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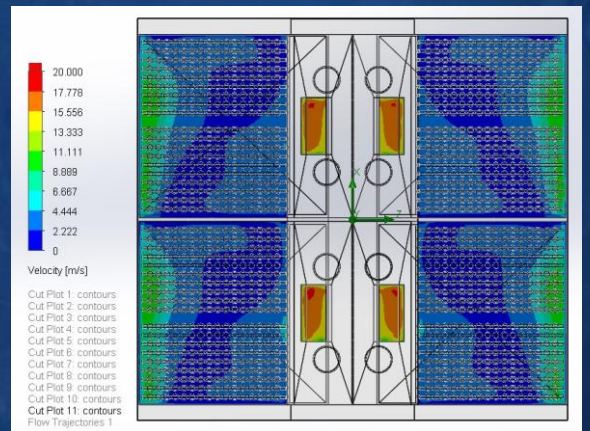
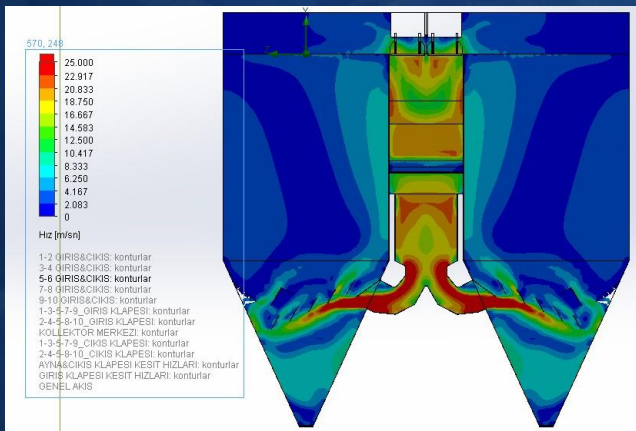
CFD (Computational Fluid Dynamics) Analysis Services

Background Design Concept: Dynamic airflow vectors, velocity contours, and particle trajectories symbolizing advanced fluid engineering. Subtle blue-gray gradient representing industrial airflow motion.

We make flow visible. Our CFD analyses enable optimization of industrial dust collection systems before manufacturing, reducing energy consumption and improving filtration efficiency.

Core Services:

- Industrial dust collection system airflow analysis
- Filter housing internal flow distribution modeling
- Ducting and pressure loss simulations
- Turbulence and particle tracking simulations
- System performance improvement studies
- SolidWorks Flow Simulation Capabilities
- Dust Collection System Optimization
- Pressure Drop & Fan Performance Validation
- Jet Pulse Filter Flow Uniformity Studies
- Cyclone Separator Performance Modeling



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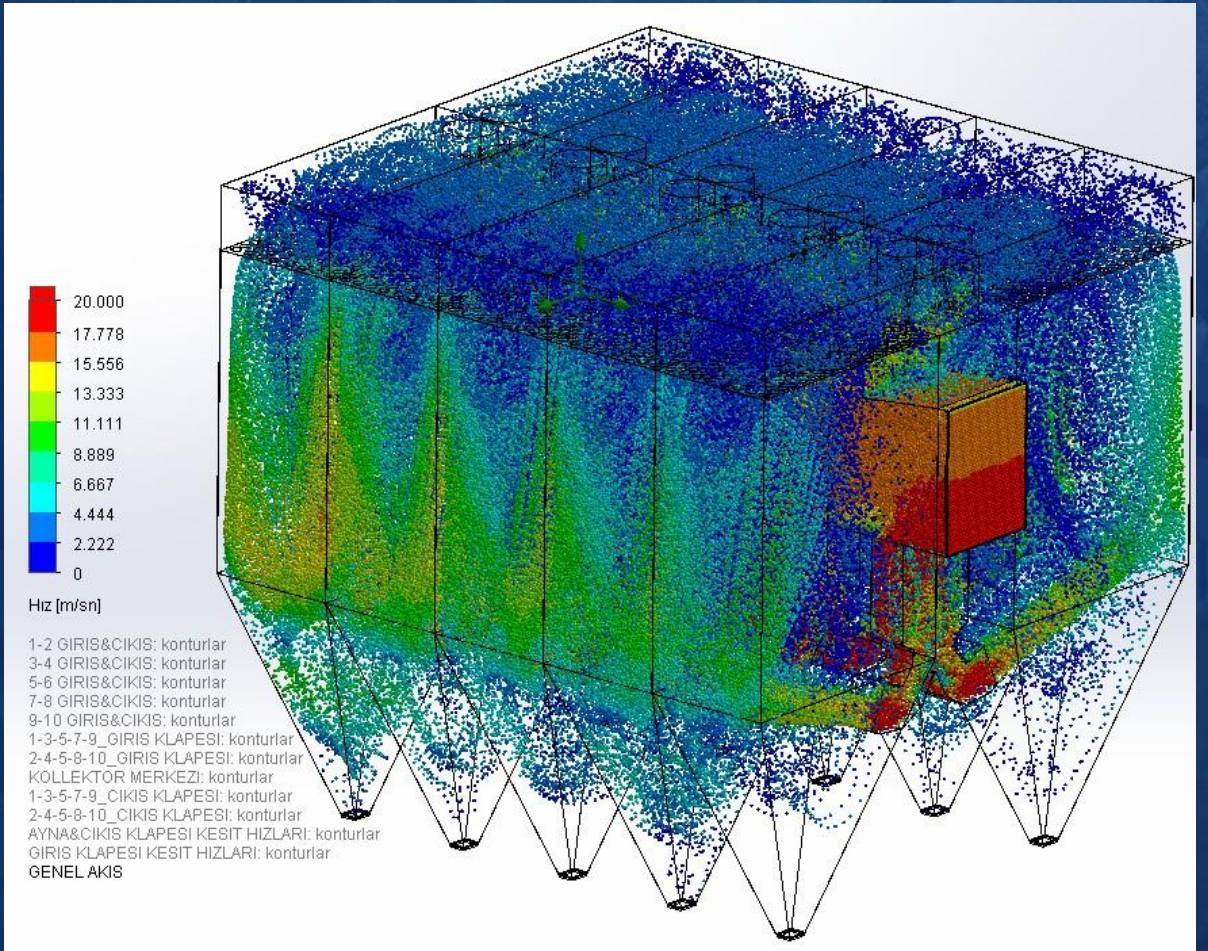
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SolidWorks Flow Simulation Infrastructure

