

AG Silencer Specs Table

Airgun Silencers^{Note 11} = Moderators = Suppressors = Lead Dust Collectors (LDCs) — Mainly for PCPs

Matthias | 2020-10-21 | JungleShooterX@gmail.com

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Caliber ¹	Loudness Comparisons ² (not between tests!!)									Diameter ³	Length ⁴	Weight ⁵	Brand	Name, Info	Looks ⁶	\$\$ ^{→Link}	Connectors Available
FPE, Q or S ⁷	33, Q	80, Q	23, Q	19, S	23, S	56, S	56, S	59, S	12, Q								
Shrd?, Cal. ⁸	Y.22	Y.30	Y.22	Y.22	Y.22	Y.25	Y.25	Y.30	Y.20								
w/o Silencer	288 ^A	638 ^B	67 ^C	109 ^D	107 ^E	117 ^F	? ^G	105 ^H	104 ^I								
.177; .22; .25; .30	162 ^A	609 ^B								1.22" (2.8cm)	2.91" (7.4cm)	1.1oz (30g)	STO Silent ThunderO.	Brevitas	Plain	50 ^{P20}	½" x 20 UNF M20x1 (FX) Flow factor max. 2,011 ¹⁰
.177; .22; .25; .30									88 ^I	? (fairly slim)	Adds only ¹² 3.0"-3.5" (7.6"- 8.9cm)	3.2oz- 6.7oz (92g- 105g)	Daystate	Airstream Mk. VI Reflex (many Mk. versions!)	CarbF	Krale (not to US): 189. UK: 101.	½" x 20 UNF Daystate barrels (model specific!) OAL = 6.00"-7.00" (15.2cm-17.8cm)
.177/.22; .25										1.22" (3.1cm)	3.50" (8.9cm)	2.5oz (71g)	Huggett	Atom max. 12FPE	Deco	100 ^{P1} ; 125	½" x 20 UNF M14x1.25 (Vulcan) Slip-on (AirArms S400/410) M20x1 (FX)
.177/.22; .25										1.22" (3.1cm)	4.06" (10.3cm)	?	Huma	MOD30-1/2 = Mini	(Deco)	94 ^{P3}	½" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.22; .25; .30										1.6" (4.1cm)	4.25" (10.8cm)	4.1oz (116g)	DonnyFL	Tatsu	Deco	130 ^{P35}	½" x 20 UNF M20x1 (FX) M14x1.25 (Vulcan) .30 only with ½" x 20 UNF
.177/.22; .25; .30					98 ^E					1.25" (3.2cm)	4.30" (11.0cm)	3.8oz (108g)	ODB	110C	Deco	120 ^{P40} at retailers	½" x 20 UNF
.177/.22; .25	75 ^A								91 ^I	1.22" (3.1cm)	4.72" (12.0cm)	3.4oz (97g)	Huggett	Belita max. 12FPE	Deco	126 ^{P1} ; red: 140 ^{P1} ; 150; 170	½" x 20 UNF M14x1.25 (Vulcan) Slip-on (AirArms S400/410) M20x1 (FX)

