## Sandvik Breakers in Action





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Sandvik Mining and Construction, the world-leading manufacturer of hydraulic breakers, has been setting the standards for breaking for over three decades. Sandvik, through its former Rammer brand, was the first manufacturer to offer large and heavy-duty hydraulic rock breaking hammers for tough conditions. Sandvik has continued this tradition of technological advancement and innovation by leading the way on productivity, reliability and customer solutions.

Our state-of-the-art factories produce a comprehensive range of breakers, cuttercrushers, pulverizers and breaker boom systems to meet the needs of our customers in a variety of fields such as demolition, recycling, mining, construction and quarrying.

Sandvik breakers are sold and supported through a global dealer and distributor network that provides a comprehensive parts and aftersales support service. The expertise of the distribution network is always available to support the products and assist our customers.

Regardless of your industry, application or geographic location, Sandvik has a complete range of advanced hydraulic breakers, demolition attachments backed by an unrivalled after sales support service to meet your specific needs.



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## Sandvik breakers Compact range

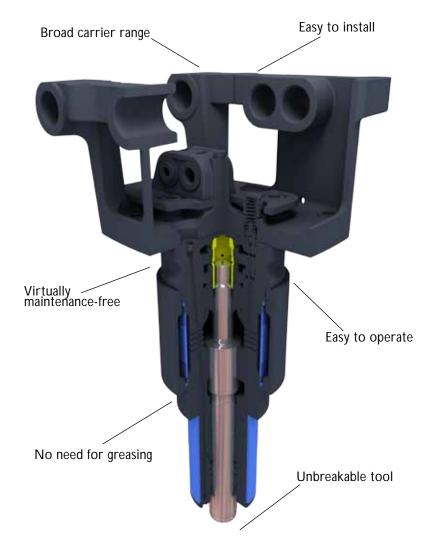
All four models in this highly-versatile range can be utilized in an infinite number of applications.

With a patented and integrated bracket that can accommodate pin or bracket mounting or quickhitch systems, this revolutionary range is capable of accepting a wide range of oil flows and can be mounted on virtually any mini excavator or skid steer loader, making them ideally suited to rental and multiple carrier applications.

Featuring a massive and unbreakable trapezoidal tool that is covered by a lifetime warranty against breakage, Compact range breakers are designed for a long, virtually maintenance-free service life.

A revolutionary composite tool bushing eliminates the need for greasing while the membrane-type accumulator removes the need for recharging, lowering owning and operating costs.

Hoses are housed within the bracket for optimum protection from impact and abrasion. These breakers can cope with high back pressures and can withstand the rigours of even the toughest self-drive rental applications.



	BR108	BR211	BR315	BR522
Working weight, kg (lb) <sup>(1)</sup>	70-80 (150-180)	100-115 (220-250)	135-155 (300-340)	205-235 (450-520)
Impact rate (frequency), bpm	400-1900	400-1900	400-1900	400-1900
Operating pressure, bar (psi)	100-140 (1450-2050)	100-140 (1450-2050)	100-140 (1450-2050)	110-150 (1600-2200)
Pressure relief min, bar (psi)	150 (2200)	150 (2200)	150 (2200)	160 (2300)
Pressure relief max, bar (psi)	220 (3200)	220 (3200)	220 (3200)	220 (3200)
Oil flow range, I/min (gal/min)	12-30 ( 3- 8)	14-40 (4-11)	16-50 (4-13)	20-70 (5-18)
Back pressure max, bar (psi)	20 (300)	20 (300)	20 (300)	20 (300)
Input power kW (hp)	7 (9)	9.3 (12)	11.7 (16)	17.5 (23)
Tool diameter, mm (in)	104 (4.09)	119 (4.69)	131 (5.16)	150 (5.91)
Miniexcavator, tractor backhoe weight, t (lb) $^{(2)}$	0.8-1.8 (1800-4000)	1.2-2.6 (2600-5700)	1.6-3.6 (3500-7900)	2.5-5.5 (5500-12100)
Skid steer, robot weight (2)	0.6-1.3 (1300-2900)	0.8-1.8 (1800-4000)	1.1-2.5 (2400-5500)	1.6-3.9 (3500-8600)
Noise level (2000/14/EC), dB(A)	133	131	132	137



