Nautos

SAILING HARDWARE

CATALOGUE

20 22

Ventos que impulsionam uma paixão

Winds that drive a passion

É com enorme orgulho e satisfação que vejo a Nautos às vésperas de completar 40 anos, como uma empresa com espírito jovem e o mesmo dinamismo dos primeiros anos.

As circunstâncias nos moldaram ao longo do tempo no que somos hoje, e dentro de alguns anos seremos ainda maiores e mais diversificados, tanto em produtos como em abrangência comercial.

Aos velejadores que ainda não nos conhecem, e aos que nos conhecem de longa data, quero salientar que o espírito que nos move desde 1976 é o espírito de velejador. Espírito aventureiro, todavia cauteloso, com muita atenção nos detalhes. Além da cordialidade, honestidade, aproveitando sempre da melhor forma a direção dos ventos com muita paixão! É dessa forma que desenvolvemos e produzimos nossos produtos. É dessa forma que definimos nosso rumo.

Espero que este catálogo lhe ajude a encontrar o que você precisa e lhe dê uma boa ideia de quem somos.

Se você tiver alguma dúvida ou quiser nos conhecer melhor, entre em contato diretamente conosco, pois o que mais prezamos é a oportunidade do contato com nossos clientes.

AMILCAR ROSSI E EQUIPE NAUTOS

It is a great pride and satisfaction that I see Nautos turning 40 years old, a company with young spirit and the same dynamism of its early years.

Along the years, circumstances mold us in what we are today, and in a few years we will be even bigger and more diverse, both product-wise and commercially.

To the sailors that not yet know us, and to the longtime friends, I wish to underline that the spirit that moves us since 1976 it's the sailing spirit. The adventurous spirit, although cautious, with many attention to detail. In addition to cordiality, honesty and taking advantage of the winds direction with great passion! This is the way we develop and produce our products. This is the way we define our course.

I hope this catalog helps you to find what you are looking for, and gives you a good perspective about who we are.

If you have any questions, or just wish to know us better, please contact us directly. What we cherish the most is the opportunity of contact with our customers.

AMILCAR ROSSI AND THE NAUTOS TEAM



Amilcar Rossi



Júlio Rossi



Hamilton Angonese



Bruno Rossi

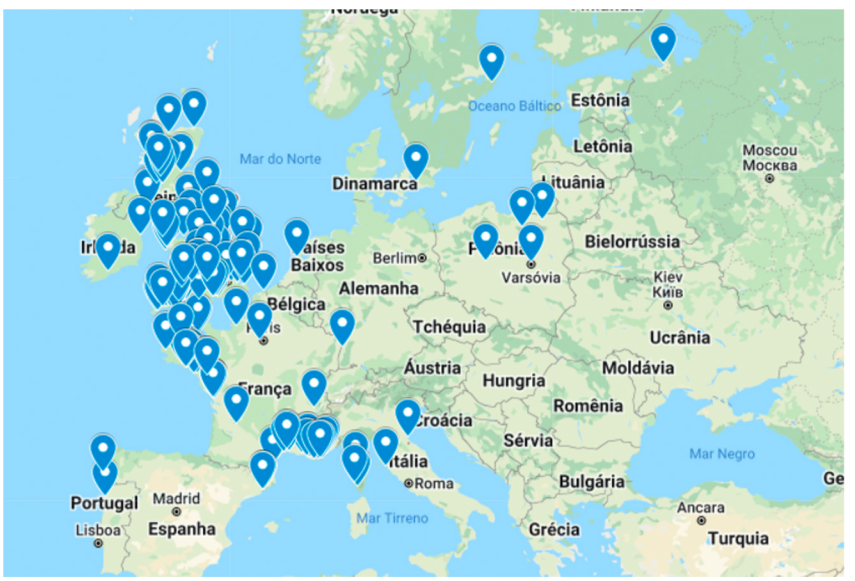
Revendedores Nautos no Mundo



América do Norte, América do Sul, Europa, Sudeste Asiático e Oceania









Identificação dos ícones

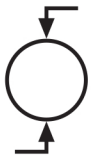
Icon meaning



Diâmetro do eixo
Diameter pin



Diâmetro interno
Internal diameter



Diâmetro externo
External diameter



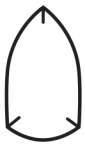
Área vélica (m²) genoa
Fore Sail area (m²)



Área vélica do grande
Mainsail area (m²)



Vela grande talada área (m²)
Full batten mainsail area (m²)



Spinnaker área (m²)
Spinnaker area (m²)



Diâmetro do cabo (mm)
Rope diameter (mm)



Diâmetro do parafuso (mm)
Screw diameter (mm)



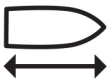
Carga de ruptura (Kg)
Breaking load (Kg)



Carga de trabalho (Kg)
Working load (Kg)



Diâmetro da roldana (mm)
Sheave diameter (mm)



Comprimento do barco (pés)
Boat length (feet)



Diâmetro do eixo (mm)
Clevis pin diameter (mm)



Diâmetro do cabo de aço
Cable diameter (mm)



Comprimento máximo
estai de proa (m)
Maximum headstay length (m)



Peso (g)
Weight (g)



Trilho deslizante (mm)
Sliding track (mm)



Trilho recirculante (mm)
Recirculating track (mm)



Distância entre furos
Hole spacing



Extensão mínima
Extend min



Largura
Width



Comprimento
Lenght



Altura
Useful height



Extensão máxima
Extend max



Diâmetro do pino
Pin diameter

Conversões Métricas
Metric Conversions

All drawings and specs are show metric dimensions. Use this conversion table to determine Imperial value. In values for fastener drilling, use takes the nearest upper value. Check carefully the values for tapping and consider soft materials as wood and hard material as aluminum or steel.

Lenght			Area		
When you know	**Multiply by**	**To find**	**When you know**	**Multiply by**	**To find**
Inches	25.40	Millimeters	Square inches	645.2	Square millimeters
Inches	2.540	Centimeters	Square inches	6.45	Square centimeters
Feet	304.80	Millimeters	Square feet	929.0	Square centimeters
Feet	30.48	Centimeters	Square feet	0.09	Square meters
Feet	0.30	Meters	Square yards	0.84	Square meters
When you know	**Divide by**	**To find**	**When you know**	**Divide by**	**To find**
Millimeters	25.40	Inches	Square millimeters	645.2	Square inches
Centimeters	2.54	Inches	Square centimeters	6.45	Square inches
Millimeters	304.48	Feet	Square centimeters	929.0	Square feet
Centimeters	30.48	Feet	Square meters	0.09	Square feet
Meters	0.30	Feet	Square meters	0.84	Square yards

Weight					
When you know	**Multiply by**	**To find**	**When you know**	**Divide by**	**To find**
3	3.25	2.5	10-24	13/64	#25
4	4.25	3.25	10-32	13/64	#21

Liquid					
When you know	**Multiply by**	**To find**	**When you know**	**Multiply by**	**To find**
Liters	0.26	Gallons	Gallons	3.78	Liters
Liters	2.11	Pints	Pints	0.47	Liters

To use the online calculator for finding length, area and weight go to www.nautos.com.br

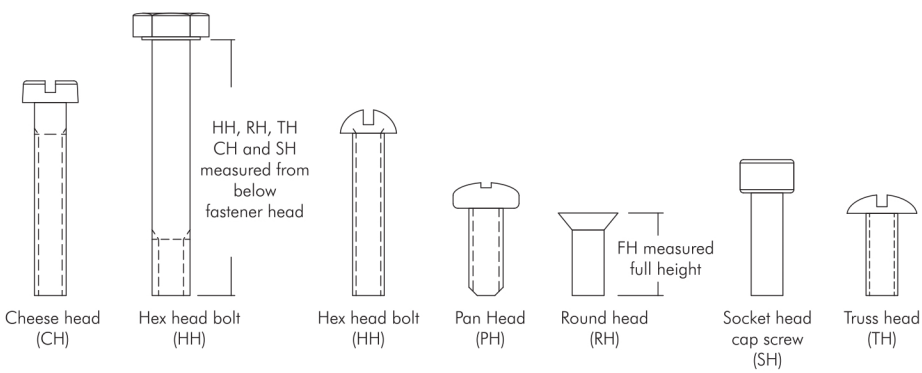
Drilling Guide

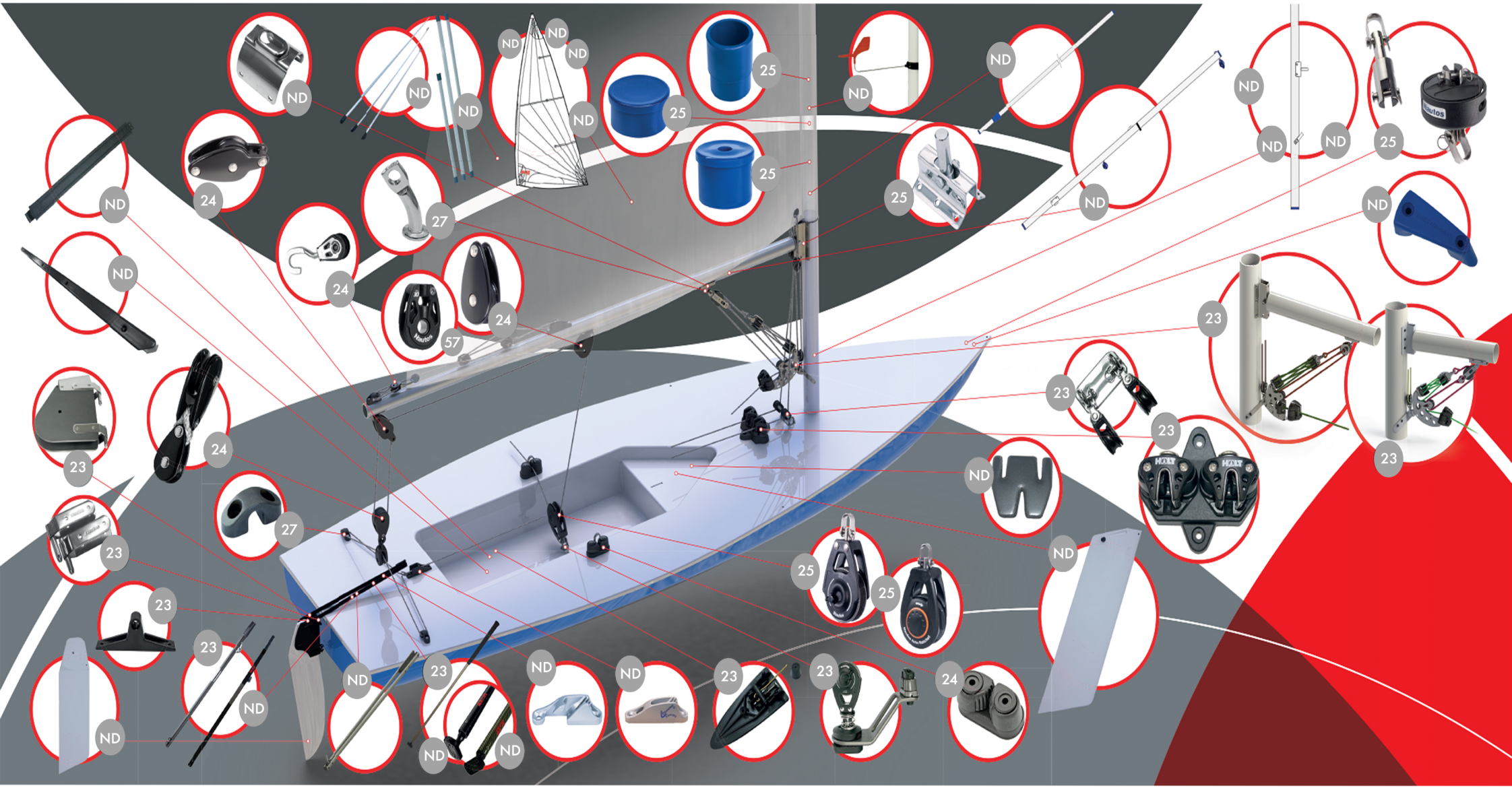
Fastener (mm)	Drill for clearence hole (mm)	Drill for tapping (mm)	Fastener	Drill for clearence hole (in)	Drill for tapping
2	2.25	1.6	6-32	9/64	#36
2.5	2.75	2.05	8-32	11/64	#29
3	3.25	2.5	10-24	13/64	#25
4	4.25	3.25	10-32	13/64	#21
5	5.25	4.25	1/4-20	17/64	#7
6	6.25	5	5/16-18	21/64	#F
8	8.25	6.75	3/8-16	25/64	5/18*
10	10.25	8.5	7/16-14	29/64	#T
12	12.25	10.25	1/2-13	33/64	27/64"
16	16.26	14	5/8-11	41/64	17/32"

Equivalency Table

Fraction	Decimal	mm
1/32	0.03	0.79
1/16	0.06	1.59
3/32	0.09	2.38
1/8	0.13	3.18
5/32	0.16	3.97
3/16	0.19	4.76
7/32	0.22	5.56
1/4	0.25	6.35
9/32	0.28	7.14
5/16	0.31	7.94
11/32	0.34	8.73
3/8	0.38	9.53
13/32	0.41	10.32
7/16	0.44	11.11
15/32	0.47	11.91
1/2	0.50	12.70
17/32	0.53	13.49
9/16	0.56	14.29
19/32	0.59	15.08
5/8	0.63	15.88
21/32	0.66	16.67
11/16	0.69	17.46
23/32	0.72	18.26
3/4	0.75	19.05
25/32	0.78	19.84
13/18	0.81	20.64
27/32	0.84	21.43
7/8	0.88	22.23
29/32	0.91	23.02
15/16	0.94	23.81
31/32	0.97	24.61

Fastener Types



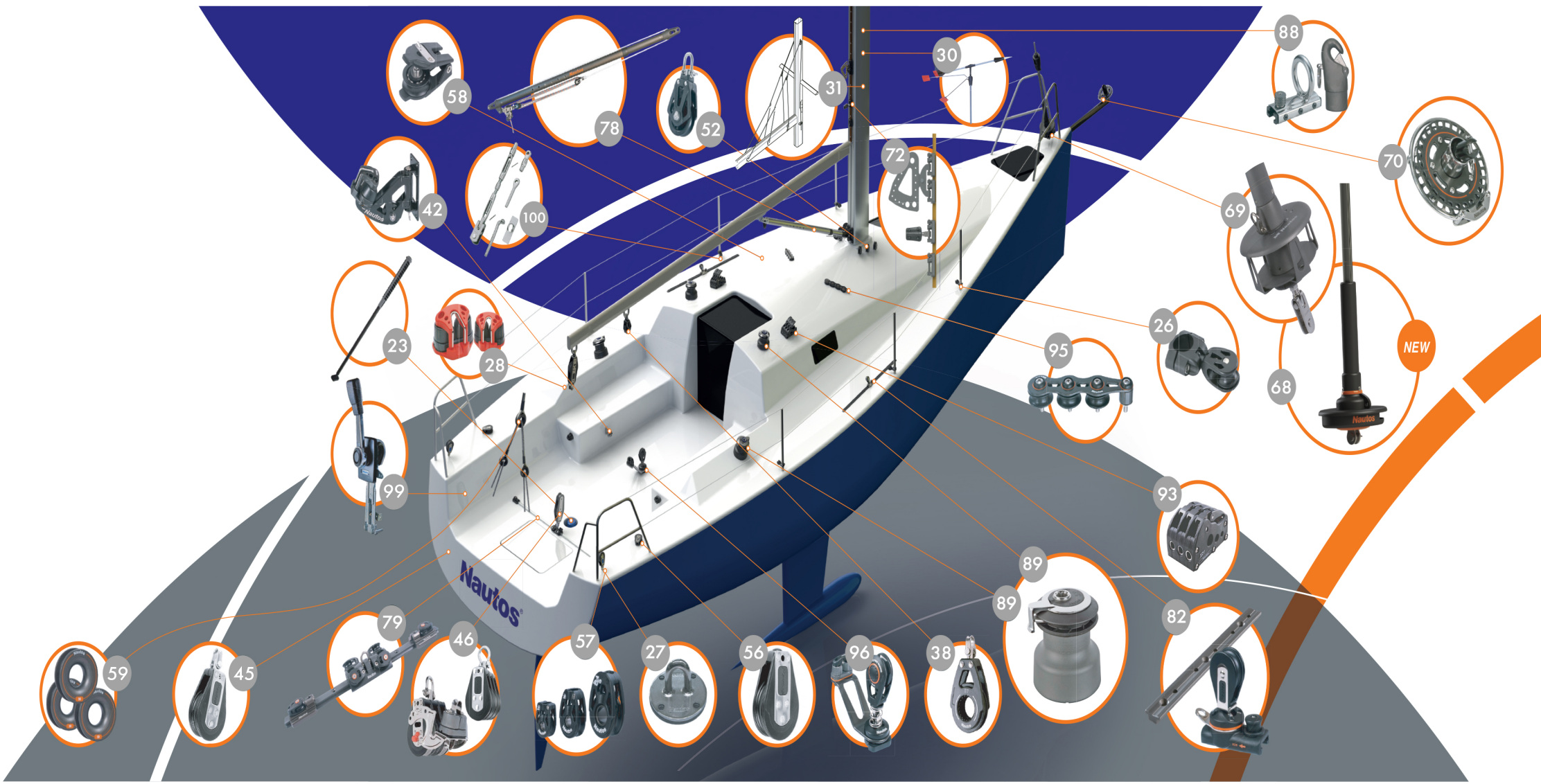


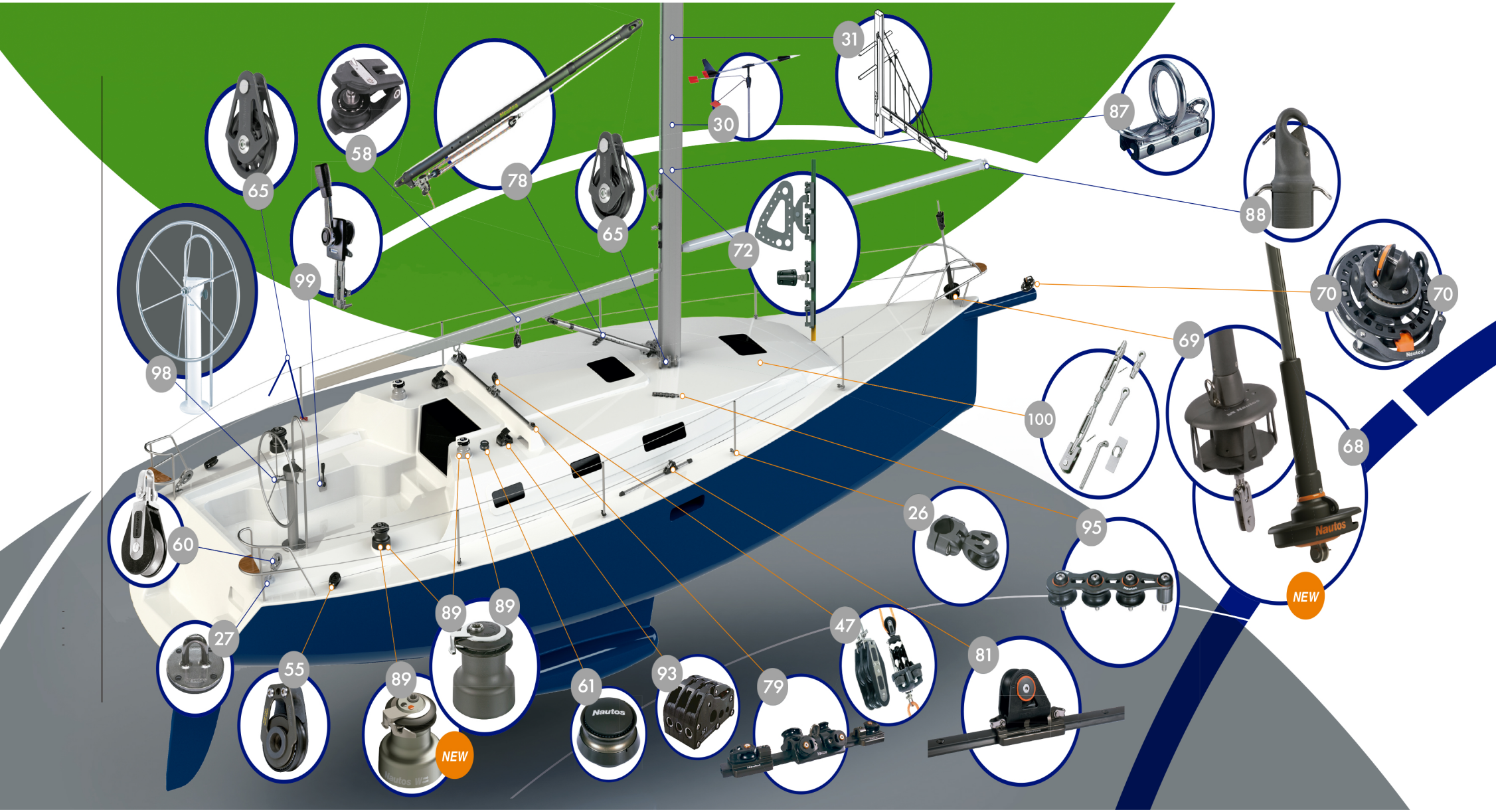
Hardware for Dinghies

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Hardware for Sailboats from 20′ to 28′

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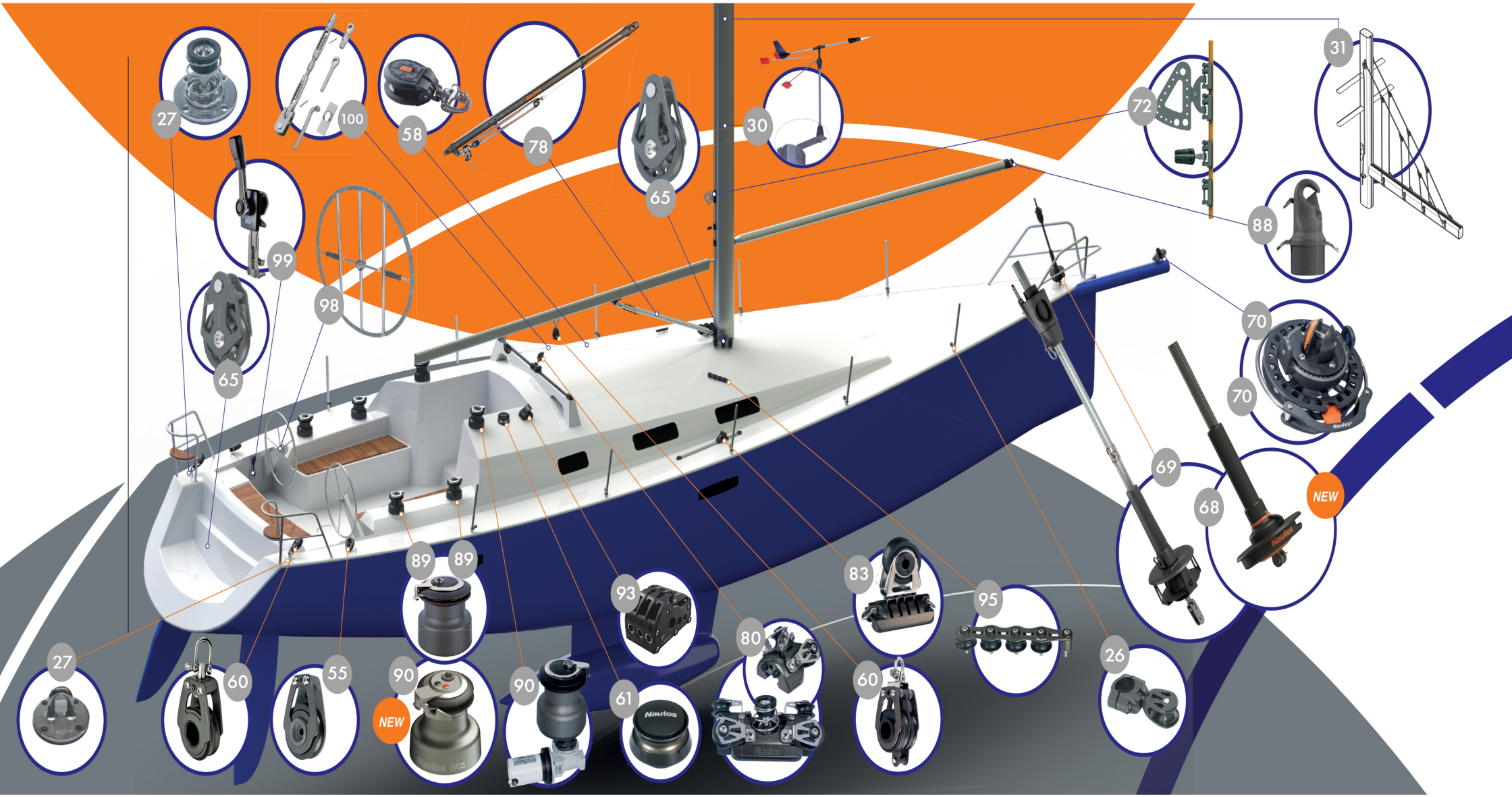


Hardware for Sailboats from 30′ to 38′

(next to the product is the page where to find it)

Hardware for Sailboats from 40’ to 48’

(next to the product is the page where to find it)



Índice

Guia de Seleção

- Números em preto página de referência
- Números em vermelho código de referência
- Ponto em azul consultar fornecedor

		Veleiros Monotipo									Veleiros de Regata e Cruzeiro Cabinados de Oceano								
		Monotipos			Com quilha			Multicascos											
		< 18′			< 27′			< 18′			17′ < 24′			25′ < 30′			31′ < 35′		
		< 400 kg			< 1900 kg			< 800 kg			< 2,5 t			< 4,5 t			< 7,0 t		
	m²	13	7	25	20	10	35	18	7	25	25	25	50	30	30	75	35	35	85
Sistemas de Vela Grande	Trilho	88			88			88			88			88			88		
	Ponto no fim da retranca	82 HT 4414			82 91643			82			82			82 91645			82		
	Ponto a 3/4 da retranca	82			82			82			82			82			83		
	Controle do carro	36			89			89			89			89			89		
	Amantilho	36			36			37			37			44			44		
	Burro	36/37 /24			54			46			54			81			81		
	Cunningham	36/37 /24			36/37 /24			36/37 /24			36/37 /24			36/37 /24			36/37 /24		
	Escota	36/41			36/41			41/49			36/41			48			56/51		
	Esteira	36/37			36/37			36/37			36/37			45			55		
	Rizo				37/32			37/32			37/32			55/47			67		
	adriça / halyard				45/47			45/47			45/47			47/67			47/67		
Sistemas de Spinnaker	Trilho						88									88			88
	Carro do pau						90			●			●			90			90
	Amantilho do pau						37									92359			92219 92659
	Barber			37			37			37			37			37			37
	Burro do pau						36			36			36			37			47
	Desvio 90°			37/45 HT2240			49			49			49			92150			62/63
	Desvio 120°			37/45 HT2240			49			49			49/53			92150			62/63
Genoa e Buja	Trilho		88			88			88			88			88			88	
	Carro de genoa		HT4414			84			HT4414			84			84			84/85	
	Controle do carro		28 HT2026			36/28			36/28			36/28			36/28			37/89	
	Desvio 45°		42/44			47			42/44			44			92250			92250	
	Desvio 90°		42/44			47			42/44			92250			92150			62	
	Desvio 120°		42/44			92250			42/44			92250			62				
Sistemas de adriça e mastro	Moitão da adriça	36	44/46	37/46		45/47			45/47		47 92250	47 92250	47 92210	47 92250	47 92250	47 92210	92838	92838	47/55
	Desviador horizontal		57			100			57			100			100			100	
	Estai de popa		37/42			36 92250						47			47/67/37			67/37	
	Runners					36 92250			●			47			47/67/37			67/37	

Veja página 49

Esta pagina é um guia básico para escolha de moitões, sempre verifique as cargas com o projeto.

Veleiros de Regata e Cruzeiro Cabinados de Oceano									Maxi Barcos			Multicascos de Regata e Cruzeiro											
36′< 42′			43′< 48′			49′< 55′			56′ < 70′			23′ < 30′			31′ < 35′			36′ < 42′			43′ < 48′			49′ < 55′		
< 11,0 t			< 15,0 t			< 19,0 t			< 25,0 t			< 3,5 t			< 6,0 t			< 8,0 t			< 12,0 t			< 14,0 t		
50	50	100	60	55	120	100	80	150	130	120	200	40	25	60	60	35	85	75	35	110	90	60	130	110	80	180
88			88			88			88			88			88			88			88			88		
83 91666			83			83 91652 91667			83 2x91668			83			83			83			83 2x91667 91653			83 2x91668		
83 91652			83 91653			83 91668			●			83			83			83 2x91668			83 3x91652 3x91667			●		
89			89			89			●			89			89			89			89			●		
92838			67			67			67			67			67			67			67			67		
46/81			46/81			●			●			46/81			46/81			46/81			●			●		
36/37 /24			44/47 /61			44/47 /61			44/47 /61			44/47 /61			44/47 /61			44/47 /61			44/47 /61			44/47 /61		
56/62			62/63			64			65			48/49			50/53			62/63			63			64		
67			67			●			●			45			67			67			67			67		
67			67			67			67			67			67			67			67			67		
67			67			67			●			67 92232			67			67			67			●		
		88			88			88			●			88			88			88			88			●
		90			90			90			●			90			90			90			90			●
		67			67			67			●			2x92259			67			67			67			●
		37			●			●			●			37			●			●			●			●
		92250			92800			92815			●			47			92800			92815			●			●
		92823			92828			92835			●			50/62			92815			92823			92828			●
		92823			92828			92835			●			50/62			62/63			62/63			63/64			●
	88			88			88			●			88			88			88			88			●	
	85 91480			86/87 91485			86			●			84			84/85			86/87			86			●	
	37/89			58/89			89			58			36/28			37/89			89			58			58	
	58/62			62/58			63/58			58			92250			62/58			62/63			63/58			64/58	
	63/58			64/58			64/65 /58			58			92150			63/58			63/58			64/58			●	
	63/58			65/58			65/58			●			62			58/58			64/58			65/58			●	
67	67	67	67	67	67	67	67	67	●			67	67	67	67	67	67	67	67	67	67	67	67		67	
	100			100			100		●				101			101			101			101			●	
	47/67			67			67						47/37		●			●								
	47/67			67			67		●				67/45		●			67			67			●		

Index

Selection Guide

- Black numbers page
- Red number Reference code
- Blue point Consult supplier

		Small Sailing Boat									Racing and Cruising Cabin Boats								
		Dinghy			Keel-boats			Multihulls												
		< 18′			< 27′			< 18′			17′ < 24′			25′ < 30′			31′ < 35′		
		< 400 kg			< 1900 kg			< 800 kg			< 2,5 t			< 4,5 t			< 7,0 t		
	m²	13	7	25	20	10	35	18	7	25	25	25	50	30	30	75	35	35	85
Mainsheet System	Track	88			88			88			88			88			88		
	Traveller end boom	82 HT 4414			82 91643			82			82			82 91645			82		
	Traveller mid boom	82			82			82			82			82			83		
	Traveller control	36			89			89			89			89			89		
	Topping lift	36			36			37			37			44			44		
	Vang	36/37 /24			54			46			54			81			81		
	Cunningham	36/37 /24			36/37 /24			36/37 /24			36/37 /24			36/37 /24			36/37 /24		
	Mainsheet	36/41			36/41			41/49			36/41			48			56/51		
	Outhaul	36/37			36/37			36/37			36/37			45			55		
	Reefing				37/32			37/32			37/32			55/47			67		
	Trim				45/47			45/47			45/47			47/67			47/67		
Spinnaker System	Track						88									88			88
	Pole cars						90			●			●			90			90
	Pole lift						37			●			●			92359			92219 92659
	Barber			37			37			37			37			37			37
	Pole downhaul						36			36			36			37			47
	Turning block 90°			37/45 HT2240			49			49			49			92150			62/63
	Turning block 120°			37/45 HT2240			49			49			49/53			92150			62/63
Fore Sails	Track		88			88			88			88			88			88	
	Genoa lead car		HT4414			84			HT4414			84			84			84/85	
	Traveller control		28 HT2026			36/28			36/28			36/28			36/28			37/89	
	Turning block 45°		42/44			47			42/44			44			92250			92250	
	Turning block 90°		42/44			47			42/44			92250			92150			62	
	Turning block 120°		42/44			92250			42/44			92250			62				
Rigging	Halyard block	36	44/46	37/46	45/47			45/47			47 92250	47 92250	47 92210	47 92250	47 92250	47 92210	92838	92838	47/55
	Deck organizer		57			100		57				100			100			100	
	Bacstay Adjuster		37/42			36 92250						47			47/67/37			67/37	
	Runners					36 92250			●			47			47/67/37			67/37	

See page 49

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Racing and Cruising Cabin Boats										Maxi Boats			Racing and Cruising Multihulls														
36′< 42′ < 11,0 t			43′< 48′ < 15,0 t			49′< 55′ < 19,0 t			56′ < 70′ < 25,0 t			23′ < 30′ < 3,5 t			31′ < 35′ < 6,0 t			36′ < 42′ < 8,0 t			43′ < 48′ < 12,0 t			49′ < 55′ < 14,0 t		
50	50	100	60	55	120	100	80	150	130	120	200	40	25	60	60	35	85	75	35	110	90	60	130	110	80	180
88			88			88			88			88			88			88			88			88		
83 91666			83			83 91652 91667			83 2x91668			83			83			83			83 2x91667 91653			83 2x91668		
83 91652			83 91653			83 91668			●			83			83			83 2x91668			83 3x91652 3x91667			●		
89			89			89			●			89			89			89			89			●		
92838			67			67			67			67			67			67			67			67		
46/81			46/81			●			●			46/81			46/81			46/81			●			●		
36/37 /24			44/47 /61			44/47 /61			44/47 /61			44/47 /61			44/47 /61			44/47 /61			44/47 /61			44/47 /61		
56/62			62/63			64			65			48/49			50/53			62/63			63			64		
67			67			●			●			45			67			67			67			67		
67			67			67			67			67			67			67			67			67		
67			67			67			●			67 92232			67			67			67			●		
		88			88			88			●			88			88			88			88			●
		90			90			90			●			90			90			90			90			●
		67			67			67			●			2x92259			67			67			67			●
		37			●			●			●			37			●			●			●			●
		92250			92800			92815			●			47			92800			92815			●			●
		92823			92828			92835			●			50/62			92815			92823			92828			●
		92823			92828			92835			●			50/62			62/63			62/63			63/64			●
	88			88			88			●			88			88			88			88			●	
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	100			100			100		●				101			101			101			101			●	
	47/67			67			67						47/37			●			●							
	47/67			67			67		●				67/45			●			67			67			●	

Seleção do Moitão

Antes do tipo correto, devem ser determinadas as cargas, veja página 06 para uma informação aproximada, em caso de dúvida consulte o projetista, nossos revendedores ou a fábrica. Em nossa página www.nautos.com.br você encontra calculadores e uma recomendação mais detalhada.

Tipos básicos de moitão e roldana

Mancal: a roldana gira sobre tubo de material especial. Trabalha bem em altas cargas de baixa velocidade, como estais volantes ou burro.

Roletado de esferas: a roldana gira com apoio lateral e radial. Ideal para grandes movimentos como escota da grande ou balão.

Rolamento de rolos: a roldana gira sobre rolos - mesma utilidade que esferas - com muito mais capacidade.

Dynamic®: a roldana gira sobre esferas de aço inox em eixo de inox - grande capacidade em volume compacto.

De Amarrar: muito leves. O moitão é amarrado através do eixo dispensando reforços laterais - recomendado para regata.

Escota da grande		**Menor 33″**	Deve ser rolamento de esferas, Line 57 ou 75
		Maior 35″	Deve ser rolamento de rolos, Line 75 ou Offshore
Escota da genoa	**Cruzeiro**	**Menor 33″**	Pode ser mancal
		Maior 33″	Pode ser mancal
	Regata	**Menor 33″**	Pode ser rolamento de rolos
		Maior 33″	Pode ser mancal
Retorno da genoa	**Cruzeiro**	**Menor 33″**	Pode ser mancal
		Maior 33″	Pode ser mancal
	Regata	**Menor 33″**	Melhor ser rolamento de rolos
		Maior 33″	Deve ser rolamento de rolos
Escota do spy	**Cruzeiro**	**Menor 33″**	Melhor ser rolamento de esferas
		Maior 33″	Pode ser mancal
	Regata	**Menor 28″**	Melhor ser rolamento de esferas, Line 57 ou 75
		Maior 33″	Deve ser rolamento de rolos, Line alta carga
Retorno do spy	**Cruzeiro**	**Menor 33″**	Pode ser mancal
		Maior 33″	Pode ser mancal
	Regata	**Menor 33″**	Melhor ser rolamento de rolos
		Maior 33″	Deve ser rolamento de rolos
Burro		**Menor 25″**	Deve ser em cascata, com o primeiro moitão de rolos ou mancal, depois rolamento de esferas, série Dynamics®
		Maior 25″	Deve ser em cascata, com o primeiro moitão de mancal, depois esferas ou rolos - checar as cargas (ver burros telescópicos na página 75)
Estais volantes ou tensor de popa		**Menor 25″**	Deve ser em cascata, com o primeiro moitão de rolos ou mancal, depois rolamento de esferas, série Dynamics®
		Maior 25″	Deve ser em cascata, com o primeiro moitão de mancal, depois esferas ou rolos - checar as cargas
Desvios de adriça, pé de mastro, organizadores	**Cruzeiro**	**Menor 33″**	Pode ser mancal
		Maior 33″	Pode ser mancal
	Regata	**Menor 25″**	Melhor ser esferas, rápido e "à mão"
		Maior 33″	Pode ser mancal
Controles			Considerar espaço e disponibilidade, usualmente moitões de esferas, em barcos maiores de 40, considerar reduções 2:1 ou 3:1 de mancal e usar catraca

Select the Right Block

Before selecting the block, one must establish the loads. See page 08 for this information. In case of doubt, contact the boat design office or our dealers. In our website www.nautos.com.br you'll find calculators and detailed recommendation.

Basic types of block construction

Sleeved: the sheave turns on plastic or composite bearing. Good for low speed high loads, with standing static pressure like in backstays and vangs.

Ball bearing: the sheave turns with lateral and radial support, good for relative low loads with long hauls like in the mainsail and spinnaker sheet.

Roller bearing: the sheave turns on rolls, same utility as ball bearing but much more load capacity in the same sheave diameter.

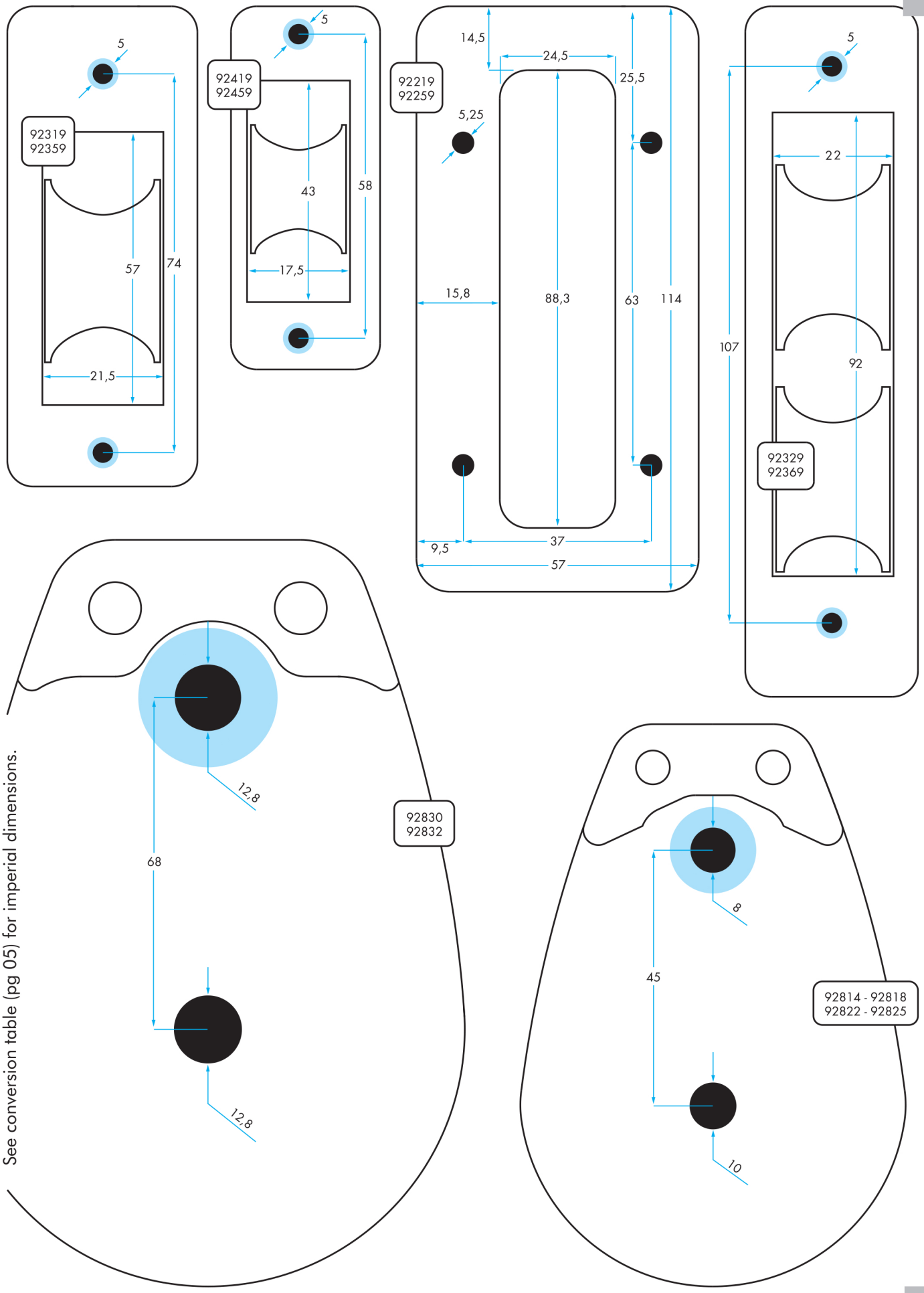
Dynamic: blocks with SS ball bearings running over SS track. Big capacity in a compact package.
Tie blocks are very light, the load is taken directly by rope loops or straps, allowing light cheeks and eliminating shackles and posts. Highly recommended for racing.

Tie Blocks: very light, the block is tied through the axis. Dispensing additional lateral support - recommended for race.

