

TR SERIES STATIONARY BOOMS



Tramac's TR Series Rock Breaker Boom Systems are designed for high performance, increased safety, and long life when mounted over large capacity crushers. These designs are beneficiaries of many years' experience working in large crushers around the world. Tramac's users list includes some of the most prestigious names in Mines and Mining Engineering Firms.

Excavator-Style Design, Massive Structures, Heavy-Duty Construction: The TR design uses the principles of an *arched* excavator boom for superior strength. An arched main boom will also permit effective work relatively close to the base, which is often considered the "dead area" unreachable by standard rock breaking designs. TR boom structures are massive, reinforced closed-box sections. *Critical connecting locations are flared out and widened:* for example, where the main boom is pinned to the turntable ears on the base, and where the box-sectioned yoke on the other end surrounds the dipperstick. These areas provide extra wide pin support, an important element that adds years to the unit's working life. Compare the narrow connecting areas of some standard units, and it becomes obvious why a lot of "slop" can develop early in their lives, making it difficult to precisely position the breaker.

Extended Reach: With a careful study of drawings or by a site survey, our engineers can make adjustments of base position and boom arm articulation that will allow *horizontal and vertical coverage into all required areas of your dump pocket*. It is possible, with proper positioning and selection of components, to reach down to the lowest level of concave liners in order to use the breaker for their normal removal during liner replacement.

Turntable Slewing: Our pivoting base swing table is constructed with the same extra heavy-duty boxed design as the main boom. The extra wide ears to which the boom section base end is pinned are boxed and reinforced – far superior to the single plate construction of some competing designs. The swing drives are dual heavy-duty, hydraulically-powered planetary gear reducers. The swing bearing is extra-large. The swing arc is 350° non-continuous, and is adjustable with limit switches and stops to site requirements. *A turntable type swing system is superior to hinge style with kingpins because it evenly disperses the loading forces over a much broader area.*



Auto Lubrication: Auto lube systems are frequently specified. They include the breaker and all boom lube points. Standard with TR systems is a manually fed lube system that brings the lines serving all points to two bulkhead locations.

Advanced Controls: Tramac's standard control system is fully proportional electro-hydraulic. In most cases it will be controlled by a joystick box connected to a panel at the operator's position. It's optionally possible to unplug the box from this location and move it to another plug-in location, such as near the boom base when used for maintenance and concave liner removal. Radio control – often somewhat easier to use for the local applications – is also available, normally supplied in addition to the tethered box. We're also able to interface with mine site PLC systems for monitoring alarms and for remote control functions.



Proposal Preparation – Attention to Detail: One of our key strengths is our ability to prepare proposals in response to professional RFQ's for large projects. We understand that our proposal will be studied by several individuals representing the numerous disciplines in your organization, and we aim to answer everything addressed in the RFQ. Our proposal drawings include Plan and Elevation CAD layouts, with our equipment shown in your plant along with several other descriptive schematics and general arrangements. *We know that while firms have needs in common, each also has unique requirements, which we respect and take pains to answer individually.*

TR Boom Specifications

Boom	Horizontal Reach*	Swing Arc	Boom Weight	Hammer Class
TR-8	26' (8.0m)	360°	18,000 lbs (8,172kg)	3,000 - 8,500 ft lbs (4,000 - 11,525Nm)
TR-10	33' (10.0m)	360°	22,000 lbs (9,988kg)	3,000 - 12,000 ft lbs (4,000 - 16,300Nm)
TR-11	36' (11.0m)	360°	23,500 lbs (10,669kg)	3,000 - 12,000 ft lbs (4,000 - 16,300Nm)
TR-14	46' (14.0m)	360°	30,000 lbs (13,620kg)	5,000 - 13,000 ft lbs (4,000 - 17,600Nm)
TR-16	52' (16.0m)	360°	43,650 lbs (19,810kg)	6,000 - 13,000 ft lbs (8,100 - 17,600Nm)
TR-20	65' (20.0m)	360°	55,000 lbs (24,948kg)	6,000 - 13,000 ft lbs (8,100 - 17,600Nm)

*Nominal reach to centerline of breaker in a vertical position.



Hydraulic Power Units: Our proprietary designed hydraulic power units position the tank above the pump for a smaller footprint and flooded inlet. The power rating of the electric motor is determined by the selection of the breaker and its hydraulic requirements. It's not unusual for a power unit meant to run a TR boom and large breaker to have a 200 gallon (380 liter) reservoir and up to 150 hp (110 kW) electric motor. We will supply, in most cases, motor voltage as site required. Most power units for the large TR series booms include: drip tray, low level/high temperature shutdown, tank heater, heat exchanger, and all necessary circuitry.



For Extreme Conditions: Some of the provisions offered for systems to be used in extreme conditions include low temperature steel construction, insulated and heated power unit and control valve and electric motor high-altitude deration kits.

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