

ERA[®] SILENCER

CATALOG 5



It's all about silence.

RECKNAGEL

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ERA® SILENCER – developed for the active hunt

A silencer’s most important requirement, when used for hunting is suppression of the muzzle blast as effectively as possible, thus protecting the hearing of man and dog.

We developed our ERA®SILENCER with the objective of achieving optimal suppression whilst offering a compact and light-weight design, full Magnum compliance and a long service life.

All suppressors of the SOB series feature an over-barrel design, meaning one part of the silencer extends backwards from the muzzle and around the barrel. This reduces the net length, yet allows for very good suppression values. In addition, the first round pop common in other silencers has been reduced to an absolute minimum. Recoil and muzzle flash are considerably decreased as well.

Our ERA®SILENCERS are easily disassembled. The threaded bushing is exchangeable, thus facilitating the suppressor’s usage with other rifles of the same caliber, but with a different muzzle thread.

The supplied barrel bushing attaches to the breech end of the over-barrel silencer. This bushing protects the silencer in general and the muzzle thread from lateral forces in particular, and prevents the ingress of dirt and snow.

The surface structure guarantees significantly less powder residue adhering to the silencer’s interior. Transverse grooves milled on the outer tube offer sufficient grip for the installation and removal while also helping the silencer cool down faster.

The step-like design protects the seals during disassembly so they will not be exposed to any powder residue in the outer tube. The surface coating acc. to MIL-SPEC MIL-A-8625F Type III meets the highest requirements on hardness and corrosion resistance.

Offering numerous advantages, our ERA® SILENCERS are excellently equipped for everyday hunting use for a long time.

Please note:

The ERA®SILENCER is designed for hunting only, not for series of shots that follow each other in close succession, e.g. in a shooting cinema. After a series of a maximum of 10 shots, the suppressor must be allowed to cool down so that it can be touched with bare hands!

