

# AM-2R SERIES

1.3 TO 2.0 TON



**KOMATSU**

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# AM-2R & AE-2R SERIES



## 1.3 TO 2.0 TON



Choice of controls



LCD Display



Wide choice of accessories



Optimal visibility

The new generation AC of the forklifts AM-2R and AE-2R series is extremely compact, easy to use and with an extended maintenance interval: the ideal partner for the company that is looking for maximum productivity and profitability.

The front axle features two separately excited 4kW AC electric motors providing a high level of torque for exceptional flexibility when operating in confined areas. Not only do the steering axles ensure precise maneuvering, they also offer the AE-2R trucks superior stability over lengthy drives and reduced curving radius in the AM-2R series. The AC motors have no brushes and this, combined with oil brakes, makes the front axle virtually maintenance free.

The logic system with CAN-BUS technology uses a series of sensors and controls to determine and manage the dynamic conditions of the truck, and intervenes - if necessary - by applying the regenerative emergency brake to prevent the truck from accelerating when curving.

The traction controls can be operated by means of either the lever or the dual pedals with the traditional hydraulic proportional lever controls with REED sensors.

On-board comfort is provided by the new LCD display which has bright characters, readable in every condition, the ergonomic layout of the main controls and the standard Grammer MSG20.

The LCD display shows the battery state-of-charge, the hour-meter, the speed meter, the position of the steering wheels, the needs of maintenance, eventually the problems and it allows choosing the forklift working parameters.

The service interval is 1000 h. and there is a plug for the service data case on the dashboard. These features allow a fast and

efficient servicing.

The range of FV, FFV and TFV masts are top-of-the-line in terms of visibility, rigidity and precision. Lift heights range from 3.3 to almost 7 meters, maintaining high residual capacities when using the side shifter. The 9 kW AC pump motor ensures rapid lift operations.

The battery compartment is easily reachable by a series of simple maneuvers and offers an installed capacity between 300 to 750Ah, particularly in the FB16(M) models in which the battery compartment is high enough to accommodate a 640Ah battery, guaranteeing a perfect mix of agility and durability.

The braking system consists of the following:

- Logic controlled counter-current system operated by releasing the accelerator pedal or reversing
- Oil brakes
- Mechanical parking brake

The trucks are very customizable with the following major options available:

- 4 different cab configurations
- Cold stores version
- 4-way hydraulics
- Lighting system
- Different types of tyres
- Integral sideshift

Do not hesitate to contact your nearest Komatsu Forklift dealer: you will be visited by one of our experts who will analyze your requirements and recommend the best solution for you in terms of investment and application.

Please visit our web site [www.komatsuforklift.net](http://www.komatsuforklift.net) to see the complete range of Komatsu Forklift products. You can also register to gain access to the reserved sections of the web site and receive information about new products.

# KOMATSU

Part Number: PKSE009EN2  
Form.No: AM/AE(2R)ac-S-E-P-12/07

This brochure may contain equipment that are not available in your area. Please consult your Komatsu Forklift distributor for those items you may require. Materials and specifications are subject to change without notice.

