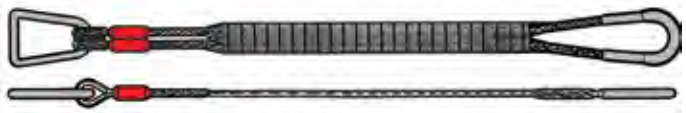
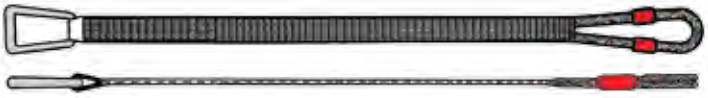
Flat woven Steel Slings

Type 2 – for Choker lift applications – typical configurations

Design Number	Graphic representation of sling	Description and usage
2-R	**Type 2 Standard, (2-R, 2-S)** made from machine made flat cable 	**U Termination in reeving end and semi-trapezoidal link in other end. Link fitted with thimbles and ferrules. Made from machine made flat cable. Provides a thin working end for sliding easily under loads. Used for general lifting where a choker lift is needed.**
2-S		**Lapped eye with ferrules one end, and semi-trapezoidal link other end fitted with thimbles and ferrules. Made from machine made flat cable. Needs more clearance under loads. The most economical sling for general usage where a choke hitch is needed.**
2-T	**Type 2 Special (2-T, 2-U, 2-W)** individually hand made from generic feedstock 	**U Termination in the reeving end, and trapezoidal link fitted with leather sleeve in the other end. The slimmest of the type 2 slings. Hand made from cord feedstock, so is more costly and has longer lead time for delivery.**
2-U		**Lapped eye with ferrules in the reeving end, and trapezoidal link fitted with leather sleeve other end. Hand made from cord feedstock. This is Raymond McLarens original type 2 design of 1974.**
2-W		**This hand made sling has the original soft flexible eye in one end, and is terminated in the other end with thimbles enclosed in a semi-trapezoidal reeving link. It provides a slim and flexible eye for passing under loads with limited clearance.**

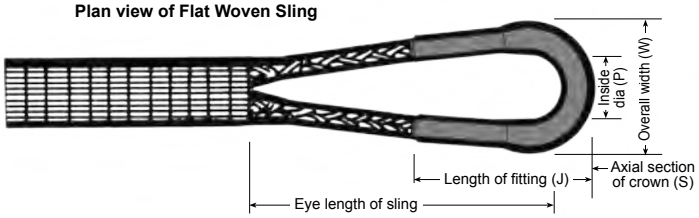
U Terminations – as used in the range of flat woven slings

Notes for guidance of users and distributors

U Terminations are low deformation swaging fittings designed and manufactured by Andromeda. They are used to provide a **thin and durable** termination for flat woven slings. The fitting is no thicker than the cable that it is attached to, and provides a very easily handled end to slide easily under loads. They have been designed to replace the hand made soft eyes of the Type 1 Special slings, enabling faster delivery and higher WLL They are described and dimensioned in the drawings and table below.

Side elevation of Flat Woven Sling

Plan view of Flat Woven Sling



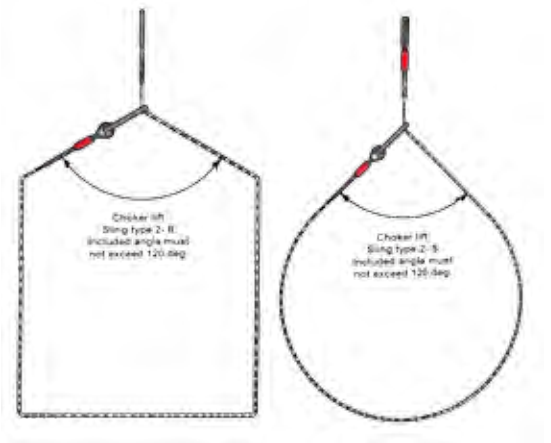
Size of Flat Woven Slings	Inside Diameter (P)	Overall Width (W)	Axial section of crown (S)	Thick-ness of fitting (T)	Length of fitting	Mass of fitting (kg)
50	43	68	16	11	104	0.15
64	54	90	20	13	128	0.34
76	65	100	23	16	156	0.55
88	76	123	28	19	178	0.82
100	86	135	32	22	210	1.3
112	97	153	35	24	234	1.9
125	108	170	39	27	260	2.4
160						
200						
250						

Typical Application. Flat woven sling can be fitted with Andromeda Low Deformation (L.D) ferrules. These all steel fittings provide a slim and smooth ferrule for easy handling

Flat woven Steel Slings

Type 2 – Choker lift – WLL and weight tables - Designs # 2-R, 2-S, 2-T, 2-U, 1E

Size	Woven flat cable					Slings		
Nominal size of sling = width mm	24 ply warp, fine cords, 2ply weft, fine cords					WLL in tonnes	WLL	Proof load
	Flat cable thickness mm	Generic cord size mm	Weight Kg/m	Woven jacket nom. dia	WLL in single fall kN	< 30 deg	60 deg	Straight pull in single fall
50	5	2.0	0.4	32	10.2	0.7	0.5	kN 20.4
64	7	2.5	0.6	38	16.0	1.2	0.8	32.0
76	8	3.0	1.0	52	23.8	1.7	1.1	47.6
88	10	3.5	1.3	62	31.6	2.3	1.5	63.2
100	11	4.0	1.6	70	42.5	3.1	2.0	85.0
112	12	4.5	2.1	76	53.4	3.8	2.6	107
125	14	5.0	2.7	102	71.4	5.1	3.4	143
160	17	6.5	4.3	120	114	8.2	5.5	228
200	20	8.0	6.9	150	170	12	8.2	340
250	25	10.0	10.3	170	255	18	12	510



Weight table for completed slings in kgs

Sling width mm	Sling length in metres									
	1	2	3	4	5	6	7	8	9	10
50	1.1	1.5	1.9	2.3	2.7	3.1	3.5	3.9	4.3	4.7
64	1.5	2.1	2.7	3.3	3.9	4.5	5.1	5.7	6.3	6.9
76	2.6	3.6	4.6	5.6	6.6	7.6	8.6	9.6	11	12
88	4.0	5.3	6.6	7.9	9.2	11	12	13	14	16
100	6.4	8.0	10	11	13	14	16	18	19	21
112	8.2	10	12	15	17	19	21	23	25	27
125		13	16	18	21	23	26	29	31	34
160		22	26	31	35	39	44	48	53	57
200			47	54	61	68	75	82	89	96
250			83	94	104	114	124	134	144	154

Notes

Sling type 2-W. Slings 2-W have a WLL 12% lower than types 2-R, 2-S, 2-T and 2-U. This is because of the single ply eye in the working end. (See slings type 1-E and 1-G)

The nominal size of these slings is just that, a nominal size. It is calculated from 24 plies laid parallel as a warp. That is the nominal size 24 x X (being the generic cord size in millimetres). Variations inevitably occur in the tension applied to the weft (transverse cords) and this in turn leads on to variations in width. A nominal size can vary from actual nominal to nominal minus 10% and will still posses the same UTS and WLL.

Proof loading FWS with trapezoidal links requires a proof loading rig that transfers the force into the outer corners of the link. This is important because if the force is applied at a single point in centre of link it will bend.