



**Ram
mer®**

EN

SMALL RANGE HAMMERS

EVERY HIT COUNTS

The world's best-known and most-respected brand of hydraulic hammers, Rammer offers a comprehensive range of powerful, productive and durable attachments that are suitable for carriers in the 0.6 to 100 tons operating weight class.

The Rammer Small range is unsurpassed in its innovation and reliability and offers class-leading power-to-weight characteristics that mark them as the best in their class.

Rammer's product selection is supported by a dedicated global dealer network with ready access to Genuine Rammer parts and a wealth of operational knowledge and experience to ensure that your Rammer hammer continues to contribute to your company's profitability for its entire working life.

SANDVIK IS THE WORLD'S LEADING MANUFACTURER OF HYDRAULIC HAMMERS AND ATTACHMENTS. OVER THE PAST 35 YEARS, SANDVIK-OWNED RAMMER HAMMERS HAVE BEEN DEVELOPED IN CONJUNCTION WITH OUR CUSTOMERS ACROSS THE WORLD. AS A RESULT, THEY ARE TOUGH, DURABLE, RELIABLE AND OFFER THE MOST ECONOMICAL OWNING AND OPERATING COSTS WHILE DELIVERING MAXIMUM PRODUCTION.



Rammer®

ISO 9001

ISO 18001

ISO 14001

**ALL RAMMER HAMMERS COME FULLY
CE COMPLIANT, SUPPLIED BY
SANDVIK, LAHTI, FINLAND. THEY ARE
MANUFACTURED IN ACCORDANCE
WITH ISO STANDARDS.**

SAFETY IS A TOP PRIORITY IN EVERYTHING WE DO

In the factory

Safety is the primary consideration. Visitors are to consider and improve safety to help us achieve our aim of zero accidents.

Products

Safety is the driving force behind the development of all our products. Our aim is to set the safety standard by making products that are safe to operate and maintain. Rammer operator and service training packages reinforce that message to ensure the safety of your entire workforce.

Process

Rammer products also improve the safety of the working site and its processes. For example when breaking oversize material, it reduces loading and hauling and prevents blockages and bridging during the crushing process.

Safety – Your Advantage

Injuries can impact upon an entire workforce and resulting in lost working days and a loss of production. A safe site is a productive site.

Environment

Rammer products are manufactured utilizing state-of-the-art, ISO standards technology that consumes the minimum electricity, and recycles cutting fluids and metal chips. Furthermore, when Rammer breakers reach the end of their useful working life, more than 90 percent of the metallic components can be recycled.