Printed in Italy



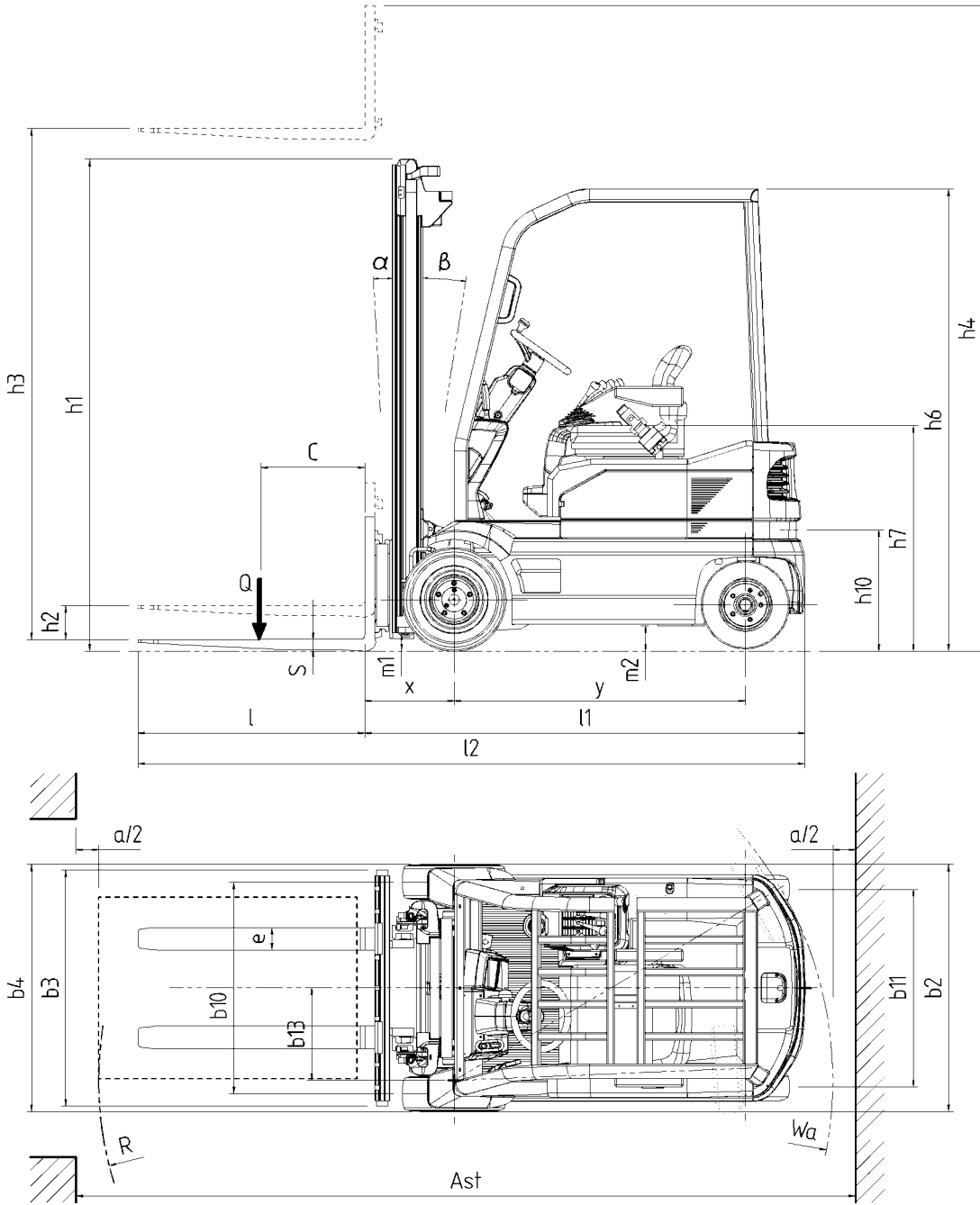
# AM-2R & AE-2R SERIES

1.3 TO 2.0 TON



**Electric Three and Four Wheeler Forklift trucks 48 Volt**

- Exceptionally easy to handle, use and maintain (1000 h. service interval)
- Latest generation MOSFET and CANBUS technology for the greatest reliability and flexibility of movement
- Top quality, proven mechanical and electric part
- Large, ergonomic operator compartment with a high level of comfort (LCD display)
- Masts with excellent visibility and rigidity and optional side-shift for ease of use in all condition



