



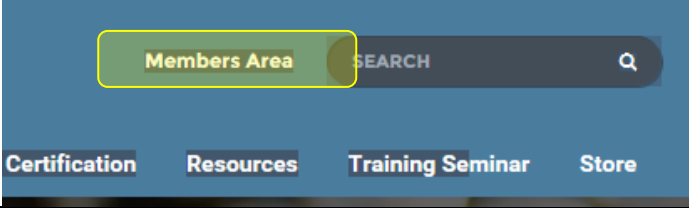
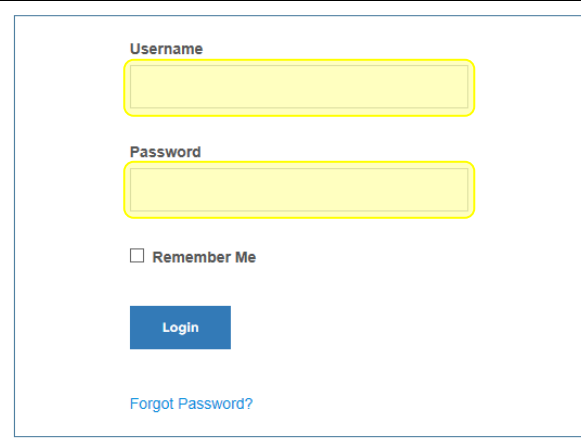
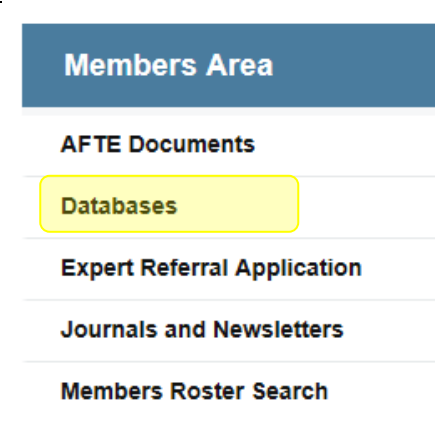
AFTE Electronic Resources

Database Search and Entry Procedures

Contents:

- I. General Rifling Characteristic (GRC) Search**
- II. General Rifling Characteristic (GRC) Submission Procedures**
- III. Class Characteristics Matrix Search (Coming Soon)**
- IV. Class Characteristics Matrix Entry (Coming Soon)**

I. General Rifling Characteristic (GRC) Search

To access the AFTE GRC, click on the “Members Area” of the website.	
Enter your username and password and click “Login”	
On the left side of your screen will be a list of available member areas. Select “Databases” to go to the AFTE GRC Search page.	
Search Criteria <ul style="list-style-type: none"> • Not all fields are required to perform a search; however, limited information will result in a larger suspect weapon list. • Only those fields known to be certain should be used when generating a possible suspect list. 	
Caliber	Select the caliber(s) that are of interest, this is the class caliber and not cartridge specific. More than one selection can be made.
#Land/Groove	Select the number of lands and grooves that are present on your item.
Twist Direction	Select the direction of twist present on your item.
Poly/Conv	Indicate whether the rifling is Polygonal (hammer forged), Polygonal with Rails (“Glock Marking Barrel”), or Conventional (all others)
Rimfire/Centerfire	Enter the type of cartridge

