M&S MR1 Roll Pallet
Product Specification

Version 1 Mar-2024

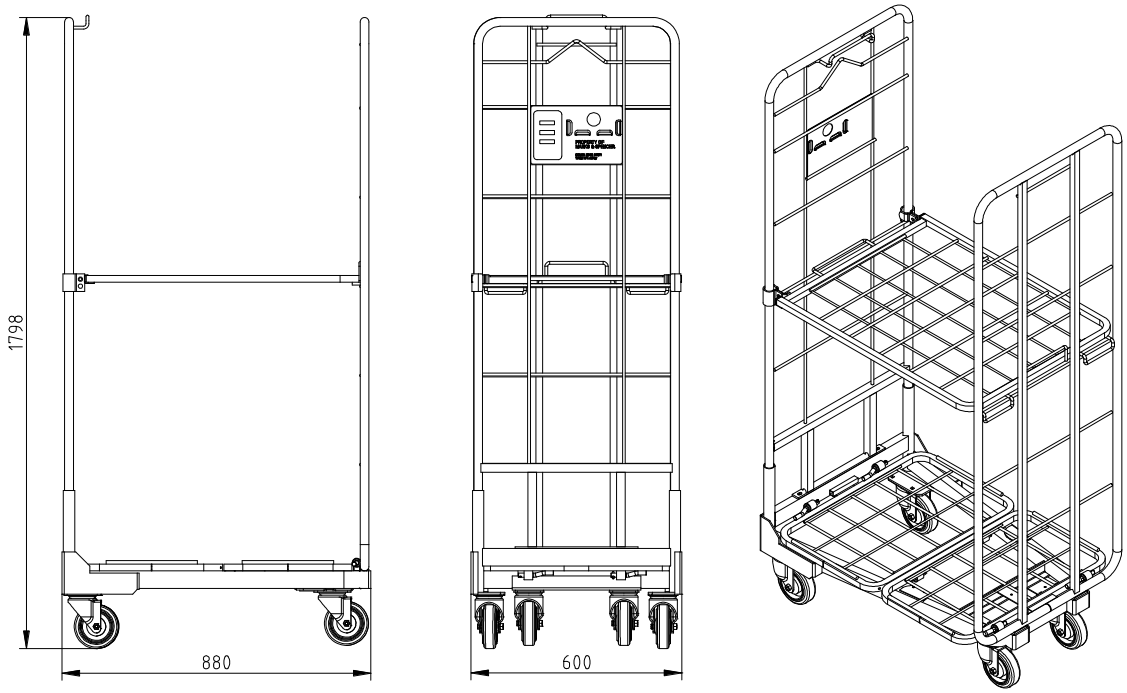
Marks & Spencer are ordering to the specifications laid out in this document and it is our expectation that all aspects will be met in full.

First-off samples delivered into the UK must be signed off prior to any collections / deliveries. Following initial acceptance random samples will be taken during the delivery window and tested to ensure compliance to these specifications.

M&S reserve the right to refuse any products which do not comply with the following specification.

1. General Description:

2 sided “A” frame roll cage with four swivel castors.
All Steel should be DC01 steel grade, EN10130
Fully nestable with existing cages and construction.



2. Dimensions:

External Dimensions		
Height:	1,796	mm
Length:	880	mm
Width:	600	mm
Nesting:	221	mm
Ground Clearance:	155	mm
Load Capacity:	600	Kgs
Weight (approx.):	45	Kgs

Internal Dimensions		
Height:	1,560	mm
Length:	815	mm
Width:	600	mm

3. Tolerances:

All standards and dimensions in this specification must be within tolerance of +/- 3mm for the above. No sharp edges or burring is acceptable, cages will be rejected by M&S or its appointed representative for non-conformity. Where remedial work is undertaken to correct sharp edges/burrs those areas will be at no additional costs to M&S.