# AE-2R SERIES



1.3 TO 2.0 TON



# AM-2R & AE-2R SERIES



## 1.3 TO 2.0 TON

SPECIFICATIONS	Model Designation	FB13M-2R <sup>60</sup>	FB15M-2R <sup>60</sup>	FB15-2R <sup>60</sup>	FB16M-2R <sup>60</sup>	
		1.2				
1.3	Motive Power Type					
1.4	Operator Position					
1.5	Rated Capacity	Q (t)	1.3	1.5	1.6	
1.6	Load Centre	c (mm)				
1.8	Load Centre, Distance axle centre to fork face	x (mm)			365 <sup>1)2)</sup>	
1.9	Wheelbase	y (mm)	1152	1260	1280	
WEIGHT	2.1	Service Weight (Incl. Battery Weight, Line 6.5)	kg	2819	2875	2852
	2.2	Axle loading (laden) : front/rear	kg	3585 / 534	3842 / 533	3809 / 543
	2.3	Axle loading (unladen) : front/rear	kg	1309 / 1510	1313 / 1562	1295 / 1557
WHEELS	3.1	Tyre Type (P=pneum; S=solid; C=elast. cushion)				
	3.2	Tyre Size, front (dia. x width)				18x7-8 3)
	3.3	Tyre Size, rear (dia. x width)				15x4.5-8 <sup>3)</sup>
	3.5	Number of Wheels (x=driven), front/rear				
	3.6	Tread, front	b10 (mm)			932 <sup>4)</sup>
	3.7	Tread, rear	b11 (mm)	168	874	168
	BASIC DIMENSIONS	4.1	Mast / Carriage Tilt Angle, forward/backward	°		
4.2		Mast Height, lowered	h1 (mm)			2210 <sup>5)</sup>
4.3		Free Lift	h2 (mm)			
4.4		Lift Height	h3 (mm)			3330
4.5		Mast Raised Height	h4 (mm)		3905 <sup>7)</sup>	
4.7		Overall Height, Overhead Guard	h6 (mm)	2139 <sup>8)</sup>	2024 <sup>11)</sup>	2139
4.8		Seat Height	h7 (mm)	1054	939	1054
4.12		Drawbar Height	h10 (mm)			
4.19		Length to Front Face of Forks	l1 (mm)	2726 <sup>1)2)</sup>	2834 <sup>1)2)</sup>	2910 <sup>1)2)</sup>
4.20		Overall Length	l2 (mm)	1726 <sup>1)2)</sup>	1834 <sup>1)2)</sup>	1910 <sup>1)2)</sup>
4.21		Overall Width	b1/b2 (mm)		1067 <sup>9)</sup>	
4.22		Fork Dimensions : thickness/width/length	s/e/l (mm)		40/80/1000	
4.23		Carriage Class Din 15173 Class A, B				
4.24		Carriage Width	b3 (mm)			
4.31		Ground Clearance, Chassis, with Load	m1 (mm)			
4.32		Ground Clearance at Centre of Wheelbase, with Load	m2 (mm)			
4.33		Aisle Width with Pallet (1000x1200mm) <sup>A</sup>	Ast (mm)	3052 <sup>1)2)</sup>	3160 <sup>1)2)</sup>	3246 <sup>1)2)</sup>
4.34		Aisle Width with Pallet (800x1200mm) <sup>B</sup>	Ast (mm)	3176 <sup>1)2)</sup>	3284 <sup>1)2)</sup>	3432 <sup>1)2)</sup>
4.35		Outer Turning Radius (min.)	Wa (mm)	1361	1469	1667
4.36	Turning Point to Centre Line of Truck	b13 (mm)	-	407	-	
PERFORMANCE DATA	5.1	Travel Speed (loaded/unloaded)	km/h			
	5.2	Lifting Speed (loaded/unloaded)	m/s		0,51 / 0,57	
	5.3	Lowering Speed (loaded/unloaded)	m/s	0,52 / 0,41		0,54 / 0,41
	5.5	Drawbar Pull (loaded/unloaded) S2 60 min.	N		2150/2100	
	5.6	Drawbar Pull (loaded/unloaded) S2 5 min.	N	9250/8950		9250 / 8900
	5.7	Gradeability (loaded/unloaded) S2 30 min.	%	9,5/13,5	9 / 13	
	5.8	Max. Gradeability (loaded/unloaded) S2 5 min.	%	23 / 33	21,5 / 32	20 / 28
	5.9	Acceleration Time over 10 m (loaded/unloaded)	s	4,1/3,8	4,2 / 3,9	4,3 / 3,8
	5.10	Brake Type (parking/service)				
	E-MOTOR	6.1	Drive Motor, rating S2 60 min. duty cycle	kW		
6.2		Hydraulic Motor, output S3 15 % duty factor	kW			
6.3		Battery to DIN 43531/35/36/A,B,C,no				
6.4		Battery Voltage / Amp. hours	V / Ah	48 / 465	48 / 4801 <sup>12)</sup>	48 / 465
6.5		Battery Weight (min.) +/- 5%	kg	749	780 <sup>12)</sup>	970
6.6		Energy Consumption as per VDI Cycle	kWh/h			
OTHERS	8.1	Type of Control, drive/hydraulic				
	8.2	Auxiliary Hydraulic Pressure for Attachment	bar			
	8.3	Auxiliary Hydraulic Flow	l/min			
	8.4	Noise Level at Driver's Ear	dB (A)			

