

77 Spring-Powered Air Rifles .22 cal

with Synthetic Stock - and Data on Muzzle Energy - and Accuracy - for \$300 to \$500 (2018): Model Comparison List

Compiler: JungleShooter | Nov. 25, 2018

Link on AGN Forum: <https://www.airgunnation.com/topic/comparison-chart-77-synthetic-springers-22cal-power-price-accuracy-links/>

Of course, I take no responsibility neither for the correctness of this information, nor the credit card charges this might motivate you to make. Shop and shoot at your own risk.



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How You Get the Most From this List

This list I made for me, not for you. Sorry, dude (or dudette). So, I noted info about the criteria that are important to *me*.

- Criteria**
- \$300 to \$500
 - Synthetic Stock, with Thumb Hole
 - Accurate – usually meaning German-made or similar, however at the end of the list I listed some manufacturers of guns that usually are not that accurate
 - Powerful. You will notice that I have not written up many details about guns that do not have at least around 19FPE of muzzle energy. It's because I wanted **19FPE minimum**.... (You pick your own minimum power :-)
- I have often used **green** to highlight when a gun fulfilled one of my criteria.

The Prices are from the first half of 2018. They do change. There are often bargains. But you need to keep checking. In the box on the right is a list of my go-to sellers (sorry, no links, just the names, go Google). If you want to buy a used gun, some sellers/ sites are also in the box, at the bottom.

The URL column in the table contains the internet link where (at the time) I found the price listed. You will only see a ragged line in this PDF document. But is is a link. Copy it and paste it into your browser. Over time, these links will break, of course. (I noticed that when I saved the document as PDF, some links added spaces between some characters, so you might have to correct that, or just go to the seller's webpage, and enter the gun's name in the search box.)

The FPE column is a testimony to two facts: Some manufacturers lie about the performance figures. And each pellet has its own FPE (and each guns shoots a bit different anyhow). I sometimes reference where I got the FPE and other data, like accuracy, etc. I do that with the pound sign and a number, like #3. This refers to a review, a user, or forum comment that I have more details on below, usually the URL and maybe some reference to the credibility of the info.

The Accuracy column is of course a wild goose chase, I don't shoot as well as Tom Gaylord, so if he gets great groups with this rifle, that doesn't mean I ever will. But at least it gives me some idea. What I also was looking for also was comments on *hold sensitivity*.

The Spring column says either: Gas piston spring, or *NO*, meaning it does *not have a gas* piston spring, but a regular coiled spring.

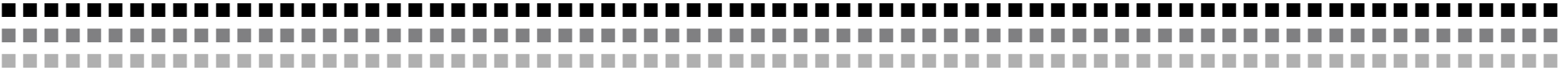
The Loudness column simply repeats the data from the PyramydAir rating system.

The Silencer column is really more about adding some kind of muzzle application to the muzzle, to make it look better: These muzzle applications have different names (and different functions, pick your favorite): muzzle shroud, muzzle weight, muzzle brake, cocking aid, barrel shroud, silencer, moderator, suppressor, flash suppressor, compensator, etc.


I comment if the gun has one, or if the gun has a threaded muzzle where a silencer of muzzle break or muzzle weight can be installed ("not possible" means no thread – but there are modder's ways to make it happen anyhow...). If you are interested in muzzle weights/ muzzle applications and which gun can be modified with which, shoot me a PM, I have collected a few links over time.

So, happy shopping. And don't tell your wife that it's *my* fault that you bought another(!) rifle.
In fact, don't blame me at all for any money you spend after going through this list.
And now I'll let you go, because I need to get back to looking at guns. I need to make a list of PCPs now.
:-) *JungleShooter*


GTA	GUN Forum: GTA Forum
AGN	GUN Forum: AGN = Airgun Nation
g-WORLD	Krale Schietsport (100\$ S/H)
g-USA: Sel1	PyramydAir
g-USA: Sel2	AirgunDepot
g-USA: Sel3	Cabela's
g-USA: Sel4	Field Supply
g-USA: Sel5	Airguns of Arizona
g-USA: Sel6	Midway USA
g-USA: Sel7	Trenier Outdoors
g-USA: Sel8	Airgun Megastore
g-USA: Sel10	LG-Outdoors
g-USA: Sel12	Straight Shooters
g-USA: Sel13	TopAirGun
g-USA: Sel14	Indiana Airguns -- CHRISTIAN!
g-USA: Sel16	PrecisionAirgunsandSupplies, Michigan
g-USA: Sel20	Uncommon Brands + Mods. BY MROD-Air
g-USA: Sel21	Uncommon Brands: BY R&L Airgun Supply
g-USA: Sel22	Uncommon Brands: BY Flying Dragon Air Rif...
g-USA: Sel23	Uncommon Brands: BY D&L Airgun
g-USA: Sel24	Uncommon Brands. Topgun-Airguns
GTA	USED#1: !! GTA (Forum)
g-USA: USED#2	AGN Forum (Airgun Nation)n Nation
g-USA: USED#3	Indiana Airguns -- CHR
g-USA: USED#4	Gunbroker
g-USA: USED#5	GunsAmerica
g-USA: USED#6	American Airguns
g-USA: USED#7	Baker Airguns
FS	USED#8: Refurbished. BY Field Supply
g-USA: USED#9	Refurbished. BY Hatsan USA



[illegible]

