



JUNE 2023

ABB GWT X9 & C9

Next generation electrically driven servo weld guns

ABB Robotics

**GWT X9 & GWT C9 are part of the 9-series,
the next generation electrically driven
servo weld gun family that offers a wide
range of welding solutions with an
outstanding performance and high uptime**

ABB GWT

Our history – more than 40 years of experience



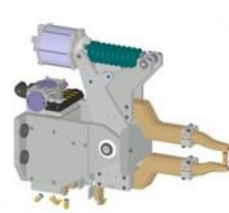
S



SR



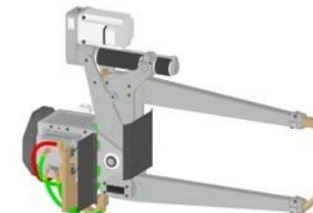
SRT



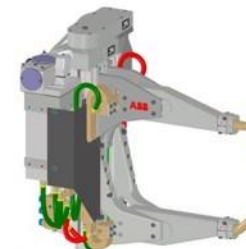
PRT



SRHDT



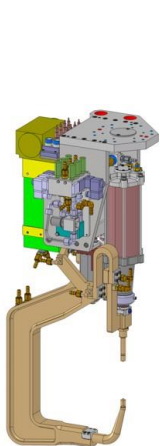
SRT-Millennium



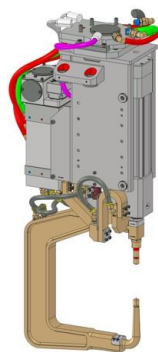
PDRT



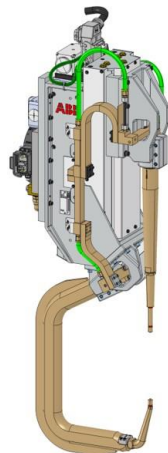
FlexGun X



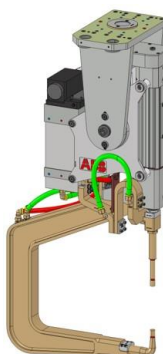
C



CR



FlexGun C



CRT



GWT X9



GWT C9

GWT 9-series

Features and benefits

GWT 9 series brings value

High process speed

Genuine top-quality welds

Outstanding flexibility and reach

Quick commissioning and startup

High uptime

Reduced Total Cost of Ownership



GWT X9



GWT C9

GWT 9-series

High process speed – Top quality

Optimized design

Light weight design

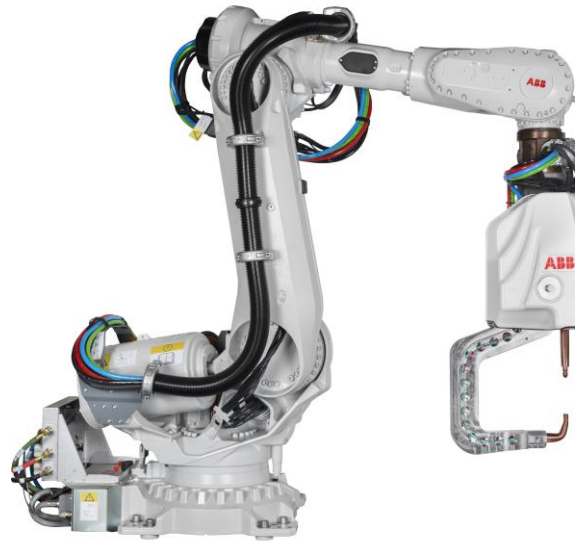
- Increased robot speed – shorter cycle time
- Less limitations when selecting robot version

