# Advanced 3D Stereo CFD Visualization Display

3D PluraView

Dive into the Molecular Universe

Experience the next level of Computational Fluid Dynamics (CFD) visualization with the 3D PluraView stereoscopic display. Designed to enhance your workflow and deliver unparalleled depth perception, the 3D PluraView elevates CFD analysis to new heights of precision and clarity.
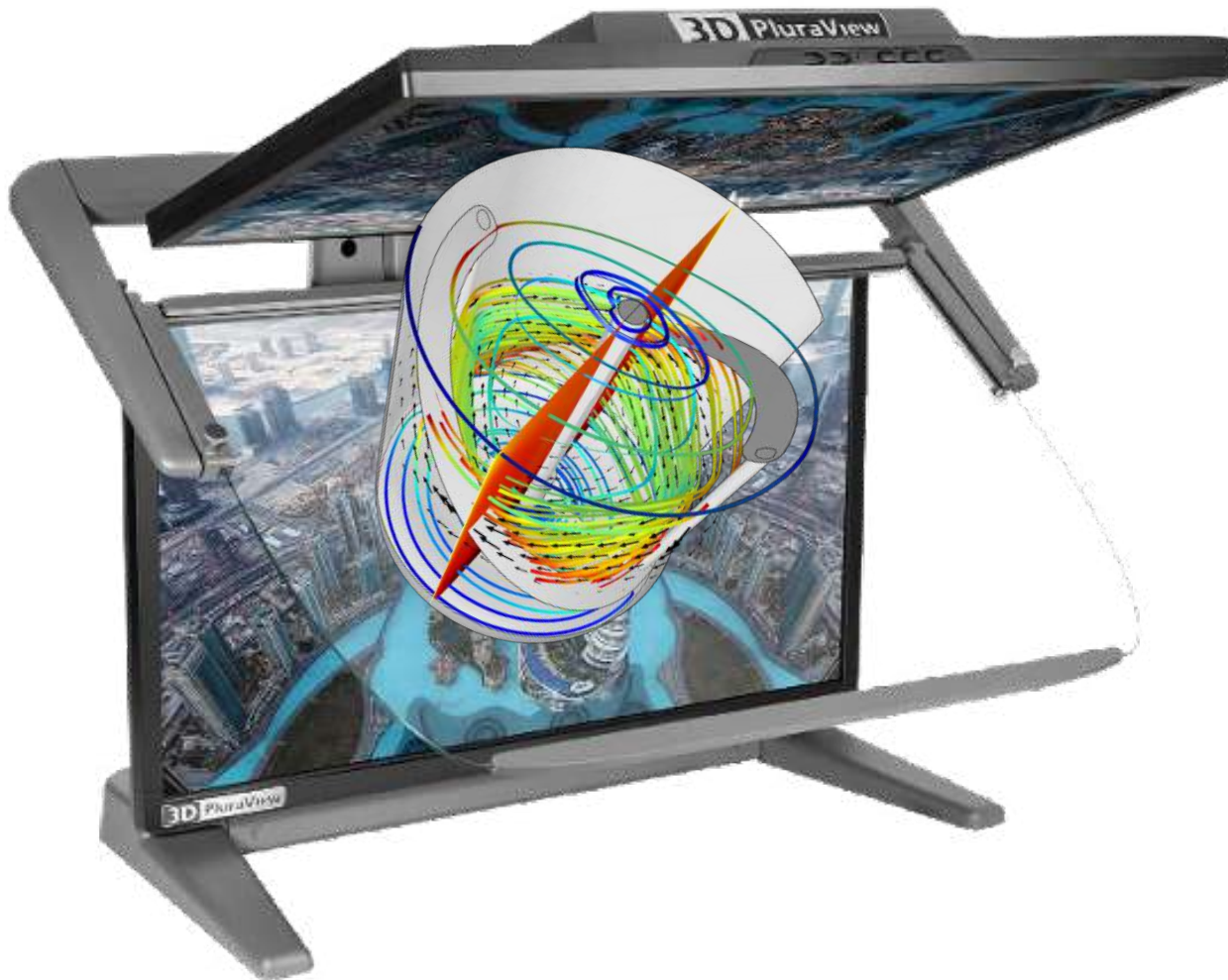
- Flicker-free for continuous professional use
- Seamless Stereo Exploration
- Enhanced Interaction
- Precision at 8K resolution

