

# SENSiA

Reach Trucks • AC Power  
1.4 – 2.5 tonnes

## Reaching new heights of performance... and business productivity

**A warehouse can only perform as effectively as its trucks and their drivers. That's why every Mitsubishi reach truck is specially engineered to take any operator's performance to the next level.**

With class-leading travel speeds of up to 14km/h, SENSiA reach trucks are easily tailored to your needs with a choice of two performance modes. While experienced drivers will fully exploit the high-performance capability of the Professional (PRO) mode, new or inexperienced warehouse staff will respond to the Ecologic (ECO) mode which has been configured to work naturally and economically in any environment. For more specific needs, the truck's settings can be customised by a service engineer.

Generous on operator space and comfort, SENSiA drives productivity higher through its futuristic fingertip control system – the most sensitive and accurate in the world. With its progressive, modulated fingertip response curves, it delivers a 'feel' and an accuracy that put drivers in total control. Together with the ergonomic armrest, SENSiA ensures operators stay focused, safe and productive – even through the longest shifts.

### Frame and body

- **Exceptional visibility** through clear-view overhead guard ensures precise handling with total confidence.

### Mast and fork assembly

- **Revolutionary Visionmast** offers unrivalled forward vision and superb lifting ability.
- **Clear-view fork carriage** with integral side shift offers optimal visibility of forks at first stacking level.
- **Exceptionally smooth 'no knock' transition** between mast stages – ideal for handling fragile goods – ensures controlled performance.

### Drive

- **Powerful AC drive motor** provides high torque, even at fast speeds, for rapid acceleration and smooth, quiet, controlled, efficient operation – and lowers service costs.
- **High energy drive motors** and hydraulic systems deliver exceptional shift length between charges or changes.
- **Choice of two driving modes (ECO and PRO)** tailors the truck's performance profile to your precise needs.
- **PRO mode** with high performance settings gives experienced operators complete control of the truck's efficiency and performance.
- **ECO driving mode** encourages natural, efficient operations – reducing fuel costs.
- **Cornering control** optimises speed on curves for efficient and stable performance even at fast travel speeds.