Gun motion fully coordinated with robot

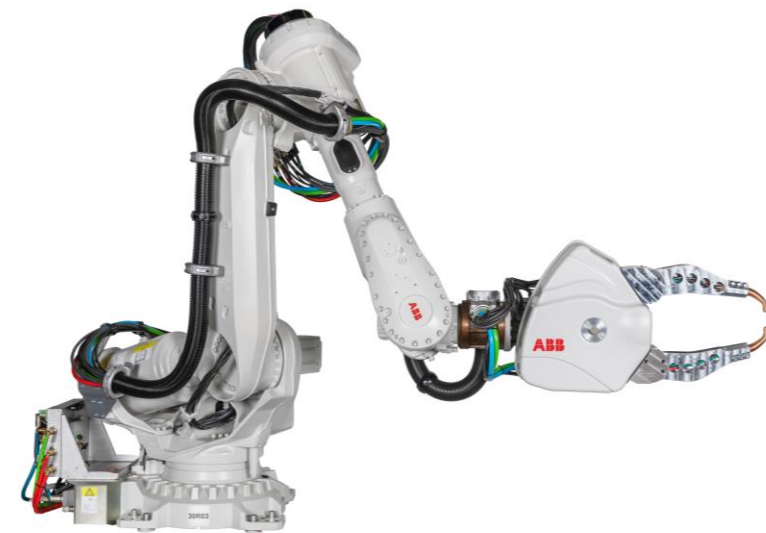
- Minimum time between spots

Arms designed for optimal deflection

- Assures perfect welds over and over again



IRB 6700 with C9



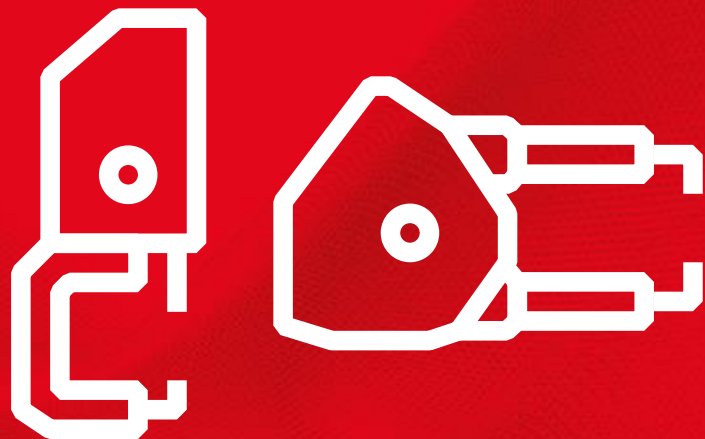
IRB 6700 with X9

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Features and Benefits

GWT 9-series

Benefits in all areas



Support

- Spare parts for complete welding gun
- Experienced technical team
- Single supplier
- Global support



Productivity

- Ready to use
- Quicker start up and commissioning
- Simulation models*
- Higher uptime



Reliable & Flexible Design

- Same compact gun body for all models
- Lightweight
- Various mounting options
- Interface integrated towards ABB robots
- Easy maintenance and replacements
- Adaptable to a wide range of arm sizes and types



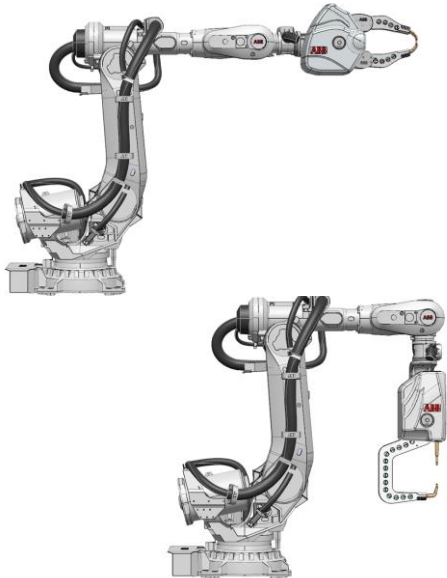
High Performance

- High weld force
- Shorter cycle time
- Optimal deflection
- Motion fully coordinated with robot
- Outstanding flexibility and reach
- Wide range of options selecting robot version

