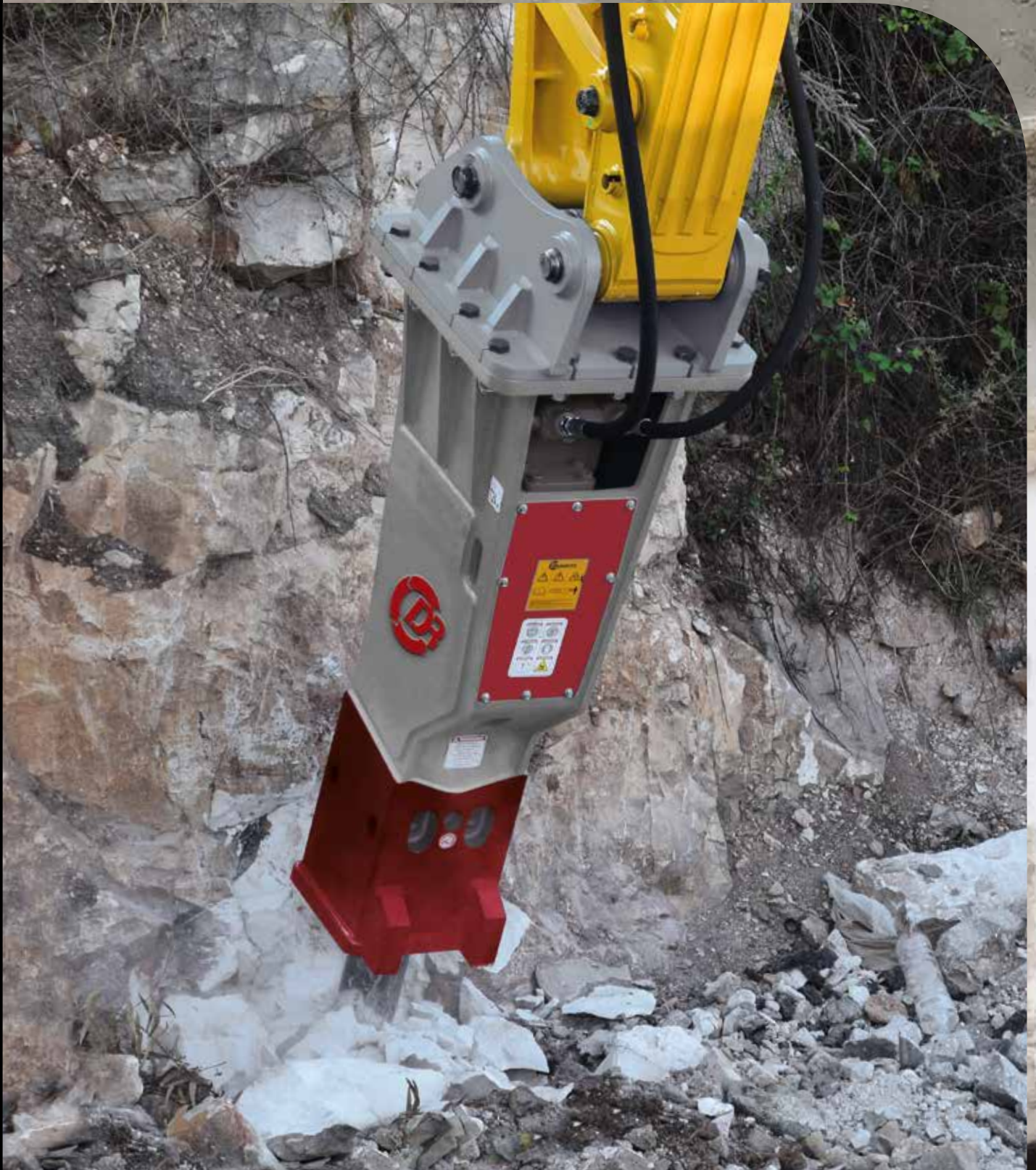




HYDRAULIC HAMMERS

DSB - DFX SERIES



In the end, the correct piece of equipment determines the success of each job

DEMAREC RECYCLING PRODUCTS POWER TOOLS FOR PROFESSIONALS

With reference to DSB and DFX series, Demarec has chosen to design and build “nitrogen” hamers in order to obtain a high power distributed over a higher number of blows per minute, thus resisting high counterpressures up to 25 bar.

