

Automated Tip  
CONDITIONING SYSTEMS

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## Welcome to Becker Robotic, where innovation meets reliability!

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With over 30 years of experience, headquartered in Germany and supported by a strong global presence, we provide advanced technology solutions for modern industrial applications. Our portfolio includes energy supply systems, robotic equipment, engineering services, motion and stationary cables, and high-quality industrial equipment.

Through our worldwide network, we deliver reliable, high-quality solutions to industrial customers across the globe. From product development and engineering design to manufacturing, project support, installation, and system optimization, we offer end-to-end services that enhance performance and maximize uptime in automated production environments.

Partner with us to drive innovation and shape the future of automation.

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CT8268-S

## Auto Tip Dresser - Standard

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- High trimming torque (rated output torque: 46N\*m) and high revolving speed (trimming period:1s).
- High-tenacity blade and high wear-resistance blade are optional.
- It can be switched to either horizontal or vertical installation (Type V, Hand T supported).
- Outsourced parts with exquisite workmanship and strict standard (SIEMENS Phoenix, SMC, THK and NSK).
- Customized swing arm type tip dresser is available upon request.

# CT8268-S

## Auto Tip Dresser - Standard

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### Technical Parameters

|                      |                   |
|----------------------|-------------------|
| MODEL                | CT8268-S          |
| Drive Mode           | Gear              |
| Power Supply         | 3ph/AC 380-420V   |
| Frequency            | 50/60 Hz          |
| Speed                | 246 rpm           |
| Rated Output Torque  | 46 N*m            |
| Rated Power          | 1.2 KW            |
| Solenoid Valve       | DC24V 4.5W 2.0MPa |
| Motor Floating Range | ±15mm             |
| Net Weight           | 49 KG             |
| Gross Weight         | 61 KG             |
| Packing Size         | 115*61*66cm       |

## CT8268-DC Auto Tip Changer

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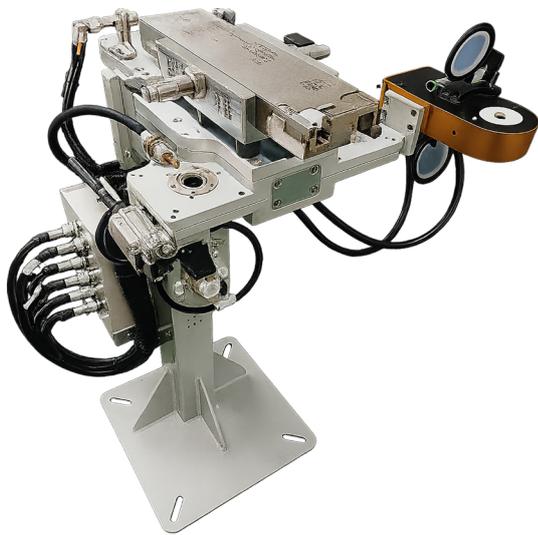
- **Seamless Connectivity:** External ports support hard-wired I/O control and multiple bus options, delivering flexible integration for diverse production environments.
- **Modular Excellence:** Designed with independent functional modules for cap removal and installation. This smart architecture ensures smooth operation, adaptability, and maximum reliability.
- **Precision Cap Removal:** Equipped with dual forward and reverse tip-removal wheels, the system removes electrode caps from both movable and fixed arms without damaging electrode rods—guaranteeing consistent welding quality.
- **Intelligent Automation:** A robust sensor network provides real-time feedback for every action, ensuring flawless coordination between welding guns and robots—completely eliminating the need for human supervision



Auto Tip Changer

# CT8268-DC Auto Tip Changer

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Auto Tip Changer with Cap Tip Inspector

## Technical Parameters

|                             |               |
|-----------------------------|---------------|
| MODEL                       | CT8268-C      |
| Input Air Source            | 0.4-0.6MPa    |
| Height Adjustment           | 70-110cm      |
| Magazine Capacity           | 10 pairs      |
| Electrode Size              | 13-20mm       |
| Control and Feedback Signal | DC24V PNP/NPN |
| Net Weight                  | 60 KG         |
| Gross Weight                | 65 KG         |
| Packing Size                | 115*61*66cm   |

- **Premium Build Quality:** Engineered with a scientific design and manufactured using top-grade materials and components from leading global and domestic brands. Built to last, it delivers unmatched durability and performance for fully automated welding systems.
- **Ready for Any Environment:** Waterproof construction ensures reliable operation even in the harshest industrial conditions.