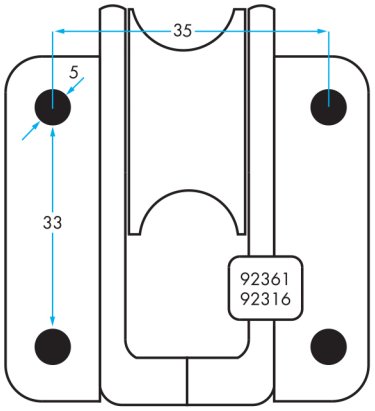
Mainsheet		**Smaller than 33"**	Must be ball bearing, up to 57mm
		Bigger than 35"	Must be roller bearing, from Line 75 or Offshore
Genoa sheet	**Cruiser**	**Smaller than 33"**	May be plain bearing
		Bigger than 33"	May be plain bearing
	Racer	**Smaller than 33"**	Better if roller bearing
		Bigger than 33"	Must be roller bearing
Genoa turning block	**Cruiser**	**Smaller than 33"**	May be plain bearing
		Bigger than 33"	May be plain bearing
	Racer	**Smaller than 33"**	Better if roller bearing
		Bigger than 33"	Must be roller bearing
Spinnaker turning block	**Cruiser**	**Smaller than 33"**	May be plain bearing
		Bigger than 33"	May be plain bearing
	Racer	**Smaller than 33"**	Better if roller bearing
		Bigger than 33"	Must be roller bearing
Vang		**Smaller than 25"**	Must be cascade, with the fist block roller bearing, then Dynamics, pages 40/41
		Bigger than 25"	Must be cascade, with the first blocks bushed, then Dynamics or Line, check loads - check page 75 for Telescopic vangs
Backstay or flying backstays		**Smaller than 25"**	Must be cascade, with the first block roller bearing, then Dynamics, pages 40/41 - check loads carefuly
		Bigger than 25"	Must be cascade, with the first block roller bearing, then bushed, then roller bearing - check loads carefuly
Halyard turning blocks, deck organizers	**Cruiser**	**Smaller than 33"**	May be plain bearing
		Bigger than 33"	May be plain bearing
	Racer	**Smaller than 25"**	Better if ball bearing for fast hand operation
		Bigger than 33"	May be plain bearing
Car controls, outaul			Consider space and amount of cable - usualy ball bearing blocks. In boats bigger than 40 use 2:1 or 3:1 and go to a winch

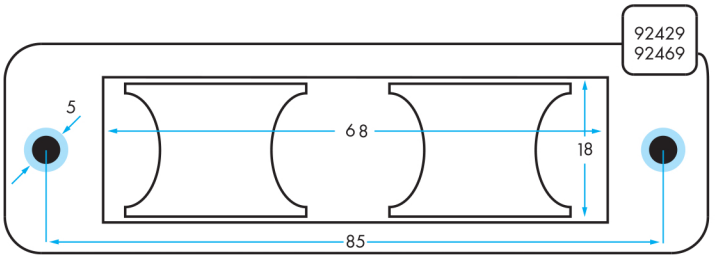
Dimensões

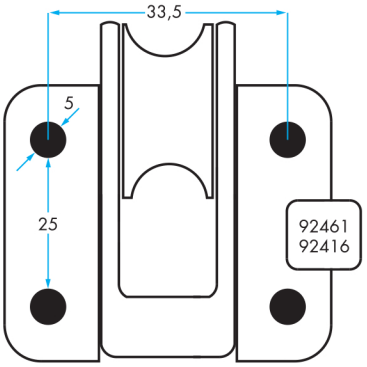
Dimensions: metric informations

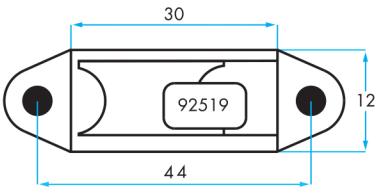


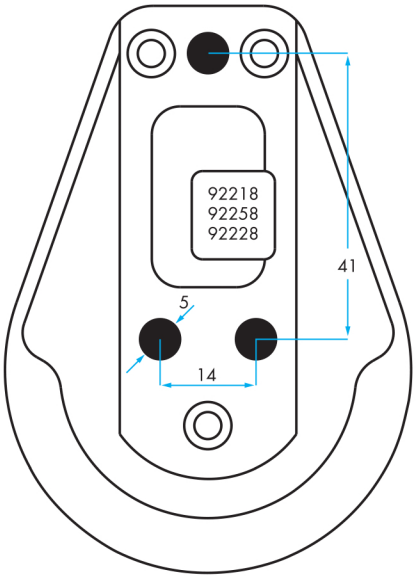
See conversion table (pg 05) for imperial dimensions.

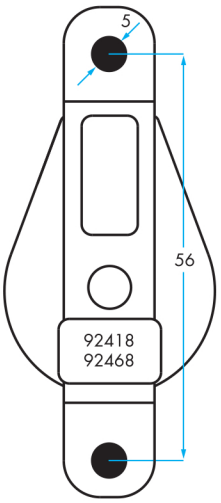

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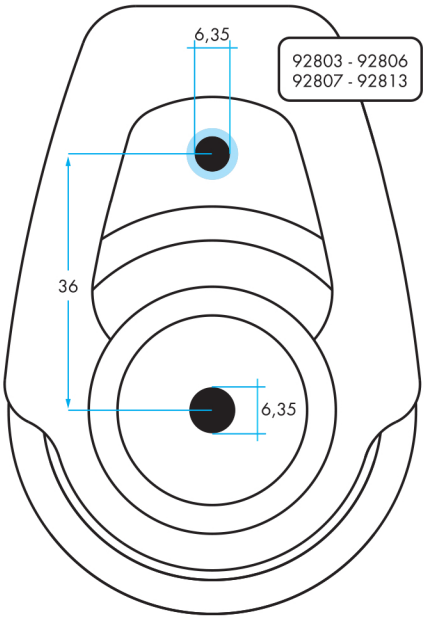

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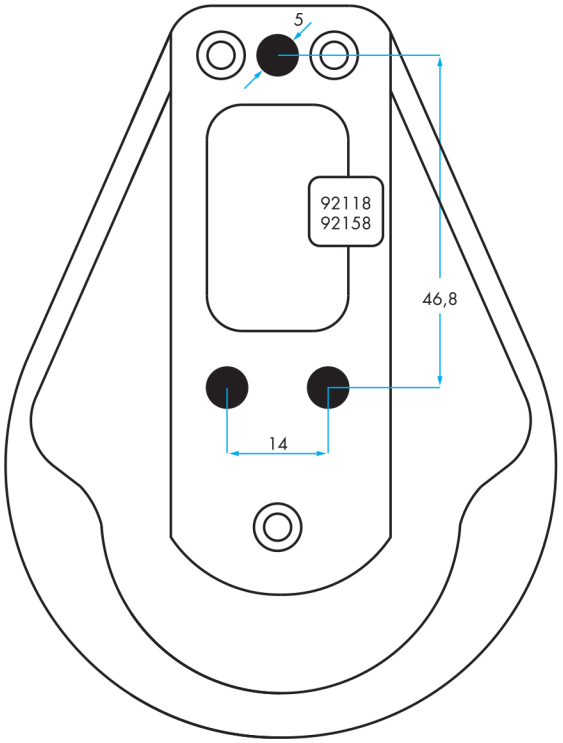

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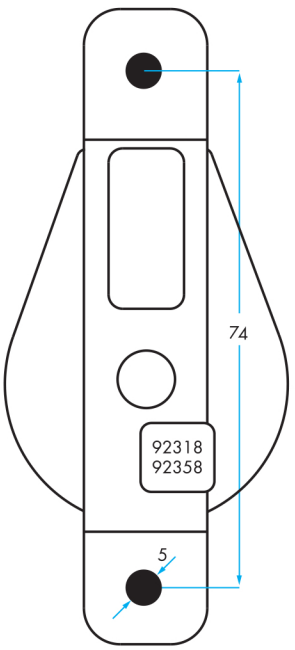

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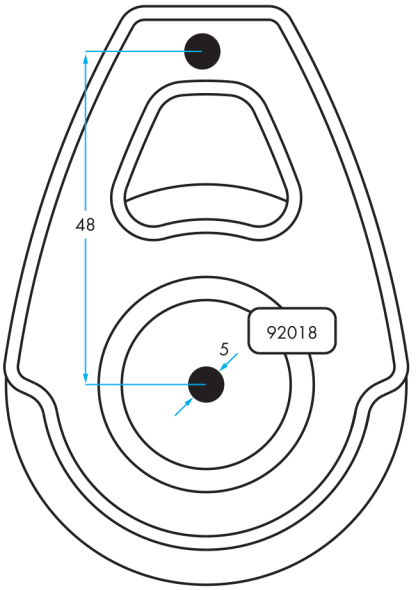

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Garantia Nautos

Cobertura
Os produtos Nautos estão garantidos em qualquer parte do mundo pela Nautos Indústria Metalúrgica Ltda. quando mantidos e utilizados dentro dos parâmetros estabelecidos pelo catálogo Nautos ou outro documento Nautos. Esta garantia cobre defeitos de material ou fabricação desde a data de sua aquisição até o prazo estabelecido detalhado abaixo

Garantia
Cobre unicamente a utilização dos produtos fabricados pela Nautos Ind. Met. Ltda. para fins recreativos ou de esporte. A Nautos Ind. Met. Ltda. se compromete em substituir o produto ou realizar reparos a seu próprio critério.

Garantia limitada
Cobre produtos vendidos para embarcações com fim comercial, como aluguel, frete, eventos esportivos para embarcações acima de 07 metros, profissionais ou qualquer outra utilização, que não recreativa. Também nesta categoria se enquadram embarcações envolvidas em travessias transoceânicas, ou de longos percursos. Nos casos de travessias ou longos percursos, quando o proprietário consultar previamente a Nautos Ind. Met. Ltda., que realizará sem custos, avaliação da viabilidade de uso dos materiais instalados para este fim, será emitida uma exceção documentada de garantia, com prazos restabelecidos.
Dentro da garantia limitada a Nautos Ind. Met. Ltda. se reserva o direito de analisar o equipamento e verificar suas condições de uso antes da substituição ou reparo.

Garantidor:
No Brasil, produtos vendidos através de distribuidores são garantidos pela Nautos Ind. Met. Ltda. na Europa, a garantia dos produtos fabricados pela Nautos é coberta por Holt Marine. Nos Estados Unidos, Canadá e América Central a garantia é coberta por Nautos USA. Para qualquer outra região o cliente deve se dirigir ao local de aquisição do produto, que é o responsável por receber e encaminhar o produto para Nautos Ind. Met. Ltda. no Brasil. A reposição poderá ser feita no local de aquisição ou diretamente pela Nautos Ind. Met. Ltda.

Garantia intransferível Nautos:
A Nautos Ind. Met. Ltda. fornece garantia de seus produtos para o comprador original, e esta não se estende em nenhuma hipótese a terceiros.

Prazo de garantia:
A garantia Nautos cobre defeitos de fabricação ou material por um período de 05 (cinco) anos a contar da data de entrega do produto ao cliente. Este período tem as seguintes exceções:

Enroladores de Vela: A garantia Nautos dos enroladores se estende por 07 (sete) anos. Esta garantia não cobre o terminal prensado se este não foi prensado por pessoal autorizado;

Code Zero: A garantia para estes produtos é de 02 (dois) anos;

Catracas Elétricas: Catracas elétricas, motores, relés e chaves de comando possuem garantia de 02 (dois) anos;

Produtos Especiais: Produtos especiais como pedestais, rolamentos de leme, desvios e outras construções tem uma garantia de 02 (dois) anos com exceção de acertos documentados e personalizados em outro documento;

Terminais e Esticadores: Para esticadores e terminais rápidos a garantia é de 04 (quatro) anos. Para terminais e esticadores prensáveis a garantia é 04 (anos) apenas nos casos em que a instalação for executada por pessoal autorizado. Nestes casos o cliente deve apresentar comprovante de pagamento para este serviço prestado por pessoal autorizado. Para sua segurança, os terminais e esticadores Nautos devem mantidos de acordo com a tabela de manutenção;

Cilindros e Válvulas hidráulicas: A garantia destes produtos é de 01 (um) ano ou conforme especificado em caso de produtos one off;

Produtos Nautos safety: A garantia destes produtos é de 01 (um) ano;

Produtos marcados Nautos, mas não fabricados por Nautos Ind. Met. Ltda.: Estes produtos possuem etiquetas que estabelecem condições de uso e garantias estabelecidas pelo fabricante.

Prazo da garantia limitada: A garantia limitada contra defeitos de fabricação e material é de 01 (um) ano com exceções documentadas.
A garantia e a garantia limitada não cobrem: A Nautos não se responsabiliza por danos ou despesas decorrentes relativas às situações relatadas a seguir:

- Defeitos oriundos de mau uso;
- Defeito causado por má instalação;
- Dimensionamento incorreto;
- Desconsideração das recomendações da tabela de manutenção;
- Aplicação dos produtos Nautos para qualquer outra finalidade que não a de náutica de vela de esporte e lazer.

Atenção: os produtos Nautos foram projetados para uso exclusivo em embarcações à vela de esporte e lazer. Em hipótese alguma use os produtos Nautos destinados a náutica de vela para outros fins, em particular suspensão de pessoas.

Garantias Nautos perdem o efeito nos seguintes casos:

·Defeitos de material ou de acabamento ocorridos durante transporte;
·Ocorrências de defeitos ou acabamento reportadas fora do prazo de garantia;
·Defeito reportado 60 dias após o ocorrido;
·Produto alterado fora das especificações de fábrica;
·Pequenas deteriorações de superfície, como descoloração ou manchas;
·Utilização acima dos limites estabelecidos em manuais, catálogo ou especificações;
·Desgaste normal ou deterioração de superfície devido ao uso ou exposição aos elementos;
·Não cumprimento por parte do cliente das normas estabelecidas na tabela de manutenção, do catálogo Nautos ou nos manuais dos produtos.

Produtos e componentes que não estão cobertos por garantia:
·Martelos e molas das catracas;
·Manicacas;
·Arruelas e espaçadores;
·Rolamento de esferas e rolamentos de rolos;
·Grip da catraca.

Suporte para benefício da garantia:
Nos casos de aplicação de garantia, o cliente deve entrar em contato com um representante Nautos ou visitar www.Nautos.com.br para detalhes de contato. Para obter o serviço de troca de mercadoria o cliente deve relatar o problema e garantir que a Nautos receba este relato por escrito, dentro do período estabelecido nos termos da garantia, com endereço completo e informações pessoais de contato. A Nautos poderá solicitar ao cliente a nota fiscal, juntamente com respostas às perguntas formuladas para auxílio no diagnóstico. A Nautos Ind. Met. Ltda., e somente ela, examinará a peça e decidirá por substituição ou concerto, informando os custos se houverem.

Limitações da garantia:
A garantia presente é único e exclusivo recurso do proprietário em relação ao produto. Esta garantia e suas condições previstas prevalecem sobre quaisquer condições expressas ou verbais, escritas ou implícitas. Nenhum agente Nautos ou empregado não autorizado da Nautos Ind. Met. Ltda. está permitido a modificar ou estender esta garantia. A Nautos Ind. Met. Ltda. não autoriza nenhuma pessoa a assumir qualquer outra obrigação ou responsabilidade com relação aos seus produtos. Esta garantia é regida e interpretada de acordo com as leis do país em que a compra do produto foi realizada.

Lei de proteção ao consumidor:
A garantia Nautos concede ao cliente determinados direitos, complementando-os aos já existentes dentro das leis aplicáveis ao seu país, província ou estado. A Nautos Ind. Met. Ltda. não desconsidera, limita, ou interrompe esses direitos, nos casos de acordos extrajudiciais.

Lei aplicável para demandas judiciais:
Esta garantia é regida pelas leias brasileiras independente de onde o produto foi comercializado. A jurisdição e foro para qualquer ação judicial iniciada por você, ou relacionada com esta garantia limitada ou qualquer garantia implícita, devem ser resolvidas exclusivamente no foro da comarca de Caxias do Sul, RS.

Nautos Warranty

Coverage
Nautos products are guaranteed anywhere in the world by Nautos Indústria Metalúrgica Ltda when maintained and operated within the parameters established by the Nautos Catalogue or by another Nautos document. This warranty covers material or manufacturing defects from the date of acquisition until the end of the warranty term as detailed below.

Warranty
Covers only the use of products manufactured by Nautos Ind. Met. Ltda. for recreational or sport purposes. Nautos commits to replace the product or carry out repairs on their diagnosis.

Limited warranty
Covers products sold for use on vessels with commercial purposes such as rent, freight, professional and sporting events for boats over 07 meters or any other use that is not recreational. Also into this category fall vessels involved in transoceanic crossings or long journeys. In the case of crossings or long distances, if the owner consults Nautos Ind. Met. Ltda. beforehand, an evaluation of viability of the materials installed for this purpose will be performed free of charge, and a documented exception of warranty will be issued with re-established deadlines.
Within the limited warranty, Nautos Ind. Met. Ltda. reserves the right to review the equipment and check its terms of use before replacement or repair.

Warrantor
In Brazil, products sold through distributors are guaranteed by Nautos Ind. Met. Ltda. in Europe, products manufactured by Nautos are covered by Holt Marine. In the United States, Canada and Central America the warranty is covered by Nautos Usa. In any other region, the customer must refer to the place of purchase, which is responsible for receiving and forwarding the product to Nautos Ind. Met. Ltda. in Brazil. The replacement maybe done at the place of purchase or directly by Nautos Ind. Met. Ltda.

Nautos non-transferable warranty
Nautos Ind. Met. Ltda. provides warranty of its products to the original customer. This warranty does not extend in any circumstances to third parties.

Warranty term
The Nautos warranty covers manufacturing and material defects for a period of five (05) years starting from the date of delivery of the product to the final customer. This period has the following exceptions:

Furlers: Nautos warranty for furlers extends for seven (07) years. This warranty does not cover the swaged terminal if the swaging was not carried out by authorized personnel;

Code Zero: the code zero is warranted for two (2) years;

Electric Winches: electric winches, motors, relays and throttle controls are warranted for two (02) years;
custom products: special products (custom products) such as pedestals, rudder bearings, turning blocks and other constructions are warranted for two (02) years with exception of documented personalised agreements elsewhere;

Terminals and Turnbuckles: terminals and turnbuckles are warranted for four (04) years. For swaged terminals and turnbuckles the warranty is for four (04) years only in cases where the installation is performed by authorized personnel. In these cases the customer must present proof of payment for this service provided by authorized personnel. For your safety, Nautos terminals and rigging products must be maintained according to the maintenance chart;

Cilinders and Hydraulic Valves: the warranty of these products is one (01) year or as specified in the case of one off products;

Nautos Safety products: these products are warranted for one (01) year;

Products branded Nautos but not manufactured by Nautos Ind. Met. Ltda.: these products have labels that establish conditions of use and guarantees established by the manufacturer.

Limited Warranty Term:
The limited warranty covers manufacturing and materials defects for one (01) year with documented exceptions.

Warranty and limited warranty does not cover:
Nautos is not liable for damages or expenses concerning the following reported situations:

- Defects caused from misuse;
- Damage caused by incorrect installation;
- Incorrect dimensioning;
- Disregard the recommendations of the maintenance chart;
- Application of Nautos products for any purpose other than the sport and leisure sailing boats.

Warning: under no circumstances should Nautos products, which are designed only for sport and leisure sailing, be used for any other purposes, in particular for human suspension. Nautos warranties do not cover the following cases.

Nautos warranties become void in the following cases:
·Defects in materials or workmanship occurring during transport;
·Occurrences of defects or workmanship reported out of the current period of the warranty;
·Defects reported after 60 days from the receipt date;
·Products modified from the original factory specifications;
·Small surface deterioration, such as discoloration or stains;
·Use above load limits established in manuals, catalogue or specifications;
·Usual wear or surface deterioration due to the use or exposure to the elements;
·Non-compliance of the standards set in the maintenance schedule, in the Nautos catalogue or in the product manuals.

Products and components not covered by warranty:
·Winch pawls and springs;
·Winch handles;
·Washers and spacers;
·Ball bearings and roller bearings;
·Winch grips.

Support for the claiming of the warranty:
In the cases of guarantee application, the customer must contact a Nautos representative or visit the Nautos website at www.nautos.com.br for contact details. For merchandise exchange service, the customer should report the problem and ensure that Nautos receive a written report, within the period established under the warranty, with full address and personal contact information. Nautos may request the customer invoice, along with answers to questions formulated to aid the diagnosis. Solely Nautos Ind. Met. Ltda. will examine the piece and decide on replacement or repair, informing the costs if any.

Warranty limitations:
This warranty is the sole and exclusive appeal of the owner of the product in relation to the product. This warranty and its conditions prevail over any verbal, written or implied express conditions. No Nautos agent or unauthorized Nautos Ind. Met. Ltda. employee is allowed to modify or extend this warranty. Nautos Ind. Met. Ltda. does not authorize any person to assume any other obligation or responsibility with respect to its products. This guarantee is governed and interpreted in accordance with the laws of the country in which the product purchase took place.

Consumer protection law:
The Nautos warranty gives to the customers certain rights, complementing the ones existing under the laws applicable to your country, province or state. Nautos Ind. Met. Ltda. Does not ignore, limit or interrupt these rights but only in case of extrajudicial agreements between the parties.

Applicable law for legal demands:
This warranty is governed by brazilian laws independent of where the product was sold. The jurisdiction and venue to any legal action initiated by you, or relating to this limited warranty or any implied warranty, should be resolved through mediation or arbitration through the venue of comarca in Caxias do Sul, RS, Brazil.

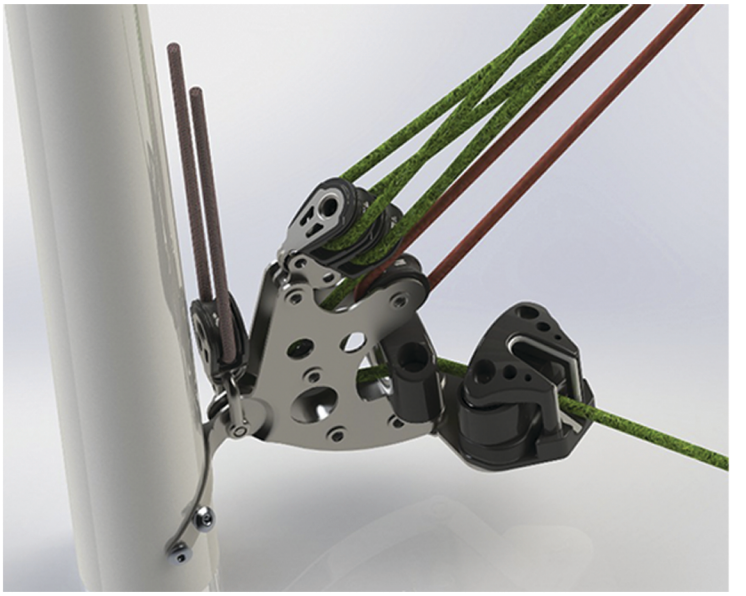
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Product	Period	Maintenance	Long-Term Care	Action
Small Blocks	6 Months	Keep Washed / Keep Clean	Inspect for signs of cracks, surface kinks or wear.	Cracked parts are under fatigue. Replacement is considered replace by largest model to twist, check mobility.
Plastic Blocks	6 Months	Keep Washed / Keep Clean	Inspect for signs of cracks, surface kinks or wear.	
Aluminium Blocks	6 Months	Wash and Lubricate It	Inspect for signs of cracks, kinks and corrosion on bolts. Inspect shackles for signs of kinks and cracks.	
Cars and Tracks	1 Year	Wash and Lubricate It		
Clutches	1 Year	Keep Washed / Keep Clean	Inspect for springs integrity	-
Winches	6 Months	Basic maintenance: disassemble, wash using kerosene and absorbent cloth, check the teeth status. Mobility of hammers and springs, use water proof grease for the gears and fine oil for hammers and springs for bolts fixed on parts inox is needed a chemical lock and aluminium compound antisise check clogged openings and water accumulation inside, check the owner's manual for detailed procedures.		
Term. & rigging	6 Months	Wash and Dry - use Cloth with fine oil on the terminals	Check Body for Cracks Check cotter pin and Locks	Cracked Parts are under fatigue - Replace Them.
Furlers and Code Zero	1 Year	Wash and Dry - Use cloth with vaseline	Check owner's Manual for maintence instructions	Cracked Parts are Under fatigue - Replace Them.
Engine Controls	6 Months	Remove the Cover and Clean the interior with cloth and vaseline	Check terminals and cables - Lubricate	Replace Rusity Cable or Broken cover
Cam Cleats	6 Months	Wash and Dry - Use Cloth with vaseline	Keep Washed / Keep Clean	-
Deck Organizers	1 Year	Wash and Dry - Use Cloth with vaseline	Remove the cover and lubricate with fine oil	Replace worn sheave
Swivel Bases	1 Year	Wash and Dry - Use Cloth with vaseline	Keep Washed	-
Baten Car	1 Year	Clean the track with cloth and kerosene lubricate the cars with an oil drop on the balls.	Check Batten Suport and Holder	Cracked parts are under fatigue - Replace Them.
Marine Toilet	6 Months	Beyond the normal hygiene care drop some vaseline drops into the toilet.	Check the valves.	Replace defective valves.
Hydraulics	6 Months	Clean with cloth and kerosene.	Check cracks and leaks. Change filters and oil as the manual specifications.	Cracked parts are under fatigue - Replace Them.

Monotipos

Dinghies Parts

Laser, Optimist, 420, 470, Sunfish, Snipe, Hobie Cat



91115



Esgotador completo
Complete dinghy Bailer

HT 5848



Base com alça e dois mordedores pequenos
Fairleads + Cleat & Plate

HT 5847



Base com alça para mordedores
Cleat Plate Inc Wire Loops

HT 5849



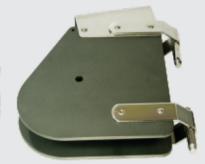
Base com duas alças e dois moitões
SS Plate C/W HT2021F Blocks

HT 5850



Base retangular c/ alças 4mm
Block Plate Only

91113



Cabeça de leme Nautos
Rudder Head

HT 81919



Tiller Gorilla completo
Gorilla Tiller with Clam Cleat + Joint - No Extension

95400



Extensão cana leme 1,10m
Tiller extension 1,10m

95401



Extensão cana leme cinza 0,60m
Tiller extensio 0,60m

HT 4266 COMP



Base giratória curta com mordedor 91035
Mainsheet swivel jammer short arm standard with cam 91035

91119



Macho de cabeça de leme (infer. e super.)
Stainless Steel Transon Pintle

91120 ● 91629 ●



Femea de popa plástica
Nylon Transon Gudgeon (4 Mouting Holes)

91142



Conj. burro do dinghy completo
Complete dinghy Vang

91143



Laser dinghy vang articulado
Articulate Laser Vang

91110 ● 91627 ●



Moitão simples plástico com saída (sem esfera)
Plastic block/with becket (no ball bearing)

● DO NOT use Nautos equipament for human suspension or equivalent work.

91109 ●
91626 ●



100
10
40

Moitão simples 40mm plástico (sem esfera)
Plastic block (no ball bearing)

91124 ●
91631 ●



50
8
28

Moitão simples plástico com engate rápido em alumínio (sem esfera)
Plastic block/with sister clip (no ball bearing)

91125 ●
91632 ●



80
10
40

Moitão simples plástico com engate rápido em alumínio (sem esfera)
Plastic block/with sister clip (no ball bearing)

91619 ●
91618 ●



Moitões da escoteira amarrados (40 e 28)

40 and 28mm Linked block

91117



150
6
20-40

Moitão violino em alumínio/roldana plástica/mordedor em V (sem esfera)
Fiddle aluminum block/ plastic sheave/jam cleat (no ball bearing)

91118



100
6
20

Moitão simples em alumínio/ saída/roldana plástica (sem esfera)
Single aluminum block/ becket/plastic sheave/ (no ball bearing)

HT2021HK



115
200
2,5-6
20
17

Moitão dynamic 20 simples c/gancho
20mm dynamic ball block with hook

HT2021



115
540
2,5-6
20
11

Moitão dynamic 20 simples fixo c/bucha
20mm Dynamic Multi Function

HT2021F



115
350
2,5-6
20
15

Moitão dynamic 20 simples fixo c/garfo
20mm Dynamic Fork Block

HT2023



225
500
2,5-6
20
33

Moitão dynamic 20 duplo fixo c/saída
20mm Dynamic DBL/Becket Block

HT2020



115
540
2,5-6
20
11

Moitão dynamic 20 simples fixo
20mm Dynamic Ball Blocks

HT2020LZ



115
520
2,5-6
20
15

Moitão dynamic 20 stand-up
20mm Dynamic Blocks on Saddle

HT2031F



140
450
5-10
30
19

Moitão dynamic 30 com garfo
30mm Dynamic Fork Block

HT2030



140
750
5-10
30
18

Moitão dynamic 30 simples fixo
30mm Dynamic Block

HT2030LZ



140
500
5-10
30
30

Moitão dynamic 30 stand-up
30mm Dynamic Block on Saddle

HT4380F-HL



Moitão simples fixo 28 rol. alum. e saída
27mm B.BLK & Fork-HI Load

92511



Moitão simples girat. c/saída 20mm
Mininox single swivel / becket

92592



120
6
20

Moitão simples fixo inox (sem esfera)
Single swivel fixed block (no ball bearing)

92590



100
6
20

Moitão simples inox com distorcedor/ roldana composite (sem esfera)
Single swivel block/ (no ball bearing)

92591



100
6
20

Moitão simples inox com distorcedor/saída (sem esfera)
Single swivel block/becket (no ball bearing)

91137



80
10
3
19

Moitão simples fixo inox para cabo de aço/roldana alumínio
Stainless Steel simple fixed block aluminum sheave

92593



120
6
20

Moitão simples fixo inox/saída (s/esfera)
Single swivel fixed block/ becket (no ball bearing)

91026



4
L mm 27
H mm 21.3
W mm 48.5
2-6
90
180

Mordedor composite pequeno
Small composite cam cleat

91035



5
L mm 38
H mm 30
W mm 65
5-12
140
350

Mordedor forjado de alumínio
Aluminum, 3 row ball bearing cam cleat

91025



5
L mm 38
H mm 27
W mm 65
5-10
92
220

Mordedor roletado de nylon
Composite, 2 row ball bearing cam cleat

DO NOT use Nautos equipament for human suspension or equivalent work.

91105 ●
91624 ●



Tampo do garlindeu
Goose Neck Boom Cap

91100 ●
91620 ●



Tampo do mastro superior
Top Mast/ Boom Cap

91103 ●
91623 ●



Base mastro inferior
Lower Mast Base

91101 ●
91621 ●



Base mastro superior
Top Mast Base

91145



Boca de lobo
Boom Plastic Jaws

91146



Tampa da esteira c/passa cabo
Boom Plastic End

91147



Femea de popa nylon
Nylon Transom Gudgeon (2 Mouting Holes)

91154



Chapa de fixação de flutuante
Strap Plate In Aluminiun (for Strap Or Buoyancy)

91150



Ponte concêntrica de espicha
Lower Plastic Gaff End

91151



Ponteira excêntrica da espicha
Upper Plastic Gaff End

91152



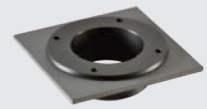
Pé de mastro inox regulável sobre 35mm, para mastro de 50mm (Optimist)
S/S mastfoot fitting with 35mm adjustment, for a maximum 50mm mast (Optimist)

91104



Garlindeu inox
Stainless steel gooseneck

91153



Enora plástica com contra-chapa para mastro 50mm
Mast 50mm partner & black plate

HT 2240



Automatic ratchet 40mm block
Moitão catraca automático 40mm

HT 2260



Automatic ratchet 57mm block
Moitão catraca automático 57mm

92784



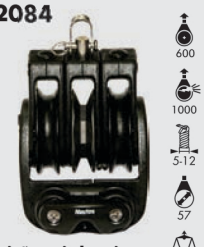
Simples girat. catraca transp./ rold. alumínio
Single swivel ratchet/ alloy sheave (Optimist)

92074



Moitão simples girat. c/cat preto 57mm
Organic 57 single swvl / ratchet

92084



Moitão triplo girat. 57mm catraca c/ mordedor 91025
Block Tiple Swivel Ratchet With Cam(91025) And Becket Black

92083



Moitão triplo giratório 57mm catraca
Organic 57 triple swivel rat / cam

92030



Moitão triplo giratório 57mm
Organic 57 triple swivel

Ht5766



Base pivotante com mordedor pequeno (91026) e guia
Small base with plastic eye cam (91026)

Ht5566



Base pivotante com mordedor grande (91035) e guia
Big base with plastic eye cam (91035)

96134



Enrolador # 00 inox
Stainless steel furling for classic boats - until 22'

91193



Enrolador pequeno com destorcedor superior
Dinghy furler with top head swivel - until 16'

DO NOT use Nautos equipament for human suspension or equivalent work.





92784



130
260
10
57
117

Simples giratório catraca transp./ roldana alumínio
Single swivel ratchet/ alloy sheave

91033



6,5
L mm 20
H mm 16

Manilha estampada com cupilha
Stamped shackle with cotter ring

91040



8
L mm 25
H mm 19

Manilha estampada com cupilha
Stamped shackle with cotter ring

91012



5
L mm 13
H mm 12

Manilha estampada com cupilha
Stamped shackle with cotter ring

91136



5
L mm 42
H mm 17

Alça forjada
Forged stainless steel eye strap

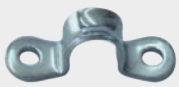
91042



8
L mm 48
H mm 18

Alça estampada
Large stainless steel eye strap

91021



5
L mm 30
H mm 10

Alça pequena
Small stainless steel eye strap

91022 8mm
91023 10mm
91049 12mm
91050 14mm



Cupilhas de inox
Cotter ring

91112



Porca plástica
Plastic nut

91051 ●
91052 ●



Manípulo para trapézio
Trapeze handle

91029



6
L mm 31
H mm 14
W mm 55
1500

Destorcedor duplo 6,5mm
Double swivel 6,5mm

91082 2mm
91083 2,5mm
91084 3mm
91085 4-5mm



Nicopress
Nicopress

91122 ●
91226 ●
91630 ○



5
L mm 38

Chapa plástica para alça de escora
Plastic toe strap plate

91127



Conj. parafuso da cabeça de leme
Rudder Closing Screw With Plastic Bushing

91102 ●
91622 ●



Encaixe externo do mastro
External Mast Liner

91139



40,6
35

Base de mastro
Lower Plastic Mast End

91140



40
35,5

Tope de mastro
Upper Plastic Mast End

91014 5/32"
91015 3/16"
91034 1/4"
91041 5/16"



Pino com cupilha
Clevis pin

91070



5
L mm 25

Passa cabo bipartido
Bullseye composite

HT 450 A



25
10

Guia guarda mancebo roldana removível
Stanchion fair leads

HT 455

Ø 25

10



Passador para guarda mancebo
Stanchion lead eye

SHT 873



Pino curvo do burro
Curved Kicker Key

91108



Adaptador de fixação para moitões
Vang lower fitting

91157



Mola segurança do leme
Rudder retaining clip

HT 4034



Mola stand up 20mm
Stainless Steel spring
20mm

91032 **Pequeno** Small
91024 **Grande** Big



Mola stand-up
Stainless steel spring

91121



Destorcedor especial do burro
Vang lower swivel fiting

91116



Mordedor plástico jumb
Tiller Cleat 6mm Rope

91112 ●
91128 ○



Porca plástica
Plastic Nut

34.018



Rolha borracha para esgotador
Rubber Bung

91107 ●
91625 ●



Alça plástica
Plastic eye strap

91053

Ø 38
L mm 135
W mm 38



Argola dupla trapézio inox
Trapeze double ring

91058

Ø 5
L mm 31
H mm 14
W mm 55
1500



Base redonda com alça 6mm com contra-chapa
Stainless steel pad eye
& alloy underdeck plate

91059

Ø 6
L mm 37
H mm 20
W mm 64
2800



Base redonda com alça 8mm com contra-chapa
Stainless steel pad eye
& alloy underdeck plate

91060

Ø 8
L mm 45
H mm 26
W mm 77
3800



Base redonda com alça 10mm com contra-chapa
Stainless steel pad eye
& alloy underdeck plate

91043

B mm 10
L mm 31
H mm 28
W mm 56
Ø 5



Base com mola stand-up para pino 5mm com contra-chapa
Stainless steel base with
alloy underdeck plate

91044

B mm 13
L mm 37
H mm 34
W mm 64
Ø 6



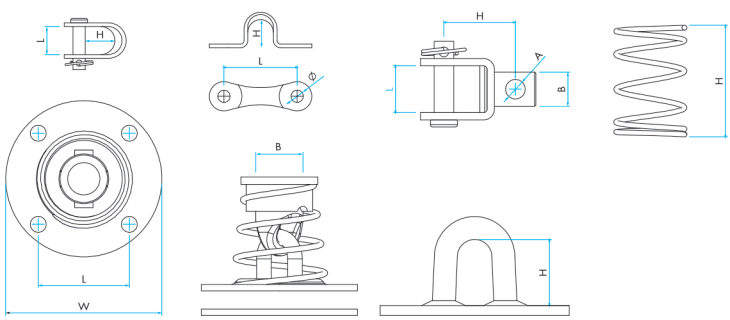
Base com mola stand-up para pino 6,5mm com contra-chapa
Stainless steel base with
alloy underdeck plate

91045

B mm 16
L mm 45
H mm 38
W mm 77
Ø 8



Base com mola stand-up para pino 8mm com contra-chapa
Stainless steel base with
alloy underdeck plate



DO NOT use Nautos equipament for human suspension or equivalent work.

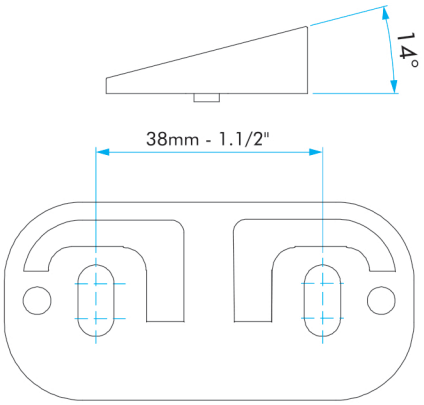
Cam cleats





Versões composite e alumínio com nova configuração de ranhuras para facilitar o agarre. O composite é robusto e oferece grande resistência. Para aplicações em alta carga, a versão em alumínio oferece ainda mais resistência e durabilidade.

Composite and aluminum versions with new teeth configuration for ease of cleating. The composite material is very robust offering greater wear resistance. For high load applications, the aluminum version offers even greater strength and durability.





03 colunas de esfera de delrin garantem suavidade e baixíssima fricção no movimento das castanhas.

03 delrin ball rows provide smoothness and very little friction on the nuts' movement.

91025



Ø 5
L mm 38
H mm 27
W mm 65
5-10
92
220

Mordedor roletado de nylon
Composite, 2 row ball bearing cam cleat

91026



Ø 4
L mm 27
H mm 21,5
W mm 48,5
2-6
90
180

Mordedor composite pequeno
Composite cam cleat

91035



Ø 5
L mm 38
H mm 30
W mm 65
5-12
140
350

Mordedor forjado de alumínio
Aluminum, 3 row ball bearing cam cleat

91013



Ø 5
L mm 63
H mm 48
W mm 95
8-12

Mordedor duplo, alta resistência
Double cam cleat

DO NOT use Nautos equipament for human suspension or equivalent work.

91185 ●
91186 ●

Ø 5
5-12



Guia plástico do mordedor grande
Fairlead for big cam cleat

91182 ●
91183 ●

Ø 4
2-6



Guia plástico do mordedor pequeno
Fairlead for small cam cleat

HT91078

Ø 4
5-12



Conjunto base plástica mordedor pequeno com alça metálica
27mm base with loops for small cleat

HT91077

Ø 5
5-10



Conjunto base plástica mordedor grande com alça metálica
38mm base with loops for big cleat

91062
91054 ●
91055 ●
91056 ●
91057 ●

38
L mm 5



Alça plástica para mordedor
Fairlead for cam plastic

91107 ●
91625 ●

Ø 4
L mm 25
H mm 12
10



Alça plástica
Plastic eye strap

91038

Ø 7
L mm 38



Alça baixa para mordedor nylon
Stainless steel flat eye strap

91021

Ø 5
L mm 30
H mm 10



Alça pequena
Small stainless steel eye strap

91020

Ø 6,5
L mm 38
H mm 16



Alça média
Medium stainless steel eye strap

91233

38
L mm 4



Alça plástica para mordedor pequeno
Fairlead for small cam plastic

91018

Ø 4
L mm 27
W mm 6



Base inclinada para mordedor pequeno
Wedge base for small cam

91019

Ø 5
L mm 38
W mm 9



Base inclinada para mordedor grande
Wedge base for big cam

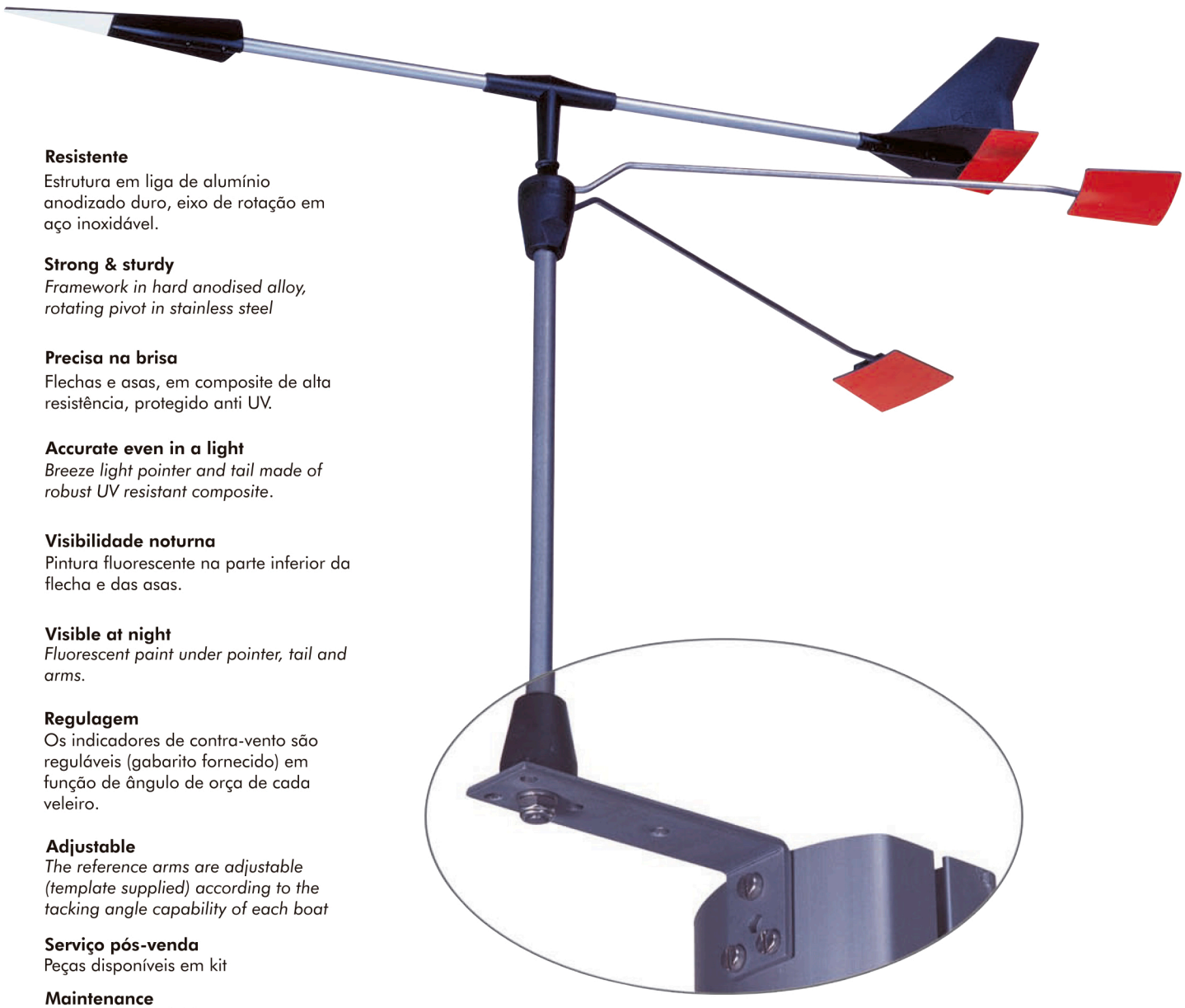
DO NOT use Nautos equipament for human suspension or equivalent work.

