

# FM-X Technical Data Driver Seated Reach Truck



FM-X 10/Li-lon

FM-X 10 iGo

FM-X 12/Li-lon

FM-X 12 iGo

FM-X 14/Li-lon

FM-X 14 iGo

FM-X 17/Li-lon

FM-X 17 iGo

FM-X 20/Li-lon

FM-X 20 iGo

FM-X 25/Li-lon

FM-X 25 iGo







.1 Manufacti				STILL	STILL	STILL	STILL	STILL	STILL	STILL	STILL
	turer's type designation			FM-X 10/Li-lon	FM-X 10 N	FM-X 12/Li-lon	FM-X 12 N	FM-X 14/Li-lon	FM-X 14 N	FM-X 14 W/Li-lon	FM-X 14 EW/Li-
.3 Drive				Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
.4 Operator	type			Seated	Seated	Seated	Seated	Seated	Seated	Seated	Seated
.5 Rated cap	pacity/rated load	Q	kg	1000	1000	1200	1200	1400	1400	1400	1400
.6 Load capa	acity at load centre distance	С	mm	600	600	600	600	600	600	600	600
.8 Load cent	itre distance 1	x	mm	278	184	278	184	348	335	276	276
.9 Wheel bas	ase	У	mm	1275	1275	1275	1275	1381	1453	1381	1381
.1 Service w	veight (incl. battery)			3230	3200	3240	3210	3470	3430	3700	3750
.3 Axle load,	5 . ,,	drive end/load end		2040/1190	1970/1230	2130/1100	1970/1230	2250/1220	2120/1310	2290/1410	2330/1420
	I, fork advanced, laden	drive end/load end		960/3270	920/3280	850/3580	920/3280	850/4010	860/3970	960/1410	1000/4150
	I, fork retracted, laden	drive end/load end		1730/2500	1590/2610	1820/2610	1590/2610	1950/2910	1770/3060	1920/3180	1960/3190
1 Tyres	i ion rocaucica, idacii	arive eria/read eria	Ng	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
2 Tyre size		drive end	mm	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130
3 Tyre size		load end		Ø 285 x 100	Ø 285 x 100	Ø 285 x 100	Ø 285 x 100	Ø 285 x 100	Ø 285 x 100	Ø 285 x 100	Ø 285 x 100
	of wheels (x = driven)		111111	1x/2	1x/2	1x/2	1x/2	1x/2	1x/2	1x/2	1x/2
	of wheels (x = driveri)	drive end/load end									
7 Tread	<b>7.</b>	load end b <sub>11</sub>		1167	1037	1167	1037	1167	1037	1367	1567
	ast/fork carriage	forward/backward <sup>3</sup> α/β		1/3	2/4	1/3	2/4	1/3	2/4	1/3	1/3
! Height		mast lowered h <sub>1</sub>		2450	2450	2450	2450	2450	2450	2450	2450
Free lift		h <sub>2</sub>		1890	1890	1890	1890	1890	1890	1890	1890
Lift		h <sub>3</sub>		5750	5750	5750	5750	5750	5750	5750	5750
Height		mast extended h <sub>4</sub>		6310	6310	6310	6310	6310	6310	6310	6310
Height of	f overhead guard (cabin) <sup>4</sup>	h <sub>6</sub>	mm	2200 (iGo 2500)	2200	2200 (iGo 2500)	2200	2200 (iGo 2500)	2200	2200	2200
Seat heig	ght	h <sub>7</sub>	mm	1140	1140	1140	1140	1140	1140	1140	1140
0 Height of	f wheel arms	h <sub>8</sub>	mm	308	308	308	308	308	308	308	308
9 Overall le		l <sub>1</sub>		2366	2462	2366	2462	2402	2488	2474	2474
	o face of forks <sup>2, 5, 6</sup>			1216	1312	1216	1312	1252	1338	1324	1324
l Overall wi		b <sub>1</sub> /b		1270 (iGo 1440)	1140	1270 (iGo 1440)	1140	1270 (iGo 1440)	1140	1470	1670
2 Fork dime		DIN ISO 2331 s/e/		40/80/1150	40/80/1150	40/100/1150	40/100/1150	40/100/1150	40/100/1150	40/100/1150	40/100/1150
	iage ISO 2328, class/type A, B	DIT 100 2001 3/e/	1111111	2/A	2/A	2/A	2/A	2/A	2/A	2/A	2/A
	,,	<b>b</b> <sub>3</sub>	mes	760	760	760	760	760	760	760	760
	3										
	between fork arms	min./max. b₅		296/600	296/600	296/600	296/600	316/620	316/620	316/620	316/620
	between wheel arms/loading surfaces	b <sub>4</sub>		920	790	920	790	920	790	1120	1320
28 Reach dis		l4		449	364	449	364	529	515	457	457
	elearance, laden, below mast	$m_1$		70	70	70	70	70	70	70	70
	clearance, centre of wheel base	m <sub>2</sub>		70	70	70	70	70	70	70	70
	th for pallets 1000 x 1200 crossways <sup>2</sup>	$A_{st}$		2679 (iGo 3000 <sup>7</sup> )	2733	2679 (iGo 3000 <sup>7</sup> )	2733	2727 (iGo 3000 <sup>7</sup> )	2787	2821	2861
	th for pallets 800 x 1200 lengthways <sup>2</sup>	A <sub>st</sub>		2746 (iGo 3150 <sup>7</sup> )	2812	2746 (iGo 3150 <sup>7</sup> )	2812	2782 (iGo 3150 <sup>7</sup> )	2845	2887	2927
5 Turning ra	adius	Wa	mm	1540	1520	1540	1520	1640	1691	1680	1720
7 Length ac	cross wheel arms	l <sub>7</sub>	mm	1639	1641	1639	1641	1745	1817	1745	1745
3 Step heig	ght		mm	345	345	345	345	345	345	345	345
Travel spe		laden/unladen		14/14 (iGo 6/6)	14/14	14/14 (iGo 6/6)	14/14	14/14 (iGo 6/6)	14/14	14/14	14/14
	eed backwards	laden/unladen		14/14	14/14	14/14	14/14	14/14	14/14	14/14	14/14
Lifting spe		laden/unladen		0.47/0.70	0.47/0.70	0.47/0.70	0.47/0.70	0.45/0.68	0.45/0.68	0.45/0.68	0.45/0.68
Lowering		laden/unladen		0.56/0.50	0.56/0.50	0.56/0.50	0.56/0.50	0.56/0.52	0.56/0.52	0.56/0.52	0.56/0.52
Reaching		laden/unladen		0.18	0.18	0.18	0.18	0.3070.32	0.18	0.18	0.18
	•	laden/unladen		10/15	10/15	10/15	10/15	10/15	10/15	10/15	10/15
	,	laden/unladen		15/20	15/20	15/20	15/20	15/20	15/20	15/20	15/20
				4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0
9 Accelerat	tion time (over 10 m)	laden/unladen	S								
10 Service b	prako			Regenerative-	Regenerative- electric/	Regenerative- electric/	Regenerative- electric/	Regenerative- electric/	Regenerative- electric/	Regenerative-	Regenerative-
10 Service Di	or and			electric/ hydraulic	hydraulic	hydraulic	hydraulic	hydraulic	hydraulic	electric/ hydraulic	electric/ hydraulic
Drive mot	otor rating S2 = 60 min		LM	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
	or rating S2 = 60 min			14	13	14	14	14	14	0.5	14
	0		KVV								
Battery ad	ccording to DIN 43531/35/36 A, B, C, no			43531 C/254-2	43531 B/254-2	43531 C/254-2	43531 B/254-2	43531 C/254-2	43531 B/254-2	43531 C/254-2	43531 C/254-2
attery vo	oltage/nominal capacity K <sub>5</sub>		V/Ah	48/465 Li-lon: 48/204	48/465	48/465	48/465	48/465 Li-lon: 48/204	48/465	48/620	48/620 Li-Ion: 48/204
	· , ,			LI-1011. 40/204		Li-lon: 48/204				Li-lon: 48/204	Li-Ion: 48/204 940
,	veight (depending on manufacturer ±5%)			750	750	750	750	750	750	940	
	onsumption according to VDI cycle			2.88	2.88	3.23	3.23	3.40	3.40	3.40	3.40
, ,	g pressure for attachments			200	200	200	200	200	200	200	200
	ne for attachments		I/min		20	20	20	20	20	20	20
.7 Sound pre	ressure level at driver's seat		dB(A)	69	69	69	69	69	69	69	69

