

ENERGY CONTROL PROCEDURE

The following Energy Control Procedure should be used for the equipment listed below.

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 Approvals: _____ Date Approved: _____

EQUIPMENT DESCRIPTION

GENERAL DESCRIPTION: BMC#1024 – Ram EDM
 MANUFACTURER: Charmilles
 MODEL: Roboform 40 EDM SERIAL NUMBER: 600072
 LOCATION: Tool Room RAM Room South east corner of tool room

CONTROLS

The following Controls, including “start/stop” buttons, toggle switches, emergency stop button, shut-off valves, etc. have been identified for this equipment.

Description of Control	Location on Equipment
Pneumatic control	On front panel below CRT
Oil cooler switch and touch pad	Right side behind main CRT cabinet
Air supply	Left rear
Operators control	Front panel

ENERGY SOURCES/ISOLATION DEVICES

The following Energy Sources and Energy Isolation Devices supporting this equipment have been identified.
 Energy Types: (CHECK ALL THOSE APPLICABLE)

Electrical	X
Pneumatic	X
Hydraulic	
Steam	
Chemical	X
Thermal	
“Stored” Energy	
Other	

Sources / Devices	Location	Type of Lock/Tag Needed
Control panel disconnect	Top of CRT cabinet	Std. padlock and tag
Main breaker	Wire EDM room panel #A6F	Breaker cover pad lock
Air supply	Back of machine	Std. valve cover padlock
Oil cooler	Right side CRT cabinet	unplug cover and padlock

SHUTDOWN PROCEDURES

The steps listed below must be followed to properly shut down and de-energize this equipment. To verify the effectiveness of each step follow the instructions in the "Verification" column.

Lock-Out/Tag-Out

Procedure	Device used	How to verify
NOTIFY "AFFECTED" AND "OTHER" EMPLOYEES OF IMPENDING EQUIPMENT SHUTDOWN		
Push power off button on the panel below the CRT control	None	Nothing on CRT / no lights on keypad
Machine disconnect above the CRT	Std. padlock and tag	Try power on button
Main breaker	Breaker cover padlock and tag	Check voltage at controller
Unplug oil cooler	Plug cover and std. padlock	2 gauges that will go to 0 when unplugged

RELEASE AND RESTART PROCEDURES

The steps listed below must be followed to properly release this equipment from a locked or tagged out condition and restart it.

Procedure	Location
Inspect work area and remove tools and other non-essential items.	
Inspect equipment and components to make sure it is intact and ready to run.	
Notify "affected" and "other" employees in the area of impending restart and make sure they are safely positioned away from the equipment	
Reconnect air line	Left rear of machine
Unlock and plug oil cooler in	Right rear of machine
Unlock and turn on main breaker	Wire EDM room breaker panel AGF
Unlock and turn on machine breaker	Control panel right side of machines
Push power on button	Control panel key panel