



ACE

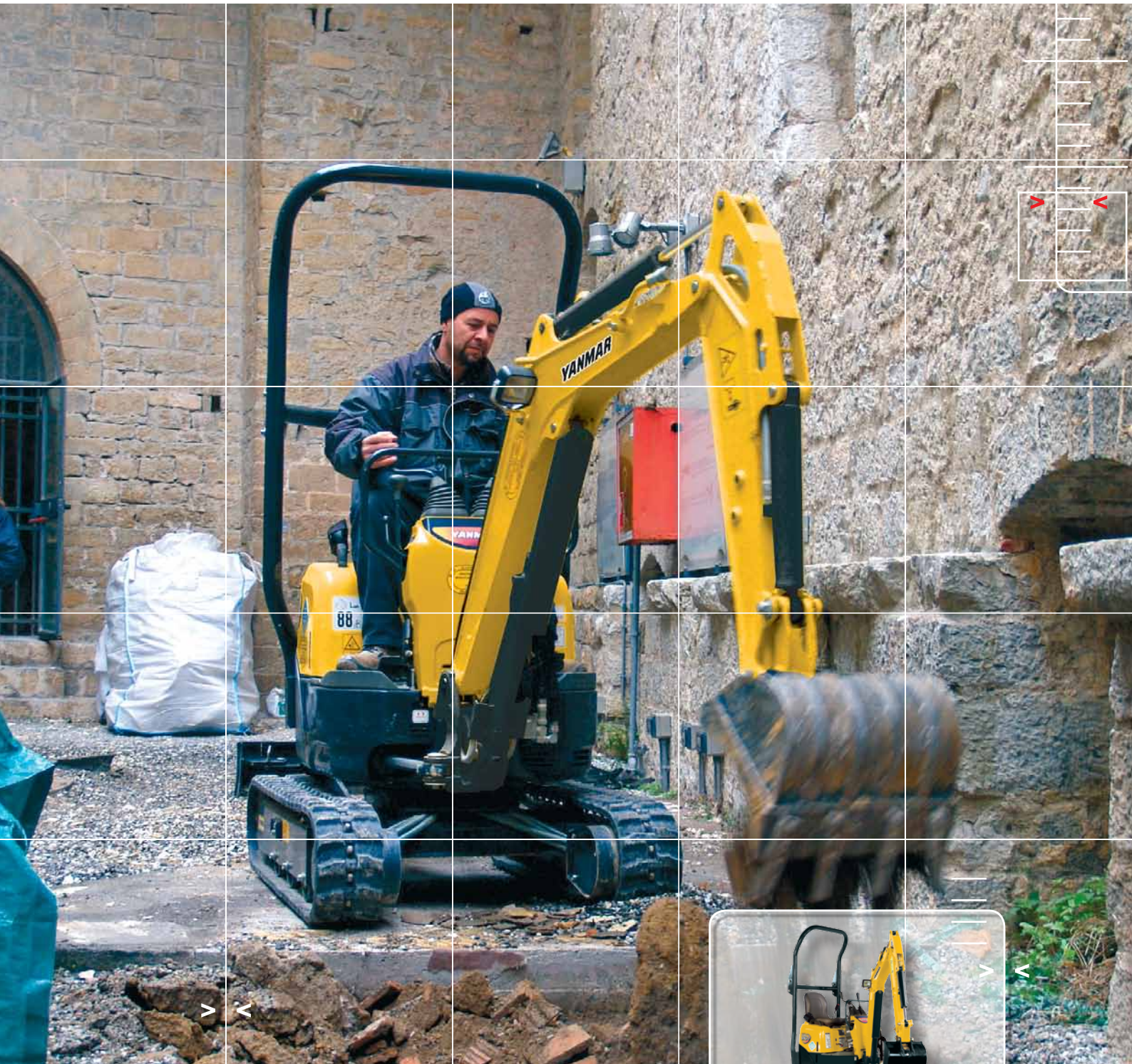
MACHINERY LTD.

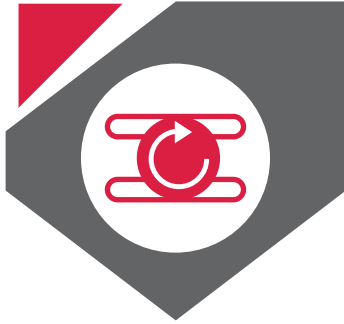
YANMAR

MINI-EXCAVATOR

ViO10-2A

1220 kg





COMPACTNESS

ViO10-2A

Here's the shape for simple and efficient work in confined spaces. The ViO10-2A is a tenacious worker for narrow spots such as housing foundations, indoor renovation, pipe laying and landscaping.