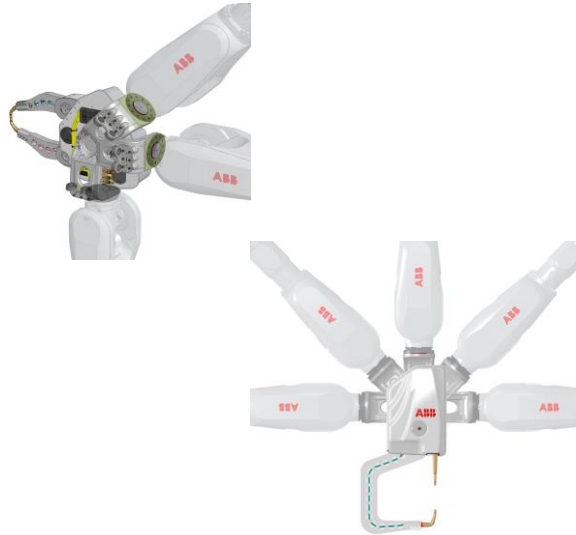
GWT 9-series

Multiple mounting positions and configurations

Robot attached



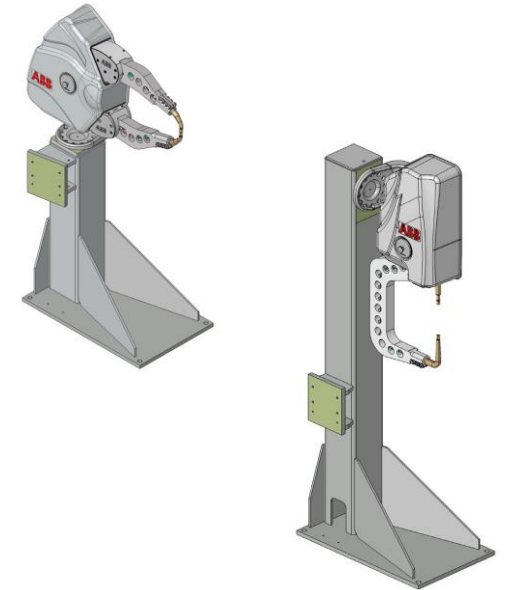
Mounting bracket in multiple angles



Side mounted



Floor mounted



Outstanding flexibility and reach

GWT 9-series

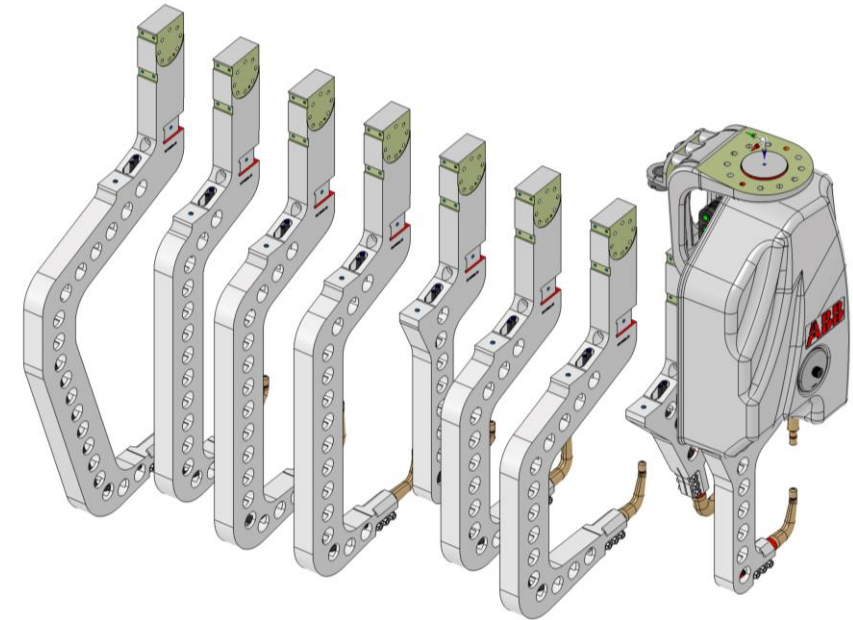
Modular design, arm flexibility and customization

Same compact gun body for all models...