## Sandvik breakers BR111, BR222 & BR333

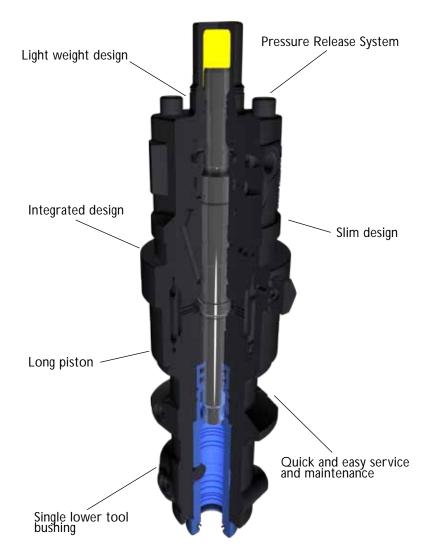
Sandvik's BR111, BR222 and BR333 models combine simplicity and cost-effectiveness with a class-leading power to weight ratio that is ideally suited to demolition and recycling applications.

The three models match carriers from 0.8 to 4.0 ton (1800-8800 lb) and benefit from a sturdy yet lightweight and slim design that allows them to operate effectively in narrow and confined spaces.

Capable of accepting a wide range of oil flows and excellent back pressure acceptance, these class leading models can be installed on a wide range mini excavators, skid steer loaders and other compact carriers. While Sandvik's all new, built-in Pressure Release System (PRS) enables fast, safe hose removal for quick couplers.

The simple integrated design of these breakers give them 30% fewer parts, with no tie rods, an integrated accumulator and integrated single lower tool bushing.

Featuring just two moving parts which minimises maintenance and reduces owning and operating costs, nor do any of these three breakers require periodical gas recharging, while servicing, resealing and the replacement of the single lower tool bushing can be accomplished in a matter of minutes for minimal down time and greater profitability.



	BR111	BR222	BR333
Working weight, kg (lb) <sup>(1)</sup>	70 kg (150)	105 (230)	150 (330)
Impact rate (frequency), bpm	1000-2600	1100-2600	1050-2050
Operating pressure, bar (psi)	80-130 (1150-1900)	100-150 (1450-2200)	100-150 (1450-2200)
Pressure relief min, bar (psi)	130-180(1900-2600)	150-200 (2200-2900)	150-200 (2200-2900)
Pressure relief max, bar (psi)	220 (3200)	220 (3200)	220 (3200)
Oil flow range, I/min (gal/min)	15-33 (4- 9)	20-48 (5-13)	30-63 (8-17)
Back pressure max, bar (psi)	20 (300)	20 (300)	20 (300)
Input power kW (hp)	7.2 (10)	12 (16)	15.8 (21)
Tool diameter, mm (in)	36 (1.42)	42 (1.65)	50 (1.97)
Carrier weight, t (lb) <sup>(2)</sup>	0.8-1.8 (1800-4000)	1.2-2.4 (2600-5300)	2.0-4.0 (4400-8800)
Noise level (2000/14/EC), dB(A)	121	127	123



# Sandvik breakers Small range

All models in the Sandvik breakers Small range are offered in a variety of housing and mounting configurations.

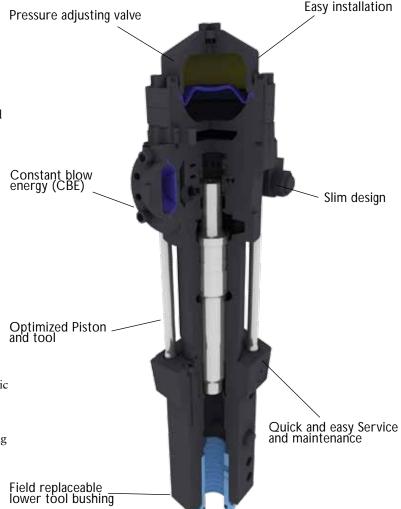
They are able to accept a wide range of oil flows and are tolerant of high back pressures. This means they can be mounted on a huge range of carriers and utilized in an infinite number of applications.