- Connect to your Workstation
- Plug & play (No driver Installation)
- Breaking the Chains of 2D Limitations
- Effortless Use

3D Pluraview
Advanced Molecular Visualization:

Embark on a revolutionary CFD experience with the 3D PluraView System, delivering superior 3D stereo visualization tailored for CFD applications. This system ensures comfort and fatigue-free interaction across diverse 3D-stereo CFD simulations visualisation.

Driven by our innovative PluraView beam-splitter technology, experience pixel-precise stereoscopic 3D images at their finest. Configurable with up to 28" screen diagonals, 4K (UHD) resolutions, and a remarkable 10-bit color depth per pixel, the PluraView sets the benchmark for CFD visualization displays.

Compatible with a wide range of CFD software and applications, ensuring seamless integration into your existing workflow.

Why 3D Displays?

In Computational Fluid Dynamics (CFD) visualization, accuracy and depth perception are paramount for understanding complex flow phenomena. Traditional 2D displays often struggle to convey the depth and intricacies of CFD simulations accurately. This is where 3D stereoscopic displays, like the 3D PluraView, shine. By providing a lifelike, immersive experience with stereoscopic depth perception, 3D stereoscopic displays enable engineers and researchers to explore CFD simulations in unprecedented detail. With enhanced clarity and depth, these displays allow users to intuitively navigate through intricate flow patterns, leading to better insights, informed decision-making, and ultimately, more accurate simulations.

### Enhanced Visualization Capabilities

- Dive into your CFD simulations with lifelike 3D visuals that bring fluid dynamics to life.
- Enjoy a truly immersive experience with stereoscopic depth perception, allowing for better understanding and analysis of complex flow patterns.
- Experience crystal-clear imagery and precise detail with the 3D PluraView's high-resolution display.
- Seamlessly navigate through your CFD models and datasets with smooth, flicker-free rendering.
- Increase productivity and efficiency with ergonomic design features, including adjustable viewing angles and comfortable viewing experiences.
- Collaborate seamlessly in 3D stereo in real-time upto 4 people at a time
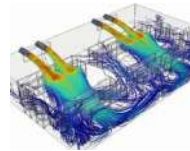
Revolutionizing CFD Visualization

Key Features

Enhanced Stereoscopic Depth Perception
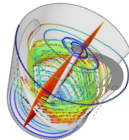
Enhanced Data Interpretation

Enhanced Spatial Awareness

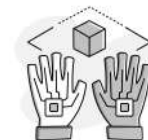**Improved Communication & Collaboration 4 people at a time in stereo**
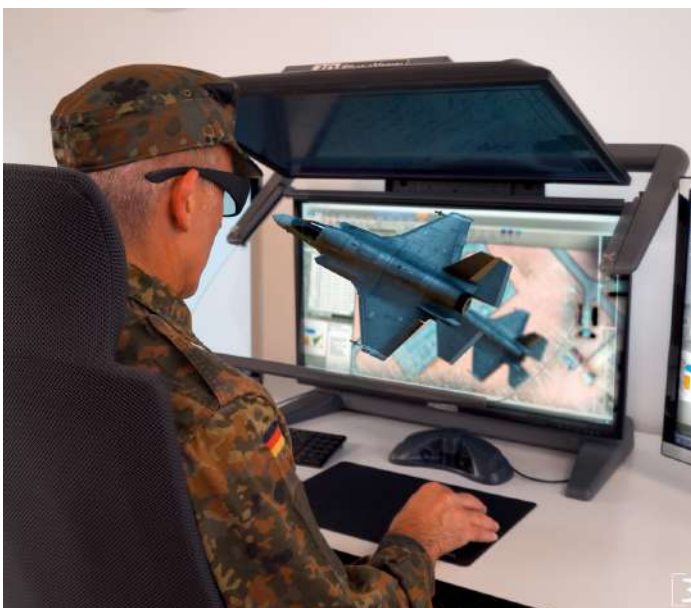

