



WESCO INDUSTRIES LTD.

PowerStrand Wire Rope

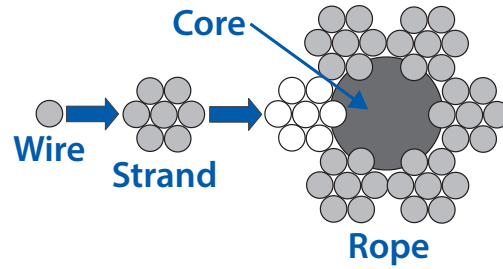


wesco

Industries Ltd.
www.wescovan.com

Lift with Experience

All wire rope is manufactured with three basic components: Wires, Strands and a Core.



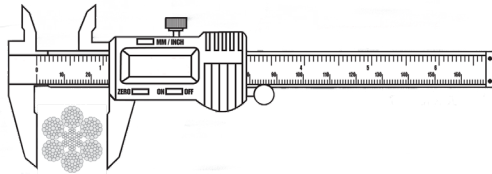
The wire is the main component of the wire rope, and is produced by passing a wire rod through a set of drawing dies till the rod gets smaller and reaches its diameter and mechanical properties.

Wires are then twisted together around a central wire to form strands.

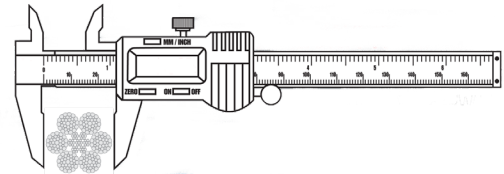
The strands are then helically laid together around a core which can be produced from either synthetic material or inner core strands to form the wire rope.

Diameter and tolerances

Nominal Diameter is always measured from its widest point as per diagram below.



✗ Incorrect

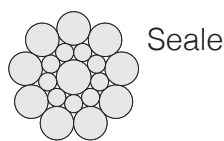


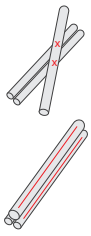
✓ Correct

The diameter of wire rope greater than 5/16" is manufactured with a tolerance of 0% to plus 5%. To get an actual diameter of a wire rope it is best to use a wide jaw vernier caliper, take two pairs of measurements, rectangular in two sections and at least 3 feet apart are made. The mean of the four measurements is the actual diameter. Measurements can be taken when the wire rope is subject to a load which is 5% of the minimum breaking strength for a more accurate result.

Construction

The number of strands and wires will influence the flexibility, fatigue and wear resistance of any given wire rope. Rope selection is often a compromise. Generally the more load bearing wires in the rope the greater the flexibility, however the smaller the wires the less abrasion resistance. The construction of wire rope is defined by the number of outer strands (first number), the number of wires per strand (second number) and then by the arrangement of the wires in each strand (shown in brackets). The wires in each strand can be arranged in several ways, for example a 6 x 19 construction the 19 wires in each strand are laid 9 around 9 around 1 centre wire.



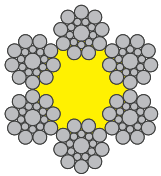


Cross laid wire rope is where the multiple layers in the strand construction cross over one another and make contact. This construction is very flexible, but will fatigue and fail very quickly due to the point contact pressures.

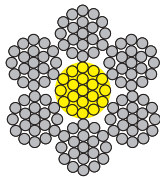
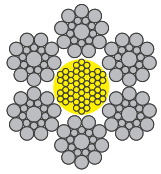
Parallel laid wire rope (Equal Lay) is where the multiple layers in the strand are laid in the same direction allowing the wires to be parallel to each other. This construction is very stable and avoids point contact pressures.

Core

The core of a steel wire rope serves as a foundation for the strands, providing stability by keeping them in place throughout the life of the rope. Wire ropes can be supplied with either a fibre or wire rope core.



Fibre Core (FC, PC or HC) is generally manufactured with a natural material such as sisal or hemp (HC), or a synthetic fibre such as polypropylene (PC). Fibre cores are generally used for ropes where flexibility in handling is required. The fibre core is impregnated with lubricant before manufacture, it then continues as an internal lubricator during the operation of the rope. Fibre core ropes are not suitable where they are subject to crushing on drums and sheaves.



Steel Core (WSC or IWRC) can be either independent wire rope core (IWRC) or wire strand core (WSC). IWRC is a small independent core and is commonly manufactured from seven strands, and WSC which is occasionally used, is manufactured from either seven or nineteen wires. Steel cores are used to add strength to the rope, provide resistance to drum crushing and where low stretch is required.

Lay

Lay length is the distance, measured parallel to its axis, in which one strand in a rope makes one complete revolution about the axis of the rope. Changes in the lay length can alter the elastic properties of the rope e.g. shortening of the lay length will increase a rope's elastic stretch but slightly reduce the breaking strength. It is important to understand how to measure lay length for the inspection of wire ropes and discard criteria.



The spirals or helical twist of the wires and strands is commonly referred to as the lay type. In accordance with ISO 2408 the direction of lay of the rope corresponds directly to the lay of the helix of the external wires, compared to that of the strands and of the strands compared to the rope. For stranded ropes the first smaller letter indicates the lay direction of the external wires of the strands. The second bigger letter indicates the lay direction of the strands in the rope.



sZ

Right Hand Regular Lay
(RHRL, RHOL)



zS

Left Hand Regular Lay
(LHRL, LHOL)



zZ

Right Hand Langs Lay
(RHLL)



sS

Left Hand Langs Lay
(LHLL)

Regular lay is used to describe rope with wires in a strand that are laid in a direction opposite to the direction of the formed strands. A regular lay wire rope is suitable for most general engineering applications. Due to the shorter length of exposed outer wires a regular lay rope is less subject to failure from crushing and distortion more than a lang lay rope.

Lang lay describes ropes in which both the direction of the wires and strands are the same. A lang lay rope has greater flexibility, crushing and abrasion resistance because of the longer length of exposed outer wires, this advantage is especially noticeable when the rope is used in multiple layers on a drum. However, a lang lay rope has less resistance to unlaying and must be limited to installations in which both ends of the rope are secured. *Alternate Lay* (RHAL, LHAL) is a rope that is manufactured with strands that are alternating between Lang Lay and Regular Lay (3 Lang Lay & 3 Regular Lay in a 6 strand rope). This rope is able to benefit from the stability of the regular lay strands in conjunction with the increased flexibility of the lang lay. It unites the best features of both types of ropes.

Wire ropes are supplied as **RIGHT HAND REGULAR LAY** unless otherwise specified.

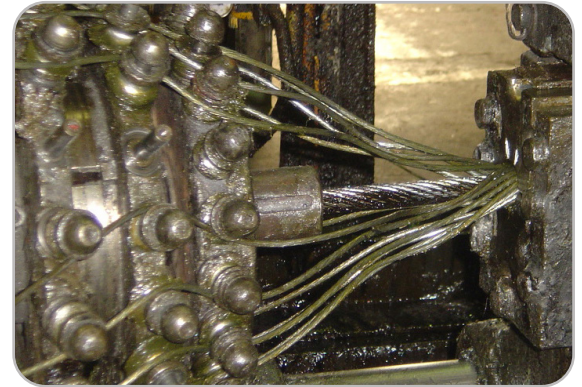
Preforming

Preforming is a manufacturing process in which before laying the strands, they are “preformed” to give the helical shape they will assume when the wire rope is formed. This has the effect of relieving the wires and the strands of much of the internal stress which exist in non-preformed ropes.

Preformed rope offers the following advantages:

- Improved flexibility and fatigue life
- When the rope is cut it does not tend to unwind or unravel
- Ease of installation and handling.
- The wires remain in place even if they break (greater care is required when inspecting as they do not protrude)

All ropes are supplied preformed, except for some high performance wire ropes where greater stability and compactness is required.



Grade

Wire rope can be supplied in several different grades. The grade of wire rope affects the ultimate breaking strength of the wire rope but will also influence the life of the rope. The higher the grade, the higher the minimum breaking strength. Common grades that are available include Improved Plow Steel (IPS), Extra Improved Plow Steel (EIPS) and Extra Extra Improved Plow Steel (EEIPS). In many metric ropes the grades can be designated as 1770n/mm², 1960n/mm² and 2160n/mm². EIPS is the most common manufactured and supplied grade for general purpose wire ropes.

Finish

Wire Ropes can be supplied as Bright (ungalvanized / black), Galvanized or Stainless Steel. Most running ropes are supplied bright finish, but where a corrosive or harsh environment is present, or ropes are to be used as standing rope then a galvanized rope is more suitable. Stainless steel wires are commonly used in marine environments for standing rigging, small winch ropes or architectural applications.

Wire ropes are lubricated at time of manufacture. The lubrication helps reduce friction between wires and strands, and the friction between the rope and drum or sheave. In addition the lubrication retards corrosion and inhibits possible rotting of the fibre core.

Wire ropes can also be supplied with plastic coatings. Plastic coatings are extruded onto a range of wire rope products, and is available in PVC or Nylon coating. PVC offers good protection from the weather and has excellent resistance to the sun's ultra violet rays. It is generally used for protection against the elements, for highly visible colours or protection when used as hand rails. Nylon is used where the wire rope is running over pulleys or sheaves, the nylon coating provides extra abrasion resistance.

Rotating or Non-Rotating

Wire rope will tend to spin or rotate under load. Therefore it is important to determine if a rotation resistant wire rope is required. Rotation resistant wire ropes are manufactured to allow the rotational torque of the inner strands and outer strands to partially counteract each other.

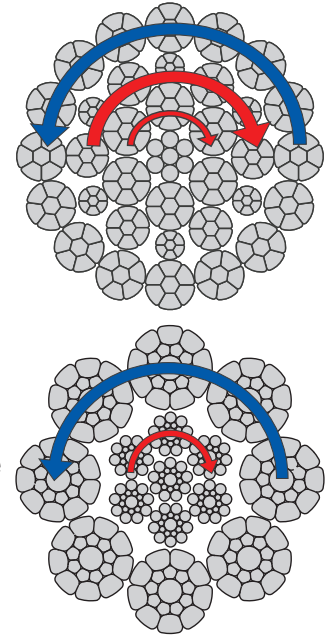
Non-Rotating or rotation resistant wire rope should be used when:

- Lifting an unguided load in single part
- Lifting an unguided load at great height with multi part reeving

A regular rope (rotating) wire rope should be used when:

- Lifting a guided load on several falls at a small height (e.g. overhead crane)
- When lifting loads with right-hand and left-hand ropes in pairs

Non-rotating and rotation resistant wire ropes are sensitive to damage caused by incorrect use, handling and installation. Special care should be observed when installing these ropes on cranes. Some rotation resistant and spin resistant wire ropes can fatigue internally, with the possibility of unexpected breakage or premature failure. Special care should be taken when selecting these types of wire ropes, and a vigorous inspection regime adhered to. Swivels should not be used with rotating, spin resistant and rotation resistant wire ropes.



Stretch in Ropes

Steel wire rope when loaded are subject to constructional stretch and elastic elongation.

Constructional stretch is permanent and occurs generally early on in the ropes life. The bedding and settling of the wires, strands and core will result in elongation of some where between 0.2% and 0.8% depending upon rope construction and loading conditions.

Elastic elongation is the ability of the individual wires to elongate, under load, due to there elastic properties.

Providing the wire rope is not loaded beyond its safety factors, it should return to its original length after the load is removed.

Elongation under load can be calculated as follows:

$$\text{Elastic Elongation (mm)} = (L \times W) / (E \times A)$$

L = load applied (daN)

W = rope length (mm)

E = elastic modulus (daN/mm²)

A = metallic area / rope area (mm²)

Each individual wire rope construction has a different modulus of elasticity value. If a more accurate result is required a modulus test would need to be carried out on the particular rope, as the elastic modulus can be different for the same rope construction and diameter due to manufacturing factors.

Generally the lower the elastic modulus and metallic area, the more elongation can be found in any given rope. This can be of benefit to the wire rope if helping to absorb some of the stress caused by shock loading Ropes with high elastic modulus and metallic area will have smaller amounts of elongation, which would make them suitable for Boom Pendant Ropes, Guy and Suspension Cables.

Common ropes modulus of elasticity values:

7 x 19 - 4,750 daN/mm² 6 x 19 & 6 x 26 FC - 9,500 daN/mm² 6 x 19 & 6 x 26 IWRC 11,000 daN/mm² 6 x 36 & 6 x 41 FC 9,000 daN/mm² 6 x 36 & 6 x 41 IWRC 10,000 daN/mm²

Approximate metallic areas of one-inch rope for the following constructions:

6 x 19 S	FC - 261mm ²	IWRC - 303mm ²
6 x 24	FC - 212mm ²	
6 x 26 WS	FC - 264mm ²	IWRC - 307mm ²
6 x 36 WS	FC - 270mm ²	IWRC - 313mm ²
6 x 41 WS	FC - 273mm ²	IWRC - 316mm ²
7 x 7		WSC - 304mm ²
7 x 19 W		WSC - 326mm ²
8 x 19 S		IWRC - 305mm ²
19 x 7		IWRC - 292mm ²

For Diameters other than 1 inch, multiply the area given above by the square of the nominal rope diameter.

Example: 6 x 36 IWRC is 313mm²,

Diameter squared (1/2)² = 1/4" or 0.5 x 0.5

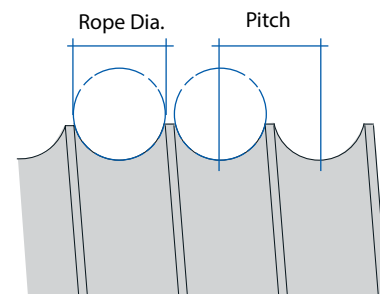
Area = 0.25 x 313mm² = 78.25mm²

Winch Drums

Winch drum dimensions and groove sizing is very important to the life expectancy of wire rope. A grooved drum (preferably Lebus type) is preferred over a smooth drum for life expectancy. The groove width (pitch) measurements for multi layer spooling should be 1% larger than the actual rope diameter, this ensures tight spooling on the drum.