Caliber ¹	Loudness Comparisons ² (not between tests!!)									Diameter ³	Length ⁴	Weight ⁵	Brand	Name, Info	Looks ⁶	\$\$ ^{→Link}	Connectors Available
FPE,Q or S ⁷	33,Q	80,Q	23,Q	19,S	23,S	56,S	56,S	59,S	12,Q								
Shrd?, Cal. ⁸	Y.22	Y.30	Y.22	Y.22	Y.22	Y.25	Y.25	Y.30	Y.20								
w/o Silencer	288 ^A	638 ^B	67 ^C	109 ^D	107 ^E	117 ^F	? ^G	105 ^H	104 ^I								
.177/.22; .25										1.22" (3.1cm)	4.88" (12.4cm)	?	Huma	MOD30-2/1 = Mini+	(Deco)	106 ^{P4}	1/2" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.22; .25; .30										1.57" (4.0cm)	4.96" (12.6cm)	6.4oz (182g)	Huggett	Mini-Magna max. 70FPE	Deco	150 ^{P1} ; 200, 190	1/2" x 20 UNF M14x1.25 (Vulcan) Slip-on (AirArms S400/410) M20x1 (FX)
.22; .25; .30	71 ^A				86 ^E					1.22" (3.1cm)	5.00" (12.7cm)	3.5-4.1oz (99-116g)	DonnyFL	Tanto	Deco	99 ^{P37}	1/2" x 20 UNF M20x1 (FX) M14x1.25 (Vulcan)
.22/.25; .25/.30; .357	73 ^A									1.36" (3.5cm)	5.00" (12.7cm)	c. 4.7oz (133g)	DonnyFL	FX/DonnyFI	Deco	120 ^{P30}	1/2" x 20 for .22/.25 and .25/.30 M18x1 for .357
.177; 22					98 ^E					1.2" (3.1cm)	5.43" (13.8cm)	c. 1.6oz (45g)	Geo	1/2-20 Series: 1.2" x 5.43"	CarbF	27 ^{P18}	1/2" x 20 UNF
.177; .20; .22; .25				87 ^D						0.88" (2.2cm)	5.50" (14.0cm)	2.1oz (60g)	Hill	5.5 1/2"-20 UNF	Plain	120 ^{P5} incl. S/H	1/2" x 20 UNF
.177/.22; .25										1.22" (3.1cm)	5.70" (14.5cm)	3.8oz (108g)	Huma	MOD30-3/0 = Compact	(Deco)	119 ^{P6}	1/2" x 20 UNF M20x1 (FX)
.177; .22; .25; .30							112 ^G			1.4" (3.7mm)	5.9" (14.9cm)	5.0oz (141g)	Huggett	Astille max. 100FPE	Deco	160 ^{P1}	1/2" x 20 UNF M20x1 (FX) Extensions available
.177/.22; .25; .30								96 ^H		1.57" (4.0cm)	5.70" (14.5cm)	6.4oz (180g)	Huma	MOD40-3/0 = Compact	(Deco)	129 ^{P7}	1/2" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.177; 22			63 ^C							0.94" (2.4cm)	6.00" (15.2cm)	1.39oz (39g)	Geo	1/2-20 Series: 0.94" x 6"	CarbF	26 ^{P18}	1/2" x 20 UNF
.177; .20; .22; .25										1.38" (3.5cm)	6.00" (15.2cm)	4.7oz (133g)	Hill	6 1/2"-20 UNF	Plain	140 ^{P2} incl. S/H	1/2" x 20 UNF Gauntlet \$120 ^{P10}
.22; .25/.30	108 ^A →?!?		62 ^C		86 ^E			96 ^H		1.6" (4.1cm)	6.25" (15.9cm)	5.6oz (159g)	DonnyFL	Sumo	Deco	150 ^{P33}	1/2" x 20 UNF M20x1 (FX) M14x1.25 (Vulcan)
.25; .30; .357; .457/.50	104 ^A →?!?					107 ^F	110 ^G			2.0" (5.1cm)	6.25" (15.9cm)	10.4oz (295g)	DonnyFL	Ronin	Deco	185 ^{P38}	1/2" x 20 UNF M20x1 (FX) M14x1.25 (Vulcan) for .457/.50 only with M18x1 Extension available
.177/.22; .25; .30	63 ^A									1.25" (3.2cm)	6.30" (16.0cm)	5.2oz (147g)	ODB	160C	Deco	190 ^{P40} at retailers	1/2" x 20 UNF