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
		User #4: Lloyd, USA: 2016: https://www.pyramydair.com/product-all-reviews/m/Diana_AR8_N_TEC_Air_Rifle/4165 "Accuracy for the first 5 shots with open sights at 25 yards was 3/4 inch. later with scope, 3/8 inch is the norm. velocity is 835 fps with 14.3 gr pellets and is not very loud."							
		Review #5: PyramydAir: Keith Warren: @3.30min: https://www.youtube.com/watch?v=ns1HZ9FB2FU @25y: 0.9" /9 shots + 1FI [or 1.7" /10 shots]							
		The model that the AR8 was modeled after (a hunting rifle): "With the revolutionary stock of the R8 Professional Success, Blaser gives active hunters the crucial edge for continuous successful shooting. The R8 Professional Success stock provides a completely relaxed posture of shooting hand and arm, regardless of the aiming position. Thus, vexatious flinching is almost completely eliminated by itself providing the most important preparation for the accurate shot in any hunting conditions. The dynamic shape of the R8 Professional Success underlines the high demands Blaser is placing on this product: simply the best for successful shooting!" <_____> There must be one with a muzzle weight! < https://www.gunmart.net/gun-reviews/airguns/air-rifles/diana-blaser-ar8-professional-success >							
RWS–Diana 340 N-TEC Panther [P340]	330 330	 =Back-corded	15FPE #4. 21FPE #5. 13FPE #6. 20FPE 800fps =Mfctr. 4.5mm! : 16–18FPE Gaylord #1. 16FPE #3.	Synth NO Hole has a few really nice geometrical lines	✓✓✓ @25y 0.5–0.7" / 10sh, cf. Gaylord	Gas	3-Med	Not, but	3.3kg = 7.3lbs, or 5.5lbs 117cm long = 46" –Trigger: some, not all: T06 –Buy a Drooper Mount right away! –There seem to be few around of this model → less spare parts etc.
	<p>Review #1: Tom Gaylord (2015), of 4.5mm, "Classic": https://www.pyramydair.com/blog/2015/05/diana-340-n-tec-classic-air-rifle-part-4/ [Nov16:] "As noted in the velocity test, the AR-8 is a mega-blaster, and one with a gas spring at that. Because of that, I had almost no hope for accuracy. The thin thread of hope that I clung to is the fact that the Diana 340 N-TEC was very accurate when I tested it. But that rifle isn't as powerful as the AR-8. Until today my experience with extremely powerful gas spring breakbarrel air rifles is they are not accurate. Except for the 340 N-TEC I just noted, the rest of them are punishing disappointments. The AR-8 changes that. Let me show you." < https://www.pyramydair.com/blog/2016/11/diana-model-ar8-part-3/ > @25y 0.5–0.7" / 10 4.5mm Wood stock</p> <p>▲ This is the first time in all my years of testing airguns that I've shot a powerful gas-spring rifle that is also neutral to hold ▲. I knew the lower-powered gas-spring guns were pretty forgiving, but not the magnums — which the 340 N-TEC certainly is.</p> <p>And that's when I got a crazy idea. What if this rifle is so neutral that it'll even shoot when rested directly on a sandbag? As in, no artillery hold? Is such a thing possible? Until this test, I would not have thought so. But this 340 N-TEC acts like it wants to shoot, so I gave it a try.</p> <p>Artillery hold abandoned — the fourth group: Lo and behold, I put 11 shots — not 10, but 11 — into 0.732 inches at 25 yards, with the rifle rested directly on the sandbag. I miscounted the shots, which is where the extra shot came from. This is the powerful spring rifle many of you said you wanted — one that's neutral to hold. Well, here it is! And it's powerful, relatively easy to cock (for a powerful gas-spring rifle, that is) and it has a light trigger."</p> <p>Q: "How does it compare with the beeman rx2 or the HW90 [rx2 = HW90; around 700\$; with 17FPE] in terms of accuracy?" → A: (Tom): "This rifle is WAY more accurate than either of those. It's also far easier to cock and to shoot."</p> <p>Large velocity spreads for a springer. < https://www.pyramydair.com/blog/2015/04/diana-340-n-tec-classic-air-rifle-part-2/ > FPE: for 4.5mm, which have a few FPE less than the 5.5mm: 18.3FPE + 17.2FPE + 15.7 or 16.2FPE</p>								

<https://www.pyramydair.com/blog/2015/04/diana-340-n-tec-classic-air-rifle-part-2/>

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
		<p>Review #2: 2016-10: AirgunShooting.co.uk (and their magazines): < http://www.airgunshooting.co.uk/the-big-test-diana-340-n-tec-1-4724443 > —RWS 340 N-TEC 5.5mm 12FPE non-FAC [that really changes things!] Compact with Muzzle Brake Wood stock—</p> <p>“Group size: Accuracy testing was next and, for me, this is by far the most important part of any test. I began shooting off a bench with conventional sandbag-type rests, but I wasn't doing very well. I was using everything I'd learned about shooting springers, which involves a light grip that allows the rifle to recoil in a similar way each time the gun fires, but something still wasn't right. I was getting flyers that I couldn't explain. Then I remembered the Guru telling me he shoots his beloved springers off soft cushions that absorb the recoil movement, rather than making the gun deflect off a hard surface. With a big, soft sofa cushion supporting the back of my leading hand, I was suddenly spot on; at 30 yards I was getting neat ½" groups consistently, and I was a happy man.</p> <p>Piston-powered guns all have their quirks, and it's clear the 340 N-TEC likes to be left free to do its own thing.”</p> <p>Drooper!</p>							
		<p>Review #3: 2016: Airgun Exploration & Advancement Channel: < https://www.youtube.com/watch?v=i8ptW03qupl > 340 N-TEC 4.5mm Wood stock</p> <p>FPE (4.5mm) – in comfortable temps, looks like SC: 16FPE with various weights.</p> <p>“I tried a lot of holds and a lot of pellets. This rifle wants to be left alone.”</p>							
		<p>User #4: Ligionera1, at GTA: 610fps with JSB 18.13 → 15FPE</p> <p>Pellet: User: JSB Heavy 18.13</p>							
		<p>Review #5: https://outdoorempire.com/review-rws-model-34/ 21FPE</p>							
		<p>Review #6: https://www.gatewaytoairguns.org/GTA/index.php?topic=96254.0 13FPE</p>							
		<p>Comparison 34 vs. 340:</p> <p>Discussion – very helpful (incl. similar guns): < https://www.gatewaytoairguns.org/GTA/index.php?topic=81796.0 ></p> <p>34 = coiled spring 340 = gas spring</p> <p>34 = acc. to Alexander, less precise 340 = more precise</p> <p>Alexander [2017-09]: “I just got my 340 N-TEC and compared to my 2016 Diana 34 TO6 the N-TEC is far far better! Easier to cock by a long shot and far more accurate. I simply love this rifle. It is the perfect .22 and I tried a many. My son loves his 240 Classic in .177 and I snow shoot the 340 N-TEC. I sold my 34 Classic within one day and am happy I made the switch.” < https://www.pyramydair.com/product-all-reviews/m/Diana_340_N_TEC_Premium_Air_Rifle/3513 ></p>							
RWS–Diana 350 Magnum N-TEC Panther [Gas Spring ≠ Regular Magnum]	[340refurb] 350 400 417 —on Order: 400 400		21–22FPE #02. 24.9FPE #03. 22.5FPE 1000fps Mfctr. ?800fps 20.5FPE	Synth NO Hole nothing to look at	4.5mm: @20y 0.5" + 5/8" /5 #1. 4.5mm: @45y 5/8" + 1" [or 1 5/8" with 1 flyer] /5 #1.	Gas	3-Med	→ There are <i>good</i> ways to fit one for 50\$.	3.8kg [8.4lbs] (Mfctr. 2016) 3.1kg {6.8lbs} 123cm [48.5"] 40–55lbs cocking Trigger: great (HAM)

