
Scope Mounting Table

ADJUSTABLE Mounts and LOW Mounts

for Dovetail and Picatinny Rails

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I want to know how high my scope will be *before* I purchase a set of rings or an adapter rail. :-)
However, the information that manufacturers provide is hard to find, and often difficult to compare with the data of other manufacturers, because Sportsmatch measures their rings differently than Hawke, for example.
For that reason I made the following **scope mounting table** (thanks to forum members who have contributed ideas!).
The basis of the table is the info provided by manufacturers and sellers, or I have been able to measure the product myself. The stated "heights" have been converted into a standard height (this standard is shown in the graphics following the table).

Overview of How to Read the Table

The table begins with the scope tube (30mm scope tube).
Then come options for scope rings. Preference has been given to adjustable rings, low rings, and to 2-piece rings.
Then come additional accessories for elevation adjustment.
Then come dovetail-to-picatinny-rail adaptors, if necessary, and preferably with elevation adjustment.
The table ends with a summary: total height | total elevation adjustment | total price

The table assumes you have a dovetail rail on your gun. If you already start out with a picatinny rail, great – you can then simply subtract the height of the rail adaptor from the total height (the height given in the summary at the end of the table).

What's Included

The scope mount table is not exhaustive, of course...!
It gives preference to *elevation adjustable* mounts and rails (cant), *low* mounts, *2-piece* mounts, and *30mm* scope tubes.
It includes the following:

- Prices
- Part numbers
- Total elevation adjustment (cant)
- Special features, advantages and disadvantages
- Other scope tube sizes if available
- Total height of the bottom of scope tube above the gun's dovetail grooves

Abbreviations

orange lettering = height added to the scope height through the rail adaptor or the scope rings;
Note that due to their different designs, the height of picatinny devices is measured differently than the height of dovetail devices – only the summary of the total height is comparable;
Note that when the scope is mounted with a cant the actual scope height to be entered into a ballistic calculator will be a little bit less, depending on the amount of cant
blue lettering = price in \$ in 2019, without shipping unless noted
green lettering = max. elevation adjustment (cant)
● = something positive
red lettering or ● = something negative
Part numbers: are for 30mm rings
25, 30, 34 = 25mm meaning 1" // 30mm // 34mm = these numbers refer to the scope tube diameter for which the listed scope rings are available

Full Adaptor Rail:	8mm added to scope height Eagle Vision Dovetail-to-Picatinny Adaptor No. PDRA-150 ● Quality: Despite “Made in the UK” the picatinny saddle of mine rose to form a V-shape → Maybe this does not matter...? → Rick67 on AGN: Insert a needle on each side of the picatinny jaws! OR———OR Rail Adaptor Insert: 6mm added to scope height (● As they are just an inch short their attachment to the dovetail rail is not as sturdy as a full adaptor rail, and they probably do not provide a repeatable scope position when switching out scopes) UTG Dovetail-to-Picatinny Adaptor MNT-DT2PW01 (also available: Eagle Vision PDRA-26 from UK)							20mm UTG Drooper Tapered Scope Rail Dovetail-to-Picatinny No. MNT-DNT06	16-23³mm Hawke Adjustable Scope Rail—with Dovetail-to-Picatinny Adaptor ⁵ ● Quality: Seems too cheap, but good report by K_sqrd on springs ³ ● Cant adjustm. in controlled steps.
15cm long rail (No. PDRA-150) OR 2.6cm short rail insert (No. MNT-DT2PW01; No. PDRA-26)								12cm long rail	18.7cm long (22404) 13.7cm long (22403)
Full Rail: 48\$ (incl. 15\$ ship from UK) (PDRA-150) OR Rail Insert: 10\$ (MNT-DT2PW01 / the PDRA-26 costs 16\$ plus added shipping from UK)								33 MOA FIXED	100 MOA Adjustable
								15\$	27\$ OR 25\$

