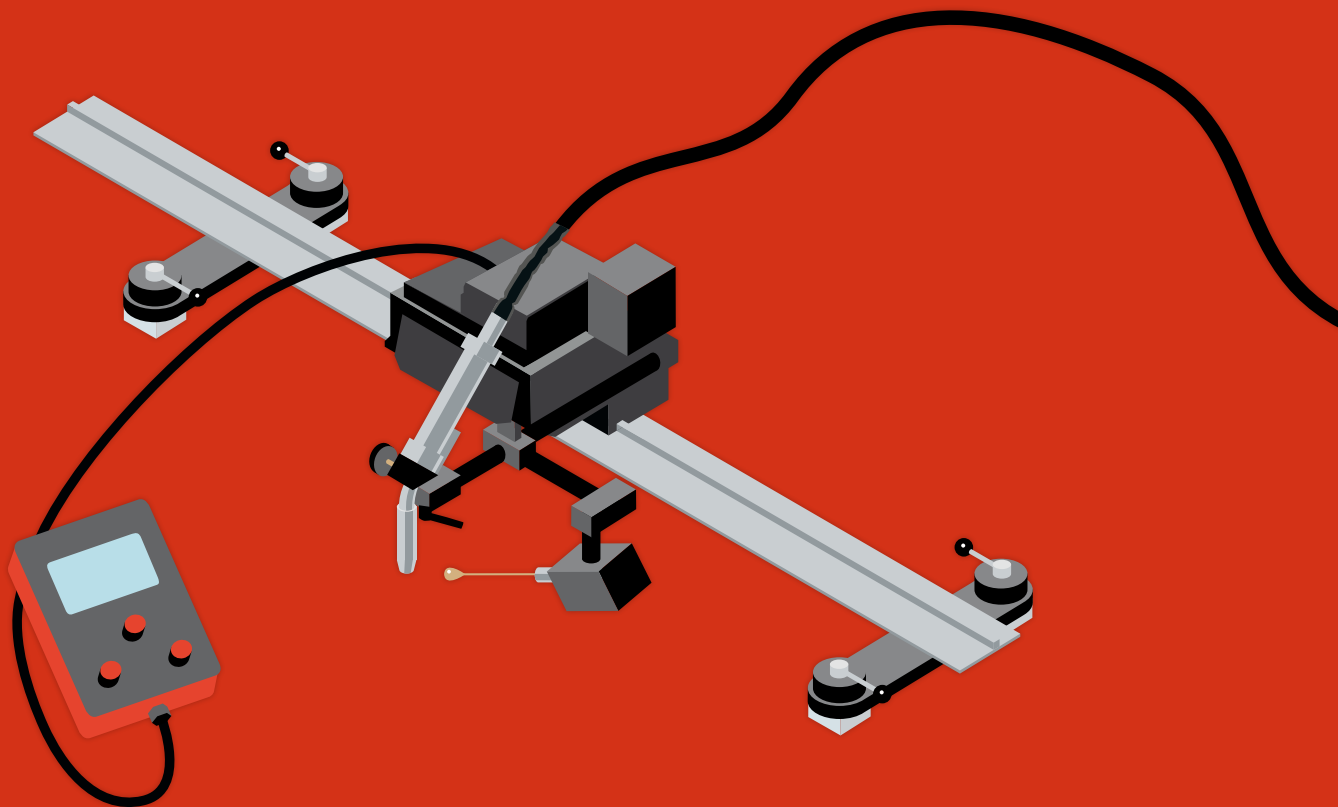


NEW

Lorch Automation Solutions

LORCH TRAC RL PERFORMANCE



LORCH TRAC RL Performance

Boasting integrated seam tracking, the Lorch TRAC RL Performance is a high-end welding tractor that produces welds that live up to the highest standards. The track-guided TRAC ensures steady speed and thus, reproducible welding results even under the toughest operating conditions.

The machine evens out any product tolerances automatically thanks to its built-in “seam tracking” function – both during MIG-MAG and TIG applications. This feature allows the welder to weld even warped workpieces without a hitch. Another feature that lessens the welder's load is the removable control panel. Finally, the integrated orbital function makes it a breeze to weld pipes – even in fixed positions.

Typical areas of application include welding operations on pipelines and stainless steel enclosures as well as on support structures with a high workpiece tolerance.