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
	Review #1: 2017: BY PyramydAir: 4.5mm : Wood stock: https://www.youtube.com/watch?v=UooLd_TmiyE [but not sure how consistent they would get these 5-shot groups below...] @20y 0.5" and 5/8" @45y 5/8" and 1" [or 1 5/8" with 1 flyer]								
	Review #2: 2016: BY HardAir Magazine: < https://hardairmagazine.com/reviews/diana-panther-350-n-tec-air-rifle-test-review-22-cal/ > –heavy recoil, –quite loud, – very hard on scopes* +great trigger *“For example, Leapers’ True Strength feature – included in just about all their scopes – is specifically designed to address this forward recoil and works very well.” –“The Diana Panther 350 N-Tec air rifle requires a lot of skill and knowledge to deliver the accuracy it’s capable of achieving. This is reflected in its high RateAGun score of 9.6 – it’s difficult to shoot well and needs skill and experience to achieve the inherent accuracy the 350 is capable of.” “Probably only the Diana 460 fully matches the 350’s challenging reputation as a magnum non-PCP hunting air rifle.” 21–22FPE, with a variety of pellets –buttplate is plastic, not rubber → MD: find a replacement (it’s screwed on) Pellet: FFTG, FFT, JSB, (Baracuda =OK).								
	User #3: Scott https://www.pyramydair.com/customer-discussions/m/Diana_350_N_TEC_Magnum_Premium_Air_Rifle/4171								
	RobertR, GTA Senior Contributor, in a discussion 350 vs. 34: “The D350 Magnum is not for everyone, but the ones that take the time to learn to shoot it successfully are very satisfied.” < https://www.gatewaytoairguns.org/GTA/index.php?topic=86778.0 >								
RWS–Diana 350 Magnum [Coiled Spring ≠ N-TEC]	can't find it			Synth NO Hole nothing to look at	✓	NO		→ There are <i>good</i> ways to fit one for 50\$.	3.8kg [8.4lbs] (Mfctr. 2016) 123cm [48"] 40–55lbs cocking Trigger: great (HAM)
	Review #1: 2014: TheBestAirRifle.com: http://thebestairrifle.com/rws-22-350-magnum-air-rifle/ In Wood: 415\$: < http://www.straightshooters.com/RWS-350-Magnum-22.html > In 4.5mm, Synth: 340\$: < http://www.airgunsofarizona.com/spring-piston/rws-350-panther-magnum/ >								
RWS–Diana 350 Magnum CBB [Carbon Bull Barrel] [Coiled Spring ≠ N-TEC]	Not sold in the US at this time. https://www.youtube.com/watch?v=-qN-5xutB4k https://www.getdamaged.de/diana-panther-350-magnum-cbb-luftgewehr-4-5-mm-d-labolo.html			Thicker Barrel , carbon look (or real) – but does not look so good; no open sights					
350 Panther Pro Compact Magnum	580 CAN\$ Combo CANADA			Synthetic Shorter Barrel, with Muzzle Weight o.ä.					
RWS–Diana 350 Feuerkraft Pro Compact = Muzzlebreak	500 360 → Sold out, at least the light colored wood		20FPE or better	Wood NO Hole Barrel Good Review 4.5mm: Gavlord: https://www.pyramydair.com/blog/2011/03/rws-diana-350-feuerkraft-350-in-177-part-4/					

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[illegible]

[illegible]

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
Walther		(GER)		Modding Ideas (Silencer, etc.): http://www.waltherforums.com					
Walther Parrus **the No. 2252088 is correct, the 4.5mm ends in 7, wood in 5 *Distributor in the US: Umarex ***Wholesaler, but no restrictions on buyers✓	236*** 243 320 290 270 260 275 263 276 263 238** 295 276 264 (incl. S/H) 257 246 247	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	21-24FPE: 23.7FPE w/ Barc, 26.6FPE w/ JSB Heavy, #1. 22FPE (Cat.). 940-1000fps Mfctr. 20-21.5FPE #2. 23.1- 23.9FPE #3. 20-23FPE #9. 24.9FPE _____ 24FEP #10. 26FPE w/ 20\$-Vortec #11.	Synth NO hole; some organic patters on grip and forearm, OK Has a good swell of the forearm Get Silencer for Looks + for Sound!	@25y: 1.5" [0.6"] x 3 /10 [3FI] #1. 0.6" + 0.5" /5 #3. <0.25" #6. 5/8" + 3/4" x 2 /5 #8. @28y: 1.4" [0.5"] /5 [1FI] #4. @23y: "most shots touch each other" #5. @45y: 1.5" x 3 /5 #8. HAM Test "Great accuracy with the right pellets" #9.	NO	4-Med-High	1/2" UNF threaded muzzle *	4.2kg [9.3lbs] 122cm [48"] Trigger: "Adjustable first-stage travel, XT (target)" = good Dovetail Stock: not a hollow echo


Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
<p>Test #1: Tom Gaylord: 2016: https://www.pyramydair.com/blog/2016/10/walther-parrus-with-wood-stock-part-4/ <i>"JSB Exact Jumbo 15.89 grains:</i> Next I tried some JSB Exact 15.89 grain domes that were thankfully hitting close to where the Superdomes were. But when 3 shots landed in almost 3 inches, I abandoned this pellet, as well. <i>What to do?</i> That was what I feared about the powerful Parrus from the beginning. Powerful breakbarrel air rifles can be a challenge to shoot accurately. What I do when that happens is shoot a heavier pellet. That seems to slow things down. And this is where this test went in a different direction, because from this point on, all testing was done with a single brand and model of pellet. <i>Changed my hold:</i> I also changed the way I held the rifle at this time. Naturally I'm using the artillery hold for this recoiling spring-piston air rifle. My off hand had been back by the trigger guard up to this point, but I now slid it forward to the back of the cocking slot. The Parrus is a large heavy rifle and this hold helps steady it noticeably. <i>H&N Baracuda Match 5.53mm.</i> I selected the H&N Baracuda Match pellet with the 5.53mm head next. It was the last pellet I shot on this day. The first group hit the bullseye right away. But not every pellet landed where I aimed. There were no pulled shots in the 1.565-inch group of 10 shots. The group is not very impressive until you notice that there are 3 outlying shots and 7 that are 0.593-inches apart. Something told me to stop chasing the best pellet and just stick with this one for the rest of the test. (Ten Baracuda Match in 1.565-inches. Seven are in 0.593-inches.) The second group of Baracuda Match pellets landed in 1.757-inches, with 7 of them in 0.595-inches. I felt the rifle was trying to tell me that I hadn't yet found exactly what it wanted, but I was getting close. I was about to quit but I thought I'd give it one more try. Same hold. This time 10 Baracuda Match pellets went into 1.892-inches, with 7 of them in 0.763-inches. Something is definitely happening, am I am not understanding it entirely. [Tom Gaylord then describes how the rifle has been changing in the process of this test, cocking, trigger becoming lighter, etc.] The bottom line, I think, is that this rifle needs to be broken in. It needs about a thousand shots for things to smooth out and settle down. [...] I have a gut feeling that this rifle might be capable of shooting 10 shots into sub 3/4-inch groups at 25 yards under the right conditions." Precision @25y: 1.5" / 10 shots!! / 3 attempts = scaled to @35y: 2.1" → my Edge does that. Without "Flyers": 0.6" / 7 shots + 3 fliers (and worse) Hold: cf. paragraphs above Droop: Yes, it could potentially have a barrel droop. Recoil moves the scope: "Yes, these BKL mounts are the same ones I have been using for several years. I took them off a rifle to use them here. I did have to spread them with the screw to install them. The Parrus has a heavy jolting forward impulse that I guess no amount of clamping pressure can hold against. I once crushed a Beeman R9 spring tube so tight the mainspring started crunching when the gun was cocked, and the BKL mounts still slipped a little. BKL mounts are wonderful in most situations. I certainly use them a lot for their convenience. But there are some springers that just overcome them — at least in my experience." [in the comments]</p>									
		Test #02: American Airgunner: 2016:	e https://www.youtube.com/watch?v=jp33R30a9Wc						
		Test #03: Expert Airgun Reviews / AirgunWeb / AirgunWebTV, Edition A: 2016-09-20: https://www.youtube.com/watch?v=G9eSk0eS6CU Precision @25y: 0.6" + 0.5" / 5 shots / 2 attempts Hold: Offhand: Fist on Sandbag "Hold is very very very important. Hold and follow-through. Proper technique is going to allow you to see shrink those groups to sub dime size at 20y." Pellet: JSB Heavy 18gn							
		Test #04: Expert Airgun Reviews / AirgunWeb / AirgunWebTV, Edition B: 2016-11-19: https://www.youtube.com/watch?v=0U-2BohaEgA Filmed at 6000ft+ elevation → effects performance, but not in the way they declared in the video... Precision @28y: 1.4" / 5 shots / one attempt shown [I scaled the video pic and measured it] Without "Flyers": 0.5" / 4 shots + 1 flier (or wind or whatever) Hold: Offhand: Open hand, on fingers, on sandbag							

