# Dell Precision Workstation Product Recommendations
## Ansys Fluent

### Entry
#### Precision 5860 Tower

For the professional who works on light to moderately complex part design and medium assemblies, pre and post processing and runs simple simulations on CPU. 1 HPC Pack for utilization of up to 12 cores

- Intel® Xeon® W5-2465X (33.75 MB cache, 16 cores, 32 threads, 3.1 GHz to 4.7 GHz Turbo, 200 W)
- 64GB, 4x16GB, DDR5, 4800MHz, RDIMM ECC Memory
- NVIDIA® RTX™ A2000, 12 GB GDDR6, 4 mDP to DP adapters or AMD Radeon Pro WX 5100, 8GB, 4DP
- 512 GB, M.2, PCIe NVMe, SSD, Class 40
- Windows 10/11 Pro or Windows 10/11 Pro for Workstations
- 3 Years ProSupport with Next Business Day Onsite Service

**Customize & Buy**

### Standard
#### Precision 5860 Tower

For the professional who works on moderately complex part designs, including tool and die design, large assemblies, pre and post processing and runs complex simulations on CPU. 1 HPC Pack for utilization of up to 12 cores

- Intel® Xeon® W7-2475X (37.5 MB cache, 20 cores, 40 threads, 2.6 GHz to 4.8 GHz Turbo, 225 W)
- 128GB, 8x16GB, DDR5, 4800MHz, RDIMM ECC Memory
- NVIDIA® RTX™ A4500, 20 GB GDDR6, 4 DP or AMD Radeon Pro W6600, 8 GB GDDR6, 4 DP
- 1 TB, M.2, PCIe NVMe, SSD, Class 40
- Windows 10/11 Pro or Windows 10/11 Pro for Workstations
- 3 Years ProSupport with Next Business Day Onsite Service

**Customize & Buy**

### Advanced
#### Precision 7865 Tower

For the professional who works on light to moderately complex part design, large assemblies, pre and post processing and runs complex simulations on CPU. 2 HPC Packs for utilization of up to 36 cores

- AMD Ryzen Threadripper PRO 5975WX (128 MB cache, 32 cores, 64 threads, 3.6GHz to 4.5GHz, 280 W)
- 256GB, 8x32GB, DDR4, 3200MHz, RDIMM ECC Memory
- NVIDIA® RTX™ A6000, 48 GB GDDR6, 4 DP or AMD Radeon Pro W6800, 32 GB GDDR6, 6 mDP
- Dell Ultra-Speed Drive Duo M.2 NVME SSD x8 PCIe Card with 1x 1TB Class 40 SSD + M.2 1TB PCIe NVMe Class 40 Solid State Drive
- Windows 10/11 Pro or Windows 10/11 Pro for Workstations
- 3 Years ProSupport with Next Business Day Onsite Service

**Customize & Buy**

### Ultimate
#### Precision 7865 Tower

For the professional who works on complex part design, large assemblies, pre and post processing and runs complex simulations on CPU and GPU. 3 HPC Packs for utilization of up to 128 cores

- AMD Ryzen Threadripper PRO 5995WX (256 MB cache, 64 cores, 128 threads, 2.7GHz to 4.5GHz, 280 W)
- 512GB, 8x64GB, DDR4, 3200MHz, RDIMM ECC Memory
- NVIDIA® RTX™ A6000, 48 GB GDDR6, 4 DP or AMD Radeon Pro W6800, 32 GB GDDR6, 6 mDP
- 1 TB, M.2, PCIe NVMe, SSD, Class 40 + M.2 1TB PCIe NVMe Class 40 Solid State Drive
- Windows 10/11 Pro or Windows 10/11 Pro for Workstations
- 3 Years ProSupport with Next Business Day Onsite Service

**Customize & Buy**

Guidelines: CPU core scaling is good and generally more cores and higher base clock speed will perform better. 4-8 GB RAM per core is ideal and filling all memory channels in a balanced configuration for high bandwidth is recommended. GPU acceleration is supported, better double precision floating point performance and large VRAM capacity will provide faster results. Fast SSD storage is recommended. More info on HPC licensing **The Value of High-Performance Computing for Simulation**

### Entry
#### Precision 5570

For the professional who works on light to moderately complex part design and medium assemblies and runs simple simulations. No HPC pack for utilization of up to 4 cores.

