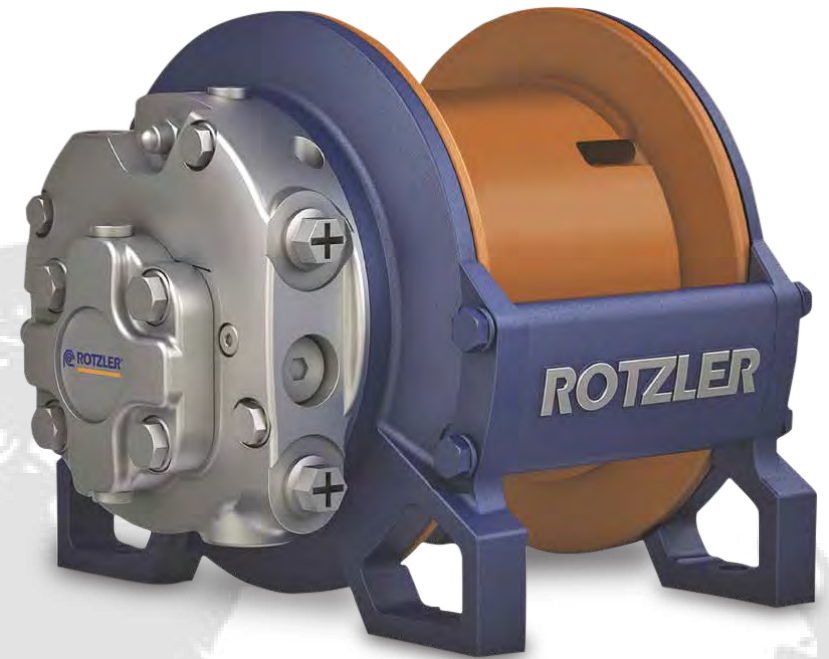




Hoisting forces  
**12,5 – 55 kN [2,850 – 12,300 lbf]**



**TITAN TI**  
Hydraulic Hoisting Winch

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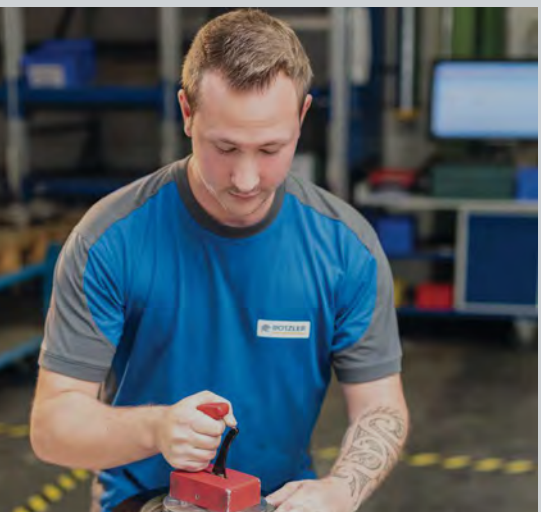
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For 100 years, ROTZLER has stood for reliable hoisting and pulling winch technology. Competent, resolute, and innovative.









# ROTZLER – a 100-Year Success Story

## ROTZLER – synonymous for groundbreaking winch technology

For 100 years, ROTZLER has stood for groundbreaking hoisting and pulling winch technology that customers can rely on even under the most difficult conditions. To keep this promise, our developers and engineers test the reliability of our products, in our unique test center in Steinen, Germany. Operators from around the world rely on ROTZLER's winches and individual system solutions when dependability is crucial, whether for recovery and rescue services, the construction industry, defense technology, the marine industry, or drilling equipment.

Learn all about who we are, what we do, and how we do it. And discover why our partnership with our clients is always our number one priority.

## Leader in innovation: our mission for over 100 years

In 1919, Ernst Rotzler started a smithy in Steinen that shod horses and repaired agricultural machinery. From the very start, our company founder listened closely to his clients – and developed to meet their requirements. He optimized their hay elevators and manure cranes and shifted his focus to developing and manufacturing reliable rope winch technology.

Our motivation comes from the desire to optimally satisfy customer needs, and that continues to be the inspiration for our leading technology.

## Winches and system solutions

Today, ROTZLER is a leader in hydraulic winches and system solutions for mobile applications. As an independent, owner-managed company, we stand for the values that are typical of the small business sector. Customer care, reliability, trustworthiness, and an innovative spirit.