All measurements including sideshift mast or sideshift forks (carriage)

<sup>&</sup>lt;sup>1</sup> Values decrease by 72 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;

Values decrease by 90 mm per battery size for larger batteries. Applies to the FM-X N <sup>2</sup> Aisle width for pallet 1000 x 1200 crosswise:

<sup>-</sup> Values increase by 56 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;

<sup>-</sup> Values increase by 74 mm per battery size for larger batteries. Applies to the FM-X  $\mbox{\scriptsize N}$ 

Aisle width for pallet 800 x 1200 lengthwise:

<sup>-</sup> Values increase by 66 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;

<sup>-</sup> Values increase by 85 mm per battery size using larger batteries. Applies to the FM-X  ${
m N}$ 

<sup>&</sup>lt;sup>3</sup> May vary according to the mast, with sideshift/fork tilt 2°/4°

<sup>&</sup>lt;sup>4</sup> With optional cabin/wind protection, height h<sub>6</sub> is 2180 mm

<sup>&</sup>lt;sup>5</sup> With optional cabin, length will be extended by 150 mm

<sup>&</sup>lt;sup>6</sup> Increases in steps of 72 mm for each larger battery size for FM-X, FM-X W, FM-X EW models Increases in steps of 90 mm for each larger battery size for FM-X N model

 $<sup>^{7}</sup>$  Based on smallest battery tray. An additional reduction of up to 150 mm is subject to detailed investigation



