

**► METAL** 



**Professional belt grinding in manual trades and industry. GRIT GX/GI** 



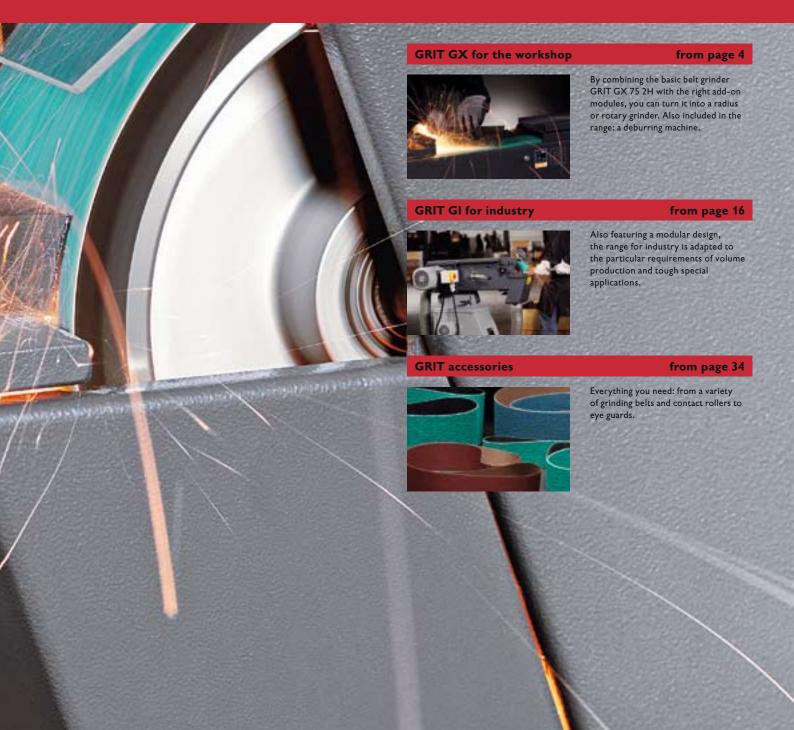
# GRIT belt grinders – one system, a wealth of possibilities.

GRIT by FEIN is synonymous with competence and durability in belt grinding. One modular system is capable of satisfying all requirements, even the most stringent ones. GRIT belt grinders are characterised by their long service lives and can be operated for hours on end, regardless of whether it's in continuous use or shift operation. Thanks to their powerful three-phase motors, they can even cope with extreme grinding conditions. Their robust design means that they can withstand high loads, which are common in professional use.



# Reliable in manual trades and industry.

GRIT belt grinders are designed for all applications. The GRIT GX range is suited to manual trades, and the GRIT GI range to industry. Both ranges feature the unique modular system made up of powerful basic belt grinders and application-specific add-on modules. This is complemented by an extensive range of special accessories. GRIT belt grinders therefore cover all conceivable areas of application.



### **GRIT GX –** for use in the workshop.

Designed for use in manual trades or small-scale volume production, the GRIT GX range offers outstanding efficiency. Regardless of whether you're coarse grinding or finishing, GRIT GX machines allow you to work at speed and deliver high-quality results. The machines can be easily retooled for different applications; they are also safe to use and built to last.

#### The benefits for you

- ► Short retooling times
- ► Can be used in a variety of ways for coarse or fine grinding applications
- ► Highly cost-effective thanks to fast and accurate working
- ► Robust housing that can withstand even the toughest applications

#### Belt grinder GRIT GX 75/GX 75 2H



Powerful belt grinder in one-speed or two-speed version – the basis of the modular GX range. It can also be used on its own as a fully-functional belt grinder.

#### Radius grinding module GRIT GXR



Extension module for grinding out radii on a wide range of workpieces, such as pipes, square pipes, flat materials and profiles.

#### Rotary grinding module GRIT GXC



Extension module for grinding and polishing round materials – from coarse grinding to surface finish.

#### **Deburring machine GRIT GXE**



Independent addition to the GRIT GX range for deburring steel and stainless steel workpieces with wire brushes. Also available with machine base as an option.

### The system that grows with your requirements: the GRIT GX range of machines.

#### Belt grinder GRIT GX 75/GX 75 2H

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#### Radius grinder GRIT GX 75/GX 75 2H + GRIT GXR

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#### Rotary grinder GRIT GX 75/GX 75 2H + GRIT GXC + GRIT GXW

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#### **Deburring machine GRIT GXE + GRIT GIXS/GIXBE**

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## The perfect starting point: the belt grinder GRIT GX 75/GX 75 2H.

The GRIT GX 75 and GRIT GX 75 2H form the basis of the GRIT GX system. They're powerful belt grinders that you can rely on even in professional use, as they feature a robust design, are easy to assemble and are equipped with everything to make working and operation easier. Using the corresponding add-on modules, you can convert your basic machine into a radius or rotary grinder.

#### The benefits for you

- ► Effective material removal in a short space of time
- ► Accurate working thanks to patented belt tensioning system
- ▶ Highly cost-effective as special machines are not required
- ► Can be used on its own without add-on modules

#### **Powerful**

High motor power with constant speed

#### **Variable**

Ideal for machining stainless steel: GRIT GX 75 2H with switchable speeds (1,500/3,000 rpm)

#### Safe

High level of working safety thanks to base screw connections and protective equipment



#### **Ergonomic**

Tried-and-tested design in accordance with ergonomic criteria for simple handling

#### Comfortable

With adjustable working height for a natural posture

#### **Practical**

Swarf container can be removed without tools

Technical data					
Model		GRIT GX 75	GRIT GX 75 2H  Universal belt grinder, can be expanded through the use of modules, for metalworking manual trades, ideal for machining stainless steel in small-scale volume production		
		Belt grinder, can be expanded through the use of modules, for metalworking manual trades and for small-scale volume production			
Power consumption	kW	3	1.5/2		
Idling speed	rpm	3,000	1,500/3,000		
Belt dimensions	mm	75×2,000	75×2,000		
Weight	kg	75	75		
Order number		7 901 01	7 901 02		

Also included: 1 16A CEE reversing pole plug; 1 75 x 2,000 mm grinding belt, grit 36 Z



#### Versatile in use



Thanks to the powerful motor, the belt grinders GRIT GX 75 are extremely powerful and therefore guarantee effective material removal in an extremely short time. The GRIT GX 75 and GRIT GX 75 2H operate with very little vibration and make accurate working easier thanks to their patented belt tensioning system.

#### **Ideal for surfaces**



Grinding surfaces is one of the standard GRIT applications. Both GRIT GX 75 machines feature a large grinding area of 75  $\times$  420 mm, a height-adjustable surface grinding table and easy belt adjustment as standard.

### Accurate working: the radius grinding module GRIT GXR.

Grinding exact radii on pipes is all a question of choosing the right machine. In just a few simple steps, adding the GRIT GXR module will transform your GX 75 2H belt grinder (base unit) into a professional radius grinder – equipped with depth stop, cross slide and quick clamping system as standard. This makes accurate grinding not only straightforward but much more comfortable too.