A lang's lay rope has proved to be a better choice when used in multi-layer spooling because neighboring ropes do not form indentations into each other which occurs with regular lay ropes. The use of ropes with compacted outer strands and/or rotary swaged rope in a lang lay construction can also be a smarter choice for multi-layer spooling for increasing the rope lifetime, due to its very smooth surface and increased abrasion resistance.

In multi-layer drums, the direction of the drum changes with every layer. In this instance the lay direction of the steel wire rope should be chosen by either the direction of the drum groove, or the lay direction of the wire rope should be selected for the most used layer of the drum.

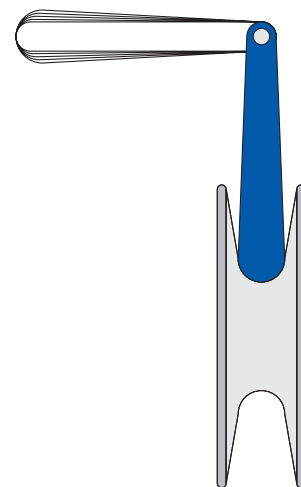


Sheaves

Sheaves perform an important function by redirecting the wire rope. They must be properly grooved and of adequate size to provide support to the rope when performing this function. The sheave opening angle between the grooves must be within 30 deg and 60 deg, with the greater values (45 deg to 60 deg) for larger fleet angles. The height of the flanges should be 1.4 to 1.7 times the wire rope diameter to prevent the rope from running off the sheave.

Wire ropes have a diameter tolerance of up to 5%. According to ISO 16625 the groove diameter should measure between nominal rope diameter + 5% to + 10% with an ideal groove of + 6 % to + 7.5%.

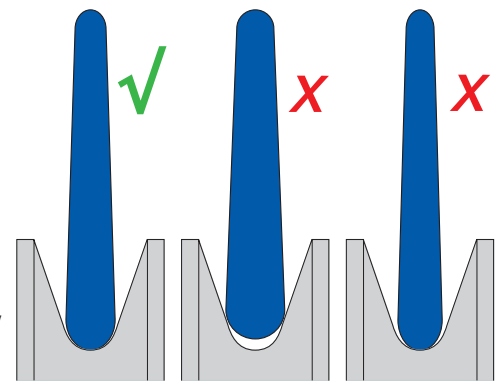
For increased wire rope service life it is important to have as large a sheave diameter to wire rope diameter (D/d ratio) as possible. Although ASME B 30.5 allows minimum hoist rope D/d ratio of 18 and boom hoist rope D/D ratio of 15, please consult Wesco for details.



Rope speed also affects fatigue life, higher operating speeds can require larger diameter sheaves.

Reverse bends from one sheave to another should be avoided. Other factors that affect bending fatigue life are load, number of cycles and condition of the sheaves and drums.

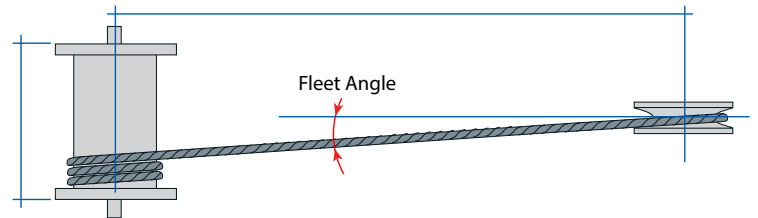
When inspecting the sheave also check for any indentation or tread pattern in the groove of the sheave, and the sheave bearings are still working and the sheave runs freely. If any of these issues are found, the sheave should be replaced or repaired before the installation of any new wire rope.



Fleet Angle

When the rope is wound onto a drum, special care and attention should be given to the fleet angle. The fleet angle is the included angle between the rope running to or from the extreme left or right of the drum and an imaginary line drawn from the centre of the sheave normal to the axis of the drum. A large fleet angle can cause bad winding on smooth drums and can increase the pressure on the rope against the flange of the sheave, causing friction and wear which will be detrimental to both the sheave and wire rope. A fleet angle which is too small, can cause the rope to pile up on the drum which increases wear and the chances of shock loading occurring.

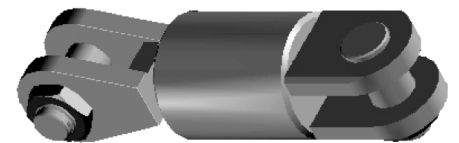
Generally, the maximum fleet angle for steel wire ropes is 1.5 deg to 2 deg. In some cases a general purpose rope can be used with a 4 deg fleet angle. Please check with your Wesco Representative for recommendations on your particular rope construction.



Bearing Swivels

It is possible to use a bearing swivel with non rotating wire ropes. For some applications, in particular long lifting heights or long periods of continuous lifting (concrete pours on Tower Cranes), a swivel is recommended. Some twist or torsion can build up in the wire rope when it passes over sheaves and drums, if this build up is not released the wire rope can birdcage or block twist may occur. To help relieve this stress a swivel at the dead end can remove some of this build up. To assist the swivel in removing built up twist it can also be advantageous to trolley in and out several times while hoisting and lowering to help remove any twist that may be “trapped” by the sheaves.

Swivels should only be used on non rotating wire ropes (three layer types like 35 x 7 class), it SHOULD not be used with Semi-rotation resistant ropes and standard rotating wire ropes. If used in conjunction with these types of ropes, the outer strands untwist putting greater load on the core. This leading to rope failure from the inside out. Ultimately the breaking strength will be substantially reduced.



Storage & Handling

Wire Rope should be stored in a cool, dry, clean place preferably indoors. The rope should not be stored in direct contact with the floor, and all reels and coils should be stored on pallets or racking. When shifting or moving wire ropes, all contact with lift truck forks or crane hooks should be avoided as they can easily damage the rope. A web sling or two should be used to handle coils or reels.



Installation

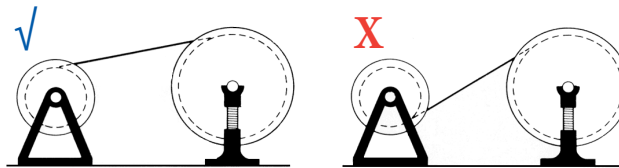
Before installing any new wire rope, all sheaves, blocks and drums should be inspected to ensure that the grooves are not worn, the sheaves are turning and a tread pattern is not evident. If any of these circumstances occur some maintenance will be required to avoid any premature damage to the new wire rope. Coils should be unwound using a turntable, or smaller coils can be unwound by rolling along the ground like a hoop. NEVER try to uncoil a rope lying on its side, otherwise the rope will become kinked or damaged. If uncoiling the rope on the ground make sure that the area is free from dirt, grit and sand that may damage the rope while in service.



When the rope is supplied on a reel the use of a turntable or reeling jacks is required. NEVER try to uncoil a rope from a reel that is lying on its side. When winding the steel wire rope from the reel to the drum, it is important that the rope leaves the reel top to top, or from bottom to bottom. A brake should be used to stop the reel from running loose, and to also allow tension to be applied.



Installing wire rope can vary from machine to machine. Methods can include the use of the old rope attached to the new rope with a mesh grip and swivel, or a thinner rope or cordage with sufficient strength attached to the new rope, and then hauled through the system. It is very important not to transfer torque from the old rope to the new wire rope. **NEVER** directly attach the two ends of the rope, and include something that can absorb torsion such as a swivel or fibre rope (ensure the rope is long enough to take any twist that may be present). When winding the steel wire rope from the reel to the drum, it is important that the rope leaves the reel top to top, or from bottom to bottom (see diagrams).



To keep multiple layer spooling perfect on a drum, it is very important to pay great attention to ensure the rope sits properly in the grooves of the drum. It is important to install the rope with as much tension as possible, the tension to apply should be around 2% of the minimum breaking load of the wire rope. It is imperative that the bottom layer is spooled tight to avoid serious damage to the rope later. Once the rope is installed it is important to “break in” the wire rope. The rope should run through the system with and without a light load, alternatively for several runs to allow the components of the wire rope to settle and adjust to the working environment and especially the spooling arrangement at the drum.



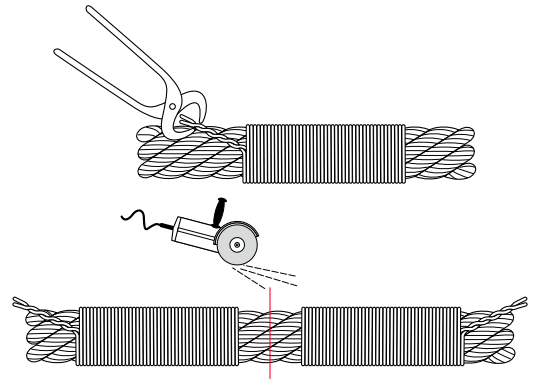
Right Hand = Right Lay Rope
Drum Grooving = Left Hand

Left Hand = Left Lay Rope
Drum Grooving = Right Hand

Cutting

Before cutting any wire rope, adequate seizing should be applied on each side of the cut. Wire seizing should be applied to most ropes. At least 6 rope diameters for Non Preformed Ropes (Spin Resistant in particular) and 2 rope diameters for preformed ropes. Its imperative that the seizing is tight to stop any slippage of the core. If slippage occurs between the core and outer strands, the strands become overloaded and can result in reduced service life and rope failure.

Cutting should be made with a high speed abrasive disc cutter, or other suitable mechanical or hydraulic shearing equipment. After a cut is made it is recommended that the end is welded. Wesco can perform a machine tapering of the end(s) if requested at time of order.



Maintenance

All wire ropes require maintenance to maximize performance. Maintenance can include re-lubrication, cleaning, cutting or shifting wire ropes and end for ending. Wire rope should be cleaned to remove any foreign articles including dirt, grit, sand and other abrasive articles. Wire rope brush machines can be purchased for this specific job.

Sheaves and drums should also be inspected for any signs of excessive wear or deterioration. A sheave gauge can be used to determine if the groove in the drum or sheave is still within tolerances, check for corrugations and turn in any sheaves to determine if the bearings are running free and still aligned.

End for ending and cutting/shifting wire ropes can be useful in increasing the service life. However, these procedures may not be suitable for every application.

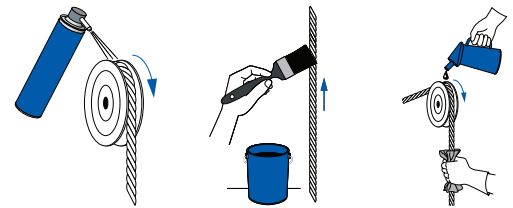
Lubrication

Wire ropes are generally supplied with some form of lubrication at manufacture. The lubricant reduces friction between elements that make up the wire rope, as well as friction between rope and drums or sheaves. It also provides protection against corrosion.

Due to the working nature of wire ropes the lubricant can be reduced and therefore it is imperative that the wire rope is re-lubricated at timely intervals to ensure maximum rope life.

Good commercial wire rope lubricants are available and can be applied by painting or swabbing the rope on the drum or at the sheaves. High pressure lubrication machine are also available to ease installation.

When installing the lubricant it is important not to apply excessive amounts to the rope, otherwise it will build up on the rope surface and make inspection and detection of wire breaks difficult.



Inspection & Rejection Criteria

All wire rope will eventually wear out or fatigue. Regular inspections of ropes is an essential part of maintaining a safe working environment. All running ropes should be visually inspected each working day for major damage including distortion of rope (bird caging, kinking and crushing), broken or cut strands, core failure and general corrosion. The frequency of detailed inspections should take into account expected rope life (determined by maintenance records or previous experience), severity of environment, frequency rates of operation and local statutory regulations. The older the rope is, the more frequent the inspections should be. A detailed written inspection record should be kept.

The Inspection should be done over the entire length of wire rope and be carried out by a qualified person. The inspector should be careful to check for damage to the wire rope as listed above, and attention also given to a reduction in rope diameter, wire breaks, wear of outer wires and lengthening of rope lay.

With wire ropes that have 10 or more outer strands, Non Rotating and Spin Resistant Ropes, wire ropes running on plastic / nylon sheaves or ropes that are exposed to very high fatigue stress, broken wires may first occur internally. During the inspection of these types of ropes, an internal inspection of the inner strands should be made where possible. By bending these types of wire ropes during the inspection breaks in the internal wires may be audible by a crackling sound.

Main Check Points.

1 - Careful inspection of the end connection at the drum, ensure at least a minimum 3 wraps are on the drum at all times.

- Ensure the winding on the drum is tight and the bottom layers have not been crushed / flattened.

- Inspect for broken wires, corrosion and wear at crossover points. Especially at the point of where the rope is pressed between the drum flange and the previous layer.

2 - Inspect the connection point for any signs of broken wires, corrosion or deformation. A single wire break at the connection point is enough for the rope to be removed from service.

- Inspect the end connection for wear or deformation on the body of the fitting and in particular at the pins and connection points.

- Ensure end connection is installed correctly.

3 - Carefully inspect wire rope at this point. Ensure the wire rope is lifted from the sheave and check for broken wires, corrosion and fatigue. Although sometimes the wire is considered stationary at this sheave, the wire rope can be subject to high bending stresses, swinging and vibrations. Water can also be trapped between the rope and the sheave.

4 - Fatigue zones will occur where the rope is subject to greater bending cycles. Carefully inspect for broken wires, internal stresses and loss of diameter.

- Inspect sheaves for correct groove tolerances and freedom of movement.

