

► METAL

**FEIN. Unverwüstliche
Elektrowerkzeuge.**



Sophisticated, powerful, and reliable.

The FEIN angle grinder series.



In continuous operation for you for over 100 years: The FEIN grinding specialists.

Experience is not the only thing, but it is very, very important. Especially when it comes to building power tools for grinding in industry and trades that are as durable, work-oriented, ergonomic, and innovative as the tools that FEIN produces. In various performance classes from 800 to 2,000 watts for the toughest continuous use – for example, in metal and machinery building. From the handy compact angle grinder to the high-performance, large angle grinder.



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Profit from FEIN expertise in angle grinder development, production, and assembly.

At FEIN, uncompromising high quality in all aspects of angle grinder production is understood. It extends from conception and development through production and on to final assembly and quality control.

Your advantage – our capabilities:

- ▶ Many years of development expertise in motor building, using the most modern methods – for example vibration simulation – contribute to the high efficiency.
- ▶ Advanced expertise in motor building: an encapsulated coil protects against abrasive dust without loss of performance.
- ▶ Constant process monitoring and regular testing between operations assure maximum precision in production.
- ▶ Break-in tests of each machine and regular endurance tests guarantee high standards of quality in volume assembly.

Deburring



Easily remove burrs from the edges of roughly machined work pieces without residue.

Grinding



Work without blemishes over the whole area and achieve a professional surface finish.

Roughing-down



You can handle coarse roughing-down jobs professionally.

Cutting



With the high-torque, high-performance motor, you will complete even time-consuming cutting jobs in the shortest time.

Perfectly matched components – for the toughest jobs in industry and trades.

FEIN possesses decades of experience in the development and production of angle grinders of the highest quality. All components are matched to each other and contribute to the first-class quality and outstanding service life. The high-performance motors are an important element: “Made in Germany”. The entire experience and professional knowledge of the FEIN motor construction specialists is built into them. That guarantees rapid work progress in every application.

In addition, every FEIN angle grinder is developed from an ergonomic viewpoint and assures fatigue-free work.

A further characteristic of FEIN angle grinders are the extensive safety features that guarantee the greatest possible safety in the workplace.

Durability



The high quality workmanship of the perfectly matched components produces a sophisticated total assembly that guarantees an unbeatable service life – even under maximum load.

- ▶ High-precision metal gear head.
- ▶ Ball bearings sealed on both sides.
- ▶ Additional dust protection rings for ball bearings.
- ▶ Encapsulated armature and coil.
- ▶ Glass fiber reinforced plastic motor casing.
- ▶ H07 industrial cable.

High-performance



FEIN armature

Competitor's armature

The high performance of FEIN angle grinders is the result of decades of experience in motor building. Sophisticated in every detail – for maximum loading.

- ▶ Extremely strong high-performance motor – loadable to 150% across the entire working range.
- ▶ Unrivaled high copper content.
- ▶ Selected materials for the best magnetic properties.
- ▶ Optimized fan performance and airflow reduce thermal stress on the tool.

Easy handling



FEIN angle grinders are ergonomically designed – for effortless operation, even in continuous use.

- ▶ Ergonomically shaped grip zones.
- ▶ Handle with switch on the WS20 rotates up to 270°.
- ▶ QuickIN fast change system (WSS).
- ▶ All tools are suitable for left or right-handed operation.



Safety



To assure maximum protection in the workplace, FEIN angle grinders are also available with a full safety package.

- ▶ TipStart operating system on all T models.
- ▶ AutoStop.
- ▶ Securely attached accessories with QuickIN (WSS).
- ▶ Self-start lock.
- ▶ Soft start.
- ▶ Electronic jam protection recognizes stalling of the grinding wheel and immediately shuts off the tool (WS10/14).

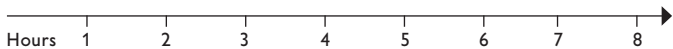
Reduced vibration

Operating duration based on FEIN WS 14

FEIN
(without anti-vibration handle)

Competitor 1
(with anti-vibration handle)

Competitor 2
(without anti-vibration handle)



Using various design techniques, the FEIN angle grinders achieve extremely low vibration values between 2.5 and 5 m/sec², even without an anti-vibration handle.

Due to these vibration values, it is possible to operate FEIN compact angle grinders for up to eight hours. With additional measures – such as using the FEIN anti-vibration handle – the vibration values can be reduced by approximately 40% more.

- ▶ Flexibly mounted ball bearings.
- ▶ Self-supporting motor assembly using decoupling of motor and casing.
- ▶ Balanced vibration distribution.
- ▶ Specially balanced armature.

FEIN Compact Angle Grinders – with wheel diameters from 4½" to 6".

Extra long service life, performance, handling, and safety – these are what distinguish FEIN angle grinders for industry and trades. The different models offer features that match your needs perfectly. You can obtain them in two styles: either with the classic on/off switch or as a safety angle grinder with FEIN TipStart operation and AutoStop.