4. Sub-Frame:

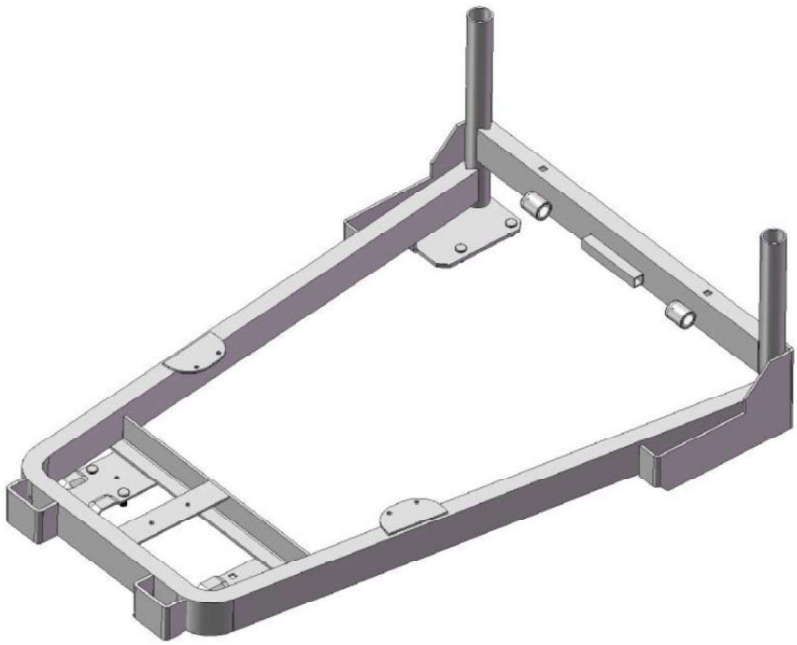
Manufactured from 50mm x 25.4mm x 2mm RHS.
4mm thick corner covers to provide a rigid fixing for the rear frame.
4 bolts pressed on the 5 mm castor plates for the rear castors.
4 bolts pressed on the 3 mm caster plates for the front castors.
All bolts are to be welded studs of sufficient length to fully penetrate the nut. Castors and are to be secured with 4 x M8 Nyloc nuts to torque of 25Nm
Welded studs should not be fixed via Co2 welding on top of studs. This may result in overheating of the actual studs causing brittleness and risk of fractures during life span of cage. Manufacturers should provide testing comparisons should they wish to deviate from the welding specification. Testing to be made via independent and UK recognised testing organisations.

Front castor plates are to be secured to A frame with a total of 6 welds (minimum length 12mm) 2 welds to the front of the plate and 4 welds to the rear (2 to the top of the plate and 2 to the underside)
Rear castor plates must be fully welded on the underside to the frame and uprights.

On the front of this frame, there are two U brackets providing with the locations for the moveable side when nesting.

The cross brace with 2 holes and the 2 protruding upright tubes on the back of the frame are used for fixing the fixed side frame

The 2 semi-circular Plates on the face of the frame tube are to prevent nested units riding up and jamming, they prevent the nose of the roll cage lifting and locking on the one below.



5. Folding Base:

The base consists of two separate frames with wire mesh infilled, they are hinged together for the folding purpose. The frame tube is 19*19*1.5mm RHS
6 off Ø12mm bended hinge rods.
8 off Ø6mm longitudinal rods and 10 off Ø8mm latitudinal rods for the mesh infills
4 off Ø10mm horizontal support rods act as the limiter for the load.
Hinged in two parts to fold for nesting, attached to rear panel and front panel with plastic bushed hinges and collars with 24Od x 12Id x 2.5mm Form G washers to prevent metal to metal contact and act as sound deadening stops
The nylon insert must be correctly fitted as shown below
Minimum length weld to secure base spigots of 18-20mm
All hinged components must be fixed during assembly process using 5mm x 25mm steel pins. Washers and fixing pins must be faced in the correct direction. See below illustration.

