

MAX

MAX USA CORP.

USE CASE:

How the TwinTier is Delivering Reliability & Supporting the Surge in Transportation Construction During COVID-19

Executive Overview:

From the busy streets of Manhattan to the Golden Gate Bridge, America's iconic cities and their roads have come to a standstill since the COVID-19 Pandemic struck in March 2020 with its mandated stay-at-home orders. As a result, the US felt a crash similar to the financial crisis of 2007, with an economy and job market quickly crumbling. Taking advantage of the empty railways and streets, state authorities such as New York Governor, Andrew Cuomo to Florida Governor, Ron DeSantis are expediting roadwork and transportation developments to help recover the economy, while avoiding the crowding and traffic that usually increase with these large-scale projects.

"We remain committed to improving our transportation infrastructure through strategic innovation, by significantly relieving traffic congestion, this reconstruction project will provide motorists a more effective way to travel through the region. Additionally, it will add capacity for future growth and improve connectivity for Tampa's residents, businesses and visitors." Governor DeSantis.

As our essential supply chain from manufacturing, logistics, all the way through to O&M, slowly starts to prevail, these foundational businesses are working hard to support contractors who are looking at ways to properly maintain state guidelines and practices of social distancing, while ensuring project deadlines and critical operations stay on track.

With advanced technology evolving to create safer and more efficient jobs for end-users, contractors are beginning to bring in more of these tools to help overcome the labor shortage, rotational shifts, and also minimize job site injury. To help overcome and efficiently adapt to these new challenges, MAX USA, Corp., is working with contractors and developers to sustain core business functions, in the field, by deploying the TwinTier as an enhancement to rebar tying operations. As an alternative to hand tying or inefficient tools, the TwinTier is delivering a multitude of benefits to contractors from cost-savings in materials and time, increased productivity, efficiently support labor shortages and overall safer job site operations that align with the COVID-19 guidelines.





Confronting the Need to Fast Track Productivity in the Field:

After discovering the efficiency behind the TwinTier tools, a Florida based bridge and rebar contractor recognized how quickly and efficiently their job site crews could perform daily operations. What typically took a crew of 6 members a full days' worth of work hand tying was completed with only 2 members in 3 hours with the TwinTier. This, in turn, allowed the crew to stay ahead of schedule and turn out maximum productivity on each job site.

DELIVERING RELIABILITY THROUGH INNOVATION

To help overcome and efficiently adapt to these new challenges, MAX USA, Corp. is working with contractors and developers to sustain core business functions, in the field, by deploying the TwinTier as an enhancement to rebar tying operations. Designed with a dual wire feeding mechanism and a tying speed of approx. a 1/2 second per tie, the TwinTier is finding its way onto more railway, road, and bridge job sites, to help sustain the regulations around COVID-19 and to help meet the tight deadlines and budgets.

TWINTIER®



RB611T
Ties #5 x #5
Up to #9 x #10



RB441T
Ties #3 x #3
Up to #7 x #7

At 4,000 ties per charge at approximately 1/2 second a tie, the TwinTier series works effortlessly to keep up with the day-to-day operations on construction job sites. From regular and stainless steel, PC, electro galvanized and USA certified wire, MAX USA offers the wire needed for any specified job site.

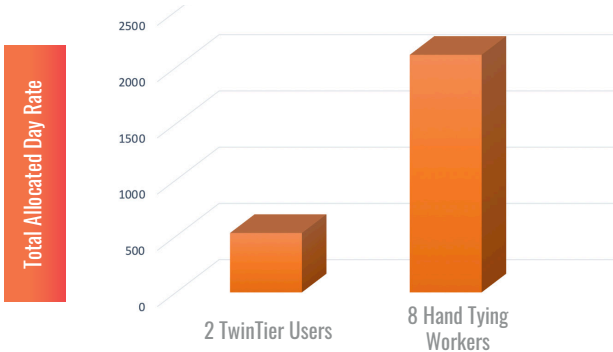
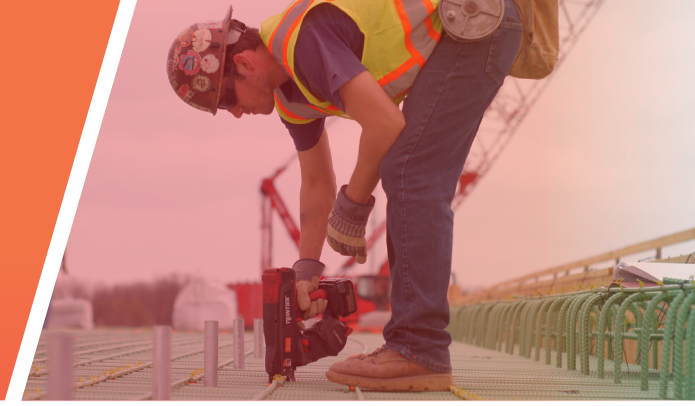
Maintaining Project Timelines With Enhanced Safety Operations:

Faced with a labor shortage due to the COVID-19 pandemic and a responsibility to safeguard the team on site, a North Carolina based contractor turned to MAX USA Corp. to identify solutions to support social distancing guidelines while adhering to a tight deadline for new construction of a river crossing bridge. By providing each ironworker with a RB441T on-site, they were able to maintain safe distances and efficiently carry out approximately 1000 ties per hour, verses 800 ties a day on average; this in turn increased productivity and allowed them to meet the time frame of the project needed.



Running a Crew at 25% Capacity:

Two laborers using the TwinTier system can complete 6,400 ties while practicing social distancing, whereas conventional hand-tying would require 8 individuals to complete 6,400 ties, putting them at a risk for crowds and avoidable job site injury.