Benefits:

- ▶ Powerful high-performance motor.
- ▶ Unique ergonomic design.
- ▶ Extremely robust, self-supporting motor construction.
- ▶ Tool-free FEIN QuickIN fast change system (WSS).
- ▶ Best vibration values, even without an anti-vibration handle.



High-performance motor
For extreme performance and loading up to 150% over the whole operating range.
Power: 800 or 1,200 watts.

FEIN QuickIN or 5/8" – 11" mount
Available with fast change system for easy wheel changes (WSS 14 only) or 5/8" – 11" mount with spindle lock.

Ergonomic design
With a tapered grip zone for a safe and comfortable hold.

TipStart operating concept
For easy and safe switching on and off of the tool by touching the sensor points. FEIN WS 14 compact angle grinders are also available with the classic on/off switch.

Electronic jam protection
Recognizes stalling of the grinding wheel and immediately turns the tool off.

User-friendly design
Makes the tool equally convenient for left or right-handed operators.

FEIN WS Grinder Styles



Safety with TipStart
To switch on, one of the front and one of the rear pads must be touched in rapid succession. During operation, touching one of the pads is sufficient. AutoStop automatically switches the tool off if contact ends.



Classic on/off switch
FEIN WS 14 compact angle grinders are also available with the classic on/off switch.

FEIN Angle Grinders – with wheel diameters from 7" to 9".

The large FEIN angle grinders are available in two different 2,000 watt models. There is hardly another power tool that incorporates more application technology than the extremely high-performance and durable FEIN angle grinders: patented fast change system and ergonomic shape for all-round perfect working conditions. That automatically puts you on the winning side.

Benefits:

- ▶ Powerful high-performance motor.
- ▶ Soft start.
- ▶ Very flat gear head to plunge into work pieces.
- ▶ Rear hand grip rotates to 4 positions.

High-performance motor

For extreme performance and loading up to 150% over the whole operating range.
Power: 2,000 watts.

Ergonomic handle

Ensures effortless operation and can be rotated to 4 positions.

Perfect balance

Guarantees a secure hold and helps make operation effortless.



More freedom of movement – handle rotates 270°






There is an optimum working position for every application and every operator. FEIN WS 20 grinders are designed for this. The handle can be rotated up to 270° in 90° steps to ensure complete control in every working position.

The complete FEIN angle grinder series

		FEIN WS 10		FEIN WS 14		
Maximum wheel dia.		4 1/2" (115)		5" (125)		
Power consumption		800 Watts		800 Watts		
						
Model		WSG 10-115	WSG 10-125 S	WSS 14-125	WSS 14-125 T	WSG 14-125
		Handy compact angle grinder for light deburring and grinding work.	Handy, high-performance compact angle grinder for deburring and grinding work.	High-performance compact angle grinder for industry and trades with fast change system.	High-performance compact angle grinder for industry and trades with AutoStop.	High-performance compact angle grinder for industry and trades.
Voltage	Volts	120		120	120	120
Technical specifications						
Maximum wheel dia.	in (mm)	4 1/2" (115)		5" (125)	5" (125)	5" (125)
Power consumption	Watts	800		1,200	1,200	1,200
Output	Watts	550		750	750	750
No-load speed	rpm	10,000		7,000	10,000	10,000
Application						
Grinding		▲		▲▲	▲▲	▲▲
Deburring		▲▲		▲▲	▲	▲
Cutting		▲		▲	▲▲	▲▲
Brushing		-		▲	-	▲▲
Satinizing		-		▲	-	-
Polishing		-		-	-	-
Features						
FEIN High Power Motor		●		●	●	●
Soft start		●		●	●	●
Self-start lock		●		●	●	●
Integrated safety guard		●		-	●	●
Variable speed		-		-	-	-
FEIN QuickIN fast change system		-		-	●	●
FEIN TipStart operating concept		-		-	-	●
FEIN AutoStop		-		-	-	●
Order number		7 221 61		7 221 62	7 221 40	7 221 54
						7 221 41

▲ suitable ▲▲ very suitable ● included + optional

5" (125) 1,200 Watts						6" (150) 1,200 Watts		FEIN WS 20	
5" (125) 1,200 Watts						6" (150) 1,200 Watts		7" (180) 2,000 Watts	9" (230) 2,000 Watts
									
WSG 14-125 S	WSG 14-125 T	WSG 14-70 E	WSG 14-70 ET	WSG 14-150	WSG 14-150 T	WSG 20-180	WSG 20-230		
High-performance compact angle grinder for grinding and cutting work on stainless steel.	High-performance compact angle grinder for industry and trades with AutoStop.	High-performance compact angle grinder with variable speed for stainless steel processing.	High-performance compact angle grinder with variable speed and AutoStop for stainless steel processing.	High-performance compact angle grinder for grinding and cutting work.	High-performance compact angle grinder for grinding and cutting work.	High-performance angle grinder for grinding work.	High-performance angle grinder for grinding and cutting work.		
120	120	120	120	120	120	120	120		
5" (125)	5" (125)	5" (125)	5" (125)	6" (150)	6" (150)	7" (180)	9" (230)		
1,200	1,200	1,200	1,200	1,200	1,200	2,000	2,000		
750	750	750	750	750	750	1,250	1,250		
7,000	10,000	2,500–7,000	2,500–7,000	7,000	7,000	8,500	6,600		
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7 221 44	7 221 56	7 221 43	7 221 58	7 221 42	7 221 57	7 221 07	7 221 08		

Original FEIN accessories for WS 10, WS 14, and WS 20.

