



Rough Grinding and Cutting



Purpose

The main goal of rough grinding and cutting off is to remove as much material (stock) as possible. Surface finish is of minor importance. This process involves leveling or smoothing edges and shaping cast, forged, or welded pieces. It can also involve removing material to form or enlarge a cavity. Typical tasks include fettling castings, trimming welding joints, or cutting off.



Choosing the Tool

Several factors determine the choice of tool, including the type of grinding work, the workpiece material, shape, location, the abrasive used, and the power required. More power enables more material to be removed over time.



Choosing Wheel Diameter and Thickness

Key considerations when choosing wheel diameter include ease of use, machine speed, and economy:

- Many operators prefer the smallest wheel possible as it is lighter and generates less torque.
- Machine speed (rpm) is crucial. Safety codes restrict maximum speeds; larger wheels have lower maximum speeds.
- Larger wheels provide more usable abrasive material at a lower additional cost.
- Wheel thickness is also a matter of cost-effectiveness. Thicker wheels offer more abrasive material for the same price, but thinner wheels may be necessary for precision control or confined spaces, despite requiring a heavier tool and higher air consumption.



Technique

When using grinders, the material removal pattern is unpredictable, unlike stationary machines. Each grain on the abrasive acts as a tiny cutting tool, removing small chips of material. Over time, these grains become blunt, but the right abrasive will cause blunt grains to break off, exposing new, sharp grains, which is essential for effective grinding. Self-sharpening is crucial for effective grinding. Grinding with a rocking movement helps different parts of the abrasive touch the workpiece, aiding the self-sharpening process. When cutting off material, this rocking motion should follow the wheel's rotation direction.

Experience unmatched power and precision in rough grinding and cutting with our lightweight angle grinders, designed for ultimate comfort and versatility.

Description

Angle grinders are renowned for their exceptional power and precision, making them ideal for rough grinding, de-burring, and cutting tasks. These tools are the most powerful angle vane grinders for their size, ensuring efficient performance and higher productivity. Their lightweight design ensures ease of use and reduced operator fatigue, while the ergonomic, textured non-slip grips provide comfort during prolonged use.

Designed to withstand tough jobs under continuous load, they excel in heavy-duty industrial material removal applications such as shipyards, foundries, forges, rail car manufacturing, automotive, heavy industry, and many other types of manufacturing. The durable angle gears are nearly maintenance-free, requiring only a grease change every 1,000 hours, and guaranteeing a service life of 2,500 hours. Sealed angle heads ensure long service intervals, contributing to the grinder's longevity. The efficient air motor maintains consistent performance, even with longer hoses, translating into a higher rate of material removal and improved productivity. A built-in spindle lock enables fast and easy grinding wheel changes. The combination of high power and low weight makes angle grinders a powerful productivity package.

Features

- The most powerful vane grinders for its size
- Compact and robust design
- Lightweight and easy-to-handle design
- Integrated Auto-balancer
- Integrated speed controlled governor
- Integrated spindle lock
- Sealed angle head
- Complete list of accessories

Benefits

- Optimal process speed for different applications
- Highest productivity for its size
- Long service intervals
- Reduced risk of vibration related injuries
- High level of operator safety and comfort



Angle Grinders



LSV19

[Details >](#)



LSV29

[Details >](#)



LSV39

[Details >](#)



LSV48

[Details >](#)



Model	Max free speed r/min	Spindle thread	Wheel Diameter (DxTxH) ^a mm	Max output kW	Length mm	Weight kg	Air consumption at max output l/s	Air consumption at free speed l/s	Rec. hose size mm	Air inlet thread BSP in	Ordering No.
LSV19 S170-08	17000	3/8"-17 UNF	80x7x10	0.45	186	0.7	11.2	6.6	10	1/4	8423 0111 40

^aDxTxH = Diameter x Thickness x Hole

Accessories

	8423 1111 40	Ordering No.
Included		
Face spanner (25/19x3 mm)	✓	4080 0186 00
Hose (Soft type, Ø38, L = 1 m)	✓	4150 1314 02
Flange washer complete	✓	4150 1158 80
Optional		
Hose kit (Cablair 10; 10 mm, L = 0.7 m)	✓	8202 1180 19
Syringe, filled with grease (RHENUS LKR03, 20 ml)	✓	4081 0530 90
MULTIFLEX-1/4 cover	✓	8202 1350 41
MULTIFLEX-1/4-NPT (For North America)	✓	8202 1350 26
MULTIFLEX-1/4	✓	8202 1350 20
Productivity kit (MIDI-FRL-1/2-BSP EQ08-C10)	✓	8202 0850 03



