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# Operating Instructions

# for

# Ideal-Schwab Paternosters

# Models: TPL - 2 HD & TPL – S

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# *Introduction*

Schwab have designed and manufactured this Paternoster with the operator's safety in mind. Care has been taken to guard operators from moving parts or electrical components, but we cannot protect against careless mistakes or thoughtless actions. Caution and safety should be exercised when operating this or any other machine.

Operators of the vinyl flooring Paternoster should be competent staff of the retailer who have received initial training in the operation of the machine by the supplier. Initially trained and competent staff would be responsible for training additional personnel.

Operation of the machine by consumers is not recommended.

Never attempt to clean, inspect or service any part of the equipment without disconnecting the incoming power source. All maintenance operations performed on this machine must be done with the power OFF at the Main Isolator to the machine and performed by qualified personnel.

The owner / site controller of the machine is responsible to ensure operators are properly trained on the Paternoster's operations and safety practices and to keep the machine properly maintained.

All machines should be serviced annually to:

1. Visually inspect for damage to components
2. Check alignment of machine and adjust if necessary
3. Grease chains, sprockets and carrier pins
4. Check and adjust chain tensions
5. Rotate stock on machine one hole to inspect carrier bar hangers and relubricate pins
6. Replace any damaged carrier bar hangers
7. Refit and/or replace any missing Diskus plates and pins
8. Touch up any damaged paint
9. Touch and/or paint yellow safety line in front of machine
10. Check condition of trolleys and repair if needed and possible – minor damage only
11. Train available store staff in loading, unloading and operation of machine

Ideal operates an annual service program. To arrange a service outside of the normal cycle, call Ideal Distributors on 03 9562 9899.

 

# *Safety:*

Do not wear loose clothing or jewellery while working with or around the equipment. Any ties worn should be the clip-on breakaway type.

If a person has long hair (this includes beards), it should be worn or covered in a manner that ensures that it not be caught in any moving parts of the machine.

Never allow any person to be in the vicinity of the machine who is under the influence of alcohol or any mind - altering drug.

Never stick hands, feet or any foreign object in the path of chains, sprockets, axles and carrier bars. Various pinch points exist on the machinery. Be aware of moving parts and activities around you. Always pay strict attention to all safety signs located on and around the machine. If these signs become worn, unreadable or are removed from the machine immediately contact your supervisor to have the warning signs replaced.

If any problem or dangerous situation is seen to exist or could occur, immediately turn off the operational keyed switch, remove the key and notify your supervisor.

# *Machine:*

The paternoster is fitted with the following features, which should be known by the operator: -

- The machine cannot be operated without the operator's key having been inserted and turned to the ' ON ' position. To avoid unnecessary, unwarranted and unsafe usage of the Paternoster, it should not be left ON unless a trained staff member is in attendance.
- The electrical power to the Paternoster is 3 phase and can be switched off at two locations, being:
  a. The red and yellow main power switch on the front-keyed panel.
  b. Main Isolator - at the power point, which is located on the right hand side of the paternoster. Located here is a five pin orange plug.

     Any electrical work (fuses etc.), cleaning, inspection or service on the machine should only be carried out after having disconnected power at the switchboard.

  c. Switch Board - power can be turned off at the switchboard located

     .....

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- The up - down button switches of the Paternoster must have constant pressure applied for the motor to operate. With pressure off the button switches, a brake is automatically activated in the motor / gear box - the load carrier chains cannot then be moved.

