

SIZING THE BOOM & HAMMER

BTI (Breaker Technology) has been supplying the demanding needs of mining and quarry industries since 1958. Our experience has taught us that information and partnership combined with high quality equipment that give the best results. As such it's vital to consider several important factors when choosing your next pedestal rock breaker system.

Breaker Class

Breaker power required is determined by the hardness, toughness and size of material to be broken. The size of your crusher or grizzly also affects the selection size of breaker.

Boom Model

The boom you choose to carry the selected breaker depends on its ability to provide full coverage of the area where material will require breaking, racking or clearing.

Power Packs

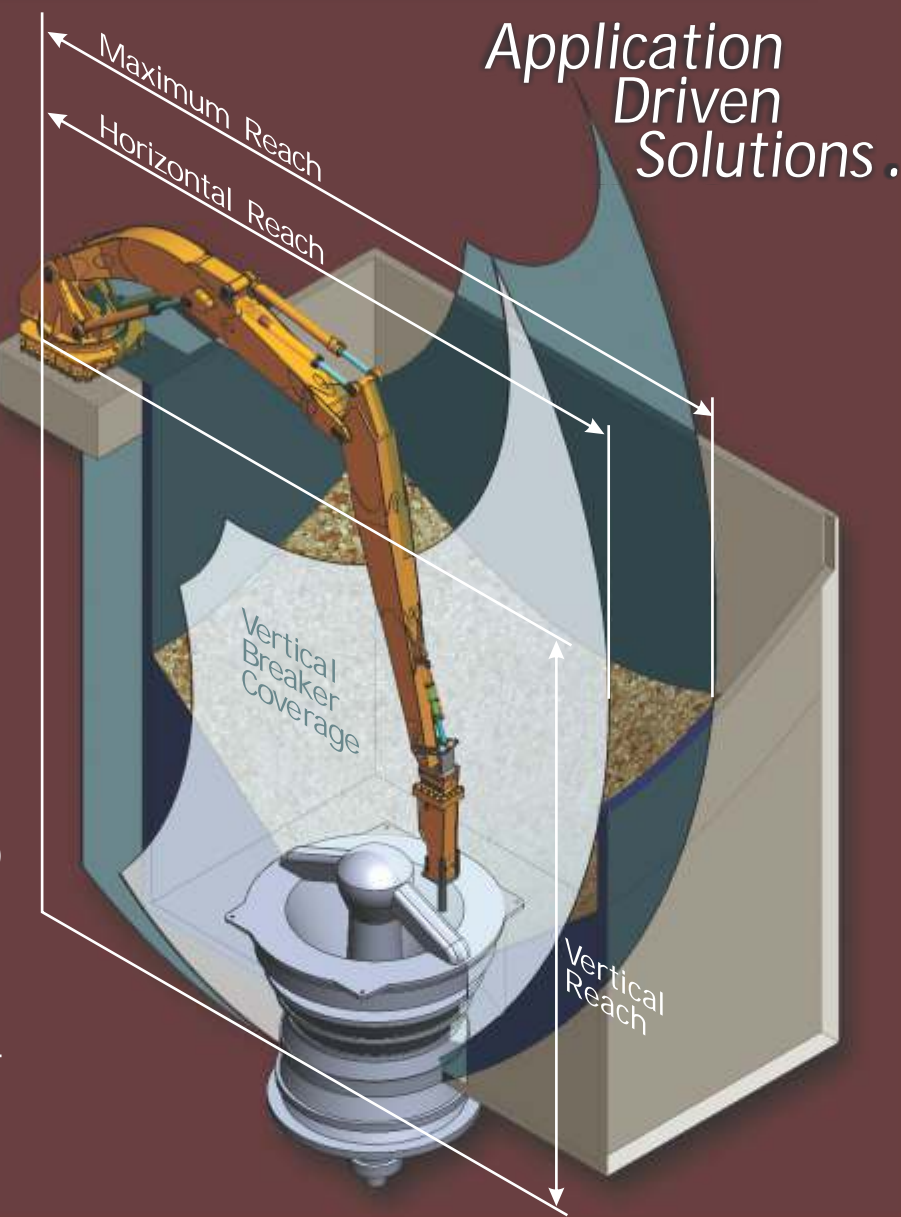
Power packs are matched to the hammer and boom to achieve optimal performance and reliability, based on your particular operating circumstances.