Wire Rope Discard Criteria ([according to Worksafe Part 15.25](#)). Wire rope must be permanently removed from service if

a) in running wire ropes, there are 6 or more randomly distributed wires broken in one rope lay or 3 or more wires are broken in one strand in one lay,

b) in stationary wire ropes, such as guy lines, there are 3 or more broken wires in one lay in sections between end connections, or more than one broken wire within one lay of an end connection,

c) wear, or the effects of corrosion, exceed 1/3 of the original diameter of outside individual wires,

d) there is evidence of kinking, bird-caging or any other damage resulting in distortion of the rope structure,

e) there is evidence of heat or arc damage, or

f) there are reductions of normal rope diameter, from any case, in excess of

i) 0.4mm (1/64") for diameters up to and including 8mm (5/16")

ii) 1mm (3/64") for dia. greater than 8mm(5/16") up to and including 19mm(3/4")

iii) 2mm (5/64") for dia. greater than 19mm(3/4") up to and including 29mm (1 1/8")

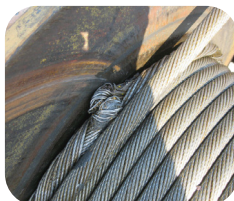
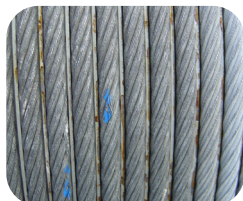
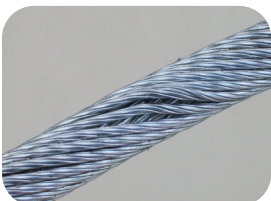
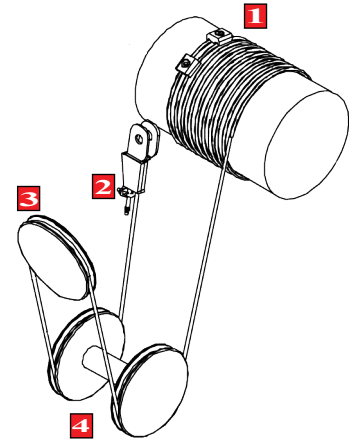
iv) 3mm (3/32") for diameters greater than 29mm (1 1/8")

Wire rope with non rotating (rotation resistant) construction must be removed from service if

a) the rejection criteria in section 15.25 are met (above)

b) there are 2 randomly distributed broken wires in 6 rope diameters, or

c) there are 4 randomly distributed broken wires in 30 rope diameters.



Wire Rope Discard Criteria (according to ASME Standards)

Standard	Equipment	Running Ropes No. of allowable broken Wires in		Rotation Resistant No. of allowable broken Wires in		Standing Ropes No. of allowable broken Wires in	
		1 Rope Lay	1 Strand in 1 lay	1 Rope Lay	1 Strand in 1 lay	1 Rope Lay	1 Strand in 1 lay
ASME/B30.2	Overhead and Gantry Cranes	12	4	-	-	-	-
ASME/B30.3	Tower Cranes	6	3	4	2	-	-
ASME/B30.5	Locomotive & Mobile Cranes	6	3	4	2 (in 30d)	-	-
ASME/B30.6	Derricks	6	3	-	-	-	-
ASME/B30.7	Base Mounted Hoists	6	3	-	-	3	2
ASME/B30.8	Floating Cranes	6	3	-	-	3	2
ASME/B30.16	Underhung Overhead Hoists	12	4	-	-	3	-

Remove any wire rope from service if you find one (1) or more valley break. Valley breaks originate from inside the wire rope and can be difficult to see. They are a sign of wire breaks in the core, or the contact points between the core and the outer strands. If you find one valley break, there is generally more to be found in the same area.

When wire breaks begin to appear in the wire rope, their numbers will increase as time goes on. It is imperative to decrease the time between inspections and increase the intensity of the inspection.

Where ropes have an increase in diameter over 5% of the nominal diameter, the rope should be discarded.

When the wire rope shows signs of waviness, the rope should be discarded when the height of the wave exceeds the following values:

Wave Height > 1.3 nominal rope diameter with fixed or stationary ropes

Wave Height > 1.1 nominal rope diameter with ropes that are bent or running on sheaves and drums.

All wire rope which has sat idle for a month or longer should be given a detailed inspection before returning to service according to the requirements of the periodic inspection provided by the B30 standards.

A detailed inspection record should be kept for the life of the wire rope. This is not only required by regulatory authorities, but can be very helpful in determining expected rope life and inspection intervals.



6 x 19 IWRC Class Wire Rope

6 Outer Strands, Rotation Wire Rope

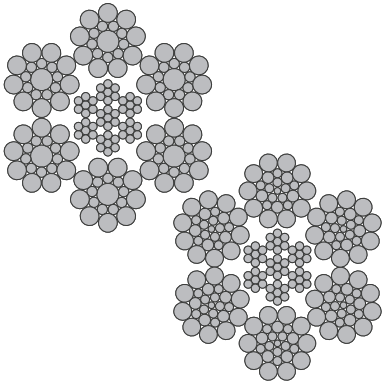
Includes 6x19S & 6x26WS construction types. A good general purpose wire rope which is wear and crush resistant but not very flexible. Suitable for lifting slings (chokers), winch lines, boom pendants, boom hoist ropes, suspension cables, fishing, gang panels and logging.

6x19S (9+9+1) IWRC, Load bearing outer wires 114

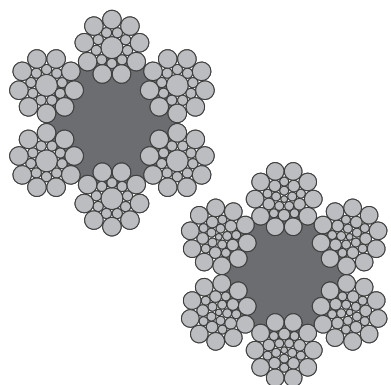
6x26WS (10+(5+5)+5+1) IWRC, Load bearing outer wires 156

Fill factor 0.57

Use of swivel is **not** permitted.



Diameter Inches	Weight per Foot Pounds	Grade Tensile	Bright		Galvanized	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
1/4	0.12	EIPS	W61908A1	6,880	W61908B1	6,190
5/16	0.18	EIPS	W61910A1	10,540	W61910B1	9,480
3/8	0.26	EIPS	W61912A1	15,100	W61912B1	13,590
7/16	0.35	EIPS	W61614A1	20,400	W61914B1	18,360
7/16	0.35	EEIPS	~	~	W61914B1-EEIPS	22,400
1/2	0.46	EIPS	W62616A1	26,600	W61916B1	24,000
9/16	0.59	EIPS	W62618A1	33,600	W61918B1	30,240
5/8	0.72	EIPS	W62620A1	41,200	W61920B1	37,080
11/16	0.85	EIPS	W62622A1	54,800	W61922B1	49,394
3/4	1.04	EIPS	W62624A1	58,800	W61924B1	52,920
13/16	1.19	EIPS	W62626A1	76,100	W61926B1	68,554
7/8	1.42	EIPS	W62628A1	79,600	W61928B1	71,640
15/16	1.59	EIPS	W62630A1	91,500	W61930B1	82,350
1	1.85	EIPS	W62632A1	103,400	W61932B1	93,060
1-1/16	2.02	EIPS	W62634A1	123,800	W61934B1	111,507
1-1/8	2.34	EIPS	W62636A1	130,000	W61936B1	117,000
1-1/4	2.89	EIPS	W62640A1	159,800	W61940B1	143,200
1-3/8	3.5	EIPS	W62644A1	192,000	W61944B1	172,800
1-1/2	4.16	EIPS	W62648A1	228,000	W61948B1	205,200
1-5/8	4.88	EIPS	W62652A1	264,000	W61952B1	237,600
1-3/4	5.67	EIPS	W62656A1	306,000	W61956B1	275,400
1-7/8	6.50	EIPS	W62660A1	348,000	W61960B1	313,200
2	7.39	EIPS	W62664A1	396,000	W61964B1	356,400
2-1/4	9.36	EIPS	W62672A1	494,000	W61972B1	444,600
2-1/2	11.6	EIPS	W62680A1	604,000	W61980B1	543,000



6 x 19 FC Class Wire Rope

6 Outer Strands, Rotation Wire Rope

Includes 6x19S & 6x26WS construction types. A good general purpose wire rope which is wear resistant and suitable for sling ropes, marine rope, lashing, fishing, anchor lines and logging.

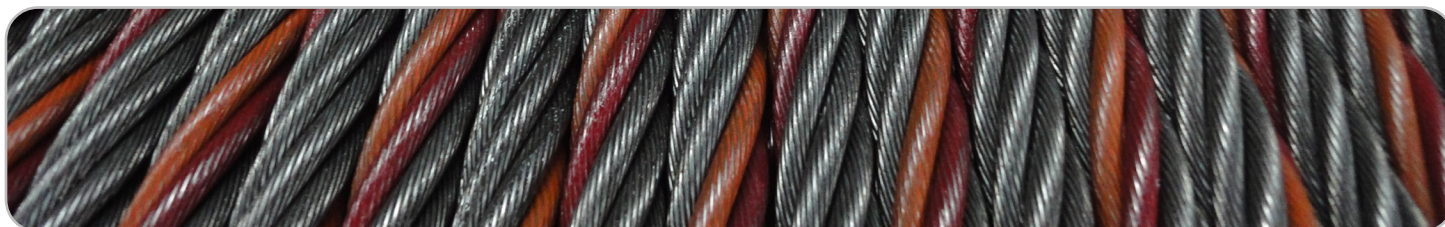
6x19S (9+9+1) FC, Load bearing outer wires 114

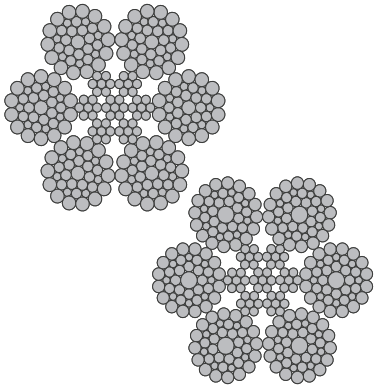
6x26WS (10+(5+5)+5+1) FC, Load bearing outer wires 156

Fill factor 0.49

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Grade Tensile	Bright		Galvanized	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
1/4	0.11	EIPS	W61908C1	6,040	W61908D1	5,436
5/16	0.16	EIPS	W61910C1	9,380	W61910D1	8,442
3/8	0.24	EIPS	W61912C1	13,420	W61912D1	12,078
7/16	0.32	EIPS	W61914C1	18,180	W61914D1	16,362
1/2	0.42	EIPS	W61916C1	23,600	W61916D1	21,240
9/16	0.53	EIPS	W62618C1	29,800	W61918D1	26,820
5/8	0.66	EIPS	W62620C1	36,600	W61920D1	32,940
3/4	0.95	EIPS	W62624C1	52,400	W61924D1	47,160
7/8	1.29	EIPS	W62628C1	70,800	W61928D1	63,720
1	1.68	EIPS	W62632C1	92,000	W61932D1	82,800
1-1/8	2.13	EIPS	W62636C1	115,800	W61936D1	104,220
1-1/4	2.63	EIPS	W62640C1	142,000	W61940D1	127,800
1-1/4	2.63	EEIPS	~	~	W62640D1C- EEIPS	156,200
1-3/8	3.18	EIPS	W62644C1	170,800	W61944D1	153,720
1-1/2	3.78	EIPS	W62648C1	202,000	W61948D1	181,800
1-5/8	4.4	EIPS	W62652C1	236,000	W61952D1	212,400
1-3/4	5.15	EIPS	W62656C1	272,000	W61956D1	244,800
1-7/8	5.91	EIPS	W62660C1	310,000	W61960D1	279,000
2	6.72	EIPS	W62664C1	352,000	W61964D1	316,800
2-1/4	8.51	EIPS	W62672C1	440,000	W61972D1	396,000
2-1/2	10.50	EIPS	W62680C1	538,000	W62680D1	484,200





6 x 36 IWRC Class Wire Rope

6 Outer Strands, Rotation Wire Rope

Includes 6x36WS & 6x41SFV construction types. A good general purpose crane wire rope which is flexible and wear resistant. Suitable for lifting slings, winch lines, mooring lines, overhead crane ropes, piling and cranes.