## CT8268-STP/STDM Swing Arm Tip Dresser

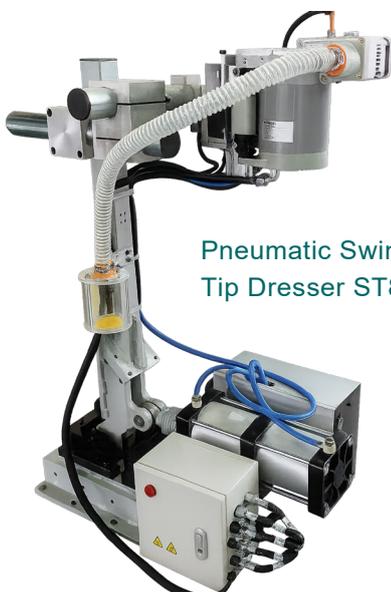
The Swing Arm Type Tip Dresser Unit is designed for dressing the stationary robotic spot welding guns, providing high precision and operational stability in automated welding environments.

The unit offers flexible drive options, supporting either pneumatic cylinder drive or servo motor drive configurations according to the customer's application requirements.

A secondary floating mechanism can be optionally integrated to further enhance alignment accuracy and compensation performance during the dressing process.

A comprehensive sensor system is incorporated throughout the unit. Each operation command—synchronized with the welding gun and robot—is equipped with confirmation feedback, ensuring stable, reliable, and fully automatic operation without the need for human supervision.

The swing arm flipping angle and dressing position are both adjustable, allowing precise adaptation to various welding gun structures and installation conditions, effectively improving operation efficiency and system compatibility.



Pneumatic Swing Arm  
Tip Dresser ST8268-STP



Servo Motor Swing Arm  
Tip Dresser ST-8268 STDM

### Technical Parameters

|                             |                                     |
|-----------------------------|-------------------------------------|
| MODEL                       | CT8268-STP/STDM                     |
| Drive Mode                  | Gear                                |
| Swing Drive                 | Pneumatic/Servo Motor               |
| Power Supply                | 3ph / AC 380–420V                   |
| Frequency                   | 50 / 60 Hz                          |
| Air Source                  | 0.4–0.6 MPa oil-free compressed air |
| Control and Feedback Signal | DC 24V PNP/NPN<br>Optional          |
| Dressing Speed              | 230 / 460 rpm                       |
| Rated Output Torque         | 25 / 50 N·m                         |
| Rated Power                 | 1.2 KW                              |
| Net Weight                  | 160 KG                              |
| Gross Weight                | 170 KG                              |
| Packing Size                | 145 × 111 × 70 cm                   |

## DATD8268-DATD

### Mobile Auto Tip Dresser

The Mobile Tip Dressing Unit is designed for simultaneous dressing of the upper and lower electrode caps, ensuring precise alignment of the electrodes after dressing and significantly improving overall dressing efficiency.

The unit is equipped with a floating shock absorption mechanism as standard, effectively reducing the impact forces generated between the tip dresser and the welding gun during operation. This design allows the system to automatically adapt to variations in the dressing position, ensuring smooth and stable performance.

Featuring a high-torque drive system (rated output torque: 39.2 N·m) and high rotational speed (typical dressing time: 1 second), the unit is suitable for use with manual type spot welding guns, robotic spot welding gun or stationary spot welding gun electrode dressing applications.

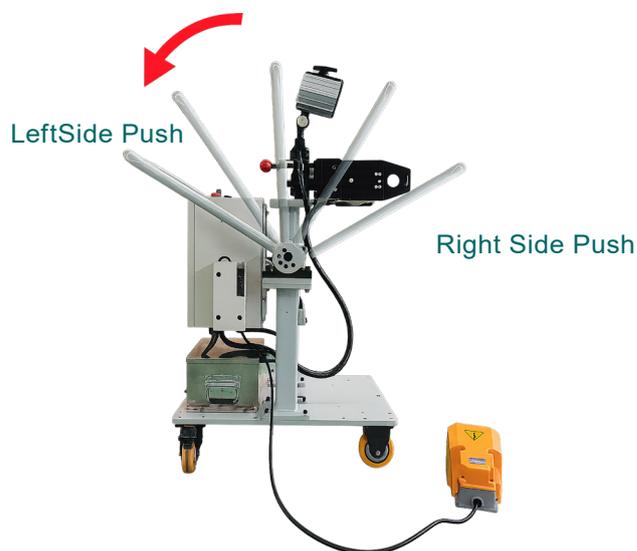
The installation height of the main dressing unit is adjustable, enabling flexible conversion between horizontal and vertical orientations to meet various space and layout requirements on the production line.

