

Boom systems

IBS Series



IBS boom system

Initially manufactured and marketed by Indeco North America and Indeco Australia, the Indeco IBS Boom System soon had a strong impact on many other markets, having already proven to save time and money in many a quarry and mine, where it is used to reduce bridged and oversized material which could slow down crushing operations. Mounted over the mouth of a primary crusher, the boom system enables the breaker to reach into the mouth of the crusher, reducing oversized boulders as well as clearing any blockages in the hopper. Various remote-control systems enable the operator to manoeuvre the boom from the cabin. By doing so, plant down times can be safely eliminated. Our experience on the Australian and pan-American markets has enabled Indeco to develop a range of boom systems with outstanding reliability, ruggedness, productivity and profitability. Indeco IBS boom systems, made from extra-strength steel alloys, are tailor-made, and are designed according to the individual requirements and specifications set out by the customer.



Features of Indeco boom systems

The electro-hydraulic proportional control valve **[1]** ensures greater efficiency and precision of movement.

The hydraulic connections to the cylinders **[2]** are positioned laterally to provide greater protection against breakage.

The hydraulic cylinders, **[3]** designed and manufactured by the Indeco technical division to exclusive specifications, are oversized to provide maximum power and hydraulic efficiency and ensure greater reliability even in demanding applications.

The rotating distributor **[4]** for the hydraulic fittings, exclusive to the IBS series, is located inside the base of the arm, ensuring true 360° rotation as there are no hoses to get in the way of movement.

Unlike many competing products, the Indeco IBS boom systems are designed and manufactured to be very similar to those of excavators, not only in terms of their design, but also in their use of special extra-strength steel alloys **[5]** that provide the best weight/power ratio on the market, thus ensuring versatility and reliability.

Special reinforced box sections **[6]** inside the boom make it more rugged, and more resistant to torsion and buckling.

The entire hydraulic line mounted on the arm, including the outlet and inlet hoses to the hammer, is made up of high-pressure hoses **[7]**.

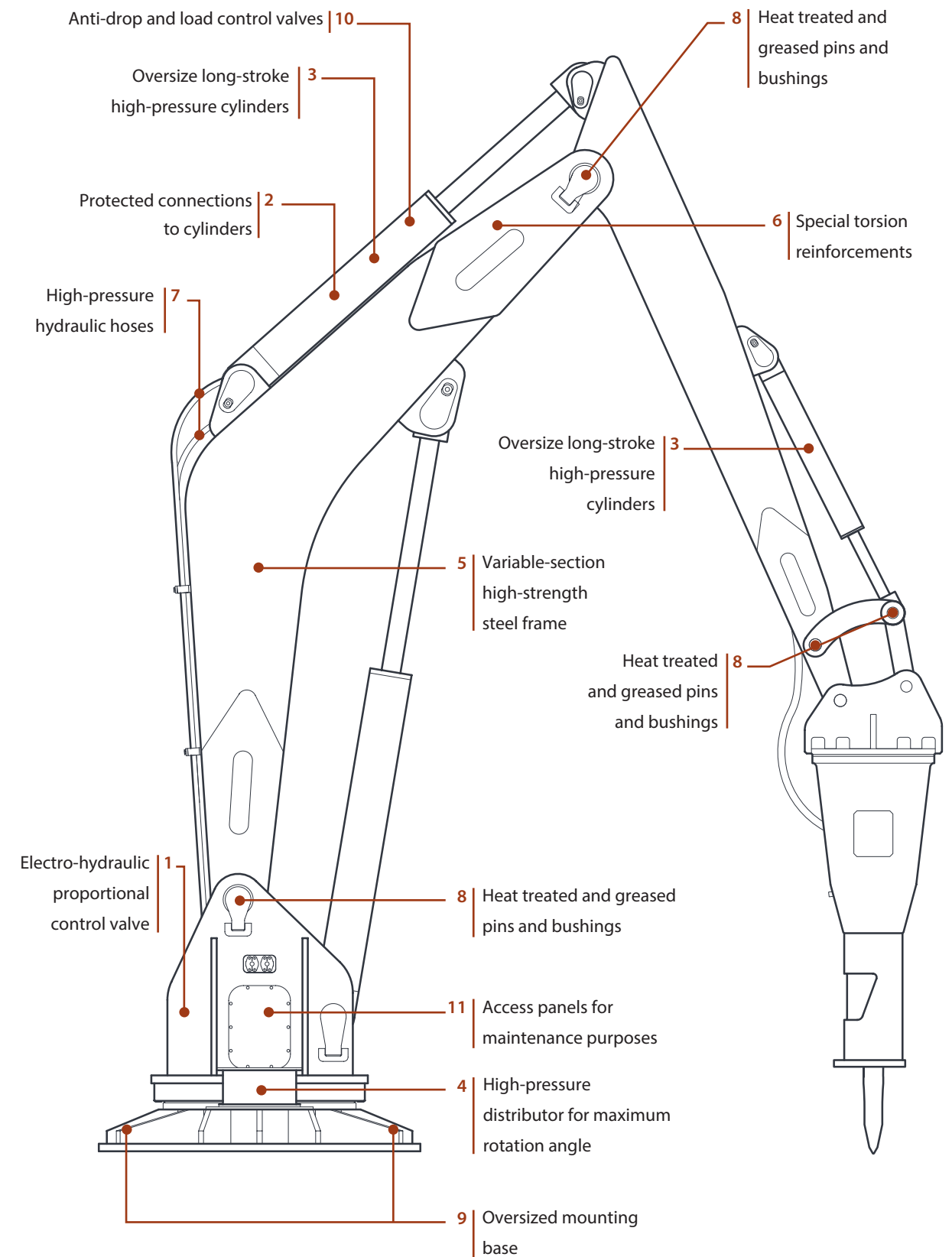
The sintered bronze and aluminium bushings **[8]**, along with the special-steel pins, are heat treated, which increases their strength and also have special greasing channels.

