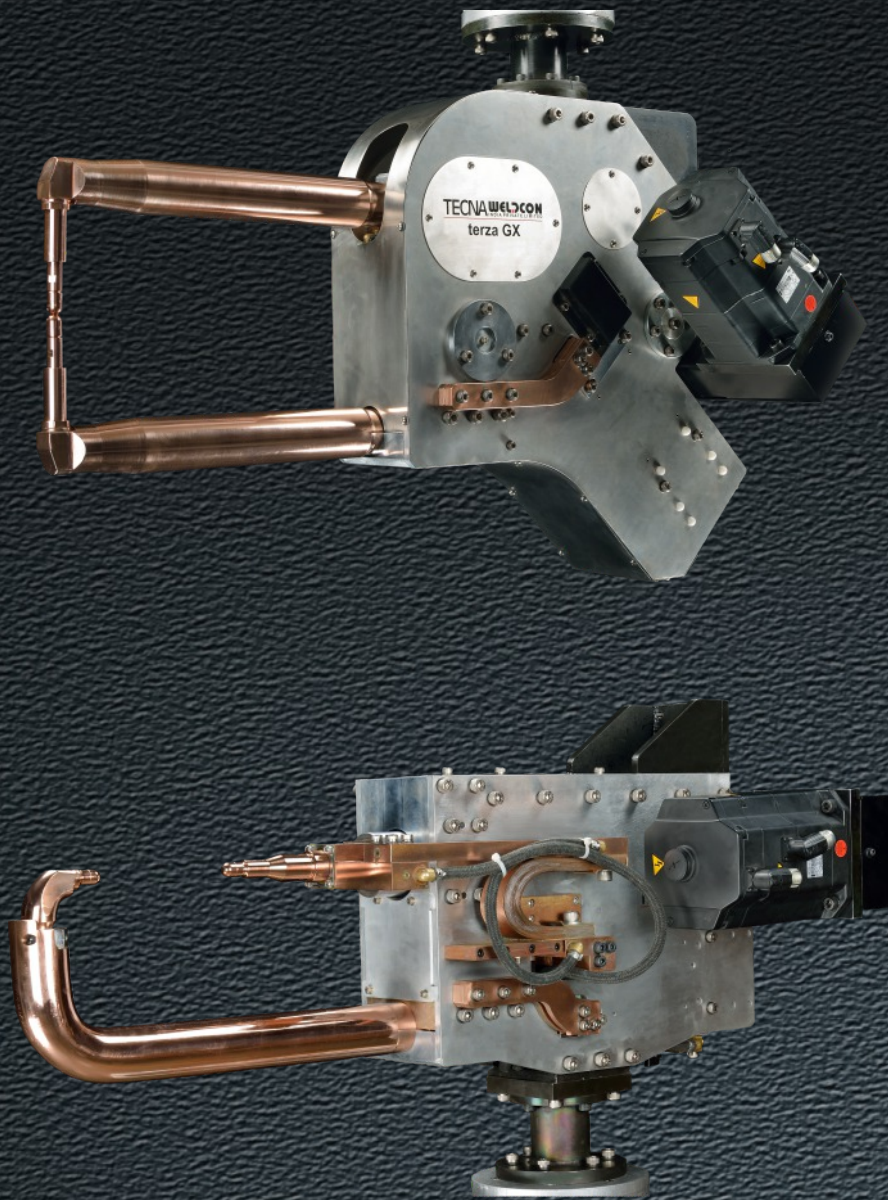


Robot Spot Welding Guns



TECNA WELDCON
INDIA PRIVATE LIMITED

Years long Experience Cast into the Future...!

THIRD GENERATION SERVO ROBOT GUNS

MAIN FEATURES

Design -TECNA Robot guns are designed as per European standards. The unique design can accommodate motor from any robot manufacturer. The compactness, user friendliness and maintainability of Tecna manual guns is carried forward to Robot guns design too. Every part or subassembly of the gun is subjected to life cycle test before accommodating into the product. Modular design enables standard parts for all guns.

Product Range - As per TECNA's philosophy of optimisation ,AC robot guns are available in 32 KVA, 36 KVA, 54 KVA, 60 KVA, 75 KVA & 103 KVA MFDC guns are available in 56 KVA and 90 KVA.

