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## Портативные фрезерные станки Trav-L-Cutter ORBITALUM. Техническое описание



**WACHS** **E.H.WACHS®**  
 Superior Equipment. Complete Support.™

Safe cold cutting, compact design, easy set-up.



Horizontal and vertical cutting.



Fast and accurate.



Operates anywhere.



All pipe diameter including tanks.

Portable Milling Machines Trav-L-Cutter 27





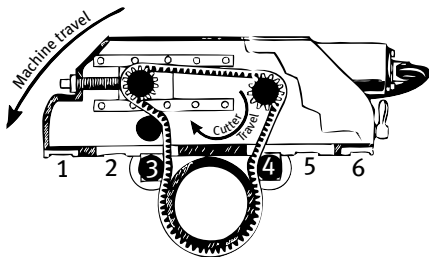
Model E Pneumatic



Model HE Hydraulic



Steel storage case



## Portable Milling Machines

- Safe cold cutting
- Simultaneously cutting and beveling
- Compact design, easy set-up
- Horizontal and vertical cutting
- Wide dimension range

### Trav-L-Cutter

#### Model E (Pneumatic), Model HE (Hydraulic)

The WACHS Trav-L-Cutter is a portable milling machine capable of cold cutting and beveling simultaneously on all machinable pipe materials, pipe schedules and pipe sizes from 152.4 up to 1829 mm OD (6" up to 72" OD).

Fixed by its own tensioning chain, the Trav-L-Cutter drives itself around the pipe as it machines.

#### Fast and accurate

WACHS high-performance cutters remove 4.8 mm (3/16") of metal while cutting, leaving the pipe end with a smooth, machined finish. The chain feed system maintains continuous out-of-round compensation while providing constant drive under all conditions for accurate cuts. By using an optional guide track and special guide track wheels, higher accuracy can be maintained. This cutting method facilitates section removal in the field where new sections, pre-cut by the same method, can be easily dropped into place.

#### Operates anywhere

In pneumatic or hydraulic driven models, the Trav-L-Cutter will operate on horizontal or vertical pipe, in the field or the shop.

#### All pipe diameter including tanks

Materials such as carbon steel, ductile iron, cast iron and most alloys in all pipe sizes from 152.4 - 1829 mm (6" to 72") can be cold cut and beveled simultaneously.

#### Hydraulic Trav-L-Cutter

Hydraulic models offer the inherent advantages of a completely sealed and self-lubricating closed loop system. The Model HE is particularly suited to field machining operations under the type of hostile conditions often found on offshore drilling rigs, pipelines and other construction work. Corrosion from constant exposure to salt water can be minimized with a stainless steel accessory package including special bearings, seals and anti-corrosive metal coatings.

Specifications	Trav-L-Cutters
Machining capacity	153 - 1829 mm (6" - 72")
Cutter drive	Pneumatic: 2.9 kW (4 hp) governed air motor coupled with worm gearbox. Hydraulic: As above, with hydraulic motor.
Cutter speed	Pneumatic: Adjustable from 35 - 55 rpm for use on work-hardened alloys. Hydraulic: Adjustable from 0 - 60 rpm.
Feed	Pneumatic: 0.56 kW (3/4 hp) air motor coupled through overload clutch, gearbox and chain reduction to final machine drive sprocket. Hydraulic: 2.9 kW (4 hp) hydraulic motor.
Feed method	Positive, nonslip chain drive
Air requirements	2.8 m <sup>3</sup> /min (100 cfm at 90 psi)
Hydraulic requirements	55 l/min (15 gal/min at 1500 psi)
Work speed	76.2 mm (3") of surface feed per minute, max. Provides cutting time of 1 min/inch of pipe diameter. 254 mm (10") = 10 minutes. Over 12.7 mm (1/2") wall as well as most alloys require reduced feed rate.
Clearance	Radial: 254 - 305 mm (10" - 12") Axial: 508 mm (20")

Specifications	Trav-L-Cutters
Controls (model E and HE)	Cutter on-off, feed on-off, with interlock to prevent machine feed unless cutter is turning, adjustable feed control. Flow control valves (Model HE only). Separate controls provide adjustable spindle speed and cutter speed. Forward/reverse valve governs machine travel direction.
Weight	Operating: 97.5 kg (215 lbs) Shipping: 189.6 kg (418 lbs)
Finish	Paint
Dimensions (LxWxH)	61 cm x 51 cm x 28 cm 24" x 20" x 10.75"
Standard equipment	<ul style="list-style-type: none"> <li>• Twin drive motors (air or hydraulic)</li> <li>• Air line lubricator (air only)</li> <li>• Filter (air only)</li> <li>• Speed control (hydraulic only)</li> <li>• Operating manual and isometric parts list</li> <li>• Operating tools</li> <li>• Spare chain</li> <li>• Connecting pins</li> <li>• Basic mounting chain for 152.4 - 1219.2 mm (6" - 48") dia. pipe</li> <li>• Steel storage case</li> <li>• Reversible feed motor</li> <li>• 6' whip hose withoutiler (air only)</li> </ul>
Optional equipment	<ul style="list-style-type: none"> <li>• Additional chain for any diameter pipe</li> <li>• Additional cutter blades</li> <li>• Guide track and wheels to fit all pipe sizes up to 1829 mm (72") for vertical cutting multiple pass cutting or high accuracy cutting</li> <li>• Long cutter spindle for use with grooving cutters</li> <li>• Corrosion resistant package</li> </ul>

