

Joule Chart			BB Weight											
Velocity			0.2	0.23	0.25	0.28	0.3	0.32	0.36	0.4	0.42	0.45	0.46	0.5
FPS	MPS													
200	61		0.37	0.43	0.46	0.52	0.56	0.59	0.67	0.74	0.78	0.84	0.86	0.93
205	62		0.39	0.45	0.49	0.55	0.59	0.63	0.70	0.78	0.82	0.88	0.90	0.98
210	64		0.41	0.47	0.51	0.57	0.61	0.66	0.74	0.82	0.86	0.92	0.94	1.02
215	66		0.43	0.49	0.54	0.60	0.64	0.69	0.77	0.86	0.90	0.97	0.99	1.07
220	67		0.45	0.52	0.56	0.63	0.67	0.72	0.81	0.90	0.94	1.01	1.03	1.12
225	69		0.47	0.54	0.59	0.66	0.71	0.75	0.85	0.94	0.99	1.06	1.08	1.18
230	70		0.49	0.57	0.61	0.69	0.74	0.79	0.89	0.98	1.03	1.11	1.13	1.23
235	72		0.51	0.59	0.64	0.72	0.77	0.82	0.92	1.03	1.08	1.15	1.18	1.28
240	73		0.54	0.62	0.67	0.75	0.80	0.86	0.96	1.07	1.12	1.20	1.23	1.34
245	75		0.56	0.64	0.70	0.78	0.84	0.89	1.00	1.12	1.17	1.26	1.28	1.39
250	76		0.58	0.67	0.73	0.81	0.87	0.93	1.05	1.16	1.22	1.31	1.34	1.45
255	78		0.60	0.70	0.76	0.85	0.91	0.97	1.09	1.21	1.27	1.36	1.39	1.51
260	79		0.63	0.72	0.79	0.88	0.94	1.01	1.13	1.26	1.32	1.41	1.45	1.57
265	81		0.65	0.75	0.82	0.91	0.98	1.04	1.17	1.31	1.37	1.47	1.50	1.63
270	82		0.68	0.78	0.85	0.95	1.02	1.08	1.22	1.36	1.42	1.52	1.56	1.69
275	84		0.70	0.81	0.88	0.98	1.05	1.12	1.27	1.41	1.48	1.58	1.62	1.76
280	85		0.73	0.84	0.91	1.02	1.09	1.17	1.31	1.46	1.53	1.64	1.68	1.82
285	87		0.75	0.87	0.94	1.06	1.13	1.21	1.36	1.51	1.59	1.70	1.74	1.89
290	88		0.78	0.90	0.98	1.09	1.17	1.25	1.41	1.56	1.64	1.76	1.80	1.95
295	90		0.81	0.93	1.01	1.13	1.21	1.29	1.46	1.62	1.70	1.82	1.86	2.02
300	91		0.84	0.96	1.05	1.17	1.25	1.34	1.51	1.67	1.76	1.88	1.92	2.09
305	93		0.86	0.99	1.08	1.21	1.30	1.38	1.56	1.73	1.82	1.95	1.99	2.16
310	94		0.89	1.03	1.12	1.25	1.34	1.43	1.61	1.79	1.88	2.01	2.05	2.23
315	96		0.92	1.06	1.15	1.29	1.38	1.48	1.66	1.84	1.94	2.08	2.12	2.31
320	98		0.95	1.09	1.19	1.33	1.43	1.52	1.71	1.90	2.00	2.14	2.19	2.38
325	99		0.98	1.13	1.23	1.37	1.47	1.57	1.77	1.96	2.06	2.21	2.26	2.45