Caliber ¹	Loudness Comparisons ² (not between tests!!)									Diameter ³	Length ⁴	Weight ⁵	Brand	Name, Info	Looks ⁶	\$\$ [→] Link	Connectors Available
FPE, Q or S ⁷	33, Q	80, Q	23, Q	19, S	23, S	56, S	56, S	59, S	12, Q								
Shrd?, Cal. ⁸	Y.22	Y.30	Y.22	Y.22	Y.22	Y.25	Y.25	Y.30	Y.20								
w/o Silencer	288 ^A	638 ^B	67 ^C	109 ^D	107 ^E	117 ^F	? ^G	105 ^H	104 ^I								
.177; .22; .25; .30	93 ^A					109 ^F	111 ^G			1.38" (3.5cm)	6.30" (16.0cm)	4.0oz (113g)	Ramus	Trident	Deco	225 ^{P41}	½" x 20 UNF with regular end cap – and with flip compensator end cap – for high powered rifles – but louder (+ \$25)
.177; .22										0.875" (2.2cm)	6.50" (16.5cm)	?oz (?g)	TKO	.875" Stage-V Mod 1/2-20 UNF	Colors Plain	78 ^{P24} incl. S/H	½" x 20 UNF 10mm Airmax [Diana-SPA-Artemis] 14mm and 15mm barrel and non-threaded
.177; .22; .25	82 ^A									1.00" (2.5cm)	6.50" (16.5cm)	2.5oz ⁹ (73g)	TKO	1" Stage-V Mod 1/2-20 UNF	Colors Plain	92 ^{P23} incl. S/H	½" x 20 UNF and/or slip-on models
.177/.22; .25										1.22" (3.1cm)	6.54" (16.6cm)	?	Huma	MOD30-3/1 = Compact+	(Deco)	125 ^{P8}	½" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.177/.22; .25; .30										1.57" (4.0cm)	6.54" (16.6cm)	5.9oz (166g)	Huma	MOD40-3/1 = Compact+	(Deco)	153 ^{P9}	½" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.177/.22; .25; .30	50^A	89^B								1.57" (4.0cm)	6.69" (17.0cm)	6.4oz (180g)	STO Silent ThunderO.	Falx	Plain	129 ^{P21}	½" x 20 UNF M18x1; M20x1 (FX) M14x1.25 In 3 Flow factors: Std., Mod., Hi¹⁰
.177/.22; .25; .30; others?										1.22" (3.1cm)	6.73" (17.1cm)	4.6oz (129g)	Huggett	Snipe, or "Standard" max. 50FPE	Deco	160 ^{P1} ; 200, 180	½" x 20 UNF M14x1.25 (Vulcan) Slip-on (AirArms S400/410) M20x1 (FX)
.177; .22; .25; others?			63 ^C	94 ^D	93 ^E					1.0" (2.5cm)	6.87" (17.5cm)	3.7oz (104g)	Rocker1	?	CarbF	65 ^{P19}	½" x 20 UNF and others most likely
.22; .25; .30				87 ^D						1.22" (3.1cm)	7.00" (17.8cm)	4.6-5.0oz (130-142g)	DonnyFL	Koi	Deco	145 ^{P36}	½" x 20 UNF M20x1 (FX) .25 also for Skywawk
.177; 22			61 ^C							1.2" (3.1cm)	7.00" (17.8cm)	1.8oz (51g)	Geo	1/2-20 Series: 1.2" x 7.0"	CarbF	28 ^{P18}	½" x 20 UNF
.177/.22; .25										1.22" (3.1cm)	7.28" (18.5cm)	4.6oz (130g)	Huma	MOD30-4/0 = Standard	(Deco)	148 ^{P11}	½" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.177/.22; .25; .30					81 ^E					1.57" (4.0cm)	7.36" (18.7cm)	6.6oz (187g)	Huma	MOD40-4/0 = Standard	(Deco)	160 ^{P13}	½" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.177/.22; .25; .30										1.57" (4.0cm)	7.36" (18.7cm)	7.6oz (216g)	Huma	MOD40-4/0 = Standard for AGT	(Deco)	160 ^{P12}	M14x1.25 (AGT Vulcan, Uragan) Length (sections) adjustable!