Improved Spatial Cognition

Seamless Integration into Workflows (Plug & Play)

High-Resolution Stereoscopic Imaging

Immersive Interaction and Exploration

Virtual Reality Enhances CFD AnalysisStep into a Virtual World of Fluid Dynamics Wonders

3D stereoscopic displays address key challenges in CFD analysis by providing users with enhanced depth perception, improved visualization of 3D structures, enhanced spatial awareness, and better communication and collaboration capabilities. These benefits ultimately lead to more accurate simulations, better insights, and improved decision-making in engineering and research projects.

3D PLURAVIEW MONITOR SPECIFICATIONS

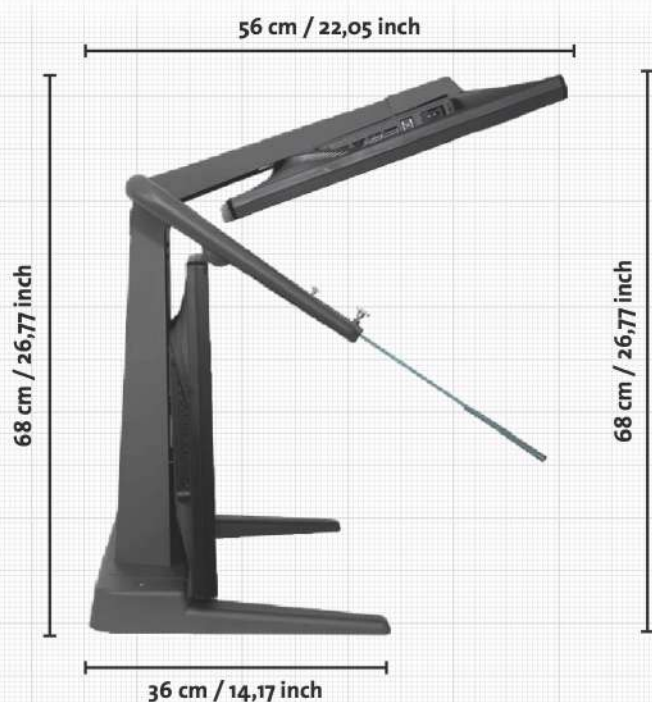|	22" FHD	24" FHD
Display	21.5" (546 mm) Screen Size 2x 1,920 x 1,080 Resolution (2.1 MP) 16.7 Million Colors (8-bit) 250 cd/m² Brightness	24" (610 mm) Screen Size 2x 1,920 x 1,080 Resolution (2.1 MP) 16.7 Million Colors (8-bit) 350 cd/m² Brightness
	LED BackLit-Technology 2 ms Response Time 170 °/160 ° Viewing Angle (H/V)	LED BackLit-Technology 1 ms Response Time 170 °/160 ° Viewing Angle (H/V)
	Contrast Ratio: 200,000: 1 ACR	Contrast Ratio: 1,000 : 1 static
Frame Rate	60 Hz	144 Hz
3D-Characteristics	160 cd/m² Brightness with glasses 1,920 x 1,080 per eye resolution	210 cd/m² Brightness with glasses 1,920 x 1,080 per eye resolution
	Linear Polarization 45°/135° beam-splitter: 50%-transparency, polarized mirror	
3D-Formats	Quad Buffered OpenGL, Side-by-Side, Top-Bottom, Quad-Buffered DirectX	
Operating Systems	Windows / Linux / macOS-Compatibility, Windows-10 und Windows-11 Certification	
Power Consumption	Power Consumption 53W typical; max. 1W in Power Management Mode; Annual Power Consumption 94 kWh / year	Power Consumption 61W typical; max. 1W in Power Management Mode; Annual Power Consumption 135 kWh / year
	Power Management VESA DPMS™, Energy Star 6.0 Efficiency Class B	
Weight	23 kg system weight with stand	26 kg system weight with stand
Measurements	54 x 59 x 46 cm (W x H x D)	61.5 x 61.5 x 47.5 cm (W x H x D)
Interfaces	2x DisplayPort 1.1 cable 2.5m	2x DisplayPort 1.2 cable 2.5m
	1 x main plug AC 100 - 240 V, 50 / 60 Hz	
Audio	Integrated Speakers 2 x 2 W	
Design	Diamond Dark Alu/Steel Construction Integrated Electronics Adjustable Stand Made in Germany	
Technical Notes	2x DisplayPort 1.1 output from the graphics card is required, optionally available as dual DVI version	2x DisplayPort 1.2 output from the graphics card is required for 144Hz; with DP 1.1 output - 120Hz screen refresh. FreeSync support with AMD graphics cards
Graphics Card Requirements	Any Quad-Buffer capable NVIDIA Quadro and AMD FirePRO / RadeonPRO cards, which have at least 2x DisplayPort 1.1 monitor outputs. It is recommended to use an additional side monitor for the 3D PluraView system, which is adapted to the polarization of the stereo system.	
Warranty	1 year manufacturer warranty, with optional carepack extended up to 5 Years	