Fig. Without power supply unit

Features and benefits

- Even out product tolerances vertically and horizontally thanks to tactile seam tracking.
- Reproducible TIG welding results even on warped sheet metal thanks to integrated arc length control (AVC).
- Memory function for all relevant process parameters including job selection in the power source for reproducible seams that meet the highest standards.
- Automated sequence for welding segments.
- Improved ergonomics for the user thanks to the removable control panel with intuitive operation.
- Efficient welding of pipes in fixed positions thanks to the integrated orbital feature.
- Enhanced productivity during recurring welding tasks thanks to a controlled cut-off and automated return of the TRAC at the end of the weld seam.
- Convenient adjustment of the welding parameters during operation by means of the TRAC control panel.
- Welding of large seam volumes or compensation of positioning errors thanks to the integrated oscillator unit.
- Documentation of the welding speed using Lorch Q-Data to ensure 100 % data recording of the welding parameters according to WPS.

Product specifications

TRAC RL Performance		
Article number		453.0040.9
Voltage		1~230 V, 50-60 Hz, 1~115 V, 50-60 Hz, 1~42 V, 50-60 Hz
Power		120 W
Welding position horizontal		PA, PB, PC, PD, PE
Welding position vertical		PF, PG
Diameter ring track	(mm)	200-3000
Diameter custom-made ring track	(mm)	3000-10000
Curvature radius flexible rail	(mm)	from 5000
Welding process		MIG-MAG, TIG, TIG cold wire
Torch diameter	(mm)	16-22 (optionally, up to 35 mm)
Pulling force horizontal	(N)	400
Pulling force vertical	(N)	300
Speed horizontal	(cm/min)	0-300
Speed vertical	(cm/min)	0-110
Type of oscillation		Linear
Path of oscillation		Trapezoid, triangle, straight line, square
Width of oscillation	(cm)	0.2-11.8
Speed of oscillation	(cm/min)	10-30
Oscillation delay central and external	(s)	0-5
Weight, net	(kg)	10
Dimensions (L/W/H)	(mm)	470 × 318 × 354
Number of segments for orbital welding		2-8
Program memory		10 programs

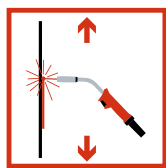
Application spectrum



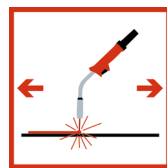
Continuous welding



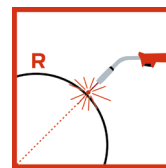
Segmented welding



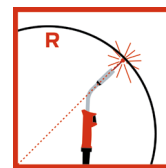
Vertical welding



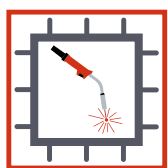
Horizontal welding



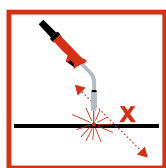
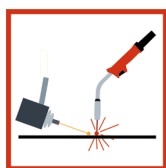
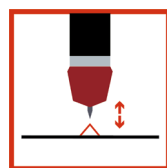
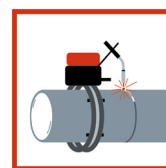
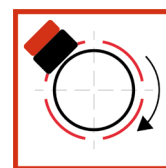
Convex welding



Concave welding



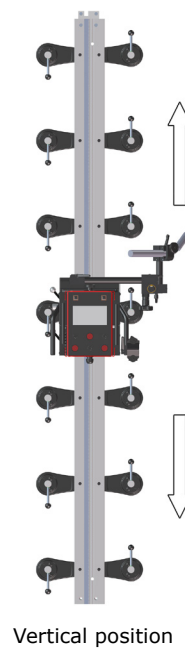
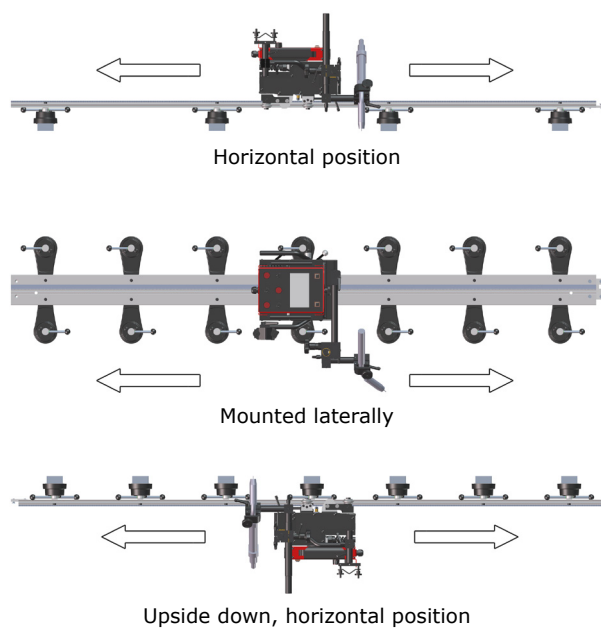
Program memory