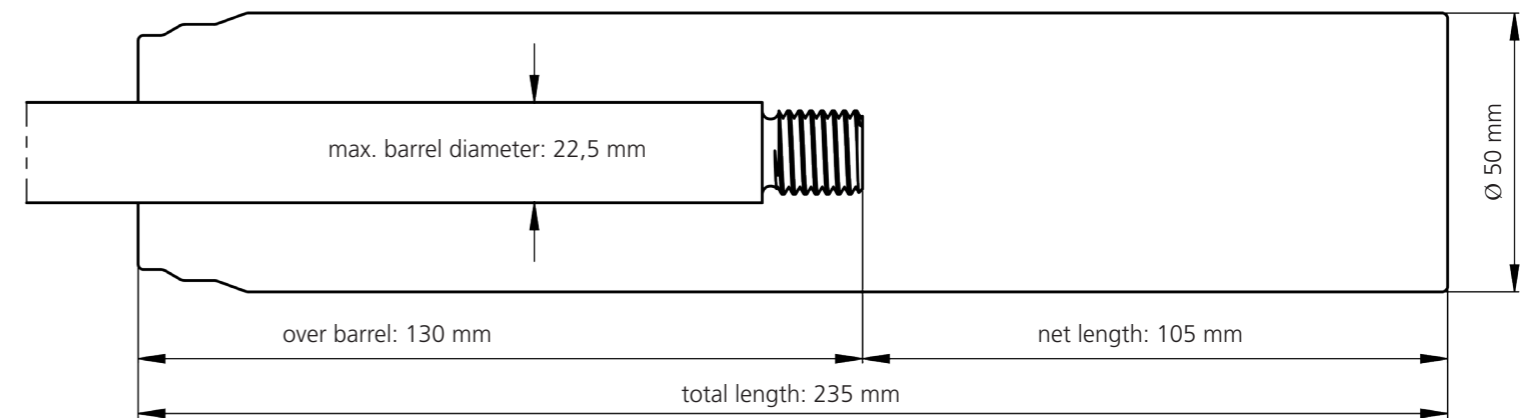
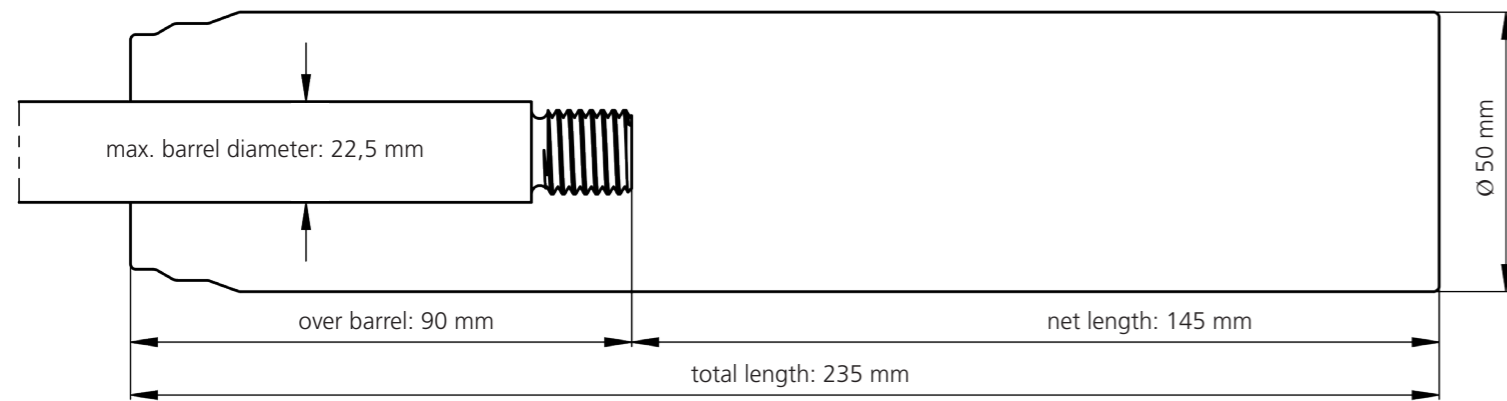
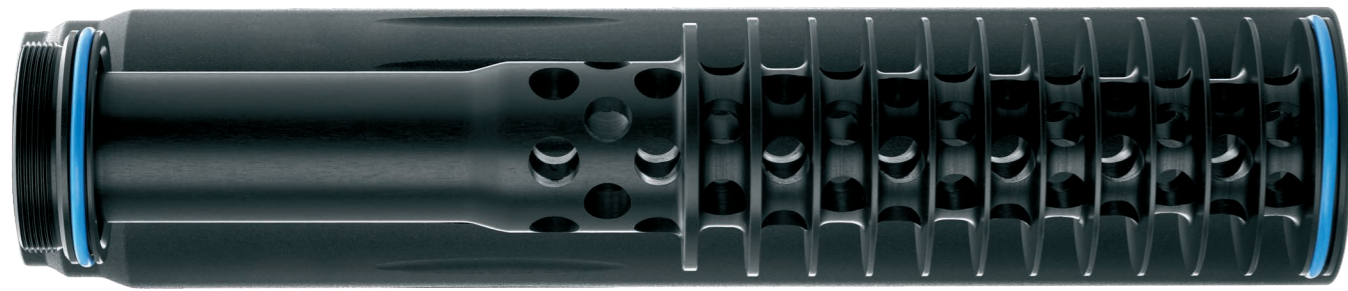
This does not apply to our hybrid silencer SOB2S. The core and panels are made of highly tempered stainless steel. This makes this silencer extremely resilient and also suitable for shooting cinema use.

Good to know:

The specified damping values were determined in independent test series according to MIL-STD 1474D by DEVA (German research institute for hunting and sporting weapons). With this measuring method, the measuring microphone is placed at a distance of 1.0 meter 90° to the left of the muzzle.









Deutsche Versuchs- und Prüf-Anstalt
 für Jagd- und Sportwaffen e.V.



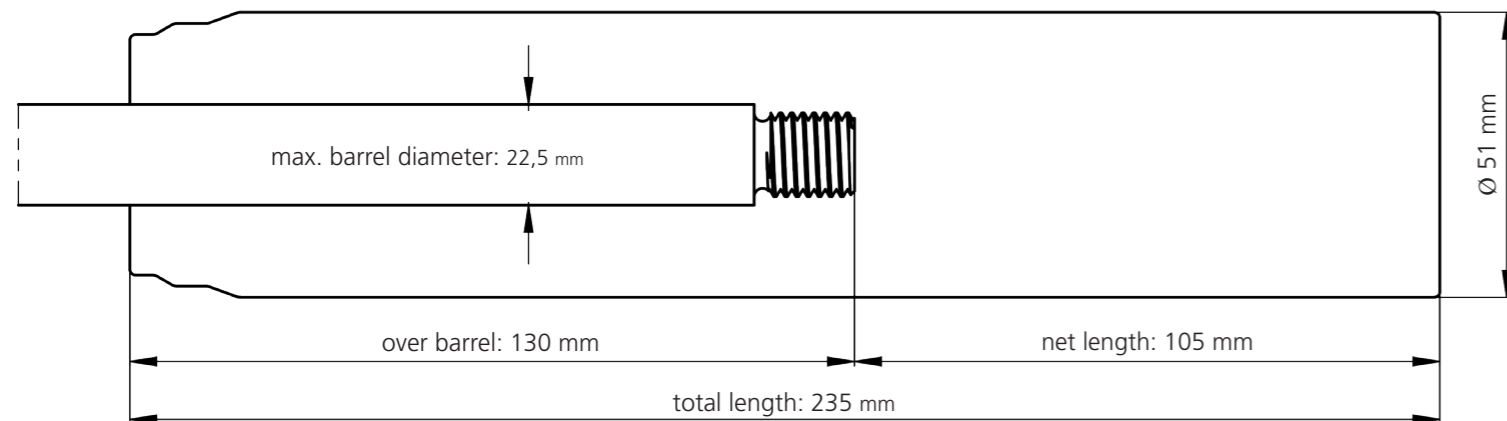
- Highest suppression performance
- Minimal first round pop
- Especially suited for Magnum calibers

