



Conveyor Data Sheets

&

Information Pack

A division of RDM Industrial Services Ltd.

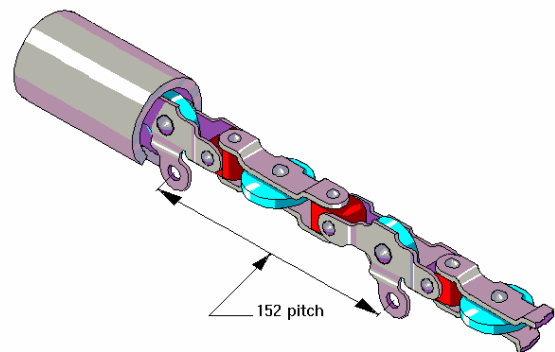


Conveyor Data Sheet

Trakmaster 152 Light/medium duty

Chain

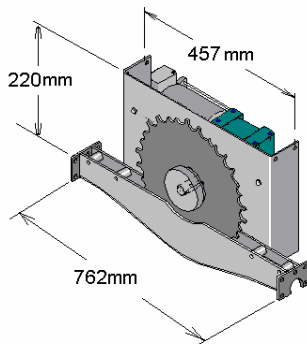
Fully bi-planer and assembled in our works from hardened steel side links, rivets and hardened ball bearing wheels. The chain is immersed in protective lubricant after assembly. Breaking strain 3000 lbs (1340kg), safe load 13.4kg per pendant at 152mm pitch - 26.8kg per coupled pendant.



Track

High quality ms tubular section 41mm o/d with 3mm wall thickness with an offset slot. Track curves manufactured from cold drawn seamless steel tube, the slot machined in and hardened.

Trakmaster 152



Drive

In line 6 tooth main chain sprocket with hardened tooth form driven via a torque limiter, gearbox and DC motor operating on a 240v single phase 50hz supply. A controller/rectifier would give a 10:1 speed variation by a remote control. 8 tooth corner drives are available (90 and 180 deg).

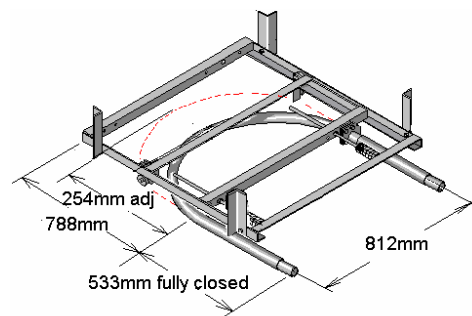
Tension

A spring loaded tension device would be fitted to ensure correct chain tension and to compensate for variances within the system.

Trakmaster 152 in-line drive

Inspection

This would be incorporated in a readily accessible position in the circuit for inspection and preventative maintenance.



Support Structure

The conveyor would be either floor supported using square hollow section forming a rigid structure and incorporating baseplates, or roof supported utilising track hanger clamps connected to tubular suspensions. Please see specification for specific proposals.

Carriers

Please see specification for details. The conveyor incorporates pendants at 152mm pitch.

Finish

Track galvanised, steelwork finished mid blue paint, machined parts self colour.



Conveyor Data Sheet Trakmaster 203 medium duty

Chain

Fully bi-planer with a true pitch of 203mm with a single large dia bearing fitted between the horizontal chain links together with pairs of bearings between the vertical links.

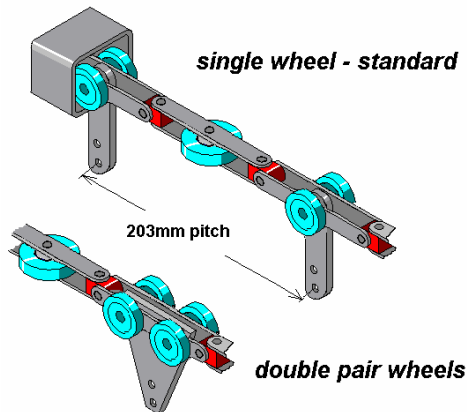
Side links material grade 50B

Rivets material EN8M

Cruciforms sintered iron and copper

Bearings races from EN1A case hardened fitted with hardened carbon steel balls – crowded race type.