Min Land Width	Enter the minimum land impression width that you have recorded for your item.															
Max Land Width	Enter the maximum land impression width that you have recorded for your item.															
Min Groove Width	Enter the minimum groove impression width that you have recorded for your item.															
Max Groove Width	Enter the maximum groove impression width that you have recorded for your item.															
Search Range +/-	Indicate the uncertainty that you would like to add to you minimum and maximum measurements. This is usually dictated by your departmental procedures.															
Metric	The measurements can be entered using either the English or Metric system. If using the metric system, please select this button.															
Cartridge	To further indicate the caliber, specifically the suspect cartridge, select from this list. More than one selection can be made.															
Manufacturer	This is a list of firearm manufacturers (generally not used as part of search parameters).															
Model	This is a list of firearm model (generally not used as part of search parameters).															
Firearm Type	For guidance in selecting the appropriate firearm type, refer to the AFTE GRC Firearm Type Legend located at the top of the search area. (generally not used as part of search parameters)															
Printed Results Headers These fields can be used to customize the generated results page(s) for use in your case notes.																
Name	These fields help you customize your results page(s). Use them in accordance with your laboratory's SOPs.															
Specimen																
Lab ID																
Case ID																
Custom Results Fields Examples shown used the web output format																
Make Only	Selecting this option produces the following table:															
<div> <div> User Search Parameters </div> <table border="1"> <tr> <td> Cartridge: Manufacturer: Model: Firearm Type: </td> <td> Caliber: 38 L/G: 9 Twist: Left Poly/Conv: Conventional Rim/Center: </td> <td> Land Width Min: Land Width Max: Groove Width Min: Groove Width Max: Search Range: 0.000 </td> </tr> </table> </div> <div> Search Results <table border="1"> <thead> <tr> <th>Cartridge</th> <th>Manufacturer</th> <th>Firearm Type</th> </tr> </thead> <tbody> <tr> <td>380 AUTO / 9mm KURZ</td> <td>HI-POINT FIREARMS</td> <td>PI</td> </tr> <tr> <td>9mm LUGER (9x19mm)</td> <td>HI-POINT FIREARMS</td> <td>RC</td> </tr> <tr> <td>9mm LUGER (9x19mm)</td> <td>HI-POINT FIREARMS</td> <td>PI</td> </tr> </tbody> </table> </div>		Cartridge: Manufacturer: Model: Firearm Type:	Caliber: 38 L/G: 9 Twist: Left Poly/Conv: Conventional Rim/Center:	Land Width Min: Land Width Max: Groove Width Min: Groove Width Max: Search Range: 0.000	Cartridge	Manufacturer	Firearm Type	380 AUTO / 9mm KURZ	HI-POINT FIREARMS	PI	9mm LUGER (9x19mm)	HI-POINT FIREARMS	RC	9mm LUGER (9x19mm)	HI-POINT FIREARMS	PI
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9mm LUGER (9x19mm)	HI-POINT FIREARMS	PI														
Make and model	Selecting this option produces the following table:															

User Search Parameters			
Cartridge:	Caliber: 38	Land Width Min:	
Manufacturer:	L/G: 9	Land Width Max:	
Model:	Twist: Left	Groove Width Min:	
Firearm Type:	Poly/Conv: Conventional	Groove Width Max:	
	Rim/Center:	Search Range: 0.000	

Search Results			
Cartridge	Manufacturer	Model	Firearm Type
380 AUTO / 9mm KURZ	HI-POINT FIREARMS	CF	PI
380 AUTO / 9mm KURZ	HI-POINT FIREARMS	CF380	PI
9mm LUGER (9x19mm)	HI-POINT FIREARMS	995	RC
9mm LUGER (9x19mm)	HI-POINT FIREARMS	C	PI
9mm LUGER (9x19mm)	HI-POINT FIREARMS	C9	PI

Customized	<p>The following criteria can be selected to be shown in your final results page(s):</p> <ol style="list-style-type: none"> 1. Cartridge 2. Manufacturer 3. Model 4. Firearm Type 5. Country 6. Poly/Conv 7. Rim/Center 8. LG 9. Twist 10. Min Land Width 11. Max Land Width 12. Min Groove Width 13. Max Groove Width 14. Metric Min Land Width 15. Metric Max Land Width 16. Metric Min Groove Width 17. Metric Max Groove Width 18. Caliber 19. Notes
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User Search Parameters							
Cartridge:	Caliber: 38	Land Width Min:					
Manufacturer:	L/G: 9	Land Width Max:					
Model:	Twist: Left	Groove Width Min:					
Firearm Type:	Poly/Conv: Conventional	Groove Width Max:					
	Rim/Center:	Search Range: 0.000					