The mounting base **[9]** for the IBS boom is particularly robust and oversized for maximum durability.

Anti-drop and load control valves **[10]**, mounted on the cylinders, prevent the boom from accidentally collapsing and at the same time improve safety.

Access panels **[11]** to the rotation motor and to the hydraulic distribution system facilitate maintenance.

Here at Indeco we use computational tools such as FEA – Finite Element Analysis – to perform structural and stress tests, making it possible to test and improve the product before the start of the manufacturing process.



Rotation

Indeco IBS boom systems are available with three different types of rotation, for maximum flexibility, depending on the type of job they are used for.

360°

slewing ring and hydraulic motor

360° rotation with a fifth wheel and pinion and planetary gear units for maximum operating flexibility makes the Indeco IBS similar to an excavator boom.



180°

hydraulic actuator

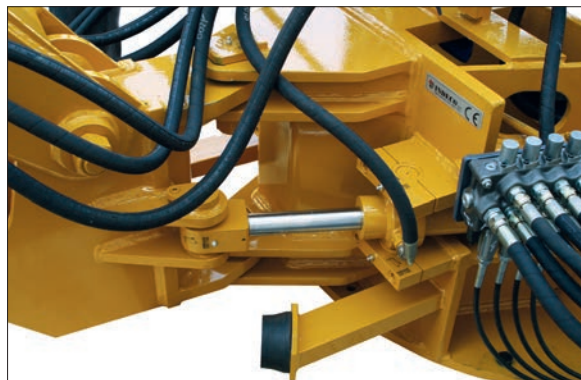
true 180° rotation using a special hydraulic actuator designed and manufactured exclusively by Indeco, provides greater versatility and application in a wider work area.