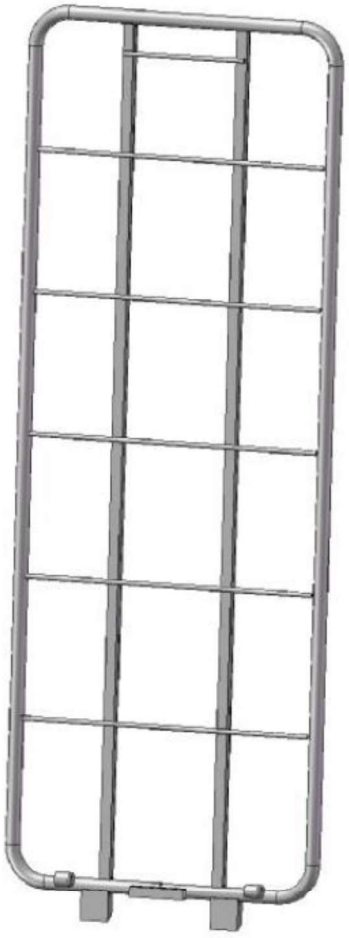
6 Fixed Side Frame: Back Panel

Manufactured from ø25.4 x 2mm ERW. tube outer frame with internal Ø19mm x 2mm reinforcing tube, 998mm long.
The flat bar with holes at the bottom is used for fixing this side onto the sub-frame with bolts and Nyloc nuts.
The bolts are to be M* coach bolt type with the bolt inserted from the bottom and the Nyloc nut put on from the top, fixed to a torque of 25Nm
3 off 25*25*2 RHS composing the support frame for the bottom flat bar.
2 off Ø 7.8mm longitudinal infill rods
5 off Ø 7.8mm latitudinal infill rods, the top one has a triangle shaped bending which can hold the shelf when the shelf is lifted in the vertical state, with sufficient welds.

A 1mm thick label holder is welded onto the side rod infill with detail information.
The hook on the top of frame is used for holding the moveable side when nesting.
The outer tube frame to be embossed with Property Of Marks & Spencer not for Hire Resale or Disposal.

7. Moveable Side Frame:

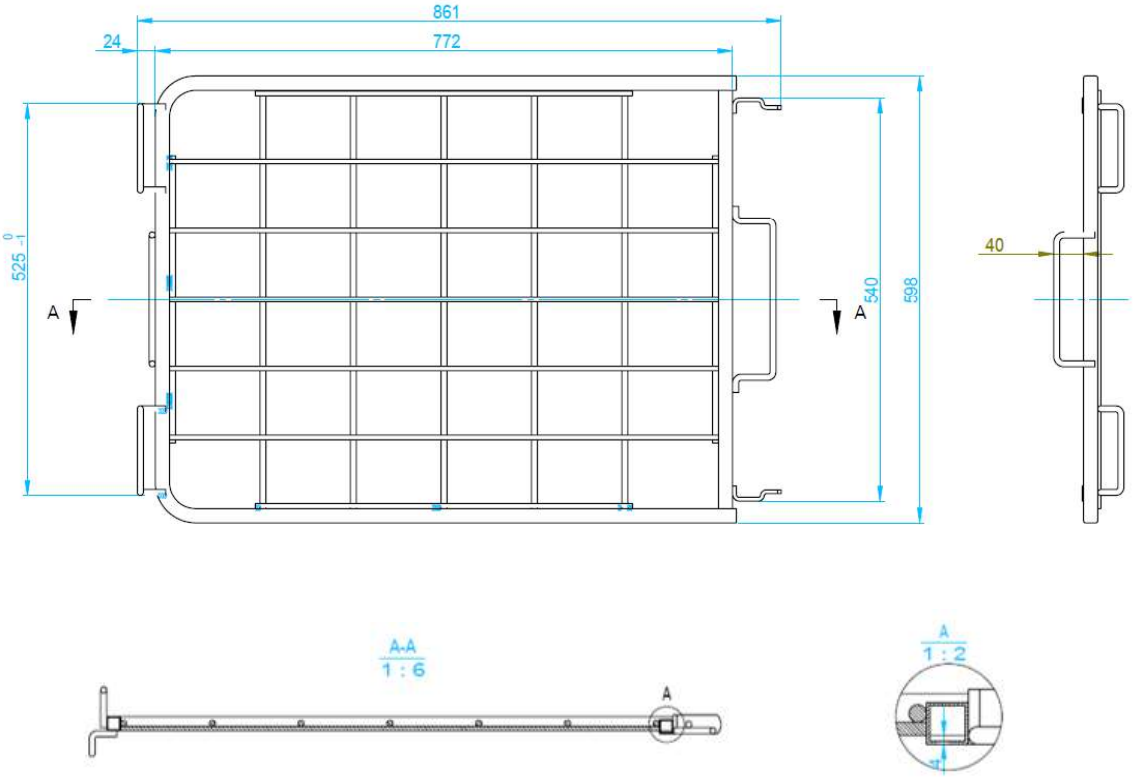
Constructed from ø25.4 x 2mm ERW tube with a 19*19*1.5 tube reinforcing the connecting joint on the bottom.
2 off 19*19*1.5mm vertical RHS tube
5 off ø7.8mm horizontal surface rods
2 off ø25*2mm ERW hinge tubes with two nylon bushes inside
2 off 50*25*2mm RHS tube are used for connecting with the sub-frame.
The outer tubes (both) embossed with Property of Marks & Spencer Not for Sale or Disposal. The embossing needs to be of sufficient depth into the surface.



