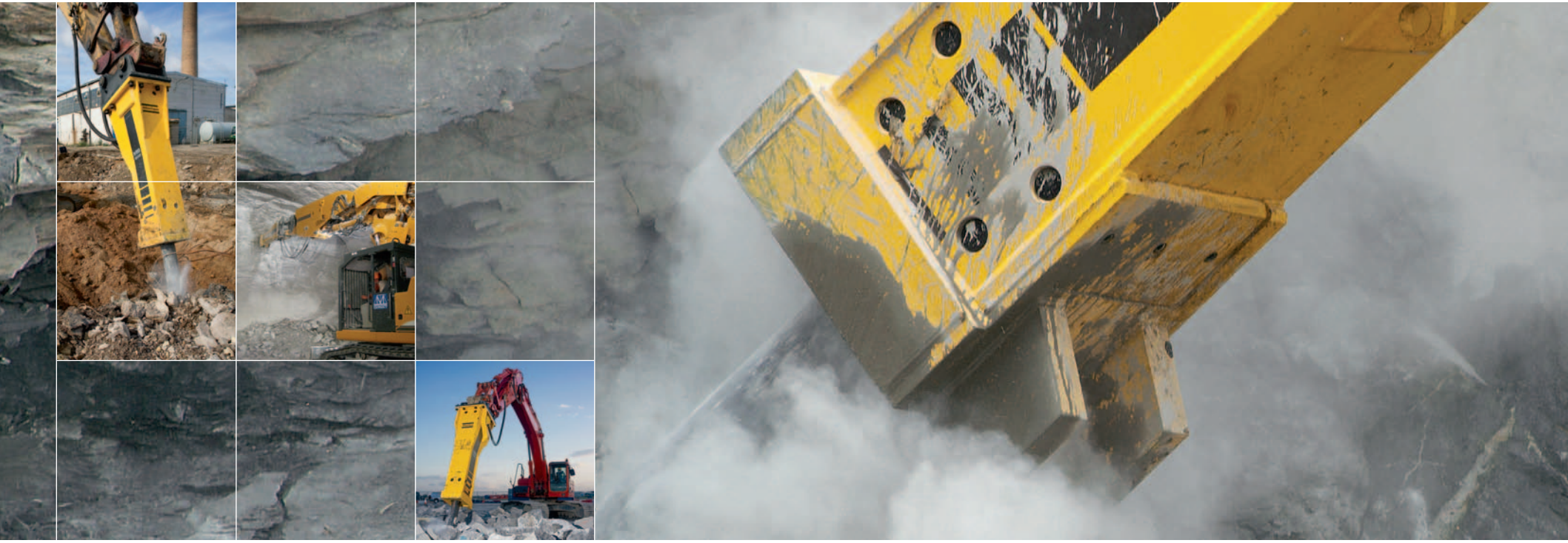
Atlas Copco medium and heavy hydraulic breakers

Less weight, more power



Sustainable Productivity

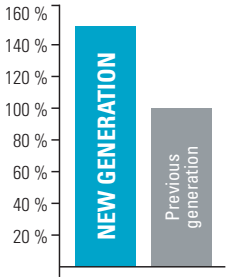
Atlas Copco

Less weight, more power, that's the target!

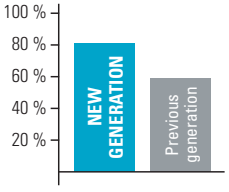
The power to weight ratio and the efficiency of Atlas Copco's latest generation of medium and heavy hydraulic breakers have been significantly increased, compared to their predecessors. Due to lower weight and higher efficiency, less hydraulic input power is required from the carrier while maintaining maximum impact performance. This allows smaller carriers to be used which results in lower investment cost for the carrier.

By demanding less input from the hydraulic system to operate the breaker, less fuel is consumed by the carrier and thus lower operating cost. As both investment and operating cost decrease, your total cost of ownership will be significantly reduced.

IMPACT PERFORMANCE TO WEIGHT COMPARISON*



EFFICIENCY COMPARISON*



*All figures according to AEM measurements.
The example is a comparison between HB 3600 and the previous model HM 1800.