- Do NOT repeatedly START-STOP the machine in quick succession. You can damage the machine. Two or three times is generally OK. If you need to inch a roll in to position, allow 10 seconds between button pushes.
- The motor of the Paternoster is protected against excessive overloading (i.e. overheating) by means of a bimetallic relay. If the overload protection cuts in, turn off and disconnect the power from the Main Isolator, let the motor cool for 10 minutes, and then reset by pushing in or switching the ' + ' button (top LHS) in the electrical contact / fuse box. Then reconnect the Main Isolator power and turn the switch on.
- If the machine has become overloaded, it may mean roll stocks are unevenly distributed around the load chain. For example this could be too many like rolls grouped together. Correct the load distribution.
- The Paternoster is fitted with load and drive chain protectors and side panels that must remain in place at all times when the machine is operated. These guards are there to protect you. If any guard is removed or loose, contact your supervisor to have the problem corrected.
- The carrier bar Chain Pins have a safety catch fitted to ensure the carrier bar Spigot will not come out unless the catch is activated. When rolls are loaded into the machine, the operator should ensure the Chain Pins safety catch is correctly activated.
- The Paternoster may be fitted with a front and rear metal protection grid designed to hold within the confines of the machine a roll of flooring should it for some unforseen reason break loose from its carrier. These grids should remain in place at all times.
- Should a roll ever break loose from its carriers, stop the machine immediately, turn the machine off at the keyed switch and disconnect the power at the main isolator. Contact your supervisor to have the problem corrected.
- Plastic discs have been fitted to the load chain pin holes on pre year 2002 models. These PVC 'Diskus' ensure greater protection against appendages or objects coming into contact with the load chain during operation. These can be withdrawn from the load chain when loading a roll or changing a carrier position and should then be re-inserted into the chain link.
- A red or yellow safety line should be painted to the floor at the front of the machine. (Tape does not last well and is not recommended). Consumers should be restricted in access past this point by store staff and machine operators.
- The Paternoster is fitted with a measuring cutting bar and this should be in place while the machine is in operation. This bar assists in keeping persons away from the moving face of the machine during operation.
- The drive motor has been located high in the machine so as to avoid lower level drive chains, sprockets, axle, dust and noise. Chain guards are fitted to drive chains on each side of the machine and these should always remain fitted during operation.
- Pre 2002 model Paternosters are fitted with front and rear load chain sprockets, top and bottom, each side of the machine. 2002 models onwards have the load chain sprockets at the top only and a guided track at the bottom. This provides extra chain length and extra

machine depth for greater vertical stability. The lower chain sprockets are covered by guards that must be in place during operation of the machine.

- The roll carrier bars are rated to take the following maximums:
  - Roll weight 250 kg
  - Roll diameter 65 cm
  - Roll width 4 m (or 2 x 2m) on 4m machines, 2 m on 2m machines

  Please ensure these maximums are not exceeded.

- The machine can be operated with a variety of roll diameters (sheet vinyl or carpet products), but it is important to maintain a sufficient gap between each roll placement so as to ensure the clear rotation of the rolls during operation.

  The following minimum gaps between rolls should be followed:

  - Rolls 20cm - 55cm in diameter requires 10cm gap
  - Rolls 60cm in diameter require 15cm gap
  - Rolls 65cm in diameter require 20cm gap

  For example, a 60cm diameter roll of carpet uses approximately 1.5 times the space of a 35cm diameter vinyl flooring roll.

# *Flooring Rolls*

These instructions have been particularly written around vinyl flooring. Vinyl is heavier, more easily damaged and harder to handle than carpet flooring.

## Handling:

- New flooring rolls are generally large, long and heavy. The roll length, diameter and general physical appearance can be deceptive as to its weight and manoeuvrability.
- Different products are generally different weights and not all rolls of the same product will be the same lineal quantity so treat each roll as a new and different item. It is essential to test its weight before attempting to manually raise or lift it.
- Wherever possible, use equipment to lift large rolls or cartons type flooring products. If lifting manually, seek assistance from other staff and work in a coordinated manner. Obtain appropriate training in the correct methods of lifting by qualified personnel before attempting to lift any heavy object.
- Do not attempt to throw, catch or hold a falling roll of flooring. You do not know its weight unless you were the person actually handling it.
- Do not 'Drive In' to pick up a vinyl flooring roll with the skids of a forklift, as this will permanently dint the flooring. Place the skids to the floor with the tips touching the floor on a slight downwards angle. Then have another person roll the roll up onto the skids that can be tilted upwards as the roll reaches half way towards the forklift body.