Biruta

Wintec

A biruta Wintec resolve o dilema entre a sensibilidade a pequenas brisas e a robustez contra choques e pássaros. A estrutura é feita em liga de alumínio e os indicadores, flechas e asas, em policarbonato. Sua forma aerodinâmica garante uma grande precisão. Outra importante vantagem é que as principais peças de montagem podem ser obtidas separadamente.

The Wintec Vane is an original approach to the dilemma of lightness versus resistance. With all supporting parts, such as the body and rod made out of aluminum alloy, the Wintec wind vane hits the target with the correct balance between weight and resistance. Feathers and reference tabs are molded from super-strong polycarbonate. It's aerodynamic shape provides a high degree of precision. Another important attribute of this design is the availability of spare parts that can be purchased



Resistente
Estrutura em liga de alumínio anodizado duro, eixo de rotação em aço inoxidável.

Strong & sturdy
Framework in hard anodised alloy, rotating pivot in stainless steel

Precisa na brisa
Flechas e asas, em composite de alta resistência, protegido anti UV.

Accurate even in a light
Breeze light pointer and tail made of robust UV resistant composite.

Visibilidade noturna
Pintura fluorescente na parte inferior da flecha e das asas.

Visible at night
Fluorescent paint under pointer, tail and arms.

Regulagem
Os indicadores de contra-vento são reguláveis (gabarito fornecido) em função de ângulo de orça de cada veleiro.

Adjustable
The reference arms are adjustable (template supplied) according to the tacking angle capability of each boat

Serviço pós-venda
Peças disponíveis em kit

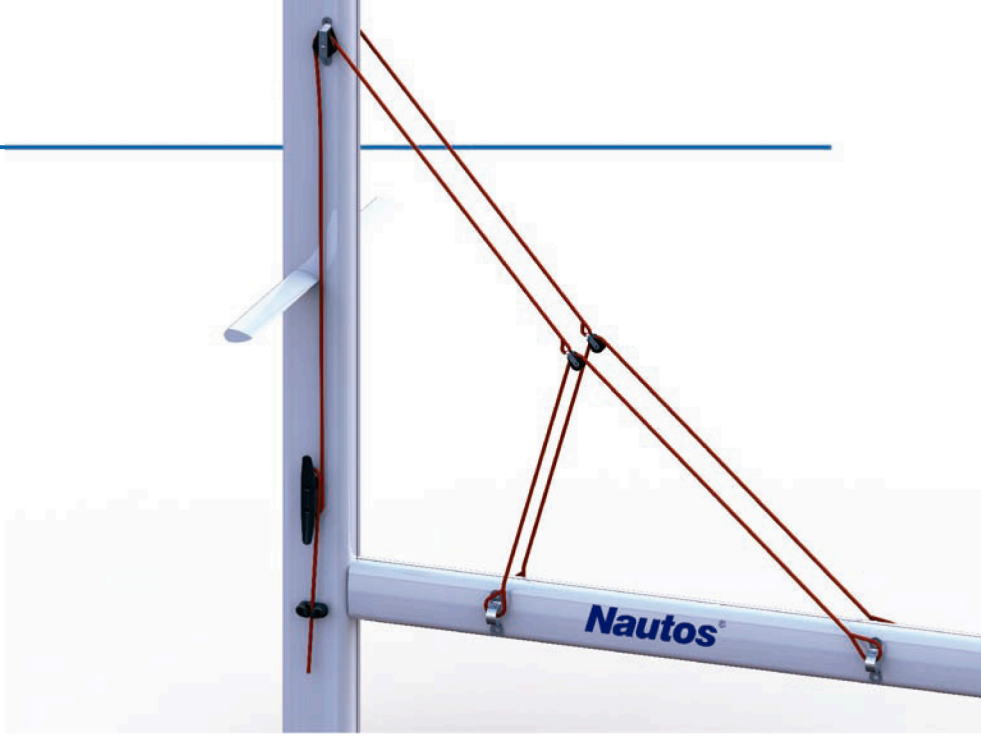
Maintenance
Spare parts available

			g	OZ	H	H
91170	11m	33′	140	5.64	300mm	12″
91180	16m	51′	145	5.96	387mm	15″
91190	18m	60′	155	6.03	457mm	18″
91160	**Kit partes plásticas (flechas, asas)** Plastic part kit					

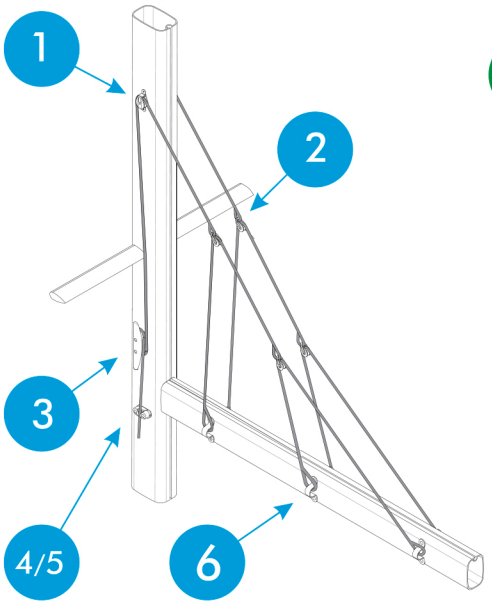
Lazy Jack

O Lazy Jack Nautos oferece grande resistência e componentes de simples montagem. Pode ser usado em velas Full Baten ou Convencionais.

The Lazy Jack Nautos offers high strength and ease of assembly components. Can be used with full batten mains or conventional sails

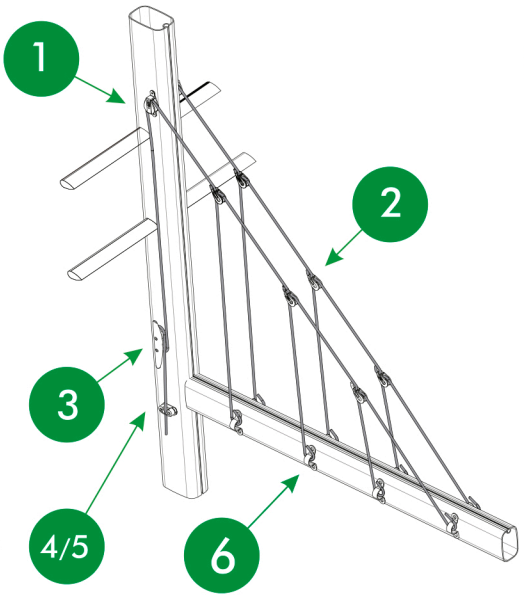


Type A Small Size Up to 31'
91915 and 91915R*



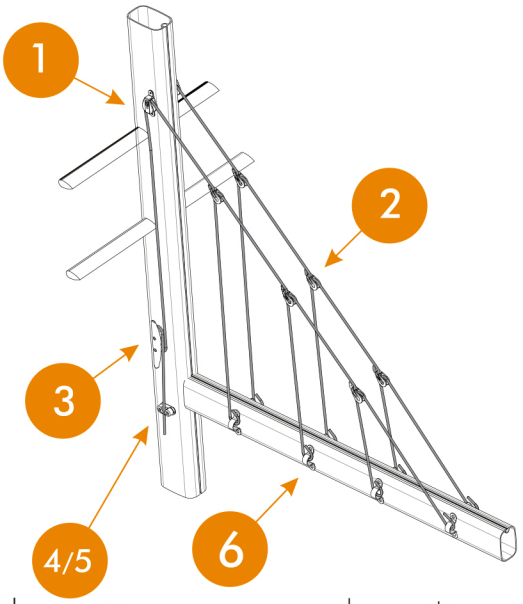
area		code	qty
2		92414	4
1		92418	2
5		91026 Not included optional	2
4		91233 Not included optional	2
6		91021	6
-	5mm - 3/16"	Not included	16
-	 5mm - 3/16"	Not included	4
	Total Rope:		180'

Type B Medium Size 32' to 38'
91916 and 91916R*



area		code	qty
2		92414	6
1		92318	2
5		91025 Not included optional	2
4		91054 Not included optional	2
6		91021	8
3		Wm02	2
-	5mm - 3/16"	Not included	20
-	 5mm - 3/16"	Not included	4
	Total Rope:		215'

Type C Large Size 39' to 46'
91917 and 91917R*



area		code	qty
2		92314	6
1		92318	2
5		91025	2
4		91054	2
6		91020	8
3		Wm02	2
-	5mm - 3/16"	Not included	20
-	 5mm - 3/16"	Not included	4
	Total Rope:		275'

DO NOT use Nautos equipament for human suspension or equivalent work.

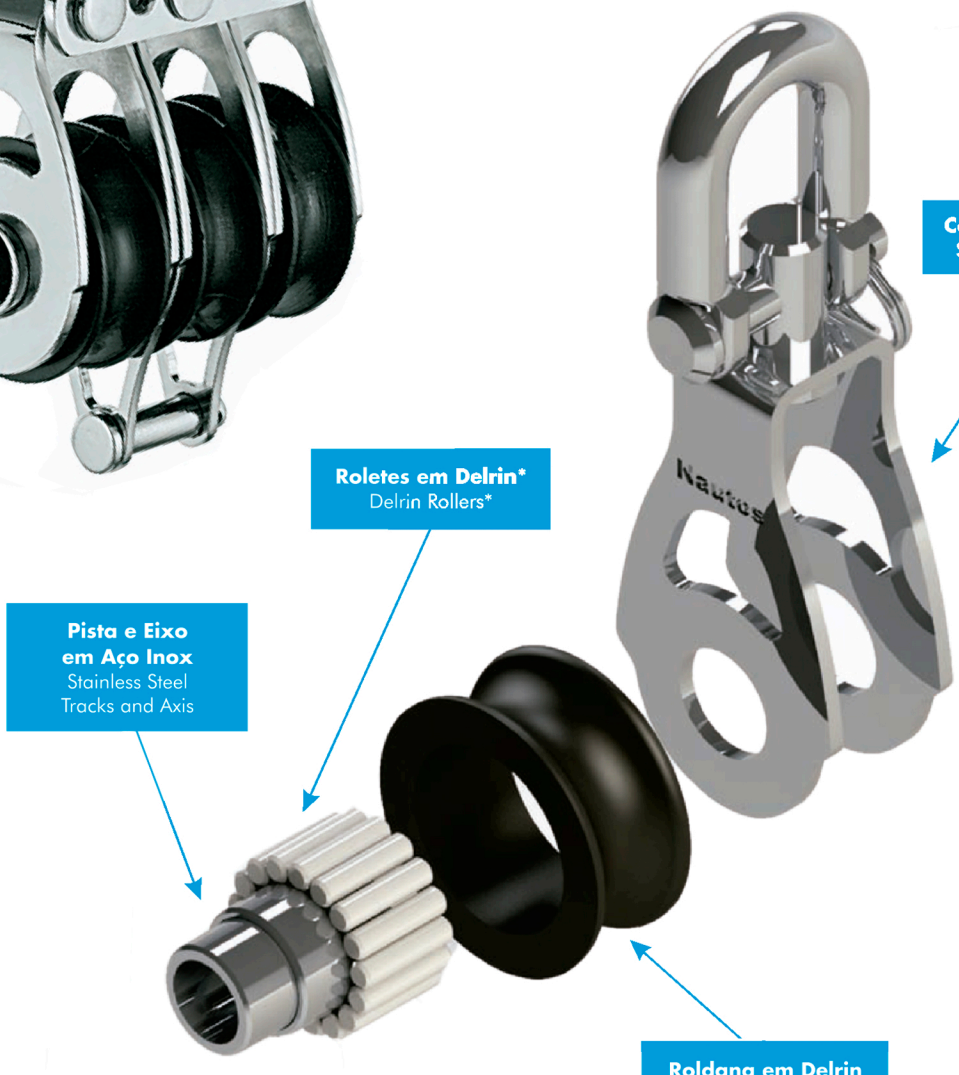
*** ROPE INCLUDED**

Mininox 20

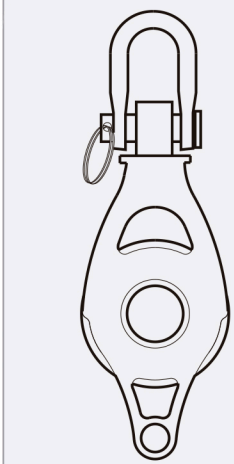


Rendimento real nos moitões, mesmo nos menores, sempre foi um princípio da Nautos. O Mininox comprova isto. Roletes sobre eixo rígido absorvem mais carga que esferas.

Real performance even in the small blocks has always been a Nautos principle. The Mininox is evidence of this. Rollers over a hard axle handle a greater load than balls.

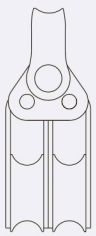


Tamanho real/Full size



∗ Exclusivo para estes tamanhos de moitões.
Exclusive for this blocks size.

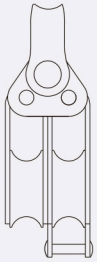
Double fixed
Duplo fixo



240
900
6 mm
20 mm
g 40

92524

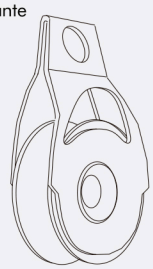
Double fixed / becket
Duplo fixo / saída



240
900
6 mm
20 mm
g 44

92525

Single footblock pivoting
Simples de encosto pivotante

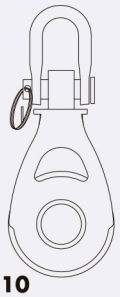


120
350
6 mm
20 mm
g 18

92512

DO NOT use Nautos equipament for human suspension or equivalent work.

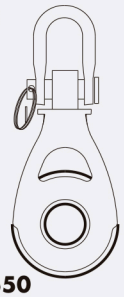
Single swivel
Simples giratório



120 | 350 | 6 mm | 20 mm | 24 g

92510

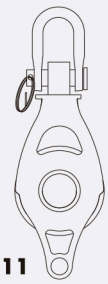
Single swivel / alloy sheave
Simples giratório / roldana alumínio



150 | 350 | 6 mm | 20 mm | 28 g

92550

Single swivel / becket
Simples giratório / saída



150 | 350 | 6 mm | 20 mm | 26 g

92511

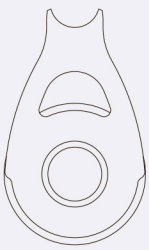
Single swivel, becket / alloy sheave
Simples giratório / saída / roldana alumínio



180 | 350 | 6 mm | 20 mm | 32 g

92551

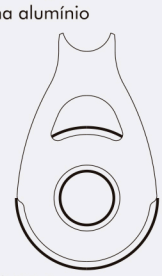
Single fixed head
Simples fixo



120 | 550 | 6 mm | 20 mm | 12 g

92514

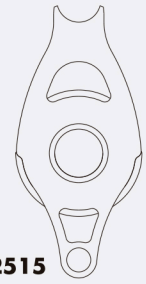
Single fixed head / alloy sheave
Simples fixo / roldana alumínio



150 | 550 | 6 mm | 20 mm | 18 g

92554

Single fixed head / becket
Simples fixo / saída



180 | 550 | 6 mm | 20 mm | 14 g

92515

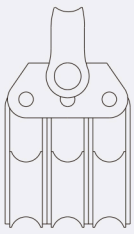
Single fixed head, becket / alloy sheave
Simples fixo / saída / roldana alumínio



180 | 550 | 6 mm | 20 mm | 20 g

92555

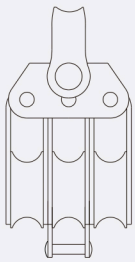
Triple fixed
Triplo fixo



300 | 600 | 6 mm | 20 mm | 60 g

92534

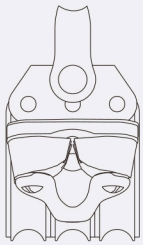
Triple fixed / becket
Triplo fixo / saída



300 | 600 | 6 mm | 20 mm | 64 g

92535

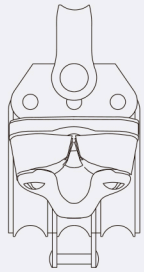
Triple fixed / cam
Triplo fixo / mordedor



300 | 600 | 6 mm | 20 mm | 100 g

92536

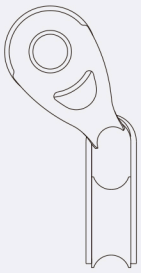
Triple fixed / cam / becket
Triplo fixo / mordedor / saída



300 | 600 | 6 mm | 20 mm | 105 g

92537

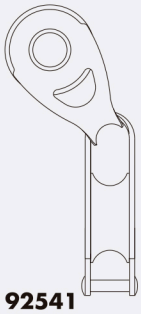
Back to back
Simples engatados



120 | 550 | 6 mm | 20 mm | 24 g

92540

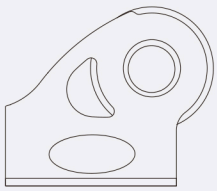
Back to back / becket
Simples engatados / saída



120 | 550 | 6 mm | 20 mm | 24 g

92541

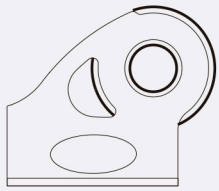
Single vertical lead
Simples passador vertical



120 | 400 | 6 mm | 20 mm | 22 g

92516

Single vertical lead / alloy sheave
Simples passador vertical / roldana alumínio



150 | 400 | 6 mm | 20 mm | 32 g

92561

Single through deck
Simples de embutir



120 | 400 | 6 mm | 20 mm | 22 g

92519

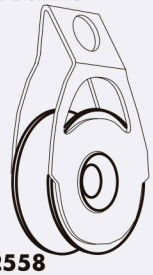
Single through deck / alloy sheave
Simples de embutir / roldana alumínio



150 | 400 | 6 mm | 20 mm | 28 g

92559

Single footblock / alloy sheave
Simples de encosto / roldana alumínio



150 | 400 | 6 mm | 20 mm | 22 g

92558

DO NOT use Nautos equipament for human suspension or equivalent work.

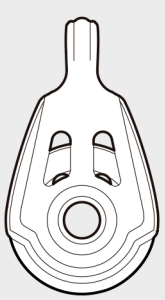
Dynamic 20



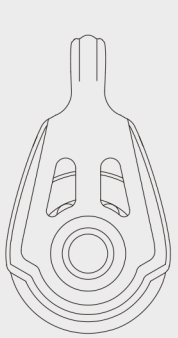
Qualidades especiais desta linha de moitões: Esferas de inox sobre eixo de inox, resultando em grande capacidade e pequeno volume. A alça moldada é suave para os cabos. Além disso, é forte, devido ao seu desenho em dupla curva. Eixo oco que permite ser usado como saída. Lateral completa sobre a roldana, proporcionando proteção no ambiente agressivo das regatas.

Special features of these blocks: Stainless steel balls running over stainless steel rails result in a high capacity and performance for such a compact product, Cold forged radiused head increases articulation, is kind to rope and super strong due to the double curved design. Light open axle allows rope to be tied through negating the need for an additional becket. Full molded jacket provides sheave protection for harsh racing environments.

Tamanho real/Full size



HT 2020



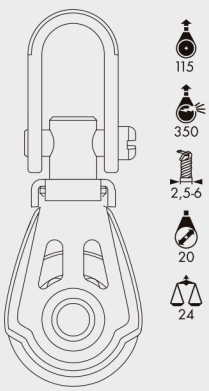
Simples fixo
Single fixed

HT 2020 LZ



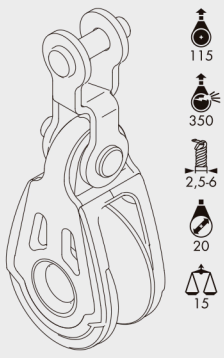
Stand-up
Stand-up

HT 2020 SC



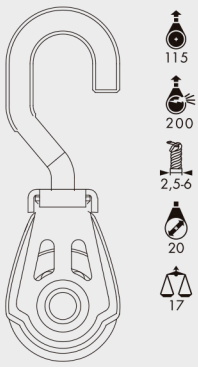
Simples giratório
Single swivel

HT 2021 F



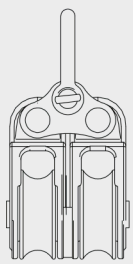
Simples fixo com garfo
With fork

HT 2021 HK



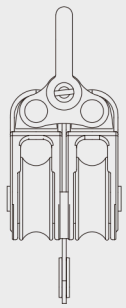
Simples giratório com gancho
With hook

HT 2022



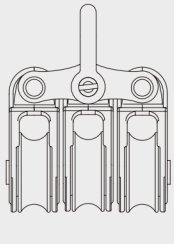
Duplo fixo
Double fixed

HT 2023



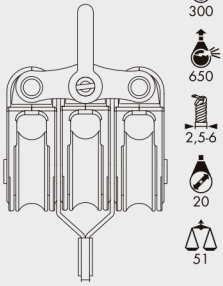
Duplo fixo/saída
Double fixed/becket

HT 2024



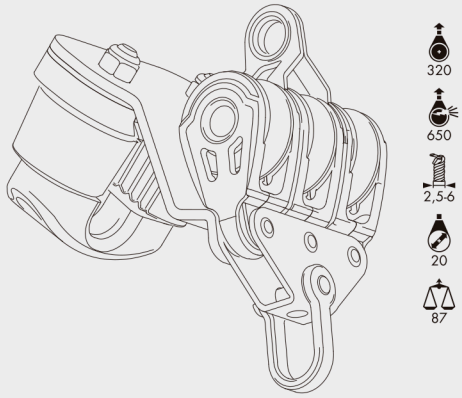
Triplo fixo
Triple fixed

HT 2025



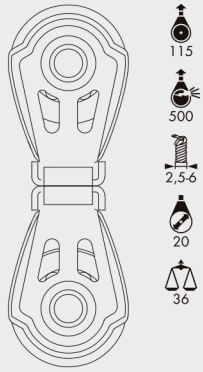
Triplo fixo/saída
Triple fixed/becket

HT 2027



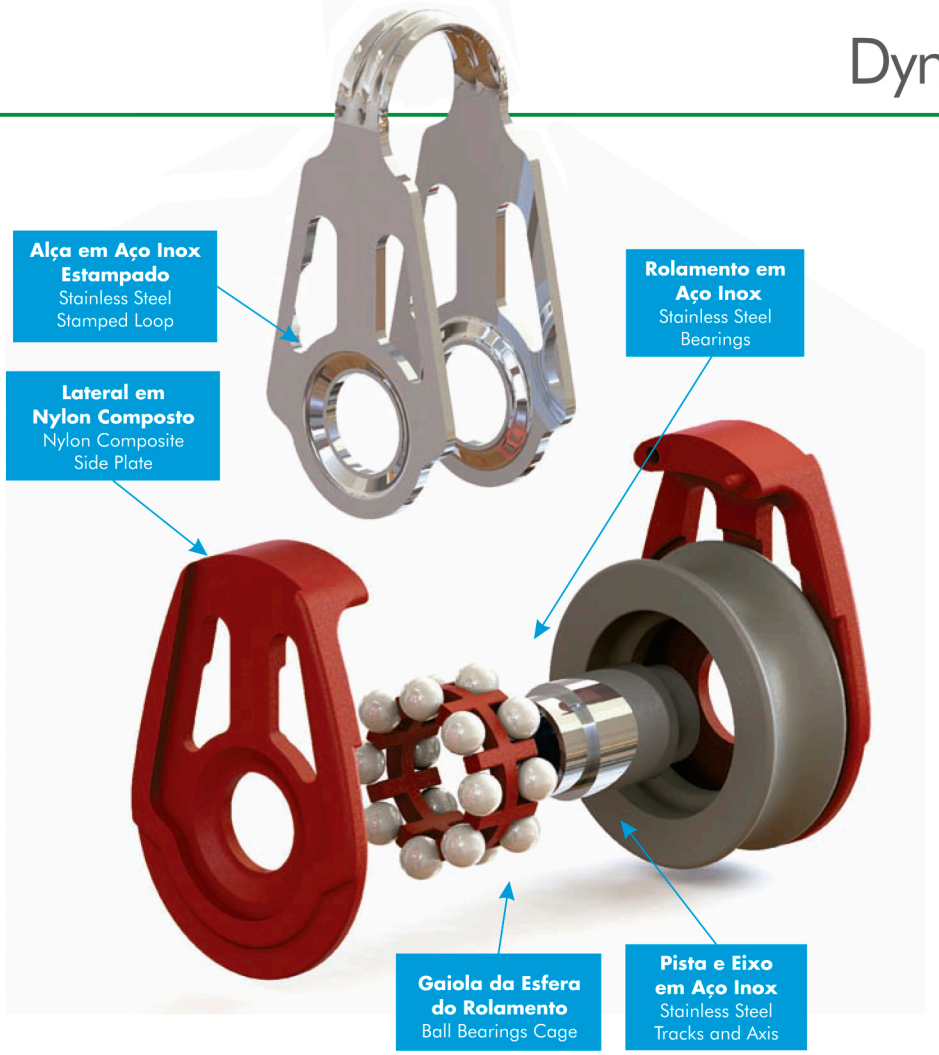
Triplo fixo/mordedor/saída
Triple fixed/cam/becket

HT 2028

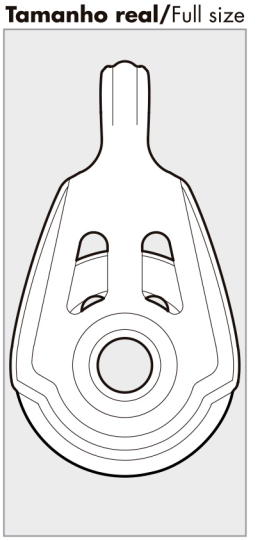


Engatados
Back to back

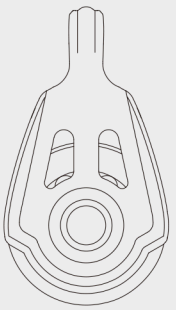
DO NOT use Nautos equipament for human suspension or equivalent work.



Tamanho real/Full size

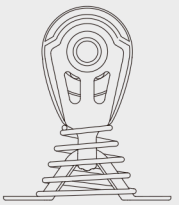


HT 2030



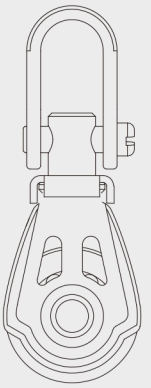
Simples fixo
Single fixed

HT 2030 LZ



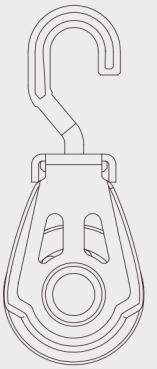
Stand-up
Stand-up

HT 2030 SC



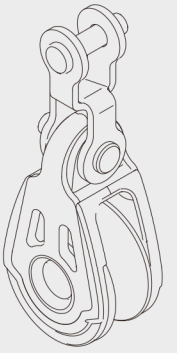
Simples giratório
Single swivel

HT 2031 HK



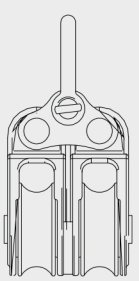
Simples giratório com gancho
Single swivel with hook

HT 2031 F



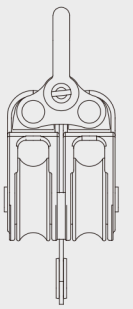
Com garfo
With fork

HT 2032



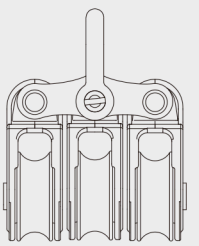
Duplo fixo
Double fixed

HT 2033



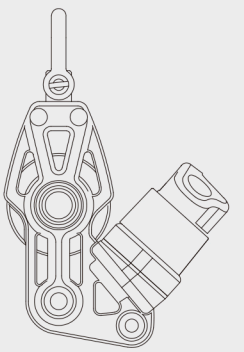
Duplo fixo/saída
Double fixed/becket

HT 2034



Triplo fixo
Triple fixed

HT 2039



Violino/mordedor/saída
Fiddle swivel/cam/becket

DO NOT use Nautos equipament for human suspension or equivalent work.

Moitão Catraca
Ratchet Block

Catraca sensitiva a carga é uma necessidade em muitas situações. A Nautos oferece dois novos modelos com sistema de gatilho seguro e rápido.

Sensitive load ratchet is a must in many situation. Nautos offer two new models with clean and secure triggering action.



92074



HT 2240



HT 2260

HT 2240	100	300	8	50	40
HT 2260	250	650	10	60	57
92074	240	600	5-12	107	57



Nautica 450

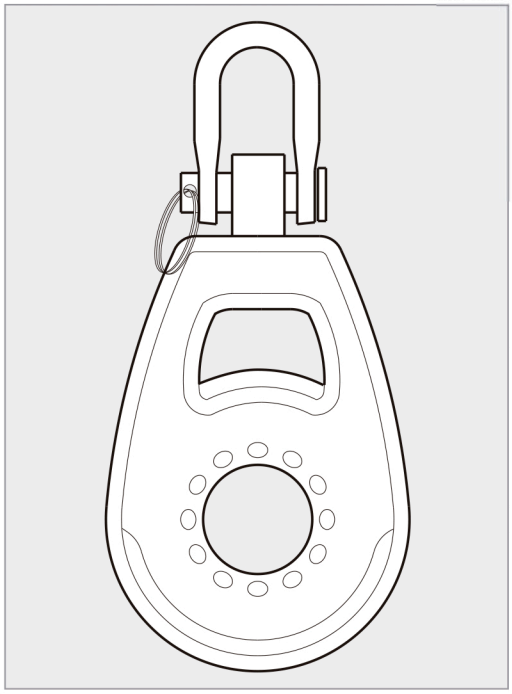
DO NOT use Nautos equipament for human suspension or equivalent work.

Os moitões da série Organic são um conceito original Nautos que alia laterais em composite e pistas de alumínio, permitindo virtualmente fricção zero extrema resistência ao calor, para a máxima performance em barcos médios e pequenos de regata.

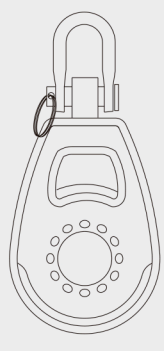
The Organic block from Nautos is an original concept that allies composite cheeks with aluminum races for near zero friction and heat resistance, allowing maximum performance in racers up to 32 feet.



Tamanho real/Full size

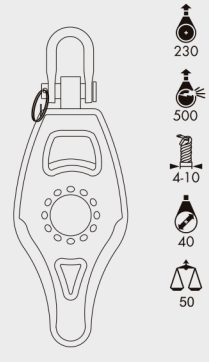


92035



Simples giratório
Single swivel

92040



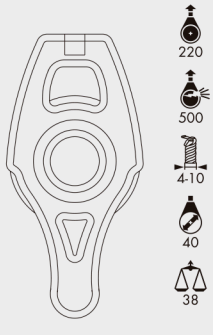
Simples giratório/ saída
Single swivel/becket

92045



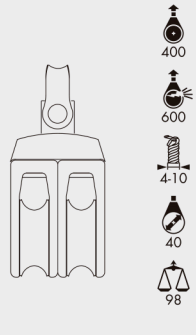
Simples de amarrar
Single for web attachments

92050



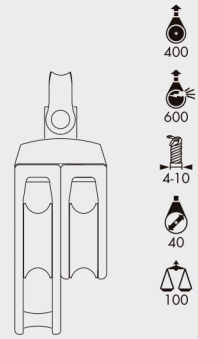
Simples de amarrar/ saída
Single for web attachments/becket

92055



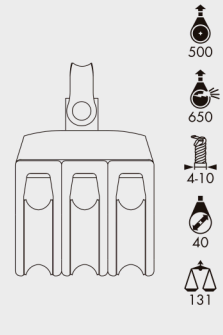
Duplo giratório
Double swivel

92058



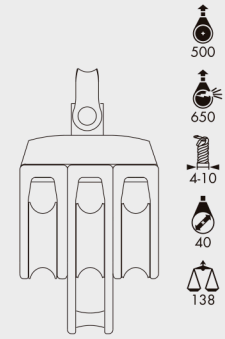
Duplo giratório/saída
Double swivel/becket

92061



Triplo giratório
Triple swivel

92069



Triplo giratório/saída
Triple swivel/becket

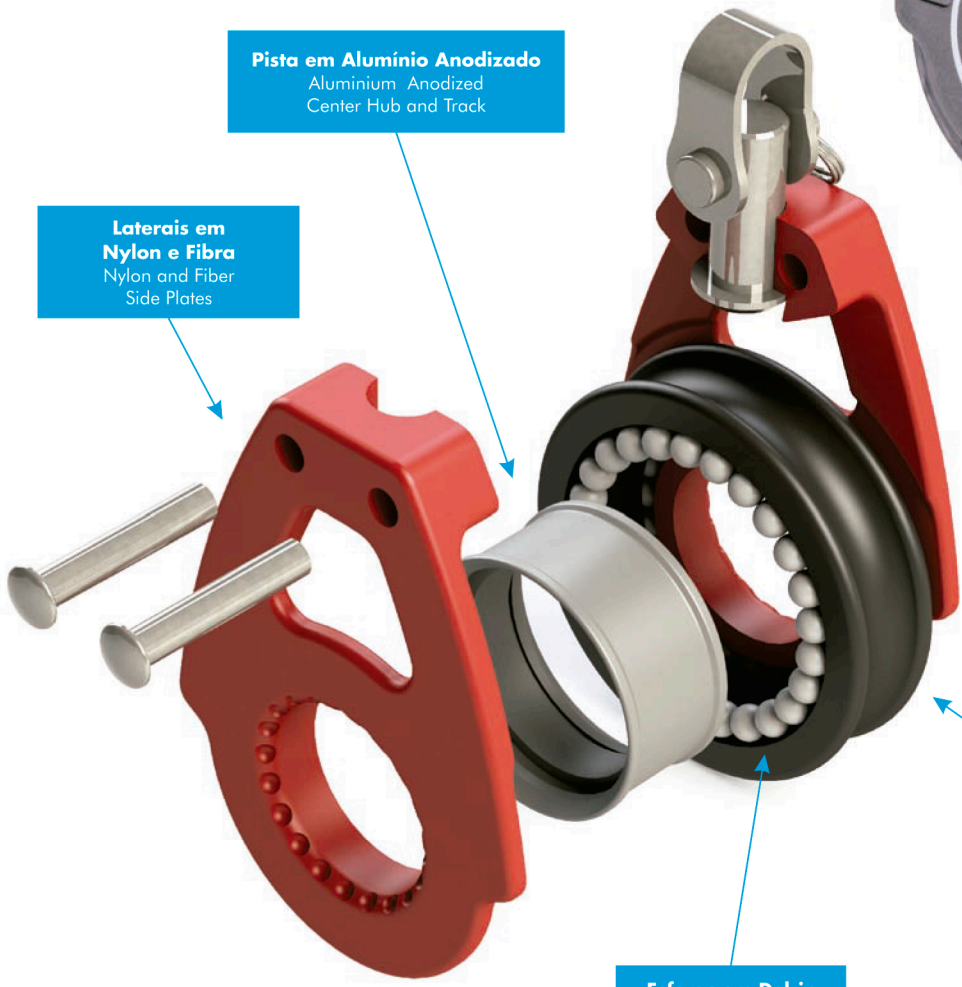
DO NOT use Nautos equipament for human suspension or equivalent work.

Organic 57

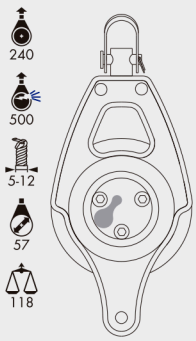
Os moitões da série Organic são um conceito original Nautos que alia laterais em composite e pistas de alumínio, permitindo virtualmente fricção zero extrema resistência ao calor, para a máxima performance em barcos médios e pequenos de regata.

The Organic block from Nautos is an original concept that allies composite cheekS with aluminum races for near zero friction and heat resistance, allowing maximum performance in racers up to 32 feet.



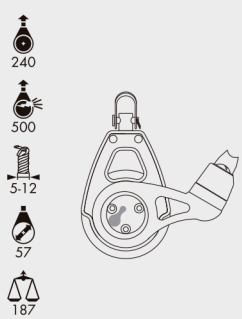


92075



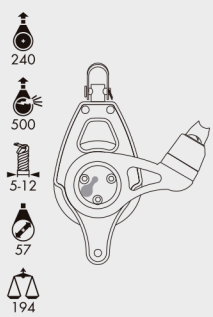
Simples giratório/ catraca/saída
Single swivel/ratchet/ becket

92076



Simples giratório/ catraca/mordedor
Single swivel/ratchet/cam

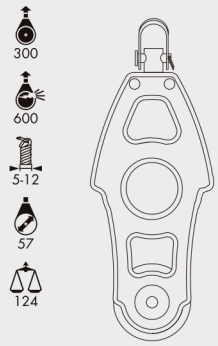
92077



Simples giratório/ catraca/mordedor/ saída
Single swivel/ratchet/ cam/becket

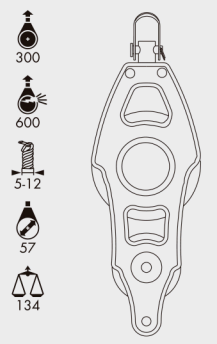
DO NOT use Nautos equipament for human suspension or equivalent work.

92000



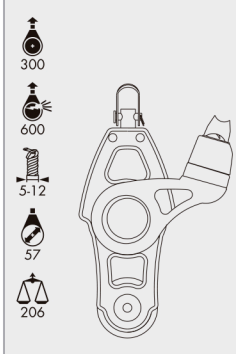
Violino giratório
Fiddle swivel

92001



Violino giratório/saída
Fiddle swivel/becket

92002



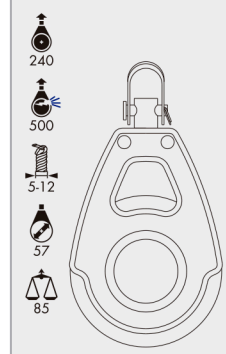
Violino giratório/ mordedor
Fiddle swivel/cam

92003



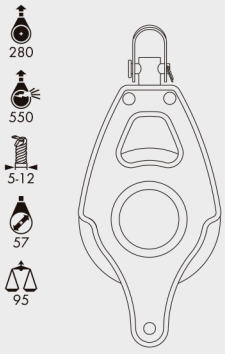
Violino giratório/ mordedor/saída
Fiddle swivel/cam/becket

92010



Simples giratório
Single swivel

92011



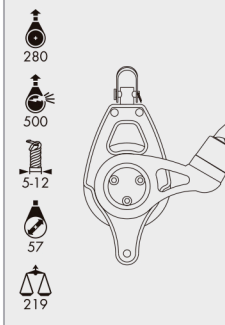
Simples giratório/saída
Single swivel/becket

92012



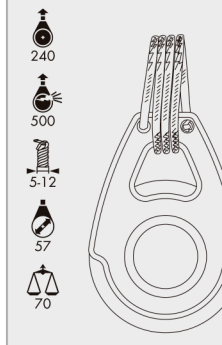
Simples giratório/ mordedor
Single swivel/ball bearing alloy cam

92013



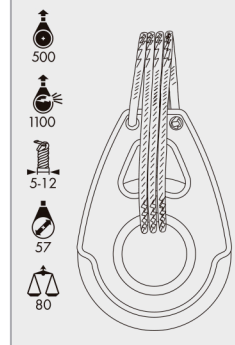
Simples giratório/ mordedor/saída
Single swivel/ball bearing alloy cam/becket

92014



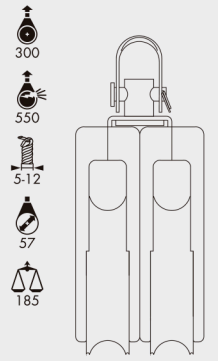
Simples de amarrar
Single for web attachments

92017



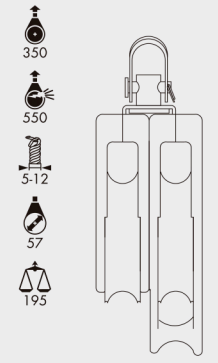
Simples de amarrar/ roldana alumínio
Single for web attachments/alloy sheave

92020



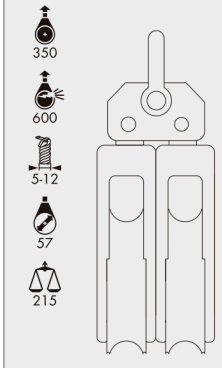
Duplo giratório
Double swivel

92021



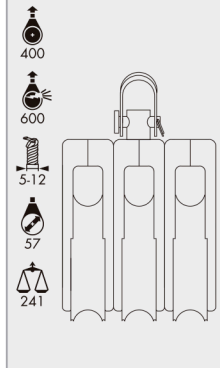
Duplo giratório/ saída
Double swivel/becket

92024



Duplo fixo
Double fixed

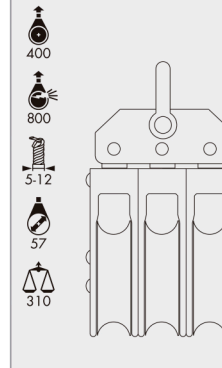
92030



Utilizado no Hobie Cat 14/Used at Hobie Cat 14

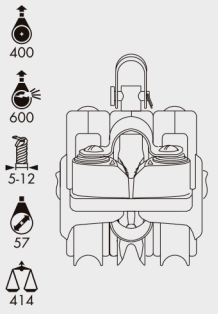
Triplo giratório
Triple swivel

92034



Triplo fixo
Triple fixed

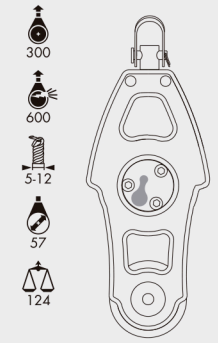
92083



Utilizado no Hobie Cat 14/Used at Hobie Cat 14

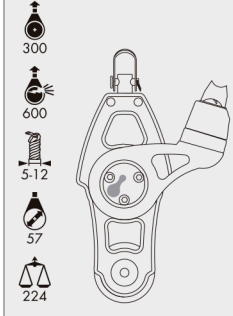
Triplo giratório/ catraca/mordedor saída
Triple swivel/ratchet/ cam/becket

92070



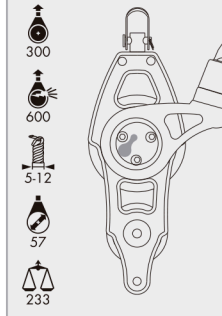
Violino giratório/ catraca
Fiddle swivel/ratchet

92072



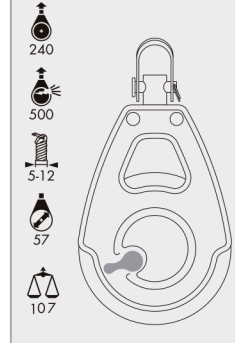
Violino giratório/ catraca/mordedor
Fiddle swivel/ratchet/cam

92073



Violino giratório/ catraca/mordedor/ saída
Fiddle swivel/ratchet/ cam/becket

92074



Simples giratório/ catraca
Single swivel/ratchet

DO NOT use Nautos equipament for human suspension or equivalent work.