- Short net length of only 105 mm
- Especially suited for use in tight spaces or during follow up
- Only slightly affects the rifle's handling

-  **High Suppression**
Up to 32 dB*
-  **Minimized First Round Pop**
-  **Net Length**
145 mm
-  **Weight**
387g incl. ERA@LOC
-  **Reduced Recoil**
-  **ERA@LOC**
With optional ERA@LOC quick release

-  **Minor Muzzle Flash**
-  **Exchangeable Threaded Bushing**
-  **Step Geometry**
Eliminates damage to the seals
-  **Surface Coating acc. to MIL-SPEC**
-  **MAGNUM Compliance**

-  **High Suppression**
Up to 28dB*
-  **Minimized First Round Pop**
-  **Net Length**
105 mm
-  **Weight**
378g incl. ERA@LOC
-  **Reduced Recoil**
-  **ERA@LOC**
With optional ERA@LOC quick release
-  **Minor Muzzle Flash**
-  **Exchangeable Threaded Bushing**
-  **Step Geometry**
Eliminates damage to the seals
-  **Surface Coating acc. to MIL-SPEC**
-  **MAGNUM Compliance**



- „Hybrid“ silencer with core and baffle component made from hardened and tempered steel
- Outer tube made from high-grade aluminum with reinforced wall
- Suited for shooting cinema

- | | |
|---|---|
|  High Suppression Up to 31dB* |  Minor Muzzle Flash |
|  Minimized First Round Pop |  Exchangeable Threaded Bushing |
|  Net Length 105mm |  Step Geometry Eliminates damage to the seals |
|  Weight 520g incl. ERA®LOC |  Surface Coating acc. to MIL-SPEC |
|  Reduced Recoil -50% |  MAGNUM Compliance |
|  ERA®LOC With optional ERA®LOC quick release |  Suited for shooting cinema Baffle component made from stainless steel |

General

Long-term exposure to noise is already harmful above 85 dB, and above 120 dB hearing damage is possible even with only brief exposure. Values above 137 dB, on the other hand, lead to irreparable damage to the hearing of humans and animals.

The average sound pressure of a caliber like .308 Winchester is 160 dB, with magnum calibers it is significantly higher. Suppressors can reduce this to the non-harmful area. (e.g. damping performance ERA-Silencer SOB3D: -31dB, cal. .308 Win.)

The report of the rifle is made up of two sources:

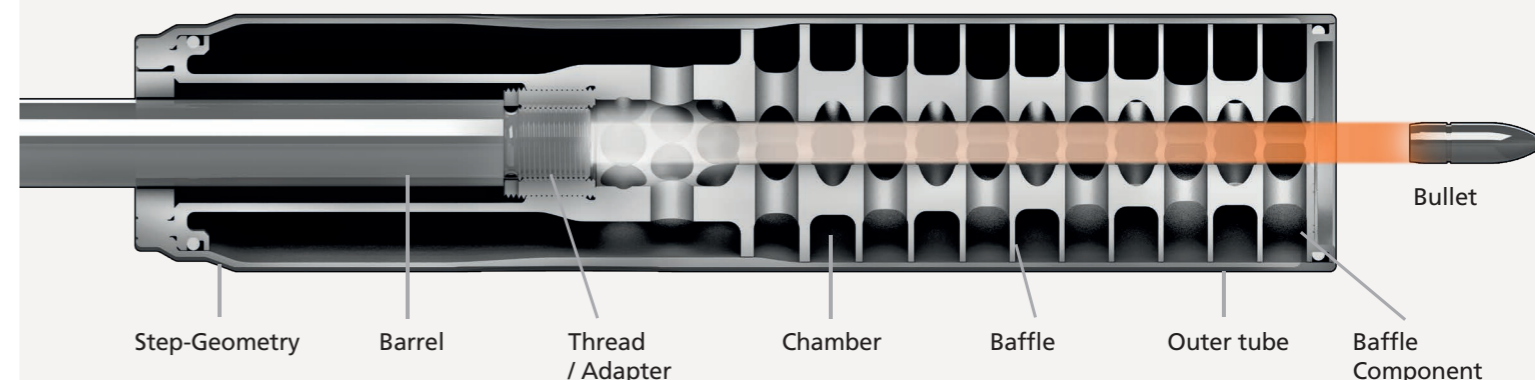
1. The muzzle blast
The explosive “bang” generated by the sudden expansion of the propellant gas at the muzzle when the projectile leaves the barrel.
2. The sonic boom (projectile speed > 333m/s)
This is because the projectile flies at supersonic speed, comparable to a fighter jet breaking the sound barrier.

