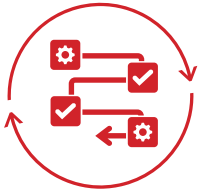




Lifecycle360 | Pre-Engineering Services



Technology Deep Dive for Investment Confidence



CPM | CROWN LIFECYCLE 360

Pre-Engineering Services

Comprehensive Lifecycle Support You Can Trust

CPM | Crown's Lifecycle360 is a comprehensive suite of support solutions designed to help you and your team streamline and optimize the full lifecycle of your facility, from pre-engineering to long-term maintenance needs. Our global team of field service specialists has assessed, supported, installed, commissioned and started up thousands of projects and facilities worldwide. Our experience enables you to take control of your operations and:

- increase efficiencies
- reduce costs
- predict maintenance needs and equipment updates
- develop, test, scale and commercialize innovative ideas
- build employee knowledge and confidence
- avoid costly hassles, including unplanned shutdowns

A Consultative Approach

CPM | Crown is a proven, trusted advisor who is ready to work with you to design the ideal support package for your operations. Every opportunity is unique, and our specialists have the experience that enables them to develop the ideal solutions that fit within your specific parameters.

Global Reach With a Local Touch

Our diverse, talented support specialists live and work around the world and have helped plan and execute projects in many countries. Their experience and sensitivity enable us to navigate different cultures and languages every day. We are ready to support you no matter the location.

Lifecycle360 is the ideal complement for our robust, innovative equipment. Having our support will give you the peace of mind that comes from knowing you are maximizing the potential of your team and your operations.

Lifecycle360 Pre-Engineering Services

For companies working through a progressive stage gate approval process for their projects who need firmer cost proposals and engineering deliverables.

CPM | Crown Pre-Engineering Services include Conceptual Engineering and Pre-Engineering packages to increase ROI confidence in process technology, scope and final budget. Our progressive engineering service packages leverage 145 years of our commercial, operational, R&D and Innovation Center expertise to increase the likelihood of project success.

Pre-Engineering Services

Conceptual Engineering:

- Block flow diagrams
- High-level utility requirements
- Facility footprint
- Flowsheet with key pieces of equipment
- Proposal for process-related equipment

Pre-Engineering:

- Preliminary Process Flow Diagrams (PFDs) with mass and energy balance
- Preliminary Piping and Instrumentation Diagram (P&ID)
- Preliminary motor and instrument lists
- Preliminary equipment list
- Firm proposal for process-related equipment

