



**BREAKER BOOMS**

**Ram  
mer®**





# RAMMER – PUTTING SAFETY FIRST

Rammer, the world's best known and most-respected brand of hydraulic hammers, offers a comprehensive range of breaker booms to enhance the safety, productivity and profitability of crushing operations in mines and quarries around the world. Rammer\*) is a unique boom supplier, delivering complete, bespoke equipment packages to meet specific customer needs.

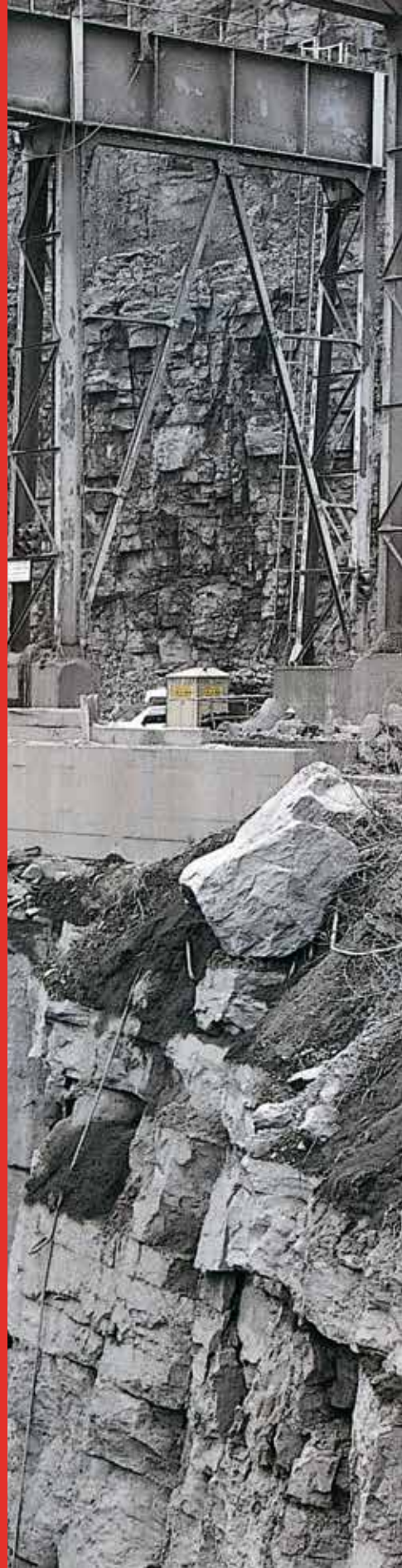
Rammer is ideally positioned to provide a safe turn-key package comprising hammer, boom, power pack and full electrification of the system. All elements are manufactured to stringent quality and exacting safety standards and are fully CE-compliant. The company's experienced engineering team not only ensure that customers receive the best solution for their needs, they also make sure that the right equipment is positioned in the right place for optimum safety, reliability, durability and productivity. 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 breaker boom package continues to contribute to your company's profitability for its entire working life.

\*) The Rammer name and logo are registered trademarks of Sandvik Mining and Construction Oy.



