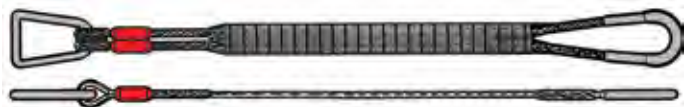
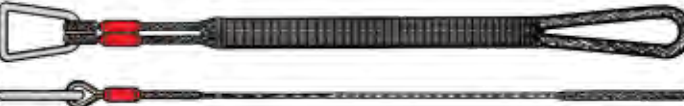


## Flat woven Steel Slings

# 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<br>                | 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<br> | 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

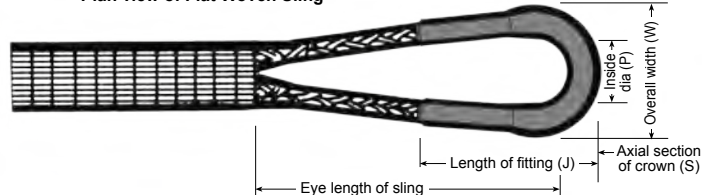
### Notes for guidance of users and distributors

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.

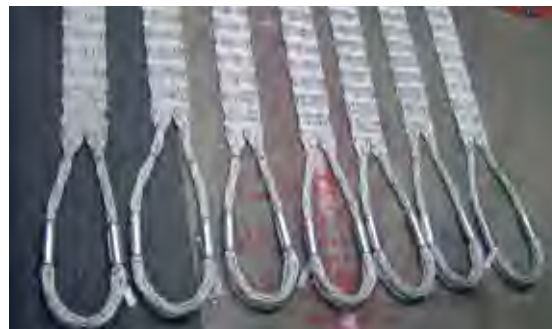
Side elevation of Flat Woven Sling



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                       |                     |                   |                            |                           |                   |                      |

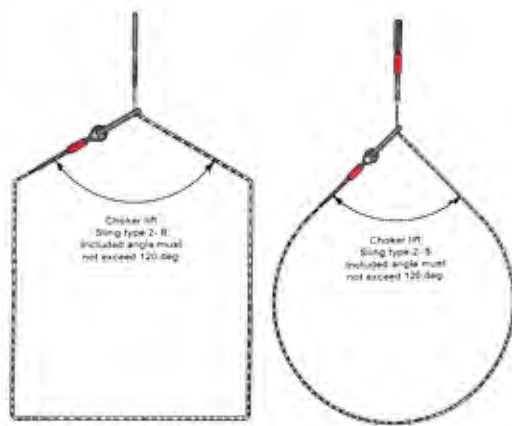


**Typical Application.** Flat woven sling can be fitted with Andromeda Low Deformation (L.D) ferrules. These all steel fittings provide a slim and smooth ferrule for easy handling

## Flat woven Steel Slings

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

| Size<br><br>Nominal size of sling = width mm | Woven flat cable                               |                      |             |                       |                       | Slings        |            |                              |
|----------------------------------------------|------------------------------------------------|----------------------|-------------|-----------------------|-----------------------|---------------|------------|------------------------------|
|                                              | 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 |
| <b>50</b>                                    | 5                                              | 2.0                  | 0.4         | 32                    | 10.2                  | <b>0.7</b>    | <b>0.5</b> | kN<br>20.4                   |
| <b>64</b>                                    | 7                                              | 2.5                  | 0.6         | 38                    | 16.0                  | <b>1.2</b>    | <b>0.8</b> | 32.0                         |
| <b>76</b>                                    | 8                                              | 3.0                  | 1.0         | 52                    | 23.8                  | <b>1.7</b>    | <b>1.1</b> | 47.6                         |
| <b>88</b>                                    | 10                                             | 3.5                  | 1.3         | 62                    | 31.6                  | <b>2.3</b>    | <b>1.5</b> | 63.2                         |
| <b>100</b>                                   | 11                                             | 4.0                  | 1.6         | 70                    | 42.5                  | <b>3.1</b>    | <b>2.0</b> | 85.0                         |
| <b>112</b>                                   | 12                                             | 4.5                  | 2.1         | 76                    | 53.4                  | <b>3.8</b>    | <b>2.6</b> | 107                          |
| <b>125</b>                                   | 14                                             | 5.0                  | 2.7         | 102                   | 71.4                  | <b>5.1</b>    | <b>3.4</b> | 143                          |
| <b>160</b>                                   | 17                                             | 6.5                  | 4.3         | 120                   | 114                   | <b>8.2</b>    | <b>5.5</b> | 228                          |
| <b>200</b>                                   | 20                                             | 8.0                  | 6.9         | 150                   | 170                   | <b>12</b>     | <b>8.2</b> | 340                          |
| <b>250</b>                                   | 25                                             | 10.0                 | 10.3        | 170                   | 255                   | <b>18</b>     | <b>12</b>  | 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  |
| <b>50</b>      | 1.1                    | 1.5 | 1.9 | 2.3 | 2.7 | 3.1 | 3.5 | 3.9 | 4.3 | 4.7 |
| <b>64</b>      | 1.5                    | 2.1 | 2.7 | 3.3 | 3.9 | 4.5 | 5.1 | 5.7 | 6.3 | 6.9 |
| <b>76</b>      | 2.6                    | 3.6 | 4.6 | 5.6 | 6.6 | 7.6 | 8.6 | 9.6 | 11  | 12  |
| <b>88</b>      | 4.0                    | 5.3 | 6.6 | 7.9 | 9.2 | 11  | 12  | 13  | 14  | 16  |
| <b>100</b>     | 6.4                    | 8.0 | 10  | 11  | 13  | 14  | 16  | 18  | 19  | 21  |
| <b>112</b>     | 8.2                    | 10  | 12  | 15  | 17  | 19  | 21  | 23  | 25  | 27  |
| <b>125</b>     |                        | 13  | 16  | 18  | 21  | 23  | 26  | 29  | 31  | 34  |
| <b>160</b>     |                        | 22  | 26  | 31  | 35  | 39  | 44  | 48  | 53  | 57  |
| <b>200</b>     |                        |     | 47  | 54  | 61  | 68  | 75  | 82  | 89  | 96  |
| <b>250</b>     |                        |     | 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 possess 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.