A silencer can only reduce the muzzle blast to a level that is no longer harmful. It has no influence on the sonic boom of the projectile. However, the shot is by no means as quiet as we know it from movie and television. You would need subsonic ammunition for that. However, this does not have enough energy and is therefore not suitable for hunting.

Structure and function of Suppressors

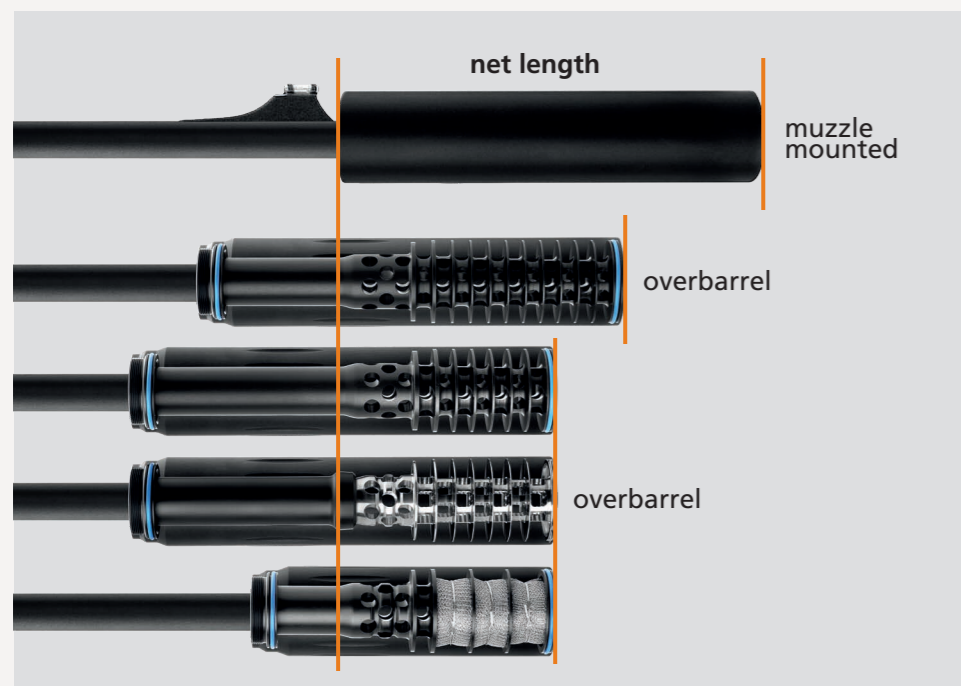
Suppressors are usually constructed cylindrically and have an internal baffle component with several bores and chambers. The walls of these chambers are called baffles. which can differ in design. Perforated panels and other geometric shapes are possible. The arrangement of the bores and chambers, the volume of the suppressor, but also the use of metal mesh are decisive for the efficiency of the noise reduction. In addition, the dampening performance is also affected by caliber, barrel length and ammunition.

When the shot is fired, the escaping hot propellant gases are deflected and slowed down inside the suppressor. Reducing the velocity and temperature of the propellant gases reduces the resulting muzzle blast and eliminates the muzzle flash. The bullet itself has “free flight” in the suppressor, which means it does not touch the suppressor. Thus, there are no negative effects on the precision.



There are two kinds of silencers

There are basically two types of silencers: muzzle mounted and over-barrel silencers. The advantage of the over-barrel silencer is the shorter increase in the overall length of the weapon. On the downside, however, you have to do without an open sight.



Advantages of silencers

- **Muzzle blast suppression**

Silencers can reduce the muzzle blast to a level that is no longer harmful.