Caliber ¹	Loudness Comparisons ² (not between tests!!)									Diameter ³	Length ⁴	Weight ⁵	Brand	Name, Info	Looks ⁶	\$\$ ^{→Link}	Connectors Available
FPE, Q or S ⁷	33, Q	80, Q	23, Q	19, S	23, S	56, S	56, S	59, S	12, Q								
Shrd?, Cal. ⁸	Y.22	Y.30	Y.22	Y.22	Y.22	Y.25	Y.25	Y.30	Y.20								
w/o Silencer	288 ^A	638 ^B	67 ^C	109 ^D	107 ^E	117 ^F	? ^G	105 ^H	104 ^I								
.177; .22; .25; .30										1.18" (3.0cm)	7.48" (19.0cm)	?	Wolf	K-Baffles	Plain	89 ^{P27}	½" x 20 UNF
.117/.22; .25									84 ^I	1.18" (3.0cm)	7.76" (19.7cm)	3.9oz (110g)	Weih- rauch	Weihrauch 1/2 NF, the original HW100-version	Plain	65 ^{P39}	½" x 20 UNF Up to 45FPE. Originally designed to fit the HW100.
.22; .25; .30										1.57" (4.0cm)	7.80" (19.8cm)	9.2oz (260g)	Huggett	Magna max. 100FPE	Deco	200 ^{P1} ; 270	½" x 20 UNF M14x1.25 (Vulcan) Slip-on (AirArms S400/410) M20x1 (FX)
.177; .20; .22; .25										1.38" (3.5cm)	8.00" (20.3cm)	5.7oz (162g)	Hill	8 ½"-20 UNF	Plain	133 ^{P42}	½" x 20 UNF
.25; .30										1.6" (4.1cm)	8.00" (20.3cm)	7.2oz (204g)	DonnyFL	Shogun	Deco	185 ^{P34}	½" x 20 UNF M20x1 (FX) M14x1.25 (Vulcan)
.177/.22; .25										1.22" (3.1cm)	8.15" (20.7cm)	?	Huma	MOD30-4/1 = Standard+	(Deco)	153 ^{P14}	½" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.177; .22; .25										1.18" (3.0cm)	8.28" (21.0cm)	?	Wolf	1/2 UNF	Plain	49 ^{P25}	½" x 20 UNF
.177; .22; .25										1.18" (3.0cm)	8.28" (21.0cm)	?	Wolf	4 Conical Baffles 1/2 UNF	Plain	49 ^{P26}	½" x 20 UNF
.177/.22; .25; .30										1.57" (4.0cm)	8.15" (20.7cm)	7.3oz (207g)	Huma	MOD40-4/1 = Standard+	(Deco)	189 ^{P15}	½" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.177/.22; .25										1.22" (3.1cm)	9.00" (22.8cm)	5.5oz (155g)	Huma	MOD30-5/0 = Long	(Deco)	177 ^{P16}	½" x 20 UNF M20x1 (FX)
.177/.22; .25; .30										1.57" (4.0cm)	9.00" (22.8cm)	8.8oz (250g)	Huma	MOD40-5/0 = Long	(Deco)	196 ^{P17}	½" x 20 UNF M20x1 (FX) Length (sections) adjustable!
.177; .22; .25; .30										1.38" (3.5cm)	9.06" (23.0cm)	?	Wolf	K-Baffles High Efficiency	Plain	109 ^{P28}	½" x 20 UNF
?										2.00" (5.1cm)	10.00" (25.4cm)	?	DonnyFL	Emperor V2	Deco	220	½" x 20 UNF
.177/.22; .25; .30	38^A	65^B								1.57" (4.0cm)	10.00" (25.5cm)	9.2oz (260g)	STO Silent ThunderO.	Sarissa	Plain	164 ^{P22}	½" x 20 UNF M18x1 M20x1 (FX) M14x1.25 In 3 Flow factors: Std., Mod., Hi¹⁰

Caliber ¹	Loudness Comparisons ² (not between tests!!)									Diameter ³	Length ⁴	Weight ⁵	Brand	Name, Info	Looks ⁶	\$\$ ^{→Link}	Connectors Available
FPE,Q or S ⁷	33,Q	80,Q	23,Q	19,S	23,S	56,S	56,S	59,S	12,Q								
Shrd?, Cal. ⁸	Y.22	Y.30	Y.22	Y.22	Y.22	Y.25	Y.25	Y.30	Y.20								
w/o Silencer	288 ^A	638 ^B	67 ^C	109 ^D	107 ^E	117 ^F	? ^G	105 ^H	104 ^I								
.177; .22; .25; .30	90 ^A									1.57" (4.0cm)	10.04" (25.5cm)	10.5oz (297g)⁹	Wolf	K-Baffles High Efficiency Premium	Plain	129 ^{P29}	½" x 20 UNF
.22/.25/.30; .308/.357; .457/.50	81 ^A									2.00" (5.1cm)	10.50" (26.7cm)	15.4oz (437g)⁹	DonnyFL	Emperor V3	Deco	240 ^{P31}	½" x 20 UNF and M20x1 (FX) for .308/.357 and .457/.50 only with M18x1 Extension available
Extensions and Accessories																	
.22/.25/.30; .308/.357; .457/.50										2.00" (5.1cm)	6.25" (15.9cm)	?	DonnyFL	Emperor or Ronin V3 6.26 inch- Extender	Plain	60 ^{P32}	½" x 20 UNF M18x1; M20x1 (FX) M14x1.25 (Vulcan)
.177; .22; .25; .30							109 ^G			1.4" (3.7mm)	1.5" (3.9cm)	1.3oz (36g)	Huggett	Astille Extension	Plain	50 ^{P1}	½" x 20 UNF M20x1 (FX) Various can be combined
.177/.22; .25										1.22" (3.1cm)	5.23" (2.1cm)	0.5oz (15g)	Huma	Chamber for MOD30, 20mm	(Deco)	23 ^{P43}	n/a
.177/.22; .25										1.22" (3.1cm)	10.54" (4.2cm)	0.8oz (23g)	Huma	Chamber for MOD30, 40mm	(Deco)	33 ^{P44}	n/a
.177/.22; .25										1.22" (3.1cm)	14.48" (5.7cm)	?oz (?g)	Huma	Start Piece for MOD30, 40mm	(Deco)	43 ^{P45}	½" x 20 UNF M20x1 (FX)
.177/.22; .25; .30										1.57" (4.0cm)	5.23" (2.1cm)	?oz (?g)	Huma	Chamber for MOD40, 40mm	(Deco)	29 ^{P46}	n/a
.177/.22; .25; .30										1.57" (4.0cm)	10.4" (4.1cm)	1.3oz (36g)	Huma	Chamber for MOD40, 40mm	(Deco)	35 ^{P47}	n/a
.177/.22; .25; .30										1.57" (4.0cm)	15.00" (5.9cm)	1.3oz (36g)	Huma	Start Piece for MOD40, 40mm	(Deco)	41 ^{P48}	½" x 20 UNF M20x1 (FX)
Calibers ¹	Loudness Comparisons ² (not between tests!!)									Diameter ³	Length ⁴	Weight ⁵	Brand	Name, Info		\$\$ ^{→Link}	Connectors Available

