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# 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 groves

### 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

▼▼▼ Scope Tube, 30mm ▼▼▼

Convert to Picatinny Rail											Stay with Dovetail Rail						Convert to Picatinny Rail								
Burris XTR Signature Rings			Burris AR-Signature QD P.E.P.R. Mount 1-Piece	Eagle Vision Adjustable Mounts		FX No Limits Adjustable Mounts Picatinny	Sportsmatch Adjustable Mounts Picatinny		Hawke Match Mounts 2-Piece Weaver, Low	Vector Mark Weaver Mounts, Low	Leupold Quick Release Weaver-Style Scope Rings	FX No Limits Adjustable Mounts Dovetail	Sportsmatch Adjustable Mounts Dovetail		Hawke Match Mounts 2-Piece 9-11mm, Medium	UTG PRO 30mm 2-Piece Low Profile P.O.I. Dovetail	Vector Scope Rings Low Dovetail 30mm	Hawke Match Mounts 2 Piece Weaver Low	Vector 30mm Mark Weaver Mounts, Low	Hawke Match Mounts 2-Pc Weaver Low No. 22115					
1.00" height	1.25" height	1.50" height		23-29mm	21-26mm		Elevation	Elevation + Windage					Elevation	Elevation + Windage							23-24mm	26-28mm	14mm	13mm	11mm
10-11mm No. 420221	16-17mm No. 420222	22-23mm No. 420223	24-25mm No. 410352	23-29mm No. FAE-S50	21-26mm No. INS-30	20-23mm No. 30000-P	19-20mm No. ATP72	24-27mm No. ATP90	5mm No. 22115	7mm No. SCTM-27	8mm Matte, No. 174074	25-29mm No. 30000	23-24mm No. ATP61	26-28mm No. ATP66	14mm No. 22107	13mm No. RDU013010	11mm SCOT-55L SCOT-55A	5mm No. 22115	7mm No. SCTM-27	5mm No. 22115					
25, 30, 34	25, 30	25, 30, 34	25, 30, 34, 35	25', 30, 34 <sup>2</sup>	25', 30, 34 <sup>2</sup>	25, 30	25, 30, 34	25, 30, 34	25, 30	25, 30, 34	25, 30	25, 30	25, 30, 34	25, 30, 34	25, 30	25, 30	25, 30	24, 30	24, 30, 34	25, 30					
54 <sup>6</sup> MOA Adjustable			47 MOA Adjustable	50 MOA Adjustable	41 MOA Adjustable	46 MOA Adjustable	45 MOA Adjustable <sup>4</sup>	65 MOA Adjustable	Optional, cf. below	—	—	46 MOA Adjustable	45 MOA Adjustable <sup>4</sup>	75 MOA Adjustable	Optional, cf. below	—	—	Optional, cf. below	—	—	Optional, cf. below				
75\$			123\$	75\$ incl. S/H UK	102\$ incl. S/H UK	70\$	80\$ incl. S/H UK	132\$	23\$	13\$	70\$	70\$	80\$ incl. S/H UK	130\$ incl. S/H UK	23\$	48\$	11\$	23\$	23\$	13\$	23\$				
<ul style="list-style-type: none"> <li>Are thick = Somewhat block a good view of the turret settings.</li> </ul>						<ul style="list-style-type: none"> <li>Are slim = Are not in the way of the turret settings</li> </ul>		<ul style="list-style-type: none"> <li>Also have Windage Adjustment</li> <li>Are slim = Not in the way</li> </ul>		<ul style="list-style-type: none"> <li>Are slim. 2mm Hawke Mount Inserts No. 22161</li> </ul>		<ul style="list-style-type: none"> <li>Quick Detachment</li> <li>Are slim = Not in the way of the turrets</li> </ul>		<ul style="list-style-type: none"> <li>Are slim = Are not in the way of the turret settings</li> </ul>		<ul style="list-style-type: none"> <li>Also have Windage Adjustment</li> <li>Are slim = Not in the way</li> </ul>		<ul style="list-style-type: none"> <li>Are slim. 2mm Hawke Mount Inserts No. 22161</li> </ul>		<ul style="list-style-type: none"> <li>Look good</li> </ul>		<ul style="list-style-type: none"> <li>Are slim. 2mm Hawke Mount Inserts No. 22161</li> </ul>		<ul style="list-style-type: none"> <li>Are slim. 2mm Hawke Mount Inserts No. 22161</li> </ul>	
<ul style="list-style-type: none"> <li>Cant adjustments in controlled steps.</li> </ul>			<ul style="list-style-type: none"> <li>Quick Detachment</li> </ul>			<ul style="list-style-type: none"> <li>Cant adjustments are a trial and error process.</li> </ul>			<ul style="list-style-type: none"> <li>Cant is micro-adjustable.</li> </ul>		<ul style="list-style-type: none"> <li>25<sup>8</sup> MOA</li> <li>FIXED</li> </ul>		<ul style="list-style-type: none"> <li>Adjstmnt trial-error.</li> </ul>		<ul style="list-style-type: none"> <li>Cant is micro-adjustable.</li> </ul>		<ul style="list-style-type: none"> <li>25<sup>8</sup> MOA</li> <li>FIXED</li> </ul>		<ul style="list-style-type: none"> <li>25<sup>8</sup> MOA</li> <li>FIXED</li> </ul>		<ul style="list-style-type: none"> <li>25<sup>8</sup> MOA</li> <li>FIXED</li> </ul>		<ul style="list-style-type: none"> <li>25<sup>8</sup> MOA</li> <li>FIXED</li> </ul>		
<p><b>Full Adaptor Rail:</b> 8mm added to scope height</p> <p><b>Eagle Vision</b> Dovetail-to-Picatinny Adaptor No. PDRA-150   <b>Quality:</b> 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</p> <p><b>Rail Adaptor Insert:</b> 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)</p> <p><b>UTG</b> Dovetail-to-Picatinny Adaptor MNT-DT2PW01 (also available: Eagle Vision PDRA-26 from UK)</p> <p>15cm long rail (No. PDRA-150)   OR   2.6cm short rail insert (No. MNT-DT2PW01; No. PDRA-26)</p> <p><b>Full Rail:</b> 48\$ (incl. 15\$ ship from UK) (PDRA-150)   OR   <b>Rail Insert:</b> 10\$ (MNT-DT2PW01 / the PDRA-26 costs 16\$ plus added shipping from UK)</p>											<p><b>20mm</b></p> <p><b>UTG</b> Drooper Tapered Scope Rail Dovetail-to-Picatinny No. MNT-DNT06</p>		<p><b>16-23<sup>2</sup>mm</b></p> <p><b>Hawke</b> Adjustable Scope Rail—with Dovetail-to-Picatinny Adaptor<sup>5</sup></p> <ul style="list-style-type: none"> <li>Quality: Seems too cheap, but good report by K_sqrd on springers<sup>3</sup></li> <li>Cant adjustm. in controlled steps.</li> </ul>												
											12cm long rail		18.7cm long (22404) 13.7cm long (22403)		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 \$**