1.1	Manufacturer Manufacturer's type designation			STILL FM-X 17/Li-lon	STILL FM-X 17 N	STILL FM-X 17 W/Li-lon	STILL FM-X 17 EW/Li-lon	STILL FM-X 20/Li-lon	STILL FM-X 20 N
1.3	Drive			Electric	Electric	Electric	Electric	Electric	Electric
Se 1.3				Seated			Seated		
#	Operator type	0	Lon		Seated	Seated		Seated	Seated
<b>2</b> 1.5		Q		1700	1700	1700	1700	2000	2000
1.6	Load capacity at load centre distance	C	mm		600 325	600 338	600 338	600 410	600 307
	Essa solitio distance	Х	mm						
1.9	Wheel base	У		1453	1453	1453	1453	1525	1525
2.1	Service weight (incl. battery)			3470	3500	3740	3790	3820	3830
2.3	Axle load, unladen drive end/load end			2290/1180	2220/1280	2390/1350	2440/1350	2470/1350	2450/1380
2.4	Axle load, fork advanced, laden drive end/load end			730/4440	670/4520	900/4550	950/4550	820/5000	830/5010
2.5	Axle load, fork retracted, laden drive end/load end		kg	2030/3140	1850/3340	2050/3390	2100/3390	2180/3640	2010/3820
3.1	Tyres			Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
3.2	Tyre size drive end			Ø 360 x 130	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130	Ø 360 x 130
<b>√5</b> 3.3	Tyre size load end		mm	Ø 285 x 100	Ø 285 x 100	Ø 285 x 100	Ø 285 x 100	Ø 350 x 100	Ø 350 x 100
3.5	Number of wheels (x = driven) drive end/load end			1x/2	1x/2	1x/2	1x/2	1x/2	1x/2
3.7	Tread load end			1167	1037	1367	1567	1167	1037
4.1	Tilt of mast/fork carriage forward/backward <sup>3</sup>	α/β		1/3	2/4	1/3	1/3	1/3	2/4
4.2	Height mast lowered	h <sub>1</sub>		2450	2450	2450	2450	2450	2450
4.3	Free lift	h <sub>2</sub>		1880	1880	1880	1880	1880	1880
4.4		h <sub>3</sub>		5750	5750	5750	5750	5580	5580
4.5	Height mast extended	h <sub>4</sub>		6320	6320	6320	6320	6150	6150
4.7	Height of overhead guard (cabin) 4	h <sub>6</sub>	mm	2200 (iGo 2500)	2200	2200	2200	2200 (iGo 2500)	2200
4.8	Seat height	$h_7$	mm	1140	1140	1140	1140	1140	1140
4.10		h <sub>8</sub>	mm	308	308	308	308	373	373
4.19	Overall length <sup>2, 5, 6</sup>	I <sub>1</sub>		2412	2499	2484	2484	2484	2589
4.20	Length to face of forks <sup>2, 5, 6</sup>	l <sub>2</sub>	mm	1262	1349	1334	1334	1334	1439
<b>ي</b> 4.21	Overall width	b <sub>1</sub> /b <sub>2</sub>	mm	1270 (iGo 1440)	1140	1470	1670	1270 (iGo 1440)	1140
-ig 4.22	Fork dimensions DIN ISO 2331	s/e/I	mm	50/100/1150	50/100/1150	50/100/1150	50/100/1150	50/100/1150	50/100/1150
<b>월</b> 4.23	Fork carriage ISO 2328, class/type A, B			2/A	2/A	2/A	2/A	2/A	2/A
ā 4.24		b <sub>3</sub>	mm	760	760	760	760	760	760
4.25	Distance between fork arms min./max.	b <sub>5</sub>	mm	316/620	316/620	316/620	316/620	316/620	316/620
4.26	Distance between wheel arms/loading surfaces	b <sub>4</sub>	mm		790	1120	1320	920	790
4.28	Reach distance	l <sub>4</sub>	mm		505	519	519	623	520
4.31		m <sub>1</sub>	mm	70	70	70	70	70	70
4.32	Ground clearance, centre of wheel base	m <sub>2</sub>	mm		70	70	70	70	70
	Aisle width for pallets 1000 x 1200 crossways <sup>2</sup>	Ast		2752 (iGo 3050 <sup>7</sup> )	2795	2844	2879	2820 (iGo 3100 <sup>7</sup> )	2879
4.34		Ast		2796 (iGo 3150 <sup>7</sup> )	2854	2901	2936	2864 (iGo 3200 <sup>7</sup> )	2941
		Wa		1710	1691	1750	1785	1778	1762
4.37	Length across wheel arms	l <sub>7</sub>		1817	1819	1817	1817	1922	1924
	Step height	-,	mm		345	345	345	345	345
5.1	Travel speed laden/unladen			14/14 (iGo 6/6)	14/14	14/14	14/14	14/14 (iGo 6/6)	14/14
5.1.1				14/14	14/14	14/14	14/14	14/14	14/14
5.2	Lifting speed laden/unladen			0.45/0.68	0.45/0.68	0.45/0.68	0.45/0.68	0.37/0.58	0.37/0.58
5.3	Lowering speed laden/unladen			0.55/0.52	0.55/0.52	0.56/0.52	0.56/0.52	0.53/0.50	0.53/0.50
8 5.4	Reaching speed laden/unladen			0.18	0.18	0.18	0.18	0.18	0.18
5.7	Gradeability laden/unladen			10/15	10/15	10/15	10/15	10/15	10/15
5.8	Max. gradeability laden/unladen			15/20	15/20	15/20	15/20	15/20	15/20
5.9	Acceleration time (over 10 m) laden/unladen			4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0
5.7	noons and the form		3	Regenerative-	Regenerative-	Regenerative-	Regenerative-	Regenerative-	Regenerative-
5.10	Service brake			electric/	electric/	electric/	electric/	electric/	electric/
21.0				hydraulic	hydraulic	hydraulic	hydraulic	hydraulic	hydraulic
6.1	Drive motor rating S2 = 60 min		kW	6.5	6.5	6.5	6.5	6.5	6.5
6.2 و	Lift motor rating S3 = 15%		kW	14	14	14	14	14	14
<b>iii</b> 6.3	Battery according to DIN 43531/35/36 A, B, C, no			43531 C/254-2	43531 B/254-2	43531 C/254-2	43531 C/254-2	43531 C/254-2	43531 B/254-2
6.4	Battery voltage/nominal capacity K₅		V/Ah	48/465 Li-lon: 48/204	48/465	48/420 Li-Ion: 48/817	48/620 Li-lon: 48/817	48/620 Li-lon: 48/817	48/620
e C			ka	750	750	940	940	940	940
_ 6.5	Battery weight (depending on manufacturer ±5 %)		1.9					3.59	3.59
6.5	Battery weight (depending on manufacturer ±5%)  Energy consumption according to VDI cycle		kWh/h	3.56	3.56	3.56	3.56		
6.6	Energy consumption according to VDI cycle		kWh/h bar		3.56	3.56	3.56		
6.6	Energy consumption according to VDI cycle Operating pressure for attachments		bar	200	200	200	200	200	200
6.6	Energy consumption according to VDI cycle Operating pressure for attachments Oil volume for attachments			200 20					

All measurements including sideshift mast or sideshift forks (carriage)

<sup>&</sup>lt;sup>1</sup> Values decrease by 72 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;

Values decrease by 90 mm per battery size for larger batteries. Applies to the FM-X N

<sup>&</sup>lt;sup>2</sup> Aisle width for pallet 1000 x 1200 crosswise:

<sup>-</sup> Values increase by 56 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;

<sup>-</sup> Values increase by 74 mm per battery size for larger batteries. Applies to the FM-X  $\mbox{\scriptsize N}$ 

Aisle width for pallet 800 x 1200 lengthwise:

Values increase by 66 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
 Values increase by 85 mm per battery size using larger batteries. Applies to the FM-X N
 May vary according to the mast, with sideshift/fork tilt 2°/4°

 $<sup>^4</sup>$  With optional cabin/wind protection, height  $h_{\scriptscriptstyle 6}$  is 2180 mm

<sup>&</sup>lt;sup>5</sup> With optional cabin, length will be extended by 150 mm

<sup>&</sup>lt;sup>6</sup> Increases in steps of 72 mm for each larger battery size for FM-X, FM-X W, FM-X EW models