Search Results							
Cartridge	Manufacturer	Model	Firearm Type	Country	LG	Twist	Caliber
380 AUTO / 9mm KURZ	HI-POINT FIREARMS	CF	PI	US	9	L	38
380 AUTO / 9mm KURZ	HI-POINT FIREARMS	CF380	PI	US	9	L	38
9mm LUGER (9x19mm)	HI-POINT FIREARMS	995	RC	US	9	L	38
9mm LUGER (9x19mm)	HI-POINT FIREARMS	C	PI	US	9	L	38
9mm LUGER (9x19mm)	HI-POINT FIREARMS	C9	PI	US	9	L	38

Output Format

There are three different formats in which your results can be generated. This provides our members with several options so that they can select the one that best meets their needs.


Web	
	This format produces a suspect weapons list generated below the GRC search criteria page within the website.

User Search Parameters							
Cartridge:	Caliber: 38	Land Width Min:					
Manufacturer:	L/G: 9	Land Width Max:					
Model:	Twist: Left	Groove Width Min:					
Firearm Type:	Poly/Conv: Conventional	Groove Width Max:					
	Rim/Center:	Search Range: 0.000					

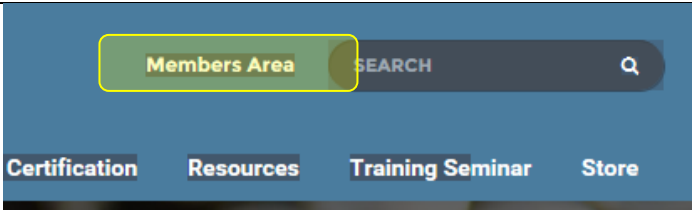
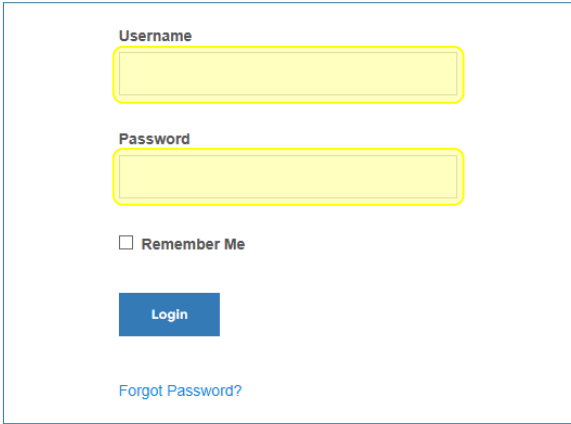
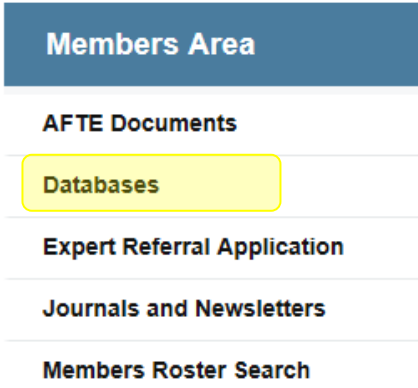
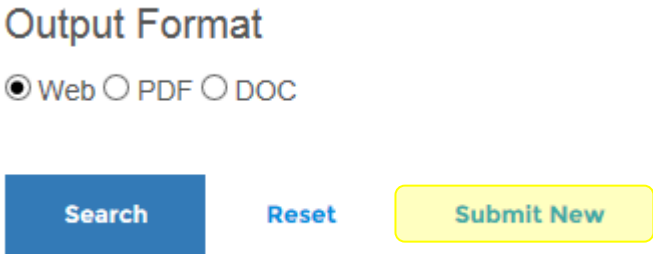
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380 AUTO / 9mm KURZ	HI-POINT FIREARMS	CF	PI
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9mm LUGER (9x19mm)	HI-POINT FIREARMS	C	PI
9mm LUGER (9x19mm)	HI-POINT FIREARMS	C9	PI

PDF	
	This format produces a suspect weapons list in PDF that includes the “Custom Headers” that you entered in your search page.

