

Hydraulic hammers

HP Series



 **INDECO**
A TOOL FOR EVERY JOB

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 in 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.





Small 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.



Medium 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.



Large 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.



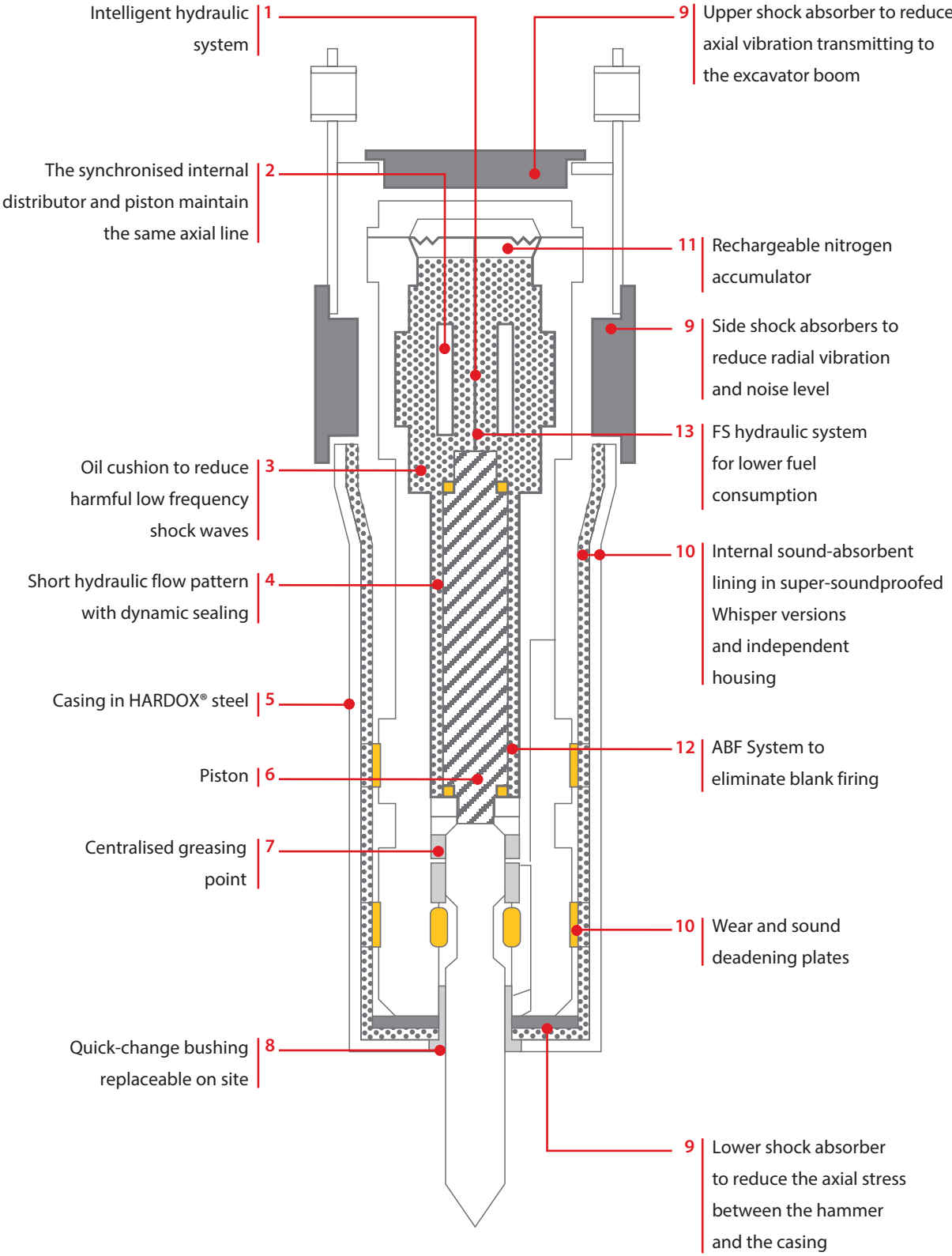
The ABF (Anti Blank Firing) system **[12]**, installed as standard on all of the medium- and large-range Indeco hammers, cuts out blank fire by eliminating any down pressure from the hammer whenever the tool is not resting firmly on the surface to be demolished.