Design principles

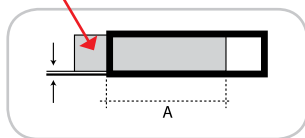
The ViO10-2A is a real Zero Tail Swing machine:

- > Extended undercarriage, neither the counterweight nor the front part of the upper frame exceed the width of the crawlers.
- > Retracted undercarriage, the rear of the machine only exceeds 85 mm.
- > Front swing radius with boom swing: 1080 mm.
- > Rear swing radius: only 650 mm.
- > Width of the machine reduced to 830 mm when the undercarriage is retracted.

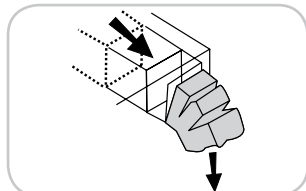
Extendable undercarriage of unique conception

- > Reduced clearance between the sliding parts: no soil build-up during the extension of undercarriage.
- > High reliability over a long-term period.
- > The ViO10-2A is extremely stable due to the use of an extended undercarriage and good weight distribution.

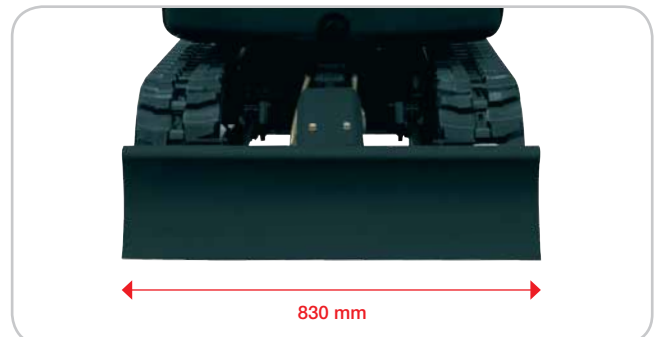
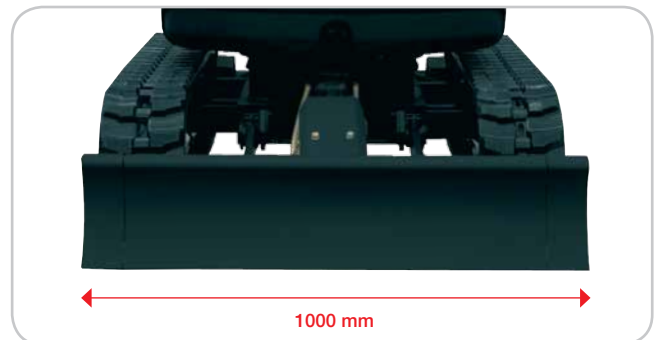
Sliding parts



Small play due to long overlap (A)



Clogged mud is easily pushed out



Simple folding extendable blade

- > The hinged blade extensions are permanently fixed on the blade.
- > No tools are necessary to change quickly the position.
- > No risk to lose the blade extensions.



HIGH PERFORMANCE

ViO10-2A



Combining long experience and unrivalled expertise, YANMAR's technology ensures environmental performance and high efficiency.



A new-generation Yanmar "TNV" (Totally New Value) engine



- > Fully compliant with European norm 97/68/EC (exhaust emissions) and the latest American norms, EPA Stage II.
- > Low speed - increased life.
- > Less vibration.
- > Use of a Yanmar engine 3 cylinders and an hydraulic system using a variable flow double piston pump: high productivity.
- > High digging forces for such a machine.

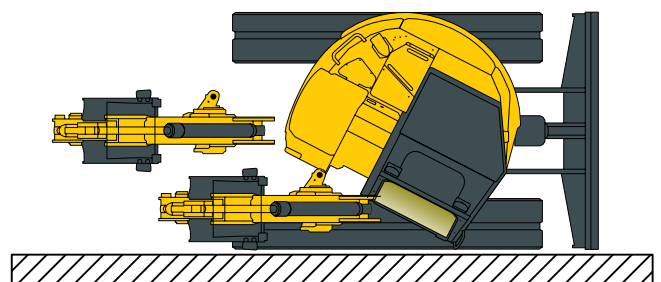
Working equipment

- > Dual or single-action auxiliary circuit to add various accessories (swivelling ditch cleaning buckets).
- > Lifting of the machine on one point thanks to a hook on the top of the boom.



Advantages for the user

- > Easy access in narrow areas.
- > Possibility to work along a wall.
- > The ViO concept allows the operator to work without paying attention to the rear of the machine: safety and productivity.
- > Machine perfectly adapted for restoration of houses.
- > Easy use, even for unexperienced users.





> COMFORT & SAFETY

ViO10-2A

The many easy to use features include the comfortable seat with retractable seatbelt, sensitive lever controls, a footrest, and uncomplicated lever arrangement.



