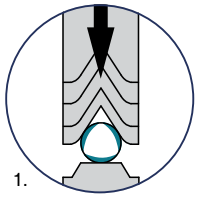
clutch selection guide


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											
Ø = 22 mm					**3400**											

CLUTCH MAX LOAD (kg)