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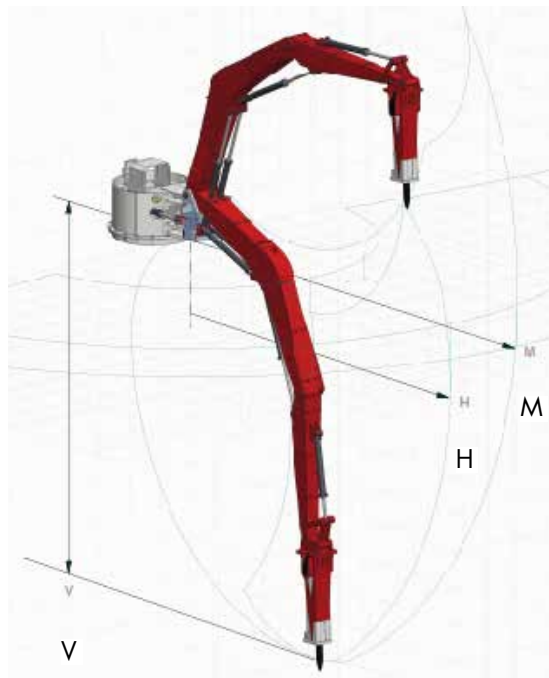
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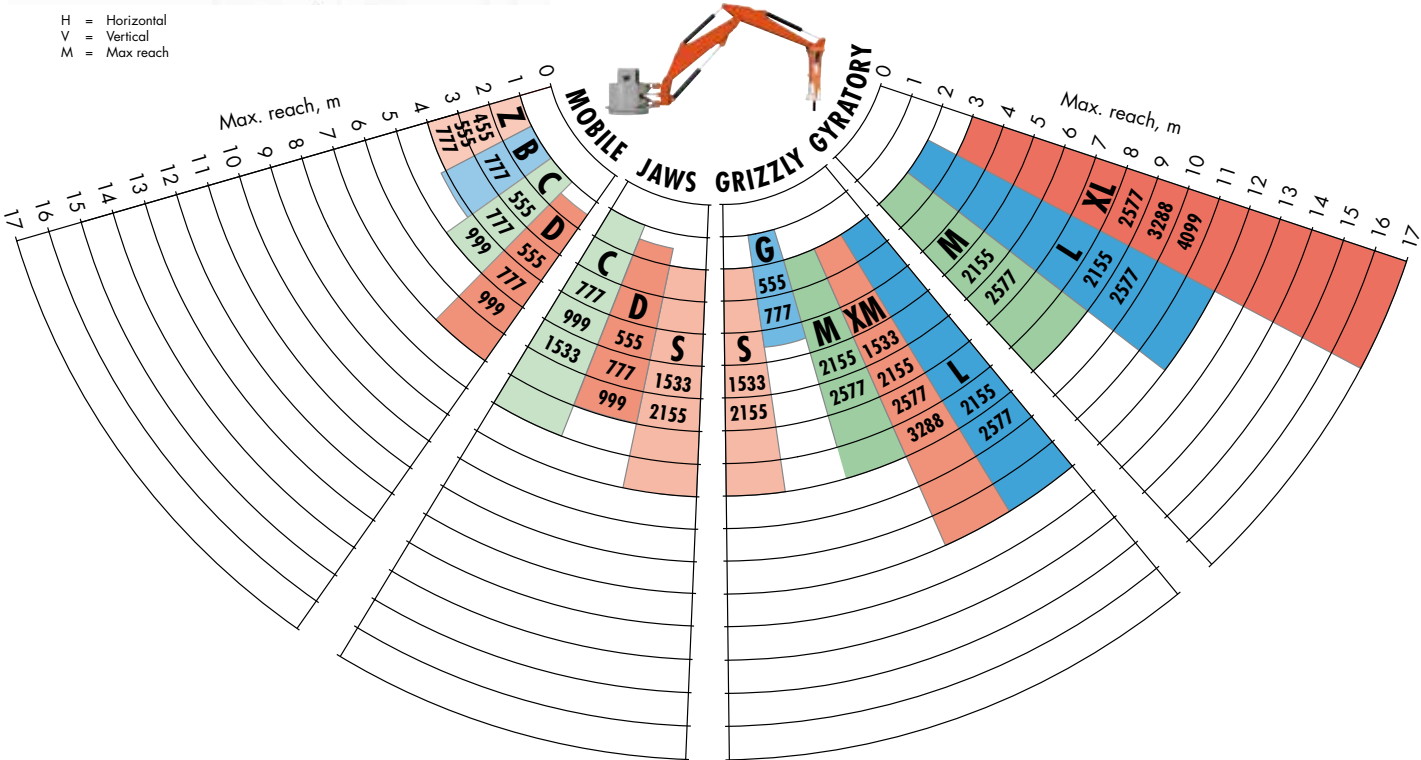
# RIGHT BOOM FOR EVERY NEED

The Rammer breaker boom range is wide, with 40 models from 1000 kg up to 18 tons heavy duty applications, reach from 1 meter up to 17 meter. All you have to do is to choose the right boom, controls and powerpack to match the applications and hammer requirements.

