

ROCKBREAKER SYSTEMS



NTE/NTTE SERIES

POWER YOUR PRODUCTIVITY



www.rockbreaker.com

YOUR ROCKBREAKING EXPERT & PARTNER



WE OFFER DECADES OF EXPERIENCE & CUSTOMER SERVICE

Breaker Technology (BTI) is the rockbreaking expert in the mining and quarrying industries. For nearly 60 years, we've been helping companies power their productivity and break into profitability. We offer twelve different model series with over 300 boom-to-breaker combinations for breaking oversize at primary crushers, grizzlies, draw points, and stopes. All rockbreaker systems are custom fitted to your application for maximum endurance.

Experience has taught us that information and partnerships, combined with high-quality equipment provide great results. BTI works with you to fine-tune your selection with on-site visits, and in-house layout and design to match your specific site requirements. BTI's experienced engineers and technicians advise you on site planning, cost control, recommended service personnel and install considerations for mechanical, hydraulic, electrical, and control site integration.

YOUR SAFETY STARTS WITH BTI

At Breaker Technology, we are passionate about safety. We know that safety is a number one concern for everyone in our community: employees, customers, partners, suppliers, and stakeholders. As an OHSAS 18001-2007 certified company, we operate our business to the highest safety

standards. Our priority for safety doesn't end at our facilities; we care about the safety of our customers and partners too. That's why we work to stay innovative with our processes, products, and services by constantly looking for ways to improve the safety of everyone in our community.

AN ASTEC INDUSTRIES COMPANY

BTI is part of the Astec brand family, offering the same level of safety, quality and productivity Astec customers expect and trust.



A COMPLETE ROCKBREAKING PACKAGE

NTE/NTTE SERIES ROCKBREAKER SYSTEMS

The NTE/NTTE Series RockBreaker System is BTI's most adaptable design, making it the number one choice for large, portable crushing plants, stationary aggregate plants and low-tonnage grizzly applications. Best-in-class strength and state-of-the-art electro-hydraulic controls allows the NTE/NTTE RockBreaker System to carry a wide range of rockbreakers from 800 to 4,000 ft-lb (1 085 - 5 420 joules) class on booms with a 12-to-24 foot (3.6 to 7.3 meter) reach. BTI Rockbreaker Systems are engineered for maximum life using finite element analysis software (FEA) in all raking and breaking functions.

APPLICATIONS:

Jaw Crushing // Impact Crushing // Grizzly Applications // Metallurgical



FEATURES THAT KEEP YOU PROFITABLE

+ SUPERIOR STRENGTH

Oversize hardened alloy pins, aluminum bronze bushings, and thrust washers deliver maximum service under adverse conditions. Our Induction-hardened chrome cylinder rods resist damage from fly rock. BTI uses cast cylinder lug points, providing maximum strength for rockbreaking requirements.

+ LONG AND PRODUCTIVE LIFE

BTI implements a number of design features that contribute to the overall rockbreaker's life span. The NTE/NTTE Series uses spherical bearings on both ends of the cylinders allowing them to self-align under all conditions, keeping the rockbreaker system flexible during production hours. The four plate variable cross section boom is specifically designed to minimize the stress concentrations that lead to fatigue cracks and failures.

+ INCREASED SERVICEABILITY

The NTE Series, dual swing cylinders transmit torque directly to the rockbreaker system without undue torsion stress through the swing post, and are easily accessible for routine maintenance.

+ MINIMAL SPARE PARTS

The entire MBS Series uses common pins, bushings, and cylinders to increase ease of maintenance and decrease spare part inventories.

+ ADAPTABLE MOUNTING

Our compact pedestal turret allows mounting to existing non-standard foundation bolt patterns without the need for an adapter plate.

+ A HIGHER STANDARD

BTI RockBreaker Systems come standard with fully proportional electric-hydraulic controls. Dual joysticks provide precise control of all boom and breaker functions. The rockbreaker system includes a 60-gallon (227 l) reservoir power pack incorporating a number of features that improve functionality and servicing.

+ CONSISTENT SIDE RAKING FORCE

Our NTTE model offers a full 330-degree swing angle, providing constant swing torque, offering consistent force during side raking functions.

MAXIMIZE OPERATIONS, IMPROVE SAFETY AND COMFORT

EASY GREASING

When it comes to maintaining your rockbreaker system, keeping it lubricated is key to a long, productive life. There are multiple lubrication points that are easily accessible through one of our optional lubrication systems.

