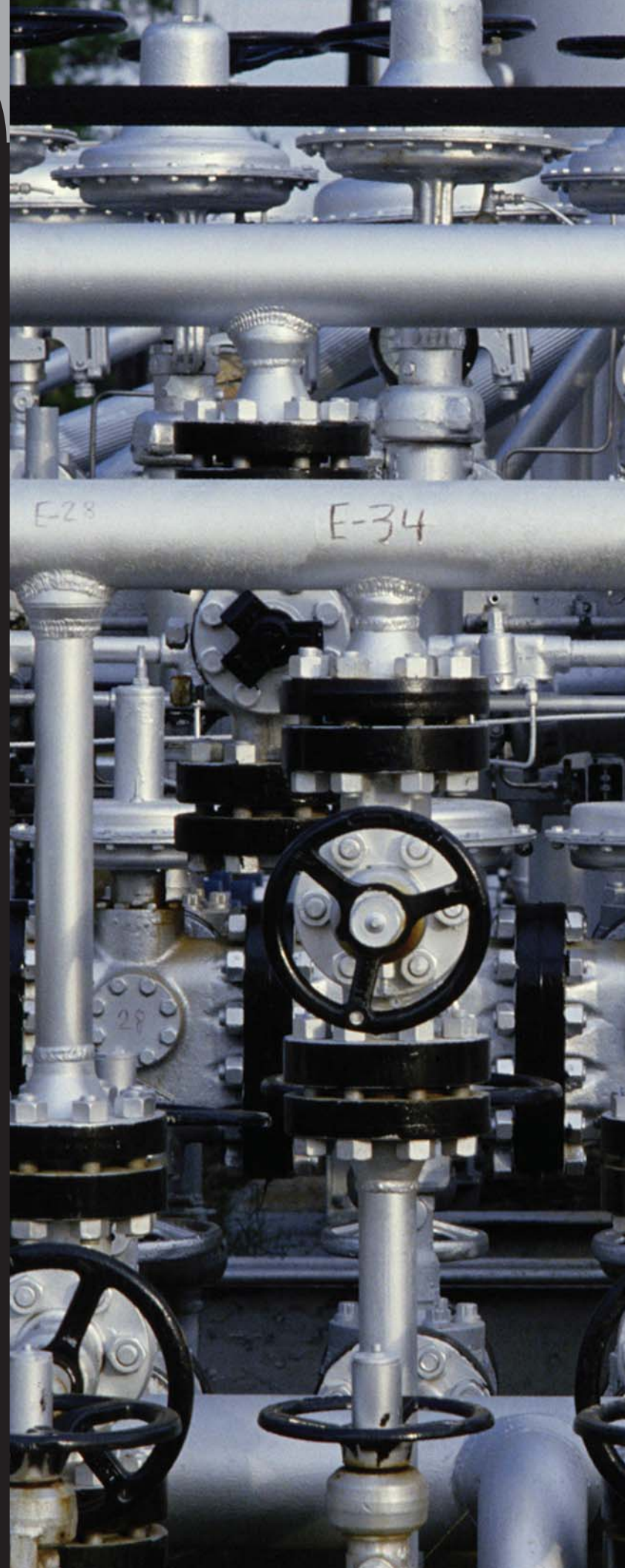


USCCG

When It Comes
To Chemicals And
Refining, We'll Help
You Grow With
The Flow

*USC Consulting Group, An Experienced
Professional Resource for the
Chemicals and Refining Industry*



chemicals & refining

Chemicals and Refining Industry Experience

USCCG has been actively engaged in the chemicals and refining industry for many years. During that time we've helped many well-known and highly regarded companies to:

- Define/improve the role of operations in maintaining production units
- Improve first-run compliance
- Improve on-time delivery
- Improve predictability of maintenance cycle
- Improve reliability of operating units
- Improve workload management
- Increase pounds per direct and indirect hour
- Increase throughput
- Reduce customer lead times
- Reduce customer non-conformances
- Reduce direct and indirect costs
- Reduce interplant shipments
- Reduce manufacturing cost-per-pound
- Reduce process variation
- Reduce scrap and rework
- Upgrade front line leadership skills