Wide range of C,X- arms available**

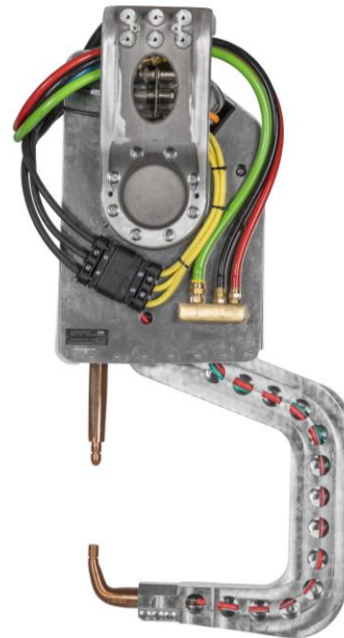
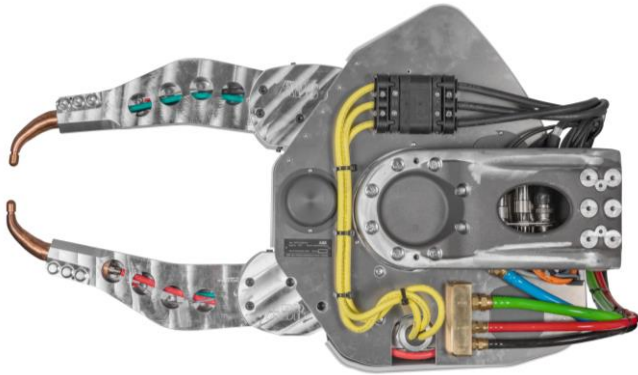
...allowing a wide range of arm sizes and types*



Outstanding flexibility and reach

GWT 9-series

Prepared for LeanID dressing



Quick coupling between gun and robot through a standardized interface for power, signal and water

Prepared for ABB's unique LeanID upper arm dressing

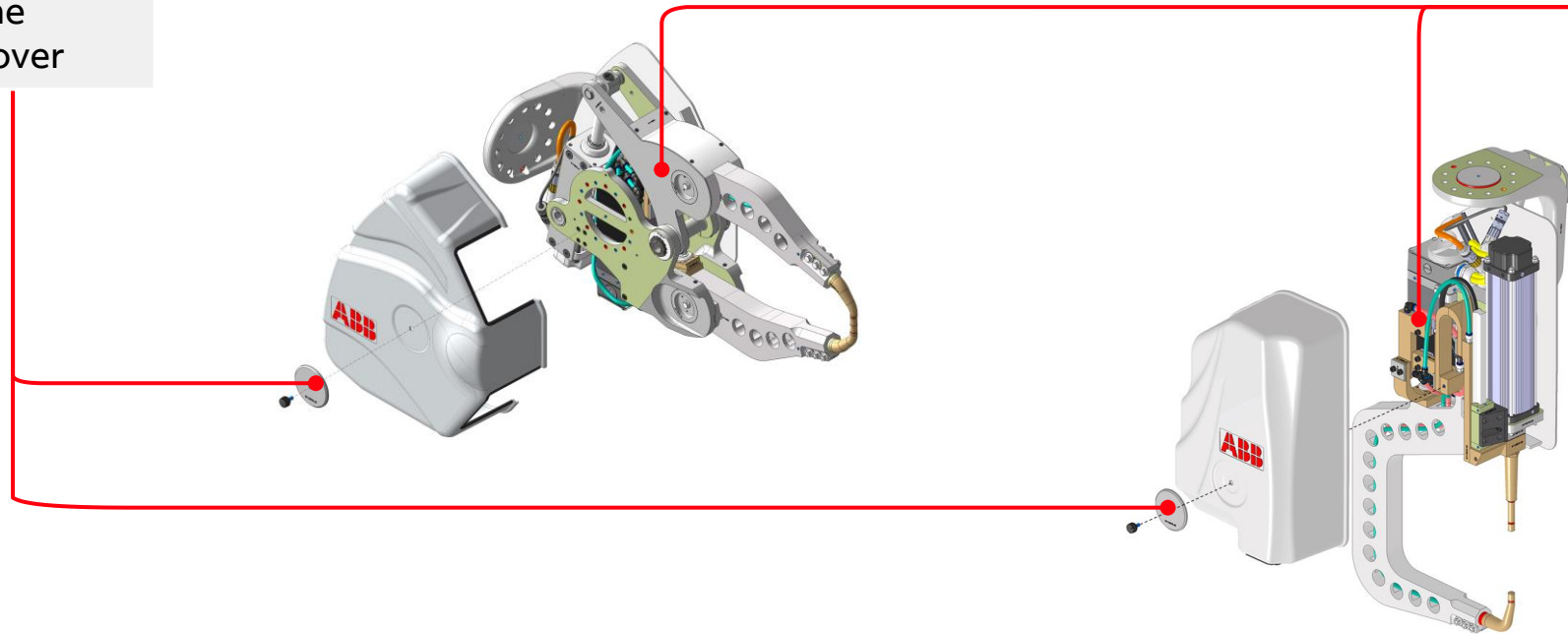
Cables and hoses for connection to the robot is included

