

Muzzle Brake (PN 04.115) for

- o **AR-15 (9x19) and other pistol calibre carbines in the calibre 9x19 (9x21) with a 1/2" – 28 muzzle thread**

Thank you for choosing a high-quality **TECTAL** product!

The *muzzle brake* is 100% "Made in Austria" and was developed with a considerable amount of research and practical testing in the IPSC - PCC class. As a result, the *muzzle brake* offers the following benefits:

- ✓ Significantly reduced wandering of the muzzle during strings of fire due to a combination of the brake's effectiveness and the additional weight at the muzzle end.
- ✓ Compact (overall length +25 to +30mm)
- ✓ Made from high-quality stainless steel which is also used for barrel manufacturing.



Supplied Parts:

- 1 pc. *TECTAL Muzzle Brake (PN 04.115)*

It is highly recommended to have the muzzle brake installed by a gunsmith!

Required tools:

- Bench vice
- Protective vice inserts (braces) made from plastic with prismatic openings
- 19mm spanner or adjustable spanner with flat, parallel jaws

INSTALLATION - PREPARATION

1. **Before maintaining or working on any firearm always ensure that it is unloaded and safe!**

While pointing the firearm in a safe direction remove any magazine from the firearm and ascertain it is unloaded by locking the slide to the rear and visually inspecting the chamber before working on or cleaning it! If loaded follow the proper procedures to unload the firearm safely!



Firearms Safety is your responsibility!

2. If required remove the handguard and then clamp the barrel securely in the vice with the protective inserts so that 1.) the weapon may not be damaged and 2.) the required torque can be applied safely to remove existing muzzle devices and to install the muzzle brake.
3. Remove any muzzle devices and spacer shims or crush washers.
4. Clean the muzzle and barrel end thoroughly to remove any dirt and powder residue which may impair the installation procedure and lightly coat with a suitable, high temperature resistant (gun-)oil.

INSTALLATION

General:

This muzzle brake does not come with shims or a crush washer as often times these are already on hand. If required, shims can be purchased separately.

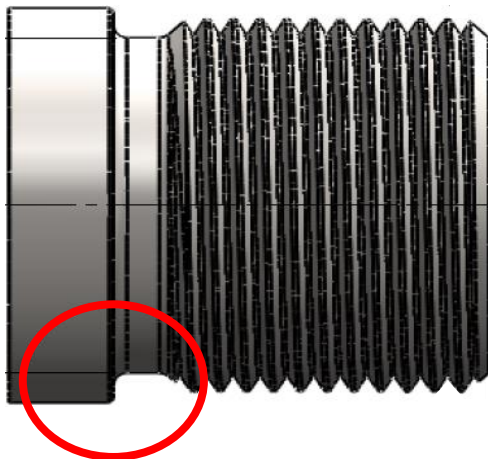
The installation of the *muzzle brake* always follows the same principle although different executions of the muzzle thread will require the use of shims of varying width. The use of shims as opposed to crush washers is recommended to achieve the best possible, parallel contact!



In most cases – following correct installation – some threads will remain visible. This has no impact on the effectiveness of the *muzzle brake*.

A. Muzzle thread WITHOUT unthreaded shoulder

This execution of the muzzle thread features an undercut towards the barrel. The *muzzle brake* PN 04.115 is designed to accommodate the full muzzle thread length of 0,625" (15,9mm) typical for this execution.



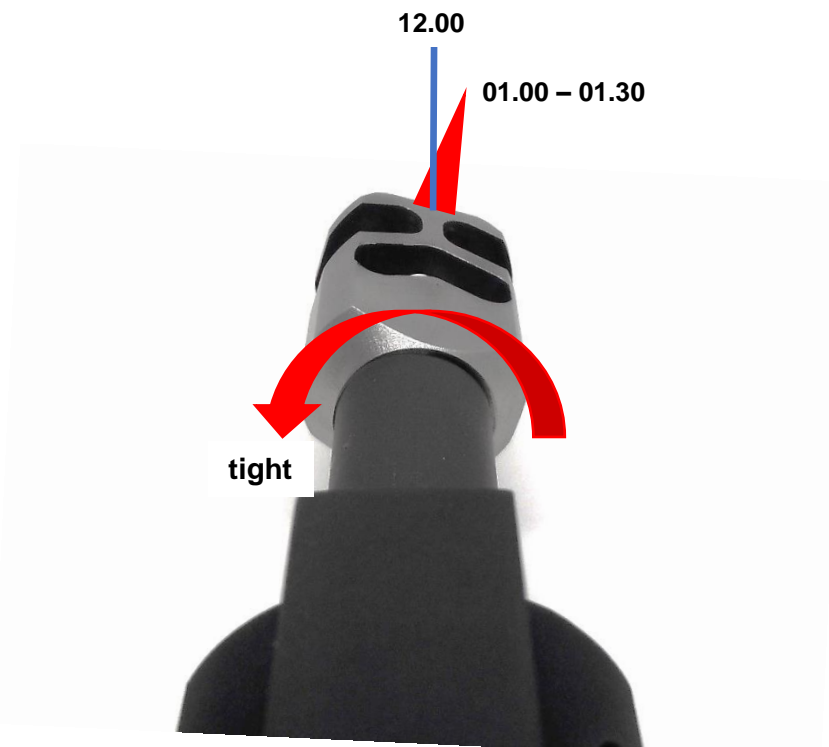
The *muzzle brake* in mounting situation „A.“ (without unthreaded shoulder) can theoretically be threaded on until in full contact with the barrel. However to achieve the correct orientation the use of shims of varying thickness may be required.

