

Multicleat/Multistrap System 378 series

- 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.
- Optional liners are available from LSOH material.
- 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 Approved product register ID 1996.
- Patent number 2082242.

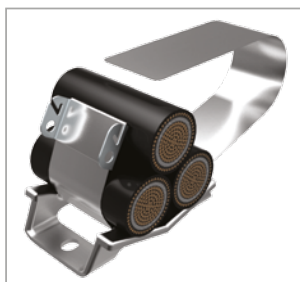
Consisting of aluminium or stainless steel bases with a stainless steel strap complete with a tensioning clip the BICON™ Multicleat system offers the best flexibility for cable fixing available on the market today. With an unprecedented test portfolio and service record, the Multicleat system should 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.

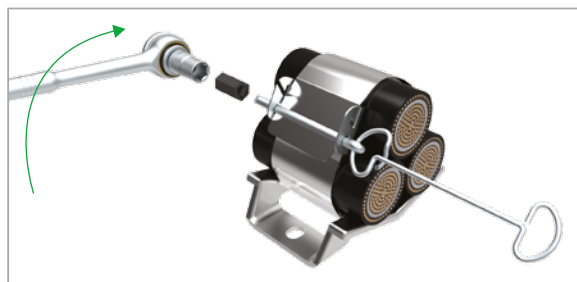
All Multicleats and Multistraps come with a disposable shear torque tensioning adaptor designed to aid the closure of the cleats and also better control the tension applied during installation. The adaptor fits into the open end of the winding pin and is used with a standard 13mm socket wrench. Any remaining slack in the strap is removed by rotating the pin and adaptor with the wrench until the adaptor shears off. This will also ensure that a consistent and correct torque is applied to every cleat and strap in the installation.

LSOH material liners are available for both the Multicleat and Multistrap, conforming to BS6853. The selection table helps to select the correct liner pack for the cleat or strap being used. Multicleats and Multistraps offer a high level of flexibility for use in unusual installations. See section on miscellaneous arrangements.

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	Two Bolts							
Two Bolts		Single Bolt			Trefoil ⌘		Single O				37LSF	AB / AD			JB			
Aluminium	Aluminium Epoxy Coated	Stainless Steel	Stainless Steel	Standard	Heavy Duty	Minimum Individual Cable Diameter (mm)	Maximum Individual Cable Diameter (mm)	Minimum Individual Cable Diameter (mm)	Maximum Individual Cable Diameter (mm)			Max Width C (mm)	Hole Centres D (mm)	Weight (kg) Standard Duty (01-09)	Weight (kg) Heavy Duty (01-09)	Max Width C (mm)	Hole Centres D (mm)	Weight (kg) Standard Duty (01-09)
378	AB	AD	JB	PF	01	51	24	34	36	65	01	126	100	0.468	0.54	120	100	0.63
					02	52	30	41	60	85		126	100	0.479	0.57	120	100	0.641
					03	53	37	47	80	90		122	100	0.520	0.576	126	100	0.727
					04	54	43	54	85	110		122	100	0.535	0.595	126	100	0.742
					05	55	50	60				132	100	0.569	0.636	132	100	0.757
					06	56	56	67				132	100	0.583	0.657	132	100	0.771
	02	07	57	63	73			176	150	0.716	0.798	152	125	0.94				
		08	58	69	80			176	150	0.729	0.818	152	125	0.953				
		09	59	N/A	N/A	105	120	122	96	0.547	0.614	126	100	0.754				
		36	72	85				230	200	-	0.832	230	200	-				
		37	82	95				230	200	-	0.864	230	200	-				
		38	92	105				284	242	-	1.449	230	200	-				
	05	39	102	115				284	242	-	1.480	290	250	-				
		40	112	125				284	242	-	1.511	290	250	-				
		41	122	135				284	242	-	1.542	290	250	-				
		42	132	145				290	242	-	1.572	290	250	-				

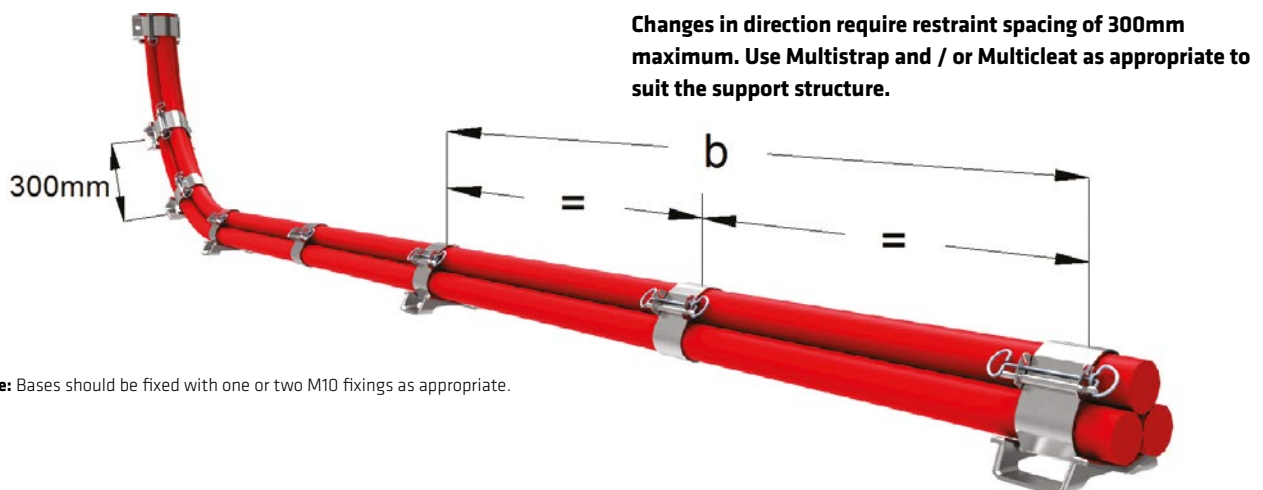
Example ordering code: 378 AD 58 Multicleat with a 377 LSF 02 Liner

