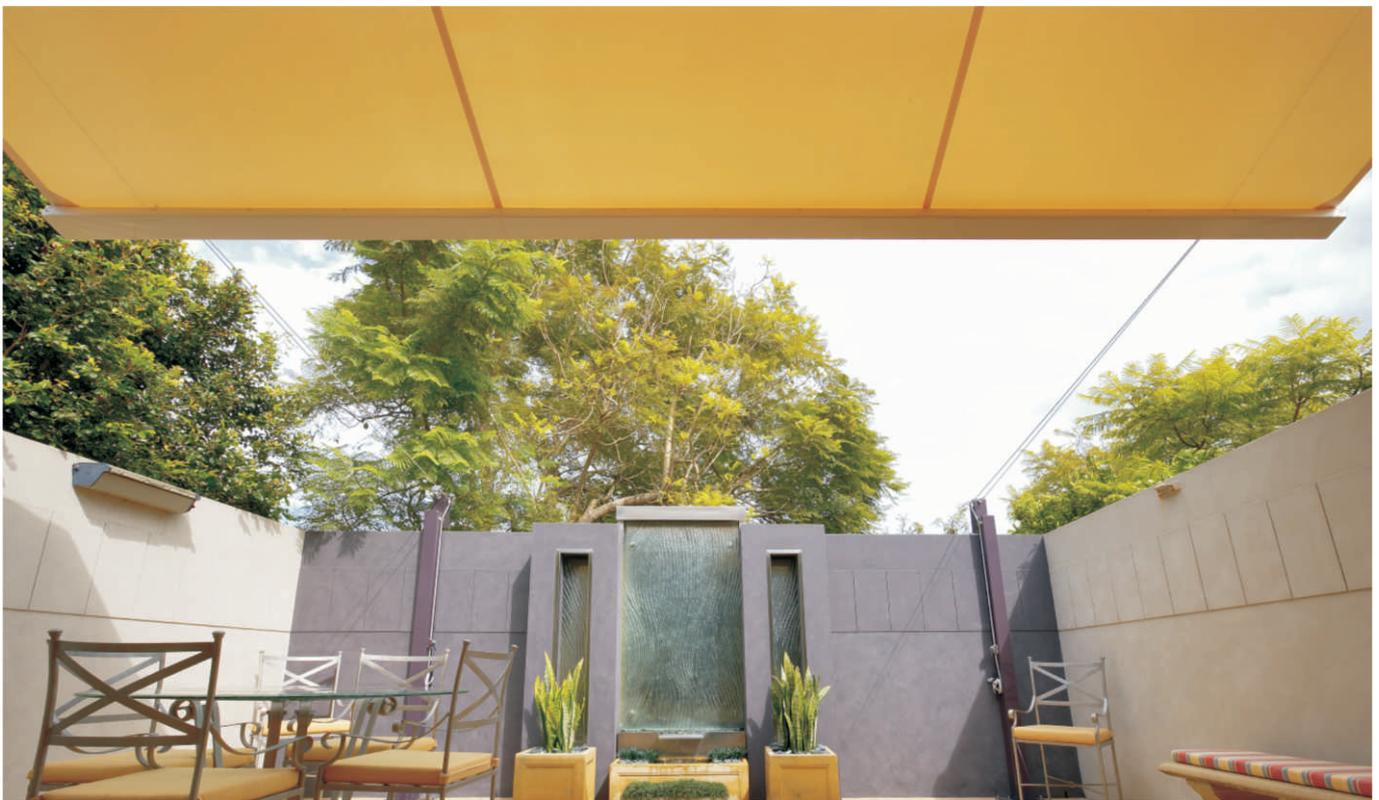


retracting awnings installation

Outrigger retracting awnings are generally installed as a single stage job. This means that the poles, fittings, framework (if require) and the fabric roller assembly are all manufactured at the same time, ready to be installed at once. However, if the placement of the fittings is critical due to the type of structure that the awning is to be attached to, two stages may be required to ensure that the fabric roller assembly fits between the stub shafts on installation.

With a two stage installation, poles, fabric roller stub shafts, awning cover and any framework is installed first, if possible, everything is completed except for the fabric roller assembly and the winch and winch cable. Measurements are then taken between the stub shafts (noting exactly where on the stub shaft the measurements are taken from-to) and the length of the awning (the distance from the stub shaft to the tension post). The fabric roller assembly can then be manufactured and installed in the second stage (about ten working days later for Sydney Metro area).

