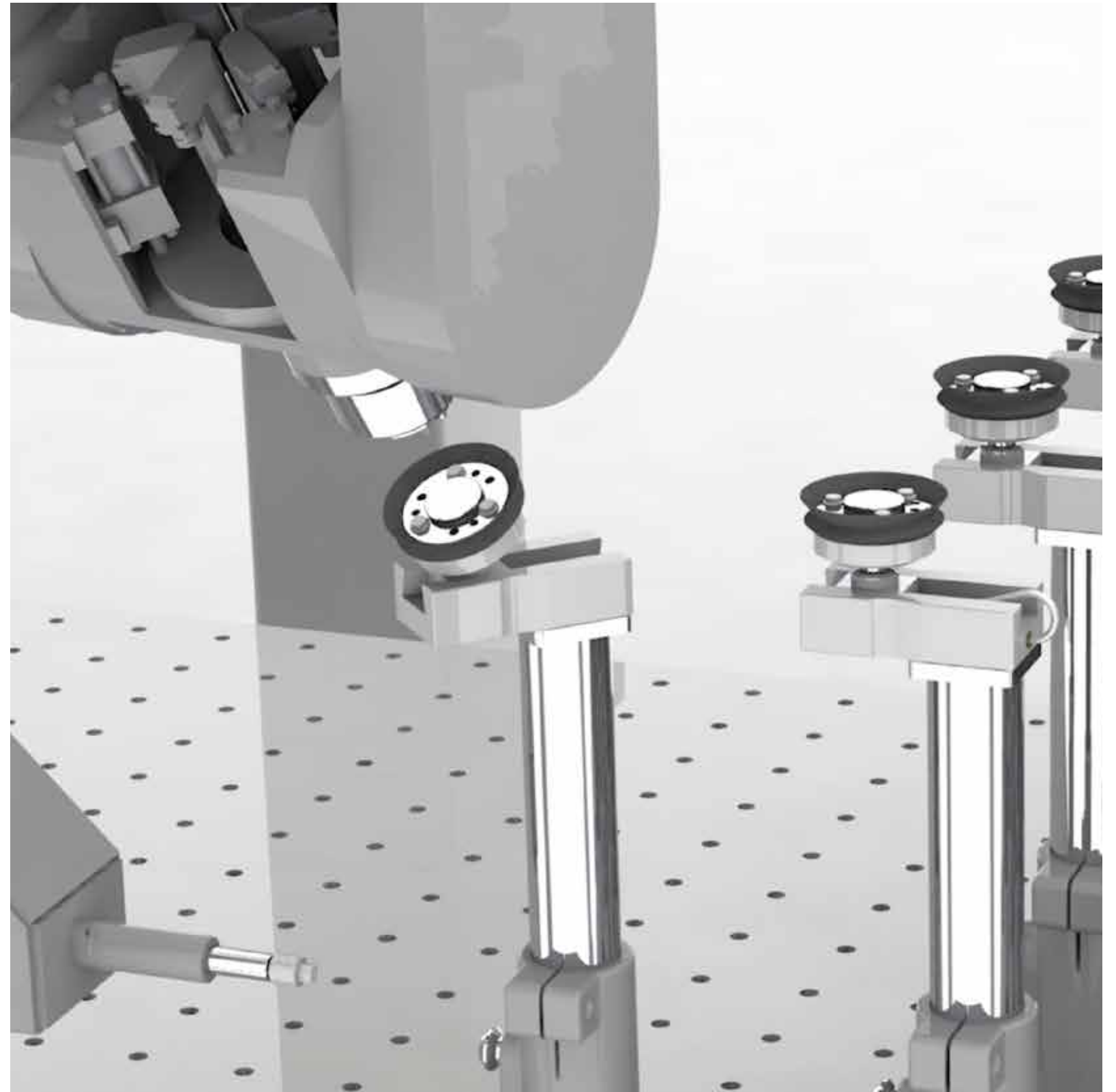


AccuLoc6

RADICALLY TRANSFORMING FLEXIBLE TOOLING

AccuLoc6 is a revolution in Flexible Tooling technology, delivering unrivaled flexibility, verifiability, reliability, and efficiency - all at a fraction of the cost of traditional systems.



