

Welding guns portfolio

Many years of experience guaranteeing expertise, precision, and reliability

Long term experience is engraved into every one of our best-in-class products and technologies. This, coupled with a steadfast commitment to innovation, continuously drives Comau to widen our offer to meet customers' performance targets and evolving needs by anticipating their requirements.

"Facts are in our focus, as we believe that being concrete is the motor behind the tangible products and avant-garde solutions that we design and develop."

OUR WELDING GUN FAMILY

N-WG C-type / X-type (steel joint)

Comau N-WG welding guns are the result of our ability to listen to our customers and deliver a new paradigm in enhanced modularity, easier reconfigurability and improved ease of use. With a single body able to cover the complete range of welding guns, the fast change arm eliminates the need to stop production when replacing tools or parts – all while guaranteeing high-speed functionality, quality, cost effectiveness and process efficiency.

Modular and symmetrical, N-WG welding guns are designed to reduce spare parts and procurement lead times. They also ensure lower water and power consumption, a lower total cost of ownership, and are available for steel spot welding. The all-new N-WG welding gun sets a new global benchmark for simplicity, reliability, flexibility and low cost.

The patented design is compliant with most major robot brands. In addition, N-WG welding guns ensure lower total cost of ownership thanks to their highly competitive initial investment expenditure and lower operating, spare parts and consumption costs.

Comau welding guns are designed to deliver optimal performance and high repeatability day after day, year after year.

| N-WG Main Characteristic | |
|--------------------------------------|---|
| Body weight | 78kg |
| MFDC Transformer | 100 KVA at 50% DC |
| Welding Force | X-type 560 daNm / C-type 800 daN |
| Actuator Max. Force | 20kN |
| Transformer Type | ISO |
| Body Styles Number | 1 |
| Cooling Efficiency | up to 9l/min (X type) up to 9.7 l/min (C type) |
| Equalizing | by SW |
| Feedback for adaptive quality system | Voltage |

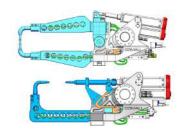
- Unique body for standard and high-force welding guns
- Fast reconfigurability between X and C
- Fast arms exchange
- Lower Total Cost of Ownership
- Designed for simplified maintenance and fewer spare parts
- MTTR is less than 10 minutes
- Improved water flow, rationalized fittings and a streamlined cooling system
- Reduced energy and water consumption
- Design life 30 million cycles



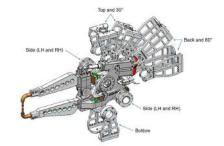
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Quick arm exchange is facilitated thanks to the new design featuring a dedicated clamp and modified gun arm structure



The transformation from X to C (and vice versa) is fast and easy. Simply change a single module, pulley and belt.



Universal mounting positions: top, back, bottom, side, 30° and 60°

N-WG features

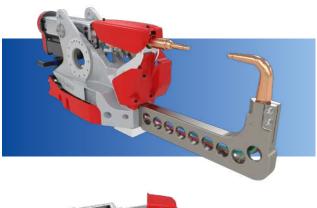
Comau provides a full range of standard gun arms (small, medium, large and extra-large).

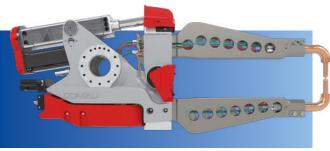
For specific requirements, Comau engineering supports customers in the modeling and designing of special gun arms. The 3D model shape can also be simulated and tested before the manufacturing launch to verify absolute process reliability.

- Available with ø16 or ø20 caps
- Complete with cover (optional)
- Integrated solution with Comau Robots (Welding Machine)
- Mountable on any robot brand

3D library means reduced delivery lead time:

- No design required
- Kinematic available for Robcad simulations





FEATURES

- Robotic versions
- Comau patented system
 - Standard arm library
- Reduced quantity of spare parts
- No external cables
- Mountable on any robot brand
- Full range of force application covered by a single body
- Extensive standardization of components, reducing inventory cost, lead time
- Effective Digital Twin
- Fully integrated on Comau N-Series and NJ4 robots (welding machine)
- X & C type

Basic Configuration

- Comau Servo Actuator
- MFDC transformer for steel joint
- Robifix multi-contact primary power connection
- Connection Box for I/O management
- Distributor for water connection
- Bracket Standard types (for fixing the gun to the robot flange)
- Secondary voltage feedback for adaptive quality system (for steel)

Options

- Custom "Product / Process" special arms
- Special bracket design
- UL compliant Modular Covers

| Specifications | |
|---------------------|------------------------|
| Design life | 30 Mil. cycles |
| MTTR | 10 minutes |
| Cooling requirement | 8 I/min series circuit |

Spot Welding Machine

When talking about spot welding applications, we share the customers' mind-set. The request is to reach efficient results in the easiest way.

The answer is what we call the Comau Spot Welding Machine: a complete package designed to multiply the advantages of integrated solutions.

Comau is a global supplier of Advanced Robotics*, providing a complete range of fully tested components to address specific needs.

- Spot Welding Robot with or without Hollow Wrist Technology
- Integrated power supply within Robot arm
- Automatic welding gun
- Spot Welding Box (Bosch Inverter for manual/automatic guns)
- · Smart Spot Application, with adaptive software
- Media panel
- Fixed or swinging Tip dresser with new calibrated cutter
- Automatic cap changer

FEATURES

- Proprietary robotic solution using the N-WG gun
- Configurable with optional accessories:
- (welding box, media panel, Tip dresser, application SW)
- Seamless connection and power supply



- Reduced Total Cost of Ownership (TCO)
- Simplified spare parts management
- Reduced space and energy consumption
- Improved system efficiency and performance
- High density automation is possible
- One partner providing one integrated system