Oscillating movement
linear, triangular and
linear shapeSeam tracking
tactileArc length
control TIGCircular welding
with ring track

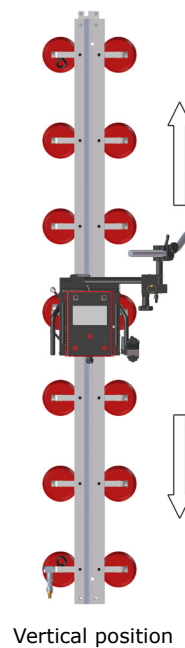
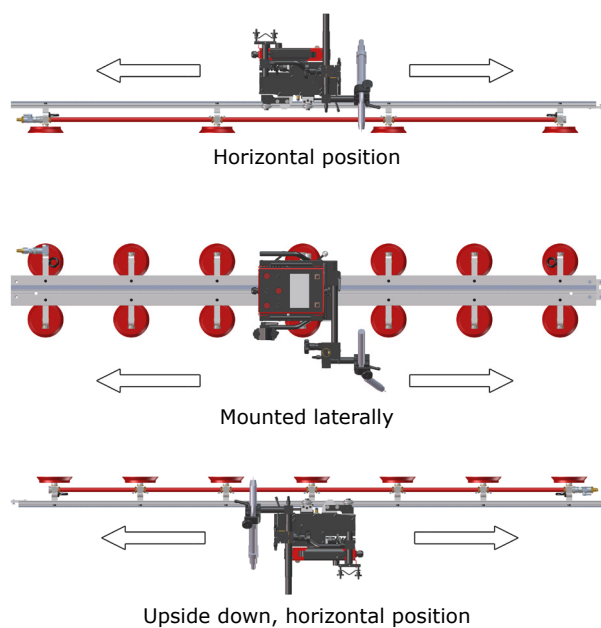
Orbital welding



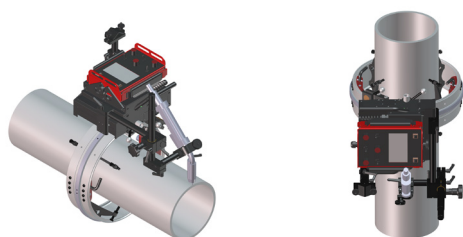
TRAC RL Performance on guide rail with magnetic holder



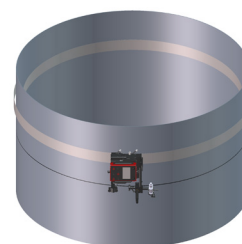
TRAC RL Performance on guide rail with vacuum unit



TRAC RL Performance on Ring Track



TRAC RL Performance on prefab ring tracks
(pipes/tanks 200 mm to 10 m)



TRAC RL Performance on Flex rail
(tanks with 10 m or more)

Highlights



Tactile seam tracking

The tactile seam tracking unit is fitted with a feeler head which is positioned on the workpiece in front of the welding torch. This sensor detects any change of the welding position and automatically triggers a correction of the torch position. This feature provides for compensation of workpiece tolerances or warpage both in the horizontal and the vertical direction. The premium digital control guarantees reliable seam tracking even in combination with the oscillator.



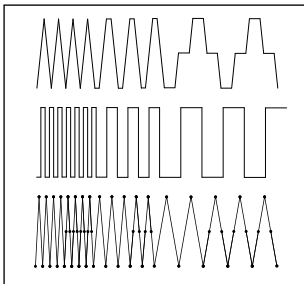
Integrated arc length control

The power source transmits the arc length to the TRAC as a measured value. This value sets the motorised height adjustment higher or lower as needed, ensuring that the distance between workpiece and electrode remains reproducible. The arc length control feature only works with machines of the Lorch V-series.



Orbital welding feature

The integrated gravity force sensor makes it possible to detect the position of the TRAC on a pipe in forced positions. The control lets the welder define up to 8 segments per pipe side, allowing them to set up the welding parameter and speed that are ideal for the respective TRAC position. The switch between the different segments is made automatically during the welding process. This feature delivers a reproducible weld seam result during welding of pipes in forced positions. The TRAC moves along over the pipe on an ring track.



