

The Fulton Range of hand operated winches used world wide is tough and reliable providing long service life.

This large range includes models for lifting and pulling/trailer applications. To assist in making the correct choice of winch for specific applications please see below.

FULTON HAND WINCHES

Single Speed & Two Speed

SELECTING A HAND WINCH

There are two series of hand winches from the BHW Group – the 'T' and 'K' series. To assist in making the correct choice of winch for any given application the following points must be taken into consideration. It is important to read this fully before deciding on the specific type and model for your chosen application and please speak with our technical department if you require assistance.

- For any lifting applications select a 'K' series model
- 'K' series models do not include a freespool facility
- In pulling applications where positive load control is required in both directions select a 'K' series model
- When loads are being pulled horizontally on the flat or up an incline select a 'T' series model remembering that if the load is being let down a slope it is restrained by the operator as the winch is wound out. On the two speed models only an optional friction brake is available that will provide some assistance. (Carry out a risk assessment and if there are any concerns about letting out the load then select a 'K' series model)
- All 'T' series winches include a freespool facility
- The winch capacity stated on all models is the force exerted in the rope, wire or strap on its first layer when 18kg is applied by the operator to the winch handle. As the layers on the drum increase the force exerted by the winch for the same applied force will diminish by approximately 10% per layer. For this reason it is essential to select a model that is working well within its rated capacity
- All 'K' series models are designed for use with wire rope. If they are being used with webbing straps they can be modified at the factory for this purpose on request

Always select a winch model that will be operating well within its maximum capacity to ensure easy operation and safety.

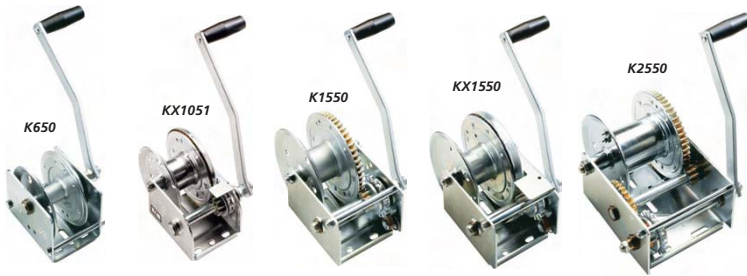
GUIDE TO ROLLING LOAD CAPACITY							
Model No	Rated Line Pull Kg	Working Line Pull Kg	Weight of Rolling Load				
			10° (18%)	15° (27%)	20° (36%)	25° (47%)	30° (70%)
T SERIES SINGLE SPEED							
T600	275	138	665	474	368	301	255
T900	410	205	992	707	549	449	380
T1100	500	250	1210	862	670	547	463
T1500	680	340	1645	1172	911	745	630
T1801	820	410	1984	1414	1098	898	759
XL14	635	318	1536	1095	850	695	588
XL18	820	410	1984	1414	1098	898	759
T SERIES TWO SPEED							
T2005S	900	450	2177	1552	1205	985	833
T2605S	1180	590	2855	2034	1580	1292	1093
T2625S	1180	590	2855	2034	1580	1292	1093
T3700	1680	840	4065	2897	2250	1839	1556
K SERIES WITH AUTOMATIC BRAKE							
K650	272	136	658	469	364	298	252
K/KX1051	454	227	1098	783	608	497	420
K/KX1550	680	340	1645	1172	911	745	630
K2550	1134	567	2744	1955	1519	1242	1050

This chart gives A GUIDE to the maximum weight of the rolling load for each model of winch. This is based on 50% of the maximum bare drum rated capacity of the winch.

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FULTON HAND WINCHES K Series with Automatic brake

SELECTING THE CORRECT 'K' SERIES MODEL

- In lifting applications it is a legal requirement to use a wire rope with a minimum factor of safety of 5:1. The maximum diameter of the rope that can be used on each model is shown in the table above and is determined by the ratio of rope to drum diameter
- Winch rating and maximum mechanical rating is based on the first layer of rope on the drum. The capacity reduces by approximately 10% for each extra layer of rope on the drum
- K series winches do not include a freespool
- The mechanical force required to achieve the Maximum rated line pull is approximately 18kg
- Always select a winch model that will be operating well within its maximum capacity to ensure easy operation and safety
- For maximum efficiency use only the amount of wire rope on the drum required for the application plus 2.5m
- A minimum of 5 wraps of wire rope must be maintained on the drum at all times