- Do not roll vinyl flooring off the side of a truck onto the ground. If it has to be done in an emergency, sweep away all particles of rock, wood and metal that could dint and permanently damage the outer layers of the roll.
- Do not roll vinyl flooring rolls over sharp edges as this may damage the flooring.

# Storage:

- Rolls of flooring are safest stored lying down on the floor with their rolling movement restricted by a padded wedge or similar.
- Do not lay vinyl flooring on an unswept floor as particles of stone, wood and metal can penetrate the outer paper wrapper and permanently damage the vinyl.
- Rolls of vinyl flooring of lengths of up to 2 m may be stored standing square on end in an appropriate chained off storage bay or alternatively in a protected area in a tight cluster of three or more rolls with a restraining rope tied around them. Do not leave a roll standing by itself or attempt to catch/ hold a falling roll.
- Do not store vinyl flooring rolls lying across narrow beams, runners, pallets and carry trolleys. Storage on these items may permanently dint the vinyl and make it unsaleable. Vinyl flooring should be stored on a flat smooth surface or on appropriate display racking etc.
- Carpet flooring can also be damaged by storage on uneven surfaces, which can stretch the material out of shape. Again, store flooring on a flat even surface or in the appropriate display racking.
- Check roll labels before attempting to lift flooring rolls as these may indicate item weights.

Remember to treat vinyl flooring as follows:

- VERY CAREFULLY AND SLOWLY DOES IT.
- TEST ITS WEIGHT BEFORE YOU ATTEMPT TO LIFT IT.

# *Daily Operation - Check First*

1. Check the Paternoster is free of any visible obstructions by way of objects or persons at the top, the rear, the bottom, underneath and front. Any object could cause a jamming of the machine as it rotates.
2. Check all chain guards and panels are in place.
3. Check that all carrier roll beams and roll stock appear horizontal. They should be horizontal to ensure the roll beam 'Chain Pins' are inserted sufficiently into the load chain link tubes so the beam / roll cannot fall out.
4. Check that all rolls are taped or strapped around their circumference so they cannot 'unroll' while the machine is in operation.
5. Each day having first checked off the above, proceed to rotate the machines load chains completely one way, then the other to ensure all carrier bars are horizontal and that the carrier beam spigots are correctly fixed in the carrier bar Chain Pins.
6. Listen to the pitch of the motor during the above rotation of the load chain. An even and constant operating noise will indicate the machine is evenly balanced with the weight of roll stocks. If the motor pitch / noise noticeably deepens as a section of the load chain is lifted then it is indicating that that section of roll stock is out of weight balance with the section of roll stock opposite. Move some fuller rolls from the heavy section to the lighter section and visa versa.
7. Short ends (1-4m) on a roll cause significant lost sales, because there is insufficient length for the customer to do a room/project. It is better to have a full roll and a shorts box and capture both sales. Once a carpet roll is down to 7 layers (approx 3 - 4m) left on the roll, it should be taken off the pipe, measured, strapped/taped, priced and labelled, and put in the shorts box/bay.
8. If a carrier bar has been removed from the Paternoster, ensure the carrier hanger pins are removed as well. Pins left in the load chain can work their way out and potentially hurt someone.