47,5 cm / 18,70 inch

61,5 cm / 24,21 inch

31,5 cm / 12,40 inch

61,5 cm / 24,21 inch

61,5 cm / 24,21 inch

22/24"

FHD
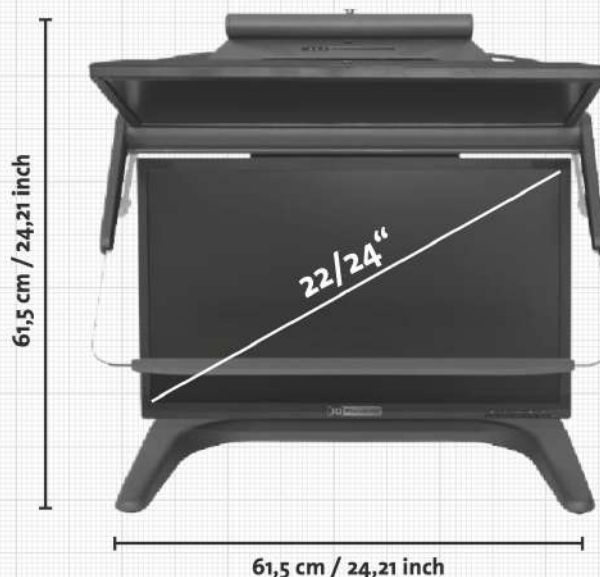
Supported Graphics Cards:
All NVIDIA Quadro & all
AMD FirePRO / RadeonPRO