#### **Powerful and Productive**

Each Sandvik Breakers Small range hammer incorporates a piston and tool that are perfectly matched to ensure maximum energy transfer for optimum power and breaking efficiency. Sandvik's proven Constant Blow Energy (CBE) system ensures maximum impact energy with every blow for optimum productivity and profitability.

### **Reliable and Durable**

Sandvik Breakers Small range hammers are built to last. Membrane-type accumulators assist with power stroke and provide protection against hydraulic spikes. Field replaceable lower bushing and a lowmaintenance design ensures optimum hammer uptime, higher availability levels and reduced owning and operating costs.



	BR422	BR623	BH825	BR927	BR1229
Working weight Standard, kg (lb) (1)	200 (440)	300 (660)	425 (940)	590 kg (1300 lb)	830 (1830)
Working weight Silenced, kg (lb) $^{(1)}$	220 (490)	315 (690)	430 (950)	600 kg (1320 lb)	820 (1810)
Working weight UNIRAM, kg (lb) $^{(1)}$	190 (420)	310 (680)	455 (1000)	600 kg (1320 lb)	785 (1730)
Impact rate, bpm	450-1800	400-2000	600-1800	500-1300	500-1000
Operating pressure, bar (psi)	80-110 (1150-1600)	100-145 (1450-2100)	100-130 (1450-1900)	80-130 (1150-1900)	125-150 (1800-2200)
Pressure relief min, bar (psi)	130-160 (1900-2300)	150-195 (2200-2850)	150-190 (2200-2750)	130-180 (1900-2600)	175-200 (2550-2900)
Pressure relief max, bar (psi)	210 (3050)	220 (3200)	220 (3200)	220 (3200)	220 (3200)
Oil flow range, I/min (gal/min)	20-70 (5-18)	25-100 (7-26)	50-150 (13-40)	60-150 (16-40)	60-120 (16-32)
Back pressure max, bar (psi)	30 (450)	20 (300)	30 (450)	10 (150)	10 (150)
Max input power, kW (hp)	12.8 (17)	24 (32)	33 (44)	32.5 (44)	30 (40)
Tool diameter, mm (in)	50 (1.97)	63 (2.48)	70 (2.76)	84 (3.31)	95 (3.74)
Carrier weight, t (lb) <sup>(2)</sup>	2.5-4.5 (5500-9900)	3-6.5 (6600-14300)	5-8.5 (11000-18700)	7-12 (15400-26500)	9-15 (19800-33100)
Noise level (2000/14/EC), dB(A) Standard UNIRAM Silenced	128 128 118	132 129 121	134 134 125	135 135 127	136 136 126



### Sandvik breakers BR555, BR777 & BR999

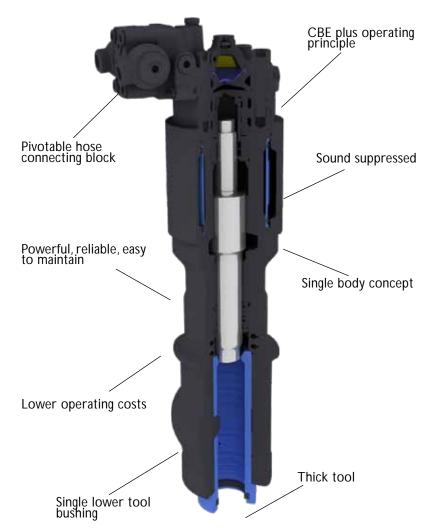
After decades of success through it's s-series/small range of breakers Sandvik has released three new state of the art breakers BR555, BR777 and BR999.

Incorporating the CBE plus operating principle without tierods all three of the new Sandvik Small range breakers are powerful, reliable and easy to maintain.

Sandvik's small range breakers are your reliable long life solution to any breaking application for carriers between 3.4 and 12.5 ton.

The box type housing of these breakers offers noise and vibration insulation whilst also fully protecting the power cell. Less wear and better bending force resistance, also increases the life span and reduces operating costs.

Installation is made safe and easy thanks to the swivel type hose connectors which can be uniquely and easily turned over to meet left or right hand hose connections BR555, BR777 and BR999, deliver high blow frequency and power where and when you need it regardless of the application.