A convincing concept

Atlas Copco medium and heavy hydraulic breakers are extremely efficient. Powered by a combination of oil and gas the breaker becomes virtually independent from the hydraulic oil supply. 70 % of the impact energy is generated by the gas from the piston accumulator and only 30 % by the oil supply from the carrier. In combination with the internal control valve the breaker is able to convert the required hydraulic input into more hydraulic output and thus improving the utilization of energy resources.

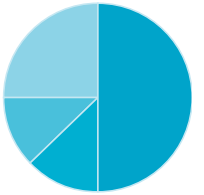
Total cost of ownership

Total cost of ownership is the sum of all costs generated by a piece of equipment throughout its lifetime. The pie chart shows the average over the economic lifetime. Accordingly the investment cost only represents a minor portion of the total cost involved. Please note that this may vary depending on local conditions.

Atlas Copco always strives to use the required resources, like energy and manpower, in the most effective way. Our highly efficient and productive equipment contributes to profitable business.

COST OF OWNERSHIP

Medium breakers



- OPERATOR 50%
- INVESTMENT 13%
- SPARES 12%
- ENERGY 25%

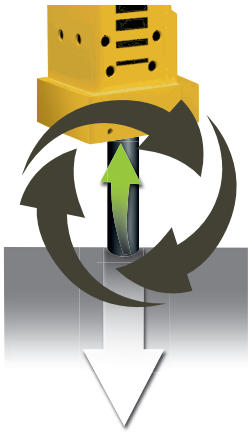
Heavy breakers

- OPERATOR 33%
- INVESTMENT 17%
- SPARES 19%
- ENERGY 31%

Features optimizing productivity

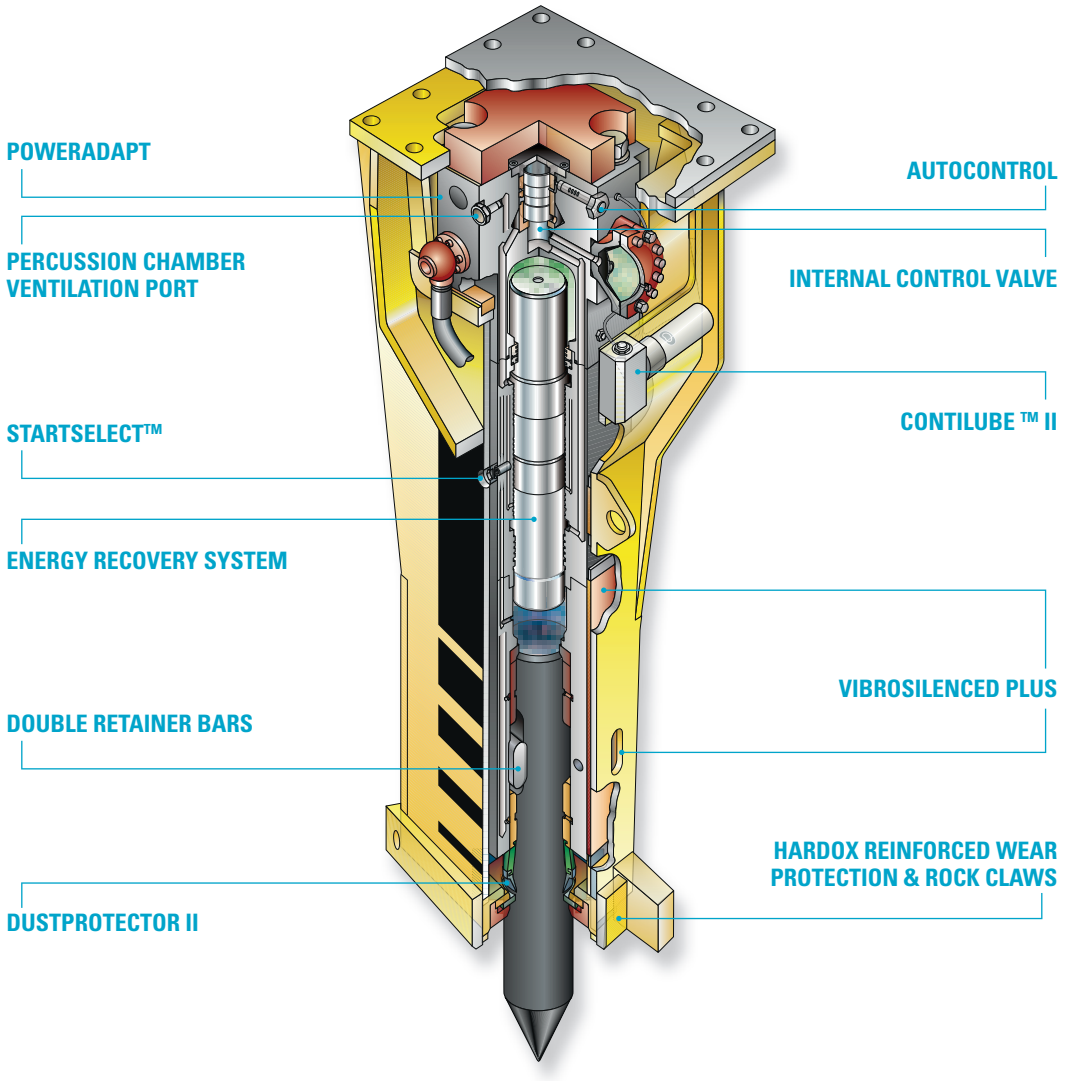
Energy recovery

The energy recovery system provides additional impact performance without increasing the hydraulic input in tough conditions. The shift to the energy recovery mode is done automatically. When required the recoil energy is converted into output energy for the next impact. By reusing the recoil energy the breaker also stays quieter and runs smoother compared to hydraulic breakers without such a system.



AutoControl