- **Muzzle flash reduction**

Silencers absorb the muzzle flash almost completely. In poor light conditions (e.g. at dawn or dusk) the shooter is not dazzled and can better see how the animal behaves in the shot. Quick follow-up shots are possible without any problems.

- **Up to 50% recoil reduction**

Recoil reduction and reduced muzzle flip-up are other advantages of silencers. These lead to significantly improved shooting results for many shooters.

- **Improved accuracy**

Similar to a muzzle brake, the silencer reduces accuracy influencing turbulence on the projectile. In addition, the weight of the damper calms the vibration of the barrel, which is also beneficial for shooting performance.

- **Directional hearing is possible**

In contrast to ear protectors, silencers hardly restrict directional hearing (the ability to recognize the spatial origin of acoustic signals).

Disadvantages of silencers

- Overall length increases and is therefore less „handy“
- The balance changes due to the additional weight at the muzzle
- Changed point of impact compared to shooting without a silencer
- Heat haze with rapid firing, which is not relevant for hunting
- Additional maintenance effort

Individual selection criteria

- **Suppression performance**

How much suppression should it be? A reduction in the sound level by 6 dB corresponds to a halving of the sound pressure. A comparatively low reduction value of 20 dB already means a reduction in sound pressure of a whopping 90 percent!

The best results are achieved either with particularly large-volume silencers or silencers with metal mesh.

- **First Round Pop**

The oxygen in the silencer leads to a louder pop when the first shot is fired, the so-called first round pop. This effect does not apply to direct follow-up shots. A minimal first round pop is particularly important for hunters, since often only one shot is fired when hunting. Silencers with a metal mesh are ideal here, as they produce almost no first round pop – e.g. the ERA Silencer SOB3D!

- **Net Length**

Attaching a silencer lengthens the weapon and affects the usual balance as well as handling e.g. on high seats. However, it should be noted that smaller silencers usually achieve a lower suppression performance. Exceptions here are silencers with metal mesh, such as e.g. the ERA Silencer SOB3D.

- **Weight**

Large-volume silencers are characterized by better suppression values and higher resilience. In return, one has to accept a higher weight, which negatively affects the balance of the weapon.

- **Toughness - what do I need the silencer for?**

When hunting, silencers are usually not exposed to high volume shooting, as most of the time only 1 or 2 shots are fired in quick succession. However, if the silencer is also meant to be used on the shooting range or in the shooting cinema, average hunting silencers easily reach their limits due to the high or fast fire rate. Tougher silencers use more heat-resistant materials, which increases the weight and costs. Highly resilient and suitable silencers for shooting cinemas, e.g. the ERA-Silencer SOB2S with a stainless steel interior.

- **Price**

As everywhere, the price of silencers varies greatly, depending on the materials, manufacturer and quality. The most expensive suppressor does not necessarily need to be the best. Every hunter has to decide for himself what his requirements are and what his budget allows.

Maintenance

Basically, silencers are highly technical products that are exposed to extreme forces and are therefore subject to corresponding wear and tear.

With a little maintenance, however, this can be kept within limits and the performance of a silencer can be maintained.

After each hunt, silencers, regardless of the type and material, should be removed from the gun and carefully aired and dried, even if no shot has been fired. Condensation and aggressive propellant residues can quickly lead to corrosion in the silencer, in the barrel and especially on the muzzle thread, which can lead to damage to the silencer and the weapon.

The suppressor should be cleaned at least once a year or after a maximum of 100 shots.

All ERA silencers can be taken apart and are therefore particularly easy to clean. The best way to remove deposits and powder residue from the outer tube and the baffle component is to use a special silencer cleaner or a mild soap (e.g. detergent).

In special cases, we recommend placing the silencer in an oil bath (a commercial machine oil is recommended). Leave the silencer for a few hours or e.g. overnight in the bath, till the crusting loosens and you can disassemble the silencer easily. Bottle brushes are very good for cleaning the outer tube, and we recommend using a soft brush or a kitchen sponge to clean the baffle component.



Assembling



Cleaning



Cleaning advice

Take Care!

- Never use aggressive cleaning agents containing chlorine or salt. These can harm the metal and significantly shorten their lifespan.
- After cleaning, all parts must be absolutely dry! Only then may the silencer be reassembled.

If you follow these basic rules, your silencer will accompany you in your hunting life for many years.