RB14N2S  
RB14N2HS  
RB16N2S  
RB16N2HS  
RB16N2  
RB16N2H  
RB16N2C  
RB16N2HC  
RB20N2H  
RB20N2X  
RB25N2X



Characteristics						
1.1	Manufacturer			Mitsubishi	Mitsubishi	Mitsubishi
1.2	Manufacturer's model designation			RB14N2S	RB14N2HS	RB16N2S
1.3	Power source: (battery, diesel, LP gas, petrol)			Battery	Battery	Battery
1.4	Operator type: pedestrian, (operator)-standing, -seated			Seated	Seated	Seated
1.5	Load capacity	Q	(kg)	1400	1400	1600
1.6	Load center distance	c	(mm)	600	600	600
1.8	Load wheel axle to fork face (forks lowered)	x	(mm)	281	199	281
1.9	Wheelbase	y	(mm)	1300	1300	1300
Weight						
2.1*	Truck weight with load, with maximum battery weight		(kg)	4970	5697	5191
2.3	Axle loadings without load & with maximum battery weight, drive / load side		(kg)	2041/1529	2318/1979	2041/1550
2.4	Axle loading, mast forward, with nominal load, drive / load side		(kg)	721/4249	814/4883	706/4486
2.5	Axle loading, mast retracted, with nominal load, drive / load side		(kg)	1706/3264	1983/3714	1686/3506
Tyres						
3.1	Tyres: PT=Power Thane, Vul=Vulkollan, drive / load side			PT	Vul	PT
3.2	Tyre dimensions, drive side		(mm)	Ø360*140	Ø360*140	Ø360*140
3.3	Tyre dimensions, load side		(mm)	Ø285 × 75	Ø285 × 75	Ø285 × 75
3.5	Number of wheels, load / drive side, (x=driven)			2 / 1x	2 / 1x	2 / 1x
3.7	Track width (center of tyres), load side	b11	(mm)	1195	1195	1195
Dimensions						
4.1	Fork tilt, forwards / backwards	α/β	(°)	2 / 4	2 / 4	2 / 4
4.2	Height with mast lowered	h1	(mm)	see table	see table	see table
4.3	Free lift	h2	(mm)	see table	see table	see table
4.4	Lift height	h3	(mm)	see table	see table	see table
4.5	Height, mast extended	h4	(mm)	see table	see table	see table
4.7	Height to top of overhead guard	h6	(mm)	2200	2200	2200
4.8**	Seat- or stand height	h7	(mm)	1030	1030	1030
4.10	Height of support legs	h8	(mm)	360	360	360
4.15	Fork height, fully lowered	h13	(mm)	85	85	85
4.19	Overall length	l1	(mm)	2404	2486	2404
4.20	Length to fork face	l2	(mm)	1254	1336	1254
4.21	Overall width	b1/b2	(mm)	1270	1270	1270
4.22	Fork dimensions (thickness, width, length)	s / e / l	(mm)	40 / 100 / 1150	40 / 100 / 1150	40/100/1150
4.23	Fork carriage to DIN 15173			FEM 2A	FEM 2A	FEM 2A
4.24	Fork carriage width	b3	(mm)	720	720	720
4.25	Outside width over forks (minimum / maximum)	b5	(mm)	315-710	315-710	315-710
4.26	Innerwidth of the support legs	b4	(mm)	1070	1070	1070
4.28	Mast reach	l4	(mm)	463	381	463
4.32	Ground clearance at center of wheelbase, (forks lowered)	m2	(mm)	75	75	75
4.33/a	Working aisle width (Ast) with 1000 x1200 mm pallets, load crosswise	Ast	(mm)	see table	see table	see table
4.34/a	Working aisle width (Ast) with 800 x1200 mm pallets, load lengthwise	Ast	(mm)	see table	see table	see table
4.35	Turning radius	Wa	(mm)	1541	1541	1541
4.37	Truck length including support legs	l7	(mm)	1693	1693	1693
Performance						
5.1*****	Travel speed, with / without load		(km/h)	12 / 12	12 / 12	12 / 12
5.2	Lifting speed, with / without load		(m/s)	0.4 / 0.65	0.4 / 0.7	0.4 / 0.65
5.3	Lowering speed, with / without load		(m/s)	0.55 / 0.5	0.55 / 0.5	0.55 / 0.5
5.4	Reach speed, with / without load		(m/s)	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2
5.8	Maximum gradeability, with / without load		(%)	10 / 15	10 / 15	10 / 15
5.9	Acceleration time (10 metres) with / without load		(s)	5.0 / 4.5	4.8 / 4.4	5.0 / 4.5
5.10	Service brake			Electric	Electric	Electric
Electric motors						
6.1	Drive motor capacity ( S2 60 min. short duty)		(kW)	7.5	7.5	7.5
6.2	Lift motor output at S3 15% duty factor		(kW)	10	14	10
6.4	Battery voltage/capacity at 5-hour discharge		(V/Ah)	48 / 465, 620, 775	48 / 620, 775	48 / 465, 620, 775
6.5	Battery weight		(kg)	700, 900, 1100	900, 1100	700, 900, 1100
Miscellaneous						
8.1	Type of drive control			Stepless	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))	66	63	66
10.7.1***	Level of noise at the ear level of the driver according to EN 12 053:2001 and EN ISO 487, drive/lift/idle LpAZ		(dB(A))	58 / 73 / 50	61 / 69 / 48	58 / 73 / 50
****	Body tremble according to EN 13 059:2002		(m/s <sup>2</sup> )	0.31	0.31	0.31
****	Hand tremble according to EN 13 059:2002		(m/s <sup>2</sup> )	< 2.5	< 2.5	< 2.5

\*\* Measured with standard seat.