Installing the fabric roller assembly, as with sails, can take a little time to get right as a completely straight, ripple free fabric panel is the goal. Any ripples in the fabric are nearly always due to the location of the stainless steel fittings on the end batten. One or both of these sometimes needs to be repositioned to alleviate any side ways pull on the end batten.



retracting awnings installation/poles

■ poles with footings

Mark out pole positions using dimensions specified, confirming with client that the positions are correct and the locality of any services. Check the fabric dimensions from the paperwork and check the relationship between these and the pole positions before commencing pole footings. Refer to pole footing specification sheet at the back of this folder for footing size for the given pole diameter, length and ground condition. Before pouring footings, place pole into hole to make sure the pole is the correct height. Whilst pouring the footing, check pole with a spirit level. Poles with connecting framework are set straight. Poles without framework are set to lean a couple of degrees away from the direction that load will be applied to them when fabric is installed and tensioned, thus straightening the pole when the fabric is set.

■ Poles in sockets or other mounts

Mark out pole positions using dimensions specified, confirming with client that the positions are correct and the locality of any services. Check the fabric dimensions from the paperwork and check the relationship between these and the pole positions before commencing pole fitting. Poles with pre-assembled fittings should be installed so that the fittings face the direction that the load will be applied to them when the fabric is installed and tensioned and at a the correct height. If possible, leave securing the poles in position until the fabric is installed to ensure the fittings pull in the correct direction.

■ Poles with baseplates on concrete

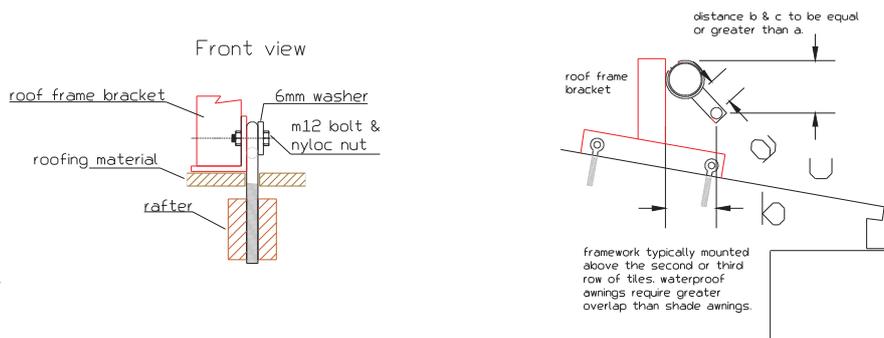
Mark out pole positions using dimensions specified, confirming with client that the positions are correct and the locality of any services. Check the fabric dimensions from the paperwork and check the relationship between these and the pole positions before commencing pole fitting. Unless otherwise stated, use chemically anchored galvanised or stainless steel threaded rod of specified size and length. Position all poles and use holes in the baseplates as templates. Mark all hole positions and drill 4mm larger than threaded rod diameter to a depth that allows sufficient thread showing above the baseplate for a stainless steel dome nut and washer. Following the manufacturers directions, bond the threaded rod into the holes. Finger tighten stainless steel dome nuts and washers onto the threaded rod only tightening after recommended curing period. Smaller less exposed awnings may only require large galvanised or stainless steel dyna bolts



