

Strength and efficiency

The hydraulic breaker is an equipment of the earth-moving and mining industry, whose components are subjected to high levels of stress, working mostly in difficult situations.

In order to make hydraulic breakers increasingly reliable and guarantee performance and power, Hammer Srl has introduced the SB and FX lines, obtained with in-depth R&D studies carried out in over 30 years of activity.

For the production of these ranges, the best high-alloy steels on the market are used and the best heat treatment techniques developed.

The research and studies carried out have allowed us to obtain important results in terms of the technological and mechanical characteristics of the steels.

At the same time, studies were carried out in collaboration with the main producers of hydraulic seals (Trelleborg, Freudenberg, Nok).

Over the years we have therefore improved the quality of the materials used and the types of the same, so as to adapt them to the right ratio between the variables speed, pressure,

temperature, obtaining thus greater durability.

With ref. to SB and FX series, Hammer Srl, thank to its experience, has chosen to design and build "nitrogen" breakers in order to obtain a high power distributed over a higher number of blows per minute, thus resisting high counterpressures up to 25 bar.

The breaker is also very compactly structured to reduce stress on the excavator arm and ensure greater durability of both the breaker itself and its components.

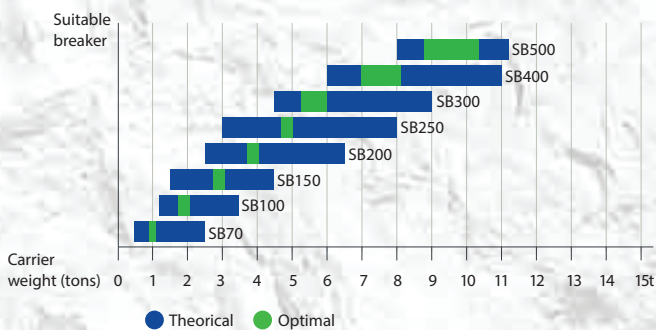
- The SB and FX hydraulic breakers can work on any type of excavator and on any single-acting hydraulic system; they are also suitable for hydraulic systems with high back pressure

- HAMMER Breakers are equipped with special polyurethane shock absorbers that absorb vibrations, thus protecting the arm of the excavator and also reduce noise emissions, according to the requirements of directive 2000/14 / EC

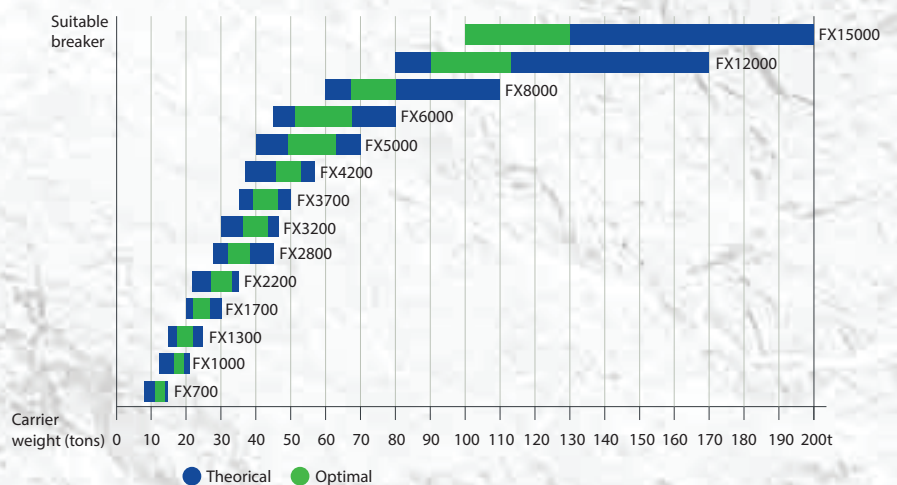
The HAMMER breakers of the SB series are suitable for carriers, mini excavators, mini-blades, backhoe loaders, demolition robots. etc...

The HAMMER breakers of the FX series are suitable for medium and large crawler and wheeled excavators, etc...