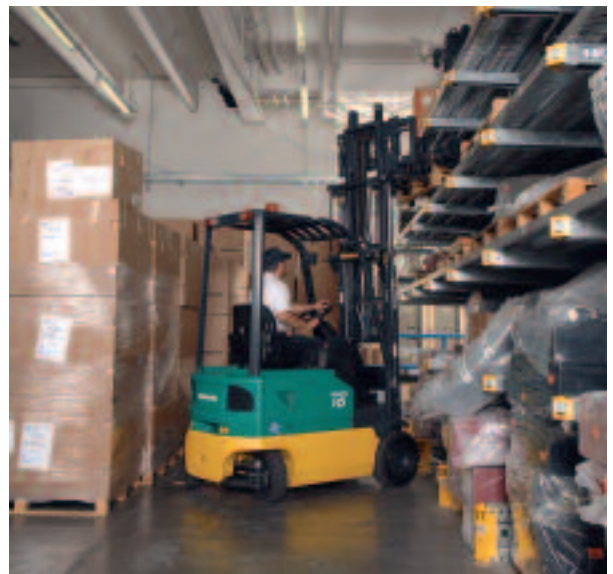
A= (l6 x b12); crosswise

B= (l6 x b12); lengthwise

- 1) 17mm with integral sideshift
- 2) +20 mm with TFV (+22mm for 2.0 ton)
- 3) For alternative tyres see table
- 4) 945 mm with tyres 200/50-10 & 875 mm with tyres 18x5x12 1/8" (Vulkollan)
- 5) FV masts with h3<sup>4</sup> 4530 mm 3°/5° - All masts FFV and TFV 3°/5°

- 6) For all configurations
- 7) 6 rollers for carriage: 3973 mm
- 8) h<sup>2</sup> = 2080 mm for lower cab
- 9) 1150.5 mm with tyres 200/50-10 & 1002 mm with tyres 18x5x12 1/8" (Vulkollan)
- 10) With integrated side shift = 980 mm

	FB16-2R <sup>oo</sup>	FB18M-2R <sup>oo</sup>	FB18-2R <sup>oo</sup>	FB20M-2R <sup>oo</sup>	FB20-2R <sup>oo</sup>
Battery					
Seated					
		1.8			2.0
500					
		370 <sup>11,2)</sup>			380 <sup>11,2)</sup>
1280	1368		1388	1513	1498
3090	3067		3045	3240	3250
4170 / 520	4369 / 498		4337 / 508	4746 / 494	4727 / 523
1455 / 1635	1431 / 1636		1416 / 1629	1582 / 1658	1552 / 1698
SE / SE <sup>2)</sup>					
				200/50-10 <sup>2)</sup>	
				140/55-9 <sup>3)</sup>	
2x / 2					945 <sup>4)</sup>
874	168		874	176	873
3° / 9° <sup>5)</sup>					
			2260 <sup>6)</sup>		2260 <sup>6)</sup>
150					3350
		3973			4046 <sup>14)</sup>
9 <sup>9)</sup>			2024 <sup>11)</sup>		
4			939		
523					
2910 <sup>11,2)</sup>	2947 <sup>11,2)</sup>		3018 <sup>11,2)</sup>	3102 <sup>11,2)</sup>	3143 <sup>11,2)</sup>
1910 <sup>11,2)</sup>	1947 <sup>11,2)</sup>		2018 <sup>11,2)</sup>	2102 <sup>11,2)</sup>	2143 <sup>11,2)</sup>
				1150 <sup>9)</sup>	1150 <sup>9)</sup>
			45/100/1000		
2A					
1040 <sup>10)</sup>					
95 6)					
104					
3246 <sup>11,2)</sup>	3268 <sup>11,2)</sup>		3359 <sup>11,2)</sup>	3427 <sup>11,2)</sup>	3480 <sup>11,2)</sup>
3432 <sup>11,2)</sup>	3392 <sup>11,2)</sup>		3550 <sup>11,2)</sup>	3552 <sup>11,2)</sup>	3677 <sup>11,2)</sup>
1667	1577		1780	1722	1895
407	-		442	-	477
14 / 14					
		0,4 / 0,57		0,4 / 0,48	
0,41				0,48 / 0,35	
	2100 / 2050				2050 / 2050
		9300 / 8950		9400 / 9000	
	8 / 12			7,5 / 11,5	
9,5		19,5 / 30		18 / 28,5	
4		4,5 / 4,1		4,6 / 4,2	
mechanical/electric					
4 x 2					
9					
43531A					
540		48 / 600 <sup>13)</sup>		48 / 750	
0		930 <sup>13)</sup>		1055	
				6,2 <sup>15)</sup>	
Inverter					
160					
30					
<70					