▲ ▲ ▲ Gun's Dovetail Groove ▲ ▲ ▲

Summary:	Total Height from the bottom of the gun's dovetail rail's groove – to the bottom of the scope tube, in mm	Total Elevation Adjustment Range in MOA	Total Price in \$
1. 10x42mm	100	10	100
2. 10x42mm	100	10	100
3. 10x42mm	100	10	100
4. 10x42mm	100	10	100
5. 10x42mm	100	10	100
6. 10x42mm	100	10	100
7. 10x42mm	100	10	100
8. 10x42mm	100	10	100
9. 10x42mm	100	10	100
10. 10x42mm	100	10	100
11. 10x42mm	100	10	100
12. 10x42mm	100	10	100
13. 10x42mm	100	10	100
14. 10x42mm	100	10	100
15. 10x42mm	100	10	100
16. 10x42mm	100	10	100
17. 10x42mm	100	10	100
18. 10x42mm	100	10	100
19. 10x42mm	100	10	100
20. 10x42mm	100	10	100
21. 10x42mm	100	10	100
22. 10x42mm	100	10	100
23. 10x42mm	100	10	100
24. 10x42mm	100	10	100
25. 10x42mm	100	10	100
26. 10x42mm	100	10	100
27. 10x42mm	100	10	100
28. 10x42mm	100	10	100
29. 10x42mm	100	10	100
30. 10x42mm	100	10	100
31. 10x42mm	100	10	100
32. 10x42mm	100	10	100
33. 10x42mm	100	10	100
34. 10x42mm	100	10	100
35. 10x42mm	100	10	100
36. 10x42mm	100	10	100
37. 10x42mm	100	10	100
38. 10x42mm	100	10	100
39. 10x42mm	100	10	100
40. 10x42mm	100	10	100
41. 10x42mm	100	10	100
42. 10x42mm	100	10	100
43. 10x42mm	100	10	100
44. 10x42mm	100	10	100
45. 10x42mm	100	10	100
46. 10x42mm	100	10	100
47. 10x42mm	100	10	100
48. 10x42mm	100	10	100
49. 10x42mm	100	10	100
50. 10x42mm	100	10	100
51. 10x42mm	100	10	100
52. 10x42mm	100	10	100
53. 10x42mm	100	10	100
54. 10x42mm	100	10	100
55. 10x42mm	100	10	100
56. 10x42mm	100	10	100
57. 10x42mm	100	10	100
58. 10x42mm	100	10	100
59. 10x42mm	100	10	100
60. 10x42mm	100	10	100
61. 10x42mm	100	10	100
62. 10x42mm	100	10	100
63. 10x42mm	100	10	100
64. 10x42mm	100	10	100
65. 10x42mm	100	10	100
66. 10x42mm	100	10	100
67. 10x42mm	100	10	100
68. 10x42mm	100	10	100
69. 10x42mm	100	10	100
70. 10x42mm	100	10	100
71. 10x42mm	100	10	100
72. 10x42mm	100	10	100
73. 10x42mm	100	10	100
74. 10x42mm	100	10	100
75. 10x42mm	100	10	100
76. 10x42mm	100	10	100
77. 10x42mm	100	10	100
78. 10x42mm	100	10	100
79. 10x42mm	100	10	100
80. 10x42mm	100	10	100
81. 10x42mm	100	10	100
82. 10x42mm	100	10	100

With Full Adaptor Rail: (includes 8mm added scope height)

18-19	24-25	30-31	32-33	31-37	29-34	28-31	27-28	32-35	15	15	16		25-29	23-24	26-28	14	13	11		27	25	23-30 ⁷	23-30 ⁷
54 ⁶	54 ⁶	54 ⁶	47 Quick Det.	50	41	46	45	65+ Windage	25 ⁸ Fixed	—	0 - Quick Det.		46	45	75+ Windage	25 ⁸ Fixed	—	—		58 ⁸ Fixed	33 Fix	100	125 ⁸
123	123	123	171	123	150	118	80	180	94	61	70		70	80	130	47	48	12		61	38	40	73

With Rail Adaptor Insert: (includes 6mm added scope height)

[illegible]

Notes From the Table

¹ With adaptor, from UK or <https://www.ebay.com/itm/eaglevisioncam-scope-mount-30mm-to-25mm-ring-adaptor-aluminium-uk/222367489395>

² Eagle Vision also has 34mm adjustable mounts: IPS-34 and INS-34

³ *Quality*: This adjustable rail seems too cheap to be good, but K_sqrd on GTA reported that his 4 have been working great for years, and on *springers*: <https://www.gatewaytoairguns.org/GTA/index.php?topic=163734.msg155827770#msg155827770>

⁴ Sportsmatch also makes mounts that are adjustable for windage. Those models have an even larger elevation adjustable range.

⁵ Important tips, hard to find online: Shorten the short leg of an allen wrench so that it fits under the scope body. That way, you don't have to remove the scope, or the rings, when making elevation adjustments. | Do download the manufacturer's instructions and read them. | 1 turn of the elevation screw moves the POI by 7" @ 20 yards.