Controls

Our systems offer flexibility that allows for safe, effective operation from almost anywhere:

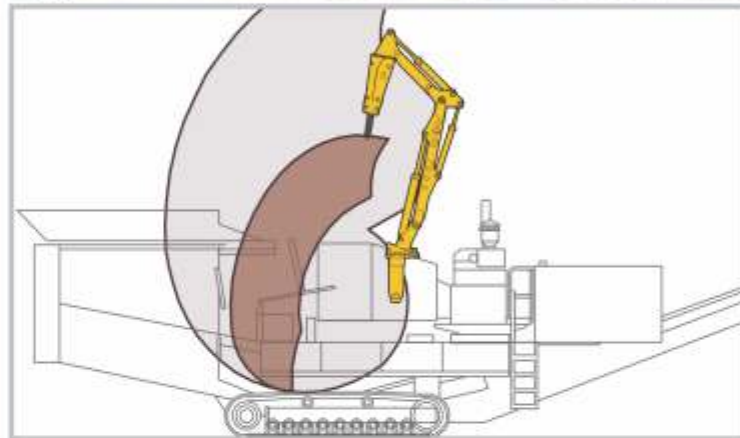
- Electric-hydraulic controls: 200 ft. (60 M)
- Radio remote control: 325 ft. (100 m)
- Camera assisted coaxial cable: 1,500 ft. (457 m)
- Fiber optics: 7 miles (11.2 km)

To aid in good planning and cost control, our technician can advise about service personnel, hoist crane requirements and installation considerations from electrical to Hydraulic systems. In addition, BTI can recommend on any need local support you may need. Once you have reviewed the above areas, BTI will assist you in fine tuning your selection with the creation of a in-house site layout and related engineering package.



Application Driven Solutions

MOBILE

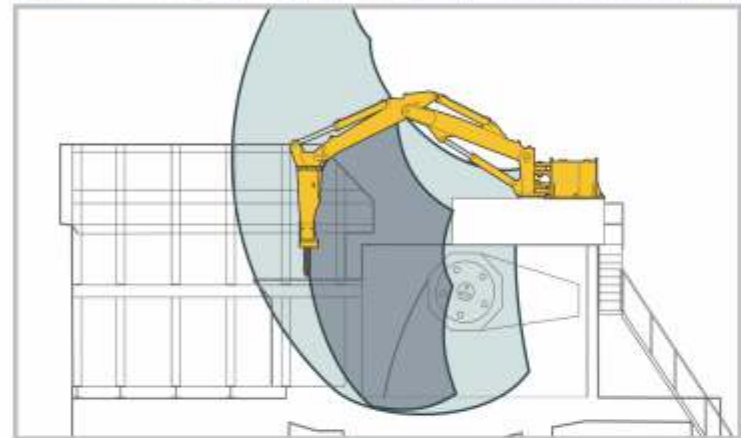
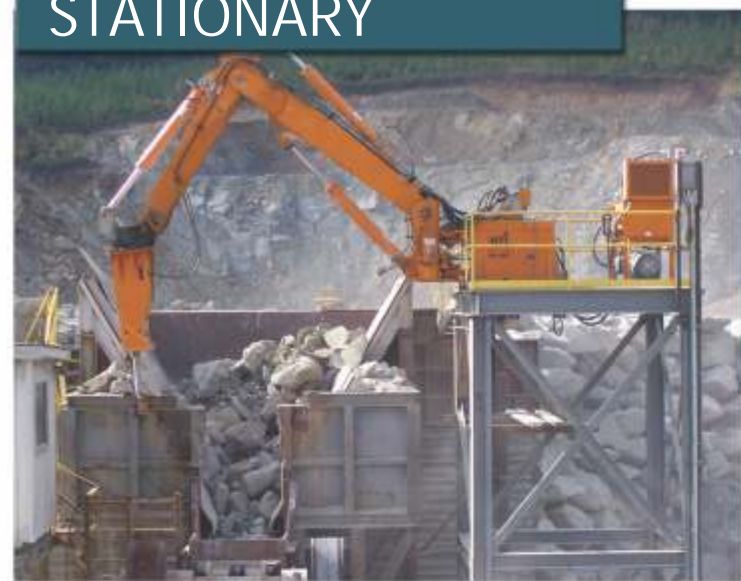


