

The evolution of **contrast management**



The ACIST Pro™ System is a next-generation variable-rate contrast management system designed for precise delivery of contrast media in interventional cardiology.

This evolution in contrast delivery provides the diagnostic reliability clinicians have come to expect from ACIST—with several important enhancements to drive even more clinical and economic value.



Discover why the ACIST Pro™ System is your tech-forward solution to **efficient, safe, cost-effective contrast delivery**.

Elevate cath lab standard of care



Measurable ease and efficiency

Significantly faster set up

It takes 33% less time to set up the ACIST Pro™ Diagnostic System compared to ACIST CVi™. A faster filling syringe, new peri-pump design, flush bag and user-friendly interface may all contribute to reduced set up times.

Workflow consistency and reduced learning curve

The system provides step-by-step guidance with visual prompts throughout set up, injections and top troubleshooting scenarios.

On-screen troubleshooting

Step-by-step details and visuals facilitate resolution of the most frequent troubleshooting scenarios, potentially reducing downtime.

Real-time contrast tracking

Prominent contrast utilization display and customizable target limits simplifies dose management in a busy cath lab.

Smart detection of disposables

The ACIST Pro™ Diagnostic System identifies the specific tubing installed on the system and streamlines set up by reducing purge times.



Set up and workflow
simplified



Flexibility and customization
improved



Commitment to safety and
savings **continued**



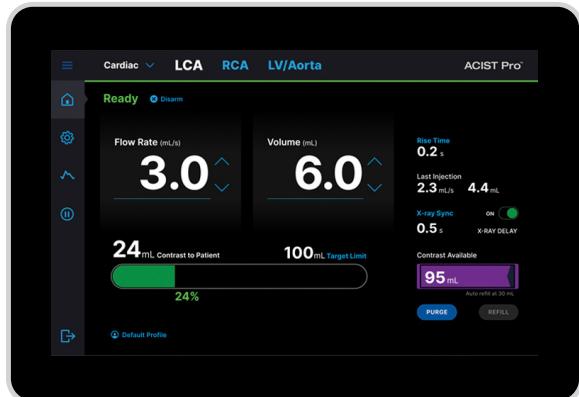
Smart detection
technology



Improved flexibility and customization

The system provides multiple installation configurations to facilitate flexible lab integration with a broader accessory portfolio. This includes:

- Injector height adjustment
- Touchscreen placement (on bedrail, on injector)
- Processing unit positioning (on floor, on bedrail)
- Multiple hand controller configurations (with optional AngioTouch Module)
- System installation on cart



AngioTouch Hand Controller

The AngioTouch Hand Controller standardizes variable rate injections through uniform hand controller responsiveness. This provides consistent contrast flow rate delivery between users through standardized calibration.



Consistently controlled flow rates

The next-generation design improves flow rate consistency during injections that are near to the pressure limit. This reduces potential for failed image acquisition due to lack of contrast, resulting in consistent image acquisition.

Customized profiles

Profiles streamline image acquisition during a procedure; physicians or labs can customize presets for common procedures.

Continued dedication to safety and savings

Up to
96%
reduction
in radiation exposure¹

The AngioTouch Module may reduce radiation exposure to the operator by up to 96%.*

Up to
30%
reduction in CI-AKI
vs. manual injection^{2,3}

Savings
in contrast, time and, potentially,
training due to ease of use, deliver
incremental short- and long-term
cost benefits

Approximately
45 mL
decrease per case
when injector is used³

Automated
air detection

The air column detect feature mitigates the potential for air injection during procedures.

Up to
48%
reduction overall contrast use
(includes waste)^{**4}

5 min
overall average
faster per procedure⁵

* Radiation reduction dependent on where the user stands and placement of the hand controller connection on the bedrail.