330	101		1.01	1.16	1.27	1.42	1.52	1.62	1.82	2.02	2.13	2.28	2.33	2.53
335	102		1.04	1.20	1.30	1.46	1.56	1.67	1.88	2.09	2.19	2.35	2.40	2.61
340	104		1.07	1.24	1.34	1.50	1.61	1.72	1.93	2.15	2.26	2.42	2.47	2.69
345	105		1.11	1.27	1.38	1.55	1.66	1.77	1.99	2.21	2.32	2.49	2.54	2.77
350	107		1.14	1.31	1.42	1.59	1.71	1.82	2.05	2.28	2.39	2.56	2.62	2.85
355	108		1.17	1.35	1.46	1.64	1.76	1.87	2.11	2.34	2.46	2.64	2.69	2.93
360	110		1.20	1.39	1.51	1.69	1.81	1.93	2.17	2.41	2.53	2.71	2.77	3.01
365	111		1.24	1.42	1.55	1.73	1.86	1.98	2.23	2.48	2.60	2.79	2.85	3.10
370	113		1.27	1.46	1.59	1.78	1.91	2.04	2.29	2.54	2.67	2.86	2.93	3.18
375	114		1.31	1.50	1.63	1.83	1.96	2.09	2.35	2.61	2.74	2.94	3.01	3.27
380	116		1.34	1.54	1.68	1.88	2.01	2.15	2.42	2.68	2.82	3.02	3.09	3.36
385	117		1.38	1.58	1.72	1.93	2.07	2.20	2.48	2.76	2.89	3.10	3.17	3.44
390	119		1.41	1.63	1.77	1.98	2.12	2.26	2.54	2.83	2.97	3.18	3.25	3.53
395	120		1.45	1.67	1.81	2.03	2.18	2.32	2.61	2.90	3.05	3.26	3.34	3.63
400	122		1.49	1.71	1.86	2.08	2.23	2.38	2.68	2.97	3.12	3.35	3.43	3.72
405	123		1.52	1.75	1.91	2.13	2.29	2.44	2.74	3.05	3.20	3.43	3.51	3.81
410	125		1.56	1.80	1.95	2.19	2.34	2.50	2.81	3.13	3.28	3.52	3.59	3.91
415	126		1.60	1.84	2.00	2.24	2.40	2.56	2.88	3.20	3.36	3.60	3.68	4.00
420	128		1.64	1.89	2.05	2.30	2.46	2.62	2.95	3.28	3.44	3.69	3.77	4.10
425	130		1.68	1.93	2.10	2.35	2.52	2.69	3.02	3.36	3.53	3.78	3.86	4.20
430	131		1.72	1.98	2.15	2.41	2.58	2.75	3.09	3.44	3.61	3.87	3.95	4.30
435	133		1.76	2.02	2.20	2.46	2.64	2.81	3.17	3.52	3.69	3.96	4.05	4.40
440	134		1.80	2.07	2.25	2.52	2.70	2.88	3.24	3.60	3.78	4.05	4.14	4.50
445	136		1.84	2.12	2.30	2.58	2.76	2.95	3.31	3.68	3.87	4.14	4.23	4.60
450	137		1.88	2.16	2.35	2.64	2.82	3.01	3.39	3.76	3.95	4.24	4.33	4.71
455	139		1.92	2.21	2.41	2.69	2.89	3.08	3.46	3.85	4.04	4.33	4.43	4.81
460	140		1.97	2.26	2.46	2.75	2.95	3.15	3.54	3.93	4.13	4.43	4.52	4.92
465	142		2.01	2.31	2.51	2.81	3.01	3.22	3.62	4.02	4.22	4.52	4.62	5.02