# ROTZLER TITAN



# The ROTZLER TITAN

## Powerful, compact, reliable – and safe!

The ROTZLER TITAN hoisting winches have stood for exceptional performance for over two decades. It has been developed for use in mobile lifting applications. It is the perfect solution for loading and service cranes, drilling rigs and marine applications.

The TITAN is hydraulically driven. The motor, developed by ROTZLER especially for winch applications, is characterized by its compact dimensions and smooth running characteristics. The perfectly working planetary gear of the TITAN impresses with its precision in tothing and bearings, thus ensuring optimal power transmission. The interaction of motor and gear ensures a very high level of efficiency over the entire service life of the winch.

The winch's hydraulic brake is separated from the drive train by a freewheel. The brake is closed when lifting loads. This prevents the load from sagging when starting to hoist and enables precise positioning of the load. The brake is released when the load is lowered. The counterbalance valve, integrated in the motor as standard, ensures controlled lowering of the load.

For each TITAN, 2 gear motors are available for different pressure ranges. A piston motor is also available for the TI 4 and TI 5. The winch drive can thus be perfectly adapted to the available hydraulic system.

All winches are delivered primed or painted. ROTZLER not only paints the fully assembled winch, but also the individual components before assembly. This ensures that all surfaces are reliably protected.



*ROTZLER TITAN TI 2 standard winch  
with plain drum*

ROTZLER does not compromise on quality. To ensure that each and every winch meets our company's quality promise, all winches are tested on standardized, automated test benches before delivery. We check hoisting force, rope speed, braking performance and much more. These test reports are available for our customers upon request.

Every application has its own characteristics. Extensive options are available to best meet these requirements. Regardless of whether a pressure roller is required to support the rope winding or to monitor the rope end - our options for the TITAN leave nothing to be desired.



*ROTZLER TITAN TI 1 with optional grooved drum*



# Available options for the **ROTZLER TITAN**



## **Large drum**

In some applications, high rope lengths are required. To meet this customer requirement, a large cable drum is optionally available for the TI 4. This allows a rope capacity of 120 m [340 ft].



## **Grooved drum**

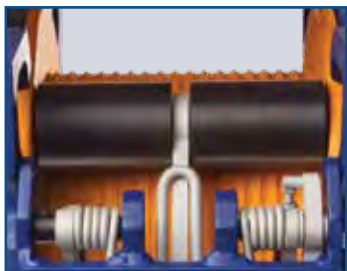
To improve the rope spooling on the drum, every TITAN is optionally available with a grooved drum. The grooves make it easier to operate the winch and extend the service life of the winch rope.



## **Available motors**

To adapt the TITAN as best as possible to the customer's hydraulic system, 2 geared motors with different displacement volumes and pressure ranges are available per winch. A piston motor is also available for the TI 4 and TI 5, which is particularly suitable for applications with high pressures and low oil flow.





## Pressure roller

The pressure roller supports the rope winding, even if the rope is not fully under load. This leads to a significant increase in rope service life. It helps to save costs and increase the operational reliability and availability of the entire system.



## Rope end control

When the winch is in operation, the rope must never be completely spooled from the winch. There must always be at least 3 windings on the drum. To ensure this, we offer rope end control for the TITAN. It optionally offers a signal when the last 3 or 5 wraps are reached. This signal can be used in the control of the overall system to prevent further lowering of the load. It prevents the rope from being pulled off completely from the drum. This option is an absolute must for winch operator safety and support.



## Load monitoring system MCD

The MCD load monitoring system offers a very high level of safety when operating the TITAN winches. The MCD measures the torque that acts in the winch gear and uses this to calculate the load on the winch. Various expansion stages of the MCD are available, from a simple signal in the event of an overload on the winch to linear, permanent load monitoring.

## Ropes

For each winch, we offer different wire ropes that meet the current standards. Other ropes are available on request.

## Stainless steel screws

For operation of the winch in harsh conditions (e.g. marine applications), the winch can be equipped with stainless steel fasteners to avoid corrosion.

## External brake release

This function enables the winch brake to be relieved if the hydraulic system of the entire aggregate fails. The load attached to the winch rope can be lowered in a controlled manner (e.g. with a hand pump). This can prevent major damage to the system.