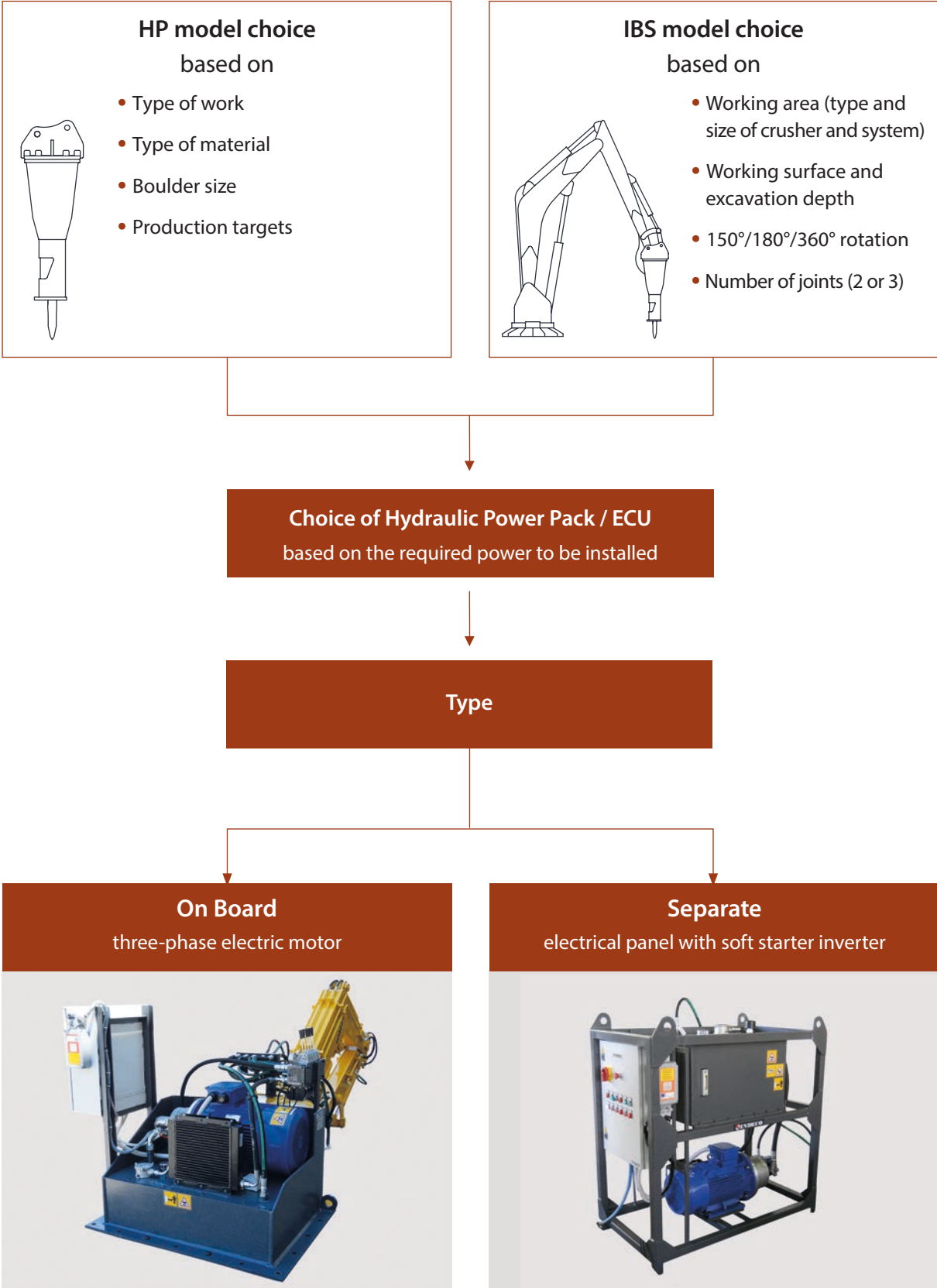
150°

side hydraulic pistons

150° rotation uses two oversize hydraulic pistons working in sequence, to ensure better performance and greater rotational power.



How to choose the boom system



| | | IBS 33 | IBS 40 | IBS 50 | IBS 62 | IBS 76 | IBS 94 | IBS 116 | IBS 143 |
|-----------------|----------------|--------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|
| | | Maximum horizontal length (m)* | | | | | | | |
| Power Pack (Kw) | Hammer (Kg) | 3,3 | 4 | 5 | 6,2 | 7,6 | 9,4 | 11,6 | 14,3 |
| 15 | HP 100 (59) | IBS 33-400 | IBS 40-400 | | | | | | |
| | HP 150 (80/98) | IBS 33-400 | IBS 40-400 | | | | | | |
| | HP 200 (160) | IBS 33-400 | IBS 40-400 | | | | | | |
| | HP 400 (230) | IBS 33-400 | IBS 40-400 | | | | | | |
| 21 | HP 550 (320) | IBS 33-700 | IBS 40-700 | IBS 50-700 | | | | | |
| | HP 600 (390) | IBS 33-700 | IBS 40-700 | IBS 50-700 | | | | | |
| | HP 700 (440) | IBS 33-700 | IBS 40-700 | IBS 50-700 | | | | | |
| 30 | HP 900 (550) | IBS 33-1200 | IBS 40-1200 | IBS 50-1200 | IBS 62-1200 | | | | |
| | HP 1200 (650) | IBS 33-1200 | IBS 40-1200 | IBS 50-1200 | IBS 62-1200 | | | | |
| 37 | HP 1500 (850) | | IBS 40-1800 | IBS 50-1800 | IBS 62-1800 | IBS 76-1800 | | | |
| | HP 1800 (1000) | | IBS 40-1800 | IBS 50-1800 | IBS 62-1800 | IBS 76-1800 | | | |
| 45 | HP 2000 (1200) | | | | IBS 62-2500 | IBS 76-2500 | IBS 94-2500 | IBS 116-2500 | IBS 143-2500 |
| | HP 2500 (1500) | | | | IBS 62-2500 | IBS 76-2500 | IBS 94-2500 | IBS 116-2500 | IBS 143-2500 |
| 55 | HP 2750 (1690) | | | | | IBS 76-3500 | IBS 94-3500 | IBS 116-3500 | IBS 143-3500 |
| | HP 3500 (2200) | | | | | IBS 76-3500 | IBS 94-3500 | IBS 116-3500 | IBS 143-3500 |
| 75 | HP 4000 (2500) | | | | | | IBS 94-5000 | IBS 116-5000 | IBS 143-5000 |
| | HP 5000 (3150) | | | | | | IBS 94-5000 | IBS 116-5000 | IBS 143-5000 |

