Inside Bevel	69-7018-00
HSS Severing Tool for EICC system. (2) severing tools required per machine for use. (2-piece minimum order)	60-7000-01
HSS 20° OD Bevel Tool. 70° bevel when measured from casing centerline. (2-piece minimum order)	60-7001-20
HSS 30° OD Bevel Tool. 60° bevel when measured from casing centerline. (2-piece minimum order)	60-7001-30



**EICC Bridge Assembly** 



Universal Wellhead Adapter



DuoEdge 45° Casing Bevel Tool Holder & Insert



DuoEdge 60° Casing Bevel Tool Holder & Insert