MBS12H
MBS13H
PB12H

Mobile crushers are, as the name implies, designed to be moved from site to site. An appropriate sized breaker system will mount on the crusher securely so the crusher can be moved without first dismantling the breaker assembly yet be large enough to handle the raking and breaking operations required.

BX8 to BX30

STATIONARY

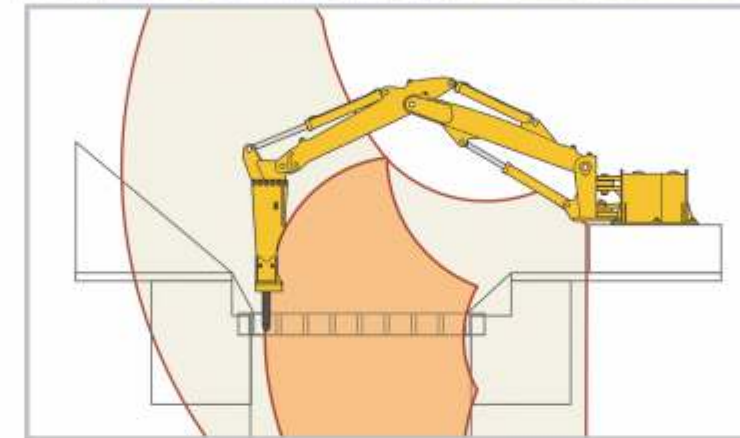


MBS12H
MBS13H
PB12H
MRH
MRHT
NT

Jaw crushers and impact jaw crushers are most often fed from a rock box using a vibratory feeder. A rock breaker should be positioned to assist with raking rocks into the crusher, reduce oversize, and to be able to reach into the crusher to assist with processing and clearing jams.

BX15 to BXR85

GRIZZLY

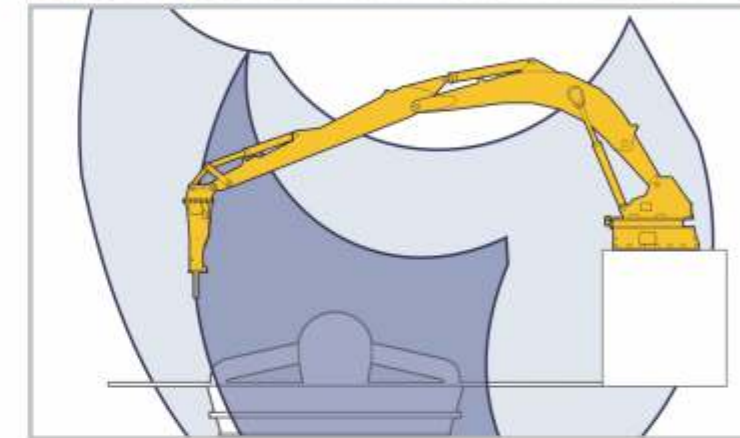


PB12H
MRX
MRHT
MRX
MRHT

Grizzly applications are extremely harsh by nature. The boom is subject to high degrees of in-line and side raking, combined with various sizes and amounts of oversize. BTI's grizzly booms are designed with wide boom cross sections, extra large pins and reinforced high tensile steel plates. All designed to handle complex loading to the boom.

BX20 to BXR85

GYRATORY



MRH
MRHT
MRX
MRHT
TTX
TRX

Big jobs need big booms and breakers. BTI's wide range of gyratory booms allow full breaker coverage within the rock box and mouth of the Crusher. BTI's complete line of large hammers are designed specifically for gyratories to quickly eliminate any bridging or clogging, restoring consistent material flow to the crusher.