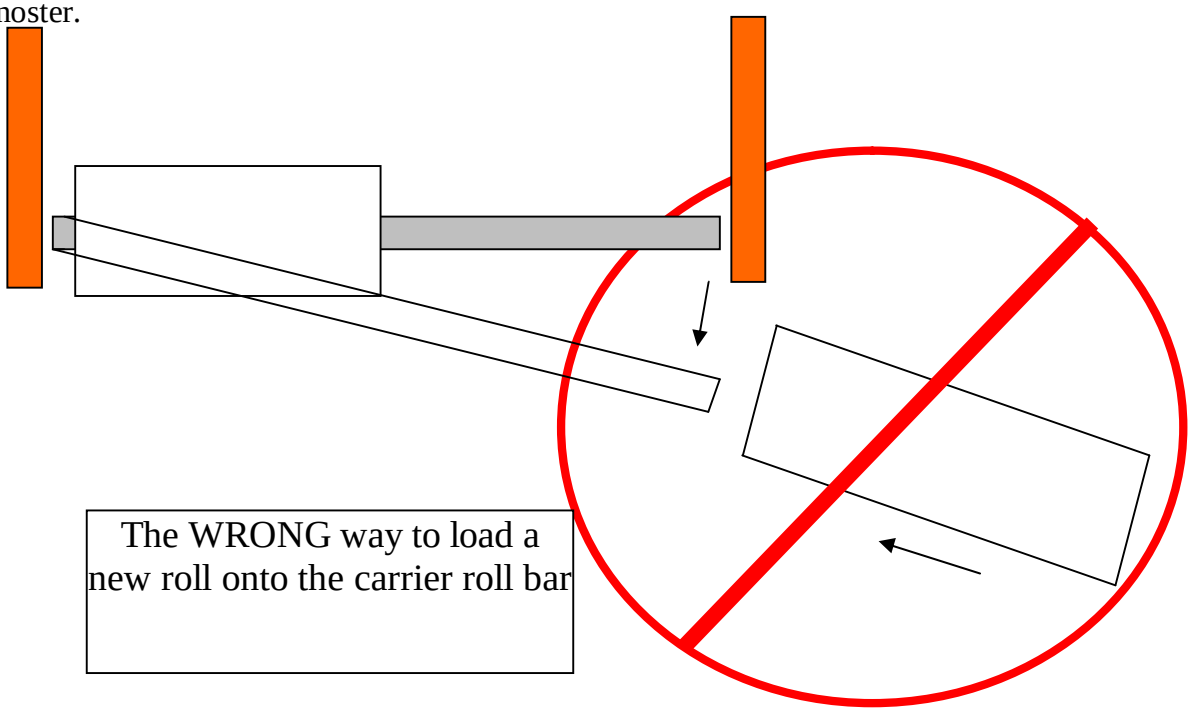
 

# AVOID INCORRECT ROLL LOADING

**Do not** disconnect only one end of the roll carrier pipe from the left or right carrier pin set into the load chains.

If you wrongly disconnect only one end and bring the carrier pipe out from the paternoster, you create a powerful lever that can damage the machine.

The carrier pipe spigot at the still connected end can twist and deform / open-up the carrier pin cup so possibly enabling the spigot to come out of the carrier pin cup and the carrier bar to fall from the paternoster.



The WRONG way to load a new roll onto the carrier roll bar

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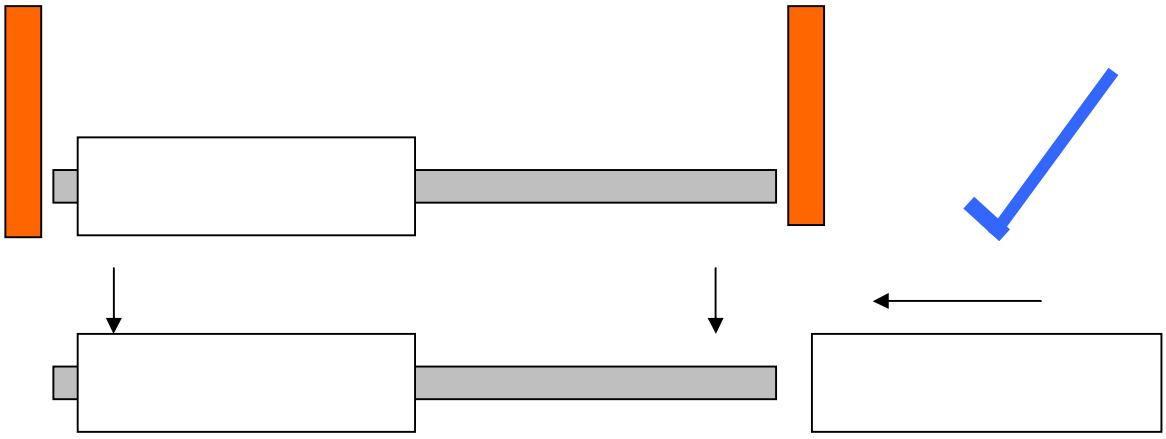
## The Correct Way To Load A New Roll

Bring the whole roll and carrier pipe straight out from the paternoster and slide the roll onto the pipe or slide the pipe into the new roll.



