



Hangfa Robot Family

OmniTurtle Mecanum Wheel Type Omnidirectional

Transporter

Flexible, romantic, chivalrous



OmniRhino

Differential Speed Wheel Type Omnidirectional Transporter

Steady, loyal and decisive



OmniTitan

A-Titan Wheel Type Omnidirectional Transporter

Loyal, endurance, endless Strength



OmniAnt

Steering Wheel Omnidirectional Transporter

Simplicity, diligent, enduring vitality



Hangfa is committed to manufacturing good robots aim to become a first-class and a century-old enterprise

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WeChat Public Account

YouTub



Heavy-duty Omnidirectional Transporter Product Brochure





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Hangfa Robotics

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Chengdu Hangfa Robotics Co., Ltd. was established in 2016. It is an enterprise specializing in the research and development, production, sales and service of mobile robots, omnidirectional wheels, and non-standard automation equipment. The head office is located in Pidu District, Chengdu City, China. It currently has about 200 employees and covers an area of about 100 acres. The company has passed ISO9001, GJB9001 and other system certifications, and has been rated as "National High-tech Enterprise", "Sichuan Province Specialized New Enterprise", "Sichuan Province Gazelle Enterprise" and other titles. It has more than 40 patents of various types which has filled many gaps in China.

After years of development and accumulation, Hangfa Robotics has become the world's leading and most influential supplier of heavy-duty mobile robots. Hangfa robotics products are widely used in various industries, including rail transportation, aerospace, new energy, electric power, engineering machinery, Shipbuilding, metallurgy, machinery manufacturing and other industries. It has branches in Beijing, Belgium, Singapore and other places.







Production and Office Environment

Honors and Patents

- Sichuan Province Gazelle Enterprise
- National High-tech Enterprise
- Sichuan Province Specialized New Enterprise
- Technology Small and Medium Enterprises
- Quality Management system Certification
- Weapons and Equipment Quality Management System Certification
- Environmental Management System Certification
- Occupational Health and Safety Management System Certification









- Software Company
- Integrity Management Demonstration Unit
- An Enterprise that Abides by Contracts and Values Credit















Our Customers

国家能源集团 CHN ENERGY	ENVISION Greenwich	金风科技 GOLDWIND	♦ BOMAG *
ि GREE श्रं	CSSC 中國組織無國有限公司	SHIPPING	COMAC 中国两飞
持变电工 TBEA	中国中年 CRRC	航空工业	中国航天
A SANY	Casic 航天欧华	招商局集團	D 代新材
XX BR SUNRUI	HE 哈电集团	上版动力	中国維持
第1 中国西电集团 CHINAXDGROUP	国家核电 SNPTC	る。中藤無同	WEICHAI 潍 珠 味
中国铁建	Sieyuan 思源电气	ZOOMLION 印 联 画 科	⑦ <i>XCMG</i> 徐工集团
《 哈电风能有限公司	中国爆炭科工集团	中国国家铁路集团有限公司 CHINA RAILWAY	◆回車气装器 西京西東高田川X布融西低公司
→ 鞍钢票团 ANSTEEL	注析 ジェナ、連 Portaine secretary	北京理工大学	大重集団 するこの

Key Products



OmniTurtle Series											
Load Range for One Unit	0~100t										
Wheel system type	Mecanum Wheel										
Product Features	It can perform seamless movement switching and 360° omnidirectional movement. The movement adjustable accuracy is better than 1mm. The internal stress is controllable during linkage, with high responsiveness and high-precision synchronous following.										
Typical Application Scenarios	Efficient transportation, docking, multi-transporters linkage, cool applications.										



	OmniRhino Series
Load Range for One Unit	0~120t
Wheel system type	Differential Speed Wheel and Universal Wheel
Product Features	It is with strong ability to overcome obstacles and adapt to ground conditions. It can be used on the road and rail. The internal stress of some models can be controlled when linked.
Typical Application Scenarios	High reliability linkage, better durability and ground adaptability than Mecanum wheel.



OmniTitan Series											
Load Range for One Unit	0~500t										
Wheel system type	A-Titan Differential Speed Wheel										
Product Features	Extra large load										
Typical Application Scenarios	Transportation of ultra-large and ultra-heavy parts. poor ground conditions. Adaptable to poor ground conditions.										



OmniAnt Series										
Load Range for One Unit	0~30t									
Wheel system type	Steering Wheel +Universal Wheel									
Product Features	Automatic transporter , economical, simple and reliable, capable of high-speed movement.									
Typical Application Scenarios	AGV High speed transporter, economical AGV.									

