

**SENSiA EX**

**RBM20-25N2 Series**

# MULTI-WAY REACH TRUCK

2.0-2.5 tonnes

**THE WIDE-LOAD SPECIALIST  
WITH NARROW AISLE AGILITY**

The SENSiA EX multi-way reach truck takes narrow aisles, unusual loads and long shifts in its stride, all while lifting up to 10 metres.

## SPECIFICATIONS

RBM20N2  
RBM25N2



**WHEN  
RELIABILITY IS  
EVERYTHING...**

# SENSiA EX

## RBM20-25N2 Series

### MULTI-WAY REACH TRUCKS

2.0 – 2.5 tonnes



#### BRAKES

- **High-efficiency regenerative braking**  
This gives more effective control and reduces brake wear.
- **Hydraulic load wheel brakes**  
Extra braking power and agile performance.

#### DRIVE

- **Six multiway driving modes, instantly selected by keypad**  
Reach truck, lateral, parallel, auto-transition, rotational and agile cornering.
- **Sensitive Drive System**  
An intuitive driver-assist system for increased safety. Performance is managed according to steer angle and the velocity of foot and finger controls.
- **High-efficiency drive motors and hydraulic systems**  
Exceptional shift length between charges or changes.
- **Wide drive wheel**  
Wheel life is extended through even traction and heat distribution.
- **Next-generation 360° load wheels**  
These feature independently controlled steer motors.
- **Load wheels turn within chassis leg profile**  
Added protection for wheels and loads.
- **Powerful AC drive motor**  
High torque, even at faster speeds. Efficient, smooth, and quiet performance which lowers service costs.

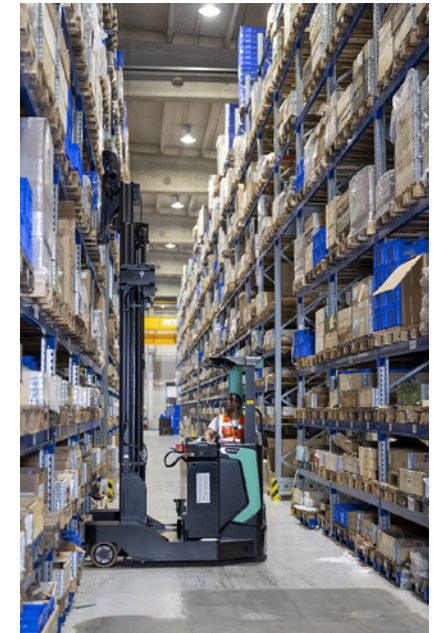
- **Choice of two operation modes (ECO and PRO)**  
The truck's performance can be tailored for enhanced performance or extended shift life.

#### ELECTRICAL AND CONTROL SYSTEMS

- **High performance ZAPI motor drive controller**  
Efficient traction control.
- **Site-specific performance characteristics**  
These can be quickly set by a service engineer.
- **DIN standard battery compartment**  
Wide choice of motive power available.
- **Broad battery change rollers**  
Standard in all models.
- **CAN bus system**  
Less wiring for quick and easy fault finding.
- **Maintenance interval calculator**  
This helps to encourage correct regular servicing to minimise potential downtime.
- **Temperature control**  
This prevents motors and controllers from sustaining damage from overheating.
- **Tilting battery cover**  
Quick, easy access for maintenance and charging.
- **Battery rollers**  
Changes are quick, easy and safe.

#### FORKS AND MAST

- **Smooth mast handling system on lift and reach**  
Steady, predictable and precise handling.
- **Wide fork positioner with up to 2200mm spread and fork tilt**  
Handles both long loads and standard pallets.
- **Exceptionally smooth 'no knock' transition between mast stages**  
Exact performance is ensured throughout lift range.
- **Passive Sway Control**  
The chassis moves slightly to compensate for elevated load motion and dampen it.
- **Electronic mast cushioning at top and bottom of travel**  
This avoids end-of-range jolting and further reduces load oscillation.
- **Long-life reach roller rails and rapid part exchange**  
Maintenance hours are minimised.
- **Lift heights up to 10 metres**  
Allows handling at high levels.
- **Lift height indicator**  
Displays on the main screen.