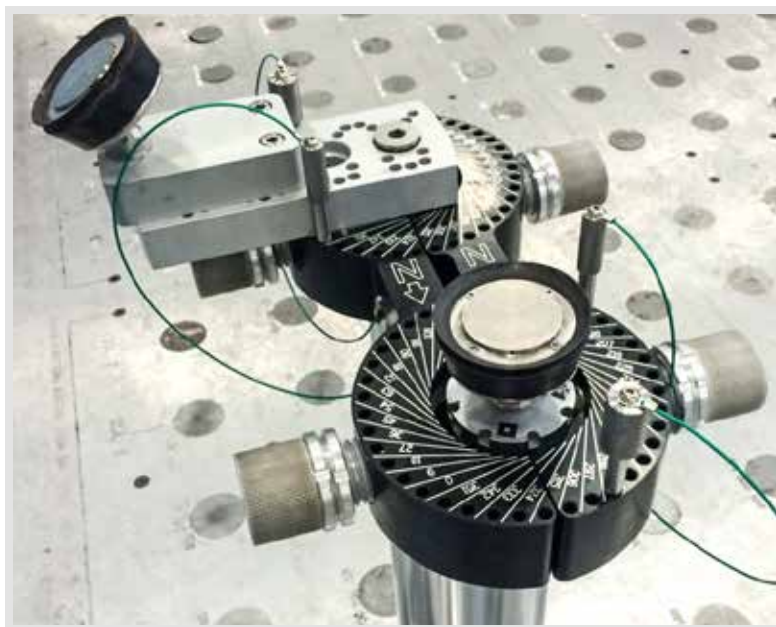
EXISTING FLEXIBLE TOOLING TECHNOLOGY IS SEVERELY LIMITED



IMPOSSIBLE TO VERIFY AUTOMATICALLY

Parts can only be cut as accurately as they are held.

Existing flexible tooling systems do not have lockable end effectors, relying on manual calibration and verification to position (read: time-intensive and error-prone).



LIMITED FLEXIBILITY

Traditional Actuators are manually mounted in fixed positions or modified with complex and costly adapters.

Large systems, often incorporating hundreds of these actuators, are costly and time-intensive to assemble - not to mention highly-susceptible to human error.



COMPLEX & UNRELIABLE

Large tooling systems consist of thousands of electronic and mechanical components, all connected by miles of wiring and tubing.

Failure of a single component can compromise the entire system. Waterjet environments are particularly hostile, often causing significant maintenance problems after just a few years.



INEFFICIENT & COSTLY

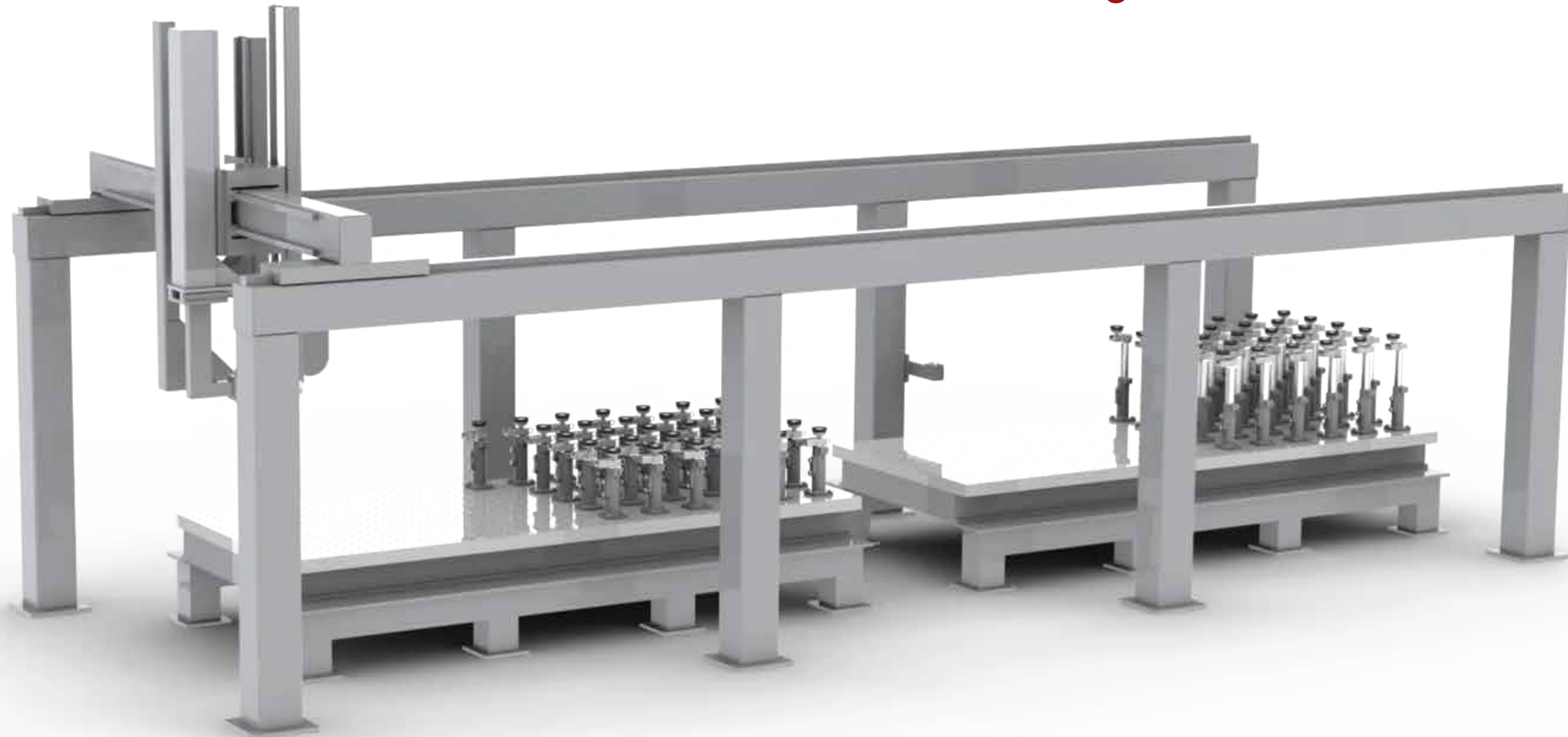
Due to their size and complexity, the cost of a flexible tooling system often exceeds the machine tool it's underneath.