#### Technical Parameters

|                     |                 |
|---------------------|-----------------|
| MODEL               | DATD8268-MTDB   |
| Drive Mode          | Gear            |
| Power Supply        | 3ph/AC 380-420V |
| Frequency           | 50/60 Hz        |
| Dressing Speed      | 230/460 rpm     |
| Rated Output Torque | 25/50 N*m       |
| Rated Power         | 780W            |
| Adjustable Height   | 850+/-150MM     |
| Net Weight          | 85 KG           |
| Gross Weight        | 105 KG          |



All key components are sourced from renowned international suppliers, including SIEMENS, Phoenix, SMC, THK, and NOK. These premium-grade parts, manufactured to strict BECKER quality standards, ensure exceptional reliability, durability, and long-term operational stability of the equipment.



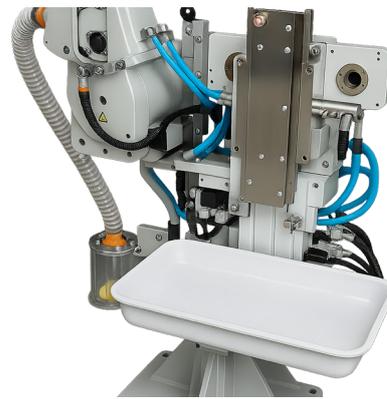
CT8268-DC

## Auto Tip Dresser & Changer Combo Set

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V-Type



T-Type

The Combo Unit is equipped with external ports that support hard-wired I/O control as well as various industrial bus communication interfaces, according to system requirements.

The Combo Unit adopts a modular functional structure, consisting of three independent modules:

- Dressing Module
- Cap Removing Module
- Cap Installing Module

Each module operates independently without mutual interference. This modular configuration effectively improves the adaptability, reliability, and flexibility of the equipment during long-term operation.

### Sensor System and Reliability

The system incorporates a comprehensive sensor network. Each operation command—coordinated with the robot and welding gun—is equipped with confirmation feedback signals, ensuring reliable closed-loop control. This design guarantees the stability and safety of the automated system under unmanned operation conditions.

The Combo Unit features a scientific and robust design, manufactured using high-quality materials and precision-processed components. All key purchased parts are sourced from leading international and domestic suppliers, ensuring consistent quality, long service life, and high operational reliability. The overall design provides strong assurance for integration into fully automatic welding production lines.

CT8268-DC

## Auto Tip Dresser & Changer Combo Set

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### Cap Removing Module

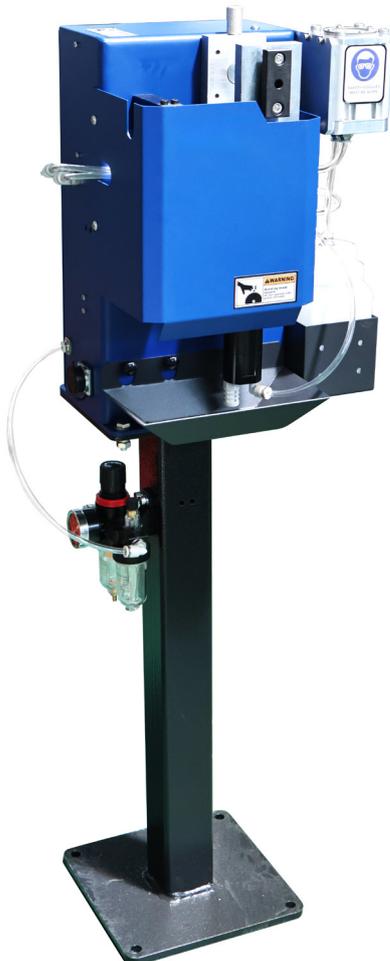
The cap removing module is equipped with two counter-rotating tip-removal wheels, which can simultaneously remove the electrode caps from the movable arm and fixed arm of the welding gun. The removal process is precise and non-destructive, ensuring no damage to the electrode rods, and maintaining the stability, safety, and reliability of the welding system.