For more information on SENSiA EX please visit our website



[mft2.eu/sensiaex](http://mft2.eu/sensiaex)

# SENSiA EX

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### MULTI-WAY REACH TRUCKS

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#### FRAME AND BODY

- **Choice of 2000kg and 2500kg capacities**  
Truck can be configured for different applications.
- **Robust chassis**  
The truck has great inherent strength and high residual values.
- **RapidAccess 'tilt-swing' access panels, seat and steering column**  
Quick, easy access for internal repairs.
- **Clearview overhead guard**  
Slim, angled slats give optimal view upwards without compromising safety.

#### OPERATOR COMPARTMENT AND CONTROLS

- **Dual joysticks**  
Dual joysticks offer simultaneous functions for lift and tilt, and settings can be customised to user requirements.
- **Spacious and comfortable operator compartment**  
Operator fatigue is reduced, even on long shifts, keeping productivity high.
- **Wide choice of comfortable seats**  
Options include air suspension, lumbar support, arm and head-rests, seat heater and more.



- **Multifunctional armrest with fingertip controls**  
Operators' arm is well supported and cuts down on unnecessary movement. Patented fingertip controls have modulated response curves for natural movement.
- **Ergonomic armrest**  
Adjustable and matches natural operating position to reduce fatigue.
- **Clear information display**  
The driver is given key information such as guidance, warning, and alarms.
- **Contactless pedal sensor**  
This contributes to a longer service life.
- **Folding steering wheel console**  
Adjustable column length and angle to adapt driving position to different drivers.
- **Ergonomic pedal set design**  
Operators get familiar, natural control and minimal fatigue.
- **Solid overhead guard panel above driver**  
Additional safety without restricting visibility.
- **Low-effort, small-radius steering wheel**  
Comfortable and effortless to operate.

- **Generous driver storage spaces**  
Ample room for documents, tools, pens, etc.
- **QuickLocker**  
Small items can be conveniently stowed.
- **Low dashboard**  
Unobstructed forwards view to low loads.
- **SoftTouch cabin surfaces**  
The working environment is comfortable.
- **Multi-lingual screen**  
Supports over 20 languages.
- **Easy-access compartment**  
This features ergonomic hand bars, low non-slip step and entry provides safe and effortless entry and exit.

#### STEERING SYSTEM

- **Unlimited 360° progressive electric steering**  
Manoeuvring is easy at low speeds and offers effortless control at higher speeds.



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# SENSIA EX

## OPTIONAL LI-ION BATTERY SYSTEMS

### MAKE YOUR FORKLIFT GO EVEN FURTHER



**Tried, tested and proven in the field, lead-acid batteries have been the long-standing choice for companies employing electric lift trucks. However, with long charging times, demanding maintenance requirements, the need for extra batteries, and high risk of operator misuse, day-to-day use can be a challenge.**

Fortunately, there's a new battery system on the block: Li-ion from Mitsubishi Forklift Trucks.

Designed to meet your business' demands — including multi-shift (24/7) operations — without the need for spare batteries, our high-performance Li-ion battery system is up to 30% more efficient than lead-acid counterparts. Plus, it's virtually error-proof, thanks to its ultra-low-maintenance design which prevents cell damage.

- **Gas-emission free**  
No need for air ventilation.

- **Exceptional high battery and charger efficiency**  
State-of-the-art technology delivers up to 30% more power efficiency than lead-acid batteries.
- **Maintenance-free design**  
No need for daily checks and water re-fills. This reduces the risk of operators damaging cells and reducing their lifetime. Needs a full charge each week to activate cell balancing.
- **No need for spare batteries or charging room**  
You can save both space and costs in multi-shift applications, maximising profitability.
- **Quick charge capabilities**  
Just 15 minutes is all your battery needs to keep your truck going for a few more hours. It only takes 1 to 2 hours to fully charge a completely discharged battery.

- **Higher sustained voltage**  
This gives more consistent lifting and driving performance — particularly noticeable towards the end of a shift.
- **Multiple safety features**  
This includes circuit protection, deep-discharge and overcharge protection, and individual cell temperature and voltage monitoring.
- **On-the-go performance and monitoring**  
The system's integrated monitoring system has an easy-to-read display unit.
- **Wide choice of battery and charger capacities**  
The most suitable power supply can be matched to the exact requirements of a specific application.



