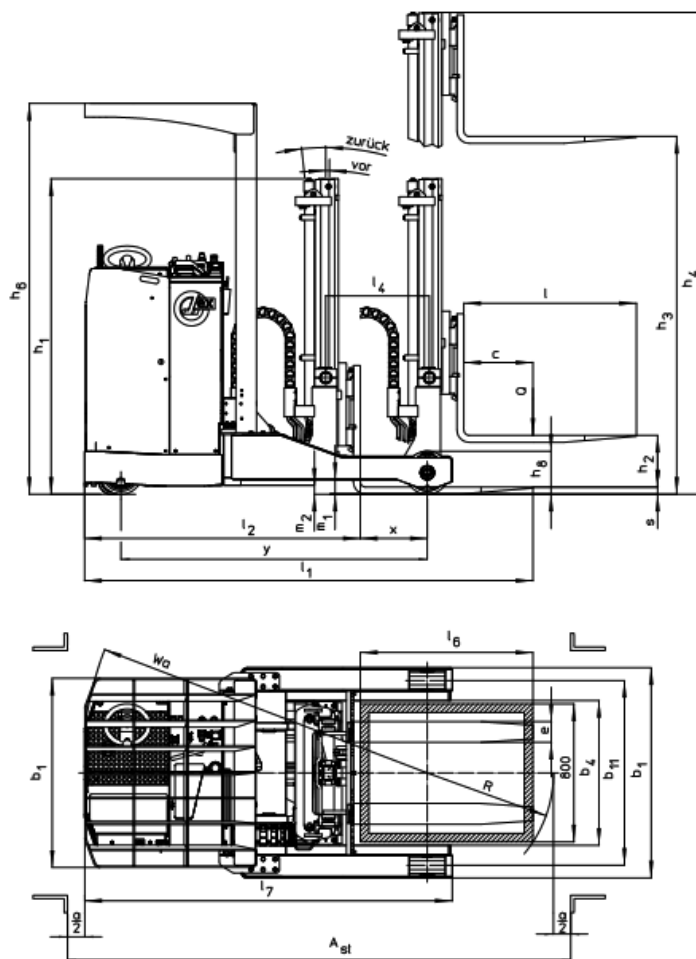




Electro-Stand-Reach truck Ex-proof,

ESM



$$A_{st} = W_a + R + a$$

A_{st} = working width

a = safety distance = 200 mm

b_{12} = pallet width = 800 or 1000 mm

l_6 = pallet length

ESM 10-20XH2 Technical Data

MIAG Fahrzeugbau GmbH
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Explosion protection: the devices are tested and approved by the Physikalisch Technische Bundesanstalt (PTB) (Physical-Technical Federal Institute) for use in areas at risk of explosion according to the following protection classes****: Gas explosion protection - suitable for use in explosive areas, zones 1 and 2 according to GefStoffV within explosion sub-groups IIA and IIB or IIB + H₂ and temperature classes T1 to T4 ; **Dust explosion protection:** - suitable for use in explosive areas, zones 21 und 22 according to GefStoffV at surface temperatures of maximum 135°C.

