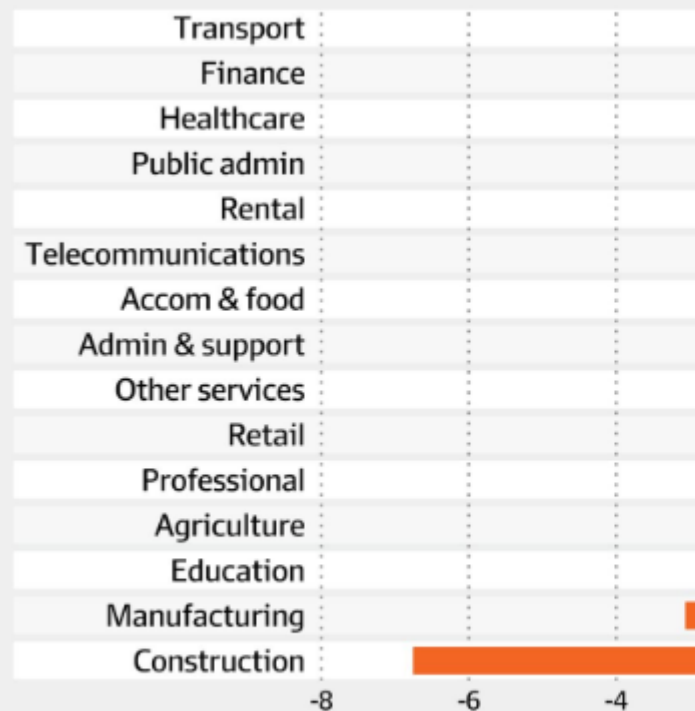


Weighted change in productivity growth (%)



Oxford Economics

The Construction Productivity Challenge in Australia

Productivity improvement is essential for economic growth and higher living standards in Australia. Despite its importance, construction...

19 hours ago

Productivity Commission

Reversing 30 years of poor productivity growth can help fix housing affordability

This paper examines productivity growth in the housing construction sector, with the Commission's estimates telling a story of decades of poor performance.

16 Feb 2025

Australian Broadcasting Corporation

'Small business fetishism' pushing up home building costs

What if there was a way to build 12 per cent more homes a year with no extra construction workers? Economists say there might be.

27 May 2025

Property Council Australia

2025 – A line in the sand for construction productivity

2025 looks to be a critical juncture for construction productivity in Queensland's building and construction sector.

1 week ago

The Conversation

Here's why increasing productivity in housing construction is such a tricky problem to solve

This week, the Productivity Commission released its much-awaited report into productivity growth in Australia's housing construction sector.

18 Feb 2025

Build Australia

ACA urges reforms to boost construction productivity

The ACA has called for sweeping reforms to boost productivity in Australia's construction industry, submitting a comprehensive proposal to .

2 weeks ago

The Guardian

Australia building half as many homes for every hour worked compared with 30 years ago, Productivity Commission finds | Housing

'Decades of poor performance' in dwelling construction is contributing to the housing affordability crisis, report says.

17 Feb 2025

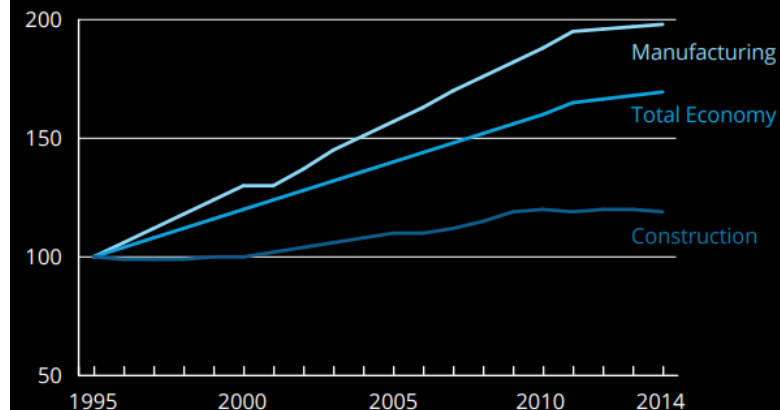


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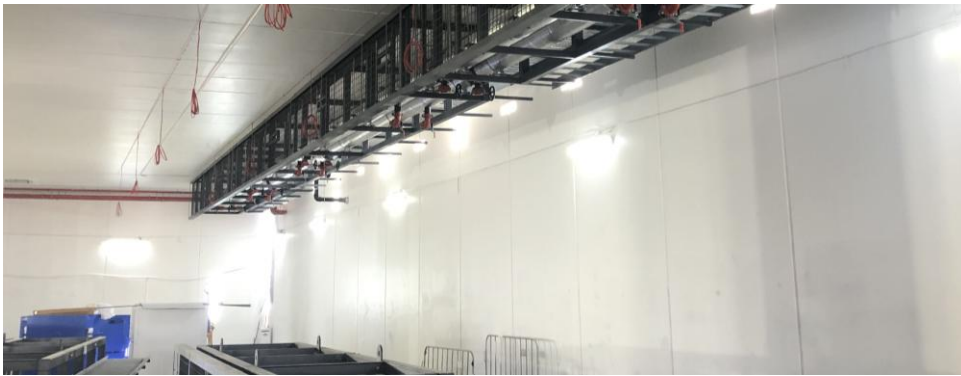
ector Urged to s Crisis Deepens

las

Figure: Global productivity, real gross value added, 1995 = 100 per hour worked²



FACTORY READY FUTURES: EVOLVING BUILDING SERVICES DESIGN FOR PREFABRICATION



Reasons For Offsite Manufacturing and Standardisation

- Decouple labour from project location
- Decouple supply chain from JIT delivery
- Stabilise onsite progress
- Safety
- Quality
- Parallel construction
- Ability to implement LEAN manufacturing techniques considerably easier than a multi faceted construction site.
- In the cruel world of construction, unless value is proven upfront— it will be a non starter. Each iteration needs to be ‘valuable’
- If builders / fabricators cannot determine value it’s an uphill battle you might win but won’t enjoy – easier to make it stack up from the get go. Hint: Consider the total value.