Increases in steps of 90 mm for each larger battery size for FM-X N model

7 Based on smallest battery tray. An additional reduction of up to 150 mm is subject to detailed investigation



1.1	Manufacturer			STILL	STILL	STILL	STILL	STILL	STILL
1.2	Manufacturer's type designation			FM-X 20 W/Li-lon	FM-X 20 EW/Li-lon	FM-X 20 HD/Li-lon	FM-X 25/Li-lon	FM-X 25 W/Li-lon	FM-X 25 EW/Li-lon
رم 1.3	Drive			Electric	Electric	Electric	Electric	Electric	Electric
P. 1.4	Operator type			Seated	Seated	Seated	Seated	Seated	Seated
<b>逼</b> 1.5	Rated capacity/rated load	Q		2000	2000	2000	2500	2500	2500
1.6	Load capacity at load centre distance	С	mm		600	600	600	600	600
1.8	Load centre distance <sup>1</sup>	Х	mm		410	482	482	482	482
1.9	Wheel base	У	mm		1525	1669	1669	1669	1669
2.1	Service weight (incl. battery)			3870	3920	5110	4110	4140	4170
2.3	Axle load, unladen drive end/load end			2490/1380	2510/1410	3030/2080	2640/1470	2620/1520	2600/1570
<b>3</b> 2.4	Axle load, fork advanced, laden drive end/load end			840/5030	860/5060	900/6410	810/5790	790/5840	770/5890
2.5	Axle load, fork retracted, laden drive end/load end			2200/3670	2220/3700	2810/4500	2420/4190	2400/4240	2380/4290
3.1	Tyres			Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
3.2	Tyre size drive end			Ø 360 x 130	Ø 360 x 130	Ø 360 x 140	Ø 360 x 140	Ø 360 x 140	Ø 360 x 140
<b>√</b> 3.3	Tyre size load end			Ø 350 x 100	Ø 350 x 100	Ø 350 x 100	Ø 350 x 100	Ø 350 x 100	Ø 350 x 100
3.5	Number of wheels (x = driven) drive end/load end			1x/2	1x/2	1x/2	1x/2	1x/2	1x/2
3.7	Tread load end		mm		1567	1167	1167	1367	1567
4.1	Tilt of mast/fork carriage forward/backward <sup>3</sup>			1/3	1/3	2/4	1/3	1/3	1/3
4.2	Height mast lowered	h <sub>1</sub>	mm		2450	5200	2450	2450	2450
4.3	Free lift	h <sub>2</sub>	mm		1880	4578	1828	1828	1828
4.4		h <sub>3</sub>	mm		5580	12500	5580	5580	5580
4.5	Height mast extended		mm		6150	13122	6202	6202	6202
4.7	0 , ,	h <sub>6</sub>	mm		2200	2200 (iGo 2500)	2200 (iGo 2500)	2200	2200
4.8	Seat height	h <sub>7</sub>		1140	1140	1140	1140	1140	1140
4.10		h <sub>8</sub>	mm		373	373	373	373	373
4.19	Overall length <sup>2, 5, 6</sup>	l <sub>1</sub>	mm		2484	2556	2556	2556	2556
4.20		I <sub>2</sub>	mm		1334	1406	1406	1406	1406
<u>4.21</u>	Overall width	b <sub>1</sub> /b <sub>2</sub>	mm		1670	1270 (iGo 1440)	1270 (iGo 1440)	1470	1670
_	Fork dimensions DIN ISO 2331	s/e/I		50/100/1150	50/100/1150	50/120/1150	50/120/1150	50/120/1150	50/120/1150
4.23	Fork carriage ISO 2328, class/type A, B			2/A	2/A	2/A	2/A	2/A	2/A
4.24	-		mm		760	760	760	760	760
4.25	Distance between fork arms min./max.			316/620	316/620	336/640	336/640	336/640	336/640
4.26	ů .	b <sub>4</sub>	mm		1320	920	920	1120	1320
4.28		14	mm		623	695 70	695 70	695	695 70
4.31		$m_1$	mm mm		70			70	
4.32	Ground clearance, centre of wheel base	M <sub>2</sub>	mm		70 2892	50 2908 (iGo 3250 <sup>7</sup> )	50 2908 (iGo 3250 <sup>7</sup> )	50 2943	50 2978
	Aisle width for pallets 1000 x 1200 crossways <sup>2</sup> Aisle width for pallets 800 x 1200 lengthways <sup>2</sup>		mm		2936	2937 (iGo 3300 <sup>7</sup> )	2906 (IGO 3250 <sup>7</sup> )	2972	3007
	Turning radius	A <sub>st</sub>	mm		1850	1915	1915	1950	1985
4.33	Length across wheel arms	VVa	mm		1922	2066	2066	2066	2066
	Step height	1/	mm		345	345	345	345	345
5.1	Travel speed laden/unladen			14/14	14/14	14/14 (iGo 6/6)	14/14 (iGo 6/6)	14/14	14/14
5.1.1	•			14/14	14/14	14/14	14/14	14/14	14/14
5.1.1	Lifting speed laden/unladen			0.37/0.58	0.37/0.58	0.34/0.50	0.34/0.50	0.34/0.50	0.34/0.50
5.2 5.3	Lowering speed laden/unladen			0.53/0.50	0.53/0.50	0.52/0.50	0.52/0.50	0.52/0.50	0.52/0.50
8 5.4	Reaching speed laden/unladen		m/s		0.18	0.18	0.18	0.18	0.18
5.7	Gradeability laden/unladen			10/15	10/15	10/15	10/15	10/15	10/15
	Max. gradeability laden/unladen			15/20	15/20	15/20	15/20	15/20	15/20
5.8 5.9	Acceleration time (over 10 m) laden/unladen			4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0	4.5/4.0
2.0	i dan			Regenerative-	Regenerative-	Regenerative-	Regenerative-	Regenerative-	Regenerative-
5.10	Service brake			electric/	electric/	electric/	electric/	electric/	electric/
				hydraulic	hydraulic	hydraulic	hydraulic	hydraulic	hydraulic
6.1	Drive motor rating S2 = 60 min		kW		6.5	6.5	6.5	6.5	6.5
6.2	Lift motor rating S3 = 15 %		kW		14	14	14	14	14
6.3	Battery according to DIN 43531/35/36 A, B, C, no			43531 C/254-2	43531 C/254-2	43531 C/254-2	43531 C/254-2	43531 C/254-2	43531 C/254-2
6.4	Battery voltage/nominal capacity K₅			48/620 Li-lon: 48/817	48/620 Li-lon: 48/817	48/775 Li-Ion: 48/817	48/775 Li-lon: 48/817	48/775 Li-Ion: 48/817	48/775 Li-lon: 48/817
<b>=</b> 6.5	Battery weight (depending on manufacturer ±5 %)			940	940	1120	1120	1120	1120
6.6	Energy consumption according to VDI cycle	k\	Wh/h		3.59	3.59	4.49	4.49	4.49
.:	Operating pressure for attachments		bar		200	200	200	200	200
10.2	Oil volume for attachments		I/min		20	20	20	20	20
10.7	Sound pressure level at driver's seat		dB(A)	69	69	69	69	69	69