\*\*\* Inaccuracy of 4dB (A)

\*\*\*\* Body tremble measured with air suspended seat

\*\*\*\*\* Max drive speed to fork direction 9 km / h

	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi	Mitsubishi
	RB16N2HS	RB16N2	RB16N2H	RB16N2C	RB16N2HC	RB20N2H	RB20N2X	RB25N2X
	Battery	Battery	Battery	Battery	Battery	Battery	Battery	Battery
	Seated	Seated	Seated	Seated	Seated	Seated	Seated	Seated
	1600	1600	1600	1600	1600	2000	2000	2500
	600	600	600	600	600	600	600	600
	199	331	249	327	228	399	389	389
	1300	1350	1350	1400	1400	1500	1500	1500
	5897	5445	6171	5109	5639	6570	7065	7156
	2318/1979	2114/1731	2389/2182	1958/1551	2114 / 1925	2435/2135	2620/2445	2466/2190
	814/4883	735/4709	833/5338	628/4480	614 / 5024	910/5660	680/6385	675/6480
	1983/3714	1745/3699	2020/4151	1602/3507	1759 / 3880	2020/4550	2090/4975	1947/5208
	Vul	PT	Vul	PT	Vul	Vul	Vul	Vul
	Ø360*140	Ø360*140	Ø360*140	Ø360*140	Ø360*140	Ø360*140	Ø360*140	Ø360*140
	Ø285 × 75	Ø285*130	Ø285*130	Ø285 × 75	Ø285 × 75	Ø285*130	Ø285*130	Ø285*130
	2 / 1x	2 / 1x	2 / 1x	2 / 1x	2 / 1x	2 / 1x	2 / 1x	2 / 1x
	1195	1140	1140	1025	1025	1140	1310	1310
	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4	2 / 4
	see table	see table	see table	see table	see table	see table	see table	see table
	see table	see table	see table	see table	see table	see table	see table	see table
	see table	see table	see table	see table	see table	see table	see table	see table
	see table	see table	see table	see table	see table	see table	see table	see table
	2200	2200	2200	2200	2200	2200	2200	2200
	1030	1030	1030	1030	1030	1030	1030	1030
	360	360	360	360	360	360	360	360
	85	85	85	85	85	85	85	85
	2486	2404	2486	2458	2558	2486	2496	2496
	1336	1254	1336	1308	1408	1336	1346	1346
	1270	1270	1270	1100	1100	1270	1440	1440
	40 / 100 / 1150	40 / 100 / 1150	40 / 100 / 1150	40 / 100 / 1150	40 / 100 / 1150	50 / 100 / 1150	50 / 100 / 1150	50 / 100 / 1150
	FEM 2A	FEM 2A	FEM 2A	FEM 2A	FEM 2A	FEM 2A	FEM 2A	FEM 2A
	720	720	720	720	720	720	720	720
	315-710	315-710	315-710	315-710	315-710	315-710	315-710	315-710
	1070	900	900	900	900	900	1070	1070
	381	513	432	510	410	582	572	572
	75	75	75	75	75	75	75	75
	see table	see table	see table	see table	see table	see table	see table	see table
	see table	see table	see table	see table	see table	see table	see table	see table
	1541	1629	1629	1629	1629	1735	1749	1749
	1693	1793	1793	1793	1793	1893	1893	1893
	12 / 12	12 / 12	14 / 14	12 / 12	12 / 12	14 / 14	11 / 14	11 / 14
	0.4 / 0.7	0.4 / 0.65	0.4 / 0.7	0.4 / 0.65	0.4 / 0.7	0.4 / 0.7	0.4 / 0.7	0.3 / 0.7
	0.55 / 0.5	0.55 / 0.5	0.55 / 0.5	0.55 / 0.5	0.55 / 0.5	0.55 / 0.5	0.55 / 0.5	0.55 / 0.5
	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2
	10 / 15	10 / 15	10 / 15	10 / 15	10 / 15	10 / 15	10 / 15	10 / 15
	4.8 / 4.4	5.0 / 4.5	4.8 / 4.6	5.0 / 4.5	4.8 / 4.8	4.8 / 4.4	5.2 / 4.4	5.2 / 4.4
	Electric	Electric	Electric	Electric	Electric	Electric	Electric	Electric
	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
	14	10	14	10	14	14	14	14
	48 / 620, 775	48 / 465, 620, 775	48 / 620, 775	48 / 465, 620	48 / 620	48 / 620, 775, 930	48 / 620, 775, 930	48 / 620, 775, 930
	900, 1100	700, 900, 1100	900, 1100	700, 900	900	900, 1100, 1300	900, 1100, 1300	900, 1100, 1300
	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless	Stepless
	63	66	63	66	63	63	63	63
	61 / 69 / 48	58 / 73 / 50	61 / 69 / 48	58 / 73 / 50	61 / 69 / 48	61 / 69 / 48	61 / 69 / 48	61 / 69 / 48
	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5

Continuing improvement may lead to changes in these specifications.