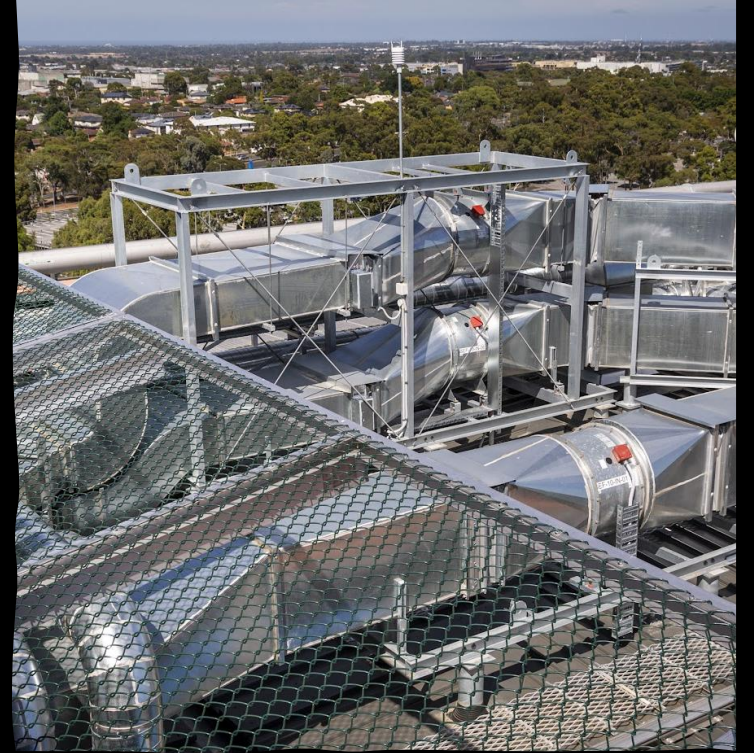


Electrification – Reducing Downtime

Case Study: Premium Office Building



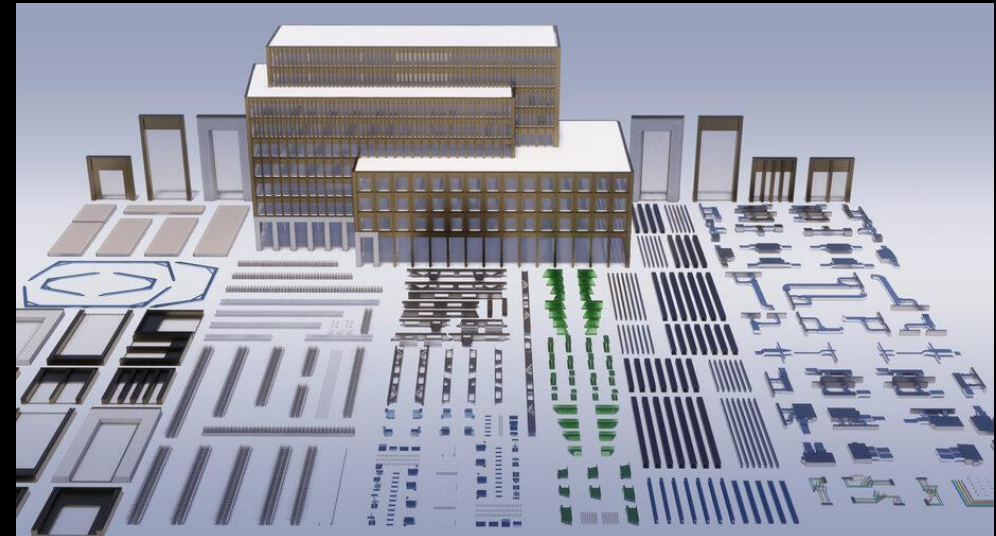
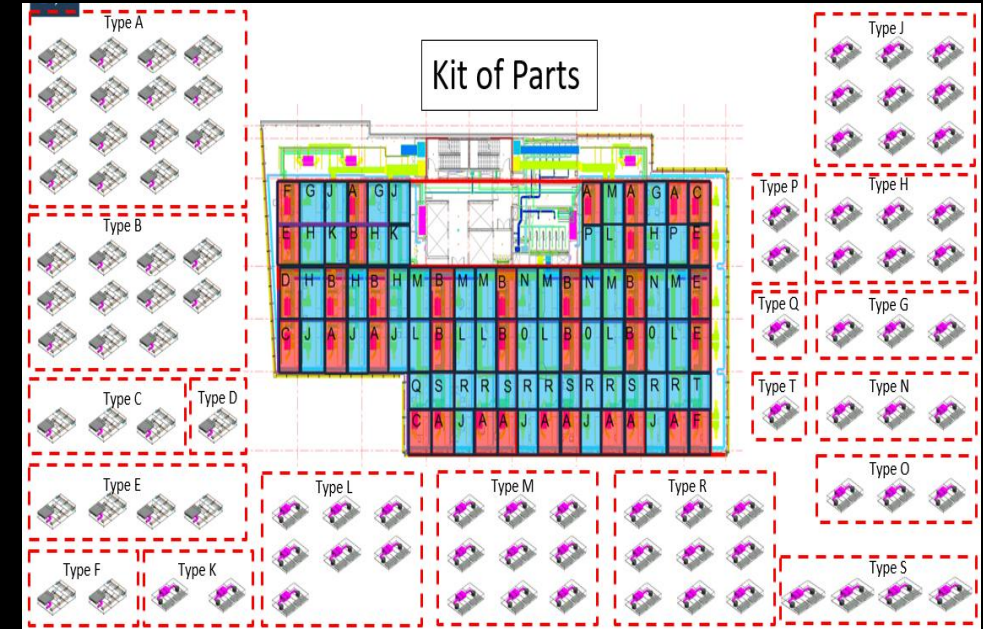
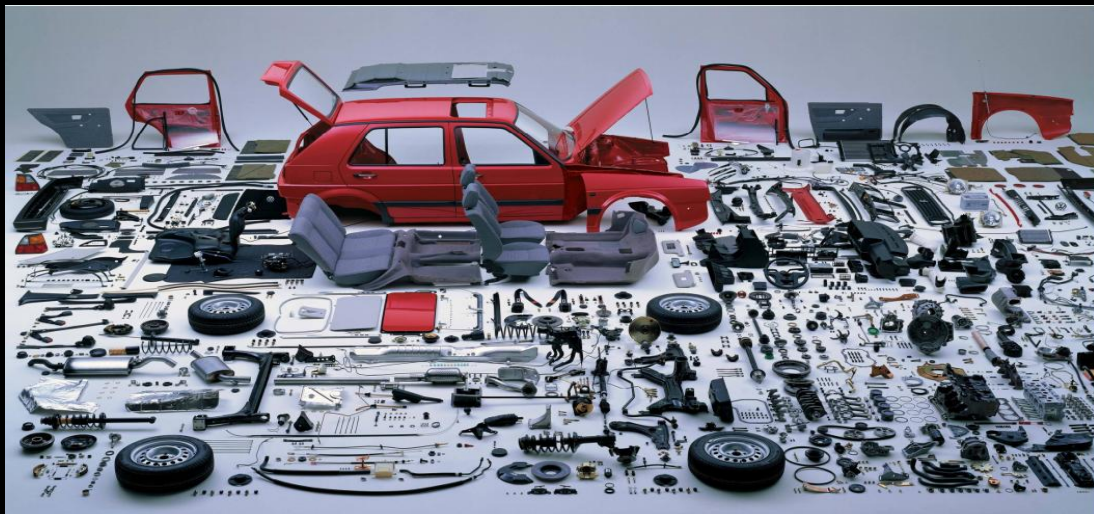
**Solve
Problems or
Create
Opportunities**