List of all cards ›

3D PLURAVIEW MONITOR SPECIFICATIONS		
	27" 2,5K	**28" 4K/UHD**
Display	27" (686 mm) Screen Size 2x 2,560 x 1,440 Resolution (3.7 MP) 16.7 Million Colors (8-bit) 350 cd/m² Brightness	28" (711 mm) Screen Size 2x 3,840 x 2,160 Resolution (8.3 MP) 1,073 Billion Colors (10-bit*) 300 cd/m² Brightness
	LED BackLit-Technology 1 ms Response Time 170 °/160 ° Viewing Angle (H/V) BlackTuner for enhancement of shadow areas	
	Contrast Ratio: 80,000,000 : 1 ACR	Contrast Ratio: 12,000,000 : 1 ACR
Frame Rate	60 Hz	60 Hz
3D-Characteristics	210 cd/m² Brightness with glasses 2,560 x 1,440 per eye resolution	180 cd/m² Brightness with glasses 3,840 x 2,160 per eye resolution
	Linear Polarization 45°/135° beam-splitter: 50%-transparency, polarized mirror	
3D-Formats	Quad-Buffered OpenGL, Side-by-Side, Top-Bottom, Quad Buffered DirectX	
Operating Systems	Windows / Linux / macOS-Compatibility, Windows-10 und Windows-11 Certification	
Power Consumption	Power Consumption 75W typical; max. 1W in Power Management Mode; Annual Power Consumption 131 kWh / year	Power Consumption 98W typical; max. 1W in Power Management Mode; Annual Power Consumption 173 kWh / year
	Power Management VESA DPMS™, Energy Star 6.0 Efficiency Class B	
Weight	25 kg system weight with stand	26 kg system weight with stand
Measurements	80 x 68 x 56 cm (W x H x D)	80 x 68 x 56 cm (W x H x D)
Interfaces	2x DisplayPort 1.2 cable 3m 2x USB 2.0	2x DisplayPort 1.2 cable 3m 2x USB 3.0
	1 x main plug AC 100 - 240 V, 50 / 60 Hz with power switch and fuse 3.15 A	
Audio	Integrated Speakers 2 x 2.5 W	Integrated Speakers 2 x 3 W
Design	Diamond Dark Aluminum Construction Integrated Electronics Adjustable Stand Made in Germany	
Technical Notes	2x DisplayPort 1.1 output from the graphics card is required AMD FreeSync support graphics cards	2x DisplayPort 1.2 output from the graphics card is required for 60Hz; with DP 1.1 output - 30Hz screen refresh. AMD FreeSync support graphics cards
Graphics Card Requirements	Any Quad-Buffer capable NVIDIA Quadro and AMD FirePRO / RadeonPRO cards, which have at least 2x DisplayPort 1.1 monitor outputs. It is recommended to use a side monitor for the 3D PluraView system, which is adapted to the polarization of the stereo system. * The feature 10-bit color depth with Quad-Buffer 3D stereo only works with AMD graphics cards.	
Warranty	1 year manufacturer warranty, with optional carepack extended up to 5 Years	

56 cm / 22,05 inch

68 cm / 26,77 inch

36 cm / 14,17 inch

68 cm / 26,77 inch

27/28"

80 cm / 31,50 inch

4K

2,5K

Optional

VR

Pain Points with 2D Displays	Advantages of 3D Pluraview
Limited Depth Perception:	**Enhanced Stereoscopic Depth Perception:** 2D displays often struggle to convey the depth of molecular structures adequately. 3D Pluraview provides immersive stereoscopic depth perception, allowing users to navigate through complex molecular landscapes with true spatial awareness.
Detail Loss in Flat Representations:	**High-Resolution Stereoscopic Imaging:** 2D representations may lose intricate details of molecular structures. 3D Pluraview offers high-resolution stereoscopic imaging, preserving and emphasizing even the finest molecular details for a comprehensive view.
Spatial Understanding Challenges:	**Improved Spatial Cognition:** 2D interfaces make it challenging to grasp complex spatial relationships within molecular structures. 3D Pluraview facilitates improved spatial cognition, enabling users to intuitively understand the three-dimensional arrangements of atoms and molecules.
Static Interactions:	**Dynamic Interaction and Exploration:** 2D interfaces limit interactions to static representations. 3D Pluraview allows dynamic interaction and exploration, empowering users to manipulate molecular structures in real-time for a more engaging and interactive experience.
Data Overload and Ambiguity:	**Enhanced Data Interpretation:** 2D displays may struggle to interpret voluminous molecular datasets. 3D Pluraview provides immersive stereoscopic visualizations, helping users interpret complex data more efficiently and reducing ambiguity.
Clarity and Feature Obscurity:	**Clear Visualization of Molecular Intricacies:** 2D displays may obscure subtle molecular features. 3D Pluraview ensures clear visualization, emphasizing molecular intricacies and enhancing the overall clarity of complex structures.
Educational Challenges:	**Engaging Educational Experience:** 2D displays limit the effectiveness of educational experiences. 3D Pluraview offers an engaging educational experience, especially for students learning stereochemistry, by providing a true-to-life representation of molecular structures.