






Hydraulic hammers

HP Series



Application areas

		L	M	S		
 <p>Mining and Quarry</p>	Preliminary works	<input type="checkbox"/>	<input type="checkbox"/>			
		• Overburden removal	<input type="checkbox"/>	<input type="checkbox"/>		
		• Bench, road & ramp leveling	<input type="checkbox"/>	<input type="checkbox"/>		
		• Roof, face & rib scaling	<input type="checkbox"/>	<input type="checkbox"/>		
	Secondary demolition	• Boulder reduction in rock pile	<input type="checkbox"/>	<input type="checkbox"/>		
		• Removing blockages at crushing systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Primary rock breaking	• Selective rock breaking	<input type="checkbox"/>	<input type="checkbox"/>		
		• Blastfree mining	<input type="checkbox"/>			
	 <p>Demolition & renovation</p>	Light Demolition	• Demolition of masonry structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			• Brickwork		<input type="checkbox"/>	<input type="checkbox"/>
		• Natural stone		<input type="checkbox"/>	<input type="checkbox"/>	
		• Renovation of interiors			<input type="checkbox"/>	
		• Autoclaved aerated concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Demolition of non-reinforced concrete structures		• Primary demolition of lightweight and standard concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		• Primary demolition of heavyweight concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		• Wall Elements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		• Secondary demolition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Composite steel & concrete structure demolition		• Primary demolition of lightweight and standard reinforced concrete	<input type="checkbox"/>	<input type="checkbox"/>		
		• Primary demolition of heavyweight steel - reinforced concrete	<input type="checkbox"/>	<input type="checkbox"/>		
		• Secondary Demolition floors, slabs and beams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		• Separating rebars from pillars and struts				
		• Fiber-reinforced concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		• Cutting rebars and steel reinforcements				
Demolition of metallic buildings and structures		• Demolition of refineries				
		• Cutting of Metal and steel structures				
		• Cutting steel girders/beams				
		• Cutting reinforcements				
Sorting and Loading		• Sorting				
	• Loading					
	• Waste handling					
	• Site clean-up					
Pavement demolition	• Asphalt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	• Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	• Composite surfaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
 <p>Earth Moving and Construction</p>	Earth moving works	• Trenching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		• Ground excavation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		• Floor leveling				
		• Soil compaction				
		• Trench compaction				
		• Loading soil or bulk material				
	Foundation works	• Building foundation excavation	<input type="checkbox"/>	<input type="checkbox"/>		
	• Ground leveling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Building construction	• Foundation pile driving		<input type="checkbox"/>	<input type="checkbox"/>		
	• Compaction around pillars					



Infrastructures

Tunnelling

- Tunnel excavation
- Roof, face & rib scaling

L M S

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Underwater application

- Dredging
- Dock deepening & extension
- Canal deepening & extension
- Loading soil or bulk material
- Handling rock or breakwaters

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Trenching

- Oil & gas, water & sewage (deep trenching)
- Trenching
- Trench soil compaction

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>

Road construction

- Pile driving and guard rail driving
- Asphalt repair
- Maintenance work (driveways, sidewalks and parking lots)
- Block paving

	<input type="radio"/>	<input type="radio"/>

Slag recycling

- Boulder reduction in slag heaps
- Removing blockages at crushing systems

<input type="radio"/>	<input type="radio"/>	
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Cleaning & debricking

- Ladles
- Converter mouths
- Kilns

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Gardening & Landscaping

- Fencing
- Ground excavation
- Rock breaking
- Pit planting
- Log splitting

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Forestry

- Timber log handling

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Metallurgical industry



Agriculture and forestry

L| large hammers

M| midi hammers

S| small hammers

Hydraulic hammers

Indeco HP

Indeco HP hydraulic hammers are an outstanding expression of Italian high-tech and construction quality applied to demolition. In-depth research into hydraulic systems, materials, heat treatment and accessories have enabled Indeco to establish a reputation on markets throughout the world for product excellence.

