

clutches



Mod. V-Grip Plus

CAM 611 series 32



V-CAM 814 series 36



Plus & Maxi series 38



jammer series 40



V-grip series 42



organizers 43



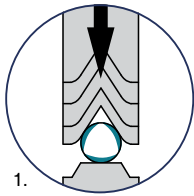
swivelling cam-cleat 44



stopper deck blocks 45



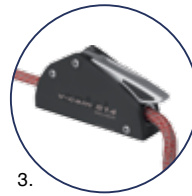
clutch selection guide



1. Pressure on 3 sides



2. Load distribution



3. Line retrieval with closed lever



4. Emergency opening



LINE DIAMETER	CAM 611	CAM 611/V		V-GRIP			V-CAM 814			V-GRIP PLUS		
		6	8	10	12	14	10	12	14	12	14	16
Ø = 6 mm	250	400										
Ø = 8 mm	380		600	500			600					
Ø = 10 mm	500			700	700		850	850		1050		
Ø = 12 mm				1000	1000	1000		1200	1200	1400	1400	
Ø = 14 mm					1300	1300			1500		1700	1700
Ø = 16 mm						1600						2100
Ø = 18 mm												
Ø = 20 mm				CLUTCH MAX LOAD (kg)								
Ø = 22 mm												

* These models are fitted with the V-GRIP system that is internationally patented.

V-GRIP SYSTEM CLUTCHES

The V-Grip is an Antal patented system for rope locking. It works with a pressure exerted on 3 sides of the line with a higher friction and, consequently, with a lower pressure, in order not to damage manoeuvres.

All Antal clutches, except the Cam 611, are fitted with the V-Grip system.

The V-Grip system has the following characteristics:

- 1. Pressure on three sides.** Unlike the usual flat cam, V-Grip is fitted with a V-shaped cam that improves the holding strength without damaging the line cover.
- 2. Load distribution.** The curved base-V-Cam pair increases the bearing surface, preventing the load from being concentrated at a critical point.
- 3. Line retrieval with closed lever.** Line retrieval can be achieved with the lever closed. The line stops automatically in the new position with no slippage.
- 4. Emergency opening.** The line can be released under load without the use of a winch because the Antal mechanism guarantees easy opening even under heavy conditions.

CLUTCH RANGE

A complete range with 7 different models for lines from 6 to 22 mm. All Antal models, except the Maxi and the VJ/VH, are available in single, double, triple and quadruple versions. The Cam 611 and Cam 814 are also available in a silver version with the new ergonomic aluminium lever.

CLUTCH SELECTION

Max loads of the lower table for each model and for different line diameters have been obtained from extensive tests.

Tests reveal best results on Dyneema with composite Kevlar/Polyester covers, while traditional pure-Polyester covers over a Dyneema core prove to have poor resistance. Also "all-Polyester" core/cover versions give excellent results.



LINE DIAMETER	V-GRIP MAXI					VH					VJ					
	14	16	18	20	22	8	10	12	14	16	8	10	12	14	16	18
Ø = 6 mm																
Ø = 8 mm						1150					1150					
Ø = 10 mm							1800					1800				
Ø = 12 mm	1400							2350					2350			
Ø = 14 mm	1700	1700							3500					3500		
Ø = 16 mm		2100	2100							4300					4300	
Ø = 18 mm			2600	2600												5250
Ø = 20 mm				3000	3000						CLUTCH MAX LOAD (kg)					
Ø = 22 mm					3400											

cam 611 series



CAM 611 mod. 513.110
V-CAM 611 mod. 500.110

CAM 611 Silver mod. 543.110
V-CAM 611 Silver mod. 540.110

CAM 611 WITH FLAT CAM



Cam 611 for line 6 to 10 mm is available in single, double and triple, as well as horizontal. CAM 611 has a box structure in UV-resistant resin with steel reinforcements, an extruded aluminium base, wear-resistant bronze cam mechanism, and stainless steel aligning bushing.

The clutch can be completely dismantled for simple maintenance.

Line retrieval can be achieved with the lever closed, and the cam mechanism guarantees easy opening even under heavy load.

