

# Multicleat/Multistrap System

## 378 Series



### Features and Benefits

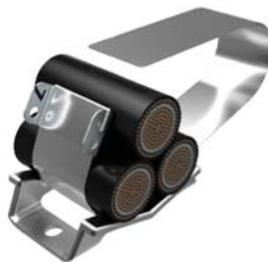
- Suitable for use with cable diameters 24 to 145mm.
- Large range take on each size.
- Single or double bolt fixing.
- Operating temperatures -60°C to +105°C.
- All straps manufactured from non-magnetic 316L Stainless Steel.
- Plain Aluminium bases - for normal industrial areas or outdoor unpolluted areas.
- Epoxy coated Aluminium versions or Stainless Steel available for harsher environments.
- Bespoke tensioning adaptor included with every cleat and strap.
- Liners are made from LSOH materials.
- Suitable for single core cables laid in trefoil formation with high fault current capacities.
- Suitable for use with all standard ladder and tray systems.
- Suitable for groups of dissimilar cables.
- LUL APR Product ID 1996.
- Patent number 2082242.

Consisting of Aluminium or Stainless Steel bases with a Stainless Steel strap complete with a tensioning clip the BICON™ Multicleat system offers the best flexibility for cable fixing available on the market today. With an unprecedented test portfolio and service record, the Multicleat system should be your first choice for trefoil and single cables installations requiring a high system fault current rating.

Multistraps are used as intermediate restraints and are positioned centrally between a pair of Multicleats. The standard and heavy duty products have different short circuit ratings related to their installation spacings. Please consult the following information in order to make the correct selection.

All Multicleats and Multistraps now come with a disposable shear torque tensioning adapter. This was introduced in response to customer requests to improve the closure of the cleats and also better control the tension applied during installation. The adapter fits into the open end of the winding pin and is used with a standard 13mm socket wrench. Thus simplifying installation. When the correct tension has been applied the adapter shears off LSOH material liners are available for both the Multicleat and Multistrap. The LSOH conform to BS6853. Please contact the Prysmian Components technical team who will be able to offer the correct advice to suit your individual installation.

## Installation Sequence



Fasten base to support with M10 fixings. Loop strap through base and around cables.  
Standard duty = 2 loops.  
Heavy Duty = 3 loops.



Pull slack into outer loop. Insert split pin from right hand side around outer layer of strap about 10mm from end. Push plastic shear torque adaptor fully onto the end of the split pin and attach 13mm socket wrench. To tension the strap rotate key anti-clockwise with the socket wrench until the adaptor shears.



Remove the shear torque adaptor and wrench. Swing the key over and engage in slots in clip.

## Multicleat

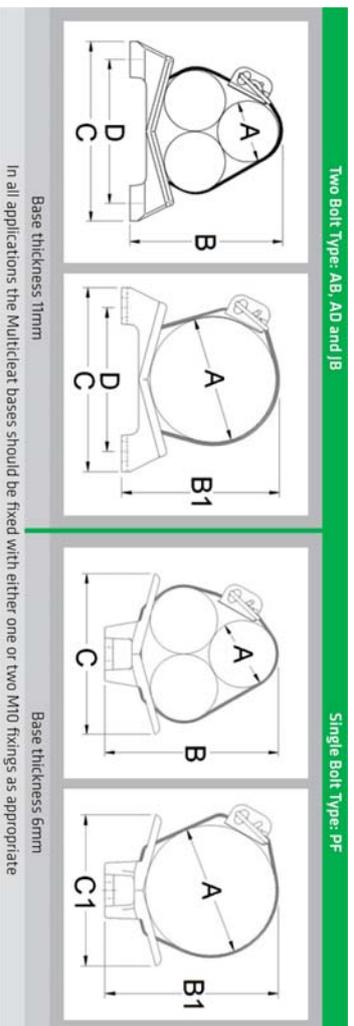
Base Options	Cable Size		Liner	Dimensions and Weights																					
	Two Bolt	Single Bolt		Two Bolts			Single Bolt			Two Bolts			Single Bolt												
	Standard	Heavy Duty		AB / AD	JB	AB or AD or JB	PF	AB or AD	AD	JB	AB or AD	AD	JB	AB or AD	AD	JB	AB or AD	AD	JB						
Aluminium	Standard	01	24	34	36	65	01	126	100	0.468	0.54	120	100	0.63	0.669	95	92	76	76	0.480	0.519	99	96		
		02	52	30	41	60	85	01	126	100	0.479	0.57	120	100	0.641	0.668	100	113	76	82	0.491	0.538	113	116	
		03	53	37	47	80	90	01	122	96	0.520	0.576	126	100	0.727	0.783	121	11	104	104	0.566	0.622	121	118	
		04	54	43	54	85	110	01	122	96	0.535	0.595	126	100	0.742	0.802	135	138	104	108	0.581	0.641	135	138	
		05	55	50	60	60	60	01	132	106	0.569	0.636	132	100	0.757	0.824	146	-	120	120	0.634	0.701	147	-	
		06	56	56	67	67	67	01	132	106	0.583	0.657	132	100	0.771	0.845	160	-	120	134	0.648	0.722	161	-	
	Heavy Duty	07	57	63	73	73	02	132	106	0.716	0.798	152	125	0.94	1.022	172	-	146	146	0.890	0.972	173	-		
		08	58	69	80	80	02	132	106	0.729	0.818	152	125	0.953	1.042	186	-	146	160	0.903	0.992	187	-		
		09	59	N/A	N/A	105	120	02	122	96	0.547	0.614	126	100	0.754	0.821	-	148	104	-	120	0.593	0.660	-	148
		36	72	85	85	85	05	230	200	-	0.832	230	200	-	1.454	190	-	-	-	-	-	-	-	-	-
		37	82	95	95	95	05	230	200	-	0.864	230	200	-	1.486	210	-	-	-	-	-	-	-	-	-
		38	92	105	105	105	05	284	242	-	1.449	230	200	-	1.520	230	-	-	-	-	-	-	-	-	-
39	102	115	115	115	06	284	242	-	1.480	290	250	-	2.551	250	-	-	-	-	-	-	-	-	-		
40	112	125	125	125	06	284	242	-	1.511	290	250	-	2.582	270	-	-	-	-	-	-	-	-	-		
41	122	135	135	135	06	284	242	-	1.542	290	250	-	2.613	290	-	-	-	-	-	-	-	-	-		
42	132	145	145	145	06	290	242	-	1.572	290	250	-	2.643	315	-	-	-	-	-	-	-	-	-		