### Technical Parameters

|                             |                             |
|-----------------------------|-----------------------------|
| MODEL                       | CT8268-DC                   |
| Drive Mode                  | Gear                        |
| Power Supply                | 3ph/AC 380-420V             |
| Frequency                   | 50/60 Hz                    |
| Dressing Speed              | 230 rpm/460 rpm<br>Optional |
| Rated Output Torque         | 25/50 N*m Optional          |
| Rated Power                 | 1.2 KW                      |
| Solenoid Valve              | DC24V 4.5W 2.0MPa           |
| Motor Floating Range        | ±15mm                       |
| Motor Height Adjustment     | 70-110cm                    |
| Magazine Capacity           | 10 pairs                    |
| Electrode Size              | 13-20mm                     |
| Control and Feedback Signal | DC24V PNP/NPN               |
| Net Weight                  | 84 KG                       |
| Gross Weight                | 94 KG                       |
| Packing Size                | 115*61*66cm                 |

## CT8268-CCT Nozzle Cleaner

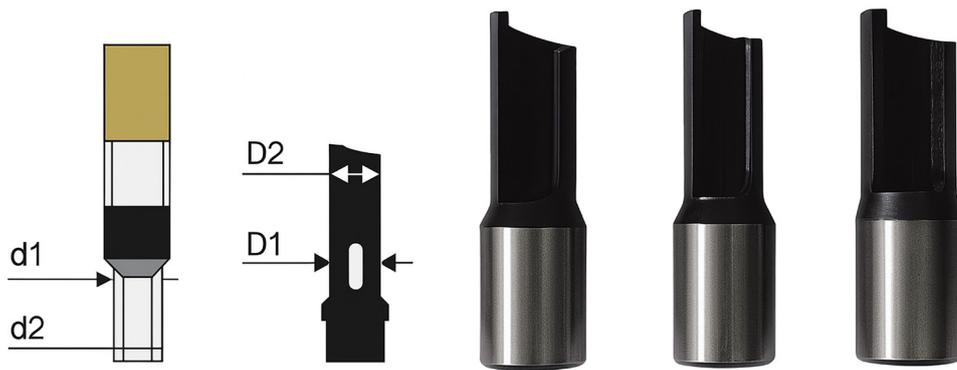
- Three-in-one functionality: Integrates wire cutting, welding gun cleaning, and oil spraying for efficient operation.
- Capable of cutting 1.6mm carbon steel welding wire effortlessly at an air pressure of 0.3MPa, thanks to the reinforced wire-cutting mechanism that remains stable even under air pressure fluctuations.
- The cutting blade can be installed on either the front or reverse side, allowing continued use when one side becomes worn. This design extends blade service life and helps reduce maintenance costs.
- A precision oil sprayer, positioned directly below the welding gun during operation, delivers a fine mist of anti-spatter oil evenly into the gun. The oil film reaches deep into the nozzle base, ensuring thorough protection.
- The sealed oil sprayer assembly prevents environmental contamination and includes an integrated oil return system for recycling residual oil, minimizing waste and operational costs.
- The reamer is made of high-quality alloy steel and treated through nitriding to enhance toughness and achieve a surface hardness above HRC 56, ensuring long-lasting durability and wear resistance.



### Technical Parameters

|                             |                                      |
|-----------------------------|--------------------------------------|
| MODEL                       | CT8268-CCT                           |
| Air Supply                  | 0.4–0.8 MPa dry and compressed air   |
| Air Consumption             | Approx. 10 L/s                       |
| Control Signal Voltage      | U = 24V DC I(max) = 0.15A            |
| Gun Cleaning Process        | Approx. 4–5 s                        |
| Noise Grade                 | ≤ 70 dB                              |
| Volume of Anti-Splash Agent | 500 ml                               |
| Cutting Wire Diameter       | Carbon steel welding wire Max 1.6 mm |
| Spraying Volume of Oil      | 0–5 ml/s (adjustable)                |
| Net Weight                  | 24 kg                                |
| Gross Weight                | 26 kg                                |
| Packing Size                | 85 × 30 × 35 cm                      |