## Brake test valve

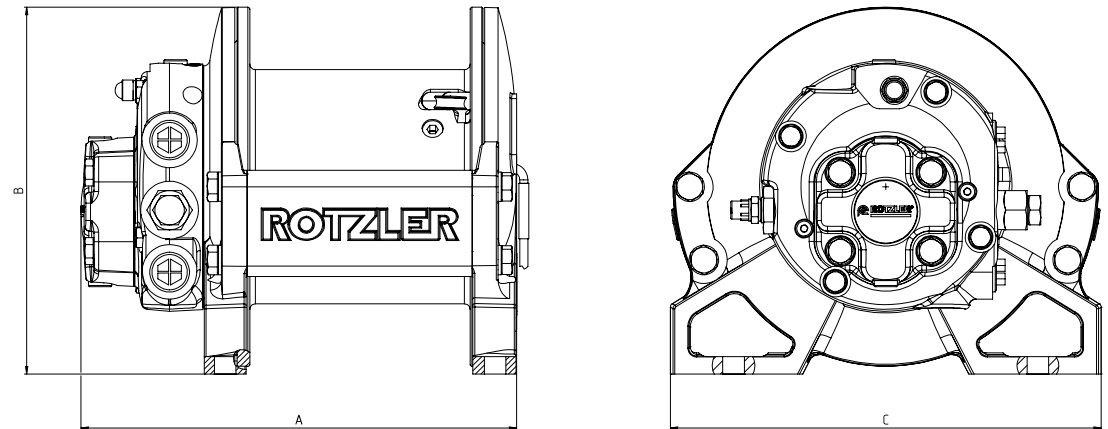
To be able to carry out a test of the winch brake, this throttle valve is optionally available. The brake test can therefore be carried out without any major assembly work.

# TECHNICAL PRODUCT INFORMATION



## Dimensions and **technical data**

The most important technical data and dimensions of the ROTZLER TITAN TI are summarized below. For each winch size and motor type, you will find the data for lifting force, rope speed, rope capacity, but also the hydraulic data and the major dimensions.





ROTZLER TITAN		TI 1		TI 2		TI 4			TI 5		
Hoisting force in kN [lbf]	1st Layer	12,5 [2,850]		26,0 [5,900]		45,0 [10,100]			55,0 [12,300]		
	Top Layer	9,5 [2,200]		19,0 [4,400]		33,0 [7,800]			43,0 [9,300]		
Rope speed in m/min [ft/min]	1st Layer	42 [138]		42 [139]		47 [155]			46 [152]		
	Top Layer	55 [179]		58 [184]		63 [199]			59 [198]		
Gear (GM) or piston motor (PM) displacement		GM016	GM021	GM031	GM036	GM064	GM085	PM049	GM085	GM107	PM049
Max. oil pressure in bar [psi]		210 [3,100]	160 [2,400]	210 [3,100]	180 [2,600]	215 [3,100]	160 [2,300]	245 [3,500]	195 [2,800]	155 [2,300]	295 [4,300]
Max. oil flow in l/min [gpm]		44 [12]	58 [16]	90 [24]	105 [28]	176 [47]	236 [63]	131 [35]	230 [61]	287 [76]	128 [34]
Cumulated rope length in m [ft] (with large drum option)		60 [132]		62 [141]		87 [204] (120 [364])			90 [256]		
Rope diameter in mm [in]		8 [3/8]		10 [7/16]		13 [9/16]			14 [5/8]		
A in mm [in] (with large drum option)		310 [12.2]	315 [12.4]	357 [14.1]	363 [14.3]	483 [19.1] (560 [22.1])	496 [19.6] (572 [22.6])	438 [17.3] (515 [20.3])	572 [22,6]	585 [23,1]	519 [20.5]
B in mm [in]		280 [11.1]		300 [11.9]		433 [17.1]			433 [17.1]		
C in mm [in]		320 [12.6]		352 [13.9]		505 [19.9]			505 [19.9]		
Weight in kg [lb] (with large drum option)		50 [110]		70 [154]		177 [390] (194 [428])			195 [430]		

# ROTZLER TITAN order code

An order code is available to configure your TITAN hoist winch. It outlines all selectable features and options. The TITAN winch model is clearly identified on the basis of this information.