AFTE General Rifling Characteristics Database Name: Erica Lawton Specimen: 1A		Jan 12 2017 Lab ID: 17-1234 Case ID: 17-01-1234	
User Search Parameters			
Cartridge:	Caliber: 38	Land Width Min:	
Manufacturer:	L/G: 9	Land Width Max:	
Model:	Twist: Left	Groove Width Min:	
Firearm Type:	Poly/Conv: Conventional	Groove Width Max:	
	Rim/Center:	Search Range: 0.000	
Search Results			
Cartridge	Manufacturer	Model	Firearm Type
380 AUTO / 9mm KURZ	HI-POINT FIREARMS	CF	PI
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9mm LUGER (9x19mm)	HI-POINT FIREARMS	C	PI
9mm LUGER (9x19mm)	HI-POINT FIREARMS	C9	PI

DOC	This format produces a suspect weapons list in Microsoft Word that includes the “Custom Headers” that you entered in your search page. This version allows the user to add additional information into the word document.																														
<div> <div> AFTE General Rifling Characteristics Database Name: Erica Lawton Specimen: 1A </div> <div> Jan 12 2017 Lab ID: 17-1234 Case ID: 17-01-1234 </div> </div> <div>User Search Parameters</div> <div> <div> Cartridge: Manufacturer: Model: Firearm Type: </div> <div> Caliber: 38 L/G: 9 Twist: Left Poly/Conv: Conventional Rim/Center: </div> <div> Land Width Min: Land Width Max: Groove Width Min: Groove Width Max: Search Range: 0.000 </div> </div> <div>Search Results</div> <table> <thead> <tr> <th>Cartridge</th><th>Manufacturer</th><th>Model</th><th>Firearm Type</th><th></th></tr> </thead> <tbody> <tr> <td>380-AUTO-/9mm-KURZ</td><td>HI-POINT-FIREARMS</td><td>CF</td><td>PI</td><td></td></tr> <tr> <td>380-AUTO-/9mm-KURZ</td><td>HI-POINT-FIREARMS</td><td>CF380</td><td>PI</td><td></td></tr> <tr> <td>9mm-LUGER-(9x19mm)</td><td>HI-POINT-FIREARMS</td><td>995</td><td>RC</td><td></td></tr> <tr> <td>9mm-LUGER-(9x19mm)</td><td>HI-POINT-FIREARMS</td><td>C</td><td>PI</td><td></td></tr> <tr> <td>9mm-LUGER-(9x19mm)</td><td>HI-POINT-FIREARMS</td><td>C9</td><td>PI</td><td></td></tr> </tbody> </table>		Cartridge	Manufacturer	Model	Firearm Type		380-AUTO-/9mm-KURZ	HI-POINT-FIREARMS	CF	PI		380-AUTO-/9mm-KURZ	HI-POINT-FIREARMS	CF380	PI		9mm-LUGER-(9x19mm)	HI-POINT-FIREARMS	995	RC		9mm-LUGER-(9x19mm)	HI-POINT-FIREARMS	C	PI		9mm-LUGER-(9x19mm)	HI-POINT-FIREARMS	C9	PI	
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Footer Information/Version <p>Accreditation and best practices for forensic science has become the standard by which we function. To comply with these standards, the AFTE GRC has included at the footer of your search results the version that you have used. This version numbering system is date based and will change as entries are made available in the system.</p> <div>  <p>Notice: The data used in this database was originally compiled from the 2010 FBI Laboratory General Rifling Characteristic database. As of 2016, this database is maintained and updated by the AFTE Electronic Resource Committee. The user acknowledges that this is an investigative aid, and AFTE assumes no responsibility or liability for the use of this database. AFTE GRC Database v. 1.0-06302016</p> </div>																															

II. General Rifling Characteristic (GRC) Submission Procedures

To access the AFTE GRC, click on the “Members Area” of the website.	
Enter your username and password and click “Login”	
On the left side of your screen will be a list of available member areas. Select “Databases” to go to the AFTE GRC Search page.	
Scroll to the bottom of the screen and click on “Submit New”	

Once “Submit New” has been selected an additional portion of the screen will appear below the action button.