	SE	
	Front	Rear
1.3 - 1.5 - 1.6 ton	18x7-8	-
1.8 ton	18x7-8 (FV&FFV) 200/50-10 (TFV)	15x4.5-8
2.0 ton	200/50-10	140/55-9

	PN	
	Front	Rear
1.3 - 1.5 - 1.6 ton	18 x 7 - 8 / 16 (FV&FFV)	15 x 4.5 - 8 / 12 (FV&FFV)
1.8 ton	18 x 7 - 8 / 16 (FV&FFV)	15 x 4.5 - 8 / 12 (FV&FFV)
2.0 ton	-	-

	Vulkolan / SE	
	Front (Vulkolan)	Rear (SE)
1.3 - 1.5 - 1.6 ton	18 x 5 x 12 1 / 8"	15 x 4.5 - 8 (SE white)
1.8 ton	18 x 5x 12 1 / 8"	15 x 4.5 - 8 (SE white)
2.0 ton	18 x 5 x 12 1 / 8"	140 / 55 - 9 (SE white)

11) h<sup>t</sup> = 1980 mm for lower cab  
12) Opt. 400Ah / 709±5%Kg; 460Ah / 765±5%Kg; 500Ah / 780±5%Kg  
13) Opt. 575Ah / 915±5%Kg; 625Ah / 930±5%Kg.  
14) 6 rollers only  
15) Consumption calculated on 60 cycles/h

(\* 16 rollers optional. h4 = h4 + 68 mm (FV) - h4 = h4 + 83 mm (FFV/TFV) - h2 = h2 - 83 mm (FFV/TFV) - h2 = h2 - 93 mm (FFV/TFV) - \*\* h1 = 2260 mm for the lower cab version - \*\*\* h1 = 2010 mm for the lower cab version - \*\*\*\* with cabin's front panel FV < 4530; α 3°; β 5°  
 with cabin's front panel FV < 4530; α 3°; β 5° - \*\*\*\*\* with cabin's front panel FV < 4530; α 3°; β 5°

x= FOH + s						Load Capacity								
Model	h <sub>3</sub>	h <sub>1</sub>	h <sub>4</sub>	h <sub>2</sub> /h <sub>5</sub>	α/β	Sideshift 100mm x = x+17mm				Standard				
	mm	mm	mm	mm	°	Vulkolan & SE		Pneumatic		Vulkolan & SE		Pneumatic		
						kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	
FB13M-2R <sup>std</sup> 4 rollers (*)	FV	3330	2210	3905	150	3°/9°	1300	1150	1300	1150	1300	1150	1300	1150
		3630	2360	4205	150	3°/9°	1300	1150	1300	1150	1300	1150	1300	1150
		4030	2560	4605	150	3°/9°	1300	1150	1250	1100	1300	1150	1300	1150
		4530	2810	5105	150	3°/5°	1300	1150	1150	1050	1300	1150	1200	1100
		5030	3060	5605	150	3°/5°	1300	1150	1100	1000	1300	1150	1150	1050
	FFV	2875	1960	3450	1312	3°/5°	1300	1150	1300	1150	1300	1150	1300	1150
		2975	2010	3550	1362	3°/5°	1300	1150	1300	1150	1300	1150	1300	1150
		3275	2160	3850	1512	3°/5°	1300	1150	1300	1150	1300	1150	1300	1150
		3575	2310**	4150	1662	3°/5°	1300	1150	1300	1150	1300	1150	1300	1150
		3975	2510	4550	1862	3°/5°	1300	1150	1300	1150	1300	1150	1300	1150
	TFV	4170	1960	4745	1312	3°/5°	1300	1150			1300	1150		
		4470	2060***	5045	1412	3°/5°	1300	1150			1300	1150		
		4770	2160	5345	1512	3°/5°	1200	1100			1250	1150		
		5220	2310**	5795	1662	3°/5°	1150	1050			1200	1100		
		5770	2560	6345	1912	3°/5°	1100	1000			1100	1000		
		6370	2760	6945	2112	3°/5°	800	700			800	700		
6970	2960	7545	2312	3°/5°	600	550			600	550				