**Clean Li-ion batteries are ideal for sensitive environments such as those in the food or packaging industries.**

**Fully integrated Li-ion battery**

Features a sophisticated CANbus communication and an automatic ON/OFF synchronization between battery and truck. Battery level, notifications and alarms are integrated into the truck display, to secure clear and easy overview for the truck operator.

**For more information on Li-ion please visit our website**



Li-ion battery option is available in selected regions.  
Continuing improvement may lead to changes in these specifications

# VDI - PERFORMANCE & DIMENSIONS

CHARACTERISTICS				Mitsubishi Forklift Trucks	
				RBM20N2	RBM25N2
1.1	Manufacturer			Battery	Battery
1.2	Manufacturer's model designation			Seated	Seated
1.3	Power source			2000	2500
1.4	Operator type			600	600
1.5	Load capacity	Q	kg	337	337
1.6	Load center distance	c	mm	1552	1552
1.8	Load wheel axle to fork face (forks lowered)	x	mm		
1.9	Wheelbase	y	mm		
WEIGHT					
2.1b	Truck weight without load, with maximum battery weight		kg	4888 <sup>5)</sup>	5284 <sup>6)</sup>
2.3	Axle loadings without nominal load & maximum battery weight, drive / load side		kg	2672 / 2 × 1108 <sup>5)</sup>	2907 / 2 × 1188 <sup>6)</sup>
2.4	Axle loading, mast forward, with nominal load, drive / load side		kg	591 / 2 × 3148 <sup>5)</sup>	521 / 2 × 3631 <sup>6)</sup>
2.5	Axle loading, mast retracted, with nominal load, drive / load side		kg	2292 / 2 × 2298 <sup>5)</sup>	2292 / 2 × 2298 <sup>6)</sup>
WHEELS, DRIVE TRAIN					
3.1	Tyres: PT = Power Thane, Vul = Vulkollan, P = Polyurethane, N = Nylon, R = Rubber drive / load side			Vul	Vul
3.2	Tyre dimensions, drive side		mm	Ø360 × 140	Ø360 × 140
3.3	Tyre dimensions, load side		mm	Ø285 × 75 × 2	Ø285 × 75 × 2
3.5	Number of wheels, load / drive side (x = driven)			2 + 2 / 1 x	2 + 2 / 1 x
3.7	Track width (center of tyres), load side	b11	mm	1384	1384
DIMENSIONS					
4.1	Fork tilt, forwards / backwards	α, β	°	2.0 / 6.0	2.0 / 6.0
4.2a	Height with mast lowered	h1	mm	see table	see table
4.3	Free lift	h2	mm	see table	see table
4.4	Lift height	h3	mm	see table	see table
4.5	Height with mast extended	h4	mm	see table	see table
4.7	Height to top of overhead guard	h6	mm	2190	2190
4.8	Seat- or stand height	h7	mm	1.030 <sup>1)</sup>	1.030 <sup>1)</sup>
4.10	Height of support legs	h8	mm	447	447
4.15	Fork height, fully lowered	h13	mm	50	65
4.19	Overall length	l1	mm	2630	2630
4.20	Length to fork face	l2	mm	1480	1480
4.21	Overall width	b1/b2	mm	1730	1730
4.22	Fork dimensions (thickness, width, length)	s/e/l	mm	50 / 120 / 1150	50 / 120 / 1150
4.24	Fork carriage width	b3	mm	1700 / 2200	1700 / 2200
4.25	Outside width over forks (minimum / maximum)	b5	mm	500 - 1700 / 2200	500 - 1700 / 2200
4.26	Inner width of support legs	b4	mm	900	900
4.28	Mast reach	l4	mm	610	610
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2	mm	75	75
4.33a	Working aisle width (Ast) with 1000 x 1200 mm pallets, load crosswise	Ast	mm	2887	2887
4.34b	Working aisle width (Ast3) with 800 x 1200 mm pallets, load lengthwise	Ast3	mm	2850	2850
4.35	Turning radius	Wa	mm	1787	1787
4.37	Truck length including support legs	l7	mm	1982	1982
PERFORMANCE					
5.1	Travel speed, with / without load		km/h	14 / 14 <sup>4)</sup>	14 / 14 <sup>4)</sup>
5.2	Lifting speed, with / without load		m/s	0.43 / 0.58	0.39 / 0.58
5.3	Lowering speed, with / without load		m/s	0.50 / 0.55	0.50 / 0.55
5.5	Rated drawbar pull, with / without load		N	0.1 / 0.1	0.1 / 0.1
5.8	Maximum gradeability with / without load		%	11.0 / 17.0	11.0 / 17.0
5.9	Acceleration time (10 metres) with / without load		s	5.4 / 5.0	5.6 / 5.1
5.10	Service brakes (mechanical / hydraulic / electric / pneumatic)			Electric	Electric
ELECTRIC MOTORS					
6.1	Drive motor capacity (60 min. short duty)		kW	7.5	7.5
6.2	Lift motor output at 15% duty factor		kW	14	14
6.4	Battery voltage/capacity at 5-hour discharge		V/Ah	48-775 / 930	48-775 / 930
6.5	Battery weight		kg	1100 / 1300	1100 / 1300
6.6b	Energy consumption according to VDI 60 cycle		kWh / h	4.5 <sup>7)</sup>	4.5 <sup>7)</sup>
MISCELLANEOUS					
8.1	Type of drive control			Stepless	Stepless
10.7	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871 in work LpAZ		dB(A)	68	68
10.7.1	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 4871, drive/lift/idle LpAZ		dB(A)	80	80
10.7.2	Whole-body vibration (EN 13 059:2002)			0.5	0.5
10.7.3	Hand-arm vibration (EN 13 059:2002)			< 2.5	< 2.5