Article	Model	Version	Pipe OD		Code	WACHS Ref.-no.		
			[mm]	[inch]				
Trav-L-Cutter	E	Pneumatic	152.4 - 1829*	6 - 72*	902 000 010	02-000-01		
Trav-L-Cutter	HE	Hydraulic	152.4 - 1829*	6 - 72*	902 000 020	02-000-02		

\* Standard equipment includes a basic mounting chain for OD 152.4 - 1219.2 mm (6" - 48") only. Chain assembly for OD 1371.6- 1829 mm (54"- 72") sold separately.



# Accessories for Trav-L-Cutters

## Saw blades

Article	Made from	Saw blade Ø		Saw blade thickness		For pipe materials	Wall thickness max.		Code	WACHS Ref.-no.
		[mm]	[inch]	[mm]	[inch]		[mm]	[inch]		
Saw blade	HSS	152.4	6	4.8	3/16	Steel	25.4	1	902 601 000	02-601-00
Saw blade*	HSS	177.8	7	4.8	3/16	Steel	38.1	1 1/2	902 602 000	02-602-00
Saw blade**	HSS	177.8	7	7.1	9/32	Steel	38.1	1 1/2	902 603 000	02-603-00
Saw blade	HSS	203.2	8	4.8	3/16	Steel	54.0	2 1/8	902 604 000	02-604-00
Saw blade	Diameter carbide tipped	152.4	6	4.8	3/16	Ductile, cast iron	25.4	1	902 605 000	02-605-00
Saw blade	Diameter carbide tipped	177.8	7	4.8	3/16	Ductile, cast iron	38.1	1 1/2	902 606 000	02-606-00
Saw blade	Diameter carbide tipped	203.2	8	4.8	3/16	Ductile, cast iron	54.0	2 1/8	902 607 000	02-607-00
Saw blade	Hi-Grain carbide tipped***	152.4	6	4.8	3/16	Ductile, cast iron, alloys	25.4	1	902 653 010	02-653-01
Saw blade	Hi-Grain carbide tipped***	177.8	7	4.8	3/16	Ductile, cast iron	38.1	1 1/2	902 653 020	02-653-02
Saw blade	Hi-Grain carbide tipped***	203.2	8	4.8	3/16	Ductile, cast iron	54.0	2 1/8	902 653 030	02-653-03

## Bevel cutters

Article	Version	Bevel cutter Ø		Bevel cutter thickness		Beveling angle	Wall thickness max.		Code	WACHS Ref.-no.
		[mm]	[inch]	[mm]	[inch]		[mm]	[inch]		
Bevel cutter	Left hand (inside)	127.0	5	12.70	1/2	30	19.05	3/4	902 608 540	02-608-LH
Bevel cutter	Right hand (outside)	127.0	5	12.70	1/2	30	19.05	3/4	902 608 740	02-608-RH
Bevel cutter	Left hand (inside)	127.0	5	12.70	1/2	37.5	15.88	5/8	902 609 540	02-609-LH
Bevel cutter	Right hand (outside)	127.0	5	12.70	1/2	37.5	15.88	5/8	902 609 740	02-609-RH
Bevel cutter	Left hand (inside)	152.4	6	19.05	3/4	30	25.40	1	902 610 540	02-610-LH
Bevel cutter	Right hand (outside)	152.4	6	19.05	3/4	30	25.40	1	902 610 740	02-610-RH
Bevel cutter	Left hand (inside)	152.4	6	19.05	3/4	37.5	22.23	7/8	902 611 540	02-611-LH
Bevel cutter	Right hand (outside)	152.4	6	19.05	3/4	37.5	22.23	7/8	902 611 740	02-611-RH

## Combination possibilities of saw blades and bevel cutters for Trav-L-Cutters

Example: Cutting and bevelling up to 19.05 mm (3/4") wall thickness:

Article	Version	Blade Ø		Blade thickness		Beveling angle	Wall thickness max.		Code	WACHS Ref.-no.
		[mm]	[inch]	[mm]	[inch]		[mm]	[inch]		
Saw blade	HSS	152.4	6	4.8	3/16	–	25.4	1	902 601 000	02-601-00
Bevel cutter	Left hand (inside)	127.0	5	12.70	1/2	30	19.05	3/4	902 608 540	02-608-LH
Bevel cutter	Right hand (inside)	127.0	5	12.70	1/2	30	19.05	3/4	902 608 740	02-609-RH

Example: Cutting and bevelling up to 25.4 mm (1") wall thickness:

Article	Version	Blade Ø		Blade thickness		Beveling angle	Wall thickness max.		Code	WACHS Ref.-no.
		[mm]	[inch]	[mm]	[inch]		[mm]	[inch]		
Saw blade**	HSS	177.8	7	7.1	9/32	–	38.1	1 1/2	902 603 000	02-603-00
Bevel cutter	Left hand (inside)	152.4	6	19.05	3/4	30	25.40	1	902 610 540	02-610-LH
Bevel cutter	Right hand (inside)	152.4	6	19.05	3/4	30	25.40	1	902 610 440	02-610-RH

\* For parting only.

