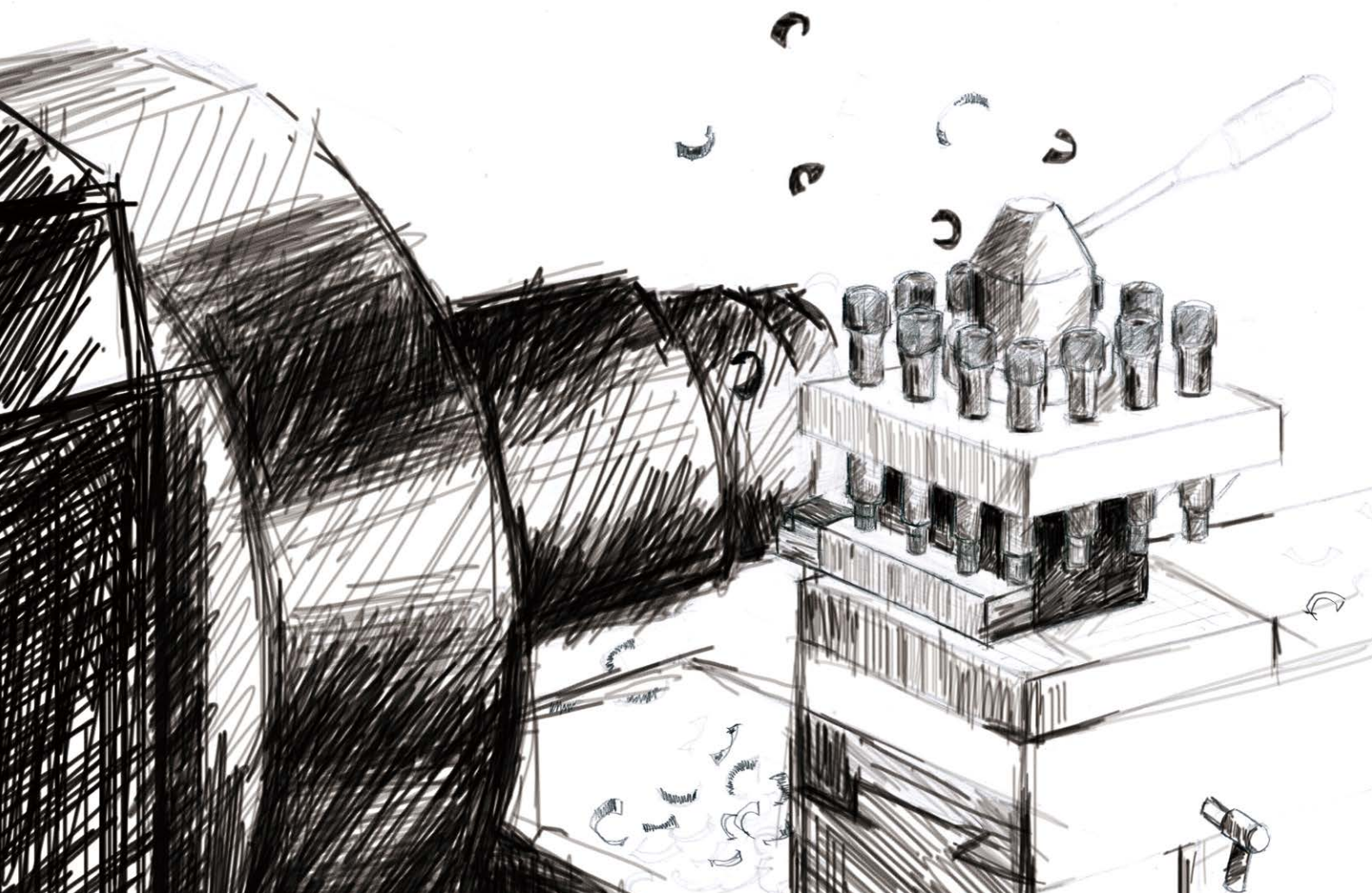


UNION MT
Your Choice Of Partner

HEAVY DUTY PRECISION LATHE

**BIG BORE SERIES
TITAN 510/610/810**



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Design Feature



Big Bore Spindle

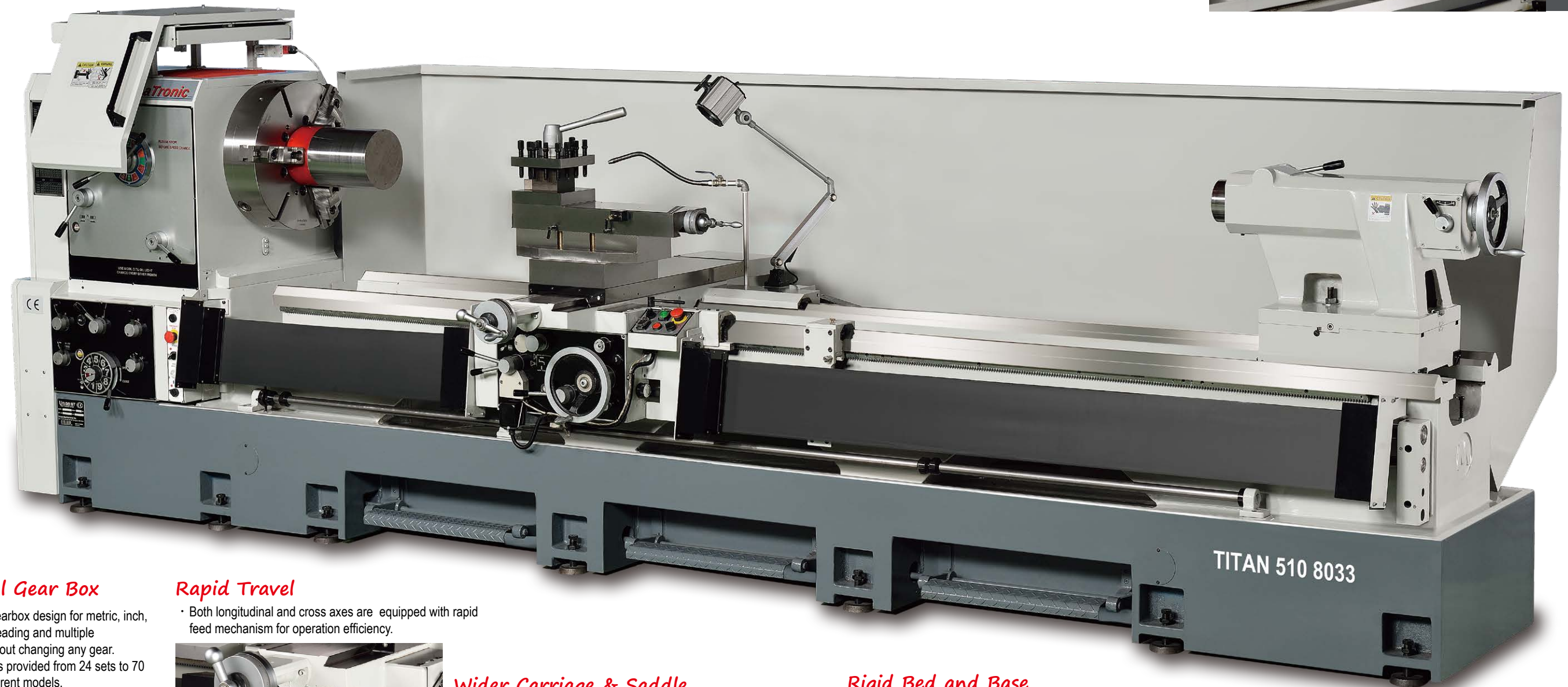
- Three points bearing layout of spindle with taper roller bearings and 12 or 16 steps spindle speed ranges ensure heavy duty cutting performance.
- Spindle big bore capability provide from 6"/8"/9"/10"/12"/15"/18" for versatile cutting conditions.

Rigid Headstock

- Symmetrical headstock & enhanced ribs increase rigidity and reduce thermal displacement.
- Spindle, gears and shafts are made of steel alloy and carburized heat treatment for longevity.

Robust Tailstock

- Robust tailstock structure with MT#6 or MT#7 quill provide heavy-duty cutting and drilling capability.
- Easy & smooth tailstock travelling through cam followers or rack mechanism.
- Two speed range of Titan 610/810 tailstock for operation efficiency.



Universal Gear Box

- Universal gearbox design for metric, inch, DP, MP, threading and multiple threads without changing any gear.
- Multi threads provided from 24 sets to 70 sets by different models.

Rapid Travel

- Both longitudinal and cross axes are equipped with rapid feed mechanism for operation efficiency.



Wider Carriage & Saddle

- Wider width of carriage and cross slide assure contact area ratio to increase cutting stiffness and moving longevity.
- The supplement carriage slide provide heavy duty cutting capability for Titan 610/810.

Rigid Bed and Base

- Integrated one piece base & bed structure and reinforced design ribs assure excellent rigidity and superb dampening capability for heavy duty and fine turning.
- Hardened and precision ground bed ways and wider bed width 510/610/810mm feature machine stability and longevity.

Please notice some specifications, accessories, pictures, appearances and etc. are optional accessories according to different model.