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
		Test #05: User, on Gaylord Blog: https://www.pyramydair.com/blog/2016/08/walther-parrus-with-wood-stock-part-2/ Precision @23y: "When rested most shots touch each other @ 23 yds... that's all I have at home." Hold: "If rested on a rifle rest it shoots about 1 inch high as apposed to the artillery hold."							
		Test #06: User, on Gaylord Blog: https://www.pyramydair.com/blog/2016/10/walther-parrus-with-wood-stock-part-4/ Precision @ 25y: <0.25" "They [my .22 and my .177] both group really nice ,sub 1/4 at 25 yards. My .22 really likes 13.4 JSB Match Diabolo." Pellet: 13.4 JSB Match Diabolo."							
		Test #07: Airgun Depot: https://www.youtube.com/watch?v=UgSep8C1ByM Precision @50y: "I'm not the best springer shooter." And he didn't. He didn't even show the pics. "At 50y, we couldn't hit the broad side of a barn."							
		Test #08: PyramydAir Insyder: https://www.youtube.com/watch?v=0FyRxsVfHVQ Still needs to be broken in. Still needs to get more experience with this gun. Precision @25y: trying out 3 pellets: 5/8" + 3/4" + 3/4" / 5 shots each Precision @45y: trying out 3 pellets: 1.5" + 1.5" + 1.5" / 5 shots each							
		Test #09 HardAir Magazine: 2017: https://hardairmagazine.com/reviews/walther-parrus-air-rifle-test-review-22-caliber/ We Like: Lots of power Great accuracy with the right pellets Practical stock We Don't Like: Pellet picky Heavy trigger Hard to cock "If you're a big guy (or gal) looking for a hunting air rifle that doesn't require all the paraphernalia that accompanies PCPs, the Parrus could be your airgun." 23FPE, 20FPE with Baracuda (with really light lead pellet: 23FPE, 25FPE) Pellets: JSB Domed, Baracuda, FTT (exlucing flyer). Crosman Premier, FTTGre = poor Barrel Droop							
		User #10 (expert): https://www.gatewaytoairguns.org/GTA/index.php?topic=110417.20 These were all 5-shot averages, and are listed by pellet weight. Crosman Premier 14.3 gr. 931 FPS...27.5 FPE RWS Superdome 14.5 gr 886 FPS ...25.3 FPE H&N FTT 14.66 gr 859 FPS ...24.0 FPE JSB Jumbo 15.89 gr 840 FPS ...24.9 FPE Ruger Superpoint 16.8 gr 813 FPS ...24.7 FPE Beeman Kodiak 21.14 gr 663 FPS ...20.6 FPE							
		User #11: https://www.gatewaytoairguns.org/GTA/index.php?topic=110417.20 "After 5000 pellets the spring broke so I replace OEM spring 825130-42 with a Vortek 825135-39* [20\$]. Reduce the vibration and the recoil is less harsh then before. The cocking feels about the same. Before the gun was producing 22-23FPE with CPHP 14.3g. [AND NOW:] H&N Baracuda Match 21.14 gr 5.53mm..... 750 FPS ...26.4 FPE JSB Exact Jumbo Heavy 18.13 gr..... 830 FPS ...27.7 FPE *Same User on the Vortec page: *"I purchased this spring with 39 coils it fits perfect as a replacement OEM spring(825130-42)for the Walther Parrus. Reduce the vibration and the recoil is less harsh then before. The cocking feels about the same. Before the gun was producing 22-23FPE with CPHP 14.3g. Now 26.4FPE with H&N 21.14g, 27.74FPE with JSB 18.13g." < http://vortekproducts.com/ourstore/HiY820135-39 >							

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
Walther Century GT	not sold in the US, it seems		17.7 Mfctr.	Synth NO Hole. Stock has some organic patterns for the grip areas, OK					
Walther L<u>G</u> Varmint			800-900fps 14FPE #1. 12FPE #2. 16FPE #3.	Synth Thumbhole	@35y 0.25-0.35" #3. @20y 0.3-0.4" /5 #2.	NO, but*	3-Med	✓has	9.4lbs 42.5" -37lbs cocking -Underlever
	* "Walther further claims that the LGV will not suffer from spring fatigue if left cocked for a long time. " FROM: https://www.airgunsofarizona.com/blog/2013/02/the-astonishing-walther-lgv-part-ii.html								
	Review #1: Airgun Depot, 2016: https://www.youtube.com/watch?v=3g3dlU6uapo Precision @50y: ca. 1.5" / 5 shots with JSB Heavy + H&N Hornet JSB Best: too much drop ø630fps: if that was the Hornet (16.2gn) → 14.3FPE if that was the JSB Heavy (18.13gn) → 16FPE Review #2: Expert Airgun Reviews / AirgunWeb / AirgunWebTV, 2015: https://www.youtube.com/watch?v=iMTdkISp5xk Precision @20y: 0.4" + 0.3" / 5 shots 11.7FPE (2 diff. pellets)								
	Review #3: https://www.sportsmansguide.com/product/index/walther-lgu-varmint-air-rifle-22-caliber?a=1931406 "It packs more punch at about 16 ft/lbs compared to 11.5 or so of the standard model, with just a little more spring twang. But the accuracy will just blow you away. Less than 30 shots, after scoping the rifle, I can shoot .25 to .35 inch groups at a measured 35 yards. This off of a Caldwell rifle rest, using Walmart Crosman premier 14.3 grain hollow points \$6.47 for a tin of 500. Hitting AA batteries at 35 yards on demand is no problem, it's that accurate. I have to try shooting at aspirin tablets next. Once you get the mechanics of using the proper hold and trigger control, the rifle just does not miss. My LGV is accurate, so is my 54 air king, but as far as shooting extremely tight groups on demand, it's just easier to do it with this rifle. It does have a long first stage on the trigger, that takes some getting used to. Having said that, this rifle truly has PCP accuracy, is not hold sensitive, is quiet/backyard friendly, shoots very well off of a rest and groups Walmart pellets like high end pellets."								
[with free Club Membersh.]	450		950fps [prob. 4.5mm!]						
	493		800fps						
	580		800fps			Gas ???			
	580		16FPE 800fps						

[illegible]

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
BSA	(UK)								
BSA Supersport Tactical	350 BUT ONLY in 4.5mm		All BSA springers seem to have the same power, so that would be 13-14FPE, #1	Synth NO Hole Sharply cut and wavy rear stock					
There are some others that are 13-14FPE tested, 18FPE advertised, that some use Black Wood			#1: https://www.pyramydair.com/product-all-reviews/m/BSA_GRT_Lightning_XL_SE_Air_Rifle/3216 http://thebestairrifle.com/bsa-grt-lightning-xl-se-review/						
Beeman	(USA, but probably China)								
Beeman Silver Kodiak II [X2] Dual-Caliber Air Rifle	230 80 refurb. 140		830fps	Synth NO hole, fairly plain, but StS, with black silencer	?	NO	3-Med	✓has	
Beeman Quiet Tek	196		830fps w/ alloy pellet	Synth No hole scope Comes with .177 + .22 barrel	?	NO		✓	
Crosman	(USA)		Subtract about 4FPE (25.39 JSB Monster was 2FPE less! → = too heavy for a springer)						
Crosman Benjamin Jim Shockey Steel Eagle NP2 *w/ Laser + Flashlight	227 230 200 200* 270		21 (not 25) FPE 1100fps https://www.airgundepot.com/benjamin-steel-eagle.html	Synth NO Hole, but Colored Rubber Inserts Thick Barrel (Silencer)	?	Gas	2-Low-Med	✓has	8lbs 30lbs cocking Sling mounts