#### The benefits for you

- ► Accurate grinding of profiles and pipes between 16 and 75 mm in diameter
- ► Accurate and comfortable working
- ► Fewer burrs and less tarnishing when machining stainless steel (with GRIT GX 75 2H/low speed)
- ► High level of flexibility as you can use an adapter to combine the machine with the GRIT GI range



Technical data				
Model		GRIT GXR		
		Radius grinding module for accurate grinding of pipes and profiles for handrail construction		
Diameter of pipes	mm	16 – 75		
Max. dimensions of profiles/ flat material	mm	75×75		
Belt dimensions	mm	75 x 2,250		
Weight	kg	54		
Order number		9 90 01 001 00 0		

Also included: 1 contact roller with a diameter of 42.4 mm; 1 contact roller with a diameter of 48.3 mm; 1 dust container; 1 75 x 2,250 mm grinding belt, grit 36 Z

#### Radius grinder GRIT GX 75/GX 75 2H + GRIT GXR







#### Accuracy guaranteed - no matter what your working angle



Regardless of whether you're grinding pipes, profiles or solid material, the radius grinding module GRIT GXR features the right equipment for the job as standard. It's fitted with a cross slide that can be adjusted accurately and at speed to the angle required, a vice with stainless steel clamping jaws and a unique quick clamping system, which guarantees accurate and safe grinding.

#### Grind pipes accurately



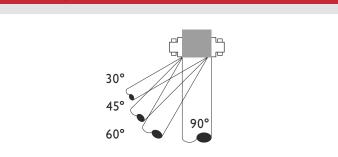
The extensive range of GRIT contact rollers reliably covers all common pipe diameters, allowing the radius grinding module to accurately grind pipes with diameters of between 16 and 75 mm and an angle of between 30° and 90°.

#### Accurate results in volume production



The retrofitable length stop for the GRIT GXR radius grinding module guarantees consistently accurate results in volume production. It is easy to retrofit and can be adjusted over a length of 1,000 mm.

#### Variable adjustment



For angles of between 30° and 90°

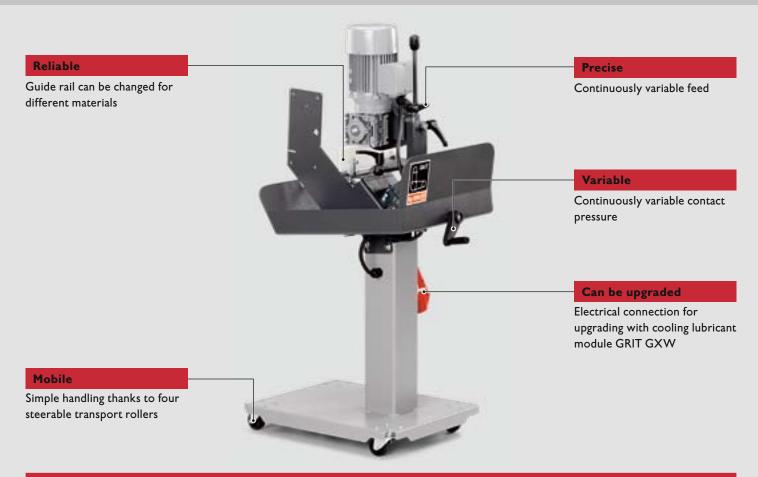
- ► 30° / max. Ø 37.5 mm
- ► 45° / max. Ø 53.0 mm
- ► 60° / max. Ø 64.5 mm
- ▶ 90° / max. Ø 75.0 mm

# Delivering surfaces that are perfect from all angles: the rotary grinding module GRIT GXC.

The rotary grinding module GRIT GXC also offers excellent efficiency and flexibility when it comes to grinding the outside of pipes. It allows you to achieve perfect surfaces with minimal effort. The rotary grinding module GRIT GXC can be converted to a centreless rotary grinder in just a few simple steps.

#### The benefits for you

- ► Cost-effective grinding of pipes and shafts with diameters of between 10 and 100 mm
- ► High working speed with superior surface quality
- ► High level of flexibility as you can use an adapter to combine the machine with the GRIT GI range
- ► Optimum machining thanks to wet grinding in conjunction with cooling lubricant module GRIT GXW



Technical data		
Model		GRIT GXC
		Rotary grinding module for perfect surfaces on metal and stainless steel pipes in metalworking manual trades
Feed motor power	W	180
Diameter of pipes	mm	10–100
Belt dimensions	mm	75 x 2,000
Weight	kg	48
Order number		7 901 03

Also included: 1 nylon guide rail; 1 brass guide rail; 1 16 A CEE plug

#### Rotary grinder GRIT GX 75/GX 75 2H + GRIT GXC + GRIT GXW









#### The quick way to achieve all-round brilliant results



Perfect surface quality and a high working speed when machining pipes and shafts are no problem for the rotary grinding module GRIT GXC. The feed speed can be continuously adjusted to the material to be machined, to max. 2 metres per minute.

#### The right rail for the job



The scope of supply includes a variety of guide rails adapted to the surface quality of the workpiece. The brass guide rail is designed for rough surfaces, such as corrosion, scale and so on or for dry grinding. The nylon rail, meanwhile, is the perfect choice for surface finishing and sensitive materials.

#### **Greatly enhanced surface results**



Wet grinding with the cooling lubricant module GRIT GXW delivers greatly enhanced surface results. Swarf is bound immediately, and the grinding belts have longer service lives thanks to cooling. The risk of corrosion on stainless steel pipes is cut too as a result of reduced heat development. A closed circuit ensures economical use of the cooling lubricant.

#### Ideal for wet grinding



Perfect results and working conditions are guaranteed with the cooling lubricant module GRIT GXW.

Technical data				
Model		GRIT GXW		
Power	W	120		
Weight	kg	8.6		
Order number		7 901 04		

Also included: 1 litre of cooling lubricant emulsion (1:30)

### The clean way to finish off: the deburring machine GRIT GXE.

An outstanding addition to the GRIT GX range, the deburring machine GRIT GXE finishes your work perfectly. It's extremely effective at deburring pipes, profiles and flat materials. The wide range of GRIT deburring brushes can tackle almost any deburring job. Whether they're used with or without extraction, both machine bases are optimally suited to the deburring machine GRIT GXE. They're also easy to install, have a robust design and are extremely stable. Machine bases can also be used for the GRIT GI range (GRIT GI 100 and GRIT GIE).

#### The benefits for you

- ► Fast and effective deburring of pipes and profiles
- ► Can also be used as a polisher (with polishing discs)
- ▶ Versatile in use thanks to wide range of wire brushes available

#### Safe

High level of operating safety thanks to integrated safety switch with motor protection

#### Time-saving

Gap between wire brush and support table can be adjusted without tools

#### Safe

Machine can be secured to machine base or workbench



#### Comfortable

Height-adjustable support fixture

#### Clean

Extraction integrated in support stand GRIT GIXBE or with external extraction system

Technical data		
Model		GRIT GXE
		Effective deburring machine for metalworking manual trades and small-scale volume production
Power	kW	2.2
Speed	rpm	1,500
Max. tool dimensions	mm	250 × 60
Connecting cable	m	2
Weight	kg	32
Order number		7 901 05

Also included: Safety switch; undervoltage circuit breaker; 1 16 A CEE reversing pole plug.