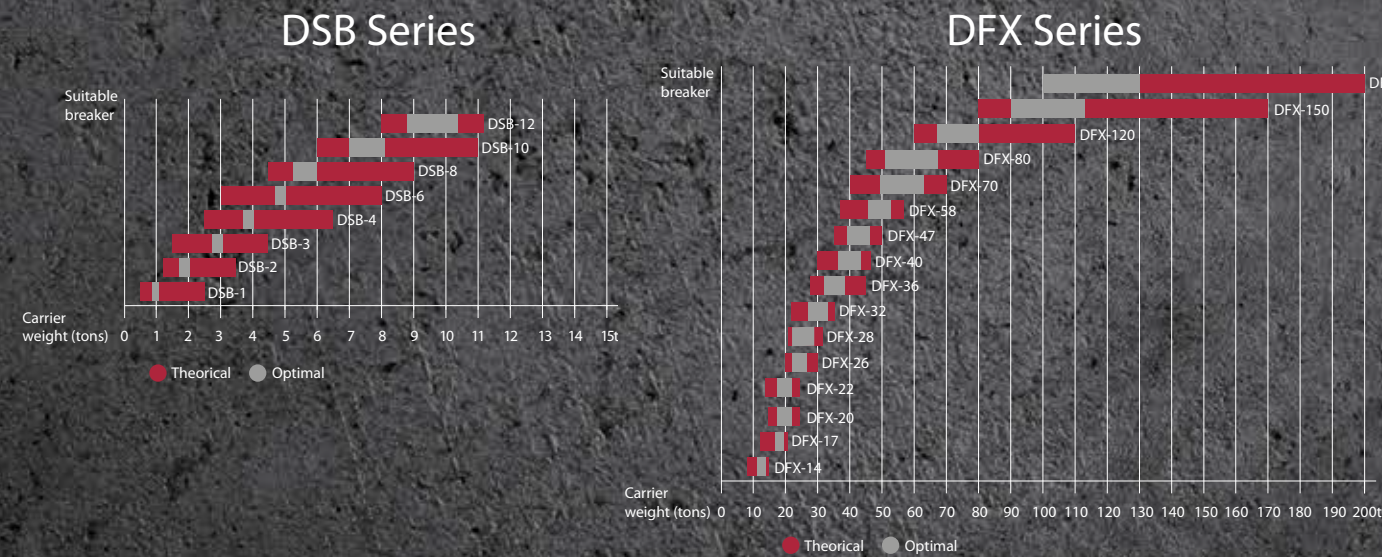
The hamer is also very compactly structured to reduce stress on the excavator arm and ensure greater durability of both the hamer itself and its components.

- The DSB and DFX hydraulic hammers 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

- Demarec hammers 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 Demarec hammers of the DSB series are suitable for carriers, mini excavators, mini-blades, backhoe loaders, demolition robots, etc...

The Demarec hammers of the DFX series are suitable for medium and large crawler and wheeled excavators, etc...



Application overview

Mining & quarrying



Preliminary works	› Overburden removal › Bench, road & ramp leveling › Roof, face & rib scaling
Secondary breaking	› Boulder reduction in rock pile › Removing blockages at crushing systems
Primary rock breaking	› Selective rock breaking › Blast-free mining

DSB	DFX (1-28)	DFX (32-200)
●	●	●
●	●	●
●	●	●

Demolition & renovation



Masonry structures	› Brickwork › Natural stone › Autoclaved aerated concrete
Concrete structures	› Lightweight concrete › Standard concrete › Heavyweight concrete
Composite steel & concrete structures	› Steel-reinforced concrete › Prestressed concrete › Fiber-reinforced concrete
Pavements	› Asphalt › Concrete › Composite surfaces

●	●	●
●	●	●
●	●	●
●	●	●

Construction



Earthworks	› Trenching › Pit building › Ground excavation
Tunneling	› Tunnel driving › Roof, face & rib scaling › Floor leveling
Dredging	› Canal deepening & extension › Dock deepening & extension
Gardening & Landscaping	› Fencing › Ground excavation › Rock breaking
Foundation works	› Ground leveling
Building construction	› Foundation pile driving

●	●	●
●	●	●
●	●	●
●	●	●
●	●	●
●	●	●

Metallurgical industry



Slag recycling	› Boulder reduction in slag heap › Removing blockages at crushing systems
Cleaning & debricking	› Ladles › Converter mouths › Kilns

●	●	●
●	●	●

● Optimal ● Suitable ● Unsuitable

DSB HAMMER SERIES

The Demarec hammers of the DSB series are suitable for carriers, mini excavators, mini-blades, backhoe loaders, demolition robots. etc...