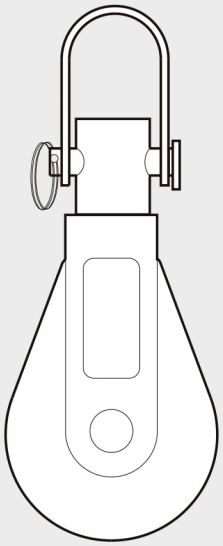
Line 28



Desenho convencional com duplo rolamento de esferas é comprovada durabilidade. Roldana de alumínio sobre roletes opcional para uso em grandes cargas.

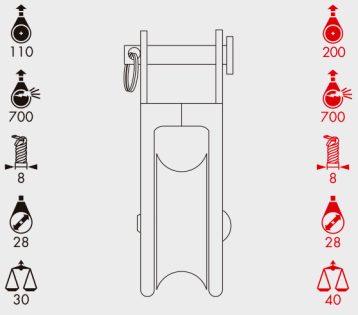
Conventional Ball bearing design with long lasting characteristics. Optional aluminum sheave on roller bearings for higher loads.

Tamanho real/Full size





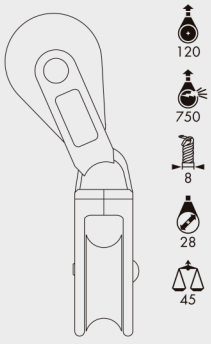
92431 **92432** High-load



Simples fixo para pé mastro/pino 5mm
Single fixed for mast base/5mm clevis pin

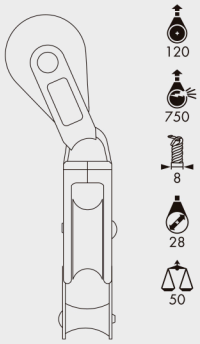
Roldana alumínio
Alloy sheave

92440



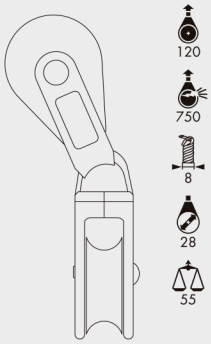
Simples engatados/ 28mm + 28mm
Back to back

92441



Simples engatados/ saída
Back to back/becket

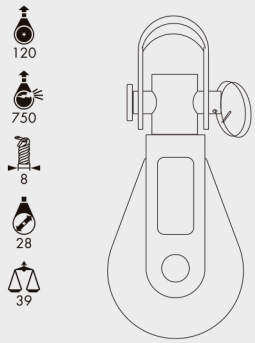
92442



Simples engatados/ 28mm + 39mm
Back to back

DO NOT use Nautos equipament for human suspension or equivalent work.

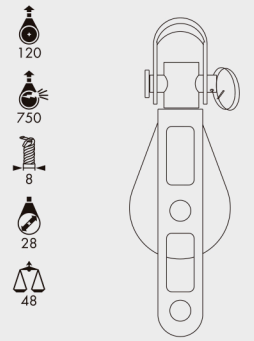
92410 — **92450** High-load



Simples giratório
Single swivel

Roldana alumínio
Alloy sheave

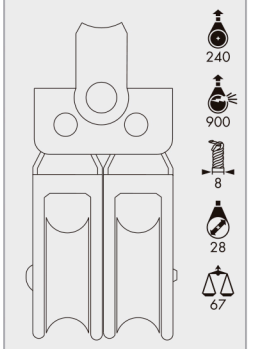
92411 — **92451** High-load



Simples giratório/saída
Single swivel/becket

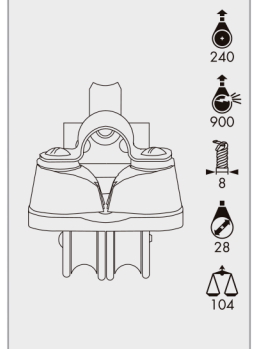
Roldana alumínio
Alloy sheave

92424



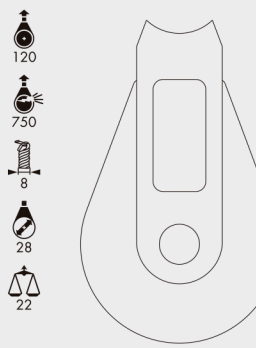
Duplo fixo
Double fixed

92426



Duplo fixo/mordedor
Double fixed/cam

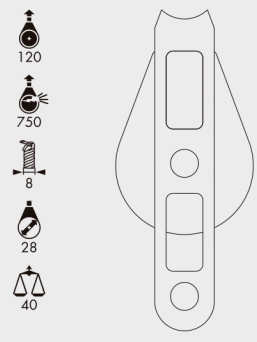
92414 — **92454** High-load



Simples fixo
Single fixed head

Roldana alumínio
Alloy sheave

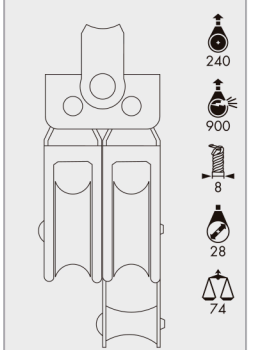
92415 — **92455** High-load



Simples fixo/saída
Single fixed head/becket

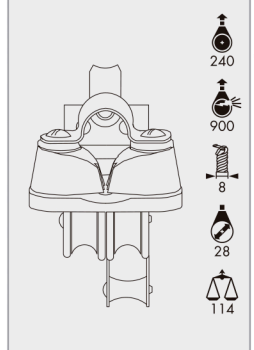
Roldana alumínio
Alloy sheave

92425



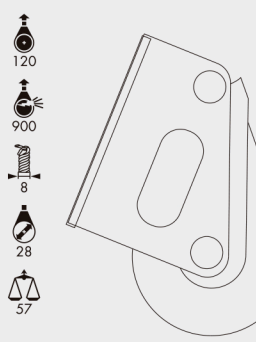
Duplo fixo/saída
Double fixed/becket

92427



Duplo fixo/mordedor/saída
Double fixed/cam/becket

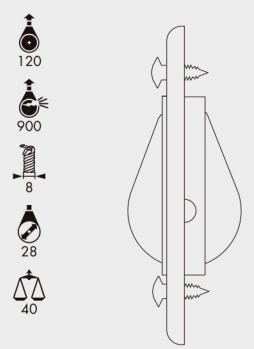
92416 — **92461** High-load



Simples passador vertical
Single vertical lead

Roldana alumínio
Alloy sheave

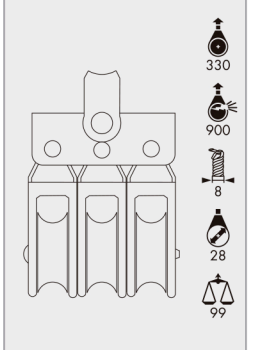
92419 — **92459** High-load



Simples de embutir
Single through deck

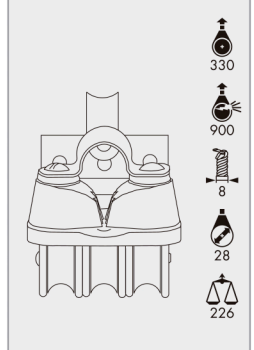
Roldana alumínio
Alloy sheave

92434



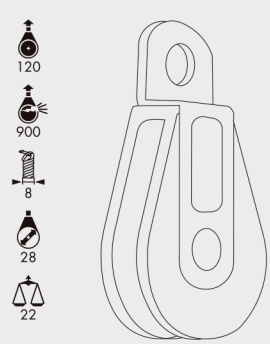
Triplo fixo
Triple fixed

92436



Triplo fixo/mordedor
Triple fixed/cam

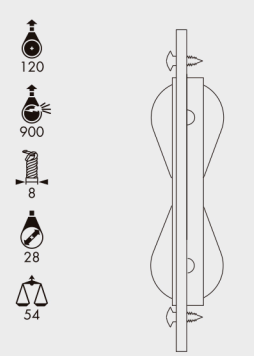
92428 — **92468** High-load



Simples de encosto pivotante
Single footblock pivoting

Roldana alumínio
Alloy sheave

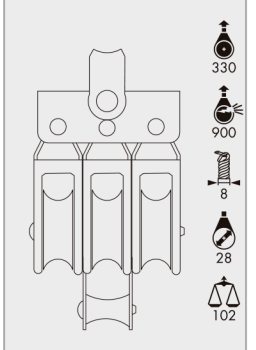
92429 — **92469** High-load



De embutir em linha
In line through deck

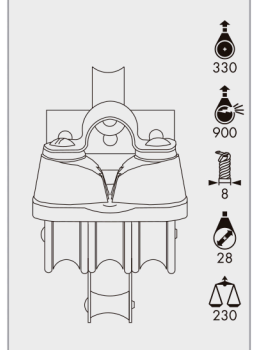
Roldana alumínio
Alloy sheave

92435



Triplo fixo/saída
Triple fixed/becket

92437



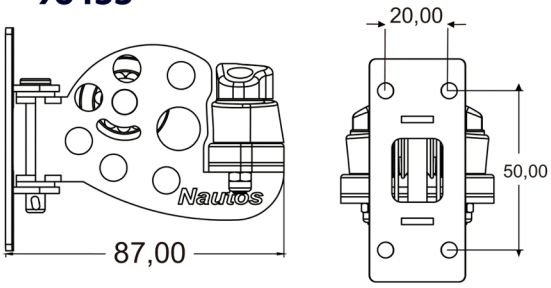
Triplo fixo/mordedor/saída
Triple fixed/cam/becket

DO NOT use Nautos equipament for human suspension or equivalent work.

Roldana Pivotante

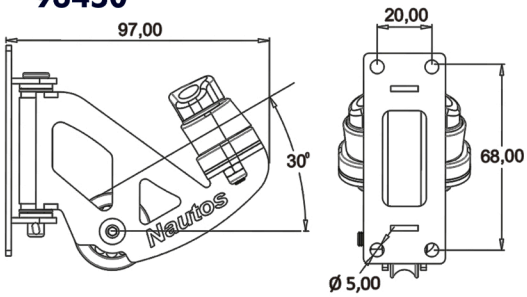


96455





96450



Moitão guia pivotante, para controle de adriças ou redirecionar escota da grande direto da retranca.
Pode também ser usado no pé do mastro como downhaul

96450	120	250	6	30
96455	120	250	6	30

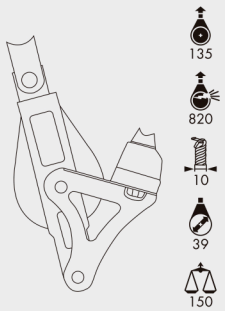
Line 39

Desenho convencional com duplo rolamento de esferas é comprovado durabilidade. Roldana de alumínio sobre roletes (opcional para uso em grandes cargas).

Conventional Ball bearing design with long lasting characteristics. Optional aluminum sheave on roller bearings for higher loads.

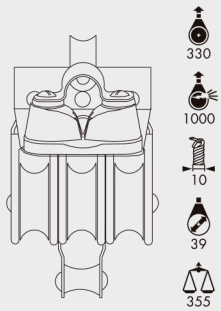


92313



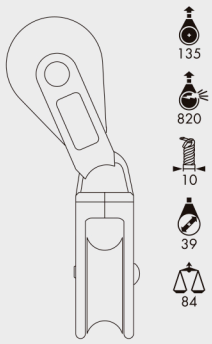
Simples giratório/ mordedor/saída
Single swivel/ball bearing cam/becket

92337



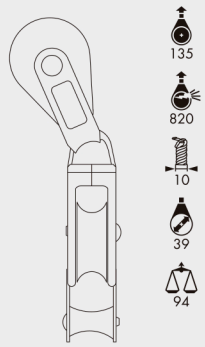
Triplo fixo/ mordedor/saída
Triple fixed/cam/ becket

92340



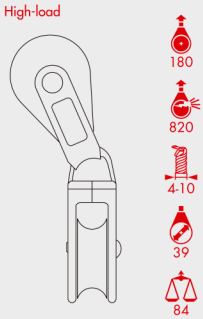
Simples engatados
Back to back

92341



Simples engatados/ saída
Back to back/becket

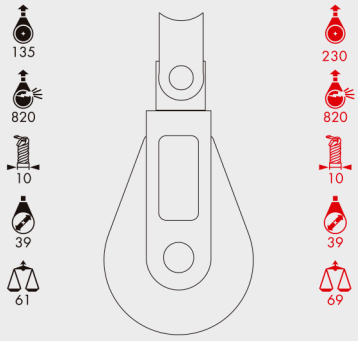
92343
High-load



Simples engatados/ 28mm + 39mm Roldana alumínio
Back to back
Alloy sheave

DO NOT use Nautos equipament for human suspension or equivalent work.

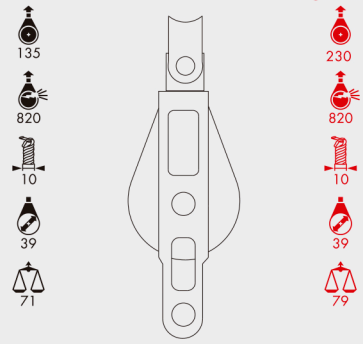
92310 — **92350** High-load



Simples giratório
Single swivel

Roldana alumínio
Alloy sheave

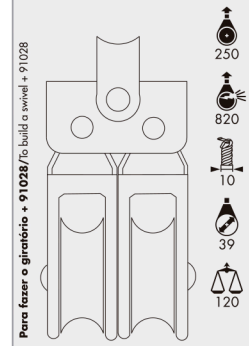
92311 — **92351** High-load



Simples giratório/saída
Single swivel/ becket

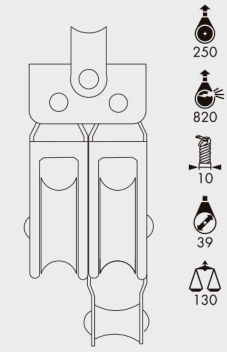
Roldana alumínio
Alloy sheave

92324



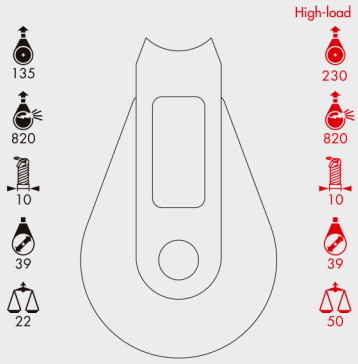
Duplo fixo
Double fixed

92325



Duplo fixo/saída
Double fixed/becket

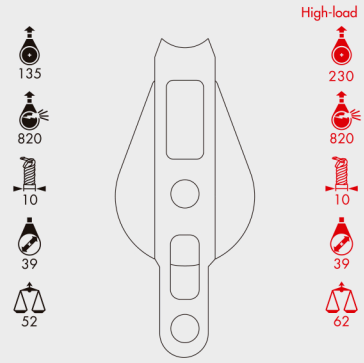
92314 — **92354** High-load



Simples fixo
Single fixed head

Roldana alumínio
Alloy sheave

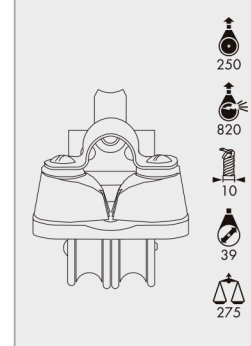
92315 — **92355** High-load



Simples fixo/saída
Single fixed head/ becket

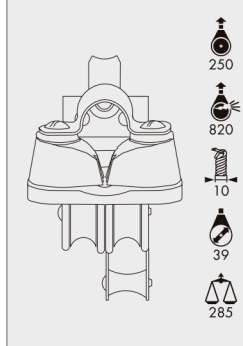
Roldana alumínio
Alloy sheave

92326



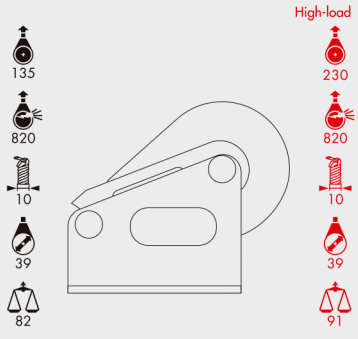
Duplo fixo/ mordedor
Double fixed/cam

92327



Duplo fixo/ mordedor/saída
Double fixed/cam/ becket

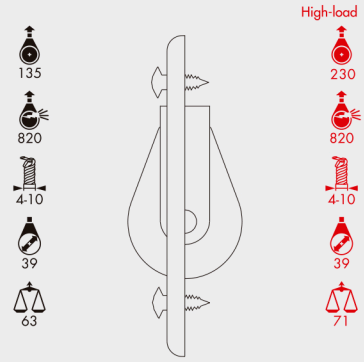
92316 — **92361** High-load



Simples passador vertical
Single vertical lead

Roldana alumínio
Alloy sheave

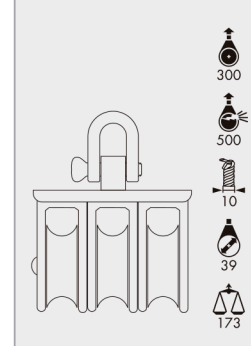
92319 — **92359** High-load



Simples de embutir
Single through deck

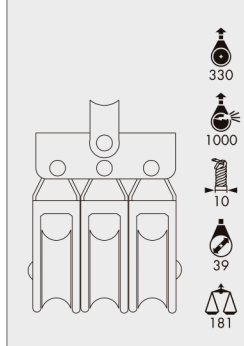
Roldana alumínio
Alloy sheave

92330



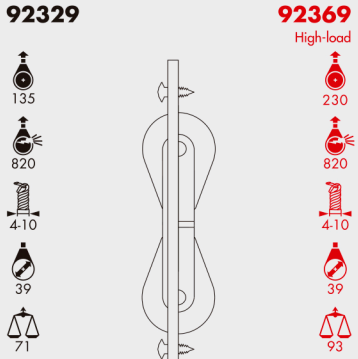
Triplo giratório
Triple swivel

92334



Triplo fixo
Triple fixed

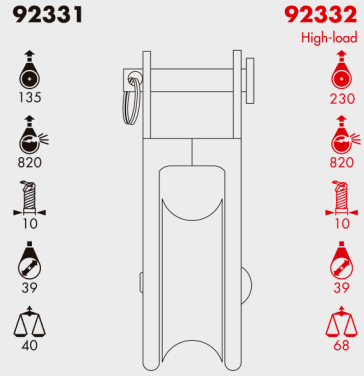
92329 — **92369** High-load



De embutir em linha
In line through deck

Roldana alumínio
Alloy sheave

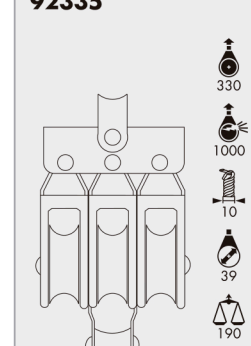
92331 — **92332** High-load



Simples fixo para pé mastro/pino 5mm
Single fixed for mast base/5mm clevis pin

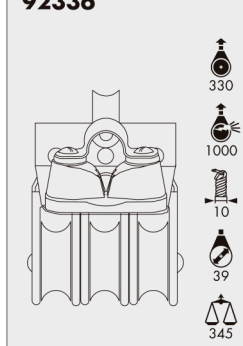
Roldana alumínio
Alloy sheave

92335



Triplo fixo/saída
Triple fixed/becket

92336



Triplo fixo/ mordedor
Triple fixed/cam

DO NOT use Nautos equipament for human suspension or equivalent work.

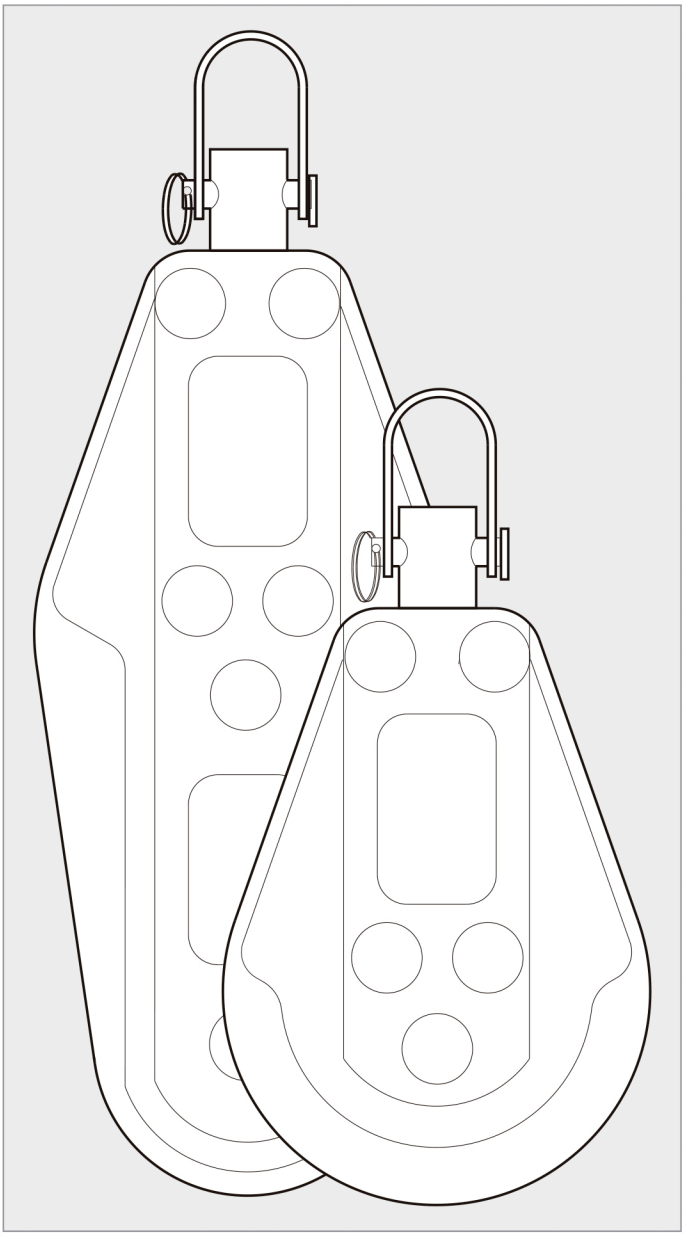
Line 57

Desenho convencional com duplo rolamento de esferas é comprovado durabilidade. "Alta carga" significa roldana de alumínio sobre roletes.

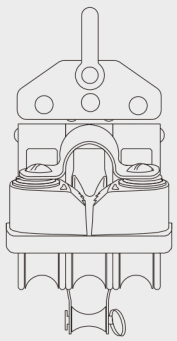
Conventional Ball bearing design with long lasting characteristics. Optional aluminum sheave on roller bearings for higher loads.



Tamanho real/Full size



92237

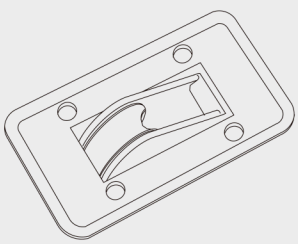


600
1200
12
57
573

Triplo fixo/mordedor com saída
Triple fixed/cam becket

92219

92259
High-load



210
950
12
57
180

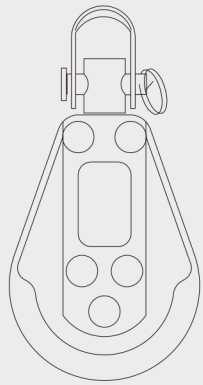
400
1100
12
57
210

Simples de embutir
Single through deck

Roldana alumínio
Alloy sheave

DO NOT use Nautos equipament for human suspension or equivalent work.

92210



210 · 950 · 12 · 57 · 125

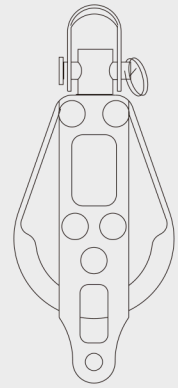
Simples giratório
Single swivel

92250
High-load

400 · 1200 · 12 · 57 · 148

Roldana alumínio
Alloy sheave

92211



210 · 950 · 12 · 57 · 145

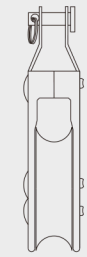
Simples giratório/saída
Single swivel/becket

92251
High-load

400 · 1200 · 12 · 57 · 167

Roldana alumínio
Alloy sheave

92231



210 · 950 · 12 · 57 · 154

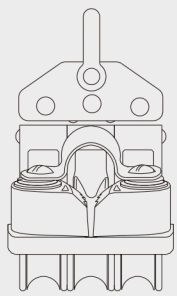
Simples fixo pé de mastro/pino 6mm
Single fixed mast base/pin 6mm

92232
High-load

400 · 1200 · 12 · 57 · 167

Roldana alumínio
Alloy sheave

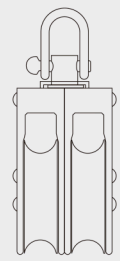
92236



600 · 1200 · 12 · 57 · 553

Triplo fixo/mordedor
Triple fixed/cam

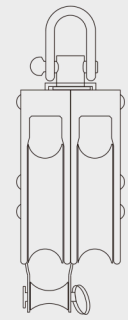
92220



480 · 1200 · 12 · 57 · 226

Duplo giratório
Double swivel

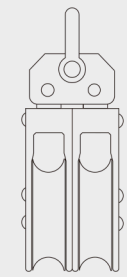
92221



480 · 1200 · 12 · 57 · 240

Duplo giratório/saída
Double swivel/becket

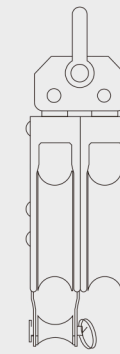
92224



700 · 1200 · 12 · 57 · 420

Duplo fixo
Double fixed

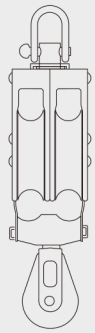
92225



480 · 1200 · 12 · 57 · 380

Duplo fixo/saída
Double fixed/becket

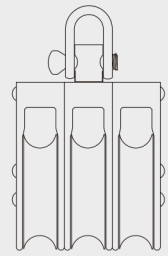
92223



480 · 900 · 12 · 57 · 320

Duplo giratório com roldana transversal 39mm
Double swivel with cross 39mm

92230

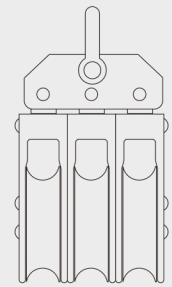


Utilizado no Hobie Cat 16 + 92633/Used at Hobie Cat 16 + 92633

500 · 950 · 12 · 57 · 315

Triplo giratório
Triple swivel

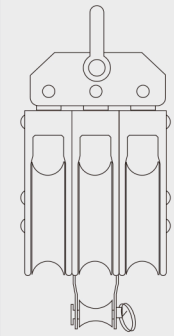
92234



600 · 1200 · 12 · 57 · 375

Triplo fixo
Triple fixed

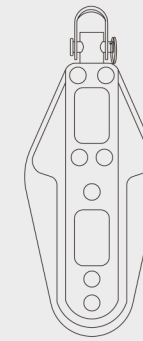
92235



600 · 1200 · 12 · 57 · 395

Triplo fixo/saída
Triple fixed/becket

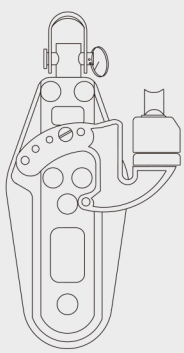
92200



400 · 950 · 12 · 57 · 170

Violino giratório
Fiddle swivel

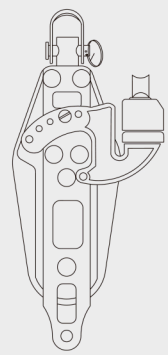
92202



400 · 950 · 12 · 57 · 345

Violino giratório/mordedor
Fiddle swivel/cam

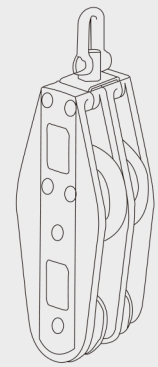
92203



400 · 950 · 12 · 57 · 358

Violino giratório/mordedor/saída
Fiddle swivel/cam/becket

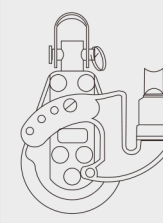
92240



800 · 1200 · 12 · 57 · 380

Violino duplo giratório
Fiddle double swivel

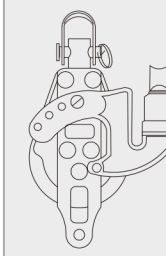
92212



210 · 950 · 12 · 57 · 287

Simples giratório/mordedor
Single swivel/ball bearing alloy cam

92213



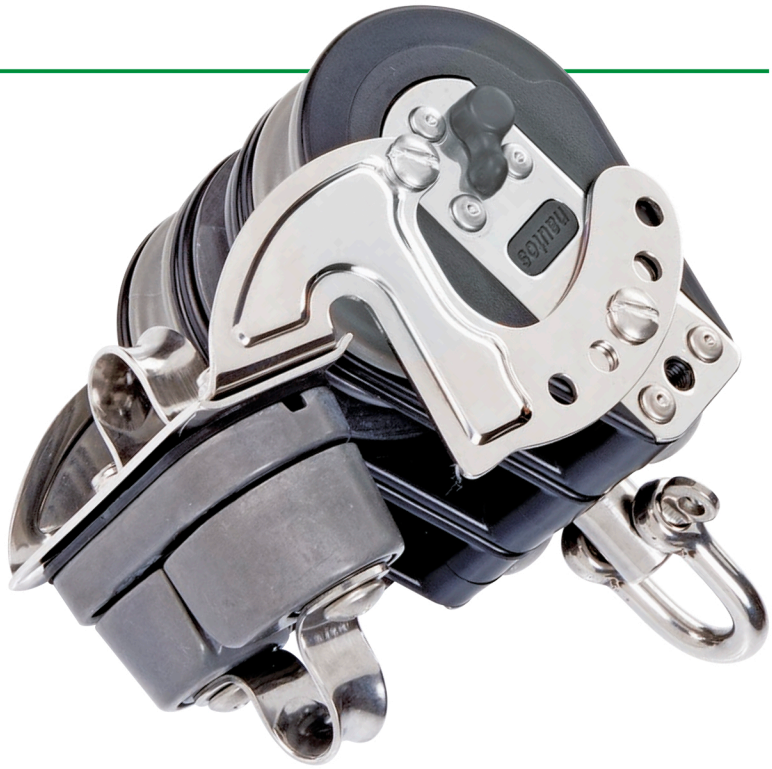
210 · 950 · 12 · 57 · 311

Simples giratório/mordedor/saída
Single swivel/ball bearing alloy cam/becket

DO NOT use Nautos equipament for human suspension or equivalent work.

Line 57 Catraca

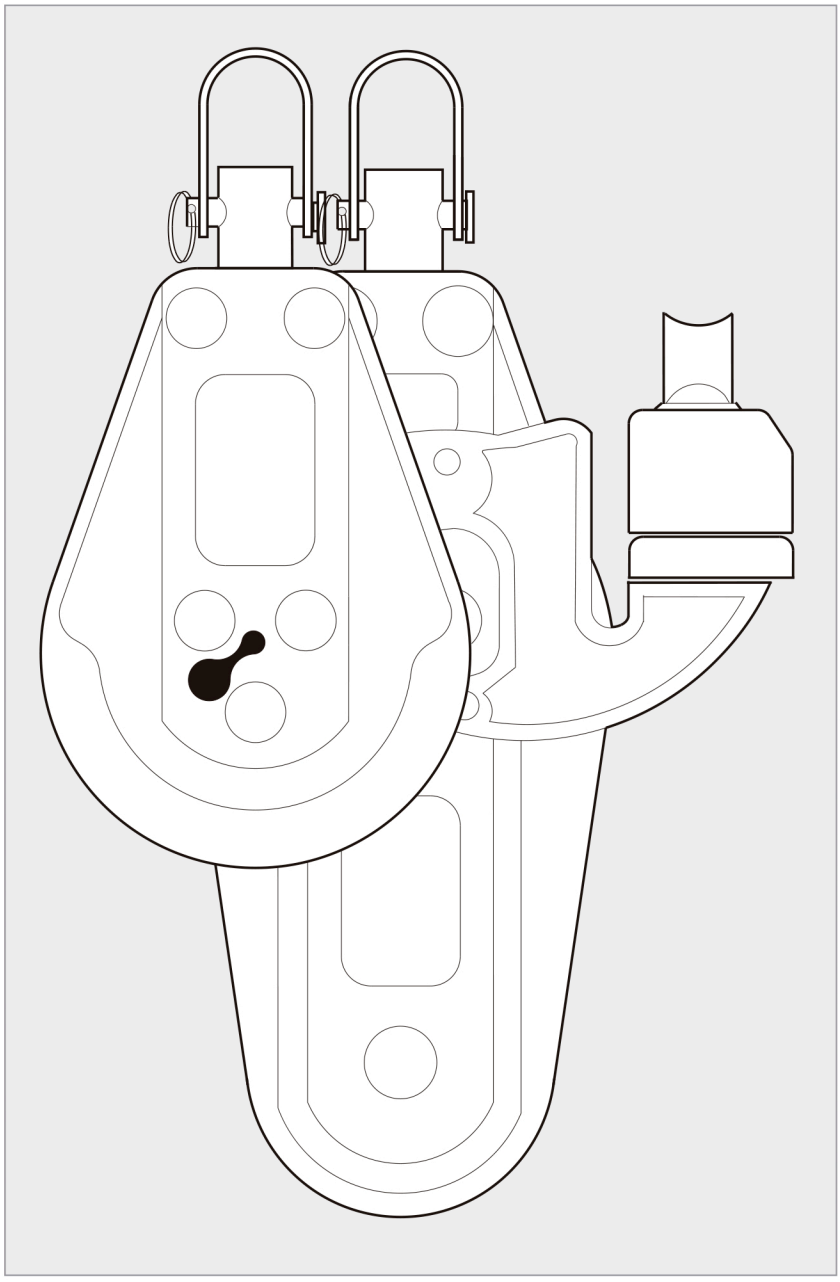
Ratchet



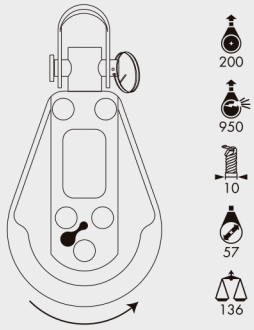
Moitão catraca roletado com roldana de alumínio.
Liga-desliga mesmo sob carga.

Ball bearing ratchet block with aluminum sheave.
On-off ability under load.

Tamanho real/Full size

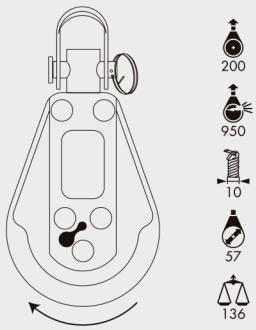


92709



Simples giratório/ catraca/direito (anti-horário)
Single swivel/ratchet/right (anti-clockwise)

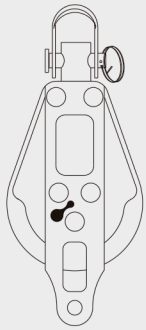
92710



Simples giratório/ catraca/esquerdo (horário)
Single swivel/ratchet/left (clockwise)

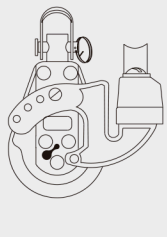
DO NOT use Nautos equipament for human suspension or equivalent work.

92711



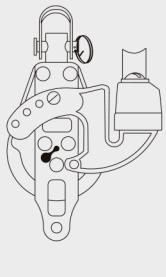
Simples giratório catraca/saída
Single swivel ratchet/becket

92712



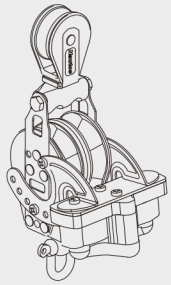
Simples giratório catraca/mordedor
Single swivel ratchet/cam

92713



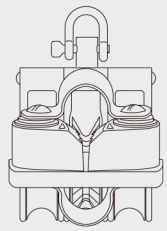
Simples giratório catraca/mordedor/saída
Single swivel ratchet/cam/becket

92727



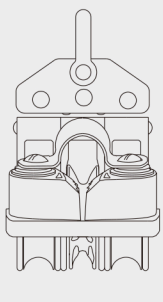
Duplo giratório/2 catracas/mordedor duplo/moitão transv. 39mm
Double swivel/2 ratches/dual cam/a cross 39mm

92733



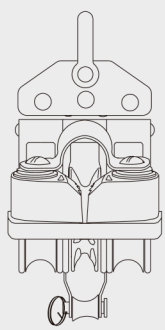
Triplo giratório catraca/mordedor/saída
Triple swivel/ratchet/cam/becket

92736



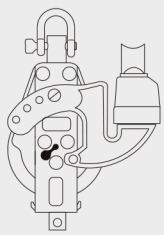
Triplo fixo/mordedor
Triple fixed/cam

92737



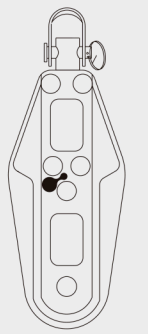
Triplo fixo/mordedor/saída
Triple fixed/cam/becket

92777



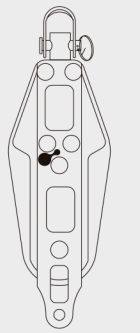
Base 92777
92777 base

92700



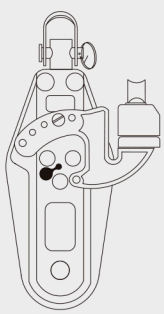
Violino giratório/catraca
Fiddle swivel/rachet

92701



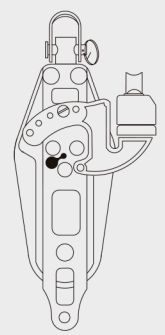
Violino giratório/catraca/saída
Fiddle swivel/ratchet/becket

92702



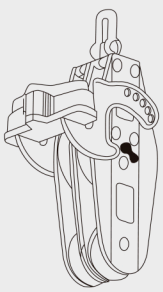
Violino giratório/catraca/mordedor
Fiddle swivel/ratchet/cam

92703



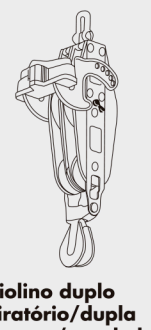
Violino giratório/catraca/mordedor/saída
Fiddle swivel/ratchet/cam/becket

92746



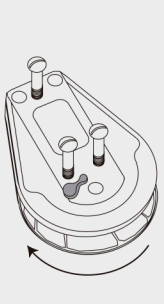
Violino duplo giratório/dupla catraca/mordedor duplo
Fiddle double swivel/double ratchet/double cam

92747



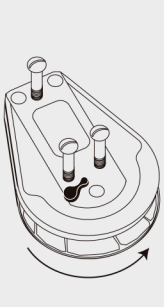
Violino duplo giratório/dupla catraca/mordedor duplo/moitão transv. 39mm
Fiddle double swivel/double ratchet/double cam/a cross 39mm

92717



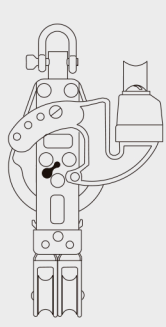
Simples catraca de encosto/esquerdo (horário)
Single ratchet footblock/right (clockwise)

92718



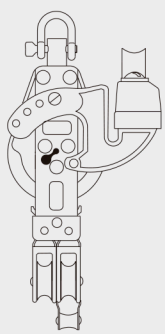
Simples catraca de encosto/direito (anti-horário)
Single ratchet footblock/left (anti-clockwise)

92771



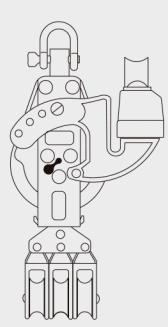
Base 92777 com duplo 39mm
92777 base and double 39mm

92772



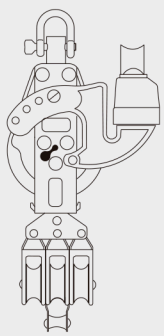
Base 92777 com duplo 39mm/saída
92777 base and double 39mm/becket

92773



Base 92777 com triplo 39mm
92777 base and triple 39mm

92774



Base 92777 com triplo 39mm/saída
92777 base and triple 39mm/becket

DO NOT use Nautos equipament for human suspension or equivalent work.