Conclusion

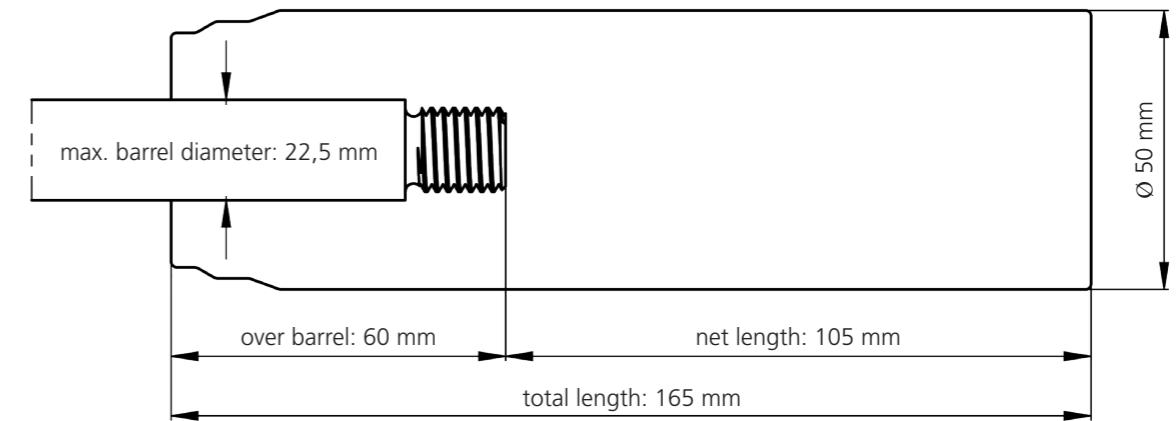
There is no one best silencer. It is important to understand the individual advantages and disadvantages in order to find the most suitable silencer for the desired application.

Being well informed and comparing data is always a good start. We would like to offer you our support.



NEW!

Now also available for Caliber 5,7 und 6,5 mm



- Excellent suppression due to integrated stainless steel mesh
- No first round pop. Especially important for hunting!
- Super short and light – the rifle's handling hardly changes



High Suppression

Bis zu 31 dB, (Wert ermittelt durch DEVA)