Permanent installation requires significant facility modification and ongoing maintenance costs.

All this, for a tool that may only operate a few minutes each day.

AccuLoc6

The Next Generation of Flexible Tooling

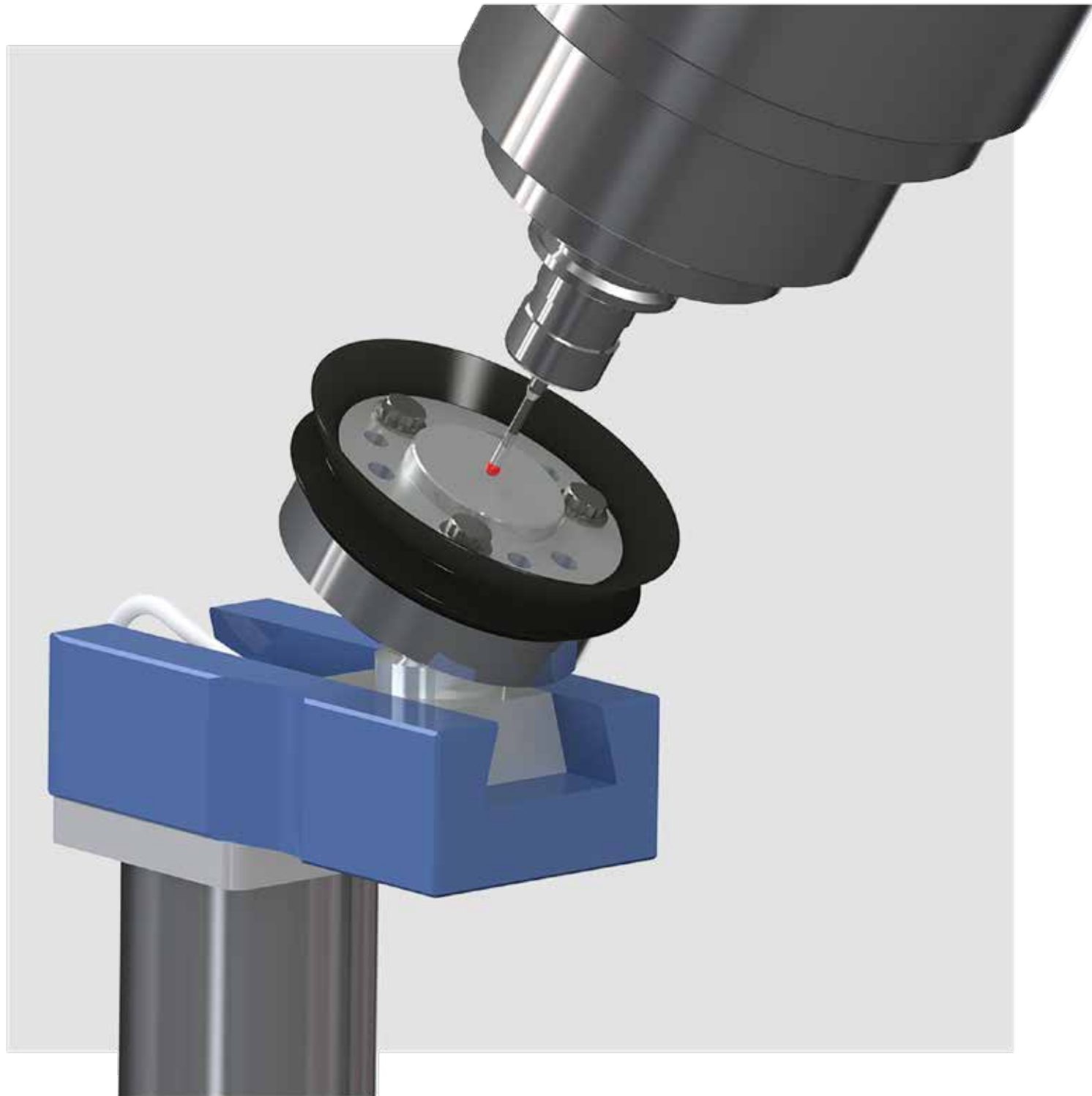


VERIFIABLE

FLEXIBLE

RELIABLE

EFFICIENT



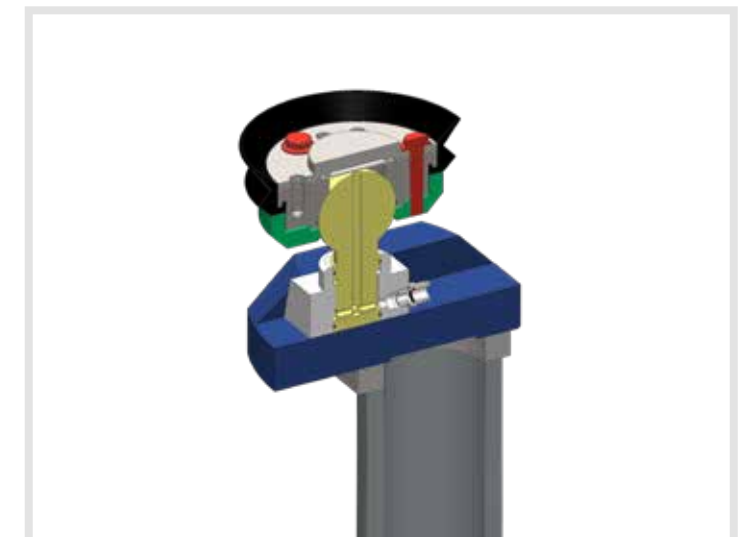
Verifiable Positioning

Most existing flexible tooling systems don't have lockable end effectors, rendering them impossible to verify with automated methods like spindle probes.

The only way to verify positions on traditional systems is by measuring each one manually. AccuLoc6 end effectors are adjusted to required positions and locked, enabling accurate verification to be performed automatically with spindle probes and coordinate measuring machines.