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
Crosman Benjamin Trail NP2 Black/Synthetic	207 Combo 227 Combo 220 Combo 200 Combo Sold-Out 200 Combo 250 Combo 177 Combo		21 (not25) FPE (Not 26FPE) 1100fps Seller. 18-21.5FPE (few17.5) #01	Synth Thumbhole (large). Edgy-good Thick Barrel (Silencer) → but some parts are plastic	@ 25y @ 0.7" (0.9") Firm Hold	Gas	2-Low-Med✓	✓has	3.8kg [8.3lbs] 117cm [46.3"] 32lbs cocking (#1) Sling mounts Weaver [Picatinny] mount Good Trigger, for the \$

Review #1: Tom Gaylord: 2014: Parts 1-6: < <https://www.pyramydair.com/blog/2014/07/benjamin-trail-nitro-piston-2-part-6/> >

FPE: He tested two guns.

Hold: Hold-Sensitive!! **A rather firm hold, NOT THE ARTILLERY HOLD!**

Summary: "By the end of the session, I knew what this rifle wants — a firm hold of the off hand as far out on the forearm as you can comfortably hold and a firm hold of the pistol grip. Pull the butt into your shoulder firmly. This is not a death grip — just a firm hold, and it seems to be what the NP2 wants." "I think it needs a very repeatable offhand grasping pressure." <

<https://www.pyramydair.com/blog/2014/07/benjamin-trail-nitro-piston-2-part-6/> >

"The hold: I refined the sight setting and proceeded to test the hold I thought would do best — based on results from the first rifle's test. I also tried several other holds and hand placements, establishing one thing for certain. The NP2 wants to be held firmly. Do not use the artillery hold. Instead, I found it best to slide my off hand out to almost the end of the stock and grip the forearm firmly. I can feel the forearm screw holds on the tips of my thumb and fingers, so I know my hand is in the same place every time. Any hold that wasn't firm allowed pellets to rise vertically. I fired probably 30 shots testing just the different holds and pressures. [...] By the end of the session, I knew what this rifle wants — a firm hold of the off hand as far out on the forearm as you can comfortably hold and a firm hold of the pistol grip. Pull the butt into your shoulder firmly. This is not a death grip — just a firm hold, and it seems to be what the NP2 wants. [...] I'm not through with this rifle, yet. Each one of my second-session groups contains a large cluster of shots that are very close, then some strays that wander off — usually down, but not always. I think I'm close to understanding what this rifle wants, but I'm not there yet. I think it needs a very repeatable offhand grasping pressure." < <https://www.pyramydair.com/blog/2014/07/benjamin-trail-nitro-piston-2-part-6/> >

Again: "Before I continue, let me describe the hold I'm using today. It's not an artillery hold. I'm grasping the pistol grip firmly, but not with a death grip. And my off hand is slid out far enough that it's touching the sling swivel on the forearm. I don't grasp the forearm tightly, but I do grasp it with my fingers. Having my hand out that far, the rifle doesn't want to move left or right. So, when the off hand gets settled, the crosshairs stay on target as I relax. Relaxation is very important with the NP2. Every time I became anxious about where the next shot was going, I threw it wide. But when I relaxed, the shot went to the aim point, as you'll soon see." < <https://www.pyramydair.com/blog/2014/06/benjamin-trail-nitro-piston-2-part-4/> >



"Crosman said they were able to get one-hole groups at 35 yards. I'm not there yet, but I'm certainly able to put 5 out of 10 into a single hole at 25 yards."

< <https://www.pyramydair.com/blog/2014/06/benjamin-trail-nitro-piston-2-part-3/> >

Review, Important as to the Quality: 2014: <http://thebestairrifle.com/review-benjamin-trail-np-xl-np2/>

The criticisms seem to have been improving over the years. No mentioning of the plastic or a weak barrel/ barrel shroud.