# SENSiA

## TOTAL DRIVER CONTROL

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

For new or temporary drivers, SENSiA has the Eco-mode (which also extends shift life) while the high performance PRO mode allows experienced operators to maximise productivity.

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.

$$Ast = Wa + R + a$$

Ast = Working aisle width

Wa = Turning radius

a = Safety clearance = 2 x 100 mm

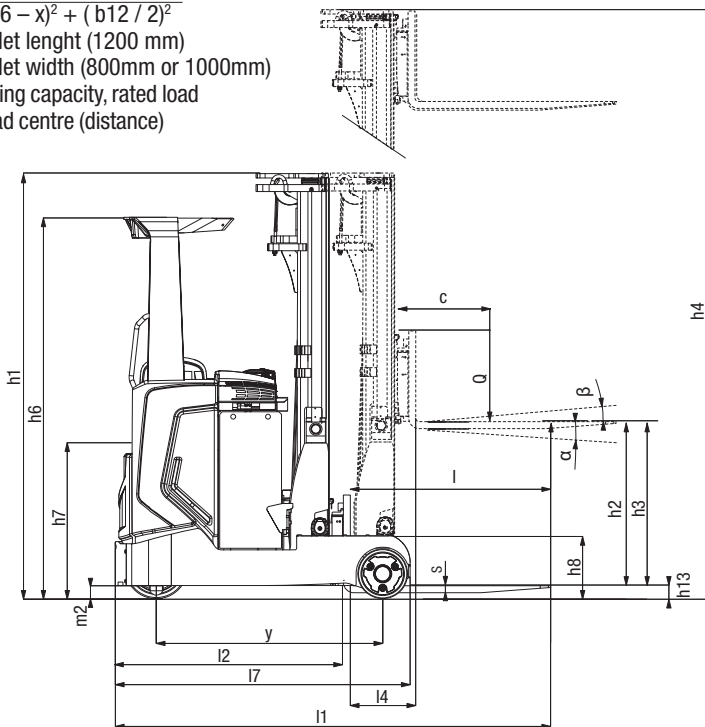
$$R = \sqrt{(l6 - x)^2 + (b12 / 2)^2}$$

l6 = Pallet length (1200 mm)

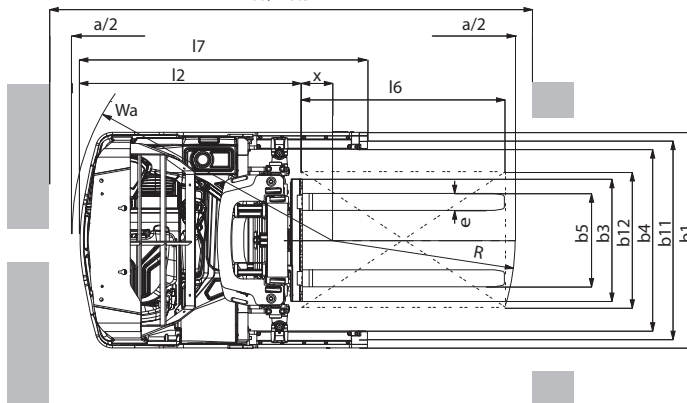
b12 = Pallet width (800mm or 1000mm)

Q = Lifting capacity, rated load

c = Load centre (distance)



Ast / Ast3



Easy-access cabin



Spacious, comfortable cabin



Ergonomic armrest controls



Exceptional visibility



Clear, informative display

## Mast Performance and Capacity

RB14N2S, RB16N2S, RB16N2, RB16N2C				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 <sup>1)</sup> mm
Triplex	4800	2210	1560	5630
	5400	2410	1760	6230
	5700	2510	1860	6530
	5900	2577	1927	6730
	6300	2710	2060	7130
	7000	2943	2293	7830
	7500	3110	2460	8330