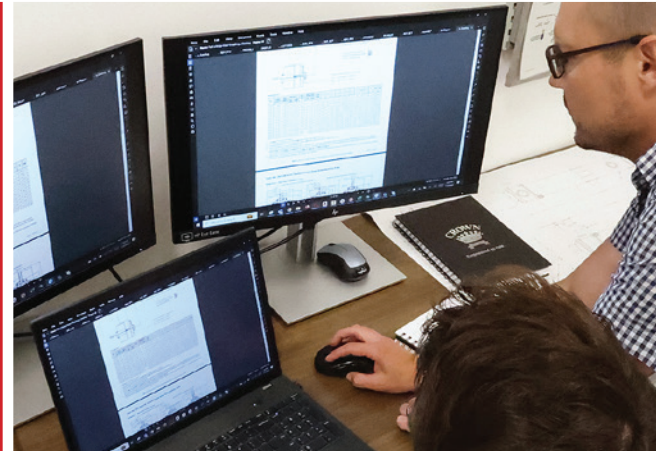
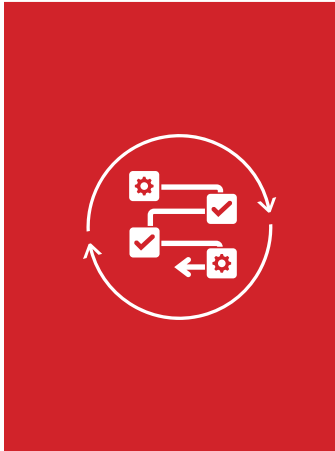
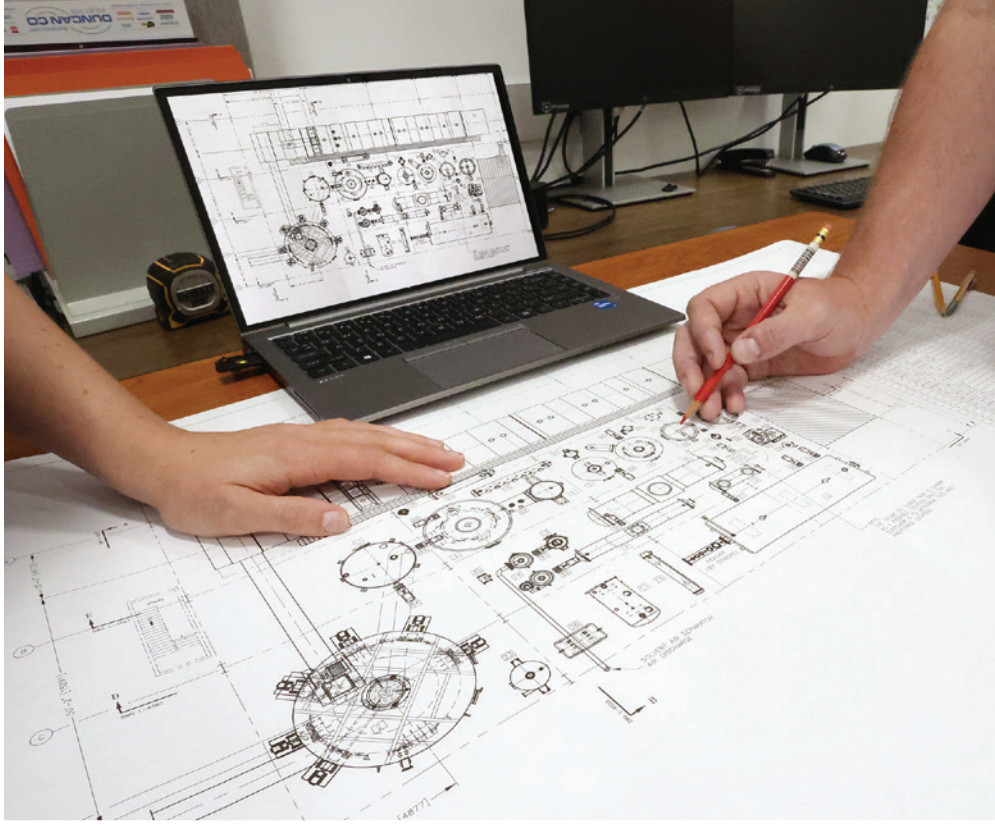
Benefits

Conceptual Engineering:

- Engage with commercial subject matter experts (SMEs) to better understand project scope and get budget quotes
- Multiple process configuration options evaluated
- Enables +/- 50% investment confidence

Pre-Engineering:

- Engage with operational SMEs to better understand scope, get budget quotes and get better-quality deliverables
- Enables +/- 20% investment confidence



Achieve Your Best Results with Our Trusted **Lifecycle360 Support Specialists**



When you combine CPM | Crown's robust equipment and technology with our Lifecycle360 Support Services, you will have peace of mind knowing that an experienced, dedicated and trusted partner has your back at every stage of your plant's lifecycle, from design to full-scale production and maintenance.

Our engineers and experts provide you with an unmatched level of experience: our team has over 1,000 years combined experience in the oilseed, renewable fuels and specialty processing industries. Don't carry the burden of coordinating services from different companies who don't know our equipment as well and who lack our breadth of knowledge and capabilities. We are your single source for the planning, coordination and support that will help secure the success of your investment and help you gain the edge on your competition.

Working together for a better world.

From risk management to environmental management, CPM | Crown applies a global lens to your operations. Count on our problem-solving expertise to help fulfill your sustainability commitments.

Partner with us on your key initiatives

- Carbon footprint reductions
- Emissions & energy reductions
- Operational performance
- Regenerative agriculture
- Renewable resources
- Social responsibility
- Supply chain resiliency
- Sustainability
- Zero waste targets

Gain the competitive advantage with CPM | Crown's expertise, equipment and world-class Global Innovation Center.

Feeding, Fueling and Building **a Better World.**



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