

# ***SUPERFLEX SLINGS & STROPS***



# SUPERFLEX SINGLE SLINGS

Superflex Single Slings are used for general lifting purposes where a flexible steel sling is needed. Unless otherwise specified all slings are fitted with aluminium ferrules. Steel ferrules can be supplied up to 32mm on request. These slings are designed to provide exceptional durability and strength, making them ideal for a wide range of lifting tasks in various industries.

**Size Range:** 10mm - 96mm  
**Lifting capacity (WLL) in a single fall:** 1 tonne - 84.3 tonne



*Three-5 Superflex Sling fitted with aluminium ferrules*



*Our TwentyFour-0 Superflex Cable being pressed in our 4200 Tonne Talurit Swaging press.*



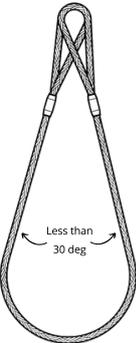
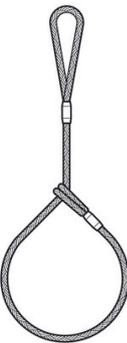
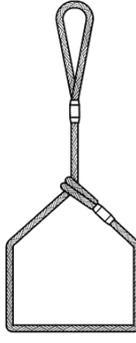
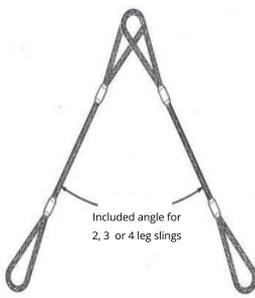
*Two Ten-0 Superflex Single Slings lifting a crane counter weight.*

# SUPERFLEX SINGLE SLINGS

## Working Load Limits For Superflex Single Slings



Superflex Single Slings are used for general lifting purposes where a flexible steel sling is needed. The WLL is shown in the table in tonnes of 1000 kgsf – the standard Factor of Safety is 5

| Basic cable details   |                                 |                               | WLL for various included angles of two, three or four leg slings                   |  |  |   |  |       |       |      |
|---|---------------------------------|-------------------------------|--|--|--|---|--|-------|-------|------|
| Cable Size or number  | Minimum Breaking Force (MBF) kN | Cable nominal diameter (D) mm |  |  |  |  |  |       |       |      |
|   |                                 |                               | Single Fall WLL  | Cradle lift, angle <30°  | Choked on round load   | Choked on rectangular load with edge radius > 1.0 D                                 | <30°   | 60°   | 90°   | 120° |
| Two-5   | 50                              | 10                            | 1.0  | 2.0  | 0.7  | 0.5   | 2.0  | 1.7   | 1.4   | 1.0  |
| Three-0   | 75                              | 12                            | 1.5  | 2.9  | 1.1  | 0.8   | 2.9  | 2.6   | 2.1   | 1.5  |
| Three-5   | 95                              | 14                            | 1.8  | 3.5  | 1.4  | 0.9   | 3.5  | 3.1   | 2.5   | 1.8  |
| Four-0  | 125                             | 16                            | 2.4  | 4.7  | 1.8  | 1.2   | 4.7  | 4.2   | 3.4   | 2.4  |
| Four-5  | 157                             | 18                            | 3.0  | 5.9  | 2.3  | 1.5   | 5.9  | 5.2   | 4.2   | 3.0  |
| Five-0  | 210                             | 20                            | 4.1  | 8.0  | 3.1  | 2.1   | 8.0  | 7.1   | 5.8   | 4.1  |
| Five-5  | 270                             | 22                            | 5.2  | 10.2   | 3.9  | 2.6   | 10.2   | 9.0   | 7.3   | 5.2  |
| Six-5   | 345                             | 26                            | 6.7  | 13.1   | 5.0  | 3.4   | 13.1   | 11.6  | 9.4   | 6.7  |
| Eight-0   | 530                             | 32                            | 10.3   | 20.2   | 7.7  | 5.2   | 20.2   | 17.8  | 14.5  | 10.3 |
| Ten-0   | 790                             | 40                            | 15.3   | 30.0   | 11.5   | 7.7   | 30.0   | 26.5  | 21.6  | 15.3 |
| Twelve-0  | 1110                            | 48                            | 21.6   | 42.1   | 16.1   | 10.8  | 42.1   | 37.2  | 30.3  | 21.5 |
| Fourteen-0  | 1460                            | 56                            | 28.3   | 55.5   | 21.2   | 14.2  | 55.5   | 49.0  | 39.9  | 28.3 |
| Seventeen-0   | 2168                            | 68                            | 42.1   | 82.5   | 31.6   | 21.1  | 82.5   | 72.8  | 59.4  | 42.1 |
| Twenty-0  | 3015                            | 80                            | 58.5   | 114.7  | 43.9   | 29.3  | 114.7  | 101.2 | 82.5  | 58.5 |
| TwentyFour-0  | 4340                            | 96                            | 84.3   | 165.2  | 63.2   | 42.1  | 165.2  | 145.8 | 118.9 | 84.3 |
| Loading factors for various configurations based on the single fall WLL |                                 |                               | 1.0  | 1.96   | 0.75   | 0.5   | 1.96   | 1.73  | 1.41  | 1.0  |