**SENSIA EX**

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2.0 – 2.5 tonnes



- 1) Measured with standard seat to SIP point
- 4) Max drive speed to fork direction 9 km / h
- 5) Weight values measured with 5700mm lift height mast & 775Ah battery
- 6) Weight values measured with 10000mm lift height mast & 930Ah battery
- 7) Energy consumption values measured with 5700mm lift height mast

# MAST PERFORMANCE AND CAPACITY

**SENSIA EX**

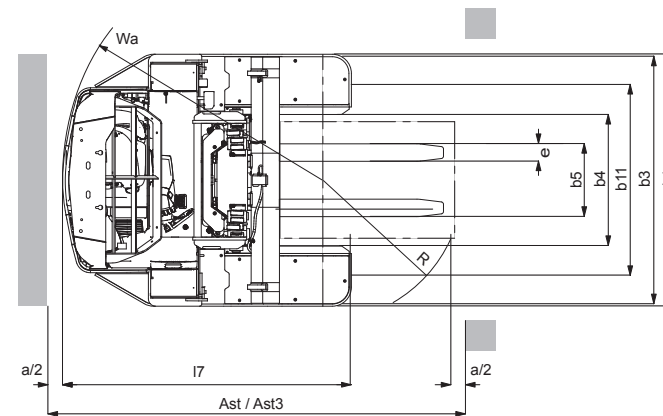
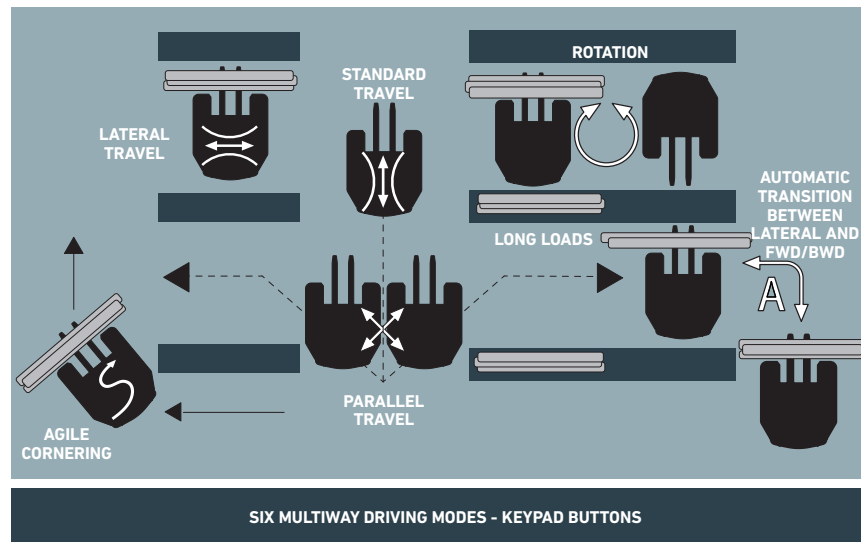
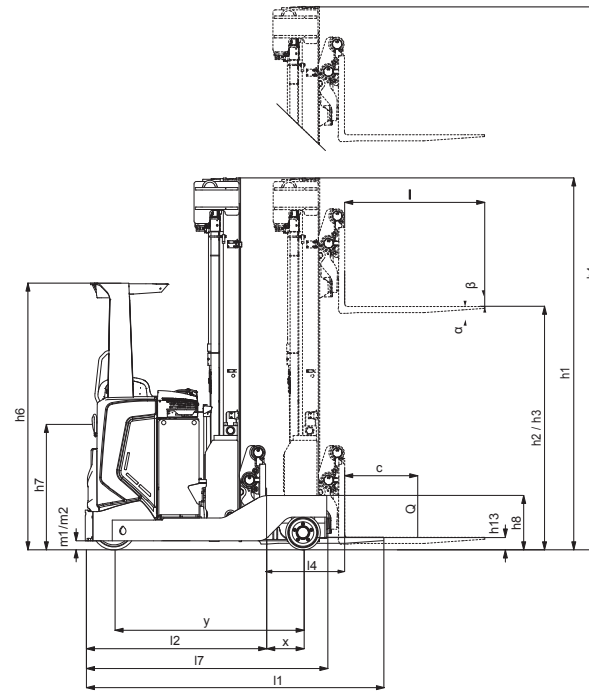
## RBM20-25N2 Series