All measurements including sideshift mast or sideshift forks (carriage)

<sup>&</sup>lt;sup>1</sup> Values decrease by 72 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;

Values decrease by 90 mm per battery size for larger batteries. Applies to the FM-X N

<sup>&</sup>lt;sup>2</sup> Aisle width for pallet 1000 x 1200 crosswise:

<sup>-</sup> Values increase by 56 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;

<sup>-</sup> Values increase by 74 mm per battery size for larger batteries. Applies to the FM-X N

Aisle width for pallet 800 x 1200 lengthwise:

Values increase by 66 mm per battery size for larger batteries. Applies to the FM-X, FM-X W and FM-X EW;
 Values increase by 85 mm per battery size using larger batteries. Applies to the FM-X N
 May vary according to the mast, with sideshift/fork tilt 2°/4°

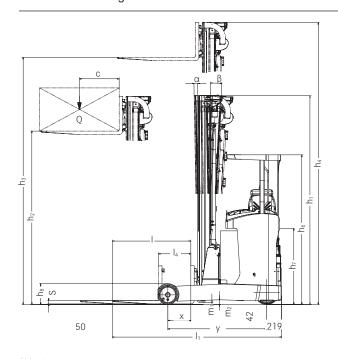
 $<sup>^4</sup>$  With optional cabin/wind protection, height  $h_{\!\scriptscriptstyle 6}$  is 2180 mm

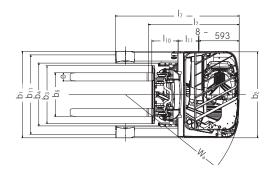
<sup>&</sup>lt;sup>5</sup> With optional cabin, length will be extended by 150 mm

<sup>&</sup>lt;sup>6</sup> Increases in steps of 72 mm for each larger battery size for FM-X, FM-X W, FM-X EW models

Increases in steps of 90 mm for each larger battery size for FM-X N model

7 Based on smallest battery tray. An additional reduction of up to 150 mm is subject to detailed investigation





Side view Top view



## FM-X Driver Seated Reach Truck Mast Tables

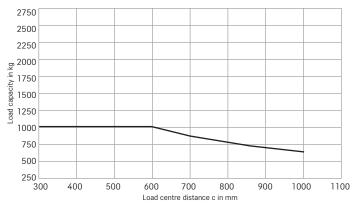


	Triplex							
	Height,			Height,				
	mast lowered h <sub>1</sub> in mm	Free lift h₂ in mm	Lift h₃ in mm	mast extended h <sub>4</sub> in mm				
	1950	1390	4250	4810				
-	2015	1455	4440	5000				
121 EW	2050	1490	4550	5110				
12/ //14	2200	1640	5000	5560				
FM-X 10/10 N - FM-X 12/12 N FM-X 14/14 N/14 W/14 EW	2250	1690	5150	5710				
	2300	1740	5300	5860				
101	2400	1840	5600	6160				
10/	2450	1890	5750	6310				
X-W.	2500	1940	5900	6460				
E -	2600	2040	6200	6760				
	2700	2140	6500	7060				
< 10 < 12	2800	2240	6700	7260				
FM-X 10 FM-X 12	2900	2340	7000	7560				
FM-X 10 N F FM-X 12 N F	2800	2240	6700	7360				
FM-X FM-X	2900	2340	7000	7660				
	2800	2240	6800	7360				
>	2900	2340	7100	7660				
4 EV	3000	2440	7400	7960				
\ \ \	3100	2540	7700	8260				
FM-X 14/14 N/14 W/14 EW	3200	2640	8000	8560				
/N /	3300	2740	8300	8860				
4/1	3400	2840	8600	9160				
×	3500	2940	8900	9460				
₽	3600	3040	9200	9760				
	3700	3140 3240	9500	10060 10360				
	3800 1950	1380	9800 4250	4820				
	2015	1445	4440	5010				
	2050	1480	4550	5120				
	2200	1630	5000	5570				
	2250	1680	5150	5720				
	2300	1730	5300	5870				
	2400	1830	5600	6170				
	2450	1880	5750	6320				
N V	2500	1930	5900	6470				
×	2600	2030	6200	6770				
Ĕ	2700	2130	6500	7070				
Ż	2800	2230	6800	7370				
FM-X 14 N - FM-X 17 N	2900	2330	7100	7670				
Ē	3000	2430	7400	7970				
	3100	2530	7700	8270				
	3200	2630	8000	8570				
	3300	2730	8300	8870				
	3400	2830	8600	9170				
	3500	2930	8900	9470				
	3600	3030	9200	9770				
	3700	3130	9500	10070				
	3800	3230	9800	10370				
- A	3900 4200	3330 3630	10100 <sup>1</sup> 10500 <sup>1</sup>	10670 11070				
FM-X 17/17 N/ FM-X 17 W/17 EW	4300	3730	10800 <sup>1</sup>	11370				
17/ /W/	4400	3830	11100 ¹	11670				
×-\ 	4500	3930	11400 ¹	11970				
FĀ	4700	4130	11800 <sup>1</sup>	12370				
	1700	7100	. 1000	12070				

