

Custom Manufacturing Direct from the Locksmith: Medeco's Modular Profile Cylinder

Offering products to fit unique applications is never an easy challenge, especially when addressing security issues that need immediate attention. Customers addressing those needs want a solution and they want it quickly. However, with the many different hardware options available in today's market, it is difficult to provide a single solution that will quickly meet every customer's needs. The customer may have a non-standard door thickness or a unique trim or escutcheon design that prevents you from delivering the products he needs quickly. Since door and trim thicknesses vary, no one application is the same as the other when it comes to replacing cylinders. This usually means that the cylinder will need to be custom ordered, custom manufactured, and incur the lengthy lead times too often associated with "custom" products. Of course, this does not concern your customer and they do not understand why you cannot provide them a solution today. "You're the locksmith, the security professional; surely you have a cylinder in your truck, or in your shop that will fit, right? This can't be the first time you've encountered this hardware?" Oh... if they only knew.

So, what is the answer? How can you deliver custom products for your customers' applications on a moments notice? How can you avoid long factory lead times? How can you be flexible enough to offer a cylinder that will fit in virtually every application, no matter of the variables that exist, without absorbing huge inventory costs? The answer is Medeco's latest cylinder offering; the modular profile cylinder.

Medeco's Modular Profile Cylinder (Figure 1)

Medeco's modular profile cylinder addresses the above questions, while giving you the opportunity to meet your customers' different needs. Medeco's modular profile cylinder can be custom built to fit most door and trim thicknesses. Whether you are in the field or back at your shop, you can build a high security profile cylinder to fit their door in a matter of minutes. The flexibility offered with Medeco's modular profile cylinder allows you to quickly adapt a cylinder to meet your customers' length requirements.

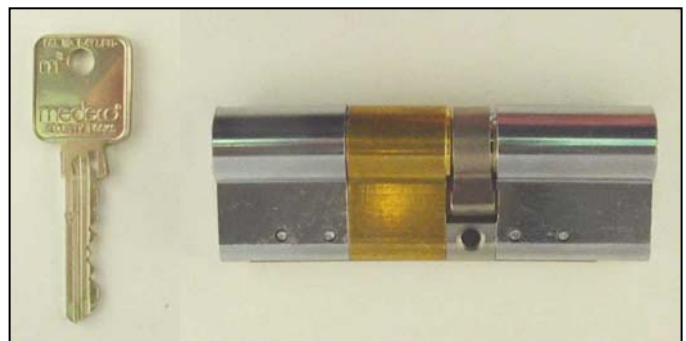


Figure 1: Medeco's Modular Profile Cylinder with Medeco³ Cylinder Technology

Cylinder Design & Construction

Medeco's modular profile is available with Medeco's latest patent protected cylinder technology, Medeco³. The Medeco³ design has built upon Medeco's already proven high security concept, of elevating and rotating pins, with the addition of a third locking component called a slider mechanism. The Medeco³ patent is valid through the year 2021.

Medeco's modular profile cylinders are constructed of forged solid brass which ensures high quality and long cylinder life. The modular profile design incorporates four hardened steel rods in the plug face, a hardened steel rod at the 12 o'clock position in the shell, hardened steel top pins and a hardened steel ball bearing located in the sidebar. These hardened steel inserts, along with the triple-locking principle of the Medeco³ design, results in a high security cylinder that is resistant to virtually all forms of physical attack, including the "bump key" or "999" key attack, that is gaining popularity amongst friends and foes of the industry.

Medeco's modular profile cylinders are available in 5 pin or 6 pin configurations and can be custom built to virtually any length, by adding extensions to the outside and inside cylinder. Brass shell extensions are available in 5mm increments up to 25mm in length (Figure 2). This allows you to add up to 75mm to either side of the cylinder.

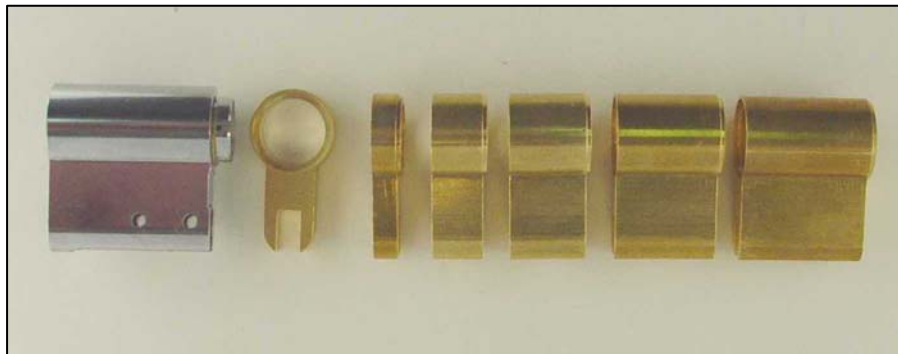


Figure 2: Outside cylinder and brass extensions (5, 10, 15, 20 & 25mm increments).