Quick commissioning and startup

GWT 9-series

Maintenance and repair

Only one grip screw
to remove the
protective cover

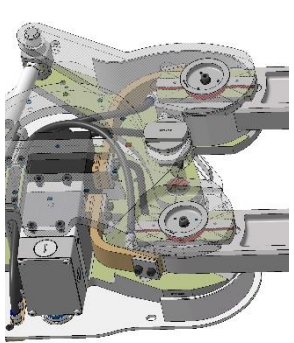


All major parts can be
maintained or replaced
without dismantling the
gun from the robot
wrist

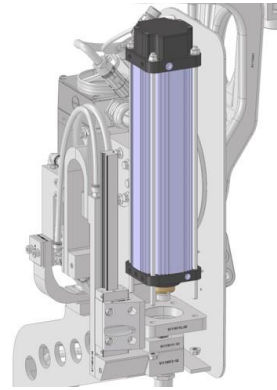
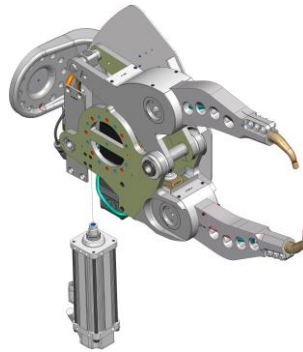
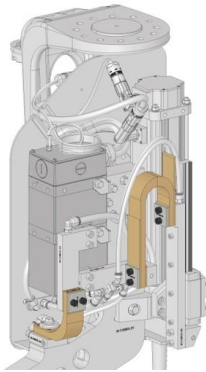
Higher uptime

GWT 9-series

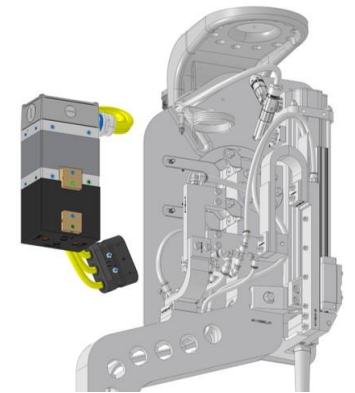
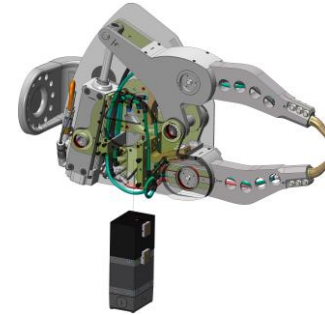
Quick replacements of major components – MTTR<15min