8. Shelf Frame:

Outer frame constructed from 19x19x1.5mm. square shoulder profile must be used with the plastic bungs on the 2 openings. Embossed with Property of Marks & Spencer Not for Sale of Disposal
The Shelf is fixed at the fixed side end by a bracket, i.e. the shelf slider manufactured from 4mm plate. The shelf slider is fixed to back panel-using 2. Off M8x24 Cap, head zinc plated Allen key bolts with integral shoulder .2 M.8 Nyloc nuts 2 x 24Od x12Idx 2.5 form G washers. Fixed with a torque of 25Nm
The shelf must be free to travel up and down the frame freely and be flush around the side frame.
Shelf slider x 2 must prevent the shelf from being disengaged during use. Shelf sliders to be of the correct radius in relation to back panel tube.
2 off downward rod hooks constructed from ø8mm dia rod, this hooks will catch the horizontal wire on the moveable side when the shelf is loaded frame.
These hooks should be welded on both sides of the rod where it meets the frame
The upwards rod hook will be caught by the triangled top hook on the fixed side when the shelf is lifted in the vertical state.
7 off ø8mm rods and 7 off ø6mm rods build the infill net.
The flat U shape rod will load on the horizontal wire on the fixed side

Approx. Overall Dimensions: (load area)
Length 775mm
Width 600mm



ID Plate:

Dimensions: 260mm x 170mm x 1.2mm thick
With pressed in docket holder for docket 150mm wide
Labelled with self-adhesive safety notice
Embossed with “PROPERTY OF MARKS & SPENCER Not for Sale or Disposal”
Manufactures name with year of manufacture & Tare weight

Castors:

Four swivel elastic castors
Four bolt fixing 125mm swivel castors having nylon tyres and thread guards.

Finish:

M&S insist that all electro zinc plating is undertaken by a qualified and competent supplier. All existing both local and international standards to limit any environmental impact of waste solutions need to be managed. A process control system fully auditable needs to be provided.

All vertical main tubes on the cage to be stamped “PROPERTY OF MARKS & SPENCER Not for Sale or Disposal”. The long side edge tubes of the shelves are to be stamped “PROPERTY OF MARKS & SPENCER Not for Sale or Disposal”.

Zinc electroplate to BS EN 123329: Fe/Zn 8 to 12 microns average minimum thickness and clear acrylic lacquer coated for extra corrosion protection.

All plating including castors are capable of meeting ISO 9227 Salt Spray test to a standard of 5% white corrosion at 50 hours

Materials & Welds:

All materials to be weldable steel conforming to relevant British Standards.
All hollow sections to have suitable water and plating draining holes suitably placed to allow water to drain away onto the floor and not onto the unit causing rust staining.
Components and final roll pallet assembly must be deburred and all sharp edges removed.
All MIG CO2 welds to conform to BS EN 1011-1:1998 and BS EN 1011-2:2001 with visual inspection to BS 5289.
All bolts must be fixed to a torque of 25Nm