

# 4-wheel electric tow tractor

## TE80

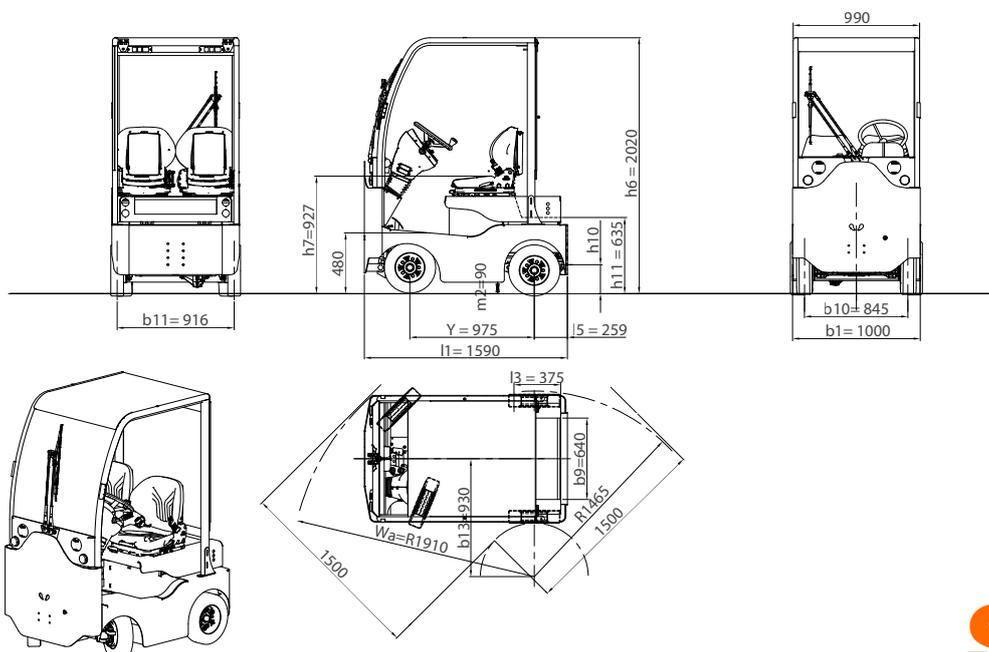
Towing Capacity 8000 Kg



4-wheel tow tractor, man on board, with rear-wheel drive. Extremely compact and easy to drive, ideal for all industrial duties - both indoors and outdoors, even on long distances.

Loading capacity of rear platform 100 kg.

- “Shock resistant” **supporting perimeter chassis** ensures maximum exploitation of induction motor torque.
  - **Complete automotive lighting** and signal system. Led lights.
  - **Suspensions:** rubberised steel coil springs in the front, steel coil springs with shock absorbers in the rear.
  - **Drum service brake** acting on 4 wheels with twofold braking system. Electromagnetic parking brake. Preset electrical **braking**, operating automatically when accelerator pedal is released, with first stroke of brake pedal and on reversing direction.
  - **Mechanical steering.** Hydraulic steering available upon request.
  - **1 operator on board.** Optimised driving position for maximum comfort and efficiency as well as user-friendly and ergonomic dashboard. Passenger seat available upon request.
  - **“Man on board” device** with seat occupancy sensor. Available in basic version, with weather protection roof with front windscreen and electric wipers. PVC canvas doors or cab with hinged side doors available.
  - **Lighting system:** 2 front lights (dipped-beam/main-beam), 2 front turn indicators, 2 rear turn indicators, 2 rear lights (position/brake lights). Full LED technology. Horn. Flashing light, reversing light and blue lights available upon request
  - **Digital dashboard** with battery charge indicator, fault detection, speedometer and hour meter. 24 V DC/DC converter for auxiliary services.
  - **Induction motor** equipped with encoder, thermal probes and negative electromagnetic parking brake with manual brake disengage lever.
  - **Electronic speed control of AC motor** with energy recovery during deceleration and braking. Several towing hitches available. Rear inching control to ease coupling operations.
  - **Battery** DIN 43531A 48 V - available capacity 315Ah, 345Ah and 375Ah.  
Standard paint finish: chassis dark grey RAL 7021/body light grey RAL 7035. Other colours available upon request.
- All parts are easy to access for fast and effective maintenance. Lower costs due to AC technology and modular design.