These WLL figures are derived in accordance with AS 1666.1

**Notes on these calculations:** to convert the list MBF of Superflex cable in kNs to WLL of a Superflex sling in tonne (1000kgsf) made from that cable, use the following procedure – divide the MBF by 49.05 (9.81 x 5), then multiply this result by 0.95 to allow for the 5% reduction for sling assembly as required by AS 1666.1. (the all up divisor = 51.5) This provides the WLL for a sling in single fall configuration, and from this all the other configurations are calculated.

Please note – figures are rounded to the closest decimal point

# SUPERFLEX STROPS

Superflex Stropps are slings made especially as chokers. They are designed to choke onto and safely lift objects such as poles and piles, steel bars, drill rods and bundles of tube. They are very versatile slings with great gripping power and can often solve lifting problems. Various versions are available. Unless otherwise specified all slings are fitted with aluminium alloy ferrules. Steel ferrules can be supplied up to 32mm on request.

**Size Range:** 10mm - 96mm  
**Lifting capacity (WLL) in a single fall:** 1.5 tonne - 126.5 tonne



*Superflex Strop fitted with steel LD ferrules*



*Steel pole lifted by a Superflex Strop as a choker*



*Multiple Stropps used as chokers in 'laydown' of hot aluminium billets.*

Due to the extreme flexibility of Superflex it allows for immense gripping properties without damaging the item being lifted. Superflex Stropps are used to lift bars and poles in vertical orientation even if they are greasy and slippery. They are used in a variety of industries from Aluminium smelters to Power companies erecting power poles.



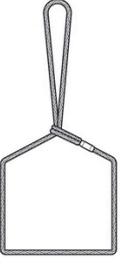
# SUPERFLEX STROPS

## Working Load Limits of Superflex Stropps



Superflex Stropps are made especially as chokers.

The WLL is shown in tonnes of 1000 kgf – the standard Factor of Safety is 5

| Basic cable details   |                                 |                               | Strop terminated one end only<br>(very slim one end, easy fitting in tight places) |  |       |       |       |  |  |
|---|---------------------------------|-------------------------------|--|--|-------|-------|-------|--|--|
| Cable Size or number  | Minimum Breaking Force (MBF) kN | Cable nominal diameter (D) mm |  |  |       |       |       |  |  |
|   |                                 |                               | Single fall WLL  | <30°   | 60°   | 90°   | 120°  | Choked on round load   | Choked on square load  |
| Two-5   | 50                              | 10                            | 1.5  | 2.9  | 2.6   | 2.1   | 1.5   | 1.1  | 0.8  |
| Three-0   | 75                              | 12                            | 2.3  | 4.5  | 4.0   | 3.2   | 2.3   | 1.7  | 1.1  |
| Three-5   | 95                              | 14                            | 2.7  | 5.3  | 4.7   | 3.8   | 2.7   | 2.0  | 1.4  |
| Four-0  | 125                             | 16                            | 3.6  | 7.1  | 6.2   | 5.1   | 3.6   | 2.7  | 1.8  |
| Four-5  | 157                             | 18                            | 4.5  | 8.8  | 7.8   | 6.3   | 4.5   | 3.4  | 2.3  |
| Five-0  | 210                             | 20                            | 6.1  | 11.9   | 10.5  | 8.6   | 6.1   | 4.6  | 3.0  |
| Five-5  | 270                             | 22                            | 7.8  | 15.3   | 13.5  | 11.0  | 7.8   | 5.9  | 3.9  |
| Six-5   | 345                             | 26                            | 10.0   | 19.6   | 17.3  | 14.1  | 10.0  | 7.5  | 5.0  |
| Eight-0   | 530                             | 32                            | 15.4   | 30.2   | 26.6  | 21.7  | 15.4  | 11.6   | 7.7  |
| Ten-0   | 790                             | 40                            | 23.0   | 45.0   | 39.8  | 32.4  | 23.0  | 17.3   | 11.5   |
| Twelve-0  | 1110                            | 48                            | 32.4   | 63.5   | 56.0  | 45.7  | 32.4  | 24.3   | 16.2   |
| Fourteen-0  | 1460                            | 56                            | 42.5   | 83.3   | 73.5  | 59.9  | 42.5  | 31.9   | 21.3   |
| Seventeen-0   | 2168                            | 68                            | 63.1   | 123.7  | 109.2 | 89.0  | 63.1  | 47.3   | 31.6   |
| Twenty-0  | 3015                            | 80                            | 87.8   | 172.1  | 151.9 | 123.8 | 87.8  | 65.8   | 43.9   |
| Twentyfour-0  | 4340                            | 96                            | 126.5  | 247.9  | 218.8 | 178.4 | 126.5 | 94.9   | 63.3   |
| Loading factors for the various configurations based on the single fall WLL |                                 |                               | 1.0  | 1.96   | 1.73  | 1.41  | 1.0   | 0.75   | 0.50   |