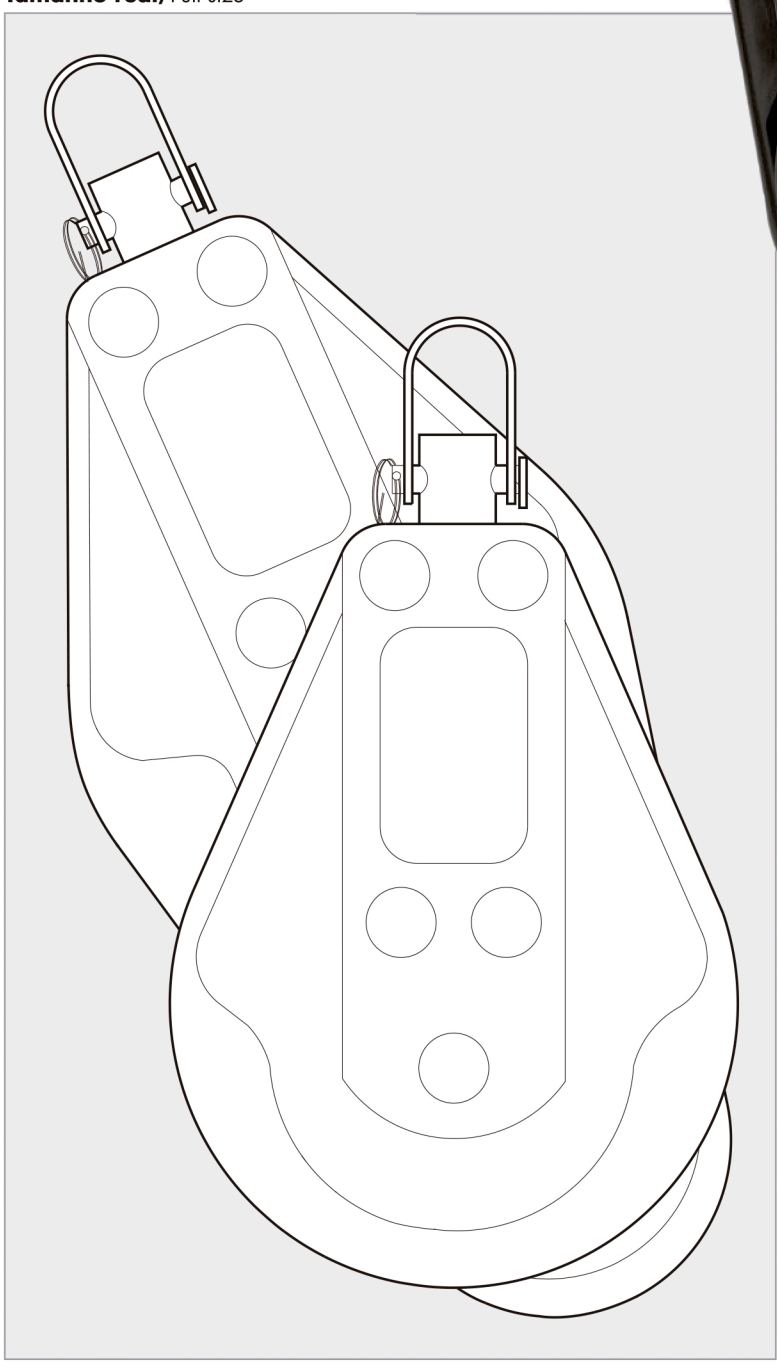
Line 75

Desenho convencional com duplo rolamento de esferas e comprovada durabilidade. Roldana de alumínio sobre roletes (opcional para uso em grandes cargas).

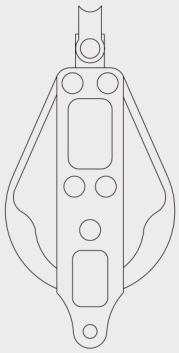
Conventional Ball bearing design with long lasting characteristics. Optional aluminum sheave on roller bearing for higher load.



Tamanho real/Full size



92111



Simples giratório/ saída
Single swivel/becket

92151
High-load



Roldana alumínio
Alloy sheave

92110



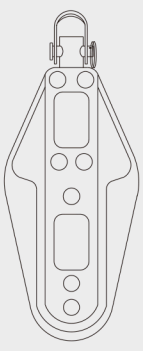
Simples giratório
Single swivel

92150
High-load



Roldana alumínio
Alloy sheave

92100



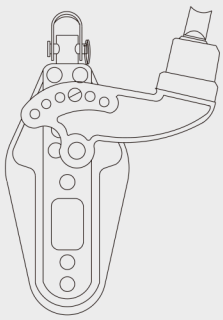
Violino giratório
Fiddle swivel

92101



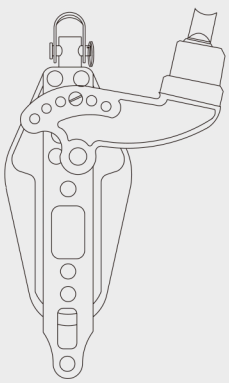
Violino giratório/saída
Fiddle swivel/becket

92102



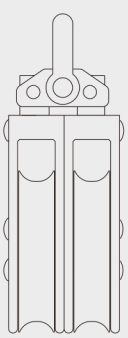
Violino giratório/mordedor
Fiddle swivel/cam

92103



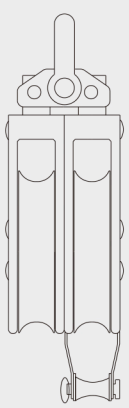
Violino giratório/mordedor/saída
Fiddle swivel/cam/becket

92124



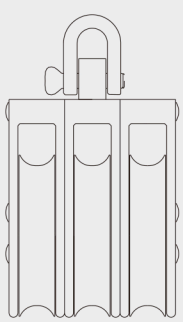
Duplo fixo
Double fixed

92125



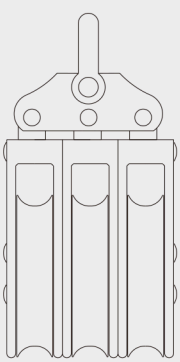
Duplo fixo/saída
Double fixed/becket

92130



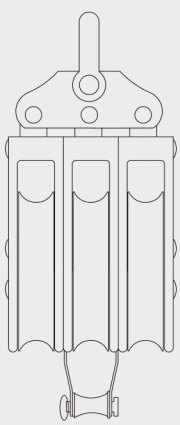
Triplo giratório
Triple swivel

92134



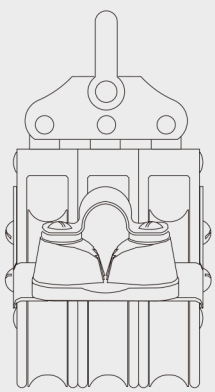
Triplo fixo
Fiddle fixed

92135



Triplo fixo/saída
Triple fixed/becket

92136



Triplo fixo/mordedor
Triple fixed/cam

DO NOT use Nautos equipament for human suspension or equivalent work.

Line 75 Catraca

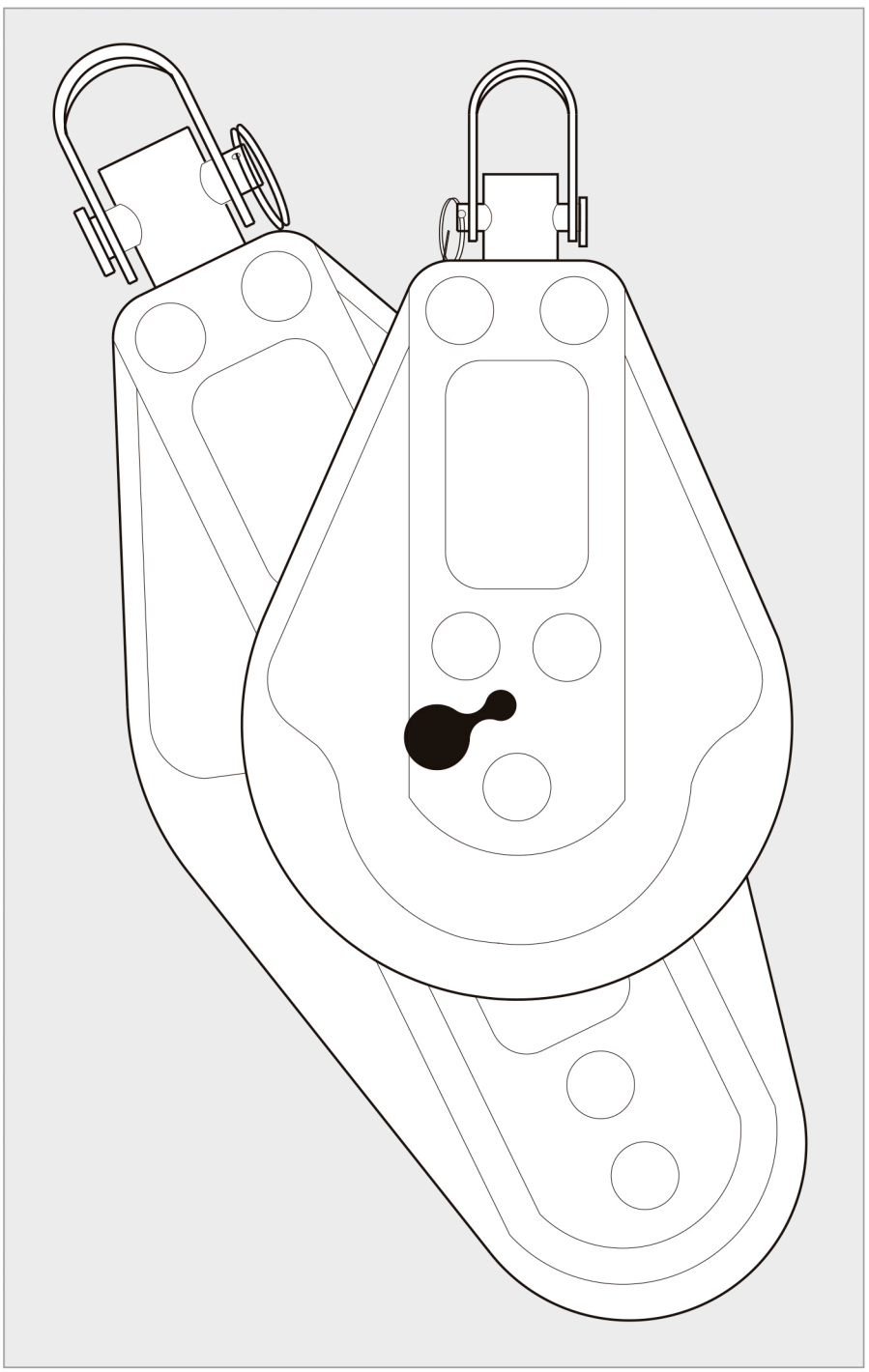
Ratchet



Moitão catraca roletado com roldana de alumínio. Liga-desliga mesmo sob carga.

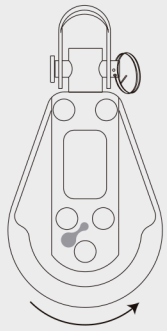
Ball bearing ratchet block with aluminum sheave. On-off ability under load.

Tamanho real/Full size



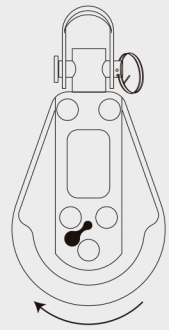
DO NOT use Nautos equipament for human suspension or equivalent work.

92609



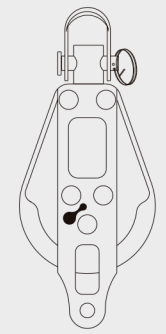
Simples giratório/ catraca/esquerdo (anti-horário)
Single swivel/ratchet/left (anti-clockwise)

92610



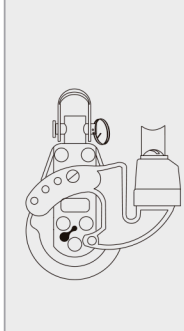
Simples giratório/ catraca/direito (horário)
Single swivel/ratchet/right (clockwise)

92611



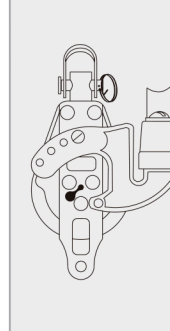
Simples giratório catraca/saída
Single swivel ratchet/ becket

92612



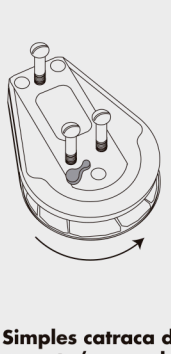
Simples giratório catraca/mordedor
Single swivel ratchet/cam

92613



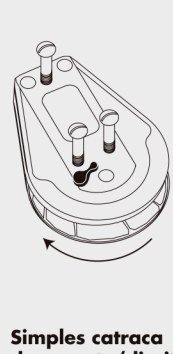
Simples giratório catraca/mordedor/ saída
Single swivel ratchet/ cam/becket

92617



Simples catraca de encosto/esquerdo (anti-horário)
Single ratchet footblock/ left (anti-clockwise)

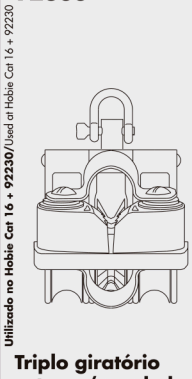
92618



Simples catraca de encosto/direito (horário)
Single ratchet footblock/ right (clockwise)

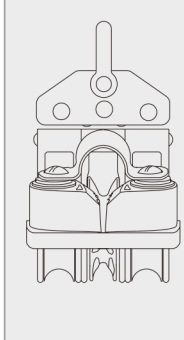
92633

Utilizado no Hobie Cat 16 + 92230/Used at Hobie Cat 16 + 92230



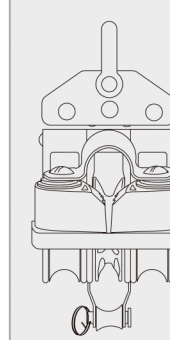
Triplo giratório catraca/mordedor/ saída
Triple swivel/ratchet/ cam/becket

92636



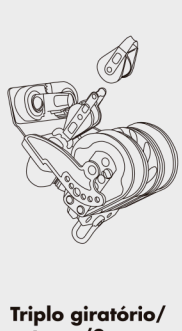
Triplo fixo/mordedor
Triple fixed/cam

92637



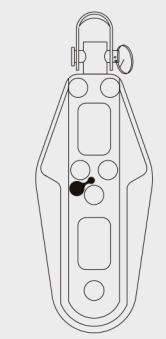
Triplo fixo/ mordedor/saída
Triple fixed/cam/becket

92655



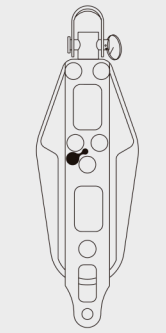
Triplo giratório/ catraca/2 mordedores/2 moitões 28mm
Triple swivel ratchet/2 cams/dual/28mm blocks

92600



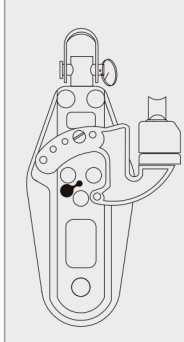
Violino giratório/ catraca
Fiddle swivel/rachet

92601



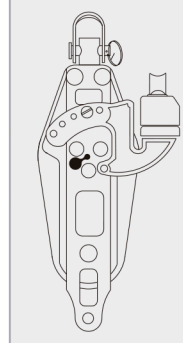
Violino giratório/ catraca/saída
Fiddle swivel/ratchet/ becket

92602



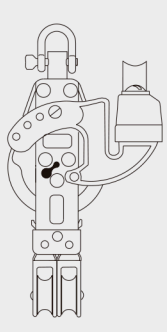
Violino giratório/ catraca/mordedor
Fiddle swivel/ratchet/cam

92603



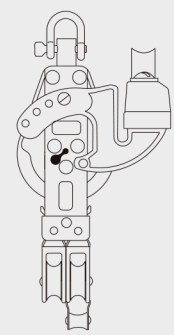
Violino giratório/catraca/ mordedor/saída
Fiddle swivel/ratchet/ cam/becket

92661



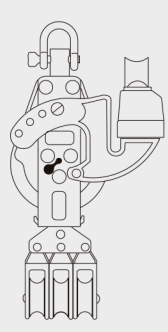
Base 92666 com duplo 57mm
92666 base and double 57mm

92662



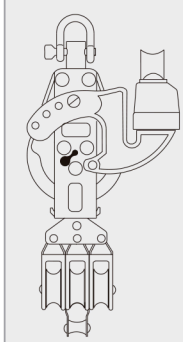
Base 92666 com duplo 57mm/saída
92666 base and double 57mm/becket

92663



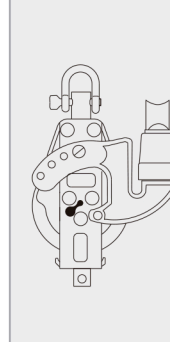
Base 92666 com triplo 57mm
92666 base and triple 57mm

92664



Base 92666 com triplo 57mm/saída
92666 base and triple 57mm/becket

92666



Base 92666
92666 base

DO NOT use Nautos equipament for human suspension or equivalent work.

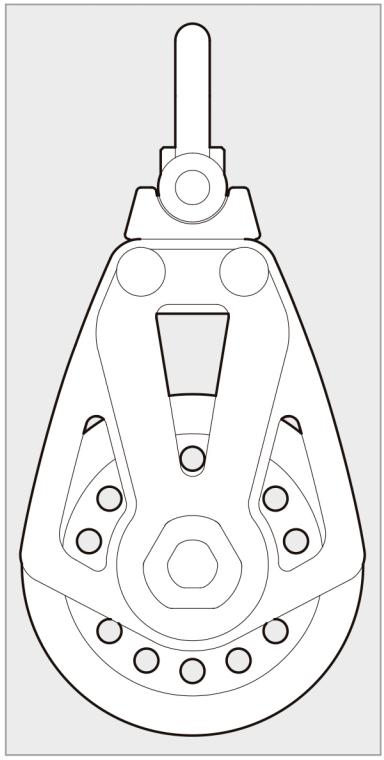
Plain Block 45

Podem ser usados praticamente em qualquer situação. Perfeito para escotas de cruzeiro, pé de mastro, vangs, entre outros. Com design completo que otimiza as vantagens dos materiais composite, essas peças combinam alta resistência e baixo peso.

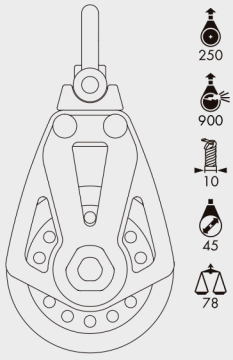
These can be used almost everywhere. Perfect for cruising, main sheets, vangs and control tackle as downhauls. They have been designed using composite materials for high performance and low weight.



Tamanho real/Full size

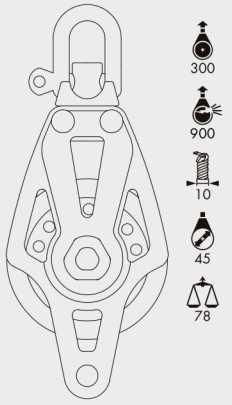


95310



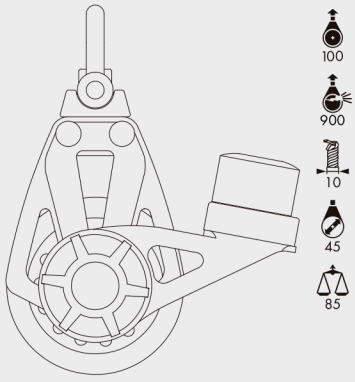
Simples
Single

95311



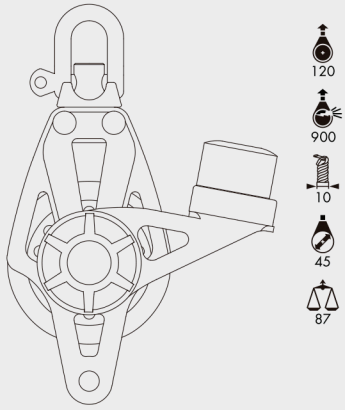
Simples/saída
Single/becket

95312



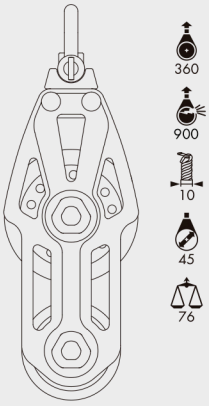
Simples/mordedor
Single/cam

95313



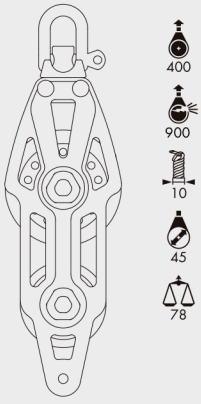
Simples/mordedor/saída
Single/cam/becket

95300



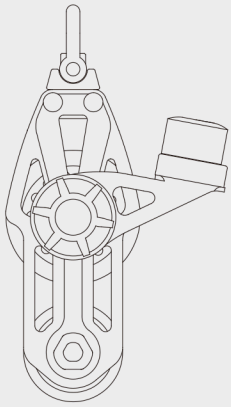
Violino
Fiddle

95301



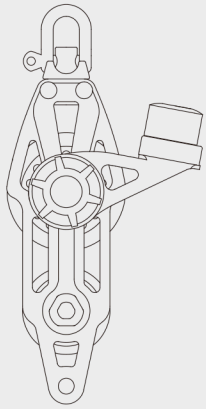
Violino/saída
Fiddle/becket

95302



Violino/mordedor
Fiddle/cam

95303



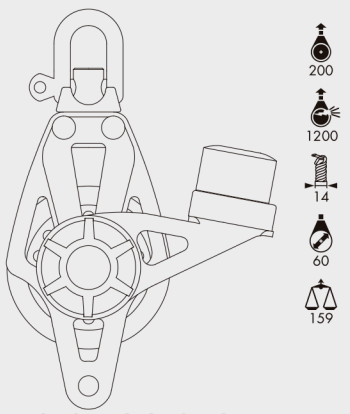
Violino/mordedor/saída
Fiddle/cam/becket

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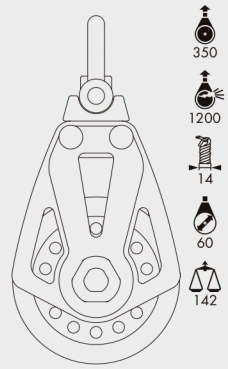
Tamanho real/Full size

95213

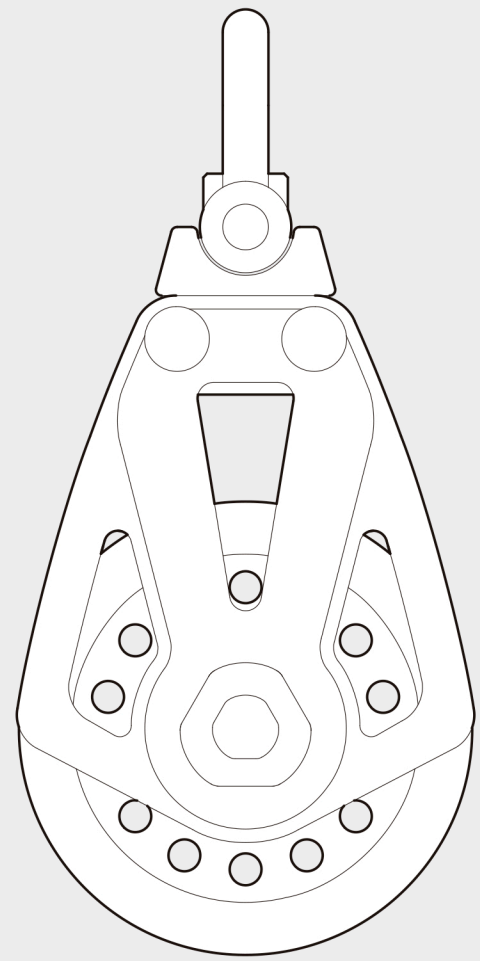


Simples/mordedor/saída
Single/cam/becket

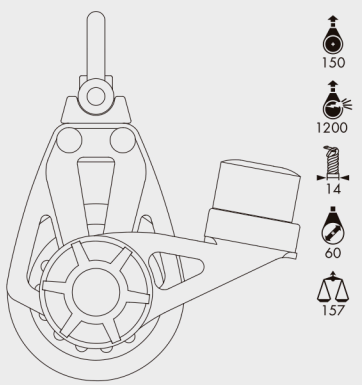
95210



Simples
Single

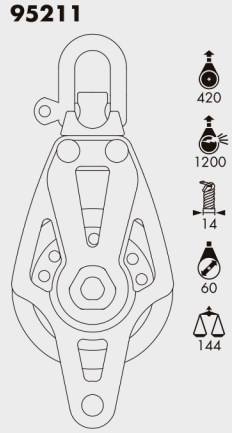


95212



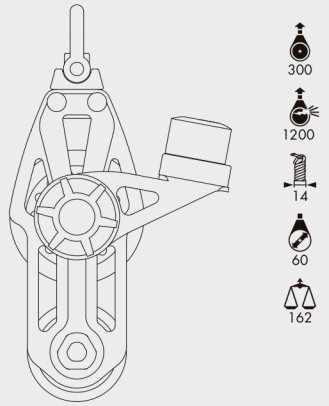
Simples/mordedor
Single/cam

95211



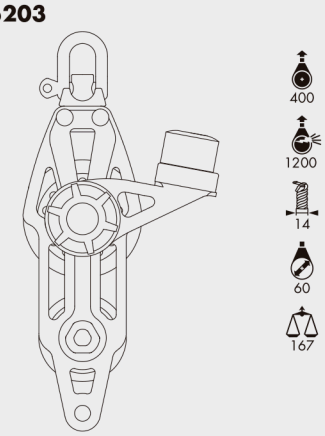
Simples/saída
Single/becket

95202



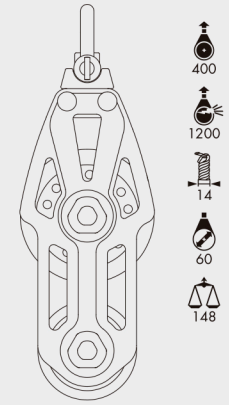
Violino/mordedor
Fiddle/cam

95203



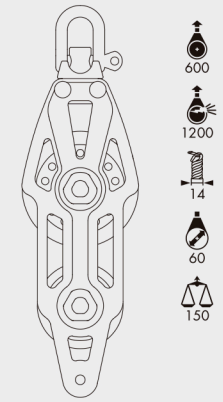
Violino/mordedor/saída
Fiddle/cam/becket

95200



Violino
Fiddle

95201



Violino/saída
Fiddle/becket

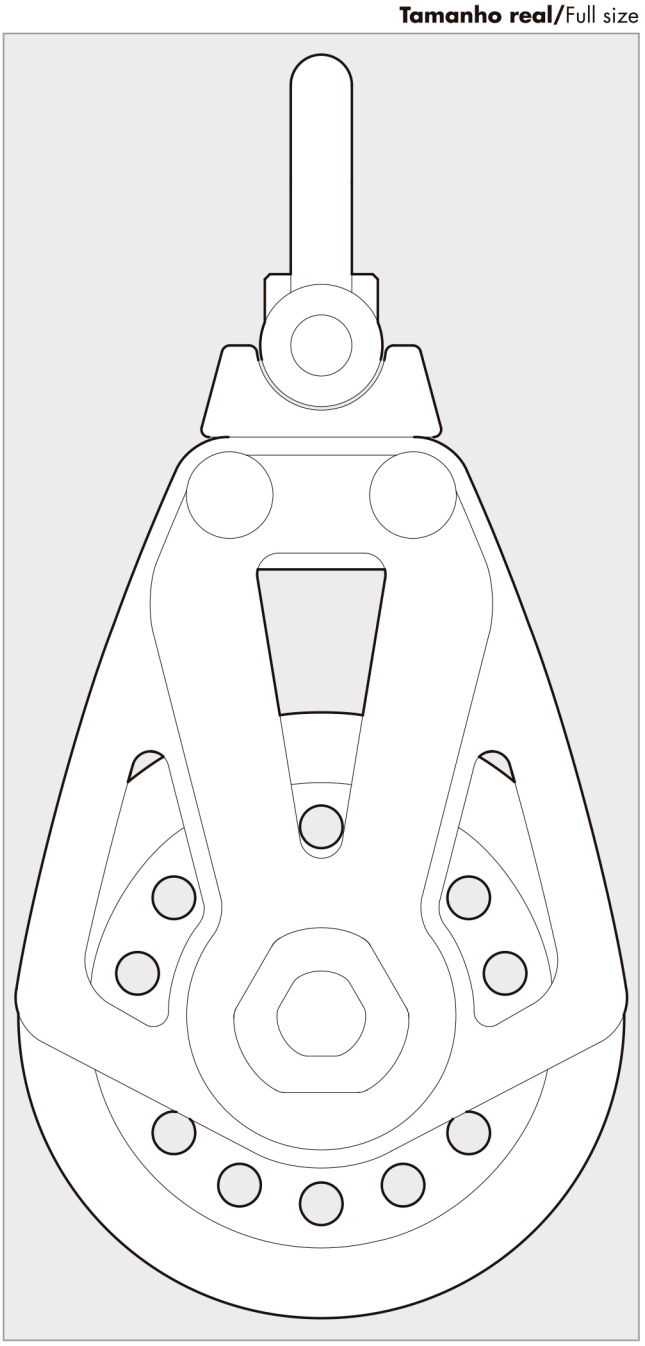
DO NOT use Nautos equipament for human suspension or equivalent work.

Plain Block 80

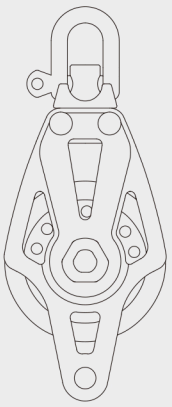
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Tamanho real/Full size

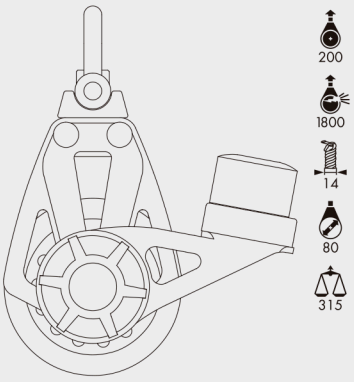


95111



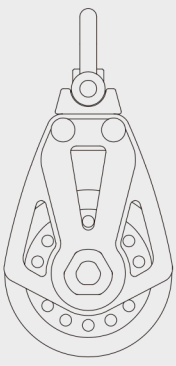
Simples/saída
Single/becket

95112



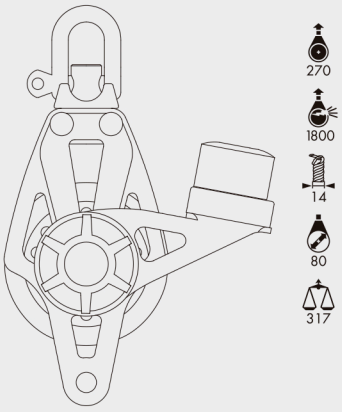
Simples/mordedor
Single/cam

95110



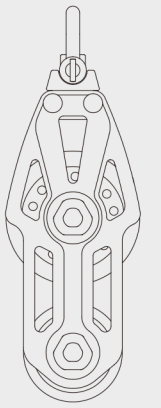
Simples
Single

95113



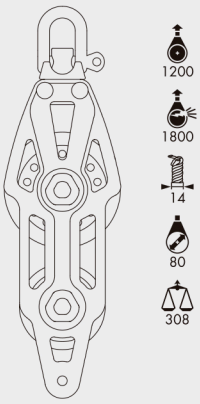
Simples/mordedor/saída
Single/cam/becket

95100



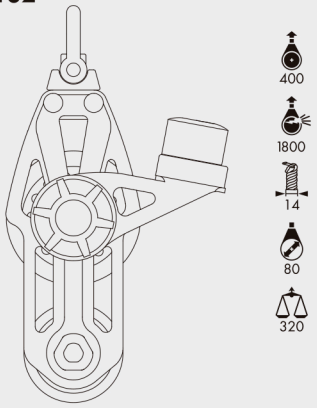
Violino
Fiddle

95101



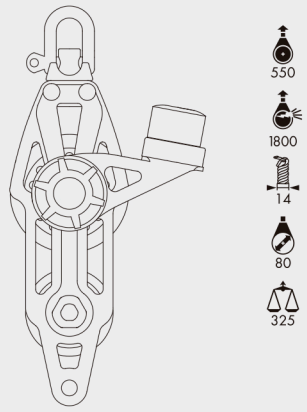
Violino/saída
Fiddle/becket

95102



Violino/mordedor
Fiddle/cam

95103



Violino/mordedor/saída
Fiddle/cam/becket

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Moitão de Encosto
Footblock



Cargas nos moitões de encosto podem ser as mais altas exercidas por escotas. Sempre tenha certeza das cargas envolvidas quando solicitar esta peça. Os trancadores em alguns modelos servem para assegurar um cabo. Não use em altas cargas stoppers.

Loads in footblocks can be the highest imposed by sheets. Always be sure of loads when ordering this part. Rope locks are intended to do a temporary job. Do not use high loads as stopper.

HT 2026

120
350
6
20
24



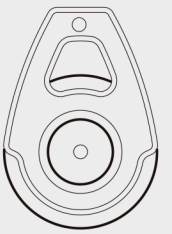
HT 2036
High-load

150
350
6
30
28

Dynamic 20/30

Roldana alumínio
Alloy sheave

92018

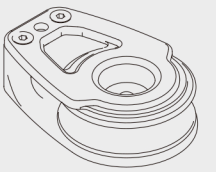


450
900
5-12
57
80

Organic 57
Simples/roldana alumínio
Single/alloy sheave

92803

750
1500
14
57
120



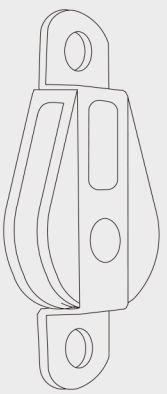
92812
High-load

1000
1500
14
57
120

Offshore 57
Simples
Single

92318

135
820
10
39
61



92358
High-load

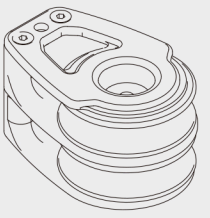
180
820
10
39
69

Line 39
Simples
Single

Roldana alumínio
Alloy sheave

92806

600
1000
14
57
360



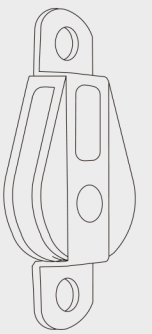
92862
High-load

800
1400
14
57
360

Offshore 57
Duplo
Double

92418

120
900
4-8
28
28



92458
High-load

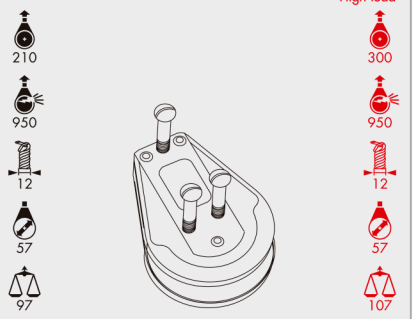
150
900
4-8
28
33

Line 28
Simples
Single

Roldana alumínio
Alloy sheave

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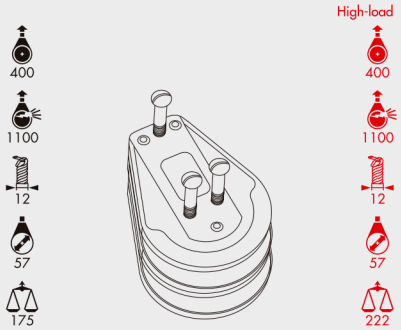
92218 — **92258** High-load



Line 57
Simples
Single

Roldana alumínio
Alloy sheave

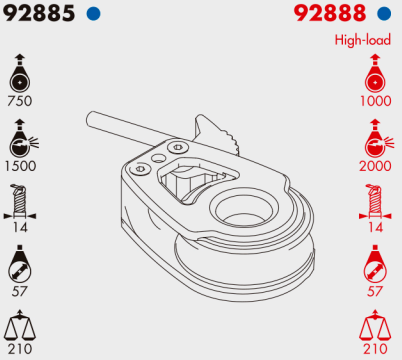
92228 — **92268** High-load



Line 57
Duplo
Double

Roldana alumínio
Alloy sheave

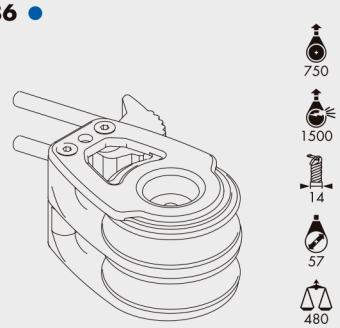
92807 ● **92885** ●
92863 ● **92888** ● High-load



Offshore 57
Simples/trancador
Single/jammer

● **Direito** Right
● **Esquerdo** Left

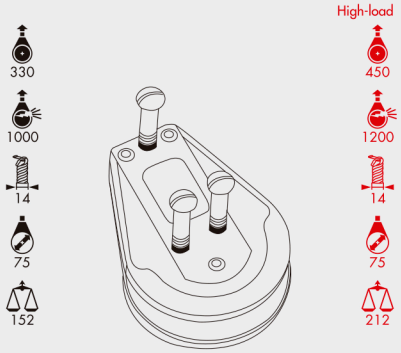
92813 ● **92886** ●



Offshore 57
Duplo/trancador
Double/jammer

● **Direito** Right
● **Esquerdo** Left

92118 — **92158** High-load



Line 75
Simples
Single

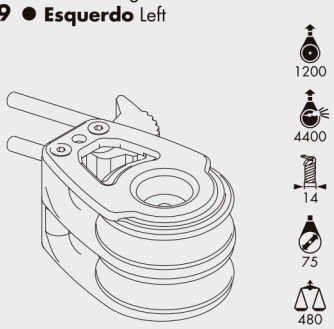
Roldana alumínio
Alloy sheave

92814 ● **Direito** Right
92887 ● **Esquerdo** Left



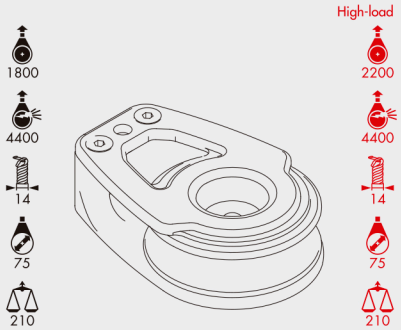
Offshore 75
Simples/trancador
Single/jammer

92822 ● **Direito** Right
92889 ● **Esquerdo** Left



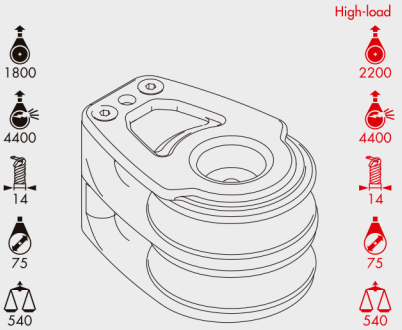
Offshore 75
Duplo/trancador
Double/jammer

92818 — **92825** High-load



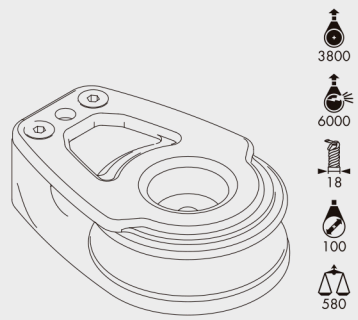
Offshore 75
Simples
Single

92821 — **92864** High-load



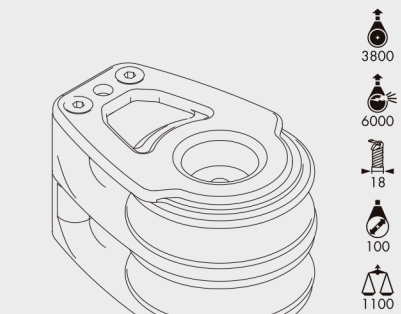
Offshore 75
Duplo
Double

92831



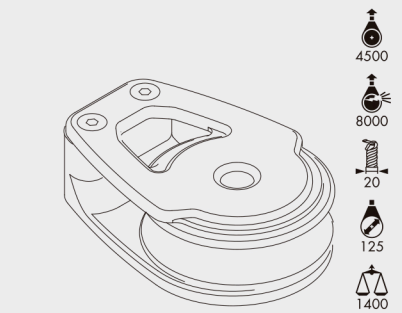
Offshore 100
Simples
Single

92832



Offshore 100
Duplo
Double

92836



Offshore 125
Simples
Single

Jammers in the block are not intended for continuous loads

DO NOT use Nautos equipament for human suspension or equivalent work.

Moitões de Amarrar
Tie-on Blocks

Fortes, seguros, simples e eficientes. As cargas são direcionadas diretamente da roldana ou ponto de fixação, permitindo laterais leves. Projetadas principalmente para regatas, podem ser usadas praticamente em qualquer lugar. Os moitões Tie-on usam o mesmo sistema de alto rendimento dos moitões Dynamic por eixo e roldana.

Strong, secure, simple and efficient. Loads are lead directly from sheaves to attachment point allowing for light side plates. Designed primarly for racing they can be used in almost every possible situation. Tie-on blocks share the same performance bearing system as the Dynamic blocks.



HT2020TO



125
400
6
20
10

De amarrar 20mm
Tie-on block 20mm

HT2030TO



170
500
8
30
20

De amarrar 30mm
Tie-on block 30mm

HT2040TO



210
700
8
40
40

De amarrar 40mm
Tie-on block 40mm

HT2040 T



210
700
8
40
40

De amarrar 40mm
Tie-on block 40mm

DO NOT use Nautos equipament for human suspension or equivalent work.

Patesca

Snatch block

A Patesca Nautos foi projetada a partir do conceito "one-handed" aliando robustez, eficiência e baixo custo.

Produzida em alumínio naval anodizado duro tem a superfície das duas faces coberta com elastômero termoplástico, garantindo total integridade ao convés da embarcação.

A facilidade de manuseio, as faces em elastômero e o excelente preço de venda fazem da Patesca Nautos o produto do gênero com a melhor relação custo-benefício do mercado.

Aplicação:

- Na troca de escotas;
- Auxiliar para cabos de rizo;
- Ajuste no ponto da Genoa;
- Ajuste no ângulo da escota do balão.

Snatch block Nautos was designed from the concept "one-hand operation" combined with strength, efficiency and low cost

Machined from aluminum alloy and hard anodized , the side plates are covered with thermoplastic elastomer , protecting decks and rig against damage

The ease handling, the elastomer's faces and the excellent price makes the Nautos Snatch block the best cost-benefit choice in the market

Application:

- *Change Sheets;*
- *Spinnaker sheet deflector blocks;*
- *Genoa leads;*
- *Mast base reefing blocks.*



92560



980
1800
16
12
16

Snatch block 30mm
Moitão snatch block 30mm

92563



2400
5000
16
16
60

Snatch block 40mm
Moitão snatch block 40mm

92910SG
Without snap shackle

92910
With snap shackle



1200
2500
16
60
422
300

Snatch block 60mm
Moitão snatch block 60mm

DO NOT use Nautos equipament for human suspension or equivalent work.

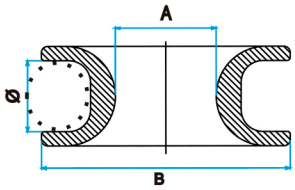
Roldana de Amarrar

Friction Sheave



Fabricado com alumínio sólido e anodização dura, esta roldana foi desenhada para ser amarrada ou fixada com "mão" em sistema de alta carga estática e criar um ponto de deslizamento suave e extremamente resistente. Usado em burros e volantes de barcos de regata.

Manufactured from solid aluminum and hard anodized, these plain sheaves are designed to be strapped or spliced into systems to form high load plain bearing turning points. Used in vangs and permanent or flying backstays.