retracting awnings installation/fittings

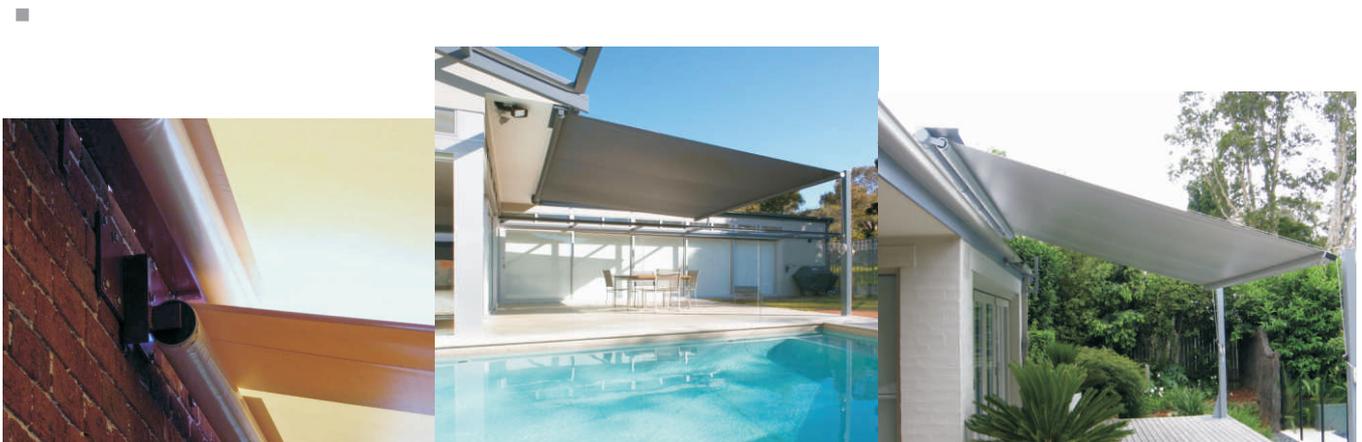
■ stub shafts

Outrigger retracting awnings can be mounted onto a wall, under or on an eave or, particularly for waterproof awnings on single story buildings with low eaves, mounted onto framework that is attached to the roof structure (see **fig. 1** & **fig. 2** below). In each case the stub shafts need to be attached in a similar way. For a single stage job, insert the stub shafts into the ends of the fabric roller assembly and measure the distance between the outside-outside of the stub shafts. Mark this distance on the wall, eave, or roof frame from where the fabric coverage needs to begin and check that the awning is going to be the correct length. Mount one stub shaft on one of the marks (it is a lot easier to mount the stub shaft that is at the spool end of the fabric roller first), for frame mounted awnings, angle stub shafts for awning cover clearance (**fig. 2**). Then, lift the fabric roller assembly into position with the second stub shaft inserted into the other end of the roller and mark the position of the mounting holes. Remove the roller assembly and drill the mounting holes for the second stub shaft and temporarily attach it without the roller in place. Do not fit the roller assembly until awning covers have been installed.



■ awning Cover

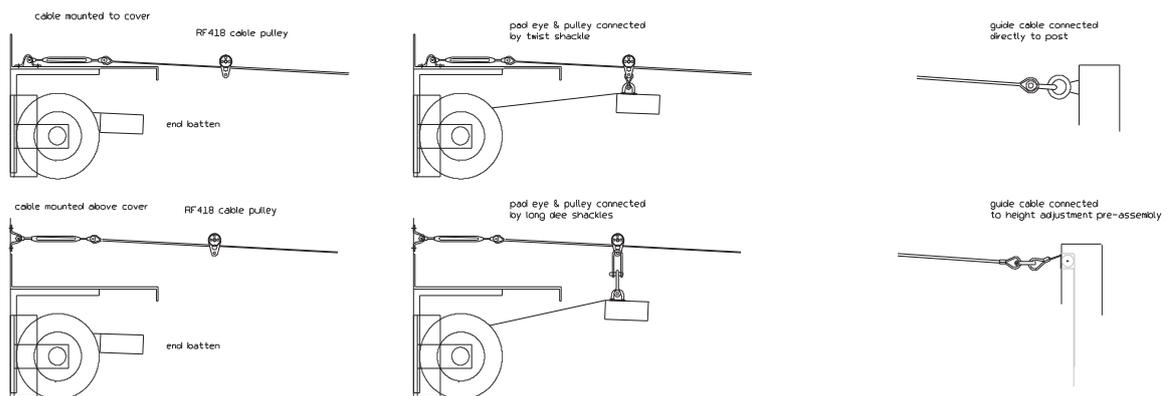
Evenly space awning cover brackets along length of awning (see drawing detail **fig. 3** for height). There should be a bracket for each join in the covers (if more than one is required) and one in middle of each cover section. For roof mounted awnings, it is beneficial for the two brackets at each end of the complete cover to be moved in to be in line with the posts as this will help provide a good anchorage point for guide cables. Attach awning cover sections to brackets using 3/16 stainless steel rivets. With a high grade silicone, seal along back edge of cover if attached to a wall and all of the joins in the sections. Also silicone over the heads of the rivets, neatly dab down all the silicone with a damp finger and remove excess with a cloth. After the awning cover is fitted, re-position the fabric roller assembly and secure all stub shafts.