SB Series



FX Series



Application overview

Mining & quarrying



Preliminary works	<ul style="list-style-type: none"> › Overburden removal › Bench, road & ramp leveling › Roof, face & rib scaling
Secondary breaking	<ul style="list-style-type: none"> › Boulder reduction in rock pile › Removing blockages at crushing systems
Primary rock breaking	<ul style="list-style-type: none"> › Selective rock breaking › Blast-free mining

SB	FX (700-1700)	FX (2200-15000)
●	●	●
●	●	●
●	●	●

Demolition & renovation



Masonry structures	<ul style="list-style-type: none"> › Brickwork › Natural stone › Autoclaved aerated concrete
Concrete structures	<ul style="list-style-type: none"> › Lightweight concrete › Standard concrete
	<ul style="list-style-type: none"> › Heavyweight concrete
Composite steel & concrete structures	<ul style="list-style-type: none"> › Steel-reinforced concrete › Prestressed concrete › Fiber-reinforced concrete
Pavements	<ul style="list-style-type: none"> › Asphalt › Concrete › Composite surfaces

●	●	●
●	●	●
●	●	●
●	●	●
●	●	●

Construction



Earthworks	<ul style="list-style-type: none"> › Trenching › Pit building › Ground excavation
Tunneling	<ul style="list-style-type: none"> › Tunnel driving › Roof, face & rib scaling › Floor leveling
Dredging	<ul style="list-style-type: none"> › Canal deepening & extension › Dock deepening & extension
Gardening & Landscaping	<ul style="list-style-type: none"> › Fencing › Ground excavation › Rock breaking
Foundation works	<ul style="list-style-type: none"> › Ground leveling
Building construction	<ul style="list-style-type: none"> › Foundation pile driving