FEATURES

- Designed for lifting and hoisting applications the self-activating automatic brake holds the load when the crank handle is released
- Unlike competitive products, no minimum load is required to activate the brake or wind the cable off the drum
- Brake design enables the load to be wound out under full control with the minimum of effort
- Ideal for pulling a rolling load on an incline where there is concern of a runaway load during the descent
- Designed for commercial use with heavy gauge material, wide gear contact and thick zinc plating
- Large drum diameter providing minimum 10:1 wire rope to drum ratio allowing easier rope wrapping and extended rope life
- Can be supplied modified for use with webbing strap
- KX Series include plated gear cover for protection and a dual ratchet system for added security
- Comfort grip handles

TYPICAL APPLICATIONS INCLUDE

- Manual Hoists • Manual Lift Trucks • CCTV & Lighting Towers, Boat Lifts
- Retractable Swing Keels • Trailer applications for Rolling Loads

Winch Model	Maximum Rated Line Pull Kg		Maximum Wire Rope Size			Mechanical Data			Maximum Mechanical Advantage
	1st Layer	Full Drum	Diameter mm	Min Breaking Force Kg	Max Storage m	Gear Ratio	Handle Length	Drum Dia mm	
K650	275.0	90.0	3.0	540.0	26.0	1:1	280	32	16:1
K/KX1051	455.0	230.0	5.0	1500.0	16.0	4.1:1	280	57	29:1
K/KX1550	680.0	320.0	6.0	2160.0	21.0	5.1:1	280	64	32:1
K2550	1140.0	700.0	8.0	1440.0	21.0	15.1:1	280	80	64:1

Winch Model	Maximum Line Pull Kg	Maximum Wire Rope Diameter mm	Maximum Lifting Capacity based on 5:1 Factor of Safety Kg	Maximum Recommended ** Lifting Capacity based on 50% Maximum Rated Line Pull Kg
K650	275.0	3.0	108.0	136
K/KX1051	455.0	5.0	300.0	227
K/KX1550	680.0	6.0	432.0	340
K2550	1140.0	8.0	822.0	570

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A full range of single and two speed ratchet winches is available to meet the toughest pulling demands. These are designed for boat and car transporter trailers and similar pulling applications only and allow the load to freewheel when the ratchet is in the neutral position.

Single speed winches take ropes or web strapping. Some two speed models take wire ropes – but not all – please see chart for details.

POINTS TO BE CONSIDERED WHEN CHOOSING YOUR 'T' SERIES WINCH

- The winch capacity stated on the charts for all models is the maximum pulling force that can be exerted in the rope, wire or strap on its first layer and to achieve this a force of 18kg must be applied by the operator to the winch handle. As the layers on the drum increase the line pull force will reduce by approximately 10% per layer. For this reason it is essential to select a model that is easily capable of winching the load without the maximum force being applied. See selection chart for a guide to the winch model best suited to the application.
- Two speed 'T' series models should be selected for heavier applications and where the load is being moved a longer distance.
- To calculate the approximate force required to move a rolling load up an incline the following formulae may be used. Where W is the load in kgs and \pm is the gradient in degrees. As a guide ramp angles are rarely more than 16° and a gradient of 1:8 is only approximately 10° $W/25+(W \times \pm)/60$ As an example if a rolling load weighing 1750kg is winched up a gradient of 15° the minimum force required will be as follows:-
 $1750/25+(1750 \times 15)/60 = 507.5\text{kg}$
 If for the exercise it is assumed that this force occurs when the winch is on its third layer then this should be increased by 30% to 624kg being the actual force applied to the bare drum. It must now be remembered that if a winch just capable of doing the job is selected then a force of 18kg will need to be applied to the winch handle. As this is high it will be much easier for the user if a winch with a larger capacity of say 1180 kg is selected.
- Single Speed 'T' series models are only suitable for use with webbing straps or soft rope and are designed for moderate loading and short pull in distances
- If a 'T' series winch is being used with a wire rope then only the following two speed models incorporating larger drum diameters are suitable:- T2025, T2625, T3205, T3205B and T3700

FULTON HAND WINCHES T SERIES RATCHET WINCHES (FOR PULLING APPLICATIONS ONLY)



T SERIES SINGLE SPEED RATCHET WINCHES

All single speed ratchet winches are designed with small drum diameters for use with a webbing straps or soft rope and should not be used with wire rope.

