KELCO INDUSTRIES

ENGINEERED. INTEGRATED. DEPENDABLE.

VALVE & FLOW CONTROL SOLUTIONS

Four Specialized Divisions. One Manufacturing Partner.

Kelco Industries brings together four specialized manufacturing capabilities to support demanding valve and flow-control applications — from the fluid path to actuation.

WCT GROUP

Valve Seats · PTFE Seals
Engineered Polymer Components

FLEX-WELD

Metal Bellows
Flexible Metal Assemblies

GUARDIAN ELECTRIC

Solenoids · Coils
Electromagnetic Actuation

AMT Advanced Molding Technologies

Injection Molding · Insert Molding
Overmolding

ONE KELCO.

COMPLETE VALVE SOLUTIONS.

FROM THE FLUID PATH TO ACTUATION.

Kelco connects complementary manufacturing expertise across four specialized divisions—helping valve OEMs solve more of the application through one manufacturing partner.



Engineered sealing components for the fluid path

Valve Seats · Envelope Gaskets · PTFE Bearings · Spring-Energized Seals · V-Packing & Custom Profiles

VALUE:
Reduce leak risk.

Flexible metal solutions for movement & demanding service

Custom Metal Bellows · Bellows Assemblies · Flexible Metal Hose · Expansion Joints · Custom Welded Assemblies

VALUE:
Handle motion, heat, pressure, and isolation.

Electromagnetic motion and valve actuation

AC & DC Frame Solenoids · Tubular Solenoids · Long-Life Solenoids · Custom Wound Coils

VALUE:
Convert electrical input into controlled movement.

Precision molded components for valve & actuator OEM designs

Injection Molding · Insert Molding · Overmolding · Engineering-Grade Thermoplastics · Rapid Prototyping

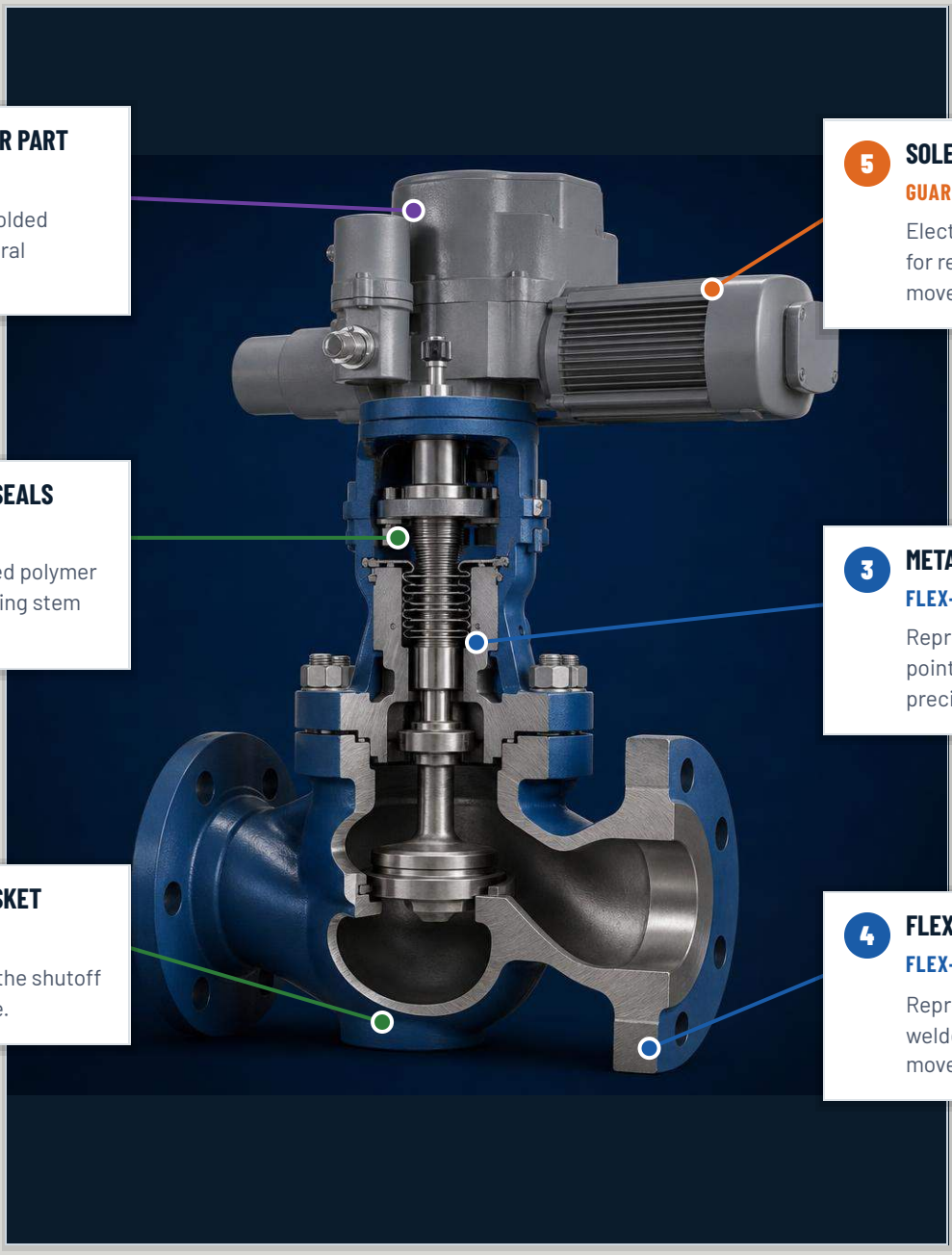
VALUE:
Customize and consolidate the assembly.