RBM20N2 / RBM25N2				
MAST TYPE	h1 mm	h2 mm	h3 mm	h4 mm
TREV	2230	1655	4800	5630
	2510	1800	5400	6200
	2610	1900	5700	6500
	2677	1967	5900	6700
	2810	2100	6300	7100
	3043	2333	7000	7800
	3210	2500	7500	8300
	3377	2666	8000	8800
	3543	2833	8500	9300
	3710	3000	9000	9800
3877	3167	9500	10300	
4043	3334	10000*	10800	

TREV = Triplex with free lift  
 h1 = Lowered mast height  
 h2 = Free lift  
 h3 = Lift height  
 h4 = Raised mast height

Ast = Working aisle width with load  
 Ast =  $Wa + R + a$   
 Ast3 = Working aisle width (b12 < 1000 mm)  
 Ast3 =  $Wa + l6 - x + a$   
 Wa = Turning radius  
 R =  $\sqrt{(l6 + x)^2 + (b12 / 2 - b13)^2}$   
 a = Safety clearance = 2 x 100 mm  
 l6 = Pallet length (1200 mm)  
 x = Load wheel axle to fork face  
 b12 = Pallet width (800 or 1000 mm)  
 Q = Lifting capacity, rated load  
 c = Load centre (distance)

MODEL	BATTERY CAPACITY	BATTERY WEIGHT	4.33a	4.34b	4.28	4.20	4.19	1.8
			(1000 x 1200mm crosswise)	(800 x 1200mm lengthwise)				
	Ah	kg	AST	AST3	L4	L2	L1	x
RBM20N2 / RBM25N2	775	1100	2887	2850	610	1480	2630	337
RBM20N2 / RBM25N2	930	1300	2887	2850	610	1480	2630	337



# STANDARD EQUIPMENT & OPTIONS

- = Standard
- = Option

	RBM20N2	RBM25N2
<b>GENERAL</b>		
Operator selectable economy or high performance modes ECO/PRO	●	●
Multifunctional colour display (Hour-meter, BDI, Drive speed, time & date display)	●	●
360 degree steering with fully adjustable steering column	●	●
Drive speed limitation according to lift height	●	●
Load wheel brakes	●	●
Trucktool setup and diagnostics	●	●
Lateral battery change, chassis integrated roller bed	●	●
Key switch	●	●
PIN code access with start switch	●	●
Finger-tip hydraulics	●	●
<b>POWER SOURCE</b>		
Li-ion battery*	●	●
Lead-acid battery	●	●
<b>MAST, FORKS AND CARRIAGE</b>		
Fork positioner, width over forks 500 -1.700mm	●	●
Fork positioner, width over forks 500 - 2.200mm	●	●
<b>DRIVE AND LIFT CONTROLS</b>		
Variable speed control on all hydraulic controls	●	●
Curve control	●	●
Armrest direction control	●	●
6 multiway steering modes	●	●
Electric load wheel brakes	●	●
Dual joystick	●	●
<b>ELECTRIC</b>		
Blue point safety light, towards driving direction	●	●
Reading lamp	●	●
Drive light LED	●	●
Working lights LED, mounted on mast towards fork direction	●	●
Warning light (yellow) on the roof	●	●
Drive alarm	●	●
Pin code access	●	●
Current output	●	●
Audio system, incl. speakers, 3.5mm jack connector	●	●