retracting awnings installation/fittings

■ guide cables

Guide cables are used to support the weight of the fabric and end batten when the awning is being extended and retracted. Unless otherwise stated, 4mm, 7x19 stainless steel cable is used. They are mounted perpendicular to and above the fabric roller and inline with the tension posts. The cables attach to the posts by swaging a loop with a thimble at the end then using a bow shackle to secure them to a stainless steel eyebolt mounted to the top of the posts. The other end (above the fabric roller) is attached by another swaged loop connected to a stainless steel turnbuckle. This turnbuckle is then secured to a stainless steel saddle mounted either on the structure that the awning is mounted to, or in the case of a roof mounted awning for example, to the awning cover brackets that are in line with the posts. Before both ends of the cables are swaged, it is important to slide Ronstan cable pulley RF418 onto each cable. It is important when making up cables that the correct swage and swaging tool size is used.



retracting awnings installation/fittings

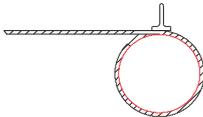
■ guide cables

The Guide cables are connected to the end batten via stainless steel saddles that are attached to the end batten. They are fixed using 3/16 stainless steel rivets and are positioned on the end batten directly below the cables in way that the end batten will be held in a neutral position and not being pulled to one side or the other.

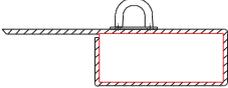
■ As shown in the diagram on the previous page, extra shackles may be required to ensure that the end batten tucks beneath the awning cover. The saddles should be attached as shown below.

Fabric needs to be stretched out tight and ripple free around end battens before pad eyes are attached. The fabric needs to wrap completely around end batten so that none of it is visible. End battens that are housed in a pocket need the pad eyes attached to the leading edge.

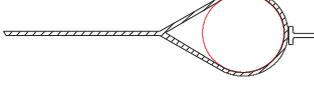
pad eye curved to fit tube



approx. 20mm



pad eye curved to fit tube

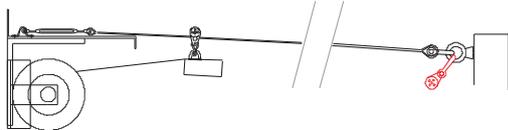


retracting awnings installation/fittings

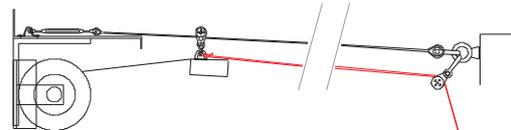
■ tension ropes

For tension ropes a high strength, pre stretched, uv stable, 6mm yachting rope is used. These ropes are tied to the padeyes on the end batten using a bowline, or, can be swaged with a copper ferrule. The rope passes through a pulley at the top of the post and down to either a rope clutch or a stainless steel vee jam mounted onto each post. It is important that when attaching the ropes, there is sufficient length for the rope to pass around the pulley and down to the rope clutch or vee jam with a 200-300mm spare when the awning is fully wound in. For this reason, it is advisable to make sure the awning is fully wound in and secured while cutting the tension ropes to length. When the ropes are cut to length tie a knot on the end to stop the rope from passing back up through the rope clutch by mistake. When the ropes are attached and cut to length, leave the awning secured in the rolled up position for the attachment of the winch cable.

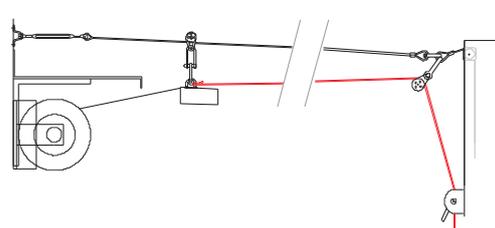
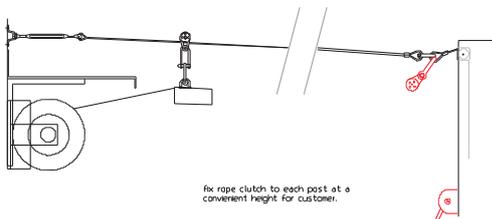
connect rope pulley to either eyebolt attached directly to pole or wire swage exiting from pole
for awnings with height adjustment
use stainless steel bow shackle to connect pulley to pole fitting repeat for each post.