Increase in productivity -The electrode opening can be precisely controlled and travel distance between the spots can be reduced. This results in reduced spotting and traveling time. The electrode opening position can be defined for each spot reducing the opening and closing time of electrodes resulting in reduced spotting time

Precise control on Welding Force - As The welding force is controlled by Current utilized by servo motor, actual force while welding can be controlled precisely. Welding force for each spot can be programmed as per welding requirement of different combination of sheets to be welded.

Inbuilt Force Transducer – To receive real time feedback of Force while welding is also available as option. This is achieved by integrating a Force Transducer built inside the gun mechanism.

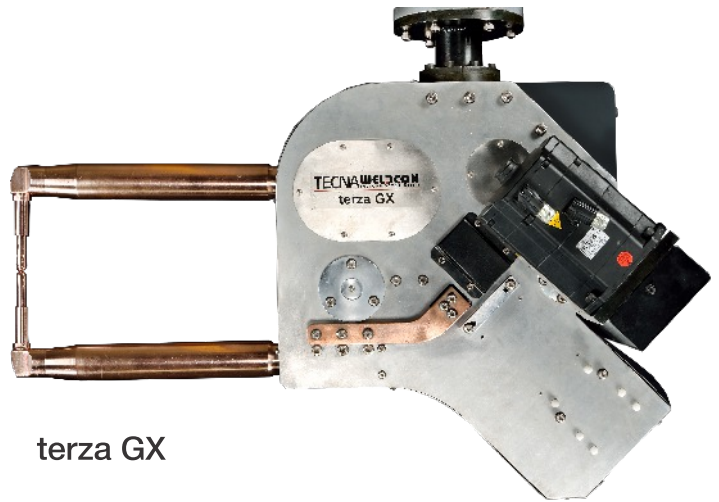
Precise control on Heat Generated (Energy Consumed) while welding - Three important parameters of welding are Current, Time and Resistance. With Tecna constant current secondary feedback Welding Control, Current and time are precisely monitored. The contact resistance is dependant on actual force applied while welding. Servo system controls the force accurately resulting in generating required Heat for welding

Soft Closing - Electrode Closing speed is reduced just before they touch the panel. This results in reduced Dents and increase in electrode life as initial impact of electrodes is avoided.

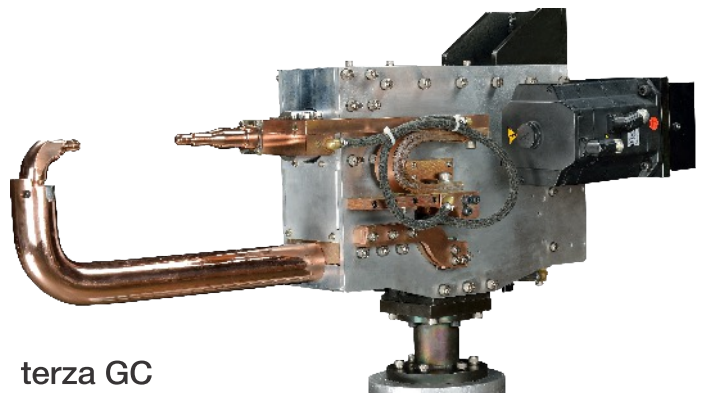
Correct welding position - This servo system can identify Tip wear, Deflection in arms and tip position. This helps for correct welding position of the gun

Environment Friendly - Operational noise of welding gun is reduced by soft closing also they don't produce air exhaust noise.

Conversation with robot - For the convenience of Integrator and robot manufacturer this system is available with various fieldbus options. Interface



terza GX



terza GC

modules for fieldbus DeviceNet, Profibus, Ethercat are available as standard, ensuring compatibility of communication protocol with wide range of Robots

After Sales - USP of TECNA in India is after sales and service support. This continues with regional offices with adequate spares
Options Available

- As a standard Tecna robot guns are supplied with Robot make motor reducing hassles to customer. Option of Tecna Motor is also available.
- As a standard Tecna robot guns are supplied with AC Constant current secondary feedback controller. Option of MFDC control and transformer is also available
- As a standard Tecna robot guns are supplied with Copper arms. Option for Aluminum arms is also available.
- Tecna Robot Guns are also available with Pneumatic and servo pneumatic systems.
- Apart from standard designs, special designs also can be supplied under request.