BX40 to BXR160

Boom Application and Sizing Matrix



APPLICATION	MBS12H	MBS13H	PB12H	NT12	NT16	NT20	NT24	MRH16	MRH20	MRH25	MRH30	MRHT16	MRHT20	MRHT25	MRX24	MRX30	MRX36	MRXT24	MRXT30	MRXT36	TTX30	TTX36	TTX40	TTX45	TRX46	TRX52	TRX58	
Mobile	Mobile	Mobile	Mobile																									
Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary	Stationary														
Grizzly				Lt-Grizzly	Lt-Grizzly	Lt-Grizzly	Lt-Grizzly	Std-Grizzly	Std-Grizzly	Std-Grizzly		Std-Grizzly	Std-Grizzly	Std-Grizzly	Hvy-Grizzly	Hvy-Grizzly	Hvy-Grizzly	Hvy-Grizzly	Hvy-Grizzly	Hvy-Grizzly								
Gyratory								LtDuty-Gyratory	LtDuty-Gyratory	LtDuty-Gyratory		LtDuty-Gyratory	LtDuty-Gyratory	LtDuty-Gyratory	StdDuty-Gyratory	StdDuty-Gyratory	StdDuty-Gyratory	StdDuty-Gyratory	StdDuty-Gyratory	StdDuty-Gyratory	HvyDuty-Gyratory	HvyDuty-Gyratory	HvyDuty-Gyratory	HvyDuty-Gyratory	HvyDuty-Gyratory	HvyDuty-Gyratory	HvyDuty-Gyratory	HvyDuty-Gyratory
Boom Model	MBS12H	MBS13H	PB12H	NT12	NT16	NT20	NT24	MRH16	MRH20	MRH25	MRH30	MRHT16	MRHT20	MRHT25	MRX24	MRX30	MRX36	MRXT24	MRXT30	MRXT36	TTX30	TTX36	TTX40	TTX45	TRX46	TRX52	TRX58	
Operating Weight Range Complete System	6108-8026 (2770-3640)	6428-8346 (2915-3785)	9000-11070 (4080-5020)	10396-12616 (4715-5722)	10648-12868 (4829-6434)	10900-13120 (4943-5950)	11152-12254 (5058-5557)	17,894-22,300 (8115-10113)	18,294-21,060 (8297-9551)	19,194-21,300 (8705-9660)	24,894-27,000 (11,289-12,245)	18,027-22,343 (8,176-10,133)	18,337-21,103 (8,316-9,571)	19,237-21,343 (8,724-9,679)	31,900-35,214 (14,467-15,970)	33,700-37,014 (15,283-16,786)	36,100-36,913 (16,372-16,741)	31,900-35,214 (14,467-15,970)	33,700-37,014 (15,283-16,786)	36,100-36,913 (16,372-16,741)	45,557-50,407 (20,661-22,860)	47,594-51,194 (21,585-23,217)	49,152-51,452 (22,291-23,334)	50,460-52,760 (22,884-23,927)	93,300-99,200 (42,320-44,996)	101,400-107,500 (45,994-48,761)	109,500-115,600 (49,668-52,435)	
Vertical Reach*	7' 11" (2.4)	7' 2" (2.2)	11' 11" (3.6)	9' 10" (3.0)	12' 10" (3.9)	16' 2" (4.9)	22' 3" (6.7)	14' 9" (4.5)	18' 0" (5.4)	21' 5" (6.5)	24' 7" (7.5)	13' 4" (4.0)	16' 7" (5.0)	20' 1" (6.2)	21' 6" (6.6)	26' 9" (8.2)	31' 9" (9.6)	17' 3" (5.3)	21' 7" (6.6)	27' 5" (8.3)	32' 4" (9.8)	36' 11" (11.3)	42' 3" (12.8)	45' 8" (13.9)	51' 9" (15.8)	55' 9" (17.0)		
Horizontal Reach*	11' 7" (3.5)	12' 11" (3.9)	12' 5" (3.8)	13' 2" (4.0)	15' 1" (4.6)	19' 1" (5.8)	24' 0" (7.3)	16' 7" (5.0)	20' 6" (6.2)	25' 0" (7.6)	30' 1" (9.1)	16' 3" (4.9)	20' 1" (6.1)	24' 7" (7.5)	24' 6" (7.5)	29' 7" (9.0)	36' 7" (11.1)	23' 2" (7.0)	28' 3" (8.6)	34' 10" (10.6)	30' 0" (9.1)	35' 7" (10.8)	39' 0" (11.9)	43' 0" (13.4)	45' 10" (13.9)	52' 0" (15.8)	69' 0" (21.1)	
Maximum Reach*	16' 0" (4.8)	16' 5" (5.0)	18' 2" (5.5)	18' 10" (5.7)	20' 8" (6.3)	24' 8" (7.5)	30' 11" (9.4)	23' 9" (7.2)	27' 7" (8.4)	33' 0" (9.7)	36' 5" (11.1)	23' 4" (7.1)	27' 2" (8.3)	31' 8" (9.5)	32' 9" (10)	38' 2" (11.6)	45' 7" (13.9)	31' 6" (9.6)	36' 6" (11.1)	43' 8" (13.3)	38' 11" (11.8)	44' 4" (13.5)	48' 6" (14.8)	53' 6" (16.3)	57' 10" (17.6)	64' 0" (19.5)	70' 0" (21.3)	
Swing Method / Arc	Turntable/220°	Turntable/220°	SwingPost/150°	SwingPost/170°	SwingPost/170°	SwingPost/170°	SwingPost/170°	SwingPost/170°	SwingPost/170°	SwingPost/170°	SwingPost/150°	Turntable/330°	Turntable/330°	Turntable/330°	SwingPost/160°	SwingPost/160°	SwingPost/160°	Turntable/330°	Turntable/330°	Turntable/330°	Turntable/330°	Turntable/330°	Turntable/330°	Turntable/330°	Turntable/330°	Turntable/330°	Turntable/330°	Turntable/330°
Recommended Hammer Types	BX10 to BX30	BX10 to BX30	BX10 to BX30	BX10 to BX30	BX10 to BX30	BX10 to BX30	BX10 to BX20	BX20 to BXR85	BX20 to BXR65	BX20 to BXR50	BX20 to BXR65	BX20 to BXR85	BX20 to BXR65	BX20 to BXR50	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85	BX40 to BRX85