95013



600
1200
Ø 4
2
B 20
A 8

De amarrar 20mm
20mm Low Friction Ring

95014



800
1500
Ø 7
8
B 30
A 12

De amarrar 30mm
30mm Low Friction Ring

95010



980
1800
Ø 10
16
B 40
A 16

De amarrar 40mm
40mm Low Friction Ring

95011



2400
5000
Ø 16
60
B 60
A 24

De amarrar 60mm
60mm Low Friction Ring

95012



5000
10000
Ø 20
140
B 80
A 32

De amarrar 80mm
80mm Low Friction Ring

Moitões Donuts

Donut Blocks

Desenvolvido para aplicações em alta carga com máxima resistência e leveza. Esta roldana foi fabricada em CNC e tem roletes de torlon, ideal para spinnaker e sistema da vela grande.

Designed for high load applications with maximum strength and lightness, CNC aluminum cheeks and sheaves with Torlon rollers. Ideal for spinnaker headsail and mainsheet systems.

96169



1000
2000
12
57
100

Donut 57mm
Donut 57mm

96170



2000
4500
14
75
245

Donut 75mm
Donut 75mm

96171



3400
7000
16
100
400

Donut 100mm
Donut 100mm

96172



5000
7500
19
125
760

Donut 125mm
Donut 125mm

DO NOT use Nautos equipament for human suspension or equivalent work.

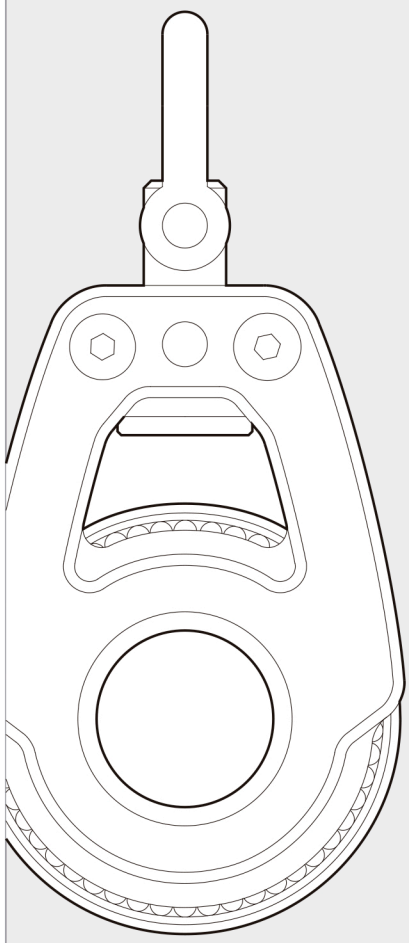
Offshore 57



Moitões usinados em CNC. Roldana com duplo rolamento, esferas e roletes de Torlon®.

CNC machined roller/ ball bearing blocks Tarlon® rollers.

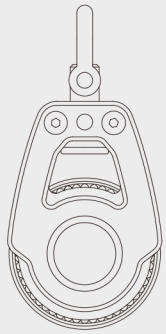
Tamanho real/Full size



92800

750
1500
14
57
178

Compatível com 91044/Compatible with 91044



92808
High-load

1000
1500
14
57
178

Simples giratório
Single swivel

Roldana alumínio
Alloy sheave

92801

900
1500
14
57
185



92809
High-load

1200
1500
14
57
185

Simples giratório/saída
Single swivel/becket

Roldana alumínio
Alloy sheave

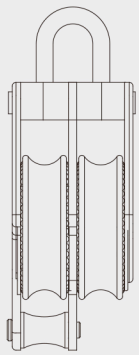
92804



1400
2000
14
57
310

Duplo fixo
Double fixed

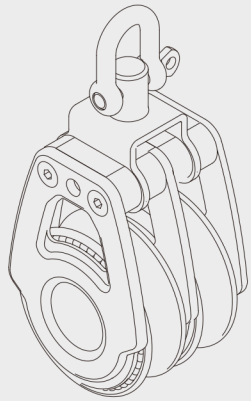
92805



1600
2000
14
57
324

Duplo fixo/saída
Double fixed/becket

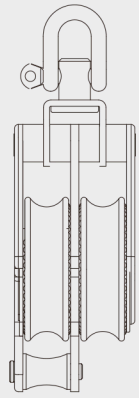
92810



1200
1500
14
57
310

Duplo giratório
Double swivel

92811



1200
1500
14
57
324

Duplo giratório/saída
Double swivel/becket

DO NOT use Nautos equipament for human suspension or equivalent work.

Offshore 75

Moitões usinados em CNC. Roldana com duplo rolamento, esferas e roletes de Torlon®.

CNC machined roller/ Ball bearing blocks. Tarlon® rollers .



92815 **92823** High-load



Simples giratório Single swivel

Roldana alumínio Alloy sheave

92819



Duplo fixo Double fixed

92816 **92824** High-load



Simples giratório/saída Single swivel/becket

Roldana alumínio Alloy sheave

92820



Duplo fixo/saída Double fixed/becket

92826



Violino giratório Fiddle swivel

92827



Violino giratório/saída Fiddle swivel/becket

Cross deck

Os moitões Crossdeck são uma manobra eficiente para melhorar a manobra das adriças que vão para catracas no topo da cabine. Instale após os stoppers para redirecionar os cabos para as catracas do outro lado do barco. Complete com uma base elevada e reforce a coluna.

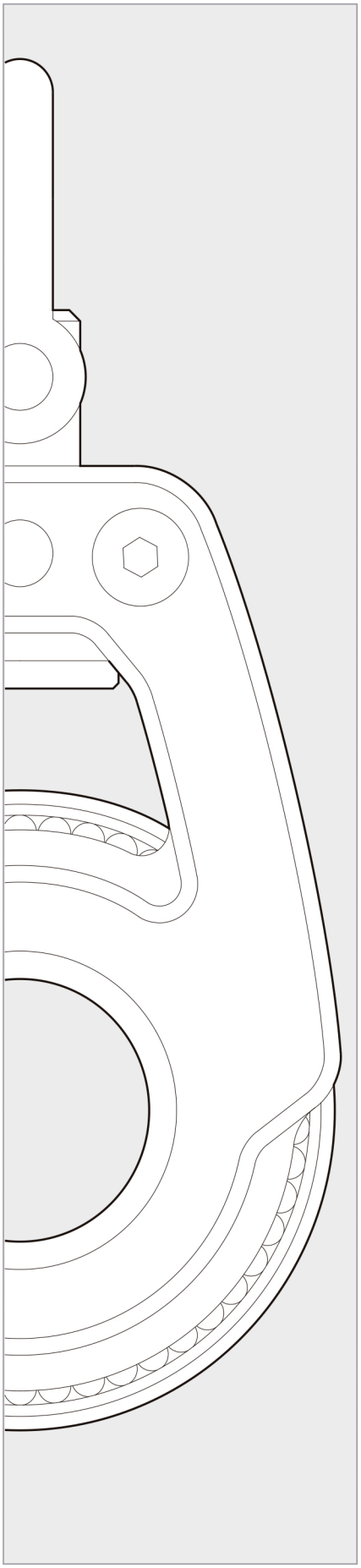
Crossdeck blocks are efficient manner to improve maneuver of halyards coming to the winch on the cabin top. Install it after the stopper bank to redirect ropes to the winch on the other side. Complete it with a raised base and reinforced column to use in cored decks.



96448	3000	4000	14	396	75

DO NOT use Nautos equipament for human suspension or equivalent work.

Tamanho real/Full size



Moitões usinados em CNC. Roldana com duplo rolamento, esferas e roletes de Torlon®.

CNC machined roller/ Ball bearing blocks. Tarlon® rollers .



92828



3800
6000
18
100
655

Simples giratório
Single swivel

92829



3800
6000
18
100
695

Simples giratório/saída
Single swivel/becket

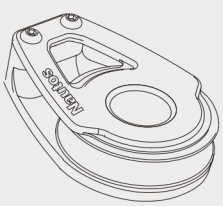
92830



3800
6000
18
100
510

Simples de amarrar
Single for web attachments

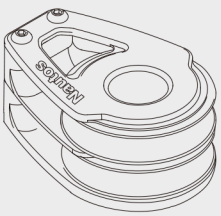
92831



3800
6000
18
100
580

Simples de encosto
Single footblock

92832



3800
6000
18
100
1100

Duplo de encosto
Double footblock

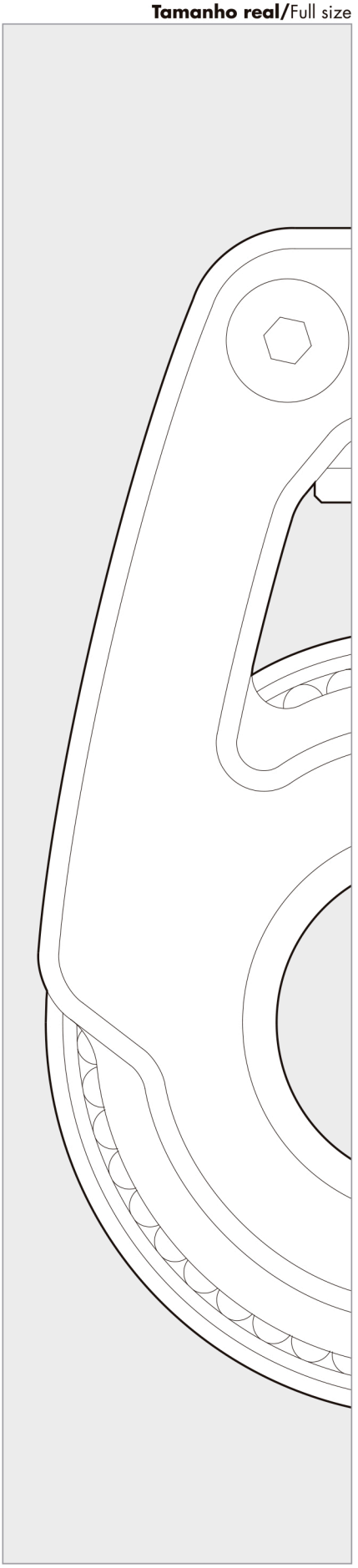
DO NOT use Nautos equipament for human suspension or equivalent work.



Moitões usinados em CNC.
Roldana com duplo rolamento, esferas e roletes de Torlon®.

CNC machined roller/Ball bearing blocks. Tarlon® rollers .

Tamanho real/Full size



92835



4500
8000
20
125
1050

Simples de amarrar
Single for web attachments

92834



4500
8000
20
125
1400

Simples giratório/saída
Single swivel/becket

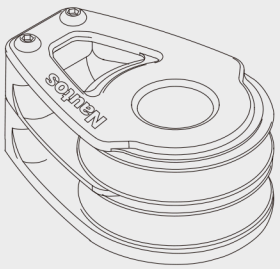
92833



4500
8000
20
125
1400

Simples giratório
Single swivel

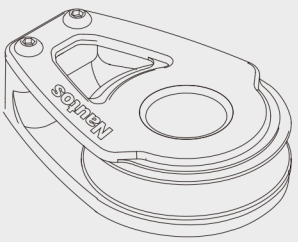
92837



4500
8000
20
125
2800

Duplo de encosto
Double footblock

92836



4500
8000
20
125
1400

Simples de encosto
Single footblock

DO NOT use Nautos equipament for human suspension or equivalent work.

Offshore - Adriça e Estai Volante

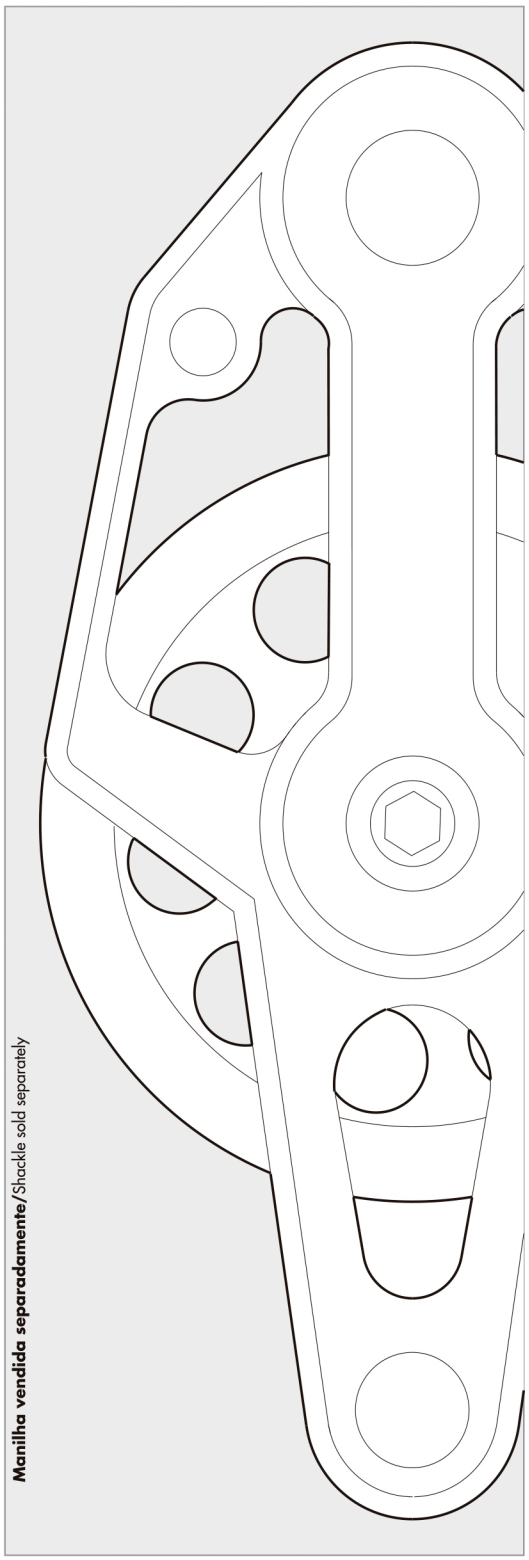
Offshore - Halyard & Runner

Moitões usinados em CNC.
Roldana com mancal composite e esferas para encosto lateral.

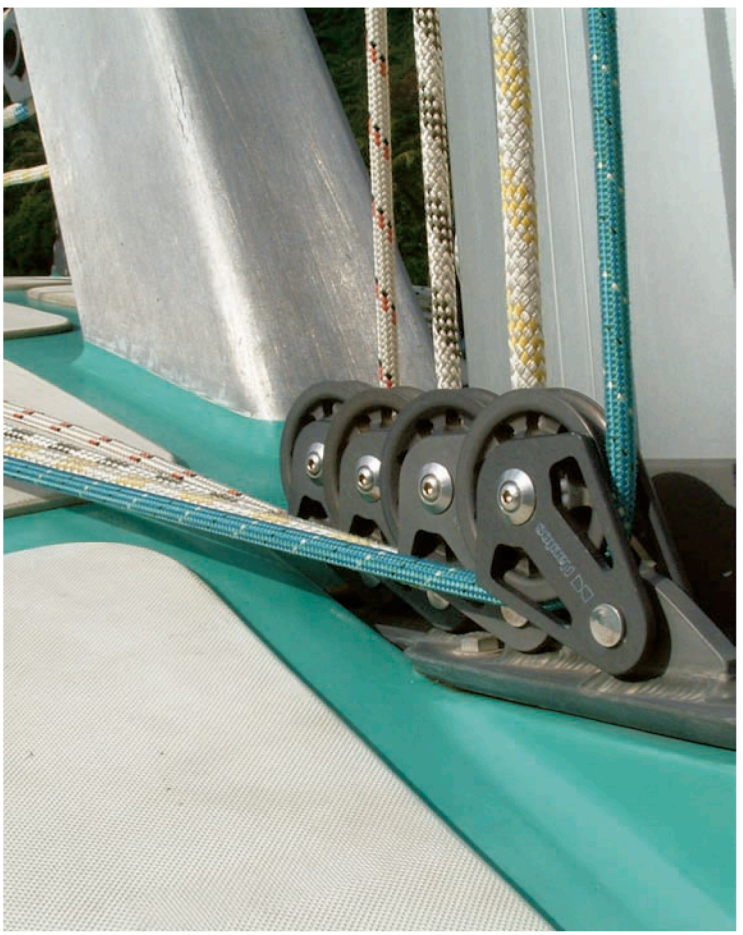
CNC machined blocks.
Composite bearing for high-load.



Tamanho real/Full size

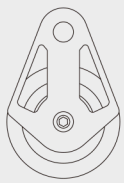


Manilha vendida separadamente/Shackle sold separately



DO NOT use Nautos equipament for human suspension or equivalent work.

92838



850
1500
10
57
120
9,50

Simples fixo
Single fixed head

92839



850
1500
10
57
130
9,50

Simples fixo para runner
Single fixed head for runner

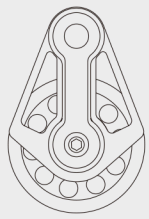
92840



850
1500
10
57
148
9,50

Simples fixo/saída para runner
Single fixed head/becket for runner

92841



1600
3500
12
75
190
10,50

Simples fixo
Single fixed head

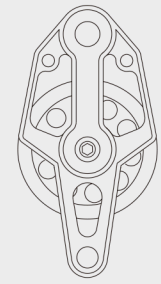
92842



1900
3500
12
75
220
10,50

Simples fixo para runner
Single fixed head for runner

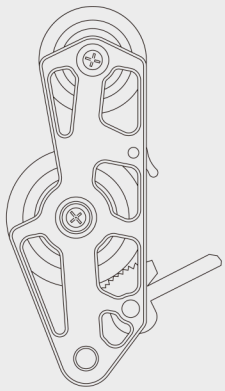
92843



1900
3500
12
75
225
10,50

Simples fixo/saída para runner
Single fixed head/becket for runner

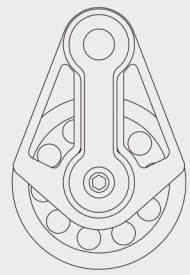
92844



2000
3500
12
75
410
10,50

Violino fixo/catraca/mordedor
Fiddle fixed/ratchet/stopper

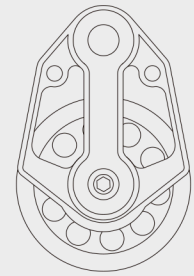
92845



4000
8000
14
100
480
15,80

Simples fixo
Single fixed head

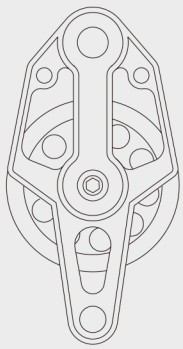
92846



4000
8000
14
100
500
15,80

Simples fixo para runner
Single fixed head for runner

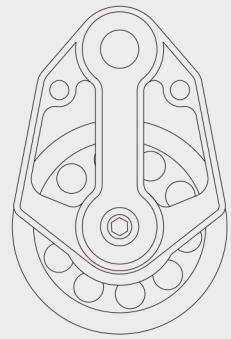
92847



4000
8000
14
100
530
15,80

Simples fixo/saída para runner
Single fixed head/becket for runner

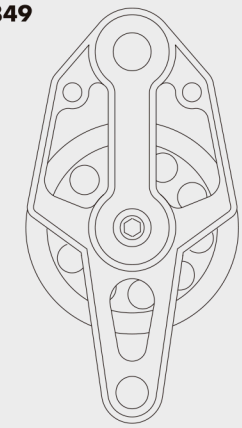
92848



5000
10000
16
125
680
19

Simples fixo para runner
Single fixed head for runner

92849



6500
10000
16
125
720
19

Simples fixo/saída para runner
Single fixed head/becket for runner

DO NOT use Nautos equipament for human suspension or equivalent work.

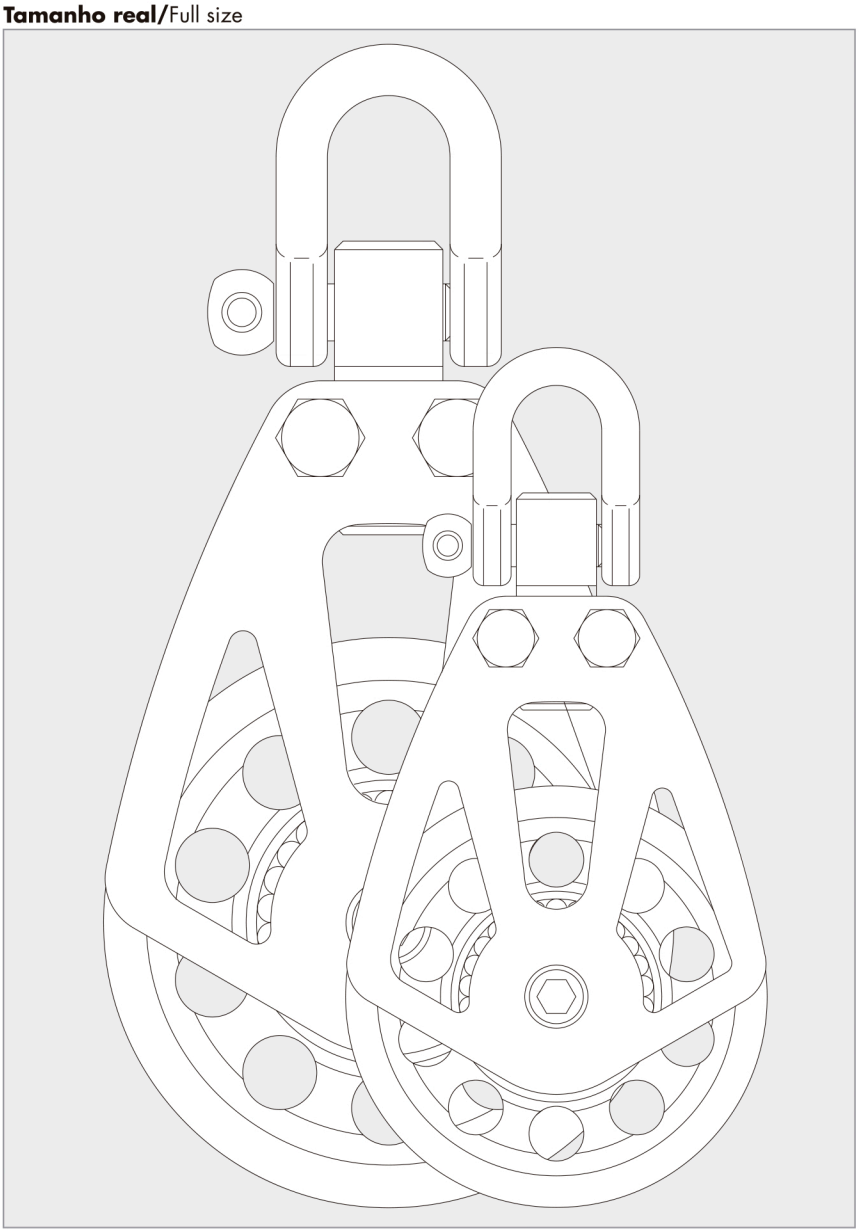
Maxinox 57-75



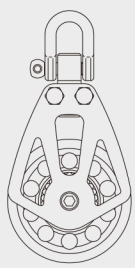
Moitões em inox polido sempre combinam com grandes veleiros. Roldana em alumínio sobre mancal de composite para performance e durabilidade.

Highly polished stainless steel always combines well with big boats. Aluminum sheave over composite bearing for performance and durability.

Tamanho real/Full size



92902



1000
2000
12
57
380

Simples giratório
Single swivel

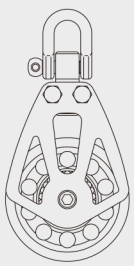
92903



1300
2000
12
57
410

Simples giratório/saída
Single swivel/becket

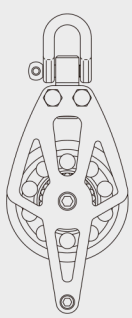
92860



1800
2900
14
75
510

Simples giratório
Single swivel

92901

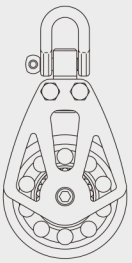


2000
2900
14
75
580

Simples giratório/saída
Single swivel/becket

DO NOT use Nautos equipament for human suspension or equivalent work.

92850

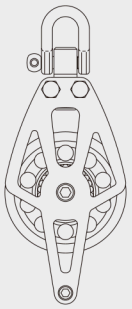


3800
6000
16
100
613

Simples giratório/alta carga
Single swivel/high-load



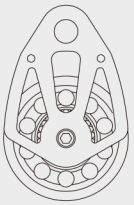
92851



3800
6000
16
100
655

Simples giratório/saída/alta carga
Single swivel/becket/high-load

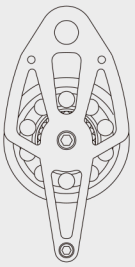
92852



3800
6000
16
100
600
16

Simples fixo
Single fixed head

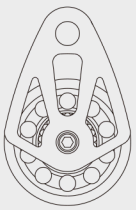
92853



3800
6000
16
100
650
16

Simples fixo/saída
Single fixed head/becket

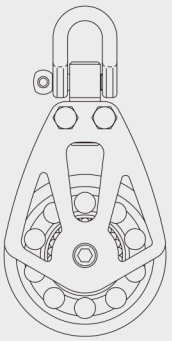
92854



3800
6000
18
100
590

Simples fixo
Single fixed head

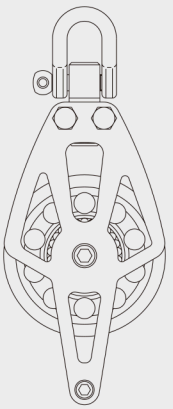
92855



5000
8000
18
125
1911

Simples giratótio/alta carga
Single swivel/high-load

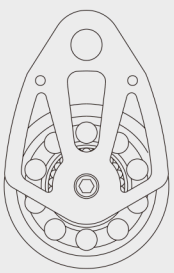
92856



5000
8000
18
125
2145

Simples giratório/saída/alta carga
Single swivel/becket/high-load

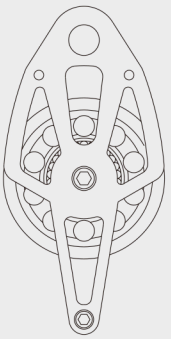
92857



5000
10000
18
125
1490
18

Simples fixo
Single fixed head

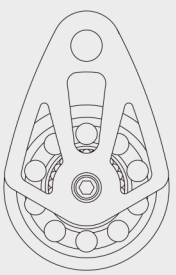
92858



5000
10000
18
125
1720
18

Simples fixo/saída
Single fixed head/becket

92859



5000
10000
18
125
1609
18

Simples fixo
Single fixed head

DO NOT use Nautos equipament for human suspension or equivalent work.

Enroladores HP

HP Furlers

The main characteristc of the new Nautos HP Furler is the low tack height, which is a desired advantage for sailors who always strive for the best performance.

This allows the slim drum to be 70% closer to the deck, if compared to a traditional Furler.
(70% for the HP Furler model #2, 60% for model #1).

The only other type of product that can obtain these results is an "under deck" furler, which requires the sailboat to be designed (or modified) to fit it.

The new HP Furler by Nautos offers the same performance of an "under deck" Furler, without the complications of its system.

Available for Sailboats from 30' to 46'.



Código Part n°	**Descrição** Description				
95357	HP #1	30	40	8	8
95362	HP #2	46	90	10	12 (Dyform)



DO NOT use Nautos equipament for human suspension or equivalent work.

Enroladores de Velas

Furlers

O enrolador Nautos é de construção simples e robusta.
Suas principais características são:

• rolamentos de material sintético abertos;
• tubo de torque com pequeno diâmetro (não atrapalha a área inferior de vela);
• carretel e cesto (opcional bipartido) fornecido com esticador.

The Nautos furler is built simply and sturdily and is characterized by the following:

• open bearings, synthetic material;
• torque tube with small diameter does not interfere with the lower part of the sail;
• two-part spool and drum furnished with turnckle.

96134



Enrolador # 00 inox
Stainless steel furling for classic boats - until 22'
WL = 450kg

91193



Enrolador pequeno com destorcedor superior
Dinghy furler with top head swivel
WL = 220kg



Código Part n° with turnbuckle	**Descrição** Description					
95350	#O STD	25	25	6	5	9,6
95351	#O high-load	28	30	6	6	13,8
95355	#1	35	40	8	8	16
95356	#1,5	38	52	8	8	18
95360	#2	46	70	10	10	20,6
95360 PLUS	#2 Plus (12mm dyform)	49	90	10	12,7	23
95365	#3	60	110	10	14	25
96134	#00 Enrolador Inox	22 - Mono 18 - Cat	13	5	5	
91193	Enrolador Monotipo	16	8	3	3	

DO NOT use Nautos equipament for human suspension or equivalent work.

Code Zero

Small Boats - 18' to 25'



96433

- For boats from 18' to 25'
- Endless loop
- Maximum sail area 15m^2
- The sail furls on the stay



Upper swivel

96433.81



Intermediary swivel
Optional

Attention: When used in conjunction with the forestay maximum wire 4mm

Asymmetrical or Code Zero



95348

- For boats from 30' to 38' (monohull)
- Indicated for asymmetrical sails
- Maximum sail area 112m^2
- Torque cable 10mm (36.188)
- Drive sheave with extra swivel



95397

- For boats from 40' to 50' (monohull)
- Indicated for asymmetrical sails
- Maximum sail area 170m^2
- Torque cable 12mm (36.216)
- Drive sheave with extra swivel



Upper swivel with locking pin system.

95347	**Enrolador Code Zero até 35'** Furler Code Zero up - until 35' monohull
95348	**Enrolador Code Zero SZ até 35'** Furler Code Zero SZ up - until 35' monohull
95396	**Enrolador Code Zero até 45'** Furler Code Zero up - until 45' monohull
95397	**Enrolador Code Zero SZ até 45'** Furler Code Zero SZ up - until 45' monohull

Acessórios

Accessories



Torque cable
(not supplied by Nautos)



Thimbles
(not supplied by Nautos)

95007
10mm

95007
12mm



Cable clamps

DO NOT use Nautos equipament for human suspension or equivalent work.

Escolha o Batten Car

Choose the Batten Car

Para montagens importantes como enroladores, catracas ou Batten cars, sempre recomendamos pessoal autorizado de nossas revendas. Porém é possível adquirir e montar seu sistema, seguindo o manual disponível em nosso site (www.nautos.com.br).
Para adquirir seu sistema de Batten car siga esse roteiro:

1)QUAL O SISTEMA?
Determine a área vélica e o tamanho do barco com a ajuda da tabela ao lado. No caso de valores intermediários decida a escolha levando em conta a área vélica.

2) QUANTOS CARROS?
Para cada tala inteira, é necessário um carro com suporte e ponteira. No mínimo a cada metro deverá existir um carro de tala ou um carro intermediário. Para todas as velas deverá existir um sistema de carro de tope. Geralmente dois carros ligados por uma ponte.

3) TOTAL DE CARROS:
No mínimo um a cada metro de "P", dois carros extras para o tope.

4) QUANTOS METROS DE TRILHO?
Meça desde a parte do mastro acessível próximo ao garlindeu até o mais próximo possível do tope. Para cada metro são necessários 10 parafusos e 10 slugs.

5) BOLACHA DO TOPE:
Se a vela já existe, verifique se a bolacha é compatível com a ponte. Em caso de dúvida, consulte nossa revenda ou remeta uma foto do tope da vela para a fábrica com as medidas.

6) BATENTES E GATE:
Para todos os sistemas é necessário um batente no tope e um "gate" na base que é uma peça para facilitar a montagem ou remoção de carros.

7) SUPORTE DE TALA E PONTEIRA:
Verifique o tipo e dimensões da tala fornecida com a vela para escolher a ponteira adequada.



For complex assemblies like furlers, winches or batten cars, we recommend specialized personal, yet it's possible to do it following instructions from (www.nautos.com.br).
To buy your batten car system follows these simple :instructions

1) WHICH SYSTEM?
Check the main sail area and boat length. In the table, choose the system according to the boat length. With intermediate values decide considering mainsail area.

2) HOW MANY CARS?
Each full length batten needs one car with support and one receptacle. At least every meter or 3ft one batten car or an intermediate. Every system needs also a top assembly, typically two cars and one coupler.

3) TOTAL CARS:
Minimum of one every meter or 3ft and two extra cars at the top.

4) HOW MUCH TRACK?
Measure the distance as close as possible from the gooseneck up to masthead. You will use 10 screws and 10 slugs per meter (3ft).

5) HEAD BOARD:
If you are adapting an existing sail, check if the headboard fits on the coupler. In case of doubt, send a photo with measurements.

6) ENDSTOPS & GATE
All systems need one end stop and a gate at the base, where you load and unload cars.

7) BATTEN SUPPORT AND STUD:
Check type and dimensions of the batten you'll use to order the right receptacle.

Vídeo / info.



95550	Slug plástico menor preto M5 completo (corpo, trava e porca) Small plastic slug M5 complete, black (body, nut and holdfast spring)
95551	Slug plástico maior preto M6 completo (corpo, trava e porca) Large plastic slug M6 complete, black (body, nut and holdfast spring)
95552	Slug plástico menor colorido Small plastic slug - colored
95553	Slug plástico maior colorido Large plastic slug - colored

Fornecimento dos parafusos M5 e M6 mediante solicitação.
M5 and M6 machine screws available if required.

DO NOT use Nautos equipament for human suspension or equivalent work.

MONOCASCO *MONOHULL*

Área vélica do grande *Mainsail area*		Comprimento do barco *Boat lenght*		Trilho *Track*	Carro *Car*		
Metros quad. *Sq. meters*	**Pés quad.** *Sq. feet*	**Metros** *Meters*	**Pés** *Feet*		**Intermediário** *Intermediate*	**Tala** *Batten*	**Tope** *Top assembly*
25	270	9,2	28	H 22	Pequeno *Small*	Pequeno *Small*	2 Pequenos *2 Small*
30	320	11	33	H 22	Pequeno *Small*	Pequeno *Small*	2 Pequenos Torlon *2 Small Torlon*
40	430	13	38	H 22	Pequeno *Small*	Médio *Medium*	2 Pequenos Torlon *2 Small Torlon*
50	540	14	43	H 22	Pequeno *Small*	Médio *Medium*	2 Médios *2 Medium*
70	750	16	48	H 22	Pequeno *Small*	Médio *Medium*	2 Médios *2 Medium*
80	860	17	53	H 32	Médio *Medium*	Grande *Big*	2 Grandes *2 Big*
120	1300	20	60	H 32	Grande *Big*	Grande Torlon *Big Torlon*	2 Grandes Torlon *2 Big Torlon*

Todos os sistemas levam um carro a cada 1,2 metros ou 4 pés.
All systems have a car at least every 1.2 meters or 4 feet.

MULTICASCO *MULTIHULL*

Área vélica do grande *Mainsail area*		Comprimento do barco *Boat lenght*		Trilho *Track*	Carro *Car*		
Metros quad. *Sq. meters*	**Pés quad.** *Sq. feet*	**Metros** *Meters*	**Pés** *Feet*		**Intermediário** *Intermediate*	**Tala** *Batten*	**Tope** *Top assembly*
30	320	8	25	Pequeno *Small*	Pequeno *Small*	Pequeno *Small*	2 Pequenos Torlon *2 Small Torlon*
40	430	10	30	Pequeno *Small*	Pequeno Torlon *Small Torlon*	Médio *Medium*	2 Médios *2 Medium*
70	750	13	38	Pequeno *Small*	Médio *Medium*	Médio *Medium*	2 Médios *2 Medium*
80	860	16	50	Grande *Big*	Grande *Big*	Grande Torlon *Big Torlon*	2 Grandes Torlon *2 Big Torlon*
110	1200	21	65	Grande *Big*	Grande *Big*	Grande Torlon *Big Torlon*	2 Grandes Torlon *2 Big Torlon*





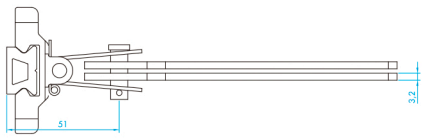
Emendas para trilhos H - Composite /poliamida
Track conector - Composite / poliamida

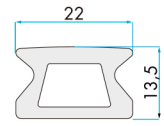


DO NOT use Nautos equipament for human suspension or equivalent work.

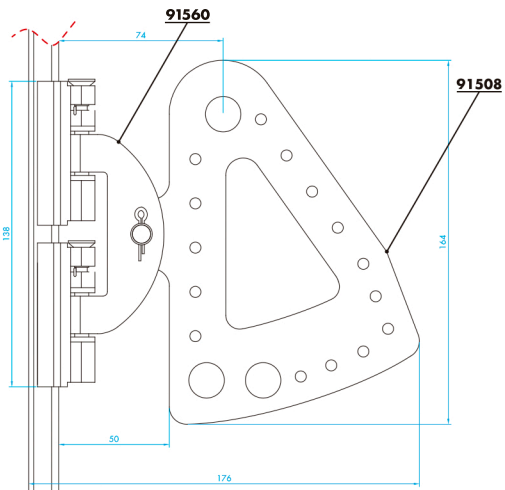
Batten Car Recirculante pequeno

Small Ball Bearing Batten Car

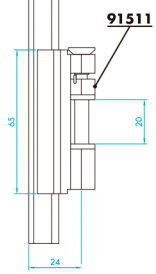




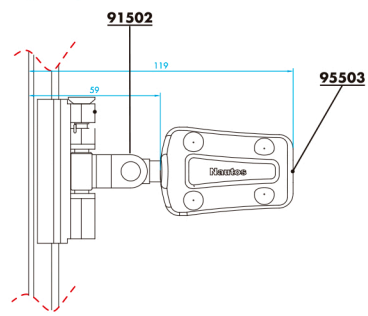
Trilho H menor
Batente 91431
Inserto 91405

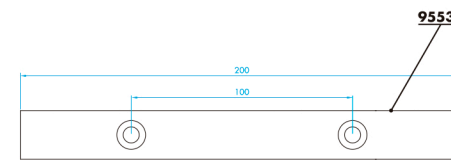


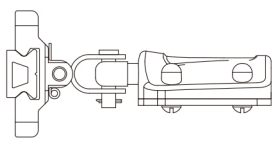












						M mm
91511	Carro roletado pequeno / Small car	180	400	120	-	65
91512	Carro roletado pequeno High-load / Small car hi h-lgad	250	600	130	-	65
91502	**Suporte para tala pequena e média** / Small batten stud	-	-	38	10	80
95503	**Ponteira tala pequena** / Small batten suport	-	-	58	10	-
91506	**Ponte para 2 carros pequenos**/Coupler for two small cars	800	1500	90	-	105
91508	**Bolacha pequena - 2 peças**/Small head board	700	1400	120	-	130
95536	**Gate**	-	-	-	-	-

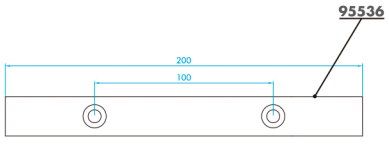
DO NOT use Nautos equipament for human suspension or equivalent work.

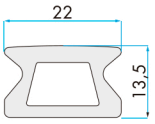
Batten Car Recirculante médio

Medium Ball Bearing Batten Car

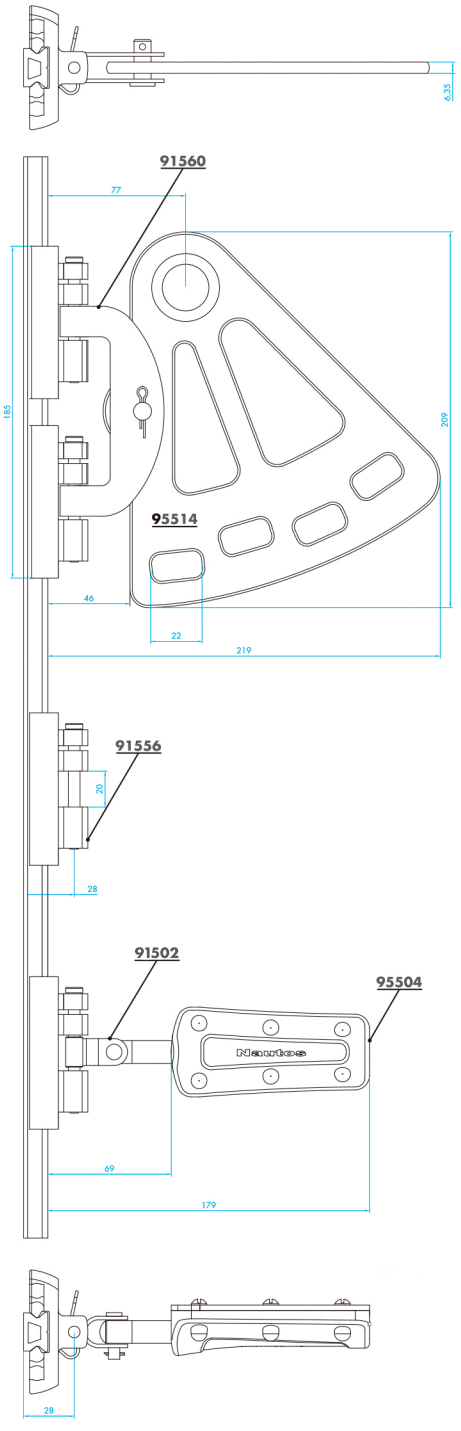








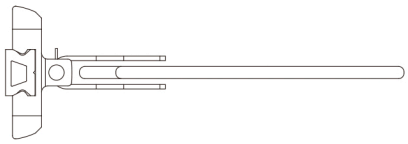
Trilho H menor
Batente 91431
Inserto 91405

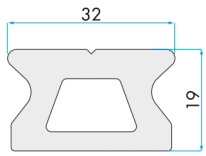


						M mm
91556	**Carro roletado médio**/Medium car	550	1200	100	-	70
95535	**Carro roletado médio p/tala c/Torlon**/Medium car high-load	770	1600	100	-	70
91502	**Suporte para tala pequena e média**/Small batten stud	-	-	38	10	80
95504	**Ponteira tala média**/Medium batten suport	-	-	200	-	120
91560	**Ponte para 2 carros médios**/Coupler for two medium cars	800	1600	200	-	120
95514	**Bolacha tope média monocasco**/Medium head board monohull	1000	2000	240	-	260
95536	**Gate**	-	-	-	-	-

Batten Car Recirculante grande

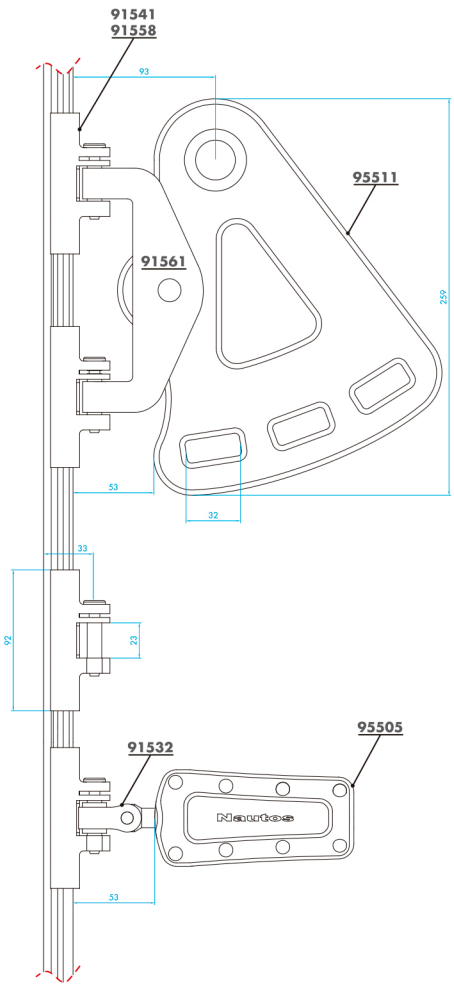
Big Recirculating Batten Car

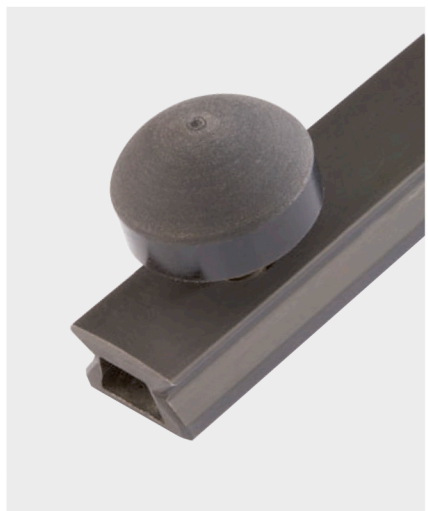


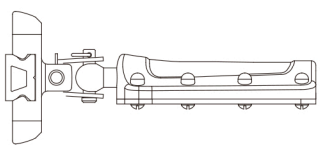


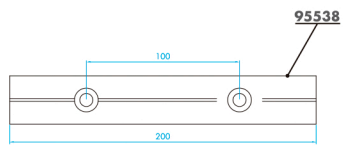
Trilho H maior
91451 Batente
91415 Inserto
95508 Gate para Carro Roletado











						M mm
91541	**Carro roletado grande**/Big car	700	1500	298	-	90
91558	**Carro roletado grande p/tala c/Torlon**/Big car high-load	980	2000	298	-	90
91532	**Suporte para tala grande M10**/Big batten stud	-	-	130	14	-
95505	**Ponteira tala grande**/Big batten suport	-	-	280	-	130
91561	**Ponte para 2 carros grandes**/Coupler for two big cars	2000	4000	250	-	130
95511	**Bolacha tope grande monocasco**/Big head board monohull	2000	4000	280	-	270
95512	**Bolacha tope grande multicasco**/Big head board multihull	2000	4000	280	-	270
95538	**Gate**	-	-	-	-	-

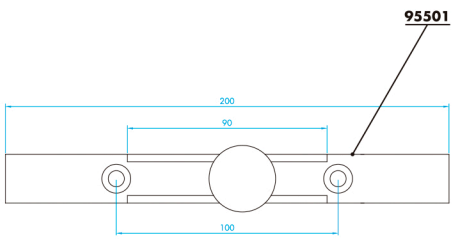
DO NOT use Nautos equipament for human suspension or equivalent work.