With its many different models, divided into large, medium and small and available in various versions, Indeco has the widest range of hammers available anywhere in the world. This provides end-users with a huge choice, ensuring that they can find the ideal hammer/excavator match.

mini hammers

Despite their compact size, Indeco's range of small hammers are exceptionally reliable, quiet and efficient, and best suited for such jobs as excavations work, highway maintenance, demolitions and recycling in city areas and building refurbishment.

Their versatility makes them extremely efficient in specialist jobs such as maintenance in iron foundries.

midi hammers

Their excellent weight/power ratio and their slimline structure make the mid-range Indeco hammers the ideal choice for classical applications, such as demolishing buildings, earthworks in inhabited areas and secondary demolitions in quarries, as well as for more specific tasks. In fact, mid-range hammers are used for underwater work (using a special kit) as well as for digging narrow deep trenches and removing casting slag from blast furnaces.

maxi hammers

Combining maximum power with the effectiveness of intelligent technology, Indeco's larger hammers are unbeatable when it comes to completing the toughest jobs in the shortest possible time-frame – whether it's the biggest demolition jobs, primary breaking in quarries, digging foundations, or excavating huge rail and road tunnels.





Features of Indeco hammers

All Indeco hammers have a special intelligent hydraulic system |1|, enabling them to automatically vary the energy and frequency of the blows according to the hardness of the material being demolished.

This optimises the hydraulic pressure delivered by the machine, thus improving productivity and enhancing the overall performance.

Exclusive features such as the synchronised internal distributor |2| aligned with the piston, the oil cushions |3| for vibration dampening and the short hydraulic flow pattern |4| make it possible to completely do away with seals in the distribution area, a decisive factor in extending the working life of the hammer and significantly reducing downtimes.

The use of special low-alloy steels, exclusively manufactured according to Indeco's own formula greatly lengthen the average working life of the major hammer components. The housing |5| is made out of extra-strength HARDOX® steel wear plates, which eliminate buckling.

The piston |6| is divided into two parts, for greater impact energy and lower operating costs.

The centralised greasing system |7| enables the sliding parts to remain lubricated even when the hammer is operating horizontally, thus considerably reducing wear and tear on components and extending product lifetime.

The “quick change” interchangeable bushing |8| is available in various materials for different jobs; it is inserted into the lower tool bushing where the tool moves, and reduces maintenance times and costs, by cutting out the long machine downtimes needed to replace the traditional fixed bushing.

All carriers which mount Indeco hammers benefit from the Indeco dual shock-absorption system |9|: an internal hydraulic one and a mechanical one, located outside the body, which substantially reduce the vibrations transmitted to the excavator. The excavator boom is also subject to lower stress levels, as Indeco hammers are considerably lighter under working conditions than rival makes in the same class. Alongside the standard versions there is also a

super-soundproofed Whisper version, whose body is lined internally with sound-absorbent material |10| and an “anti-rumble” paint, which – combined with a few modifications to the bushing – enable noise emission levels to be considerably reduced.

By lowering pressure peaks, the rechargeable hydraulic/nitrogen accumulator |11| also reduces stress in the excavator hydraulic circuit, keeps the gas charge and energy per blow constant, and reduces maintenance and operating costs.