*Dimensions taken from center of swing rotation. Dimensions are based on a nominal breaker for each boom and may change based on final breaker selection

POWER PACKS



BTI's electric over hydraulic power packs engineered for mine duty applications provide accurate hydraulic flow and pressure for the boom and breaker. Power packs come with a full array of standard and optional features designed to optimize performance.

Power Pack Model	PP 50-30	PP 50-40	PP 100-30	PP 100-40	PP 100-50	PP 100-60	PP 100-75	PP 100-100	PP 100-125	PP 100-150	PP 200-100	PP 200-125	PP 200-150	PP 200-200	PP 300-300
Boom Match Up	MBS	MBS	MBS,PB,NT	MBS,PB,NT	MBS,PB,NT	MBS,PB,NT	MRH,MRHT	MRH,MRHT	MRH,MRHT	MRH,MRHT	TTX	TTX	TTX	TTX	TRX
Breaker Match Up	BX8 to BX10	BX15	BX8 to BX10	BX15	BX20	BX30	BX40	BX40 to BX50	BXR65	BXR85	BXR50	BXR65	BXR85	BXR50 to BXR120	BXR85 to BXR160
Reservoir Volume US GAL (LITRE)	50 (190)	50 (190)	100 (380)	100 (380)	100 (380)	100 (380)	100 (380)	100 (380)	100 (380)	100 (380)	200 (760)	200 (760)	200 (760)	200 (760)	300 (1140)
Power Requirements HP (KW)	30 (22)	40 (30)	30 (22)	40 (30)	50 (37)	60 (45)	75 (55)	100 (74)	125 (92)	150 (111)	100 (74)	125 (92)	150 (111)	200 (148)	300 (221)
Pump Flow GPM (LPM)	14 - 20 (53 - 76)	27 (103)	14 - 20 (53 - 76)	27 (103)	29 (110)	37 (140)	42 (159)	42 - 51 (159 - 193)	58 (219)	69 (261)	53 (200)	58 (219)	72 (272)	99 (374)	120 (454)