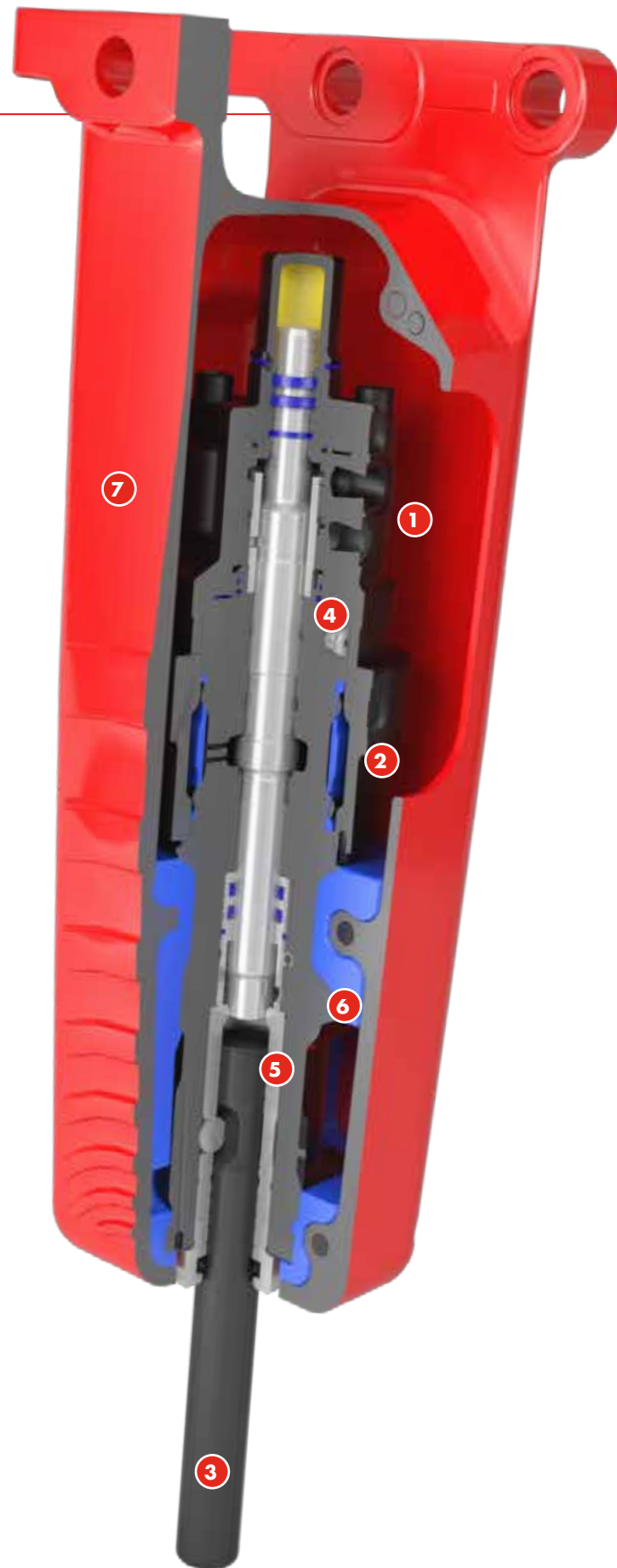




OUR FEATURES -YOUR BENEFITS

RAMMER SMALL RANGE HAMMERS ARE DESIGNED TO DRIVE UP YOUR PRODUCTIVITY AND DRIVE DOWN YOUR OWNING AND OPERATING COSTS. AT THE SAME TIME, THEY PROVIDE MAXIMUM PROTECTION TO YOUR PERSONNEL AND THE ENVIRONMENT WHILE INFLECTING MAXIMUM DAMAGE ON THE MATERIALS BEING BROKEN.

OUR FEATURES – YOUR BENEFITS



INCREASE YOUR PRODUCTIVITY

- 1 PRS (Pressure Release System)**
Pressure Release System releases operating pressure immediately after impact period. Pressure adjusting orifice ensures constant power of blows during operation.
- 2 Membrane type accumulator**
Membrane type accumulator eliminates nitrogen leakages and removes the need for time consuming recharging. Tubular membrane type accumulator ensures maximum piston acceleration.
- 3 Wide tool selection**