The breakers of the DSB series, thanks to their power and efficiency and to the right relationship between weight and power are suitable for primary and secondary demolition work, in urban areas and f.e. galleries.

The DSB series are “MonoBloc-Hammers”, a very simple design, less parts and easy to service.

Tools

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.

Wood Cutter Tool

Suitable for cutting all types of wood.

Pile Driver

Suitable for planting wooden or concrete poles.

Asphalt Cutter

Suitable for cutting asphalt



Complete with:

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

Optional:

- N.2 Hoses
- N. Special tools (wood cutter, pile driver, asphalt cutter)
- N.1 Nitrogen bottle 1.5 lt
- N.1 Automatic greaser lube



Technical specs DSB Hammer series

Type		DSB-1	DSB-2	DSB-3	DSB-4
Carrier weight*	t	0,5-2,5	1,2-3,5	1,5-4,5	2,5-6,5
Weight**	kg	70	100	145	190
Height with standard tool	mm	900	1000	1100	1200
Chisel diameter	mm	40	45	48	55
Required oil supply	l/mm	13-20	15-30	18-40	25-55
Oil pressure	bar	100	110	110	130
Blows per minute	l/min	900-1100	900-1100	900-1100	900-1100
Energy per blow	J	280	400	580	750
Max. back pressure	bar	25	25	25	25
Inner diam. IN hose	inch	1/2"	1/2"	1/2"	1/2"
Inner diam. OUT hose	inch	1/2"	1/2"	1/2"	1/2"

Type		DSB-6	DSB-8	DSB-10	DSB-12
Carrier weight*	t	3,0-8,0	4,5-9,0	6,0-11	8,0-11
Weight**	kg	250	320	430	540
Height with standard tool	mm	1250	1550	1650	1700
Chisel diameter	mm	65	75	80	90
Required oil supply	l/mm	30-60	50-70	75-90	85-110
Oil pressure	bar	140	160	150	150
Blows per minute	l/min	900-1100	800-1000	700-900	600-800
Energy per blow	J	950	1200	1700	2300
Max. back pressure	bar	25	25	25	25
Inner diam. IN hose	inch	1/2"	3/4"	3/4"	3/4"
Inner diam. OUT hose	inch	1/2"	3/4"	3/4"	3/4"

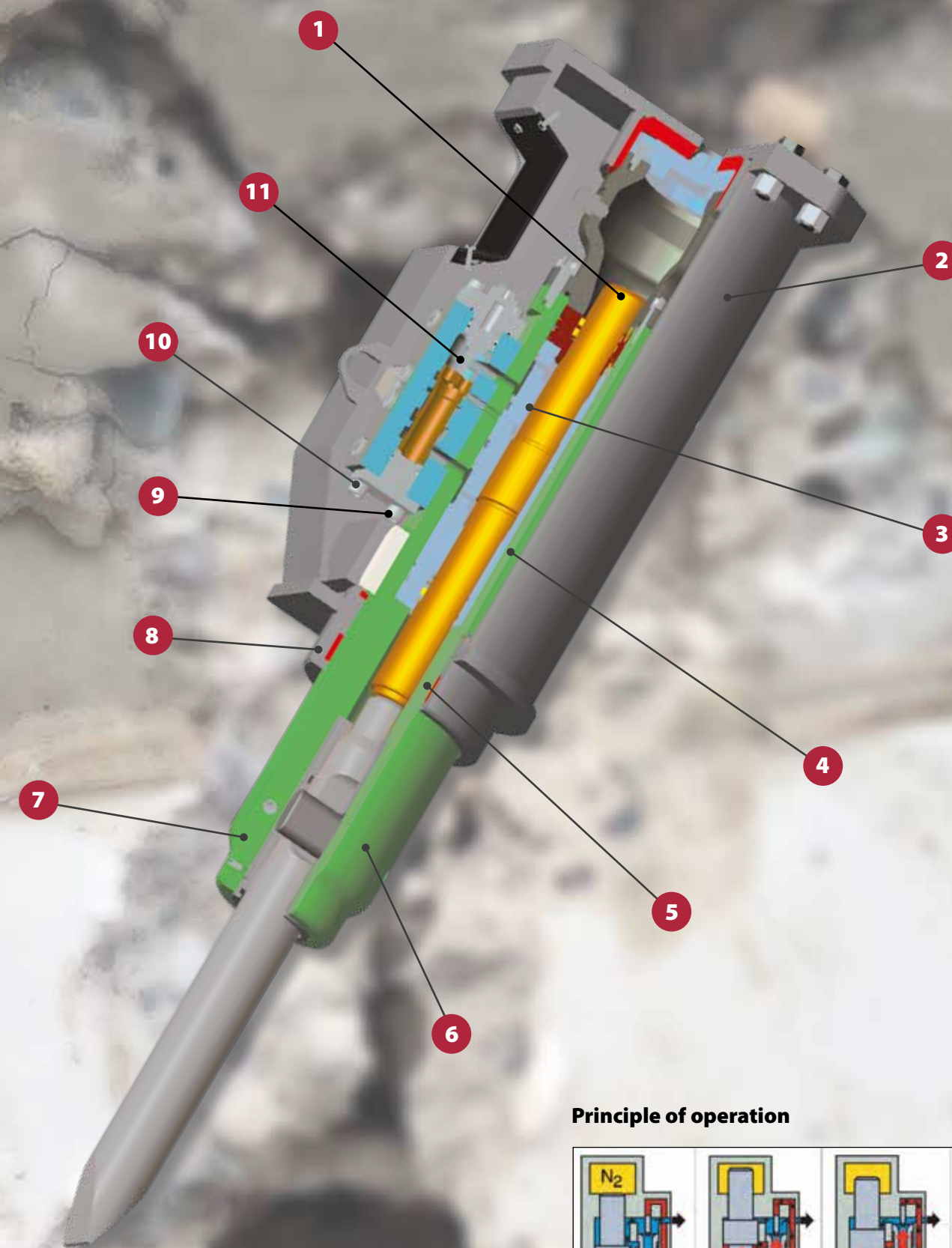
*Depending of capacity of carrier **Weigth excluding bracket

