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Manitou, Der Weltmarktführer für geländegängige Flurförderstapler
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Z.I., 5 avenue du Vert-Galant 95310 SAINT OUVEN-L'AUMONE FRANCE
Tél. : +33 (0) 1.34.32.65.00 Fax : +33 (0) 1.34.32.65.10

 **MANITOU**

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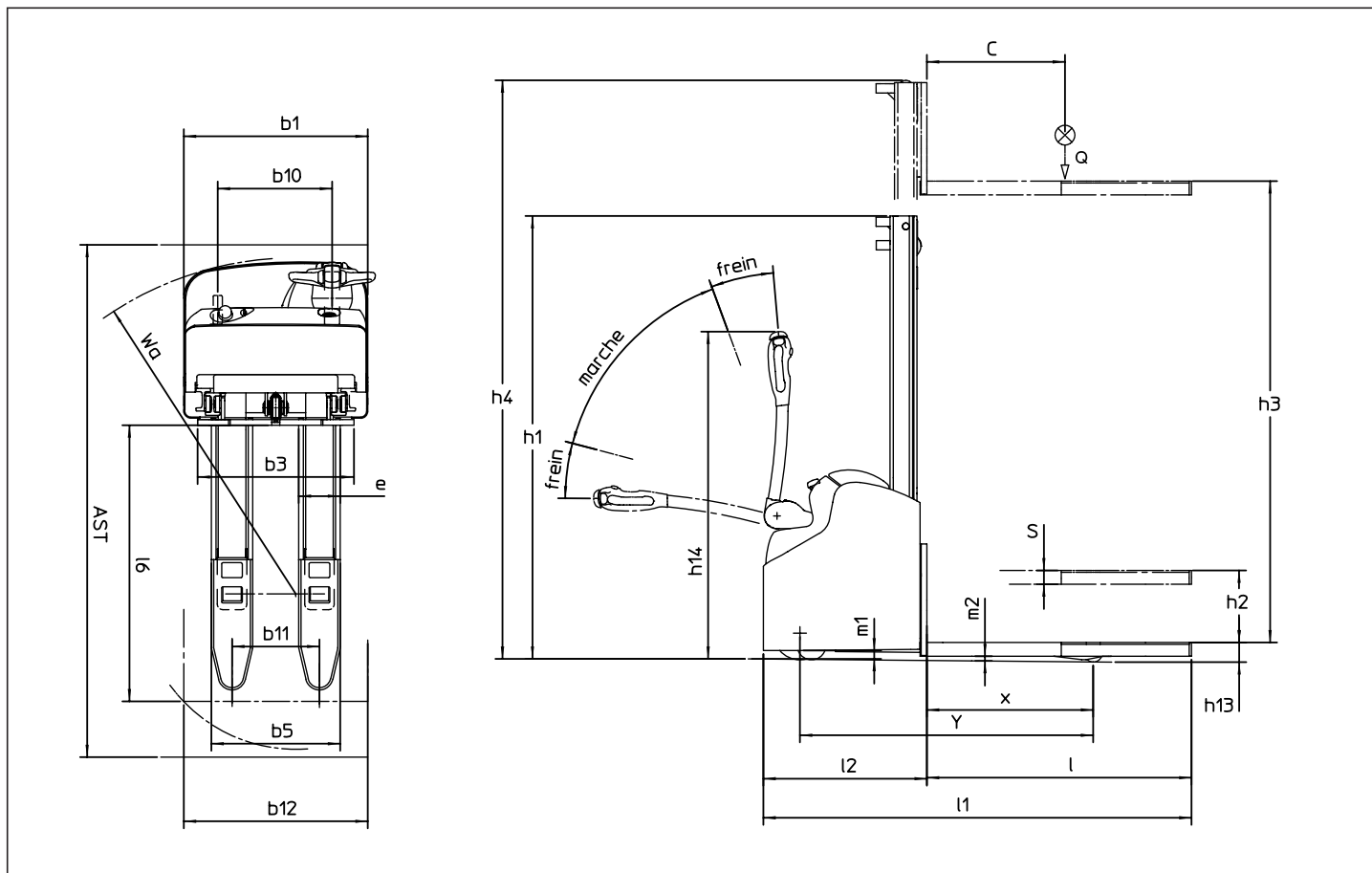
■ *Serie ES 4*