3.	TI.	XX.	X.	XX	XXXXX.	1.	0.	00.	00.	00.	XX.	DIG	
												Version of code	3.
												Construction	TI. = TITAN
												Type	XX.
												Drum width	X.
												Grooves	XX.
												Motor displacement	XXXXX. = XX ccm motor
												Rotation direction and general layout	For position of rotation direction/general layout see details on the sight
												Motor layout	For position of motor ports see details on the right
												Pressure roller and rope end control	00. = No pressure roller, no rope end control 10. = Pressure roller, no rope end control 13. = Pressure roller, rope end control activated with 3 rope wraps 15. = Pressure roller, rope end control activated with 5 rope wraps
												MCD type (available with pressure roller and rope end control only)	00. = No MCD 2X. = MCD Step 2 overload 1 point sensing @ rope in 3X. = MCD Step 3 overload 2 point sensing @ rope in 4X. = MCD Step 4 combined rope end & torque signal 5X. = MCD Step 5 separated rope end & torque signal
												Paint finish	00. = Primer 01. = White 02. = Black 03. = White + extra coat 04. = Black + extra coat
												Rope	XX.
												Digital code (DIG)	0.....7

DIG - Parameter		
1	0	Standard fasteners
	1	Stainless fasteners
2	0	Without emergency brake release
	1	With emergency brake release
4	0	Without brake test valve
	1	With brake test valve

DIG - Binary Code							
0	1	2	3	4	5	6	7
000	001	010	011	100	101	110	111

MCD - Variants	
0	with cable and crimped cable ends
1	with cable and plug "Deutsch type, 6 lines"
2	with cable and plug "Sure seal type 3 lines type" only available at MCD 4

Rotation direction (rope in) / general layout			
1.	counter clockwise, rope underwound		
2.	counter clockwise, rope overwound		
3.	clockwise, rope underwound		
4.	clockwise, rope overwound		

Motor layout			
motor port left side	motor port on top	motor port right side	motor port on bottom
0.	1.	2.	3.
■ motor ports		▲ case drain ports	

\*Refer table for more details on page 13



ROTZLER TITAN	TI 1	TI 2	TI 4	TI 5
Type	01. = 12,5 kN [2,850 lbf]	02. = 26 kN [5,900 lbf]	04. = 45 kN [10,100 lbf]	05. = 55 kN [12,300 lbf]
Drum width	0. = 152,4 mm [6 inch]	0. = 179,2 mm [7 inch]	0. = 228,5 mm [9 inch] 1. = 309,4 mm [12.2 inch]	0. = 309,4 mm [12.2 inch]
Grooves	08. = for 08 mm rope	10. = for 10 mm rope	13. = for 13 mm rope	14. = for 14 mm rope
Motor displacement	GM016. = 16 ccm gear motor GM021. = 21 ccm gear motor	GM031. = 31 ccm gear motor GM036. = 36 ccm gear motor	GM064. = 64 ccm gear motor GM085. = 85 ccm gear motor PM049. = 49 ccm piston motor	GM085. = 85 ccm gear motor GM107. = 107 ccm gear motor PM049. = 49 ccm piston motor
Rope	01. = 8 mm x 38 m 02. = 3/8" x 120 ft 15. = 8 mm x 60 m	03. = 10 mm x 49 m 04. = 7/16" x 140 ft 16. = 10 mm x 62 m	09. = 13 mm x 87 m    10. = 9/16" x 200ft for large drum only: 11. = 13 mm x 120 m    12. = 9/16" x 340 ft	13. = 14 mm x 90 m 14. = 5/8" x 250 ft

You can also easily put together your TITAN with our online configurator. There you will automatically be guided through all features and options. You just need to tick the relevant boxes, and at the end, the order code and a data sheet will be generated automatically. You can find the TITAN configurator at [www.rotzler.com](http://www.rotzler.com)



# APPLICATIONS

# Cranes



## Telescopic Cranes

The winches on telescopic cranes enable quick and precise operation. They are a key component for the precise positioning of loads as well as for loading and unloading goods. Our TITAN hoisting winches provide the ideal support for assembling and disassembling machine components, particularly on service cranes. Their compact design allows them to be perfectly integrated into the often-cramped space on crane systems – without any interfering edges.



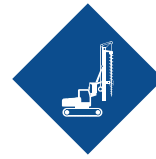
## Knuckle Boom Cranes

The sophisticated yet compact design of our hoisting winches is ideal for knuckle boom cranes. They fit perfectly under the articulated arm of the knuckle boom crane without any interfering edges. Specially designed motors for winches offer the ultimate precision, particularly when positioning loads. Some of our customers in the construction sector even use the TITAN for installing sensitive glass elements.