⁶ 54moa with rings 3.5" apart (center to center of rings) | more moa can be achieved with the rings even closer, e.g. 63moa estimated with rings only 3.0" apart

⁷ Using a quick detachable mount with only the *rail adaptor inserts* makes no sense, because the rail adaptor inserts are not firmly attached to the dovetail rail; therefore maintaining zero when remounting the scope does not work well.

⁸ For the published 25moa of elevation cant, Hawke assumes the distance between the scope mounts to be 4.3" (11.0cm) (center to center). The closer the mounts are the steeper the cant. Using the published cant data for the shims that Burris uses in their XTR Signature Rings, we can interpolate the elevation cant for other ring distances.

Cant (Elevation Added) in MOA by Burris XTR Signature Rings – With 25 MOA Scope Shims																	
	Interpolated/ Estimated							As Published by Burris									
Ring Spacing (in)	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00
Cant (moa)	56.1	51.2	46.8	42.9	39.5	36.5	33.9	31.6	29.6	27.9	26.4	25.0	23.7	22.6	21.6	20.6	19.8
Decrease in Cant	–	4.9	4.4	3.9	3.4	3.0	2.6	2.3	2.0	1.7	1.5	1.4	1.3	1.1	1.0	1.0	0.8

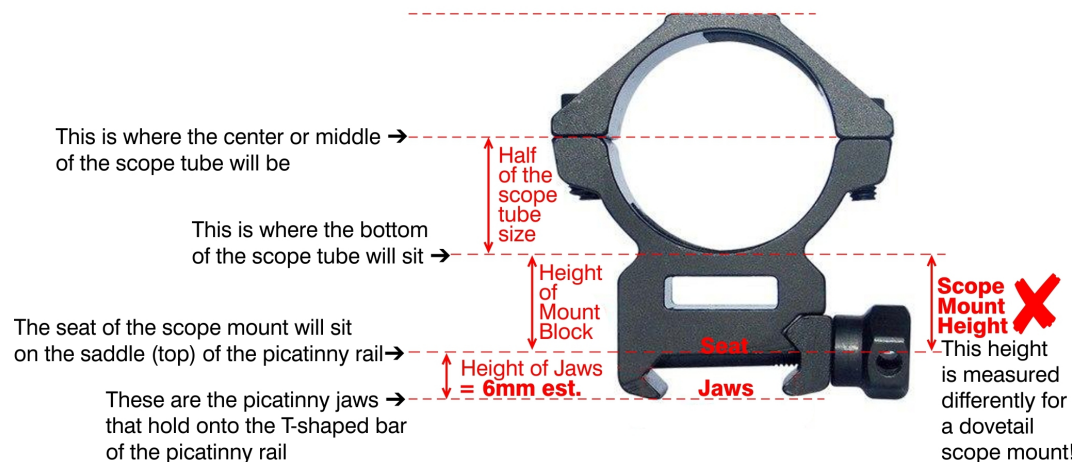
Note: The effect of the ring spacing seems to be non-linear, it increase progressively quicker the closer the mounts are.

Standards Used in this Scope Mount Table

Cf. the graphics!

