



# MPR-VG

## ENCLOSED END RIDER

8,000 · 10,000 lbs

**Yale®** enclosed end riders incorporate the latest state-of-the-art technology and ergonomic design, making Yale a leader in transport and cross-docking applications.

### **Operator's Compartment**

Optimized operator ergonomics minimize operator strain and fatigue while maximizing productivity.

Built around the operator, the compartment design allows the operator to adjust stance during operation to reduce fatigue.

The high backrest gives the operator full back support, taking pressure off the feet, legs, back and shoulders when operated for extended periods of time. The contoured, fully padded operator's compartment provides back, hip, elbow and knee support.

The **multifunction control handle** adjusts to three different operating angles. The control handle, with an integral palm and thumb rest, is ergonomically designed and can be comfortably operated. The handle provides conveniently located controls for forward/reverse, lift/lower and horn.

The cushioned floor mat features a center brake switch and a **multi-zoned operator presence floor system**, allowing the operator to move his or her feet comfortably while operating the truck. The floor mat is mounted on four isolators to reduce shock from dock plates and expansion joints during operation.

### **Electrical System**

The electrical system utilizes AC drive/traction technology designed for exceptional performance. High starting torque and smooth acceleration are benefits of this technology. An externally mounted speed sensor provides feedback to the control system, allowing motor speed and direction to be continuously monitored.

**Electric power steering** delivers increased sensitivity for accurate control during operation.

**Yale iSi Technology™** offers simple on-board parameter adjustment, diagnostics and interface for operators, supervisors and service personnel. Customization is available for specific applications, optimizing unit and operator efficiency to match application requirements.

CANbus technology streamlines communications between truck systems through the master controller. CANbus reduces wiring and electrical connections increasing dependability.

### **A Thermal Management**

**System** continuously monitors traction motor and motor controller temperatures. If necessary, the system gradually adjusts performance to protect truck systems.