*Lengths can be customized according to the customer's requirements

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.

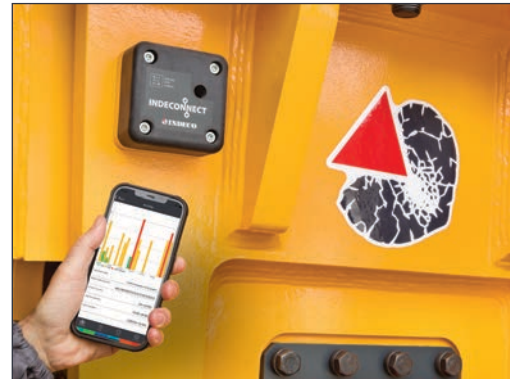
Through Indeconnect you can:

- **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.

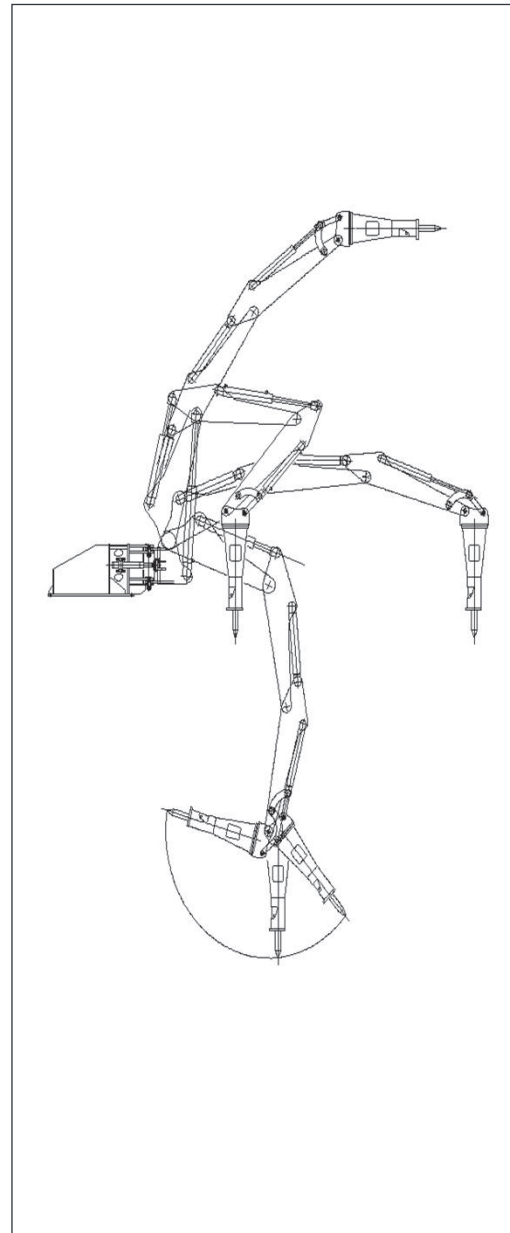
Three articulations

The Indeco hydraulic boom can be made with three articulations **|2|** so as to increase the working area when the hammer is in a vertical position, to reach inaccessible positions under the mounting base, and to increase versatility of use.