V-CAM 611 WITH V-CAM



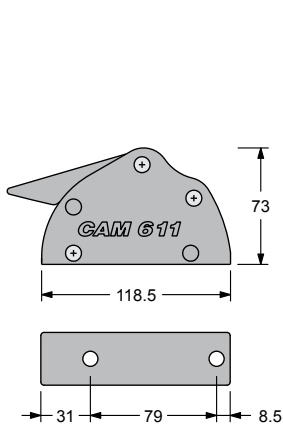
V-Cam 611 is a new model with a V-Cam, for lines from 6 to 8 mm. This new version supports much higher loads: 400 kg on the 6 mm line and 600 kg on the 8 mm. All the features are the same of CAM 611, as shown in the following table.

V-CAM 611 SILVER

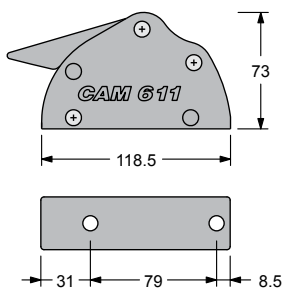
Both CAM 611 and V-CAM 611 clutches are now available in the “silver series”: with a new ergonomic, polished and silver anodized aluminium lever. All the characteristics remain the same as shown in the following table.



Heinrich Yunikon



CAM 611		CAM 611 SILVER		WITH FLAT CAM		
MODEL	MODEL	Ø LINE mm	TYPE	WIDTH mm	WEIGHT kg	SCREWS N° x Ø mm
513.110	543.110	6 - 10	SINGLE	33	0.37	2 x Ø6
513.120	543.120		DOUBLE	62	0.74	4 x Ø6
513.130	543.130		TRIPLE	91	1.10	6 x Ø6
513.210	543.210		HORIZONTAL	33	0.51	2 x Ø6 + 1 x Ø5



V-CAM 611		V-CAM 611 SILVER		WITH V-CAM		
MODEL	MODEL	Ø LINE mm	TYPE	WIDTH mm	WEIGHT kg	SCREWS N° x Ø mm
500.110	540.110	6	SINGLE	33	0.37	2 x Ø6
500.120	540.120		DOUBLE	62	0.74	4 x Ø6
500.130	540.130		TRIPLE	91	1.10	6 x Ø6
500.210	540.210		HORIZONTAL	33	0.51	2 x Ø6 + 1 x Ø5
501.110	541.110	8	SINGLE	33	0.37	2 x Ø6
501.120	541.120		DOUBLE	62	0.74	4 x Ø6
501.130	541.130		TRIPLE	91	1.10	6 x Ø6
501.210	541.210		HORIZONTAL	33	0.51	2 x Ø6 + 1 x Ø5



Single



Double



Triple



Horizontal

DOUBLE SHEAVE ORGANIZER

This solution has been designed for the new double and triple CAM 611: mounted at the back of the clutch battery guiding the line towards the winch.

For more information see page 43.



mod. 522.031

STICKERS FOR CAM 611 AND CAM 814

A set of 54 stickers is provided for an easy indication of manoeuvres; colours: red, green and black.



MODEL	VERSION
513 / E	ENGLISH
513 / F	FRENCH
513 / I	ITALIAN

V-cam 814 series



V-CAM 814
mod. 509.111

V-CAM 814 Silver
mod. 549.111

V-CAM 814

Three models for 8-10 mm, 10-12 mm and 12-14 mm lines; available in single, double, triple and quadruple. V-CAM814 has a box-structure in UV-resistant resin with s.steel reinforcements, aluminium base, V-Cam and aligning bushing in Aisi 316.

It can be completely dismantled for simple maintenance and repairing.

Line retrieval can be achieved with the lever closed.

This model is fitted with a large “V” shaped cam that offers higher holding strength than model V-Grip (page 42) and a new mechanism that guarantees easy opening even under heavy load.

V-CAM 814 SILVER

V-CAM 814 clutches are now available in “silver series”: with a new ergonomic, polished and silver anodized aluminium lever.

All the characteristics remain the same as shown in the following table.

