The Sirona inLab MC XL CAD/CAM machine is a high-end milling machine that is the next generation to the Sirona inLab that DECS evaluated in 2005. The new machine is said to be faster, quieter, and able to mill larger span frameworks. According to the manufacturer, this new machine can significantly reduce fabrication times of crown copings, fully fabricated crowns and up to 10-unit frameworks. Sirona claims a 6-minute milling time for a fully contoured crown.

DECS only evaluated the milling machine; however, it should be noted the Sirona CEREC® inLab MC XL Milling Unit is available as part of the Sirona Dental Restoration System (i.e., computer system, MC XL Milling unit, and inEos Digital Digitizer®) that includes hardware, AK 50 Milling Activation Key, 3D software, basic operator training, and a two-year warranty. The Sirona CEREC® inLab MC XL CAD/CAM machine weighs 95 pounds (43 kg), measures 27.5” x 16.5” x 15.75”, requires rated line voltage 100V - 230V AC 50/60 Hz and rated current 1.5 - 3.5 A.

Manufacturer:
Sirona Dental Systems LLC
4835 Sirona Drive, Suite 100
Charlotte, NC 28273
(800) 659-5977
(704) 587-0453
(704) 587-9394 FAX
www.sirona.com

Distributor:
Patterson Dental
1031 Mendota Heights Road
St. Paul, MN 55120
Contact for your local Patterson branch office at (800) 873-7683 or https://www.pattersondental.com/ContactUs/LocateBranchOffice.

Suggested Retail Price:
$48,995.00 CEREC® InLab by Sirona Dental Restoration System with CEREC® inLab MC XL Milling Unit (item number 6150846). The price includes hardware, merchandise credit, 3D software, basic operator training, and a two-year warranty.

Milling Activation Keys (AK Dongle): Average price: $5.00 - $15.00 per unit

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Millable Blocks: Average price: $18.00 - $175.00 per block
Government Price:
$34,370.00  CEREC® InLab by Sirona Dental Restoration System with Sirona CEREC® inLab MC XL Milling Unit (item number 6150846). Price includes full system components, hardware, CEREC inLab system, AK 50 Milling Activation Key, 3D software, basic operator training and a two-year warranty.

Milling Activation Keys (AK Dongle): Average price: $4.00 - $14.00 per a unit

<table>
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Millable Blocks: Average price: $18.00 - $148.00 per block.

**ADVANTAGES:**
- Fabricates crown copings, bridge frameworks, full-contoured crowns, inlays, onlays, temporaries and veneers
- Fabricates machine-milled all ceramic restorations, polymer restorations and temporaries, and completely combustible plastic materials
- Ceramic/composite blocks available from various manufacturers
- Saves significant time over traditional all-ceramic/metal-ceramic fabrication method
- Four motors versus two motors
- External scanner reduces scanning time
- Initial 2.5 day training course provided by manufacturer
- Technical and online support available

**DISADVANTAGES:**
- Large financial commitment
- Steep learning curve
- Requires purchase of “activation key” for each fabricated unit
- Not indicated for low-volume dental laboratories

**SUMMARY AND CONCLUSIONS:**
During this evaluation, the Sirona CEREC® inLab MC XL milling machine was used to fabricate a variety of restorations including full contour crowns and onlays, InVizion™ crowns, ProCAD, Mark II, TriLuxe™, short-span bridges, copings (e.g., anterior, wax, YZ, ZR), and CEREC® all-ceramic crowns. The majority of evaluators found the unit easy to maintain and clean, easy to read and use the control panel, and easy to produce clinically acceptable restorations. All evaluators (10/10) reported that both the single and multiple unit fabrication modes performed reliably during the evaluation and all evaluators reported that it was easy to produce clinically acceptable restorations using the CEREC® inLab MC XL. Generally, the feedback regarding fit, occlusion, esthetics and contour was acceptable; fewer remakes than traditional method were noted by most evaluators after the initial learning curve was overcome. One problem with bur chucks chattering and/or damaging restorations during the milling process was reported; however, Sirona corrected the concern with a new bur chuck design and software update. The majority of evaluators agreed that the unit significantly quieter than previous versions. When evaluators were asked if they would recommend the CEREC® inLab MC XL milling machine to other laboratories, most evaluators (7/10) recommended the unit if the workload supported cost. The **Sirona CEREC® inLab MC XL Milling Machine** is rated **Excellent** for use in large-volume US Air Force dental laboratories.

**UPDATE**
Since the completion of this evaluation, Sirona upgraded its software control package for the inLab MC XL milling unit to inLab 3D v3.80. Sirona claims a larger milling capacity of up to 12 units and accommodation of ceramic blocks measuring 85 x 40 x 22 mm. With four milling motors and a virtual 5th axis, Sirona also introduced the inLab 3D Stack tool as part of the inLab 3D software that allows for cost-effective framework design from milling blocks. The inLab 3D software with the inLab 3D Stack tool is included with delivery of the inLab MC XL milling unit.