Caliber ¹	Loudness Comparisons ² (not between tests!!)									Diameter ³	Length ⁴	Weight ⁵	Brand	Name, Info	Looks ⁶	\$\$ ^{→Link}	Connectors Available
FPE, Q or S ⁷	33,Q	80,Q	23,Q	19,S	23,S	56,S	56,S	59,S	12,Q								
Shrd?, Cal. ⁸	Y.22	Y.30	Y.22	Y.22	Y.22	Y.25	Y.25	Y.30	Y.20								
w/o Silencer	288 ^A	638 ^B	67 ^C	109 ^D	107 ^E	117 ^F	? ^G	105 ^H	104 ^I								

Notes

- ¹ **Caliber:** If the caliber sizes are separated by a forward slash / this means that both calibers are combined for this model. If caliber sizes are separated by a semicolon ; this means both calibers are separate products for this model.
- ² **Loudness:** ▲Do not compare silencer test results from different tests with each other – only compare silencer test results from the same test – because the numbers are not comparable between tests due to wildly different test protocols! Each column presents the results from one test, and designated by a letter that appears raised after each loudness number. The details of each test are described in a separate section.
- ³ **Diameter:** (or thickness) It is visually indicated with the thickness of the font that declares the diameter.
thin = under 3.2cm=1.25" | normal = 3.2cm–4.5cm=1.3"–1.8" | **thick = over 4.5cm=1.8"**
- ⁴ **Length:** It is visually indicated with the thickness of the font that declares the length.
Silencers are between 3.5" and 10.5" long = between 9 and 27cm long.
short = under 5"=12.7cm | compact = 5"–6"=12.7–15.2cm | **medium = 6"–7"=15.2–17.8cm** | **long = 7"–9"=17.8–22.9cm** | **extra long = longer than 9"=22.9cm**
- ⁵ **Weight:** It is visually indicated with the thickness of the font that declares the weight.
Most silencers are between 100g and 200g; a few up to 300g, and a few below 100g; and one 450g.
light = under 120g=4.2oz | normal = 120–200g=4.2–7.1oz | **heavy = 200–300g=7.1–10.6oz** | **extra heavy = over 300g=10.6oz**
- ⁶ **Looks:** *Deco* = Alu with decorative indentations and cutouts, often not only on the body but on the front end | *Plain* = Plain Alu | *CarbF* = Carbon Fiber
- ⁷ **Test conditions:** Muzzle energy in FPE? | Test trustworthiness?: S = simple test; Q = quality test (sophisticated setup and/or equipment); **Q** = high quality
- ⁸ **Test conditions:** Shrouded gun or not? | Caliber = ? [.17 (= .177) | .22 | .25 | .30]
- ⁹ **Source:** <https://www.silentthunderordnance.com/blog/2019/3/1/airgun-moderator-design-performance-and-development-the-big-test-part-5>
- ¹⁰ Most of the STO silencers are available for three different *flow factors* – essentially three different amounts of air that require silencing:
- Standard (Std.) = Tuned for *shrouded* FX Crown .22 with 32FPE → Flow factor = 460. Without silencer w/ extended shroud = 288 loudness number
 - Moderate (Mod.) = Tuned for *shrouded* FX Crown .30 with 80FPE → Flow factor = 1,111. W/o silencer, but w/ extended shroud = 638 loudness number
 - High (Hi.) = Tuned for *unshrouded* FX Dreamline .30 with 87FPE → Flow factor = 6,500. W/o silencer and w/o shroud = 3,668 loudness number
- <https://www.silentthunderordnance.com/moderator-configuration-application-optimization>
- ¹¹ You don't like the term *silencer*? Well, that's the name this device was patented with, cf. Andy's detailed discussion here: <https://youtu.be/nIKx9e7sOPU?t=408>
- ¹² The Daystate silencer uses a "reflex" design, where about half of the silencer extends forward of the shroud/barrel end, and the other half backwards, like an *add-on quick-attach shroud*.