# Loading Rolls

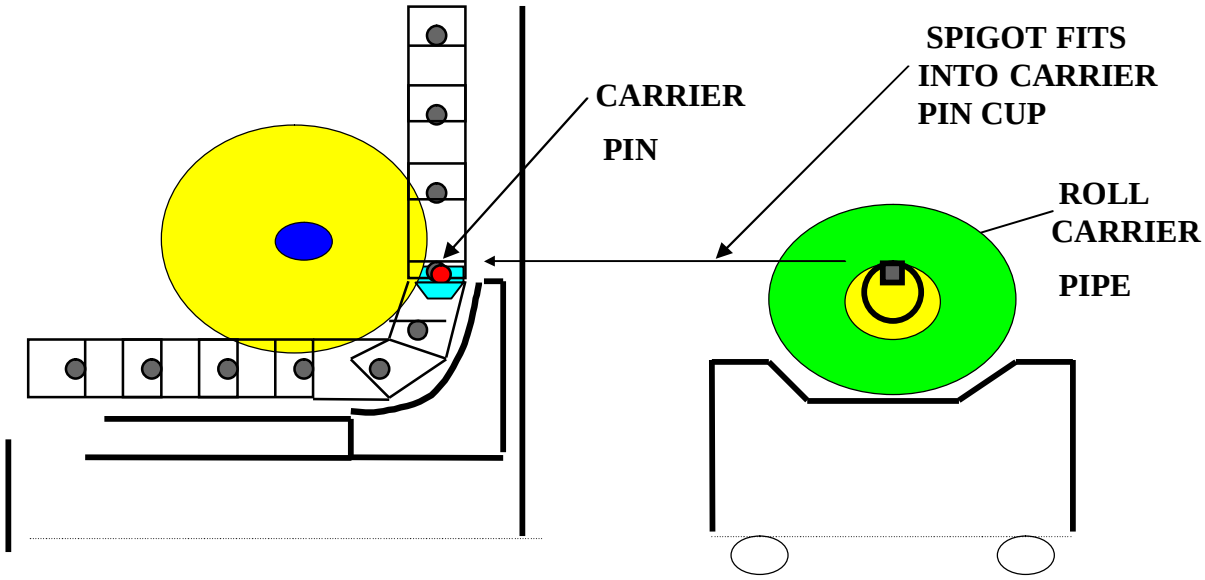
- Requires 1 - 2 people for a short period of time to load the rolls.
- One staff member must be the designated operator and give clear audible commands to assist staff before they activate the Paternoster.
- Lift off the cutting bar and place it gently on the ground to one side of the Paternoster away from the area required by the trolleys / roll.

Remember, when lifting or moving flooring rolls:

a. Rolls of vinyl flooring are heavy, awkward and slippery.
b. With two persons working together ensure the leader gives clear commands.
c. Lift weight correctly with bent knees and a straight/vertical back.
d. To manually lift a lying roll off the floor onto a trolley:
   - Do not have a bad, injured or weak back or a like precondition.
   - If the roll is 3m or more in length, only lift one end of the roll at a time.
   - First test the weight of the roll for your strength and grip.
   - If you believe you can lift it, get a good grip, pull your stomach in, straighten your back to vertical, lift with your knees, and drop it immediately if it is too heavy to complete the lift.
   - Don't try to stop or catch a falling roll.
   - If loading a roll onto the trolleys from the floor, lift one end of the roll as described above and have an assistant place the trolley either mid way for a 2m roll or a trolley at each end of a 3m or 4 m roll.