Boulder size (m³)	Boulders per hour	Hard rock (basalt, gabro, granite, gneiss)	Medium hard rock (hard limestone, andesite, sandstone)	Soft rock (coal, shale, soft limestone)
0 – 1	0 – 10	1533, 2155	999, 1533	777, 999
	10 – ...	2155, 2577	1533	1533
1 – 2	0 – 10	2155, 2577	1533	999, 1533
	10 – ...	2577	1533, 2155	1533
2 – 4	0 – 10	3288	2155, 2577	1533, 2155
	10 – ...	3288, 4099	3288	2577



H = Horizontal  
V = Vertical  
M = Max reach





## **SERIES Z AND G**



### Applications

- Small grizzlies with limited headroom
- Z-boom also suitable for mobile crushers

### Features

- Low profile design
  - Heat treated pins
  - Internal piping
  - 360° rotation
- Suitable hammers for these booms are small range, light hammers 455- 777



Z-SERIES	Z250	
Weight, kg	1100	
Maximum reach, m	3.9	
Nominal horizontal reach (H), m	2.7	
Nominal vertical reach (V), m	0.9	
Swing, °	360	
Base diameter, m	0.65	
Recommended hammer types	455, 555, 777	
Recommended power packs	HA18	

G-SERIES	G330	
Weight, kg	1310	
Maximum reach, m	4.4	
Nominal horizontal reach (H), m	3.4	
Nominal vertical reach (V), m	1.7	
Swing, °	360	
Base diameter, m	0.8	
Recommended hammer types	555, 777	
Recommended power packs	HA18	



# SERIES B, D AND C



## Applications

- Mobile crushers
- Stationary crushing plants
- Recycling plants
- Light duty applications
- Metallurgical industry

## Features

- Compact multi-purpose boom
- Lightweight
- Heat treated pins
- Compact design
- Conical Expander® pins in B, D and small C-booms
- 360/170° rotation
- Suitable hammers for these booms are small series from 555 to 1533 in large C-series