POWER PACK OPTIONS



Standard Equipment
 Swash plate piston pumps with load sense / constant horsepower control
 Extra heavy duty all welded construction suitable from high vibration applications
 Pressurized fill cap with air filtration
 Suction strainers (on larger models)
 Full flow pressure filter with visual indicator
 Full flow return filter with visual indicator
 Flooded pump inlet
 Clean out / inspection cover
 Fluid level indication
 Fluid temperature indication

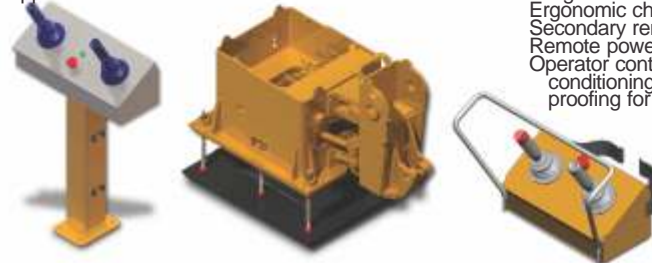
Optional Equipment
 Immersion heater
 Drip tray
 Hand pump fill kit
 Electrical filter indication
 Extreme cold weather power pack
 Extreme duty cycle and high temperature cooling
 Motor starter panel & power pack control center
 High / Low temperature Interlock
 High altitude hydraulic charging kit
 High altitude electric motor compensation
 Premium efficiency electric motor
 Explosion proofing
 Fire suppression systems
 Fire restraint fluid compatibility
 High horsepower / High flow pump motor
 Complete power pack enclosure

GENERAL OPTIONS

Control systems
 BTI's rockbreaker booms come standard with fully proportional electro-hydraulic control from twin joysticks operating a fully proportional, load sensing directional control valve providing precise and variable control of all boom functions. The basic system can be modified to suit many needs including additional control pendants for maintenance and long distance applications

Optional Equipment
 Stand mounted electric over hydraulic joystick control
 Portable electric over hydraulic joystick control
 Remote manual hydraulic control
 Radio remote control
 CAN (Can Bus) control system
 Control cable length
 Long distance fibre optic and co-axial upgrade
 Ergonomic chair c/w joystick control
 Secondary remote control
 Remote power pack starter / control panel
 Operator control cabins with heating, air-conditioning, cab pressurization and explosion proofing for windows

Boom Options
 All hose boom (no hydraulic tubes)
 Optional hose connections ORFS and SAE split flange
 Load drop counter balance valves on all boom functions
 Breaker anti-lunge interlock
 Automatic greasing systems
 All hose boom (no hydraulic tubes)
 Manual / central greasing system
 Expander pins™
 Pedestal to steel structure mounting kit
 Pedestal to concrete foundation mounting kit
 Cold weather conditioning package
 Cold weather grade steel plate construction
 Bucket and grapple attachment
 Start-up and commissioning
 Installation and supervision



BREAKERS



BX Breakers		BX4	BX6	BX8	BX10	BX15	BX20	BX30	BX40
Energy Class	FT-LB (Joule)	400 (550)	600 (800)	800 (1080)	1000 (1350)	1500 (2000)	2000 (2700)	3000 (4100)	4000 (5400)
Impact Frequency	(BPM)	950	1,000	900	900	700	550	550	500
Oil Flow	GPM (LPM)	11 (40)	13 (50)	14 (55)	21 (80)	27 (100)	29 (110)	37 (140)	42 (160)
Operating Pressure	PSI (BAR)	1740 (120)	1740 (120)	2000 (140)	2000 (140)	2000 (140)	2300 (160)	2300 (160)	2450 (170)
Working Weight	LB (KG)	420 (190)	440 (200)	735 (333)	948 (430)	1355 (615)	2050 (930)	2670 (668)	3830 (1740)
Tool Diameter	in (mm)	2.1 (53)	2.4 (62)	2.8 (70)	3.1 (78)	3.3 (85)	4.1 (105)	4.7 (120)	5.3 (135)