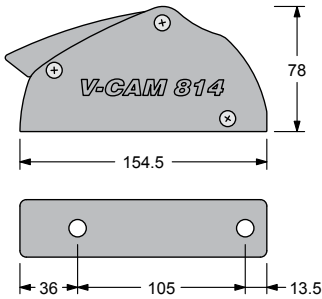


J111 J-Boat



V-CAM 814 **V-CAM 814 SILVER**

MODEL	MODEL	Ø LINE mm	TYPE	WIDTH mm	WEIGHT kg	SCREWS N° x Ø mm
509.111	549.111	8 - 10	SINGLE	36	0.60	2 x Ø6
509.121	549.121		DOUBLE	65	1.10	4 x Ø6
509.131	549.131		TRIPLE	94	1.60	6 x Ø6
509.141	549.141		QUADRUPLE	123	2.10	8 x Ø6
509.111/H	549.111/H		HORIZONTAL	36	0.72	2 x Ø8 + 1 x Ø5
509.112	549.112	10 - 12	SINGLE	36	0.60	2 x Ø8
509.122	549.122		DOUBLE	65	1.10	4 x Ø8
509.132	549.132		TRIPLE	94	1.60	6 x Ø8
509.142	549.142		QUADRUPLE	123	2.10	8 x Ø8
509.112/H	549.112/H		HORIZONTAL	36	0.72	2 x Ø8 + 1 x Ø5
509.113	549.113	12 - 14	SINGLE	36	0.60	2 x Ø8
509.123	549.123		DOUBLE	65	1.10	4 x Ø8
509.133	549.133		TRIPLE	94	1.60	6 x Ø8
509.143	549.143		QUADRUPLE	123	2.10	8 x Ø8
509.113/H	549.113/H		HORIZONTAL	36	0.72	2 x Ø8 + 1 x Ø5



Single



Double



Triple



Quadruple



Horizontal

V-CAM 814 CLUTCH ORGANIZER

This solution allows manoeuvres to be guided from the clutches to the winch.
For more information see page 43.



MODEL	N° SHEAVES
513.032	3
514.032	4
515.032	5
516.032	6

MULTI RING ORGANIZER

The low friction Multi Ring Organizer without sheaves is a very light and small-sized solution that fits lines up to 12 mm.
For more information see page 165.



MODEL	N° HOLES
R3.14	3
R4.14	4
R5.14	5
R6.14	6

Plus & Maxi series



V-GRIP PLUS
mod. 508.121

V-GRIP MAXI
mod. 508.114

V-GRIP PLUS

3 models for lines from 10 to 16 mm available in single, double and triple.

Hard black anodized aluminium structure and AISI 316 s.steel mechanism, "V" shaped cam and lever.

Easy opening under load for line releasing without the use of winch.

Line retrieval can be achieved with the lever closed, the line stops automatically in the new position with no slippage.

V-GRIP MAXI

5 models for lines up to 22 mm, **only single version is available !**

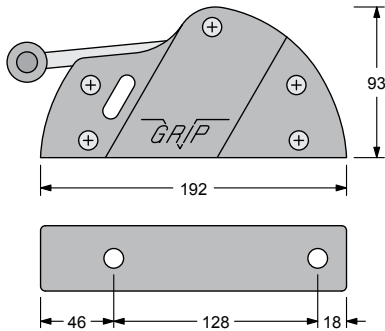
Hard black anodized aluminium structure and AISI 316 s.steel mechanism, "V" shaped cam and lever.

Easy opening under load for line releasing without the use of winch.

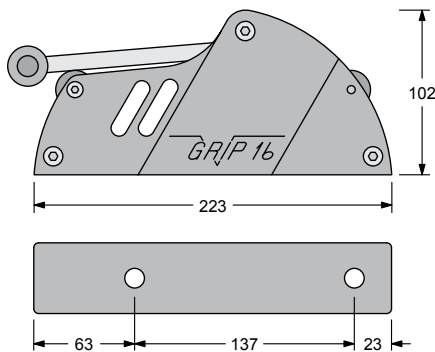
Line retrieval can be achieved with the lever closed, the line stops automatically in the new position with no slippage.