#### **Deburring machine GRIT GXE + GRIT GIXS/GIXBE**











#### Machine base GRIT GIXS without extraction



- ► Stable sheet metal machine base
- ► High level of stability thanks to dowel fastening



- Machine base GRIT GIXBE with extraction
  - ► Sheet metal machine base
  - ► Sturdy dowel fastening
  - ► Highly-effective extraction
  - ► Effective air cleaning
  - ► Spark-resistant container for metal swarf
  - ► Flexible, heat-resistant steel extraction hose

Technical data		
Model		GRIT GIXS
Dimensions (L x W x H)	mm	$304 \times 356 \times 769$
Weight	kg	18
Order number		9 90 01 002 00 0

Technical data		
Model		GRIT GIXBE
Power	W	370
Max. vacuum	mbar	2.65
Dimensions (L $\times$ W $\times$ H)	mm	$305 \times 575 \times 700$
Weight	kg	58
Order number	9 90 01 009 00 0	





### **GRIT GI - for industrial use.**

The GRIT GI range is perfectly coordinated to all grinding applications, materials and formats in the metal industry. Thanks to the modular system, you can assemble the machine to suit your requirements – even for steps that have already been partly automated. The high quality, robustness and outstanding power of the machines guarantee maximum efficiency and mean that the machines pay for themselves quickly, as they offer complete reliability, even in continuous use.

#### The benefits for you

- ► Simple and comfortable operating concept
- ► Long run times, even in continuous industrial use
- ► High level of efficiency and operating safety thanks to high motor power and robust design

#### **Belt grinder**



High-performance belt grinders for heavy-duty-use. The basic machine for the modular GRIT GI range is available as a one-speed or two-speed version. It can also be used on its own as a fully-functional belt grinder.

#### Radius grinder



The perfect solution for accurate grinding of pipes, square pipes, flat materials and profiles in industry.

#### Rotary grinder



Cost-effective rotary grinding of pipes in automated processes – from coarse grinding to surface finishing. Used in combination with the cooling lubricant module GRIT GXW, it allows you to achieve perfect results at a low temperature.

#### Longitudinal grinder



The patented surface grinder GRIT GILS, the only one of its kind on the market, delivers perfect surface results quickly and cost-effectively thanks to the automatic feed.

### The efficient and cost-effective system: the GRIT GI range of machines.

#### Belt grinder GRIT GI 75/GI 75 2H/GI 150/GI 150 2H + GRIT GIB/GIBE

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7 902 05



#### Radius grinder GRIT GI 150/GI 150 2H + GRIT GIB/GIBE + GRIT GIR

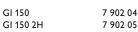
GI 150 2H

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#### Rotary grinder GRIT GI 75/GI 75 2H/GI 150/GI 150 2H + GRIT GIB + GRIT GIC + GRIT GXW

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Rotary grinding module



#### Longitudinal grinder GRIT GI 150/GI 150 2H + GRIT GIB/GIBE + GRIT GIL

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#### Mobile grinder GRIT GI 75/GI 75 2H/GI 150/GI 150 2H + GRIT GIM

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#### **Deburring machine GRIT GIE + GRIT GIXS/GIXBE**

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#### Belt grinder GRIT GI 100/GI 100 EF + GRIT GIXS/GIXBE

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#### Belt grinder GRIT GIS 75/GIS 150

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### Surface grinder



#### Belt grinder



### The principal element for any job: the belt grinders GRIT GI 75/GI 75 2H and GRIT GI 150/GI 150 2H.

The principal element for industrial belt grinding: the belt grinders GRIT GI 75 and GRIT GI 150. Every component is specially designed to cope with tough professional use while the exceedingly powerful motor keeps the speed constant and delivers high cutting power. Available with belt widths of 75 and 150 mm and as a one-speed or two-speed version.

#### The benefits for you

- ▶ Reliable in use at all times, even under the toughest conditions
- Easy to convert to a radius, rotary or surface grinder
- ▶ Optional extraction system connection for clean working
- ► S1 motors for continuous use

#### **Flexible**

Can be adjusted for continuous linear grinding

#### **Variable**

Available with 2 speeds and a variety of belt widths (75 mm or 150 mm)

#### **Powerful**

Constant speed at high cutting power, even in continuous use



#### Safe

Stop, grinding gap and individually adjustable eye guard

#### **Ergonomic**

Adjustable working height, height-adjustable support

#### Comfortable

Low-vibration, patented belt tensioning system

Technical data					
Model		GRIT GI 75	GRIT GI 75 2H	GRIT GI 150	GRIT GI 150 2H
		High-performance belt grinder, can be expanded through the use of modules, for stringent require- ments in volume production	Universal high-torque belt grinder, can be expanded through the use of mod- ules, for industrial and vol- ume production applica- tions, ideal for machining stainless steel	High-performance belt grinder, can be expanded through the use of modules, for stringent requirements in volume production of extra-wide workpieces	Universal high-torque belt grinder, can be expanded through the use of modules, for industrial and volume production applications, ideal for machining stainless steel for extra-wide workpieces
Power	kW	4.0	2.6-3.1	4.0	2.6-3.1
Idling speed	rpm	3,000	1,500/3,000	3,000	1,500/3,000
Belt dimensions	mm	75 x 2,000	75 x 2,000	150 x 2,000	150 x 2,000
Weight	kg	65	65	82	82
Order number		7 902 01	7 902 02	7 902 04	7 902 05
		1 16A CEE plug; 1 75 $\times$ 2,000 mm grinding belt, grit 36 Z		1 16A CEE plug; 1 150 x 2,000 mm grinding belt, grit 40 Z	

#### Belt grinder GRIT GI 75/GI 75 2H/GI 150/GI 150 2H + GRIT GIB/GIBE







Belt grinder (base unit)



#### Machine base without extraction GRIT GIB



- ► Working height can be adjusted conveniently and with ease using the gas compression spring
- ► High level of stability thanks to robust design

Technical data		
Model		GRIT GIB
Weight	kg	17
Order number		9 90 01 003 00 0

#### Machine base with extraction GRIT GIBE



- ► Working height can be adjusted with ease using the gas compression spring
- ► High level of stability thanks to robust design
- ► Cartridge filter for effective air cleaning
- ► Flexible, heat-resistant steel extraction hoses

Technical data				
Model		GRIT GIBE		
Power	W	350		
Weight	kg	55		
Order number		9 90 01 004 00 0		



# Radius grinding in volume production: the radius grinding module GRIT GIR.

Fast and accurate, the radius grinding module GRIT GIR is ideal for industrial use. Effective material removal guarantees cost-effective working – and with a belt width of 150 mm, the machine is also suited to workpieces with larger diameters.