### **Hydraulic Components**

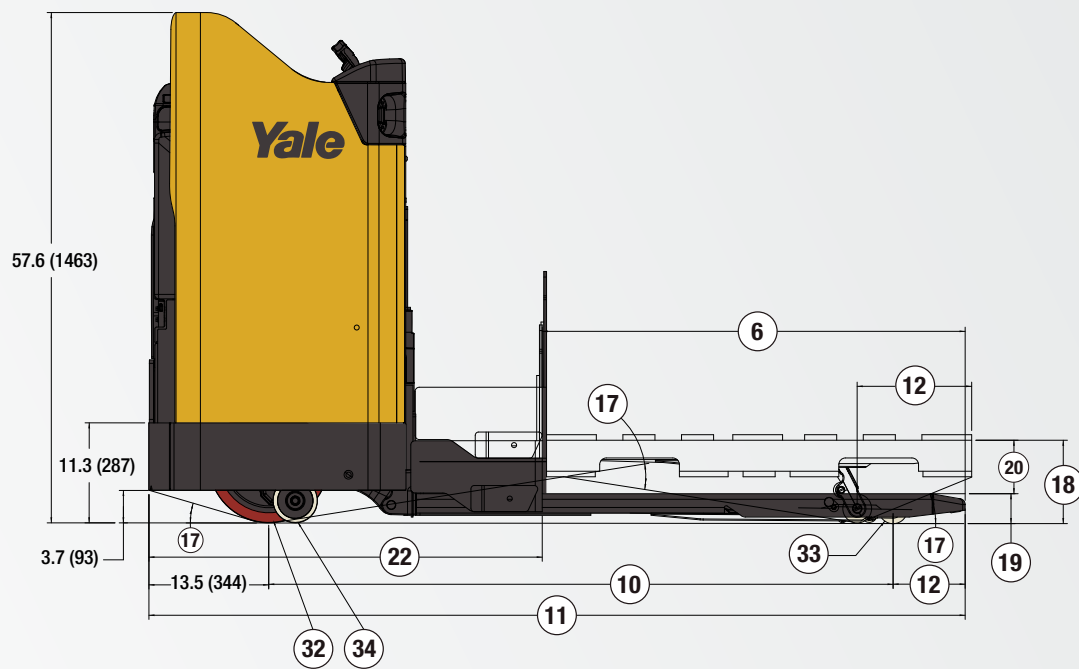
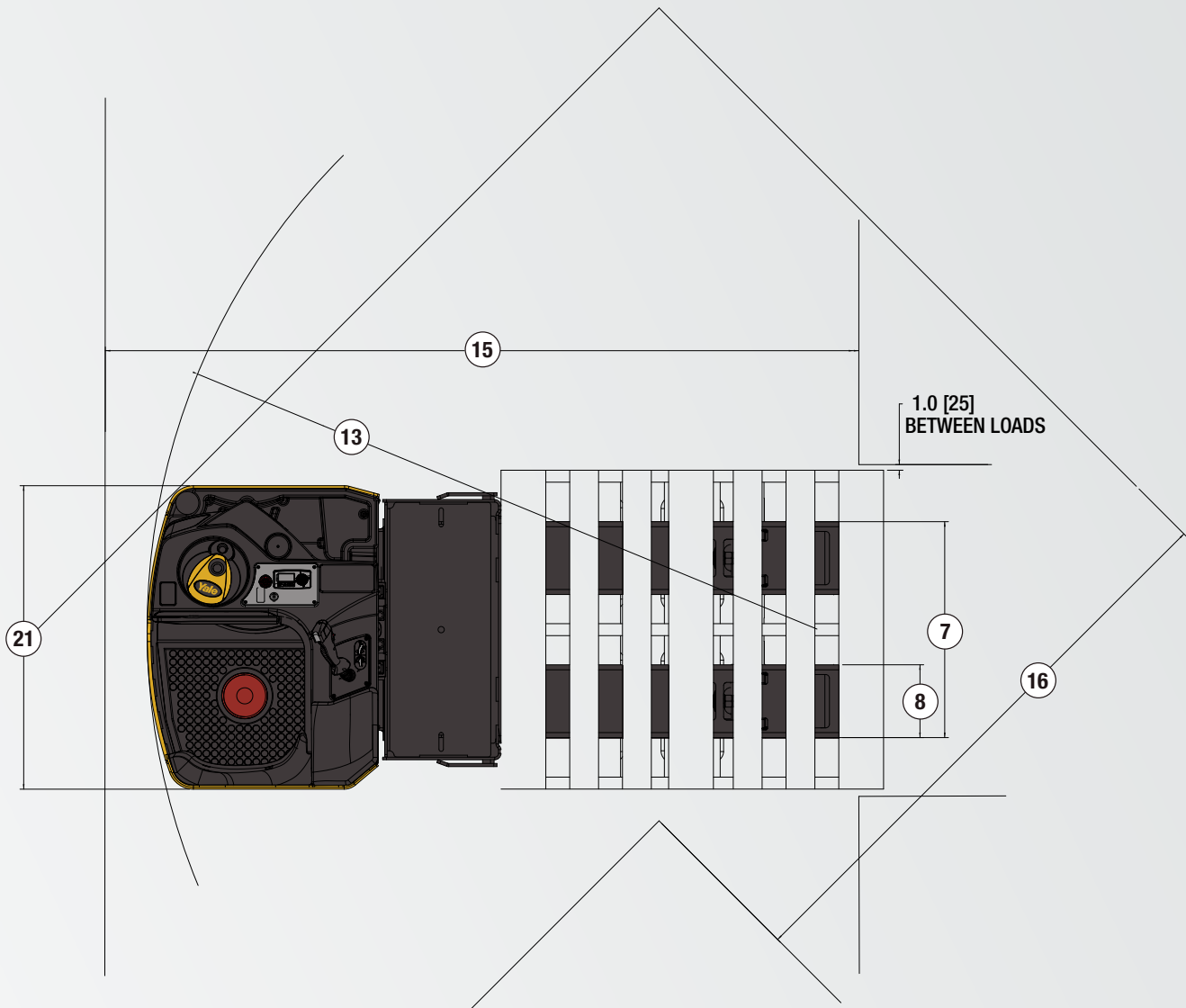
The high performance transistorized controlled hydraulic system is designed for high cycle, multi-shift operations. The hydraulic pump and motor assembly provide high torque and low noise. The translucent tank provides quick and easy inspection of hydraulic oil level.

### **Heavy Duty Forks and Frame**

The heavy duty cycle components are designed for multi-shift applications and low operating costs. The wide, cast steel lift cylinder support evenly distributes weight from heavy loads.

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Circled dimensions correspond to the line numbers on the tabulated chart inside the spec sheet. Dimensions are in inches (millimeters).