Overcoming Labor Shortage & OT Cost:

New York contractors can avoid the risk of crowds on site, and also avoid overtime increases on lean teams by deploying two workers at a day rate of \$264 (\$528) versus 8 workers at (\$2,112) while following the 6ft social distance guideline.

(<https://www.bls.gov/oes/2017/may/oes472171.htm>)



Scaling up on Large Sites – Where government mandated social distancing requirements are observed, fewer laborers have to be allocated to complete a rebar tying project. Contractors can cover more area with each tie taking only a 1/2 second to complete versus a traditional hand tie that typically averages 5 seconds.



Creating Efficient Job Dynamics – With time constraints and expensive permits to calculate, contractors can assign their laborers to other tasks to complete when relying on the speed and dependability of the TwinTier with each tie.



Supporting Labor Shortages – Contractors can overcome labor shortages and challenges hiring skilled crew members, as the TwinTier autonomously completes each tie with precise maximum efficiency.

New & Existing Challenges:

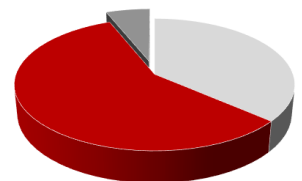
With billions of dollars being invested in roadwork, bridge, and transportation construction annually, smart contractors are implementing plans that allow them to continue working these projects by meeting the requirement of social distancing on job sites.

Rebar tying is not only labor-intensive, but also on average takes a single person 5 seconds to complete a manual tie. This results in multiple workers on any given job site to remain productive; many of them working in very close proximity. As the working day progresses, individuals may feel lethargic, back pain, and even struggle with musculo-skeletal discomfort from traditional manual tying work.

REBAR TYING & BACK

Tying rebar for slabs forces rodbusters to tie while consistently being bent over. Survey conducted by MAX USA Corp. at 2020 World of Concrete, showed that almost 86% of steel workers have felt back pain, and a significant portion had to take days off to recover.

- Yes (Had to take time off)
- Yes (Did not take time off)
- No did not experience pain



86% of rodbusters have experienced back pain
56% of rodbusters have experienced critical back pain



Identifying Cost and Risks in the Field:



Continued labor shortages and lean teams increase the life cycle of projects, incurring costs for street permits, heavy equipment rentals, overtime wages, and other unexpected expenses that have not been quantified during planning.



Elongated project cycles lead to a prolongation in lane and road closures, making an aggravating impact on traffic patterns that lead to excessive CO2 emissions, debris, and prolonged disturbances for the surrounding community.



Detours of rail and bus schedules regularly detour commuters to operating lines that often become overcrowded, posing the risk of contracting COVID-19, while also violating the new social distancing guidelines.



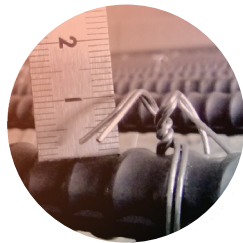
Contractors budget for a portion of project delay costs when bidding public work like bridges, roads and rail work, but when unforeseeable issues arise such as COVID-19, contractors can face excessive costly delays and expensive fines that weren't allocated in the budget.

Supporting Customer & Community Relations:

Less time performing roadwork in the street, reduces disturbances to traffic and neighborhoods. This allows for fewer train and bus detours, avoiding overcrowding situations which are posing the highest risk of contracting COVID-19 to our metro communities. Integrating the TwinTier as an efficient tool to overcome the social distancing and labor shortages required now is proving to be one of the most efficient and cost-saving strategies during this time.



With twin wire and double the speed, the TwinTier incorporates a wire pullback mechanism that utilizes less wire while enhancing the tie strength for extreme reliability and material efficiency.



Working simultaneously with an engineered wire-bending mechanism, the TwinTier also automates a wire bending mechanism that creates a low-profile tie that allows contractors to pour less concrete to complete a project.



Weighing only 5.6 lbs., the handheld RB441T TwinTier deploys an autonomous tying operation that provides operators 4000 ties per battery charge, and 145 - 265 ties per coil.



Single handed trigger pull allows for continuous productivity to help ironworkers overcome the tiring monotonous hand-tying applications while avoiding potential injury.



With the ability to tie rebar combinations ranging from #3 x #3 to #9 x #10, the TwinTier platform provides contractors with flexible tool options that can be applied on 2, 3, or even 4 rebar combinations for extreme



TWINTIER®
RB401T-E
Ties #3 x #3
Up to #6 x #6

Max USA Corp. launched the world's first stand-up battery powered rebar tying tool, the TwinTier RB401T-E. The RB401T-E is designed to reduce back strain when tying rebar for concrete slabs. The principal benefit of the RB401T-E is its ergonomic construction. Its extended frame allows ironworkers to tie rebar while standing upright. The tool's trigger-less technology automatically forms a tie when pushed down over a rebar intersection.

There is no trigger to pull. Users can adjust the handles to 2 positions, to find the most comfortable position for their height. The long nose attachment allows the tool to glide into rebar intersections with minimal effort from the operator. All of these features work together to reduce instances of back strain and the development of musculoskeletal injuries.



Our Team at MAX is Here to Help:

From roadworks, railway, bridges, and more, MAX USA Corp. is working diligently during these unusual times, we are all facing, by ensuring our dealers and contractors have access to the latest products and information, so that they carry out the safest practices surrounding the COVID-19 pandemic. Reach out to our team today and learn how the TwinTier and our other products are helping contractors become more resilient by overcoming the latest challenges in the field.



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