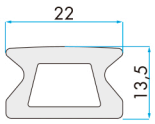
Batten Car Deslizante pequeno

Small Sliding Batten Car

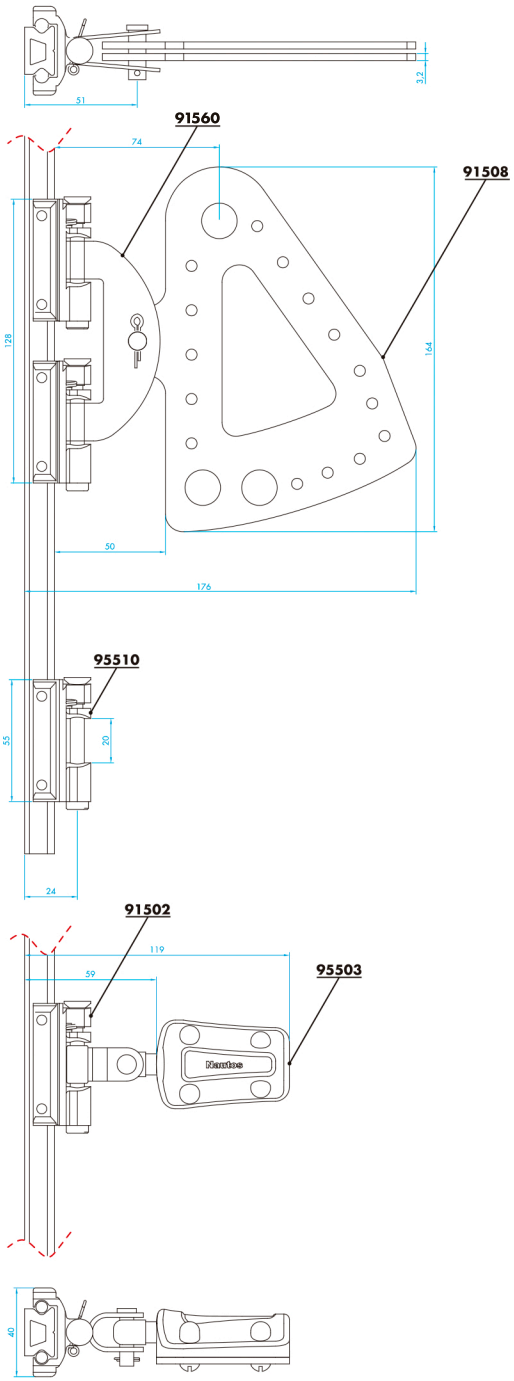








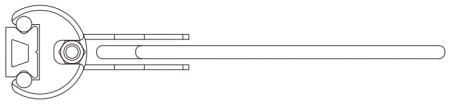
Trilho H menor
Batente 91431
Inserto 91405

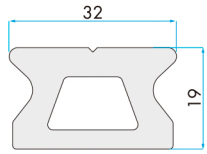


						M mm
95510	**Carro surface pequeno**/Sliding small car	200	400	60	-	6
91502	**Suporte para tala pequena e média**/Small batten stud	-	-	38	10	80
95503	**Ponteira tala pequena**/Small batten suport	-	-	58	10	-
91506	**Ponte para 2 carros pequenos**/Coupler for two small cars	800	1500	90	-	105
91508	**Bolacha pequena - 2 peças**/Small head board	700	1400	120	-	130
95501	**Gate**	-	-	-	-	-

Batten Car Deslizante grande

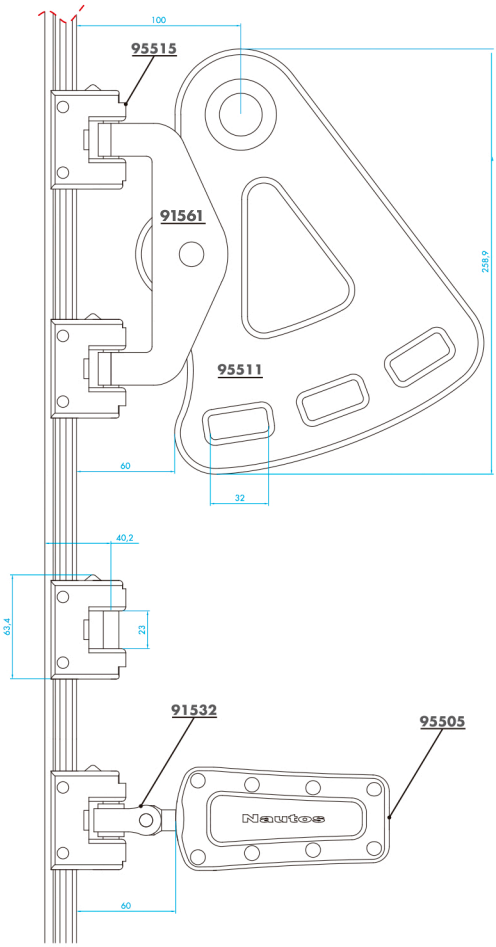
Big Sliding Batten Car



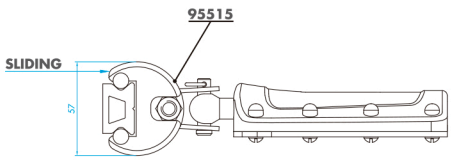


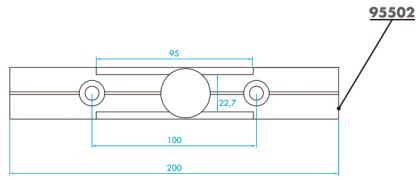
Trilho H maior
Batente 91451
Inserto 91415











						M mm
95515	**Carro surface grande**/Sliding big car	1000	2000	300	-	80
91532	**Suporte para tala grande**/Big batten stud	-	-	130	14	-
95505	**Ponteira tala grande**/Big batten suport	-	-	280	-	130
91561	**Ponte para 2 carros grandes**/Coupler for two big cars	2000	4000	250	-	130
95511	**Bolacha tope grande monocasco**/Big head board monohull	2000	4000	280	-	270
95502	**Gate**	-	-	-	-	-

DO NOT use Nautos equipament for human suspension or equivalent work.

Burro Telescópico

Telescopic Vang



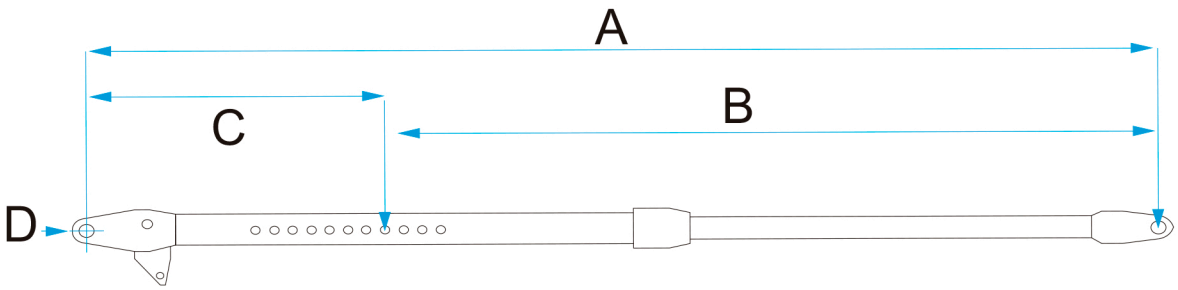
O burro telescópico Nautos é um sistema mecânico compacto que substitui com vantagem o burro clássico da retranca e amantilho. O corpo de telescopicvang já contém internamente uma redução de 3:1 a 5:1 dependendo do modelo, que associada a uma talha externa oferece uma grande potência, com uma relação de redução que pode ir até 40:1.

The "Telescopicvang" is a compact, mechanical systems which replaces the classic vang, and topping lift features. The Telescopicvang body already possesses an internal reduction between 3: and 5:1 depending on the model. In conjunction with an external tackle, it provides more power, with a relation up to 40:1.



A - comprimento aberto / open length
B - comprimento fechado / closed length
C - curso / course

	Relação interna Internal relation		**A** mm	**B** mm	**C** mm	**D** mm			
91342	2:1	24' - 32'	1350	1150	200	10	25	2,4	150
91330	3:1	29' - 37'	1860	1560	300	13	35	6	300
91334	4:1	38' - 44'	2125	1825	300	16	45	7	450
91338	5:1	45' - 55'	2500	2300	200	16	60	12	450



Carros Recirculantes da Grande 14 e 22 mm H

Mainsail Recirculating Cars 14mm and 22mm H

Carros recirculantes esculpidos a partir de perfil sólido para desempenho e resistência.

Recirculating cars carved from solid alloy stock for performance and resistance



96446

96452
(Controles)

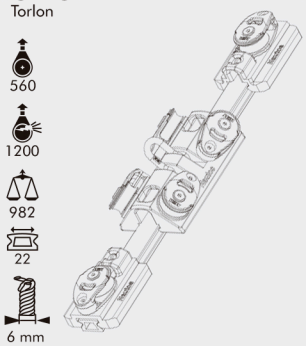
Novo sistema stand-up compatível com carros da serie 22 mm. Desenho inovador, suporta o moitão principal e permite todos os movimentos sem contato metálico. Este novo sistema suporta também os moitões laterais de controle, evitando contato com o trilho e entrelaçamento do cabo quando sem tenção.

Aceita todos os moitões com pino da cabeça de 3/8''ou 10 mm com furo para manilha de 5mm ou 3/16.

96453

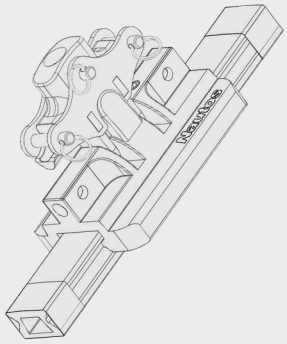


96446T Torlon / **96446** Delrin



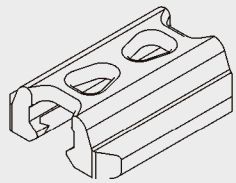
Carro traveler
Traveler car

96453



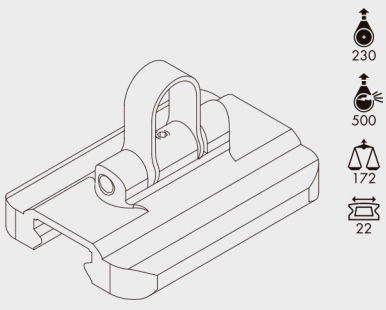
Carro de traveler stand up 80mm - torlon
Stand up traveler car - 80mm - torlon

HT 4414



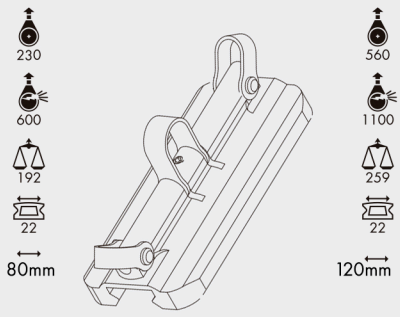
Carro com manilha pivotante - 50mm
Car with pivoting shackle - 50mm

91640



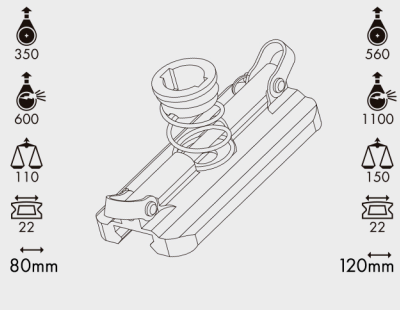
Carro com manilha pivotante - 80mm delrin
Car with pivoting shackle - 80mm- delrin

91642 / **91643**



Carro com manilha pivotante e alças - torlon
Car with pivoting shackle and ears- torlon

91644 / **91645**



Carro com stand-up e alças torlon
Car with stand-up base and ears - torlon

DO NOT use Nautos equipament for human suspension or equivalent work.

Carros Recirculantes da Grande 32 mm

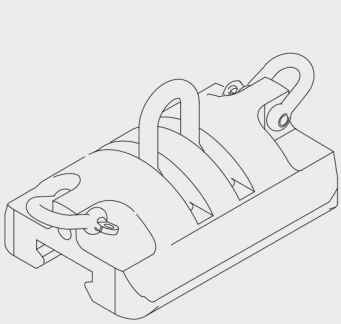
Mainsail Recirculating Cars 32mm



Carros recirculantes esculpidos a partir de perfil sólido para desempenho e resistência.

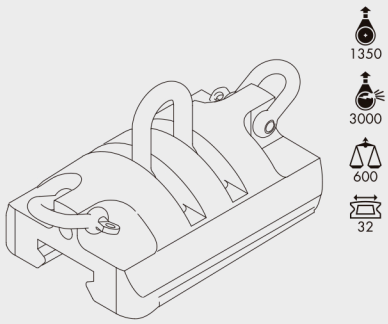
Recirculating cars carved from solid alloy stock for performance and resistance.

91667



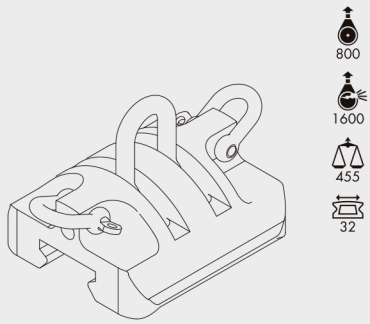
Carro 140mm com manilha Pivotante*
Car 140mm with pivoting shackle*

91666



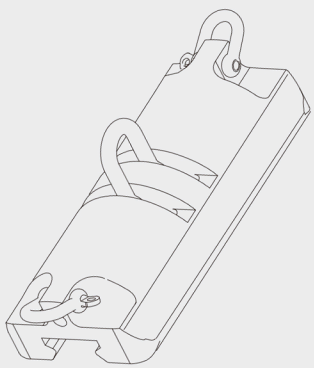
Carro 120mm com manilha Pivotante*
Car 120mm with pivoting shackle*

91665



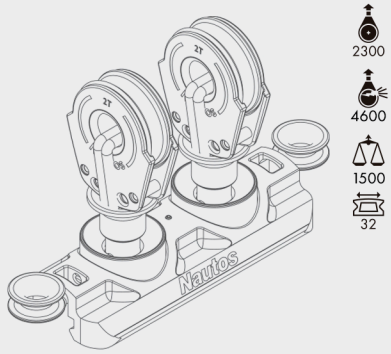
Carro 95mm com manilha pivotante
Car 95mm with pivoting shackle

91668



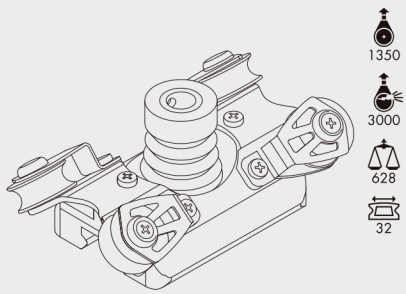
Carro 190mm com manilha pivotante*
Car 190mm with pivoting shackle*

91607



Carro 190mm com Stand-up duplo
Car 190mm with double Stand-up

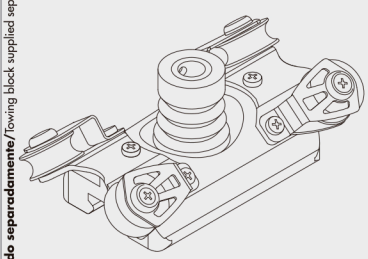
91651



Carro 120mm com stand-up*
Car 120mm with stand-up base*

91652

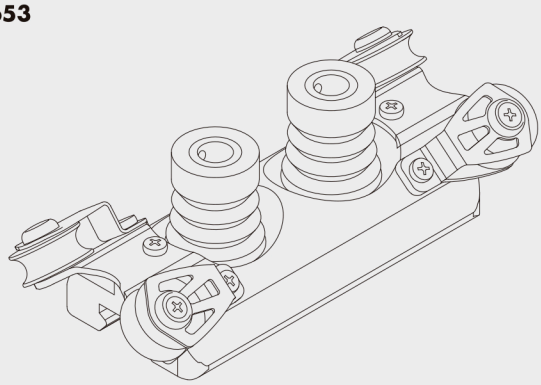
Controles fornecido separadamente/Towing block supplied separately.



Carro 140mm com stand-up*
Car 140mm with stand-up base*

91653

Controles fornecido separadamente/Towing block supplied separately.



Carro 190mm com dois stand-up*
Car 190mm with two stand-up base*

DO NOT use Nautos equipament for human suspension or equivalent work.

Carros Genoa 22mm H

Genoa Cars 22mm H

Carros recirculantes permitem a regulagem precisa das velas de proa nas saídas de bóia ou ajustes finos mesmo sob cargas.
No mesmo trilho podem ser usados carros deslizantes que permitem ser puxados para algum ajuste. Ser for feita a opção para pino de stop, solicite furação (página 66).
O triroller é usado em trilhos mais perto da cabine, não batem durante os bordos e permitem ajustes da escota mesmo em ângulos muito folgados.

Recirculating cars allow precise sail control after turning the Mark during Racing or fine tuning even under load. Sliding cars can be towed on the same track for additional sail adjusting. If you intend to use a pin stop then you will require track on page 66.
Tri-roller cars are used on tracks close to the cabin sides; they are quiet during taking and allow for wide sheet angles.



96379



450
900
310
M mm 120
W mm 58
1x10
30
22

Carro de genoa deslizante
Genoa sliding car

91480



1300
2000
422
2x14
22

Carro deslizante/pino de stop (Triroller)
Sliding genoa car/stopping pin (Triroller)

400
600
310
M mm 120
W mm 58
2x12
30
22

91443

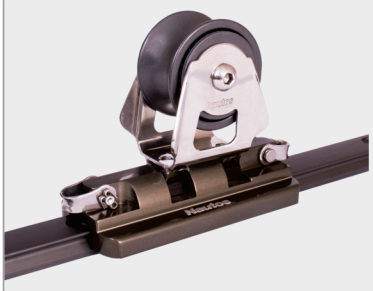
91443



400
600
310
M mm 120
W mm 58
2x12
30
22

Carro de genoa roletado recirculante
Recirculanting roller bearing genoa car

91444



800
1200
500
M mm 120
W mm 58
2x16
30
22

Carro de genoa roletado com suporte de inox
Recirculating roller bearing genoa car with stainless steel

DO NOT use Nautos equipament for human suspension or equivalent work.

Carros Genoa 25mm T

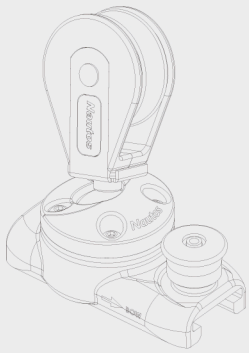
Genoa Cars 25mm T



Carros com suporte em "U" com pino de stop sobre trilho T. Desenho clássico e prático.

"U" shaped stainless steel wide body with pin stop on T. Track for pratical and classic performance.

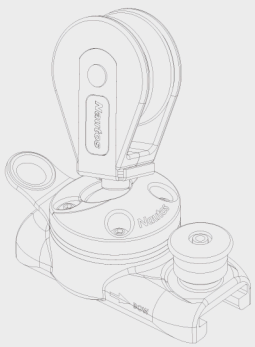
91602



400
800
145
25
10
25

Genoa car
Carro genoa

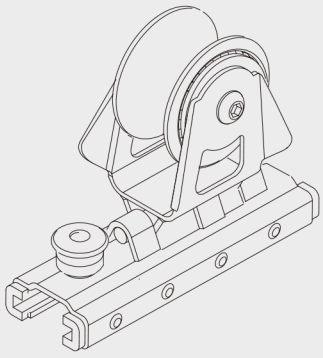
91602B



400
800
150
25
10
25

Genoa car / becket
Carro genoa com saída

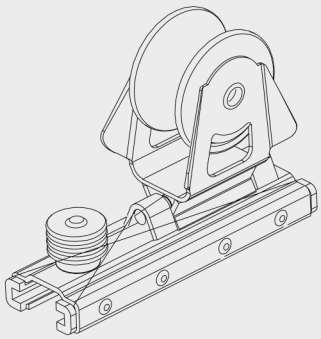
91435



950
1800
500
25
2x20
40

Passa-ecota duplo/ stop /
roldana roletado c/ mancal
Double genoa lead/roller bearing/sheave

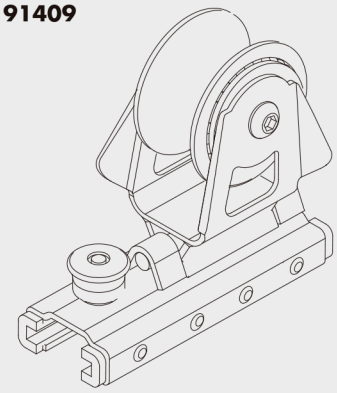
91408



1000
2000
320
25
2x16
35

Passa-escota duplo/stop c/
suporte inox e roldana de plástico
Slider double genoa/lead with stud and plastic sheave

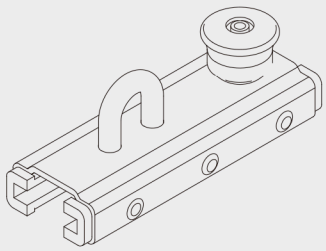
91409



1000
2000
350
25
2x17
30

Passa-escota duplo/stop/roletado c/suporte e roldana de alumínio
Slider double/roller bearing/genoa lead with stud and aluminum sheave

91403



650
1300
123
25

Alça e stop
Eye and stop

DO NOT use Nautos equipament for human suspension or equivalent work.

Carros Genoa 32mm H

Genoa Cars 32mm H

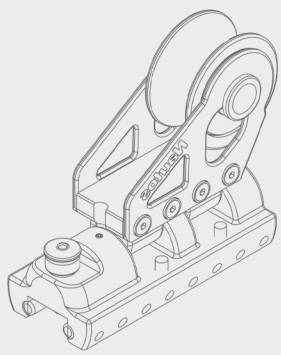


Carros recirculantes permitem a regulagem precisa das velas de proa nas saídas de bóia ou ajustes finos mesmo sob cargas.
No mesmo trilho podem ser usados carros deslizantes que permitem ser puxados para algum ajuste. Ser for feita a opção para pino de stop, solicite furação (página 66).
O triroller é usado em trilhos mais perto da cabine, não batem durante os bordos e permitem ajustes da escota mesmo em ângulos muito folgados.

Recirculating cars allow precise sail control after turning the Mark during Racing or fine tuning even under load. Sliding cars can be towed on the same track for additional sail adjusting. If you intend to use a pin stop then you will require track on page 66.
Tri-roller cars are used on tracks close to the cabin sides; they are quiet during taking and allow for wide sheet angles



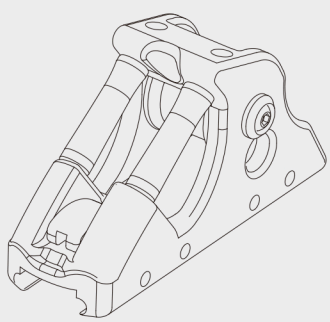
91606



2300
4600
1000
14
32

Carro deslizante/pino de stop
Sliding genoa car/stopping pin

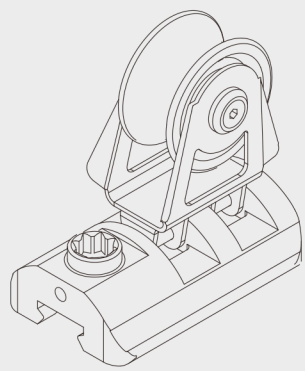
91485



2000
3000
900
2x16
32

Carro deslizante/pino de stop (Triroller)
Sliding genoa car/stopping pin (Triroller)

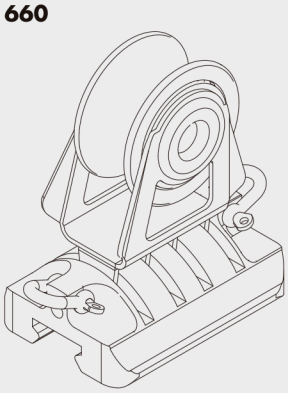
91655



2500
3800
1200
M mm 120
W mm 85
2x16
50
32

Carro deslizante/porca de stop
Sliding genoa car/stopping nut

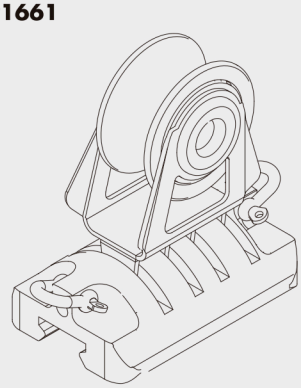
91660



2500
3000
850
M mm 100
W mm 85
2x16
35
32

Carro de genoa roletado 120mm recirculante com roldana 75mm
Recirculating roller 120mm bearing with genoa car 75mm sheave

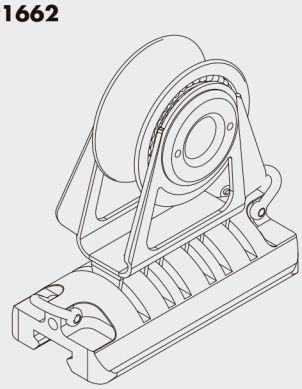
91661



2500
4000
1200
M mm 120
W mm 85
2x16
40
32

Carro de genoa roletado 140mm recirculante com roldana 75mm
Recirculating roller 140mm bearing with genoa car 75mm sheave

91662



4000
6000
2000
M mm 140
W mm 85
2x20
55
32

Carro de genoa roletado recirculante roldana 100mm
Recirculating roller bearing genoa car 100mm sheave

DO NOT use Nautos equipament for human suspension or equivalent work.

Carros Genoa 32mm T

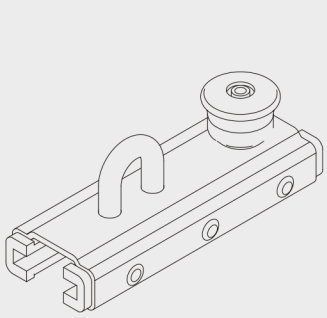
Genoa Cars 32mm T



Carros com suporte em "U" com pino de stop sobre trilho T. Desenho prático e clássico.

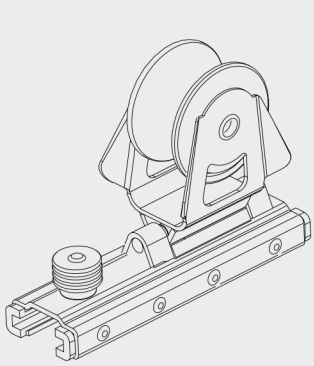
"U' shaped stainless steel wide body with pin stop on T. Track for pratical and classic design.

91413



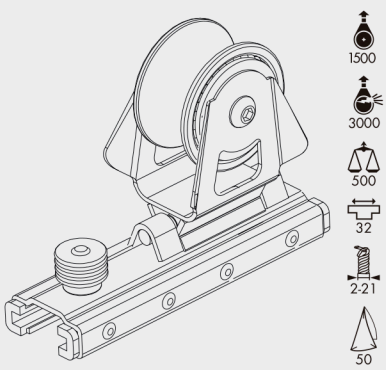
Deslizante com alça e stop
Slider with eye and stop

91418



Deslizante passa-escota duplo alumínio
Genoa lead aluminum sheave

91419



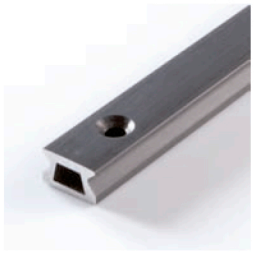
Deslizante passa-escota duplo roletado
Double genoa lead rolled bearing sheave

DO NOT use Nautos equipament for human suspension or equivalent work.

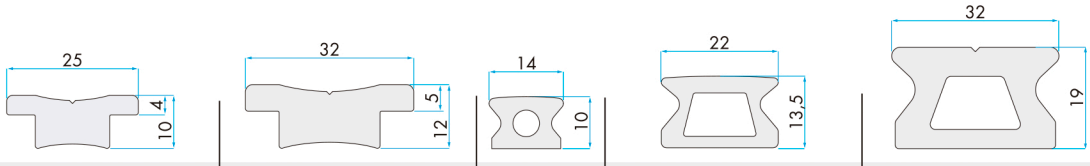
Trilhos e Controles

Tracks and Controls









Tamanho/Tipo	25 T		32 T		14 H	22 H		32 H	
Espécie	Batten Car	Standard	Batten Car	Standard	Standard	Standard	Com furo stop	Standard	Com furo stop
500					91736				
750	91700	91704	91702	91710	91737	91716		91722	
1000	91701	91705	91703	91711	91738	91717	91734	91723	91735
1500		91706		91712	91739	91718		91724	
2000		91707		91713		91719		91725	
2500		91708		91714	91740	91720		91726	
3000		91709		91715		91721		91727	
4000	91728	91730	91729	91731		91732		91733	



Pequeno Small	**91405**	**Inserto plástico para redução 6.5 para 5mm** Nylon insert 6.5 to 5mm
Grande Big	**91415**	**Inserto plástico para redução 8 para 6.5mm** Nylon insert 8 to 6.5mm



Pequeno Small	**91406**	**Batente para trilho T** End sliding track
Grande Big	**91416**	



Pequeno Small	**91431**	**Batente para trilho H** End recirculating track
Grande Big	**91451**	



Pequeno Small	**91515**	**Emenda para trilho H** Conector for H track
Grande Big	**91545**	



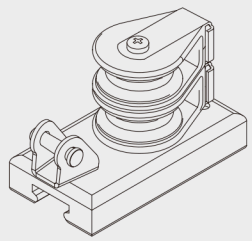
Pequeno Small	**HT 536**	**Batente para trilho 14 H** End recirculating track

Todos os trilhos são furados a cada 100mm.
All tracks are drilled every 100mm.

Todos os trilhos padrão deslizante têm furo de stop a cada 50mm.
All standard sliding tracks have stop holes every 50mm.

DO NOT use Nautos equipament for human suspension or equivalent work.

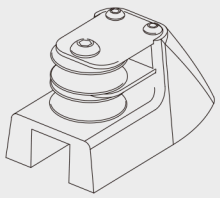
91695



200
350
280
8
22

Ponteira de regulagem para controle 4:1 - 5:1
Track end control 4:1 - 5:1

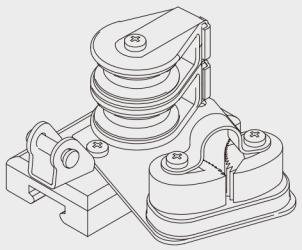
96396



200
350
110
8
22

Ponteira para controle 3:1 - saída vertical
Control 3:1 vertical lead

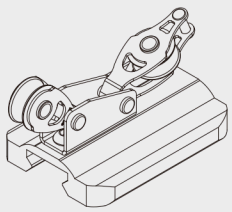
91647 Bombordo Port
91648 Estibordo Starboard



180
300
460
10
22

Ponteira para controle 4:1 - mordedor
Track end control with cleat

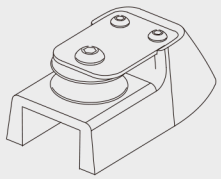
91672



150
300
110
8
22

Ponteira para controle 3:1 - saída vertical
Control 3:1 vertical lead

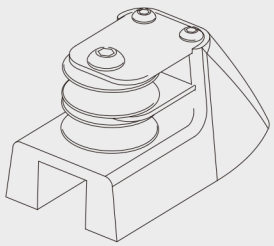
96395



200
350
110
8
22

Ponteira para controle 3:1 - saída vertical
Control 3:1 vertical lead

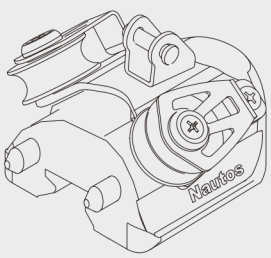
96227



200
350
110
8
32

Ponteira para controle 3:1
Control 3:1

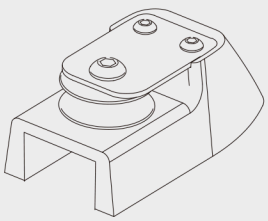
96401



900
1500
110
8
32

Ponteira para controle 3:1 - saída vertical 4:1 com batente macio
Control 3:1 vertical lead 4:1 with soft endstop

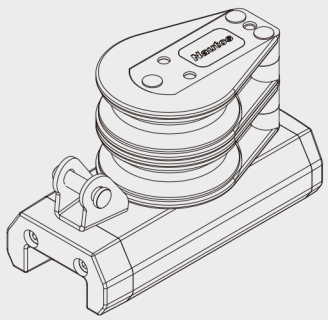
96189



250
350
110
8
32

Ponteira para controle 3:1 - saída vertical
Control 3:1 vertical lead

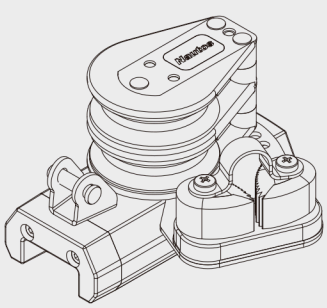
91697



600
1200
480
10
32

Ponteira para controle 4:1 - 5:1 - saída lateral
Track end control 4:1 - 5:1 - lateral lead

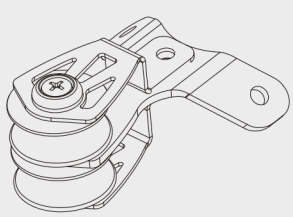
95658 Bombordo Port
95659 Estibordo Starboard



390
700
680
10
32

Ponteira para controle 4:1 - 5:1 mordedor
Track end control 4:1 - 5:1 with cleat

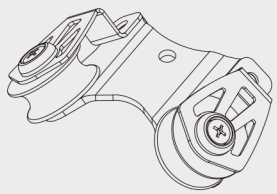
95696



900
1500
110
8
32

Ponteira para controle 3:1 - saída vertical
Towing blocks 3:1 vertical lead

95682



900
1500
110
8
32

Ponteira para controle 3:1 - saída lateral
Towing blocks 3:1 lateral lead

Carros de Spinnaker

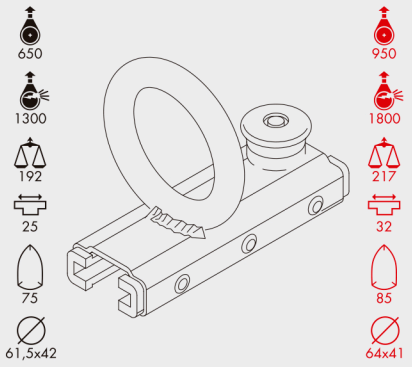
Spinnaker Cars



Carros para manobra do spinnaker no mastro podem ser de argola, para ponteiras pistão e gatilho ou com pino para sino Nautos. Usam trilhos regulares, com furo de stop ou moitão de controle.

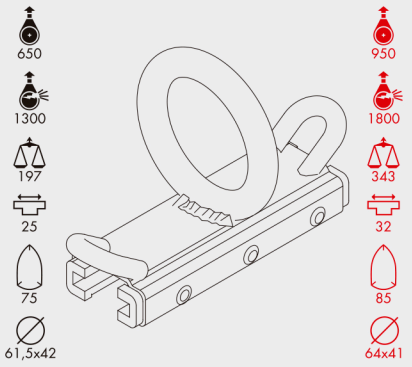
Spinnaker pole cars: cars for adjusting spinnaker height on the mast can feature ring for piston and trigger pole ends or stud for Nautos Bell. Use regular tracks with stop holes or towing blocks.

91404 **91414**



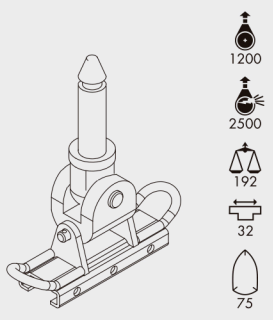
Argola de spinnaker/stop
Spinnaker ring/stop

91407 **91417**



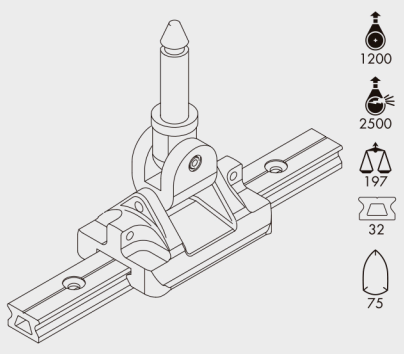
Argola de spinnaker/alça controle
Spinnaker ring/ears

91427



Carro deslizante T32 para ponteira sino
Bell socket sliding car

96100



Carro deslizante H32 para ponteira sino grande
Bell socket sliding car

DO NOT use Nautos equipament for human suspension or equivalent work.

Ponteira de Pau de Spinnaker

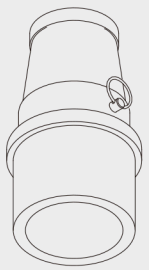
Spinnaker Pole End



Disponíveis em duas configurações, gancho com pino e automática com gatilho, as ponteiras podem ser usadas em barcos de 16 a 45 pés. Construídas em liga de alumínio anodizado duro e impregnado de teflon, usam pinos, molas e gatilhos em aço inox.

Presented in two different systems, automatic trigger or piston, these Spinnaker pole ends are designed for boats from 16 up to 45 feet. Aluminum cast alloy, hard anodized, stainless steel pins and Springs

96400



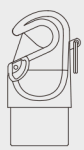
Ponteira sino para 75mm
Spinnaker bell socket for 75mm

96399



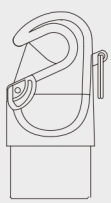
Adaptador de tubo 75mm para 100mm
Adaptor to 75mm for 100mm

91247



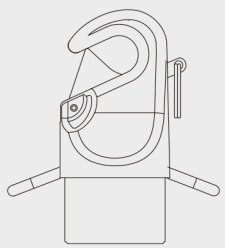
Ponteira automática 1 1/2″
Spinnaker automatic pole end 1 1/2″

91249



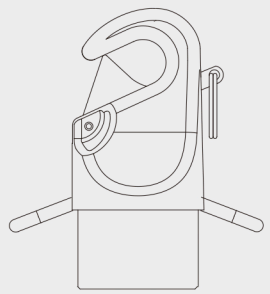
Ponteira automática 2″
Spinnaker automatic pole end 2″

91253



Ponteira automática 2 1/2″
Spinnaker automatic pole end 2 1/2″

91255



Ponteira automática 3″
Spinnaker automatic pole end 3″

91248



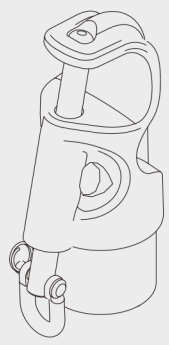
Ponteira gancho 1 1/2″
Spinnaker piston pole end 1 1/2″

91250



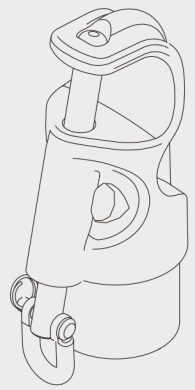
Ponteira gancho 2″
Spinnaker piston pole end 2″

91254



Ponteira gancho 2 1/2″
Spinnaker piston pole end 2 1/2″

91256



Ponteira gancho 3″
Spinnaker piston pole end 3″

DO NOT use Nautos equipament for human suspension or equivalent work.