Model	Max free speed	Spindle thread	Max output	Max wheel dia	Length	Weight	Air consumption at max output	Air consumption at free speed	Rec. hose size	Air inlet thread BSP	Ordering No.
	r/min		kW	mm	mm	kg	l/s	l/s	mm	in	
LSV29 S060-180	6000	5/8"-11 UNC	0.8	180	268	2.5	20	7	13	3/8	8423 0127 39
LSV29 ST12-100	12000	3/8"-24 UNF	0.8	100	248	1.7	20	8	10	3/8	8423 0127 45
LSV29 ST12-115	12000	3/8"-24 UNF	0.8	115	248	1.7	20	8	10	3/8	8423 0127 46
LSV29 ST12-125	12000	3/8"-24 UNF	0.8	125	248	1.7	20	8	10	3/8	8423 0127 47
LSV29 ST13-100E	13000	3/8"-24 UNF	0.8	100	300	1.7	26	15	10	3/8	8423 0127 49

Accessories

	8423 0127 39	8423 0127 45	8423 0127 46	8423 0127 47	8423 0127 49	Ordering No.
Included						
Open-end spanner (A/F 18mm)	-	✓	✓	✓	-	4080 0729 00
Face spanner (30 x Ø6 mm)	✓	-	✓	✓	-	4080 0862 00
Face spanner (26 x Ø4 mm)	-	✓	-	-	-	4080 0210 00
Allen key (6mm)	✓	-	-	-	-	4080 0048 00
Hose (Soft type, Ø38, L = 1 m)	✓	✓	✓	✓	✓	4150 1314 02
Flange washer complete	-	-	✓	✓	-	4150 1160 80
Optional						
Hose kit (Cablair 10; 10 mm, L = 0.9 m)	✓	-	-	-	-	4150 1617 80
Hose kit (Turbo 13; 13 mm, L = 0.9 m)	-	✓	✓	✓	✓	8202 1181 98
Grease gun (0.8oz - 24gr)	-	-	-	-	✓	4150 1982 20
Syringe, filled with grease (RHENUS LKR03, 20 ml)	✓	✓	✓	✓	-	4081 0530 90
Diamond cutting wheel - Ø100 mm	-	✓	✓	✓	✓	3780 5074 00
Adds on spot suction - Ø115-150 mm	-	-	✓	✓	-	3780 4032 14
MULTIFLEX-3/8 cover	✓	✓	✓	✓	✓	8202 1350 42
MULTIFLEX-3/8-NPT (For North America)	✓	✓	✓	✓	✓	8202 1350 28
MULTIFLEX-3/8	✓	✓	✓	✓	✓	8202 1350 22

Accessories

	8423 0127 39	8423 0127 45	8423 0127 46	8423 0127 47	8423 0127 49	Ordering No.
Optional						
Productivity kit (MIDI-FRL-1/2-BSP EQ10-T13)	✓	✓	✓	✓	✓	8202 0850 17
Spot suction for depressed center wheel - Ø125 mm	✓	✓	✓	✓	✓	3780 4008 70
• Nut 5/8" (incl. in kit)	(✓)	(✓)	(✓)	(✓)	(✓)	3780 2722 00
• Adapter UNF 3/8" to UNF 5/8" (incl. in kit)	(✓)	(✓)	(✓)	(✓)	(✓)	4021 0434 00
Spot suction kit for sanding with fiber disc 125mm (5")	✓	✓	✓	✓	✓	3780 4008 60
• Suction cap 125 mm with brush (incl. in kit)	(✓)	(✓)	(✓)	(✓)	(✓)	3780 2650 20
• Backing pad 125 mm (incl. in kit)	(✓)	(✓)	(✓)	(✓)	(✓)	3780 2710 30
• Distance washer 9 mm (incl. in kit)	(✓)	(✓)	(✓)	(✓)	(✓)	3780 2721 50
• Adapter UNF 3/8" UNC 5/8" (incl. in kit)	(✓)	(✓)	(✓)	(✓)	(✓)	4021 0434 00
• Nut 5/8" (incl. in kit)	(✓)	(✓)	(✓)	(✓)	(✓)	3780 2722 00
Vacuum Hose, 1.8 m - Ø25 mm for 125 m ³ /h suction requirement (for depressed center and cut-off wheels)	✓	✓	✓	✓	✓	3780 2724 20
Vacuum Hose, 1.8 m - Ø32 mm for 200 m ³ /h suction requirement (for depressed center and cut-off wheels)	✓	✓	✓	✓	✓	3780 2724 31
Vacuum Hose, 1.8 m - Ø38 mm for 250 m ³ /h suction requirement (for depressed center and cut-off wheels)	✓	✓	✓	✓	✓	3780 2724 40
Brush for suction cap - Ø125 mm (20 mm high) (for depressed center and cut-off wheels)	✓	✓	✓	✓	✓	3780 2678 00
Brush for suction cap - Ø180 mm (30 mm high) (for depressed center and cut-off wheels)	✓	✓	✓	✓	✓	3780 2677 30