RB14N2HS, RB16N2HS, RB16N2HC				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 <sup>1)</sup> mm
Triplex	8000	3297	2647	8830
	8500	3463	2813	9330
	9000	3785	3135	9830

RB16N2H				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 <sup>1)</sup> mm
Triplex	8000	3297	2647	8830
	8500	3463	2813	9330
	9000	3785	3135	9830
	9500	3952	3302	10330
	10000	4118	3468	10830
	10500	4285	3635	11330
	11000	4452	3802	11830
	11500	4618	3968	12330

RB20N2H, RB25N2X				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 <sup>1)</sup> mm
Triplex	4800	2230	1580	5630
	5400	2430	1780	6230
	5700	2530	1880	6530
	5900	2597	1947	6730
	6300	2730	2080	7130
	7000	2963	2313	7830
	7500	3130	2480	8330
	8000	3297	2647	8830
	8500	3463	2813	9330
	9000	3785	3135	9830
	9500	3952	3302	10330
	10000	4118	3468	10830
	10500	4285	3635	11330
	11000	4452	3802	11830
	11500	4618	3968	12330

RB20N2X				
Mast Type	h3 + h13 mm	h1 mm	h2 + h13 mm	h4 <sup>1)</sup> mm
Triplex	12000	4785	4135	12830
	12500	4952	4302	13330
	13000	5118	4468	13830

1) Including load backrest

h1 = Lowered mast height  
h2 + h13 = Free lift  
h3 + h13 = Lifting height  
h4 = Raised mast height

Model	Battery Capacity	Battery Weight	4.33 (1000x1200mm crosswise)		4.34 (800x1200mm lengthwise)		L4 4.28	L2 4.20	L1 4.19	x 1.8
			Ast	Ast3	Ast	Ast3				
RB14N2S	465	700	2684	2466	2750	2666	463	1254	2404	281
	620	900	2740	2538	2816	2738	391	1326	2476	209
	775	1100	2798	2610	2883	2810	319	1398	2548	137
RB14N2HS	620	900	2748	2548	2825	2748	382	1336	2486	199
	775	1100	2806	2620	2892	2820	310	1408	2558	127
RB16N2S	465	700	2684	2466	2750	2666	463	1254	2404	281
	620	900	2740	2538	2816	2738	391	1326	2476	209
	775	1100	2798	2610	2883	2810	319	1398	2548	137
RB16N2HS	620	900	2748	2548	2825	2748	382	1336	2486	199
	775	1100	2806	2620	2892	2820	310	1408	2558	127
RB16N2C	465	700	2730	2502	2789	2702	510	1308	2458	327
	620	900	2799	2592	2872	2792	420	1398	2548	237
RB16N2HC	620	900	2807	2602	2881	2802	410	1408	2558	228
RB16N2	465	700	2693	2463	2751	2663	513	1254	2404	331
	620	900	2748	2535	2817	2735	441	1326	2476	259
	775	1100	2804	2607	2883	2807	369	1398	2548	187
RB16N2H	620	900	2755	2545	2826	2745	432	1336	2486	249
	775	1100	2812	2617	2892	2817	360	1408	2558	177
RB20N2H	620	900	2784	2536	2830	2736	582	1336	2486	399
	775	1100	2837	2608	2895	2808	510	1408	2558	327
	930	1300	2892	2680	2961	2880	438	1480	2630	255
RB20N2X	620	900	2805	2560	2853	2760	572	1346	2496	389
	775	1100	2858	2632	2918	2832	500	1418	2568	317
	930	1300	2913	2704	2984	2904	428	1490	2640	245
RB25N2X	620	900	2805	2560	2853	2760	572	1346	2496	389
	775	1100	2858	2632	2918	2832	500	1418	2568	317
	930	1300	2913	2704	2984	2904	428	1490	2640	245



## Steering system

- **Unlimited 360-degree electric steering** gives precise control with minimal effort.
- **Progressive steering** enables easy manoeuvring at low speeds and effortless control when moving at speed.

## Brakes

- **High efficiency regenerative braking** means effective control and reduced brake wear.
- **Load wheel brakes** give extra braking power (H and X models only).