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 150 FS		HP 200 FS / HP 200 FS Heavy Duty		HP 350 FS		HP 550 FS		
Type of carrier	1	2	1	2	1	2	1	2	3
Excavator weight (possible)	1150 ÷ 4450 lbs		1550 ÷ 6650 lbs		3100 ÷ 11000 lbs		3750 ÷ 14300 lbs		
Weight of hammer when operated	135 lbs		180 / 220 lbs (Heavy Duty)		360 lbs		510 lbs		
Tool diameter	1.66 in		1.80 in		1.90 in		2.60 in		
Pressure adjusted to the excavator	2400 psi		2400 psi		2400 psi		2400 psi		
Back pressure max	240 psi		160 psi		150 psi		170 psi		
Energy class per blow	150 lb.ft		200 lb.ft		350 lb.ft		550 lb.ft		
Number of blows per minute	400 ÷ 1900 bpm		540 ÷ 2040 bpm		700 ÷ 1800 bpm		540 ÷ 1670 bpm		

Carrier key



HP 800 FS	HP 1000 FS			HP 1100 FS		HP 1250 FS	
1 2 3	1	2	3	1	3	1	3
6650 ÷ 19800 lbs	7750 ÷ 23100 lbs			8850 ÷ 26450 lbs		11050 ÷ 30850 lbs	
710 lbs	860 lbs			980 lbs		1220 lbs	
3 in	3 in			3.15 in		3.55 in	
2400 psi	2500 psi			2500 psi		2500 psi	
170 psi	160 psi			170 psi		160 psi	
800 lb.ft	1000 lb.ft			1100 lb.ft		1250 lb.ft	
780 ÷ 1720 bpm	600 ÷ 1340 bpm			620 ÷ 1500 bpm		570 ÷ 1180 bpm	

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.

Medium 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 lbs			22100 ÷ 44000 lbs		26500 ÷ 48500 lbs		33000 ÷ 55000 lbs	
Weight of hammer when operated	1440 lbs			1880 lbs		2250 lbs		2650 lbs	
Tool 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



HP 4000 FS	HP 4500 FS		HP 5000 FS
4	5	5	5
35500 ÷ 61500 lbs	35500 ÷ 66000 lbs		42000 ÷ 70500 lbs
3320 lbs	3740 lbs		4200 lbs
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

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 11000 FS
Type of carrier	5	5	5	5
Excavator weight (possible)	46500 ÷ 84000 lbs	51000 ÷ 93000 lbs	60000 ÷ 110000 lbs	66500 ÷ 121000 lbs
Weight of hammer when operated	5000 lbs	5550 lbs	6950 lbs	7950 lbs
Tool diameter	5.75 in	5.95 in	6.30 in	6.70 in
Pressure adjusted to the excavator	3100 psi	3100 psi	3100 psi	3100 psi
Back pressure max	100 psi	120 psi	100 psi	100 psi
Energy class per blow	6000 lb.ft	7500 lb.ft	10000 lb.ft	11000 lb.ft
Number of blows per minute	370 ÷ 760 bpm	340 ÷ 820 bpm	300 ÷ 670 bpm	300 ÷ 650 bpm