Model	Max free speed	Spindle thread	Max output	Max wheel dia	Length	Weight	Air consumption at max output	Air consumption at free speed	Rec. hose size	Air inlet thread BSP	Air inlet thread NPT	Ordering No.
	r/min		kW	mm	mm	kg	l/s	l/s	mm	in	in	
LSV39 SA12-125	12000	M14	1.8	125	231	1.8	29.8	17.6	13	3/8	-	8423 0133 01
LSV39 ST12-527	12000	5/8"-11 UNC	1.8	125	231	1.8	29.8	17.6	13	-	3/8	8423 0133 02
LSV39 SA085-125	8500	M14	1.8	125	231	1.8	29.8	17.6	13	3/8	-	8423 0133 09 - for wire brush
LSV39 SA085-180	8500	M14	1.8	180	231	1.9	29.8	17.6	13	3/8	-	8423 0133 12 - for diamond cutting

Accessories

	8423 0133 01	8423 0133 02	8423 0133 09	8423 0133 12	Ordering No.
Included					
Face spanner (30 x Ø6 mm)	✓	✓	✓	✓	4080 0862 00
Allen key (4mm)	✓	✓	✓	✓	0902 0112 00
Hose (Soft type, Ø38, L = 1 m)	✓	✓	✓	✓	4150 1314 02
Looking kit	✓	✓	✓	✓	4170 1188 00
Adapter, backing pad	✓	-	✓	✓	4175 0643 93
Flange nut M14 - type 27 (type 42) grinding wheel	✓	-	✓	✓	4175 0643 96
Adapter - Ø42mm / 5-11 UNC (type 27, 41, 42)	-	✓	-	-	4175 0644 00
Flange nut 5/8"	-	✓	-	-	4175 0645 00
Optional					
Hose kit (Turbo 13; 13 mm, L = 0.9 m)	✓	✓	✓	✓	4150 1618 81
Syringe, filled with grease (RHENUS LKR03, 20 ml)	✓	✓	✓	✓	4081 0530 90
Alu-cut guard cover kit	✓	-	-	-	4150 2300 82
Saw blade, Ø125 mm for cutting applications, 30 teeth, 2 mm thick	✓	✓	-	-	4112 1164 00
Saw blade, Ø125 mm for milling applications, 6 teeth, 4 mm thick	✓	✓	-	-	4112 1162 00
Diamond cutting wheel - Ø125 mm	✓	✓	-	-	3780 5074 61
Adds on spot suction - Ø115-150 mm	✓	✓	-	-	3780 4032 14