OmniTurtle

Mecanum Wheel Type Omnidirectional Transporter





HTT HTM





- 0~100t Load capacity for one unit
- The internal stress of some models can be controlled when linked
- Mecanum wheel as driving wheel
- Flexible arrangement of wheel systems position/rail passing ability/frame self-lifting
- Pendulum suspension/hydraulic suspension Continuously perform 360° arbitrary posture changes without switching time
- \bullet Especially suitable for precision docking applications, the adjustable accuracy is better than $\pm 1 \text{mm}$

Movement Mode



New Energy Automotive Grade Lithium Battery System

Maintenance-free Lead-acid Battery



Mecanum Wheel



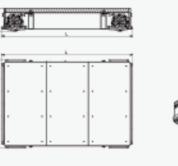
Industrial Remote Controller



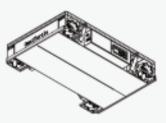
Product Appearance

HTB

Without Lifting Mechanism

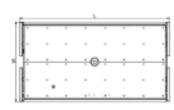


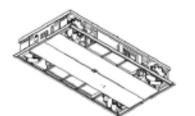




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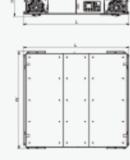
HTT
With Direct Action Lifting Mechanism





HTL

With Scissor Lifting Mechanism





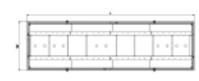


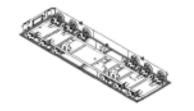




HTM

Wheel System Lifting Mechanism





Paramet	ter Selection Tabl	e /											
Product Sp	ecifications												
Model No		HT*1504	HT*2004	HT*20A04	HT*2504	HT*3104	HT*3604	HT*4004	HT*4008				
Length mm	(1)	800	900	900	1500	2000	2200	2400	3200				
Width mm		600	600	700	1000	1300	1400	1500	1800				
Width iiiii	Height mm (H)		250	250	300	350	400		50				
НТВ	Net Weight (t)	200 0.1	0.1	0.2	0.45	0.7	1.2	1.5	3				
1110	Load Capacity (t)	0.1	0.15	0.2	1	1.7	3	4.5	9				
	Height mm (Hmin)	-	-		400		-		50				
									30				
HTT	Lifting Stroke mm(s)	-	-	60	1		200	120					
1111	Lifting Speed mm/min	-	-	0.2	0.0			2.1	4				
	Net Weight (t)	-	-	0.3	0.8	1.3	1.6	2.1	4				
	Load Capacity (t)	-	-	0.5	0.6	1.2	2.5	4	8				
	Height mm (Hmin)	-	-	-	400	450	500		50				
	Lifting Stroke mm(s)	-	-	-	600	800	800	900	600				
HTL	Lifting Speed mm/min	-	-	-			900	1					
	Net Weight (t)	-	-	-	0.8	1.3	1.6	2.1	4				
	Load Capacity (t)	-	-	-	0.6	1.2	2.5	4	8				
	Height mm (Hmin)	-	-	-	-	350	400	4	50				
	Lifting Stroke mm(S)	-	-	-	-	80	120	1	50				
HTM	Lifting Speed mm/min	-	-	-	-		2	.00					
	Net Weight (t)	-	-	-	-	1.2	1.4	1.8	3.4				
	Load Capacity (t)	-	-	-	-	1.2	2.5	4	8				
Power Sour	ce												
Battery Typ	e e	Tern	ary lithium	battery	Lead	-acid batter	//lithium iro	n phosphate	battery				
Battery Cap			48V30AH 48V50AH 48V120AH 48V200A										
	tery Endurance			12h (/	According to	the work so			1				
	rge Charging Time	8h Lea	d-acid batte	ery/4h lithiur				ble for fast o	harging)				
Charger Po		0.1.200		,		//AC380V	(00000111120		,,,,,,,				
Driving Unit					7.0220	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
	Driving Units				4				8				
Wheel Diam													
	d Capacity t	0.1	0.08	0.24	0.45	0.65	1.1)6.4 6				
	otal Weight t	0.1	0.32	0.24	1.8	2.6	4.4	6.4	12.8				
		0.4	0.32	0.90	1.0	4	4.4	0.4	12.0				
	Driving wheels				Dwyshlass	-							
Motor Type			1.11	=	Brusniess	servo motor		0					
	ounting Ability (Suspension Stroke)		工1:	5mm	11	M	±2	0mm					
	essure on the Ground				11	.Мра							
Movement													
	urning Radius					0m							
	oving Speed					.5m/s							
	ustable Accuracy					1mm							
	stable Accuracy					2mm							
Movement	Function	360° tra	anslation in an	y direction , tu	rning, rotatior	n and compou	nd movement	of the above m	ovements				
Environme	nt Condition												
Applicable (Ground		Cond	crete, self lev	eling, hard a	asphalt, stee	l plate floori	ng, etc					
Full Load C	limbing Ability				į	5%							
No Load Cli	mbing Ability	>20% (Ir	nterference l	between the	ground and	the transpo	rter frame n	eeds to be co	onsidered)				
Protection						P54							
Working En		Temperature: -15~+45°C; Humidity: 0~95%, no condensation.											
Storage Env				rature: -20~									
Others	-				-,	,							
Control Mo	de	Remote cor	ntrol operation	/automatic navi	gation/receivin	g communication	on instructions	from upper com	puter control				
Fault Rescu				Manual lowe									
. autt Neseu	ic i diletion			amaat tovve	g, writett	armouning, c	Accide to Wil	ל''					