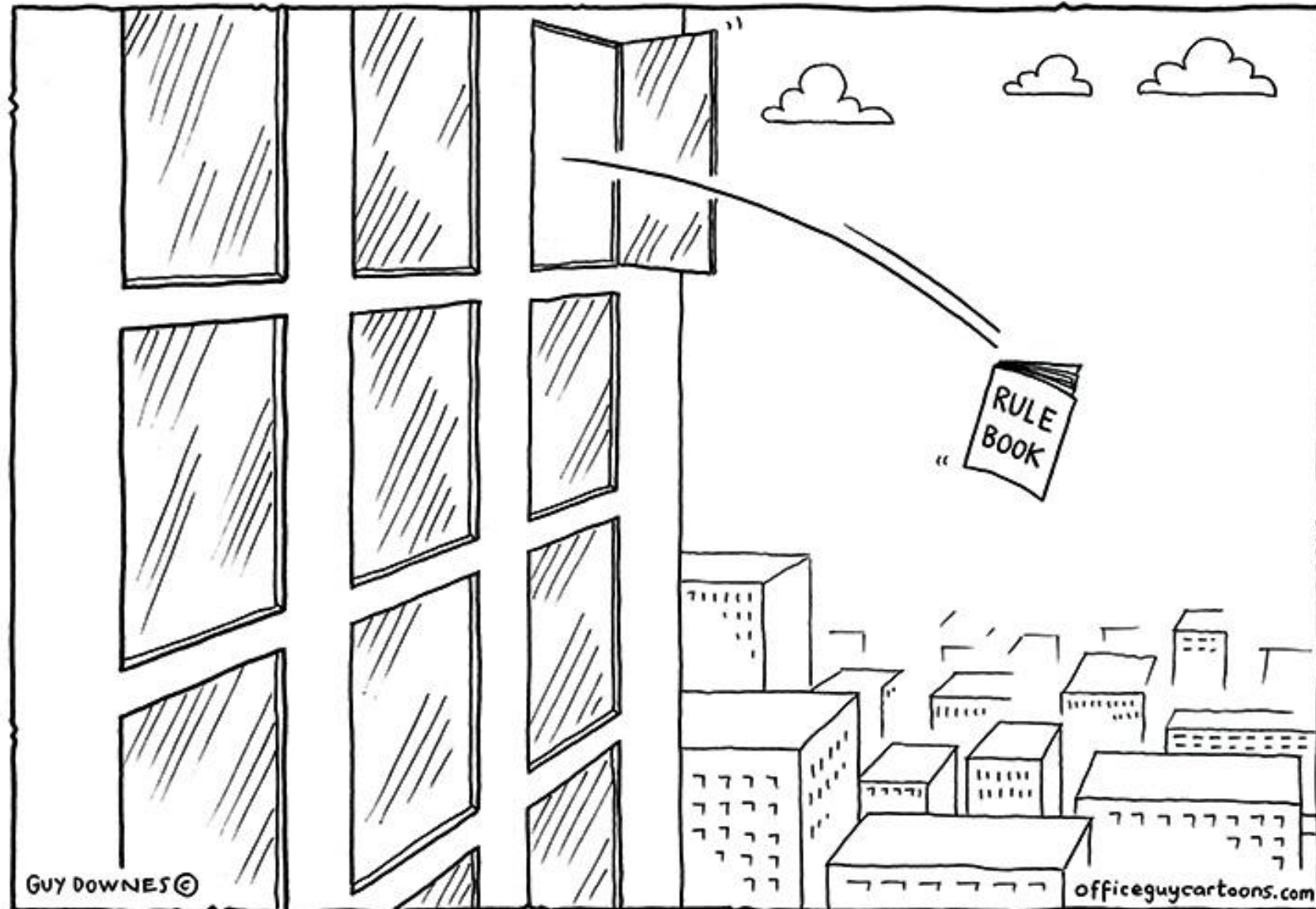
STANDARDISATION



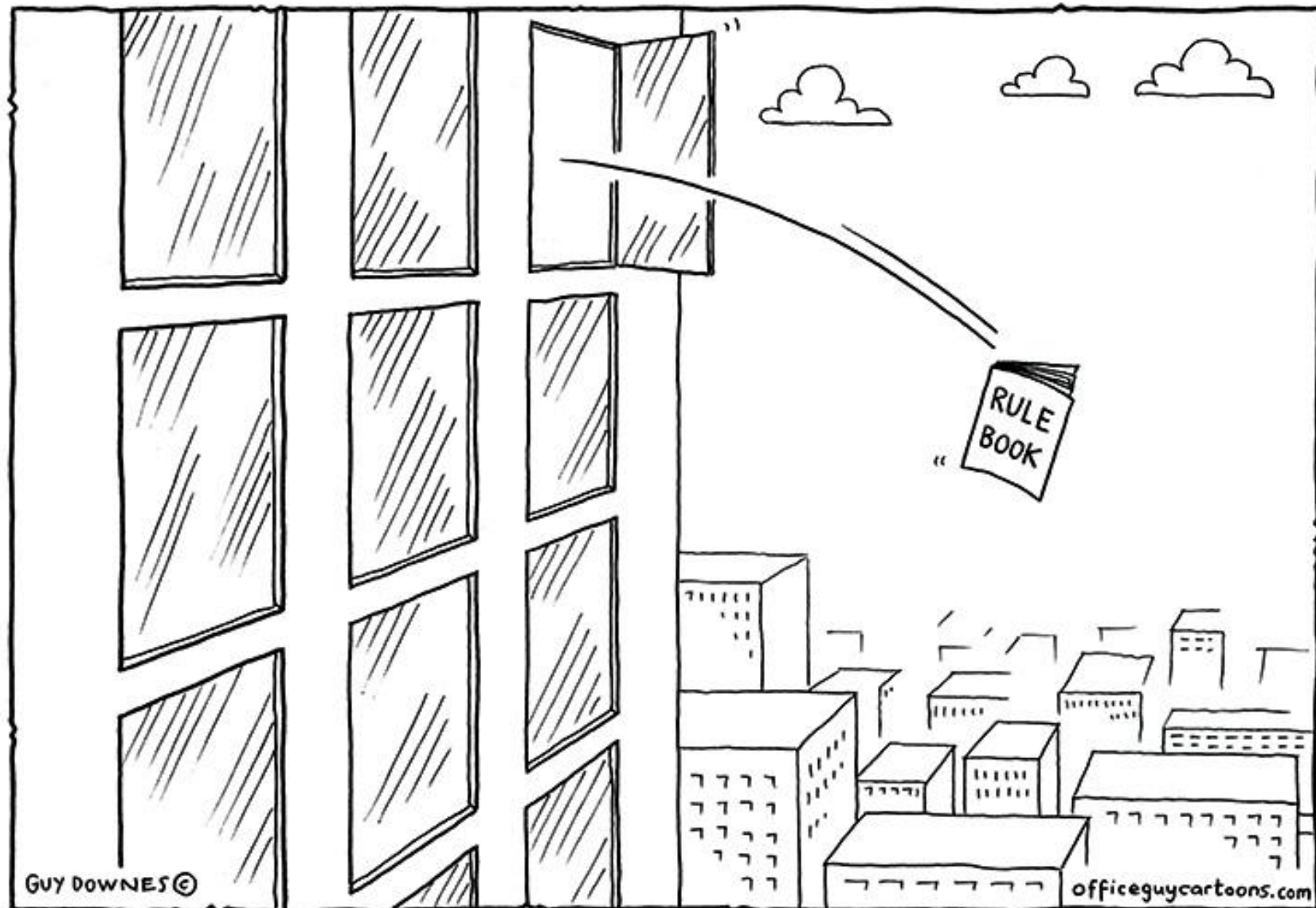
Case Study: UK Forge



Design



Delivery



Transport

Handling/ Cranage

Non-negotiable client needs

Understanding
Available Materials

Considerations

Constructability

Manufacturing
Techniques
(standardization =
affordable automation)



Safety In Design
- Maintenance

Room to move

Reuse,
Recycle?

Begin With the End In Mind

What is the worst case? 80/20 **Consider Lifecycle**

Total Value vs
upfront cost

Cost to setup
/ prototype

Think about ALL
your customers



How Big Can You Go

Think Repeatable and scalable

What can be borrowed from other industries

What will change vs what will always be

Flexible vs custom – understand the end user – selling points

How can layout support variation

Innovate

Become a futurist and a fortune teller what does the year 2040 look like?

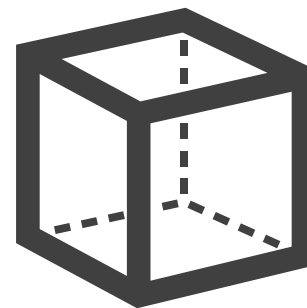
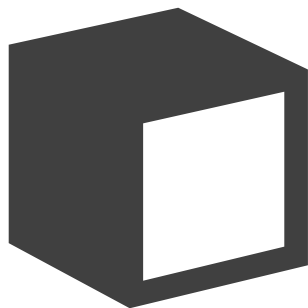