RELIABLE PARTNER

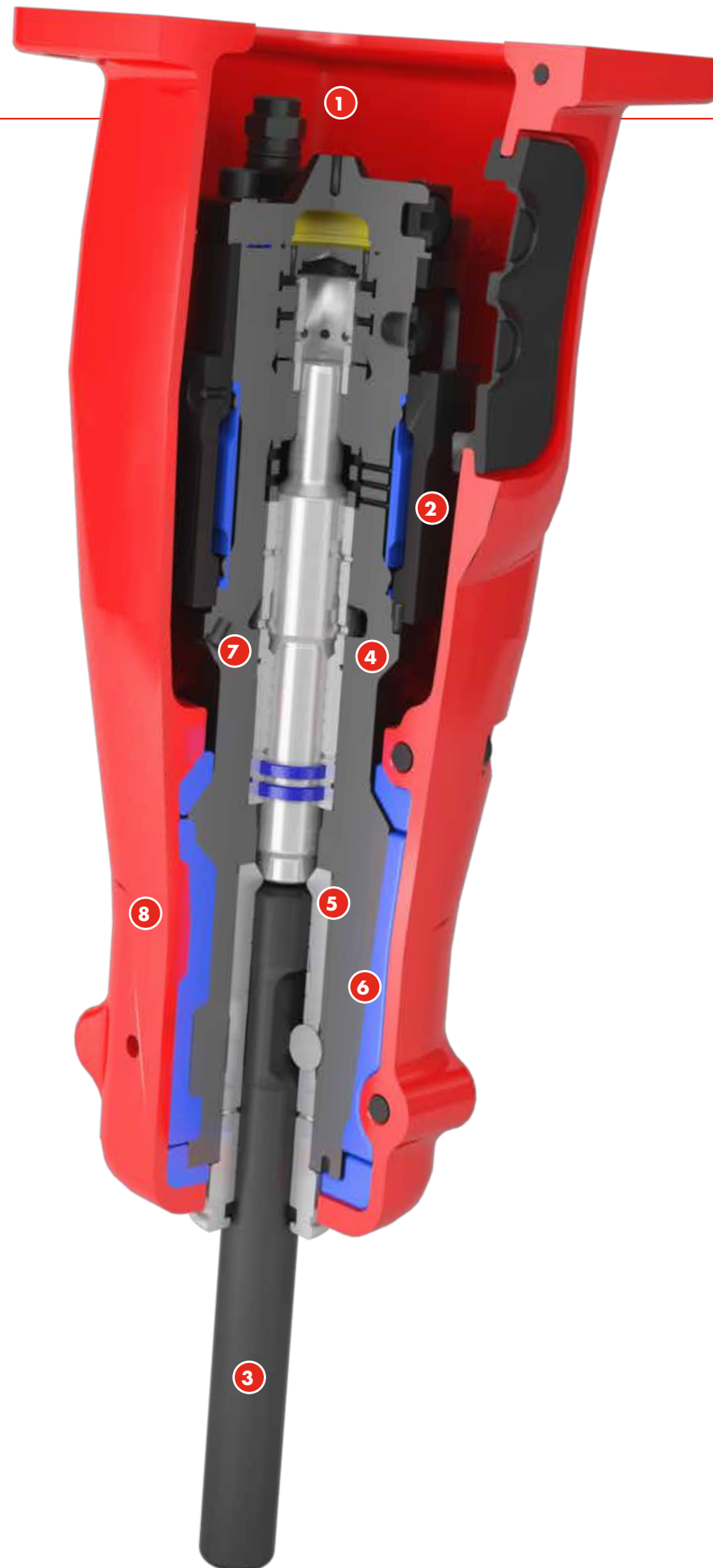
- 4 Single body design without tie rods**
Rammer single body design is simple and robust construction which enables ideal support and alignment for piston and tool as well as fast and easy service.
- 5 Integrated tool bushings and thrust ring**
Single part tool bushing with long bearing surface and thrust ring to maximize tool life. Shared retaining pin with simple locking ring allows easy replacement of tool bushing and tool.
- 6 Integrated side dampers and pads**
The unique Rammer vibration absorption system - consists of two integrated side dampers and pads - prevents the transmission of vibration to protect both the hammer and the carrier's boom, stick and swing gears and to isolate the operator.

MINIMIZE YOUR MAINTENANCE COSTS

- 2 Membrane type accumulator**
Membrane type accumulator eliminates nitrogen leakages and removes the need for time consuming recharging. Tubular membrane type accumulator ensures maximum piston acceleration.
- 5 Integrated tool bushings and thrust ring**
Single part tool bushing with long bearing surface and thrust ring to maximize tool life. Shared retaining pin with simple locking ring allows easy replacement of tool bushing and tool.

PROTECT YOUR WORKING ENVIRONMENT

- 7 Sound suppressed housing**
Housing with minimum number of holes covers power cell fully increasing operating comfort as well as enabling hammer use in urban applications.
- 6 Integrated side dampers and pads**
The unique Rammer vibration absorption system - consists of two integrated side dampers and pads - prevents the transmission of vibration to protect both the hammer and the carrier's boom, stick and swing gears and to isolate the operator.



Rammer hammers 255, 355 and 455

OUR FEATURES – YOUR BENEFITS

INCREASE YOUR PRODUCTIVITY

1 CBE (Constant Blow Energy)

A built-in Pressure Adjusting Valve (PAV) maintains hydraulic pressure levels to ensure that every blow delivers the maximum power possible for optimum productivity. CBE operating principle enables wide accepted oil flow range and tolerates hammer against high back pressure allowing a wide range of carrier utilization.

2 Membrane type accumulator

Membrane type accumulator eliminates nitrogen leakages and removes the need for time consuming recharging. Tubular membrane type accumulator ensures maximum piston acceleration and high impact frequency.

3 Wide tool selection

RELIABLE PARTNER

4 Single body design without tie rods

Rammer single body design is simple and robust construction which enables ideal support and alignment for piston and tool as well as fast and easy service.