aranne	ter Select	ion Table	/							
HT*4504	HT*4508	HT*5004	HT*5008	HT*5804	HT*5808	HT*5812	HT*6604	HT*6608	HT*6612	HT*6616
2500	3400	2700	3700	3000	4200	5500	3300	4600	6000	7500
1650	2000	1800	2100	2000	2300	2600	2200	2500		300
	00	55			630				20	
1.7	3.5	2	4	2.5	5	7.5	3.5	7	10.5	14
5.5	11	7	14	9	18	28	13	27	42	55
6	00	65	50		750			8.	50	
					150					
				200					1.	50
2.5	4.5	3	5.5	4	7	10	5	10	15	20
5	10	6	12	8	16	25	12	24	37	50
6	00	65	50		750		8	50	-	-
900	600	900	600	900	6	00	900	600	-	-
		90	00			600	900	600	-	-
2.5	5	3	6	4	8	13	5.5	12	-	-
5	10	6	12	8	15	22	12	22	-	-
5	00	55	50		630			7.	20	
	15	50			180			2	00	
				200						50
2	3.5	2.5	4.5	3.5	6	8	4.5	9	12	16
5	11	6	13	8	17	27	12	25	40	55
18V150AH	48V200AH 8	48V150AH h Lead-acid b	48V200AH pattery/4h li	Accordir thium iron pl	ng to the wo	rk schedule tery(Custo		48V600AH fast chargin		600AH
4	8	4	8	4	8	12	4	8	12	16
	7.2	50			584.2	12	Т		60	10
	9	2.			3.1				.5	
7.6	15.2	9.2	18.4	12.4	24.8	37.2	18	36	54	72
1.0	10.2	4	10.1	12.1		3	4	- 50	8	12
		'		Brush	ıless servo r	-	'			
			±20mm	5.40.				±25	īmm	
			-		11Mpa					
					0m					
					0~0.5m/s					
					±1mm					
					±2mm					
	3	60° translation	in any direction	on , turning, rot	ation and cor	npound move	ement of the ab	ove movemer	nts	
			Concrete, se	elf leveling, h		, steel plate	flooring, etc	:		
	>20	% (Interfere	ence betwee	n the ground	5% I and the tra	nsporter fra	ame needs to	be conside	red)	
					IP54					
							condensati			
		Те	mperature:	-20~+50°C;	Humidity:	0~95%, no	o condensati	on.		
	Rem	ote control ope	ration/automat	ic navigation/re	ceiving commi	unication instru	ıctions from unr	per computer co	ontrol	

^{*} Optional multi-transporter linkage function.
* The transporter can be customized with any number of wheel systems.

^{*} Products will be continuously improved and upgraded, and the parameters in the table may change.

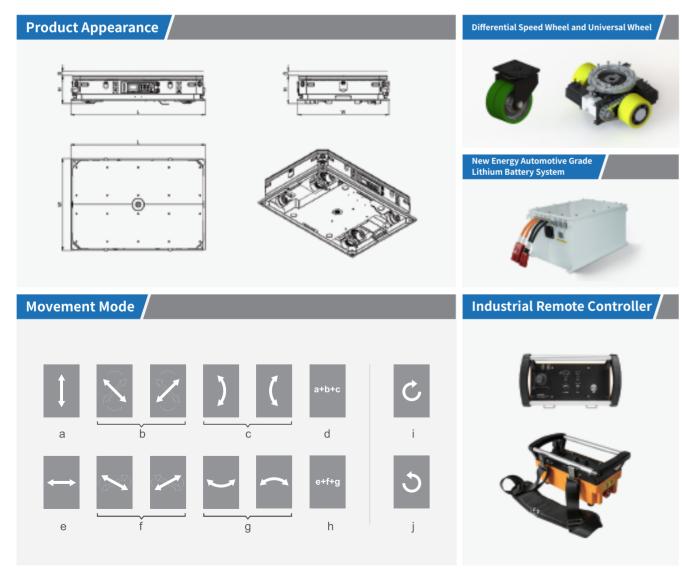
* Most parameters have not reached the technical limit and can be adjusted and customized according to your needs. Please contact us.