Oscillator unit

The built-in linear oscillator unit offers the twofold benefit of welding seams with a larger volume and compensating positioning deviations. The welder can choose between a trapezoidal, square or triangular oscillation mode – depending on the application they need to complete.



Segment welding

The machine offers the option to produce continuous weld seams by defining the weld seam and the distance between welds in the control. It, furthermore, allows the welder to program the total length of the weld seam, ensuring that the unit will cut off upon reaching the end of the seam.



100 % data recording according to WPS

Conventional welding data documentation recording such process parameters as amperage, voltage and wire feed speed is complemented by the welding speed of the TRAC system. This puts the welder in a position where they can document all relevant variables in the Lorch Q-Data system in accordance with the WPS. This feature allows for an exact calculation of the heat input per unit length.

Rail system: Lorch Flex Track

The Lorch Flex Track is a flexible rail system that allows for applications involving curved surfaces with a radius of 5 m or greater. The rails can be extended as needed.

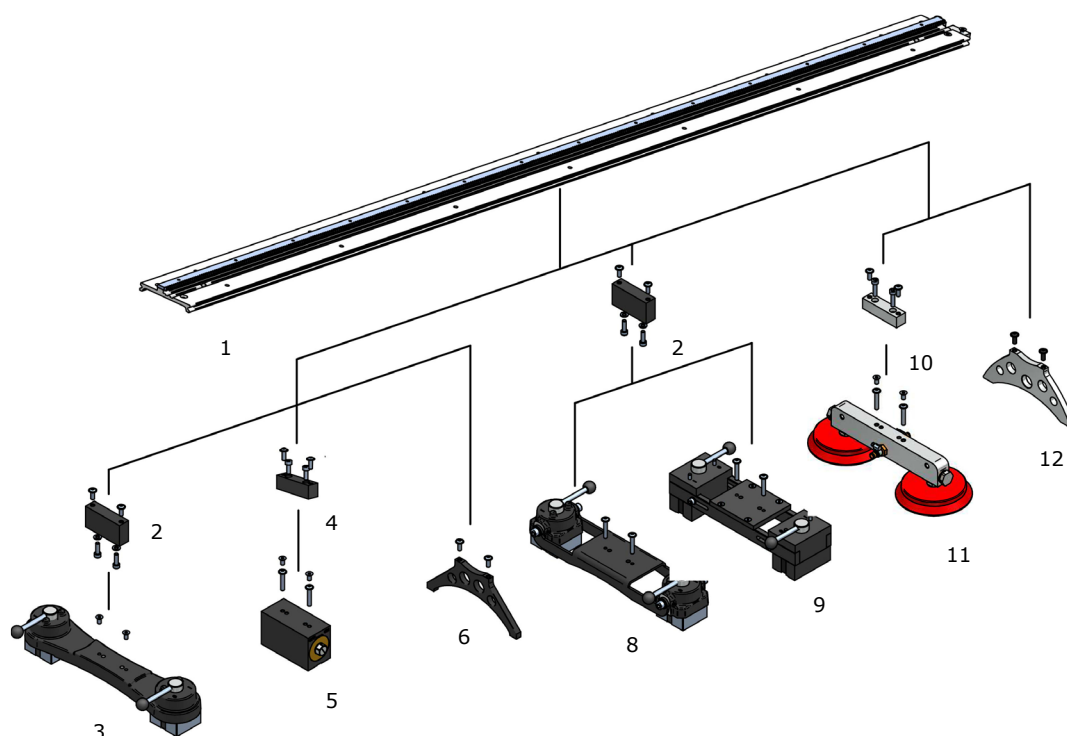


Figure	Additionally required	Article number	Description
1		463.8180.0	TRAC RL Flex guide rail 2 m
2		463.8181.0	TRAC adapter for Flex guide rail
3	2	463.8121.0	TRAC double magnetic holder
4		463.8334.0	TRAC adapter Flex rail II
5	4	463.8328.0	TRAC magnetic holder, compact
6		463.8182.0	TRAC support for Flex guide rail
8	2	463.8329.0	TRAC magnetic holder, swivelling
9	2	463.8330.0	TRAC magnetic holder with adjustable distance
10		463.8300.0	TRAC adapter for Flex guide vacuum
11	10	463.8307.0	TRAC vacuum bracket assembly
12		463.8337.0	TRAC Support Flex rail (aluminium)

To connect several rails, we recommend using the "TRAC gear rack adjusting tool".