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	51.8	114	300
Heavy Duty	1.5	59	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.



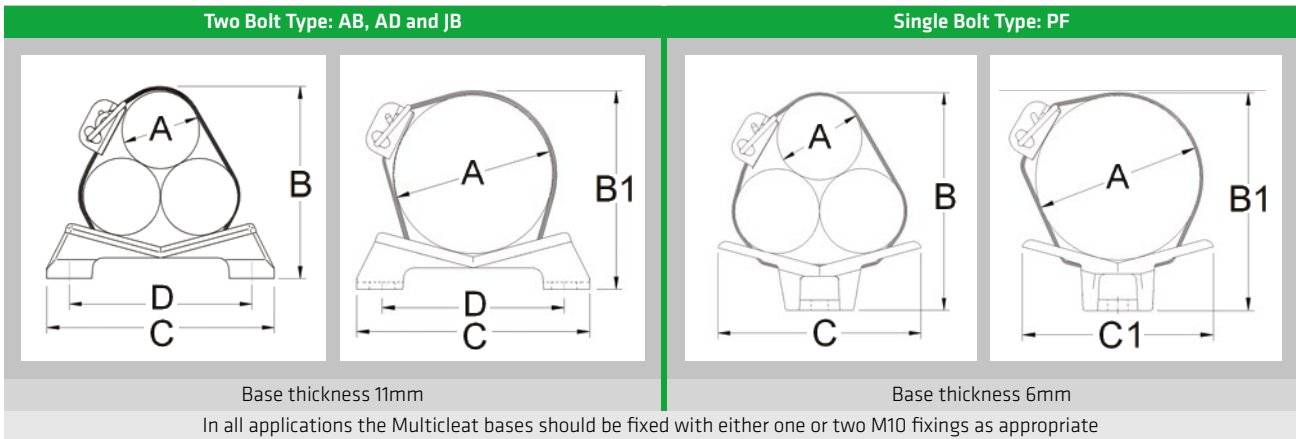
Note: Bases should be fixed with one or two M10 fixings as appropriate.

Multistrap

Dimensions and Weights									
AB or AD or JB			Single Bolt						
Weight (kg) Heavy Duty (01-09)	Max Height Trefoil B (mm)	Max Height Single Cable B1 (mm)	PF						
			Base Width (mm)	Max Width Trefoil C (mm)	Max Width Single Cable C1 (mm)	Weight (kg) Standard Duty (01-09)	Weight (kg) Heavy Duty (51-42)	Max Height Trefoil (mm)	Max Height Single Cable B1 (mm)
0.669	95	92	76	76	76	0.480	0.519	99	96
0.668	100	113	76	82	85	0.491	0.538	113	116
0.783	121	118	104	104	104	0.566	0.622	121	118
0.802	135	138	104	108	104	0.581	0.641	135	138
0.824	146	-	120	120	-	0.634	0.701	147	-
0.845	160	-	120	134	-	0.648	0.722	161	-
1.022	172	-	146	146	-	0.890	0.972	173	-
1.042	186	-	146	160	-	0.903	0.992	187	-
0.821	-	148	104	-	120	0.593	0.660	-	148
1.454	190	-	-	-	-	-	-	-	-
1.486	210	-	-	-	-	-	-	-	-
1.520	230	-	-	-	-	-	-	-	-
2.551	250	-	-	-	-	-	-	-	-
2.582	270	-	-	-	-	-	-	-	-
2.613	290	-	-	-	-	-	-	-	-
2.643	315	-	-	-	-	-	-	-	-

Option	Cable Size		Weight		Liner				
	Standard	Heavy Duty	Trefoil &						
			Minimum Individual Cable Diameter (mm)	Maximum Individual Cable Diameter (mm)	Weight (kg) Standard Duty (01-08)	Weight (kg) Heavy Duty (51-42)			
377	AB	01	51	24	34	0.160	0.199	01	
		02	52	30	41	0.171	0.218		
		03	53	37	47	0.184	0.24		
		04	54	43	54	0.211	0.259		
		05	55	50	60	0.225	0.278	02	
		06	56	56	67	0.240	0.299		
		07	57	63	73	0.253	0.322		
		08	58	69	80	0.270	0.342		
				N/A	N/A				
				36	72	85		0.356	
				37	82	95		0.388	
				38	92	105		0.422	05
				39	102	115		0.453	
				40	112	125		0.484	06
				41	122	135		0.515	
				42	132	145		0.545	

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



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.