OmniRhino

Differential Speed Wheel Type Omnidirectional Transporter



- 0~60t load capacity for one unit
- Differential speed driving wheel unit
- The internal stress of some models can be controlled when linked
- Spring suspension/pendulum suspension/ air suspension
- Flexible movement ability, capable of running straight, turning, lateral movement, oblique movement, rotation and compound movements of the above movements
- Flexible arrangement of wheel systems position/rail passing ability/dual use for road and rail/frame self-lifting



Parameter Sele	ction 1	Table												
Series No			RHC					RHE			RHS			
Product specifications														
Model No	RHC01	RHC02	RHC03	RHC05	RHC10	RHE05	RHE10	RHE20	RHE40	RHE50	RHS20	RHS40	RHS60	
Lengthmm (L)	1600	2000	2500	3000	3500	2500	3000	4500	5000	5500	4000	4500	5500	
Width mm(W)	800	1000	1200	1500	1800	1200	1800	2000	2200	2600	2300	2600	2700	
Heightmm (Low State Hmin)	29	90	3	30	450	320	420	430	500	650	600	650	750	
Lifting Mode	Scissor type lifting platform/direct action lifting platform										Transpo	rter fran	ne lifting	
Suspension/Lifting Stroke mm(s)		Customizable										60		
Load Capacity											'			
Net Weight (t)	0.7	1.2	1.6	2.5	6	2	3	4	5	6	5	7	10	
Load Capacity (t)	1	2	3	5	10	5	10	20	40	50	20	40	60	
Power Source														
Battery Type					Lit	thium iro	n phosph	ate batte	ry					
Battery Capacity		48V50AH		48V100AH	48V200AH	48V100AH	48V2	00AH	48V400AH	48V600AH	48V200AH	72V4	00AH	
Typical Battery Endurance				12h (Customiz	able acco	rding to	customer	's require	ment)				
Full Discharge Charging Time						ıstomizal								
Charger Power Supply	,				•		220V/AC3		<i></i>					
Driving Unit							· ·							
Number of Driving Units				2					4			2		
Motor Type						DC	servo mo	tor						
Suspension Type		Spri	ing susp	ension			Pendu	lum susp	ension		Air	suspensi	on	
Maximum Ground Pressure			8Mpa					10Mpa			8Mpa			
Diven unit														
Number of Universal Wheels			4				2					4		
Universal Wheel Model No	D100	D150	D200	D250	D268	D200	D268				D360	D400B	D4000	
Universal Wheel Rated	0.8	1.6	2	2.9	5.4	2	5.4	Pandi	ulum susp	ension	7	12	18	
Load Capacity Suspension type						Pendulum	suspension	i chac	aturii susp	701131011	Air	suspens	ion	
Maximum Ground Pressure				10Mpa	<u> </u>						10Mpa			
Movement Features				20pc	•									
Minimum Turning Radius							0m							
No Load Maximum Moving Speed							0-0.5m/s	<u> </u>						
Full Load Maximum Moving Speed							0-0.5m/s							
Moving Adjustable Accuracy							±2mm							
Environment Condition							-2111111							
Applicable Ground					Concrete	s self leve	oling stee	al nlate fle	ooring, et	<u> </u>				
Full Load Climbing Ability					Concrete	2, 3011 1010	5%	t place it	, cc					
No Load Climbing Ability		>200	6 (Intar	ference h	etween th	ie graind		transnort	er frame	needs to b	ne conside	ered)		
Protection Level		/ 20 /	o (IIILEII	lerence b	etween ti	ie ground	IP54	transport	er manne i	ileeus to i	Je considi	ereu/		
Working Environment				Tempor	ature: -15	5~+45°C•		v. U~∪≥∪	6 no con	densatio	n			
					ature: -20									
Storage Environment Control Mode				rempera	20	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	riumiuit	y. 0-33%	o, 110 COI	idensatio				
Control Mode		Domoto	control	oration/aut	matic navia	ation/receiv	ing comm	nication inst	tructions for	m tho upper	computer fo	or control		
		Remote			matic navig , diagonal m							ה כטוונוסו		
Movement Function				please	refer to the	chapter on t	he introduct	ion of move	ment modes					
Fault Rescue Function		Ма	nual low	ering, ex	ternal trad	ction (wit	h the help	o of grour	nd tanks)		(The drive u	ering, extern init can be lif nout the help	ted off the	

^{*} Optional multi-transporter linkage function.

 $^{^{\}star}$ The transporter can be customized with any number of wheel systems.

^{*} Products will be continuously improved and upgraded, and the parameters in the table may change.

^{*} Most parameters have not reached the technical limit and can be adjusted and customized according to your needs. Please contact us.

OmniTitan

A-Titan Wheel Type Omnidirectional Transporter



- 0~500t load capacity for one unit
- Self-lifting differential speed wheel, transporter body lifting
- New Energy Automotive Grade Lithium Battery System
- Strong ability to overcome obstacles
- Adaptable to indoor and outdoor rain, snow, and low temperature environments
- Flexible movement ability, capable of running straight, turning, lateral movement, oblique movement, rotation and compound movements of the above movements