The automatic stroke-length switching system AutoControl, standard from MB 1000 upwards, optimizes the output performance and reduces strain of idle blows. After one test stroke in short-stroke mode AutoControl either stays in this mode to achieve maximum impact rate or switches automatically to the long-stroke mode to achieve maximum impact energy. The optimized ratio between impact rate and energy provides high flexibility and productivity in various applications as well as less strain to the breaker, carrier and operator.



Features protecting investment, operator & environment

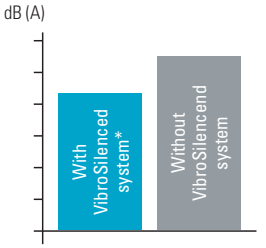
StartSelect™

StartSelect™, standard on MB 1200 and upwards, enables the operator to set the breaker in line with the actual working conditions to either improve machine handling or prevent idle blows. Adjusted to the AutoStart mode the breaker starts working without load applied to working tool. This makes it easy to handle and operate in unstable ground, and reduces the strain of idle blows. Adjusted to the AutoStop mode the breaker starts working only when load is applied to protect breaker, carrier and operator against strain when working in firm ground.

VibroSilenced Plus

The VibroSilenced Plus system reduces strain on breaker, carrier and operator as well as the neighbourhood nearby the jobsite. The breaker box guiding system, the isolation from guiding system and percussion mechanism by elastic damping elements and the closing of all openings by sealing plugs on the breaker box reduce the noise emissions and make Atlas Copco breakers one of the quietest on the market. Furthermore the isolation in combination with state-of-the-art breaker design with Atlas Copco's energy recovery system reduce the vibration exposure and protect man and machine.

SOUND LEVEL COMPARISON



An increase of 10 dB(A) appears as double as loud. *Example is based on the HB3600

PowerAdapt

PowerAdapt detects excessive carrier settings on all HB breakers and helps to optimize them immediately. The integrated valve prevents overloads due to incorrect oil pressure settings by switching off the breaker, thus protecting it from costly downtime and repair. Conventional pressure relief valves used on other hydraulic breakers are constantly draining oil to tank, wasting energy and lowering breaker efficiency and performance.