Carrier key

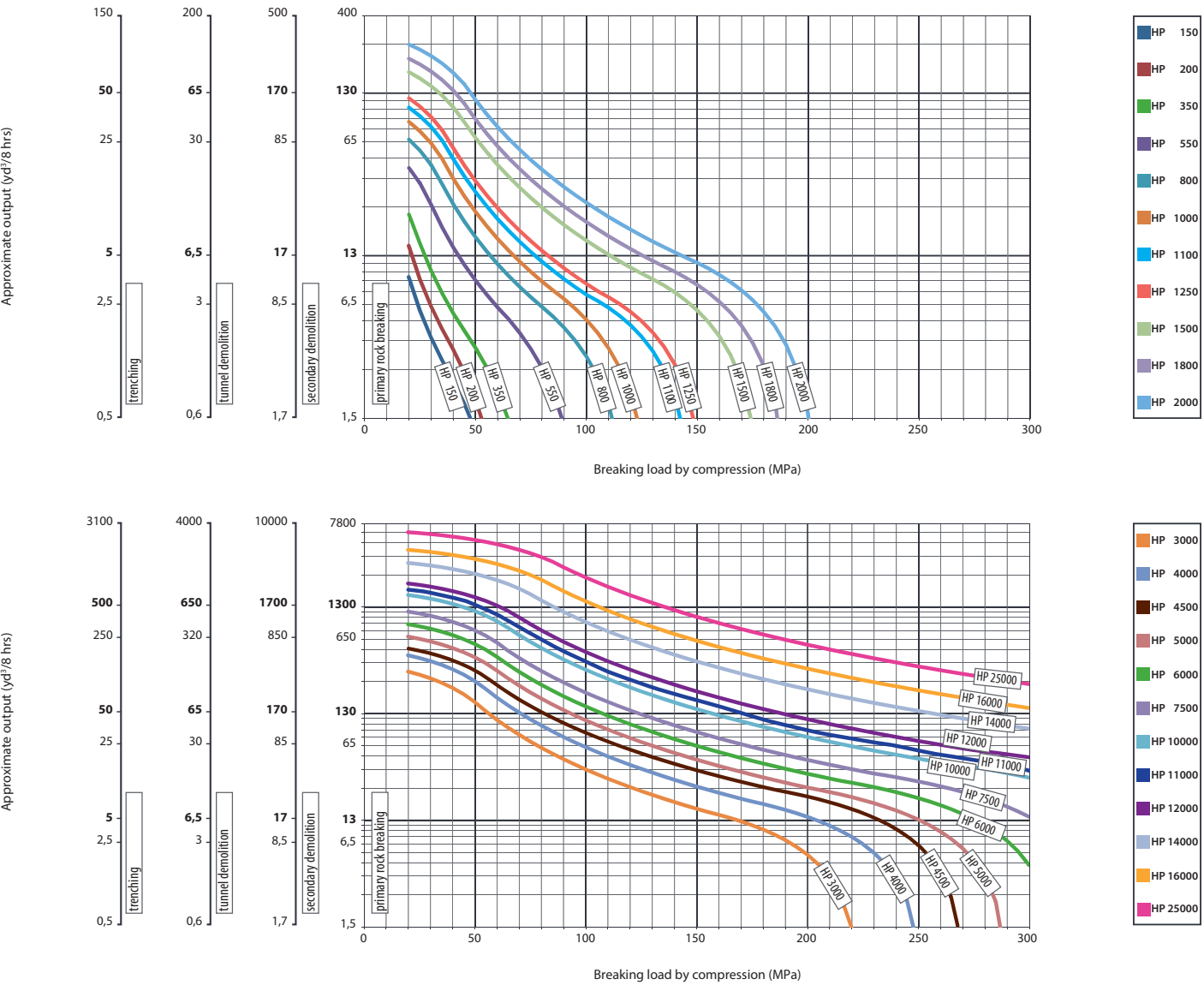


HP 12000 FS	HP 14000 FS	HP 16000 FS	HP 25000 Plus FS
5	5	5	5
75000 ÷ 138000 lbs	86000 ÷ 175000 lbs	100000 ÷ 265000 lbs	132000 ÷ 310000 lbs
9900 lbs	11600 lbs	17200 lbs	24400 lbs
7.10 in	7.70 in	8.50 in	10 in
3100 psi	3100 psi	3400 psi	3400 psi
120 psi	120 psi	130 psi	160 psi
12000 lb.ft	14000 lb.ft	16000 lb.ft	25000 lb.ft
320 ÷ 580 bpm	270 ÷ 540 bpm	240 ÷ 550 bpm	240 ÷ 460 bpm