Rail system: Lorch Rigid Track II

The Lorch Rigid Track II is a rigid rail system that offers superior flexural strength. This system allows for applications that go beyond the material of the workpiece. This new rigid rail system is exceedingly easy to transport.

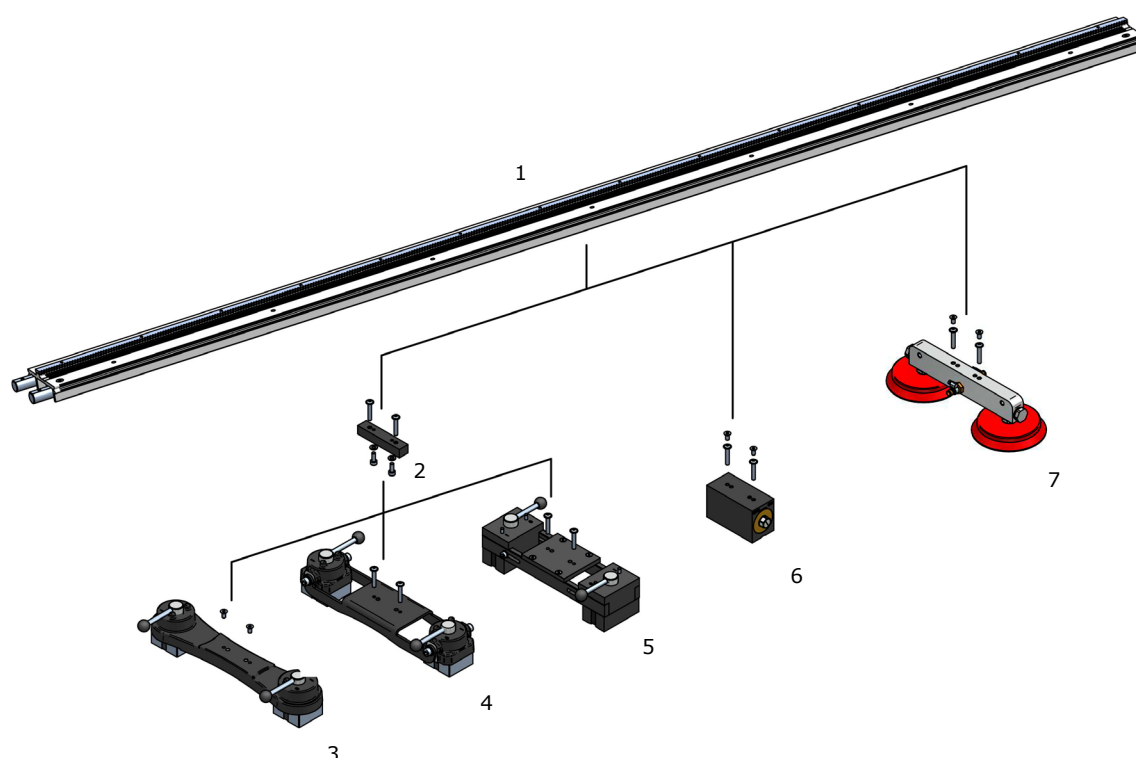



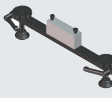
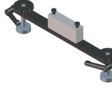
Figure	Additionally required	Article number	Description
1		463.8331.0	TRAC guide rail, rigid
2		463.8332.0	TRAC adapter guide rail, rigid
3	2	463.8121.0	TRAC double magnetic holder
4	2	463.8329.0	TRAC magnetic holder, swivelling
5	2	463.8330.0	TRAC magnetic holder with adjustable distance
6		463.8328.0	TRAC magnetic holder, compact
7		463.8307.0	TRAC vacuum bracket assembly

To connect several rails, we recommend using the "TRAC gear rack adjusting tool".

Rail system: Lorch Ring Track

The Lorch Ring Track is a prefabricated ring track designed for pipes or tanks that possess a fixed diameter. Standard models of the ring track are available for workpiece diameters ranging from 200 to 3000 mm. Ring tracks with a workpiece diameter of 3000 mm or more are available on request.



