

Tower Workstations Compared	Velocity Micro ProMagix HD80i 2024 workstation	Lenovo ThinkStation P5 workstation	Lenovo ThinkStation PX workstation	HP Z4 Rack G5 workstation	Velocity Micro ProMagix HD60 2023 workstation	HP Z4 G5 workstation
	(one 3.4GHz/5.6GHz max turbo Intel Core i7-14700K 20-core CPU, NVIDIA RTX 4500 Ada, 24GB RAM, 2TB SSD)	(one 2.5GHz Intel Xeon w7-2495X 24-core CPU, NVIDIA RTX A4500, 32GB RAM, 512GB SSD)	(one 2.0GHz Intel Xeon Gold 5416S 16-core CPU, NVIDIA RTX A6000, 128GB RAM, 1TB SSD)	(one 3.1GHz Intel Xeon w5-2465X 16-core CPU, NVIDIA RTX A6000, 128GB RAM, 2x 1TB SSD)	(one 5.8GHz Intel Core i9-13900K 24-core CPU, NVIDIA RTX A4500, 64GB RAM, 1TB SSD)	(one 4.8GHz Intel Xeon w7-2495X 24-core CPU, NVIDIA RTX A4000, 64GB RAM, 2TB SSD, 1TB SSD)
Price as tested	\$6,498	\$5,617	\$9,274	\$15,288	\$4,438	\$6,994
Date tested	3/11/2024	9/14/2023	9/13/2023	9/12/23	7/28/23	7/20/23
Operating System	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro	Windows 11 Pro
CPU	Intel Core i7-1400K	Intel Xeon w7-2495X	Intel Xeon Gold 5416S	Intel Xeon w7-2465X	Intel Core i9-13900K	Intel Xeon w7
CPU clock speed	2.5 GHz	2.5 GHz	2.0 GHz	3.1 GHz	5.8 GHz	2.5 GHz
CPU cores	24	24	16	16	24	24
System memory (RAM)	32GB	32GB	128GB	128GB	64GB	64GB
GPU	NVIDIA RTX A4500 Ada	NVIDIA RTX A4500	NVIDIA RTX A6000	NVIDIA RTX A6000	NVIDIA RTX A4500	RTX A4000
GPU discrete memory (RAM)	24GB	48GB	48GB	48GB	20GB	16GB
Graphics driver version	551.61 (2/15/24)	526.67 (71223)	526.67 (7/12/23)	535.98 (5/24/23)	536.25 (6/10/23)	527.48
Primary drive size and type	2TB PCIe SSD	512GB PCIe DDS	1TB PCIe SSD	1TB PCIe SSD	1TB PCIe SSD	2TB PCIe SSD
Secondary drive size and type	none	none	none	1TB PCIe SSD	none	1TB PCIe SSD
Total drive storage	2TB	512GB	1TB	2TB	1TB	3TB
System weight (pounds)	37.50	32.00	60.50	27.25	28.00	27.00
Power supply wattage	1000	1000	1850	1350	850	1125
SPECviewperf 2020 V3.1 (higher is better)						
3dsmax-07	201.31	161.52	205.89	207.83	165.27	147.46
catia-06	158.88	118.10	129.80	138.81	133.22	104.51
creo-03	237.83	143.63	127.06	139.69	192.56	135.28
energy-03	138.28	87.09	127.74	130.74	87.83	68.60
maya-06	679.19	443.04	468.59	506.22	508.86	407.39
medical-03	200.77	74.79	92.34	94.29	74.78	69.58
snx-04	733.69	785.77	916.61	651.50	448.21	479.49
solidworkws-05	490.65	356.99	406.15	400.45	314.03	278.60
SPEC workstation v3.1 (higher is better)						
Media and Entertainment	6.57	5.50	4.29	5.09	6.58	4.83
Product Development	5.80	5.80	5.00	5.72	5.66	5.40
Life Sciences	7.97	5.56	4.98	5.54	7.07	5.68
Financial Services	6.10	7.48	4.37	5.71	8.37	6.34
Energy	7.67	6.67	5.44	5.97	7.27	6.12
General Operations	4.04	2.98	2.46	2.85	4.32	2.56
GPU Compute	8.01	6.27	7.30	7.55	6.41	5.16
Time AutoCAD Render Test (in seconds, lower is better)						
	11.20	15.2	19.6	16.8	10.30	15.0
Numbers in blue indicate best recorded results. Numbers in red indicate worst recorded results.						