Ergonomic pilot system

- > Progressive hydraulic pilot system for more precision.
- > Separate pedals for the 3rd circuit (PTO) and boom swing: possibility of combined movements.
- > Both pedals are fitted with solid protections made from steel that can be folded sideways.
- > Access to operating position on both sides.



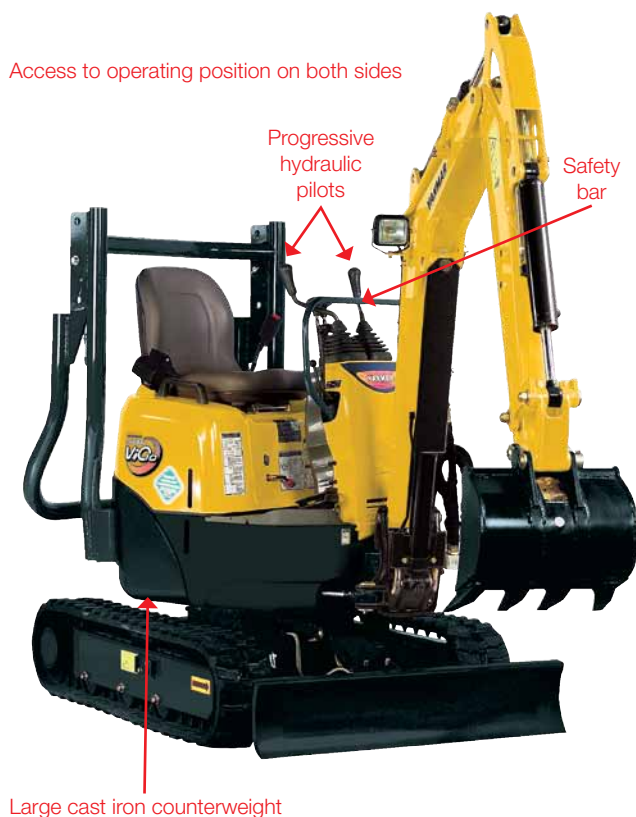
PTO pedal and boom pedal fitted with foldable protections in order to avoid unwanted movements.

ROPS protective frame

- > Roll Over Protective Structure.
- > Can be folded rearwards, allowing the machine to travel under low overhead heights.

Safety for the operator

- > Retractable seat belt.
- > Safety lever to lock the main functions of the machine.
- > Safety bar on the front part of the machine.
- > Large cast iron counterweight to protect the rear of the machine.
- > Working lamp on the boom.



> RELIABILITY & ACCESSIBILITY

ViO10-2A



Simple maintenance structure for fast and easy access wherever it's needed.



Easy access to maintenance points

- > A large engine bonnet allows quick access for main components.
- > Left side protection in steel easily removable (access to filter).



- > Perfect protection on blade cylinder.



- > Hydraulic hoses pass in the center of the upper frame: perfect protection and no twisting.



- > Careful routing of hydraulic pipes and hoses.



- > Perfect protection on boom cylinder.



> TECHNICAL SPECIFICATIONS

ViO10-2A

Engine

Yanmar diesel 3 cylinders	3TNV70-WBVB
Rated output (DIN 6270B)	9.2 kw/12.5 HP/2000 rpm
Displacement	854 cm ³
Max. torque	52 N.m./1600 rpm

Hydraulic circuit

System capacity	14.3 l
Max. pressure	210 bar
Variable flow dual piston pump	2 x 11 l/mn

Performances

Travelling speed	2.1 km/h
Swing speed	10 rpm
Digging force (arm/bucket)	570/1400 kgf
Boom swing (L/R)	50°/90°
Ground pressure	0.26 kg/cm ²
Grade ability	30°
Shoe width	180 mm
Ground clearance	140 mm
Blade (width x height)	830/1000 x 220 mm

Miscellaneous

Fuel tank	12 l
Cooling system	2.5 l
Transport dimensions (L x w x h)	3040 x 1000 x 1420 mm
Noise level LwA (2000/14/EC & 2005/88/EC)	88 dBA

Optional equipment

- > Special paint
- > Standard buckets
- > Ditch cleaning buckets

- > Swivelling buckets
- > Hydraulic breaker

PTO	Theoretical data at 2000 rpm	
	Pressure	Oil flow
	0 ~ 210 bar	22 ~ 13 l/mn
	0 ~ 210 bar	22 ~ 13 l/mn

> The oil flow reduces as the pressure increases.