Silencers – Limited to Certain Gun Brands or Models – or Springers

- **SOS (Talon Tunes):** FOR: Airforce airguns
<https://talontunes.com/product-category/shroud-sound-moderators/>
- **Hill Airgun:** FOR: Crosman/ Benjamin airguns
<https://hillairgun.com/store/>
- **Wolf (Poland):** FOR: Hatsan | Weihrauch | Evanix | Crosman | Sumatra | QB78 | QB79 | Hammerli | 15mm | 16mm
<http://wolfairguns.com/>
- **DonnyFI:** for Umarex Hammer | and others
<https://donnyfi.com>

- **Mac 1:** Discovery | 15mm | 16mm | MRod | PRod | Benjamin
<https://www.mac1airgunshop.com/product-p/mgeiibr.htm>
- **FOR:** AGT (Vulcan, Uragan), with M14x1.25
<https://www.airgunsofarizona.com/airgun-silencers/agt-vulcan/uragan-airgun-silencer-with-m14-threads/>

Makers of Custom Silencers

- **Rocker1:** David
 Highly praised for their value (performance per cost).
 Email: davidjfurrr@outlook.com
 User name at GTA: Rocker1
 Profile: <https://www.gatewaytoairguns.org/GTA/index.php?action=profile;u=21>
- **Neil Clague:** <http://petersoncorner.com/clague/contact.htm>
 Highly praised for good performance.
 User name at AirGunGuild.com: Jaycee
 Some info: <https://www.airgunnation.com/topic/neil-clague-moderator-internals/>
 All his silencers are custom made and designs vary widely, according to customers' requests. He offers both (a) regular silencers and (b) a what some call "reflex" silencers – the latter is basically an *add-on quick-attach shroud*: it screws onto the barrel end/ shroud end with a recessed internal thread, and extends both backward and forward of that end, that way they are very effective, but also shorter than regular designs. Daystate uses this "reflex" design as well. Cf. discussion here:
<https://www.gatewaytoairguns.org/GTA/index.php?topic=179072>
- **Silent Thunder Ordnance:** <https://www.silentthunderordnance.com/secret-menu>
 Besides the standard models, it seems he would do customization as well.
 Some info: cf. his blog, extensive silencer tests, and the silencer series he developed
- **TKO: Mike Tiehen:** <http://tko22.com>
 Some info: On his webpage you can find his own silencer series. In a gallery you can find many pics to give you some ideas: http://www.tko22.com/TKO_Gallery/
 Email: Sales@TKO22.com | TKOAirguns@gmail.com | Tel. (402) 889 9222

Loudness Comparisons: Test Details

▲ **Do not compare silencer test results from different tests with each other** – only compare silencer test *results from the same test* – because the numbers are not comparable between tests due to wildly different test protocols and measurement tools.

There have been a many tests, and each column presents the results from one such test. The raised letter after the comparative loudness number references the details of the test, cf. below.

Most of these tests do not attempt to measure true dB, but simply measure the differences between different models, hopefully under exactly the same conditions.

Tests can be done using cellphone sound meters, not eliminating outside sources of error, not meticulously keeping the conditions the same. Then there are tests that use expensive sound meter equipment costing hundreds of dollars, using a carefully designed experimental design that eliminates outside factors and keeps conditions exactly the same. Tests that are more like the former are marked with an S, for simple test. Tests that are more like the latter are marked with a Q, for quality test.

Some Issues to Consider:

The loudness impression to the human ear is not always the same as the loudness measured by the electronic measuring instrument – loudness has much to do with impressions. In some shooting situations it is sufficient to lower the loudness and change its impression from that of a shot to that of something else that fit more naturally into the environment (which can be the woods or suburbia).

There are many components that one would need to measure, and unless one has a whole lab to do this, "normal" tests will be rather limited (mrbulk, aka Charlie, on GTA):

- db of the sound, at the peak

- total length of the sound
- pitch of the sound (low thud, sharp crack, etc.)
- type of the sound (hiss, mechanical pinging/ringing, etc.)

Test A: By Silent Thunder Ordnance (2018-2019)

Q: Fairly scientific test with high quality equipment. <https://www.silentthunderordnance.com>

33FPE | .22cal | Shrouded | FX Crown | 135 bar regulated | JSB 18.13gr | 890fps

Flow factor 460 – explained at: <https://www.silentthunderordnance.com/moderator-configuration-application-optimization>

<https://www.silentthunderordnance.com/blog/2019/3/1/airgun-moderator-design-performance-and-development-the-big-test-part-5>

The tests data for the silencers he made to sell are found with the product description on the particular webpage.