ONE ENGINEERING CONVERSATION. FOUR DIVISIONS.

KELCO TECHNOLOGIES ACROSS A CRITICAL VALVE ASSEMBLY

From sealing and movement to actuation and integration, Kelco's four divisions contribute specialized components that help valves perform reliably in demanding applications.

**Representative locations shown for illustrative purposes.*



6 MOLDED ACTUATOR PART

AMT

Representative molded housing or structural interface.

5 SOLENOID / COIL

GUARDIAN ELECTRIC

Electromagnetic actuation for repeatable valve movement.

2 STEM PACKING / SEALS

WCT

PTFE or engineered polymer sealing at the moving stem interface.

3 METAL BELLOWS

FLEX-WELD

Representative isolation point accommodating precise linear motion.

1 VALVE SEAT / GASKET

WCT

Critical sealing at the shutoff and body interface.

4 FLEXIBLE ASSEMBLY

FLEX-WELD

Representative flexible or welded connection for movement and isolation.

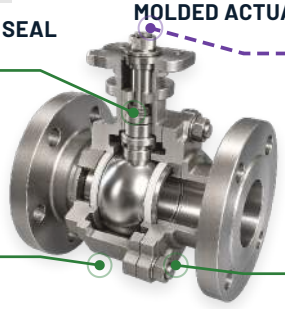
EVERY COMPONENT. EVERY CRITICAL INTERFACE.

INTEGRATED APPLICATION SUPPORT

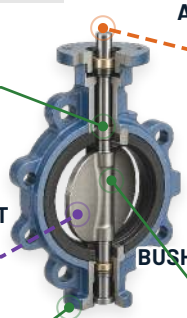
ONE PARTNER. ACROSS THE VALVE PORTFOLIO.

See where Kelco's specialized components may support critical valve and flow-control applications.

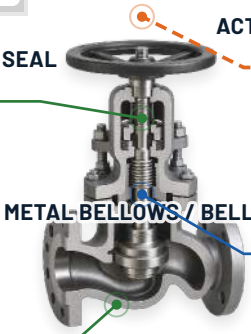
BALL VALVE



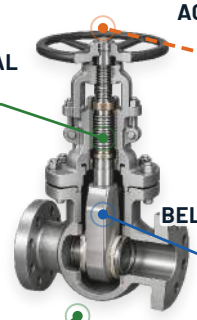
BUTTERFLY VALVE



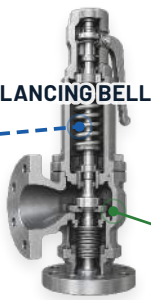
GLOBE VALVE



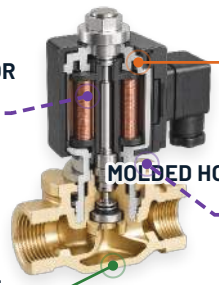
GATE VALVE



SAFETY / RELIEF VALVE



SOLENOID VALVE



REPRESENTATIVE / COMMONLY IDENTIFIED OPPORTUNITY

APPLICATION-DEPENDENT OPPORTUNITY

Representative component opportunities shown. Actual component selection depends on valve design, media, operating conditions and OEM requirements.

PRECISION SEALING & ENGINEERED POLYMER COMPONENTS



KEEP THE MEDIA IN. KEEP PERFORMANCE UP.

WCT engineers precision PTFE, elastomeric, and engineered-polymer components for critical sealing, guidance, and wear interfaces throughout valve assemblies.