Accessories

	8423 0133 01	8423 0133 02	8423 0133 09	8423 0133 12	Ordering No.
Optional					
MULTIFLEX-3/8 cover	✓		✓	✓	8202 1350 42
MULTIFLEX-3/8-NPT (For North America)		✓		-	8202 1350 28
MULTIFLEX-3/8	✓		✓	✓	8202 1350 22
Productivity kit (MIDI-FRL-1/2-BSP EQ10-T13)	✓			✓	8202 0850 17
Spot suction for diamond cutting blade - Ø125 mm (cutting depth 30mm)	✓	✓	✓	-	3780 4008 74
Spot suction for depressed center wheel - Ø125 mm	✓	✓	✓	-	3780 4008 73
Dust Extraction Hose, 1.8 m - Ø25 mm for 125 m ³ /h suction requirement (for depressed center and cut-off wheels)	✓	✓	✓	-	3780 2724 20
Dust Extraction Hose, 1.8 m - Ø32 mm for 200 m ³ /h suction requirement (for depressed center and cut-off wheels)	✓	✓	✓	-	3780 2724 31
Dust Extraction Hose, 1.8 m - Ø38 mm for 250 m ³ /h suction requirement (for depressed center and cut-off wheels)	✓	✓	✓	-	3780 2724 40
Brush for suction cap - Ø125 mm (20 mm high) (for depressed center and cut-off wheels)	✓	✓	✓	-	3780 2678 00
Brush for suction cap - Ø180 mm (30 mm high) (for depressed center and cut-off wheels)	✓	✓	✓	-	3780 2677 30



Model	Max free speed	Spindle thread	Max output	Max wheel dia	Length	Weight	Air consumption at max output	Air consumption at free speed	Rec hose size	Air inlet thread BSP	Air inlet thread NPT	Ordering No.
	r/min		kW	mm	mm	kg	l/s	l/s	mm	in	in	
LSV48 SA085-18	8500	M14	2.5	180	316	2.7	36	17	16	1/2	-	8423 0132 06
LSV48 SA066-23	6600	5/8"-11 UNC	2.5	230	316	2.9	36	17	16	1/2	-	8423 0132 08
LSV48 SA085-727	8500	5/8"-11 UNC	2.5	180	316	2.8	36	17	16	-	1/2	8423 0707 52
LSV48 SA120-527	12000	5/8"-11 UNC	2.5	125	316	2.5	36	17	16	-	1/2	8423 0707 53
LSV48 SA066-727	6600	5/8"-11 UNC	2.5	180	316	2.8	36	17	16	-	1/2	8423 0707 54

Accessories

	8423 0132 06	8423 0132 08	8423 0707 52	8423 0707 53	8423 0707 54	Ordering No.
Included						
Face spanner (30 x Ø6 mm)	✓	✓	-	-	-	4080 0862 00
Open-end spanner (A/F 36mm)	-	-	✓	-	-	0902 0436 00
Face spanner (26 x Ø4 mm)	-	-	✓	✓	✓	4080 0210 00
Face spanner (30 x Ø5.5 mm)	-	-	✓	✓	✓	4080 0201 00
Flange nut	-	-	✓	✓	✓	4170 0220 01
Allen key (4mm)	✓	✓	-	✓	✓	0902 0112 00
Flange washer - Adapter	-	-	-	✓	-	4150 1731 00
Hose (TURBO16, 5/8", L = 0.5 m)	✓	✓	-	-	-	8202 1181 85
Flange nut - depressed center wheel (M14)	✓	-	-	-	-	4150 1160 02
Flange nut - cut-off wheel (M14)	✓	-	-	-	-	4150 1160 05
Flange nut - depressed center wheel (5/8")	-	✓	-	-	-	4150 1160 03
Flange nut 5/8" (hub)	-	-	✓	-	✓	4170 0448 00

Accessories

	8423 0132 06	8423 0132 08	8423 0707 52	8423 0707 53	8423 0707 54	Ordering No.
Optional						
Looking kit	✓	✓	✓	✓	✓	4170 1188 94
Syringe, filled with grease (RHENUS LKR03, 20 ml)	✓	✓	✓	✓	✓	4081 0530 90
Backing set, heavy duty type (Ø120 mm - 5/8") - US version	-	-	-	✓	-	4170 1204 00
Pad (Backing pad, UNC 5/8")	-	✓	✓	-	-	4170 1192 90
MULTIFLEX-1/2-NPT (For North America)	-	-	✓	✓	✓	8202 1350 62
MULTIFLEX-1/2-HF	✓	✓	-	-	-	8202 1350 60
Productivity kit (MIDI-FRL-1/2-BSP EQ10-T16)	✓	✓	-	-	-	8202 0850 12
Spot suction kit for GRP (diamond cutting) application 180mm (7")	✓	-	-	-	-	3780 4093 42
Cutting disc - Ø180 mm	✓	-	-	-	-	3780 5074 62

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