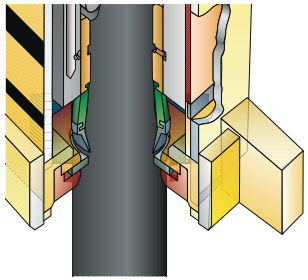
Features minimizing maintenance costs

ContiLube™ II

The ContiLube™ II eliminates the regular manual greasing intervals during operation and provides an optimum level of lubrication. This well-proven Atlas Copco designed automatic lubrication system is directly breaker box mounted without external hose guiding and provides continuous adjustable greasing of the working tool guiding area. The filling level of the transparent screw cartridge can be easily monitored from the excavator cabin and if required exchanged within minutes.

DustProtector II

The patented DustProtector II improves lifetime of bushings, impact ring, retainer bars, piston and working tools and lowers the overall grease consumption. This optional available dust protection system is an active two-stage sealing system combining a floating coarse wiper and a fine wiper. The coarse wiper installed at the breaker box follows the working tool movements and offers always optimum protection against fly rock and debris entering the lower breaker section. The fine wiper seals additionally the working tool guiding area directly on the working tool and avoids dust entering this section as well as keeping chisel paste within the area where it is needed.



Percussion chamber ventilation

The percussion chamber ventilation system is a standard feature that improves lifetime of seals, piston and working tools and provides the possibility to easily apply compressed air to the percussion chamber.
An active non-return valve prevents dust and grease from getting sucked in between the working tool and piston. The port is accessible from the outside without breaker box modifications. By applying compressed air underwater jobs or jobs where a horizontal or overhead working position is required means no challenge.

Find the breaker that suits you

Atlas Copco breakers are developed to get even the toughest and hardest jobs done.
It's a genuine tool designed for millions of blows under the harshest conditions.

Mining & quarrying

			SB	MB	HB
Preliminary works	Overburden removal Bench, road & ramp levelling Roof, face & rib scaling		●	●	o
Secondary breaking	Boulder reduction in rock pile Removing blockages at crushing systems		o	●	●
Primary rock breaking	Selective rock breaking Blast-free mining		-	o	●

Demolition & renovation

			SB	MB	HB
Masonry structures	Brickwork Natural stone Autoclaved aerated concrete		●	o	-
Concrete structures	Lightweight concrete Standard concrete		●	●	o
	Heavyweight concrete		-	o	●
Composite steel & concrete structures	Steel-reinforced concrete Prestressed concrete Fibre-reinforced concrete		o	●	●
Pavements	Asphalt Concrete Composite surfaces		●	●	●

Construction

			SB	MB	HB
Earthworks	Trenching Pit building Ground excavation		o	●	●
Tunneling	Tunnel driving Roof, face & rib scaling Floor levelling		o	●	●
Dredging	Canal deepening & extension Dock deepening & extension		o	o	●
Gardening & Landscaping	Fencing Ground excavation Rock breaking		●	o	-
Foundation works	Ground levelling		-	o	●
Building construction	Foundation pile driving		-	o	●

Metallurgical industry

			SB	MB	HB
Slag recycling	Boulder reduction in slag heap Removing blockages at crushing systems		o	●	●
Cleaning & debricking	Ladles Converter mouths Kilns		●	o	-