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*

Parameters for selecting and adjusting the hammer

Model	Compatibility hammer/carrier (lbs)*		Pressure regulation values (psi)/oil flow (gpm)**			
HP 150	1150	4450	1550	1650	1750	1800
	1550	4000	7.4	5.3	4	2.7
HP 200	1550	6650	1550	1650	1750	1800
	1800	5550	11	8	6	4
HP 350	3100	11000	1550	1650	1750	1800
	4450	8800	12	10	7	7
HP 550	3750	14300	1550	1650	1750	1800
	5550	11000	18	12	10	8
HP 800	6650	19800	1550	1650	1750	1800
	7750	16500	23	19	16	14
HP 1000	7750	23100	1550	1700	1800	1850
	8850	18700	22	19	16	14
HP 1100	8850	26450	1550	1700	1800	1850
	12150	22000	24	22	19	16
HP 1250	11050	30850	1550	1700	1800	1850
	13250	26450	27	24	22	19
HP 1500	14400	35200	1550	1700	1800	1850
	17700	28600	28	26	23	19
HP 1800	22100	44000	1700	1700	1850	2000
	26500	37400	34	30	27	22
HP 2000	26500	48500	1700	1700	1850	2000
	31000	44000	35	32	30	23
HP 3000	33000	55000	1700	1800	1900	2000
	39500	48500	40	36	34	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

Model	Compatibility hammer/carrier (lbs)*		Pressure regulation values (psi)/oil flow (gpm)**			
HP 4000	35500	61500	1700	1800	1900	2000
	42000	52500	43	37	35	34
HP 4500	35500	66000	1750	1850	2000	2100
	44500	57000	43	39	36	35
HP 5000	42000	70500	1850	1950	2050	2150
	46500	61500	48	45	43	39
HP 6000	46500	84000	1900	1950	2050	2300
	53000	66000	53	49	47	43
HP 7500	51000	93000	1900	2000	2150	2300
	57500	72500	61	57	55	48
HP 10000	60000	110000	1900	2000	2150	2300
	66500	88000	71	61	59	51
HP 11000	66500	121000	1900	2000	2150	2300
	77500	99000	74	64	61	53
HP 12000	75000	138000	2050	2100	2200	2350
	79000	115000	81	76	73	67
HP 14000	86000	175000	2050	2150	2250	2350
	101000	150000	94	86	84	77
HP 16000	100000	265000	2050	2300	2400	2600
	128000	198000	111	101	98	86
HP 25000	132000	310000	2050	2300	2500	2600
	165000	265000	138	125	122	111

Accessories

Indeconnect system

New remote monitoring system, based on the principles of the Internet of Things, to prevent equipment obsolescence and keep high performance.

The ‘Indeconnect’ **[1]** system consists of a **device** equipped with 4G technology for a wireless connection to the network, to be mounted on the equipment, and a cloud-based **web platform** you can access from mobile devices (with an app) or from PC, that lets you view the data transmitted in real time by each installed device: working hours, working position in space, hydraulic oil temperature, ambient temperature, GPS position, and more.

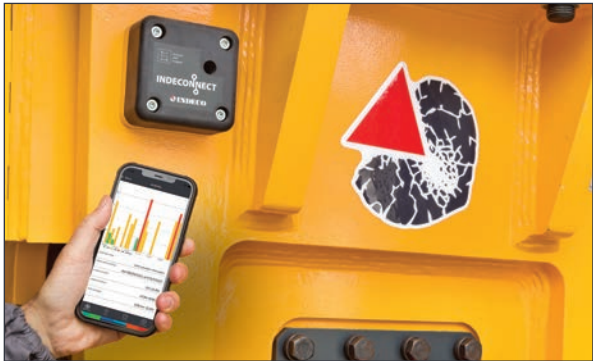
Through Indeconnect you can:

- **Monitor productivity**, making sure each Indeco tool is working as intended
- **Check operations**, verifying in real time the various internal and external parameters of the equipment to make sure that it is used in optimal conditions and correctly
- **Increase security**, by remotely checking the position of the equipment through GPS
- **Plan maintenance**, monitoring the health of each Indeco tool in real time, also through the automatic alert and messaging system that lets you order spare parts and reduce machine downtime to a minimum
- **Optimise rental**, by supervising and monitoring the management of rented equipment.