●	●	●
●	●	●
●	●	●
●	●	●
●	●	●
●	●	●

Metallurgical industry

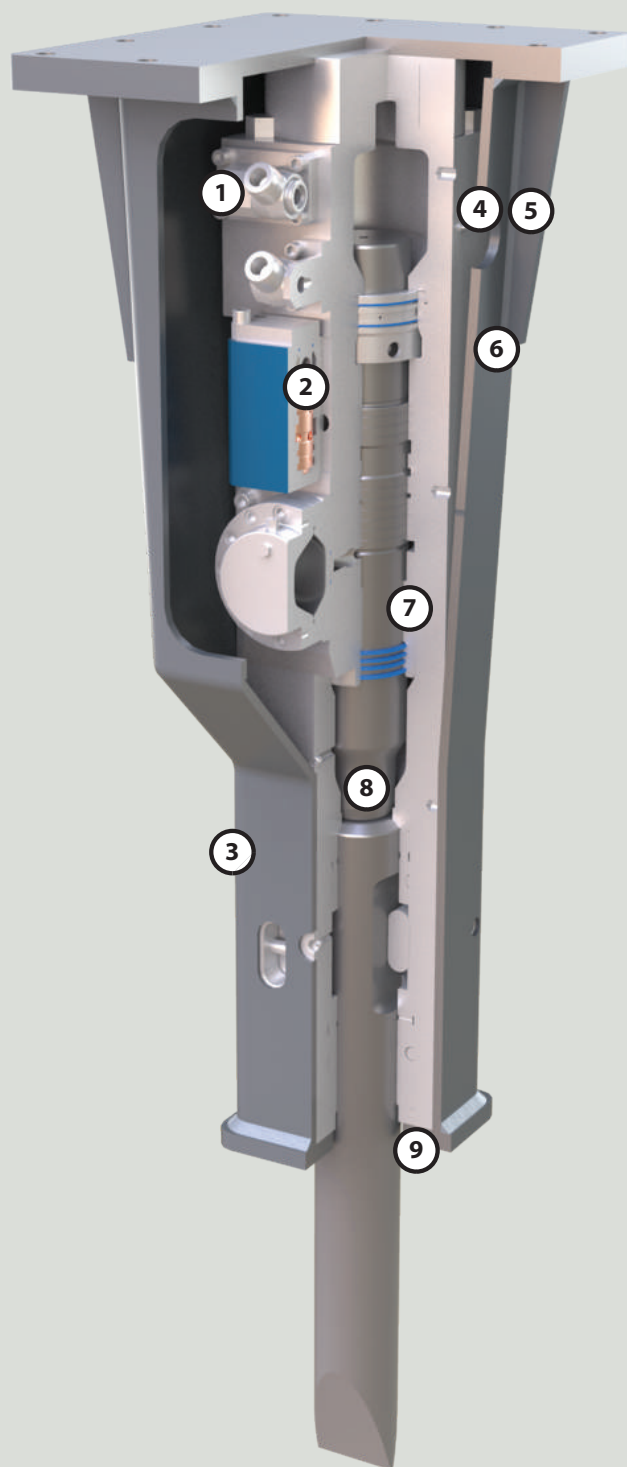


Slag recycling	<ul style="list-style-type: none"> › Boulder reduction in slag heap › Removing blockages at crushing systems
Cleaning & debricking	<ul style="list-style-type: none"> › Ladles › Converter mouths › Kilns

●	●	●
●	●	●

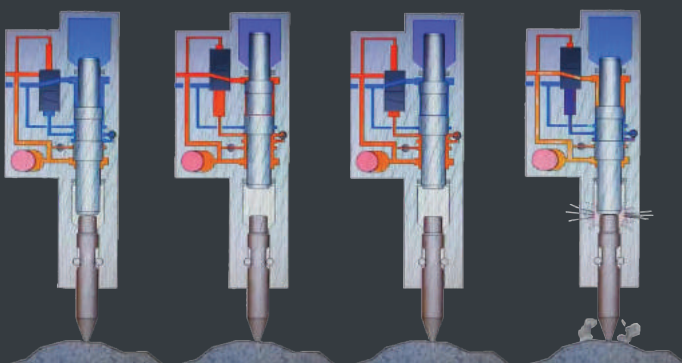
● Optimal ● Suitable ● Unsuitable

FX Series • Features and benefits



- 1 Tubes with swivels fully protected from any bad uses and resistant to vibrations in case of lack of nitrogen in the chamber
- 2 Regulation of the operating pressure
For the FX series (FX1300-FX15000) it is possible to regulate the working pressure from 160 bar to 200 bar by a manual adjusting valve located frontally on the distribution of the breaker
- 3 Anti-dust and for underwater work set up
By blowing air into the proper hole in the front part of the breaker with a pressure not less than 10 bar you can prevent the entry of dust and water into the breaker
- 4 Automatic hydraulic greasing device (optional, mounted on the breaker)
The Beka-Lube automatic lubrication system optimizes the lubrication procedure and reduces maintenance and downtimes
- 5 Automatic hydraulic greasing device with exclusive Hammer electric control (optional, mounted on the excavator)
Innovative electric system with automatic grease distribution, less liable to vibration breakages thanks to its own tank of grease with a capacity of 4 kg or 8 kg, making thus the system cheaper than all the other devices with cartridges
- 6 Blows manual adjustment
For the FX series (FX1300-FX15000), the regulation of the blows is carried out manually by an adjusting valve located on the side of the breaker
- 7 Hydraulic system for blank firing
The hydraulic system is a regenerative circuit of oil that avoids blank firings when the tool is not in contact with the rock
- 8 Piston constructed with a special geometry such as to keep a constant energy of impact, as well as reducing breakages in conditions of criticality
- 9 Anti-dust system for galleries (optional)
The anti-dust system provides for the addition of a dustproof seal mounted in the lower bush so to avoid the entering of impurities in the circuit

Principle of operation



The breakers of the FX series, thanks to their power and efficiency and to the right relationship between weight and power are suitable for secondary demolition work, excavations in quarry, work in urban areas, galleries, pipelines and railway tunnels and, concerning the biggest models, demolitions in open pit mining.