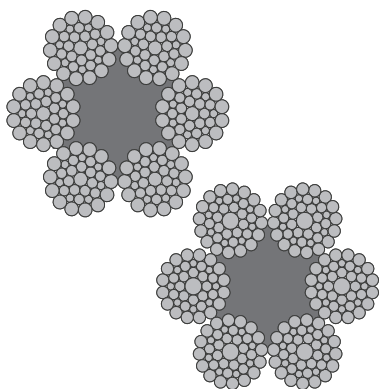
6x36WS (14+(7+7)+7+1) IWRC, Load bearing outer wires 216

6x41WS (16+(8+8)+8+1) IWRC, Load bearing outer wires 246

Fill factor 0.59

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Grade Tensile	Bright		Galvanized	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
1/4	0.12	EIPS	W63608A1	6,880	W63608B1	6,190
5/16	0.18	EIPS	W63610A1	10,540	W63610B1	9,480
3/8	0.26	EIPS	W63612A1	15,100	W63612B1	13,590
7/16	0.35	EIPS	W63614A1	20,400	W63614B1	18,360
1/2	0.46	EIPS	W63616A1	26,600	W63616B1	23,940
9/16	0.59	EIPS	W63618A1	33,600	W63618B1	30,240
5/8	0.72	EIPS	W63620A1	41,200	W63620B1	37,080
11/16	0.85	EIPS	W63622A1	54,800	W63622B1	49,394
3/4	1.04	EIPS	W63624A1	58,800	W63624B1	52,920
13/16	1.19	EIPS	W63626A1	76,100	W63626B1	68,554
7/8	1.42	EIPS	W63628A1	79,600	W63628B1	71,640
15/16	1.59	EIPS	W63630A1	91,500	W63630B1	82,350
1	1.85	EIPS	W63632A1	103,400	W63632B1	93,060
1-1/16	2.02	EIPS	W63634A1	123,800	W63634B1	111,507
1-1/8	2.34	EIPS	W63636A1	130,000	W63636B1	117,000
1-1/4	2.89	EIPS	W63640A1	159,800	W63640B1	143,200
1-1/4	2.89	EEIPS	W63640A1- EEIPS	173,044	~	~
1-3/8	3.5	EIPS	W63644A1	192,000	W63644B1	172,800
1-1/2	4.16	EIPS	W63648A1	228,000	W63648B1	205,200
1-1/2	4.16	EEIPS	~	~	W63648B1- EEIPS	250,800
1-5/8	4.88	EIPS	W63652A1	264,000	W63652B1	237,600
1-3/4	5.67	EIPS	W63656A1	306,000	W63656B1	275,400
1-3/4	5.67	EEIPS	~	~	W63656B1- EEIPS	336,600
1-7/8	6.50	EIPS	W63660A1	348,000	W63660B1	313,200
2	7.39	EIPS	W63664A1	396,000	W63664B1	356,400
2	7.39	EEIPS	~	~	W63664B1- EEIPS	435,000
2-1/4	9.36	EIPS	W63672A1	494,000	W64172B1	444,600
2-1/2	11.6	EIPS	W63680A1	604,000	W64180B1	543,000



6 x 36 FC Class Wire Rope

6 Outer Strands, Rotation Wire Rope

Includes 6x36WS & 6x41SFW construction types. A good general purpose crane wire rope which is flexible and wear resistant. Suitable for lifting slings, winch lines, mooring lines, overhead crane ropes, piling and cranes.

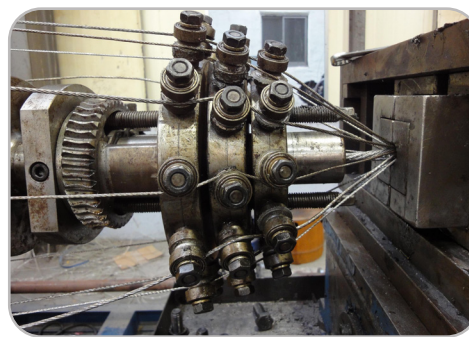
6x36WS (14+(7+7)+7+1) FC, Load bearing outer wires 216

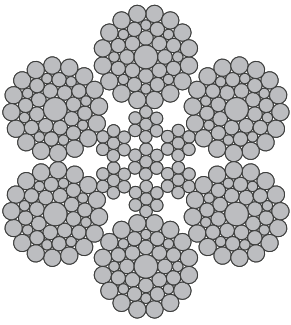
6x41WS (16+(8+8)+8+1) FC, Load bearing outer wires 246

Fill factor 0.50

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Grade Tensile	Bright		Galvanized	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
1/4	0.11	EIPS	W63608C1	6,040	W63608D1	5,436
5/16	0.16	EIPS	W63610C1	9,380	W63610D1	8,442
3/8	0.24	EIPS	W63612C1	13,420	W63612D1	12,078
7/16	0.32	EIPS	W63614C1	18,180	W63614D1	16,362
1/2	0.42	EIPS	W63616C1	23,600	W63616D1	21,240
9/16	0.53	EIPS	W63618C1	29,800	W63618D1	26,820
5/8	0.66	EIPS	W63620C1	36,600	W63620D1	32,940
3/4	0.95	EIPS	W63624C1	52,400	W63624D1	47,160
7/8	1.29	EIPS	W63628C1	70,800	W63628D1	63,720
1	1.68	EIPS	W63632C1	92,000	W63632D1	82,800
1	1.68	EEIPS	~	~	W63632D1- EEIPS	92,000
1-1/8	2.13	EIPS	W63636C1	115,800	W63636D1	104,220
1-1/4	2.63	EIPS	W63640C1	142,000	W63640D1	127,800
1-3/8	3.18	EIPS	W63644C1	170,800	W63644D1	153,720
1-1/2	3.78	EIPS	W63648C1	202,000	W63648D1	181,800
1-5/8	4.4	EIPS	W63652C1	236,000	W63652D1	212,400
1-3/4	5.15	EIPS	W63656C1	272,000	W63656D1	244,800
1-7/8	5.91	EIPS	W63660C1	310,000	W63660D1	279,000
2	6.72	EIPS	W63664C1	352,000	W63664D1	316,800
2-1/4	8.51	EIPS	W63672C1	440,000	W63672D1	396,000
2-1/2	10.50	EIPS	W63680C1	538,000	W63680D1	484,200





6 x 36 Metric Wire Rope

6 Outer Strands, Rotation Wire Rope

6x36WS construction is a good general purpose crane wire rope, which is flexible and wear resistant. It is suitable for overhead crane ropes, electric hoists, trolley ropes, winch lines, piling, towing and cranes.

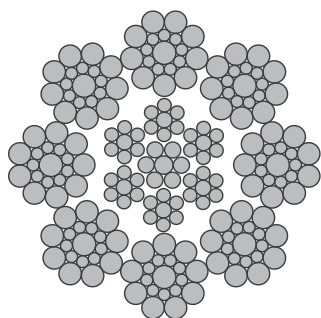
6x36WS (14+(7+7)+7+1) IWRC, Load bearing outer wires 216

Fill factor 0.59

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Bright Pounds	Minimum Strength Bright kN
6mm	0.10	Galvanized	2160 N/mm ²	M060636B121R	5,770	25.7
7mm	0.12	Bright	2160 N/mm ²	M070636A121R	8,452	37.6
8mm	0.18	Bright	2160 N/mm ²	M080636A121R	11,060	49.2
9mm	0.22	Bright	2160 N/mm ²	M090636A121R	13,700	61.3
10mm	0.27	Bright	2160 N/mm ²	M100636A121R	17,287	76.9
11mm	0.35	Bright	2160 N/mm ²	M110636A121R	20,906	93.0
12mm	0.44	Bright	2160 N/mm ²	M120636A121R	23,800	105.9
14mm	0.59	Bright	2160 N/mm ²	M140636A121R	33,945	151.0
15mm	0.62	Bright	2160 N/mm ²	M150636A121R	38,890	173.0
18mm	0.87	Bright	2160 N/mm ²	M180636A121R	55,143	245.3
20mm	1.10	Bright	2160 N/mm ²	M200636A121R	68,114	303.0
22mm	1.50	Bright	2160 N/mm ²	M220636A121R	83,625	372.0





8 Strand Metric Wire Rope

8 Outer Strands, Rotation Wire Rope

8x19S construction is a good general purpose overhead crane wire rope, found on many hoists manufactured in Europe. The 8 Strand construction provides increased flexibility, greater strength and smoother area on sheaves. Can also be used as trolley rope.

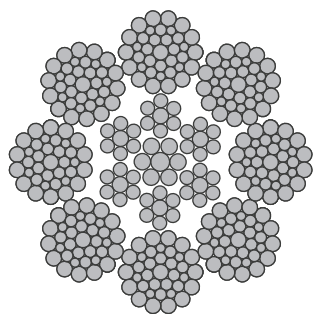
8x19S (9+9+1) IWRC, Load bearing outer wires 152

Fill factor 0.58

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Bright Pounds	Minimum Strength Bright kN
7.5mm	0.15	Bright	2160 N/mm2	M075819A121*	9,734	43.3
9mm	0.17	Bright	2160 N/mm2	M090819A121*	14,005	62.3
11mm	0.35	Bright	2160 N/mm2	M110819A121*	20,906	93.0

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.



8 Strand Metric Wire Rope

8 Outer Strands, Rotation Wire Rope

8x36WS construction is a good general purpose overhead crane wire rope, found on many hoists manufactured in Europe. The 8 Strand construction provides increased flexibility, greater strength and smoother area on sheaves. Can also be used as a trolley rope.

8x36WS (14+(7+7)+7+1) IWRC, Load bearing outer wires 288

Fill factor 0.60

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Bright Pounds	Minimum Strength Bright kN
13mm	0.50	Bright	2160 N/mm2	M130836A121*	29,224	130.0
14mm	0.57	Bright	2160 N/mm2	M140836A121L	33,945	151.0
15mm	0.63	Bright	2160 N/mm2	M150836A121R	37,586	167.2
16mm	0.74	Bright	2160 N/mm2	M160836A121R	44,285	197.0
20mm	1.22	Bright	2160 N/mm2	M200836A121R	69,238	308.0

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.



Pulling Hoist Wire Ropes

4 or 5 Outer Strands, Rotation Wire Rope

These rope constructions are suitable for many of the manual wire rope pullers.

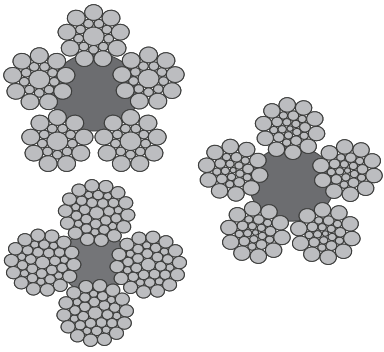
They are specifically designed to be flexible ropes while maintaining stability and high strength, allowing it to perform correctly with these types of hoists.

5x19S (9+9+1) FC, Load Bearing Outer Wires 95 Fill Factor 0.52

5x26WS (10+(5+5)+5+1) FC, Load bearing outer Wires 130 Fill factor 0.52

4x36WS (14+(7+7)+7+1) FC, Load bearing outer Wires 104 Fill factor 0.56

Use of swivel is **not** permitted.



Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
8.3mm	0.15	Galvanized	EEIPS	M083519D121R	10,300	45.8
11.5mm	0.36	Galvanized	EEIPS	M115526D121R	24,000	106.8
16.3mm	0.74	Galvanized	EEIPS	M163436D121R	40,500	180.1

19 x 7 Class Wire Rope

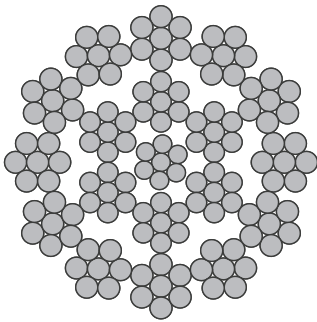
12 Outer Strands, Rotation Resistant Wire Rope

A general purpose rotation resistant (NOT Non Rotating) wire rope. Suitable for main and auxiliary ropes on some mobile cranes, deck cranes, truck cranes and piling rigs.

19x7 (7+6x7+12x7), Load bearing outer wires 84

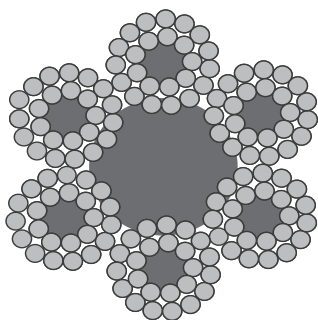
Fill factor 0.55

Use of swivel is **not** permitted.



Diameter Inches	Weight per Foot Pounds	Grade Tensile	Bright		Galvanized		Stainless Steel	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
5/32	0.06	EIPS	~	~	W19705B3	2,820	~	~
3/16	0.07	EIPS	~	~	W19706B3	2,860	W19706S3	3,330
1/4	0.11	EIPS	W19708A3	5,540	W19708B3	5,540	W19708S3	5,760
7mm	0.14	2160 N/mm ²	M070197A3*	7,762 (34.5kN)	~	~	~	~
5/16	0.18	EIPS	W19710A3	8,540	~	~	W19710S3	8,100
3/8	0.25	EIPS	W19712A3	12,300	~	~	~	~
7/16	0.35	EIPS	W19714A3	16,600	~	~	~	~
1/2	0.45	EIPS	W19716A3	21,600	~	~	~	~
9/16	0.58	EIPS	W19718A3	27,200	~	~	~	~
5/8	0.71	EIPS	W19720A3	33,600	~	~	~	~
3/4	1.02	EIPS	W19724A3	48,000	~	~	~	~
7/8	1.39	EIPS	W19728A3	65,000	~	~	~	~

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.



6 x 24 FC Class Wire Rope

6 Outer Strands, Rotation Wire Rope

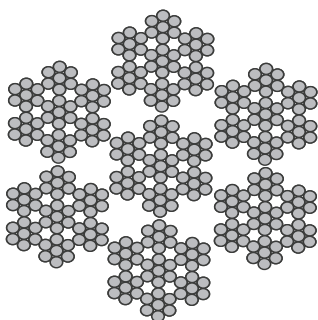
An inexpensive galvanized wire rope which is very flexible and suitable for cargo runners, mooring lines, lifting slings, lashing, fishing and tow lines.

6x24 (15+9+FC) FC, Load bearing outer wires 144

Fill factor 0.41

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds
1/4	0.09	Galvanized	EIPS	W62408D1C	4,980
5/16	0.14	Galvanized	EIPS	W62410D1C	7,620
3/8	0.20	Galvanized	EIPS	W62412D1C	9,540
7/16	0.27	Galvanized	EIPS	W62414D1C	14,110
1/2	0.35	Galvanized	EIPS	W62416D1C	19,320
9/16	0.44	Galvanized	EIPS	W62418D1C	24,200
5/8	0.54	Galvanized	EIPS	W62420D1C	28,600
3/4	0.78	Galvanized	EIPS	W62424D1C	40,900
7/8	1.06	Galvanized	EIPS	W62428D1C	55,400
1	1.38	Galvanized	EIPS	W62432D1C	75,400
1-1/8	1.75	Galvanized	EIPS	W62436D1C	90,640
1-1/4	2.16	Galvanized	EIPS	W62440D1C	116,600



7 x 7 x 7 Class Wire Rope

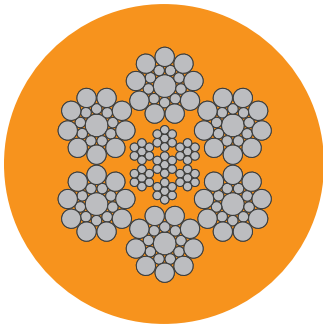
Cable Laid

Cable laid ropes are specifically designed to give superior flexibility for use as sling assemblies and log wrapper cables.