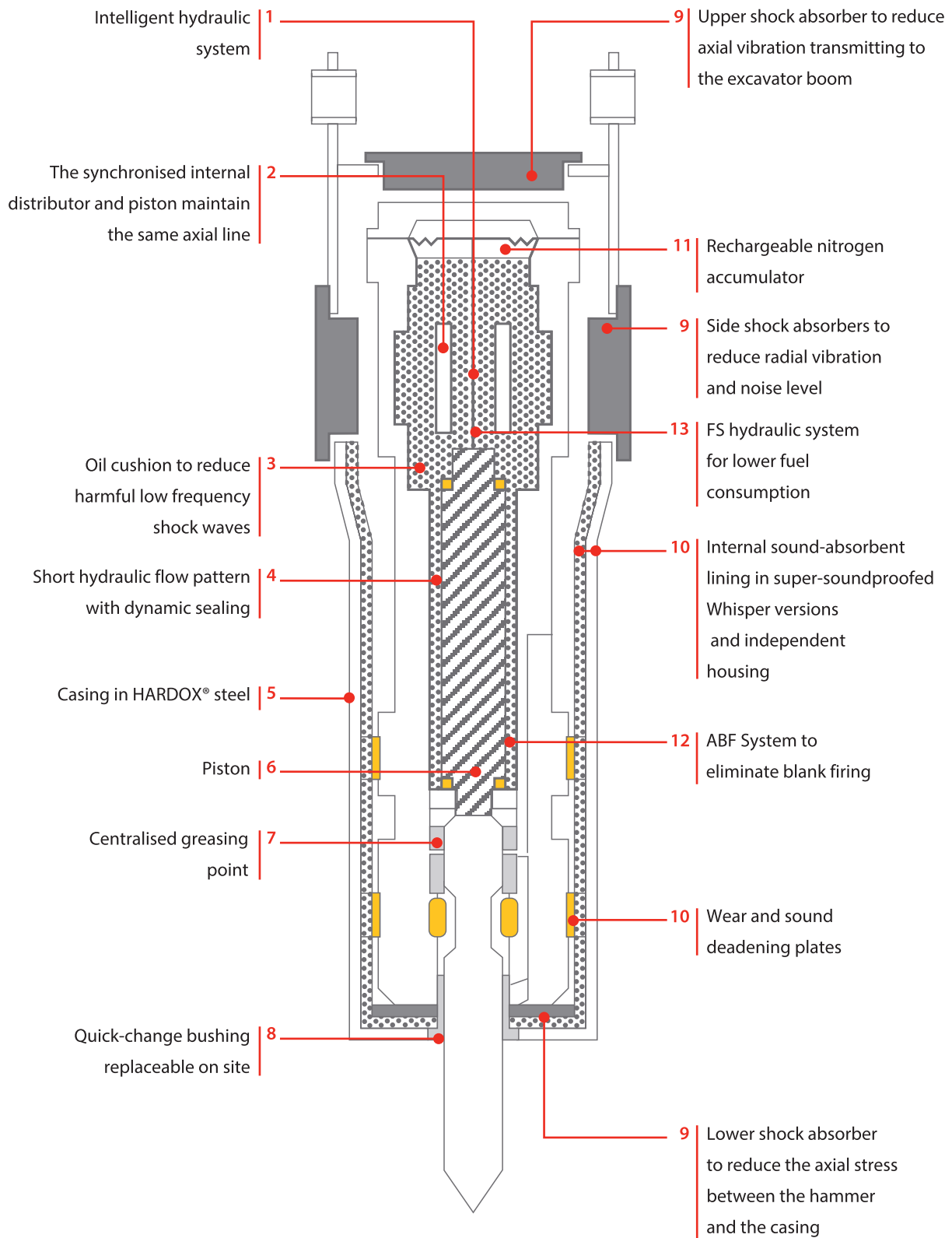


The ABF (Anti Blank Firing) system |12|, installed as standard on all of the midi- and maxi-range Indeco hammers, cuts out blank fire by eliminating any down pressure from the hammer whenever the tool is not resting firmly on the surface to be demolished.

This increases the service life of all components subject to wear and tear, as well as reducing stress to the hammer body and excavator arm.