#### The benefits for you

- ► Accurate grinding of pipes with diameters of up to max. 150 mm
- ► Fewer burrs and less tarnishing when machining stainless steel (with GRIT GI 150/low speed)



rechnicai data				
Model		GRIT GIR		
		Radius grinding module for accurate grinding on pipes and profiles in volume applications and for extra-wide cross-sections too		
Diameter of pipes	mm	20-150		
Max. dimensions of profiles/flat material	mm	120×150		
Belt dimensions	mm	$150 \times 2,250 / 150 \times 2,400$ (for contact rollers with diameters greater than 150 mm and mitre joint grinding plate)		
Weight	kg	109		
Order number		9 90 01 007 00 0		

Also included: 1 contact roller for diameters of 42.4 mm/1 dust container; 1 150 x 2,250 mm grinding belt, grit 36 Z

#### Radius grinder GRIT GI 75/GI 75 2H/GI 150/GI 150 2H + GRIT GIB/GIBE + GRIT GIR











#### Robust and powerful



The radius grinding module GRIT GIR was developed especially for use in industry. Thanks to its robust design, it is cost-effective and accurate in continuous use and when machining thick-walled or solid materials.

#### Very comfortable



Thanks to the quick clamping system, you can change the workpiece efficiently and easily using the heavy-duty vice. The stainless steel clamping jaws supplied prevent contact corrosion with stainless steel workpieces. The suction nozzle (order no. 6 99 02 182 00 0) is required for effective extraction.

#### **Extremely flexible**

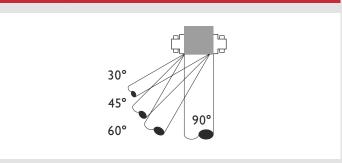


GRIT has developed a special mitre joint grinding plate to ensure smooth mitre joint grinding. The fact that it is easy to install makes it unique on the market. The mitre joint grinding plate is available as an option.

Maximum pipe diameter:

- ▶ 0° Ø 110 mm
- ► 30° Ø 80 mm
- ► 45° Ø 60 mm

#### Variable adjustment



For angles of between 30° and 90°

- ► 30° / max. Ø 30 mm
- ► 45° / max. Ø 105 mm
- ► 60° / max. Ø 130 mm
- ▶ 90° / max. Ø 150 mm

### Perfect results for mobile use: GRIT GIC.

The unique module for high volume, industrial rotary grinding. The GRIT GIC is quickly and easily attached to the basic machine without the need for tools (GRIT GI 75, GRIT GI 75 2H, GRIT GI 150, GRIT GI 150 2H are all suitable) and then masters all centreless grinding tasks, such as subsequent grinding of straight pipes and round materials, pre-grinding for subsequent chromeplating and polishing and grinding pipes to a perfect surface finish. It delivers outstanding surface qualities and can be flexibly adapted to various pipe dimensions. Ideal for use in handrail and plant construction.

#### The benefits for you:

- ► Quick retooling time
- ► High surface quality
- ► Flexible when machining pipe dimensions of between 10 and 130 mm
- ► Low-vibration and quiet
- ► The option of wet grinding cuts down dust levels
- ► Sturdy steel design

#### **Powerful**

S1 three-phase motor, designed for continuous use

#### **Efficient**

Quick fastener for simple retooling without the need for tools.





#### **Flexible**

Continuously variable feed speed for perfect surfaces

#### **Optional**

Cooling lubricant module for wet grinding, for cool surfaces, a dust-free environment and long grinding belt service life.

#### **Comfortable**

Maximum mobility thanks to transport rollers

Technical data				
Model		GRIT GIC		
		Rotary grinding module for industrial rotary grinding in volume production		
Power	W	180		
Diameter of pipes	mm	10–130		
Length of pipes	mm	300-6,000		
Variable feed	m/min	0–2		
Belt width	mm	75/150		
Belt length	mm	2,000		
Weight	kg	65		
Order number		7 902 12		

#### Rotary grinder GRIT GI 75/GI 75 2H/GI 150/GI 150 2H + GRIT GIB/GIBE + GRIT GIC + GRIT GXW





GI 150 2H







GXW 7 901 04

#### **Extremely cost-effective**



Like all elements of the GRIT GI range, the rotary grinding module GRIT GIC is designed to cope with extremely high loads. Maximum automation during manufacturing delivers reliable results and is kind to your wallet, even during continuous use.

#### Extremely easy to install



Combining the rotary grinding module GRIT GIC and the belt grinder GRIT GI is child's play and just takes a few steps.

#### **Perfect results**



Wet grinding allows you to achieve perfect results. Thanks to effective cooling with the cooling lubricant module GRIT GXW, the operating temperature on the workpiece is reduced considerably. This is particularly beneficial when machining stainless steel. Both overheating and the risk of corrosion are prevented. The water wiping system, which is also available as an option, allows you to automatically rid the machined workpiece of swarf or excess water.

#### Accurate machining as standard



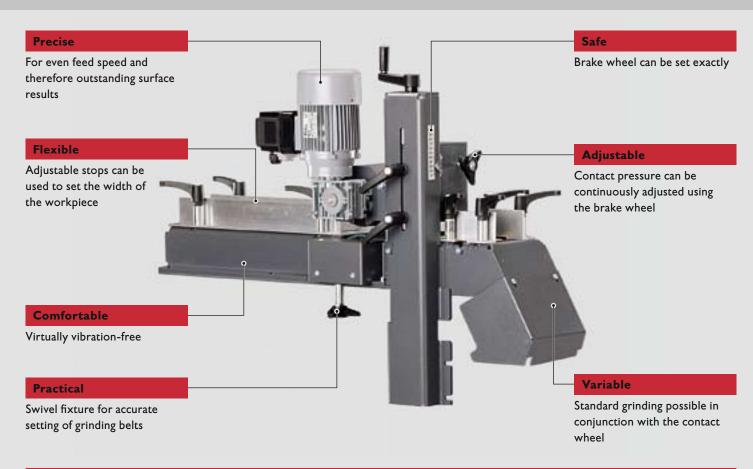
You can easily machine a wide range of pipe diameters with lengths of up to 6 m using the pipe guide, which is available as an option.

## The automatic choice for surface grinding: the surface grinding module GRIT GIL.

This module is indispensable for machine and handrail construction and welded structures. The surface grinding module GRIT GIL for longitudinal grinding features an automated feed and is the only one of its kind on the market. The GRIT GIL is the quick and cost-effective way to achieve perfect surfaces and is suitable for all metals, even for machining stainless steel.

#### The benefits for you

- ▶ Perfect machining of all metals, from steel and non-ferrous metals to stainless steel
- Outstanding surface results, right up to finishing, in an extremely short time
- ► Easy to handle, even when working with square and upright workpieces
- ► Space-saving with swivel joint (optional)



Technical data				
Model		GRIT GIL		
		Surface grinding module for perfect longitudinal grinding of square pipes, profiles and flat materials in automatic processes		
Feed motor power	W	180		
Max. dimensions of profiles/ flat material	mm	100×100		
Belt dimensions	mm	150×2000		
Weight	kg	64		
Order number		7 902 08		

#### Longitudinal grinder GRIT GI 150/GI 150 2H + GRIT GIB/GIBE + GRIT GIL













#### Surface grinding made easy



The unique surface grinding module GRIT GIL makes even longitudinal grinding of square and flat materials or profiles child's play. Converting from the belt grinder to surface grinder is just as easy. The belt dimensions of the basic machine are retained. FEIN has filed a patent for this GRIT solution.