Pendants Either standard free swinging on a single pair of wheels (23kg capacity) or fixed 6mm triangular plate with two pairs of wheels (35kg capacity).



Track

Comprising a rectangular section 57mm wide x 41mm deep with a 3mm wall thickness. This is rolled in 6m max. lengths. A 19mm wide slot in the bottom face. The sections would be complete with joint plates for easy bolted assembly. Curves would be rolled and fabricated from standard track section and surface hardened after manufacture to give a long life.

Drive Unit

Caterpillar type drive with driving dogs fitted between a pair of twin chains driven by an in-

line geared motor and incorporating a torque limiting device for overload protection. An inverter variable speed (5:1 ratio) or thyristor (10:1 ratio) is available. Speed envelope within 0.152 – 18 metres/minute.

Tension Unit

A spring loaded tension device would be fitted to ensure correct chain tension and to compensate for variances within the system.

Inspection

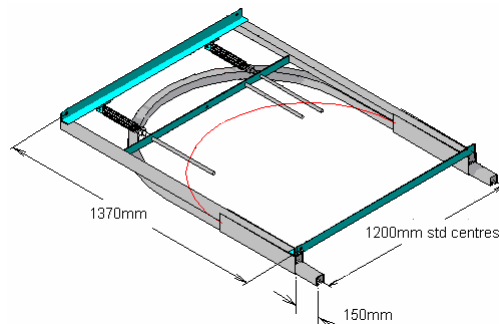
This would be incorporated in a readily accessible position in the circuit for inspection and preventative maintenance.

Support Structure

The conveyor would be either floor supported using square hollow section forming a rigid structure and incorporating baseplates, or roof supported utilising track hanger clamps connected to tubular suspensions. Please see specification for specific proposals.

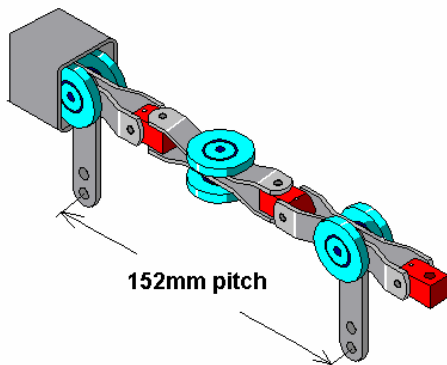
Finish

Track finished in poppy red powder coat, steelwork finished mid blue paint, machined parts self colour.





Conveyor Data Sheet Trakmaster 304 medium duty



Chain

Fully bi-planer and assembled in our works from hardened steel side links, sintered metal pivot blocks, and hardened twin ball bearing wheels fitted to both the vertical and horizontal side links with pendants at multiples of 304mm pitch. Safe load per pendant 23kg.

Track

From high quality steel rolled to form a 41mm square section with 3mm wall thickness

complete with a 9mm slot. Horizontal and vertical curves have the slot machined after manufacture and finally hardened and zinc coated.

Drive

Caterpillar drive unit with engaging dogs to provide a smooth transition to the main chain. The unit would be driven by an in-line geared motor and incorporating a torque limiting device for overload protection. An inverter variable speed (5:1 ratio) or thyristor (10:1 ratio) is available. Speed envelope within 0.152 – 18 metres/minute.

Tension Unit

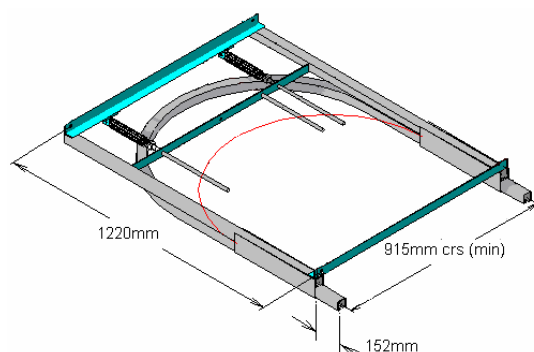
A spring loaded tension device would be fitted to ensure correct chain tension and to compensate for variances within the system.

