AKGEC-KUKA
INDUSTRIAL ROBOTICS TRAINING CENTRE

Robotic Cold Metal Transfer Welding Application Cell

Robotic CMT welding process allows users to achieve optimum results when joining different materials, for example steel and aluminum by using extremely low heat input and an exceptionally stable arc set CMT apart from conventional MIG/MAG welding. This technology uses state of art digital inverter based intelligent power source and highly dynamic wire feeder mounted directly on the welding torch coupled with an industrial robot. Robotic CMT welding is ideal for joining steel and aluminum, as the galvanized steel plate is wetted by this brazewelded joint, while the aluminum melts. This Process is also suited to the virtually spatter-free brazing of hot-galvanized and electrolytic galvanized sheets with a welding wire made from a copper-silicon alloy.

Robot Specification:

Model	:	KUKA KR 16 HW
Rated Payload	:	16 Kg
Maximum Reach	:	1636 mm
Repeatability	:	±0.05 mm
Controller	:	C4

Welding Gun Specification

Make	:	Fronius
Model	:	TPS 4000 CMT
Supply	:	3-Phase
Wire dia	:	0.8~1.6mm
Duty Cycle (ArCO2)	:	200A
Duty Cycle (CO2)	:	50A
Wire Feed Speed	:	22m/min (850ipm)