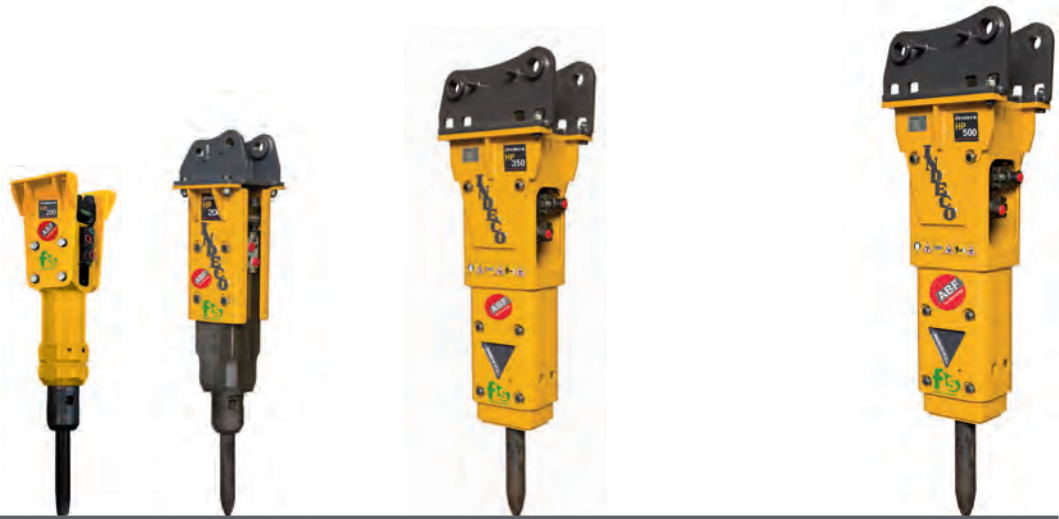
As well as being efficient and reliable, Indeco hydraulic hammers are now proving to be even more environmentally-friendly and low on fuel consumption. With a now even more efficient hydraulic system |13|, the HP series has now also become FS (Fuel Saving). Compared to other manufacturers' models of equivalent weight and performance, Indeco hammers require less oil per minute and lower operating pressure. And as using lower hydraulic power means reducing the number of revolutions per minute on the carrier, they lead to fuel savings of up to 20%, while ensuring optimum performance and maximum productivity. This becomes even more evident when comparing the Indeco hammer with gas or gas/oil powered products of similar size manufactured by competitors.



Small hammer range

HP series

These excellent jobsite companions are the most numerous class of models in the Indeco range.



Technical Data	HP 200 FS* / HP 200 FS Heavy Duty*	HP 350 FS*	HP 500 FS*
Type of carrier	1 2	1 2	1 2 3
Excavator weight** (possible)	1550 ÷ 6650 lb	3100 ÷ 11000 lb	3750 ÷ 14300 lb
Weight of hammer when operated	180 lb / 220 lb (Heavy Duty)	360 ÷ 290 lb	510 ÷ 470 lb
Steel diameter	1.80 in	1.90 in	2.25 in
Pressure adjusted to the excavator	2400 psi	2400 psi	2400 psi
Back pressure max	160 psi	150 psi	170 psi
Energy class per blow	200 lb.ft	350 lb.ft	500 lb.ft
Number of blows per minute	540 ÷ 2040 bpm	700 ÷ 1800 bpm	540 ÷ 1540 bpm

Carrier key



Compact excavator



Miniloader



Backhoe loader



Wheeled excavator



Tracked excavator



HP 750 FS*

HP 1000 FS*

HP 1100 FS

HP 1250 FS

1 2 3	1 2 3	1 3	1 3
6650 ÷ 17600 lb	7750 ÷ 23100 lb	8850 ÷ 26450 lb	11050 ÷ 30850 lb
710 ÷ 670 lb	860 ÷ 750 lb	980 lb	1220 lb
2.70 in	3.00 in	3.15 in	3.55 in
2400 psi	2500 psi	2500 psi	2500 psi
170 psi	160 psi	170 psi	160 psi
750 lb.ft	1000 lb.ft	1100 lb.ft	1250 lb.ft
780 ÷ 1620 bpm	600 ÷ 1340 bpm	620 ÷ 1500 bpm	570 ÷ 1180 bpm

*Also available with pins and bushings mounting case version and or soundproofed Whisper version (top plate or pins and bushings).

**Carrier range is based on boom configuration. Please contact your local equipment dealer for optimal carrier/hammer compatibility. For data on the pressure adjusted to the hammer and on oil flow, please consult the "Parameters for selecting and adjusting the hammer" page.

N.B. 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.

Midi hammer range

HP series

A perfect blend of power and agility characterises the mid range Indeco hammers, tireless partners even on the toughest of jobs.