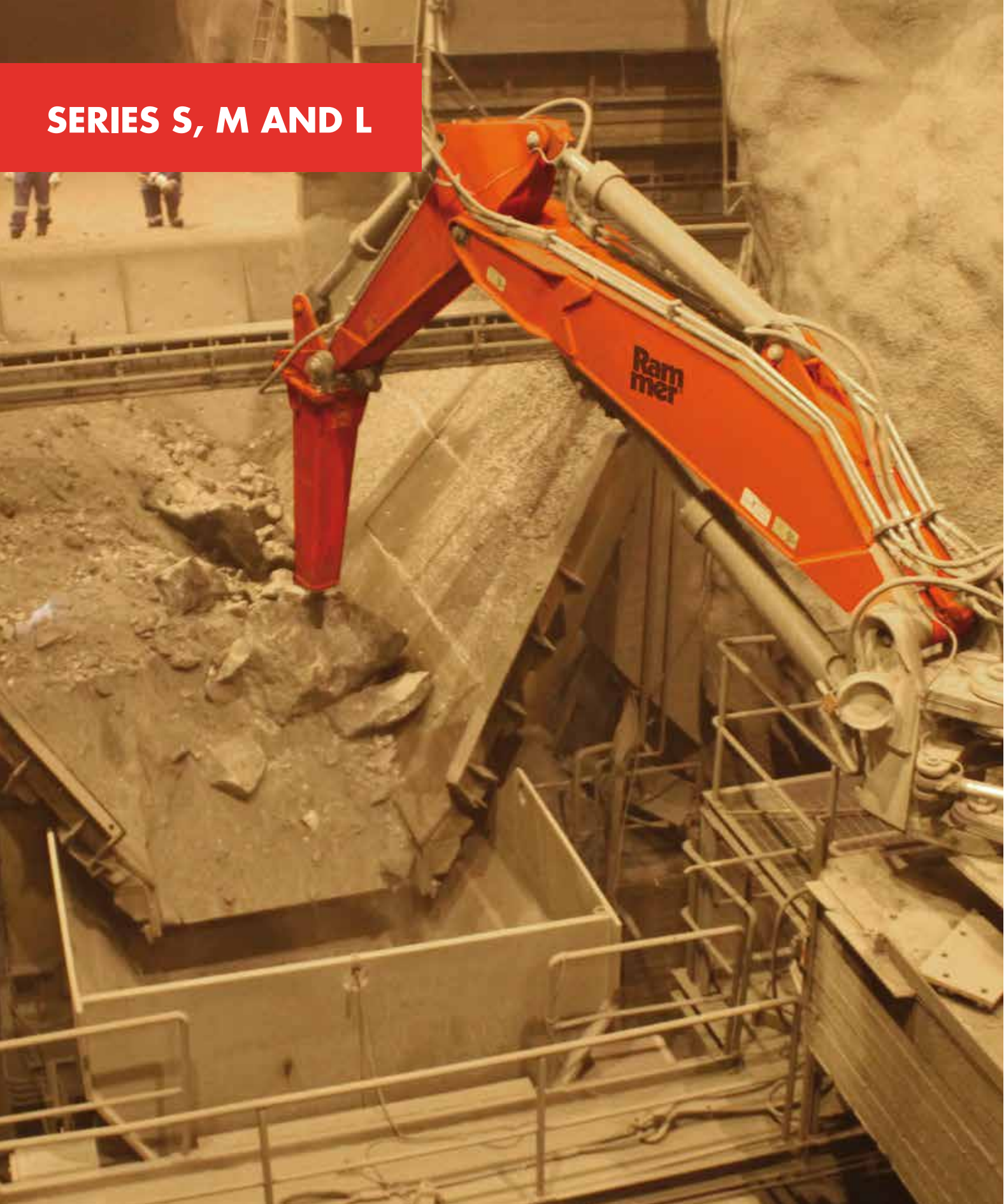


B & D SERIES	B300	D300	D425	
Weight, kg	1000	1450	1680	
Maximum reach, m	4.2	4.6	5.9	
Nominal horizontal reach (H), m	2.9	2.9	4.2	
Nominal vertical reach (V), m	1.8	2.6	3.8	
Swing, °	360	360	360	
Base diameter, m	0.65	0.80	0.80	
Recommended hammer types	777	555, 777, 999	555, 777, 999	
Recommended power packs	HA18	HA18	HA18	

C-SERIES	C285N	C320N	C350	C400	C450	C500	C550	C600
Weight, kg	1320	1370	2500	2550	2600	2650	2700	2750
Maximum reach, m	4.7	5.2	5.4	5.8	6.3	7	7.3	7.7
Nominal horizontal reach (H), m	3.2	3.5	3.9	4.3	4.6	5.6	5.8	6.2
Nominal vertical reach (V), m	3.3	3.8	3.8	4.3	4.6	5	5.2	5.7
Swing, °	170	170	170	170	170	170	170	170
Base dimensions, m	0.69 x 0.93	0.69 x 0.93	0.81 x 0.96	0.81 x 0.96	0.81 x 0.96	0.81 x 0.96	0.81 x 0.96	0.81 x 0.96
Recommended hammer types	555, 777 999	555, 777 999	777, 999 1533	777, 999 1533	777, 999 1533	777, 999 1533	777, 999 1533	777, 999 1533
Recommended power packs	HA18	HA18	HA18, HA30	HA18, HA30	HA18, HA30	HA18, HA30	HA18, HA30	HA18, HA30



# SERIES S, M AND L





## Applications

- Stationary crushers
- Grizzlies
- Gyratory crushers

## Features

- Optimized and robust design
- Round pedestal
- Shock absorbing pedestal mounting
- Arctic steel option
- Suitable hammers from Medium range to Large 2577