XY adjustment is achieved by sliding end the effector along a dovetail groove in blue offset arm.



End effector is locked by tightening red bolts and then rotating upper head to tighten threaded yellow shaft.

ACCULOC6 IS RELIABLE

Absolute Reliability

Our patent-pending work support assemblies contain no electronics, motors, or powered parts of any kind. All six axes of movement are positioned and locked by our specially designed adjustment mechanisms.

Resistant to water, dust, and the passage of time, Acculoc6 excels in the most challenging environments.



AccuLoc6 work support assembly with a single round end effector.

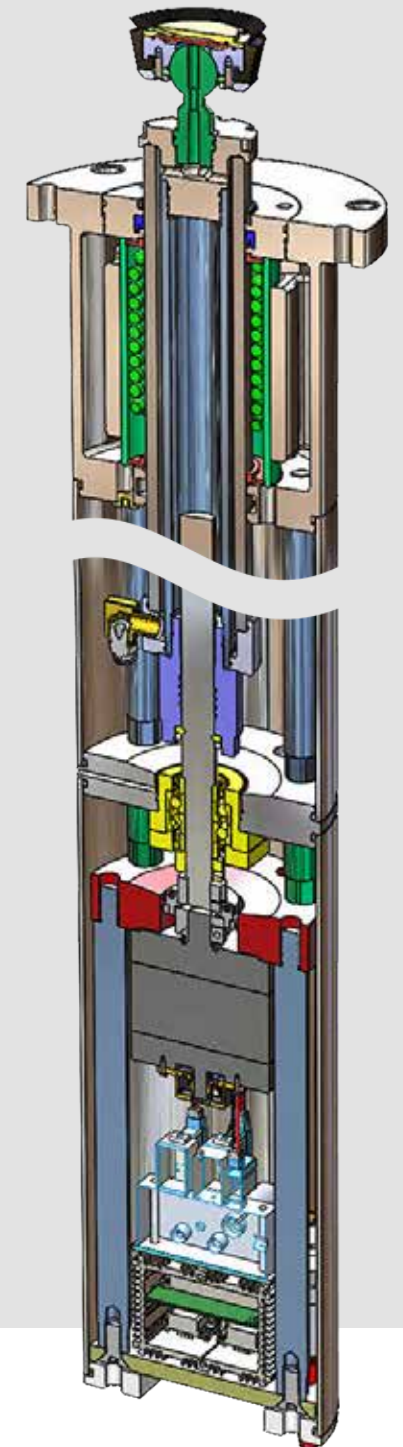


Threaded assemblies are simple to adjust and are inherently reliable.

AccuLoc6
No Powered Parts



Traditional Actuator
Still Counting...