#### Big on power, small on space



Thanks to the swivel joint GRIT GIT (available as an option, order no. 6 99 02 176 00 0) and the modular machine concept, you can even use the GRIT GIL module where space is tight, as the working range can be easily adapted to the spatial circumstances. The continuously variable swivel range is 0°–90°.

# Belt grinding goes mobile: the transporter GRIT GIM.

The mobile grinder GRIT GIM is used whenever you want to make light work of moving the workpiece. It transforms your belt grinder into a mobile grinding unit which can therefore be used in various locations, in shipbuilding, for instance. Welded seams on the ground can be finished in a flash – with minimal effort, no need to stoop and massive time savings compared with alternative methods.

#### The benefits for you

- ► Massive time savings when grinding welded seams on the ground
- ► Easy to grind steel casting moulds for concrete finished parts
- ► Fatigue-free working in a comfortable position



Technical data		
Model		GRIT GIM
		Mobile transport unit for extremely effective "local" belt grinding work on the ground
Belt dimensions	mm	75/150×2000
Weight	kg	35
Order number		<b>9 90 01 005 000</b> (3~, 400 V – 50 Hz/440 V – 60 Hz)
Order number		<b>9 90 01 006 000</b> (3~, 230 V – 50/60 Hz)

#### Mobile grinder GRIT GI 75/GI 75 2H/GI 150/GI 150 2H + GRIT GIM







#### **Comfortable working**



The mobile grinder GRIT GIM is characterised by comfortable handling in many work situations.

#### **Excellent material removal**



Combining the GRIT GIM module with the GRIT GI basic belt grinders delivers outstanding removal of material when welding seams.

### Deburring – done the industrial way: the deburring machine GRIT GIE.

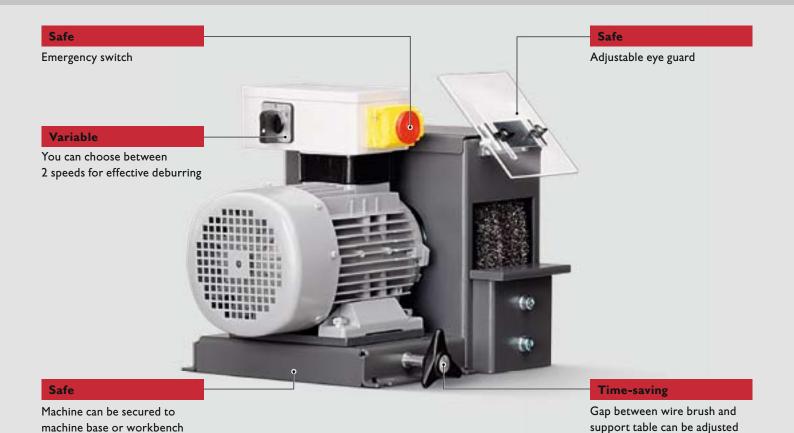
Deburring workpieces made from steel, non-ferrous materials and stainless steel is quick and easy with the deburring machine GRIT GIE. The robust design and powerful drive make this machine ideal for industrial use. It's also easy to accommodate in tight spaces, either as a tabletop unit or with optional support stand.

#### The benefits for you

- ► Efficient deburring with wire brushes and standard polishing tools
- ► Flexible installation on the machine base or the workbench

without tools

- ▶ Optimum speed adaptation with two speeds
- ► Integrated extraction in combination with machine base GRIT GIXBE or using external extraction systems



#### Technical data **GRIT GIE** Model Extremely effective deburring machine for deburring extra wide workpieces in industrial volume Power kW 1.5 1,500/3,000 Speed rpm Max. tool diameter mm 250 Tool width $2 \times 60$ mm Weight kg 34 7 902 07 Order number

#### **Deburring machine GRIT GIE + GRIT GIXS/GIXBE**







#### The cost-effective way to deburr pipes and profiles



Ideal for use after grinding pipes and profiles up to 150 mm wide. Extra wide wire surface thanks to 2 wire brushes clamped in parallel as a set.

#### Wire brushes that can be adapted flexibly



You can choose the wire brushes to suit the burr thickness, material type and wall thickness

#### Machine base GRIT GIXS without extraction



- ► Stable sheet metal machine base
- ► High level of stability thanks to dowel fastening

#### Machine base GRIT GIXBE with extraction



- ► Sheet metal machine base
- ► Sturdy dowel fastening
- ► Highly effective extraction
- ► Effective air cleaning
- ► Spark-resistant container for metal swarf
- ► Flexible, heat-resistant steel extraction hose

Technical data		
Model		GRIT GIXS
Dimensions (L $\times$ W $\times$ H)	mm	304×356×769
Weight	kg	18
Order number		9 90 01 002 00 0

Technical data					
Model		GRIT GIXBE			
Power	W	370			
Max. vacuum	mbar	2.65			
Dimensions (L $\times$ W $\times$ H)	mm	$305 \times 575 \times 700$			
Weight	kg	58			
Order number		9 90 01 009 00 0			

## A professional belt grinder in miniature form: the belt grinder GRIT GI 100/GI 100 EF.

It's a miniature machine that fairly packs a punch. The belt grinder GRIT GI 100 is the compact machine for coarse grinding, deburring small parts and for continuous surface grinding in volume production. Its small size make this robust and compact belt grinder the perfect choice where space is tight.

#### The benefits for you

- ► Extremely powerful belt grinder that can be used universally
- ▶ Ideal for machining small parts
- ► Can be used as a table-top machine or on a machine base with or without integrated extraction as an option (see page 31)



Technical data						
w		GRIT GI 100	GRIT GI 100 EF			
Model		Miniature belt grinder, for universal use on smaller workpieces				
Power	kW	1.5	1.5			
Voltage / type of current at 50/60 Hz	٧	3 × 400 V (3~) / 3 × 440 V (3~)	1 × 230 (1~) / 1 × 230 (1~)			
Idling speed at 50/60 Hz	rpm	3,000/3,450	3,000/3,450			
Peripheral speed	m/sec.	30	30			
Belt dimensions	mm	100 × 1,000	100 × 1,000			
Weight	kg	28	28			
Order number		7 902 03	7 902 03 00 23 2			

Also included: 1 100 x 1,000 mm grinding belt, grit 60 Z

#### Belt grinder GRIT GI 100/GI 100 EF + GRIT GIXS/GIXBE









#### Cleaner air thanks to fine dust filter



Ideal for grinding, chamfering and deburring small parts. When combined with the machine base GRIT GIXBE, swarf is extracted through a fine dust filter.

