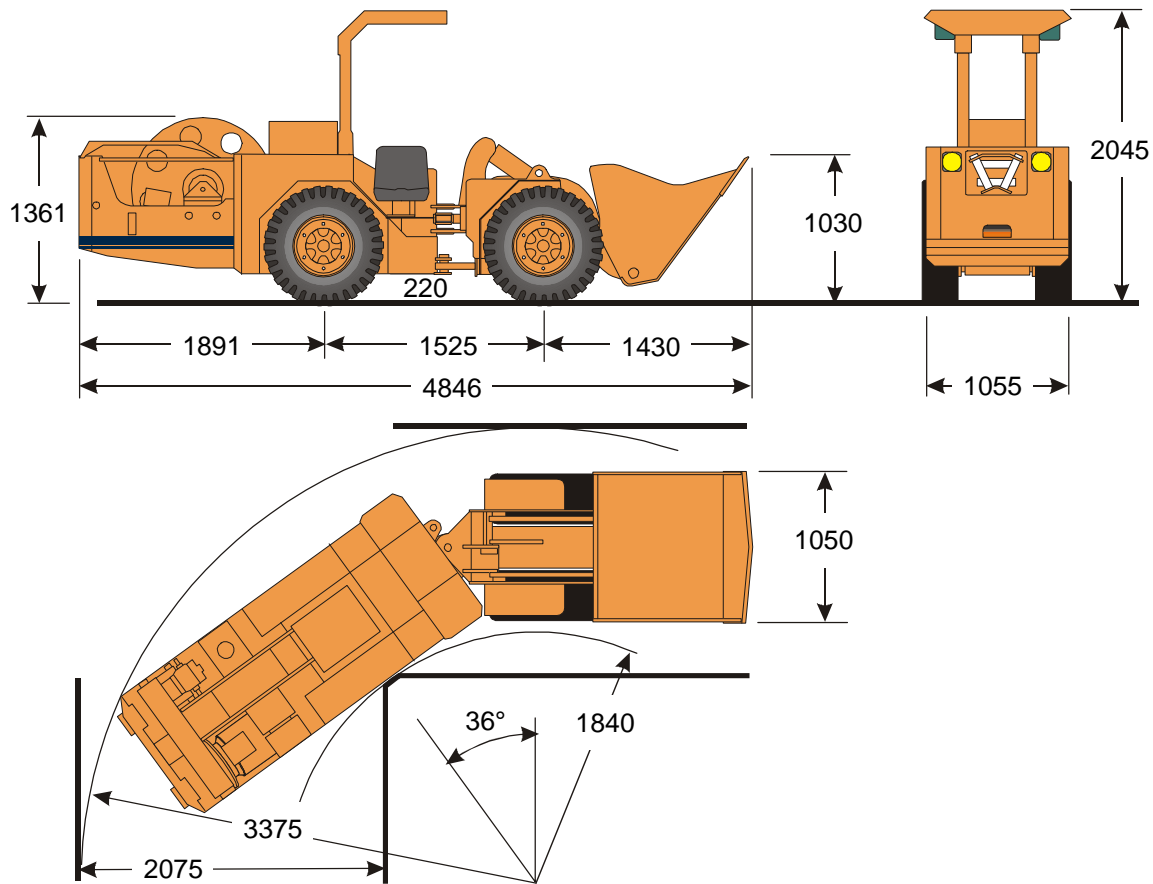


MICROSCOOP 100E



APPLICATION

The Microscoop 100E is a true compact and flexible full electric loader for narrow vein mining.

The highest possible rate of productivity is ensured by fast and easy one pass loading.

The M100E layout is designed for good visibility and balance.

This and the powerful four-wheel-drive articulated chassis ensure fast and safe manoeuvring in tight spaces.

All the service points are well protected but easy to access.

CAPACITIES

Tramming capacity	1 000 kg (2 200 lb)
Breakout force, lftt	10.7 kN - 1 094 kg (2 407 lb)
Breakout force, tilt	36.9 kN - 3 766 kg (8 285 lb)
Tipping load	4 551 kg (10 012 lb)
Bucket std.	0.54 m ³ (0.7 yd ³), 500 BNH lip

BUCKET MOTION TIMES

Raising time	3.0 sec.
Lowering time	1.5 sec.
Tipping time	4.5 sec.

WEIGHTS

Operating weight	3 900 kg (8 580 lb)
Total loaded weight	4 900 kg (10 780 lb)
Shipping weight	
Axle weights without load	
Front axle	700 kg (1 540 lb)
Rear axle	2 940 kg (6 460 lb)
Axle weights with load	
Front axle	2 280 kg (5 010 lb)
Rear axle	2 360 kg (5 190 lb)
Unit weight is dependent on the selected options.	