GENERAL	1	Manufacturer		Yale					
	2	Model Designation		MPR080VG					
	3	Battery Type		24 Volt					
	4	Operator Type		Stand Ride					
	5	Rated Capacity – Lifting	lb (kg)	8000 (3629)					
	6	Fork Length – Nominal	in (mm)	48 (1219)	54 (1372)	60 (1524)	84 (2134)	93 (2362)	
		Fork Length – Actual	in (mm)	47.8 (1213)	53.7 (1365)	59.8 (1518)	83.8 (2128)	92.8 (2357)	
	7	Fork Overall Width	in (mm)	27.1 (688)	27.1 (688)	27.1 (688)	28 (710)	28 (710)	
	8	Individual Fork Width	in (mm)	9.1 (232)	9.1 (232)	9.1 (232)	10 (254)	10 (254)	
DIMENSIONS	9	Load Distance (Face of Battery Box or Opt. Backrest to Ctr of Load Wheels)	Raised	in (mm)	35.3 (896)	41.3 (1048)	47.3 (1201)	56.3 (1430)	56.3 (1430)
			Lowered	in (mm)	39.6 (1007)	45.6 (1159)	51.7 (1312)	60.6 (1540)	60.6 (1540)
	10	Wheelbase**	Raised	in (mm)	66.5 (1689)	72.5 (1842)	78.5 (1994)	87.5 (2222)	87.5 (2222)
			Lowered	in (mm)	70.5 (1791)	76.5 (1944)	82.5 (2096)	91.5 (2324)	91.5 (2324)
	11	Overall Length	Raised	in (mm)	92.7 (2354)	98.7 (2506)	104.7 (2659)	128.7 (3269)	137.7 (3498)
			Lowered	in (mm)	92.2 (2341)	98.1 (2493)	104.2 (2646)	128.2 (3256)	137.2 (3485)
	12	Center of Load Wheel to Tip of Forks	Raised	in (mm)	12.5 (317)	12.5 (317)	12.5 (317)	27.5 (698)	36.5 (927)
			Lowered	in (mm)	8.1 (206)	8.1 (206)	8.1 (206)	23.1 (588)	32.2 (817)
	13	Outside Turning Radius	Raised	in (mm)	80.0 (2033)	86.0 (2186)	92.0 (2338)	101.1 (2567)	101.1 (2567)
			Lowered	in (mm)	84.1 (2135)	90.1 (2288)	105.2 (2673)	105.0 (2668)	105.0 (2668)
	15	Right Angle Stack*	Raised	in (mm)	95.2 (2418)	106.2 (2697)	105.6 (2683)	131.0 (3328)	140.4 (3566)
	16	Equal Intersecting Aisle*	Raised	in (mm)	70.2 (1782)	73.3 (1862)	76.5 (1942)	82.0 (2084)	82.9 (2105)
	17	Grade Clearance	Chassis	%	29				
			Center of Wheelbase	%	29	26	25	21	21
			Forks	%	37	37	37	17	13
	18	Overall Lift Height	Top of Forks	in (mm)	9.3 (235)				
	19	Lowered Height	Top of Forks	in (mm)	3.3 (84)				
	20	Total Lift		in (mm)	5.9 (151)				
	21	Truck Overall Width		in (mm)	38.0 (967)				
	22	Chassis Length	Raised	in (mm)	44.9 (1141)				
Lowered			in (mm)	44.4 (1128)					
23	Battery Compartment (Standard / With Battery Rollers)		32 x 13.4 x OPEN (813 x 340 x OPEN) / 31 x 13.4 x OPEN (787 x 340 x OPEN)						
PERFORMANCE	24	Max Travel Speed - Chassis First (No Load / Rated Load)	mph (kph)	9.0 / 6.5 (14.5 / 10.5)					
	25	Max Travel Speed - Forks First (No Load / Rated Load)	mph (kph)	7.0 / 6.5 (11.3 / 10.5)					
	26	Number of Speeds		Infinitely Variable					
	27	Traction Motor Control Method Type		AC Transistor					
28	Service Brake Type		Electro-Mechanical						
WHEELS	32	Drive Tire – Size / Type (Number of Wheels)	in	13.5 x 5.5 x 8.0 / Polyurethane (1)					
	33	Load Wheel / Trail Wheel – Size / Type (# of Wheels)(# of Bearings per Wheel)	in	3.25" x 6.5" / Polyurethane (2) (2)					
	34	Caster Wheel – Size / Type (Number of Wheels)Caster Type	in	5.0" x 2.0" / Poly (2) Adj. w/ Poly Spring Block					
BATTERY	35	Type		Lead Acid					
	36	Ampere Hours - Maximum	ah	930					
	37	Ampere Hours - Minimum	ah	375					
	38	Maximum Weight	lb (kg)	1500 (680)					
	39	Minimum Weight	lb (kg)	825 (374)					

Above specifications, unless otherwise listed, are for a standard truck without optional equipment.

\* Right Angle Stack and Equal Intersecting Aisle are calculated using a 40" wide pallet flush with fork tips.

\*\* Subtract 12.9mm if equipped with Tandem Load Wheels.