The outside and inside cylinder are held in place by a hardened steel connecting bar. The connecting bar is available in a variety of lengths and has multiple installation positions for different extension options (Figure 3). The connecting bar also provides additional pull and break resistance. Solid brass spacers are used in conjunction with the connecting bar to provide superior strength and support across the bible chamber (Figure 4). The cylinder uses four, high strength, alloy steel roll pins to connect and hold the components together.



Figure 3 & 4: Connecting bars with alloy steel roll pins and solid brass spacers.

While building the cylinder, the cam can be placed in any of the 4 cam positions available (1, 5, 7, or 11 o'clock positions for double cylinder applications and 5 or 11 o'clock positions for single cylinder applications).

For single cylinder applications, the thumb turn can be changed via an allen set screw located on the thumb turn shaft. Medeco's modular profile cylinder offers five different thumb turn configurations: LP (low profile), RL (lever), RD (decorative), SR (round thumb turn), and CR (crescent thumb turn) (Figure 5).

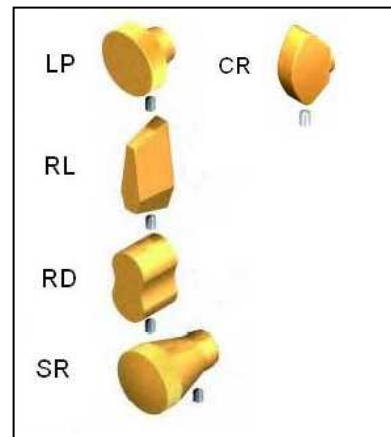


Figure 5: Modular Profile Cylinder Thumb turn Options.

Pinning the modular profile cylinder is different than what you would traditionally expect with a Medeco cylinder. Medeco's modular profile cylinders are pinned in a similar fashion to American Key-in-Knob (KIK) cylinders. Tumbler pins are top loaded using a special pinning tool (Figure 6) and are held in place with a removable spring retainer (Figure 7). This spring cover can easily be removed if/when the cylinders need to be re-keyed (Figure 8).



Figure 6, 7, & 8: Pinning tool, new spring cover/retainer, spring cover being removed.

Below is a top view of the modular profile cylinder and its components:

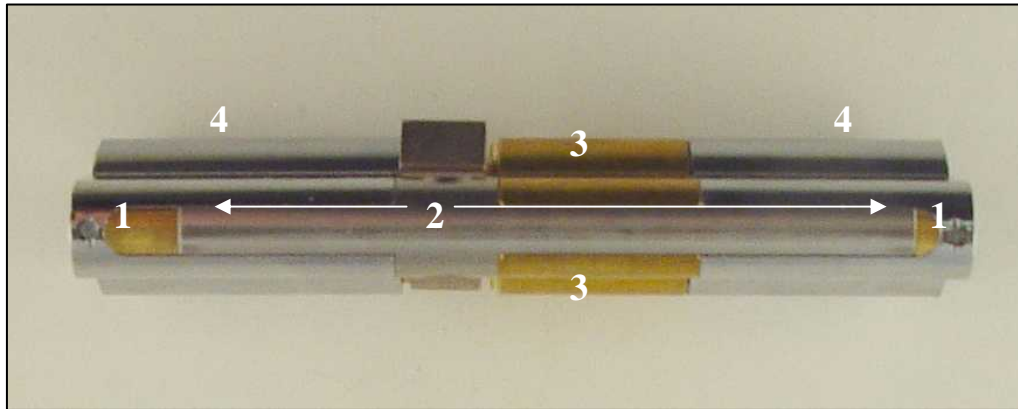


Figure 9: Modular Profile Cylinder: Completely Assembled.

Component 1: Solid brass spacer

Component 2: Connecting bar

Component 3: Brass extension

Component 4: Outside/inside cylinder

Custom Solutions

Medeco's modular profile cylinder gives you the flexibility to deliver a product that is customized according to your customer's need. Medeco's modular profile cylinders can be relied upon to help you save time, money, and frustration when it comes to meeting the many different configurations of your customers' hardware.

Additional information on service kits and technical literature will be available soon. If you would like more information on Medeco's latest profile cylinder design, please contact your local distributor, or contact Medeco's Export Department at 540-380-1603.