### Notes on the WLL figures for stropps

The derivation of the WLL for Superflex Stropps is based on the WLL for single fall Superflex Slings. For a strop terminated one end only, the factor is 1.5 x the WLL for a single fall sling. Please note – figures are rounded to the closest decimal point

# SUPERFLEX DOUBLE ENDED STROPS

Superflex Double Ended Stropps are designed specifically for use as chokers, offering greater strength compared to single stropps. With lapped eyes at both ends, they can handle higher tonnage loads effectively. Just like single stropps they are designed to safely choke onto like like poles and piles, steel bars, drill rods and bundles of tube. Superflex Double Ended Stropps are very versatile slings with great gripping power and can often solve lifting problems. Unless otherwise specified all slings are fitted with aluminium alloy ferrules. Steel ferrules can be supplied up to 32mm on request.

**Size Range:** 10mm - 96mm  
**Lifting capacity (WLL) in a single fall:** 2 tonne - 168.6 tonne



*Superflex Strop  
Four-0, WLL 3.6t*



*Our largest 24-0 cable as a Double Ended Strop held up by a forklift*



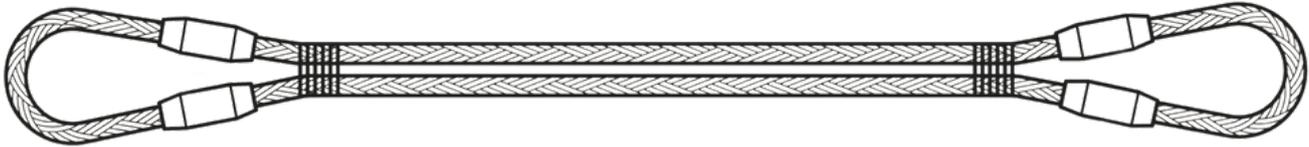
*4 Double Ended stropps lifting a turbine*

When comparing the Double Ended Strop to our Superflex Slings, the Double Ended Strop offers double the lifting capacity with a Working Load Limit (WLL) that is twice that of the Superflex Sling.

This product offers a secure and reliable solution for handling large and complex lifts.

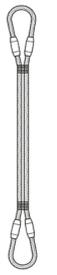
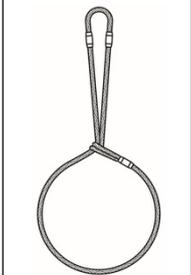
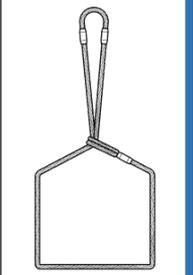
# SUPERFLEX DOUBLE ENDED STROPS

## Working Load Limits of Superflex Double Ended Stropps



Superflex Stropps are slings made especially as chokers. Various versions are available.