Technical Data	HP 1500 FS	HP 1800 FS	HP 2000 FS	HP 3000 FS
Type of carrier	1 3 4	4 5	4 5	4 5
Excavator weight* (possible)	14400 ÷ 35200 lb	22100 ÷ 44000 lb	26500 ÷ 48500 lb	33000 ÷ 55000 lb
Weight of hammer when operated	1440 lb	1880 lb	2250 lb	2650 lb
Steel diameter	3.55 in	4.30 in	4.55 in	4.80 in
Pressure adjusted to the excavator	2500 psi	2700 psi	2700 psi	2700 psi
Back pressure max	120 psi	140 psi	120 psi	120 psi
Energy class per blow	1500 lb.ft	1800 lb.ft	2000 lb.ft	3000 lb.ft
Number of blows per minute	450 ÷ 980 bpm	420 ÷ 1000 bpm	440 ÷ 1060 bpm	460 ÷ 940 bpm

Carrier key



Compact excavator



Miniloader



Backhoe loader



Wheeled excavator



Tracked excavator



HP 4000 FS

HP 4500 FS

HP 5000 FS

4 5

5

5

35500 ÷ 61500 lb

35500 ÷ 66000 lb

42000 ÷ 70500 lb

3320 lb

3740 lb

4200 lb

5.10 in

5.35 in

5.55 in

2700 psi

2800 psi

3000 psi

100 psi

100 psi

120 psi

4000 lb.ft

4500 lb.ft

5000 lb.ft

400 ÷ 870 bpm

400 ÷ 870 bpm

360 ÷ 870 bpm

*Carrier range is based on boom configuration. Please contact your local equipment dealer for optimal carrier/hammer compatibility. For data on the pressure adjusted to the hammer and on oil flow, please consult the "Parameters for selecting and adjusting the hammer" page.

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Large hammer range

HP series

This is the most prestigious class, containing the top range of Indeco hammers. They are top hammers not only in terms of size, but also in their outstanding performance.



Technical Data	HP 6000 FS	HP 7500 FS	HP 10000 FS	HP 12000 FS
Type of carrier	5	5	5	5
Excavator weight* (possible)	46500 ÷ 83500 lb	51000 ÷ 92500 lb	60000 ÷ 110000 lb	75000 ÷ 125000 lb
Weight of hammer when operated	5000 lb	5550 lb	7400 lb	9900 lb
Steel diameter	5.75 in	5.95 in	6.30 in	7.10 in
Pressure adjusted to the excavator	3100 psi	3100 psi	3100 psi	3100 psi
Back pressure max	100 psi	120 psi	100 psi	120 psi
Energy class per blow	6000 lb.ft	7500 lb.ft	10000 lb.ft	12000 lb.ft
Number of blows per minute	370 ÷ 760 bpm	340 ÷ 820 bpm	300 ÷ 670 bpm	320 ÷ 580 bpm