pass tension rope up through rope clutch and tie using bowline to padeye on end batten
ensure that there will be sufficient rope to reach rope clutch when awning is fully wound in before cutting rope repeat for each post.



fix rope clutch to each post at a convenient height for customer.



retracting awnings installation/fittings

■ winch cable

The ideal position for the winch is directly below the fabric roller spool. This is not always possible due to the nature of the building or the requirements of the customer. Liaise with the customer on the position of the winch before this stage of the installation. If pulleys are required to guide the cable from the spool to the centre of the winch, set up a dummy run using the pulleys required and thin rope to check the path of the cable when completed. The cable is to be attached to the winch as shown in the pictures below. The end of the cable must

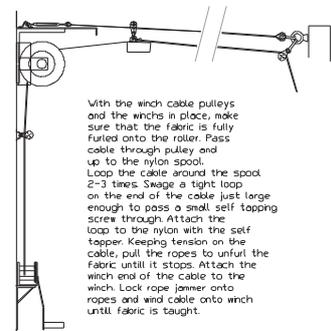
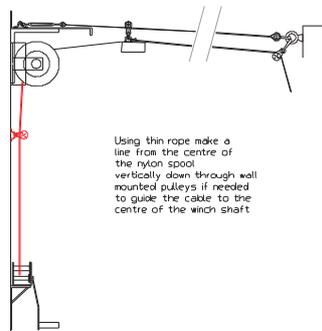
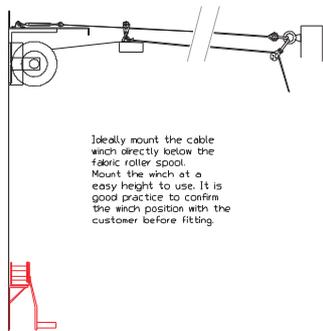
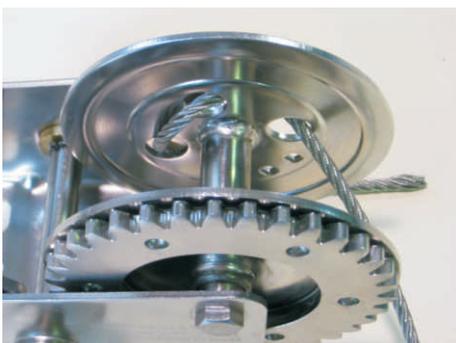


fig. 3



retracting awnings

operating awning

■ opening awning

The winch gear lever has three positions, one to lock the winch in either direction and neutral position in the middle to let the winch run freely. To extend the fabric, take the winch out of gear, keeping one hand on the winch handle. Rotate the winch several times in order to take the tension off of the winch cable so that it is possible to let the winch handle go without it wanting to turn on its own. Move the rope clutch levers up so that the tension ropes can run freely. Pull on one of the tension ropes until the end batten reaches its full extent and lock the rope of by pushing down on the rope clutch lever. Repeat with other tension ropes. Using the winch, apply tension to the fabric. Use the gear lever to apply ratchet when resistance builds, this will arrest the winch if the handle is released accidentally.

■ adjustment

On the initial operation, the fabric may not tension evenly. This is normally due to a slight difference in distance between the fabric roller and each tension point. This can be overcome by adjusting the tension ropes until the awning pulls out evenly and ripple free. Also, ripples may appear if the pad eyes that connect the end batten to the guide cable are not in line. This will cause the end batten to be pulled to one side. This can be checked by pushing the end batten to each side when the awning is tensioned to so see if this alleviates the problem. If so, move the pad eyes in the direction required to let the end batten hang in a neutral position.

■ retracting awning

Take the winch out of gear, keeping one hand on the winch handle. Rotate the winch several times in order to take the tension off of the winch cable so that it is possible to let the winch handle go without it wanting to turn on its own. Move the rope clutch levers up so that the tension ropes can run freely and pull of the ropes up through the rope clutches until the knot at the end. Using the winch, wind the fabric onto the roller. Use the gear lever to apply ratchet when resistance builds, this will arrest the winch if the handle is released accidentally. When awning is retracted fully and locked in position, tidy the tension ropes by taking up the slack and applying the rope clutches.