## CT8268-CCT Nozzle Cleaner



| d2                           | d1                           | D1                        | D2                        |
|------------------------------|------------------------------|---------------------------|---------------------------|
| Contact Tip Min Diameter(mm) | Contact Tip Max Diameter(mm) | Reamer Outer Diameter(mm) | Reamer Inner Diameter(mm) |
| 13                           | 6                            | 12                        | 7                         |
| 13.5                         | 8                            | 12.5                      | 9                         |
| 14                           | 8                            | 13                        | 9                         |
| 15                           | 8                            | 14                        | 9                         |
| 15                           | 9                            | 14                        | 10                        |
| 16                           | 8                            | 15                        | 9                         |
| 16                           | 10                           | 15                        | 11                        |
| 17                           | 10                           | 16                        | 11                        |
| 18                           | 10                           | 17                        | 11                        |
| 18                           | 12                           | 17                        | 13                        |
| 19                           | 10                           | 18                        | 11                        |
| 20                           | 10                           | 19                        | 11                        |

### Reamer Options

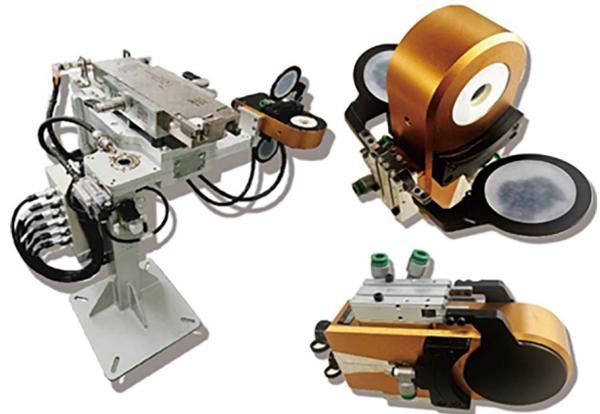
Please choose proper reamer dimensions based on the contact tip and nozzle used:

- The reamer inner diameter should be 1 mm larger than the contact tip outer diameter;
- The reamer outer diameter should be 1 mm smaller than the nozzle inner diameter;
- For reamer with other special size, please contact the manufacturer for customization.



# CT8268-DVI Tip Inspector System

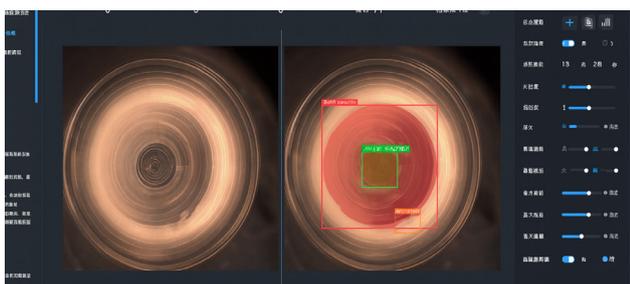
- Designed for spot welding electrode cap quality control after dressing, providing precise measurement of end-face dimensions and position, and detection of surface defects on the electrode cap.
- Features a dust- and dirt-resistant structure equipped with integrated air blades and protective covers to ensure long-term stability in industrial environments.
- Utilizes a non-contact AI optical inspection system combined with AI-driven model training software for continuous optimization of detection accuracy.
- Capable of identifying various defects including black marks, bumps, adhered copper chips, pits, radial lines, oversized or undersized end faces, out-of-round shapes, eccentricity, plum blossom patterns, incomplete or uneven dressing.
- Built with a waterproof design, enabling reliable operation in harsh and demanding working conditions.



## Technical Parameters

|                              |            |
|------------------------------|------------|
| MODEL                        | CT8268-DVI |
| Inspecting Speed             | <1s        |
| Inspecting Accuracy          | 0.01mm     |
| Range of Inspecting Diameter | 12-20mm    |
| Protection Class             | IP67       |