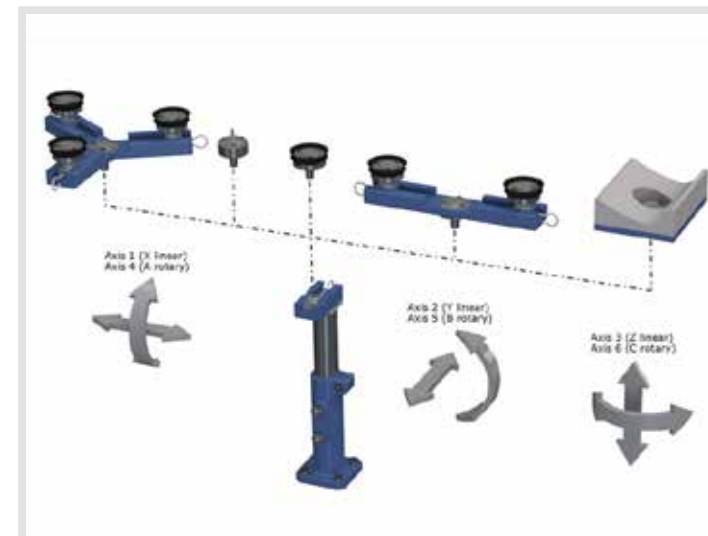




Unparalleled Flexibility

AccuLoc6 redefines the meaning of “flexible” tooling. A suite of end effectors deliver 6-axis adjustability and 100% coverage, guaranteed to hold a part of almost any size and shape.

Each end effector is selected, positioned, and verified automatically, drastically reducing manual input, saving time, and eliminating risk.



Each interchangeable end effector delivers at least 6 axes of locking adjustability.



Though similar in appearance to traditional systems, our single round end effector delivers vastly superior performance.

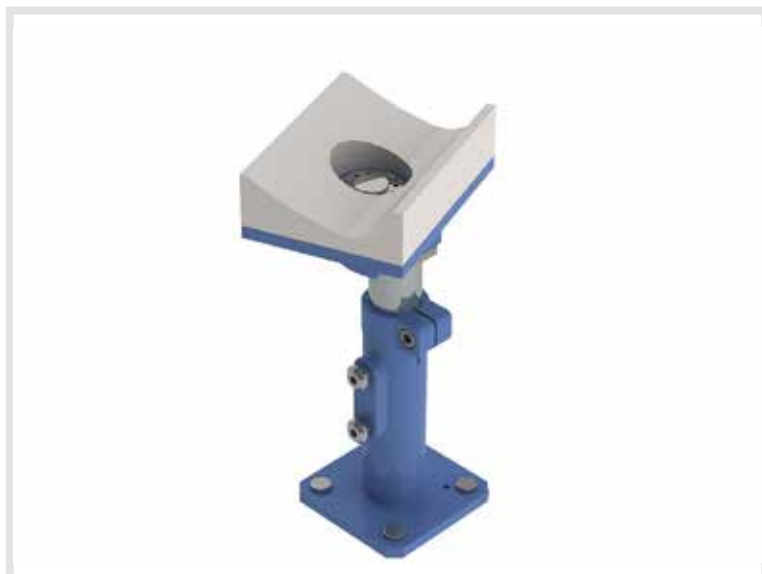
ACCULOC6 IS FLEXIBLE



This automatically placed part-locating end effector accurately indexes parts, saving time and eliminating human error.



This 14-axis double end effector tilts $\pm 90^\circ$, enabling parts with vertical features to be held.



Custom milled sub-fixtures are bolted to universal plate end effectors, enabling tremendously complex parts to be held.



This 18-axis triple end effector offers high-density holding capability for areas that require additional support.

Efficient & Economic

A single AccuLoc6 System can service multiple cutting machines, assembly cells, and transportation platforms.

Adaptable to any size facility or project, AccuLoc6 drastically increases the utilization of expensive assets.

