

ARX™

Attack Resistance X-tended

by

medeco
HIGH SECURITY LOCKS



Medeco ARX High Security Locks

“Extending the solution to sophisticated security threats”

What is ARX™?

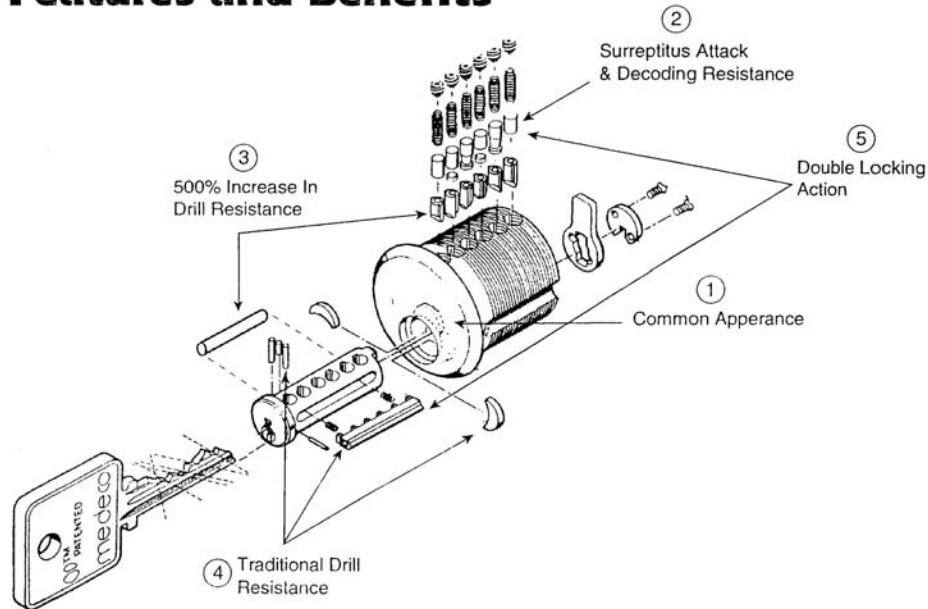
Surreptitious attacks are continually evolving, and Medeco has always provided its customers with intelligent protection against advanced criminal assaults.

Our continual research into our customers' needs has led to the development of Medeco® ARX™ high security locks, a complete line of door hardware cylinders for customers that have sophisticated security threats. ARX stands for:

Attack Resistance X-tended

We've taken the world's leading high security lock, Medeco® **Biaxial™** and incorporated additional features to extend its ability to thwart sophisticated attacks. The result is a lock that offers greater security than ever before commercially available.