- Upgrade reporting tools used throughout the operation

Processes Worked

In batch and continuous flow operations, we've improved:

- Information flows
- Maintenance planning and scheduling
- Maintenance: routine, preventive, predictive, contract
- MRO inventory control
- Production process planning and scheduling
- Resource and capacity planning
- Sales & operations planning
- Unit reliability

Totally Customized Approach

Our approach is totally customized for each client and situation, but will typically include some or all of the following components and/or methodologies:

- Capacity planning*
- Crewing requirements
- Critical path management
- Leadership skills development
- Maintenance and operations coordination

- Management structures
- Material planning and delivery
- Operations and maintenance interface
- Process mapping
- Project management
- Shop floor scheduling*
- Shop floor reporting*
- Time-phased scheduling*
- Workload balancing
- Workload quantification and measurement

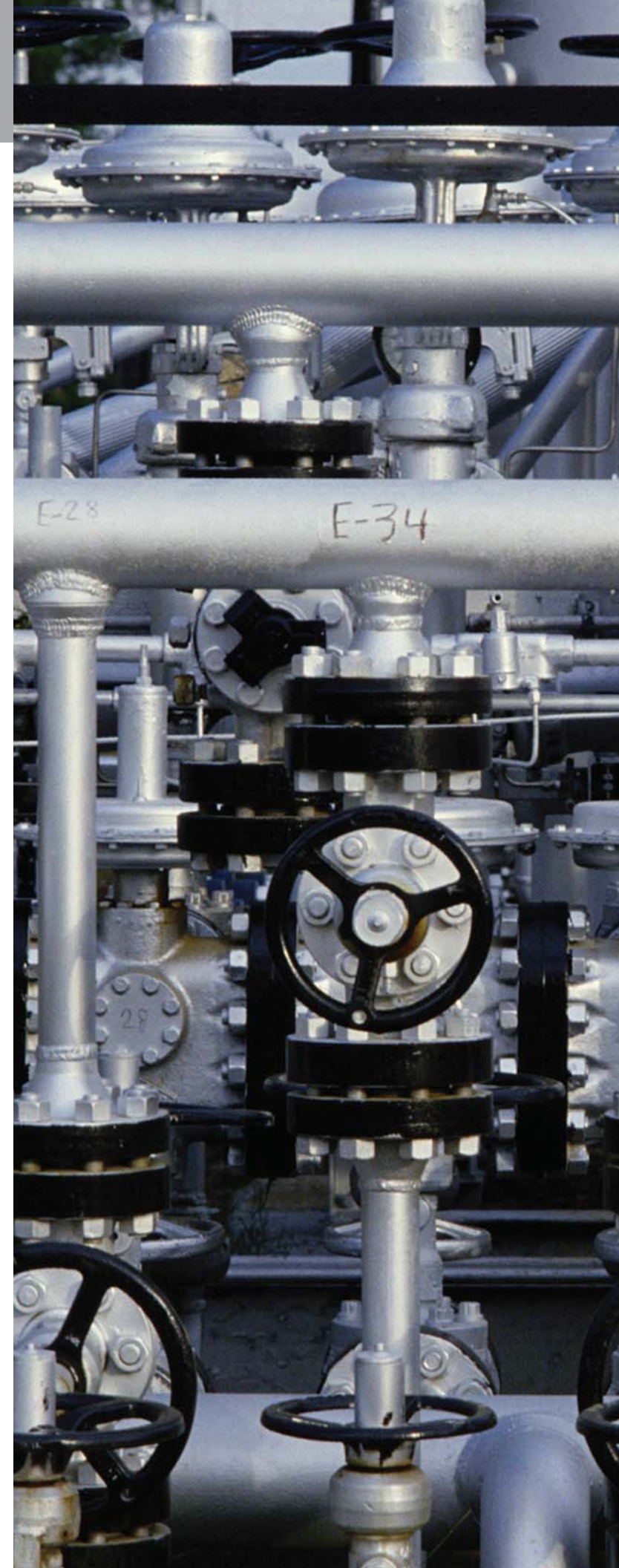
*Component part of proprietary USCCG Advanced Planning and Scheduling System that "bolts on" to clients' existing hardware and software and provides detail necessary to manage and control work to more reliably achieve production targets.