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
<p>▲ Plastic: On Forum: "IE Barrel shroud, (not just the tapered end where the barrel meets the pivot joint but the whole darn barrel shroud! [MD: Really?] Even the end cap is plastic??? The Stock was hollow, with such a light feel." < https://www.pyramydair.com/blog/2014/07/benjamin-trail-nitro-piston-2-part-6/ ></p> <p>►Careful to not overtighten the silencer and crack the plastic piece where it screws in. < https://www.pyramydair.com/blog/2014/06/benjamin-trail-nitro-piston-2-part-1/ ></p> <p>►Make sure the pellets don't hit the baffles of the silencer. < https://www.pyramydair.com/blog/2014/06/benjamin-trail-nitro-piston-2-part-3/ > (PIC of baffles: < https://www.pyramydair.com/blog/2014/06/benjamin-trail-nitro-piston-2-part-1/ >)</p> <p>►There might be an issue (BB shot some groups all in a very nice vertical line): This might indicate that the barrel does not lock/ seal always the same way, and that air escapes sometimes. A reader of BB commented: David, 8Jul14: "B.B., Looking at the vertical string grouping, I would have to agree with another reader that this looks like a typical Crosman lockup issue. I had this same problem with my Nitro Venom. If you get time I would like to you to try a quick 2 shot test with this rifle. First shot, close the barrel up with some extra force (a little more than normal)... 2nd shot close the barrel with as little amount of force as possible. I bet you will see almost or more than a 1? vertical distance. This is exactly why I hate the crossbar and chisel lockup on Crosmans. They need to go back to the old 2 chisel design and use stronger springs with better tolerances on the locking wedge. I bet you can also wiggle that wedge side to side while the barrel is broke open. Makes me wonder how it can ever lock up to the same spot twice."</p> <p>→ User: "I read in your reviews that the break barrel seems to keep straight even though the pivot is very floppy. But mine had a very big side to side wiggle. So I tightened up the pivot until it just barely drags a little and that stopped my side to side movement – pellets are hitting consistently on the side to side but are still spreading vertically. So I looked at the "chisel" point that locks the barrel in place. It still has the machine marks from cutting the angle of the chisel. These are like little steps – and maybe it was by design (hoping that it would always stick on the same step?) but it seems like a bad design to me — I polished up the edge of that chisel where it contacts the round bar to lockup the barrel. I filed the ridges smooth and then sanded through all the grades of wet-dry up to 3000 grit (polished like glass). The chisel can now slide smoothly across the round bar to lockup the barrel more tightly (my POI was now about 4 inches higher than before) So far I am getting very tight groups now – the hold does make a difference but if I use the same hold for each shot, the pellets will go to the same place now and that is something new for this gun." < https://www.pyramydair.com/blog/2014/07/benjamin-trail-nitro-piston-2-part-6/ ></p> <p>• It must be so smooth that he can watch the pellets fly (something I have not ever been able to do with my Hatsan Edge: "The last 2 pellets opened the group to 1.748 inches, and they just looked wrong as I watched them fly to a different spot through the scope. Something was wrong, but I didn't think it was the pellets." < https://www.pyramydair.com/blog/2014/06/benjamin-trail-nitro-piston-2-part-3/ ></p> <p>• It seems, even if the barrel is somewhat loose (flopping after it's cocked), the rifle shoots accurately! < https://www.pyramydair.com/blog/2014/06/benjamin-trail-nitro-piston-2-part-5/ ></p>									
<p>Reviews: Where you can select the rating you want to read: https://www.cabelas.com/product/shooting/air-guns-airsoft/air-rifles/pc/104792580/c/104690880/sc/104185980/crosman-benjamin-trail-np/1861659.uts?slotId=3</p>									
<p>Reviews: https://www.airgundepot.com/benjamin-trail-np2-air-rifle.html</p>									
<p>Comparison NP – XL – NP2 2014: http://thebestairrifle.com/review-benjamin-trail-np-xl-np2/</p>									
Crosman Benjamin Trail NP2 SBD [=ugly!] Black [SBD = Silencing Barrel Device]	240		21 (not25) FPE https://www.airgundepot.com/benjamin-steel-eagle.html	Synth Thumbhole	?	Gas	2-Low-Med	✓has	-Weird looking silencer! [SBD = Silencing Barrel Device]
Crosman Benjamin Phoenix NP2	180 160		21 (not25) FPE https://www.airgundepot.com/benjamin-steel-eagle.html	Synth Thumbhole	?	Gas	2-Low-Med	✓has	8.3lbs

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
Ruger = Umarex									
Ruger Air Magnum = "Chinese clone of the RWS-Diana 350" https://www.airgundepot.com/ruger-air-magnum-air-rifle.html	154 Combo 190 Combo 175 Combo 192 Combo 158 Combo in 2015, some bought it for 100\$		22-25FPE someone measured 1000-1200fps	Synth NO hole, n not much to look at, checkering is fine	@30y 1.1" /10 [4.5mm] #2. @20y 3/8 - 1/2" #8.	Gas	3-Med * ≠loud!	Not poss.	4.3kg [9.5lb] 123cm [48.5"] 42lbs cocking, 58lbs measured Weaver rail positive review PyramydAir Tom Gaylord and others emphasize Arthold is req. with this gun!
	#1:								
	Review #2: 4.5mm: Tom Gaylord: 2010: https://www.pyramydair.com/blog/2010/12/ruger-air-magnum-combo-part-3/								
	User #3: https://www.airgundepot.com/ruger-air-magnum-air-rifle.html "I own several air rifles - Gamo, Feinwerkbau, Diana, and cheaper ones but this has got to be the best buy for the money - extremely accurate - pellet on pellet at 75 yards, beastly powerful, and love the feel of the power. Many complain on the kick but that is power and not a weakness. I love the gun and it is now my favorite next to my Diana. Only issue is "Get a good scope." It will tear up any that can not withstand the two direction kick. Pros: Best buy for the money, very powerful, and accurate Cons: Get a good scope."								
	User #4: "The Ruger Air Magnum is a copy of the R.W.S. three fifty magnum so close a copy that the parts are interchangeable. So close a copy that I'm surprised Umerex isn't being sued. I have them both. At twenty five yards they shoot the same. Same accuracy and the same damage. At fifty yards the R.W.S. is a little better but only by a fraction of an inch and neither gun is great at that distance. " User #5: "I've been shooting pine cones out of trees at 100 yards." User #6: "This rifle is extremely hard hitting and accurate. Consistently shoots 1/4 inch groups at 20 yards of a bench with upgraded mounts and 3-9x50 UTG scope. I have tried many brands and types of pellets in mine, it seems to shoot inexpensive Crosman Hollow Points the best."								
	Review #7: http://thebestairrifle.com/ruger-air-magnum-combo-air-rifle-review/								
	User #8: https://www.pyramydair.com/product-all-reviews/m/Ruger_Air_Magnum_Combo/2354 "I sighted the gun in at 20yds and have been shooting 3/8 to 1/2 inch groups IF I do my part"								
Ruger Targis	160 Combo		800-1000fps	Synth Cool holes in stock	??	Gas	3-Med	✓has Not poss.	9.9lbs = heavy 44.9" long -30lbs cocking
Ruger Blackhawk	120							x	x "cracks like a 0.22 weapon when fired" < _____ >