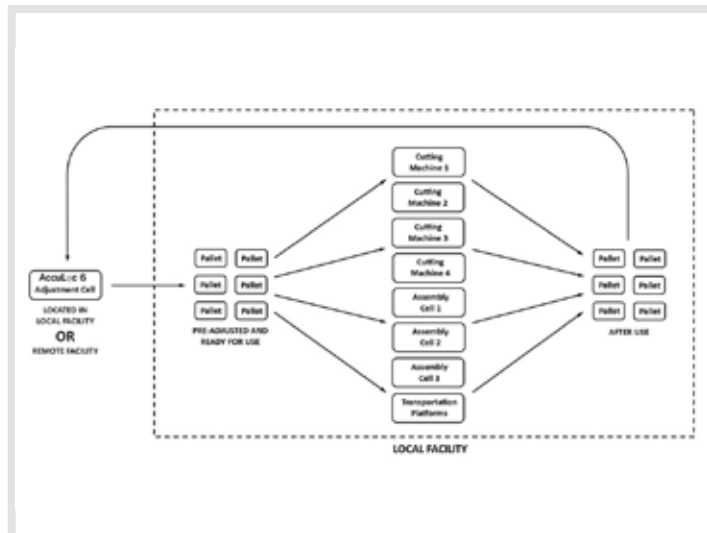
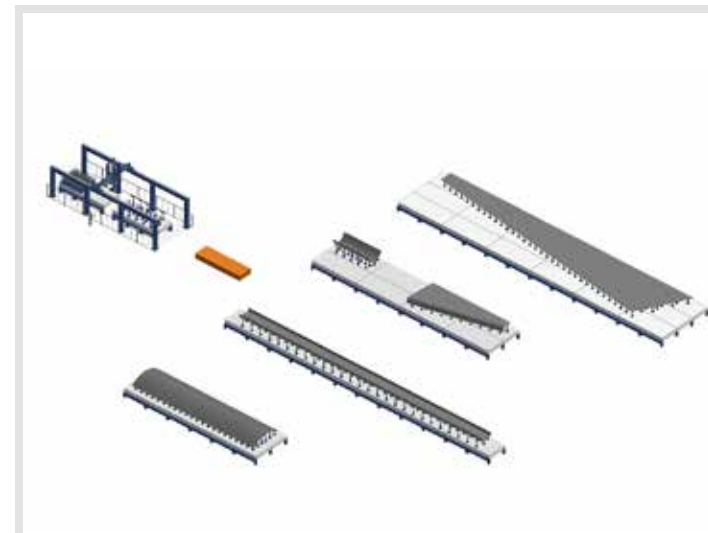
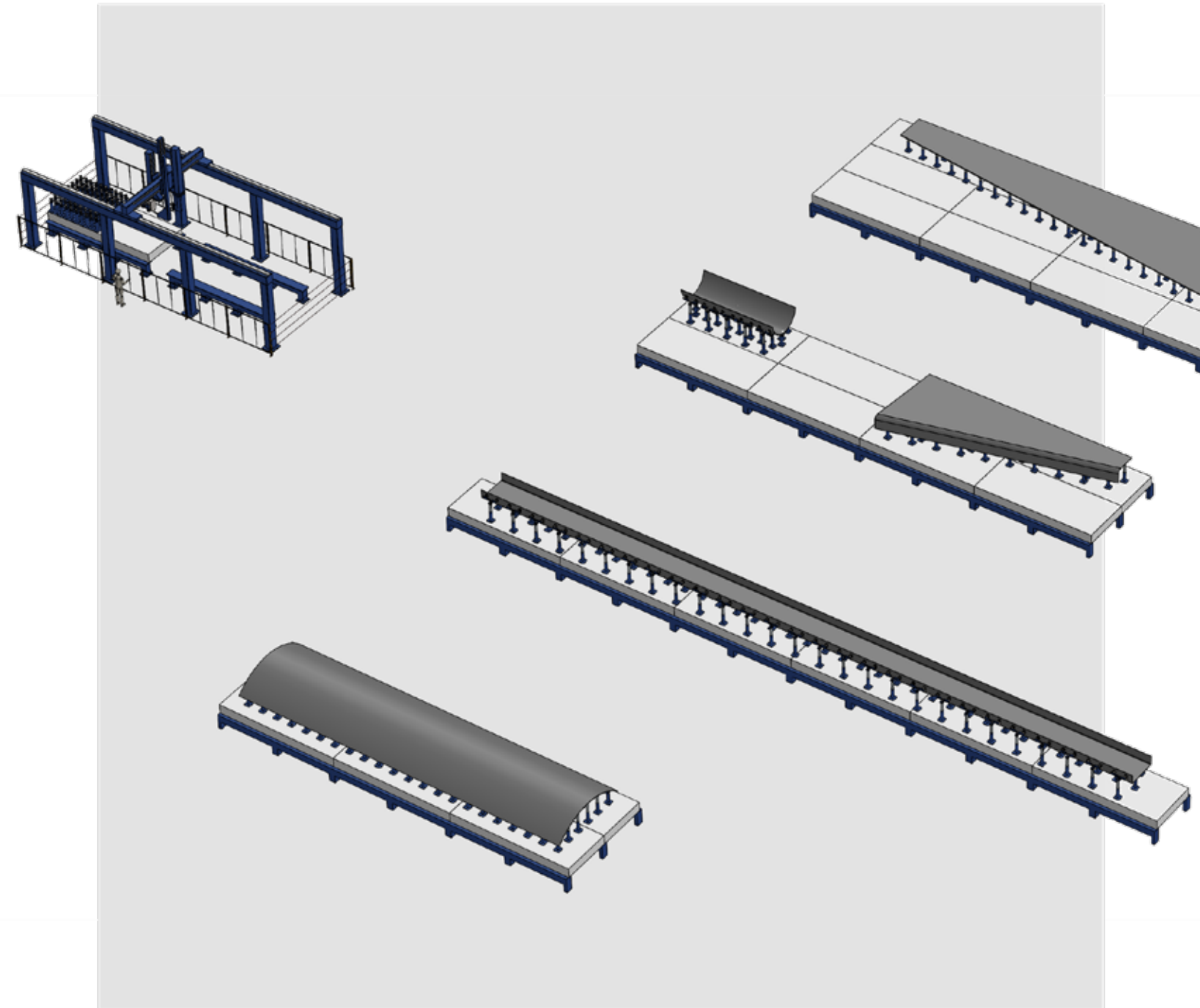