DRIVING SPEEDS FORWARD AND REVERSE

Loaded, max	
50 Hz	8 kph (5 mph)
60 Hz	8.8 kph (5.5 mph)

MICROSCOOP 100E

SERVICE CAPACITIES

Hydraulic oil tank	62 liters (16.4 gal.)
Hydrostatic transmission oil tank	31 liters (8.2 gal.)

FRAME

Rear and front frame	Welded steel construction
Material	E 36.3
Central hinge	Spherical bearings (large angle)

ENGINE

Drive motor	Three-phase, asynchronous, squirrelcage
Output	30 kW (40 hp)
Voltage	380 V
Frequency	50 Hz
Speed	1 500 rpm
Insulation class	F
Degree of protection	IP 55

TRANSMISSION

Hydrostatic transmission	Variable flow fully reversible
One pump	Linde, variable displacement 0 to 50 cm ³ /rev
One motor	Linde, fixed 35 cm ³ /rev

TRANSFER CASE

Type	Gear
Location	Rear axle

AXLES

Front and rear	Tamrock, fixed No-spin in front axle
Central hinge oscillation	± 7°

WHEELS

Tires	8.25 x 15
Air pressure, front and rear	3.5 bar (350 kPa)

BRAKES

Dynamic service brake through the hydrostatic transmission.
The parking and emergency brake is spring applied, hydraulically released multidisc oil immersed brakes inclosed on the rear axle.

STEERING

Full hydraulic, centre-point articulation, power steering with two double acting cylinders. Steering controlled by stick, interlock protection.

Turning angle	± 36°
Turning radius	inner 1840 mm (72") outer 3375 mm (133")

Main components in steering system:

Main valve	Denison
Control valve	Danfoss
Steering hydraulic cylinders	2 pcs, 60 mm (2.36"), Tamrock

Pressure settings:

Main relief valve	14.0 Mpa (170 bar)
Shock load valves	17.5 Mpa (175 bar)

BUCKET HYDRAULICS

Full hydraulic open center system with one gear pump. The oil flow from steering hydraulic pump is directed to bucket hydraulics when steering is not used.

Equipped with mechanical dual control lever.

Lift cylinder	1 pcs, ø100 mm (3.9")
Tilt cylinder	1 pcs, ø120 mm (4.7")

Pressure setting for:

Main relief valve	14.0 Mpa (140 bar)
Bucket tilt	6.0 Mpa (60 bar)
Bucket roll-back	18.0 Mpa (180 bar)
Boom raise	18.0 Mpa (180 bar)
Boom lower	6.0 Mpa (60 bar)

Main components:

Bucket hydraulic cylinders	Tamrock
Control valve	Commercial hydraulics
Fittings	JIC

ELECTRICAL EQUIPMENT

Cable reel	Automatic tension control, end of cable safety
Cable reel capacity	100 m of cable 18.2 mm OD
Secondary electric system	24 V AC/DC
Driving and working lights	front, 2 pcs (H1 70 W) rear, 2 pcs (H1 70 W)

OPTIONAL EQUIPMENT

*) Bucket size 0.5 m³ (0.7 yd³), width 950 mm (37").

*) Other voltage or frequency.

FOPS-ROPS safety canopy.

Reverse alarm.

Emergency steering system.

Complete spare wheel.