Quality is Our Culture

- Smart and complete inspection procedures bring you the consistency machine in trust!
- Spindle run-in procedures assure the smooth gear shifts, gear rotating, spindle running and stable temperature control.
- Dynamic balancing on machine inspection for extending spindle, bearings and gears longevity.

Cutting is Our Talent

- Big bore and large size parts applications for oil, energy, hydraulic and shipbuilding industries.
- Heavy duty cutting & efficiency chip removal capacity.
- Machining Rate Per Minute is 761.8 mL /min for Titan810.



Model	Titan 810	Titan 610	Titan 510
Material	JIS S45C	JIS S45C	JIS S45C
Part Size	Ø 292 x 200	Ø 273 x 200	Ø 200 x 200
Spindle Speed	173 rpm	119 rpm	270 rpm
Feed Rate	0.48 mm/rev	0.60 mm/rev	0.4 mm/rev
Cut Depth	10 mm	10 mm	8 mm
Machining Rate	761.8 mL/min	612.4 mL/min	542.9 mL/min

The cutting results indicated in this catalog are examples that would not be obtained due to in different cutting settings, environmental conditions, product configuration and measurement.

Precision is Our Nature

- Geometry accuracy aligning control within our own strict world class standard.
- Squareness accuracy between X and Z axis is within 0.01mm.
- Noise control guarantee to meet human health and comfortable.



TITAN“810”SERIES

No	Group	ITEM	MODEL	1400	1600	1800
1	Capacity	Center Height		1385 mm 54.53"	1485 mm 58.46"	1585 mm 62.40"
2		Distance Between Centers		2000 / 3000 / 4000 / 5000 / 6000 / 7000 / 8000 / 9000 / 10000 / 11000 / 12000 mm 78.74"/118.11"/157.48"/196.85"/236.22"/275.59"/314.96"/354.33"/393.70"/433.07"/472.44"		
3		Swing Over Bed		1400 mm 55.12"	1600 mm 62.99"	1800 mm 70.87"
4		Swing Over Cross Slide		990 mm 38.98"	1190 mm 46.85"	1390 mm 54.72"
5		Swing Over Gap		1680 mm 66.14"	1880 mm 74.02"	2080 mm 81.89"
6		Width of Bed		810 mm 31.89"		
7		Widthe of Gap		784 mm 30.87"		
8		Width of Carriage		1000 mm 39.37"		
9		Width of Cross Slide		350 mm 13.78"		
10		Bed way		2 V Ways and 3 Flat Ways		
11	Spindle	Spindle Bore		160 mm / (205/ 230/ 260/ 305/ 380/ 460 mm Option); 6.30" (8.07"/ 9.06"/ 10.24"/ 12.01"/ 14.96"/ 18.11" Option)		
12		Spindle Nose		A2-15 / (A2-20 Option)		
13		Spindle speeds		4- 420 rpm / (7- 266 rpm Option)		
14		Spindle Speed Range		16 steps		
15		Spindle Motor		15 kW 20 hp / (22.5 kW 30 hp, 30 kW 40 hp, 37.5 kW 50 hp Option)		
16	Feed Mechanism	X Axis Cross Slide Travel		600 mm 23.62"		
17		Compound Slide Travel		370 mm 14.57"		
18		Z Axis Longitudinal Travel		2000 / 3000 / 4000 / 5000 / 6000 / 7000 / 8000 / 9000 / 10000 / 11000 / 12000 mm 78.74"/118.11"/157.48"/196.85"/236.22"/275.59"/314.96"/354.33"/393.70"/433.07"/472.44"		
19		X Axis Traverse Motor		1 hP (2 hP Option)		
20		X / Z Axis Traverse Speed		X: 1.1 m/min 43.31 ipm Z: 2.1 m/min 82.68 ipm		
21		Square Tool Shank Size		40 mm 1-1/2"		
22		X Axis Cross Feed		0.03 - 3.52 mm/rev		
23		Z Axis Longitudinal Feed		0.06 - 7.04 mm/rev		
24		Inch Thread		0.25- 30 TPI (70 sets) / D.P. 1-120 TPI (70 sets)		
25		Metric Thread		1-120 mm (62 sets) / M.P. 0.25-30 mm (53 sets)		
26	Tailstock	Quill Taper		MT #6 (MT#7 Option)		
27		Quill Diameter		200 mm 7.87"		
28		Quill Travel		305 mm 12.01"		
29	Machine Dimension	Weight		13000/ 14100/ 15200/ 16300/ 17400/ 18500/ 19600 kg		
30		Length		4740/ 5740/ 6740/ 7740/ 8740/ 9740/ 10740/ 11740/ 12740/ 13740/ 14740 mm 186.61"/225.98"/265.35"/304.72"/344.09"/383.46"/422.83"/462.20"/501.57"/540.94"/580.32"		
31		Width		2170 mm 85.43"		
32		Height		1590 m 62.60"		

