



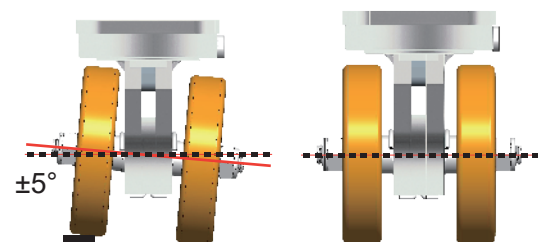
## 1163-1 Series Self-balancing Caster

- Der Sheng's Self-balancing Caster has the newly developed tilting structure which can tilt freely according to the flatness of the ground while at the same time, it also maintains stability and effectively reduces the wobble of the caster when rotating. Two wheels are under force at the same time minimize wear and tear, thus extending service life. The caster design features elastic and noise reduction functions. Dersheng's Self-balancing Caster fork is made of high tensile steel with harden raceway to provide long lasting service life and extreme high load capacity while maintaining low profile and overall height. It is suitable for application like AMR/AGV and robotic industry products.

Load  
150-700 kg

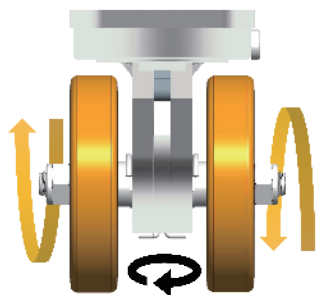


### » Features

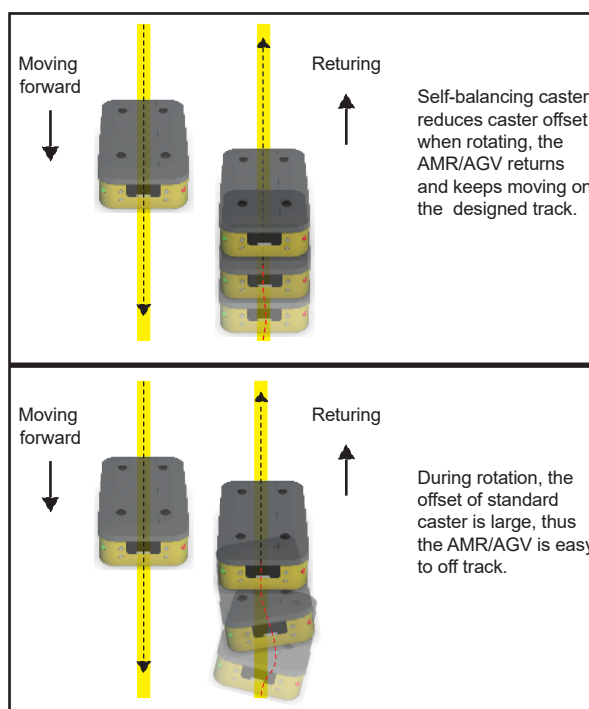


The caster can tilt freely in the range of  $\pm 5^\circ$  from its central axis, it can easily cross uneven ground and small obstacles, also can maintain stability and protect the loaded products.

The split wheel rotates in different directions when AMR/AGV rotates, after reaching the position, they start to rotate in the same direction. This structure can effectively reduce caster offset and prevent the AMG/AGV from leaving the track.



The dual wheels structure effectively reduce caster offset when rotating, and prevent the AMR/AGV from leaving the track





## » Wheel Options



EQPU



XPU on Iron Core



ZQPU



Ball Bearing

## » TOP PLATE SIZE AND BOLT HOLE SPACING

Size	Top Plate Size	Bolt Hole Spacing	Attaching Bolt Size
2"	62 x 90 mm (2-1/2" x 3-1/2")	44.5 x 73 mm 1-3/4" x 3-1/8"	8mm (5/16")
2" 2.5" 3"	64 x 96 mm (2-1/2" x 3-25/32")	45 x 75 mm 1-3/4" x 3"	6.35mm (1/4")
2" 2.5" 3" 3.2" 4" 5" 6"	85 x 110mm(3-5/16" x 4-11/32")	60 x 80mm 2-3/8" x 3-1/8" (European Plate)	8mm (5/16")
3.2" 4" 5" 6"	110 x 140 mm (4-11/32" x 5-1/2")	75 x 110 mm (2-15/16" x 4-11/32")	12 mm (1/2")

	Diameter*Width	Load	Material	Item No. Swivel	Bearing	Overall Height	Offset	Swivel radius
Light Duty	50mm x 20mm (2"x 0.79")	70kgs (154 lbs)	ZQPU 輪 ZQPU	1163(1)-02-115-2	Ball Bearing	79 mm	20.5 mm	55 mm
	62.5mm x 20mm (2.5"x 0.79")	150kgs (330 lbs)	ZQPU	1163(1)-25-115-2		94 mm	24 mm	65 mm
	75mm x 20mm (3"x 0.79")	180kgs (396 lbs)	ZQPU	1163(1)-03-115-2		105 mm	22 mm	69 mm
Medium Duty	75mm x 30mm (3"x 1.18")	300kgs (660 lbs)	QPU	1163(1)-03-81-2	Ball Bearing	105 mm	22 mm	72 mm
	100mm x 22mm (4"x 0.87")	280kgs (616 lbs)	ZQPU	1163(1)-04-115-2		130 mm	30 mm	91 mm
	125mm x 24mm (5"x 1")	330kgs (726 lbs)	ZQPU	1163(1)-05-115-2		155 mm	33 mm	104 mm
	150mm x 24mm (6"x 1")	380kgs (836 lbs)	ZQPU	1163(1)-06-115-2		180 mm	35 mm	118 mm
Heavy Duty	80mm x 35mm (3.2"x 1.38")	400kgs (880 lbs)	XPU	1163(1)-03-96-2	Ball Bearing	110 mm	30 mm	90 mm
	100mm x 32mm (4"x 1.26")	400kgs (880 lbs)	QPU (Round)	1163(1)-04-81-2		130 mm	30 mm	99 mm
Extra Heavy Duty	80mm x 42mm (3.2"x 1.65")	550kgs (1210 lbs)	XPU	1163(1)-03-96-2(1)	Ball Bearing	110 mm	30 mm	93 mm
	125mm x 40mm (5"x 1.57")	600kgs (1320 lbs)	EQPU (Round)	1163(1)-05-81-2		155 mm	33 mm	113 mm
	150mm x 42mm (6"x 1.65")	700kgs (1540 lbs)	EQPU (Round)	1163(1)-06-81-2		180 mm	35 mm	127 mm