Subject to change without notice.

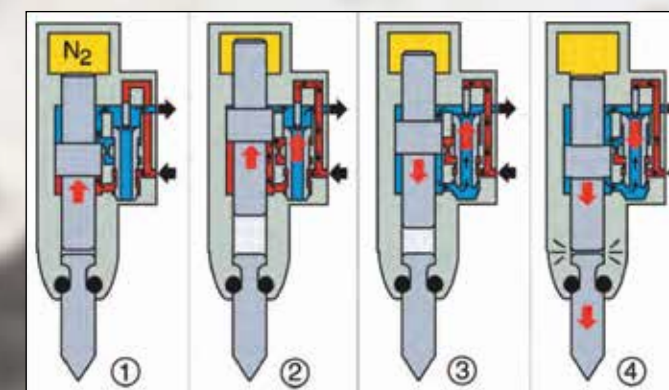
Key Features and Benefits

DSB HAMMER SERIES

- 1 More power and less vibration and maintenance**
The DSB breakers work with inertial nitrogen energy recovery, obtaining more power (more than 30%) and less vibration thanks to the nitrogen chamber which reduces maintenance costs, since it has no diaphragms inside it.
- 2 Monobloc body without tie rods**
The entire DSB series benefits from the particular monobloc construction; this feature gives the structure a very high resistance to leverage, during work. The breaker is built in one only piece and it is without tie rods, thus obtaining more production and less maintenance for our customers.
- 3 Long lasting of the nitrogen charge**
In the past, energy recovery breakers required frequent nitrogen refills; with the new sealing system and the new compound developed by Freudenberg they are able to guarantee a gas tightness equal to 300% more than in the past.
- 4 The piston moves in a single interchangeable cylinder liner, easy to replace in case of necessity, keeping intact the main body**
- 5 Piston constructed with a special geometry such as to keep a constant energy of impact, as well as reducing breakages in conditions of criticality**
- 6 Visibility and versatility**
The breakers of the DSB series, with their tapered shape, provide the operator with an excellent view during the work and allow to operate close to the walls, both in narrow section and with open front.
- 7 Double retainer pin**
The tool locking system with double retainer pin allows an adequate and uniform wear of the same and ensures longer maintenance intervals for the whole locking system.
- 8 Silenced body**
The particular construction, with a closed box casing as well as the insertion of sound-absorbing material, allowed to reach very low noise levels for a breaker.
- 9 For all types of installations (pressurization)**
The DSB series tolerates high back pressure values and has a wide calibration range of the required oil flow, in order to facilitate installation.
- 10 Protected tubes**
The tubes are completely protected through the casing and they're suitable for every type of excavation, especially in narrow spaces.
- 11 Only two moving parts**



Principle of operation



DFX HAMMER SERIES

The breakers of the DFX 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.