The WLL is shown in tonnes of 1000 kgf – the standard Factor of Safety is 5

| Basic cable details   |                                 |                               | Strop terminated both ends   |   |       |       |       |  |  |
|---|---------------------------------|-------------------------------|--|---|-------|-------|-------|--|--|
| Cable Size or number  | Minimum Breaking Force (MBF) kN | Cable nominal diameter (D) mm |  |  |       |       |       |  |  |
|   |                                 |                               | Single fall WLL  | <30°  | 60°   | 90°   | 120°  | Choked on round load   | Choked on square load  |
| Two-5   | 50                              | 10                            | 2.0  | 3.9   | 3.5   | 2.8   | 2.0   | 1.5  | 1.0  |
| Three-0   | 75                              | 12                            | 3.0  | 5.9   | 5.2   | 4.2   | 3.0   | 2.3  | 1.5  |
| Three-5   | 95                              | 14                            | 3.6  | 7.1   | 6.2   | 5.1   | 3.6   | 2.7  | 1.8  |
| Four-0  | 125                             | 16                            | 4.8  | 9.4   | 8.3   | 6.8   | 4.8   | 3.6  | 2.4  |
| Four-5  | 157                             | 18                            | 6.0  | 11.8  | 10.4  | 8.5   | 6.0   | 4.5  | 3.0  |
| Five-0  | 210                             | 20                            | 8.2  | 16.1  | 14.2  | 11.6  | 8.2   | 6.2  | 4.1  |
| Five-5  | 270                             | 22                            | 10.4   | 20.4  | 18.0  | 14.7  | 10.4  | 7.8  | 5.2  |
| Six-5   | 345                             | 26                            | 13.4   | 26.3  | 23.2  | 18.9  | 13.4  | 10.1   | 6.7  |
| Eight-0   | 530                             | 32                            | 20.6   | 40.4  | 35.6  | 29.0  | 20.6  | 15.5   | 10.3   |
| Ten-0   | 790                             | 40                            | 30.6   | 60.0  | 52.9  | 43.1  | 30.6  | 23.0   | 15.3   |
| Twelve-0  | 1110                            | 48                            | 43.2   | 84.7  | 74.7  | 60.9  | 43.2  | 32.4   | 21.6   |
| Fourteen-0  | 1460                            | 56                            | 56.6   | 110.9   | 97.9  | 79.8  | 56.6  | 42.5   | 28.3   |
| Seventeen-0   | 2168                            | 68                            | 84.2   | 165.0   | 145.7 | 118.7 | 84.2  | 63.2   | 42.1   |
| Twenty-0  | 3015                            | 80                            | 117.0  | 229.3   | 202.4 | 165.0 | 117.0 | 87.8   | 58.5   |
| TwentyFour-0  | 4340                            | 96                            | 168.6  | 330.5   | 291.7 | 237.7 | 168.6 | 126.45   | 84.3   |
| Loading factors for the various configurations based on the single fall WLL |                                 |                               | 1.0  | 1.96  | 1.73  | 1.41  | 1.0   | 0.75   | 0.50   |

### Notes on the WLL figures for stropps

The derivation of the WLL for Superflex Stropps is based on the WLL for single fall Superflex Slings. For a strop terminated at both ends, the factor is 2.0 x the WLL for a single fall sling. Please note – figures are rounded to the closest decimal point

# LOW DEFORMATION (LD) TERMINATION SYSTEMS

Four basic steel termination fittings have been developed using LD technology:

1. **The LD Ferrule system**, a method to make turn back eyes in Superflex Cables, used in lifting operations in many industries all over Australia.
2. **The U Termination**, a fitting enabling the manufacturer of very thin woven steel slings.
3. **The Superjoiner**, a method to make slim, compact inline joints in Superflex cables for the manufacture of a range of recovery strops used in the open cut mining industry.
4. **The Bifurcated fitting**, a method to make a very compact eye termination in steel, used in the manufacture of Chock winch Ropes for longwall mining operations.

Andromeda's Low Deformation (LD) technology is applied to *turnback eyes* for Superflex Slings and Flat Woven Slings.

This Steel Ferrule system has the following advantages:

- The ferrule is 18% smaller in diameter than equivalent aluminium ones.
- The sling is entirely made of steel, thus it can be used in maritime and caustic environments such as found in alumina smelters, salt water and similar without corrosion to the sling.
- Four inspection holes provide the capability to see the wire ends from any side of the ferrule, as per requirements of AS 1666.
- The ferrule is also tapered at the working end, and chamfered at the throat end; providing a sling that has no sharp edges to snag in tight places.
- The double swage process ensures an extremely secure termination and offers a high resultant strength. It is as secure as a hand splice, but the mechanical joint can deliver a higher ultimate tensile strength (UTS) compared to a splice.
- It enhances mechanical and aesthetic design resolution by offering a central exit point from the ferrule.



Superflex Sling fitted with an LD Ferrule



Steel Ferrules up to 32mm

***DEAN-0***



# DEAN-0

The Dean-0 is a special sling designed to be made very short. The structure of this sling provides a single lifting point under Ramshorn Hooks on large cranes. This sling is basically a Double Ended Superflex Strop, middled as in a cradled lift. Each eye of the middled strop sling is then attached to one hook of the Ramshorn.

**Size Range:** Made to requirements - Minimum sizes apply.

**Lifting capacity (WLL) single fall:** 11.0 tonne up to 165 tonne.



80.0t Dean-0



*Dean-0 Sling assisting in lifting an undercarriage of an excavator*

A specialty designed sling produced by Andromeda Industries.