Parameter S	elec	tic	on Tab	le																			
Series No								TA												ТВ			
Product specifications																							
Model No	TA24	TA	40 TA60	TA80	TA100	TA150	TA200	TA250	TA300	TA180	TA270	TA360	TA450	TA540	TA720	TB80	TB120	TB160	TB24	10 TB320	TB400	TB480	TB560
Length mm (L)	3000	40	00 5000	6000	5500	6500	7500	9000	11000	6000	7000	8500	10000	12000	16000	4000	5000	5000	650	0 8000	9000	10000	11000
Width mm (W)	1700	1700 2000 2500 3000											20	00			24	00					
Height mm (Low State Hmin)	450		530				670					7	70			32	20			4	20		
Lifting Mode						Tra	nsport	er Fram	e Liftin	g								Trar	nspor	ter Fram	e Liftin	g	
mm(s) Suspension/lifting Stroke			150							200						8	0			1	00		
Load Capacity																							
Maximum Total Weight t	24	4	0 60	80	100	150	200	250	300	180	270	360	450	540	720	80	120	160	240	320	400	480	560
Maximum Net Weight t	3	5	5 6	7	8	12	16	22	28	15	20	27	35	43	60	4	6	6	9	12	16	20	24
Rated Load Capacity t	20	3	0 50	70	80	120	160	200	240	140	200	270	340	400	500	70	110	150	225	300	375	450	520
Power Source			,																				
Battery Type						Lithiu	m iron	phosph	ate bat	tery							Li	ithium i	ron p	hospha	e batte	ry	
Battery Capacity kWh	10		25		30	6	0	90)	55	11	LO	17	70	220	10	20	25		60		90	120
Typical Battery Endurance				12h	(Custon	nizable	accord	ing to c	ustome	er's req	uireme	nt)				12h ((Custom	izable a	ccord	ing to cus	tomer's	requirer	nent)
Full Discharge Charging Time					8	3h (Cust	omizab	ole for fa	ast cha	rging)							8h (Custon	nizab	le for fas	t charg	ng)	
Charger Power Supply							AC22	0V/AC38	30V									А	C220)V/AC380	V		
Driving Unit																							
Number of Driving Units	4	4	4 6	8	4	6	8	10	12	4	6	8	10	12	16	4	6	4	6	8	10	12	14
Unit Model No	A06		A10				A25					A	45			B2	20			В	40		
Wheel Diameter mm	250		310				457					50	00			25	50			3	10		
Unit Rated Load Capacity t	6		10				25					4	5			2	0			4	10		
Motor Type							AC	motor											AC	motor			
Suspension / Self-lifting Type						Hydr	aulic in	depend	dent ty	pe							I	Hydraul	lic inc	depende	nt type		
Maximum Ground Pressure							1	L0Mpa											15	Мра			
Movement Features																							
Minimum Turning Radius								0m												0m			
Movement Speed Range							0-3	0m/mir	n										0-20	0m/min			
Full Load Slope Moving Speed							0-2	0m/mir	n										0-10	0m/min			
Lifting Speed							60-20	00mm/n	nin									6	60-20	0mm/mi	n		
Moving Adjustable Accuracy							₫	±2mm											±	2mm			
Lifting Adjustable Accuracy							±	±1mm											±	1mm			
Movement Function	Strai	ight	t moveme	nt, dia	gonal m	noveme	nt, late	ral move	ement,	rotatio	n, turni	ng, etc.	For det	ails, ple	ase refe	er to the	e chapte	er on the	e intr	oduction	of mov	ement r	nodes.
Environment Condition																							
Applicable Ground									Concr	ete, se	elf level	ing, ste	el plat	e floor	ing, etc	:							
Full Load Climbing Ability								5%												3%			
No Load Climbing Ability		>20% (Interference between the ground and the transporter frame needs to be considered)																					
Protection Level								IP54												IP54			
Working Environment							Te	empera	ture:	-15~+4	45°C; F	lumidi	ty: 0~9	95%, 1	no cond	densat	ion						
Storage Environment											50°C; F		-										
Others																							
Control Mode			Rer	note o	control	operat	ion/au	tomati	c navi	gation	/receivi	ng con	nmunic	ation i	nstruc	tions fr	om the	upper	com	puter c	ontrol		
Fault Rescue Function							Ма	anual lo	werin	g, exte	rnal tra	ction (with th	e help	of grou	ınd tar	nks)						
Weight Measurement					Weigh	t meas	ureme	nt, cent	ter of g	gravity	positio	n mea	sureme	ent, ove	erload	alarm,	eccent	ric load	d alaı	rm			

- * Optional multi-transporter linkage function.
- * The transporter can be customized with any number of wheel systems.
- * Products will be continuously improved and upgraded, and the parameters in the table may change.