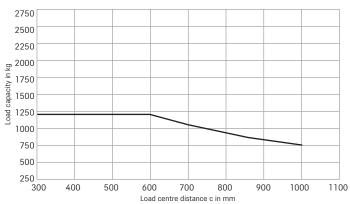
 $<sup>^{\</sup>rm 1}$  Lift height  $h_{\rm 3}$  for iGo trucks: up to 10000 mm

	Triplex			
				Hoight
	Height, mast lowered h <sub>1</sub> in mm	Free lift h <sub>2</sub> in mm	Lift h₃ in mm	Height, mast extended h <sub>4</sub> in mm
	1950	1380	4080	4650
	2015	1445	4270	4840
	2050	1480	4380	4950
	2200	1630	4830	5400
	2250 2300	1680 1730	4980 5130	5550 5700
	2400	1830	5430	6000
	2450	1880	5580	6150
>	2500	1930	5730	6300
FM-X 20/20 N/20 W/20 EW	2600	2030	6030	6600
W/2	2700	2130	6330	6900
/20	2800	2230	6630	7200
N 02	2900	2330	6930	7500
707	3000	2430	7200	7770
×-	3100	2530	7500	8070
Æ	3200	2630	7800	8370
	3300	2730	8000	8570
	3400	2830	8300	8870
	3450 3500	2880	8450 8600	9020 9170
	3600	2930 3030	8900	9470
	3700	3130	9200	9770
	3800	3230	9500	10070
	3900	3330	9800	10370
	4000	3430	10100 ¹	10670
>	4100	3530	10400 ¹	10970
0 E	4200	3630	10700 <sup>1</sup>	11270
FM-X 20/20 W/20 EW	4300	3730	11000 ¹	11570
/20	4400	3830	11300 ¹	11870
< 20	4500	3930	11600 <sup>1</sup>	12170
FM-	4650	4080	12050 1	12620
	5200 5350	4630 4780	12500 <sup>1</sup>	13070 13570
₽				
20 F	5200	4578	12500 <sup>1</sup>	13122
FM-X 20 HD	5350	4728	130001	13622
	1950	1328	4080	4702
	2015	1393	4270	4892
	2050	1428	4380	5002
	2200	1578	4830	5452
	2250	1628	4980	5602
	2300	1678	5130	5752
	2400 2450	1778 1828	5430 5580	6052 6202
	2500	1878	5730	6352
	2600	1978	6030	6652
	2700	2078	6330	6952
	2800	2178	6630	7252
>	2900	2278	6930	7552
.5 E/	3000	2378	7200	7822
W/2	3100	2478	7500	8122
/25	3200	2578	7800	8422
FM-X 25/25 W/25 EW	3300	2678	8000	8622
ΕΨ	3400	2778	8300	8922
	3450	2828	8450	9072
	3500 3600	2878 2978	8600 8900	9222 9522
	3700	3078	9200	9822
	3800	3178	9500	10122
	3900	3278	9800	10422
	4000	3378	10100 ¹	10722
	4100	3478	10400 ¹	11022
	4200	3578	10700 ¹	11322
	4300	3678	11000 1	11622
	4400	3778	113001	11922
	4500 4650	3878 4028	11600 <sup>1</sup> 12050 <sup>1</sup>	12222 12672
	1000	1020	12000	12012

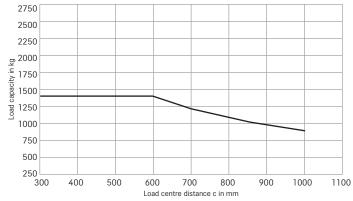
#### Load capacity FM-X 10/10 N



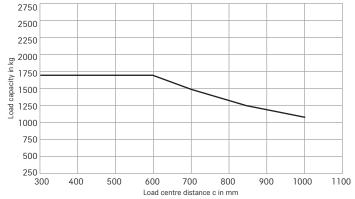
#### Load capacity FM-X 12/12 N



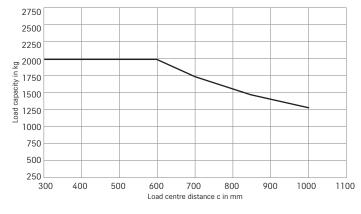
#### Load capacity FM-X 14/14 N/14 W/14 EW



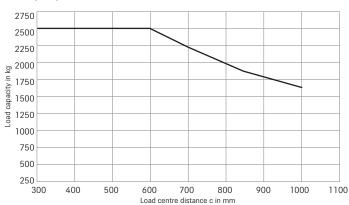
#### Load capacity FM-X 17/17 N/17 W/17 EW



#### Load capacity FM-X 20/20 N/20 W/20 EW/20 HD



#### Load capacity FM-X 25/25 W/25 EW



### FM-X Driver Seated Reach Truck Detailed Photos



Optimal view of goods thanks to unique sideshift mast



Individually adjustable driver workspace



Ergonomic and sensitive control thanks to Joystick 4Plus



Easy operation of all functions without having to change grip thanks to fingertip operation



Ergonomically optimal position thanks to proportional adjustment of seat and footplate  $\label{eq:controlled} % \begin{center} \begin{center$ 

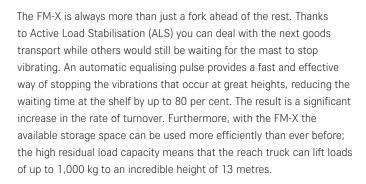


Relaxed view upwards and past the goods thanks to the unique comfortable reclining seat

13 metre lift height with high residual load capacity

Active Load Stabilisation (ALS)

Holistic ergonomics concept





Relaxed, comfortable and safe work throughout the whole shift is guaranteed by the holistic ergonomics concept. Footplate, steering wheel, seat – all these components can be individually adjusted to match the work requirement at hand as well as the stature and preferences of the driver. The FM-X is a compact and efficient energy bundle convincing with top availability thanks to Li-Ion technology. This does not only allow opportunity charging at any time – it is also fast: 50% of the battery is chargeable in only 30 minutes. Many other details, such as the optional tilting seat and the exclusive STILL mast side shift, for example, make the FM-X an ideal organiser in any warehouse – from operating high racks to long distance haul or replenishment.