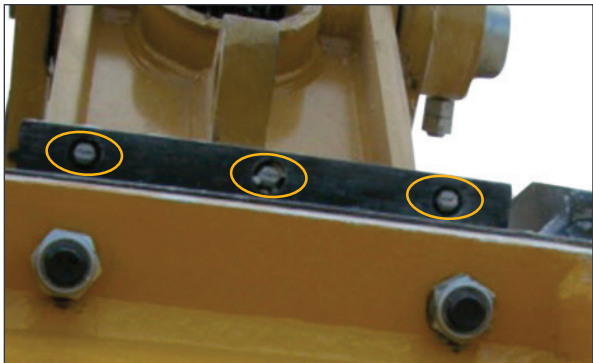
IDA (Indeco Dust Abatement) System

An innovative system that is particularly effective for reducing wear and tear on components, extending the working life of the hammer and protecting operators against exposure to microparticles of crystalline silica. It consists of a jet of high-pressure water spray, emitted by a number of nozzles **[2]** on the casing, which prevents dust from harming both the tool and the operator.

1 |



2 |



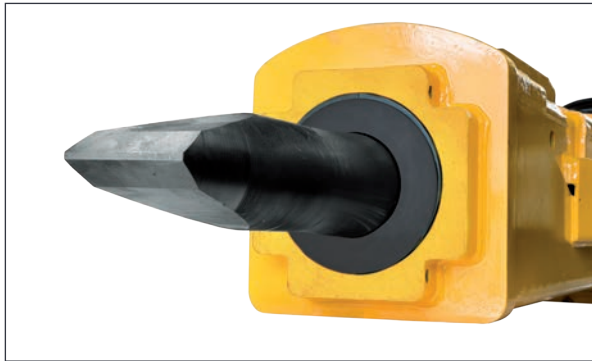
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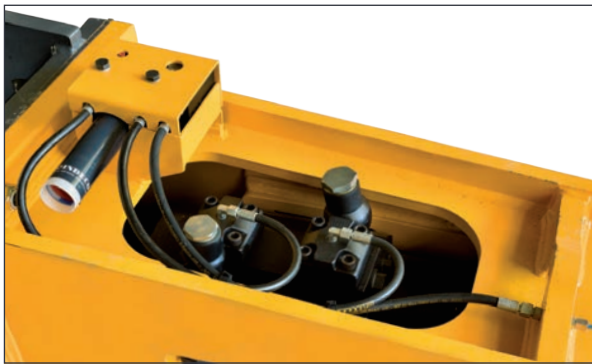
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6 |



7 |



8 |



Recently updated to comply with the latest OSHA directives, the system is available in two different versions:

- **High-pressure system**
Available for medium-large to large hammers, 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: the dust-abatement kit, which uses a fine water spray and the dust shield, which uses the internal pressurization of the hammer **[3]** to prevent dust, water and debris from getting into the hammer through the bushing, as can occur during tunnel demolitions and underwater excavations.
- **Low-pressure system**
Designed for smaller hammers and pulverizers, the technology involves inserting a vaporizing plate with four nozzles **[4]**, where the mounting bracket is attached, which enables it to cover the whole working area (whatever position it is in) and reduce the amount of dust produced, even on windy days. The new system only needs a low-pressure water supply and the sprayers turn on automatically only when the attachment is in action, thus also reducing water consumption.