Inspection

This would be incorporated in a readily accessible position in the circuit for inspection and preventative maintenance.

Support Structure

The conveyor would be either floor supported using square hollow section forming a rigid structure and incorporating baseplates, or roof supported utilising track hanger clamps connected to tubular suspensions. Please see specification for specific proposals.



Carriers

Please see specification for details. The conveyor incorporates pendants at multiples of 152mm pitch.

Finish

Track galvanised, steelwork finished mid blue paint, machined parts self colour.

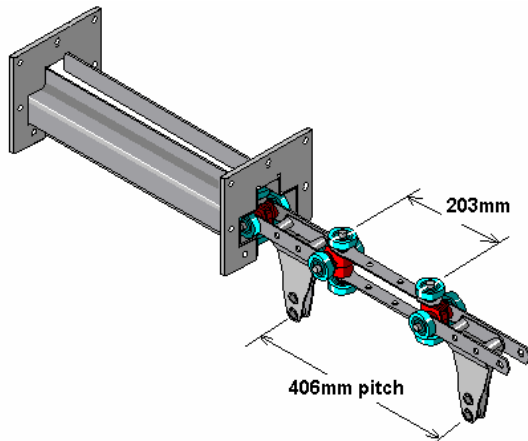


Conveyor Data Sheet Trakmaster 406 heavy duty

Chain

Fully bi-planer with true pitch of 406mm with load carrying pendants at 406mm throughout. Pairs of vertical and horizontal bearings would be fitted to cruciform blocks at 203mm pitch throughout.

Side links	Hardened steel C4.
Spindles	EN32M steel.
Cruciform	Grey cast iron grade 14 BS1452.
Bearings	Plated races from EN1 material, case hardened. Crowded ball bearing cage.
Minimum chain breaking strain 10,000 lbs.	



inverter variable speed (5:1 ratio) or thyristor (10:1 ratio) is available. Speed envelope within 0.152 – 18 metres/minute.

Tension Unit

A spring loaded tension device would be fitted to ensure correct chain tension and to compensate for variances within the system.

Inspection

This would be incorporated in a readily accessible position in the circuit for inspection and preventative maintenance.

Support Structure

The conveyor would be either floor supported using square hollow section forming a rigid structure and incorporating baseplates, or roof supported utilising track hanger clamps connected to tubular suspensions. Please see specification for specific proposals.

Finish

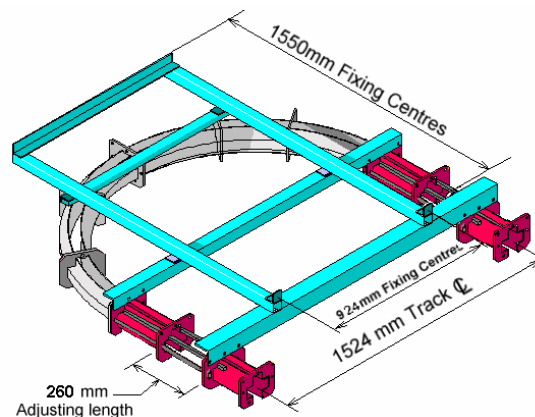
Track finished in poppy red powder coat, steelwork finished mid blue paint, machined parts self colour.

Track

High quality steel track sections assembled in 3m maximum lengths with bridge plates at 750mm pitch to form a complete welded assembly. Section formed in a 'double top hat' profile.

Drive

Caterpillar type to ensure free and smooth transmission of power. Drive derived from an inverter (240v 1ph 50hzriv), from a worm geared motor via a V-rope drive to the twin caterpillar chains incorporating drive dogs. The drive includes a torque limiting device for protection in the event of overload. An





Conveyor Data Sheet

Power & Free

Power and Free is a name applied to overhead chain systems with the ability to provide zoned buffer storage for loads – impossible on conventional overhead chain conveyors without stopping the complete system.