- The XLT Series includes stylised polypropylene shell with strap and hook as standard.
- The T1300 and T1500 models offer optional gear covers for protection and added styling

FEATURES

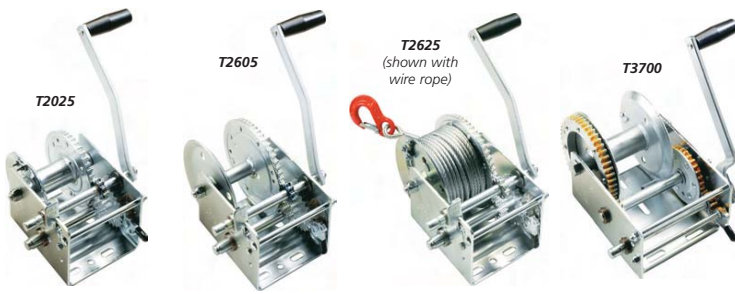
- Full length drum bearings
- Oil impregnated shaft bearings
- Efficient gear ratios
- High carbon steel gears for superb strength ensuring long life
- Zinc plate finish provides excellent corrosion resistance in all environments
- Comfort grip handles

SINGLE SPEED							
Part No	First Layer Line Pull Kg	Gear Ratio	Friction Hand Brake	Drum Storage Capacity		Drum Diameter mm	Handle Replacement Part No
				Soft Rope mm x M	50mm Strap x Length M		
T600	275	3.1:1	Not Available	6 x 11	5	16	586801
T900	410	3.1:1	Not Available	6 x 11	5	16	631201
T1100	500	4.1:1	Not Available	8 x 9	6	19	631201
T1500	680	4.1:1	Not Available	8 x 9	6	19	630201
T1801	820	5.1:1	Not Available	8 x 11	6	23	681701
XLT14	635	4.1:1	Not Available	N/A	6 Included as Standard	19	630201
XLT18	820	5.1:1	Not Available	N/A	6	23	681701

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FULTON HAND WINCHES T SERIES RATCHET WINCHES (FOR PULLING APPLICATIONS ONLY)

T SERIES TWO SPEED RATCHET WINCHES

Make light work moving heavy loads with the two speed ratchet winch. These models are designed where higher pulling forces are required and in particular where the distance for the load to be winched is greater.

The fast speed enables quick pull in for lighter loads and a second low speed for increased mechanical advantage.

A good example of this is winching a rolling load onto a trailer where it is relatively easy to move the load on the flat but maximum pulling power is required as it comes up the inclined ramp. The faster speed is also time saving when the strap or rope is being re-wound onto the drum after use.

The shift lock design is also very useful as it allows changing gears without moving the crank handle between shafts.

TWO SPEED								
Part No	First Layer Line Pull Kg	Gear Ratios	Friction Hand Brake Part No	Drum Storage Capacity			Drum Diameter mm	Handle Replacement Part No
				Soft Rope mm x M	Wire Rope mm x M	50mm Strap x Length M		
T2005S	900	4.1:1 & 9.8:1	Option 161901	11 x 6	Not Suitable for Wire Rope	8	25	681701
T2605S	1180	5.1:1 & 12.2:1	Option 161901	11 x 7.5	Not Suitable for Wire Rope	8	25	681701
T2625	1180	5.1:1 & 12.2:1	Option 161901	N/A	6 x 30	N/A	45	681701
T3205B	1450	5.1:1 & 12.2:1	Included	N/A	6 x 30	N/A	45	681701
T3700	1680	5.1:1 & 15.9:1	Included	N/A	6 x 30	N/A	45	923501

*The S series winches have a 50mm wide drum to take 50mm strapping.
 *For maximum efficiency only use the length of wire rope, soft rope or webbing required for the application.
 *All Two Speed Winches use 10" Handles.
 *Winches must not be used with steel wire ropes unless they are shown in the table above to be suitable. Suitable winches include wire rope keeper kit.

WARNING

Hand winches are not intended for the transportation of personnel.

A minimum of 5 wraps of wire rope must be maintained on the drum.

You are strongly advised to carry out a risk assessment before selecting a hand winch for any proposed application(s).

WIRE ROPES ARE NOT INCLUDED UNDER WARRANTY.

WARRANTY

Each new winch is guaranteed against defects in workmanship and material defects for a period of twelve months from date of purchase.

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