Description		MIAG	MIAG	MIAG	MIAG	
1.1	Manufacturer	MIAG	MIAG	MIAG	MIAG	
1.2	Type designation of the manufacturer	ESM 10XH2	ESM 12XH2	ESM 15XH2	ESM 18XH2	
1.3	Drive Battery, Diesel, Petrol, fuel gas, mains current	Electro	Electro	Electro	Electro	
1.4	Operation Hand, Pedestrian, stand-on, driver-seated	stand	stand	stand	stand	
1.5	Carrying capacity / Load **	Q (t)	1	1,2	1,5	1,8
1.6	Load centre	c (mm)	400	400	400	400
1.8	Load distance, mast lowered	x (mm)	388	388	388	388
1.9	Wheel base	y (mm)	1775	1775	1775	1775
Weights						
2.1	Dead weight	kg	2520	2550	2580	2600
2.2	Axle load laden front/rear	kg	1480 / 1040	1500 / 1050	1520 / 1060	1540 / 1060
2.3	Axle load unladen front/rear	kg	915 / 2605	865 / 2885	780 / 3300	580 / 3820
Wheels, Chassis						
3.1	Tyres Pneumatic, Solid, Vulcollan		solid / Vul.	solid / Vul.	solid / Vul.	solid / Vul.
3.2	Dimension in front		Ø 250 x 80	Ø 250 x 80	Ø 250 x 80	Ø 250 x 80
3.3	Dimension at the rear		Ø 250 x 100	Ø 250 x 100	Ø 250 x 100	Ø 250 x 100
3.4	Additional wheels (dimensions)		Ø 160 x 50 x 2	Ø 160 x 50 x 2	Ø 160 x 50 x 2	Ø 160 x 50 x 2
3.5	Wheels number front / rear, x=driven		2, 1x / 2	2, 1x / 2	2, 1x / 2	2, 1x / 2
3.6	Truck width front	b ₁₀ (mm)	512	512	512	512
3.7	Truck width rear	b ₁₁ (mm)	1070	1070	1070	1070
Base dimensions ***						
4.1	Mast tilt /fork carriage, ago/back	Grad	1°/6°	1°/6°	1°/6°	1°/6°
4.2	Height of mast, lowered	h ₁ (mm)	1655	1655	1655	1655
4.3	Free lift	h ₂ (mm)	0	0	0	0
4.4	Lift at double mast **, ***	h ₃ (mm)	1800	1800	1800	1800
4.5	Height of mast, raised	h ₄ (mm)	2555	2555	2555	2555
4.9	Height of tiller arm (in drive position) min. / max.	h ₆ (mm)	2265	2265	2265	2265
4.10	Height of arms	h ₈ (mm)	250	250	250	250
4.19	Length total (with forks 1000 mm)	l ₁ (mm)	2600	2600	2600	2600
4.20	Length including shank (retired)	l ₂ (mm)	1600	1600	1600	1600
4.21	Width total	b ₁ /b ₂ (mm)	1218	1218	1218	1218
4.22	Fork dimensions	s/e/l (mm)	48/128/1000	48/128/1000	48/128/1000	48/128/1000
4.26	Width between reach legs, inside	b ₄ (mm)	840	840	840	840
4.28	Feed	l ₄ (mm)	600	600	600	600
4.31	Ground clearance with load under lifting frame	m ₁ (mm)	84	84	84	84
4.32	Ground clearance centre wheel base (lowest point)	m ₂ (mm)	52	52	52	52
4.34	Aisle width for pallets 800x1000 along *	A _{sr} (mm)	3110	3110	3110	3110
4.35	Turning radius *	W _a (mm)	2005	2005	2005	2005
4.37	Length over arms	l ₇ (mm)	2130	2130	2130	2130
Performance						
5.1	Speed travel laden / unladen	km / h	6 / 6	6 / 6	6 / 6	6 / 6
5.2	Speed lift laden / unladen	m / s	0,1 / 0,14	0,1 / 0,14	0,09 / 0,14	0,08 / 0,14
5.3	Speed lower laden / unladen	m / s	0,2 / 0,17	0,21 / 0,17	0,22 / 0,17	0,22 / 0,17
5.7	Climbing capacity with / without load	%	8 / 12	8 / 12	7 / 12	6 / 12
5.10	Service brake		electric	electric	electric	electric
E-Motor						
6.1	Traction-motor, output S2 /60min	kW	1,5	1,5	1,5	1,5
6.2	Lift-motor, output S3/15%	kW	3,0	3,0	3,0	3,0
6.3	Battery according to DIN 43531/35/36 A, B, C, no		no	no	no	no
6.4	Battery voltage / Capacity K _c	V / Ah	24/315-420	24/315-420	24/315-420	24/315-420
6.5	Battery weight	kg	360	360	360	360
Others						
8.1	Motor control type		inverter	inverter	inverter	inverter
8.4	Sound level acc. EN12053	dB (A)	75	75	75	75