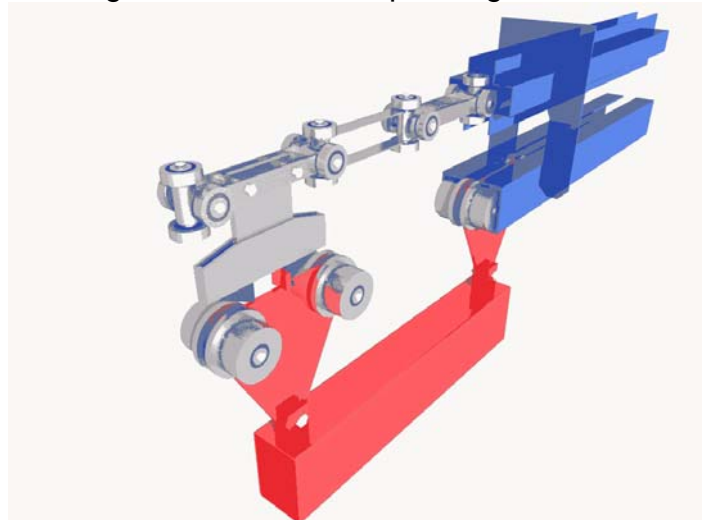
Buffer storage comprise of sections of track able to accumulate loads to either sort to differing processes or to allow linear movement of items at varying rates as various manufacturing cells can operate at different rates, or even different shift times.

Storage zones can be power assisted or completely free for manual movement, depending upon the application.

RDM Engineering has a full range of Power & Free systems to suit light to heavy loads. The conveyors consist of our Trakmaster Systems for the drive medium, with an adjacent guided path for trolleys supporting the carried load. The connection is via specially designed pusher dogs and a latch system to prevent run-away on declined sections.

Power & Free offers power and freedom for zoned processes and can provide clear floor areas for your production.

The **heavy duty** system comprises the **Trakmaster 406** with heavy duty trolleys running in a double channel rail below. Linkage is via pusher dogs disengaged by stop blades introduced across the track. The trolleys would run on flanged wheels and coupled together if necessary to suit the handled load.

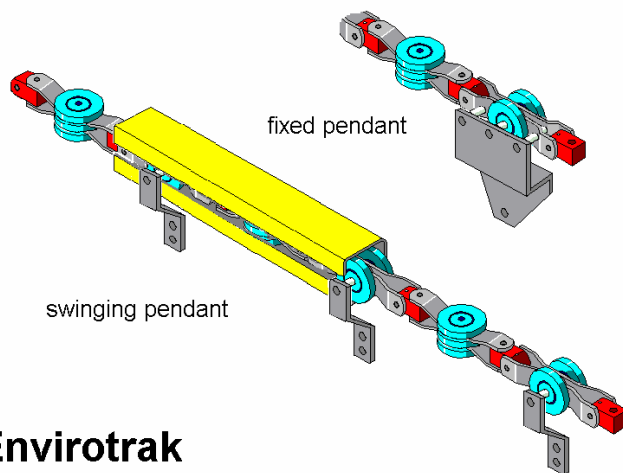


See also individual chain specification.



Conveyor Data Sheet Envirotrak

Adapted from our Trakmaster 304, the **Envirotrak** is a contamination free conveyor for use in clean areas. The unique side slot prevents any product contamination from the conveyor chain making it ideal for food processing, pharmaceutical and paint finishing environments.



Envirotrak

The specially designed 152mm pitch chain offers a choice of cranked pendants at any multiple of 152mm. Normally a mild steel chain is incorporated, but this can be provided with a zinc plated finish, or in stainless steel.

All section connections are sleeved ensuring a sealed joint between modules.

Drives can be in-line or at a 90 deg section, and comprise a horizontal sprocket powered by a geared motor and electrical speed controller. A mechanical overload protection device is fitted as standard.