Adriatica 21.37 m



		Single	Double	Triple	
V-GRIP PLUS					
MODEL	Ø LINE mm	TYPE	WIDTH mm	WEIGHT kg	SCREWS N° x Ø mm
508.121	10 - 12	SINGLE	41	1.10	2 x Ø10
508.122/P		DOUBLE	80	2.20	4 x Ø10
508.123		TRIPLE	119	3.30	6 x Ø10
508.141	12 - 14	SINGLE	41	1.10	2 x Ø10
508.142		DOUBLE	80	2.20	4 x Ø10
508.143		TRIPLE	119	3.30	6 x Ø10
508.161	14 - 16	SINGLE	41	1.10	2 x Ø10
508.162		DOUBLE	80	2.20	4 x Ø10
508.163		TRIPLE	119	3.30	6 x Ø10



		Single			
V-GRIP MAXI					
MODEL	Ø LINE mm	WIDTH mm	WEIGHT kg	SCREWS N° x Ø mm	
508.114	12 - 14	44	1.40	2 x Ø10	
508.116	14 - 16				
508.118	16 - 18				
508.120	18 - 20				
508.122	20 - 22				

V-GRIP PLUS AND MAXI ORGANIZER

This solution allows manoeuvres to be guided from the clutches to the winch.
For more information see page 43.



	MODEL	N° SHEAVES
V-GRIP PLUS	523.042	3
	524.042	4
	525.042	5
	526.042	6
V-GRIP MAXI	523.052	3
	524.052	4
	525.052	5
	526.052	6

jammer series



VJ JAMMER FOR WINCH HANDLES

For this Maxi Jammer, we have again chosen to employ our locking V-cam.

This offers high grip, reducing compression on the line, allowing it to keep its shape without crushing it, thus reducing cover damage and increasing work loads as a result.

Tests reveal best results on Dyneema with composite Kevlar/Polyester covers, while traditional pure-Polyester covers over a Dyneema core prove to have poor resistance. Also "all-Polyester" core/cover versions give excellent results.

VH JAMMER WITH HANDLE

VH is the "handle" version of the VJ model. This model VH, with respect to the previous VJ, allows the mounting of 3 or more jammers in battery.



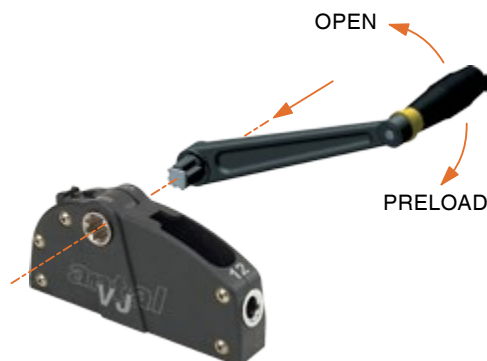
PRE-LOADING

Pre-load the jammer means preventing tension loss on the manoeuvre at the moment when the cam locks itself.

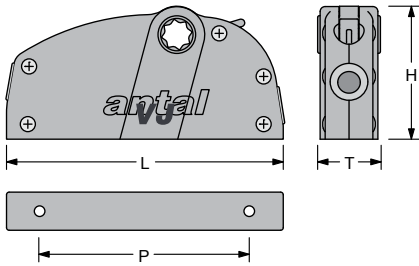


When the line is released from the winch, the cam on the jammer rotates and locks the line automatically. By sliding through the jammer, the line itself starts the locking mechanism. With the VJ and VH jammers, the locking system can be activated manually.

By pre-loading the cam on the line, tension loss can be avoided due to the natural sliding of the manoeuvre before cam locking comes to a complete end.



On VJ models a standard winch handle is employed for locking (preload) and opening the cam.