Anti-Grease and Anti-Dust System

This system, which is crucial when working in dusty environments and when tunnelling, is made up of two collars. Both are adherent to the tool **[5]**, and which 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 Lube automatic greasing systems

Among the most important accessories for hydraulic hammers, automatic greasing systems developed by Indeco technical staff are designed to keep hammers in perfect working order at all times, by using just the right amount of lubricant and avoiding machine downtime necessary for manual greasing operations by the operator. There are two types of greasing unit – either an on-board system that can be fitted directly onto the hammer and which uses a cartridge pump, or else an excavator-mounted unit with its own grease tank [6]. In both cases, these systems are connected to the hammer through a single centralized greasing point [7], which enables the lubricant to reach all of the bushings and the moving parts at the tool, inside the hammers and on the retaining axle.

On-Board greasing systems

- **“Small”** with a “one shot” pump, only one HYD line, [8] and a single 200 g or 400 g cartridge for hammers from HP 350 to HP 2000
- **“Compact”** with a “one shot” pump, only one HYD line, and a single 400 g cartridge [9] for hammers from HP 3000 to HP 12000
- **“Maxi”** with two “one shot” pumps, only one HYD line, and two 400 g cartridges [10] for hammers from HP 14000 to HP 25000

Carrier-mounted systems

- 1.6 gal hydraulically or electrically-operated tank
- 5.8/6.6 gal drumimmersion pump and hydraulic or electric action

Special Indeco Supreme lubricant

It is vital that a specific lubricant be used to ensure the durability of the main components of the hammer. Indeco’s [11] Supreme lubricant, with solid additives is

9 |



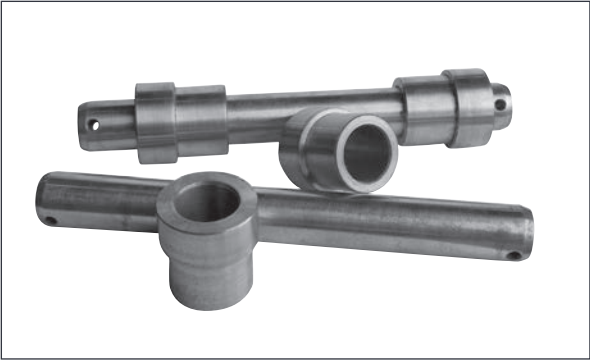
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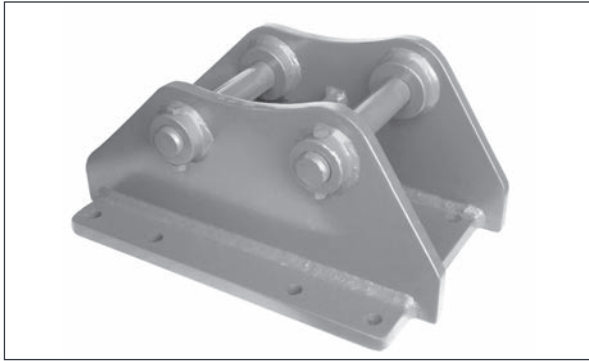
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12 |



13 |



14 |



15 |



particularly resistant to oxidation, can withstand extreme pressures and temperatures and shows excellent adhesion and water-resistance.

Pins and bushings

[12] 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 [13] can be used with all Indeco products in the same class.

Folding mounting bracket

A special mounting bracket [14] for folding the hammer away directly under the carrier boom.

Connecting hoses

We recommend using original Indeco high- and low-pressure hoses [15] to connect various tools to the hydraulic system on the carrier.

The tools

Chisel tool

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



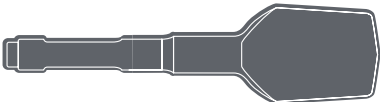
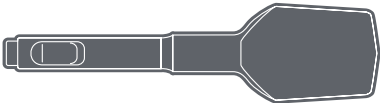
Moil point tool

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



Asphalt cutter / shovel tool

For cutting or breaking the road surface, breaking floors, walls, brick or tuff walls. Available in the in-line (asphalt cutter) and 90° transversal (shovel) versions according to the working direction.



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.