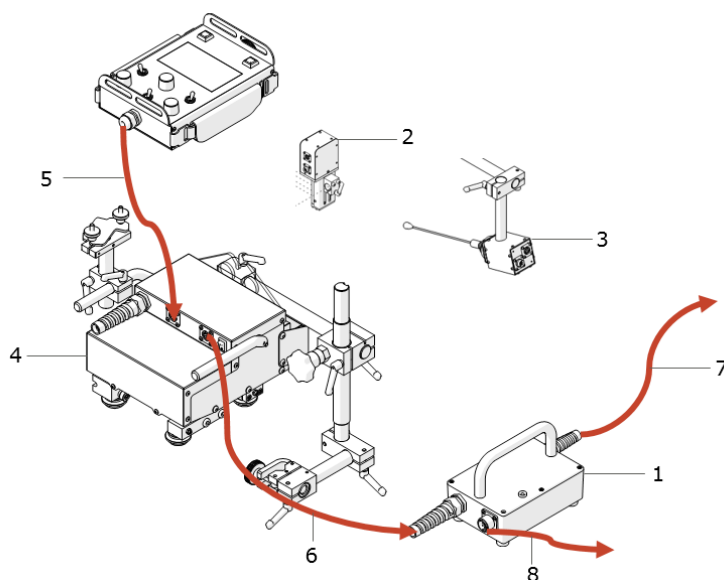
	Article number	Description	Comment
	463.8359.0	TRAC Support Ring Trac with screws	Recommended for typical applications involving black steel
	463.8360.0	TRAC Support Ring Trac with plastic feet	Recommended for workpieces made of stainless steel
	463.8361.0	TRAC Support Ring Trac with magnets	Recommended for workpieces with a larger diameter, as the ring track can be affixed quickly and with perfect ease

Refer to the price list for information on the number of required supports per ring trac. Proper transport during shipping requires a wooden crate, which is also specified in the price list.









Included in scope of supply

	Article number	Description
		TRAC RL Performance carriage
	463.8340.0	TRAC control panel RL Performance
	463.8342.0	TRAC extension cable remote control 3 m
	463.8346.0	TRAC extension cable gateway 5 m
	463.8354.0	TRAC limit switch
	463.8355.0	TRAC rod 300 mm
	463.8356.0	TRAC gear rack 300 mm
	463.8357.0	TRAC strain relief RL Performance
	463.8188.0	TRAC slide
	463.8154.0	TRAC clamping block, small
	463.8205.0	TRAC quick-release torch bracket set, short for torch Ø 16–22 mm
	463.8429.0	TRAC trolley RL Performance



To be configured separately

Fig.	Description				
1	Power supply unit				
2, 3	Main options				
4	Software				
5, 6, 7	Extension cable				
8	LorchNet cable				

Fig.	Description	Additionally required	Option	Feature
1			230V	453_01
			115 V	453_02
			42 V	453_03
2			Height adjustment, motorised	453_04
3			Seam tracking tactile	453_05
4			Standard software	453_06
		453_04	Upgrade AVC*	453_07
			Upgrade orbital	453_08
		453_04	Upgrade AVC + orbital welding*	453_09
5			Extension remote control 3 m	453_10
			Extension remote control 5 m	453_11
			Extension remote control 10 m	453_12
			Extension remote control 25 m	453_13
6			Extension cable gateway 5 m	453_14
			Extension cable gateway 15 m	453_15
			Extension cable gateway 25 m	453_16
7		453_03	Extension cable 42 V 3 m	453_17
		453_03	Extension cable 42 V 5 m	453_18
		453_03	Extension cable 42 V 10 m	453_19
8			1 × LorchNet cable 1 m	453_20
			1 × LorchNet cable 5 m	453_21
			1 × LorchNet cable 25 m	453_22
			2 × LorchNet cable 1 m	453_23
			2 × LorchNet cable 5 m	453_24

* Software AVC in V-Series not required.

Accessories for LORCH TRAC RL Performance

Article number	Description	Article number	Description
 463.8362.0	TRAC height adjustment, motorised	463.8341.0	TRAC display cover RL Performance
 463.8363.0	TRAC seam tracking tactile including sensor rod with feeler head	 463.8342.0	TRAC extension cable remote control 3 m
 463.8349.0	TRAC sensor rod for attachments	 463.8343.0	TRAC extension cable remote control 5 m
 463.8350.0	TRAC sensor rod with fork	 463.8344.0	TRAC extension cable remote control 10 m
 463.8351.0	TRAC sensor rod with feeler head	 463.8345.0	TRAC extension cable remote control 25 m
 463.8352.0	TRAC sensor attachment I	 463.8346.0	TRAC extension cable gateway 5 m
 463.8353.0	TRAC sensor attachment II	 463.8347.0	TRAC extension cable gateway 15 m
 463.8424.0	TRAC sensor attachment III	 463.8348.0	TRAC extension cable gateway 25 m
 463.8338.0	TRAC power supply 230 V RL Performance	 463.8425.0	TRAC extension cable 42 V 3 m
 463.8428.0	TRAC power supply 115 V RL Performance	 463.8505.0	TRAC extension cable 42 V 5 m
 463.8339.0	TRAC power supply 42 V RL Performance	 463.8506.0	TRAC extension cable 42 V 10 m
 463.8340.0	TRAC control panel RL Performance	 463.8354.0	TRAC limit switch