● Optimal o Suitable - Unsuitable

		MB 750	MB 1000	MB 1200	MB 1500	MB 1700	HB 2000	HB 2500	HB 3100	HB 3600	HB 4700	HB 5800	HB 7000	HB 10000
Carrier weight class [1]	t	10-17	12-21	15-26	17-29	19-32	22-38	27-46	32-52	35-63	45-80	58-100	70-120	85-140
Service weight [2]	kg	750	1.000	1.200	1.500	1.700	2.000	2.500	3.100	3.600	4.700	5.800	7.000	10.000
Oil flow rate	l/min	80-120	85-130	100-140	120-155	130-170	150-190	170-220	210-270	240-300	260-360	310-390	360-450	450-530
Operating pressure	bar	140-170	160-180	160-180	160-180	160-180	160-180	160-180	160-180	160-180	160-180	160-180	160-180	160-180
Impact rate	bpm	370-840	350-750	340-680	330-680	320-640	300-625	280-580	280-560	280-560	280-540	280-480	280-450	250-380
Working tool diameter		100	110	120	135	140	145	155	165	170	190	200	210	240
Working length of working tool	mm	550	570	610	630	650	665	680	745	770	860	865	935	-
Max. hydraulic input power	kW	34	39	42	46	51	57	66	81	90	108	117	135	159
Start-up mode		AutoStart	AutoStart	StartSelect	StartSelect	StartSelect	StartSelect	StartSelect	StartSelect	StartSelect	StartSelect	StartSelect	StartSelect	StartSelect
Sound power level guaranteed [3]		117	119	117	120	117	120	121	119	121	126	121	121	123
Sound pressure level [3]	r=10	88	90	88	91	87	91	92	90	92	96	92	92	93
Part number		3363 1007 39	3363 0887 85	3363 0904 41	3363 0991 01	3363 0904 49	3363 1027 61	3363 0926 91	3363 1056 51	3363 1003 01	3363 1027 51	3363 0904 73	3363 0904 81	
Safety and Operating Instruction		3390 5076 01				3390 5112 01	3390 5090 01		3390 5096 01			3390 5005 01		

Equipped with DustProtector II

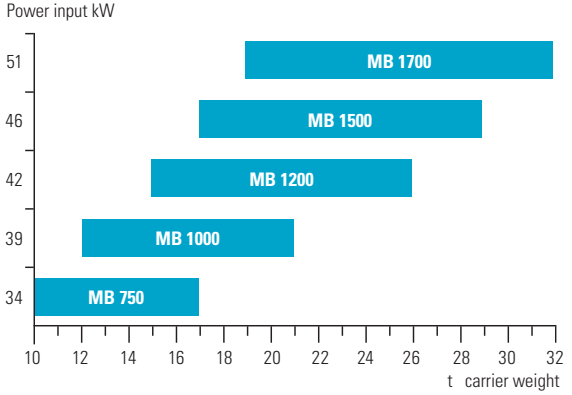
Working length of working tool	mm	510	540	585	605	620	600	640	700	720	800	810	885	880
Part number		3363 1046 81	3363 0887 87	3363 0904 43	3363 0991 39	3363 0904 51	3363 1044 17	3363 0938 71	3363 1056 49	3363 1007 79	3363 1044 61	3363 0904 75	3363 0904 83	3363 1003 61

1) Weights apply to standard carriers only. Any variances must be agreed with Atlas Copco and/or the carrier manufacturer prior to attachment. 2) Breaker and breaker box with standard adapter plus working tool. 3) EN ISO 3744 in accordance with directive 2000/14/EC.
Important: More detailed technical specifications are available in the product Safety and Operating Instructions at www.acprintshop.com (see table above for ID number).

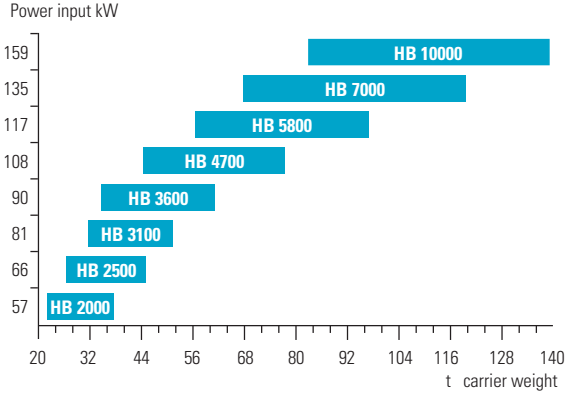
Select your breaker, basic facts.

When it comes to choosing a suitable hydraulic breaker, many users are still unsure of how to get the best impact performance while taking into account the material to be broken up and the timeframe. Here are some basic facts to get you started. The impact performance is determined by impact energy times impact rate. A hydraulic breaker should be designed so that the ratio between impact energy and impact rate can be varied according to the needs of the application.