	BR555	BR777	BR999
Working weight, kg (lb) <sup>(1)</sup>	275 kg (610)	370 (820)	505 (1110)
Impact rate (frequency), bpm	600-1800	500-1700	500-1700
Operating pressure, bar (psi)	90-140 (1300-2050)	90-140 (1300-2050)	100-140 (1450-2050)
Pressure relief min, bar (psi)	140-200 (2050-2900)	140-190 (2050-2750)	150-190 (2200-2750)
Pressure relief max, bar (psi)	220 (3200)	220 (3200)	220 (3200)
Oil flow range, I/min (gal/min)	35-90 (9-24)	40-120 (11-32)	50-150 (13-40)
Back pressure max, bar (psi)	20 (300)	20 (300)	20 (300)
Input power kW (hp)	21 (28)	28 (38)	35 (47)
Tool diameter, mm (in)	72 (2.83)	80 (3.15)	90 (3.54)
Miniexcavator, tractor backhoe weight, t (lb) (2)	3.4-8.0 (7500-17600)	4.6-9.0 (10100-19800)	7.0-12.5 (15400-27600)
Skid steer, robot weight <sup>(2)</sup>	1.9-3.6 (4200-7900)	2.6-5.0 (5700-11000)	4.0-7.0 (8800-15400)
Noise level (2000/14/EC), dB(A)	129	129	127

(1) Includes average mounting bracket and standard tool

(2) Check carrier's lifting capacity from carrier manufacturer



### Sandvik breakers Parts and Tools

Sandvik Mining and Construction recognises that all our breakers and attachments are only ever as good as the parts and tools they use.

Which is why our genuine parts and tools utilize the best raw materials and heat treatment characteristics to ensure optimum durability across a broad range of industries, materials and applications.

These parts and tools are available through a highly experienced global dealer network that is unparalleled within our industry and which ensures that you get the right part or tool, to the right place, at the right time.



### Sandvik breakers Lifetime Warranty

We here at Sandvik stand by our products, and as further proof of this we are offering a free lifetime warranty on all Double Digit breakers, BR2155, BR2577, BR3288 and BR4099.

We recognise that our customers are seeking to safeguard their investment in capital equipment, that is why we have designed this new Lifetime Warranty to provide them with total security.

The Sandvik Lifetime Warranty does not only provide our customers with greater reassurance, but also makes it easier to calculate their operating costs, whilst increasing the resale value of their Sandvik breaker.

For more information about the Sandvik Breaker Lifetime Warranty, please contact your nearest Sandvik breaker dealer.



## Sandvik breakers BR2155

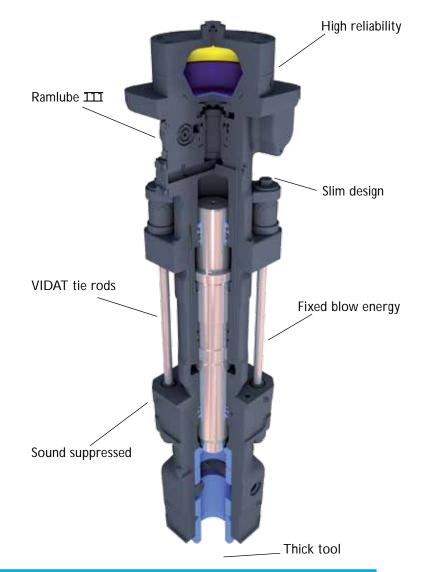
Sandvik BR2155 has given new meaning to the term power-to-weight ratio since it's release in 2008. Featuring a replaceable bottom plate, Sandvik's VIDAT system and made from wear resistant steel, the slim and extremely robust body of the BR2155 offers the operator greater visibility and better accessibility in trenching and demolition applications.

Built to last and for ease of operation, the BR2155 has been designed with the operator, environment and application in mind. The sound-suppressed housing increases operator comfort and also enables the BR2155 to be utilised in urban areas where noise restrictions are a factor.

Through the use of a broad range of "Retrofit" options, the BR2155 can be adapted to be more application-specific to further increase productivity.