INVERTER MF CONTROLLER TE700 & AC CONTROLLER TE550



MAIN FEATURES

- Operating frequency : upto 4 KHz
- Various Working Modes :
 - * FIX (Partialisation percentage of the delivered power)
 - * IK (Constant Current)
 - * PWK (Constant Power)
 - * ENE (Constant Energy)
 - * VEK (Constant voltage) (TE700 only)
 - * DYNAMIC MODE (TE700 only)

			Terza GX36	Terza GX54	Terza GX75	Terza GXX75	Terza GXX103	Terza GXM 56	Terza GXXM90
Technology			AC	AC	AC	AC	AC	MFDC	MFDC
kVA @ 50% DC		kVA	36	54	75	75	103	56	90
kVA @ 20% DC		kVA	NA	NA	NA	NA	NA	89	142
Body Weight (W/o Motor, W/o Arms)		Kg	96	105	114	114	127	93	100
No Load Voltage		Volts	6.3	7.1	10	10	13.5	8.4	9.9
Dynamic Performance with Various Actuators									
11kN Actuator Throat Depth 300mm #									
Electrode Force	Gear Ratio 1:1	kN	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Electrode Opening per Revolution	Gear Ratio 1:1	mm	14.8	14.8	14.8	14.8	14.8	14.8	14.8
Electrode Travel Speed	Gear Ratio 1:1	mm/Sec	742	742	742	742	742	742	742
11kN Actuator Throat Depth 450mm #									
Electrode Force	Gear Ratio 1:1.5	kN	NR	4.57	4.57	4.57	4.57	4.57	4.57
Electrode Opening per Revolution	Gear Ratio 1:1.5	mm	13.5	13.5	13.5	13.5	13.5	13.5	13.5
Electrode Travel Speed	Gear Ratio 1:1.5	mm/Sec	676	676	676	676	676	676	676
Electrode Force @ Throat Depth 600mm	Gear Ratio 1:1.5	kN	NR	3.6	3.6	3.6	3.6	3.6	3.6
Electrode Force @ Throat Depth 800mm	Gear Ratio 1:1.5	kN	NR	NR	2.81	2.81	2.81	2.81	2.81
22kN Actuator Throat Depth 300mm #									
Electrode Force		kN	13.8	13.8	13.8	13.8	13.8	13.8	13.8
Electrode Opening per Revolution		mm	7.42	7.42	7.42	7.42	7.42	7.42	7.42
Electrode Travel Speed		mm/Sec	371	371	371	371	371	371	371
Electrode Force @ Throat Depth 450mm		kN	NR	10.12	10.12	10.12	10.12	10.12	10.12
Electrode Opening per Revolution		mm	NR	10.14	10.14	10.14	10.14	10.14	10.14
Electrode Travel Speed		mm/Sec	NR	507	507	507	507	507	507
Electrode Force @ Throat Depth 600mm		kN	NR	7.98	7.98	7.98	7.98	7.98	7.98
Electrode Force @ Throat Depth 800mm		kN	NR	NR	6.22	6.22	6.22	6.22	6.22
Gun Arms									
Chromium Copper			Y	Y	Y	Y	Y	Y	Y
INOX Sandwittch Copper			Y	Y	Y	Y	Y	Y	Y
Aluminum			NR	NR	Y	Y	Y	Y	Y