Example ordering code: 378 AD 58 Multicleat with a 377 LSF 02 Liner

## Multistrap

Option	Cable Size		Weight	Liner
	Trefoil	Single O		
Standard	01	24	0.160	377LSF
	02	30	0.171	
Heavy Duty	03	37	0.184	01
	04	43	0.211	
Standard	05	50	0.225	02
	06	56	0.240	
Heavy Duty	07	63	0.253	02
	08	69	0.262	
Standard	36	72	0.356	05
	37	82	0.388	
Heavy Duty	38	92	0.422	05
	39	102	0.453	
Standard	40	112	0.484	06
	41	122	0.515	
Heavy Duty	42	132	0.545	06

Example ordering code: 377 AB 53 Strap with a 377 LSF 01 Liner



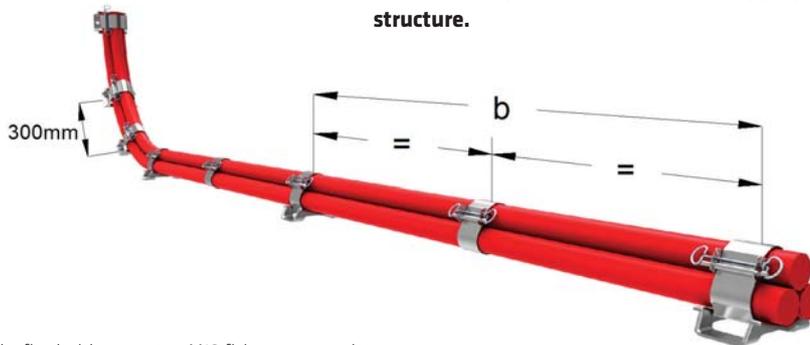
## Multicleat/Multistrap Selection and Spacing for Fault Current Rating

Multicleat / Multistrap	Spacing 'b' m Max	Short Circuit		Cleat Spacing at vertical change of direction (mm)
		rms	peak	
Standard Duty	1.8	43	114	300
Heavy Duty	1.5	50	130	300
Heavy Duty	1.2	71	184	300



**Important note:** To ensure adequate restraint, Multistrap **MUST** be used at the mid-point between cleats on all horizontal and vertical straight runs.

**Changes in direction require restraint spacing of 300mm maximum. Use Multistrap and/or Multicleat, as appropriate, to suit support structure.**



Note: Bases should be fixed with one or two M10 fixing as appropriate.

## Miscellaneous Arrangements



### Multicleat/Multistrap System

The Multicleat / Multistrap system is ideally suited for securing groups of cables of differing sizes. The Prysmian technical help team will be able to match the correct cleat /strap to for the size and fault rating of the cable arrangement.