#### Machine base GRIT GIXS without extraction



- ► Stable sheet metal machine base
- ► High level of stability thanks to dowel fastening

# Technical data Model GRIT GIXS Dimensions (L × W × H) mm 304 × 356 × 769 Weight kg 18 Order number 9 90 01 002 00 0

#### Machine base GRIT GIXBE with extraction



- ► Sheet metal machine base
- ► Sturdy dowel fastening
- ► Highly effective extraction
- ► Effective air cleaning
- ► Spark-resistant container for metal swarf
- ► Flexible, heat-resistant steel extraction hose

Technical data					
Model		GRIT GIXBE			
Power	W	370			
Max. vacuum	mbar	2.65			
Dimensions (L $\times$ W $\times$ H)	mm	305 x 575 x 700			
Weight	kg	58			
Order number		9 90 01 009 00 0			

# Designed for one application: the belt grinders GRIT GIS 75/GIS 150.

When it comes to belt grinding under extreme conditions, for instance, in heavy-duty applications, the belt grinders GRIT GIS 75 and GRIT GIS 150 are the right machines for the job. They are characterised by their robust motors, easy of handling and top-class product and work quality. The machines are also extremely easy to commission, feature numerous equipment details aimed consistently at the needs of day-to-day belt grinding and offer fantastic value for money.

#### The benefits for you

- ► One machine concept, aimed solely at high-performance belt grinding
- ► High level of working safety thanks to numerous safety features (CE symbol)
- ▶ No need to call in an electrician for commissioning



Technical data						
Model		GRIT GIS 75	GRIT GIS 150			
		High-performance grinder for standard grinding applications in metalworking	High-performance grinder for standard grinding applications for extra-wide workpieces			
Power	kW	4.0	4.0			
Speed	m/sec	30	30			
Speed	rpm	3,000	3,000			
Belt dimensions	mm	75 × 2,000	150 × 2,000			
Weight	kg	74	93			
Order number		7 902 09 50	7 902 10 50			

Also included: 1 grinding belt, grit 36 Z; 1 16 A CEE plug



#### **Surface grinding**



Surface grinding takes place after opening or complete removal of the top cover on the height-adjustable surface grinding table. The graphite coating between the grinding belt and support is a perfect sliding base and preserves the grinding belt.

#### **Coarse grinding**



It's the ideal solution for standard applications in belt grinding. The powerful three-phase motor combined with the specially grooved GRIT contact wheel and the GRIT high-performance grinding belts ensure first-class work progress and perfect results, even in continuous use.

#### **Belt tensioner**



The gas spring tension automatically balances the dimensional tolerances of the belts. Combined with a polyurethane-coated drive disk, the optimum belt tension is achieved – without slipping.

#### **GRIT** grinding materials



Only a high-quality grinding belt can achieve professional cutting performance. The GRIT grinding belts have therefore always been a permanent feature of the GRIT premium concept. They offer consistently outstanding performance in terms of both grinding and service life – which makes GRIT grinding belts very cost-effective to use.

### The automatic choice for surface grinding: the surface grinder GRIT GILS.

This grinder is indispensable for machine and handrail construction and welded structures. The surface grinder GRIT GIL for longitudinal grinding features an automated feed and is the only one of its kind on the market. It is the quick and cost-effective way to achieve perfect surfaces and is suitable for all metals, even for machining stainless steel.

#### The benefits for you

- ► Perfect machining of all metals, from steel and non-ferrous metals to stainless steel
- ► Outstanding surface results, right up to finishing, in an extremely short time
- ► Easy to handle, even when working with square and upright workpieces



For even feed speed and therefore outstanding surface results

#### **Flexible**

Adjustable stops can be used to set the width of the workpiece

#### **Comfortable**

Virtually vibration-free

#### **Grinding belt feeding**

For accurate feeding of the grinding belts



#### Safe

Brake wheel can be set exactly

#### **Adjustable**

Contact pressure can be continuously adjusted using brake wheel

#### **Variable**

Standard grinding possible in conjunction with the contact wheel

Technical data				
Model		GRIT GILS		
		Surface grinder for perfect longitudinal grinding of square pipes, profiles and flat materials in automatic processes		
Power	kW	2.6–3.1		
Feed motor power	W	180		
Belt dimensions	mm	150×2,000		
Max. dimensions of profiles/ flat material	mm	100×100		
Weight	kg	206		
Order number		7 902 11		



#### Surface grinding made easy



The unique surface grinder GRIT GILS makes even longitudinal grinding of square and flat materials or profiles child's play. The belt dimensions of the basic machine are retained. FEIN has filed a patent for this GRIT solution.

## Nothing but the best: original GRIT grinding belts.

The high quality requirements placed on GRIT machines apply to the grinding belts too. FEIN believes that grinding belts should be of premium quality – for effective material removal and outstanding service lives in metalworking, which makes GRIT grinding belts very cost-effective to use. Using the best raw materials and own assembly facilities also delivers perfect value for money.



#### $\textbf{GRIT} \ \textbf{grinding} \ \textbf{material} \ \textbf{R}$



Extra heavy polyester fabric, fully bonded with artificial resins, with zirconium corundum. Additional top layer for cooling during grinding.

Grit	No. in pack	75 × 2000	75 × 2250	75 × 3 000	100 × 1000	150 × 2000	150 × 2250
24	10	6 99 03 000 00 0	_	_	_	6 99 03 039 00 0	_
36	10	6 99 03 002 00 0	6 99 03 020 00 0	_	-	6 99 03 040 00 0	6 99 03 053 00 0
40	10	6 99 03 004 00 0	-	-	-	6 99 03 042 00 0	-
60	10	6 99 03 007 00 0	_	6 99 03 025 00 0	-	6 99 03 044 00 0	-
80	10	6 99 03 009 00 0	_	6 99 03 027 00 0	_	6 99 03 046 00 0	_
120	10	6 99 03 013 00 0	_	6 99 03 029 00 0	_	6 99 03 048 00 0	_

#### **GRIT** grinding material **Z**



 $Heavy\ polyester\ fabric,\ fully\ bonded\ with\ artificial\ resins,\ with\ zirconium\ corundum.$ 

Grit	No. in pack	75 × 2000	75 × 2250	75 × 3 000	100 × 1000	150 × 2000	150 × 2250
24	10	-	-	-	-	-	-
36	10	6 99 03 003 00 0	6 99 03 021 00 0	-	6 99 03 034 00 0	6 99 03 041 00 0	6 99 03 054 00 0
40	10	6 99 03 005 00 0	-	-	6 99 03 035 00 0	6 99 03 043 00 0	-
60	10	6 99 03 008 00 0	_	6 99 03 026 00 0	6 99 03 036 00 0	6 99 03 045 00 0	_
80	10	6 99 03 010 00 0	-	6 99 03 028 00 0	6 99 03 037 00 0	6 99 03 047 00 0	-
120	10	6 99 03 014 00 0	-	6 99 03 030 00 0	6 99 03 038 00 0	6 99 03 049 00 0	-

#### GRIT grinding material A



Heavy cotton fabric, fully bonded with artificial resins, with corundum.