Features and Benefits

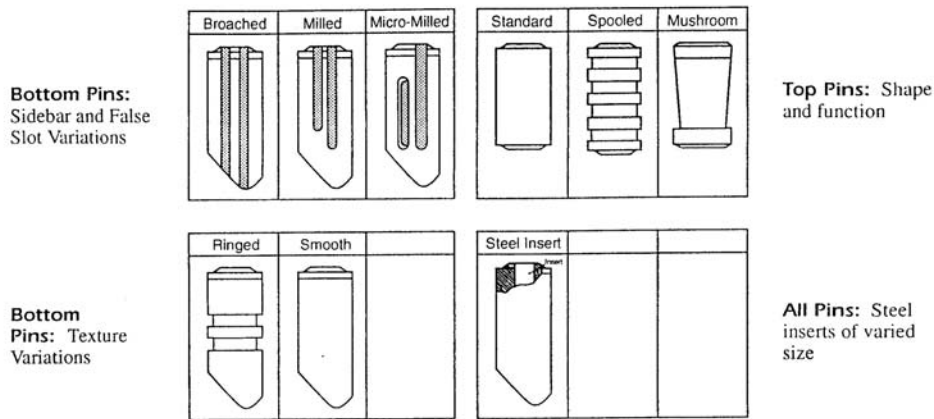


- 1. Common Appearance:** Locks can be furnished blank, without the Medeco logo on the cylinder face, giving the lock an unrecognizable, common appearance.
- 2. Surreptitious Attack and Decoding Resistance:** Over 150 bottom pin variations plus 14 top pin variations work to confuse sophisticated intruders. Each pin has a unique combination of appearance, texture, weight, length and function.
- 3. 500% Increase in Drill Resistance:** ARX™ features two new drill resistant features. First, a carbide rod that runs the length of the plug, installed opposite the sidebar. Second, inside each ARX™ tumbler pin is a steel insert which extends keyway drill time.
- 4. Traditional Drill Resistance:** Standard Medeco® Biaxial™ plugs already include steel ball bearings, drill pins and steel crescents which significantly increase drill attack time.
- 5. Double-Locking Action:** In addition to the tumbler pin shear line, Medeco locks have a sidebar. These dual locking points require simultaneous elevation and rotation of tumbler pins before the cylinder will work.

Randomization: The solution to Threats of Systematic Decoding

The ARX™ system offers an incredible variety of tumbler pins. Each individual depth pin may be ringed, smooth, broached, and/or micro-milled, just to mention some of the variations.

ARX™ Tumbler Pin Variations



Medeco pre-mixes tumbler pins having these variations. When a lock is pinned, the correct depth pin is pulled from these mixtures.

Depending on which particular pin is pulled from the mixture, the attributes (appearance, texture, weight, length and function) are purely random. This means that each

individual ARX™ lock contains its own random assortment of pin variations!

Randomization makes disassembly and reverse engineering of ARX™ cylinders confusing and unproductive. Picking, probing and decoding are futile efforts.

Other Benefits of ARX™

Q: Can I use ARX™ with existing Medeco® Biaxial™ locks?

A: Yes. Medeco is 100% compatible with Medeco® Biaxial™ cylinders. Add ARX™ to an existing Biaxial™ system or create a new system utilizing both product lines. The keys are interchangeable between Biaxial™ and ARX™ cylinders.

Q: What types of cylinders are available in ARX™?

A: ARX is available in Medeco's complete door security product lines: **10 Series** (Rim and mortise cylinders); **20 Series** (key-in-knob and key-in-lever cylinders); **32 Series** (interchangeable cores); etc.

Q: How is the integrity of the ARX™ pin mixture insured?

A: ARX's random pin mixture is stored in a limited access room within the secure Medeco facility. A record of all entries allows Medeco to insure the integrity of the random mixtures and all ARX™ product that is keyed or master-keyed at the factory.

Q: What about key duplication?

A: ARX™ is available in all current Medeco® Biaxial™ keyways. You get the excellent, patented key control you've come to expect from Medeco.

Q: How do I pin ARX™ locks in the field?

A: A special pin kit has been created for ARX™ users. This pin kit includes a random assortment of the ARX™ pins used at the factory.

ARX Questions and Answers Fact Sheet

Government Customers (6/15/94)

1. Why did Medeco make the ARX product line?

ARX was developed to meet the unique needs of our most sophisticated customers (Government agencies, locksmiths that service the government, prime government contractors and vendors, financial institutions, high rise office buildings, etc.).

2. What does ARX stand for:

Attack Resistance X-tended

ARX uses the same angled cuts and fore and aft pins as our Biaxial products, however we have added a few new features that make it more attack resistant.

3. What gives ARX more attack resistance?

ARX increases attack resistance in three ways.

1. A carbide rod inserted in the plug gives it more drill resistance.
2. Rings, grooves, millings, micro-millings and broachings on the pins increase pick resistance.
3. In addition to the 36 types of bottom pins in Biaxial, ARX has over 150 random pin variation combinations on its bottom pins. These random variations increases ARX's resistance to stealth attacks or decoding.

4. When will ARX be available?

ARX locks will be available for shipment in July 1994.

5. Can anyone order ARX?

Yes, any customer with a sophisticated security need should specify ARX.

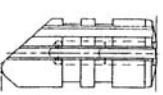
6. How much does ARX cost?

ARX is listed in the Government Net Price Book at \$3.08 more than our current Biaxial locks. For ARX cylinders less logos (blind face), add \$4.08 to the corresponding Biaxial lock's price.