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 <sup>2</sup>	23-30 <sup>2</sup>
54 <sup>6</sup>	54 <sup>6</sup>	54 <sup>6</sup>	47 Quick Det.	50	41	46	45	65+Windage	25 <sup>8</sup> Fixed	—	0 - Quick Det.	46	45	75+Windage	25 <sup>8</sup> Fixed	—	—	58 <sup>8</sup> Fixed	33 Fix	100	125 <sup>8</sup>
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)																					
16-17	22-23	28-29	30-31	29-35	27-32	26-29	25-26	30-33	13	13	14										
85	85	85	133 <sup>7</sup>	85	112	80	42	142	56	23	32 <sup>7</sup>										

## Notes From the Table

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

<sup>2</sup> Eagle Vision also has 34mm adjustable mounts: IPS-34 and INS-34

<sup>3</sup> *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>

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

<sup>5</sup> 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.

<sup>6</sup> 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

<sup>7</sup> 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.

<sup>8</sup> 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	-

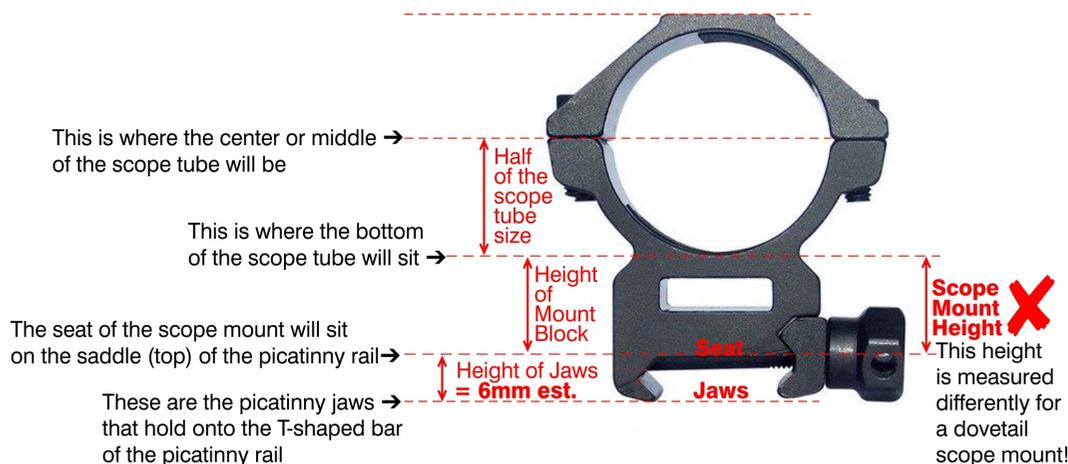
Note: The effect of the ring spacing seems to be non-linear, it increase progressively quicker the closer the mounts are.

## Standards Used in this Scope Mount Table

Cf. the graphics!

