

TyBOT®

REBAR TYING ROBOT

TyBOT takes care of the repetitive, backbreaking task of tying rebar while your crew focuses on more complex tasks. Onsite and working within hours, TyBOT self-locates, self-positions and self-ties up to 1,100 intersections per hour, day or night, rain or shine, while improving jobsite safety.



Key Benefits



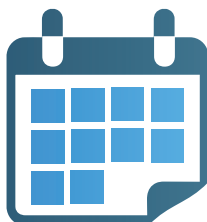
**Enhanced
Productivity**



**Increased
Consistency**



**Improved
Safety**



**Reduced
Schedule Risk**

Industry Applications



Civil

Bridge Decks, Elevated Superstructures, Marine piers



Transportation

Reinforced Roadway, Rail Track Systems, Reinforced Runways



Industrial & Manufacturing

Warehouses, Data Centers, Manufacturing Plants



Fabrication Facilities

Precast Concrete and Prefabricated Rebar Manufacturers



Commercial

Retail, Office, Education, Hospitality, Hi-Rises, Parking Facilities



Energy

Power Plants, Nuclear Facilities, Wind Farms

Product Specifications



1 TRAM

Houses the core components of TyBOT's see, think, and act capabilities.

Dual Camera System Self-Identifies Rebar Intersections
Moves Along a Fully Integrated Track System
Autonomously Positions the Tie Module
No Calibration, Plan Input, or Pre-Programming Required
Configurable Safety Zones to Designate Tram Work Area

2 TIE MODULE

Autonomously ties rebar intersections at 50% or 100% coverage.

Production Rate:	Up To 1,100 Ties Per Hour
Tie Wire Spool Capacity:	15lbs. (6.8kg)
Tie Wire:	16.5 AWG Poly Coated Single Snap
Minimum Bar Grid Spacing:	3in x 3in (7.62cm x 7.62cm)
Minimum Bar Intersection:	#4 x #4 (1.000in / 54mm)
Maximum Bar Intersection:	#8 x #9 (2.125in / 5.40cm)
Minimum Bar Chair Height:	1.0in (2.54cm)

3 GANTRY LEGS AND BOGIES

Adjustable gantry legs accommodate varying widths, heights, cross-slopes, and skews. Bogies ride on existing or supplied rails.

Maximum Leg Height Adjustment:	3ft (0.91m)
Leg Height Adjustment Increment:	3in (7.62cm)
Maximum Leg Width Adjustment (Per Side):	4.95ft (1.47m)
Wheel Base (Outside Bogie):	7.5ft (2.28m)
Maximum Screed Rail to Rebar Mat Distance:	69in (1.75m)
Maximum Longitudinal Grade:	4%
Maximum Transverse Grade:	8%
Maximum Plan View Skew:	40deg
Maximum Crown Reach:	33in (83.82cm)

4 GANTRY SYSTEM

Durable, lightweight, and easily transportable, load requirements are less than finishing machines. Onsite and working within 1-4 hours.

Minimum TyBOT Rail Width:	9.5ft (2.9m)
Standard TyBOT Rail Width:	66ft (20m)
Maximum TyBOT Rail Width*:	100ft (30m)
Minimum TyBOT Width:	21ft (6.4m)
Truss Width:	4.5ft (1.37m)
Truss Height:	3.67ft (1.12m)
Standard TyBOT Weight:	5,740bs (2,603kg)
Maximum TyBOT Weight:	7,260lbs (3,674kg)
Maximum TyBOT Height:	10ft (3.1m)
Minimum TyBOT Height:	7.8ft (2.4m)
Maximum Wheel Loading:	960lbs per Wheel

* Call TyBOT Sales for wider applications

5 POWER GENERATOR

Single Cummins Onan generator that continuously operates for 12+ hours without refueling.

Power:	5500 Watts
Generator Fuel Tank Capacity:	13 Gallons (49.21L)
Supplied Voltage, Amps:	120/240 volts, 22.9 amps
Fuel Consumption (full load):	0.95gph (3.6L/H)
Generator Fuel Grade:	87 octane (unleaded)
Travel Speed:	0.4ft/s (0.12m/s)

6 TRANSMITTER "BELLY BOX"

Mobile robot interface unit allows communication between robot and supervisor.

Initiates and Manages Self-Tying (Not Remote Controlled)
Safety Controls
Real-Time Operating Mode Selections
Operational Reporting Information