Accessories



Moil Point

Suitable for concrete, for medium-hard and not layered rocks.



Blunt Tool

Suitable for reinforced concrete and very compact rocks.



Pyramid Tool

Suitable for reinforced concrete and very compact rocks.



Chisel Tool

Suitable for medium-hard and layered rocks.



Cobra Tool

Suitable for quarry works such as primary demolition and reduction of blocks.



Anti-dust system for galleries (optional)

The anti-dust system provides for the addition of a dustproof seal mounted in the lower bush so to avoid the entering of impurities in the circuit

Anti-dust and for underwater work set up

By blowing air into the proper hole in the front part of the breaker with a pressure not less than 10 bar you can prevent the entry of dust and water into the breaker

Automatic hydraulic greasing device (optional, mounted on the breaker)

The Beka-Lube automatic lubrication system optimizes the lubrication procedure and reduce maintenance and downtimes



Automatic hydraulic greasing device with exclusive Hammer electric control

(optional, mounted on the excavator)

Innovative electric system with automatic grease distribution, less liable to vibration breakages thanks to its own tank of grease with a capacity of 4 kg or 8 kg, making thus the system cheaper than all the other devices with cartridges



FX Series

Complete with:

- N.1 Plate for bracket
- N.2 Tools (chisel, blunt, moilpoint or pyramidal)

Optional:


- N.2 Hoses
- N. Special tools (cobra)
- N.1 Nitrogen bottle 1.5 lt
- N.1 Automatic greaser lube
- N.1 Kit for gallery
- N.1 Underwater kit




DATA SHEET



Model		FX700	FX1000	FX1300	FX1700	FX2200	FX2800	FX3200
Peso escavatore Carrier weight Poids de l'engin porteur Trägergewicht Peso excavadora	t lb	8-15 17600-33069	12-21 26400-46200	14-24 30800-52900	20-30 44000-66100	23-35 50700-77100	28-45 61729-99200	30-47 66100-103600
Peso martello Weight Poids Gewicht Peso	kg lb	700 1543	1050 2314	1250 2755	1700 3747	2200 4850	2900 6393	3200 7054
Altezza con utensile standard Height with standard tool Hauteur avec outil standard Höhe inkl. Standardmeißel Altura con puntero estándar	mm inch	1900 74	2050 80	2400 94	2700 106	3000 118	3300 129	3400 133
Diametro dell'utensile Chisel diameter Diamètre de l'outil Meißeldurchmesser Diámetro del puntero	mm inch	95 3.74	115 4.52	120 4.72	135 5.31	150 5.9	160 6.29	160 6.29
Portata olio rich. Required oil supply Débit d'huile nécessaire Erforderliche Ölmenge Caudal del aceite	l/min gpm	70-100 18-26	135 35	105-140 27-36	130-160 34-42	165-190 43-50	180-240 47-63	200-260 52-68
Pressione dell'olio regolata al martello Oil pressure adjusted to the hammer Pression de l'huile vers le marteau Betriebsdruck Presión del aceite en el martillo	bar psi	160 2320	165 2393	170 2465	180 2610	180 2610	180 2610	180 2610
Numero dei colpi / min. Blows per minute Coups par minute Schlagzahl / Min. Número de golpes/min.	/min /min	600-900 600-900	600-900 600-900	400-900 400-900	400-800 400-800	400-800 400-800	350-700 350-700	300-650 300-650
Energia del colpo Energy per blow Energie par coup Schlagzahl/ Energia del golpe	J J	2000 2000	3000 3000	3200 3200	4200 4200	5400 5400	8500 8500	9000 9000
Contropressione max Max. back pressure Contre-pression maxi Max. Gegenruck Contrapresión max.	bar psi	25 362	25 362	25 362	25 362	25 362	25 362	25 362
Diametro tubo entrata Inner diam. IN hose Diam. intérieur tuyau H.P. Innendurchm. Hammervorlauf Diám. interior manguera presión	inch inch	3/4" 3/4"	1" 1"	1" 1"	1" 1"	1" 1"	1" 1/4 1" 1/4	1" 1/4 1" 1/4
Diametro tubo uscita Inner diam. OUT hose Diam. intérieur tuyau B.P. Innendurchm. Hammerrücklauf Diám. interior manguera retorno	inch inch	3/4" 3/4"	1" 1"	1" 1"	1" 1"	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/4 1" 1/4