The FX series starts from the DFX-14 up to DFX-200 breaker; DFX-14 and DFX-17 have neither membrane, nor possibility of manual adjustment of the frequency of blows

Tools

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.



Complete with:

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

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



Technical specs DFX Hammer series

Type		DFX-14	DFX-17	DFX-20	DFX-22 ***	DFX-26	DFX-28 ***	DFX-32	DFX-36
Carrier weight*	t	8-15	12-21	14-24	15-25	20-30	22-30	23-35	28-45
Weight**	kg	700	1050	1250	1450-1500	1700	1900	2200	2900
Height with standard tool	mm	1900	2050	2400	2500	2700	2800	3000	3300
Chisel diameter	mm	95	115	120	130	135	140	150	160
Required oil supply	l/mm	70-100	135	105-140	120-140	130-160	150-185	165-190	180-240
Oil pressure	bar	160	165	170	175	180	180	180	180
Blows per minute	l/min	600-900	600-900	400-900	450-900	400-800	400-800	400-800	350-700
Energy per blow	J	2000	3000	3200	3700	4200	4700	5400	8500
Max. back pressure	bar	25	25	25	25	25	25	25	25
Inner diam. IN hose	inch	3/4"	1"	1"	1"	1"	1"	1"	1 1/4"
Inner diam. OUT hose	inch	3/4"	1"	1"	1"	1"	1"	1 1/4"	1 1/4"

Type		DFX-40	DFX-47	DFX-58	DFX-70	DFX-80	DFX-120	DFX-150	DFX-200
Carrier weight*	t	30-47	35-50	37-57	40-70	45-80	60-110	80-170	100-200
Weight**	kg	3200	3700	4400	4850	5800	7800	12000	14500
Height with standard tool	mm	3400	3500	3800	4000	4200	4500	5200	5500
Chisel diameter	mm	160	175	180	195	200	215	255	280
Required oil supply	l/mm	200-260	250-300	270-320	290-350	300-380	380-440	480-570	500-600
Oil pressure	bar	180	180	190	195	200	215	255	280
Blows per minute	l/min	300-650	300-650	300-650	250-550	250-550	200-400	150-300	150-250
Energy per blow	J	9000	9500	12500	16500	18500	23000	28000	35000
Max. back pressure	bar	25	25	25	25	25	25	25	25
Inner diam. IN hose	inch	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"
Inner diam. OUT hose	inch	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/2"	1 1/2"

*Depending of capacity of carrier **Weigth excluding bracket ***Available from July 2019

Subject to change without notice.



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 electric control (optional, mounted on the excavator) Innovative electric system with automatic grease distribution, less liable to vibration breakage 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