TITAN“610”SERIES

1170	1270	1370
1270 mm 50.00"	1320 mm 51.97"	1370 mm 53.94"
1500/ 2000/ 3000 / 4000/ 5000 / 6000/ 7000/ 8000 mm 59.06"/78.74"/118.11"/157.48"/196.85"/236.22"/275.59"/314.96"		
1170 mm 46.06"	1270 mm 50.00"	1370 mm 53.94"
860 mm 33.86"	960 mm 37.8"	1060 mm 41.73"
1600 mm 62.99"	1700 mm 66.93"	1800 mm 70.87"
610 mm 24.02"		
570 mm 22.44"		
925 mm 36.42"		
300 mm 11.81"		
2 V Ways and 3 Flat Ways		
160 mm / (205/ 230/ 260/ 305/ 380/ 460 mm Option); 6.30" (8.07"/ 9.06"/ 10.24"/ 12.01"/ 14.96"/ 18.11" Option)		
A2-11 / (A2-15, A2-20 Option)		
4- 420 rpm / (7- 266 rpm Option)		
16 steps (12 steps Option)		
15 kW 20 hp / (22.5 kW 30 hp, 30 kW 40 hp, 37.5 kW 50 hp Option)		
600 mm 23.62"		
370 mm 14.57"		
1500/ 2000/ 3000 / 4000/ 5000 / 6000/ 7000/ 8000 mm 59.06"/78.74"/118.11"/157.48"/196.85"/236.22"/275.59"/314.96"		
1 hP (2 hP Option)		
X: 1.1 m/min 43.31 ipm Z: 2.1 m/min 82.68 ipm		
40 mm 1-1/2"		
0.03 - 3.52 mm/rev		
0.06 - 7.04 mm/rev		
0.25-30 TPI (70 sets) / D.P.1-120 TPI (70 sets)		
1-120 mm (62 sets) / M.P.0.25-30 mm (53 sets)		
MT #6		
150 mm 5.91" (200 mm 7.87", Option)		
305 mm 12.01"		
7800/ 8300/ 9300/ 10300/ 11300/ 12300/ 13300/ 14300 kg		
3600/ 4100/ 5100/ 6100/ 7100/ 8100/ 9100/ 10100 mm 141.73"/161.42"/200.79"/240.16"/279.53"/318.90"/358.27"/397.64"		
2050 mm 80.71"		
1540 mm 60.63"		

TITAN“510”SERIES

860	960	1060
1180 mm 46.46"	1230 mm 48.43"	1280 mm 50.39"
1800 / 2300/ 3300 / 4300/ 5300 / 6300/ 7300/ 8300 mm 70.87"/90.55"/129.92"/169.29"/208.66"/248.03"/287.40"/326.77"		
860 mm 33.86"	960 mm 37.80"	1060 mm 41.73"
620 mm 24.41"	720 mm 28.35"	820 mm 32.28"
1000 mm 39.37"	1100 mm 43.31"	1200 mm 47.24"
510 mm 20.08"		
570 mm 22.44"		
730 mm 28.74"		
280 mm 11.02"		
3 V Ways and 1 Flat Way		
153 mm 6.02" / (230 mm 9.06" Option)		
A2-11 / (A2-15, Option)		
8- 680 rpm / 7-500 rpm		
12 Steps		
15 kW 20 hp / (22 kW 30 hp Option)		
510 mm 20.08"		
330 mm 12.99"		
1800 / 2300/ 3300 / 4300/ 5300 / 6300/ 7300/ 8300 mm 70.87"/90.55"/129.92"/169.29"/208.66"/248.03"/287.40"/326.77"		
1/4 hp		
X : 1.8 m/min 7.09 ipm Z : 3.8 m/min 14.96 ipm		
32 mm 1-1/4"		
0.025 - 0.35 mm/rev		
0.05 - 0.7 mm/rev		
2-28 TPI (36 sets) / D.P.4-56 TPI (36 sets)		
0.8-14 mm (38 sets) / M.P. 0.5-7 mm (24 sets)		
MT #6		
120 mm 4.72"		
250 mm 9.84"		
5700 / 6100 / 6800 / 7600 / 8400 / 9200 / 10000 / 10800 kg		
3750 / 4250 / 5250 / 6250 / 7250 / 8250 / 9250 / 10250 mm 147.64"/167.32"/206.69"/246.06"/285.43"/324.80"/364.17"/403.54"		
1740 mm 68.50"		
1438 mm 56.61"		



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