Carrier key



Compact excavator



Miniloader



Backhoe loader



Wheeled excavator



Tracked excavator



HP 14000 FS

HP 16000 FS

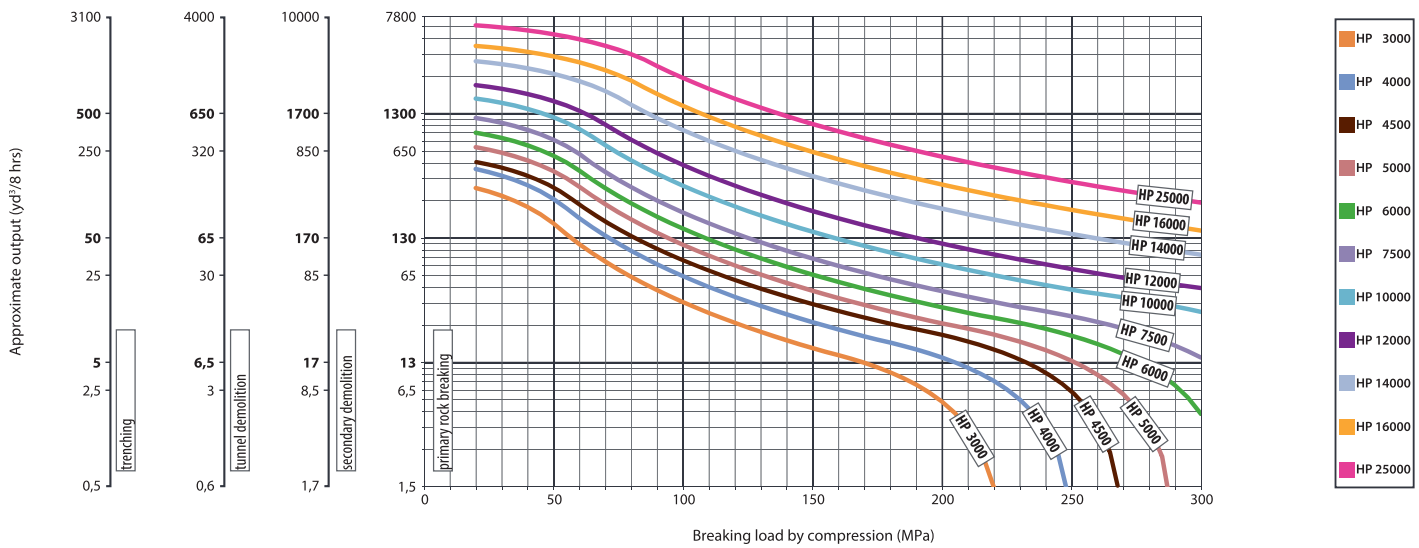
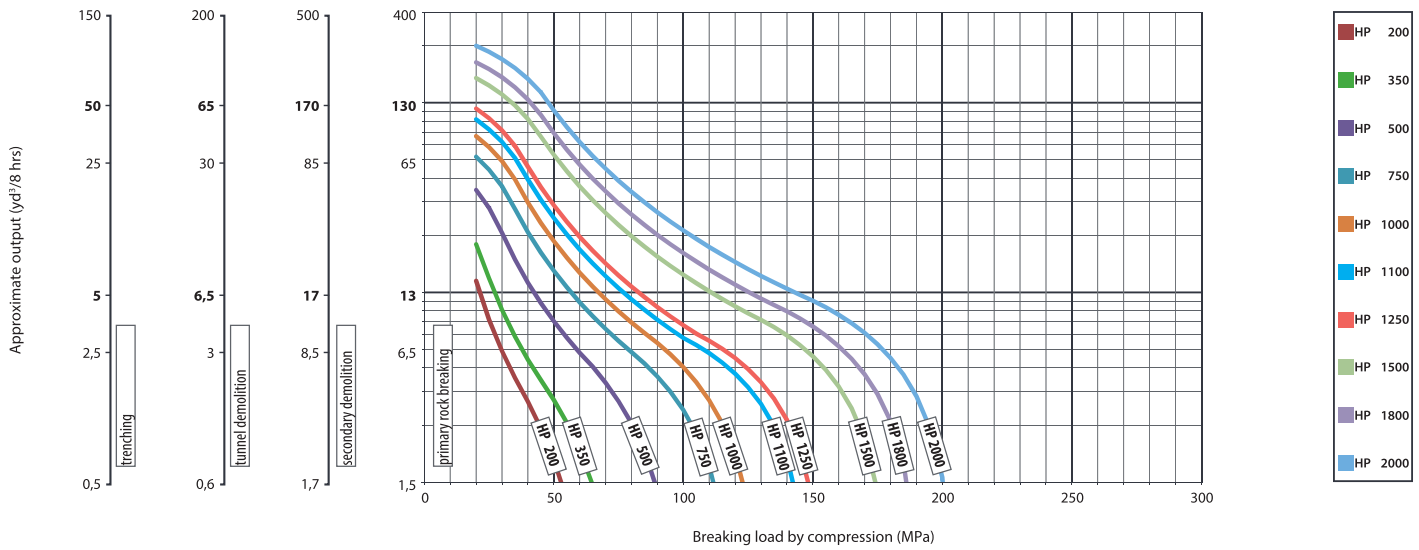
HP 25000 FS

5	5	5
86000 ÷ 170000 lb	100000 ÷ 260000 lb	132000 ÷ 310000 lb
11600 lb	17200 lb	24400 lb
7.70 in	8.50 in	10.00 in
3100 psi	3400 psi	3400 psi
120 psi	130 psi	160 psi
14000 lb.ft	16000 lb.ft	25000 lb.ft
270 ÷ 540 bpm	240 ÷ 550 bpm	240 ÷ 460 bpm

*Carrier range is based on boom configuration. Please contact your local equipment dealer for optimal carrier/hammer compatibility. For data on the pressure adjusted to the hammer and on oil flow, please consult the "Parameters for selecting and adjusting the hammer" page.