7x7x7 (6+1x6+1x6+1), Load bearing outer wires 294

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds
5/16	0.14	Galvanized	EIPS	W77710B1C	7,000
3/8	0.27	Galvanized	EIPS	W77712B1C	14,300
7/16	0.36	Galvanized	IPS	W77714B1C	13,800
1/2	0.37	Galvanized	EIPS	W77716B1C	18,100
9/16	0.44	Galvanized	EIPS	W77718B1C	29,700

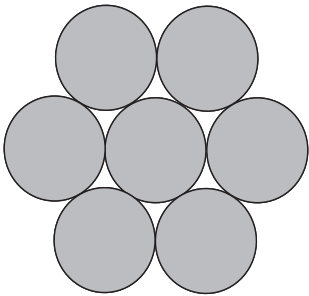


6 x 19 Class Coated Wire Rope

Galvanized 6 Outer Strands, Rotation Wire Rope

Galvanized PVC Coated Cables are excellent for outdoor applications with direct sunlight or wet locations. The coating for this particular rope is oversized for increased protection against the environment and wear. It is used for general multi purpose rigging such as safety cables, mooring applications, security cables and hanger ropes.

Wire Rope Diameter Inches	Outside Diameter Inches	Weight per Foot Pounds	Wesco Stock Code	Minimum Strength Pounds	Colours Stocked
1/2	3/4	0.70	W61916BP	23,940	Orange



1 x 7 Guy Wire

Galvanized Strand

A stiff strand construction suitable for Guy Strand Rigging, Fish Enclosure Netting, Fishing Boat Rigging, Guy and Stay Ropes.

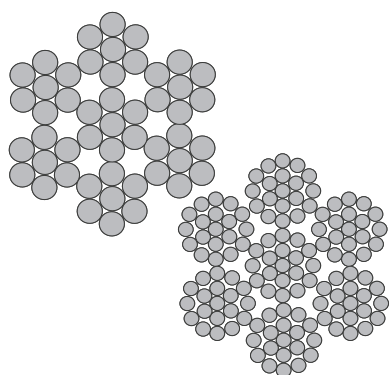
1x7, Load bearing outer wires 6

Fill factor 0.78

Use of swivel is **not** permitted, not suitable for overhead lifting.

Diameter Inches	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds
3/16	0.08	Galvanized	EHS	W10706G1C	4,000
1/4	0.13	Galvanized	EHS	W10708G1C	6,400
5/16	0.22	Galvanized	EHS	W10710G1C	11,100
3/8	0.27	Galvanized	EHS	W10712G1C	13,500
7/16	0.39	Galvanized	EHS	W10714G1C	19,500
1/2	0.52	Galvanized	EHS	W10716G1C	25,500





7 x 7 & 7 x 19 Class Wire Rope

Galvanized 6 Outer Strands, Rotation Wire Rope

A commercial grade aircraft cable that makes for a very good all round small diameter rope. It is suitable for many applications including marine ropes, stage rigging, winch ropes, pulling cables, assemblies, seismic bracing and control Cables.

7x7 (6+1) WSC, Load bearing outer wires 42

Fill factor 0.55

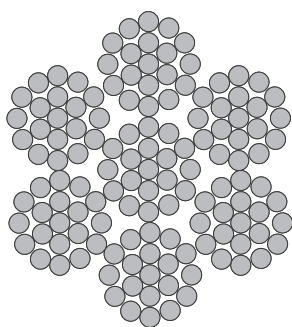
7x19 (12+6+1) WSC, Load bearing outer wires 114

Fill factor 0.57

Manufactured to US Federal Specification RR-W-410F

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Grade Tensile	7 x 7 Construction		7 x 19 Construction	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
3/64	0.01	IPS	W70701B5C	270	~	~
1/16	0.01	IPS	W70702B5C	480	~	~
3/32	0.02	IPS	W70703B5C	920	~	~
1/8	0.03	IPS	W70704B5C	1,700	W71904B5C	2,000
5/32	0.05	IPS	~	~	W71905B5C	2,800
3/16	0.07	IPS	~	~	W71906B5C	4,200
7/32	0.09	IPS	~	~	W71907B5C	5,600
1/4	0.11	IPS	~	~	W71908B5C	7,000
5/16	0.17	IPS	~	~	W71910B5C	9,800
3/8	0.24	IPS	~	~	W71912B5C	14,400
1/2	0.41	IPS	~	~	W71916B5C	24,000
5/8	0.65	IPS	~	~	W71920B5C	37,000



7 x 19 Garage Door Rope

Galvanized 6 Outer Strands, Rotation Wire Rope

A commercial grade aircraft cable which is flexible and has a lightly lubricated core. This cable is also cycle tested to ensure longevity in high cycle environments such as garage door and multiple sheave applications.

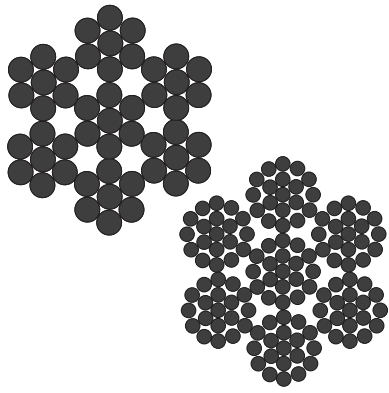
7x19 (12+6+1) WSC, Load bearing outer wires 114

Fill factor 0.57

Manufactured to US Federal Specification RR-W-410F

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds
1/8	0.03	IPS	W71904B5C-DCQ	2,000
5/32	0.05	IPS	W71905B5C-DCQ	2,800
3/16	0.07	IPS	W71906B5C-DCQ	4,200



7 x 7 & 7 x 19 Black Powder Coated Rope

6 Outer Strands, Rotation Wire Rope

A commercial grade aircraft cable which is flexible and is coated black. The black coating process hides the cable from sight for flying scenes, scenery and lighting applications. Swaging sleeves can be applied directly over the coating, no removing of the covers required. Coating is durable and is flake resistant. A great rope for stage rigging, studio rigging and other entertainment applications.

7x7 (6+1) WSC, Load bearing outer wires 42

Fill factor 0.55

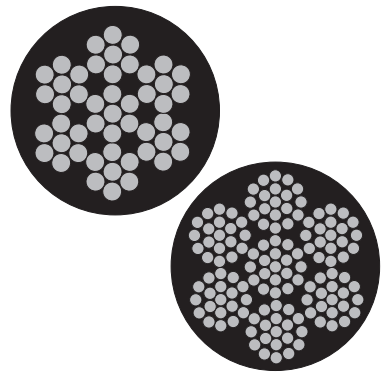
7x19 (12+6+1) WSC, Load bearing outer wires 114

Fill factor 0.57

Manufactured to US Federal Specification RR-W-410F

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Grade Tensile	7 x 7 Construction		7 x 19 Construction	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
1/16	0.01	IPS	W70702BE	480	~	~
3/32	0.02	IPS	W70703BE	920	~	~
1/8	0.03	IPS	~	~	W71904BE	2,000
5/32	0.05	IPS	~	~	W71905BE	2,800
3/16	0.07	IPS	~	~	W71906BE	4,200
1/4	0.11	IPS	~	~	W71908BE	7,000

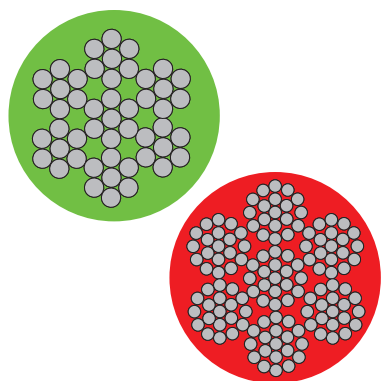


7 x 7 & 7 x 19 Nylon Coated Wire Rope

Galvanized 6 Outer Strands, Rotation Wire Rope

Nylon is more effective in high cycle applications and rough conditions where some rubbing and scrubbing is present. The Nylon-11 coating applied to our product is a hard wearing, flexible and abrasion resistant product superior to standard Nylon coated products. Excellent for use as gym cables, studio rigging running lines and motion control cables. Colour stocked is Black.

Wire Rope Diameter Inches	Outside Diameter Inches	Weight per Foot Pounds	7 x7 Construction		7 x 19 Construction	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
1/16	3/32	0.01	W70702BN	480	~	~
3/32	1/8	0.02	W70703BN	920	~	~
1/8	3/16	0.04	~	~	W71904BN	2,000
5/32	3/16	0.06	~	~	W71905BN	2,800
3/16	1/4	0.08	~	~	W71906BN	4,200

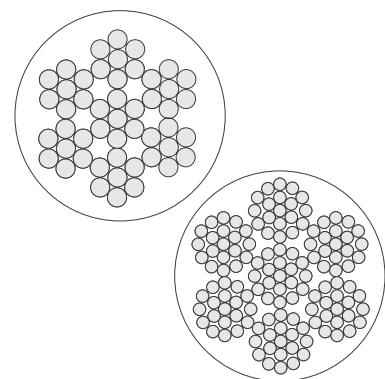


7 x 7 & 7 x 19 Class Coated Wire Rope

Galvanized 6 Outer Strands, Rotation Wire Rope

Galvanized PVC Coated Cables are excellent for outdoor applications with direct sunlight or wet environments. It is used for general multi purpose rigging such as safety cables, conveyor safety cables, security cables and hanger ropes.

Wire Rope Diameter Inches	Outside Diameter Inches	Weight per Foot Pounds	Wesco Stock Code	Minimum Strength Pounds	Colours Stocked
1/16 (7x7)	3/32	0.01	W70702BP	480	Black, Clear & Yellow
1/8 (7x7)	3/16	0.04	W70703BP	1,700	Navy Blue
1/8 (7x19)	3/16	0.04	W71904BP	2,000	Clear, Neon Green, Red, Yellow
5/32 (7x19)	7/32	0.06	W71905BP	2,800	Blue Screen & Neon Green
3/16 (7x19)	1/4	0.08	W71906BP	4,200	Blue Screen, Clear, Neon Green, Red, White & Yellow
1/4 (7x19)	5/16	0.13	W71908BP	7,000	Clear, Red & White
5/16 (7x19)	3/8	0.20	W71910BP	9,800	Black, Clear & White
3/8 (7x19)	7/16	0.30	W71912BP	14,400	Clear
3/8 (7x19)	1/2	0.31	W71912BP	14,400	Orange



7 x 7 & 7 x 19 Coated Wire Rope

Stainless Steel 6 Outer Strands, Rotation Wire Rope

Stainless Steel PVC Coated Cables are excellent for outdoor applications with direct sunlight or wet environments. It is used for general multi purpose rigging such as stay cables, marine ropes and architectural cables.

Wire Rope Diameter Inches	Outside Diameter Inches	Grade Tensile	Weight per Foot Pounds	Wesco Stock Code	Minimum Strength Pounds	Colours Stocked
1/16 (7x7)	3/32	316	0.01	W70702SP	480	Clear
1/8 (7x7)	3/16	316	0.04	W70704SP	1,700	Clear
1/8 (7x19)	3/16	316	0.04	W71904SP	1,760	Clear & White
3/16 (7x19)	1/4	316	0.08	W71906SP	3,700	Clear
1/4 (7x19)	5/16	316	0.13	W71908SP	6,400	Clear
3/8 (7x19)	7/16	316	0.30	W71912SP	12,000	Clear

7 x 7 & 7 x 19 Class Wire Rope

Stainless Steel 6 Outer Strands, Rotation Wire Rope

A commercial grade aircraft cable suitable for many applications including marine ropes, winches, rigging stays, pulling and control cables.

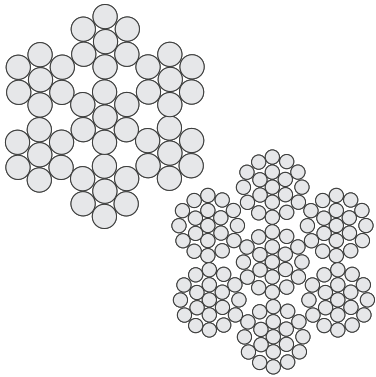
7x7 (6+1) WSC, Load bearing outer wires 42

Fill factor 0.55

7x19 (12+6+1) WSC, Load bearing outer wires 114

Fill factor 0.57

Use of swivel is **not** permitted.



Diameter Inches	Weight per Foot Pounds	Grade Tensile	7 x 7 Construction		7 x 19 Construction	
			Wesco Stock Code	Minimum Strength Pounds	Wesco Stock Code	Minimum Strength Pounds
1/16	0.01	316	W70702S1C-316	480	~	~
3/32	0.03	316	W70703S1C-316	920	~	~
1/8	0.04	316	W70704S1C-316	1,700	W71904S1C-316	1,760
5/32	0.05	316	~	~	W71905S1C-316	2,400
3/16	0.07	316	~	~	W71906S1C-316	3,700
1/4	0.11	316	~	~	W71908S1C-316	6,400
5/16	0.17	316	~	~	W71910S1C-316	9,000
3/8	0.24	316	~	~	W71912S1C-316	12,000

6 x 19 Class Wire Rope

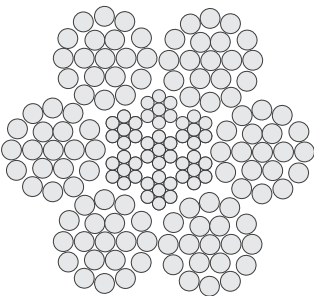
Stainless Steel 6 Outer Strands, Rotation Wire Rope

A good general purpose wire rope which is wear and crush resistant but not very flexible. It is suitable for suspension rigging, fishing, winch lines, mooring lines, anchor lines and slings.