S- AND M-SERIES	S440	S550	S630	M440	M550	M630
Weight, kg	3750	4250	4400	5500	6400	6700
Maximum reach, m	6.7	7.8	8.6	7.2	8.2	8.9
Nominal horizontal reach (H), m	4.8	5.9	6.5	4.8	5.9	6.7
Nominal vertical reach (V), m	3.6	4.9	5.8	3.4	5.0	5.8
Swing, °	170	170	170	170	170	170
Base diameter, m	1.51	1.51	1.51	1.68	1.68	1.68
Recommended hammer types	1533, 2155	1533, 2155	1533, 2155	2155, 2577	2155, 2577	2155, 2577
Recommended power packs	HA30, HA37	HA30, HA37	HA30, HA37	HA37, HA45	HA37, HA45	HA37, HA45

L-SERIES	L850	L850R	L940	L940R
Weight, kg	7700	6150	7900	6350
Maximum reach, m	10.6	10.8	11.4	11.6
Nominal horizontal reach (H), m	8.3	8.6	9.2	9.4
Nominal vertical reach (V), m	6.9	6.6	7.8	7.6
Swing, °	170	360	170	360
Base diameter, m	1.86	1.40	1.86	1.40
Recommended hammer types	2155, 2577	2155, 2577	2155, 2577	2155, 2577
Recommended power packs	HA37, HA45	HA37, HA45	HA37, HA45	HA37, HA45

# SERIES XM





## Applications

- Grizzlies
- The most common boom series in heavy duty mining applications

## Features

- Modular design
- Conical Expander® pins
- Shock absorbing pedestal mounting

- Hammers for XM-booms from Medium series to Large 3288



<b>XM-SERIES</b>	<b>XM300</b>	<b>XM500</b>	<b>XM500HD</b>	<b>XM600</b>	<b>XM600HD</b>
Weight, kg	5500	6450	7250	6650	7400
Maximum reach, m	5.9	7.7	8	8.7	9
Nominal horizontal reach (H), m	3.7	5.6	5.5	6.5	6.4
Nominal vertical reach (V), m	2.8	4.8	5.1	5.8	6.1
Swing, °	170	170	170	170	170
Base dimensions, m	1.52 x 1.22	1.52 x 1.22	1.52 x 1.22	1.52 x 1.22	1.52 x 1.22
Recommended hammer types	1533, 2155, 2577	1533, 2155, 2577	2155, 2577, 3288	1533, 2155, 2577	2155, 2577, 3288
Recommended power packs	HA30, HA37, HA45	HA30, HA37, HA45	HA37, HA45 HA55, HA 55HD	HA30, HA37, HA45	HA37, HA45 HA55, HA 55HD

<b>XM-SERIES</b>	<b>XM700</b>	<b>XM750</b>	<b>XM750HD</b>	<b>XM850</b>	<b>XM950</b>
Weight, kg	7350	6850	7800	7750	7950
Maximum reach, m	9.7	10.1	10.4	11	11.7
Nominal horizontal reach (H), m	7.4	8.0	7.9	8.9	9.8
Nominal vertical reach (V), m	6.8	6.5	6.8	7.5	8.2
Swing, °	170	170	170	170	170
Base dimensions, m	1.52 x 1.22	1.52 x 1.22	1.52 x 1.22	1.52 x 1.22	1.52 x 1.22
Recommended hammer types	1533, 2155, 2577	1533, 2155, 2577	2155, 2577, 3288	1533, 2155, 2577	1533
Recommended power packs	HA30, HA37, HA45	HA30, HA37, HA45	HA37, HA45 HA55, HA 55HD	HA30, HA37, HA45	HA30, HA37

# SERIES XL





## Applications

- Stationary crushers
- Grizzlies
- High production applications

## Features

- Round pedestal
  - Heavy-duty design
  - Proven design
  - Long reach
  - Arctic steel option
  - 360° swing option
- Suitable hammers for XL-booms are Large series hammers up to 4099