5 Integrated tool bushings and thrust ring

Single part tool bushing with long bearing surface and thrust ring to maximize tool life. Shared retaining pin with simple locking ring allows easy replacement of tool bushing and tool.

6 Side dampers and pads

The unique Rammer vibration absorption system - consisting of two side dampers and pads - prevents the transmission of vibration to protect both the hammer and the carrier's boom, stick and swing gears and to isolate the operator.

7 Sleeved piston

Fully sleeved piston design secures comprehensive piston bearing and alignment with tool.

MINIMIZE YOUR MAINTENANCE COSTS

2 Membrane type accumulator

Membrane type accumulator eliminates nitrogen leakages and removes the need for time consuming recharging. Tubular membrane type accumulator ensures maximum piston acceleration and high impact frequency.

5 Integrated tool bushings and thrust ring

Single part tool bushing with long bearing surface and thrust ring to maximize tool life. Shared retaining pin with simple locking ring allows easy replacement of tool bushing and tool.

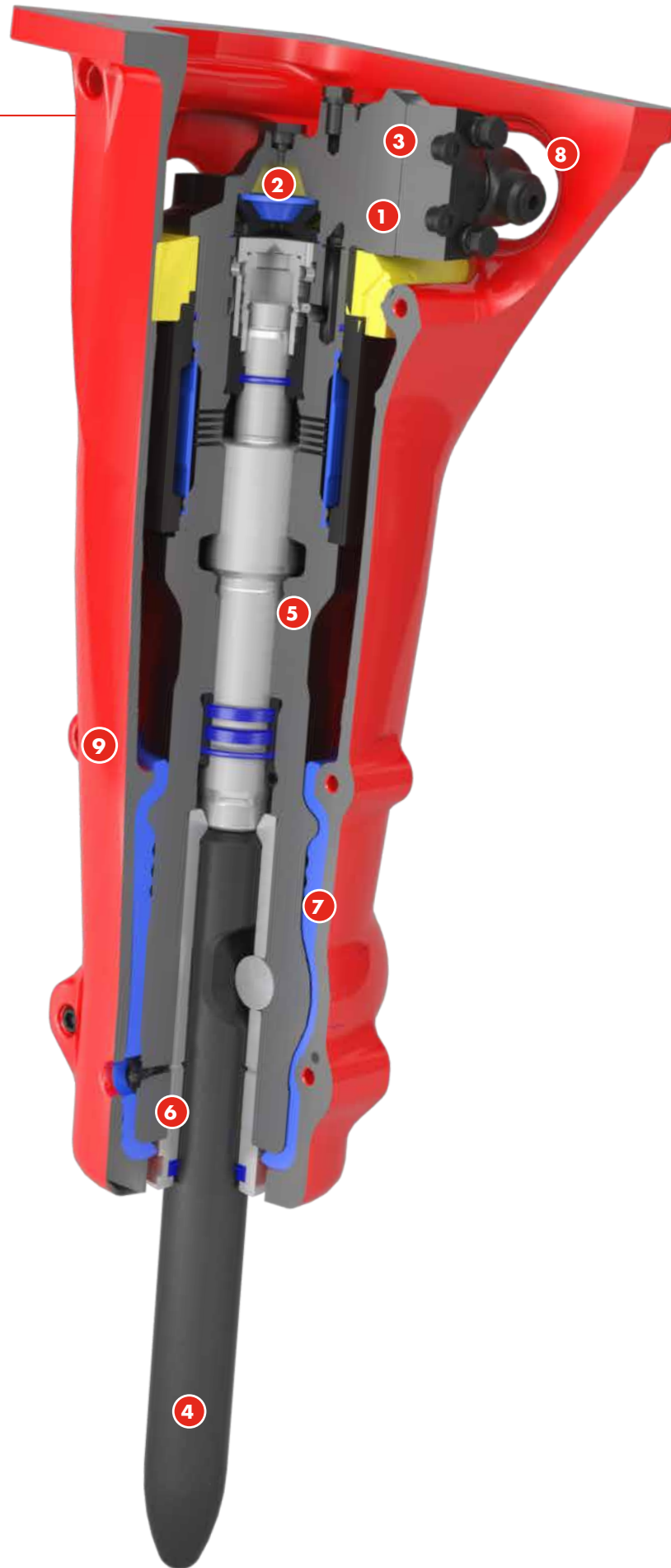
PROTECT YOUR WORKING ENVIRONMENT

8 Sound suppressed housing

Housing with minimum number of holes covers power cell fully increasing operating comfort as well as enabling hammer use in urban applications.