x= FOH + s						Load Capacity								
Model	h <sub>3</sub>	h <sub>1</sub>	h <sub>4</sub>	h <sub>2</sub> /h <sub>5</sub>	α/β	Sideshift 100mm x = x+17mm				Standard				
	mm	mm	mm	mm	°	Vulkolan & SE		Pneumatic		Vulkolan & SE		Pneumatic		
						kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	
FB15-2R <sup>std</sup> 4 rollers (*)	FV	3330	2210	3905	150	3°/9°	1500	1350	1500	1350	1500	1350	1500	1350
		3630	2360	4205	150	3°/9°	1500	1350	1500	1350	1500	1350	1500	1350
		4030	2560	4605	150	3°/9°	1500	1350	1500	1350	1500	1350	1500	1350
		4530	2810	5105	150	3°/5°	1450	1300	1400	1250	1500	1350	1450	1300
		5030	3060	5605	150	3°/5°	1400	1250	1300	1150	1450	1300	1350	1200
	FFV	2875	1960	3450	1312	3°/5°	1500	1350	1500	1350	1500	1350	1500	1350
		2975	2010	3550	1362	3°/5°	1500	1350	1500	1350	1500	1350	1500	1350
		3275	2160	3850	1512	3°/5°	1500	1350	1500	1350	1500	1350	1500	1350
		3575	2310**	4150	1662	3°/5°	1500	1350	1500	1350	1500	1350	1500	1350
		3975	2510	4550	1862	3°/5°	1500	1350	1500	1350	1500	1350	1500	1350
	TFV	4170	1960	4745	1312	3°/5°	1500	1350			1500	1350		
		4470	2060***	5045	1412	3°/5°	1500	1350			1500	1350		
		4770	2160	5345	1512	3°/5°	1450	1300			1500	1350		
		5220	2310**	5795	1662	3°/5°	1300	1150			1350	1200		
		5770	2560	6345	1912	3°/5°	1100	1000			1150	1050		
		6370	2760	6945	2112	3°/5°	850	750			900	800		
6970	2960	7545	2312	3°/5°	650	550			700	600				

x= FOH + s						Load Capacity								
Model	h <sub>3</sub>	h <sub>1</sub>	h <sub>4</sub>	h <sub>2</sub> /h <sub>5</sub>	α/β	Sideshift 100mm x = x+17mm				Standard				
	mm	mm	mm	mm	°	Vulkolan & SE		Pneumatic		Vulkolan & SE		Pneumatic		
						kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	
FB16-2R <sup>std</sup> 4 rollers (*)	FV	3330	2210	3905	150	3°/9°	1600	1450	1600	1450	1600	1450	1600	1450
		3630	2360	4205	150	3°/9°	1600	1450	1600	1450	1600	1450	1600	1450
		4030	2560	4605	150	3°/9°	1600	1450	1600	1450	1600	1450	1600	1450
		4530	2810	5105	150	3°/5°	1600	1450	1500	1400	1600	1450	1550	1450
		5030	3060	5605	150	3°/5°	1550	1400	1450	1300	1600	1450	1500	1400
	FFV	2875	1960	3450	1312	3°/5°	1600	1450	1600	1450	1600	1450	1600	1450
		2975	2010	3550	1362	3°/5°	1600	1450	1600	1450	1600	1450	1600	1450
		3275	2160	3850	1512	3°/5°	1600	1450	1600	1450	1600	1450	1600	1450
		3575	2310**	4150	1662	3°/5°	1600	1450	1600	1450	1600	1450	1600	1450
		3975	2510	4550	1862	3°/5°	1600	1450	1600	1450	1600	1450	1600	1450
	TFV	4170	1960	4745	1312	3°/5°	1600	1450			1600	1450		
		4470	2060***	5045	1412	3°/5°	1600	1450			1600	1450		
		4770	2160	5345	1512	3°/5°	1600	1400			1600	1400		
		5220	2310**	5795	1662	3°/5°	1450	1300			1500	1350		
		5770	2560	6345	1912	3°/5°	1150	1000			1150	1000		
		6370	2760	6945	2112	3°/5°	850	750			850	750		
6970	2960	7545	2312	3°/5°	700	650			700	650				