Laminated shunt replacement



Servo drive replacement



Transformer replacement

Higher uptime

GWT 9-series

Spare parts and maintenance

Same gun body for many applications

- Reduced number of spare parts needed

Recommended maintenance interval

- Lubrication after 10 million strokes

Support and spare parts via your local ABB office

- One point of contact



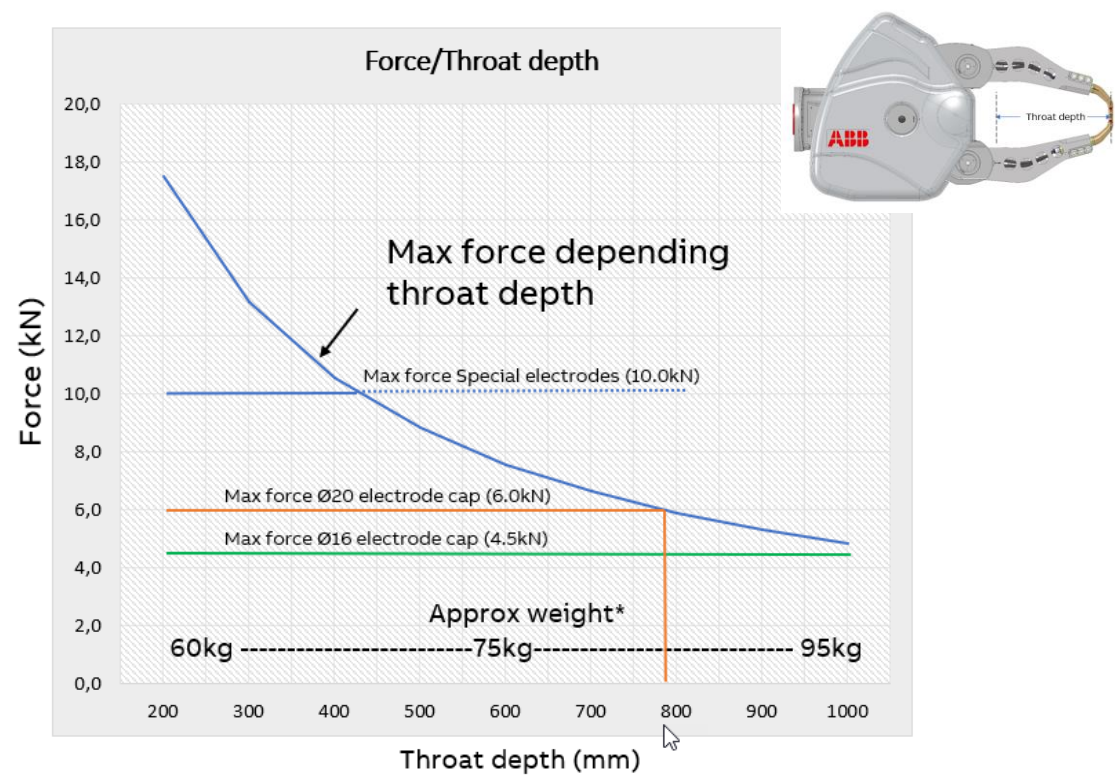
Reduced Total Cost of Ownership

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Standard variants

GWT X9

Standard variants

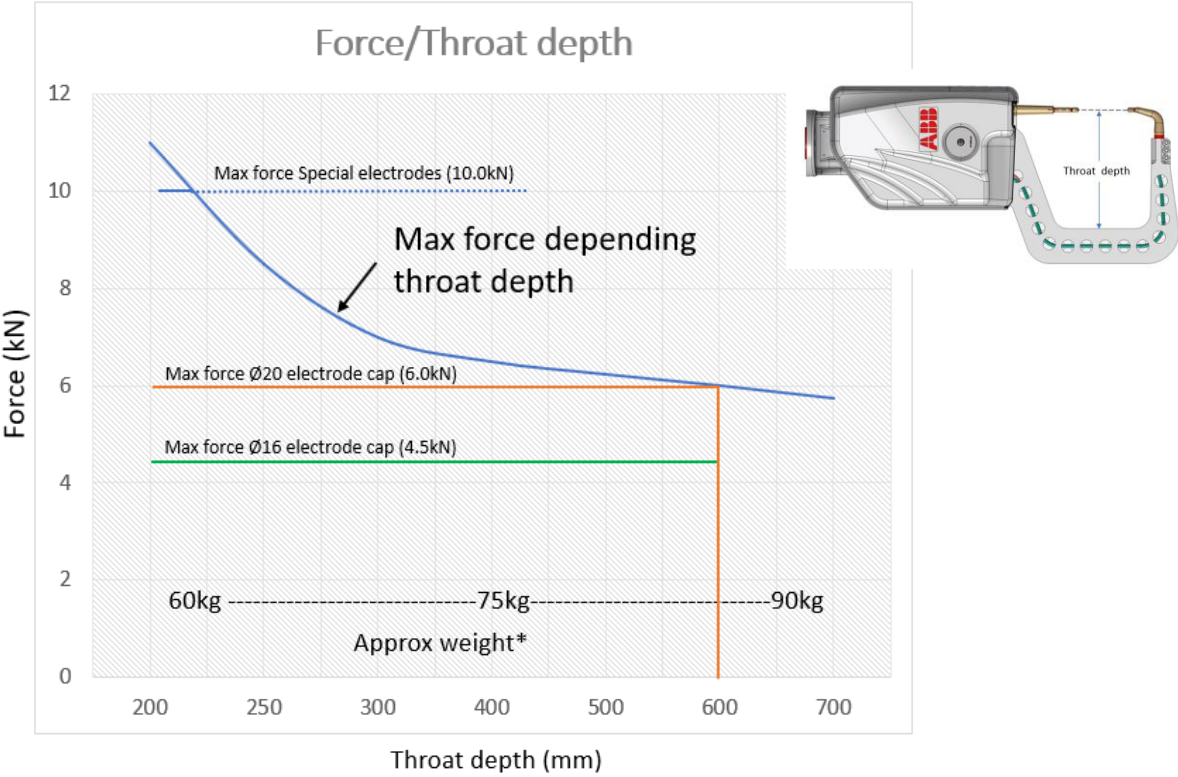


Version	Weight**	Max force	Total arm depth
X9 100	67 kg	800 daN	0 – 100mm
X9 300	76 kg	800 daN	100 – 300 mm
X9 700	87 kg	600 daN	300 – 700 mm



GWT C9

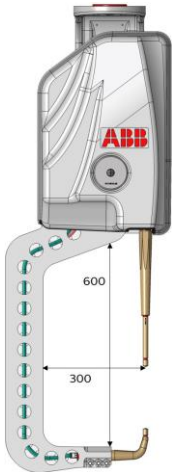
Standard variants



GWT C9 Small



GWT C9 Medium