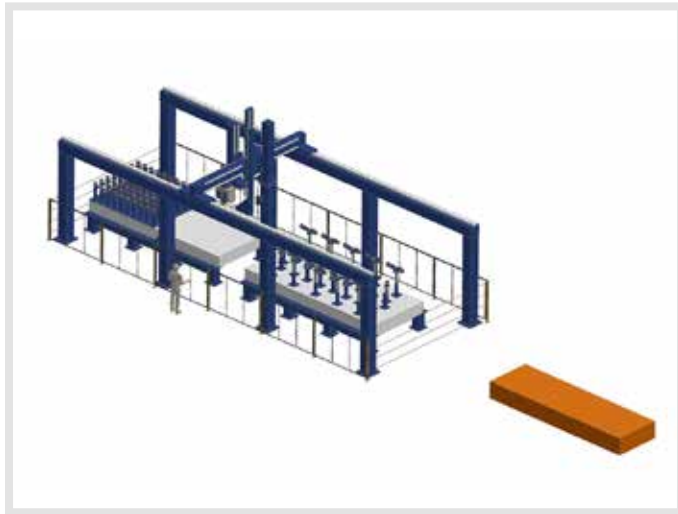
Diagram showing a conceptual manufacturing facility, depicting the use of an AccuLoc6 system with cutting, assembly, and transportation platforms.



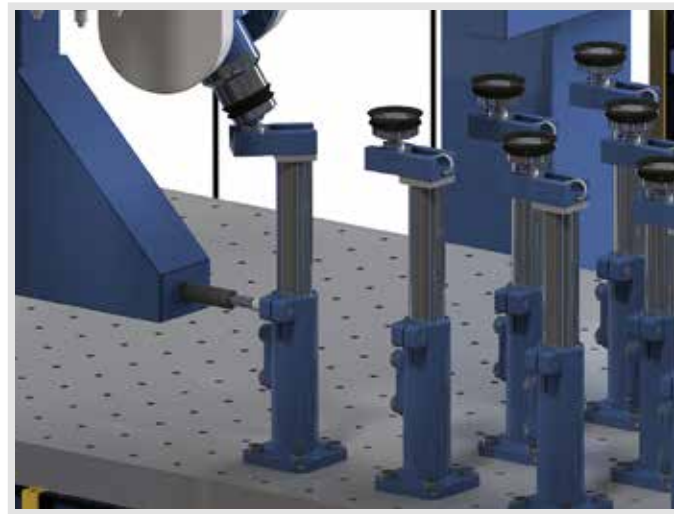
Example of a facility using AccuLoc6 to service multiple machining and assembly cells - one application among a variety of others.



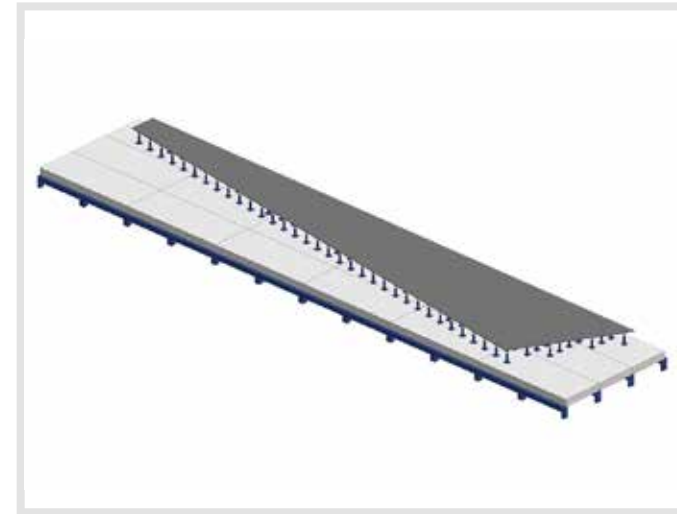
ACCULOC6 IS EFFICIENT



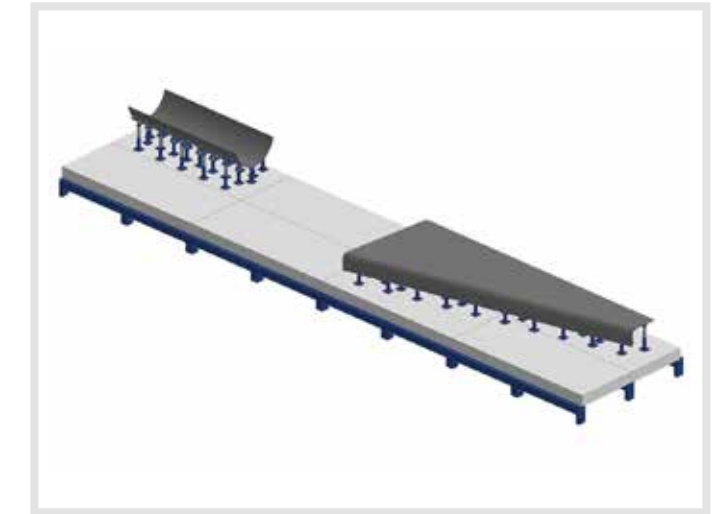
An AGV (or other transportation method) facilitates the movement of pallets to and from an AccuLoc6 adjusting cell.