 *All illustrations and numerical data in this catalog are purely indicative and subject to change at our discretion and without notice. We therefore reserve the right to modify them with a view to improving and continuously developing our product.

 *Tutte le illustrazioni e i dati numerici in questo catalogo sono puramente indicativi e suscettibili di modifica, a nostra discrezione e senza preavviso. Ci riserviamo pertanto il diritto di modificarli nell'ottica del miglioramento e sviluppo costante del nostro prodotto.

FX Series

Complete with:

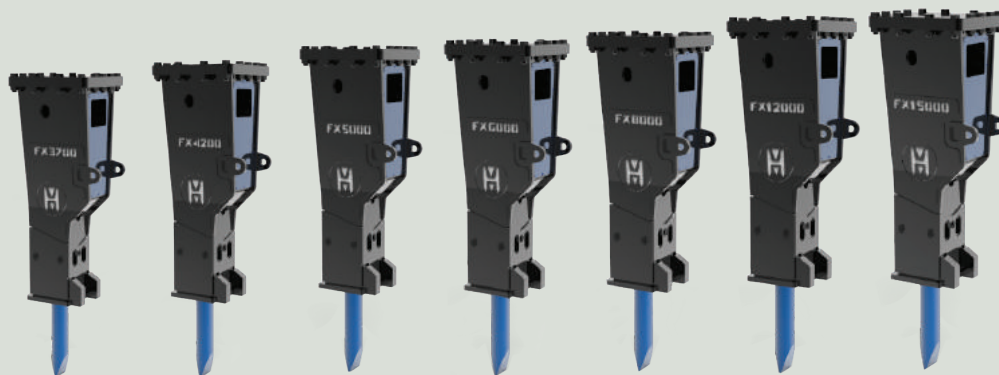
- N.1 Plate for bracket
- N.2 Tools (chisel, blunt, moilpoint or pyramidal)

Optional:


- N.2 Hoses
- N. Special tools (cobra)
- N.1 Nitrogen bottle 1.5 lt
- N.1 Automatic greaser lube
- N.1 Kit for gallery
- N.1 Underwater kit



DATA SHEET



Model		FX3700	FX4200	FX5000	FX6000	FX8000	FX12000	FX15000
Peso escavatore Carrier weight Poids de l'engin porteur Trägergewicht Peso excavadora	t lb	35-50 77100-110200	37-57 81500-125600	40-70 88100-154300	45-80 99200-176300	60-110 132200-242500	80-170 176300-374700	100-200 220400-440900
Peso martello Weight Poids Gewicht Peso	kg lb	3700 8157	4400 9700	4850 10692	5800 12786	7800 17196	12000 26455	14500 31967
Altezza con utensile standard Height with standard tool Hauteur avec outil standard Höhe inkl. Standardmeißel Altura con puntero estándar	mm inch	3500 137	3800 149	4000 157	4200 165	4500 177	5200 204	5500 216
Diametro dell'utensile Chisel diameter Diamètre de l'outil Meißeldurchmesser Diámetro del puntero	mm inch	175 6.8	180 7	195 7.6	200 7.8	215 8.4	255 10	280 11
Portata olio rich. Required oil supply Débit d'huile nécessaire Erforderliche Ölmenge Caudal del aceite	l/min gpm	250-300 66-79	270-320 71-84	290-350 76-92	300-380 79-100	380-440 100-116	480-570 126-150	500-600 132-158
Pressione dell'olio regolata al martello Oil pressure adjusted to the hammer Pression de l'huile vers le marteau Betriebsdruck Presión del aceite en el martillo	bar psi	180 2610	190 2755	190 2755	190 2755	200 2900	200 2900	200 2900
Numero dei colpi / min. Blows per minute Coups par minute Schlagzahl / Min. Número de golpes/min.	/min /min	300-650 300-650	300-650 300-650	250-550 250-550	250-550 250-550	200-400 200-400	150-300 150-300	150-250 150-250
Energia del colpo Energy per blow Energie par coup Schlagzahl/ Energia del golpe	J J	9500 9500	12500 12500	16500 16500	18500 18500	23000 23000	28000 28000	35000 35000
Contropressione max Max. back pressure Contre-pression maxi Max. Gegendruck Contrapresión max.	bar psi	25 362	25 362	25 362	25 362	25 362	25 362	25 362
Diametro tubo entrata Inner diam. IN hose Diam. intérieur tuyau H.P. Innendurchm. Hammervorlauf Diám. interior manguera presión	inch inch	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/2 1" 1/2	1" 1/2 1" 1/2
Diametro tubo uscita Inner diam. OUT hose Diam. intérieur tuyau B.P. Innendurchm. Hammerücklauf Diám. interior manguera retorno	inch inch	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/4 1" 1/4	1" 1/2 1" 1/2	1" 1/2 1" 1/2