GWT C9 Large

Version	Weight**	Max force	Total arm height
C9 Small	74 kg	800 daN	0 – 350mm
C9 Medium	75 kg	800 daN	350 – 599 mm
C9 Large	81 kg	600 daN	600 – 1000 mm

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Technical specifications

GWT 9-series

Technical specifications

Basic gun data

Gun force capacity	800 daN
Actuator speed	max. 300 mm/sec
Transformer MFDC	90 kVA (50%)
Cooling water requirements	3-5l/min*
Gun weight	65-99 kg
MTTR	<15 minutes
MTBF	10 million cycles

MFDC Transformer

Primary voltage	600 V
Secondary voltage	11.1 V
Primary Frequency	1,000 – 1,200 Hz
Power (S50)	90 kVA



GWT X9



GWT C9

GWT 9s – Part of the ABB Spot welding Functional Module offer

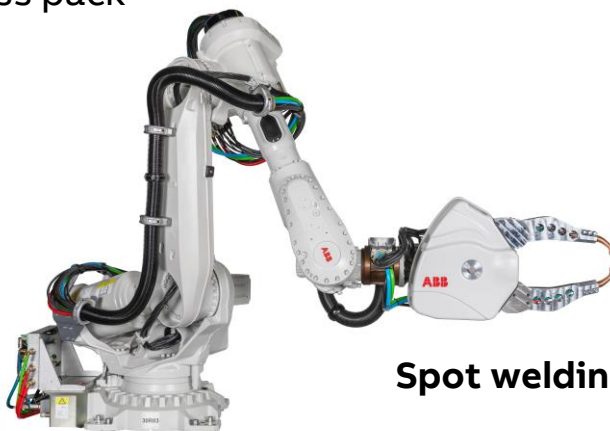
GWT X9

Part of the ABB Spot welding Functional Module – Our complete spot-welding solution



