

## OPTIMIZING THE DESIGN OF THE ROOF OF A UNIVERSAL GYM

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### ABSTRACT

*The article proposes the design and comparison of traditional double-angle and low-metal-consumption profile trusses, which are widely used in roofing. It is noted that profiled trusses are double-angled, more efficient than trusses, their grids are attached directly to the strips without trusses, corrosion resistance due to their closed contours, and the priority of equal positioning inertia axes is high. As an example, 24 m. arched trusses were designed and compared.*

**KEYWORDS:** *Roof-Covering, Truss, Interval, Base, Knot, Bar, Eccentricity, Bending Moment, Share Force, Axial Force, Angular, Profile.*

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