6 Side dampers and pads

The unique Rammer vibration absorption system - consisting of two side dampers and pads - prevents the transmission of vibration to protect both the hammer and the carrier's boom, stick and swing gears and to isolate the operator.



Rammer hammers 555, 777 and 999

OUR FEATURES – YOUR BENEFITS

INCREASE YOUR PRODUCTIVITY

- 1 CBE (Constant Blow Energy)**
A built-in Pressure Adjusting Valve (PAV) maintains hydraulic pressure levels to ensure that every blow delivers the maximum power possible for optimum productivity. CBE operating principle enables wide accepted oil flow range and tolerates hammer against high back pressure allowing a wide range of carrier utilization.
- 2 Membrane type accumulator**
Membrane type accumulator eliminates nitrogen leakages and removes the need for time consuming recharging. Tubular membrane type accumulator ensures maximum piston acceleration and high impact frequency.
- 3 Twin-handed hose connection**
No need for crossing hydraulic hoses, one version suitable for all carrier models in weight range.
- 4 Wide tool selection**

RELIABLE PARTNER

- 5 Single body design without tie rods**
Rammer single body design is simple and robust construction which enables ideal support and alignment for piston and tool as well as fast and easy service.
- 6 Integrated tool bushings and thrust ring**
Single part tool bushing with long bearing surface and thrust ring to maximize tool life. Shared retaining pin with simple locking ring allows easy replacement for tool bushing and tool.
- 7 Side dampers**
The unique Rammer vibration absorption system consists of two dampers that prevent the transmission of vibration to protect both the hammer and the carrier's boom, stick and swing gears and to isolate the operator.

MINIMIZE YOUR MAINTENANCE COSTS

- 2 Membrane type accumulator**
Membrane type accumulator eliminates nitrogen leakages and removes the need for time consuming recharging. Tubular membrane type accumulator ensures maximum piston acceleration and high impact frequency.
- 6 Integrated tool bushings and thrust ring**
Single part tool bushing with long bearing surface and thrust ring to maximize tool life. Shared retaining pin with simple locking ring allows easy replacement for tool bushing and tool.
- 8 Protected swivel hose couplings**
Swivel hose couplings allow hoses to turn to low stress alignment during hammer use. Connection inside housing protects couplings against hits and dust. This design ensures longer life time for hoses and couplings.

PROTECT YOUR WORKING ENVIRONMENT

- 9 Sound suppressed housing**
Housing with minimum number of holes covers power cell fully increasing operating comfort as well as enabling hammer use in urban applications.
- 7 Side dampers**
The unique Rammer vibration absorption system consists of two dampers that prevent the transmission of vibration to protect both the hammer and the carrier's boom, stick and swing gears and to isolate the operator.



Rammer hammers 1322

OUR FEATURES – YOUR BENEFITS

INCREASE YOUR PRODUCTIVITY

- 1 CBE (Constant Blow Energy)**
A built-in Pressure Adjusting Valve (PAV) maintains hydraulic pressure levels to ensure that every blow delivers the maximum power possible for optimum productivity. CBE operating principle enables wide oil flow range and tolerates hammer against high back pressure allowing a wide range of carrier utilization.
- 2 Membrane type accumulator**
Membrane type accumulator eliminates nitrogen leakages and removes the need for time consuming recharging.
- 3 Wide tool selection**

RELIABLE PARTNER

- 4 Lower tool bushing with tool seal**
Field replaceable design with grooves for grease retention and dust seal for wear protection. This provides excellent alignment between piston and tool. The tool seal keeps grease in the hammer and dust outside increasing life time of parts.
- 5 Side plates attached to front head**
Side plates are bolted into front head with screws and loads are carried through front head. Hydraulic parts are not subjected to bending forces.