x = FOH + s		Load Capacity												
		Sideshift 100mm x = x+17mm								Standard				
		Vulkolan & SE		Pneumatic		Vulkolan & SE		Pneumatic						
Model	h <sub>3</sub>	h <sub>1</sub>	h <sub>4</sub>	h <sub>2</sub> /h <sub>5</sub>	α/β	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	
	mm	mm	mm	mm	°									
FB 18-2R <sup>®</sup> 6 rollers	FV	3330	2210	3973	150	3°/9°	1800	1600	1700	1600	1800	1600	1800	1600
		3630	2360	4273	150	3°/9°	1800	1600	1650	1550	1800	1600	1800	1600
		4030	2560	4673	150	3°/9°	1750	1550	1650	1550	1800	1600	1700	1600
		4530	2810	5173	150	3°/5°	1700	1500	1600	1450	1750	1550	1650	1500
		5030	3060	5673	150	3°/5°	1650	1450	1400	1250	1700	1500	1450	1350
	FFV	2875	1960	3543	1312	3°/5°	1800	1600	1750	1600	1800	1600	1750	1600
		2975	2010	3643	1362	3°/5°	1800	1600	1700	1600	1800	1600	1750	1600
		3275	2160	3943	1512	3°/5°	1800	1600	1700	1600	1800	1600	1700	1600
		3575	2310**	4243	1662	3°/5°	1800	1600	1650	1550	1800	1600	1700	1600
		3975	2510	4643	1862	3°/5°	1750	1550	1650	1550	1800	1600	1700	1600
	TFV	4170	1960	4838	1312	3°/5°	1700	1500			1750	1550		
		4470	2060***	5138	1412	3°/5°	1650	1500			1700	1500		
		4770	2160	5438	1512	3°/5°	1600	1450			1650	1450		
		5220	2310**	5888	1662	3°/5°	1450	1300			1500	1350		
		5770	2560	6438	1912	3°/5°	1250	1100			1250	1100		
6370	2760	7038	2112	3°/5°	1000	900			1000	900				
6970	2960	7638	2312	3°/5°	850	750			850	750				

x = FOH + s		Load Capacity												
		Sideshift 100mm x = x+17mm								Standard				
		Vulkolan & SE		Pneumatic		Vulkolan & SE		Pneumatic						
Model	h <sub>3</sub>	h <sub>1</sub>	h <sub>4</sub>	h <sub>2</sub> /h <sub>5</sub>	α/β	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	kg @ 500mm	kg @ 600mm	
	mm	mm	mm	mm	°									
FB 20-2R <sup>®</sup> 6 rollers	FV	3350	2260	4046	150	3°/9°	2000	1800			2000	1800		
		3650	2410	4346	150	3°/9°	2000	1800			2000	1800		
		4050	2610	4746	150	3°/9°	2000	1800			2000	1800		
		4550	2860	5246	150	3°/5°	1900	1700			1950	1750		
		5050	3110	5746	150	3°/5°	1800	1600			1850	1650		
	FFV	2970	2010	3646	1445	3°/5°	2000	1800			2000	1800		
		3270	2160	3946	1595	3°/5°	2000	1800			2000	1800		
		3570	2310	4246	1745	3°/5°	2000	1800			2000	1800		
		3970	2510	4646	1945	3°/5°	2000	1800			2000	1800		
		4465	2060	5156	1495	3°/5°	1800	1600			1850	1650		
	TFV	4765	2160	5456	1595	3°/5°	1700	1500			1750	1550		
		5215	2310	5906	1745	3°/5°	1550	1400			1600	1450		
		5665	2460	6356	1895	3°/5°	1350	1200			1400	1250		
		6265	2660	6956	2095	3°/5°	1100	1000			1150	1050		
		6865	2860	7556	2295	3°/5°	950	850			1000	900		



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