We utilize advanced 3D modeling and simulation techniques to perform high-accuracy flow analyses.

Analysis Capabilities:

- Internal and external flow simulations
- Turbulence modeling
- Heat transfer analysis
- Particle tracking and erosion risk mapping
- Velocity vectors and pressure contour mapping



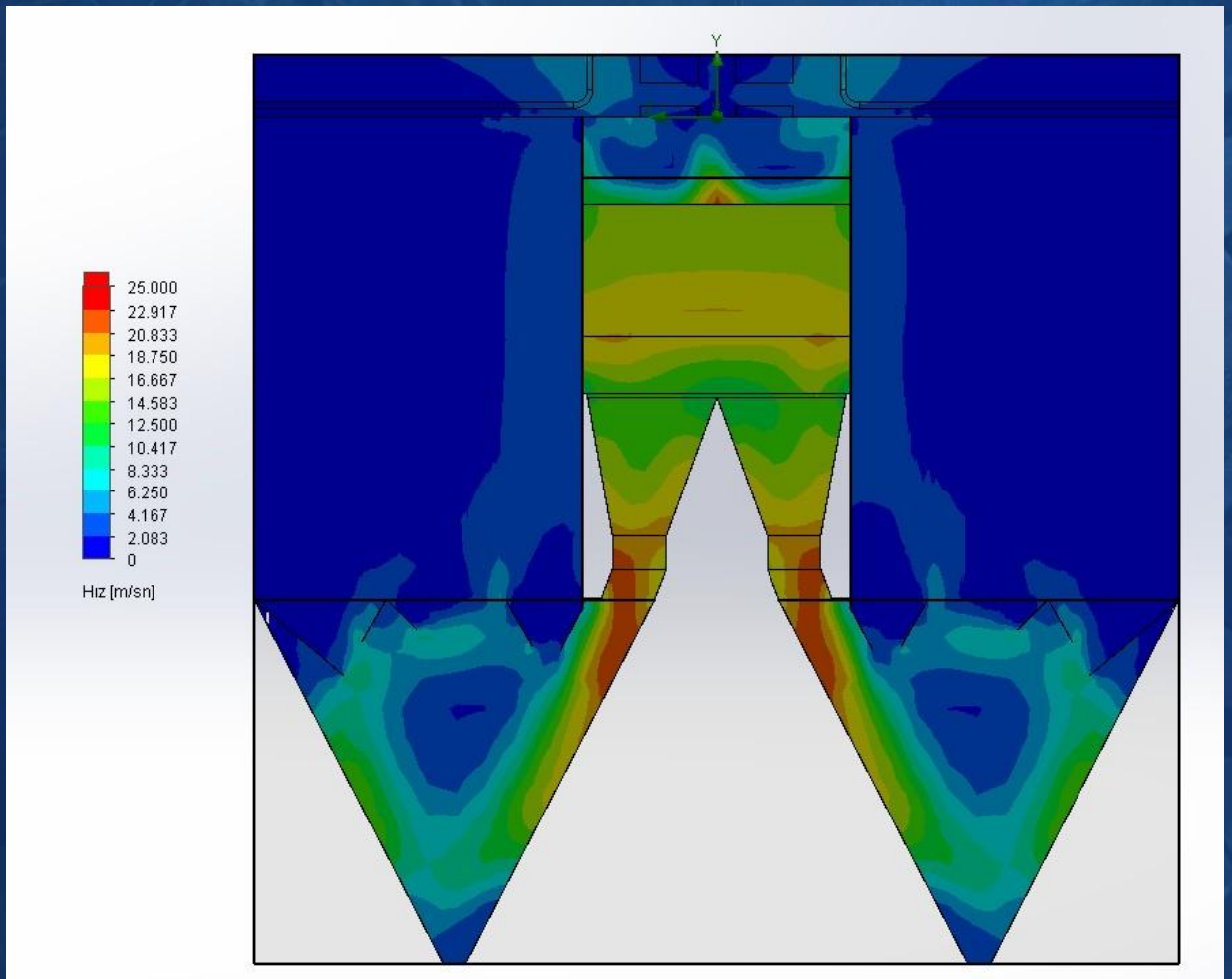
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Sample CFD Visualization Description:

3D transparent filter housing model showing color-mapped velocity gradients (blue to red), flow streamlines entering inlet ducts, homogeneous distribution across filter bags, and minimized turbulence zones validated through iterative mesh refinement.



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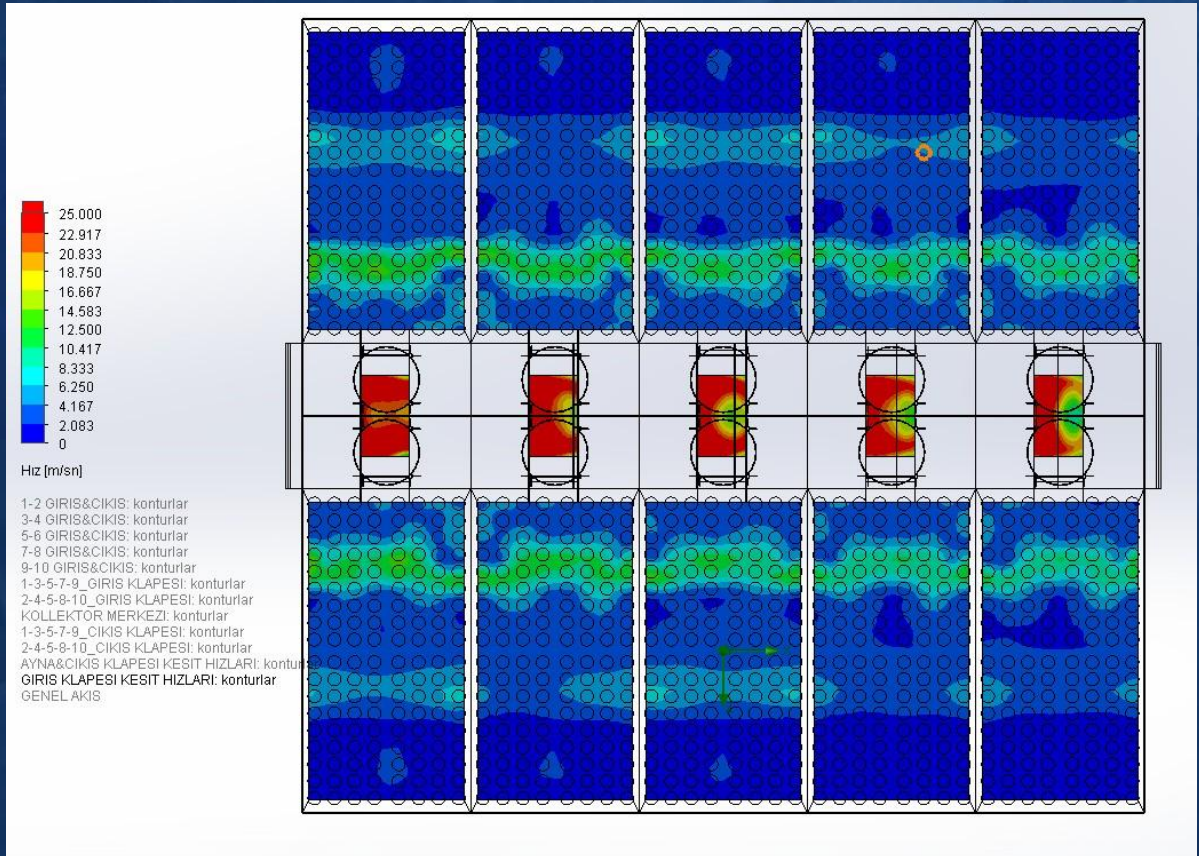
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CFD Applications in Dust Collection Systems

Correct airflow direction in filtration systems directly impacts filtration efficiency, filter lifespan, and fan energy consumption.