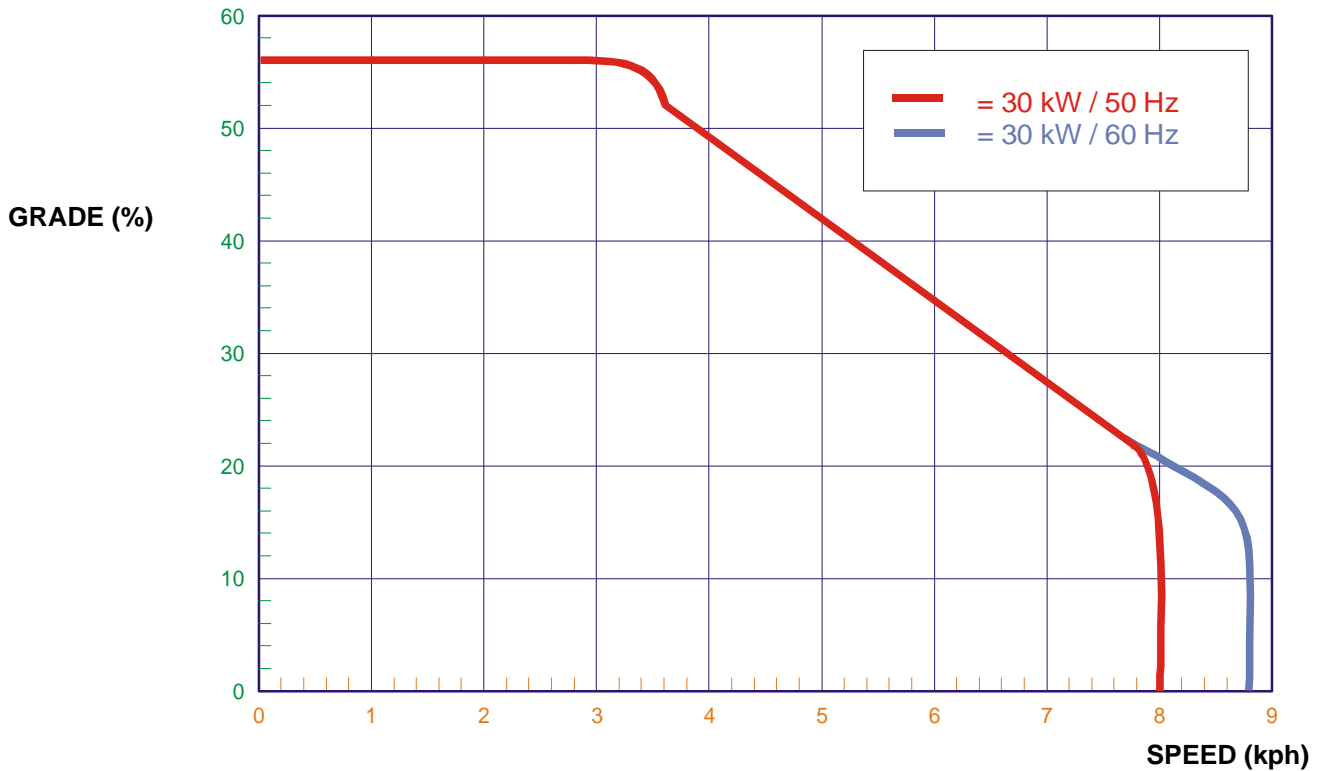
Gate end box.

Electric cable rubber (4G10).

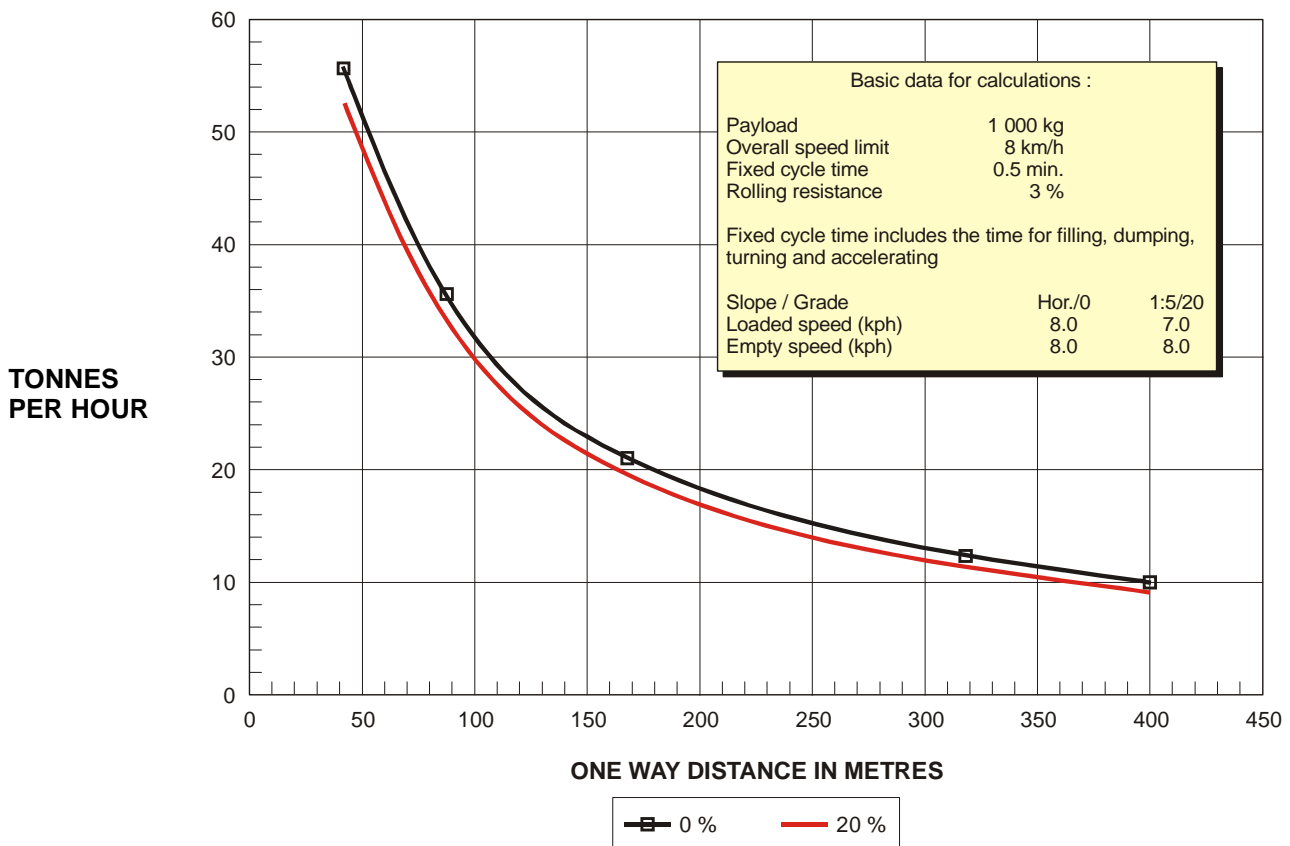
*) EU, UL, CSA, AUS norms package.