Client Benefits

These tools and techniques enable us to deliver a wide range of benefits to our clients:

1. Decreased contractor labor costs
2. Faster inventory turns and reduced carrying costs
3. Improved first-run compliance
4. Increased throughput
5. Increased uptime
6. Reduced cost-per-pound

7. Reduced customer lead times
8. Reduced customer non-conformances
9. Reduced maintenance labor and overtime
10. Reduced material expediting expense



USCCG

Our Work

Let's take a look at some of our work in the chemicals and refining industry. Each of the following solutions was totally customized and implemented by USCCG professionals, using proprietary techniques and methodologies, to meet the unique needs of individual clients. Here are some highlights from three real engagements.

Case History # 1

Manufacturer of chemicals used for surface treatment of metal products, e.g., appliances, automobiles, furniture, etc., wanted to improve capacity utilization.

Our Assignment: Improve productivity and capacity utilization while reducing overtime.

Our Approach:

1. Obtained input from employees at all levels in the organization to develop improvement prototypes.
2. Implemented weekly planning and scheduling process.
3. Installed standards and cellular manufacturing techniques.
4. Coordinated maintenance with production to minimize downtime.
5. Enhanced reporting to focus on productivity.
6. Reinforced continuous improvement process (CIP) already underway.

The Results:

1. Labor hours worked were reduced by 30%
2. Overtime hours were reduced by 20%
3. Productivity increased by 30%
4. Cycle time was reduced by 20%
5. Direct cost per pound was reduced by 10%

Case History # 2

Paint manufacturer wanted to increase capacity and line utilization to reduce costs.

Our Assignment: Reduce waste and scrap while improving productivity and customer service.

Our Approach:

1. Met with employees at all levels within the plant to identify opportunities for improvement.
2. Set up a prototype in the latex area that included training of purchasing staff, operators and warehouse personnel.
3. Used cause and effect analysis to identify and eliminate production delays.
4. Developed comprehensive performance metrics, visibility management tools and reporting system.
5. Redefined roles and responsibilities of management and supervisory staff to plan and schedule the entire facility.
6. Installed time-phased scheduling system throughout the entire plant (raw materials to blend tank/mix tank to load out).
7. Implemented rough-cut capacity planning process to assist with mid- to long-term planning and scheduling of plant assets and resources.

The Results:

1. Increased new pounds produced per day 10%
2. Improved on-time delivery to 99%
3. Reduced unplanned downtime hours per day 39%
4. Reduced labor cost per pound 3%
5. Reduced manufacturing cost per pound 8%
6. Reduced interplant freight pounds shipped per day by 183%
7. Reduced interplant freight cost per pounds shipped 29%

Case History # 3

Large-scale refiner of business and consumer petroleum products needed to improve productivity.

Our Assignment: Improve productivity in anticipation of a planned reduction in personnel.

Our Approach:

1. Obtained input from personnel at all levels in the organization to help develop improvement prototypes.
2. Instituted daily planning and review process between maintenance and operations groups to reduce production time lost to unscheduled maintenance.
3. Developed tools to enable the planning department to coordinate centralized resources.
4. Installed daily and weekly planning disciplines to improve shift productivity.

The Results:

1. Reduced backlog in fuels department by 14%
2. Improved productivity in fuels department by 27%
3. Recovered \$2.1 million in productive labor man hours per year

These results are fairly typical of what we've been able to accomplish in the chemicals and refining industry. You can review other case histories by visiting our web site.

For more information contact us at (800) 888-8872 or www.usccg.com.



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