#### The 'Simply Efficient' factors: Performance attributes as a measure of economic efficiency



#### Simply easy

- Precise height measurement with optical LED lift height sensor
- High handling capacity thanks to optional Easy Target and Easy Target Plus lift height pre-selection
- Precise control of lift functions using optional Joystick 4Plus or Fingertip controls
- Fatigue-free operation thanks to cushioned driver's seat with optional reclining mechanism
- With iGo trucks, further trucks can be added at any time so as to expand transportation capacity



#### Simply powerful

- Impressive goods handling thanks to residual load capacity of 1,000 kg at a height of 13 m, automated with iGo 10 m
- Fast goods handling due to a travel speed of up to 14 km/h, automated with iGo 6 km/h
- Reduced idle time due to high lowering and lifting speeds
- Excellent availability thanks to a battery capacity of up to 930 Ah
- The software-based transport controls for the FM-X iGo enable optimal fleet utilisation, whilst guaranteeing a high level of process reliability, traffic management, visualisation of truck movements, battery charge status monitoring and a reduced error rate the flow of materials and information is always reliable and mapped comprehensively and transparently



#### Simply safe

- Reduced forklift mast vibrations and less damage to goods due to Active Load Stabilisation (ALS) and OptiSpeed (both optional)
- Unobstructed view upwards due to optional armoured glass roof

- Excellent visibility in the warehouse thanks to optional STILL Safety Light
- Safe cornering with (optional) Curve Speed Control based on the steering angle
- FM-X iGo improves transport quality and eliminates the risk of injury and damage to people, trucks, warehouse equipment and goods thanks to smart safety functions



#### Simply flexible

- Clever utilisation of space thanks to retractable mast
- Optimal comfort with a wide range of cab variants and driver workstation settings
- Suitable for a wide range of application scenarios thanks to multiple chassis variants
- iGo trucks can be manually operated if required: this increases flexibility, ensures smooth processes and material flows, and enables easy access to the goods



#### Simply connected

- Operator management, shock detection and controlled access with optional FleetManager 4.x
- With intelligent interface architecture, all automation solutions can communicate with external systems
- Easy integration into material flow management systems thanks to MMS provision
- Different iGo trucks can be combined with one another, with manual transport systems and with stationary automation systems

### FM-X Driver Seated Reach Truck FM-X iGo

Safety guaranteed: smart safety functions increase transport quality and eliminate the risk of injury and damage to people, trucks, warehouse installations and goods

Outstanding process standards: picking errors and empty runs are prevented, increasing the transport quality

Maximum availability: efficient transport control and IT integration enable optimal fleet utilisation around the clock

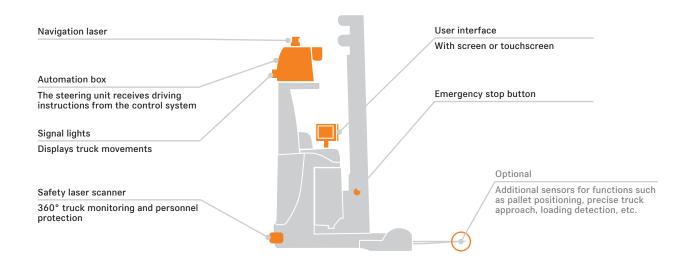
Optimal cost-effectiveness and efficiency thanks to individual automation concepts as well as transparent and optimised continuous material flow



#### iGo - Automated transport solutions

STILL iGo enables automated interaction between one or more different trucks so that transport tasks in the warehouse can be performed without a driver. No matter what your transport task, we have the right automated truck for you. The various trucks in the iGo portfolio assist with incoming and outgoing goods, storage, buffering, order picking, as well as production supply and disposal. The iGo software takes over control and traffic regulation tasks, achieves effective fleet utilisation and monitors all battery charge statuses. Modern navigation technology is used to guide the trucks through the warehouse.

Personnel protection scanners ensure the highest level of safety, while suitable sensors accurately detect pallets. The fully automated STILL devices cooperate effectively with manually controlled and semi-automated transport systems. Automation kits with standardised components, controls and interfaces transform a series truck into an industrial AGV (automated guided vehicle). We offer you reliable and scalable solutions across the entire automation spectrum. With your return on investment always in mind, we will support you all the way: from conception and quoting to implementation and maintenance.



#### Advantages of automated reach trucks

Automated reach trucks such as the FM-X iGo are a real asset for wide-aisle and block storage, both horizontally and vertically. The FM-X iGo is characterised by optimal safety and reliability for driverless transport over long distances. It also offers decisive advantages for transport tasks that require high levels of precision in challenging conditions: Automated handling increases efficiency and process reliability – for example, when storing and retrieving heavy loads at great heights or in fully automated shuttle systems. Automated reach trucks are therefore the perfect solution for current and future intralogistical challenges.

The following safety features are integrated: a safety laser scanner that detects people and objects in the path of travel; visual and acoustic warning systems (e. g. when changing direction of travel); and an emergency stop button that can be used to bring the forklift truck to an immediate standstill. However, we understand that not every technological innovation is financially feasible for the task at hand. We therefore aim to ensure that you do not get lost in the dense jungle of digital Industry 4.0 products, and offer a mix of technical solutions perfectly suited to your needs.