*) replaces standard component

GRADEABILITY & SPEED

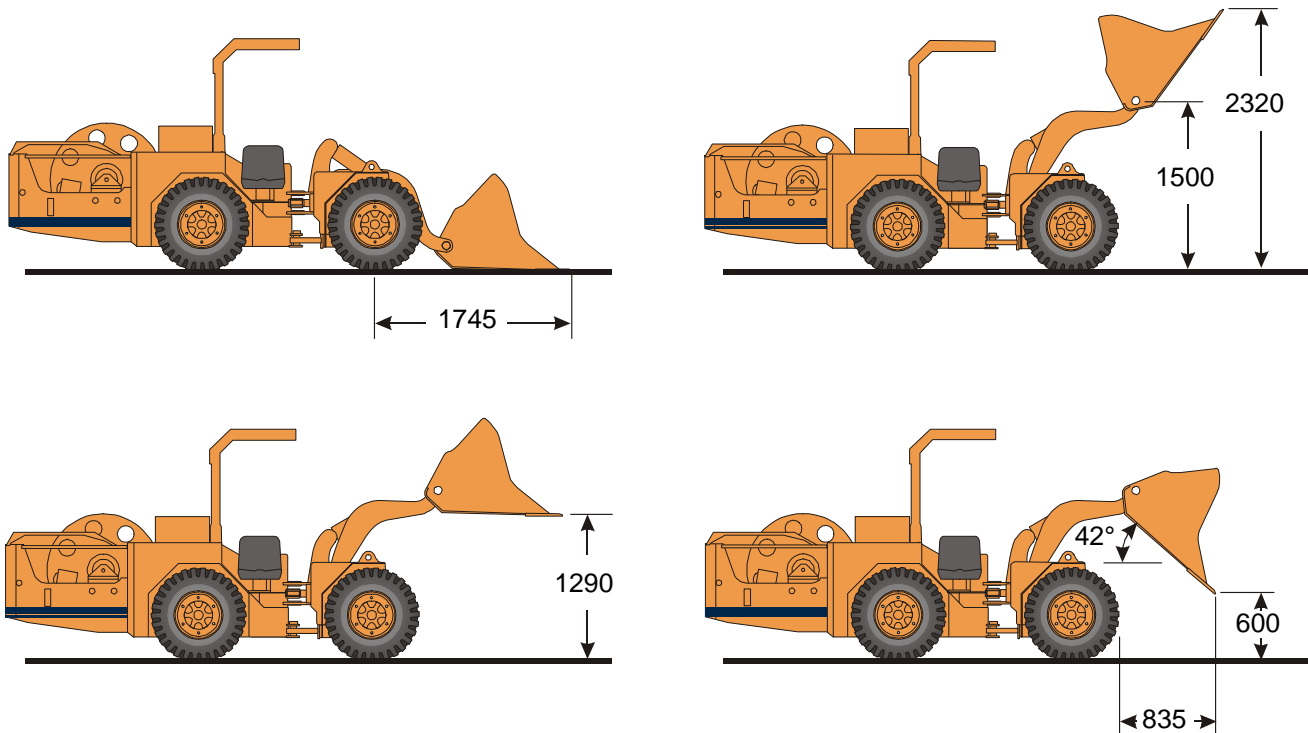


PRODUCTIVITY CURVE



MICROSCOOP 100E

DUMP DATA



CAGING DIMENSIONS



1361			
	4072	1055	
			Bucket and canopy removed 3 537 kg
1206			
	3837	1055	
			Bucket, canopy, lift arms, electric box and cable reel removed.. 3 403 kg
983			
	3827	1055	
			Bucket, canopy, lift arms, electric box, cable reel axles and tires removed 2 668 kg

Sandvik Mining and Construction reserves the right to change this specification without further notice.