Electric stacker



 **MANITOU**

Serie ES 4 : Electric stacker



Mast ref.	dimensions in mm	Height of raised fork		Height of stacker with mast	
		maxi h3 + h13	free h2 + h13	lowered h1	raised h4
Simplex	SVC 15 *	1500	1500	1930	1930
	SVC 17 *	1750	1750	2180	2180
Duplex	DVC 26 *	2630	140	1780	3065
	DVC 29 *	2930	140	1930	3365
	DVC 34 *	3430	140	2180	3865
Duplex	D 29	2940		1940	3365
	D 34	3440		2190	3865
	D 38	3840		2390	4265
	D 43	4340		2640	4765
Duplex Free lift	DLL 29	2935	1510	1940	3365
	DLL 34	3435	1760	2190	3865
Triplex Free lift	TLL 42	4240	1470	1965	4735
	TLL 45	4540	1570	2065	5035

* central cylinder

Serie ES 4 : Electric stacker

Designation	Item	Description	MANITOU		
			ES 410	ES 412	
Designation	1.1	Manufacturer	MANITOU		
	1.2	Model type	ES 410	ES 412	
	1.3	Powered by: battery, diesel, petrol, LPG, mains electric	battery	battery	
	1.4	Driving method : manual, walk-along, upright, seated, preparation	Pedestrian	Pedestrian	
	1.5	Nominal capacity	Q (t)	1	1,2
	1.6	Height to centre of gravity	c (mm)	600	600
	1.8	Distance from fork face to track wheels (in raised pos'n)	x (mm)	723	723
	1.9	Wheelbase (drive axle to track wheels), top / bottom position	y (mm)	1285	1245
	Weights	2.1	Weight in working order	kg	870
2.2		Axle loading when load (front / rear)	kg	709/1161	729/1342
2.3		Axle loading when unload (front / rear)	kg	609/261	612/262
Wheels	3.1	Tyres (front / rear)		Polyurethane	Polyurethane
	3.2	Front wheel dimensions (dia x width)	mm	230x75	230x75
	3.3	Rear wheel dimensions (dia x width)	mm	78 x 78	82 x 70
	3.4	Outrigger dimensions	mm	125x50	125x50
	3.5	Number of wheels front / rear (x=drive wheel)		1x1/2	1x1/4
	3.6	Track centres, front	b10 (mm)	517	517
	3.7	Track centres, rear	b11 (mm)	380	380
Dimensions	4.2	Hauteur mât baissé (D29)	h1 (mm)	1940	1940
	4.3	Levée libre (D29)	h2 (mm)	-	-
	4.4	Levée standard (D29)	h3 (mm)	2940	2940
	4.5	Hauteur mât déployé (D29)	h4 (mm)	3365	3365
	4.6	Initial lift	h5 (mm)	-	-
	4.9	Handle height in driving position	h14 (mm)	1425	1425
	4.15	Fork height when lowered	h13 (mm)	85 ⁺⁵ ₀	85 ⁺⁵ ₀
	4.19	Overall length	l1 (mm)	1870	1870
	4.20	Length to front face of forks	l2 (mm)	720	720
	4.21	Overall width	b1 (mm)	800	800
	4.22	Fork dimensions (thick x wide x long)	s/e/l (mm)	75x180x1150	75x180x1150
	4.24	Width of fork carriage	b3 (mm)	680	680
	4.25	Fork pitch	b5 (mm)	560/495	560/495
	4.26	Width between carrying arms (min. / max.)	b4 (mm)	-	-
	4.31	Ground clearance under mast	m1 (mm)	35	35
	4.32	Ground clearance at centre of wheelbase	m2 (mm)	20	20
	4.33	Aisle width with 1000x1200 pallet widthwise (l6xb12)	AST (mm)	-	-
	4.34	Aisle width with 800x1200 pallet lengthwise (b12xl6)	AST (mm)	2287	2222
	4.35	Turning radius (top / bottom position)	Wa (mm)	1465	1400
Performance	5.1	Travel speed load / unload	km / h	6 / 6	6 / 6
	5.2	Lifting speed, load / unload	m / s	0,14 / 0,24	0,12 / 0,24
	5.3	Lowering speed, load / unload	m / s	0,30 / 0,20	0,30 / 0,20
	5.8	Maximum slope laden/unladen (S2 5min.)	%	8 / 10	8 / 10
	5.10	Drive brake		Electromagnetic	Electromagnetic
	5.11	Parking brake		Handle release	Handle release
Drive unit	6.1	Drive motor power (S2 60 min)	kW	1,2 (1,0 *)	1,2 (1,0 *)
	6.2	Lift motor power (S3 10%)	kW	3,0 (2,0 *)	3,0 (2,0 *)
	6.3	Battery type as per standard DIN 43531/35/36,A,B,C		Traction	Traction
	6.4	Battery voltage and capacity (5h)	V/Ah	24 / 180 or 240	24 / 180 or 240
	6.5	Battery weight (+ - 5%)	kg	180 - 240	180 - 240
Miscell	8.1	Speed control		AC	AC
	8.4	Average sound level at driver's ears (translation)	dB (A)	65	65

* for SVC & DVC mast (central cylinder)