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Productivity



N.B. These nominal values are for reference purposes and are not binding

Noise levels

Noise levels measured* at various distances

Distance	33 ft	50 ft	65 ft	80 ft	100 ft
All HP models	96*	92.5*	90*	88.1*	86.5*

*values expressed in dB (A)

Noise level guaranteed* by the 2006/42/CE directive

All HP models	126*
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Parameters for selecting and adjusting the hammer

Model	Compatibility hammer/carrier (lbs)*	Pressure regulation values (psi)/oil flow (gpm)**	Model	Compatibility hammer/carrier (lbs)*	Pressure regulation values (psi)/oil flow (gpm)**
HP 200	1550 6650 	1550 1800 1650 1750 8 6 11 4	HP 4000	35500 61500 	1700 2000 1800 1900 37 35 43 34
HP 350	3100 11000 	1550 1800 1650 1750 10 7 12 7	HP 4500	35500 66000 	1750 2100 1850 2000 39 36 43 35
HP 500	3750 14300 	1550 1800 1650 1750 12 10 16 8	HP 5000	42000 70500 	1850 2150 1950 2050 45 43 48 39
HP 750	6650 17600 	1550 1800 1650 1750 19 16 22 14	HP 6000	46500 84000 	1900 2300 1950 2050 49 47 53 43
HP 1000	7750 23100 	1550 1850 1700 1800 19 16 22 14	HP 7500	51000 93000 	1900 2300 2000 2150 57 55 61 48
HP 1100	8850 26450 	1550 1850 1700 1800 22 19 24 16	HP 10000	60000 110000 	1900 2300 2000 2150 61 59 71 51
HP 1250	11050 30850 	1550 1850 1700 1800 24 22 27 19	HP 12000	75000 138000 	2050 2350 2100 2200 76 73 81 67
HP 1500	14400 35200 	1550 1850 1700 1800 26 23 28 19	HP 14000	86000 175000 	2050 2350 2150 2250 86 84 94 77
HP 1800	22100 44000 	1700 2000 1700 1850 30 27 34 22	HP 16000	100000 265000 	2050 2600 2300 2400 101 98 111 86
HP 2000	26500 48500 	1700 2000 1700 1850 32 30 35 23	HP 25000	132000 310000 	2050 2600 2300 2500 125 122 138 111
HP 3000	33000 55000 	1700 2000 1800 1900 36 34 40 30			

*Suggested uses on machines with an overall weight (lbs):

Best Possible (match subject to approval by the Indeco dealer)

**Pressure adjusted to the hammer (psi) relative to oil flow (gpm):

Optimum pressure adjusted to the hammer (psi) Optimal oil supply (gpm) Possible pressure/oil

Accessories

IDA (Indeco Dust Abatement) System

An innovative system that is particularly effective for reducing wear and tear on components, and for extending the working life of the hammer. It is made up of an air compressor and a high-pressure water pump, mounted onto the excavator and driven by two hydraulic motors powered by the excavator.

A set of electrohydraulic valves enable the excavator operator to activate the pump and compressor independently, thus starting up either one or both of the protection devices:

- **Dust Abatement Kit**

A jet of high-pressure water spray, emitted by three nozzles **1** connected with the outer casing of the hammer, prevents dust from damaging both the tool and the operator.

- **Dust shield for tunnelling work and underwater applications**

The internal pressurization of the hammer **2** prevents dust, water and debris from getting into the hammer through the bushing, as happens during tunnel demolitions and underwater excavations.

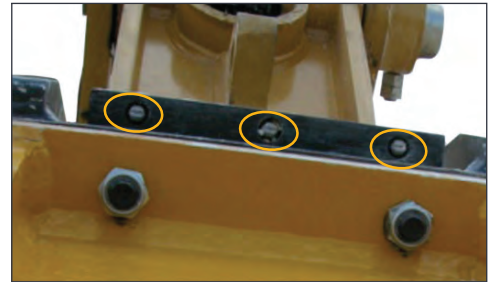
Anti-Grease and Anti-Dust System

This system, which is crucial when working in dusty environments and when tunnelling, is made up of two clamps, which are both attached to the tool **3** but are located in different positions, prevent dust from getting in and grease from getting out, improving lubrication levels and thus lengthening the working life of the main hammer components.