The conveyor is designed for medium duty loads (approx. 25kg per pendant) and is quiet running.

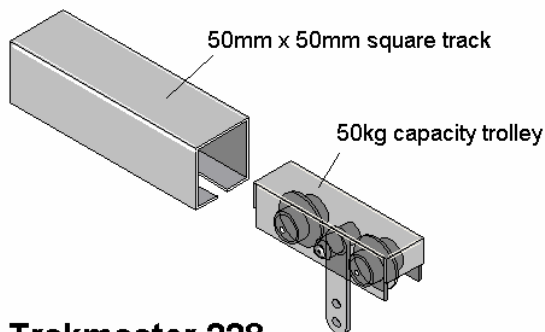
The 41mm square track is normally supplied powder coated painted with a choice of standard colours but a tight coat galvanised finish is also available. For food and corrosive applications the track can be supplied in stainless steel.





Conveyor Data Sheet Trakmaster Free Track

Free Track is an unpowered overhead conveyor system utilising trolleys running in either 152, 228 or 406 section track. Included in the range are switches (allowing transfer of trolleys into sidings) and merges (sidings into the main run).



Trakmaster 228

Trolleys consist of two sets of wheels and a central swinging pendant. Each trolley has a load capacity of 37kg (152), 50kg (228), or 250kg (406). Twin trolleys may be used connected by a stabilised cross bar allowing a choice of load attachments. Index rotators are

available with manual or peg operation, with positioning by a sprung cam, or by latching (star wheel 30 deg offset for automatic operation).

Switches are available with 18 deg diverge modules operated by either manual lever or pneumatic cylinder. Handing is in the direction of travel.

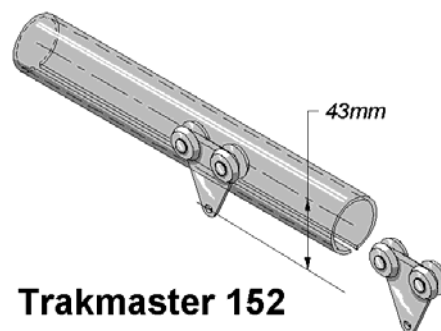
Merges (Frogs) are available with 18 deg merge track modules, handing in the direction of travel.

Curves are available in 30, 45, 60 or 90 deg segments (or 72 deg to suit switches/merges) with a centreline radius of 406mm on 152 and 610mm on 228, with 762mm on 406 tracks.

Straight track is nominally supplied in 6m lengths (often cut down to 3m for transport), and has a galvanised finish.

Section joints are by flanged plates. Flange plates are jig welded in our factory to ensure accurate alignment. Loose plates are available for welding during installation.

An **inspection section** is necessary to load/remove trolleys.

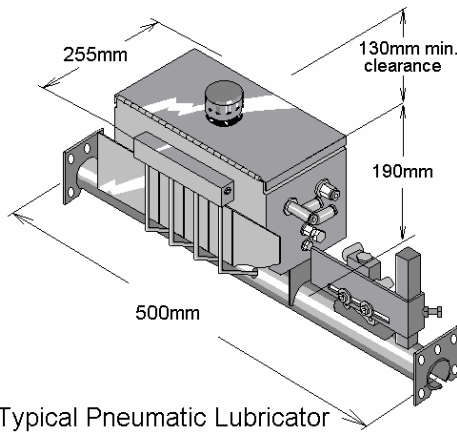


Trakmaster 152

Conveyor Data Sheet

Lubrication

Non-drip grease is applied to chain during installation, and this is adequate for most applications in good environmental conditions.



Pneumatically powered units are available where bearings on the moving chain operate a pneumatic control valve to allow pulses of oil onto essential components: bearings, universal blocks and rivets.

Electric powered units are also available for applications without an air supply consisting of a pump driven by an electric motor operating a variable piston allowing oil to saturate a brush in contact with the chain.

Lubricating systems are recommended for high temperature applications, as well as normal circuits greater than 60 m.