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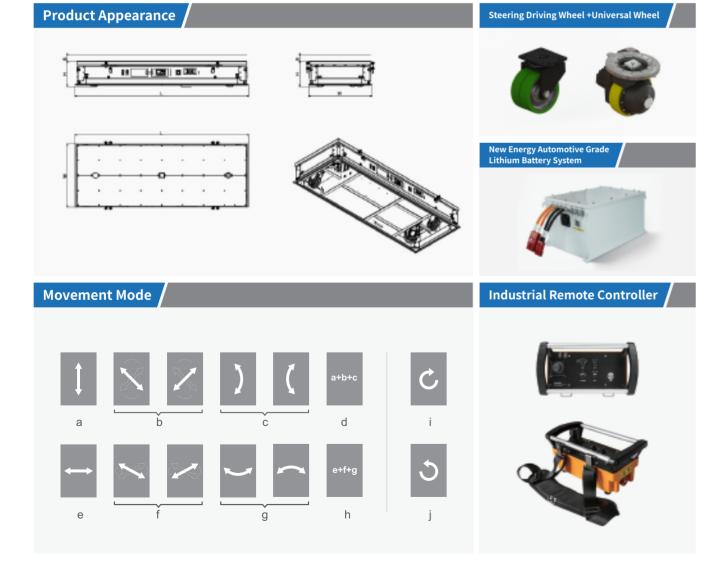
^{*} Most parameters have not reached the technical limit and can be adjusted and customized according to your needs. Please contact us.

OmniAnt

Steering Wheel Type Omnidirectional Transporter



- 0~30t load capacity for one unit
- Steering Driving Wheel Unit
- 1.5m/s high-speed version can be customized
- Flexible movement ability, capable of running straight, turning, lateral movement, oblique movement, rotation and compound movements of the above movements



Parameter Selection Ta	ible /											
Series No			ANT									
Product specifications												
Model No	AN02	AN05	AN10	AN20	AN30							
Length mm (L)	2000 2500 3000 3500											
Width mm (W)	1300	1300 1500 1800 2000 210										
Height mm(Low State Hmin)	400	470	500	600	650							
Lifting Mode		Scissor type lifting	platform/direct act	ion lifting platform								
Suspension/Lifting Stroke mm(s)		Scissor type lifting platform/direct action lifting platform Customizable										
Load Capacity												
Net Weight t	1	2	3	5	6							
Load Capacity t	2	5	10	20	30							
Power Source	_											
Battery Type		Lithiu	m iron phosphate b	atterv								
Battery Capacity	48V50AH	48V100AH	48V200AH	72V20	00AH							
Typical Battery Endurance	101007.111			mer's requirement)								
Full Discharge Charging Time			omizable for fast c									
Charger Power Supply		on (case	AC220V/AC380V	141 811 8 /								
Driving Unit			//CZZOV///CZCOV									
Number of Driving Units			2									
Motor Type			DC servo motor									
Suspension Type		P	endulum suspensio	n								
Maximum Ground Pressure		<u>'</u>	10Мра	711								
Diven unit			1011111111									
Number of Universal Wheels			2									
Universal Wheel Model No	D150	D200	D268	D360	D400B							
Universal Wheel Rated Load Capacity t	1.6	2	5.4	7	12							
Suspension type	1.0		endulum suspensio	·	12							
Maximum Ground Pressure		<u>'</u>	10Мра	711								
Movement Features			1011111111									
Minimum Turning Radius			0m									
No Load Maximum Moving Speed			0-0.5m/s									
Full Load Maximum Moving Speed			0-0.5m/s									
Moving Adjustable Accuracy			±2mm									
Environment Condition			_2111111									
Applicable Ground		Concrete sel	f leveling, steel plat	e flooring etc								
Full Load Climbing Ability		concrete, set	5%	e nooring, etc								
No Load Climbing Ability	>20% (1r	iterference hetween the		orter frame needs to be	considered)							
Protection Level	> 20 /0 (II	activities between the	IP54	orter frame freeds to be t	considered _j							
Working Environment	Temperature: -15~+45°C; Humidity: 0~95%, no condensation											
Storage Environment	Temperature: -20~+50°C; Humidity: 0~95%, no condensation											
Control Mode	1611	iperature20 130	, c, Haimaity. 0	5570; HO COHGENSA								
Control Mode	Remote control operation	on/automatic navigation/	receiving communication	instructions from the upp	er computer for control							
Movement Function				ovement, rotation,								
Fault Rescue Function				ne help of ground ta								
i date nescue i unction	l Wall	aat towering, exteri	iat traction (with th	ic netp of ground to								

^{*} Optional multi-transporter linkage function.

^{*} The transporter can be customized with any number of wheel systems.

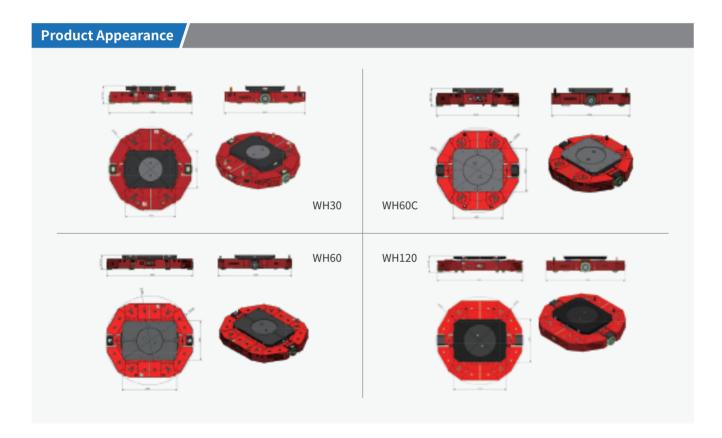
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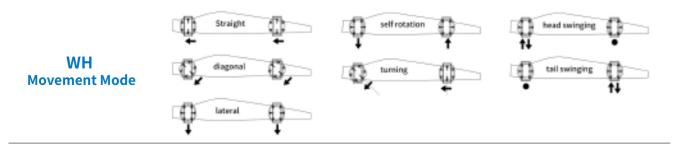
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WH Wind Turbine Blade Transporter