Indeco "LubeMAXX" System Kit

This system has a dual function - to optimise grease consumption and to make it unnecessary for the operator to stop work to grease the moving parts.

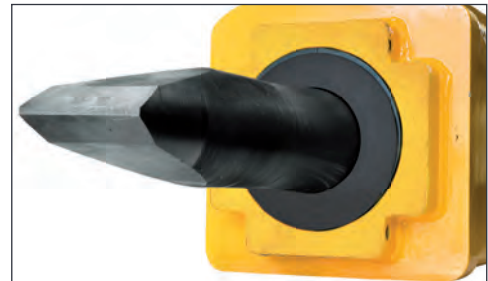
1 |



2 |



3 |



4 |



5 |





| 6

The kit includes a pumping unit pack |4|, tubing and connections |5| to the hammer.

The grease point is centralised and feeds all of the bushings and the moving parts at the tool, inside the hammer and on the retaining axle. To make it easier for rental organisations, this system which is usually placed in the carrier, can also be completely mounted onto the hammer.



| 7

Special Indeco Supreme 1000 lubricant

It is vital that a specific lubricant be used, to ensure the durability of the main components of the hammer. Indeco's |6| Supreme 1000 grease, with solid additives is particularly resistant to oxidation, can withstand extreme pressures and temperatures and shows excellent adhesion and water-resistance.



| 8

Pins and bushings

|7| Designed to make it easier to mount all Indeco products onto the excavator boom, with or without a mounting bracket.

Mounting brackets

Each Indeco mounting bracket model |8| can be used with all Indeco products in the same class.



| 9

Folding mounting bracket

A special mounting bracket |9| for folding the hammer away directly under the carrier boom.

Connecting hoses

We recommend using original Indeco high- and low-pressure hoses |10| to connect various tools to the hydraulic system on the carrier.



| 10

The tools

Chisel tool

Suitable for all earthworking or narrow-section excavation jobs on medium to hard stratified rock.



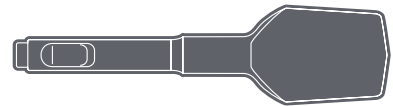
Moil point tool

Suitable for breaking up concrete, or medium-hard non-stratified rock. Secondary demolition: average, hard or extremely hard blocks.



Asphalt cutter

Suitable for cutting asphalt, breaking up flooring, as well as brick or sandstone walls.



Pile driver

Suitable for pilework or press-moulded supports for guardrails, etc.



Pyramidal point

Suitable for demolishing hard reinforced concrete flooring, as well as sedimentary material.



Cobra chisel tool

Suitable for all types of excavation work on medium-hard to hard rock, non-stratified rock or rock which tends to pulverise when being broken up, puddingstones.



Blunt tool

Suitable for breaking up blocks of any hardness, or to reduce the size of rubble.





The full range of Indeco hammers

Hammer	Weight	Hammer	Weight
HP 200	180 lb	HP 3000	2650 lb
HP 200 Heavy Duty	220 lb	HP 4000	3320 lb
HP 350	360 lb	HP 4500	3740 lb
HP 500	510 lb	HP 5000	4200 lb
HP 750	710 lb	HP 6000	5000 lb
HP 1000	860 lb	HP 7500	5550 lb
HP 1100	980 lb	HP 10000	7400 lb
HP 1250	1220 lb	HP 12000	9900 lb
HP 1500	1440 lb	HP 14000	11600 lb
HP 1800	1880 lb	HP 16000	17200 lb
HP 2000	2250 lb	HP 25000	24400 lb

Platinum Warranty

The professional competency which Indeco technicians bring to their job and the easy availability of spare parts in all of its distribution centres enables Indeco to guarantee after-sales service anywhere in the world, that is both rapid and capable of resolving any type of problem. Indeco North America offers an optional Platinum Warranty, which guarantees a hammer owner maximum productivity for a minimal up front purchase. The Platinum Warranty offers virtual "bumper-to-bumper" coverage for a period of twenty-four months.

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