Minimized First Round Pop



Net Length

105mm



Weight

326g incl. ERA®LOC



Reduced Recoil



ERA®LOC

With optional ERA®LOC quick release



Minor Muzzle Flash



Exchangeable Threaded Bushing



Step Geometry

Eliminates damage to the seals



Surface Coating acc. to MIL-SPEC



MAGNUM Compliance

At least 58 cm barrel length

| max. Caliber | Thread size | SOB 1 Part Number | SOB 2 Part Number | SOB 2S Part Number | SOB 3D Part Number |
|------------------|-------------------|----------------------|----------------------|-----------------------|-----------------------|
| 5,7 mm (.224) | M13x1 | SOB01-024A | SOB02-024A | - | SOB3D-024A |
| | M14x1 | SOB01-025A | SOB02-025A | - | SOB3D-025A |
| | M15x1 | SOB01-026A | SOB02-026A | - | SOB3D-026A |
| | M16x1 | SOB01-027A | SOB02-027A | - | SOB3D-027A |
| | M17x1 | SOB01-028A | SOB02-028A | - | SOB3D-028A |
| | M18x1 | SOB01-029A | SOB02-029A | - | SOB3D-029A |
| | 1/2"-20 UNF | SOB01-030A | SOB02-030A | - | SOB3D-030A |
| | 1/2"-28 UNEF | SOB01-031A | SOB02-031A | - | SOB3D-031A |
| | 5/8"-24 UNEF | SOB01-032A | SOB02-032A | - | SOB3D-032A |
| ERA®LOC | SOB01-042A | SOB02-042A | - | SOB3D-042A | |
| 6,5 mm (.256) | M13x1 | SOB01-033A | SOB02-033A | - | SOB3D-033A |
| | M14x1 | SOB01-034A | SOB02-034A | - | SOB3D-034A |
| | M15x1 | SOB01-035A | SOB02-035A | - | SOB3D-035A |
| | M16x1 | SOB01-036A | SOB02-036A | - | SOB3D-036A |
| | M17x1 | SOB01-037A | SOB02-037A | - | SOB3D-037A |
| | M18x1 | SOB01-038A | SOB02-038A | - | SOB3D-038A |
| | 1/2"-20 UNF | SOB01-039A | SOB02-039A | - | SOB3D-039A |
| | 1/2"-28 UNEF | SOB01-040A | SOB02-040A | - | SOB3D-040A |
| | 5/8"-24 UNEF | SOB01-041A | SOB02-041A | - | SOB3D-041A |
| ERA®LOC | SOB01-046A | SOB02-046A | - | SOB3D-046A | |
| 7,62 mm (.30) | M13x1 | SOB01-000A | SOB02-000A | SOB2S-000A | SOB3D-000A |
| | M14x1 | SOB01-001A | SOB02-001A | SOB2S-001A | SOB3D-001A |
| | M15x1 | SOB01-002A | SOB02-002A | SOB2S-002A | SOB3D-002A |
| | M16x1 | SOB01-003A | SOB02-003A | SOB2S-003A | SOB3D-003A |
| | M17x1 | SOB01-004A | SOB02-004A | SOB2S-004A | SOB3D-004A |
| | M18x1 | SOB01-005A | SOB02-005A | SOB2S-005A | SOB3D-005A |
| | 1/2"-20 UNF | SOB01-006A | SOB02-006A | SOB2S-006A | SOB3D-006A |
| | 1/2"-28 UNEF | SOB01-007A | SOB02-007A | SOB2S-007A | SOB3D-007A |
| | 5/8"-24 UNEF | SOB01-008A | SOB02-008A | SOB2S-008A | SOB3D-008A |
| ERA®LOC | SOB01-043A | SOB02-043A | SOB2S-043A | SOB3D-043A | |
| 8 mm (.323) | M13x1 | SOB01-009A | SOB02-009A | SOB2S-009A | SOB3D-009A |
| | M14x1 | SOB01-010A | SOB02-010A | SOB2S-010A | SOB3D-010A |
| | M15x1 | SOB01-011A | SOB02-011A | SOB2S-011A | SOB3D-011A |
| | M16x1 | SOB01-012A | SOB02-012A | SOB2S-012A | SOB3D-012A |
| | M17x1 | SOB01-013A | SOB02-013A | SOB2S-013A | SOB3D-013A |
| | M18x1 | SOB01-014A | SOB02-014A | SOB2S-014A | SOB3D-014A |
| | 1/2"-20 UNF | SOB01-015A | SOB02-015A | SOB2S-015A | SOB3D-015A |
| | 1/2"-28 UNEF | SOB01-016A | SOB02-016A | SOB2S-016A | SOB3D-016A |
| | 5/8"-24 UNEF | SOB01-017A | SOB02-017A | SOB2S-017A | SOB3D-017A |
| ERA®LOC | SOB01-044A | SOB02-044A | SOB2S-044A | SOB3D-044A | |
| 9,5 mm (.375) | M14x1 | SOB01-018A | SOB02-018A | SOB2S-018A | - |
| | M15x1 | SOB01-019A | SOB02-019A | SOB2S-019A | - |
| | M16x1 | SOB01-020A | SOB02-020A | SOB2S-020A | - |
| | M17x1 | SOB01-021A | SOB02-021A | SOB2S-021A | - |
| | M18x1 | SOB01-022A | SOB02-022A | SOB2S-022A | - |
| | 5/8"-24 UNEF | SOB01-023A | SOB02-023A | SOB2S-023A | - |
| | ERA®LOC | SOB01-045A | SOB02-045A | SOB2S-045A | - |



SOB 1
The High-Performance
One

SOB 2
The All-Rounder

SOB 2S
The Resilient One

SOB 3D
The Efficient One

NEW!
Now also available
for Caliber
5,7 und 6,5 mm

ERA[®]LOC Quick Release

The seemingly endless screwing and unscrewing of the silencer has an end!

The ERA[®]LOC quick release allows the silencer to be set up and released quickly and easily with just a short 60° turn. The very robust thread ensures a secure hold of the suppressor due to the high number of threads. The attachment on the front side of the threaded bush protects the thread itself from powder residues and guarantees a consistent and safe function. Our ERA[®]SILENCERS are now available with optional ERA[®]LOC quick release. All you need is the matching ERA[®]LOC muzzle adapter.

Existing ERA[®]SILENCERS can be easily retrofitted. You need our ERA[®]LOC adapter set, consisting of muzzle adapter, threaded bushing with assembly bolt and the assembly tool.

ERA[®]LOC muzzle adapter, short

(M13x1, M14x1, M15x1, 1/2"-20, 1/2"-28)



| Thread Size | Part Number Muzzle Adapter | Part Number Adapter Set* |
|--------------|----------------------------|--------------------------|
| M13x1 | S0002-1310 | S0003-1310 |
| M14x1 | S0002-1410 | S0003-1410 |
| M15x1 | S0002-1510 | S0003-1510 |
| M16x1 | S0002-1610 | S0003-1610 |
| M17x1 | S0002-1710 | S0003-1710 |
| M18x1 | S0002-1810 | S0003-1810 |
| 1/2"-20 UNF | S0002-1220 | S0003-1220 |
| 1/2"-28 UNEF | S0002-1228 | S0003-1228 |
| 5/8"-24 UNEF | S0002-5824 | S0003-5824 |