- + Central manual lubrication system has individual grease lines for boom and breaker brought to a common bulkhead.
- + Automatic lubrication for the boom has an individual parallel injector system complete with your choice of electrical, hydraulic or pneumatic grease pump in a selection of container sizes, complete with timers and related equipment.
- + Automatic lubrication for the hydraulic breaker is operated by a 24VDC electric-driven pump with an 8-liter container, complete with interlocks into the breaker's firing.



OPERATOR COMFORT

BTI's basic operator cabin has one door, three windows and a remote cab base with a standard operator's chair. It's constructed from heavy-gauge steel, impact resistant windows and polyurethane insulation.

- + Options: explosion proof window covers, ergonomic operator seat, air pressurization unit, HVAC, extreme cold weather package, customized glass.



Non-Standard Cabin

IMPACT PROTECTION

Improving your boom functionality increases the life of your rockbreaker system, offering enhanced impact load protection from the system's movements.

- + Boom anti-lunge, interlock protection
- + Load drop counterbalance valves on hoist, dipper stick and tilt functions

POWER TO KEEP YOU RUNNING

BTI'S STANDARD POWER PACK

Your rockbreaker system's speed and hydraulic breaker requirements determine the horsepower and options required for maximum performance in high vibration, dusty environments, and extreme climates.

FEATURES

- ⊕ 60-gallon (227 l) hydraulic tank for BX10 to BX30 breaker
100-gallon (378 l) hydraulic tank for BX40
- ⊕ Compact footprint
- ⊕ Suction strainer
- ⊕ Flooded pump inlet
- ⊕ Variable displacement load sense piston pump
- ⊕ Pressure filter
- ⊕ Return line filter
- ⊕ Temperature gauge
- ⊕ Sight glass – oil level indicator
- ⊕ Pressurized filling cap
- ⊕ Clean out cover
- ⊕ Low-oil level shutdown interlock
- ⊕ Drain
- ⊕ High-pressure all steel oil cooler complete with 1/2 hp cooling fan and continuous oil circulation system (optional on 30 and 40 hp or 22.3 and 29.8 kw units, standard on 50 and 75hp or 37.2 and 55.4 kw units)
- ⊕ Power pack-to-pedestal hoses

OPTIONS

- ⊕ Drip tray/spill containment system
- ⊕ Hand pump filling through return filter
- ⊕ Immersion heater
- ⊕ High altitude impeller charging kit for hydraulic pump
- ⊕ Altitude compensation for electric motor(s)
- ⊕ High/low-temperature shutdown interlocks
- ⊕ Fire suppression system
- ⊕ 60 hp (44.7 kw) dual-flow hydraulic system for greater boom speed on units equipped with smaller breakers
- ⊕ Motor starter panels
- ⊕ Factory wiring
- ⊕ Stainless-steel electrical enclosures
- ⊕ Customer-specific electric motor specifications
- ⊕ Cold weather packages for hydraulic power unit, boom and breaker

HYDRAULIC POWER PACK	BREAKER MODELS
PP60-30 HP (22.3 KW)	BX10
PP60-40 HP (29.8 KW)	BX15
PP60-50 HP (37.2 KW)	BX20
PP60-60 HP (44.7 KW)	BX30
PP60-60 HP (44.7 KW) DUAL FLOW	BX10, BX15, BX20
PP100-75 HP (55.4 KW)	BX40

IT'S NOT BEYOND YOUR CONTROL

BTI'S STANDARD CONTROLS

BTI RockBreaker Systems come standard with dual joysticks, offering fully proportional electro-hydraulic control combined with fully proportional, load-sensing directional control valve for precise and variable control of all boom and breaker functions. The basic system can be modified to suit your need, including additional radio control pendants for maintenance operations to ethernet video/long-distance remote and plant integration.

YOUR CONTROL OPTIONS

- ⊕ Boom anti-lunge, hydraulic interlock protection
- ⊕ Load drop counterbalance valves on hoist, dipper stick and tilt functions
- ⊕ Radio controls for safe long-distance operation at a distance
- ⊕ Portable electro/hydraulic joystick and control cable
- ⊕ Portable system consists of two, dual-axis joystick controls with a right-hand thumb switch for breaker fire.
- ⊕ Ergonomic seat with arm-mounted joysticks enhance operator comfort
- ⊕ I-QAN controls smooth's the boom's movements for better operator control & reduced and reduced impact loading
- ⊕ High speed boom movements

GAIN MAXIMUM CONTROL WITH THE BREAKER INTEL CONTROL SYSTEM

Upgrade your control with BTI's Breaker Intel Control System. Maximize rockbreaking operations and creates a more secure working environment while easily connecting to your existing mining process control system.