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	FM-X 10	FM-X 10 N	FM-X 12	FM-X 12 N	FM-X 14/W/EW	FM-X 14 N	FM-X 17/W/EW	FM-X 17 N	FM-X 20/W/EW	FM-X 20 N	FM-X 20 HD	FM-X 25/W/EW
Amoured glass overhead guard with headrest	0	0	0	0	0	0	0	0	0	0	0	0
Steering wheel and seat adjustment	•	•	•	•	•	•	•	•	•	•	•	•
Comfortable seat with hydraulic damping and weight adjustment	•	•	•	•	•	•	•	•	•	•	•	•
Comfortable reclining seat	0	_	0	_	0	_	0	_	0	_	0	0
Cushioned driver's seat for optimum comfort on uneven surfaces and when going over bumps	0		0		0		0	_	0		0	0
Heated driver's seat	0	0	0	0	0	0	0	0	0	0	0	0
Leatherette driver's seat	0	0	0	0	0	0	0	0	0	0	0	0
Proportional adjustment of seat and foot plate	0	_	0	_	0	_	0	_	0	_	0	0
Joystick operation (hydraulic control system without changing grip)	•	•	•	•	•	•	0	0	0	•	•	•
Fingertip controls (hydraulic control system with four individual levers)  Five driver profiles, selected according to operator	0	0	0	0	0	0	0	0	0	0	0	0
Integrated storage facilities, cup holder						-		-		-		
Panoramic rear-view mirror												
Display: clear display of active operating states												
Fully electric 360° steering												
Fully electric 180° steering	0	0	0	0	0	0	0	0	0	0	0	0
Fully electric steering with reverse function	0	0	0	0	0	0	0	0	0	0	0	0
Redundant steering safety system	•	•	•	•	•	•	•	•	•	•	•	•
Triple free view mast with free lift	0	0	0	0	0	0	0	0	0	0	•	0
Hydraulic mast for lateral shifting with mast tilt	•	_	•	_	•	_	•	_	•	_	_	•
Hydraulic sideshifter with fork tilt	0	•	0	•	0	•	0	•	0	•	0	0
Mast reach damping system	•	•	•	•	•	•	•	•	•	•	•	•
Free view fork carriage	•	•	•	•	•	•	•	•	•	•	•	•
Ancillary hydraulics, onefold or twofold	0	0	0	0	0	0	0	0	0	0	0	0
Proportional valve technology for sensitive movements	•	•	•	•	•	•	•	•	•	•	•	•
Individual parametrisation options for hydraulic functions	•	•	•	•	•	•	•	•	•	•	•	•
Multiple hydraulic movements can be controlled simultaneously	<u> </u>	•	•	•	•	•	•	•	•	•	•	•
Smooth, continuous acceleration to maximum speed	•	•	•	•	•	•	•	•	•	•	•	•
Maintenance-free drives for driving, steering and lifting	•	•	•	•	•	•	•	•	•	•	•	•
Fully enclosed component which is impervious to dirt and dust	•	•	•	•	•	•	•	•	•	•	•	•
Integral current and temperature sensors for function monitoring	•	•	•	•	•	•	•	•	•	•	•	•
Generator braking system	•	•	•	•	•	•	•	•	•	•	•	•
Energy recovery when braking	•	•	•	•	•	•	•	•	•	•	•	•
Hydraulic impeller brake as additional brake	•	•		•	•	•	•	•	•	•		
Electromagnetic disc brake as parking brake and emergency stop	0	0	0		0	0	0	0	0	0	0	0
PIN code access, keyless, with button	0	0	0	0	0	0	0	0	0	0	0	0
Indicator light  Warning light	0	0	0	0	0	0	0	0	0	0	0	0
Safety Light and Safety Light 4Plus	0	0	0	0	0	0	0	0	0	0	0	0
safety Eight and Safety Eight 47 lds  LED headlights	0	0	0	0	0	0	0	0	0	0	0	0
Overhead guard with Makrolon or mesh grid	0	0	0	0	0	0	0	0	0	0	0	0
Steering angle-dependent speed control	0	0	0	0	0	0	0	0	0	0	0	0
Stroke shut-off for intermediate stroke and/or end stroke limiting	0	0	0	0	0	0	0	0	0	0	0	0
Lift height display	0	0	0	0	0	0	0	0	0	0	0	0
Lift height pre-selection system Easy Target with Easy Target Plus	0	0	0	0	0	0	0	0	0	0	0	0
FleetManager: access authorisation, shock detection, reports	0	0	0	0	0	0	0	0	0	0	0	0
OPTISPEED: lift height and load-dependent speed regulation	0	0	0	0	0	0	0	0	0	0	0	0
Active vibration damping of the mast	_	_	_	_	<b>1</b>	0	<b>●</b> 1	0	<b>●</b> 1	0	•	● 1
Audible driving warning signal (Digisound)	0	0	0	0	0	0	0	0	0	0	0	0
Maximum safety through iGo automation	0	0	0	0	0	0	0	0	0	0	0	0
Battery changing with crane	•	•	•	•	•	•	•	•	•	•	•	•
Battery changing from the side with roller track	0	0	0	0	0	0	0	0	0	0	0	0
Battery compartment for 420-465 Ah battery	•	•	•	•	•	•	•	•		_	_	_
Battery compartment for 480-620 Ah battery	0	0	0	0	0	0	0	0	•	•	_	_
Battery compartment for 600-775 Ah battery					0	0	0	0	0	0	•	•
Battery compartment for 720-930 Ah battery	_	_	_	_	_	_		_	0	0	0	0
204 Ah STILL Li-lon battery	0	0	0	0	0		0/—/—		_		_	_
817 Ah STILL Li-lon battery	0	0	0	0	0	_	0	_	0	_	0	0
Battery transport and changing frame	0	0	0	0	0	0	0	0	0	0	0	0
Various fork lengths	0	0	0	0	0	0	0	0	0	0	0	0
Preparation for data terminal	0	0	0	0	0	0	0	0	0	0	0	0
Automatic fork tilt and sideshift centring at the press of a button  Cold store version	0	0	0	0	0	0	0	0	0	0	0	0
Cold store version  Convenient cold store cab, ISO glazing, heated	0	_	0	_	0	_	0	_	0		0	0
	0	_	0	_	0	_	0	_	0	_	0	0
Convenient cold store cab, VSG glazing, heated  Load backrest	0	0	0	0	0	0	0	0	0	0	0	0
Overhead guard for drive-in racks	0	0	0	0	0	0	0	0	0	0	0	0
Lateral guide wheels for drive-in operation	0	0	0	0	0	0	0	0	0	0	0	0
Impeller cover	0	0	0	0	0	0	0	0	0	0	0	0
Shift and lowering lock	0	0	0	0	0	0	0	0	0	0	0	0
Prong camera system	0	0	0	0	0	0	0	0	0	0	0	0
Dual-pedal control	0	0	0	0	0	0	0	0	0	0	0	0
<sup>1</sup> For fixed mast exceeding 3700 mm in height			Ü	J				Ū			Ü	

<sup>&</sup>lt;sup>1</sup> For fixed mast exceeding 3700 mm in height

● Standard ○ Option — Not available



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STILL is certified in the following areas: Quality management, occupational safety, environmental protection and energy management.