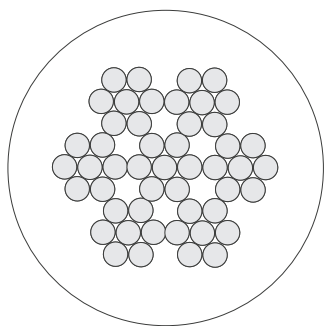
6x19 (12+6+1) IWRC, Load bearing outer wires 114

Fill factor 0.57

Use of swivel is **not** permitted.



Diameter Inches	Weight per Foot Pounds	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds
7/16	0.36	316	W61914S1C-316	16,300
1/2	0.46	316	W61916S1C-316	22,800
9/16	0.59	304	W61918S1	28,500
5/8	0.72	316	W61920S1C-316	35,000
3/4	0.92	304	W61924S1	49,600
7/8	1.43	304	W61928S1	66,500
1	1.87	304	W61932S1	85,400

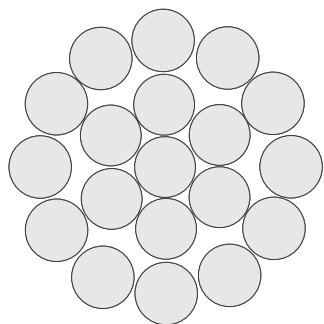


7 x 7 Class Coated Lifeline Wire Rope

Stainless Steel 6 Outer Strands, Rotation Wire Rope

Coated lifeline wire ropes are used mainly for safety lifeline wires on yachts, power /sail boats and other guard rail applications. The PVC Coating provides protection against the sunlight, while the increased Coating provides extra protection against rubbing and scrubbing, and the 7 x 7 construction provides a stiffness and low stretch that is required for guard rails.

Wire Rope Diameter Inches	Outside Diameter Inches	Weight per Foot Pounds	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds
1/8	1/4	0.04	316	W70704SP-WHITE	1,500
3/16	5/16	0.10	316	W70706SP-WHITE	3,100



Stainless Steel 1 x 19 Strand

A stiff spiral strand construction suitable for standing rigging. Applications can include yacht / sailboat rigging, architectural, guying, balustrading, cable railing and display.

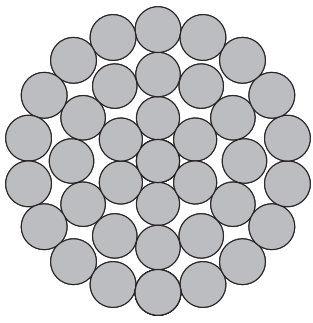
1x19, Load bearing outer wires 12

Fill factor 0.76

Use of swivel is **not** permitted, not suitable for overhead lifting.

Diameter Inches	Weight per Foot Pounds	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds
1/16	0.01	316	W11902S1C-316	400
3/32	0.02	316	W11903S1C-316	1,000
1/8	0.04	316	W11904S1C-316	1,780
5/32	0.06	316	W11905S1C-316	2,800
3/16	0.08	316	W11906S1C-316	4,000
1/4	0.14	316	W11908S1C-316	6,900
5/16	0.21	316	W11910S1C-316	10,600
3/8	0.30	316	W11912S1C-316	14,800



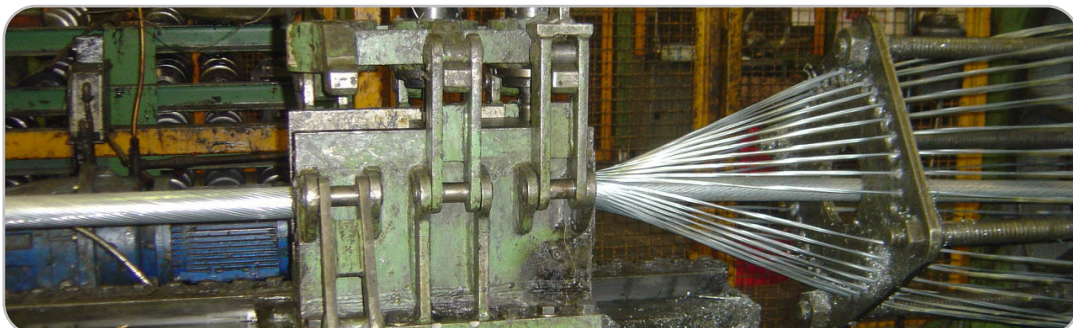


Galvanized Structural Strand

Structural Strand ropes are characterized by the higher fill content in the rope cross section, which specifies minimal elasticity and permanent elongations while in use, the result being application in a multitude of uses. These can include guy cables, drag line & shovel suspension or boom pendant ropes, bridges, suspended structures and crane pendant ropes.

Diameter Inches	Weight per Foot Pounds	Gross Metallic Area (in ²)	Breaking Strength in US Tons			
			Class A	Class B	Class C	Grade 2 Class A
1/2	0.52	0.150	15.0	14.5	14.2	17.3
5/8	0.82	0.234	24.0	23.3	22.8	27.6
3/4	1.18	0.338	34.0	33.0	32.3	39.1
7/8	1.61	0.459	46.0	44.6	43.7	52.9
1	2.10	0.600	61.0	59.2	57.9	70.2
1 1/8	2.66	0.759	78.0	83.4	74.1	89.7
1 1/4	3.28	0.938	96.0	94.1	92.2	110.0
1 3/8	3.97	1.130	116.0	114.0	111.0	133.0
1 1/2	4.73	1.350	138.0	135.0	132.0	159.0
1 5/8	5.55	1.590	162.0	159.0	155.0	186.0
1 3/4	6.43	1.840	188.0	184.0	180.0	216.0
1 7/8	7.39	2.110	216.0	212.0	207.0	248.0
2	8.40	2.400	245.0	241.0	238.0	282.0
2 1/8	9.49	2.710	277.0	273.0	269.0	319.0
2 1/4	10.50	3.040	310.0	305.0	301.0	357.0
2 3/8	11.70	3.380	344.0	339.0	344.0	396.0
2 1/2	12.80	3.750	376.0	370.0	365.0	432.0
2 5/8	14.50	4.130	417.0	411.0	404.0	480.0
2 3/4	15.90	4.540	452.0	445.0	438.0	520.0
2 7/8	17.40	4.960	494.0	486.0	479.0	619.0
3	18.90	5.400	538.0	530.0	522.0	672.0

Above chart is to ASTM A-586. Wesco can also offer Structural Strand to other standards including ASTM A-603 for Structural Bridge Strand and ISO17893 & EN 12385-10. Assemblies can be manufactured to any standard required.



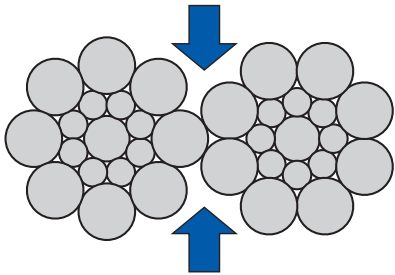
As cranes and machines have increased in capacity and ability, the demands on the wire rope have also increased. Wire Ropes now need to have higher breaking strength, while retaining a greater life expectancy. This can be achieved in many ways including increasing the number of strands, design, compaction and plastic cores.

Compaction

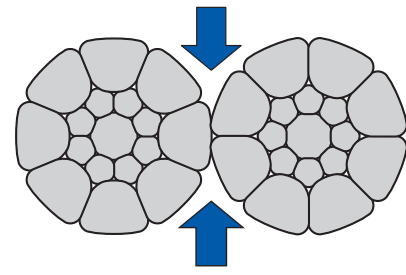
To produce a compacted strand a conventional strand is drawn through a set of compacting dies and rollers. During this process the strand reduces in diameter and the outer surface becomes smooth. This creates a better surface of contact between the wires in the strand, an increase in the metallic area and a more uniform distribution of the tension on wires.

By compacting the outer strands we are able to achieve;

- Significant increase in breaking load of the wire rope due to the higher metallic area.
- Increase in flexibility.
- Increase stability of the strand to side forces, and crushing.
- The smoother surface will decrease the indentations on sheaves and drums, and allows easier motion of the elements.
- A reduction in permanent elongation within its working range.



Conventional Strand produces inter strand nicking



Compacted Strand reduces wear between strands

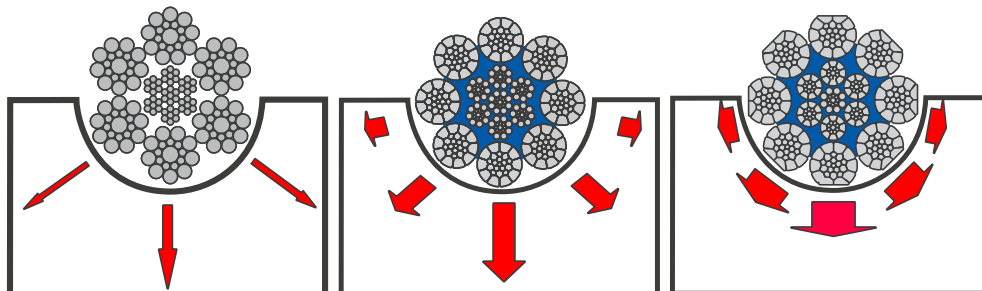
Compacted ropes are preferred over conventional strands for applications where multi layer spooling on drums is present. Furthermore, longer service life can be achieved when replacing conventional ropes with compacted ropes due to the lower stresses placed on the rope.

Increased Number of Strands

By switching the number of strands from six to eight, nine or ten outer strands we can achieve a better working life for the wire rope. A larger number of strands achieves:

- An increase in the metallic area of the rope, and therefore a higher breaking strength.
- The wire rope becomes more round and therefore increases contact between sheaves and drums, and reduction in tread wear.
- Increase in strands and wires increases the flexibility of the rope

Eight, Nine or Ten strand ropes are preferred over six strands for applications where multi layer spooling on drums is present.

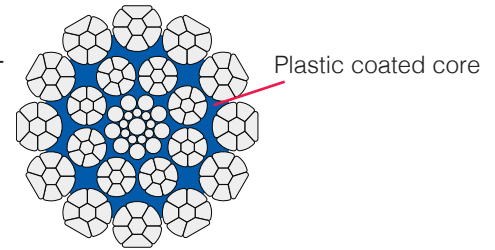


Plastic Coated Core (Cushion Core)

Is produced by closing the outer strands over a steel core which is coated with plastic. The plastic is of a special design to handle the conditions experienced during the life of the rope and to allow continuous operation of the rope in a wide temperature range (-35 deg C to + 90 deg C).

The plastic coated core has many advantages including;

- Prevents internal wire breaks as the plastic decreases inner and outer strand contact.
- The plastic traps the wire rope lubricant in the core, and prevents foreign matter entering the rope internally.
- Increases the stability of the rope which eases installation, and also helps prevent incidents of birdcaging as the plastic core is able to absorb some energy.
- A much higher structural stable rope for multi layer spooling.

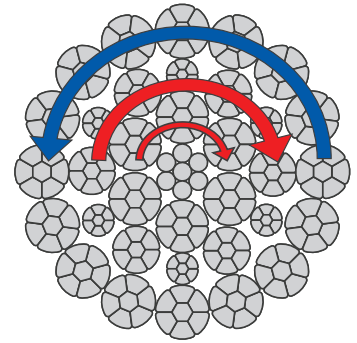


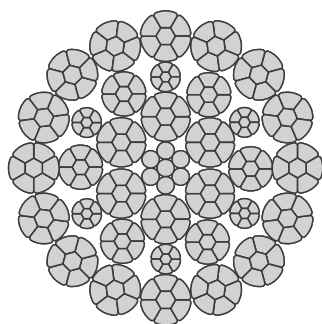
Rotation Resistant & Non-Rotating

Wire rope will tend to spin or rotate under load. This can be reduced by using ropes made of two or more layers of strands laid in opposite directions, however a true non rotating rope can never be achieved because the alternating layers, although close, are never perfectly equal. Ropes that are defined as “non-rotating” are ideal for uses where the stability of suspended, non guided loads especially over longer lifting heights.

Rotation Resistant Ropes are manufactured from 2 layers of strands with the outer strands closed in an opposite direction to the inner strands. These type of ropes generally have 11 to 13 outer strands (19 x 7 & 19 x 19 constructions) with an inner core of 6 or 7 inner strands. The torque produced by the outer strands is not equal to that of the inner strands and therefore not considered non-rotating. Furthermore due to this imbalance, these rotation resistant ropes suffer from the core being over stressed especially where the outer strands crossover the core.

When inspecting the visual outer strands may show few signs of fatigue or deterioration, but premature and unexpected failure can occur as a result of the design flaw. Rotation resistant ropes should not be used with a swivel as this can reduce the breaking strength of these rope constructions by up to 40%. A non-rotating rope is made up of three layers where the two inner layers of strands are closed in one direction while the outer strands (14 or more outer strands) are closed in a reverse direction. The torque of the outer strands are designed to be equal to the torque of the inner strands to create a non rotating rope. These types of ropes can be safely used with a swivel, and is highly recommended to allow any build up of twist in the reeving system to escape through the end. These class of ropes should be selected for all types of Tower Cranes and larger Mobile Cranes. For ship deck cranes, marine or offshore use a non rotating rope may be preferred with a plastic coated core between the inner and outer strands, to increase its ability to absorb high dynamic loading environments and to increase structural stability.