FEATURES

- ⊕ Plant Integration
- ⊕ Perimeter Control
- ⊕ Automated Movement
- ⊕ Long Distance Control
- ⊕ Force and Speed Control
- ⊕ Monitoring and Diagnostics
- ⊕ Camera & Display Monitors



SPECS

BOOM SPECIFICATIONS

BOOM OPTIONS

- Pedestal to concrete foundation kit
- Pedestal to steel structure mounting kit
- Expander pins
- Cold weather conditioning package
- Cold weather grade steel plate construction



* Operating weight is dependent on final breaker size, power pack configuration and optional equipment

**Dimensions based referenced from center of swing rotation.

**Dimensions nominal (based on BX20 breaker) and subject to change based on final breaker selection.

MODEL	NTE SERIES					NTTE SERIES				
		NTE 12	NTE16	NTE20	NTE24	NTTE 12	NTTE 16	NTTE 20	NTTE 24	
Operating Weight Range (Complete System) *	LB	11,000 - 12,600	11,400 - 13,000	11,700 - 13,300	12,600 - 14,200	12,510 - 14,110	12,910 - 14,510	12,910 - 14,510	14,110 - 15,710	
	KG	5,000 - 5,720	5,170 - 5,900	5,310 - 6,040	5,720 - 6,440	5,674 - 6,400	5,860 - 6,580	5,860 - 6,580	6,400 - 7,130	
Base Dimensions	INCH	51 3/4" x 40"								
	MM	51 3/4" x 40"								
Vertical Breaker Reach Forward **	FT IN	12' 9"	15' 10"	18' 9"	23' 10"	12' 6"	15' 9"	18' 7"	23' 8"	
	M	3.9	4.2	5.7	7.3	3.8	4.8	6' 6"	7.21	
Vertical Breaker Reach Down**	FT IN	10' 3"	13.9	15' 8"	22' 7"	8' 1"	11' 11"	13' 4"	20' 1"	
	M	3.1	4.2	4.8	6.9	2.5	3.4	4.17	6.32	
Maximum Reach Forward**	FT IN	19'	22' 2"	25' 2"	30' 2"	19' 2"	22' 6"	25'	30' 3"	
	M	5.8	6.8	7.7	9.2	5.8	6.86	7.62	7.21	
Swing Rotation Angle	Degree	170° Pedestal Swing Post					330° Indexable Turntable			
Recommended Breaker Range		BX10 to BX40		BX10 to BX30		BX10 to BX40		BX10 to BX30		

SPECS



Wear Bar Kit



Extreme Duty Kit



Side Mount



Quick Coupler



Bucket Attachment

HYDRAULIC BREAKER SPECIFICATIONS

HYDRAULIC BREAKER SPECIFICATIONS

- Fully enclosed box housing; reduces vibration back the boom.
- Anti blank fire interlock selector; reduces stress on breaker components

HYDRAULIC BREAKER OPTIONS

- Side mounted breakers; allows operation in low head room
- Wear bars and extreme duty kits; extend service life
- Quick couplers and buckets; provides a painless attachment change out for cleaning of rock boxes

TOOLS

BTI offers a choice of tools and lengths for all breakers



MODEL	ENERGY CLASS	OPERATING WEIGHT	TOOL DIA.	BLOW RATE	FLOW RATE	OPERATING PRESSURE
BX10	1,000 ft-lb (1 350 J)	948 lb (430 kg)	3.1" (78 mm)	900 bpm	21 gpm (80 lpm)	2,000 psi (140 bar)
BX15	1,500 ft-lb (2 000 J)	1,355 lb (615 kg)	3.3" (85 mm)	700 bpm	27 gpm (100 lpm)	2,000 psi (140 bar)
BX20	2,000 ft-lb (2 700 J)	2050 lb (930 kg)	4.1" (105 mm)	550 bpm	29 gpm (110 lpm)	2,300 psi (160 bar)
BX30	3,000 ft-lb (4 100 J)	2688 lb (1 210 kg)	4.7" (120 mm)	550 bpm	37 gpm (140 lpm)	2,450 psi (170 bar)
BX40	4,000 ft-lb (5,420 J)	3,830 lb (1740 kg)	5.3" (135 mm)	500 bpm	42 gpm (160 lpm)	2,450 psi (170 bar)

Values based on flow rates from matching hydraulic power unit



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