- 30~120t load capacity after linked
- 80m Linkage distance to apply for 130m blade
- The rotable stage allows the blades to be transported only under axial force
- The maximum speed can reach 1m/s
- The internal stress of some models can be controlled when linked
- The floating chassis design can adapt to the drainage slope of large-area sites and the slope in and out of the workshop





Parameter Selection Table	/									
Series No			WH							
Product Specifications										
Model No (One set contains two units)	WH30	WH40	WH60C	WH60	WH120					
Overall Dimensions Rotation Diameter mm	2700)	3200	4200	4500					
Height mm(Low state)	560		66	50	810					
Lifting Stroke mm	120			150						
Loading Platform Size mm	1600×1	1600×1200 1900×1600 2600×1850 2								
Load Capacity										
Rated Load Capacity t(for one unit)	15	20	3	0	60					
Rated Load Capacity t(for one set)	30	40	6	0	120					
Net Weight t (for one unit)	5	5	6.5	8.5	10					
Power Source										
Battery Type	Maintenance-free lea	ad-acid batteries	Lithi	um iron phosphate	battery					
Battery Capacity kWh	14.4		2	5	50					
Гуріcal Cruising Range (20°С)	8Km	7Km	848	(m	8Km					
Typical Battery Endurance			Two shifts	'						
Charging Time	8h			4h						
Standby Time			>72h							
Charger Power Supply (Other voltages optional)	AC220V/AC380V									
Basic Features										
Maximum Center Distance of Two Units Linkage			80m							
Oriving Wheel Diameter mm	330		4:	10	500					
ce and Snow Wheel			Optional							
Orive Motor Type		В	rushless servo moto	or						
Suspension /Self-lifting Type		Indepe	endent hydraulic lif	t table						
Maximum Ground Pressure			10Mpa							
Movement Features			·							
Minimum Turning Radius			0m							
Rated Moving Speed	0~0.85r	n/s		0~0.6m/s						
Maximum Moving Speed			0~1m/s							
Lifting Speed	300mm/	min		200mm/min						
Moving Adjustable Accuracy	•		±3mm	·						
Lifting Adjustable Accuracy			±5mm							
Environment Condition										
Applicable Ground		Concrete, self	leveling, steel plate	e flooring, etc						
Full Load Climbing Ability (T1)	2% (age slope of a large ar	ea)					
Full Load Climbing Ability (T2)	6%	(Short ramp. For exa	mple, a short ramp ir	and out of a worksho	pp)					
No Load Climbing Ability	20% (conside	er the interference betwe	een the ground and the v	ehicle frame or set up a tr	ansition arc)					
Protection Level	IP5	4 (Adaptable to ou	tdoor work in light	rain and snowy day	s)					
Working Environment	Temperature: -30~+50°C; Humidity: 0~95%, no condensation									
Storage Environment				95%,no condensat						
Other		-								
Control Mode		Ren	note control operat	ion						
Movement Function for One Unit			straight, rotate, tu							
Movement Function for Two Units Linkage	Straight movement, diagor				d compound movemen					
Weight Measurement Function			easurement, overlo							
Fault Rescue Function	I			vheels are unlocked						
Other Function			erating lighting and							

^{*} Optional multi-transporter linkage function.

 $^{^{\}star}$ The transporter can be customized with any number of wheel systems.

^{*} Products will be continuously improved and upgraded, and the parameters in the table may change.

^{*} Most parameters have not reached the technical limit and can be adjusted and customized according to your needs. Please contact us.

Omni Wheel / Mecanum Wheel



OL Series Omni Wheel 90°

Diameter(mm): $50.8(2") \sim 203.2(8")$ Main Models:

Load Range: 5kg ~ 30kg QL-05A/B QL-08 QL-10 Roller Material: Rubber QL-13 QL-15 QL-20

Hub Material: Aluminium



CL Series Omni Wheel 90°

Diameter(mm): $101.6(3") \sim 127(5")$ Main Models: Load Range: 5kg ~ 50kg

Roller Material: Rubber Hub Material: Steel



OLM Series Omni Wheel 90°

Diameter(mm): 120 ~ 406.4 Main Models:

Load Range: 50kg ~ 2000kg QLM-12 QLM-15 QLM-20s Roller Material: Rubber/Polyurethane QLM-24 QLM-31 QLM-25 QLM-28