Ramlube III – An integrated lubrication device mounted inside the breaker provides optimum lubrication effect with the by minimum grease for longer tool and bushing life. Safety valve – Protects the breaker from severe

hydraulic installation abuse. Heavy duty set – Heavy Duty housing with stone claw for demanding applications.



	BR2155
Working weight, kg (lb) <sup>(1)</sup>	1220 (2690)
Impact rate (frequency), bpm	490-780
Operating pressure, bar (psi)	140-160 (2050-2300)
Pressure relief, min, bar (psi)	220 (3200)
Pressure relief, max, bar (psi)	240 (3500)
Oil flow range, I/min (gal/min)	120-180 (32-48)
Back pressure, max, bar (psi)	10 (150)
Max input power, kW	48 (64)
Tool diameter, mm (in)	118 (4.65)
Carrier weight, optimum, ton (lb) <sup>(2)</sup> Carrier weight, range, ton (lb) <sup>(2)</sup>	19-22 (41900-48500) 16-26 (35300-57300)
Noise level (2000/14/EC), dB(A)	128

(1) Includes average mounting bracket and standard tool

(2) Check carrier's lifting capacity from carrier manufacturer



## Sandvik breakers **BR2577**

Sandvik's BR2577 features the very latest in breaker design. Incorporating sandvik's fixed blow energy (FBE), the BR2577 ensures maximum impact energy with every blow for maximum productivity and profitability, regardless of flow fluctuations.

The BR2577 features a sound suppressed housing, Sandvik's VIDAT system and is also available with a host of "Options" as "Retrofit" that provide its users the flexibility to match the breaker to their application.

Safety valve - protects the hammer from hydraulic installation abuse.

Idle blow protector - protects the hammer from blank firing.

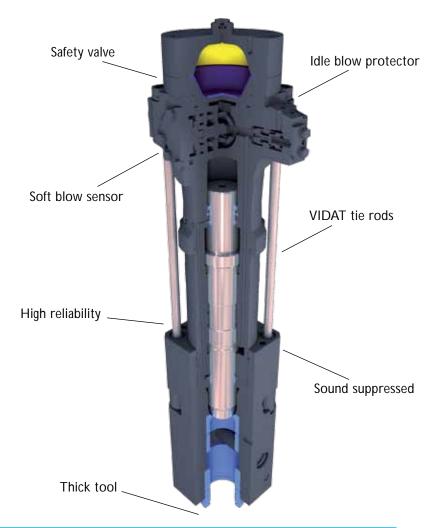
**Soft blow sensor** – reduces the power & frequency of the hammer for softer rock.

Ramlube 1 – carrier mounted automatic greasing device.

Ramlube 11 – hammer mounted automatic greasing device.

Ramona - a device to monitor performance of the hammer and alert the user.

Ramair - a system to protect the piston and tool from dust & water.



	BR2577
Working weight, kg (lb) <sup>(1)</sup>	1760 (3880)
Impact rate (frequency), bpm	450750
Operating pressure, bar (psi)	135-145 (1950-2100)
Pressure relief, min, bar (psi)	190 (2750)
Pressure relief, max, bar (psi)	220 (3200)
Oil flow range, I/min (gal/min)	140-200 (37-53)
Back pressure, max, bar (psi)	10 (150)
Max input power, kW	48 (64)
Tool diameter, mm (in)	135 (5.31)
Carrier weight, optimum, ton (lb) <sup>(2)</sup> Carrier weight, range, ton (lb) <sup>(2)</sup>	23-28 (50700-61700) 21-30 (46300-66100)
Noise level (2000/14/EC), dB(A)	124
(1) Includes arrange mounting breaket and standard tool	



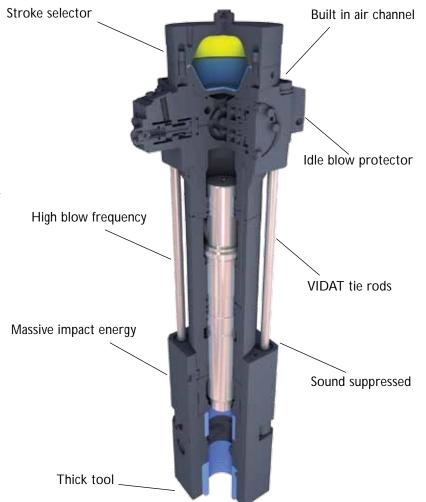
### Sandvik breakers BR3288, BR4099

Sandvik's BR3288 and BR4099 have been designed using a revolutionary new operating principle that combines stroke length, blow energy and Sandvik's idle blow protector, allowing the breaker to be modified to match individual carriers and applications, improving hydraulic efficiency and safety.

