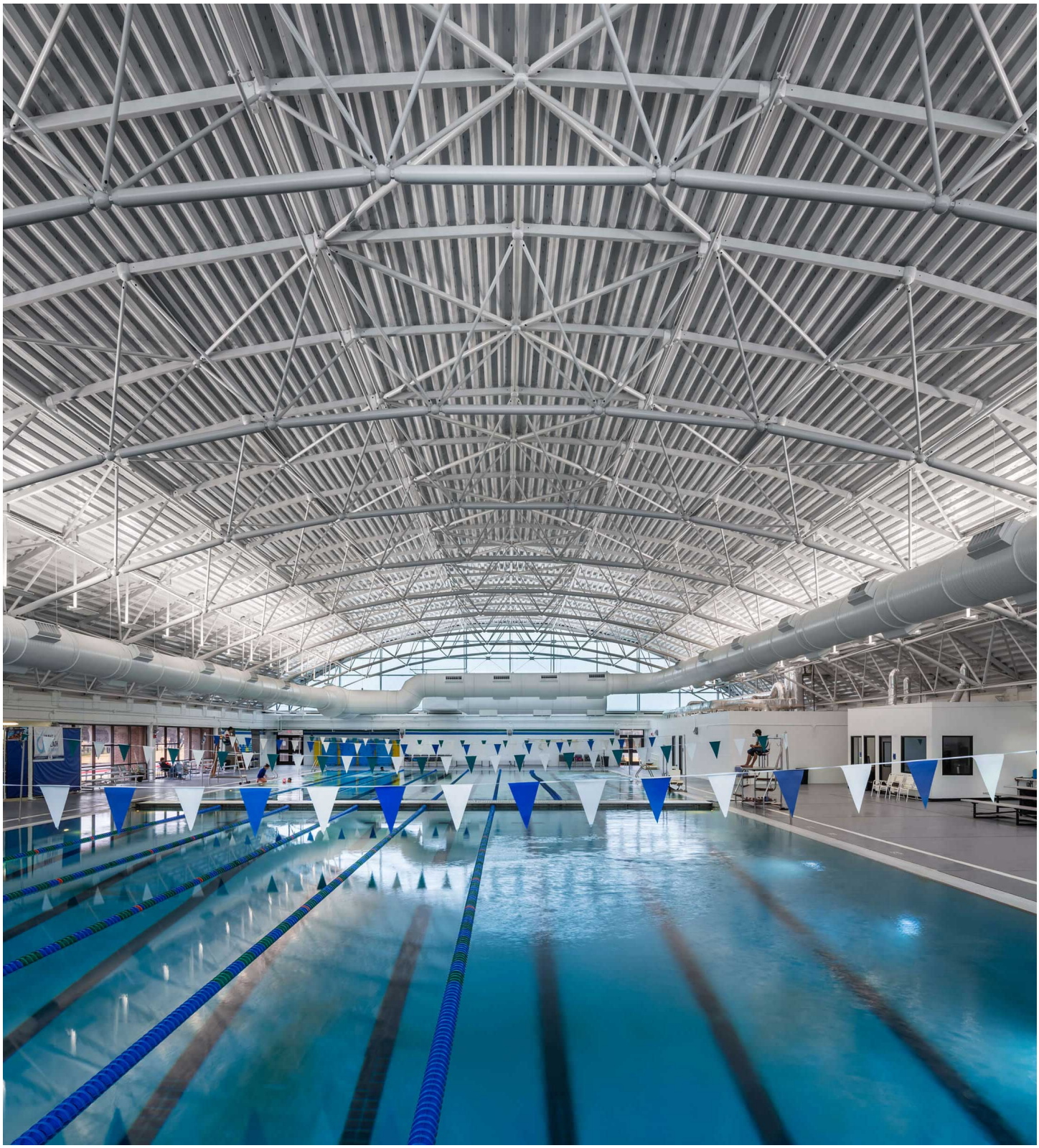
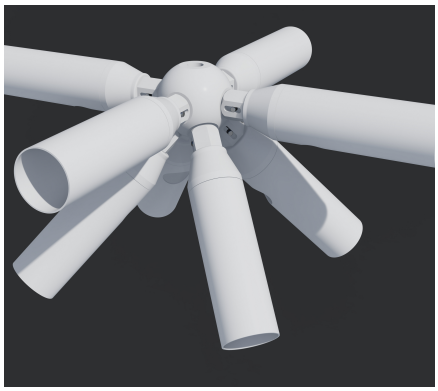
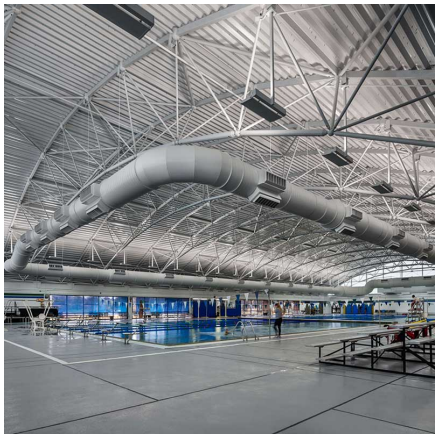


KK-System

Kugel Knoten (spherical node)

Structural System





System Components

01. Nodes are C45 forged steel, plated and painted
02. Structural members are circular hollow sections A500 or S355 with forged conical end pieces. They are hot dip galvanized after fabrication and powder coated or liquid painted
03. Bolts are DIN 267 Grades 5.6, 8.8 and 10.9

Applications

01. Ingenious design flexibility enables virtually any geometry
02. Typically double or triple layer grid structures for roofs, atriums and canopies. Single layer capability with correct boundaries
03. Lightweight structures for long spans and complex smaller spaces
04. Structures with irregular support layout which need two-way and three-way truss action
05. Stepped and folded roofs and walls with seamless structural transitions between intersecting planes
06. Telescopes and any application requiring a stiff lightweight solution

System Attributes

01. Classic German spaceframe technology pioneered by Dr. Mengeringhausen during the 1940's and since used on tens of thousands of projects worldwide
02. Timeless design of pin ended lattice work with minimally sized connections and free geometry. Standard components allow spans to 300' (100m)
03. Affordable and elegant for projects of any size
04. Nodes are custom machined using CNC equipment for tight tolerance and full geometric control
05. Single bolt pin ended connections are achieved with hidden fasteners
06. Structural members are optimized in design using varied sizes and wall thicknesses. Tube diameters from 2" (48mm) to over 10" (250mm)
07. Geometries are determined by applied loading or cladding type and the component sizes are optimized to be lightweight with high transparency
08. Secondary steelwork can be used as the interface of structure and cladding to allow integration of traditional claddings such as metal roofs, opaque or translucent panel systems and more
09. Structures and integrated claddings are fully designed by Novum's in-house engineers
10. Optimized cladding integrated with Novum ASG, ECG, LSG and PSG Systems and all Novum Membrane Systems
11. The finish combination of galvanizing and paint as a duplex system provides excellent corrosion protection

Options/Materials/Finishes

01. Galvanized mild steel is standard. Stainless steel version is available
02. Standard member finish is hot dip galvanized inside and out after fabrication. Galvanizing is followed by a 2-coat prime and liquid polyurethane
03. Additional finish options include thermoset polyester powder coat over hot dip galvanizing or brushed stainless steel