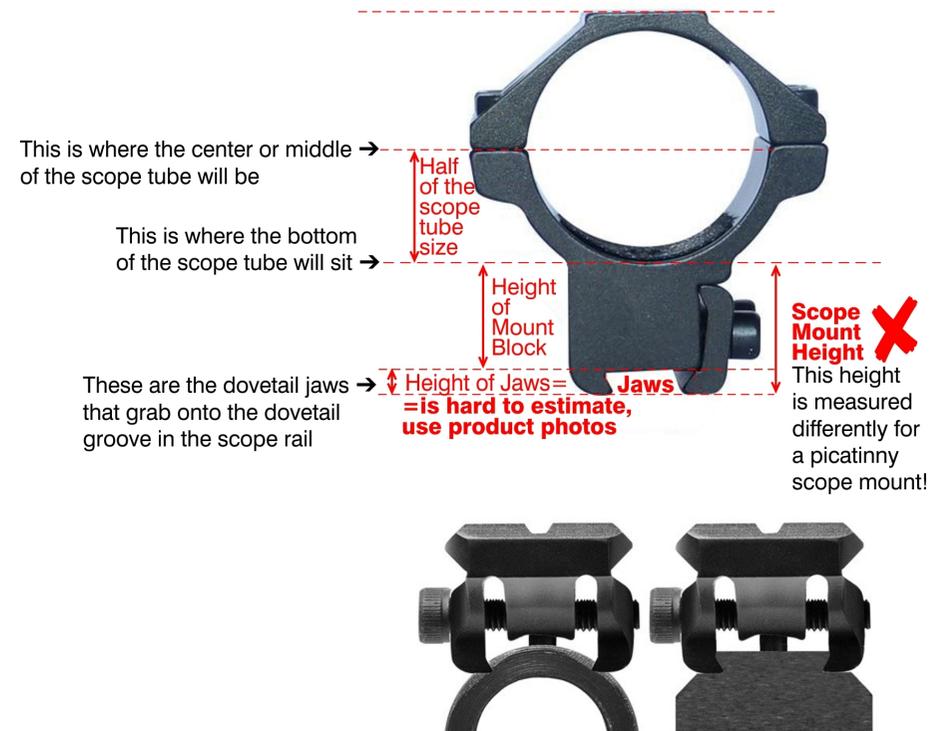
- **Picatinny Scope Mount Height:** measured from the seat of the scope mount (that will sit on the saddle of the picatinny rail) – to the bottom of the scope tube
- **Dovetail Scope Mount Height:** measured from the bottom of the scope mount's jaw (that will attach at the bottom of the gun's dovetail 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 groove (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]



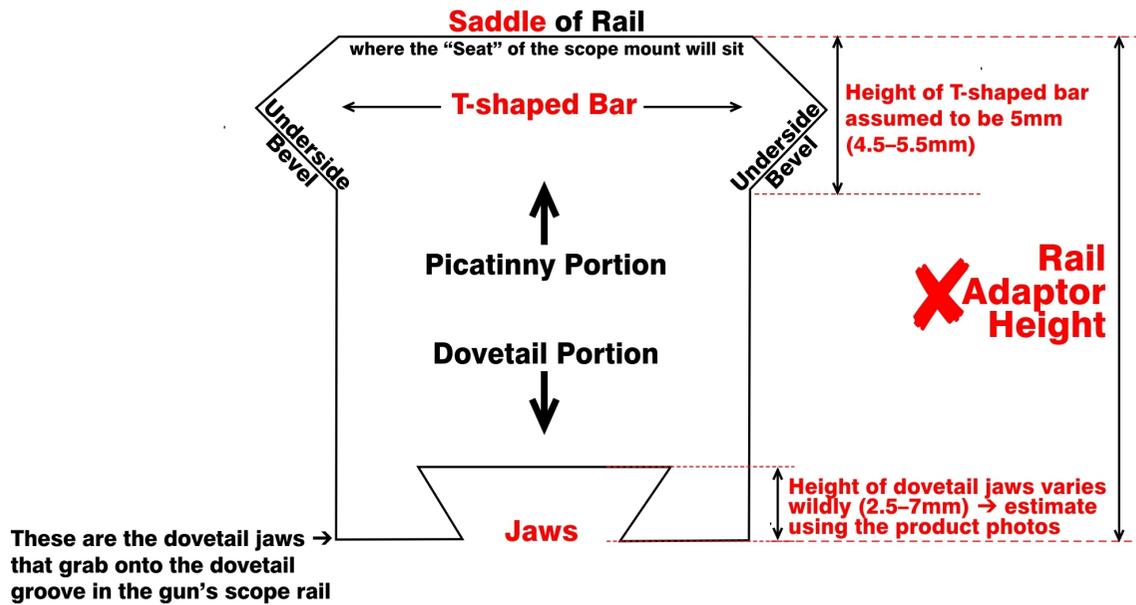
### Dovetail Scope Mount

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