GENERAL	1	Manufacturer		Yale				
	2	Model Designation		MPR080VG			MPR100VG	
	3	Battery Type		24 Volt				
	4	Operator Type		Stand Ride				
	5	Rated Capacity – Lifting	lb (kg)	8000 (3629)			10000 (4536)	
	6	Fork Length – Nominal	in (mm)	96 (2438)	144 (3658)	144 (3658)	160 (4064)	
		Fork Length – Actual	in (mm)	95.8 (2433)	143.8 (3652)	143.8 (3652)	159.9 (4063)	
	7	Fork Overall Width	in (mm)	28 (710)	28.6 (726)	28.6 (726)	28 (710)	
	8	Individual Fork Width	in (mm)	10 (254)	10.6 (270)	10.6 (270)	10.3 (262)	
DIMENSIONS	9	Load Distance (Face of Battery Box or Opt. Backrest to Ctr of Load Wheels)	Raised	in (mm)	56.3 (1430)	104.3 (2649)	83.9 (2131)	106.0 (2694)
			Lowered	in (mm)	60.6 (1540)	108.6 (2759)	87.7 (2228)	110.5 (2806)
	10	Wheelbase**	Raised	in (mm)	87.5 (2222)	135.5 (3442)	114.6 (2910)	137.4 (3490)
			Lowered	in (mm)	91.5 (2324)	139.5 (3544)	118.6 (3012)	141.4 (3591)
	11	Overall Length	Raised	in (mm)	140.7 (3574)	188.7 (4793)	188.7 (4793)	204.9 (5204)
			Lowered	in (mm)	140.2 (3561)	188.2 (4780)	188.2 (4780)	204.4 (5191)
	12	Center of Load Wheel to Tip of Forks	Raised	in (mm)	39.5 (1003)	39.5 (1003)	59.9 (1521)	53.9 (1369)
			Lowered	in (mm)	35.2 (893)	35.2 (893)	56.1 (1424)	49.5 (1257)
	13	Outside Turning Radius	Raised	in (mm)	101.1 (2567)	149.1 (3789)	128.1 (3254)	150.9 (3834)
			Lowered	in (mm)	105.0 (2668)	153.1 (3888)	132.1 (3356)	154.9 (3934)
	15	Right Angle Stack*	Raised	in (mm)	143.5 (3644)	189.8 (4820)	190.6 (4842)	206.0 (5232)
	16	Equal Intersecting Aisle*	Raised	in (mm)	83.2 (2114)	108.0 (2744)	99.7 (2533)	114.6 (2912)
	17	Grade Clearance	Chassis	%	29			
			Center of Wheelbase	%	21	15	16	15
			Forks	%	12	12	8	9
	18	Overall Lift Height	Top of Forks	in (mm)	9.3 (235)			
	19	Lowered Height	Top of Forks	in (mm)	3.3 (84)			
	20	Total Lift		in (mm)	5.9 (151)			
	21	Truck Overall Width		in (mm)	38.0 (967)			
	22	Chassis Length	Raised	in (mm)	44.9 (1141)			
Lowered			in (mm)	44.4 (1128)				
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PERFORMANCE	24	Max Travel Speed - Chassis First (No Load / Rated Load)	mph (kph)	9.0 / 6.5 (14.5 / 10.5)				
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	26	Number of Speeds		Infinitely Variable				
	27	Traction Motor Control Method Type		AC Transistor				
	28	Service Brake Type		Electro-Mechanical				
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	34	Caster Wheel – Size / Type (Number of Wheels)Caster Type	in	5.0" x 2.0" / Poly (2) Adj. w/ Poly Spring Block				
BATTERY	35	Type		Lead Acid				
	36	Ampere Hours - Maximum	ah	930				
	37	Ampere Hours - Minimum	ah	375				
	38	Maximum Weight	lb (kg)	1500 (680)				
	39	Minimum Weight	lb (kg)	825 (374)				

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\* Right Angle Stack and Equal Intersecting Aisle are calculated using a 40" wide pallet flush with fork tips.

\*\* Subtract 12.9mm if equipped with Tandem Load Wheels.

The boxed-in forks and reinforced fork tips are designed for maximum rigidity and minimal fork flex. Heavy duty castings relieve stress at critical pivot points.

**Heavy Duty Linkage**

Hardened flag linkage pins are bolt retained for ease of serviceability and low cost of operation. Heavy duty pull rods with center welded threaded insert provide ease of adjustment and shock absorption. All pivot points have “X” groove style bushings and are easily accessible. Critical linkage components are made from durable cast material for maximum durability and lowest cost of operations. Advanced lift geometry reduces pivot point stress points.