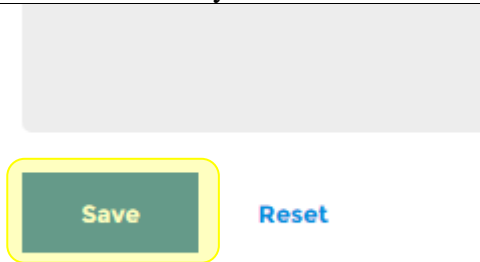
Submit New Rifling Characteristics Record

All fields are required.

Caliber	English (inches)
<input type="text"/>	<input type="checkbox"/> Convert from Millimeters?
#Land/Groove	Min Land Width
<input type="text"/>	<input type="text" value="0.000"/>
Twist Direction	Max Land Width
<input type="text"/>	<input type="text" value="0.000"/>
Poly/Conv	Min Groove Width
<input type="text"/>	<input type="text" value="0.000"/>
Rimfire/Centerfire	Max Groove Width
<input type="text"/>	<input type="text" value="0.000"/>
Cartridge	Metric (Millimeters)
<input type="text"/>	<input type="checkbox"/> Convert from Inches?
<small>Please enter the first number of the Cartridge and select from the drop down list. If your cartridge is not listed, complete the entry of the new data.</small>	Metric Min Land Width
Manufacturer	<input type="text" value="0.000"/>
<input type="text"/>	Metric Max Land Width
	<input type="text"/>

- **Begin entering the appropriate information into the submission form.**
- **Please refer to the AFTE Training Manual, AFTE Glossary and the NIJ training guide on the proper delineations when measuring the land and groove impression widths.**
 - **All land and groove impressions present on the standards should be measured and the minimum and maximum of each recorded in the form.**
 - **The entry data will be verified by another examiner to ensure the quality of the entries.**

Caliber	Select the class caliber of the bullet. The specific cartridge caliber will be entered in a further step.
#Land/Groove	Select the number of lands and grooves that are present on your item
Twist Direction	Select the direction of twist present on your item.
Poly/Conv	Indicate whether your item is polygonally (hammer forged) or conventionally (all others) rifled
Rimfire/Centerfire	Select the type of cartridge that your bullet was fired from.
Min Land Width	Enter the minimum land impression width that you recorded from your bullet in either the inches section or the metric section; whichever measuring system that you used.
Max Land Width	Enter the maximum land impression width that you recorded from your bullet in inches in either the inches section or the metric section; whichever measuring system that you used.
Min Groove Width	Enter the minimum groove impression width that you recorded from your bullet in inches in either the inches section or the metric section; whichever measuring system that you used.
Max Groove Width	Enter the maximum groove impression width that you recorded from your bullet in inches in either the inches section or the metric section; whichever measuring system that you used.
Cartridge	Specify the cartridge caliber.
Manufacturer	Indicate the Manufacturer of the reference firearm.

Model	Indicate the Model of the reference firearm.
Firearm Type	Select the type of firearm that describes your reference firearm
Notes	This should only be used to document something unusual about your entry. If this is a Privately Manufactured Firearm, this should be noted.
Once you are finished with your entry and have verified the information is accurate, select the "Save" button.	
<ul style="list-style-type: none"> • After you have made your submission, send at least 2 bullets and cartridge cases (indicating which one was used for your entry) to the following address for our QA Sub-committee to verify the information: <p style="text-align: center;"> Laura Hollenbeck Western Laboratory Virginia Department of Forensic Science 6600 Northside High School Rd Roanoke, VA 24019 </p> • Once your entry has been verified by the QA sub-committee it will automatically be entered into the main database available for searches. • <i>Note: once the entry is placed in the main database the version number that appears in the footer of your searches will automatically be updated to reflect the latest version.</i> 	