MINIMIZE YOUR MAINTENANCE COSTS

- 2 Membrane type accumulator**
Membrane type accumulator eliminates nitrogen leakages and removes the need for time consuming recharging.
- 6 Simple tool retaining system**
Reliable, simple and easy replace of tool anywhere in a matter of minutes. O-rings for grease retention and dust damage prevention.
- 7 Ramlube I**
Ramlube I - Machine-mounted greasing device as a retrofit provides correct greasing level to protect the tool and tool bushings and reduce owning and operating costs.

PROTECT YOUR WORKING ENVIRONMENT

- 8 Pressure adjusting valve (PAV)**
PAV allows easy adjust of operating pressure on field without oil spillage.



FOR EVERY APPLICATION

		155	255	355	455	555	777	999	1322
GENERAL CONSTRUCTION	Breaking of road surface (concrete, asphalt)	C, AC	C, AC	C, AC	C, AC	C, AC	C, AC	C, AC	C, AC
	Asphalt cutting to shape or area	AC	AC	AC	AC	AC	AC	AC	AC
	Breaking of frozen ground	-	C, M	C, M	C, M	C, M	C, M	C	C, M
	Landscaping	C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M
	Compacting the ground	-	CP	CP	CP	CP	CP	CP	CP
DEMOLITION	Demolition of concrete walls, roofs, floors	C, M, P	C, M, P	C, M, P	C, M, P	C, M	C, M	C, M	C, M
	Breaking thick brick walls	C, M	C, M	C, M	C, M	C, M	C, M	C, M	C, M
	Demolition of bridges	-	-	-	-	-	-	C, M	C, M
	Breaking of hard ground (not rock)	-	-	-	-	-	C, M	C, M	C, M
	Separating rebar from concrete (for recycling)	-	-	-	-	C, M	C, M	C, M	C, M, B
QUARRYING	Secondary breaking of blasted rock	-	-	-	-	-	-	M	B
	Breaking oversizes on a crusher or feeder	-	-	-	M	M	M	M	B
MINING	Scaling in tunnel roofs and walls	-	M, C	M, C	M, C	M, C	M, C	M, C	M, C
	Breaking of oversizes on grizzly or feed chute	-	-	-	-	M	M	M	B
METALLURGICAL ¹⁾	Breaking of oversizes after blasting in the drift	-	-	-	-	-	-	M	B
	Breaking of slag in casting ladles	-	-	-	-	C, M	C, M	C, M	C, M
	Breaking of refractory linings in furnaces	-	-	-	-	C, M	C, M	C, M	C, M
	Cleaning of castings	-	-	-	-	-	-	C, M	C, M

¹⁾ In metallurgical applications use heat resistant versions of models 555, 777 and 999. Please see more information on rammer.com.

RECOMMENDED HAMMER MODEL

Optimal Suitable

SYMBOL OF RECOMMENDED TOOLS

Chisel> C Moil point> M
Asphalt Cutting> AC Pyramid> P
Compacting plate> CP Blunt> B

SMALL HAMMERS



	155	255
Minimum working weight, flange mounted, kg (lb)	90 (200)	110 (240)
Impact rate, bpm	1000-2600	600-3200
Operating pressure, bar (psi)	80-130 (1160-1885)	95-150 (1380-2175)
Pressure relief, max bar (psi)	220 (3190)	220 bar (3190 psi)
Oil flow range, l/min (gal/min)	15-33 (4.0-8.7)	15-35 (4.0-9.2)
Back pressure, max bar (psi)	20 (290)	30 (435)
Input power, kW (hp)	7.2 (10)	8.8 (12)
Tool diameter, mm (in)	36 (1.42)	40 (1.57)
Min excavator weight, allowed range t (lb)	0.8-1.8 (1800-4000)	1.2-2.5 (2600-5500)
Skid steer, robot weight, allowed range t (lb)	0.6-1.3 (1300-2900)	0.8-1.7 (1800-3700)
Noise level, measured sound power level, LWA dB	115	115
Noise level, guaranteed sound power level, LWA dB	119	119