## Inspection Cases



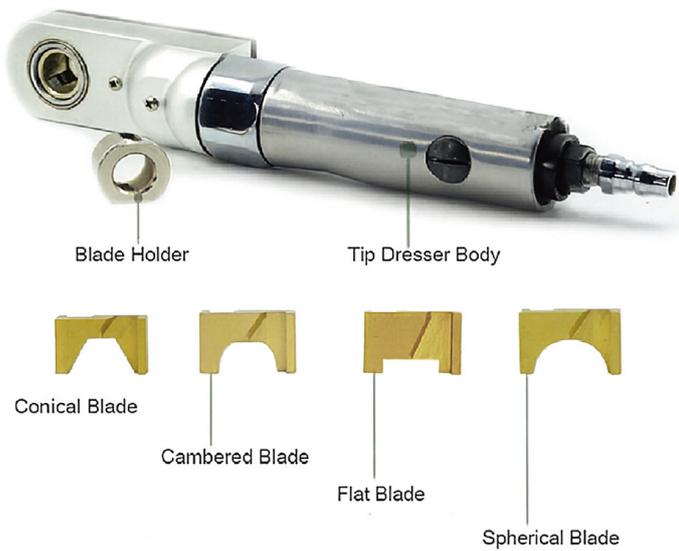
AI Model Training Platform



AI Cap Defect Inspection System

## CT8268-PTS

### Hand-Held Pneumatic Tip Dresser



- Pneumatic single-sided tip dresser is a hand held equipment for manually dressing the electrode of spot-welding gun.
- Drive by pneumatic tool to dressing the surface of the electrode with compressed air as power source.
- Hand Held Pneumatic tip dresser can work on the production line, and is easy to operate, safe and convenient.
- It grinds single-sided electrodes, producing a smooth, shiny electrode surface and a flat end face after dressing, ensuring consistent welding quality.

#### Technical Parameters

|                           |                |
|---------------------------|----------------|
| MODEL                     | CT8268-PTS     |
| Power                     | Compressed air |
| Diameter of Electrode Cap | 8-18mm         |
| Weight                    | 1.5kg          |
| Packing                   | Carton Box     |

#### Related Products Spare Parts



Single/ Multiple Blades Cutter



## Becker Robotic – Global Reach, Local Expertise

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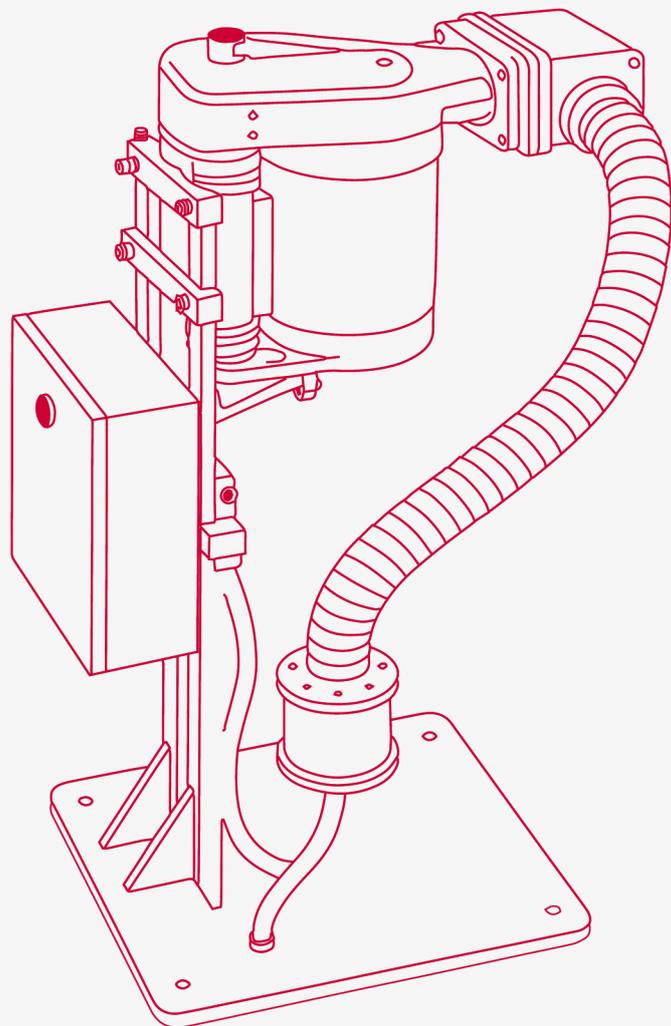
With a commitment to innovation and customer satisfaction, Becker continues to expand its global footprint while maintaining a personalized approach to client engagement. Our team is dedicated to delivering solutions that not only meet but exceed industry standards, driving success for our partners worldwide.



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