- Load the roll of vinyl flooring onto two trolleys, one at either end of the roll.
- Place a black carrier beam through the core of the roll so that an equal amount of pipe comes out each side of the core.
- Ensure the leading edge flap of the roll is facing outwards from the machine.
- Position the trolleys / loaded roll in front of the machine.
- Operate the machine and bring the selected carrier pin position around so that it is at the same height as the black carrier bar spigot placed through the roll core.
- Turn off the machine and stand away from the operating buttons. Place the carrier bar spigots into the carrier pin clips ensuring the safety clip has "clicked" into place and the carrier bar cannot be removed.




- Turn the machine on, and operate the machine to lift the rolls off the trolleys. **(Ensure you lift the roll, not drive it down onto the trolleys).**
- Lift the loaded roll up approx 1m and ensure that it rides horizontally in the machine. Unload the roll and adjust a carrier pin on one load chain if the roll is not positioned horizontally. All rolls must run horizontally, do not operate the machine otherwise.
- Remove the trolleys away from the front of the machine and store them where they cannot roll back into the machine.

# Even Loading - Weight Distribution

**It is important to have the weight of rolls evenly distributed around the load chains.** To ensure this may require the daily movement of rolls so as to reposition them. A tell tale sign of uneven loading is the motor noise being audibly louder / a deeper pitch as it lifts a section of stock and then goes quiet when that section is going down.

When loading the rolls initially follow this sequence:

1. Load a roll into every 4th carrier position.
2. Go forward 2 positions and load into every 4th carrier position.
3. Go forward 1 position and load into every 4th carrier position.
4. Spread the load of the balance of stock.

When loading the rolls initially, follow this sequence:

*4 **1** *4

*2 *2

*3 *3

**1** **1**

*4 *4

*2 *2

*3 *3

**1** **1**

*4 *2 *3

Note: When unloading the machine it is important to follow a similar sequence so as to keep the weight evenly spread around the chain.

Do not allow the machine to be more than 15 - 20 % out of balance otherwise the overload switch may be activated.

Do not load the rolls so you have any of the following:

- All 4m rolls in the same section
- All 3m rolls in the same section
- All 2m rolls in the same section
- All full rolls in a section
- All part rolls in a section
- All rolls of one type in a section, eg thick vinyl rolls together

It is important to evenly spread the rolls so the weight is evenly spread.

To unload rolls, reverse the loading procedures.

The roll carrier bars are rated to take the following maximums:

250 kg Roll weight, 65cm roll diameter,

Roll width: total of 4 m (eg 2 x 2m) for the 4m machine or 2m for the 2m machine

# *Paternoster - Roll Spacing:*

The machine can be operated with a variety of roll diameters (sheet vinyl or carpet products), but it is important to maintain a sufficient gap between each roll placement so as to ensure the clear rotation of the rolls during operation.

The following minimum gaps between rolls should be followed:

| | | | | |
|---|---|---|---|---|
| Rolls | 20cm - 55cm | diameter | require | 10cm gap |
| Rolls | 60cm | diameter | require | 15cm gap |
| Rolls | 65cm | diameter | require | 20cm gap |

In putting wide width carpet flooring rolls on the paternoster, it is necessary to increase the spacing between the rolls. Normally a carpet roll uses 1.5 vinyl flooring spaces.

## Vinyl Flooring Rolls:

1.2mm - 1.4mm thick x 40 lm have a diameter of approx. 30 - 35cm when new.

The spacing between the vinyl flooring rolls is normally 3 link holes - so a roll carrier bar is placed every 4$^{th}$ link hole.

3mm - 3.5mm thick x 30 lm have a bigger diameter approx. 35 - 40cm when new.

The spacing between the vinyl flooring rolls is normally 4 link holes - so a roll carrier bar is placed every 5$^{th}$ link hole.