- Jet pulse bag filter systems
- Cyclone separators
- Cartridge filter units
- Industrial exhaust and chimney systems
- Steel, cement, energy, and process plants

Engineering Value Provided: Homogeneous air distribution design, elimination of dead zones, erosion and particle impact analysis, fan selection validation, and pressure drop optimization.

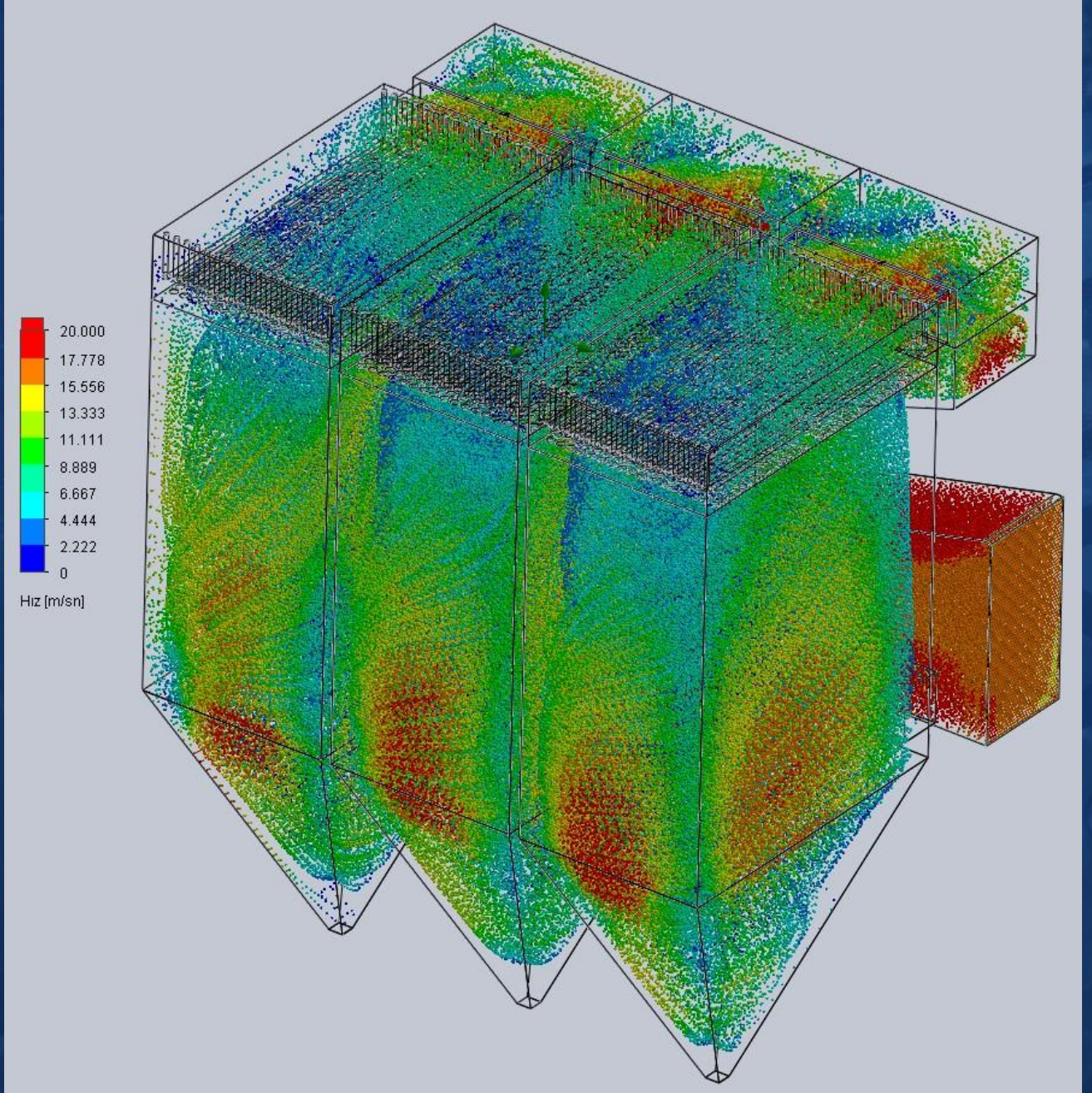


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