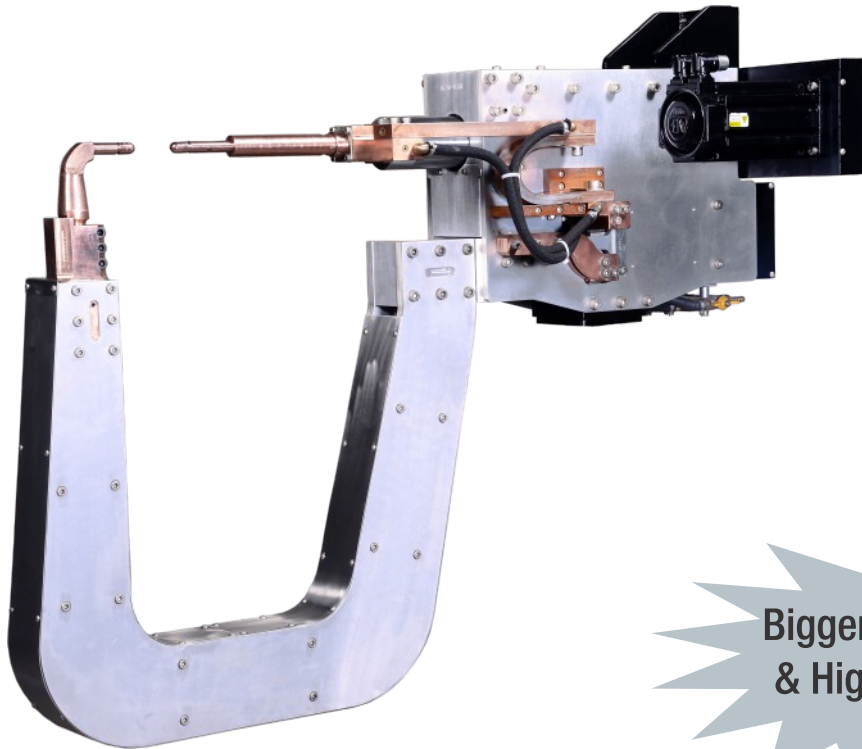
			Terza GX36	Terza GX54	Terza GX75	Terza GXX75	Terza GXX103	Terza GXM 56	Terza GXXM90
Technology			AC	AC	AC	AC	AC	MFDC	MFDC
kVA @ 50% DC			36	54	75	75	103	56	90
kVA @ 20% DC			NA	NA	NA	NA	NA	89	142
Body Weight (W/o Motor, W/o Arms)			96	105	114	114	127	95	100
No Load Voltage			6.3	7.1	10	10	13.5	8.4	9.9
Dynamic Performance with Various Actuators									
11kN Actuator #									
Gear Ratio 1:1	kN	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
Electrode Opening per Revolution	mm	10	10	10	10	10	10	10	10
Electrode Travel Speed	mm/Sec	500	500	500	500	500	500	500	500
8.8kN Actuator #									
Electrode Force	kN	8.36	8.36	8.36	8.36	8.36	8.36	8.36	8.36
Electrode Opening per Revolution	mm	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
Electrode Travel Speed	mm/Sec	625	625	625	625	625	625	625	625

NA= Not Applicable

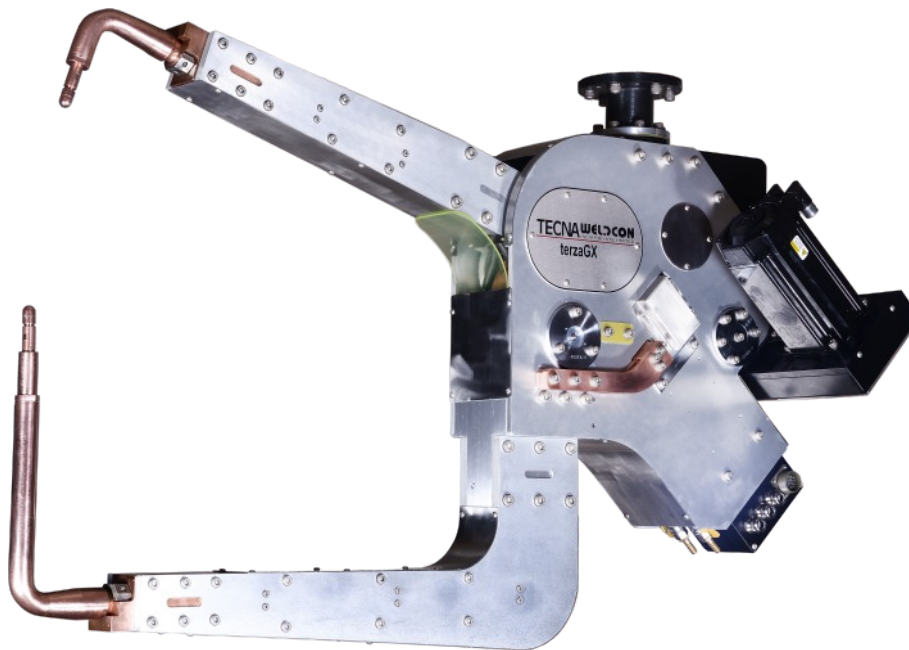
NR= Not Recommended

Data Nominal to 3000 RPM/10mm Screw Lead

SPECIAL APPLICATIONS



Bigger Dimensions
& Higher Welding
Forces



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