Grit	No. in pack	75 × 2000	75 × 2250	75 × 3000	100 × 1000	150 × 2000	150 × 2250
220	10	6 99 03 017 00 0	_	6 99 03 031 00 0	_	6 99 03 050 00 0	_
320	10	6 99 03 018 00 0	_	6 99 03 032 00 0	_	6 99 03 051 00 0	-
400	10	6 99 03 019 00 0	-	6 99 03 033 00 0	-	6 99 03 052 00 0	-

#### Fleece belts for GRIT machines



Reliable for everything from covering up minor mistakes to a perfect finish. Long service lives make for cost-effective working. Suitable for GRIT GX 75, GRIT GI 75, GRIT GI

Grit	No. in pack	75 × 2000	150 × 2000
very fine (blue)	3	6 99 03 121 01 0	6 99 03 120 01 0
medium (red)	3	6 99 03 119 01 0	6 99 03 118 01 0
coarse (brown)	3	6 99 03 117 01 0	6 99 03 116 01 0

#### **GRIT GX 75/GX 75 2H accessories**

#### **Graphite coating**

As sliding base for surface grinding, 5 in pack

#### Contact wheel

Hardness, 80 shore

Order number	3 90 00 000 00 5
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#### Eye guard

Acrylic glass plate for protection against flying sparks, 3 in pack



#### **GRIT GXR** accessories

#### Stainless steel clamping jaw

Interchangeable, for vice when machining stainless steel, 1 in pack



Order number	6 99 02 004 00 0
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#### Length stop

1,000 mm long, continuously variable, easy to fit



#### Contact rollers

Easy to fit, ball bearings on both sides



Ømm	Order number
16.0	6 99 02 020 00 0
17.0	6 99 02 021 00 0
17.2	6 99 02 022 00 0
18.0	6 99 02 023 00 0
19.0	6 99 02 024 00 0
20.0	6 99 02 025 00 0
21.0	6 99 02 026 00 0
21.3	6 99 02 027 00 0
22.0	6 99 02 028 00 0
22.2	6 99 02 029 00 0
22.5	6 99 02 030 00 0
23.0	6 99 02 031 00 0
23.1	6 99 02 032 00 0

#### **Contact rollers**

Ø	Onder 2002
Ø mm 24.0	Order number 6 99 02 033 00 0
24.5	6 99 02 034 00 0
25.0	6 99 02 035 00 0
25.4	6 99 02 036 00 0
25.9	6 99 02 037 00 0
26.0	6 99 02 038 00 0
26.4	6 99 02 039 00 0
26.9	6 99 02 040 00 0
27.0	6 99 02 041 00 0
28.0	6 99 02 042 00 0
28.6	6 99 02 043 00 0
28.8	6 99 02 044 00 0
29.0	6 99 02 045 00 0
30.0	6 99 02 046 00 0
31.7	6 99 02 047 00 0
32.0	6 99 02 048 00 0
33.0	6 99 02 049 00 0
33.7	6 99 02 050 00 0
34.0	6 99 02 051 00 0
35.0	6 99 02 052 00 0
36.0	6 99 02 053 00 0
37.5	6 99 02 054 00 0
38.0	6 99 02 055 00 0
38.1	6 99 02 056 00 0
38.3	6 99 02 057 00 0
40.0	6 99 02 058 00 0
41.0	6 99 02 059 00 0
41.2	6 99 02 060 00 0
42.0	6 99 02 061 00 0
42.4	6 99 02 062 00 0
42.6	6 99 02 063 00 0
43.0	6 99 02 064 00 0
43.3	6 99 02 065 00 0
44.0	6 99 02 066 00 0
44.5	6 99 02 067 00 0
45.0	6 99 02 068 00 0
46.0	6 99 02 069 00 0
48.0	6 99 02 070 00 0
48.3	6 99 02 071 00 0
49.0 50.0	6 99 02 073 00 0
50.8	6 99 02 074 00 0
51.0	6 99 02 075 00 0
53.0	6 99 02 076 00 0
53.7	6 99 02 077 00 0
54.0	6 99 02 078 00 0
55.0	6 99 02 079 00 0
57.0	6 99 02 080 00 0
58.0	6 99 02 081 00 0
59.0	6 99 02 082 00 0
60.0	6 99 02 083 00 0
60.3	6 99 02 084 00 0
63.0	6 99 02 085 00 0
63.5	6 99 02 086 00 0
65.0	6 99 02 087 00 0
67.0	6 99 02 088 00 0
69.0	6 99 02 089 00 0
70.0	6 99 02 090 00 0
73.0	6 99 02 091 00 0
75.0	6 99 02 092 00 0

#### Contact rollers

Ø mm	Order number
76.0	6 99 02 093 00 0
76.1	6 99 02 094 00 0
76.2	6 99 02 095 00 0
80.0	6 99 02 096 00 0
82.5	6 99 02 097 00 0
88.9	6 99 02 098 00 0
90.0	6 99 02 099 00 0

#### **GRIT GXR** accessories

#### Eye guard

Acrylic glass plate for protection against flying sparks, 3 in pack



#### Water container

Plastic, for extinguishing sparks, with handles on the sides, capacity approx. 20 I



Order number	3 90 00 000 48 5

#### **Connecting piece**

Required to adapt the GRIT GXR module to a belt grinder in the GRIT GI range

Order number 6 99 0	2 18	6 00	0
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#### GRIT GXC accessories

#### Guide rail, brass

For dry grinding and coarse material surfaces



Order number	3 90 00 000 49 6

#### Guide rail, nylon

For high surface quality



Order number	3 90 00 000 49 7

#### Connecting piece

Required to adapt the GRIT GXC module to a belt grinder in the GRIT GI range

Order number	6 99 02 187 00
Order number	0 77 02 107 00

#### **GRIT GXE** accessories

#### Steel wire brush

 $250 \times 60$  mm in diameter, with very high wire tensile strength for highly cost-effective use, mounting hole diameter 51 mm.

0.2 mm-thick wire for thin-walled pipes and profiles. 0.35 mm-thick wire for universal use. 0.5 mm-thick wire for thick-walled pipes and profiles and great deburring results.