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
Stoeger	(Italy – China?)								
Stoeger A30			800-1000fps	Synth NO hole, but cool barrel, and OK lines	?	Gas		Not poss.	
Stoeger A30 S2 [= Suppressor V. 2]	150		800-1000fps	Synth NO hole, but cool barrel, and OK lines	?	Gas		✓has	
Stoeger ATAC TS2 / S2 [= Suppressor V. 2] T = Trigger Group V. 2 Suppressors might affect precision: <_____> <_____>	230 Combo 250 Combo out-of-stock		800-1000fps	Synth NO hole, but very edgy stock, and very thick barrel	?	Gas	3-Med	✓has	9lbs 43"
Stoeger ATAC T2 [= Trigger Group V. 2]			800-1000fps			NO			9lbs
Stoeger X20 S2 [= Suppressor]	150		800-1000fps Several! Customer: 15-17FPE	Synth NO hole, but some OK lines, and a nice barrel	?	Gas or NOT ??	2-Low-Med	✓has	8.5lbs
Stoeger X20 Sport			800-1000fps	Synth NO hole, but nice checkering with bulges	?	Gas			8.5lbs
Stoeger RX20 S3 [= Suppressor V. 3]			800 [-1000]fps	Synth NO hole, but nice checkering with bulges Barrel seems weird, maybe!		Gas, unlc ear!			3kg
Stoeger RX20 Sport [without the internal suppressor, but the same barrel, maybe weird]			800 [-1000]fps	Synth NO hole, but nice checkering with bulges Barrel seems weird, maybe!		Gas, unlc ear!		Maybe just not V. 3	3kg
Stoeger RX20 Dynamic			800 [-1000]fps	Synth NO hole, but nice checkering with bulges Barrel is OK		Gas, unlc ear!		Maybe just not V. 3	3kg

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
Stoeger X50	Was 250 SOLD OUT		19FPE Gaylord. 950 [1250]fps = inflated numbers	Synth NO hole, but OK checkering and lines	@25y 1–1.2” Loose Hold	NO (?)		37€	10.5lbs = Heavy! 50” long = quite long 43lbs cocking Gaylord: <_____>
Review #1: 2010: Tom Gaylord: Tom Gaylord, in Shotgun News, 2010-06.pdf < https://www.pyramydair.com/blog/2010/04/stoeger-x50-air-rifle/ > “Accuracy: With a good artillery hold, the X50 placed five pellets in a group measuring 1.029 inches at 25 yards shooting off a rest. That was with the Beeman Kodiak pellet I predicted would do well. Actually, I got several groups of Kodiaks under 1.25 inches at 25 yards, which is indicative of an air rifle that wants to shoot. Remember to hold the rifle as loosely as possible and never rest it directly on anything except your hand. This is a breakbarrel and has to be held right or accuracy will suffer.									
Gamo	(Spain – China?)		They seem to use: 22cal. Platinum Ballistic Alloy PBA = 9.7gn			IGT Mach 1 = Recoil-reducing gas piston, for “High precision shooting” <Gamo. Catalog. 2018>			
Gamo Replay 10 Maxxim IGT			18FPE	Synth NO Hole	??	Gas		✓has	–10-shot magazine → ?Probl. w/ large scope?
Gamo HPA Mi			18FPE	Synth NO Hole, but Cheek Raiser	??	Gas		✓has	–Bipod
Gamo Black 10 Maxxim			21FPE	Synth NO Hole	??	NO		✓has	–10-shot magazine → ?Probl. w/ large scope?
Gamo Replay 10 Magnum	280\$		33FPE // 33FPE	Synth Thumbhole	???	NO		–	–10-shot magazine → ?Probl. w/ large scope?
Gamo G-Magnum 1250 Whisper IGT Mach 1			33FPE // 33FPE	Synth Thumbhole	???	Gas		✓has	
Gamo Black Maxxim IGT Mach 1			21FPE	Synth NO Hole	??	Gas		✓has	–cool barrel
Gamo Black Fusion IGT	180		975	Synth NO Hole	??	Gas		✓has	–cool barrel –32lbs cocking
Gamo Black Fusion IGT Mach 1			21FPE	Synth NO Hole	??	Gas		✓has	–cool barrel

Brand + Model	Price \$ c. 300\$	URL	FPE	Synthetic Stock, Thumbhole, Barrel, etc.	Accuracy	Sp ring	Loud- ness	Silencer	Other
Gamo Elite Premium IGT			21FPE	Synth Thumbhole	??	Gas		✓has	–cool barrel
Gamo Swarm Maxxim [IGT] [Replay 10]	180 200		is21FPE 975fps	Synth NO Hole, but some good indentations in the stock	?? Hold-Sensitive Review Tom https://www.pyramydair.com/blog/2017/08/gamo-swarm-maxxim-part-4/	Gas	3-Med	✓has	5.7lbs –cool barrel –30lbs cocking
Gamo Swarm Maxxim [IGT]	210		same as the Swarm Maxxim <i>without the 10-shot magazine</i>						–10-shot magazine → ?Probl. w/ large scope?
Gamo Bone Collector Maxxim [IGT]	210 210 200		is21FPE 975fps	Synth NO Hole, but a few good lines in the stock	??	Gas		✓has	5.7lbs –cool barrel
Gamo Magnum [IGT Mach 1]	300 295 300		26.6FPE (confirmed http://www.airriflehunter.com/gamo-magnum-affordable-and-powerful-air-rifle/)	Synth Thumbhole	??? 1" @ 30y http://www.airriflehunter.com/gamo-magnum-affordable-and-powerful-air-rifle/	Gas	4- Med- High	NOT poss.	6.9lbs –40lbs cocking
Gamo Whisper Fusion [IGT] Mach 1	260 290 290 250 [CAT- both have it]		21.4FPE 1020fps	Synth NO hole, but still a few good lines	?? cf. Review of the non-Mach1	Gas	3-Med	✓has Not poss.	6.6lbs –Cool barrel –32lbs cocking
Gamo Whisper Fusion [IGT] Mach 1	200		20.5FPE 975fps	Synth NO hole	?? Hold-Sensitive	Gas	3-Med	✓has Not poss.	8lbs ≠ 6.6lbs –Cool barrel –32lbs cocking

[illegible]