Bottom Pin Styles

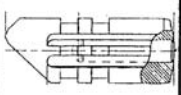
BROACHED BOTTOM PINS

Part Number	Style	Depths	False Slot				With Rings	Without Rings	Fore Aft	Total Pins
			L	R	Cl	CR				
Broached	Broached	1-6	√	√	√	√	√	√	48	
Broached	Broached	2-6	√	√	√	√	√	√	40	



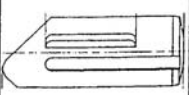
MILLED BOTTOM PINS

Part Number	Style	Depths	False Slot				With Rings	Without Rings	Fore Aft	Total Pins
			L	R	Cl	CR				
Milled	Milled	4-6	√	√	√	√	√	√	16	
Milled	Milled	4-6	√	√	√	√	√	√	16	



MICRO-MILL BOTTOM PINS (Note: Not to be used in Master Keyed locks)

Part Number	Style	Depths	False Slot				With Rings	Without Rings	Fore Aft	Total Pins
			L	R	Cl	CR				
Micro-Mill	Micro-Mill	4-6	√	√	√	√	√	√	16	
Micro-Mill	Micro-Mill	4-6	√	√	√	√	√	√	16	



ARX BOTTOM PIN SYSTEM (Depths 1-6) for Non-Master Keyed locks

Part Number	Style	Broached	Mill	Micro	False Slot		With Rings		Without Rings	
					L	R	Cl	CR	Rings	Rings
TP-F46-XX	Mixed	√	√	√	√	√	√	√	√	Fore Aft

ARX BOTTOM PIN SYSTEM (Depths 1-6) for Master Keyed locks

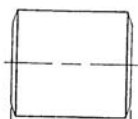
Part Number	Style	Broached	Mill	Micro	False Slot		With Rings		Without Rings	
					L	R	Cl	CR	Rings	Rings
TP-F47-XX	Mixed	√	√	√	√	√	√	√	√	Fore Aft

Note: ARX Micro-milled or Milled pins can not be used with Interchangeable Core cylinders in clutch positions 3 and 4. Medeco recommends that Standard Biaxial pins be used with Interchangeable Core cylinders in clutch positions 3 and 4.

Top Pin Styles

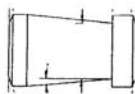
STANDARD TOP PINS

<u>Part Number</u>	<u>Style</u>	<u>No</u>	<u>Material</u>	<u>Hardness</u>
	STD TOP PIN	1	STEEL	Rc 65
	STD TOP PIN	2	STEEL	Rc 65
	STD TOP PIN	3	STEEL	Rc 65
	STD TOP PIN	4	BRASS	
	STD TOP PIN	5	STEEL	Rc 65
	STD TOP PIN	6	BRASS	



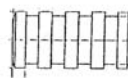
MUSHROOM TOP PINS

<u>Part Number</u>	<u>Style</u>	<u>No</u>	<u>Material</u>	<u>Hardness</u>
	MUSHROOM TOP	1	BRASS	
	MUSHROOM TOP	2	BRASS	
	MUSHROOM TOP	3	BRASS	
	MUSHROOM TOP	4	BRASS	



SPOOLED TOP PINS

<u>Part Number</u>	<u>Style</u>	<u>No</u>	<u>Material</u>	<u>Hardness</u>
	SPOOLED TOP	1	BRASS	
	SPOOLED TOP	3	BRASS	
	SPOOLED TOP	5	BRASS	
	SPOOLED TOP	6	BRASS	



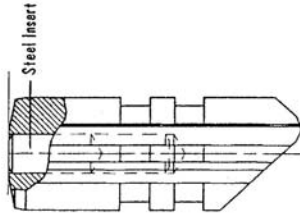
ARX TOP PIN SYSTEM for Non-Master Keyed and Master Keyed locks

<u>Part Number</u>	<u>Style</u>	<u>No</u>	<u>Material</u>	<u>Hardness</u>
TP-F11-1A	TOP PIN	1	MIXED	MIXED
TP-F11-2A	TOP PIN	2	MIXED	MIXED
TP-F11-3A	TOP PIN	3	MIXED	MIXED
TP-F11-4A	TOP PIN	4	MIXED	MIXED
TP-F11-5A	TOP PIN	5	MIXED	MIXED
TP-F11-6A	TOP PIN	6	MIXED	MIXED

ARX Drill Protection

ARX will provide two additional forms of drill protection:

1. Steel Pin Insert within each bottom pin:



2. Carbide Rod Insert opposite of the sidebar within the plug (full length):