Both the BR3288 and BR4099 deliver massive impact energy and a high blow frequency for exceptional power-to-weight ratio.

BR3288 and BR4099 also feature a state-of-the-art sealing system, enhanced lubrication for longer service interval, which help reduce operating costs.

As with all of Sandvik's new mid to large range breakers, the BR4099 and BR3288 feature the VIDAT system and a heavy duty (HD) housing, which provides improved reliability and lower operating costs. And for the few applications in which HD just won't do, both breakers are available in Heavy Duty Hard Rock housings (HDHR).



	BR3288	BR4099
Working weight, kg (lb) <sup>(1)</sup>	2350 (5180)	3380 (7450)
Impact rate (frequency), bpm	370-630	400-560
Operating pressure, bar (psi)	150-160 (2200-2300)	150-160 (2200-2300)
Pressure relief, min, bar (psi)	220 (3200)	210 (3050)
Pressure relief, max, bar (psi)	240 (3500)	230 (3350)
Oil flow range, I/min (gal/min)	160-250 (42-66)	250-350 (66-92)
Back pressure, max, bar (psi)	10 (150)	12 (150)
Max input power, kW	67 (90)	93 (125)
Tool diameter, mm (in)	142 (5.59)	166 (6.54)
Carrier weight, ton (lb) <sup>(2)</sup>	27-40 (59500-88200)	35-60 (77200-132300)
Noise level (2000/14/EC), dB(A)	124	130



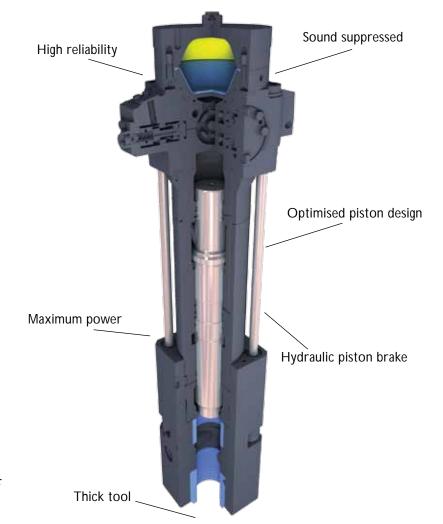
### Sandvik breakers BR4510, BR4511, BR7013

Three of the largest models in the Sandvik breakers range the BR4511 is one large, powerful, durable and reliable package, which is the preferred choice among large breaker professionals world wide.

A pressure control valve ensures that every blow is delivered with maximum power while an optimised piston design transfers blow energy efficiently for optimum breaking performance.

Manufactured with a heavy duty housing and a high wear resistant steel lower boot for optimum wear resistance, all models are designed to be easily maintained and reliable, regardless of the application.

A membrane type accumulator protects the carrier from hydraulic pulsation and eliminates the need for weekly maintenance. The built-in grease port and channel make the installation of Ramlube easy, ensuring efficient and constant lubrication while a built-in air port and channel allow easy underwater conversion or the usage of Ramair either in tunnels or other dusty environments for longer wear item life time.



	BR4510	BR4510 TUNNEL	BR4511	BR7013
Working weight, kg (lb) $^{(1)}$	3800 (8380)	3700 (8160)	3800 (8380)	7000 (15430)
Impact rate (frequency), bpm	350-550	350-550	300-480	350-450
Operating pressure, bar (psi)	155-165 (2250-2400)	150-160 (2200-2300)	140-155 (2050-2250)	150-170 (2200-2450)
Pressure relief, min, bar (psi)	205 (2950)	210 (3050)	195 (2850)	220 (3200)
Pressure relief, max, bar (psi)	230 (3350)	230 (3350)	220 (3200)	230 (3350)
Oil flow range, I/min (gal/min)	220-350 (58-92)	220-350 (58-92)	220-320 (58-85)	300-400 (79-106)
Back pressure, max, bar (psi)	10 (150)	10 (150)	8 (100)	10 (150)
Max input power, kW	96 (129)	93 (125)	83 (111)	113 (152)
Tool diameter, mm (in)	170 (6.69)	170 (6.69)	175 (6.89)	203 (7.99)
Carrier weight, ton (lb) (2)	40-70 (88200-154300)	40-70 (88200-154300)	40-70 (88200-154300)	60-100 (132300-220500)
Noise level (2000/14/EC), dB(A)	127	127	129	129