From ball and butterfly valve seats to stem seals, packing, cavity fillers, spring-energized seals, and custom polymer components, WCT helps valve OEMs solve leakage, friction, wear, chemical compatibility, pressure, and service-life challenges.

ENGINEERED FOR:

Leakage Control · Chemical Compatibility · Low Friction · Wear Resistance · Pressure & Temperature · Extended Service Life

CORE VALVE COMPONENTS

BALL VALVE SEATS
Precision PTFE and engineered-polymer seats for reliable flow shutoff and control.

BUTTERFLY VALVE SEATS
Engineered sealing components for butterfly valve applications.

STEM SEALS & PACKING
Dynamic sealing solutions for valve stems and moving interfaces.

SPRING-ENERGIZED SEALS
High-performance PTFE sealing for demanding pressure, temperature, and chemical environments.

CAVITY FILLERS
Engineered polymer components designed around valve cavity requirements.

THRUST WASHERS / GUIDE ELEMENTS
Low-friction polymer components supporting movement, alignment, and wear control.

BACKUP RINGS
Engineered support components for demanding sealing applications.

CUSTOM PTFE & POLYMER COMPONENTS
Precision-machined components engineered around OEM valve geometry and operating requirements.

WHY OEMS CHOOSE WCT

MATERIAL GUIDANCE
Support selecting materials based on media, temperature, wear, friction, and operating requirements.

CUSTOM GEOMETRY
Components engineered around application-specific valve interfaces and OEM requirements.

PROTOTYPE SUPPORT
Development quantities for evaluation, testing, and qualification.

PRODUCTION FLEXIBILITY
Support from custom requirements and prototypes through repeatable production.

PRECISION SEALING — WHERE VALVE PERFORMANCE STARTS.

METAL BELLOWS & FLEXIBLE VALVE SOLUTIONS

WHEN THE VALVE MUST MOVE WITHOUT LEAKING.

Flex-Weld engineers and manufactures custom metal bellows, flexible assemblies, and welded components for demanding valve applications.

Our solutions are built to handle motion, pressure, temperature, and isolation requirements in some of the most challenging operating environments.



PRODUCT CAPABILITIES

- Custom Metal Bellows
- Bellows Components
- Bellows Assemblies
- Flexible Metal Hose
- Expansion Joints
- Custom Welded Assemblies

BEST-FIT VALVE APPLICATIONS

BELLOWS-SEALED GLOBE VALVES

Metal bellows solutions for valve designs requiring isolation of moving stem interfaces.

BELLOWS-SEALED GATE VALVES

Application-specific metallic flexibility for demanding gate valve designs.

SAFETY / RELIEF VALVES

Specialized bellows or metal-component opportunities based on OEM configuration.

SEVERE-SERVICE VALVES

Application-specific designs for high-pressure, aggressive environments, movement, or hermetic isolation.

ENGINEERED FOR

MOVEMENT

Engineered flexibility to accommodate axial movement, vibration, and thermal expansion.

PRESSURE

Built to withstand high pressures and maintain structural integrity.

TEMPERATURE

Materials and designs to perform in extreme high and low temperatures.

ISOLATION

Hermetically sealed solutions for critical media isolation requirements.

WHEN FLEXIBILITY IS CRITICAL, ENGINEER THE CONNECTION.

SOLENOIDS & ELECTROMAGNETIC ACTUATION FOR VALVE SYSTEMS



TURN ELECTRICAL INPUT INTO CONTROLLED MOTION.

Guardian Electric designs and manufactures high-reliability solenoids, actuators, and precision-wound coils for valve, flow-control, automation, and OEM applications.

From standard push/pull actuation to fully custom electromagnetic solutions, Guardian engineers force, stroke, voltage, duty cycle, mounting, return mechanisms, and packaging around the application.

ENGINEERED AROUND YOUR APPLICATION Force · Stroke · Voltage · Duty Cycle · Life Expectancy · Spring Return · Mounting · Terminations · Packaging

VALVE-RELEVANT ACTUATION CAPABILITIES

TUBULAR SOLENOIDS
Compact push/pull actuation with custom force and stroke.

FRAME SOLENOIDS — AC & DC
Open-frame actuation across force, stroke, and voltage requirements.

LONG-LIFE TUBULAR SOLENOIDS
High-cycle, continuous-duty, extended-life actuation.

LATCHING SOLENOIDS
Bi-stable actuation without continuous power.

LAMINATED AC SOLENOIDS
High-force AC actuation for industrial motion.

EXPLOSION-PROOF SOLENOIDS
Encased actuation for hazardous-environment requirements.