PRO34K Compacted Wire Rope

16 Outer Strands, Non-Rotating Wire Rope

An excellent 3 layer non rotating wire rope, class 35x7, with 16 outer compacted lang's lay strands. This rope has a high tensile strength, a safe construction and the best in rotation resistance without compromising on flexibility and good resistance to drum crushing. Very low torque factor for big height hoists and lifts, with strong reliability combined with outstanding load capacity creates a best seller for telescopic mobile cranes, tower cranes, offshore cranes and any application where a non rotating rope is required.

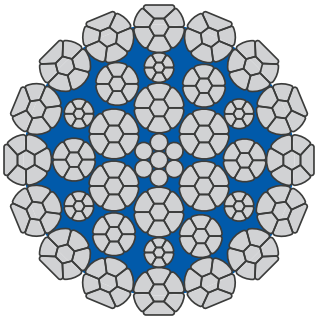
34x7 (6+1) Load bearing outer wires 112

Fill factor 0.715 Torque factor 0.009

Use of swivel is permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
8mm	0.19	Galvanized	2160 N/mm ²	M080PRO34KB221R	13,937	62.0
9mm	0.27	Galvanized	2160 N/mm ²	M090PRO34KB221R	17,759	79.0
3/8"	0.29	Galvanized	2160 N/mm ²	M095PRO34KB221R	19,715	87.7
10mm	0.30	Galvanized	2160 N/mm ²	M100PRO34KB221R	21,805	97.0
11mm	0.40	Galvanized	2160 N/mm ²	M110PRO34KB221R	26,526	118.0
12mm	0.46	Galvanized	2160 N/mm ²	M120PRO34KB221R	31,472	140.0
1/2"	0.50	Galvanized	2160 N/mm ²	M127PRO34KB221R	35,068	156.0
13mm	0.54	Galvanized	2160 N/mm ²	M130PRO34KB221R	36,417	162.0
14mm	0.64	Galvanized	2160 N/mm ²	M140PRO34KB221R	42,937	191.0
15mm	0.73	Galvanized	2160 N/mm ²	M150PRO34KB221R	49,231	219.0
16mm	0.85	Galvanized	2160 N/mm ²	M160PRO34KB221R	55,975	249.0
17mm	0.91	Galvanized	2160 N/mm ²	M170PRO34KB221R	62,944	280.0
18mm	1.06	Bright	2160 N/mm ²	M180PRO34KB221*	70,812	315.0
19mm	1.18	Galvanized	2160 N/mm ²	M190PRO34KB221*	78,905	351.0
20mm	1.30	Galvanized	2160 N/mm ²	M200PRO34KB221R	87,447	389.0
21mm	1.43	Galvanized	2160 N/mm ²	M210PRO34KB221R	96,439	429.0
22mm	1.57	Galvanized	2160 N/mm ²	M220PRO34KB221*	105,880	471.0
23mm	1.70	Galvanized	2160 N/mm ²	M230PRO34KB221R	115,547	514.0
24mm	1.96	Galvanized	2160 N/mm ²	M240PRO34KB221R	125,888	560.0
25mm	2.15	Galvanized	2160 N/mm ²	M250PRO34KB221R	136,678	608.0
1"	2.17	Galvanized	2160 N/mm ²	M254PRO34KB221R	139,400	620.0
26mm	2.20	Galvanized	2160 N/mm ²	M260PRO34KB221R	147,693	657.0
28mm	2.55	Galvanized	2160 N/mm ²	M280PRO34KB221R	171,297	762.0
32mm	3.31	Galvanized	2160 N/mm ²	M320PRO34KB221R	223,900	996.0
36mm	4.20	Galvanized	2160 N/mm ²	M360PRO34KB221R	283,248	1,260.0

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.



PRO34PS Compacted Wire Rope

16 Outer Strands, Non-Rotating Wire Rope

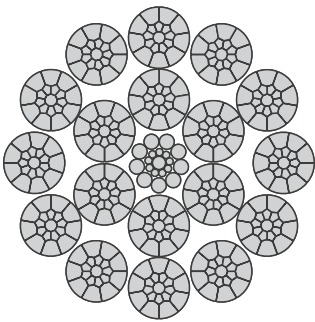
An excellent 3 layer rotary swaged non rotating wire rope, class 35x7, with 16 outer compacted lang's lay strands and plastic coated steel core. This rope is a speciality high performance rotation resistant rope with enhanced crush and wear resistance for extremely difficult conditions and an excellent stable rope structure. Suitable for single and multi-part reeving, and recommended for multi-layer spooling for marine cranes, drill & piling rigs, tower cranes, offshore cranes and any application where a non rotating rope is required.

34x7 (6+1) Load bearing outer wires 112

Fill factor 0.735 Torque factor 0.008

Use of swivel is permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
9/16	0.64	Galvanized	2160 N/mm2	M140PRO34PSB221R	42,937	191.0
5/8	0.85	Galvanized	2160 N/mm2	M158PRO34PSB221R	55,975	249.0



PRO19K Compacted Wire Rope

12 Outer Strands, Rotation Resistant Wire Rope

PRO19K compacted strand rope, is a 2 layer rotation resistant wire rope with 12 outer strands. It is a high strength and crush resistant rope suitable for low lifting heights. This rope is ideal for North American manufactured cranes for hoist and auxiliary ropes.

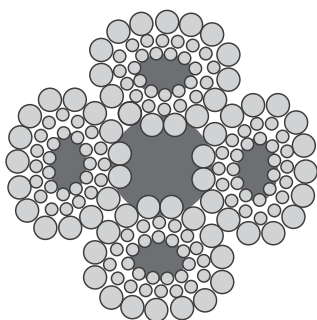
19x19S(9+9+1) Load bearing outer wires 228

Fill factor 0.72 Torque factor 0.032

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
9/16	0.64	Bright	2160 N/mm2	W191918AD	42,500	189.0
5/8	0.82	Bright	2160 N/mm2	W191920AD	52,800	243.9
3/4	1.19	Bright	2160 N/mm2	W191924AD	76,000	338.0
7/8	1.61	Bright	2160 N/mm2	W191928AD	103,000	458.2





4 x 39 Unique Wire Rope

4 Outer Strands, Rotation Resistant Wire Rope

A unique designed 4 strand rope which is rotation resistant. This unique construction creates a very smooth finish to the rope and therefore provides superior crush resistance in multi layer spooling. Found commonly on ship deck crane unloaders, and is also a good replacement rope for pile driving and boom hoist ropes.

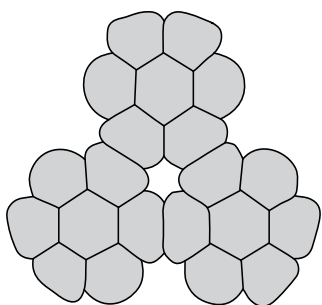
4xSeS39 (15+15+9+FC) FC Load bearing outer wires 156

Fill factor 0.67

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
19mm	1.00	Galvanized	2160 N/mm2	M190439D219R	56,200	250.0
20mm	1.20	Galvanized	2160 N/mm2	M200439D219R	62,200	276.7
32mm	2.55	Galvanized	2160 N/mm2	M320439D219*	159,400	709.0
33.5mm	3.11	Galvanized	2160 N/mm2	M335439D219R	181,600	808.0

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.



3 x 7 Super Swaged

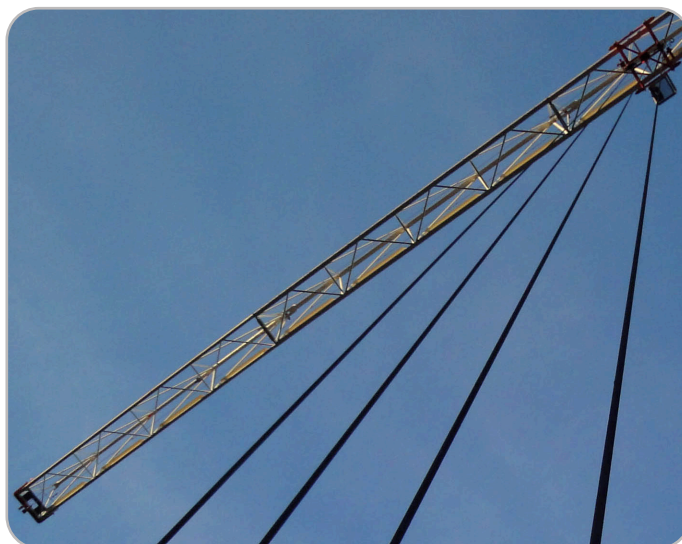
3 Outer Strands, Rotation Resistant Wire Rope

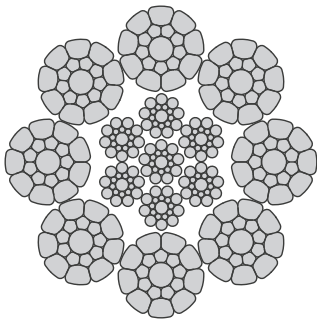
A high strength to weight ratio, and dense structure which increases the surface area and improves the contact points with the drums and sheaves. This rope construction is ideal for diamond drilling operations, wirelines, well measuring lines and drill blasting machines.

3x7 (1+6), Load bearing outer wires 21

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds
3/16	0.08	Bright	EIPS	W30706AS	5,500
1/4	0.13	Bright	EIPS	W30708AS	9,000





PRO8K Compacted Wire Rope

6 Outer Strands, Rotation Wire Rope

PRO8K is an 8 strand wire rope with compacted outer strands. It has a high breaking strength and more rounded construction for better tread patterns on sheaves and drums. Applications including trolley ropes on self erecting cranes or tower cranes and hoist ropes for overhead cranes.

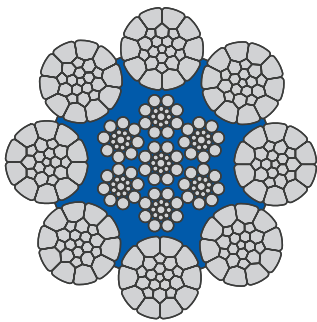
8x19S (9+9+1) Load bearing outer wires 152

Fill factor 0.68

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
6.4mm	0.13	Galvanized	2160 N/mm2	M064DP8KB121R	9,306	41.4
6.5mm	0.13	Galvanized	2160 N/mm2	M065819AD121*	8,990	40.0

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.



PRO8KP Compacted Wire Rope

8 Outer Strands, Rotation Wire Rope

PRO8KP is an 8 strand compacted wire rope with a plastic impregnated core. Compacting the outer strands increases the strength and along with the plastic core the stability of the rope is increased. This rope is ideal for increased service life as a direct replacement for regular 6 or 8 strand ropes in many crane applications including self erecting cranes, ship to shore container cranes, crawler cranes, tower cranes and overhead cranes.

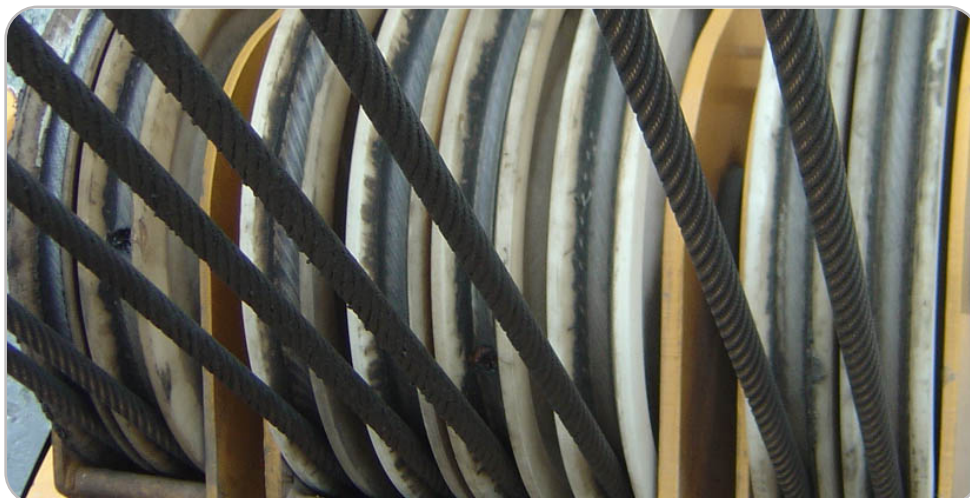
8x26WS (10+(5+5)+5+1) Load bearing outer wires 208

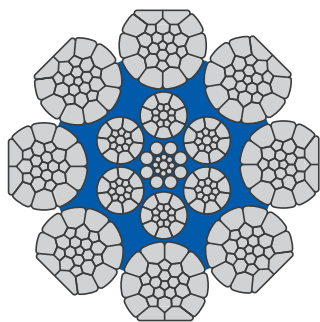
Fill factor 0.68

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pound	Minimum Strength kN
1/2"	0.51	Galvanized	2160 N/mm2	M127PRO8KPB121R	33,500	149.0
19mm	1.13	Galvanized	2160 N/mm2	M190PRO8KPB121R	75,700	338.0
22mm	1.50	Galvanized	2160 N/mm2	M220PRO8KBP121R	101,300	451.0
26mm	1.96	Bright	2160 N/mm2	M260PRO8PA321*	141,400	629.0

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.





PRO8PS Rotary Swaged & Compacted Wire Rope

8 Outer Strands, Non-Rotation Resistant Wire Rope

This rope has eight outer strands which are rotary swaged and compacted for superior crush resistance on multi-layer drums. It has a plastic coated core between the outer strands and inner core to increase the stability of the rope structure. The high tensile strength of this rope and superior crush resistance on multi-layer drums makes it an excellent rope for crawler cranes, tower cranes, lattice boom cranes, and port cranes. This rope should be used in applications where both ends of the wire rope are secured to prevent rotation.