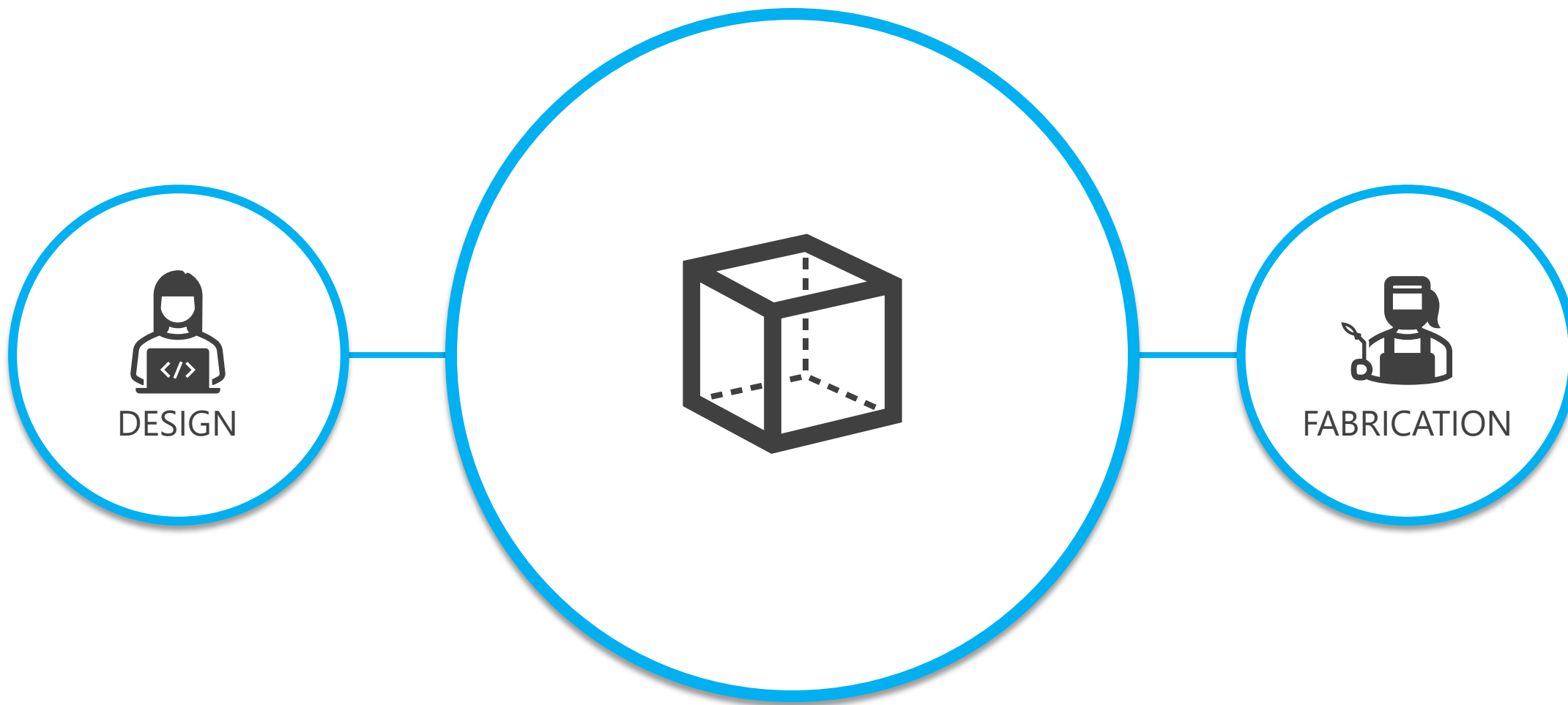


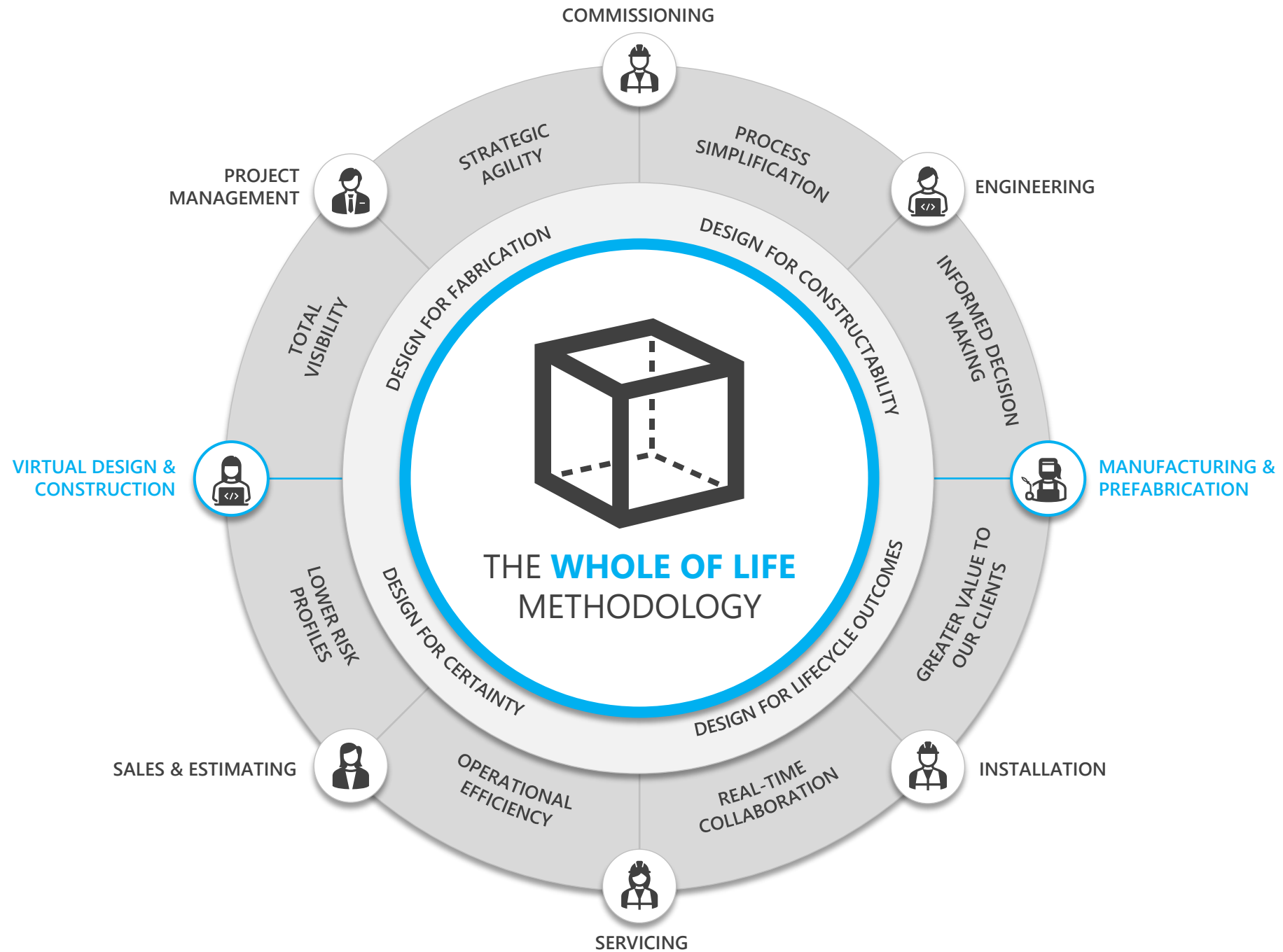


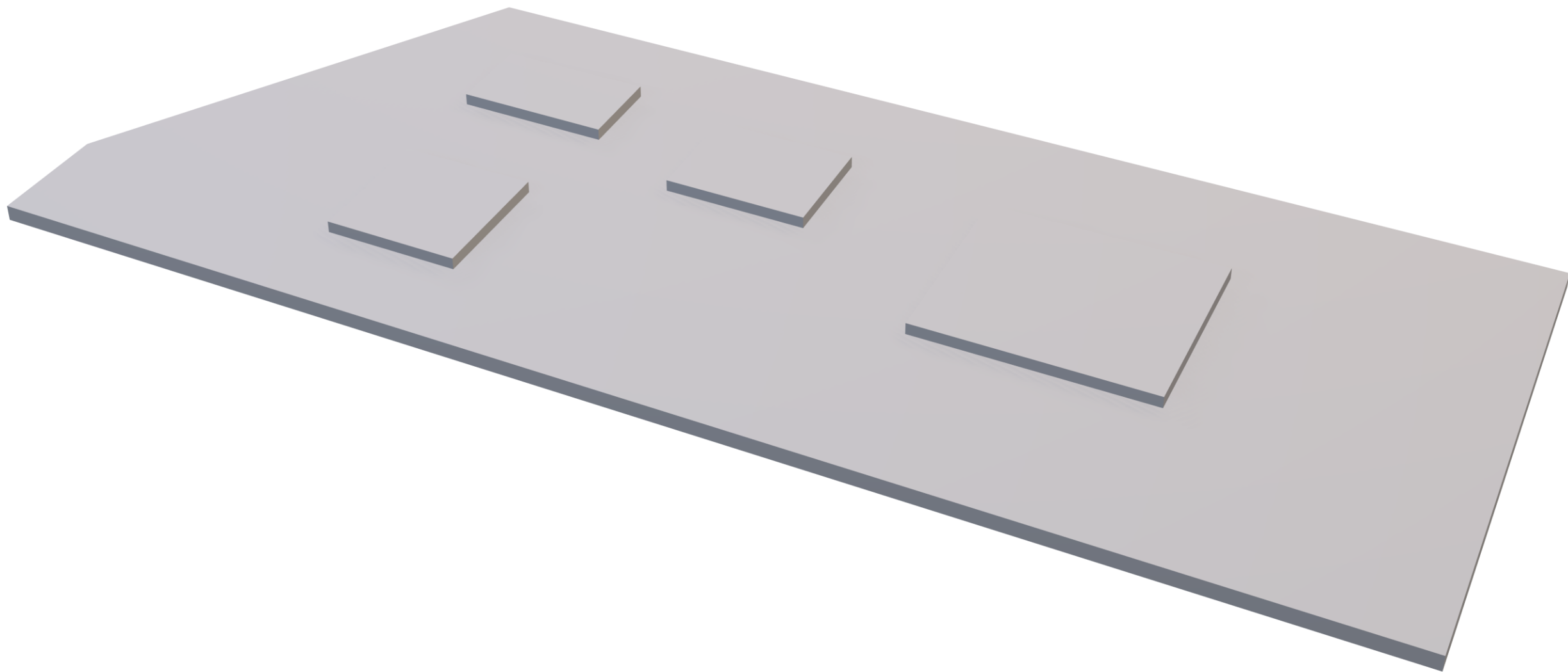
DESIGN

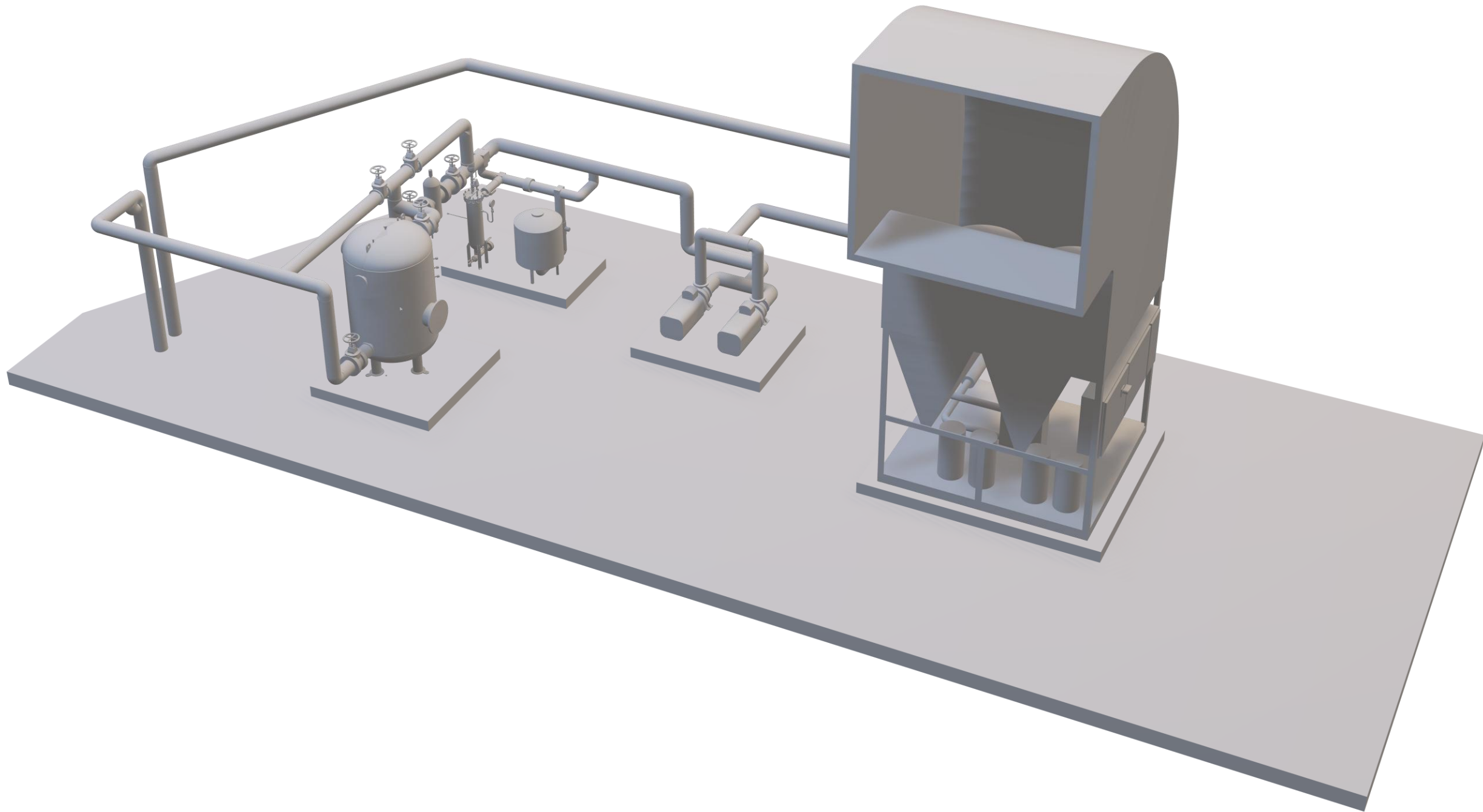