1 |



2 |



3 |



Automatic greasing kit for boom and hammer

Optimises grease consumption, cutting out the machine down times once needed to lubricate moving parts. The kit includes a programmable pumping unit pack **|3|**, hoses and hammer and boom fittings. The system increases the service life of all the ball bushings on the boom and in the moving parts of the hammer.

4 |



Control system

The Indeco IBS has a highly efficient control system with an electro-hydraulic proportional valve. Indeco has designed two different types:

- remote control **|4|**, with a special cable up to 90 m in length
- wireless remote control **|5|** for distances of up to 30 m.

5 |



Heat exchanger

High-efficiency radiator **|6|** and auxiliary cooling fan to keep the oil temperature constant even in extreme operating conditions.

Oil warmer

At very low working temperatures and in cold climates, the oil warmer **|7|** keeps the oil temperature constant.

Oil level indicator

Indicator **|8|** which warns the operator when the oil level is too low.

6 |



Temperature indicator

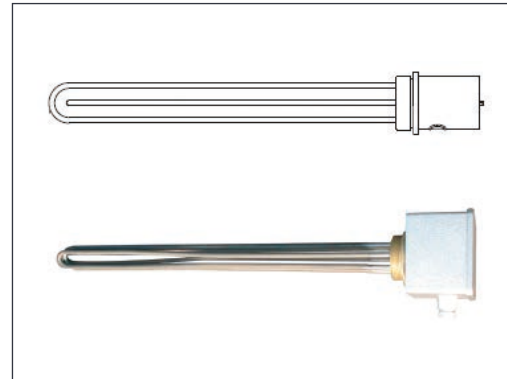
Indicator **|9|** which warns the operator when the temperature is too high.

Hydraulic feed pump

There are three types of hydraulic feed pump **10**:

- gear pumps, for operating pressures of up to 200 bars
- axial piston pumps for operating pressures of over 200 bars
- variable displacement pumps with load sensing.

7 |



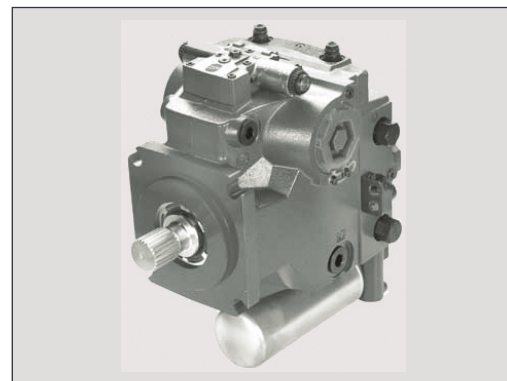
8 |



9 |



10 |



Application areas



| | | IBS |
|-----------------------|---|-----|
| Preliminary works | <ul style="list-style-type: none">• Overburden removal• Bench, road & ramp leveling• Roof, face & rib scaling | |
| Secondary demolition | <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• Blastfree mining | |



The full range of Indeco hammers

| Hammer | | Weight | | Hammer | | Weight | |
|--------|----------------|--------|----|--------|------------|--------|----|
| HP | 100 | 59 | Kg | HP | 2000 | 1200 | Kg |
| HP | 150 | 80 | Kg | HP | 2500 | 1500 | Kg |
| HP | 150 Heavy Duty | 98 | Kg | HP | 2750 | 1690 | Kg |
| HP | 200 | 160 | Kg | HP | 3000 | 1900 | Kg |
| HP | 400 | 230 | Kg | HP | 3500 | 2200 | Kg |
| HP | 550 | 320 | Kg | HP | 4000 | 2500 | Kg |
| HP | 600 | 390 | Kg | HP | 5000 | 3150 | Kg |
| HP | 700 | 440 | Kg | HP | 6000 | 3600 | Kg |
| HP | 900 | 550 | Kg | HP | 7000 | 4000 | Kg |
| HP | 1200 | 650 | Kg | HP | 9000 | 5000 | Kg |
| HP | 1500 | 850 | Kg | HP | 12000 | 7800 | Kg |
| HP | 1800 | 1000 | Kg | HP | 18000 Plus | 11050 | Kg |



INDECO ind S.p.a.
viale Lindemann, 10 z.i. - 70132 Bari - Italy
PH +39 080 531 33 70 - **F** +39 080 537 79 76
@ info@indecos.it - www.indecos.it/en

AUTHORISED DEALER