\*\* For use with 6" bevel cutter.

\*\*\* Hi-grain carbide is a micrograin carbide with higher strength for tough materials.

## Clamping chains

Article	Pipe OD		Accumulated chain length		Code	WACHS Ref.-no.		
	[mm]	[inch]	[mm]	[inch]				
Clamping chain	– per linear inch –				on request	–		
Chain assembly	152.4 - 1219.2	6 - 48	4394	173	902 450 480	02-450-48		
Chain assembly	1371.6 - 1828.8	54 - 72	1702	67	902 450 720	02-450-72		
Connecting pin					902 158 000	02-158-00		



Slitting blade



Slitting blade

## Guide tracks

Guide tracks require purchase of guide track wheel (Set of two, Code 902 429 000).

Article	[mm]	[inch]	Code	WACHS Ref.-no.		
Guide track assembly	152.4	6	902 428 060	02-428-06		
Guide track assembly	203.3	8	902 428 080	02-428-08		
Guide track assembly	254.0	10	902 428 100	02-428-10		
Guide track assembly	304.8	12	902 428 120	02-428-12		
Guide track assembly	355.6	14	902 428 140	02-428-14		
Guide track assembly	406.4	16	902 428 160	02-428-16		
Guide track assembly	457.2	18	902 428 180	02-428-18		
Guide track assembly	508.0	20	902 428 200	02-428-20		
Guide track assembly	558.8	22	902 428 220	02-428-22		
Guide track assembly	609.6	24	902 428 240	02-428-24		
Guide track assembly	660.4	26	902 428 260	02-428-26		
Guide track assembly	711.2	28	902 428 280	02-428-28		
Guide track assembly	762.0	30	902 428 300	02-428-30		
Guide track assembly	812.8	32	902 428 320	02-428-32		
Guide track assembly	863.6	34	902 428 340	02-428-34		
Guide track assembly	914.4	36	902 428 360	02-428-36		
Guide track assembly*	965.2	38	902 428 380	02-428-38	*	
Guide track assembly	1016.0	40	902 428 400	02-428-40		
Guide track assembly	1066.8	42	902 428 420	02-428-42		
Guide track assembly	1219.2	48	902 428 480	02-428-48		
Guide track assembly*	1371.6	54	902 428 540	02-428-54	*	
Guide track assembly*	1524.0	60	902 428 600	02-428-60	*	
Set of 2 guide track wheels	–	–	902 429 000	02-429-00		
Guide track bolt (2 required per guide track)	–	–	902 209 000	02-209-00		

\* Special order item, contact Orbitalum Tools for price and delivery.



Bevel cutter



Bevel cutter



Bevel cutter

## Miscellaneous accessories and spare parts

Article	Code	WACHS Ref.-no.		
Hydraulic hose set 13.9 m (45 ft 5/8"). Includes 4 sets M/F quick disconnects. For use with WACHS Model HE Trav-L-Cutter.	902 408 000	02-408-00		
Hydraulic female disconnect.	909 025 000	09-025-00		
Hydraulic male disconnect.	909 026 000	09-026-00		
Dust cover, plug-cap.	909 027 000	09-027-00		
Set of 2 guide track wheels.	902 429 000	02-429-00		
Long cutter spindle*	902 073 020	02-073-02		
Spare parts kit.**	902 500 010	02-500-01		
Spare parts kit with air motor (includes both air motors).**	902 500 020	02-500-02		
Spare parts kit for 902 000 040 (atmospheric).**	902 500 040	02-500-04		
Chain connecting pin.	902 158 000	02-158-00		



Article	Code	WACHS Ref.-no.		
Steel wedges.	902 175 000	02-175-00		
Trav-L-Cutter manual. Electronic version via e-mail available free upon request.	902 626 010	02-MAN-01		

\* If purchased in place of standard spindle: add \$125.00 to machine price.  
 \*\* Kit BOM's subject to change based on current production configuration.

## Hydraulic Power Pack

Hydraulic Power Pack "SafeQuip", see page 55.

## Cutting lubrication KSS-TOP

**The water soluble, fully synthetic cooling fluid extends the tool life of the tool bits.**  
 Contains no hazardous substances (no labeling requirements according to GefStoffV1) and is well corrosion resistant. Developed conforming to drinking water requirements according to DVGW work sheet W521 (thread cutting compounds for drinking water installations) and basically complies with these specifications. Is biologically degradable (OECD 302 B).



Cutting lubrication KSS-TOP

Article	Version	Code		kg
Cutting lubrication KSS-TOP	Pump sprayer with 500 ml	790 060 226		0.630
Cutting lubrication KSS-TOP refill canister	Canister with 10 l	790 060 227		11.000

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