**Pallet Entry and Exit**

The standard fork tip utilizes a carburized steel blade to hold down and climb pallet bottom boards for easy entry. Extended length exit runners coupled with large exit rollers are available on single load wheel configurations, providing a smooth transition out of pallets.

**Dual Caster Wheels**

The load bearing, quick-adjust dual caster wheels utilize a polyurethane block to provide shock absorption, which reduces wear on the caster and the truck. Its unique sloped profile is designed to glide over high impact areas, providing the operator with a smoother ride. The heavy duty caster is an integral part of the truck’s unique 4-point stance, providing excellent stability and control during operation.

**Options**

- Keyless toggle ignition switch
- Fork lengths
  - 54” long forks – standard tip
  - 60” long forks – standard tip
  - 84” long forks – extended tip
  - 93” long forks – extended tip
  - 96” long forks – extended tip
  - 144” long forks – extended tip
  - 144” long forks – short wheelbase extended tip
  - 160” long forks – extended tip (MPR100VG only)
- Pallet entry bar (MPR80VG only)
- Cooler/freezer package: operating temperatures: 0°F to +120°F
- Wash down package: operating temperatures: 0°F to +120°F

Drive tire

- Red polyurethane “X” groove – 85 durometer – 13.5” x 5.5”
- Red polyurethane – 85 durometer – 13.5” x 5.5”
- Vulkollan polyurethane – 90 durometer – 13.5” x 5.5”

Load wheels

- Single, dual and tandem (tandem with extended tip only)
- 2 bearing and 4 bearing
- Standard bearing and sealed bearing

Heavy duty casters – sealed wheel

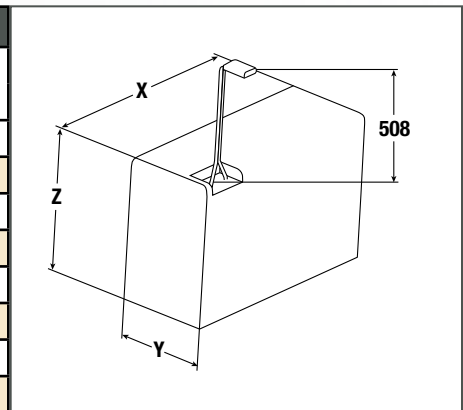
Load backrest

- 48” high (pivoting or bolt-on)
- 60” high (pivoting or bolt-on)
- 72” high (bolt-on)

Convenience tray (battery mounted)

- RF terminal power supply – 24-volt DC converter with automotive style 12-volt outlet
- Work light sensor
- Audible alarm

BATTERY SPECIFICATIONS							
Number of Cells	Cell Size	Plates per Cell	Capacity 6 Hr Rate amp hr (kwh)	Battery Dimensions			Weight lb (kg)
				“X” in (mm)	“Y” in (mm)	“Z” in (mm)	
				12	75	11	375 (8.7)
12	85	11	425 (9.9)	26.5 (663)	13.0 (330)	23.3 (592)	865 (392)
12	75	13	450 (10.5)	30.9 (785)	13.0 (330)	23.3 (592)	987 (448)
12	85	13	510 (11.9)	30.9 (785)	13.0 (330)	23.3 (592)	1035 (469)
12	100	13	600 (14.0)	30.9 (785)	13.0 (330)	26.2 (665)	1200 (544)
12	125	13	750 (17.6)	30.9 (785)	13.0 (330)	31.0 (787)	1500 (680)
12	155	13	930 (21.5)	30.9 (785)	13.0 (330)	31.0 (787)	1500 (680)



(1) Voltage: 24V  
 (2) Battery Connector:  
 – SB 175 Red - Standard / SB 175 Grey - Optional  
 – SB 350 Red - Optional / SB 350 Grey - Optional  
 (3) Battery Lead: Length 20” (508mm), Position “B”, 1/0 AWG  
 (4) Battery Cover Required



YALE MATERIALS HANDLING CORPORATION

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Manufactured in our own ISO 9001 and 14001 Registered Facilities

2566-1 10/2014 All trucks shown with optional equipment.

Truck performance may be affected by the condition of the vehicle, how it is equipped and the application. Consult your Yale® Industrial Truck Dealer if any of the information shown is critical to your application. Specifications are subject to change without notice.

This truck meets all applicable mandatory requirements of ANSI B56.1 Safety Standard for Powered Industrial Trucks at the time of manufacture. Classified by Underwriters' Laboratories, Inc., as to fire and electric shock hazard only for Type E industrial trucks.

The Yale® products included in this document may be covered by US patent 6,684,148 and other patents pending.