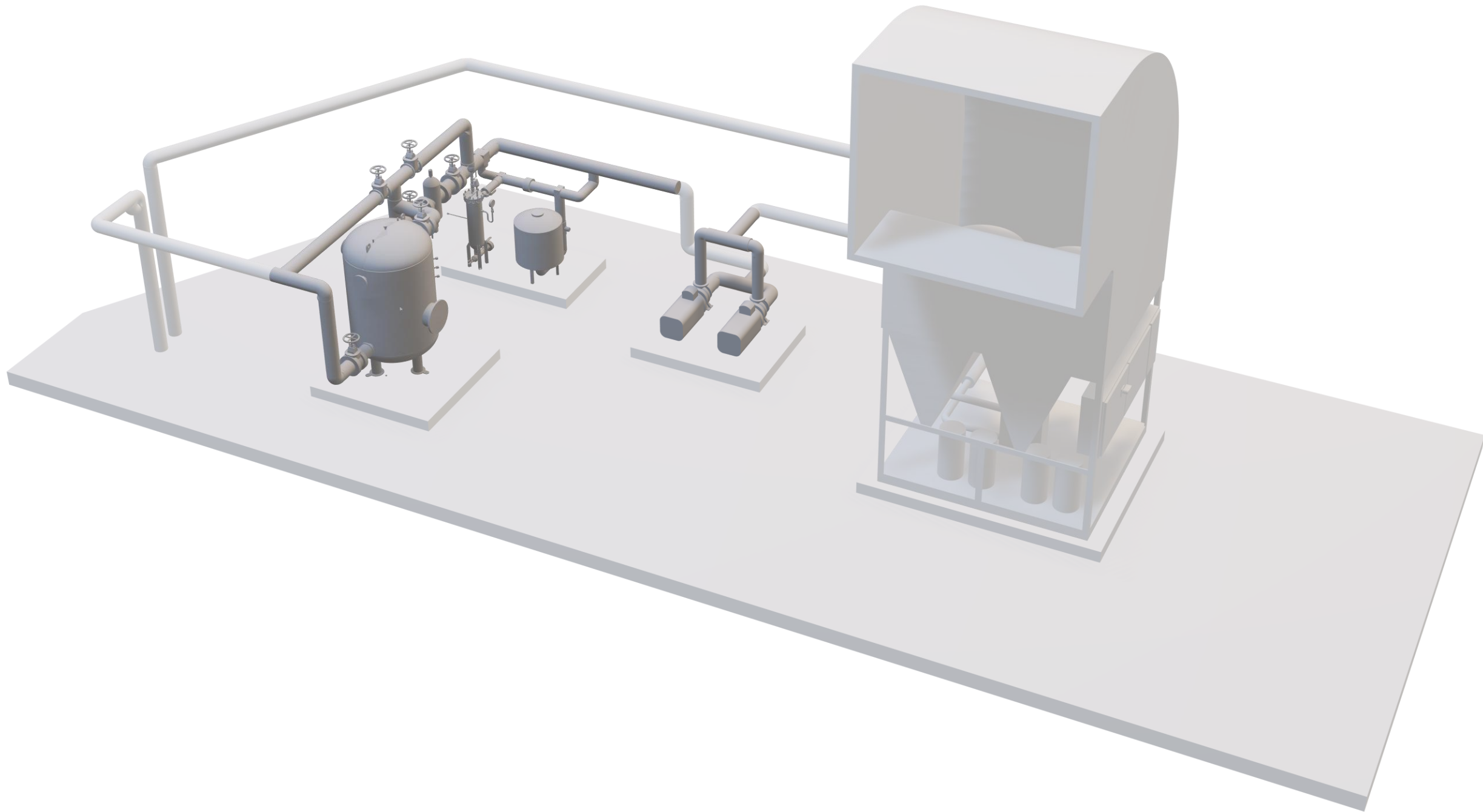
FABRICATION

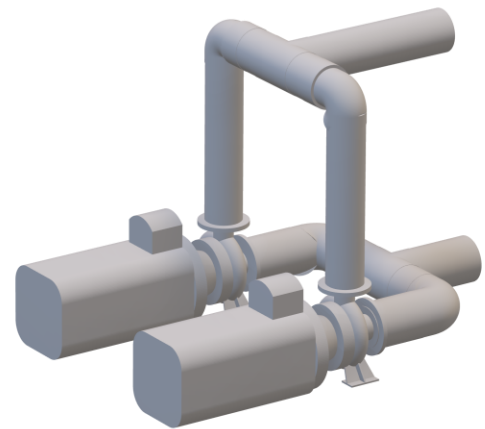
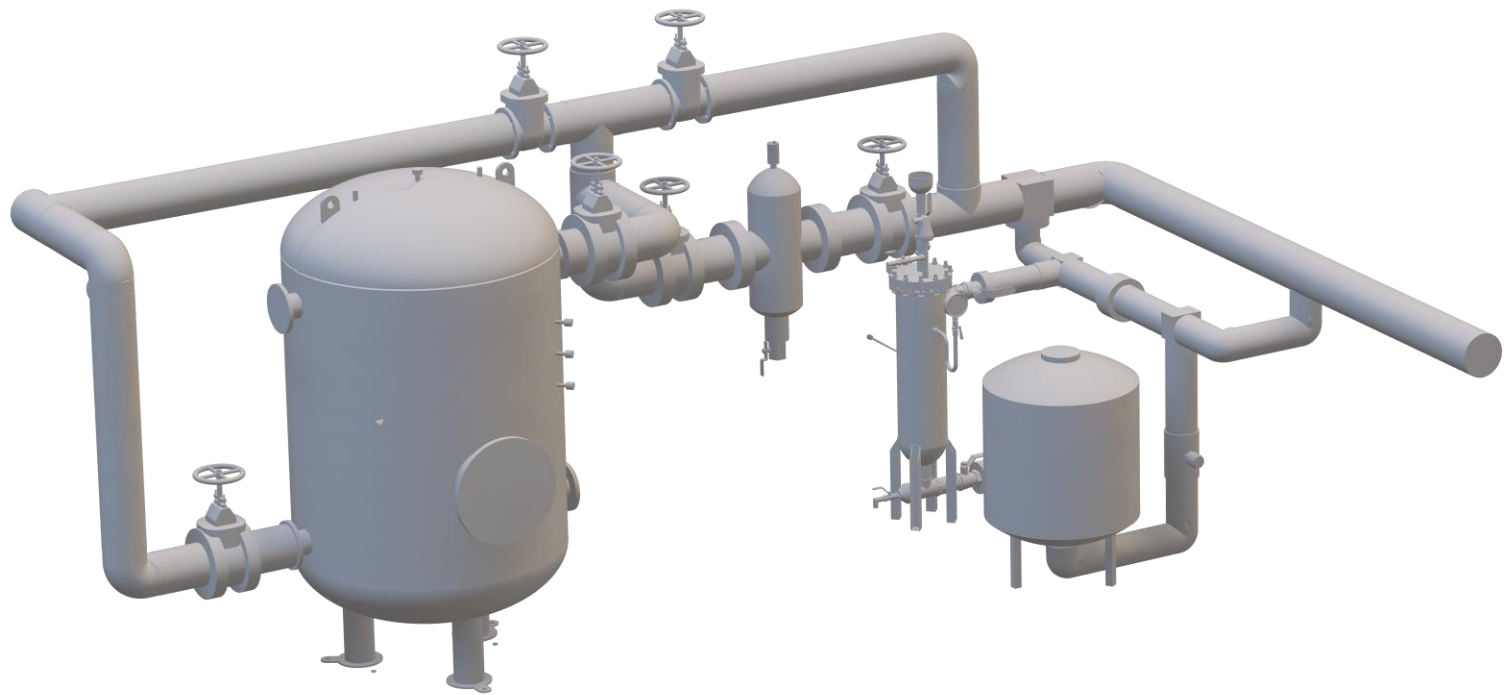