### Sandvik breakers Demolition tools





Demolition is the tearing-down of buildings and other structures, and Sandvik Mining and Construction offers a complete range of demolition tools to make light work of any application.

Excavators with demolition attachments are the number one choice for use in demolition applications, when the use of explosives is not appropriate or possible. Sandvik's demolition tools make it possible to completely demolish a structure. Shearing through structural steel and crushing the reinforced concrete elements to separate the reinforcing steel from the concrete.

Sandvik's range of multiprocessors, cutter-crushers and pulverizers have been designed to perform a broad array of duties, regardless of if it is a primary or secondary application.

### **BC** multiprocessor range

The Sandvik BC multiprocessor is designed to perform a broad array of duties. Engineered for both primary and secondary applications, these models are suitable for carriers between 6 and 35 tons, for crushing concrete, cutting reinforced structures, pulverizing and demolition.

### BC cutter-crusher range

The Sandvik BC Cutter-Crusher Range features three models all of which deliver a class leading power to weight ratio. BC504 and BC706 with their lightweight design can be mounted on carriers from 2.5 tons up to 9 tons, and the BC2022 is the number one choice for carriers between 20 and 40 tons.

#### **BP** pulverizer range

The Sandvik BP pulverizer range is ideally suited for carriers from 18 to 42 tons for use in a wide range of secondary demolition and recycling duties. The BP range models are designed for fast and effective material separation, a key aspect of the recycling process.

## Sandvik breakers Booms

Sandvik's pedestal mounted breaker booms enable the optimal positioning of a breaker within a crushers feed, allowing blockages and bridging of rock to be broken and cleared quickly and efficiently.

Available in a wide range of sizes and designs, Sandvik breaker booms can be supplied as complete, perfectly matched systems including the power pack, control system and perfectly matched breaker. Models range from flexible, lightweight rota-booms to heavy-duty boom systems with extended reach.

### Compact series booms

These booms are used on mobile crushing plants and impact crushers. They feature a low-profile design that maintains the crushers low transportation height.

#### Small series booms

Light weight, multi- purpose booms, typically used in quarries, together with primary crushers or mobile crushers to clear blockages and bridging.

#### Medium series booms

All of the Medium series booms have been built to take heavy loads in quarry and mining applications. Typically installed to enhance the productivity of stationary crushers by feeding material to the crushers and raking the hopper area.

#### Large series booms

Large series booms are specially designed for the mining markets. Applications may include gyratory crushers in mines and quarries, or grizzlies. Large booms also feature a multifit pedestal, that makes replacing existing, worn out boom systems more convenient.

#### Mobile breaker systems

These systems are especially designed for mobile underground grizzly applications. They can easily be installed on various carriers and make a winning combination, once teamed up with a Sandvik medium or large breaker and or any other compatible Sandvik product.







Sandvik is a high-technology engineering group with world-leading positions in selected areas – tools for metal working, advanced materials technology, and mining and construction. We are represented in 130 countries. Sandvik Mining and Construction represents one third of the overall Sandvik Group and serves a broad range of customers in construction, mineral exploration, mining and bulk materials handling. Our construction expertise covers quarrying, tunneling, demolition and recycling, and other civil engineering applications. Our mining products and services support customers on the surface and under ground, in all mineral, coal and metal mining applications from exploration to ore transportation.

#### **Commitment and Responsibility**

Sandvik is committed to improving conditions for people while minimizing environmental impact. You can see it in everything we do. From sustainable operations that recycle resources, cut emissions and save energy. To promoting a strong safety culture, and supporting local communities with resources and knowledge. Put simply: Commitment and Responsibility.



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