470	143		2.05	2.36	2.57	2.87	3.08	3.29	3.70	4.11	4.31	4.62	4.72	5.13
475	145		2.10	2.41	2.62	2.94	3.15	3.36	3.77	4.19	4.40	4.72	4.82	5.24
480	146		2.14	2.46	2.68	3.00	3.21	3.43	3.85	4.28	4.50	4.82	4.93	5.35
485	148		2.19	2.51	2.73	3.06	3.28	3.50	3.94	4.37	4.59	4.92	5.03	5.47
490	149		2.23	2.57	2.79	3.12	3.35	3.57	4.02	4.46	4.69	5.02	5.13	5.58
495	151		2.28	2.62	2.85	3.19	3.42	3.64	4.10	4.56	4.78	5.12	5.24	5.69
500	152		2.32	2.67	2.90	3.25	3.49	3.72	4.18	4.65	4.88	5.23	5.34	5.81
505	154		2.37	2.73	2.96	3.32	3.56	3.79	4.27	4.74	4.98	5.33	5.45	5.93
510	155		2.42	2.78	3.02	3.38	3.63	3.87	4.35	4.84	5.08	5.44	5.56	6.04
515	157		2.47	2.84	3.08	3.45	3.70	3.94	4.44	4.93	5.18	5.55	5.67	6.16
520	158		2.51	2.89	3.14	3.52	3.77	4.02	4.52	5.03	5.28	5.66	5.78	6.28
525	160		2.56	2.95	3.20	3.59	3.84	4.10	4.61	5.12	5.38	5.76	5.89	6.40
530	162		2.61	3.00	3.26	3.66	3.92	4.18	4.70	5.22	5.48	5.87	6.01	6.53
535	163		2.66	3.06	3.33	3.72	3.99	4.26	4.79	5.32	5.59	5.99	6.12	6.65
540	165		2.71	3.12	3.39	3.79	4.07	4.34	4.88	5.42	5.69	6.10	6.23	6.78
545	166		2.76	3.17	3.45	3.87	4.14	4.42	4.97	5.52	5.80	6.21	6.35	6.90
550	168		2.81	3.23	3.51	3.94	4.22	4.50	5.06	5.62	5.90	6.33	6.47	7.03
555	169		2.86	3.29	3.58	4.01	4.29	4.58	5.15	5.73	6.01	6.44	6.59	7.16
560	171		2.91	3.35	3.64	4.08	4.37	4.66	5.25	5.83	6.12	6.56	6.70	7.29
565	172		2.97	3.41	3.71	4.15	4.45	4.75	5.34	5.93	6.23	6.68	6.82	7.42
570	174		3.02	3.47	3.77	4.23	4.53	4.83	5.44	6.04	6.34	6.79	6.95	7.55
575	175		3.07	3.53	3.84	4.30	4.61	4.92	5.53	6.15	6.45	6.91	7.07	7.68
580	177		3.13	3.60	3.91	4.38	4.69	5.00	5.63	6.25	6.57	7.04	7.19	7.82
585	178		3.18	3.66	3.98	4.45	4.77	5.09	5.73	6.36	6.68	7.16	7.32	7.95
590	180		3.24	3.72	4.04	4.53	4.85	5.18	5.82	6.47	6.79	7.28	7.44	8.09
595	181		3.29	3.78	4.11	4.61	4.94	5.27	5.92	6.58	6.91	7.40	7.57	8.23
600	183		3.35	3.85	4.18	4.69	5.02	5.35	6.02	6.69	7.02	7.53	7.70	8.37