\* Li-ion battery option is available in selected regions.

**SENSIA EX**

**RBM20-25N2 Series**

**MULTI-WAY REACH TRUCKS**

2.0 – 2.5 tonnes



Multifunctional colour display



Li-ion battery\*



Dual joystick

# STANDARD EQUIPMENT & OPTIONS

- = Standard
- = Option

	RBM20N2	RBM25N2
<b>OHG AND CABIN</b>		
Grammer MSG20 cloth seat	●	●
Seat belt for MSG20	●	●
Grammer MSG65 cloth seat with seat belt	●	●
Grammer MSG65 cloth seat with seat belt interlock switch	●	●
Grammer MSG65 cloth seat with heating	●	●
Backrest extension for MSG65 seat	●	●
Grammer MSG75 with air suspension, safety belt, arm rest and backrest extension	●	●
Grammer MSG75 cloth seat with seat belt interlock switch	●	●
Grammer MSG75 cloth seat with heating	●	●
Rear view mirror, wide view	●	●
Plexi or steel net roof cover	●	●
Fire extinguisher	●	●
Accessory rack	●	●
A4 list bracket	●	●
Computer bracket	●	●
Operator compartment fan	●	●
<b>WHEEL OPTIONS</b>		
"Powerthane" polyurethan traction and load wheels	●	●
"Vulkollan" traction and load wheels	●	●
Grooved "vulkollan" traction and load wheels	●	●
Power friction traction wheel	●	●
Anti static wheel set	●	●
<b>ENVIRONMENT</b>		
Hot storage modification > 40C°	●	●

## SENSIA EX

### RBM20-25N2 Series

### MULTI-WAY REACH TRUCKS

2.0 – 2.5 tonnes



Blue point safety light



Drive light LED



Grammer cloth seat with seat belt



# WHEN RELIABILITY IS EVERYTHING...



**SENSiA**  
**TOTAL DRIVER CONTROL**

Instant driveability, thanks to custom performance modes, means our SENSiA reach truck offers class leading performance... in any workplace.

With a wealth of smart design features, including revolutionary fingertip controls, sway control systems and 360-degree visibility, SENSiA provides operators unparalleled comfort, unrivalled support ... and absolute control.

Like any product bearing the "MITSUBISHI" name our materials handling equipment benefits from the tremendous heritage, huge resources and cutting-edge technology of one of the world's largest corporations – Mitsubishi Heavy Industries Group.

Engineering spacecraft, jet planes, power plants and more, MHI specialises in those technologies where performance, dependability and superiority decide your success or failure...

So when we promise you quality, reliability and value for money, you know it's a guarantee we have the power to deliver.

That's why every model in our award-winning and comprehensive range of lift trucks and warehouse equipment is built to a high specification – to ensure it keeps working for you. Day after day. Year after year. Whatever the job. Whatever the conditions.

## YOU'LL NEVER WORK ALONE

As your local authorised dealer, we are here to keep your trucks working – through our extensive experience, our technical excellence and our commitment to customer care.

We are your local experts, backed by efficient channels to the entire organisation of Mitsubishi Forklift Trucks.

No matter where you are, we are close by – with the capability to meet your needs.

Discover how Mitsubishi Forklift Trucks give you more from your local authorised dealer or when you visit our website [www.mitforklift.com](http://www.mitforklift.com)

Performance specifications may vary depending on standard manufacturing tolerances, vehicle condition, types of tyres, floor or surface conditions, applications or operating environment. Trucks may be shown with non-standard options. Specific performance requirements and locally available configurations should be discussed with your distributor of Mitsubishi forklift trucks. We follow a policy of continual product improvement. For this reason, some materials, options and specifications could change without notice.

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