Water and air unit

Lower arm
dress pack



IRB 6700

LeanID upper arm
dress pack

Spot welding gun



Tip dresser



Spot welding
software



Spot welding cabinet

A fully configured, ready-to-use, robot solution delivering high quality and high performance

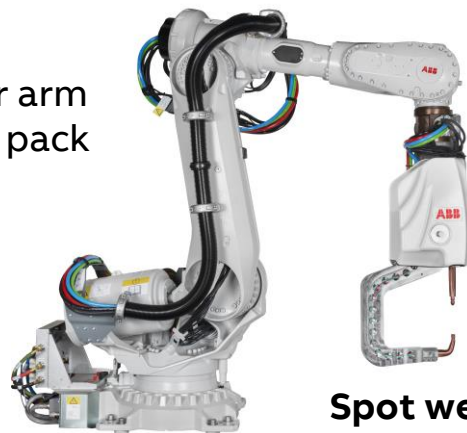
GWT C9

Part of the ABB Spot welding Functional Module – Our complete spot-welding solution



Water and air unit

Lower arm
dress pack



IRB 6700

LeanID upper arm
dress pack

Spot welding gun



Tip dresser



Spot welding
software



Spot welding cabinet

A fully configured, ready-to-use, robot solution delivering high quality and high performance

ABB Spot welding Functional Module

Brings value in all stages: Simplicity and Quality

Concept



Verification via Simulation and RCS models



Complete documentation available from the beginning of the project



Reduced spare parts stock due to standardization



Commissioning



Validated and tested before delivery



Support in one point



Configured & tuned prior delivery

Operation



Single contact point for support & spare parts



Easy to operate, easy to maintain

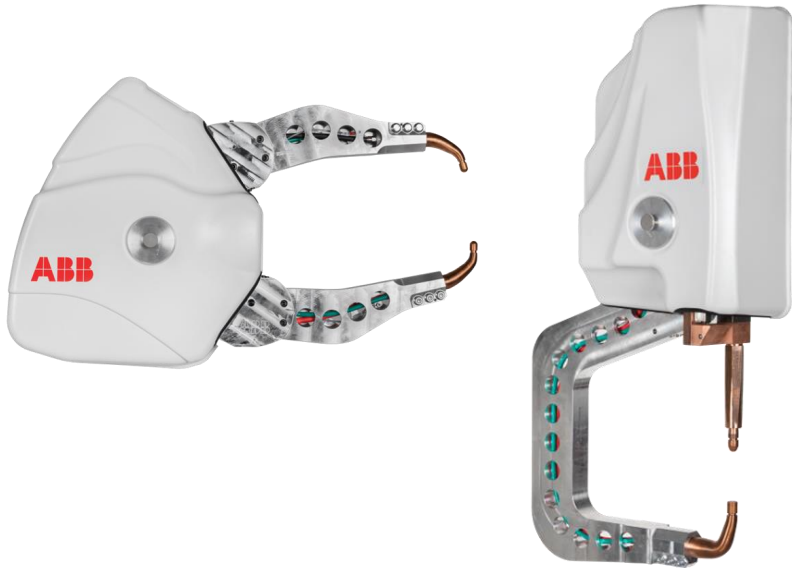


Quick startup

Summary

Next generation Electrically Driven Servo Weld Gun – by ABB

GWT 9-series



- Same compact body for all models
- Adaptable to a wide range of arm sizes and types
- Multiple side mounting options
- Quick gun commissioning
- Integrated Lean ID interface
- Easy maintenance and replacements for all components
- Replacements MTTR < 15 minutes
- Easily removable cover



Shortens
cycle times



Single
supplier



Reduces costs
of maintenance
and ownership



Increases
uptime

ABB