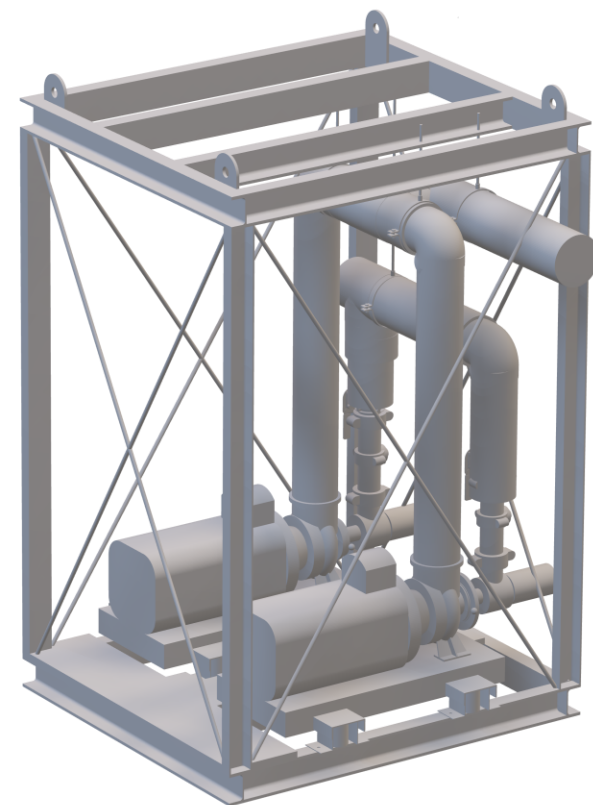
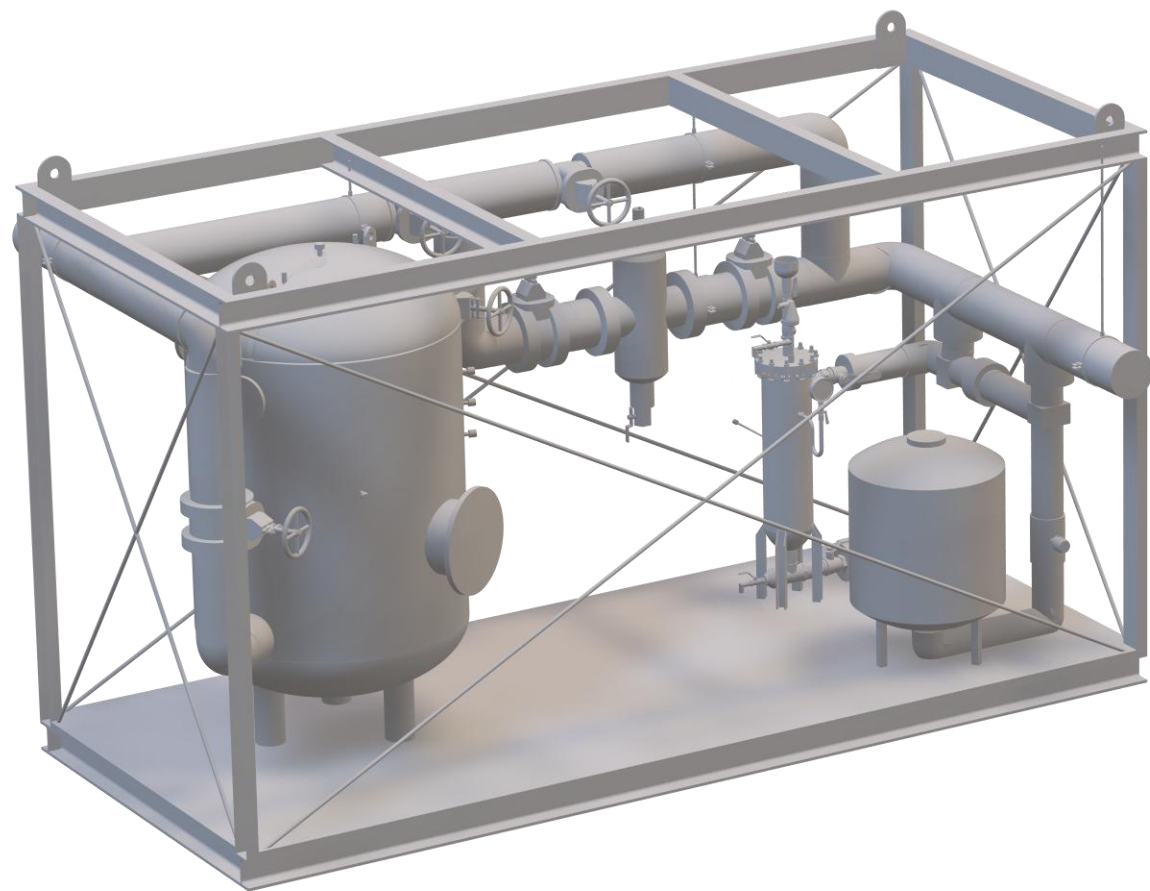