** Based on a single cardiac catheterization lab.

Product and Technical Specifications

ACIST Pro™ Diagnostic System

| Flow Rates | | | | |
|--|--|---|--|--|
| Contrast: | User-Responsive, pre-set Variable and Fixed rates from 0.1 to 25 mL/sec, in 0.1 mL/sec increments | | | |
| Saline: | Fixed rate: 1.6 mL/sec for a maximum time of 10s | | | |
| Volume | User-Responsive, pre-set limits with variable range of 0.1 to 95.0 mL, in 0.1 mL increments | | | |
| Syringe Pressure Limits | User Defined from 200 to 1200 psi in 50 psi increments | | | |
| Fill Rate | Manual or automatic refill at 4 mL/sec | | | |
| Rise Time | 0.0 to 1.0 sec in 0.1 sec increments | | | |
| Injection Groups (with specific injection types) | Cardiac: LCA, RCA, LV/Aorta Peripheral: Small, Medium, Large TAVR: Aorta, Iliac, Femoral User Defined | | | |
| Monitoring Sensors | Air Column Detect*, Auto-Manifold, Contrast Source Empty, Contrast Syringe Refill, Presence of Syringe, Presence of Saline Tubing, Patient Tubing Identification | | | |
| Imaging Interface Synchronization** | Able to synchronize with most brands of X-ray imaging equipment | | | |
| Injection Delay** or X-ray Delay** | 0.0–99.9 sec | | | |
| Touchscreen | 12.3" width (31.3 cm), 8.5" height (21.6 cm) Color Touch Screen | | | |
| Flexible Mounting Configurations | Table Mount with stationary stem, Pedestal Cart, AngioTouch® Module | | | |
| Pedestal Cart Dimensions | Wheelbase footprint 26 in x 22 in (64.3 cm x 55.1 cm), Height (Lowered) 38 in (96 cm), Height (Raised) 44 in (111 cm) | | | |
| Contrast Syringe | 100 mL | | | |
| External Connections | Hemodynamic Systems (IBP and Ao/ECG Signal), X-ray Systems | | | |
| Component Weights | Injector: 23.37 lb/10.6 kg | Processing Unit: 19.27 lbs/8.74 kg | Processing Unit Bed Mount: 3.69 lbs/1.67 kg | Injector Bed Mount - small: 3.85 lbs/1.75 kg |
| | Touchscreen: 7.74 lbs/3.51 kg | Display Bed Mount: 1.59 lbs/ 0.72 kg | AngioTouch Module: 2.75 lbs/1.25 kg | Injector Bed Mount - large: 4.29 lbs/ 1.95 kg |
| Power Requirements | Standard: 100 - 240 VAC, ~ 50 - 60 Hz, 10 A maximum | | | |
| Disposable Kit Configurations | | | | |
| Contrast Syringe*** | Syringe with contrast spike, contrast tubing and slide clamp (For contrast agents with viscosity of 4.6–26.6 cP) | | | |
| Contrast Syringe (low viscosity)*** | Syringe with contrast spike, contrast tubing and slide clamp (For contrast agents with viscosity of 1.0–15.0 cP) | | | |
| AngioTouch Hand Controller & Tubing | AngioTouch hand controller, injection line tubing with RFID (Radio Frequency Identification) tag and 3-way stopcock | | | |
| Auto-Manifold and Transducer | Integrated system with automated isolation-manifold, low-pressure tubing and saline spike, supplied pressure transducer cartridge and flush bag | | | |

* The air column detections sensor is designed to aid the user in the detection of air columns in the injection line, but is not designed to replace the vigilance and care required of the operator in visually inspecting for air and clearing air.

** Available in Cardiac, Peripheral or User Created group.

*** Can be used in up to 5 consecutive cases

1. NU-CLAIM-41. 2. Call J, Sacrinity M, Applegate R, Little W, Santos R et al. (2006) Automated contrast injection in contemporary practice during cardiac catheterization and PCI: effects on contrast-induced nephropathy. *J Invasive Cardiol* 18 (10): 469-474. 3. Minsinger KD, Kassis HM, Block CA, Sidhu M, Brown JR (2014) Meta-analysis of the effect of automated contrast injection devices versus manual injection and contrast volume on risk of contrast-induced nephropathy. *Am J Cardiol* 113 (1): 49-53. 4. Shakir MA, Garratt KN, Wimmer NJ. Impact of ACIST CVi contrast delivery system on iodinated contrast media administration and waste. *J Invasive Cardiol*. Published online May 24, 2024. doi:10.25270/jic/24.00150. 5. Lehmann C, Hotaling M (2005) Saving time, saving money: a time and motion study with contrast management systems. *J Invasive Cardiol* 17 (2): 118-121; quiz 122.

See the instructions for use for complete indications and safety information.



Important Safety Info: The ACIST Pro™ Diagnostic System is designed to be used by a physician to inject contrast media and saline during angiography. It should be used with appropriate radiographic imaging and blood pressure monitoring and electrocardiogram. Additionally, standard equipment for cardiopulmonary resuscitation and drugs for the treatment of contrast media-induced drug reactions should be available. The ACIST Pro system must be operated by or be under the immediate and direct supervision of a physician trained in angiography and the operation of this unit. For maximum safety, use only material provided by ACIST Medical Systems in conjunction with ACIST Pro. Please refer to the Instructions for Use for more important safety information. Contamination of patient kits or the contrast container septum poses a risk of serious patient injury due to infection. If suspected contamination has occurred, replace the affected item.

An air embolism can cause patient injury or death. **The operator must take care and follow a defined procedure consistent with the ACIST Pro Instructions for Use; this is essential to avoid injecting air and**

causing an embolism. Before injections, clear all air from the entire patient kit and the angiographic catheter. **It is necessary to reference the ACIST Pro Instructions for Use to review all important safety information relating to the device, and particularly to the prevention of air embolisms, as the ACIST Pro's sensor systems are not designed to replace the vigilance and care required of the operator in preventing such events.**

Use extreme care when setting the flow rate. High flow rate injections can cause patient injury or death. **When high flow rate injection is required, select a pressure setting that does not exceed the catheter's pressure rating.** The maximum pressure rating of the ACIST Pro system is 1200 psi. ACIST Pro, VeraPro and AngioTouch are trademarks of ACIST Medical Systems, Inc. ACIST Medical Systems, Inc. reserves the right to modify the specifications and features described herein or discontinue manufacture of the products described at any time without prior notice or obligation. Please contact your authorized ACIST sales representative for the most current information.

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