- Intel® Core™ i7-12700H, vPro® Essentials (24MB, 14 core 20 thread, 2.30-4.70GHz Turbo, 45W)
- 32 GB, 2 x 16 GB, DDR5, 4800 MHz
- NVIDIA RTX A2000, 8 GB DDR6
- 512 GB, M.2 2280, Gen 4 PCIe x4 NVMe, SSD
- 15.6" Ultrasharp UHD+ HDR400, 3840x2400,Touch, w/Prem Panel Guar, 100% Adobe, LBL w/ IR Cam
- Windows 10/11 Pro or Windows 10/11 Pro for Workstations
- 3 Years ProSupport with Next Business Day Onsite Service

**Customize & Buy**

### Standard
#### Precision 5770

For the professional who works on moderately complex part design, including tool and die design, large assemblies and runs simple simulations.. No HPC pack for utilization of up to 4 cores.

- Intel® Core™ i7-12800H, vPro® (24MB cache, 14 core, 20 thread, 2.40 to 4.80 GHz Turbo, 45W)
- 32 GB, 2 x 16 GB, DDR5, 4800 MHz
- NVIDIA RTX A3000, 12 GB DDR6
- 1 TB, M.2 2280, Gen 4 PCIe x4 NVMe, SSD
- 17" UHD+ touch, 3840 x 2400, 60Hz, 500 nits WLED, 100% sRGB, Low BL w/ IR Cam
- Windows 10/11 Pro or Windows 10/11 Pro for Workstations
- 3 Years ProSupport with Next Business Day Onsite Service

**Customize & Buy**

### Advanced
#### Precision 7680

For the professional who works on light to complex part design, large assemblies and runs complex simulations. No HPC pack for utilization of up to 12 cores. HPC Pack for utilization of up to 12 cores.

- Intel® Core™ i9-13950HX (36MB Cache, 32 Threads, 24 Cores (8P+16E) up to 5.5GHz, 55w, vPro)
- 64GB, 2x32GB 5200MHz SODIMM, non-ECC
- NVIDIA RTX™ 5000 Ada 16GB GDDR6
- 512 GB, M.2 2280, Gen 4 PCIe x4 NVMe, SSD
- 16-inch, OLED UHD+ 3840 x 2400, 60 Hz, Anti-Glare, Touch, 100% DCIP3, 400 Nits, IR Cam/Mic WLAN
- Windows 10/11 Pro or Windows 10/11 Pro for Workstations
- 3 Years ProSupport with Next Business Day Onsite Service

**Customize & Buy**

### Ultimate
#### Precision 7780

For the professional who works on complex part design, large assemblies and runs complex simulations. 1 HPC Pack for utilization of up to 12 cores.

- Intel® Core™ i9-13950HX (36MB Cache, 32 Threads, 24 Cores (8P+16E) up to 5.5GHz, 55w, vPro)
- 128GB, 1x128GB 3600MHz CAMM, non-ECC
- NVIDIA RTX™ 5000 Ada 16GB GDDR6
- 1 TB, M.2 2280, Gen 4 PCIe x4 NVMe, SSD
- 17" UHD 3840x2160 WLED WVA, 120Hz, anti-glare, non-touch, 99% DCI-P3, 500 nits, IR Camera, with Mic
- Windows 10/11 Pro or Windows 10/11 Pro for Workstations
- 3 Years ProSupport with Next Business Day Onsite Service

**Customize & Buy**

Guidelines: CPU core scaling is good and generally more cores and higher base clock speed will perform better. 4-8 GB RAM per core is ideal and filling all memory channels in a balanced configuration for high bandwidth is recommended. GPU acceleration is supported, better double precision floating point performance and large VRAM capacity will provide faster results. Fast SSD storage is recommended. More info on HPC licensing **The Value of High-Performance Computing for Simulation**

Please read the use case descriptions thoroughly to identify the appropriate recommendation for your usage. Recommendations are starting points and your requirements may vary. For more information see - **Precision Workstations**, **Dell Precision Engineering and Manufacturing Quick Reference Guide**, **Dell Precision Certifications**