ONLY EDIT THESE VALUES		MED
Sidearm Joule Limit	1.15	5
Non-Member Joule Limit	1.5	10
Full Auto Joule Limit	1.9	15
DMR Joule Limit	2.3	15
Legal Joule Limit	3.35	15


NOTE: This Joule chart is for basic reference only. The actual calculated values are in the Quick Reference Charts.

AWI Joule Chart



0.2g BBs

	Joule Rating	FPS	MED
Sidearm Limit (5m MED)	1.15	350	5
Yellow Tag Limit (10m MED)	1.5	400	10
Full Auto Limit (RED TAG)	1.9	450	15
Semi Auto Limit (RED TAG)	2.3	500	15
LEGAL LIMIT	3.35	600	15




Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.23g BBs

	Joule Rating	FPS	MED
Sidearm Limit (5m MED)	1.15	330	5
Yellow Tag Limit (10m MED)	1.5	370	10
Full Auto Limit (RED TAG)	1.9	420	15
Semi Auto Limit (RED TAG)	2.3	460	15
LEGAL LIMIT	3.35	560	15




Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.25g BBs

	Joule Rating	FPS	MED
Sidearm Limit (5m MED)	1.15	320	5
Yellow Tag Limit (10m MED)	1.5	360	10
Full Auto Limit (RED TAG)	1.9	400	15
Semi Auto Limit (RED TAG)	2.3	450	15
LEGAL LIMIT	3.35	540	15




Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.28g BBs


	Joule Rating	FPS	MED
Sidearm Limit (5m MED)	1.15	300	5
Yellow Tag Limit (10m MED)	1.5	340	10
Full Auto Limit (RED TAG)	1.9	380	15
Semi Auto Limit (RED TAG)	2.3	420	15
LEGAL LIMIT	3.35	510	15



Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.3g BBs


	Joule Rating	FPS	 MED
Sidearm Limit (5m MED)	1.15	290	5
Yellow Tag Limit (10m MED)	1.5	330	10
Full Auto Limit (RED TAG)	1.9	370	15
Semi Auto Limit (RED TAG)	2.3	410	15
LEGAL LIMIT	3.35	490	15

Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.32g BBs


	Joule Rating	FPS	MED
Sidearm Limit (5m MED)	1.15	280	5
Yellow Tag Limit (10m MED)	1.5	320	10
Full Auto Limit (RED TAG)	1.9	360	15
Semi Auto Limit (RED TAG)	2.3	390	15
LEGAL LIMIT	3.35	480	15



Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.


0.36g BBs

	Joule Rating	FPS	 MED
Sidearm Limit (5m MED)	1.15	260	5
Yellow Tag Limit (10m MED)	1.5	300	10
Full Auto Limit (RED TAG)	1.9	340	15
Semi Auto Limit (RED TAG)	2.3	370	15
LEGAL LIMIT	3.35	450	15

Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.


0.4g BBs

	Joule Rating	FPS		MED
Sidearm Limit (5m MED)	1.15	250		5
Yellow Tag Limit (10m MED)	1.5	290		10
Full Auto Limit (RED TAG)	1.9	320		15
Semi Auto Limit (RED TAG)	2.3	350		15
LEGAL LIMIT	3.35	420		15

Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.42g BBs


	Joule Rating	FPS	 MED
Sidearm Limit (5m MED)	1.15	240	5
Yellow Tag Limit (10m MED)	1.5	280	10
Full Auto Limit (RED TAG)	1.9	310	15
Semi Auto Limit (RED TAG)	2.3	340	15
LEGAL LIMIT	3.35	410	15

Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.45g BBs

	Joule Rating	FPS	MED
Sidearm Limit (5m MED)	1.15	230	5
Yellow Tag Limit (10m MED)	1.5	270	10
Full Auto Limit (RED TAG)	1.9	300	15
Semi Auto Limit (RED TAG)	2.3	330	15
LEGAL LIMIT	3.35	400	15




Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.46g BBs

	Joule Rating	FPS	MED
Sidearm Limit (5m MED)	1.15	230	5
Yellow Tag Limit (10m MED)	1.5	270	10
Full Auto Limit (RED TAG)	1.9	300	15
Semi Auto Limit (RED TAG)	2.3	330	15
LEGAL LIMIT	3.35	400	15




Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.

0.5g BBs

	Joule Rating	FPS	MED
Sidearm Limit (5m MED)	1.15	220	5
Yellow Tag Limit (10m MED)	1.5	250	10
Full Auto Limit (RED TAG)	1.9	290	15
Semi Auto Limit (RED TAG)	2.3	320	15
LEGAL LIMIT	3.35	380	15



Red Tag and above **require** the player to carry a Sidearm.

Yellow Tag does not require a sidearm, but is recommended.