▲ The data for the Sumo and the Ronin make absolute no sense to me → !?! To put these higher numbers into perspective, though, consider how loud the gun was with the (extended!) shroud: 288! Considering that the difference from 70 to 100 isn't all *that* much.

Test B: By Silent Thunder Ordnance (2018-2019)

Q: Fairly scientific test with high quality equipment. <https://www.silentthunderordnance.com>

80FPE | .30cal | Shrouded | FX Crown

Flow factor 1111 – explained at: <https://www.silentthunderordnance.com/moderator-configuration-application-optimization>

<https://www.silentthunderordnance.com/blog/2019/3/1/airgun-moderator-design-performance-and-development-the-big-test-part-5>

Test C: By luge007 (Matt) at GTA (2000)

Q: Sound meter same as used by PyramydAir. 5 shot average.

23FPE | .22cal | Benjamin Maximus

Results saved separately

<https://www.gatewaytoairguns.org/GTA/index.php?topic=178083>

Test D: By Fit to a 'T' (2020)

S: Simple setup. Cheap sound meter. 3 shot average.

19FPE | B-Rod | .22cal | 14.3gr | 750fps

<https://www.youtube.com/watch?v=GKZBlmuFEC8>

Test E: By mrbulk (Charlie) (2020)

S: Simple setup. Cheap sound meter. Many walls for distorting reflection.

23FPE | .22cal | 18.13g at 750fps | Akela |

<https://www.gatewaytoairguns.org/GTA/index.php?topic=177832.msg156019383#msg156019383>

Test F: By Aero Sentinels (2019)

S: Simple setup. Sound meter about 1-2ft in front of the muzzle, about 10° off the shot line. A good amount of wind.

56FPE | Shroud | .25cal | 865fps with 34gr JSB King Heavy Mkl | Brocock Commander Magnum

117db = 115dB + 119dB without silencer

114dB = 114dB + 115dB with Ramus: Trident – with the flip compensator end cap – for high powered rifles

109db = 109dB + 109dB with Ramus: Trident – with the regular end cap (quieter)

107dB = 107dB + 108dB with DonnyFL: Ronin

<https://www.youtube.com/watch?v=-nquYbm8vF8>

Test G: By Aero Sentinels (2020)

S: Simple setup. Sound meter 6" in front of the muzzle. Indoors with walls and furniture to reflect sound.

56FPE | Shroud | .25cal | 865fps with 34gr JSB King Heavy Mkl | Brocock Commander Magnum

112dB Hugget: Astyle – regular

109dB Hugget: Astyle – with Extender

111dB Ramus: Trident – with Regular End Cap

112dB Ramus: Trident – with Flip Compensator End Cap

110dB DonnyFL: Ronin

https://www.youtube.com/watch?v=0Er5QAyh9_A

Test H: By Wisconsin AirGunners (2019)

S: Simple setup. Outdoors

59FPE | Shroud | .30cal | FX Crown | sound meter (iPhone with external \$50 microphone) about a foot ahead of the muzzle | 771fps with 44.5gr pellet

105dB without silencer, with *extended* shroud

96dB Huma MOD40-3/0 = Compact in .30

96dB DonnyFL Sumo .30

https://www.youtube.com/watch?v=nQu5leWL_3g

Test I: By AAR Andy's Airgun Review

Q: Three meters. 3 shot average, of the three meters.

12FPE | Shroud | .20cal✓ | Daystate Huntsman | sound meter about a foot to the side of the muzzle

Results saved separately

<https://www.youtube.com/watch?v=CVGZ83yNyyo>

Links to Some Sellers and Prices

P1: Search at: <https://penchetta.com> | <https://utahairguns.com>

P2: <https://hillairgun.com/product/hill-airgun-6-moderator-1-2-20-unf-threads/>

P3: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-1/2-\(Mini\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-1/2-(Mini))

P4: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-2/1-\(Mini\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-2/1-(Mini))

P5: <https://hillairgun.com/product/hill-airgun-5-5-moderator-with-1-2-20-unf-threads/>

P6: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-3/0-\(Compact\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-3/0-(Compact))

P7: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-3/0-\(Compact\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-3/0-(Compact))

P8: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-3/1-\(Compact\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-3/1-(Compact))

P9: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-3/1-\(Compact-Plus\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-3/1-(Compact-Plus))