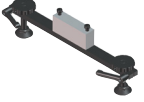
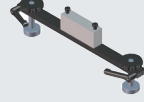
Accessories for LORCH TRAC RL Performance

Article number	Description	Article number	Description
 463.8355.0	TRAC rod 300 mm RL Performance	 463.8207.0	TRAC standard torch bracket 28-35mm
 463.8356.0	TRAC gear rack 300 mm RL Performance	 463.8208.0	TRAC torch bracket 22-35 mm
 463.8357.0	TRAC strain relief RL Performance	 463.8209.0	TRAC torch holder with quick connect system 16-22 mm
 463.8358.0	TRAC protective side shield RL Performance	 463.8180.0	TRAC RL Flex guide rail 2 m
 463.8200.0	TRAC insulation bushing	 463.8331.0	TRAC guide rail, rigid
 463.8201.0	TRAC Short rod assy	 463.8183.0	TRAC RL Rigid Track support 2 m
 463.8202.0	TRAC Long rod assy	 463.8185.0	TRAC gear rack adjusting tool
 463.8203.0	TRAC Short rod torch holder with clip	 463.8186.0	TRAC Transport attachment
 463.8204.0	TRAC Long rod torch holder with clip	 463.8332.0	TRAC adapter guide rail, rigid
 463.8205.0	TRAC quick-release torch bracket set, short	 463.8181.0	TRAC adapter for Flex guide rail
 463.8206.0	TRAC quick-release torch bracket set, long	 463.8334.0	TRAC adapter Flex rail II
 463.8025.0	TRAC torch arm extension	 463.8300.0	TRAC adapter for Flex guide vacuum

Accessories for LORCH TRAC RL Performance

Article number	Description	Article number	Description
 463.8300.0	TRAC adapter for Flex guide vacuum	 463.8304.0	TRAC 4-way valve with connecting hose
 463.8337.0	TRAC Support Flex rail (aluminium)	 463.8306.0	TRAC quick-release hose coupling
 463.8184.0	TRAC support for rigid track	 463.8314.0	TRAC quick-release connecting hose
 463.8182.0	TRAC support for Flex guide rail	 463.8313.0	TRAC connector socket with external thread
 463.8121.0	TRAC double magnetic holder	 463.8312.0	TRAC hose clamp
 463.8328.0	TRAC magnetic holder, compact	 463.8310.0	TRAC dummy plug for end unit
 463.8329.0	TRAC magnetic holder, swivelling	 463.8303.0	TRAC connection hose vacuum pump
 463.8330.0	TRAC magnetic holder with adjustable distance	 463.8305.0	TRAC track segment connecting hose
 463.8307.0	TRAC vacuum bracket assembly	 463.8308.0	TRAC hose for unit connection
 463.8301.0	TRAC vacuum pump with tank 230 V	 463.8315.0	TRAC safety eyebolt
 463.8302.0	TRAC vacuum pump with tank 115 V	 463.8016.0	TRAC vacuum suction unit
 463.8309.0	TRAC shut-off valve for input unit	 463.8359.0	TRAC Support ring track with screws

Accessories for LORCH TRAC RL Performance

Article number	Description
 463.8360.0	TRAC Support ring track with plastic feet
 463.8361.0	TRAC Support ring track with magnets