XL-SERIES	XL940	XL1020	XL1200	XL1400
Weight, kg	15100	15500	16500	17500
Maximum reach, m	12.7	13.4	14.6	17.0
Nominal horizontal reach (H), m	9.8	10.5	12.2	14.1
Nominal vertical reach (V), m	9.2	10.0	10.6	13.2
Swing, °	170	170	170	170
Base diameter, m	2.29	2.29	2.29	2.29
Recommended hammer types	2577, 3288, 4099	2577, 3288, 4099	2577, 3288, 4099	2577, 3288, 4099
Recommended power packs	HA37, HA45, HA55 HA55HD	HA37, HA45, HA55 HA55HD	HA37, HA45, HA55 HA55HD	HA37, HA45, HA55 HA55HD

XL-SERIES	XL940R	XL1020R	XL1200R	XL1400R
Weight, kg	11100	11500	12500	13500
Maximum reach, m	12.7	13.4	14.6	17.0
Nominal horizontal reach (H), m	9.8	10.5	12.2	14.1
Nominal vertical reach (V), m	9.0	9.8	10.4	13.0
Swing, °	360	360	360	360
Base diameter, m	1.40	1.40	1.40	1.40
Recommended hammer types	2577, 3288, 4099	2577, 3288, 4099	2577, 3288, 4099	2577, 3288, 4099
Recommended power packs	HA37, HA45, HA55 HA55HD	HA37, HA45, HA55 HA55HD	HA37, HA45, HA55 HA55HD	HA37, HA45, HA55 HA55HD

# POWER PACKS & REMOTE CONTROLS





## POWER PACKS

Power packs are designed specially to work alongside hydraulic hammers and booms. The power packs are sized to match the chosen hammer.

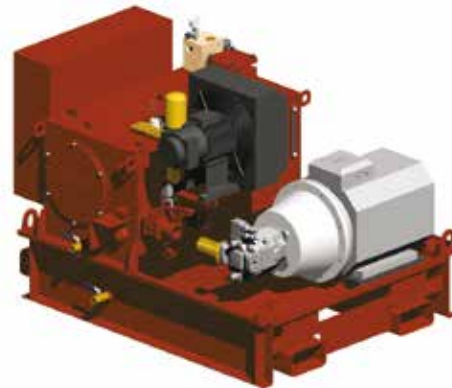
### Standard

- Squirrel cage motor in vertical position
- Submerged fixed displacement gear pump
- Pressure and return filter
- Oil cooler
- Optional oil heater
- Complete with electrification
- Standard voltage 400 V / 50 Hz or 480 V / 60 Hz, others available
- IP class 55



### HeavyDuty

- Squirrel cage motor in horizontal position
- Variable displacement piston pump
- Pressure and return filter
- Oil cooler
- Optional oil heater
- Complete with electrification
- Standard voltage 400 V / 50 Hz or 480 V / 60 Hz, others available
- IP class 55



POWER PACKS	HA 18	HA 30	HA 37	HA 45	HA 55	HA 55 HD
Oilflow, l/min, 1500 rpm (50 Hz)	65	95	125	180	220	210
Oilflow, l/min, 1800 rpm (60 Hz)	78	114	150	216	264	252
Motor power (50 Hz)	18	30	37	45	55	55
Motor power (60 Hz)	22	36	45	55	66	66
Motor framesize (IEC)	180	200	225	250	280	250
Working weight without oil, kg	450	550	600	850	960	1200
Oil tank volume, l	160	250	250	400	400	400

## REMOTE CONTROLS

All booms should be fitted with remote controls for safe and effective operation.

REMOTE CONTROLS	RC Standard	RC Heavy	RC Light	Operator chair
Radio	•	•	•	
Cable mode	•	•		•
Proportional joysticks, pc	2	2		2
2 speed push buttons, pair			4	
Hammer fire button, pc	2	2	2	2
Lever switch	4	4		4
				

The Standard RC-control system can be upgraded to long distance optical fibre control system by adding the tele-operation package (BTO). The maximum distance is 2,5 km when multi-mode optical fibre cables are used and 15 km when single mode cables are used. Optical fibre cables are not included in the package.