## Hydraulics

- **Powerful AC hydraulic motor with extra-strength pump on H models** – provides high torque for rapid but smooth – and controlled – lifting and lowering.

## Electrical and control systems

- **Sensitive Drive System (SDS)** offers precise control of mast and truck behaviours for accurate, smooth and stable performance.
- **Passive Sway Control (PSC)** significantly reduces the risk of sway to safeguard lives and loads.
- **Award-winning Active Sway Control (ASC)** available as an option offers further protection, reducing delays caused by mast sway, and ensures accurate, smooth and stable performance.
- **CAN bus system** reduces wiring and makes fault finding quick and simple.
- **Maintenance interval calculator** encourages correct servicing, for optimum component life and minimum downtime.
- **Temperature control** in drive and lift motors and controllers – prevents damage from overheating.
- **Tilting battery cover** gives quick, easy access for maintenance and charging.
- **Battery rollers** make changes quick, easy and safe.

## Operator environment and controls

- **Spacious and comfortable cabin, clear view and fast, accurate fork positioning** increases productivity and reduces risks of driver fatigue – even on the longest shifts.
- **Easy-access cabin** with ergonomic hand bars and low non-slip step provides safe and effortless entry.
- **Folding steering wheel console** with adjustment for column length and angle, lifts up for easy access and ensures optimum position for each driver.
- **Full-suspension, fully adjustable seat** keeps driver safe, comfortable and alert through the longest shifts. (Luxury seat with lumbar support, electrical height adjustment and air or mechanical suspension is available as option.)
- **Ergonomic armrest** matches driver's natural operating position and is fully adjustable – reducing fatigue.
- **Multifunctional armrest controls** prevent unnecessary finger movements for safe and productive operations.
- **Patented fingertip control system with modulated response curves** is optimised for natural movement – for precise, effortless control.

- **Easy-to-understand display communicates key information to driver** including guidance, warnings and alarms – encouraging good practice.
  - **Low noise technology** means sound level at operator's ear is no louder than a typical conversation.
- Options include:**
- **Extra hydraulic valve and hoses to fork carriage**
  - **Telescopic forks**
  - **Camera with monitor**
  - **Lifting pre height selector**
  - **Side shift and tilt centering**
  - **Choice of suspension seats (air or mechanical)**
  - **Audio system with AUX input**
  - **Fork positioner**
  - **Scale (tolerance +/-25kg)**
  - **Quick battery locking system, foot operated**
  - **DC/DC converter with USB power supply for mobile or PC**
  - **Customer name/logo/artwork on side panels**
  - **Company or brand designed side covers**
  - **Cold store modification package**
  - **Hot environment modification**
  - **Cold store cabin\***

\* Cold store cabin not available for compact 'C' models



when  
**reliability**  
is **everything**

Like any product bearing the Mitsubishi name, our materials handling equipment benefits from the huge resources and cutting-edge technology of one of the world's largest corporations. So when we promise you **quality, reliability** and **value for money**, you know it's a guarantee we have the power to deliver.

Every model in our comprehensive, award-winning range of forklift trucks and warehouse equipment is built to a high specification and is designed to keep on working for you... day after day... year after year... whatever the job... whatever the conditions.

To ensure your truck stays in constant productive action, we have a network of local dealers – hand-picked for their commitment to customer care... and backed up by the Mitsubishi Forklift Trucks organisation. No matter where you are, we have a dealer close by – ready and willing to meet your needs.

That friendly local service covers everything from identifying the perfect model and configuration for your application to providing competitive, flexible finance and maintenance packages, unbeatable warranties, long and short term hire, and highly responsive field service and repairs... as well as the industry's quickest and most reliable parts supply.

Only Mitsubishi can give you this combination of global engineering excellence and outstanding local support... only Mitsubishi offers you such a quality product at such an affordable price... and only Mitsubishi places reliability as high as you do in its priorities. Contact your local dealer now and see what Mitsubishi can do for you.

You can find your nearest dealer at [www.mitforklift.com](http://www.mitforklift.com)



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NOTE: 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. Mitsubishi follows a policy of continual product improvement. For this reason, some materials, options and specifications could change without notice.