BXR Breakers		BXR50	BXR65	BXR85	BXR100	BXR120	BXR160
Energy Class	FT-LB (Joule)	5000 (6800)	6500 (8800)	8500 (11500)	10000 (13500)	12000 (16300)	16000 (21500)
Impact Frequency	(BPM)	561	487	426	460	413	318
Oil Flow	GPM (LPM)	58 (220)	61 (230)	66 (250)	90 (340)	106 (400)	99 (450)
Operating Pressure	PSI (BAR)	2755 (190)	2755 (190)	2755 (190)	2755 (190)	2755 (190)	2755 (190)
Working Weight	LB (KG)	4200 (1900)	4860 (2200)	6500 (2950)	7800 (3550)	9,050 (4100)	12400 (5,630)
Tool Diameter	in (mm)	5.5 (140)	6.0 (150)	6.3 (160)	6.7 (170)	7.1 (180)	7.9 (200)



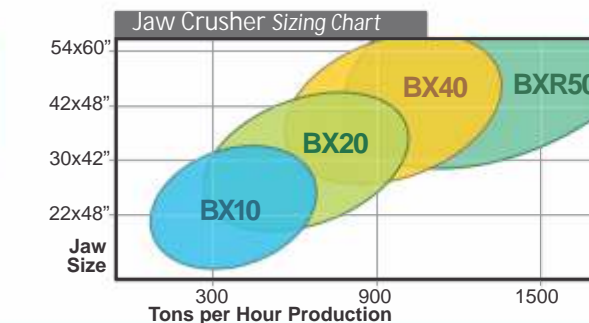
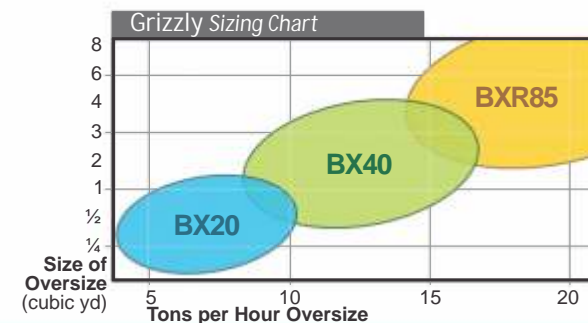
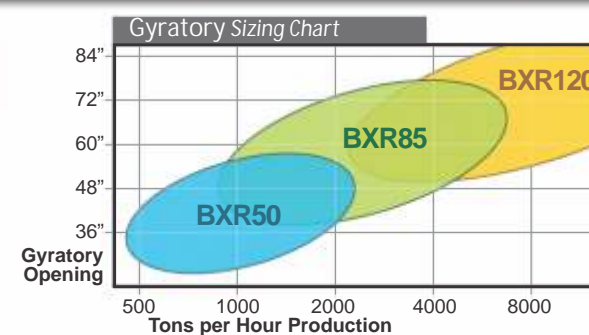
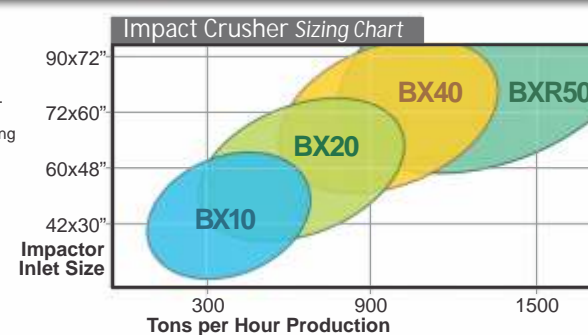
Side Mount



Top Mount c/w Severe Duty & Concave Removal Tool

SIZING a BREAKER

These charts provide only a rough calculation. Contact BTI for assistance in sizing your breaker.



BREAKER OPTIONS

BTI's full line of BX and BXR series breakers come standard with extra heavy-duty box housings, internal shock damping systems and rock claws configured for continuous duty mining environments.