VJ



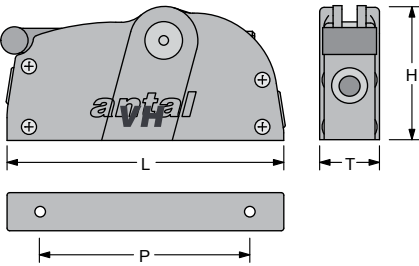
Single



Double
(model + /D)



	MODEL	Ø LINE mm	L mm	H mm	T mm	P mm	WEIGHT kg	SCREWS N° x Ø mm
SMALL	VJ1208	8	183	89	40	128	1.00	2 x Ø10
	VJ1210	10						
	VJ1212	12						
MEDIUM	VJ1412	12	221	106	46	157	1.50	2 x Ø10
	VJ1414	14						2 x Ø12
	VJ1416	16						2 x Ø12
LARGE	VJ1616	16	280	127	52	181	2.40	2 x Ø14
	VJ1618	18						3 x Ø14



VH

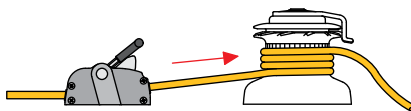


Single

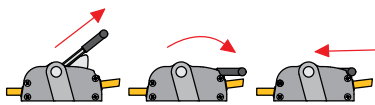


	MODEL	Ø LINE mm	L mm	H mm	T mm	P mm	WEIGHT kg	SCREWS N° x Ø mm
SMALL	VH1208	8	183	89	40	128	1.00	2 x Ø10
	VH1210	10						
	VH1212	12						
MEDIUM	VH1412	12	221	106	46	157	1.50	2 x Ø10
	VH1414	14						2 x Ø12
	VH1416	16						2 x Ø12

VH LOCKING

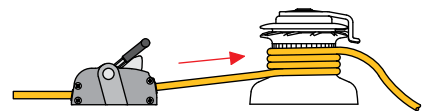


- Tighten the line with the winch

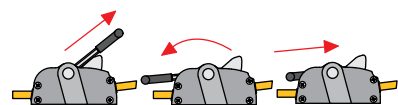


- Pull the lever out
- Pre-load the V-CAM
- Put the lever back
- Remove the line from the winch; the load is fully on the jammer

VH OPENING



- Rewind the line on the winch and pull to release the V-Cam.



- Pull the lever out
- Completely open the V-CAM
- Replace the lever locking the V-Cam in free position

V-grip clutch



mod. 507.111

CLUTCHES V-GRIP

Aisi 316 s.steel mechanism and lever, bronze "V" shaped cam and black anodized aluminium structure.

3 models are available for 8-12, 10-14, and

12-16 mm lines in single, double and triple version.

This is the best solution when minimum sizes are required: it is only 6.8 cm high.



V-GRIP



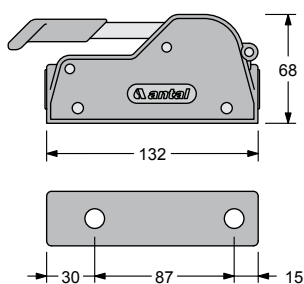
Single



Double



Triple



MODEL	Ø LINE mm	TYPE	WIDTH mm	WEIGHT kg	SCREWS N° x Ø mm
507.111	8 - 10 - 12	SINGLE	34	0.55	2 x Ø6
507.121		DOUBLE	67	1.10	4 x Ø6
507.131		TRIPLE	101	1.45	6 x Ø6
507.112	10 - 12 - 14	SINGLE	34	0.55	2 x Ø8
507.122		DOUBLE	67	1.10	4 x Ø8
507.132		TRIPLE	101	1.45	6 x Ø8
507.113	12 - 14 - 16	SINGLE	34	0.55	2 x Ø8

V-GRIP ORGANIZER

This solution allows manoeuvres to be guided from the clutches to the winch.

For more information see page 43.

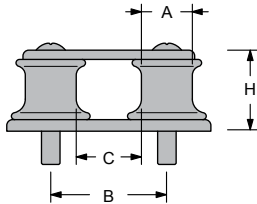


organizers

DOUBLE SHEAVE ORGANIZER

This solution has been designed for the new double and triple CAM 611: mounted at the

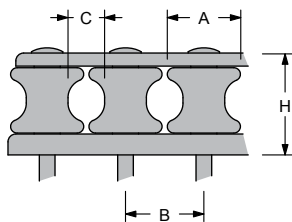
back of the clutch battery guiding the line towards the winch.