Accessories for LORCH TRAC RL Performance

Article number	Description	Comment
463.8364.0	TRAC ring track Ø 200–250 mm	4 supports required
463.8365.0	TRAC ring track Ø 250–300 mm	4 supports required
463.8366.0	TRAC ring track Ø 300–350 mm	4 supports required
463.8367.0	TRAC ring track Ø 350–400 mm	4 supports required
463.8368.0	TRAC ring track Ø 400–450 mm	6 supports required
463.8369.0	TRAC ring track Ø 450–500 mm	6 supports required
463.8370.0	TRAC ring track Ø 500–550 mm	6 supports required
463.8371.0	TRAC ring track Ø 550–600 mm	6 supports required
463.8372.0	TRAC ring track Ø 600–650 mm	6 supports required
463.8373.0	TRAC ring track Ø 650–700 mm	6 supports required
463.8374.0	TRAC ring track Ø 700–750 mm	6 supports required
463.8375.0	TRAC ring track Ø 750–800 mm	6 supports required
463.8376.0	TRAC ring track Ø 800–850 mm	6 supports required
463.8377.0	TRAC ring track Ø 850–900 mm	6 supports required
463.8378.0	TRAC ring track Ø 900–950 mm	6 supports required
463.8379.0	TRAC ring track Ø 950–1000 mm	8 supports required
463.8380.0	TRAC ring track Ø 1000–1050 mm	8 supports required
463.8381.0	TRAC ring track Ø 1050–1100 mm	12 supports required
463.8382.0	TRAC ring track Ø 1100–1150 mm	12 supports required
463.8383.0	TRAC ring track Ø 1150–1200 mm	12 supports required
463.8384.0	TRAC ring track Ø 1200–1250 mm	12 supports required
463.8385.0	TRAC ring track Ø 1250–1300 mm	12 supports required
463.8386.0	TRAC ring track Ø 1300–1350 mm	12 supports required
463.8387.0	TRAC ring track Ø 1350–1400 mm	12 supports required
463.8388.0	TRAC ring track Ø 1400–1450 mm	12 supports required
463.8389.0	TRAC ring track Ø 1450–1500 mm	12 supports required
463.8390.0	TRAC ring track Ø 1500–1550 mm	12 supports required
463.8391.0	TRAC ring track Ø 1550–1600 mm	12 supports required
463.8392.0	TRAC ring track Ø 1600–1650 mm	12 supports required
463.8393.0	TRAC ring track Ø 1650–1700 mm	12 supports required

Accessories for LORCH TRAC RL Performance

Article number	Description	Comment
463.8394.0	TRAC ring track Ø 1700–1750 mm	12 supports required
463.8395.0	TRAC ring track Ø 1750–1800 mm	12 supports required
463.8396.0	TRAC ring track Ø 1800–1850 mm	12 supports required
463.8397.0	TRAC ring track Ø 1850–1900 mm	12 supports required
463.8398.0	TRAC ring track Ø 1900–1950 mm	15 supports required
463.8399.0	TRAC ring track Ø 1950–2000 mm	15 supports required
463.8400.0	TRAC ring track Ø 2000–2050 mm	15 supports required
463.8401.0	TRAC ring track Ø 2050–2100 mm	16 supports required
463.8402.0	TRAC ring track Ø 2100–2150 mm	16 supports required
463.8403.0	TRAC ring track Ø 2150–2200 mm	16 supports required
463.8404.0	TRAC ring track Ø 2200–2250 mm	16 supports required
463.8405.0	TRAC ring track Ø 2250–2300 mm	20 supports required
463.8406.0	TRAC ring track Ø 2300–2350 mm	20 supports required
463.8407.0	TRAC ring track Ø 2350–2400 mm	20 supports required
463.8408.0	TRAC ring track Ø 2400–2450 mm	20 supports required
463.8409.0	TRAC ring track Ø 2450–2500 mm	20 supports required
463.8410.0	TRAC ring track Ø 2500–2550 mm	20 supports required
463.8411.0	TRAC ring track Ø 2550–2600 mm	20 supports required
463.8412.0	TRAC ring track Ø 2600–2650 mm	20 supports required
463.8413.0	TRAC ring track Ø 2650–2700 mm	20 supports required
463.8414.0	TRAC ring track Ø 2700–2750 mm	20 supports required
463.8415.0	TRAC ring track Ø 2750–2800 mm	20 supports required
463.8416.0	TRAC ring track Ø 2800–2850 mm	20 supports required
463.8417.0	TRAC ring track Ø 2850–2900 mm	20 supports required
463.8418.0	TRAC ring track Ø 2900–2950 mm	20 supports required
463.8419.0	TRAC ring track Ø 2950–3000 mm	20 supports required
463.8420.0	TRAC ring track Ø 3000–3050 mm	20 supports required
On request	TRAC ring track Ø 3050–10000 mm	Required for 20 support or more
463.8421.0	TRAC wooden crate for ring tracks (large)	
463.8422.0	TRAC wooden crate for ring tracks (small)	

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