## TELE REMOTE

Teleoperation-systems can be integrated into a large mining automation control systems. Tele remote allows the operation of multiple booms up to 15 km with HD quality picture and sound feedback. The tele remote system heightens operators' awareness, operator is removed from any potential localised safety hazards, improves operator comfort and productivity. Having a tele remote system installed will limit travel time to site creating a more efficient outcome for your business.

Please contact your local dealer for further information.





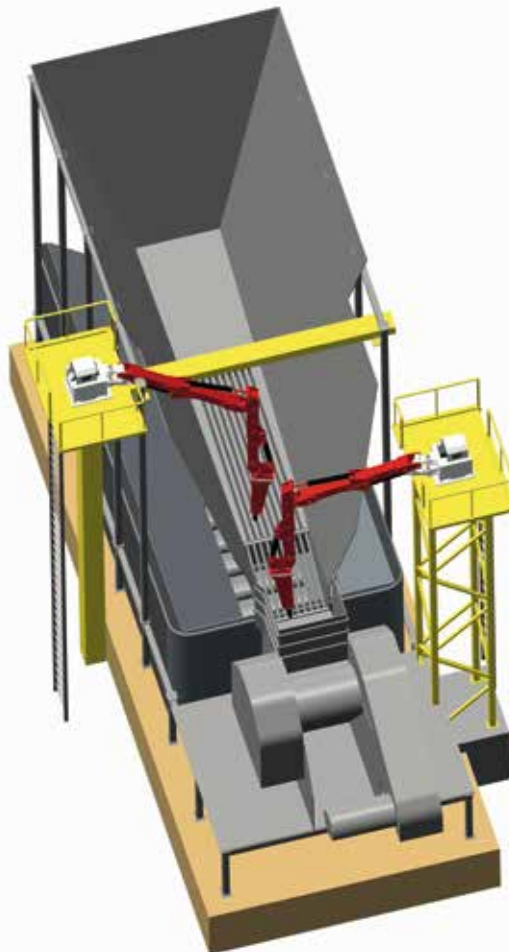
## OTHER BOOM OPTIONS

- Slew limiter kit
- Boom limiter kit
- Anti-Blank-firing kit
- Oil circulation valve
- Central boom greasing
- Ramlube boom lubrication



## FOUNDATION

Foundations are an essential part of the boom system. It has to be built under the local laws and standards. Rammer can supply design loads and example drawings to support the local base design and construction.







# EXTENSION CARRIAGES & MOBILE BREAKER SYSTEM

Sandvik loaders (LHD) can be equipped with extension carriages and hammers, and used as mobile breakers.

## Features and benefits

- Oversize boulders can be broken at source drawpoints
- No handling/rehandling of oversize
- Increased productivity
- Safety
- Reduced maintenance costs of LHD fleet

## Features and benefits

- Boom can be installed in suitable underground utility vehicle
- Interchangeable parts
- Mobile and flexible
- Accurate and easy operation

EXTENSION CARRIAGES	EC60	EC80
Weight, kg	1450	2900
Footstroke, mm	600	800
Recommended hammer types	1533, 2155	2577, 3288, 4099, 4510

MOBILE BREAKER BOOM	XM542HD
Weight, kg	4800
Maximum reach, m	6.3
Nominal horizontal reach (H), m	4.7
Nominal vertical reach (V), m	1.6
Swing, °	60
Recommended hammer types	2155, 2577, 3288



## AFTER SALES AND SPARE PARTS

We have worked for decades with customers and therefore we are familiar with the needs for quick and accurate service. Our global dealer network and their professional, trained personnel provide full time after sales support. We are able to supply genuine spare parts for all Rammer booms ever delivered. Most parts are immediately available from stock.





Sandvik Mining and Construction Oy  
Taivalkatu 8, P.O.Box 165  
FI- 15101 Lahti, Finland  
Phone Int. +358 205 44 151  
[www.rammer.com](http://www.rammer.com)