## Carpet Flooring Rolls with vinyl flooring rolls:

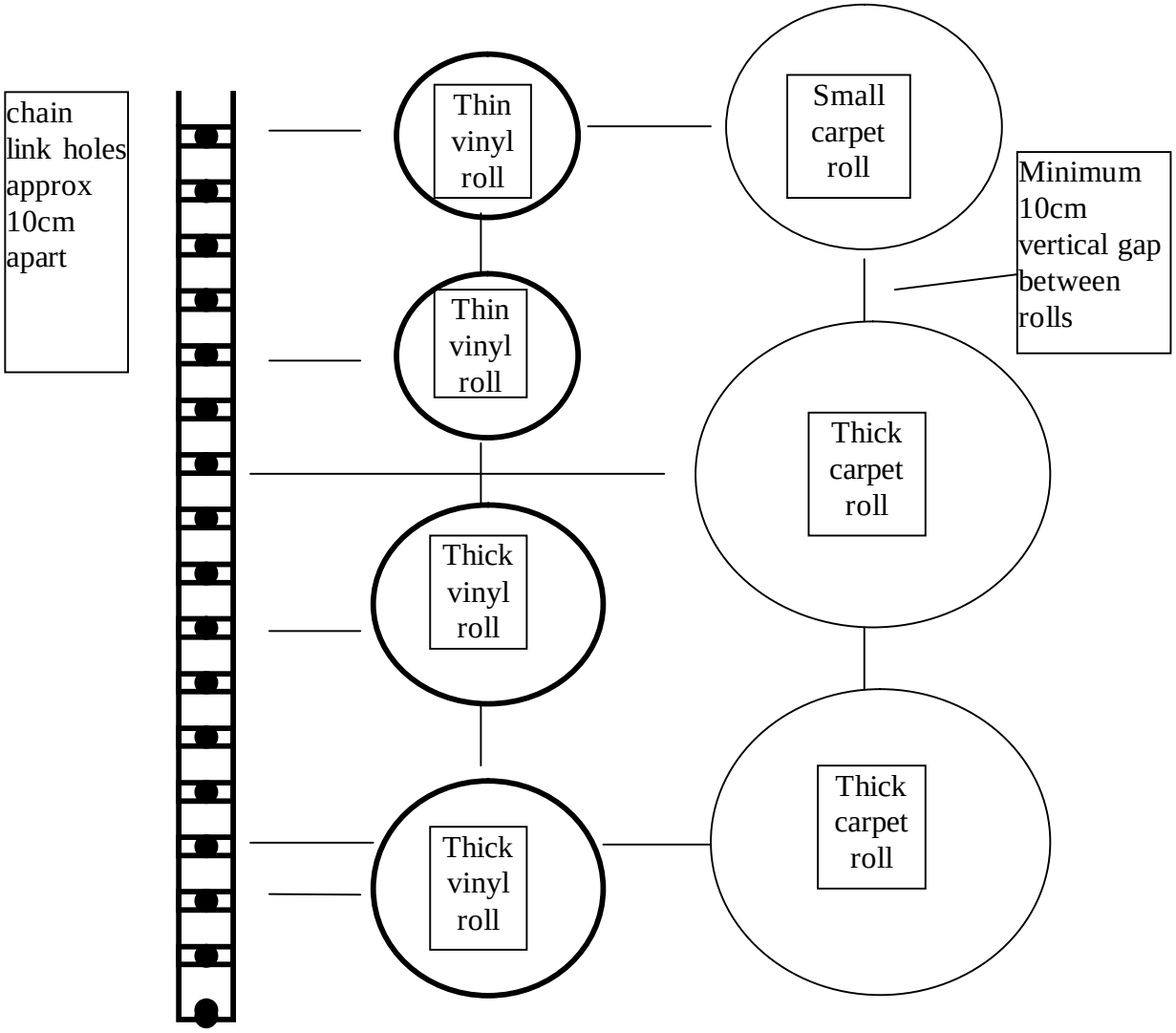
Carpet flooring rolls with a material thickness of approx 4 - 5mm have a diameter of approx 40 - 45cm when new.

The spacing between these rolls is normally 5 link holes - so a roll carrier bar is placed every 6th link hole.

Carpet flooring rolls with a material thickness of approx 6 - 9mm have a diameter of approx 50 - 60cm when new.

The spacing between these rolls is normally 6 link holes - so a roll carrier bar is placed every 7$^{th}$ link hole.




# *Contacts*

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