General accessories

Anti-vibration handle

Vibration-absorbing, to reduce the vibrations during longer jobs.



	Order number
M 8 (WS 10/14)	3 21 19 119 01 7
M 14 (WS20)	3 21 19 117 01 5

Protective guard

For hand protection



Order number	3 02 29 216 00 5
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Work gloves

Vibration-dampening, certified in accordance with EN 388/420, EN ISO 10819, EEC No. 0200, 1 pair



Size	Order number
9 L	3 21 73 003 00 3
10 XL	3 21 73 004 00 1
11 XXL	3 21 73 005 00 5

Inner flange for all WSG



Order number	6 38 01 120 00 6
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Outer flange for all WSG

5/8" - 11", for roughing and cut-off wheels, flap grinding wheels, and round twist brushes

Order number	6 38 02 098 00 7
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Accessories for WS 10/WS 14

Tool case

Plastic, Interior dimensions: 17 3/4" x 12 3/16" x 5 5/16"



Order number	3 39 01 118 01 0
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Plastic box

Box insert with lockable lid for small parts and accessories, suitable for tool case 3 39 01 118 01 0.



Order number	3 39 01 119 00 0
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Clamping unit for WSS

For roughing and cut-off wheels, twist and round brushes, and flap grinding wheels



Order number	6 38 02 178 02 3
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Clamping unit for WSS

For elastic backing pad and twisted steel wire brush



Order number	6 38 02 180 02 9
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Elastic backing pad for WSS

Without clamping unit



Dia. in.	Order number
4 1/2"	6 38 06 143 01 7
5"	6 38 06 138 01 5

With hook surface, for use with grinding fleece, 5/8" - 11"



Dia. in.	Order number
4 1/2"	6 38 06 184 01 0

Fleece sanding discs for WSG 14-70 E

4 1/2" dia., with hook and loop attachment, for use with backing pad 6 38 06 184 01 0



Grit	Pack Qty.	Order number
Coarse	10	6 37 32 001 01 8
Medium	10	6 37 32 002 01 1
Fine	10	6 37 32 003 01 5

Protective cover for WS 10/WS 14

For cutting work



Dia. in.	Order number
4 1/2"	6 38 11 001 01 0
5"	6 38 11 002 01 0
6"	6 38 11 003 01 0

Accessories for WS 20

Tool case

Metal 27" x 9 7/16" x 6 5/16"



Order number	3 39 01 022 01 4
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Dust extraction device

With guide for 9" dia. cutting wheels, 2 5/16" cutting depth, 1 1/4" dia. connection



Order number	9 06 04 008 01 3
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With guide for 7" dia. cutting wheels, 1 5/16" cutting depth, 1 1/4" dia. connection

Order number	9 06 04 009 01 7
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Protective cover for WS 20

For cutting work

Dia. in.	Order number
7"	6 38 11 004 01 0
9"	6 38 11 005 01 0



FEIN high-frequency angle grinders impress with their constant rpm over the entire speed range.
Benefits: uniformly high grinding performance with low wheel wear!

Lasting maximum performance – with minimal wear: the FEIN high-frequency angle grinder series.

FEIN high-frequency angle grinders prove their superiority, above all in industry where lasting maximum performance is demanded. Especially in industrial metal processing – in constant operation for grinding, cutting, and roughing – they possess large power reserves. Typically about 100% above their rated value. Additional benefits: outstanding service life with low wear.

Advantages of FEIN high-frequency angle grinders

- ▶ Ideal for constant use in industry.
- ▶ Durable and uncomplicated construction.
- ▶ Maximum reserve power.
- ▶ Low tool wear.
- ▶ Constant rpm, even under load.
- ▶ Consistently high removal rate.

You can find more information in the FEIN high-frequency catalog or at: www.fein.com

**FEIN. Unverwüstliche
Elektrowerkzeuge.**



FEIN – specialist for durable power tools.

FEIN is the specialist, when extremely reliable, professional power tools and special applications solutions are called for in the metal fabrication, interior construction, and automotive industries. As the inventor of the electric hand drill, FEIN has developed innovative and unbeatably efficient, professionally-oriented solutions for over 140 years. In industrial and trade use, they prove themselves under the toughest continuous use.



Take advantage of the FEIN PLUS 3-year guarantee

We offer the FEIN PLUS 3-year guarantee on all FEIN power tools. You simply need to register your new FEIN power tool within 6 weeks of purchase at www.fein.com.

Your specialty distributor will be happy to help.

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