FEATURES	1.1	Manufacturer			SIMAI S.p.A.	
	1.2	Model			TE80	
	1.3	Drive			electric	
	1.4	Operator Type			sitting driver	
	1.5	Load Capacity		Q	t	0,1
	1.5.1	Towing Capacity (S2=60' / S2=30')		Q	t	8
	1.7	Rated Drawbar pull		F	N	1900
	1.9	Wheelbase		Y	mm	975
	WEIGHT	2.1	Service weight (w/battery)			kg
2.2		Axle loading laden front/rear (with operator 80 kg. each)			kg	614 / 795
2.3		Axle loading unladen front/rear			kg	584 / 645
TIRES, CHASSIS	3.1	Tyres:Cushion(Cu),Superelastic(SE), Pneus(Pn) Poliurethane (PE)				SE/Pn
	3.2	Tyre size front				4.00 - 8
	3.3	Tyre size rear				4.00 - 8
	3.5	Wheels nr. Front/Rear (X=motive)				2 / 2X
	3.6	Tread front		b <sub>10</sub>	mm	845
	3.7	Tread rear		b <sub>11</sub>	mm	916
	DIMENSIONS	4.7	Height of roof/cabin		h <sub>6</sub>	mm
4.8		Seat height		h <sub>7</sub>	mm	927
4.8.1		Step on platform height			mm	480
4.12		Coupling height		h <sub>10</sub>	mm	265 - 320 - 375
4.13		Loading height (min / MAX)		h <sub>11</sub>	mm	635
4.16		Platform length		l <sub>3</sub>	mm	375
4.17		Rear overhang		l <sub>5</sub>	mm	259
4.18		Platform width		b <sub>9</sub>	mm	640
4.19		Overall length		l <sub>1</sub>	mm	1590
4.21		Overall width		b <sub>1</sub>	mm	1000
4.32		Ground clearance - centre of wheelbase		m <sub>2</sub>	mm	90
4.35		Turning radius front		Wa	mm	1910
4.35.1		Turning radius rear			mm	1465
4.36		Turning radius inner		b <sub>13</sub>	mm	930
4.36.1		Aisle width when turning 90°			mm	1500
PERFORMANCES		5.1	Travel speed laden/unladen			km/h
	5.5	Drawbar pull laden			N	-
	5.5.1	Drawbar pull unladen			N	1900
	5.6	Max. Drawbar pull laden/unladen			N	- / 6200
	5.7	Gradeability laden/unladen			%	see chart
	5.8	Max. Gradeability laden/unladen			%	see chart
	5.10	Service / Parking brake (I=Hydraulic E=Electromagn. M=Mechanical)				I / E
5.10.1	Type of service brake front/rear				drum / drum	
MOTOR	6.1	Drive motor rating S2 60 min			kW	5
	6.1.1	Hydrauling steering motor rating S2 60 min			kW	0,55
	6.3	Battery according to DIN 43531 / 35 / 36 A, B, C, no				43531 A
	6.4	Battery voltage		U	V	48
	6.4.1	Battery rated capacity		K <sub>s</sub>	Ah	315 - 345 - <b>375</b>
	6.5	Battery weighth			kg	536 - 550 - <b>580</b>
OTHER DATA	6.6	Energy consumption (EN 16796)			kWh/h	2,59
	8.1	Drive Control				inverter AC
	8.4	Sound level at driver's ear according to DIN 12053			dB(A)	69
	8.5	Towing coupling, type DIN				-

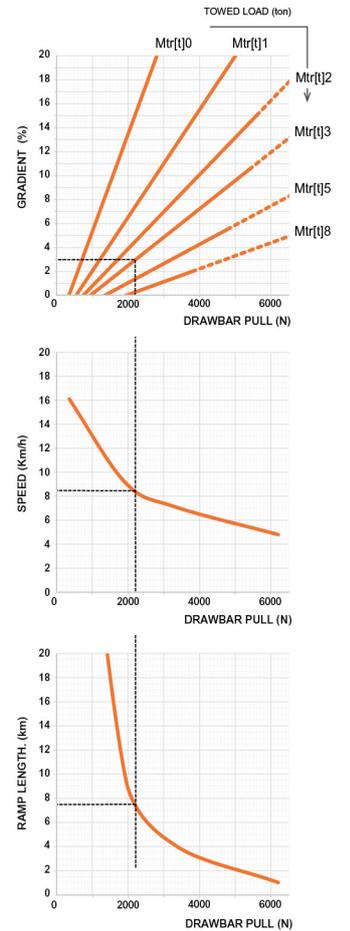
**GRAPH 1:**  
i [%] = GRADIENT  
Mtr [ton] = TOWED LOAD  
F [N] = TRACTION FORCE  
SOLID CURVES: START & STOP ALLOWED

**GRAPH 2:**  
V0 [km/h] = SPEED  
F [N] = TRACTION FORCE

TRAILERS WITH BRAKES ARE RECOMMENDED FOR LOADED DESCENTS. IF THIS IS NOT POSSIBLE, SPEED SHOULD BE LIMITED IN ACCORDANCE WITH OPERATING MANUAL.

**GRAPH 3:**  
s [km] = RAMP LENGTH THAT CAN BE COVERED PER HOUR  
F [N] = TRACTION FORCE

**EXAMPLE OF GRAPH READING:**  
- TOWED LOAD (MTR) = 3 t  
- GRADIENT (i) = 3 %  
- TRACTION FORCE (F) = 2200 N  
- SPEED (V0) = 8.5 km/h  
- MAX. RAMP LENGTH THAT CAN BE COVERED PER HOUR (S) = 7 km



As per VDI guidelines 2198, this datasheet applies to standard electric tractor / platform truck only. Dimensions are not binding and can be changed in any moment. The performances must be intended for brand new machines, after having completed the running-in tested in San Donato Milanese Factory in normal climatic conditions. Performances and weight are to be intended with standard motors and battery (reported in bold) and with pneumatic tires. Some data can vary according to different equipments.



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