	MODEL	SHEAVES		LENGTH mm	WEIGHT kg	A mm	B mm	C mm	H mm	SCREWS N° x Ø mm
		N°	material							
CAM611	522.031	2	RESIN	88	0.16	22	50	28	36	2 x Ø8

V-GRIP ORGANIZER

This solution allows manoeuvres to be guided from the clutches to the winch.



	MODEL	SHEAVES		LENGTH mm	WEIGHT kg	A mm	B mm	C mm	H mm	SCREWS N° x Ø mm
		N°	material							
V-CAM 814	513.032	3	RESIN	90	0.18	28	30	14	39	3 x Ø6
	514.032	4		120	0.22					4 x Ø6
	515.032	5		150	0.27					5 x Ø6
	516.032	6		180	0.32					6 x Ø6
V-GRIP PLUS	523.042	3	ALUMINIUM	125	0.43	38	39	16	46	3 x Ø8
	524.042	4		165	0.57					4 x Ø8
	525.042	5		205	0.71					5 x Ø8
	526.042	6		245	0.85					6 x Ø8
V-GRIP MAXI	523.052	3	ALUMINIUM	133	0.50	43	44	20	46	3 x Ø8
	524.052	4		177	0.65					4 x Ø8
	525.052	5		221	0.83					5 x Ø8
	526.052	6		265	1.00					6 x Ø8
V-GRIP	533.032	3	RESIN	100	0.19	28	35	19	38	3 x Ø6
	534.032	4		135	0.24					4 x Ø6
	535.032	5		170	0.30					5 x Ø6
	536.032	6		205	0.35					6 x Ø6

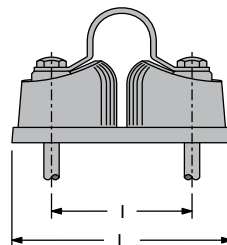
swivelling cleat

SERVO CLEAT



The particular stainless and plastic cam teeth conformation is designed to make line inserting between cams easy. Made of plastic with s. steel "ribs". Screws are included.

MODEL	Ø LINE mm.	I mm	L mm	SCREWS N° x Ø mm.
502.011	3 - 7	27	48	2 x Ø4
502.22/37	6 - 10	37	64	2 x Ø5
502.022	6 - 12	40	70	2 x Ø5
502.033	10 - 14	52	86	2 x Ø6



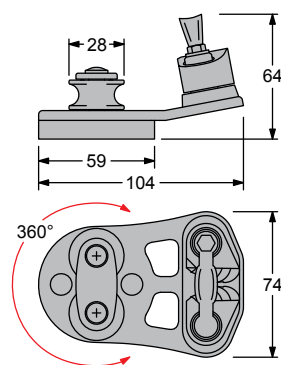
Mod. 522.022 SWIVELLING CLEAT

The aluminium base swivels through 360° on single races of Torlon ball bearings. The system is fitted with 2 x 28 mm sheaves for Lines up to 10 mm

Fixing: 3 x 5 mm screws

Weight: 0.23 kg

SWL on the cam cleat: 150 kg



Mod. 522.140 BLOCK AND SERVO CLEAT

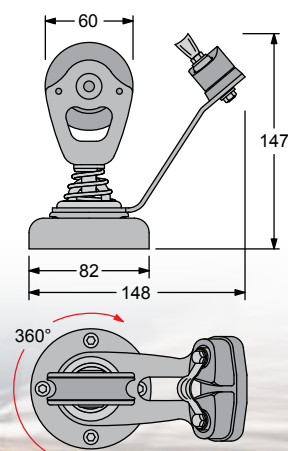
The aluminium base swivels through 360° on double races of Torlon ball bearings.

The system is completed with a 60 mm block for Lines up to 12 mm

Fixing: 3 x Ø6 mm screws

Weight: 0.82 kg

SWL on the cam cleat: 200 kg



stopper deck block

The sheaves are made of high strength resin, fitted with composite fibre bush and side ball-bearings. No maintenance or lubrication is required.

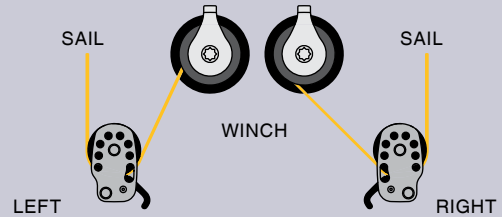
The machined side plates are made of high strength alloy, hard black anodized for wear and corrosion proofing and with all the edges smoothed off.