P10: <https://hillairgun.com/product/hill-moderator-for-your-gauntlet-air-rifle/>

P11: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-4/0-\(Standard\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-4/0-(Standard))

P12: <https://www.huma-air.com/Modular-Moderator-MOD40-4/0-M14x1.25-for-Uragan-and-Vulcan>

P13: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-4/0-\(Standard\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-4/0-(Standard))

P14: [https://www.huma-air.com/Modular-Moderator-MOD30-4/1-\(Standard-plus\)](https://www.huma-air.com/Modular-Moderator-MOD30-4/1-(Standard-plus))

P15: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-4/1-\(Standard-Plus\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-4/1-(Standard-Plus))

P16: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-5/0-\(Long\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD30-5/0-(Long))

P17: [https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-5/0-\(Long\)](https://www.huma-air.com/Modular-Airgun-Silencer-MOD40-5/0-(Long))

P18: <https://www.airgununiverse.net/wp/store/12-20-hunter-class-ldc/>

P19: Email: davidjfur@outlook.com

<https://www.gatewaytoairguns.org/GTA/index.php?action=profile;u=21>

P20: <https://www.silentthunderordnance.com/secret-menu/brevitas>

P21: <https://www.silentthunderordnance.com/secret-menu/falx>

P22: <https://www.silentthunderordnance.com/secret-menu/sarissa>

P23: <http://tko22.com/Section4.html>

P24: <http://tko22.com/Section5.html>

P25: https://www.wolfairguns.com/product_info.php?cPath=37&products_id=42&osCsid=p927aea6k1g7kvj1895rvmjrh1

P26: https://www.wolfairguns.com/product_info.php?cPath=37&products_id=52&osCsid=p927aea6k1g7kvj1895rvmjrh1

P27: https://www.wolfairguns.com/product_info.php?cPath=37&products_id=86&osCsid=p927aea6k1g7kvj1895rvmjrh1

P28: https://www.wolfairguns.com/product_info.php?cPath=37&products_id=82&osCsid=p927aea6k1g7kvj1895rvmjrh1

P29: https://www.wolfairguns.com/product_info.php?cPath=37&products_id=81&osCsid=p927aea6k1g7kvj1895rvmjrh1

P30: <https://donnyfl.com/collections/ldc/products/1-36-x-5-inches-fx-donnyfl>

P31: <https://donnyfl.com/collections/ldc/products/2-x-10-5-inches-emperor-v3>

P32: <https://donnyfl.com/collections/accessories/products/emperor-v3-6-5-inch-extender>

P33: <https://donnyfl.com/collections/ldc/products/1-5-x-6-5-inch-sumo>

P34: <https://donnyfl.com/collections/ldc/products/1-6-x-8-inch-shogun>

P35: <https://donnyfl.com/collections/ldc/products/1-6-x-4-25-inches-tatsu>

P36: <https://donnyfl.com/collections/ldc/products/1-22-x-7-inches-koi>

P37: <https://donnyfl.com/collections/ldc/products/1-22-x-5-inches-tanto>

P38: <https://donnyfl.com/collections/ldc/products/2-x-6-5-inch-ronin>

P39: Ships from UK to USA: <https://www.airgunspares.com/weihsrauch15unfweihsrauchsilencer12unf.html> | ▲ Careful when buying from Germany: The gun license-free silencers (those with the F inside the pentagon) are for 6FPE super-low powered airguns only. I do not know, but suspect, that *the gun license silencers and the non-license silencers are different!*

P40: <http://www.0dbsilencers.com/where-to-buy/>

P41: <https://www.airgunsofarizona.com/ramus-technologies/>

P42: <https://hillairgun.com/product/hill-airgun-8-moderator-1-2-20unf-threads/>

P43: <https://www.huma-air.com/Optional-20-mm.-volume-chamber-for-the-Modular-Airgun-Silencer-MOD30>

P44: <https://www.huma-air.com/Optional-40-mm.-volume-chamber-for-the-Modular-Airgun-Silencer-MOD30>

P45: <https://www.huma-air.com/Optional-40-mm.-startpiece-for-the-Modular-Airgun-Silencer-MOD30>

P46: <https://www.huma-air.com/Optional-20-mm.-volume-chamber-for-the-Modular-Airgun-Silencer-MOD40>

P47: <https://www.huma-air.com/Optional-40-mm.-volume-chamber-for-the-Modular-Airgun-Silencer-MOD40>

P48: <https://www.huma-air.com/Optional-40-mm.-startpiece-for-the-Modular-Airgun-Silencer-MOD40>