Lubricators are factory fitted on a track section and pre-set for general applications although specific setting to suit application advised during commissioning.

Requirements:

Pneumatic Lubricator

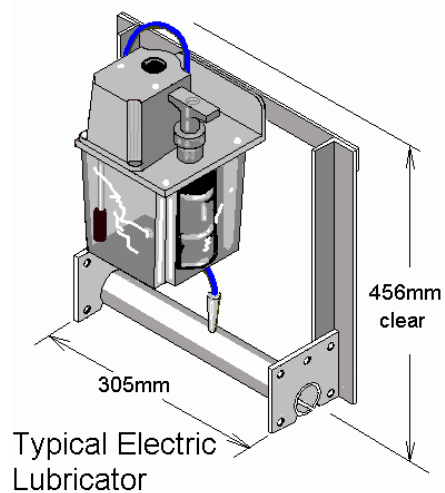
Compressed filtered air at 4 - 5 Bar.
 Size of actuating valve inlet is a $\frac{1}{8}$ inch BSP.
 Oil reservoir capacity – 10 litres

Electrical Lubricator

Electrical lubricators require 115/230 volts 50 Hz.
 Oil reservoir capacity – 2 litres

Recommended Oil 'Chain life' SM.

For temperatures above 250°C please contact RDM Engineering. Semi-automatic lubricators are also available which can be programmed to operate at predetermined hours of the week.





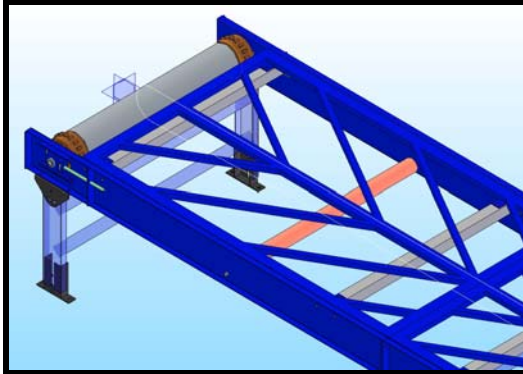
RDM Industrial Services Limited

Stakehill Lane, Middleton, Manchester, M24 2RW England

Tel: 0161 643 9333 Fax: 0161 655 3467

London Tel: 020 7320 9333 Email: sales@rdmengineering.co.uk

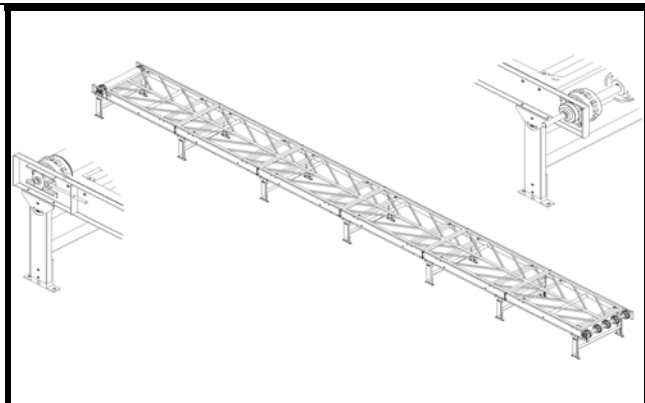
FLAT BELT CONVEYORS



Flat belt conveyors can be made in a variety of lengths widths and work heights. The conveyor is built onto a mild steel welded free standing structure. The conveyor has a mild steel headshaft, keywayed where necessary to fit toothed cast iron sprockets, as well as a split tailshaft. All shafts are supported in sealed for life self aligning ball bearings and include tensioning arrangements.

The Belt (chain) will usually be a mild steel honeycomb arrangement typically 1.062 inch pitch to suit the products other materials are possible.

The conveyor is provided with full guarding in compliance with CE marking requirements.



The system is complete with electric drive motor and gearbox unit with shear pin device and a loose control box with electronic variable speed drive unit.

The speed is fully adjustable from standstill.