8mm to 12mm - 8x19S (9+9+1) Load bearing outer wires 152

1/2" to 32mm - 8x26WS (10+(5+5)+5+1) Load bearing outer wires 208

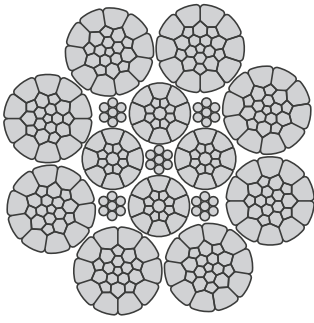
34 to 48mm - 8x31WS (12+(6+6)+6+1) Load bearing outer wires 248

Fill factor 0.71

Use of swivel **NOT** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
8mm	0.22	Bright Galvanized	2160 N/mm ²	M080PRO8PSA121R M080PRO8PSB121*	14,610	65.0
9mm	0.28	Galvanized	2160 N/mm ²	M090PRO8PSB121*	18,250	81.2
3/8"	0.32	Galvanized	2160 N/mm ²	M095PRO8PSB121R	20,340	90.5
10mm	0.35	Galvanized	2160 N/mm ²	M100PRO8PSB121*	22,710	101.0
11mm	0.42	Bright	2160 N/mm ²	M110PRO8PSA121*	27,650	123.0
12mm	0.50	Bright	2160 N/mm ²	M120PRO8PSA121R	32,370	144.0
1/2"	0.56	Bright	2160 N/mm ²	M127PRO8PSA121R	36,420	162.0
13mm	0.58	Galvanized	2160 N/mm ²	M130PRO8PSB121*	38,220	170.0
14mm	0.68	Galvanized	2160 N/mm ²	M140PRO8PSB121*	44,290	197.0
15mm	0.77	Galvanized	2160 N/mm ²	M150PRO8PSB121R	50,810	226.0
16mm	0.89	Galvanized	2160 N/mm ²	M160PRO8PSB121*	58,000	258.0
18mm	1.12	Galvanized	2160 N/mm ²	M180PRO8PSB121R	73,510	327.0
19mm	1.24	Galvanized	2160 N/mm ²	M190PRO8PSB121*	81,600	363.0
20mm	1.38	Galvanized	2160 N/mm ²	M200PRO8PSB121R	90,370	402.0
22mm	1.67	Galvanized	2160 N/mm ²	M220PRO8PSB121R	109,480	487.0
24mm	1.99	Galvanized	2160 N/mm ²	M240PRO8PSB121R	130,160	579.0
25mm	2.16	Galvanized	2160 N/mm ²	M250PRO8PSB121R	141,630	630.0
1"	2.22	Galvanized	2160 N/mm ²	M254PRO8PSB121R	146,800	653.0
26mm	2.33	Galvanized	2160 N/mm ²	M260PRO8PSB121R	152,870	680.0
28mm	2.71	Galvanized	2160 N/mm ²	M280PRO8PSB121R	177,150	788.0
1-1/8"	2.83	Galvanized	2160 N/mm ²	M286PRO8PSB121R	185,020	823.0
32mm	3.54	Galvanized	2160 N/mm ²	M320PRO8PSB121R	231,550	1,030.0
36mm	4.48	Galvanized	2160 N/mm ²	M360PRO8PSB121R	293,150	1,304.0

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.



PARA8K Compacted Wire Rope

8 Outer Strands, Rotation Wire Rope

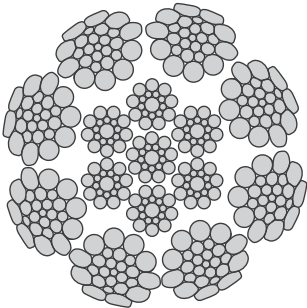
PARA8K is a compacted 8 strand double parallel lay wire ropes. It offers a high strength alternative to 6 or 8 strand ropes on many crane applications including self erecting cranes erection lines, overhead cranes, pulling cables and boom pendant ropes.

8x19S (9+9+1) IWRC Load bearing outer wires 152

Fill factor 0.72

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
10mm	0.32	Galvanized	2160 N/mm2	M100PROP8KB121R	22,400	100
12mm	0.50	Galvanized	2160 N/mm2	M120PROP8KB121R	32,300	144



PRO8S Rotary Swaged Wire Rope

8 Outer Strands, Rotation Wire Rope

PRO8S is an 8 strand rotary swaged construction, and offers a high strength with increased flexibility on many crane applications including self erecting cranes, ship to shore container cranes and overhead cranes.

8x19S (9+9+1) IWRC, Load bearing outer wires 152

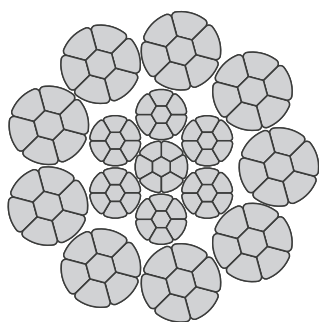
Fill factor 0.79

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
9mm	0.26	Bright	2160 N/mm2	M090PRO8SA121*	16,400	80.0

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.





PRO9K Compacted Wire Rope

9 Outer Strands, Rotation Wire Rope

This rope has 9 outer compacted strands and core. The 9 compacted outer strands provide flexibility and lower contact pressure onto sheaves and drums while maintaining a high breaking load. Its main use is as a trolley rope for tower cranes, but can be used on winches and pulling lines.

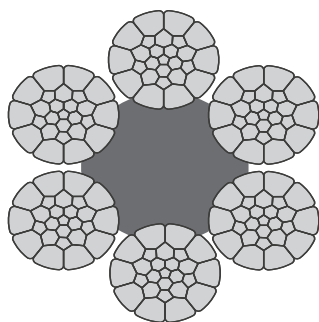
9x7S (6+1) IWRC Load bearing outer wires 63

Fill factor 0.65

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
6mm	0.11	Galvanized	2160 N/mm ²	M060PRO9KB121R	7,320	32.6
6.5mm	0.12	Galvanized	2160 N/mm ²	M065PRO9KB121R	8,360	37.2
7.5mm	0.18	Galvanized	2160 N/mm ²	M075PRO9KB121R	11,575	51.5
9mm	0.25	Galvanized	2160 N/mm ²	M090PRO9KB121R	16,455	73.2

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.



PRO6FC Compacted Wire Rope

6 Outer Strands, Rotation Wire Rope

PRO6FC compacted wire rope is a 6x26 fibre core for superior flexibility while retaining strength. Compacting the wire rope is designed for increased strength, flexibility and rope stability. It is commonly used on overhead cranes, and winch ropes.

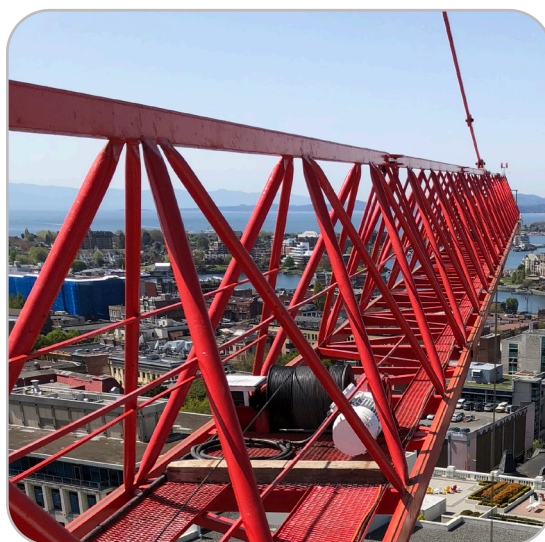
6x26WS (10+(5+5)+5+1) FC, Load bearing outer wires 156

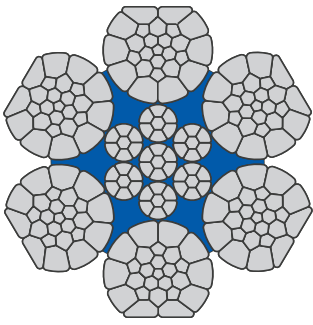
Fill factor 0.59

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
9mm	0.23	Bright	2160 N/mm ²	M090626COMPD121*	15,300	68.6

* Available in Left and Right Hand Lay. Sub in 'R' for Right Hand or 'L' for Left Hand at end of code.





PRO6SP Rotary Swaged & Compacted Wire Rope

6 Outer Strands, Rotation Wire Rope

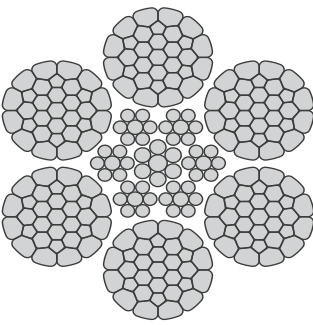
Is a compacted and rotary swaged 6 strand rope and a plastic coated compacted core. The 6 compacted outer strands provide superior crush resistance and lower contact pressure onto sheaves and drums while maintaining a high breaking load. The cushion core increases life expectancy. Suitable as a boom hoist rope, container crane hoist and trolley rope, steel mill crane, piling rigs and overhead cranes.

6x36S (FC+7+7x7+14) IWRC, Load bearing outer wires 216

Fill factor 0.69

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
1-5/8	5.30	Bright	1770 N/mm ²	M413PRO6SPA117R	310,000	1,375.0



PRO6C Compacted Wire Rope

6 Outer Strands, Rotation Wire Rope

PRO6C compacted wire rope is offered in 6x26 and 6x31 for increased flexibility. Compacting the wire rope is designed for increased strength, flexibility and rope stability. It is commonly used on cranes as boom hoist ropes, winch lines, clam shell buckets, small boom truck hoist ropes, logging mainlines, anchor lines, trolley lines and trailer loaders.

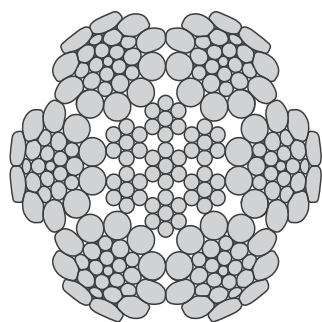
6x26WS (10+(5+5)+5+1) IWRC Load bearing outer wires 156

6x31WS (12+(6+6)+6+1) IWRC Load bearing outer wires 186

Fill factor 0.64

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
3/8	0.26	Galvanized	2160 N/mm ²	W63112BD	18,600	82.7
1/2	0.48	Bright	EIPS	W62616AD	30,200	134.3
9/16	0.57	Bright	EIPS	W62618AD	36,800	163.7
5/8	0.73	Galvanized	2160 N/mm ²	W62620BD	52,600	234.0
3/4	1.03	Bright	2160 N/mm ²	W63124AD	73,900	298.9
7/8	1.38	Bright	2160 N/mm ²	W63128AD	99,200	401.2
1	1.90	Bright	2160 N/mm ²	W63132AD	130,600	502.2
1 1/8	2.26	Bright	2160 N/mm ²	W63136AD	148,000	658.4
1 1/4	2.92	Bright	2160 N/mm ²	W63140AD	204,300	909.0
1-3/8	3.72	Bright	2160 N/mm ²	W63144AD	231,600	1,030.2



PRO6S Swaged Wire Rope

6 Outer Strands, Rotation Wire Rope

PRO6S swaged wire rope. Swaging the wire rope is designed for superior strength and abrasion resistance. It is commonly used in logging applications such as winch lines, skylines, haul backs, chokers and boom pendant ropes. 7/16" & 1/2"

6x19WS (9+9+1) IWRC Load bearing outer wires 114

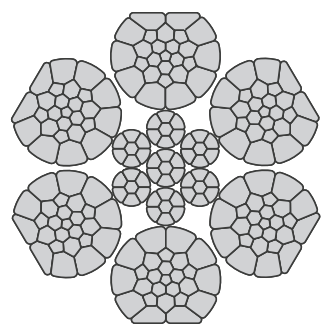
7/16" to 1"

6x26WS (10+(5+5)+5+1) IWRC Load bearing outer wires 156

Fill factor 0.72

Use of swivel is **not** permitted.

Diameter Inches	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
7/16	0.46	Bright	IPS	W62614AS	21,100	93.9
7/16	0.46	Galvanized	EIPS	W61914BS	24,300	108.1
1/2	0.60	Bright	IPS	W62616AS	26,400	117.4
1/2	0.60	Galvanized	EIPS	W61916BS	31,800	141.4
9/16	0.75	Bright	IPS	W62618AS	34,800	154.8
5/8	0.92	Bright	IPS	W62620AS	41,100	182.8
11/16	1.20	Bright	IPS	W62622AS	50,200	223.3
3/4	1.33	Bright	IPS	W62624AS	59,500	264.7
3/4	1.33	Galvanized	EIPS	W62624BS	60,900	270.9
7/8	1.84	Bright	IPS	W62628AS	80,600	358.5
1	2.35	Bright	IPS	W62632AS	107,000	476.0



UPS6 Rotary Swaged & Compacted Wire Rope

6 Outer Strands, Rotation Wire Rope

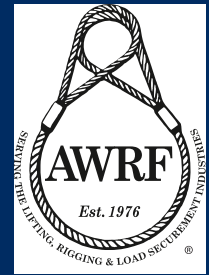
UPS6 is a compacted and rotary swaged wire rope. It has a very high breaking strength with a smooth outside finish for minimizing drum crushing and increased sheave life, a high fill factor and very low stretch. It is commonly used as a zipline, boom pendant ropes, luffing wire rope, pulling rope and hoists.

6x26WS (10+(5+5)+5+1) IWRC Load bearing outer wires 156

Fill factor 0.76

Use of swivel is **not** permitted.

Diameter	Weight per Foot Pounds	Finish	Grade Tensile	Wesco Stock Code	Minimum Strength Pounds	Minimum Strength kN
19mm	1.40	Galvanized	1960 N/mm ²	M190UPS6SKB119R	83,400	371.0



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Toll Free: 1 877 998 0808

Email: info@bluejayindustrial.us

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