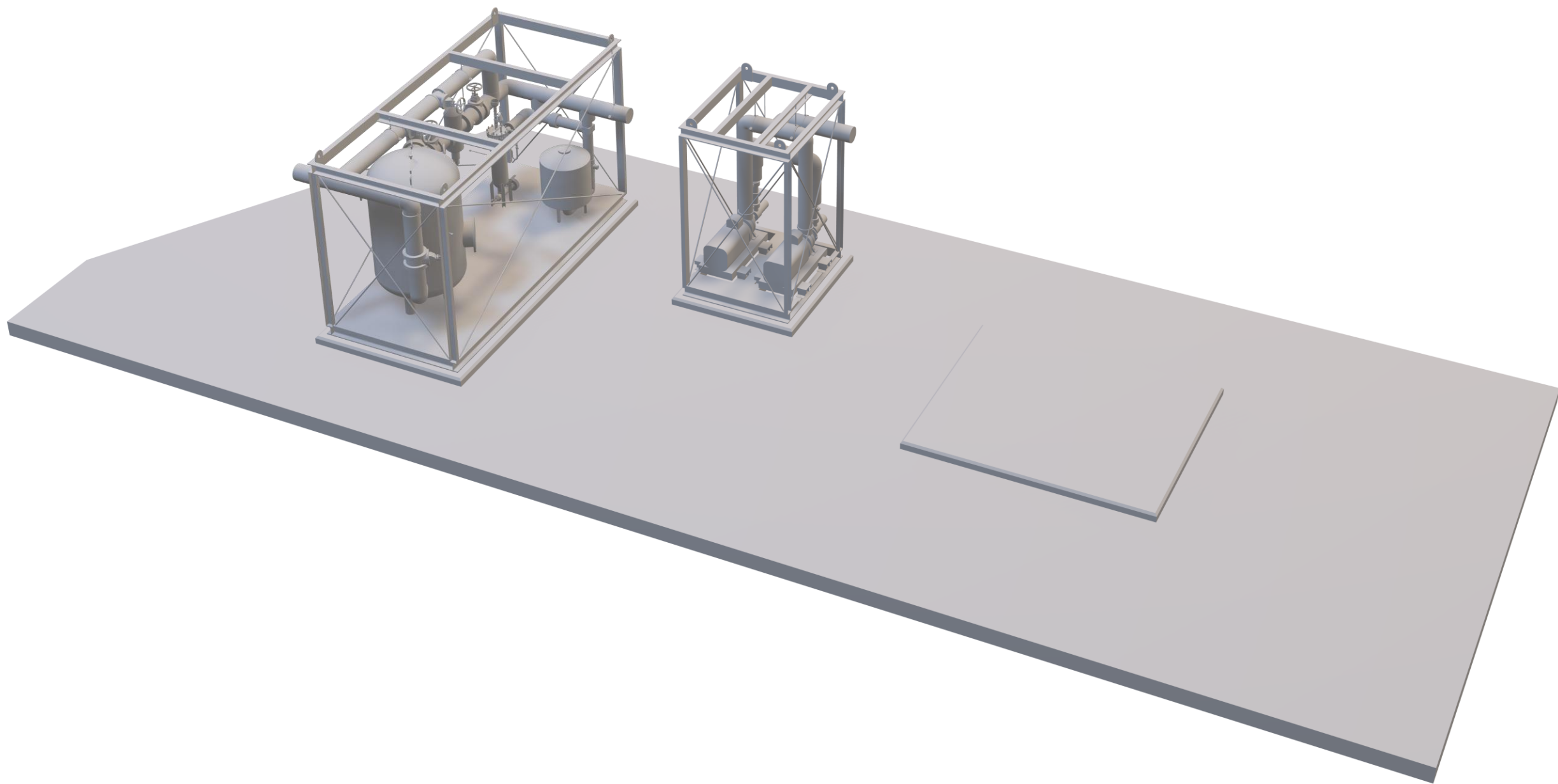


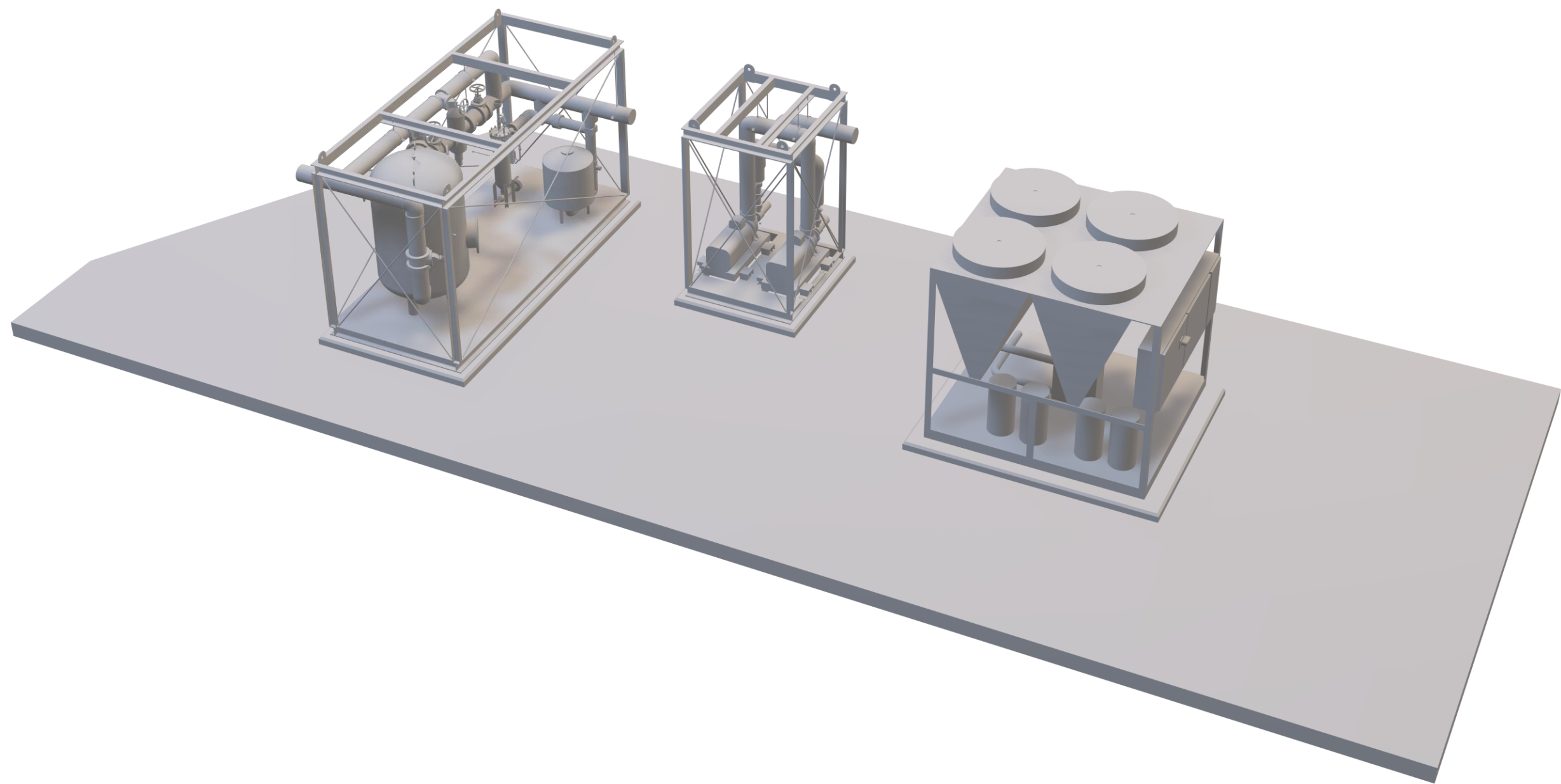


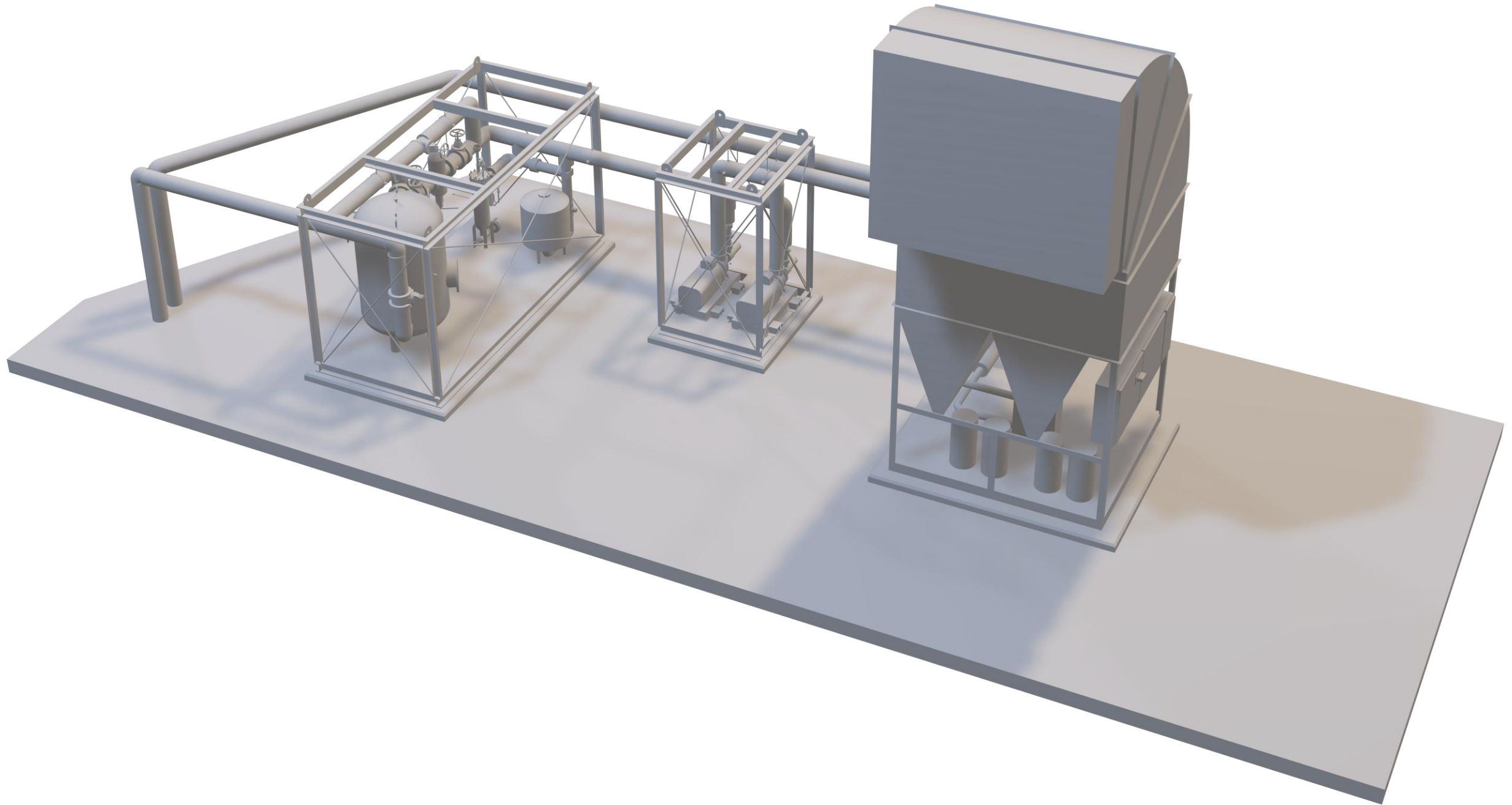


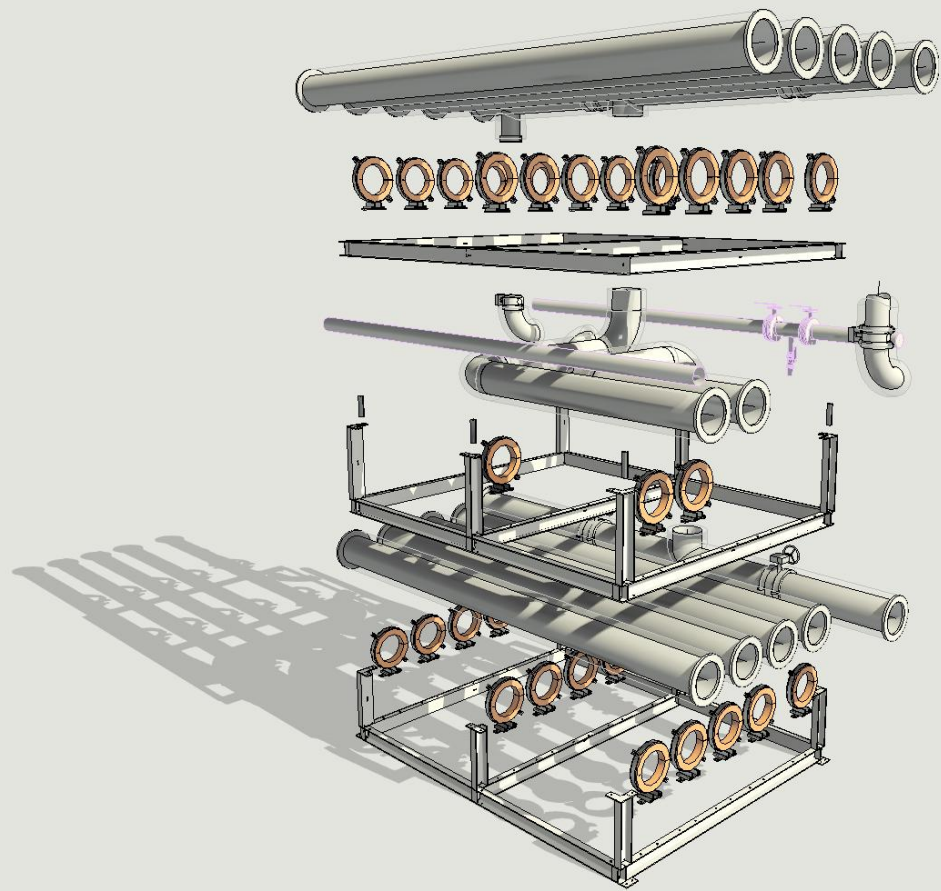
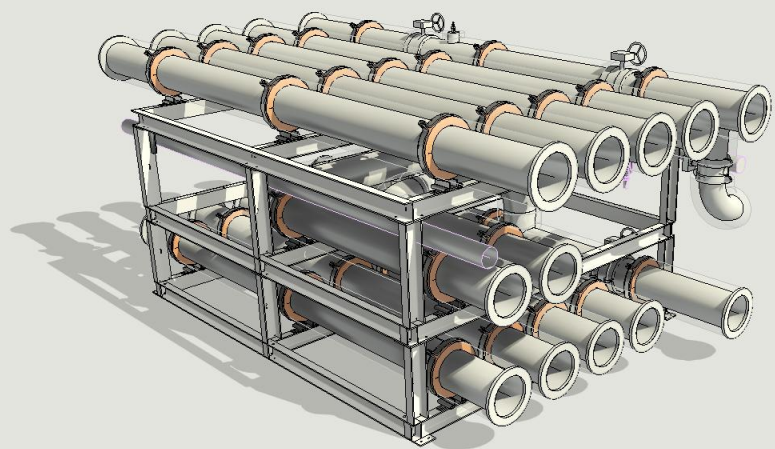




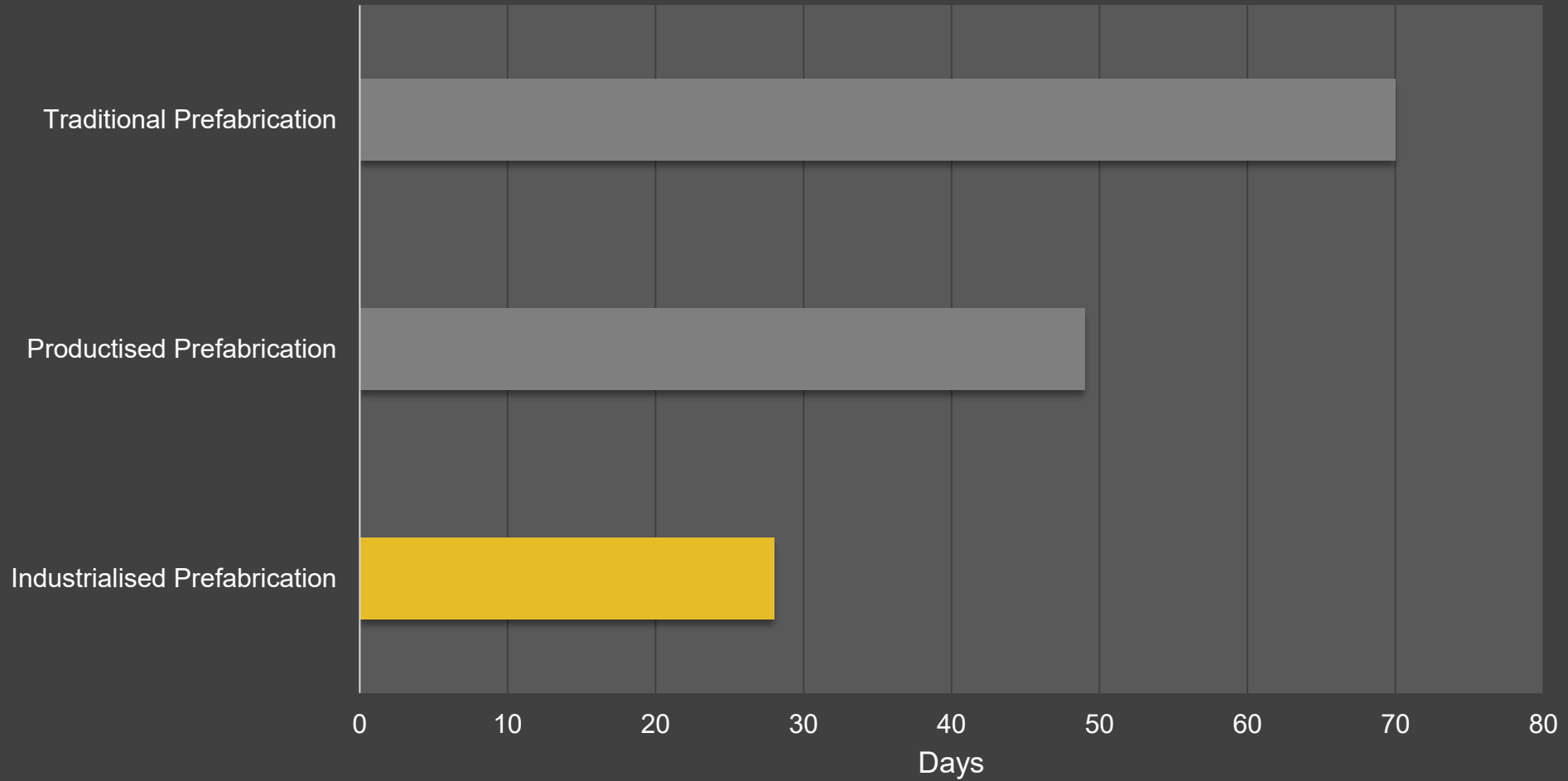








Assembly Build Durations



Key Messages

- The industry is changing – offsite fabrication will be demanded
- The benefits are far more than the surface level yet important cost, quality and safety. It has real expanding benefits that act to resolve growing problems in many areas of construction.
- Standardise, standardise, standardise
- Be innovative – challenge the status quo
- The benefits of prefabrication