*Consists of muzzle adapter and threaded bushing incl. mounting toggle and assembly tool

ERA[®]LOC muzzle adapter, long

(M16x1, M17x1, M18x1, 5/8"-24)



ERA[®]LOC Muzzle Brake

Technical data:

- Length: 49 mm
- Net length: 31mm
- Diameter: 24mm
- Weight: 62gr

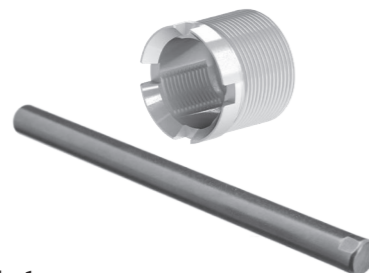


NEW!

Our new ERA[®]LOC muzzle brake helps reduce the recoil considerably. Precision machined from high grade steel. Manganese phosphate finish for high corrosion resistance. The short and compact brake extends your rifle by only 31 mm. Equipped with our ERA[®]LOC quick release, the muzzle brake attaches quickly and easily to the barrel with just a short 60° turn (ERA[®]LOC muzzle adapter required).

The offset pattern of the gas ports reliably avoids unintended loosening of the muzzle brake. Ideal whenever the use of a silencer is not allowed. Fits all calibers up to .375.

ERA[®]LOC Threaded Bushing with Mounting Toggle



| Part Number |
|-------------|
| S0000-0000 |

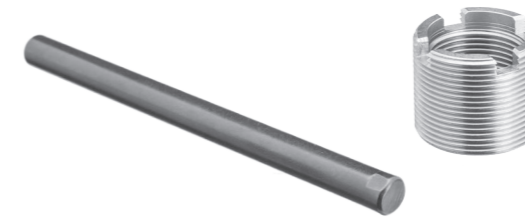
ERA[®]LOC Thread Protection Nut

- Protects the muzzle thread while the silencer is removed
- Made of heat resistant material
- With inner thread, shot resistant



| Part Number |
|-------------|
| S0001-0001 |

Threaded Bushing for standard threads with Mounting Toggle



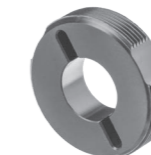
Thread Protection Nut

- Protects the muzzle thread while the silencer is removed
- Transverse grooves offer a better grip
- Aluminum, black anodized



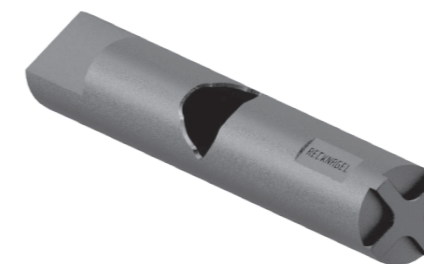
Barrel Bushing

Included with every ERA[®]SILENCER



Assembly Tool

Included with every ERA[®]SILENCER



ERA[®]SILENCER Protective Sleeve by Niggeloh



| Thread Size | Part Number |
|--------------|-------------|
| M13x1 | S0000-1310 |
| M14x1 | S0000-1410 |
| M15x1 | S0000-1510 |
| M16x1 | S0000-1610 |
| M17x1 | S0000-1710 |
| M18x1 | S0000-1810 |
| 1/2"-20 UNF | S0000-1220 |
| 1/2"-28 UNEF | S0000-1228 |
| 5/8"-24 UNEF | S0000-5824 |

| Thread Size | Part Number |
|--------------|-------------|
| M13x1 | S0001-1310 |
| M14x1 | S0001-1410 |
| M15x1 | S0001-1510 |
| M16x1 | S0001-1610 |
| M17x1 | S0001-1710 |
| M18x1 | S0001-1810 |
| 1/2"-20 UNF | S0001-1220 |
| 1/2"-28 UNEF | S0001-1228 |
| 5/8"-24 UNEF | S0001-5824 |

| Modell | Part Number |
|---------------|-------------|
| SOB1 / 2 / 3D | 00002-933A |
| SOB 2S * | 00003-150A |

*heat resistant material

| Part Number |
|-------------|
| 00003-213A |

- Protects the silencer from damage
- Additional suppression of the gunshot sound
- Tapered cut according to silencer shape reliably prevents slipping of the sleeve
- Made of high-quality elastic neopren, black
- Made in Germany by Niggeloh

| Modell | Lenght | Part Number |
|----------------|--------|-------------|
| SOB 1 / 2 / 2S | 235 mm | S0010-0001 |
| SOB 3D | 165 mm | S0010-0002 |



It's all about silence.
RECKNAGEL

www.era-silencer.de



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