CUSTOM SOLENOIDS & COILS
OEM solutions built around performance, envelope, and interface requirements.

VALVE & FLOW-CONTROL APPLICATIONS

- Solenoid-Operated Valves
- Process & Flow Control
- Fluid Control Systems
- High-Cycle Actuation
- Custom OEM Valve Systems

WHY OEMS CHOOSE GUARDIAN

- Custom Force & Stroke
- Coil Engineering
- Custom Interfaces
- Prototype & Test
- U.S.-Based Manufacturing

ELECTRICAL INPUT. ENGINEERED MOTION. RELIABLE VALVE ACTUATION.

ENGINEERED MOLDED COMPONENTS FOR VALVE & FLOW CONTROL

COMPLEX GEOMETRY. REPEATABLE PERFORMANCE.

Advanced Molding Technologies (AMT) engineers and manufactures precision injection-molded, insert-molded, and overmolded components for demanding OEM applications.

From engineered thermoplastics and high-temperature resins to metal-to-plastic integrated components, AMT helps valve and flow-control OEMs consolidate parts, reduce secondary assembly, achieve complex geometries, and produce repeatable components at scale.



QUALITY SYSTEMS AS9100D · ISO 9001:2015

MOLDING CAPABILITIES

PRECISION INJECTION MOLDING
Tight-tolerance parts in engineering-grade thermoplastics.

OVERMOLDING & MULTI-MATERIAL
Combine materials and components in molded assemblies.

IN-HOUSE TOOLING
Design, fabrication, maintenance, prototype and production tools.

INSERT MOLDING
Integrate metal inserts, terminals, and threaded fittings.

ADVANCED MOLDING PROCESSES
Gas-assist, IMA, two-shot, and vertical/horizontal molding.

VALUE-ADDED ASSEMBLY
Secondary operations and installation-ready components.

ENGINEERED MATERIAL EXPERTISE

ENGINEERING-GRADE NYLONS
PA6 and PA6/6, filled and unfilled.

POM / ACETAL
Dimensional stability, low friction, and wear.

PPS
Dimensional stability and chemical resistance.

PEEK
High-temperature and chemical performance.

Additional materials include PBT, PPA, TPE, HDPE, and other application-specific thermoplastics.

POTENTIAL VALVE & FLOW-CONTROL COMPONENTS

VALVE COMPONENTS — OEM-specific molded geometries.

ACTUATOR HOUSINGS & COMPONENTS — Lightweight polymer structures.

INSERT-MOLDED COMPONENTS — Metal inserts integrated in-part.

ELECTRICAL & INSULATING COMPONENTS — Housings and dielectric

WHY OEMS CHOOSE AMT

- **DESIGN FOR MANUFACTURABILITY** — Geometry, materials, and tooling.
- **IN-HOUSE TOOLING** — Build, maintenance, and metrology.
- **PROTOTYPE TO PRODUCTION** — Scalable development support.
- **QUALITY & REPEATABILITY** — Validated, controlled production.

COMPLEX GEOMETRY. ENGINEERED MATERIALS. REPEATABLE PRODUCTION.

ENGINEERING PARTNERSHIP. PROTOTYPE TO PRODUCTION.

Kelco isn't just a parts supplier. We are an engineering partner focused on solving the application. Our process is built to support OEMs from the first conversation through high-volume production.

1

APPLICATION REVIEW

We identify your exact media, operating environment, and performance targets.

2

COLLABORATIVE ENGINEERING

Our engineers work directly with your design team to develop custom geometry and component specifications.

3

MATERIAL & PROCESS SELECTION

We select the optimal polymer blend, metal alloy, coil winding, or molding process for the application.

4

PROTOTYPING

We produce evaluation samples to allow testing of physical parts in the actual valve assembly.

5

TESTING & VALIDATION

We iterate based on your test results to ensure the component meets every performance requirement.

6

FULL-SCALE PRODUCTION

We transition to repeatable, quality-controlled production supported by robust quality systems.

KELCO INDUSTRIES

ONE MANUFACTURING PARTNER

ONE KELCO.
COMPLETE VALVE SOLUTIONS.

ENGINEERED TO SEAL. BUILT TO MOVE. DESIGNED TO PERFORM.

- ONE MANUFACTURING RELATIONSHIP
- APPLICATION-FOCUSED ENGINEERING
- PROTOTYPE THROUGH PRODUCTION

WCT GROUP

FLEX-WELD

GUARDIAN ELECTRIC

AMT ADVANCED MOLDING TECHNOLOGIES

LET'S ENGINEER A BETTER VALVE SOLUTION.

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