These slings can be made very short and creates a single point of load to be attached and still maintain centerline loading.

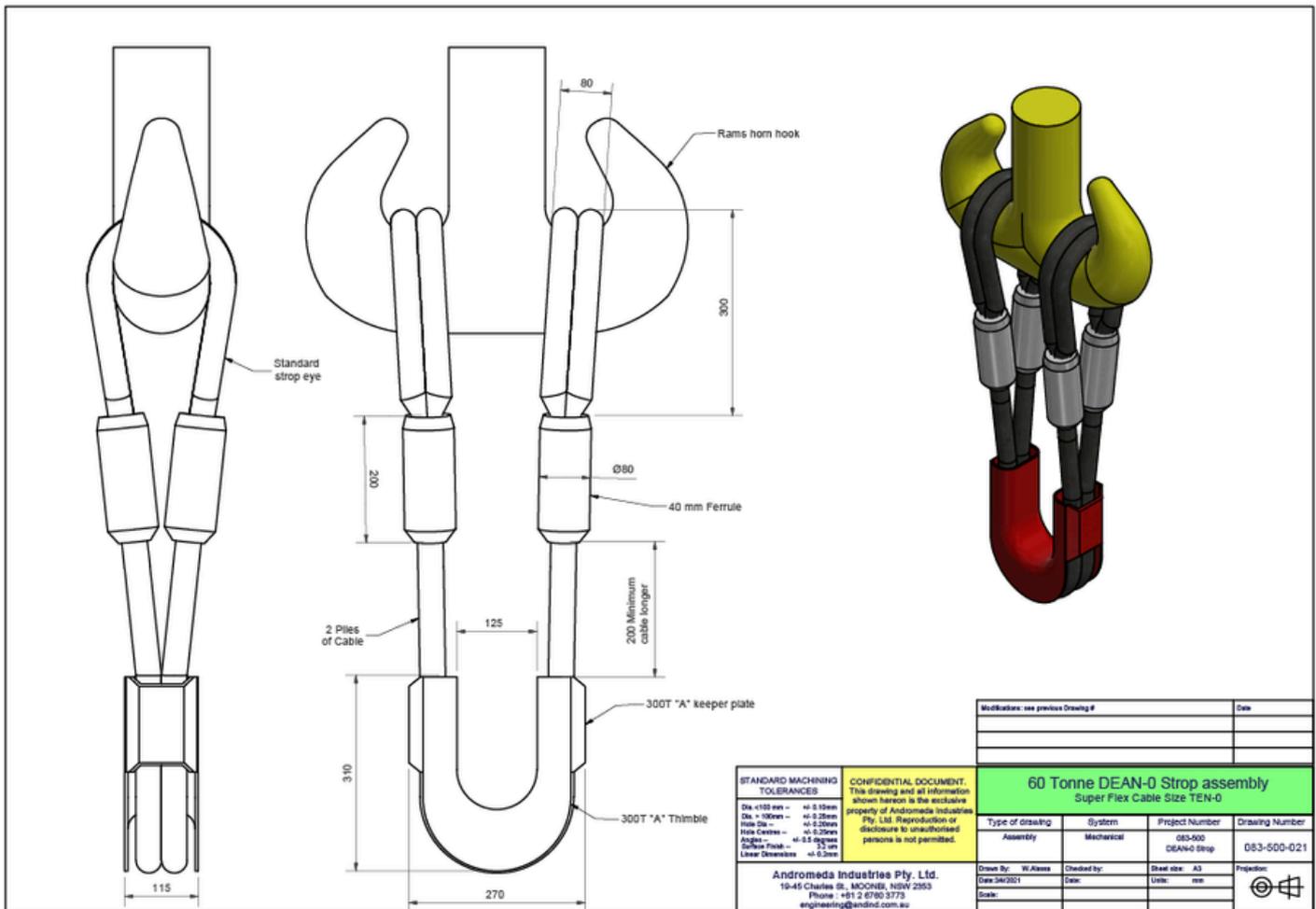
Off-centre loads can cause the Ramshorn Hooks to skew on the rig centerline, potentially damaging the block assembly and wire rope. The Dean-0 Sling prevents this from happening.

## Working Load Limits of Dean - 0 Slings

Dean-0 Slings are offered in seven different capacities with the **WLL** of: 11 tonnes, 20 tonnes, 40 tonnes, 60 tonnes, 80, tonnes, 110 tones and 165 tonnes.

Suitable master links can be fitted onto and removed from this sling as required.

See below of a detailed breakdown of the construction of our unique Dean-0 Sling.



60.0 t CAD Drawing

CAD drawings of all sizes can be supplied upon request.