ROTZLER offers a complete set of accessories to perfectly integrate winches onto knuckle boom cranes. Specially designed accessories are available for every winch size, from top rollers and snatch blocks to hooks and hook weights.







# Drilling Equipment

## Oil and Gas Production

Oil and gas exploration really put our winches to the test. Extreme environmental conditions and almost continuous operations place heavy demands on the equipment.

## Well Drilling

Clean drinking water is the basis for all life. Our winch aggregates perform important jobs when drilling wells.

## Foundation Drilling

Every construction project requires a stable foundation. Our winches help to lay it.

## Mining

Minerals and rare earths are essential for many everyday products. And the demand is increasing. ROTZLER winches are in continuous operation for their exploration.



# Marine Industry

## Fishing

In fishing, our hoisting winches ensure the smooth hauling of creels and the efficient handling of the catch in port.

## Work and Supply Vessels

Work vessels perform a wide range of duties. Our hoisting and pulling winches are easy to integrate, even into narrow spaces, and work with absolute reliability.

## Port Cranes

For material handling in port, our hoisting winches ensure short handling times as well as the gentle positioning of loads and watercraft.

## Dredgers

Our winches help to anchor the dredges in a stable position. The TITAN supports the function of the hydraulically-operated anchor spuds thus helping to navigate the barge while dredging.







# ACCESSORIES



# Accessories for the **ROTZLER TITAN**

ROTZLER offers a portfolio of accessories specially tailored to the TITAN hoist winches for use on knuckle boom cranes. ROTZLER thus offers everything you need for winch operation on the knuckle boom cranes.

Regardless of single line or double line operation, ROTZLER offers the full set of accessories for our TITAN range. For single line operation, top rollers, hook weights, hooks and ropes are available. In addition to that, to allow double line hoisting, hook weights with snatch blocks and related hooks are available as well.



## Top roller

To deflect the rope at the crane tip, we offer appropriate top rollers for each winch size. They are equipped with a stop that prevents the wire rope from being pulled in too far. This stop can also be used in conjunction with the MCD system to switch off the winch in the “rope in” direction.



## Hook weight

The modular hook weights from ROTZLER not only improve the rope winding of the winch, but also ensure improved stability when working without a load.



## Hook weight with snatch block

The modular hook with snatch block allow double line operations and can easily be rebuilt to a hook weight for single line operation. They not only improve the rope winding of the winch, but also ensure improved stability when working without a load. They allow easy connection of hook weight with rope and the swivel hook.





## Swivel hook

A corresponding swivel hook is available for every TITAN size, which completes the accessories perfectly matched to the lifting force of the winch. All from a single source. ROTZLER is offering hooks with slide bearing as a standard. Hooks with roller bearings are available for optimizing ease of use.



## Rope

For each winch, we offer different wire ropes that meet the current standards. These ropes are rotation resistant. Other rope lengths are available upon request.

Accessories TITAN	TI 1	TI 2	TI 4	TI 5
Top roller (Fmax.) in kN	15	29	55	55
Hook weight (weight) in kg	27	27	50	50
Swivel with hook (working load) in t	2,0	3,15	5,3	8,0
Hook weight with snatch block (weight) in kg	42	42	80	80
Swivel with hook for use with snatch block (working load) in t	3,15	5,3	12,5	12,5

For rope details please refer to page 13.



# The ROTZLER GROUP

## Where to find us

### CANADA

#### ROTZLER Canada Inc.

Unit 122, 7350 - 72 Street  
Delta, B.C. V4G 1H9  
CANADA  
Phone: +1 604 940 7134

### USA

#### ROTZLER USA Inc.

1475 Ave S, Suite 301  
Grand Prairie, Texas 75050  
USA  
Phone: +1 604 940 7134

### GERMANY

#### ROTZLER HOLDING GmbH + Co.KG ROTZLER Deutschland GmbH + Co.KG

Robert-Bosch-Strasse 4  
79585 Steinen  
GERMANY  
Phone: +49 7627 701 0

### INDIA

#### ROTZLER India Pvt. Ltd.

Plot No.4, 5th Main, 3rd Phase  
Peenya Industrial Area  
560 058 - Bangalore  
INDIA  
Phone: +91 80 28392599

### KOREA

#### ROTZLER Korea Ltd.

1-110 Changwon Knowledge  
Industrial Center  
316, Ungham-ro, Seongsan-gu  
Changwon, Gyeongnam, 642290  
KOREA  
Phone: +82 55 282 5067