Closeup of an AccuLoc6 automated adjusting head, which positions and locks each work support and end effector.



Composite wing skin for a commercial airliner being held by an array of work support pallets.



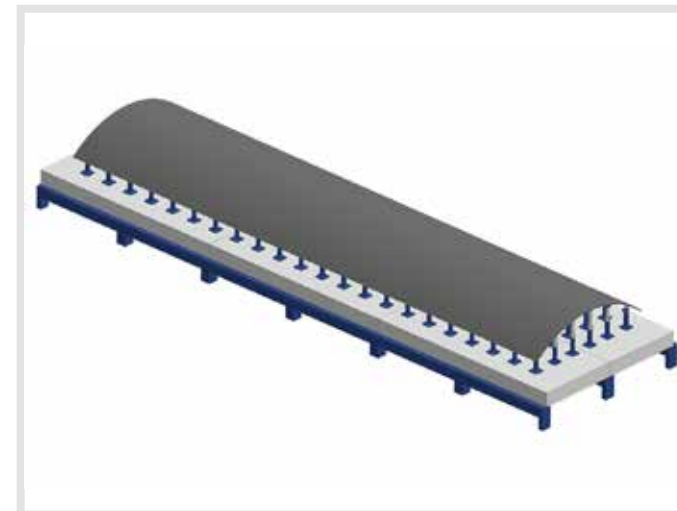
Modular pallet arrays can hold multiple parts of varying size and shape, including those with concave surfaces and 90° angles.



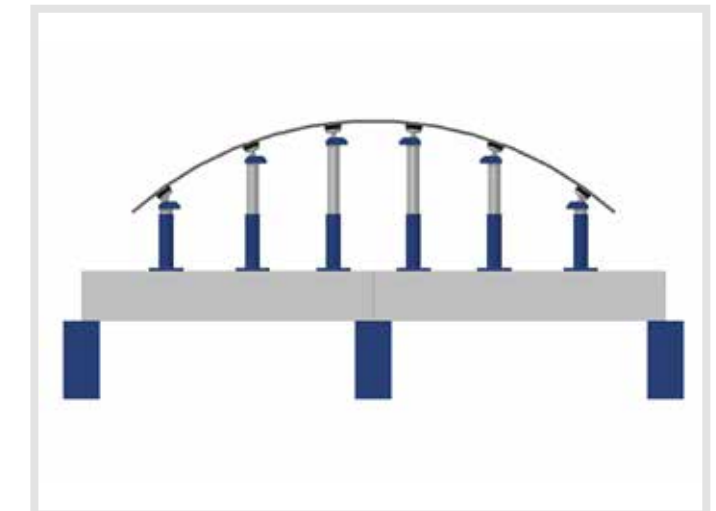
Double end effectors mounted on standard pallets tilt 90°, a capability previously available only from limited-use winged tables or by manually installing adapters.



AccuLoc6 system holding a composite wing spar for a commercial airliner.



Fuselage panel is held from its concave surface, a capability which previously required hard tooling.



An end view of the concave fuselage panel, made possible by the C-axis adjustability of single round end effectors.

Our Story

AccuLoc6 was born out of the desire to offer a comprehensive solution to the many problems experienced with traditional flexible tooling systems. With years of experience in the industry, we have a deep understanding of the problems and limitations associated with traditional tooling systems.

Advanced Machine Works (parent company to AccuLoc6) was founded by Larry Kirby and Mike Huckaby. Larry Kirby has designed automation systems for the aerospace industry for over 20 years and is the inventor of the patent pending AccuLoc6 system. Mike is President of Industrial Controls of Oklahoma which was founded in 1980 and is one of the largest industrial electrical contractors in Oklahoma.

Our Mission

Our mission is to radically transform flexible tooling systems, not just provide a marginally better solution. We build systems that are not only extremely accurate, but also readily verifiable so that high value parts can be machined with confidence; Systems that are flexible in the truest sense of the word, capable of holding every part on every project; Systems that are unaffected by moisture or dust, with service-lives measured in decades rather than years; Systems that adapt to existing machining cells and facilities, not the other way around.

REVOLUTIONIZE YOUR BUSINESS

Invest in the future of Flexible Tooling

VISIT US ONLINE AT

www.AccuLoc6.com

OR CONTACT US AT

(918) 884-3750

info@AdvancedMW.com