* in accordance with FEM 4.005

** from 3300 mm lift height reduction of carrying capacity to 80 %

*** with mast design in series, further designs on request, max. lift 3500 mm

**** depending on device version

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Description

1.1	Manufacturer		MIAG			
1.2	Type designation of the manufacturer		ESM 20XH2			
1.3	Drive Battery, Diesel, Petrol, fuel gas, mains current		Electro			
1.4	Operation Hand, Pedestrian, stand-on, driver-seated		stand			
1.5	Carrying capacity / Load **	Q (t)	2			
1.6	Load centre	c (mm)	400			
1.8	Load distance, mast lowered	x (mm)	388			
1.9	Wheel base	y (mm)	1775			

Weights

2.1	Dead weight	kg	2650			
2.2	Axle load laden front/rear	kg	1560 / 1090			
2.3	Axle load unladen front/rear	kg	550 / 4100			

Wheels, Chassis

3.1	Tyres Pneumatic, Solid, Vulcollan		solid / Vul.			
3.2	Dimension in front		Ø 250 x 80			
3.3	Dimension at the rear		Ø 250 x 100			
3.4	Additional wheels (dimensions)		Ø 160 x 50 x 2			
3.5	Wheels number front / rear, x=driven		2, 1x / 2			
3.6	Truck width front	b ₁₀ (mm)	512			
3.7	Truck width rear	b ₁₁ (mm)	1070			

Base dimensions ***

4.1	Mast tilt /fork carriage, ago/back	Grad	1°/6°			
4.2	Height of mast, lowered	h ₁ (mm)	1655			
4.3	Free lift	h ₂ (mm)	0			
4.4	Lift at double mast **, ***	h ₃ (mm)	1800			
4.5	Height of mast, raised	h ₄ (mm)	2555			
4.9	Height of tiller arm (in drive position) min. / max.	h ₆ (mm)	2265			
4.10	Height of arms	h ₈ (mm)	250			
4.19	Length total (with forks 1000 mm)	l ₁ (mm)	2600			
4.20	Length including shank (retired)	l ₂ (mm)	1600			
4.21	Width total	b ₁ /b ₂ (mm)	1218			
4.22	Fork dimensions	s/e/l (mm)	48/128/1000			
4.26	Width between reach legs, inside	b ₄ (mm)	840			
4.28	Feed	l ₄ (mm)	600			
4.31	Ground clearance with load under lifting frame	m ₁ (mm)	84			
4.32	Ground clearance centre wheel base(lowest point)	m ₂ (mm)	52			
4.34	Aisle width for pallets 800x1000 along *	A _{st} (mm)	3110			
4.35	Turning radius *	W _a (mm)	2005			
4.37	Length over arms	l ₇ (mm)	2130			

Performance

5.1	Speed travel laden / unladen	km / h	6 / 6			
5.2	Speed lift laden / unladen	m / s	0,07 / 0,14			
5.3	Speed lower laden / unladen	m / s	0,23 / 0,17			
5.7	Climbing capacity with / without load	%	6 / 12			
5.10	Service brake		electric			

E-Motor

6.1	Traction-motor, output S2 /60min	kW	1,5			
6.2	Lift-motor, output S3/15%	kW	3,0			
6.3	Battery according to DIN 43531/35/36 A, B, C, no		no			
6.4	Battery voltage / Capacity K _s	V / Ah	24/315-420			
6.5	Battery weight	kg	360			

Others

8.1	Motor control type		inverter			
8.4	Sound level acc. EN1 2053	dB (A)	75			

* in accordance with FEM 4.005

** from 3300 mm lift height reduction of carrying capacity to 80 %

*** with mast design in series, further designs on request, max. lift 3500 mm

**** depending on device version