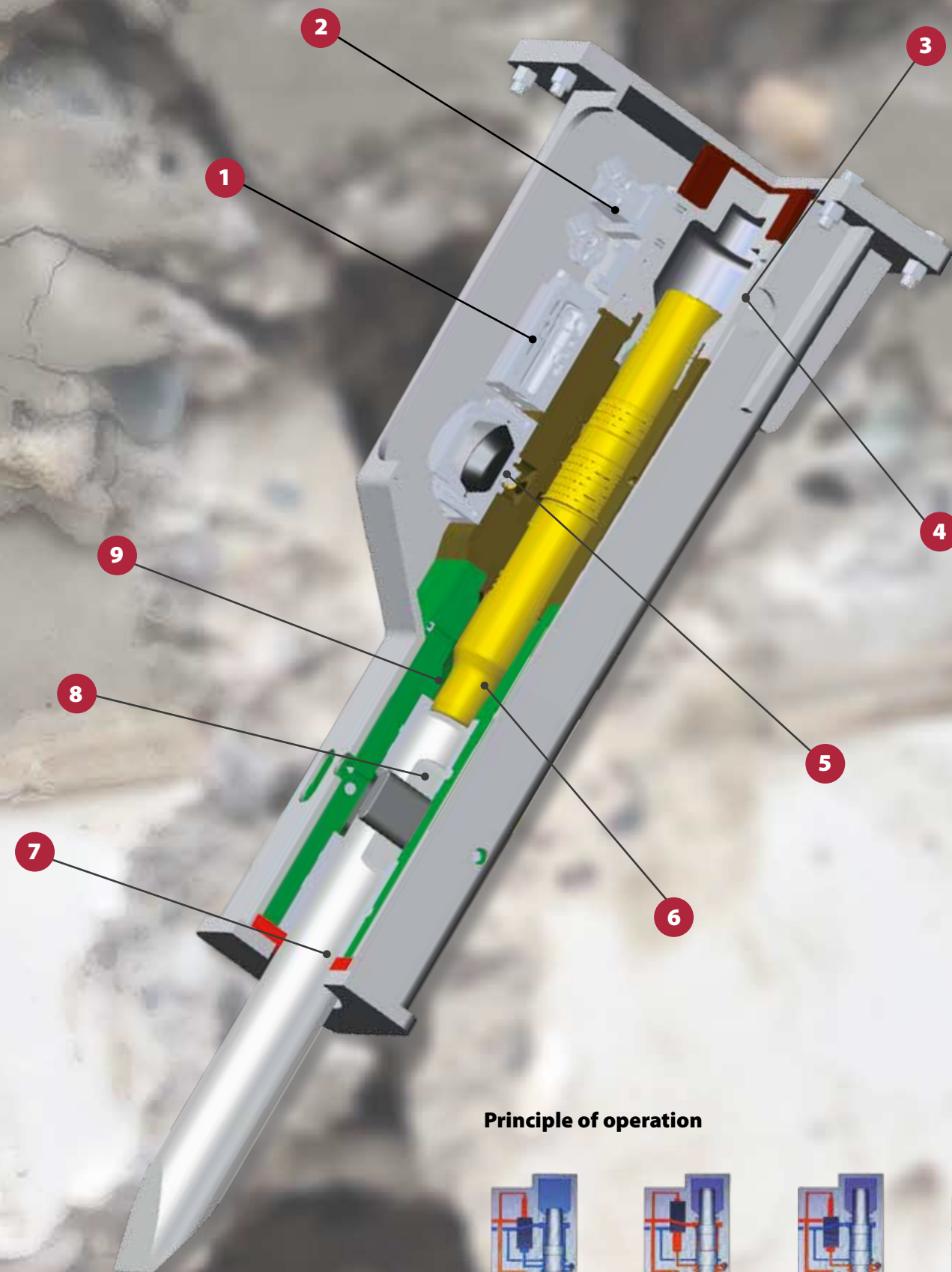
Anti-dust system for galleries (optional) The anti-dust system provides for the addition of a dustproof seal mounted in the lower bush so to avoid the entering of impurities in the circuit

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

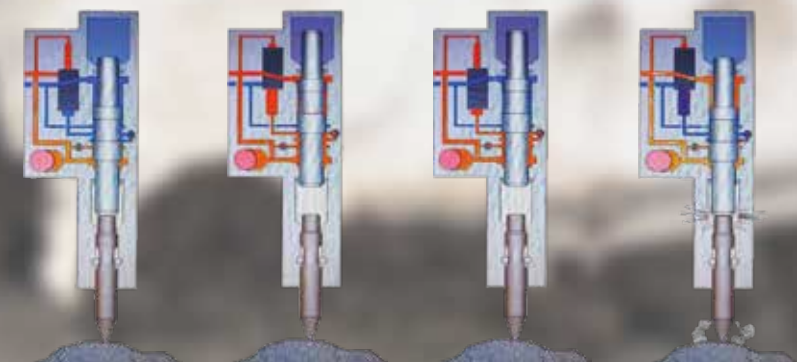
Key Features and Benefits

- 1 Regulation of the operating pressure**
For the DFX series (DFX-20 - DFX-200) 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
- 2 Tubes with swivels fully protected from any bad uses and resistant to vibrations incase of lack of nitrogen in the chamber**
- 3 Automatic hydraulic greasing device** (optional, mounted on the breaker)
The Beka-Lube automatic lubrication system optimizes the lubrication procedure and reduces maintenance and downtimes
- 4 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
- 5 Blows manual adjustment**
For the DFX series (DFX-20 - DFX-200), the regulation of the blows is carried out manually by an adjusting valve located on the side of the breaker
- 6 Piston constructed with a special geometry such as to keep a constant energy of impact, as well as reducing breakages in conditions of criticality**
- 7 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
- 8 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
- 9 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

DFX HAMMER SERIES



Principle of operation



FROM PASSION TO PERFORMANCE



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