Optional Equipment
 Extension brackets
 Mechanical or hydraulic quick couplers
 Side plate housing construction
 Severe duty, anti-abrasion wear kits
 Side mounted breakers
 Automatic greasing systems

Choice of tools: blunt, chisel or moil
 Extended tool lengths
 Concave removal tools
 Energy regeneration systems (BXR series)
 Anti blank fire interlock
 Two speed control



Blunt Chisel Moil

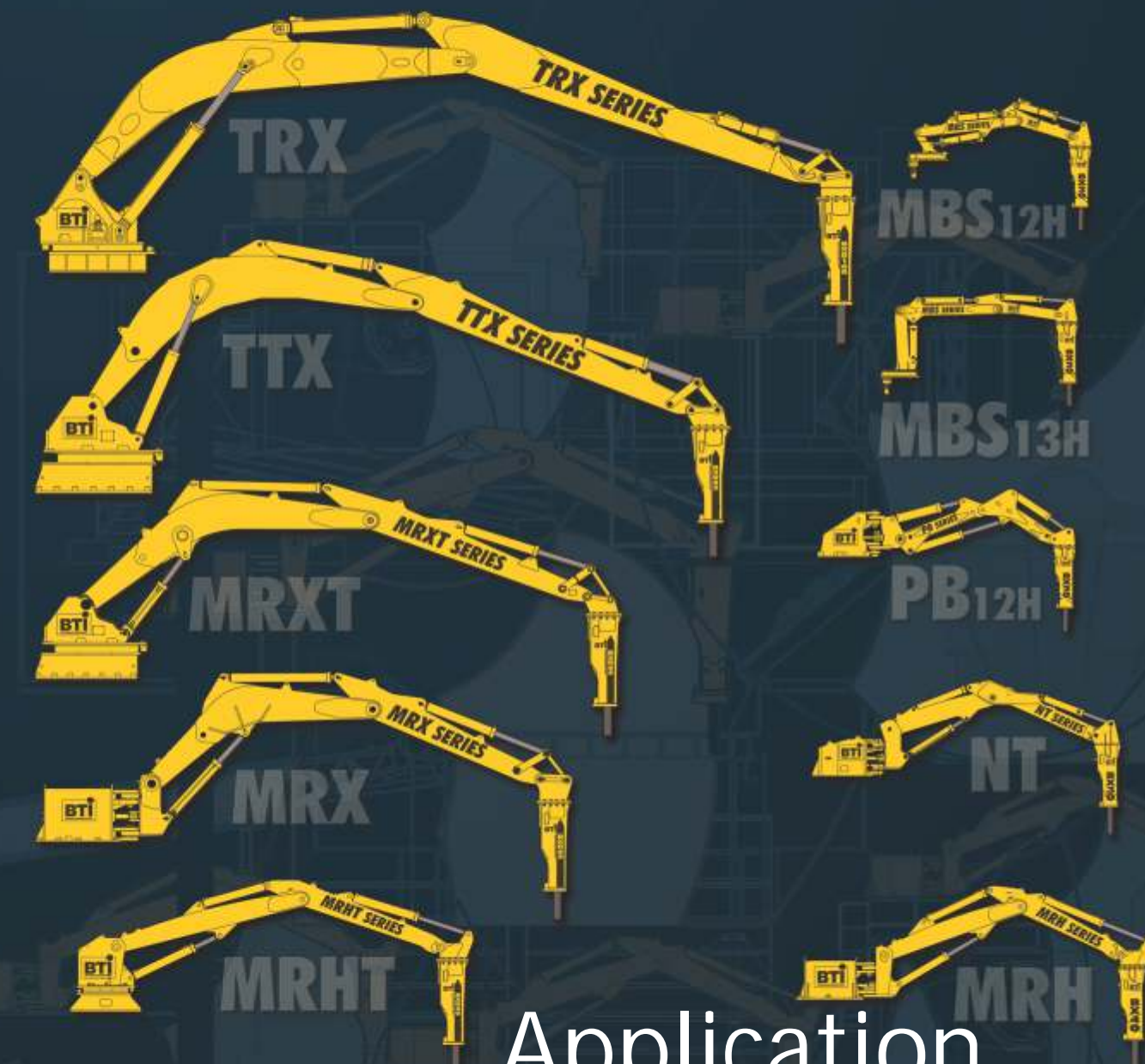
ISO 9001:2008
 ISO 14001:2004

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Application Driven Solutions

HYDRAULIC ROCKBREAKER SYSTEMS