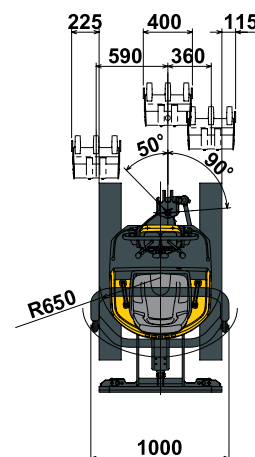
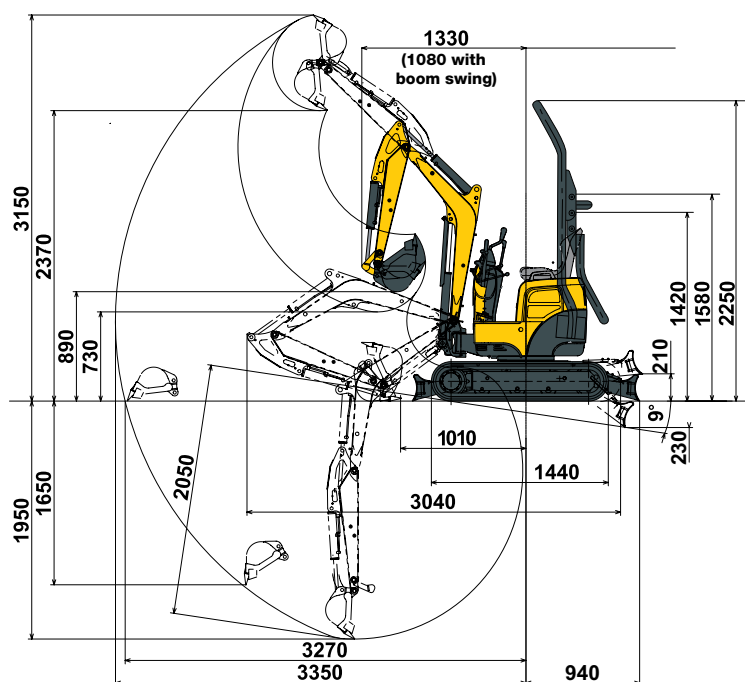
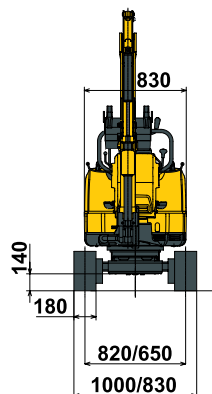
TECHNICAL SPECIFICATIONS

ViO10-2A

























Operating weight $\pm 2\%$ (EC Norms):
 > 1220 kg

Transport weight $\pm 2\%$ (EC Norms):
 > 1145 kg

























Subject to any technical modifications.
 Dimensions given in mm with standard Yanmar bucket.

Blade on ground

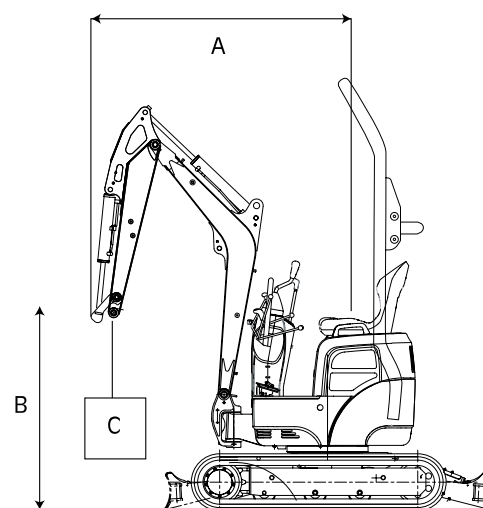
A	Maxi			2.5 m			2.0 m			1.5 m			
B	N	W		N	W		N	W		N	W		
2.0	*185	115		*185	120		*190	145		-	-	-	C
1.5	125	95		155	120		*205	165		-	-	-	
1.0	115	90		*230	145		*240	200		*380	255	*370	
0.5	110	85		*245	145		*270	195		*345	305	210	
0	115	85		*260	140		*305	185		*385	275	205	
-0.5	125	90		*280	145		*305	180		395	260	210	


Blade above ground


A	Maxi			2.5 m			2.0 m			1.5 m			
B	N	W		N	W		N	W		N	W		
2.0	*185	110		*185	120		*190	145		-	-	-	C
1.5	125	90		155	115		*205	205		-	-	-	
1.0	115	85		145	110		200	155		*265	380	245	
0.5	110	80		145	100		170	145		230	305	200	
0	115	80		135	100		175	140		230	270	200	
-0.5	125	90		155	140		165	175		215	260	200	

Machine with rubber crawlers, bucket of 20 kg (400 mm).

A: Overhang from rotational axis (m).
 B: Height of hooking point (m).
 C: Safe working load (kg).
 N: Retracted undercarriage.
 W: Extended undercarriage.



 Tipping load, rating over front

 Tipping load, rating over side 90°

The data contained in these tables represent the lifting capacity in accordance with ISO standard 10567. They correspond to 75% of the maximum static tipping load or 87% of the hydraulic lifting power. Datas marked * are the hydraulic limits of the lifting power.



YANMAR



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