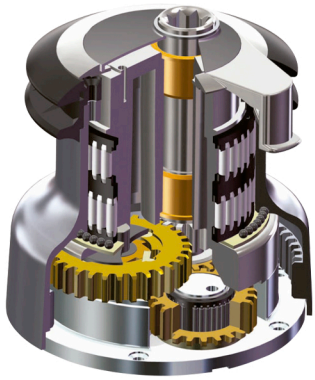
Catracas Manuais

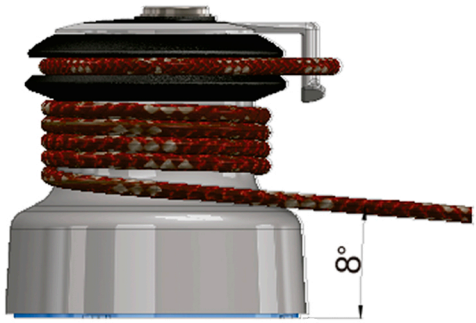
Winches

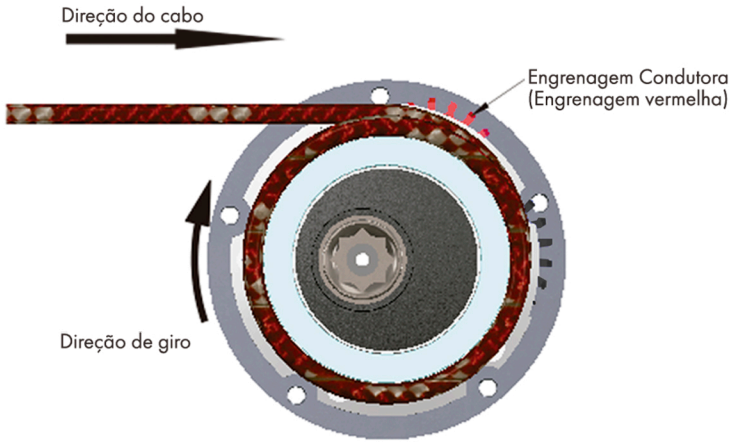
A bigger diameter in the drum means more traction in the cable and a more efficient self tailing. Whole body with a bigger diameter allows the use of thinner aluminum walls, resulting in a lighter piece.

Lower height and weight, up to 20% less compared to the 44ST. Winches bigger than the 44 also have barrings in the drum's base, which means the body remains stable, whichever way the load enters from. All of the pivots use needle barrings, or high resistance, self-lubricated, synthetic bushing. Auto-adjustable self tailing.









Observe a posição da engrenagem condutora na hora da instalação.



# 8	# 16	# 32	# 40	# 44	# 48	# 54	# 66
94008	94016	94032	94040 94041*	94044 94045*	94048 94049*	94054 94055*	94066

* Elétrica *Electric*

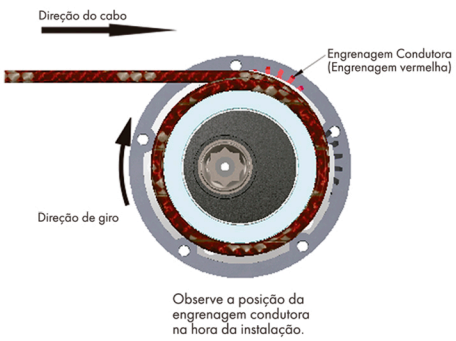
DO NOT use Nautos equipament for human suspension or equivalent work.

The Electric W Winches allow the sailor to tight or loose the sail ship without having to handle the line.

This new Winch concept represents a big advance when it comes to how easy it is to handle the sails, specially in small crew ships.

Tigthen or loosing lines without handling is the new great advantage of the new Nautos winch design.



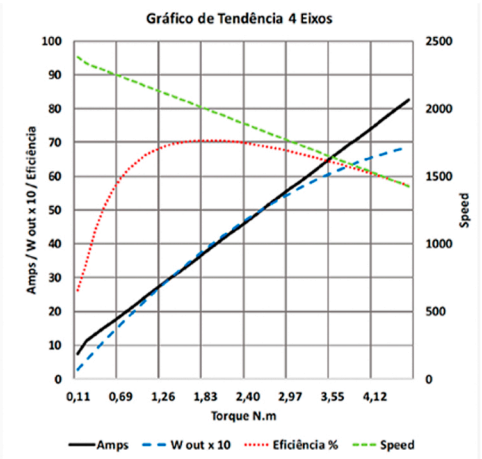


Dados Nominais do Motor		
I0 (Corrente)	7,5	A
I (Corrente)	50	A
RPM0	2380	rpm
RPM	1800	rpm
P (MEC)	500	W
U	14,5	V
Torque	2,6	N.m

Catracas Elétricas

94045, 94049 e 94055







Instalados entre a carga e a catraca, "snubbings" são mais fáceis e seguros de operar do que stoppers, suportando e soltando altas cargas com mais segurança. Também protegem os cabos, distribuindo o esforço em um comprimento dezenas de vezes maiores que em stoppers. Mesmo sob carga é possível aliviar a pressão sem voltar á catraca. Martelos múltiplos reduzem o retorno e um prático amarrador no topo segura o cabo em todas as situações.

Installed between the load and winch, snubbings are easier and more secure than clutches, taking and relieving loads safely. Also are softer to ropes distributing load in a 100 times longer length than clutches. Once under load, you can relieve pressure without going back the winch. Multiple pawls minimize backlash and a pratical cleat on top secures rope in all situations

96190	#100	185	127	127	50	6xM10	6
96003	#150	233	160	160	60	6xM12	20

Especificações Catracas - Manual, Elétrica e W

94008	67,5	1:1	8:1	-	900	105	64	3x6	6-10	105	37
94016	94	4:1	17,8	-	3100	140	112	5x6	6-10	130	53
94032	94	8:1	17,8	36,9	3600	140	112	6x6	8-12	145	67
94040	94	8:1	17,8	41	4050	145	125	5x6	8-12	145	67
94044	114	12:1	16,7	45,8	5350	168	146	6x6	8-12	172	72
94045 (elétrica)	114	12:1	16,7	45,8	9870	168	146	6x6	8-12	172	72
94048	114	11:1	18	51	7400	192	161	6x6	8-14	175	78
94049 (elétrica)	114	11:1	18	51	11920	192	161	6x6	8-14	175	78
94054	158	22:1	22	57,8	11200	215	190	6x8	10-14	210	90
94055 (elétrica)	158	22:1	22	57,8	15720	215	190	6x8	10-14	210	90
94066	220	45:1	29	69	15000	268	245	8x8	10-16	260	120
94045W											
94049W											
94055W											

DO NOT use Nautos equipament for human suspension or equivalent work.



Manicacas
As manicacas Nautos são mais leves e mais rígidas que as convencionais. A manopla pode ser simples, "de bola" ou dupla. O soquete Nautos, segue os padrões internacionais, com ou sem trava.

Winches handles
Nautos winch handles are lighter and more rigid. The grip may be simple, double, or "ball-type". The socket Nautos feature follows international standards and is available with or without lock mechanism.

	Descrição/Description	⚖
94024	**Manicaca 250mm com trava/manípulo simples**/Handle 250mm with lock/ball single grip	560
94023	**Manicaca 250mm com trava/manípulo boleado**/Handle 250mm with lock/ball grip	714
94028	**Manicaca 250mm com trava/manípulo duplo**/Handle 250mm with lock/double grip	620
94029	**Manicaca 250mm sem trava/manípulo simples**/Handle 250mm without lock/ball single grip	512

Graxa
A graxa Nautos é um produto de alta qualidade especialmente formulado para as especiais condições de uso em catracas.

Grease
Nautos grease is a high quality product custom-made for the particular environment inside the winch.



Kit de reparo
As travas Nautos em bronze laminadas têm caracteristicas mecânicas superiores às de aço sinterizado e desgastam menos a sede e os dentes da catraca.

Service kit
The laminated bronze pawls have superior mechanical characteristics compared to sinterad ones and are softer on the socket and ratchet teeth.



	Descrição/Description
94091	**Embalagem da graxa 100ml**/Grease packing 100ml
94092	**Embalagem da graxa 300ml**/Grease packing 300ml
94093	**Embalagem da graxa 500ml**/Grease packing 500ml
94094	**Kit de reparo - 10 travas, 20 molas, 1 anel**/Service kit - 10 pawls, 20 springs, 1 ring

DO NOT use Nautos equipament for human suspension or equivalent work.

Stoppers

Clutches



Stoppers podem ser difíceis para abrir sob carga. A Nautos criou um sistema de dupla alavanca com dupla dobradiça patenteada que resolve este problema, facilitando a abertura mesmo sob carga. Levantando o manípulo da trava de segurança você obtém máximo de alanca para liberar o cabo.

Standard clutches can be tough to let off, especially under load. However, Nautos has overcome this problem. Our patented "Xtreme Release" hinged two-piece lever allows you to easily release the clutch, even under high loads. Having flipped up the handle from its secure clip, you then have maximum leverage to free the rope.

95081 **95086**

550 — 6 - 11 1/4" - 7/16" — 386



700 — 8 - 14 5/16" - 9/16" — 608

Stopper simples pequeno
Single small clutch

Stopper simples grande
Single big clutch

95082 **95087**

550 — 6 - 11 1/4" - 7/16" — 658



700 — 8 - 14 5/16" - 9/16" — 1060

Stopper duplo pequeno
Double small clutch

Stopper duplo grande
Double big clutch

95084 **95088**

550 — 6 - 11 1/4" - 7/16" — 936



700 — 8 - 14 5/16" - 9/16" — 1512

Stopper triplo pequeno
Triple small clutch

Stopper triplo grande
Triple big clutch

95085 **95089**

550 — 6 - 11 1/4" - 7/16" — 1214



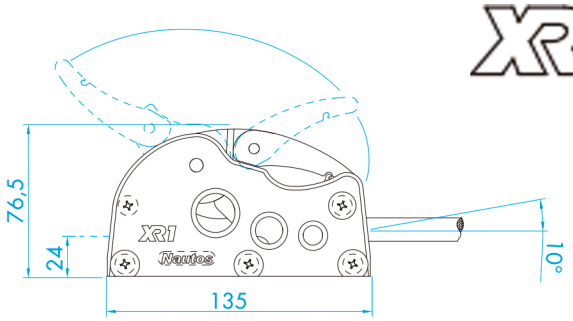
700 — 8 - 14 5/16" - 9/16" — 1964

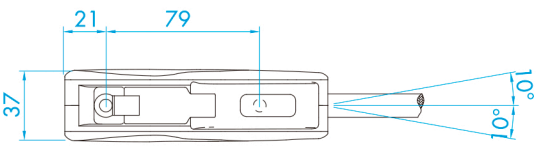
Stopper quádruplo pequeno
Quadruple small clutch

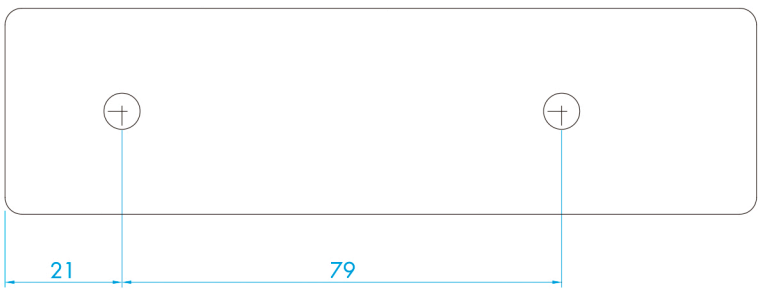
Stopper quádruplo grande
Quadruple big clutch

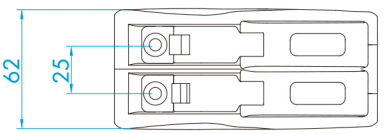
DO NOT use Nautos equipament for human suspension or equivalent work.

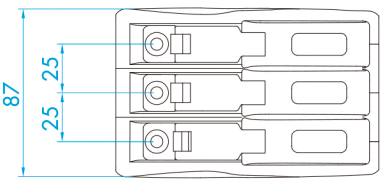
XR1

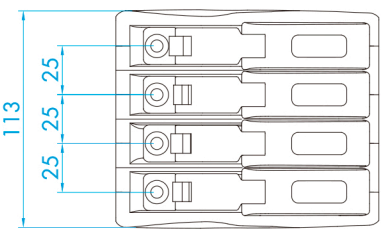

76,5
24
135
10°
XR1
Nautos


21
79
37
10°
10°

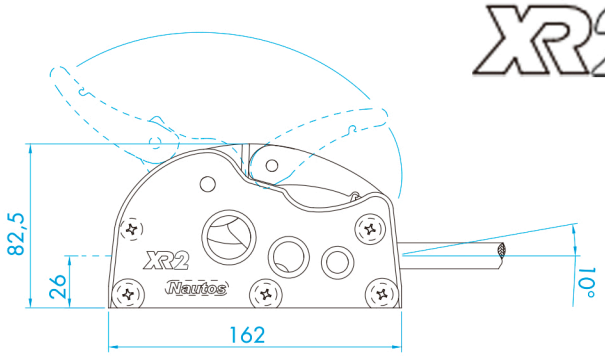

21
79

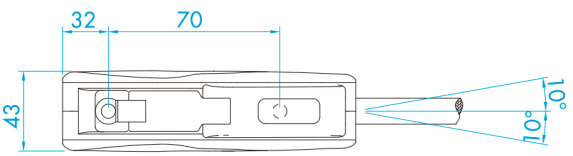

62
25


87
25
25

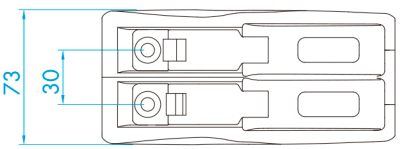

113
25
25
25

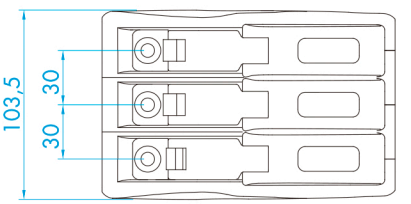
XR2

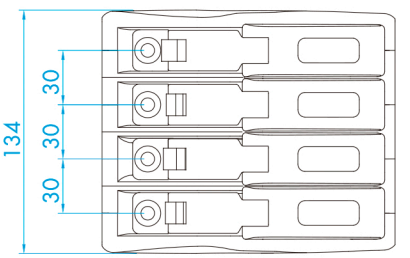

82,5
26
162
10°
XR2
Nautos


32
70
43
10°
10°


32
70


73
30


103,5
30
30


134
30
30
30


XR1


XR1


XR1

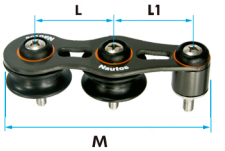
Organizadores

Deck Organizers



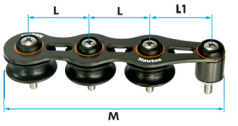
Robust and easy to assemble, the Nautos Deck Organizers can be nylon sheave and aluminum sheave. Supplied with screws or can be stacked.

				M	L	L1	*	*	
91200N	Double, nylon sheaves	**36mm 1.7/13"**	10mm 3/8"	112mm 4.1/2"	44mm 1.3/4"	40mm 1.19/32"	200kg	400kg	6mm 1/4"
91201N	Double, aluminum sheaves	**36mm 1.7/13"**	10mm 3/8"	112mm 4.1/2"	44mm 1.3/4"	40mm 1.19/32"	300kg	400kg	6mm 1/4"
91206N	Double, nylon sheaves	**48mm 1.7/8"**	12mm 1/2"	138mm 5.1/2"	57mm 2.1/4"	48mm 1.7/8"	400kg	800kg	6mm 1/4"
91207N	Double, aluminum sheaves	**48mm 1.7/8"**	12mm 1/2"	138mm 5.1/2"	57mm 2.1/4"	48mm 1.7/8"	500kg	800kg	6mm 1/4"
91212N	Double, nylon sheaves	**60mm 2.3/8"**	14mm 9/16"	157mm 6. 1/4"	66mm 2.5/8"	52mm 2.1/16"	800kg	1200kg	6mm 1/4"
91213N	Double, aluminum sheaves	**60mm 2.3/8"**	14mm 9/16"	157mm 6. 1/4"	66mm 2.5/8"	52mm 2.1/16"	1000kg	1200kg	6mm 1/4"



* *Load per Sheave*

				M	L	L1	*	*	
91202N	Triple, nylon sheaves	**36mm 1.7/13"**	10mm 3/8"	156mm 6.1/4"	44mm 1.3/4"	40mm 1.19/32"	200kg	400kg	6mm 1/4"
91203N	Triple, aluminum sheaves	**36mm 1.7/13"**	10mm 3/8"	156mm 6.1/4"	44mm 1.3/4"	40mm 1.19/32"	300kg	400kg	6mm 1/4"
91208N	Triple, nylon sheaves	**48mm 1.7/8"**	12mm 1/2"	195mm 7.3/4"	57mm 2.1/4"	48mm 1.7/8"	400kg	800kg	6mm 1/4"
91209N	Triple, aluminum sheaves	**48mm 1.7/8"**	12mm 1/2"	195mm 7.3/4"	57mm 2.1/4"	48mm 1.7/8"	500kg	800kg	6mm 1/4"
91214N	Triple, nylon sheaves	**60mm 2.3/8"**	14mm 9/16"	223mm 8.3/4"	66mm 2.5/8"	52mm 2.1/16"	800kg	1200kg	6mm 1/4"
91215N	Triple, aluminum sheaves	**60mm 2.3/8"**	14mm 9/16"	223mm 8.3/4"	66mm 2.5/8"	52mm 2.1/16"	1000kg	1200kg	6mm 1/4"



* *Load per Sheave*

				M	L	L1	*	*	
91204N	Quadruple, nylon sheaves	**36mm 1.7/13"**	10mm 3/8"	200mm 8"	44mm 1.3/4"	40mm 1.19/32"	200kg	400kg	6mm 1/4"
91205N	Quadruple, aluminum sheaves	**36mm 1.7/13"**	10mm 3/8"	200mm 8"	44mm 1.3/4"	40mm 1.19/32"	300kg	400kg	6mm 1/4"
91210N	Quadruple, nylon sheaves	**48mm 1.7/8"**	12mm 1/2"	252mm 10"	57mm 2.1/4"	48mm 1.7/8"	400kg	800kg	6mm 1/4"
91211N	Quadruple, aluminum sheaves	**48mm 1.7/8"**	12mm 1/2"	252mm 10"	57mm 2.1/4"	48mm 1.7/8"	500kg	800kg	6mm 1/4"
91216N	Quadruple, nylon sheaves	**60mm 2.3/8"**	14mm 9/16"	289mm 11.1/2"	66mm 2.5/8"	52mm 2.1/16"	800kg	1200kg	6mm 1/4"
91217N	Quadruple, aluminum sheaves	**60mm 2.3/8"**	14mm 9/16"	289mm 11.1/2"	66mm 2.5/8"	52mm 2.1/16"	1000kg	1200kg	6mm 1/4"



* *Load per Sheave/ Carga por roldana*

DO NOT use Nautos equipament for human suspension or equivalent work.

Bases Giratórias
Swivel Bases

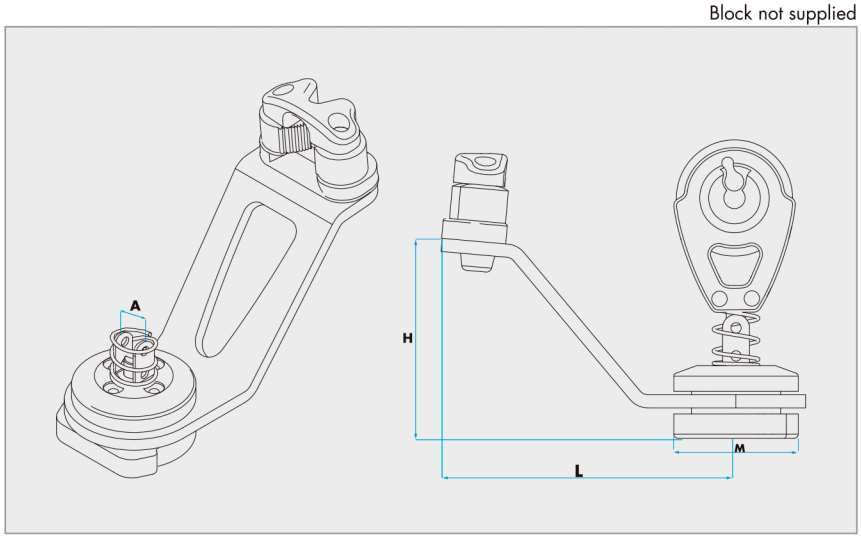


As bases giratórias com esferas Nautos são constituídas com uma estrutura em alumínio anodizado duro. Aceitam moitões com manilhas de 5 a 6,5mm. O mordedor é de alumínio com esferas. Estas bases giratórias podem ser utilizadas em monotipos ou veleiros de até 35 pés.

The Nautos swivel Ball bearings cam bases are completely constructed from hard anodized aluminum. They accept blocks using 5 and 6,5mm shackles. The cam is of aluminum with ball bearings and can be used in monotypes and boats up to 35 feet.

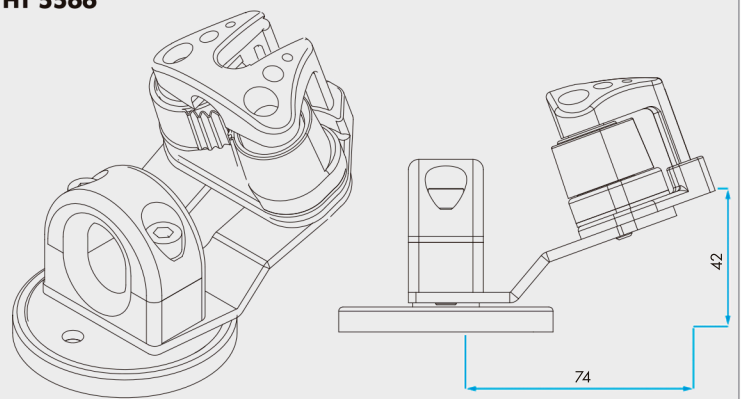
		L mm	H mm	M mm	A mm
HT 4266 COMP	**Base giratória curta com mordedor 91035** Mainsheet swivel jammer short arm standard with cam 91035	126	82	60	12
HT 4266	**Base giratória longa com mordedor 91035** Mainsheet swivel jammer standard with cam 91035	142	108	60	12

Moitão não fornecido
Block not supplied



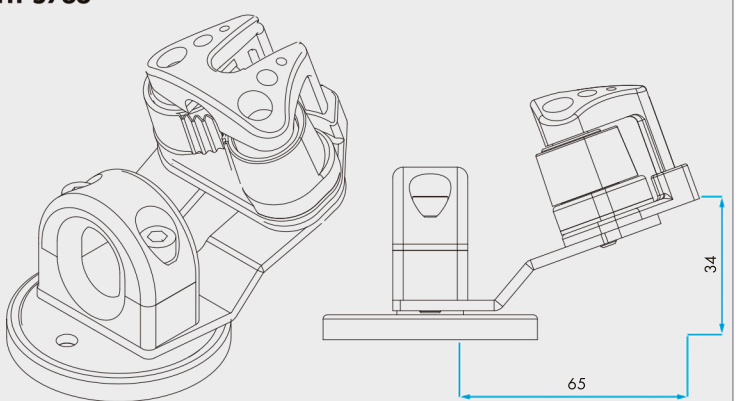
DO NOT use Nautos equipament for human suspension or equivalent work.

HT 5566



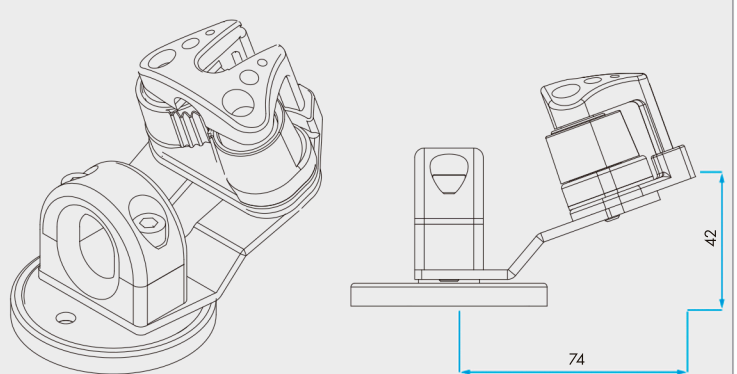
Base pivotante com mordedor grande (91035) e guia
Big base with plastic eye cam (91035)

HT 5766



Base pivotante com mordedor pequeno (91026) e guia
Small base with plastic eye cam (91026)

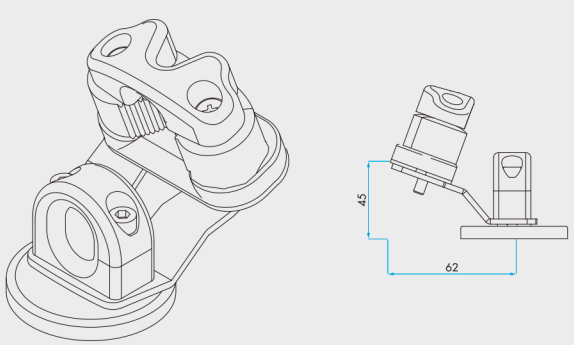
HT 5466



Base pivotante com mordedor grande (91025) e guia
Big base with plastic eye cam (91025)

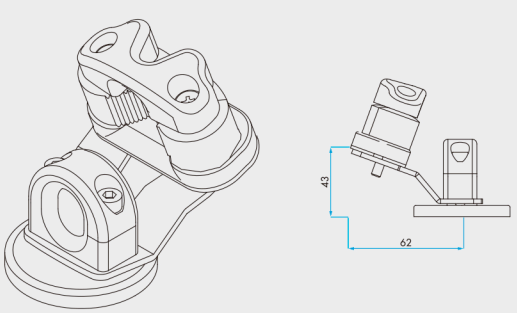


91165



Base pivotante com mordedor grande (91035)
Big base with plastic eye cam (91035)

91164



Base pivotante com mordedor pequeno (91026)
Small base with plastic eye cam (91026)

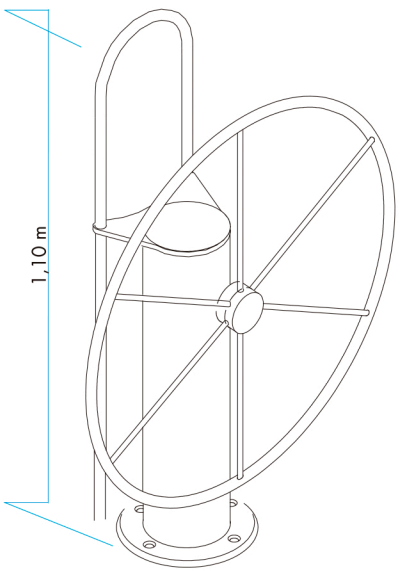
DO NOT use Nautos equipament for human suspension or equivalent work.

Sistema de Roda de Leme

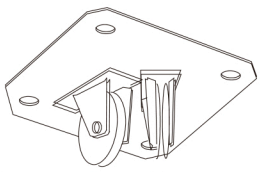
Steering Wheel

- Construção simples e confiável
- Pedestal em alumínio com pintura eletrostática de alta resistência
- Componentes internos em aço inox
- Eixo principal sobre rolamento de agulha
- Base com duas roldanas orientáveis
- Controle de freio
- Corrente em aço inox
- Volante em aço inox ou alumínio super leve
- Revestimento de couro (opcional)

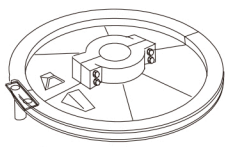
- *Simple and dependable construction*
- *Aluminum pedestal with highly resistant White paint*
- *Internal parts of stainless steel*
- *Main axle over roller bearings*
- *Base with two sheaves with adjustable orientation*
- *Braking knob*
- *Stainless steel chain*
- *Stainless steel or aluminum steering wheel*
- *Quality leather ring cover (optional).*



Todas as rodas e Santo Antônio têm 1,10m de altura no topo
All wheels and guard top are 1,10m hight



Base com duas roldanas
Base with two sheaves



Quadrante
Quadrant

Conjunto de roda em aço inox *Stainless steel wheel*	∅	**Timão** *Folding*
91317	0,70m	91317.80
91318	0,80m	91318.80
91319	0,90m	91319.80
91320	1,00m	91320.80
91321	1,10m	91321.80
91322	1,20m	91322.80

Quadrante *Quadrant*	∅
91325	0,40m



Um sistema completo precisa uma referência para a roda (inclui o pedestal) e uma referência para o quadrante. Roldanas e esticadores já incluídos.

A complete system needs a reference for the Wheel (includes pedestal) and a reference for the quadrant. Sheaves and tumbuckles already included.



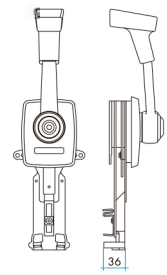
96184
Roda de leme somente 1 metro (consulte).
Folding wheel 1 meter only (consult).

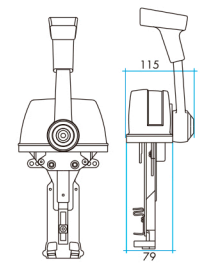
DO NOT use Nautos equipament for human suspension or equivalent work.

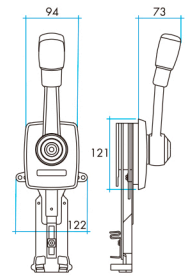
Telecomandos
Engine Controls

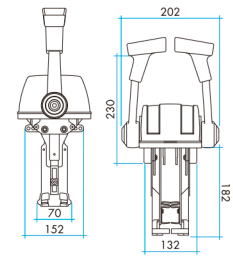


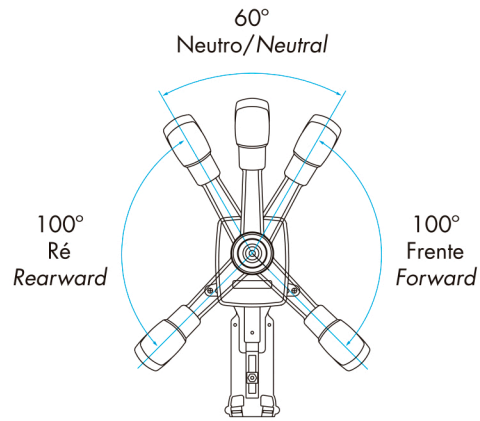












91303	**Comando tope simples**/Single top
91305	**Comando tope duplo**/Double top
91307	**Comando lateral lancha**/Motorboat side mount
91309	**Comando lateral veleiro**/Sailboat side mount

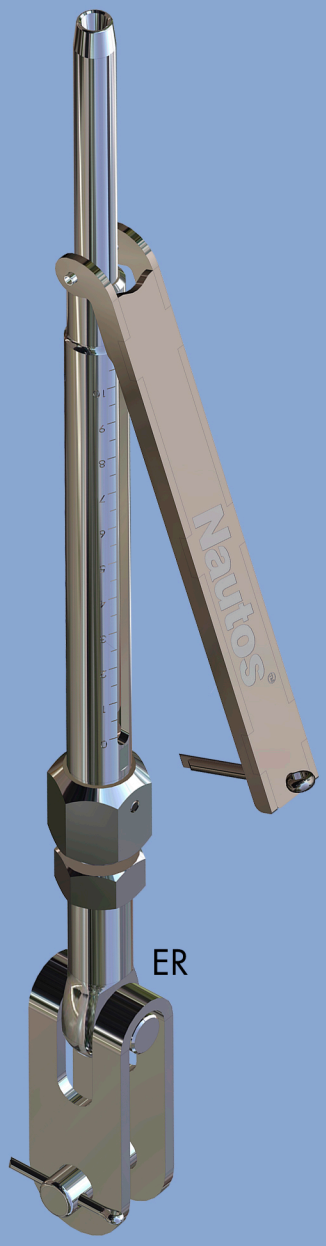
Use cabo standard C3. *Push-Pull.*
Use cable standard C3. Push-Pull.

DO NOT use Nautos equipament for human suspension or equivalent work.

Terminais e Esticadores

Os esticadores Nautos são construídos por processo de forjamento e usinagem a partir de barras sólidas de aço inox AISI 316. Tratamento térmico, eletropolimento e passivado eletrolítico completam o processo de construção e acabamento. A conexão dos terminais e esticadores "Rápidos" transmite 100% da carga do cabo. A carga indicada nas tabelas corresponde à carga de ruptura. Sob consulta, poderão ser solicitados comprimentos especiais.





ER

Esticadores



Terminais Brinco



Terminais T



Terminais

Esticadores - Aço Inox AISI 316

Código	Descrição	Carga de Ruptura	Diâmetro do pino	Diâmetro do cabo	Curso	Comprimento Fechado	Dimensão do toggle	Abertura do toggle
		kgf	mm	mm	mm	mm	mm	mm
93000	Fêmea					300		
93008	Prensável	1.500	9,5	4	90	250	3 x 26	10
93014	Rápido					260		
93001	Fêmea					300		
93009	Prensável	2.300	9,5	5	90	250	3 x 26	12
93015	Rápido					260		
93002	Fêmea					365		
93010	Prensável	3.300	12,7	6	110	300	4 x 33	13,5
93016	Rápido					305		
93003	Fêmea					365		
93011	Prensável	4.500	12,7	7	110	300	4 x 33	13,5
93017	Rápido					305		
93004	Fêmea					400		
93012	Prensável	5.800	13,8	8	120	325	5 x 38	15
93018	Fêmea					330		
93005	Fêmea					450		
93013	Prensável	8.500	15,5	10	140	365	6,35 x 40,5	17
93019	Rápido					375		
93006	Fêmea					530		
93020	Rápido	12.400	18,5	12	160	445	8,52	20

Esticadores Plus - Rosca Bronze

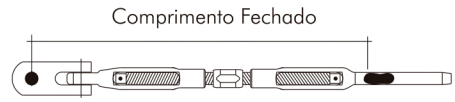
Código	Descrição	Carga de Ruptura	Diâmetro do pino	Diâmetro do cabo	Curso	Comprimento Fechado	Dimensão do toggle	Abertura do toggle
		kgf	mm	mm	mm	mm	mm	mm
93204	Fêmea					400		
93212	Prensável	5.800	13,8	8	120	325	5 x 38	15
93218	Rápido					330		
93205	Fêmea					450		
93213	Prensável	8.500	15,5	10	140	365	6,35 x 40,5	17
93219	Rápido					375		
93206	Fêmea	12.400	18,5	12	160	530	8 x 52	20
93220	Prensável					445		
93207	Fêmea	16.500	21,7	14	160	615	8 x 55	23
93221	Rápido					495		

Características

a) Toggle Standard: (PARTE FÊMEA) parte inferior – todos os esticadores Nautos são fornecidos com toggle para encaixe direto no fuzil;
b) Corpo do Esticador Aberto: é de fundamental importância para a segurança, uma vez que permite o uso de contra-pino diretamente sobre o parafuso e a verificação visual da rosca restante;
c) Massa Central: adapta-se à chave de boca standard para rápida e fácil regulagem no esticador;
d) Rosca: Obtida por processo de rolagem, tem características superiores às roscas obtidas por torneamento;
e) Corpo do Esticador: desenho cientificamente estudado, distribui o material com precisão, possibilitando o uso de perfil estreito e leve com máxima segurança;



Fêmea / Rápido



Fêmea / Prensável



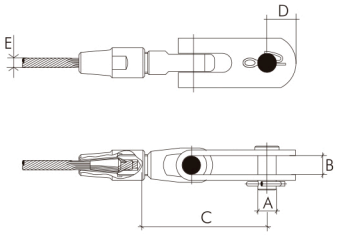
Fêmea / Fêmea

Importante

Uma das características do aço inox 316 é a possibilidade de gripamento. Para resolver este problema, os fusos dos esticadores Nautos recebem um tratamento de "cromo duro" o que altera a superfície e evita o contato entre materiais iguais, conseqüentemente também o gripamento. Recomenda-se uma lubrificação leve dos componentes ao menos uma vez por ano. A partir de julho/00 as roscas terminais recebem lubrificação seca com bissulfeto de molibdênio.

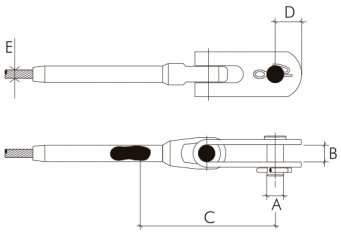
DO NOT use Nautos equipament for human suspension or equivalent work.

Terminal Fêmea Rápido



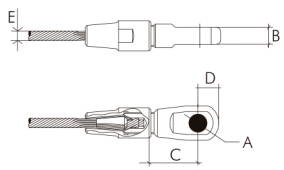
Código	Diâmetro do pino	Abertura do toggle	Comprimento útil	Distância do pino	Diâmetro do cabo	Largura do toggle	Carga de ruptura
	mm	mm	mm	mm	mm	mm	kgf
	A	B	C	D	E	F	
93059	9,5	10	62	15,5	4	19,5	1.500
93060	9,5	12	67	15,5	5	26	2.300
93061	12,7	13,5	85	20	6	33	3.300
93062	12,7	13,5	86	20	7	33	4.500
93063	14,3	15	95	21,5	8	38	5.800
93064	15,8	17	108	23,5	10	40,5	8.500
93065	19	20	140	30	12	52	12.400
93066	22,2	23	160	32,5	14	55	16.500

Terminal Fêmea Prensável



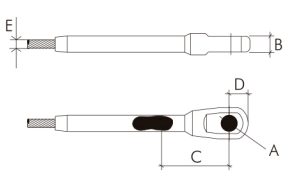
Código	Diâmetro do pino	Abertura do toggle	Comprimento útil	Distância do pino	Diâmetro do cabo	Largura do toggle	Carga de ruptura
	mm	mm	mm	mm	mm	mm	kgf
	A	B	C	D	E	F	
93022	8	9	50	13	3	19,5	900
93023	8	9	50	13	4	19,5	1.500
93024	9,5	12	68	15,5	5	26	2.300
93025	12,7	13,5	85	20	6	33	3.300
93026	12,7	13,5	85	20	7	33	4.500
93027	14,3	15	90	21,5	8	38	5.800
93028	15,8	105	105	23,5	10	40,5	8.500

Terminal Macho Rápido



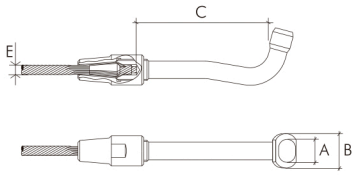
Código	Diâmetro do furo	Espessura do olhal	Comprimento útil	Distância do pino	Diâmetro do cabo		Carga de ruptura
	mm	mm	mm	mm	mm		kgf
	A	B	C	D	E	F	
93051	8,3	7,2	21	10	4	-	1.500
93052	9,8	9,2	26	11	5	-	2.300
93053	13	12	33	15	6	-	3.300
93054	13	12	34,5	15	7	-	4.500
93055	14,5	14	37	17	8	-	5.800
93056	16	15,5	43	20	10	-	8.500
93057	19,5	18,7	65	25	12	-	12.400
93058	22,5	20,7	68	31	14	-	16.500

Terminal Macho Prensável



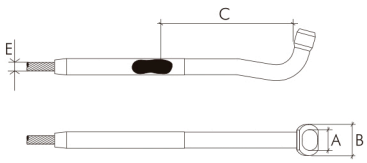
Código	Diâmetro do pino	Espessura do olhal	Comprimento útil	Distância do pino	Diâmetro do cabo		Carga de ruptura
	mm	mm	mm	mm	mm		kgf
	A	B	C	D	E	F	
93029	8	7	23	8,5	3	-	900
93030	8,3	7,2	25	10	4	-	1.500
93031	9,8	9,2	27	11	5	-	2.300
93032	13	12	34	15	6	-	3.300
93033	13	12	34	15	7	-	4.500
93034	14,5	14	32,5	17	8	-	5.800
93035	16	15,5	35,5	20	10	-	8.500

Terminal T Rápido



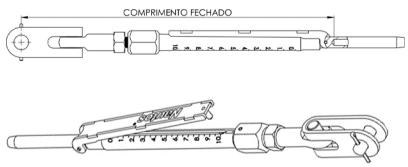
Código	Diâmetro do corpo	Diâmetro da cabeça	Comprimento útil		Diâmetro do cabo		Carga de ruptura
	mm	mm	mm		mm		kgf
	A	B	C	D	E	F	
93043	8,5	16,5	68	-	4	-	1.500
93044	10,2	18,5	69	-	5	-	2.300
93045	13,5	22	71	-	6	-	3.300
93046	15,3	25,5	85	-	7	-	4.500
93047	17,2	29	85	-	8	-	5.800
93048	19	29	85	-	10	-	8.500
93049	30,5	30,5	88	-	12	-	12.400
93050	33	33	94	-	14	-	16.500

Terminal T Prensável



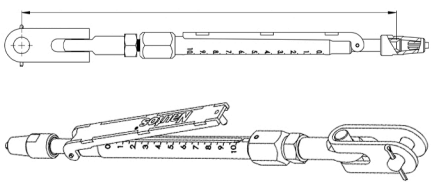
Código	Diâmetro do corpo	Diâmetro da cabeça	Comprimento útil		Diâmetro do cabo		Carga de ruptura
	mm	mm	mm		mm		kgf
	A	B	C	D	E	F	
93036	7,4	12,3	38	-	3	-	900
93037	8,6	16,5	43	-	4	-	1.500
93038	10,2	18,2	43	-	5	-	2.300
93039	13,5	22	57	-	6	-	3.300
93040	15,3	24,5	62	-	7	-	4.500
93041	17,2	28	69	-	8	-	5.800
93042	19	28	69	-	10	-	8.500

Esticador ER Prensável



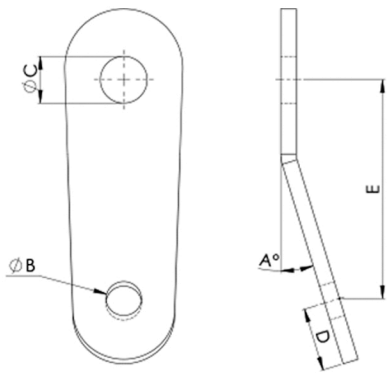
Código	Diâmetro do pino	Abertura do toggle	Comprimento útil	Distância do pino	Diâmetro do cabo	Largura do toggle	Carga de ruptura
	mm	mm	mm	mm	mm	mm	kgf
	A	B	C	D	E	F	
93XXX	9,5	10	62	15,5	4	19,5	1.500
93253	9,5	12	67	15,5	5	12	2.300
93XXX	12,7	13,5	85	20	7	33	3.300

Esticador ER Rápido



Código	Diâmetro do pino	Abertura do toggle	Comprimento útil	Distância do pino	Diâmetro do cabo	Largura do toggle	Carga de ruptura
	mm	mm	mm	mm	mm	mm	kgf
	A	B	C	D	E	F	
93XXX	9,5	10	62	15,5	4	19,5	1.500
93254	9,5	12	67	15,5	5	12	2.300
93XXX	12,7	13,5	85	20	7	33	3.300

Brincos



Disponível para Cabos de Aço de 5 à 12mm

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91053	27	91137	24	91317	98	91545	72e85	91697	86
91054	29	91139	26	91318	98	91561	77	91700	85
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91056	29	91142	23	91320	98	91606	83	91702	85
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91736	85	92101	49	92268	56	92426	41	92554	33
91737	85	92102	49	92310	43	92427	41	92555	33
91738	85	92103	49	92311	43	92428	41	92558	33
91739	85	92110	49	92313	42	92429	41	92559	33
91740	85	92111	49	92314	43	92431	40	92560	58
92000	39	92118	56	92315	43	92432	40	92561	33
92001	39	92124	49	92316	43	92434	41	92563	58
92002	39	92125	49	92318	55	92435	41	92590	24
92003	39	92128	49	92319	43	92436	41	92591	24
92010	39	92134	49	92324	43	92437	41	92592	24
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