Manufacturing Advisory Services
Advise, design and implement

Advisory services
• Operational improvement of existing manufacturing facility
• Identifies, quantifies and prioritizes opportunities for improvement
• Recommendation of total energy management initiatives

Design
• Design and plan new facilities or redesign existing operations
• Defines long-term strategy to improve business decisions
• Green technologies

Implementation
• Implement operational improvement
• Detailed plant engineering
• Proactive maintenance

The Husky® Manufacturing Advisory Services team provides operational consulting, design and project management services to help customers increase the operating efficiency of their plastic injection molding facilities.

Our team consists of industry focused consultants who examine injection molding production processes and procedures from a production efficiency point of view. We have a comprehensive understanding of all factors affecting part cost. Working with Husky, customers can identify and implement ways to enhance internal processes, minimize energy consumption and reduce their carbon footprint, increase productivity in injection molding facilities and boost bottom line results.

Our team evaluates improvement opportunities, including:
• Examining new or existing plastic component programs
• Options within existing operations
• Measuring and controlling energy consumption with total energy management initiatives

Whether support is needed in planning a greenfield facility or a feasibility study is requested to review the manufacturing of a new or existing plastics component program, Husky will provide objective analysis to help create a roadmap to success.

There are three key areas within Husky’s Manufacturing Advisory Services program. Individually, each can bring value to a Infrastructure design services.
customer’s operation, but in combination
they can have a significant impact. Husky’s
Manufacturing Advisory Services program
is comprised of:
• Advisory services
• Design services
• Implementation

1. Advisory services
Comprehensive operational assessment
A detailed operational assessment is an
ideal way for molders to improve overall
manufacturing efficiencies and reduce
operating costs. The assessment identifies,
quantifies and prioritizes opportunities for
improvement within the entire manufac-
turing operation and facility—and is the
first step in developing a fully optimized
injection molding facility. Although results
vary from plant to plant, savings identified
typically fall within 10% to 30% of operat-
ing costs.

Husky optimization engineers lead custom-
ers through a series of activities to collect
and evaluate relevant data and define areas
of focus, such as:
• Operational effectiveness
• Energy reduction and management
• Tooling standards
• Machine layout
• Plant operating procedures
• Production monitoring systems
• Process infrastructure and automation

An assessment team from Husky typically
spends one week in a customer’s facility
interviewing team members, measuring
and analyzing existing processes and oper-
ations, comparing metrics to performance
benchmarks and establishing potential
operational savings.

Following a structured approach, our
team provides an impartial assessment of
both quantitative and qualitative aspects
of the business and factory. Using col-
lected data, quantitative aspects of plant
performance, such as Overall Equipment
Effectiveness (OEE) and scrap rates, are
calculated. Qualitative areas, such as safety,
infrastructure and equipment conditions
are assessed based on the observations and
experience of Husky’s optimization team.

The assessment ends with a summary
presentation, report of findings, recom-
mendations, an action plan and proposal
for the implementation of the recommend-
ed improvements.

Total energy management
As the cost of energy continues to rise, the
importance of realizing overall efficiency
gains (measured in kW/kg of resin pro-
cessed) has never been more important
to injection molders. Integrating process
service technologies with leading-edge
building technologies is the key to realizing
sustainable cost savings over the long-
term. In addition, implementation of a total
energy management approach can help
maintain a robust and consistent process
infrastructure and assist in the conservation
of valuable resources.

Husky experts conduct detailed assessments of customer facilities to identify areas of improvement.
Husky’s total energy management program uses a holistic approach to achieve continuous and sustainable energy reduction in an injection molding operation.

• Phase 1—Husky spends one to two weeks in the customer facility measuring and analyzing existing information and setting up the necessary infrastructure to maintain a successful energy management program. A summary presentation, findings report, action plan and proposal is included, as well as energy measurements on selected equipment within the plant.

• Phase 2—Implementation of the projects identified in Phase 1.

Government regulations continue to be introduced worldwide, which are designed to reduce pollution, including the manufacturing sector. Now more than ever, it is critical that organizations voluntarily invest in their manufacturing facilities to ensure compliance with these regulations.

