



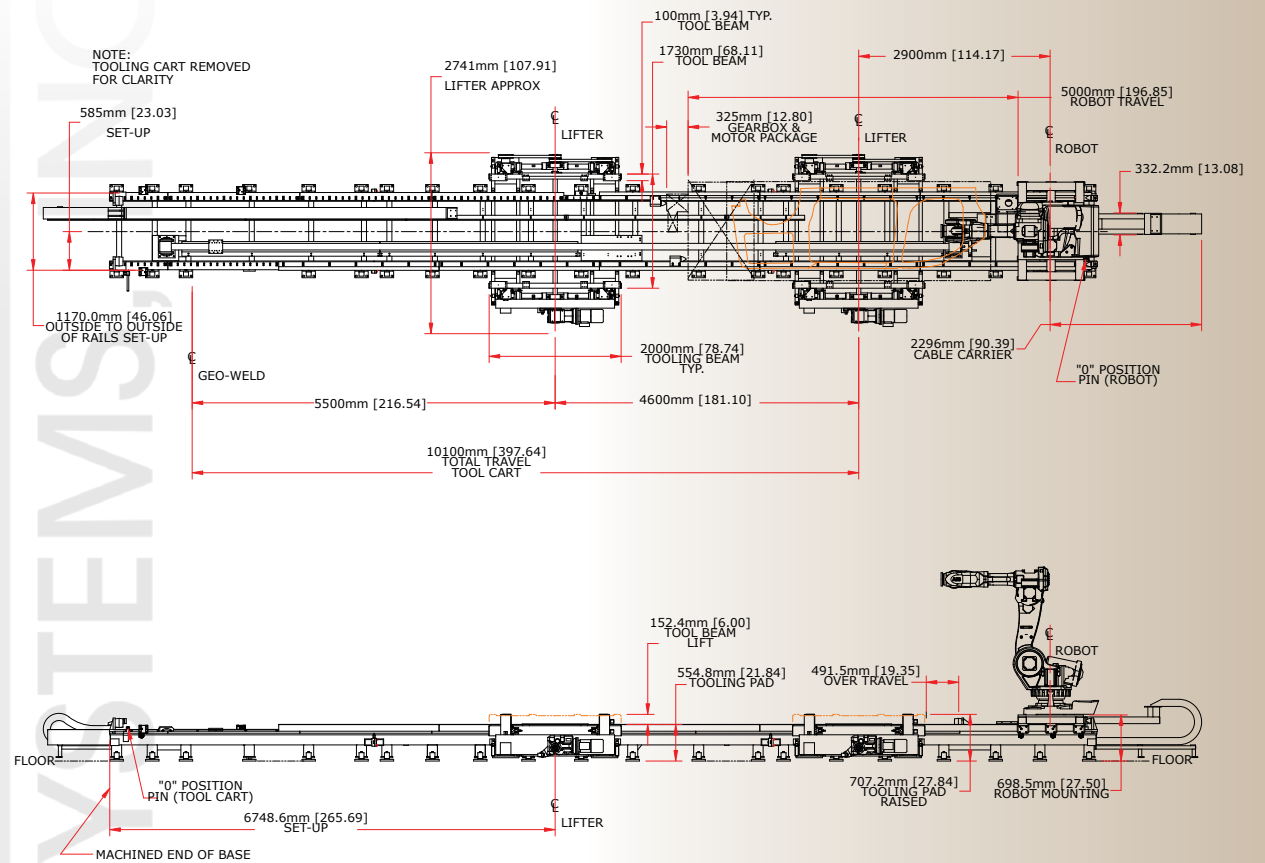
• **Tool Transporter / Changer / Robot Shuttle**

- Approximately 15.85 meter (52') overall frame length
- 1.5 meter x 2.0 meter tool shuttle cart with mounting surfaces for 8.0 meter x 4.0 meter geo tool
- Shuttle mounting surface approximately 750 mm (29.5 in) above floor
- Hardened steel flat surface rails
- Cam follower type trap roller clusters on tool shuttle & robot shuttle
- Tool shuttle drive: Helical bevel reducer / linear belt drive using an linear belt
- Tool shuttle protected with over travel bumpers
- Robot mounting surface approximately 750 mm (29.5 in) above floor
- Robot shuttle drive: Helical bevel reducer / rack & pinion drive
- Robot shuttle protected with over travel bumpers
- Zero reference pin provided for both tool shuttle and robot shuttle for servo set up
- Open style cable carrier to be provided for tool shuttle and robot shuttle cable management

• **(2) Low Profile Lifters**

- 3 HP brake motor - VFD controlled
- Open center style dual tooling beams lifted through a 152 mm (6.0 in) vertical stroke
- Harmonic cranks driven via timing belt drives all driven from a common center mounted drive shaft mounted on fabricated steel bases
- 4 point lift motion is fully synchronized side to side and end to end
- Machined pads on tooling beams for customer provided tooling nests

• **Controls solutions available**



Specifications		Solutions engineered to customer's requirements
TOOL TRANSPORTER		
Transferred Weight	95 kg (210 lb.) Part + 700 kg (1545 lb.) Tooling + 340 kg (745 lb.) Tool Shuttle = 1135 kg (2500 lb.)	
Transfer Distance	10.0 meters (33 ft.) in 5.0 sec. or 5.5 meters in 3.4 sec.	
Maximum Velocity	3.44 meters/sec.	
ROBOT SHUTTLE		
Transferred Weight	225 kg (500 lb.) Payload 1950 kg (4300 lb.) Robot 320 kg (700 lb.) Shuttle = 2495 kg (5500 lb.)	
Transfer Distance	4.5 meters (15 ft.) in 3.4 sec.	
Maximum Velocity	1.5 meters/sec. (4.9 ft./sec.)	
LIFTER		
Weight to Lift	750 kg (1650 lb.)	
Lift Stroke	152 mm (6 in)	
Lift Time	1.0 Sec.	