Carrier weight classes - MB



Carrier weight classes - HB



Keep your machines performing

Genuine working tools

The dimensions, material properties and tip geometry of working tools have a major impact on reliability, wear behavior, performance and productivity. So don't take any risks. Only genuine working tools will ensure that your Atlas Copco breaker continues to be the unit that you bought: a reliable and safe production unit good for many millions of impacts.

Maintenance kits

These kits include all the parts needed to carry out servicing in accordance with factory specifications and contain all the wearing components needed for proactive replacement and preventive maintenance. They include a detailed list of contents and an exploded view to simplify identifications.

Lubricants

Atlas Copco chisel paste is a mineral oil-based paste containing an aluminium complex soap and solid lubricants. For temperatures from -20 to +1100°C. Chisel paste provides maximum service life and availability for working tools and bushings of hydraulic breakers.

1+2 program = three years warranty without extra cost

For all Atlas Copco hydraulic breakers, three years of warranty at no extra cost. Benefits: Protected investment and peace of mind - Time to focus on your business - Breaker availability assured - Higher breaker resale value. Register at: www.1plus2program.com

WORKING TOOLS
TOOL LENGTH

Tool type	Product Line	MB 750 1,000 mm	MB 1000 1,100 mm	MB 1200 1,150 mm	MB 1500 1,175 mm	MB 1700 1,200 mm	HB 2000 1,230 mm	HB 2500 1,350 mm	HB 3100 1,450 mm	HB 3600 1,500 mm	HB 4700 1,650 mm	HB 5800 1,700 mm	HB 7000 1,800 mm	HB 10000 1,900 mm
		Part number					Part number							
Moil point	ClassicLine	3363 1032 45	3363 0848 77	3363 0827 87	3363 0987 36	3363 0822 35	3363 1069 48	3363 0946 14	3363 0822 53	3363 1033 07	3363 1038 46	3363 0875 27	3363 0822 65	
Moil point	SilverLine	3363 1034 80	3363 0840 79	3363 1031 56	3363 1034 34	3363 1034 24	3363 1069 58	3363 0949 19	3363 0918 01	3363 1033 22	3363 1038 53	3363 0914 20	3363 0914 23	3363 0981 07
Moil point (XProfile)	ClassicLine	3363 1064 61	3363 1064 63	3363 1064 65	3363 1064 67	3363 1064 69	3363 1064 71	3363 1064 73	3363 1064 75	3363 1064 77	3363 1064 79	3363 1064 81	3363 1064 83	
Moil point (XProfile)	SilverLine													3363 1064 85
Chisel (cross)	ClassicLine	3363 1032 46	3363 0848 87	3363 0829 43	3363 0987 34	3363 0822 37	3363 1069 49	3363 0946 17	3363 0822 55	3363 1033 08	3363 1038 49	3363 0875 25	3363 0822 67	
Chisel (cross)	SilverLine	3363 1034 81	3363 0840 83	3363 1000 97	3363 1034 35	3363 1034 23	3363 1069 59	3363 0949 18	3363 0918 00	3363 1033 23	3363 1038 54	3363 0914 21	3363 0914 24	3363 0981 05
Chisel (XProfile)	ClassicLine	3363 1064 62	3363 1064 64	3363 1064 66	3363 1064 68	3363 1064 70	3363 1064 72	3363 1064 74	3363 1064 76	3363 1064 78	3363 1064 80	3363 1064 82	3363 1064 84	
Chisel (XProfile)	SilverLine													3363 1064 86
Blunt tool	ClassicLine	3363 1047 85	3363 0901 13	3363 0829 45	3363 1021 25	3363 0822 39	3363 1092 51	3363 0977 43	3363 0822 57	3363 1045 49	3363 1050 55	3363 0875 28	3363 0822 69	
Blunt tool	SilverLine	3363 1034 82	3363 0840 81	3363 1031 57	3363 1043 53	3363 1043 41	3363 1092 49	3363 0977 63	3363 0918 02	3363 1045 61	3363 1050 59	3363 0914 22	3363 0914 25	3363 0990 51

Part no. 3390 0652 01

May 2011