Hub Material: Aluminium /Steel QLM-40A



PLM Series Omni Wheel 90°

Diameter(mm): 203.2 (8") Main Models: PLM-20

Load Range: 0kg ~ 80kg Roller Material: Polyurethane Hub Material: Aluminium



OMA Series Mecanum Wheel 45°

Diameter(mm): 101.6 (4") ~ 203.2 (8") Main Models:

Load Range: 30kg ~ 40kg QMA-10 QMA-15 QMA-20

Roller Material: Rubber Hub Material: Steel



CMA Series Mecanum Wheel 45°

Diameter(mm): $156.5 \sim 660.4$ Main Models:

Load Range: 100kg ~ 4500kg CMA-15 CMA-20 CMA-20A CMA-25 Roller Material: Polyurethane CMA-45 CMA-31 CMA-36 CMA-40 Hub Material: Aluminium /Steel

CMA-50 CMA-58 CMA-66



HMA Series Mecanum Wheel 45°

Diameter(mm): $310 \sim 406.4 (16")$ Main Models: Load Range: 600kg ~ 1500kg HMA-31 HMA-40

Roller Material: Polyurethane Hub Material: Aluminium /Steel

Research-Platform

Navigator Series Platform

Model No	Navigator Q1	Navigator Q2	Navigator C1	Navigator C2	Navigator L1
Product Picture					
Size	560x600x241(mm)	672x481x241(mm)	494x490x219(mm)	698x598x279(mm)	720x559x283(mm)
Load Capacity	50kg	50kg	50kg	80kg	80kg

Compass Series Platform

Model No	Compass Q1	Compass Q2	Compass C1	Compass C2	Compass L1
Product Picture					
Size	369x400.5x110(mm)	450x330x115(mm)	342x370x115.5(mm)	352.4x370x135(mm)	400x354x108(mm)
Load Capacity	20kg	20kg	20kg	30kg	30kg

Discovery Series Platform

Model No	Discovery Q1	Discovery Q2	Discovery C1	Discovery C2	Discovery L1
Product Picture					
Size	365.5x400.2x109(mm)	359x313.5x114(mm)	231x314x120(mm)	301.6x308x112(mm)	325x285x100(mm)
Load Capacity	10kg	10kg	10kg	15kg	15kg

Hangfa Product Experience

Wind Power

Hangfa Product Experience































OmniTitan-Transporter(50t)

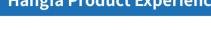














Cotton Picking Machine Transporter(40t)



OmniTitan-Transporters(30t)



OmniTitan-Transporters(50t)



OmniTitan-Transporters(15t)



OmniRhino-Transporters(20t)



OmniAnt-Transporters(20t)



OmniRhino-Transporters(10t)



OmniRhino-Rail Transporter(50t)



Heavy Construction Machinery



OmniAnt-Transporters(25t)





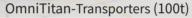




OmniTitan-Transporters (150t)









OmniTitan-Transporters (400t)



OmniTitan-Transporters (30t)



OmniTitan-Transporters (65t)



OmniTitan-Transporters (300t)



OmniTitan-Transporters (50t)







OmniTitan-Transporters (18t)





































RGV Transporter (12t)







Metallurgy, Cable and Others









RGV Transporter (10t)



OmniAnt-Fish Transport AGV (2m³





OmniTitan-Transporter (60t)



















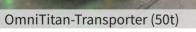














OmniTurtle-Transporter (10t)



OmniTitan-Transporter (40t)



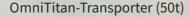


OmniTurtle-Transporter (5t)









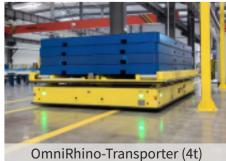




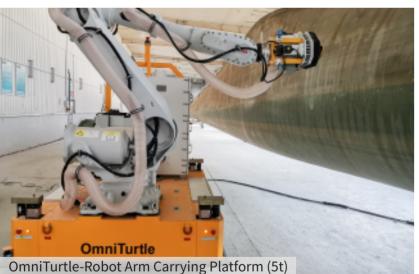










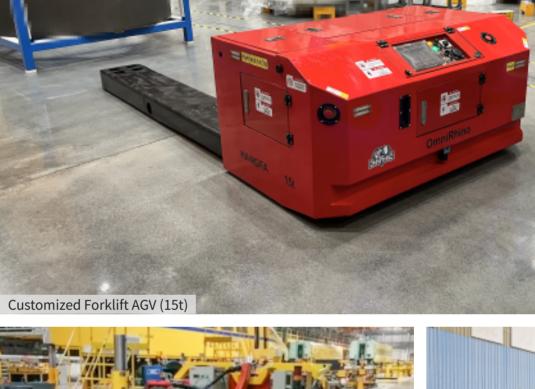






OmniTurtle-Robot Arm Carrying Platform(5t)















Customized Forklift AGV (7.5t) OmniTurtle-Trans