Installation for type „A“ – without unthreaded shoulder

1. Install the *muzzle brake* without shims, tighten by hand only and verify its orientation.

Correct orientation of the *muzzle brake* after tightening by hand:

An imaginary indicator located on the top surface of the *muzzle brake* (= surface with the “TECTAL” marking) points towards the 01.00 o’clock to 01.30 o’clock position when viewed from behind.



2. Depending on the actual orientation, add different shims to achieve the correct orientation after tightening by hand.

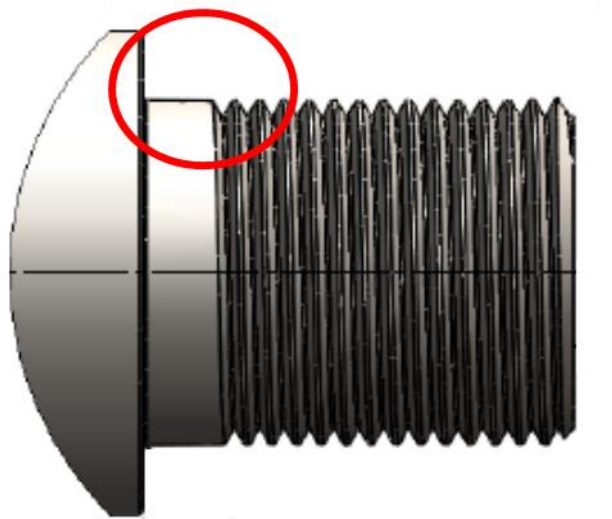
3. Once the correct orientation is achieved tighten the *muzzle brake* with a suitable tool until it is a.) tight and b.) the top surface of the *muzzle brake* (= surface with the “TECTAL” marking) is oriented towards the 12.00 o'clock position.

NOTE:

- ***If the „12.00 o'clock position“ is exceeded during tightening without achieving a sufficiently tight fit or if attaining the „12.00 o'clock position“ would involve undue force which may cause damage to the weapon, it is mandatory to correct this by readjusting the thickness of the shims used!***
- ***Clamp the barrel securely in the vice with the protective inserts so that 1.) the weapon may not be damaged and 2.) the required torque can be applied safely to install the muzzle brake.***

B. Muzzle thread WITH unthreaded shoulder

In this execution the muzzle thread retains an unthreaded portion (= shoulder) of typically 1,5 mm to 2 mm of width towards the barrel. The total length of the unthreaded shoulder and the thread most often is also 0,625“ (15,9mm).



The *muzzle brake* with an unthreaded shoulder may not be threaded on fully, until contacting the barrel. The unthreaded shoulder must be bridged with a wide (1,5 mm to 2 mm) shim or a combination of shims while simultaneously the orientation of the muzzle brake is considered.

Failure to do so may cause damage to the muzzle brake and the barrel!

Installation for type „B“ – with unthreaded shoulder

The installation follows the instructions of “Installation for type „A“ – without unthreaded shoulder” (see p. 4/5) except that a shim (or combination of shims) of sufficient thickness must be added to bridge the unthreaded portion.

NOTES ON INSTALLATION, MAINTENANCE AND USE

INSTALLATION

- It is highly recommended to have the *muzzle brake* installed by a gunsmith!
- The *muzzle brake 04.115* is to be used exclusively for pistol calibre carbines in the calibres 9x19 (and 9x21) with a muzzle thread of 1/2" – 28!

MAINTENANCE AND USE

- Check of the *muzzle brake*:



- During routine maintenance of the rifle
- Before shooting
- In any case at the latest after every 100 rounds fired check the proper and tight fit of the *muzzle brake* and its overall condition!



In case of any visible damage to the *muzzle brake* it must not be used!



No shotgun-, sabot- or other non-standard ammunition shall be used in conjunction with the *muzzle brake*!



Eye and ear protection is mandatory! The propellant gas with particles contained therein is partly diverted upwards, sideways and back by the *muzzle brake*.

In case of any questions please contact us at

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