The aluminium locking cam is fitted on an automatic opening spring: relaxing the sheet is sufficient to open the jammer.

Compact design with the lever fully concealed within the side plates and with recessed fasteners.

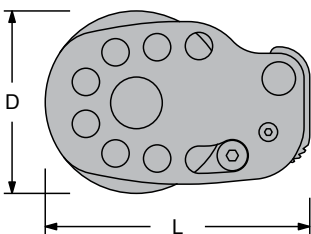
The cam cannot be locked under high loads. It's intended to hold the line temporarily and not under heavy loads.

Left and right versions are available.



DIAMETER 65, 80, 100, 125 mm

MODEL	Ø LINE mm	D mm	L mm	SWL kg	WEIGHT kg	SCREWS N° x Ø mm
SINGLE						
851.065 *	6 - 12	65	116	800	0.23	2 x Ø8
851.080	6 - 14	80	131	1000	0.33	2 x Ø8
851.100	8 - 16	100	152	2000	0.65	2 x Ø10
851.125	10 - 18	125	174	3500	1.10	1 x Ø12 + 2 x Ø10
DOUBLE						
852.065 *	6 - 12	65	116	800	0.38	2 x Ø8
852.080	6 - 14	80	131	1000	0.56	2 x Ø8
852.100	8 - 16	100	152	2000	1.50	2 x Ø10
852.125	10 - 18	125	174	3500	1.85	1 x Ø12 + 2 x Ø10



* In the smallest model (D=65) there is no spring for the cam opening.

ORGANIZERS D=40, 50 AND 60 mm

Groups of 2 to 6 sheaves in 3 diameters of 40, 50 and 60 mm.

The 40 and 50 mm sheaves are manufactured in high-strength resin with a double side ball bearing.

The 60 mm sheave is manufactured in aluminium, hard black anodized, with a main composite fibre bearing and 2 side ball bearings.

Mounting screws, nuts and washers are included.

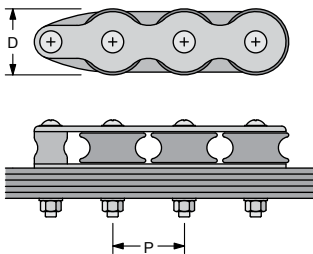
These new organizers do not disassemble after tacking off the screws.

Double version also available, just add /D to the model number.



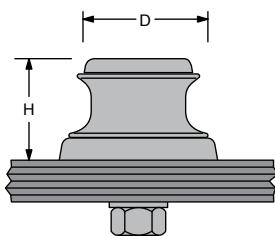
Mod. D530

D mm.	LINE mm	N° SHEAVES	MODEL	LENGTH mm	P mm.	WEIGHT kg	SWL kg	BOLTS N° x Ø mm
40	Ø 14	2	D420	111	44	0.18	600	3 x Ø6
		3	D430	155		0.27		4 x Ø6
		4	D440	199		0.33		5 x Ø6
		5	D450	243		0.41		6 x Ø6
		6	D460	287		0.48		7 x Ø6
50	Ø 16	2	D520	133	52	0.26	800	3 x Ø8
		3	D530	185		0.38		4 x Ø8
		4	D540	237		0.50		5 x Ø8
		5	D550	289		0.62		6 x Ø8
		6	D560	341		0.74		7 x Ø8
60	Ø 18	2	D620	160	65	0.44	2200	3 x Ø10
		3	D630	225		0.60		4 x Ø10
		4	D640	290		0.76		5 x Ø10
		5	D650	355		0.93		6 x Ø10
		6	D660	420		1.10		7 x Ø10



TURNING SHEAVES

Mounted aft of a set of rope clutches, the turning sheave redirects each line to the most suitable winch.



MODEL	D mm	H mm	SWL kg	WEIGHT kg	BOLTS N° x Ø mm
821.052	50	33	800	0.10	1 x Ø10
821.062	60	38	1200	0.12	1 x Ø12
821.074	70	44	1800	0.45	4 x Ø8