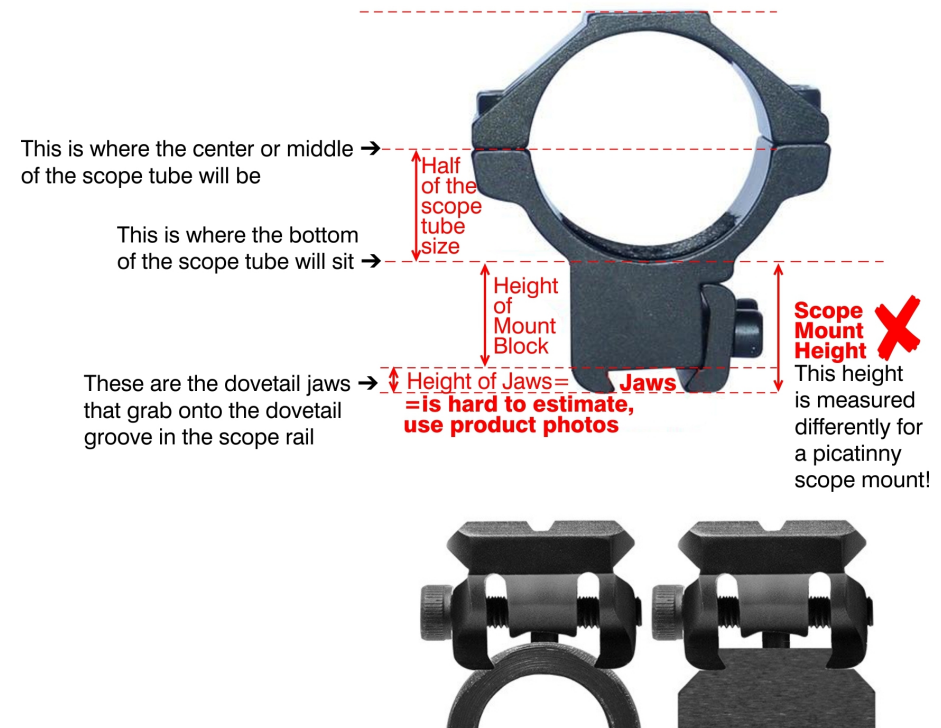
- **Picatinny Scope Mount Height**: measured from the seat of the scope mount (that will sit on the saddle of the picatinny rail) – to the bottom of the scope tube
- **Dovetail Scope Mount Height**: measured from the bottom of the scope mount's jaw (that will attach at the bottom of the gun's dovetail rail's groove) – to the bottom of the scope tube
- **Scope Rail Adaptor** [Dovetail-to-Picatinny-Rail Adaptor]: measured from the bottom of the gun's dovetail rail grove (bottom of the adaptor's grabbing jaw) to the saddle of the adaptor's picatinny rail
- **Canted Scope Rail** [Picatinny to Picatinny]: measured from the seat of the canted scope rail (that will sit on the saddle of the picatinny rail) – to the saddle of the canted scope rail [not pictured]

Picatinny Scope Mount [similar to Weaver]



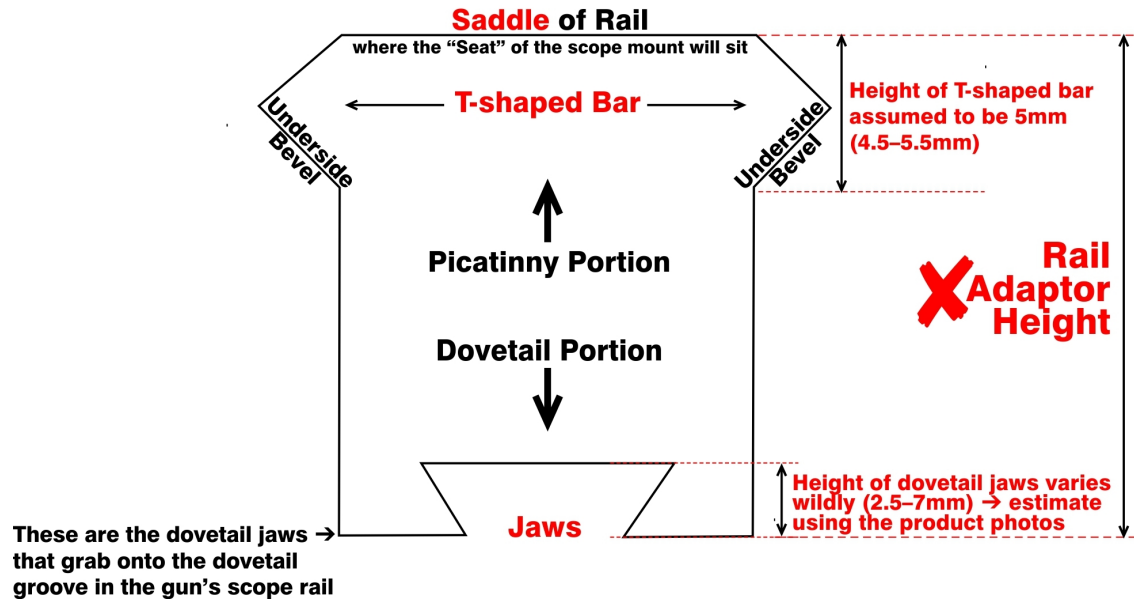
Dovetail Scope Mount

Airgun, rimfire, and shotgun dovetail, commonly 11mm (9-11mm, also 12mm, and more), but there is no standard!



Rail Adaptor

(Dovetail-to-Picatinny-Rail Adaptor)
View from behind



Picatinny Rail

[similar to Weaver]
View from behind