	355	455
Minimum working weight, flange mounted, kg (lb)	150 (330)	230 (510)
Impact rate, bpm	800-3000	700-2600
Operating pressure, bar (psi)	90-150 (1305-2175)	100-170 (1450-2465)
Pressure relief, max bar (psi)	220 (3190)	220 (3190)
Oil flow range, l/min (gal/min)	25-55 (6.6-14.5)	40-70 (10.6-18.5)
Back pressure, max bar (psi)	30 (435)	30 (435)
Input power, kW (hp)	13.8 (19)	19.8 (27)
Tool diameter, mm (in)	48 (1.89)	56 (2.20)
Min excavator weight, allowed range t (lb)	1.6-3.6 (3500-7900)	2.7-5.2 (6000-11500)
Skid steer, robot weight, allowed range t (lb)	1.1-2.4 (2400-5300)	1.8-3.5 (4000-7700)
Noise level, measured sound power level, LWA dB	114	115
Noise level, guaranteed sound power level, LWA dB	118	119

SMALL HAMMERS



	555	777
Minimum working weight, kg (lb)	275 (610)	385 (850)
Impact rate, bpm	600-1800	500-1700
Operating pressure	90-140 (1305-2030)	90-140 (1305-2030)
Pressure relief, max bar (psi)	220 (3190)	220 (3190)
Oil flow range, l/min (gal/min)	35-90 (9.2-23.8)	40-120 (10.6-31.7)
Back pressure, max bar (psi)	30 (435)	30 (435)
Input power, kW (hp)	21 (28)	28 (38)
Tool diameter, mm (in)	72 (2.83)	80 (3.15)
Min excavator weight, allowed range t (lb)	3.0-8.0 (6600-17600)	4.0-9.5 (8800-20900)
Skid steer, robot weight, allowed range t (lb)	1.9-5.3 (4200-11700)	2.6-6.3 (5700-13900)
Noise level, measured sound power level, LWA, dB	118	120
Noise level, guaranteed sound power level, LWA, dB	122	124

	999	1322
Minimum working weight, kg (lb)	505 (1110)	850 (1870)
Impact rate, bpm	500-1700	500-1000
Operating pressure	100-140 (1450-2030)	125-150 (1815-2175)
Pressure relief, max bar (psi)	220 (3190)	220 (3190)
Oil flow range, l/min (gal/min)	50-150 (13.2-39.6)	60-120 (15.9-31.7)
Back pressure, max bar (psi)	30 (435)	20 (290)
Input power, kW (hp)	35 (47)	30 (40)
Tool diameter, mm (in)	90 (3.54)	95 (3.74)
Excavator weight, allowed range t (lb)	5.5-13.0 (12100-28700)	9-15 (19800-33100)
Skid steer, robot weight, allowed range t (lb)	3.9-8.7 (8600-19200)	
Noise level, measured sound power level, LWA, dB	123	136
Noise level, guaranteed sound power level, LWA, dB	127	140

FIRST CLASS SERVICE AND SUPPORT

Hammer installation

Installation inspection is an essential part of commissioning a new hammer, checking the compatibility of the hammer and carrier and ensuring that flows and pressures are adjusted correctly. Installation inspection together with correct operating methods guarantees reliable hammer operation.

Trained service personnel

Rammer products are renowned for quality, performance and reliability but when your hammer shows signs of natural wear, or the unexpected happens, our professional dealer service personnel are highly-trained, qualified and experienced which ensures that customers are never more than a phone call away from a Rammer hammer expert.

Genuine parts and tools

The Rammer global dealer network is the only place to access dedicated and experienced aftersales support. Genuine Rammer parts and tools availability is the best in class which keeps your hammer running at peak performance, ensuring downtime is reduced and enabling you to lower your operating and running costs.

We offer a wide range of tools designed for various applications and materials.



CHECKOUT
MORE FROM
OUR PARTS
AND TOOLS
BROCHURE.

Standard chisel tool

- Non-abrasive but tough rock or concrete
- For material which has low or medium penetration rate



Pyramid point tool

- Soft, non-abrasive and tough rock and especially concrete
- Materials requiring high penetration rate
- Where chisels have excessive retaining pin groove wear



Moil point tool

- Where chisels have excessive retaining pin groove wear
- Soft and nonabrasive rock
- General demolition of concrete



Blunt tool

- Hard rock with low or medium abrasive content
- Boulder breaking or concrete demolition



Rammer asphalt cutting tool

- Frozen or compact ground
- Asphalt



Rammer compacting tool

- Ground compacting





GLOBAL DEALER NETWORK

Sandvik sells and supports its Rammer-branded products through a global dealer network that operates in 130 countries around the world.

YOUR LOCAL RAMMER DEALER



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