Implementation of operational improvements

Once the assessment is complete, Husky facilitates the implementation of the recommended operational performance improvements.

Based on the results of the initial assessment, Husky’s manufacturing optimization and advisory services engineers can assist customers in developing a framework of best-in-class manufacturing practices, procedures and measurements, as well as key performance indicators (KPIs) for their injection molding operation. This process ensures that practices are properly implemented and established for long-term, optimized operational performance.

Husky will work with a customer’s improvement team to oversee the implementation process by conducting follow-up visits, approximately once a month for six to eight months. This establishes measurements that can track the progress of each project and/or performance indicators, as well as training of the people involved.

Plant flow simulation

Husky provides a simulation of a factory’s current state targeting machines, molds and secondary operations. This presents a vision of the factory’s future state, under different possible scenarios. The model simulates the production of injection molded parts, complete mold changes and assembled products, as required for a one-year period. Variables like mold change time, supply inventory, machine breakdown and reliability, mold cavitation and cycle time are also compared.

Benefits and deliverables:

• Identification of current factory bottlenecks that inhibit on-time delivery
• Understanding of the current state of the production facility and the impact on production growth
• Effects of seasonality
• Run-time model of the software

Injection molders would benefit from this service if they are:

• Experiencing production growth
• Needing to optimize inventory levels to meet demand
• Considering the purchase of new machines
• Wanting to gain an understanding of factory interdependencies

2. Design services

Factory planning

This service is typically used by customers exploring the feasibility of plant expansion, relocation, consolidation or those who are looking to build a new facility. Husky’s factory planning and optimization study uses a structured approach to create a roadmap for a customer’s molding business that will help to maximize efficiencies and build in the flexibility necessary to meet future requirements.

Factory planning and optimization defines a long-term manufacturing strategy that can be used to direct and prioritize business decisions. This proven methodology has formed the foundation for hundreds of new and existing plant improvement projects.

Manufacturing optimization engineers focus on business objectives. Different facility and infrastructure options, as well as equipment strategies, are thoroughly evaluated to maximize operating efficiency.

The evaluation covers:

• Workcell design
• Equipment standardization
• Process and utility services
• Resin handling and distribution
• Product handling and inventory
• Plant layout and design
• Environment—HVAC
• Outline specifications

For the long-term benefit of our customers’ businesses—and the environment—Husky designs green buildings that will provide the smallest carbon footprint afforded by current technology.
This service ensures the facility meets the design intent established in the factory planning study. Husky provides detailed engineering support for the options selected by the customer from the initial study. Detailed building and infrastructure engineering and design can be provided in the following areas:

- Process water system (mold and machine cooling)
- Process air
- Process electrical
- HVAC
- Resin handling system
- Structural
- Environmental and energy reduction

For customers expanding or upgrading existing facilities, Husky’s mechanical and electrical engineers will provide a detailed engineering specification for an optimized process services system. This considers the specific industry, future growth, geographic location, as well as operational and capital costs.

3. Implementation

Project management

Once the factory planning and facility engineering phases are complete, the next step is implementation. Husky offers project management services to ensure successful completion of projects. This can include:

- Management of engineering resources
- Pre-qualification of vendors
- Coordinating and interfacing with client suppliers and vendors
- Bid management (evaluation and recommendations)
- Management of contracts and schedules
- On-site supervision during construction and installation
- Review drawings and specifications for conformance to project requirements
- Review, monitor and report on project progress and budget
- Review and evaluate project changes
- Start-up and commissioning of process systems
- Carry out deficiency inspections
- Obtain close-out documentation

Commitment to sustainability

Husky Manufacturing Advisory Services work to design to the most energy efficient and sustainable equipment models. Implementation can result in long-term savings, vastly improving a customer’s carbon footprint through a more efficient use of equipment. In addition, many local and national government incentives and subsidies exist to support green thinking. Husky can help customers access these resources, as well as recommend rebates for which they may be eligible to apply.

Commitment to confidentiality

Please note that any customer information collected by Husky’s Manufacturing Advisory Services team is held in strict confidence.

Contact Husky today for more information on our Manufacturing Advisory Services.