 *All illustrations and numerical data in this catalog are purely indicative and subject to change at our discretion and without notice. We therefore reserve the right to modify them with a view to improving and continuously developing our product.

 *Tutte le illustrazioni e i dati numerici in questo catalogo sono puramente indicativi e suscettibili di modifica, a nostra discrezione e senza preavviso. Ci riserviamo pertanto il diritto di modificarli nell'ottica del miglioramento e sviluppo costante del nostro prodotto.



Valvola di Velocizzazione
Speed Valve
Eilgangventil
Speed Valve
Valvula de Velocidad
Скоростной клапан



Intensificatore di potenza BOOSTER
Intensifier of power Booster
Drueckverstaerker Booster
Intensificateur de puissance BOOSTER
Multiplicador de potencia Booster
Интенсификатор давления



Peso attrezzatura
Equipment weight
Eigengewicht
Poids de l'outil
Peso del implemento
Вес оборудования

Rotazione continua 360°
360° rotation
360° Kontinuierliche Rotation
Rotation continue 360°
Rotación continua a 360°
Непрерывное вращение на 360°



Peso escavatore
Excavator weight
Baggergewicht
Poids du porteur
Peso Escavadora
Вес экскаватора

Portata olio della rotazione
Rotation oil flow capacity
Oelfluss der Rotation
Débit hydraulique rotation
Caudal de aceite necesario para la rotación



Peso escavatore - posto benna
Excavator weight - stick mounting
Baggergewicht - Loeffelstiehlmontage
Poids du porteur - au but du
Peso escavadora al segundo brazo
Вес экскаватора (Рукоять)

Pressione di esercizio rotazione
Rotation Pressure
Oeldruck der Rotation
Pression hydraulique rotation
Presión necesaria para la rotación
Давление ротации



Peso escavatore - posto braccio
Excavator weight - boom mounting
Baggergewicht - Baggerarmmontage
Poids machibe - montage a la place du
balancier
Peso escavadora al balancin

Pressione di esercizio escavatore
Excavator working pressure
Oeldruck der Bagger
Pression hydraulique excavateur
Presión de la Escavadora
Давление откр./закр. челюстей



F3

Forza in punta
Tip force
Schliesskraft auf die Spitze
Force à la pointe
Fuerza en punta
Мощность на наконечнике

Portata olio escavatore
Excavator oil flow capacity
Oelfluss der Bagger
Débit hydraulique excavateur
Caudal aceite de la Escavadora
Поток откр./закр. челюстей



Lunghezza lama
Steel blade length
Messerlaenge
Longuer couteau
Anchura cuchilla
Длина ножей