Application areas

		L	M	S
 Mining and Quarry	Preliminary works	- Overburden removal - Bench, road & ramp leveling - Roof, face & rib scaling		
	Secondary demolition	- Boulder reduction in rock pile - Removing blockages at crushing systems		
	Primary rock breaking	- Selective rock breaking - Blastfree mining		
	Light demolition	- Demolition of masonry structures - Brickwork - Natural stone - Renovation of interiors - Autoclaved aerated concrete		
	Demolition of non-reinforced concrete structures	- Primary demolition of lightweight and standard concrete - Primary demolition of heavyweight concrete - Wall Elements - Secondary demolition		
	Composite steel & concrete structure demolition	- Primary demolition of lightweight and standard reinforced concrete - Primary demolition of heavyweight steel - reinforced concrete - Secondary Demolition floors, slabs and beams - Separating rebars from pillars and struts - Fiber-reinforced concrete - 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 - Concrete - Composite surfaces		
	Earth moving works	- Trenching - Ground excavation - Floor leveling - Soil compaction - Trench compaction - Loading soil or bulk material		
 Earth Moving and Construction	Foundation works	- Building foundation excavation - Ground leveling		
	Building construction	- Foundation pile driving - Compaction around pillars		



Infrastructures



Metallurgical Industry



Agriculture and Forestry

		L	M	S
Tunnelling	• Tunnel excavation	○	○	○
	• Roof, face & rib scaling	○	○	○
Underwater application	• Dredging	○	○	○
	• Dock deepening & extension	○	○	○
	• Canal deepening & extension	○	○	○
	• Loading soil or bulk material			
	• Handling rock or breakwaters			
Trenching	• Oil & gas, water & sewage (deep trenching)	○	○	○
	• Trenching		○	○
	• Trench soil compaction		○	○
Road construction	• Pile driving and guard rail driving		○	○
	• Asphalt repair			
	• Maintenance work (driveways, sidewalks and parking lots)			
	• Block paving			
Slag recycling	• Boulder reduction in slag heaps	○	○	
	• Removing blockages at crushing systems	○	○	○
Cleaning & debricking	• Ladles	○	○	○
	• Converter mouths	○	○	○
	• Kilns	○	○	○
Gardening & Landscaping	• Fencing	○	○	○
	• Ground excavation	○	○	○
	• Rock breaking	○	○	○
	• Pit planting	○	○	○
	• Stump splitting	○	○	○
	• Golf course maintenance			
	• Root and stump grinding			
	• Hedgerow clearance and rejuvenation			
	• Grinding of logging residues			
Forestry	• Timber log handling			
	• Maintenance of green area, small trees and brush			
	• Creation and upkeep of woodland corridors and firebreaks			
	• Tree clearing			
	• Vegetation clearing			
	• Branch clearing			

L| Large hammers

M| Medium hammers

S| Small hammers



The complete range of Indeco products

Products	Weight/Length	Products	Weight/Length
HP Hydraulic hammers	from 135 to 24400 lbs	IHC R rotating compactors	from 950 to 3350 lbs
IFP fixed pulverisers	from 1650 to 10050 lbs	IMG S-D-H-L-T Multi Grabs	from 630 to 6600 lbs
IRP rotating pulverisers	from 1300 to 9900 lbs	ISS Shears	from 1060 to 24200 lbs
IMP Multiprocessor	from 3300 to 10800 lbs	IRC rail cutters	from 9240 to 9650 lbs
IMP Mutiprocessor Car Dismantler	3300 lbs	IMH Mulching Heads	from 850 to 4250 lbs
IDC Primary Demolition Crusher	15850 lbs	IBS boom systems	from 11 to 47 ft
IHC fixed compactors	from 450 to 2850 lbs		

*Lengths can be customised on the basis of the customer's needs.

Platinum Warranty

The professional competency which Indeco technicians bring to their job and the easy availability of spare parts in all of its distribution centers 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.

USA Version

EN

INDECO North America

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www.indeco-breakers.com

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Quality Management
System Certification



Member of



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