#### Steel version:



Wire thickness mm	Order number
0.20	6 99 02 006 00 0
0.35	6 99 02 007 00 0
0.50	6 99 02 008 00 0

#### Stainless steel version:



Wire thickness mm	Order number
0.20	6 99 02 009 00 0
0.35	6 99 02 010 00 0

#### Dust bag

To remove swarf, fast and easy to secure



Order number	6 99 02 005 00 0

#### Eye guard

Acrylic glass plate for protection against flying sparks, 3 in pack



Order number	3 90 00 000 00 7	

#### **GRIT GXW** accessories

#### Cooling lubricant emulsion

Concentrate, 10 I, mixing ratio 1:30, yields 300 I of ready-to-use cooling lubricant

Order number	6 99 02 100 00 0

#### Other GRIT GX accessories

#### Flexible hose

For swarf extraction, 90 mm in diameter, 1 m long, steel, high level of heat resistance



Order number 3 90 00 000 00 2

#### Tensioning belt

For securing the flexible hose

Order number 3 90 00 000 00 3

#### Water container

For extinguishing sparks, metal lid for hose connection, plastic, handles on the sides, capacity approx. 20 I



Order number 6 99 02 000 00 0

#### GRIT GI 75/GI 75 2H accessories

#### **Graphite coating**

As sliding base for surface grinding,  $80 \times 430$  mm, 5 in pack

Order number 3 90 00 000 00 1

#### Contact wheel

 $200 \times 75$  mm in diameter, hardness, 80 shore

Order number 3 90 00 000 00 5

#### Drive wheel

With polyurethane coating for long service life, 200 x 75 mm in diameter

Order number 3 90 00 000 00 6

#### Eve guard

Acrylic glass plate for protection against flying sparks, 3 in pack



Order number 3 90 00 000 19 0

#### GRIT GI 150/GI 150 2H accessories

#### Graphite coating

As sliding base for surface grinding,  $155 \times 430$  mm, 3 in pack

Order number 3 90 00 000 05 6

#### Contact wheel

 $200 \times 150$  mm in diameter, hardness, 80 shore

Order number	3 90 00 000 18 8
Order number	3 90 00 000 18 8

#### Drive wheel

With polyurethane coating for long service life, 200 x 150 mm in diameter

Order number	3 90 00 000 09 8

#### GRIT GI 150/GI 150 2H accessories

#### Eye guard

Acrylic glass plate for protection against flying sparks, 3 in pack



Order number 3 90 00 000 18 4

#### **GRIT GIL** accessories

#### Swivel joint GRIT GIT

For adapting working area to tight spaces, continuously variable swivel range of up to 90°.

Order number 6 99 02 176 00 0

#### GRIT GIR accessories

#### **Contact rollers**

Long service lives, low roll resistance thanks to high-quality ball bearings, easy to interchange



Ømm	Order number
20.0	6 99 02 101 00 0
22.0	6 99 02 102 00 0
25.0	6 99 02 103 00 0
25.4	6 99 02 104 00 0
26.9	6 99 02 105 00 0
28.0	6 99 02 106 00 0
30.0	6 99 02 107 00 0
32.0	6 99 02 108 00 0
33.7	6 99 02 109 00 0
35.0	6 99 02 110 00 0
38.0	6 99 02 111 00 0
38.1	6 99 02 112 00 0
38.3	6 99 02 113 00 0
40.0	6 99 02 114 00 0
42.4	6 99 02 115 00 0
44.5	6 99 02 116 00 0
48.3	6 99 02 117 00 0
50.0	6 99 02 118 00 0
50.8	6 99 02 119 00 0
60.0	6 99 02 120 00 0

Ø mm	Order number
60.3	6 99 02 121 00 0
63.5	6 99 02 122 00 0
69.0	6 99 02 123 00 0
76.1	6 99 02 124 00 0
76.2	6 99 02 125 00 0
84.0	6 99 02 126 00 0
88.9	6 99 02 127 00 0
101.6	6 99 02 128 00 0
104.0	6 99 02 129 00 0
108.0	6 99 02 130 00 0
114.3	6 99 02 131 00 0
133.0	6 99 02 132 00 0
139.7	6 99 02 133 00 0
168.3	6 99 02 134 00 0
193.7	6 99 02 135 00 0

#### Eye guard

Acrylic glass plate for protection against flying sparks, 3 in pack



Order number 3 90 00 000 18 4

#### Suction nozzle

For optimum extraction, for connection to the machine base GRIT GIBE with double extraction



Order number 6 99 02 182 00 0

#### GRIT GIE accessories

#### Steel wire brush

250 mm x 60 mm in diameter, with very high wire tensile strength for highly cost-effective use, mounting hole diameter 51 mm.

0.2 mm-thick wire for thin-walled pipes and profiles. 0.35 mm-thick wire for universal use. 0.5 mm-thick wire for thick-walled pipes and profiles and great deburring results.

#### Steel version:



Wire thickness mm	Order number
0.20	6 99 02 006 00 0
0.35	6 99 02 007 00 0
0.50	6 99 02 008 00 0

#### Stainless steel version:



Wire thickness mm	Order number	
0.20	6 99 02 009 00 0	
0,35	6 99 02 010 00 0	

#### Eye guard

Acrylic glass plate for protection against flying sparks, 3 in pack



Order number 3 90 00 000 00 4

#### **GRIT GIE** accessories

#### Cartridge filter

Suitable for GRIT GIBE

Order number 3 90 00 000 00 4

#### Cartridge filter

Suitable for GRIT GIXBE

Order number 3 90 00 001 00 5

#### GRIT GIC accessories

#### Pipe guide set



Set	Pipe length	Order number
1	up to 1,500 mm	6 99 02 179 50 1
2	up to 3,000 mm	6 99 02 179 50 2
3	up to 6,000 mm	6 99 02 179 50 3

#### Pipe cleaning unit

For a clean and dry working environment. The coolant is wiped off the pipe surface without the pipe being scratched. For pipes with a diameter of between 10 and 130 mm. Easy to fit on GIC.



Order number 6 99 02 000 14 6

#### **Drilling template**

For installation on belt grinders GRIT GI 75/GI 75 2H from before the 1034026 series. For producing threaded holes on these belt grinders at a later date.

Order number

3 90 00 004 55 4

#### Guide rail, brass

For dry grinding and coarse material surfaces



Order number

3 90 00 000 49 6

### **Guide rail, nylon**For high surface quality



Order number

3 90 00 000 49 7

#### Cooling lubricant emulsion

Concentrate, 10 I, mixing ratio 1:30, yields 300 I of ready-to-use cooling lubricant

Order number

6 99 02 100 00 0

#### Other accessories GRIT GI

#### Flexible hose

For swarf extraction, 90 mm in diameter, steel, 1 m long, high level of heat resistance



Order number

3 90 00 000 00 2

#### Tensioning belt

For securing the flexible hose

Order number

3 90 00 000 00 3

#### Dust bag

To remove swarf, fast and easy to secure



Order number

6 99 02 005 00 0

#### **Dust container**

Plastic container for collecting swarf, approx.  $400 \times 300 \times 285$  mm, can also be used as a water container to extinguish sparks, capacity approx. 20 I



Order number

3 90 00 000 48 5

With metal cover for hose connection



Order number

6 99 02 000 00 0





Do you have any further questions? Or would you like to test the GRIT belt grinders? Your specialist dealer will be happy to help:

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Australia: FEIN Power Tools Pty. Ltd., Unit 7/55 – 61 Pine Road, Yennora N.S.W. 2161; P.O. Box 328, Fairfield N.S.W. 1860, Phone 1300 798 688 India: FEIN Power Tools India Pvt. Ltd., 69 Arcot Road, Kodambakkam, Chennai - 600 024, Phone 044-43 578 680, Fax 044-24837788

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