

FLEX

Power Tools



2007



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FLEX

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THE POWER OF THE STRONG BRAND



FLEX



You need quality tools to do quality work. But what are quality tools? How do I recognise real quality? And when is a tool worth its cost?

For FLEX it's the craftsman who sets the standard. That is why we visit those sites where tools are used when we develop new machines. On construction sites, in the shops and factories. And that's precisely where we determine the specifications that every FLEX must fulfil.

Foremost this includes the proven longevity of our machines. Then their power and functionality. Also the design, the ergonomics, and the safety of a FLEX. And of course its advanced technology that always provides new solutions to problems, revolutionising the work procedures of entire industries. We are proven right by each of the millions of craftsmen who perform outstanding work using their FLEX every day.

Working with a FLEX puts you in the top quality league. That you can feel sure about.

This is what counts:

FLEX Product quality:

FLEX Development: High tech already during construction

FLEX Components: Top quality with all materials

FLEX Production: No tolerance for tolerances

FLEX Quality control: Toughest field and endurance tests

FLEX Service quality:

FLEX Retailers: Competent advice, training, and local presentations

FLEX Service centre: Puts your FLEX back into top condition

FLEX Repair and spare-parts service: Just a call away

FLEX Warranty processing: Fair treatment with „no questions asked“

FLEX Recycling service: Responsible disposal of old machines and batteries

**From the inventors of the FLEX:
The angle grinders for the 21st century**



What do professionals use for grinding?



No question: a FLEX. And it was FLEX engineers who 80 years ago combined stationary electrical motors with a flexible shaft. This shaft coined the brand name FLEX. It was about 50 years ago when FLEX then invented the first high-speed angle grinder. Thus FLEX and flexing became terms for professional cutting, roughing down, and grinding.

The most recent examples from FLEX development show that even today we set the standards for angle grinders. Using state-of-the-art technology, maximum user friendliness, and innovative product features: microprocessor electronics, extensive protection against abrasive swarf, unique convenience details such as the SoftVib-Handle, which reduces vibration levels by up to 60%. Or the FLEX MultiGrip system with the two step-adjustable handles on the 2 500 Watt RedBear angle grinder. And much, much more.

Thus FLEX offers one of the most sophisticated and innovative angle grinder programs in the world. And you have in your hands the machines that you need for perfect results. Let's flex!

Application examples: Angle grinders

FIGHT VIBRATION – FLEX SOFTVIB-HANDLE

The vibration damping construction of the elastic body of the SoftVib-Handle reduces vibration levels when compared to standard handle by up to 60%. The hand and arm joints of the user are subjected to less stress.
▶ starting page 9



FIXTEC QUICK-ACTION CLAMPING NUT INCLUDED AS STANDARD

For a quick, tool-free disc change: simply open the clamp, press the spindle lock in an anti-clockwise direction and change the disc.
▶ starting page 9

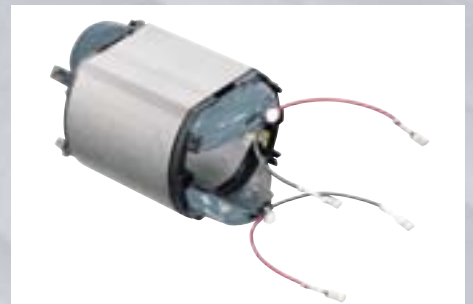


FLEX MULTI-GRIP SYSTEM

The front and the back vibration damping handles can be adjusted in steps up to 180 degrees. RedBear angle grinder L 3206 CD
▶ Page 17

PREPARED FOR EXTREME CONDITIONS

FLEX angle grinders are optimally protected from rough and conductive swarf by a powder coating on the magnetic fields.

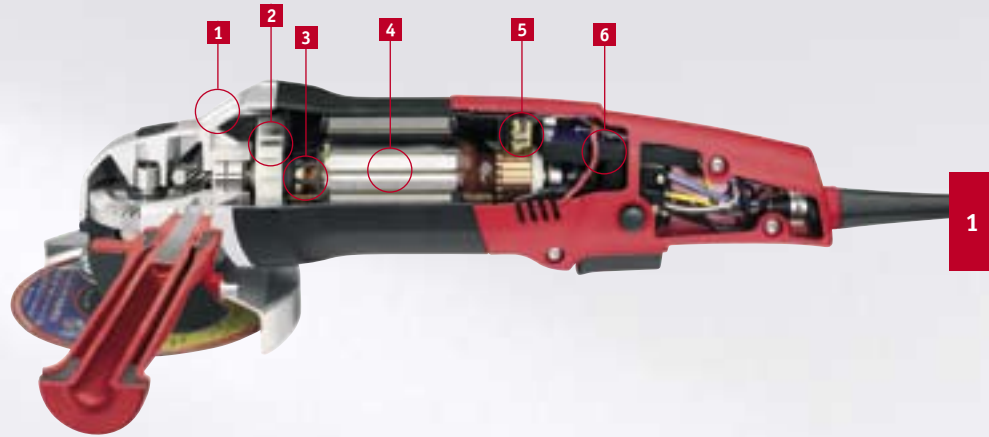


FLEX SOFTVIB - THE MULTI-HANDLE

The built-in face pin wrench is protected under a rotatable cover ring ...

... for a quick tool exchange without the need for additional tools.
▶ starting page 9





- 1 Air vents to front**
Protects user and motor from abrasive swarf.
- 2 Large ventilator**
Optimised in wind tunnel tests for maximum cooling.
- 3 Winding protecting cage**
Rotating ribs prevent abrasive swarf from damaging the windings of the armature and provide for additional cooling. This extends the service life of the motor considerably.
- 4 High-performance armature**
Sustained power and endurance, heat-resistance. Winding protected from aggressive swarf by a winding protecting cage.
- 5 Quality auto-stop carbon brushes**
Protects the motor from damage.
- 6 Microprocessor electronics**
Greater performance, safer, more convenience.
- 7 Gearbox housing made of die-cast aluminium**
Light, sleek, robust.
- 8 Spindle lock**
Double safety because of recessed design.
- 9 FLEX SoftVib – the multi-handle**
The vibration damping construction of the elastic body of the SoftVib-Handle reduces vibration levels noticeable. With built-in holding wrench - for exchanging the discs without additional tools.
- 10 Patented safety disc guard**
Adjustable without tools, impossible to lose, with rotation lock.
- 11 Perfection to the very last detail**
Highly flexible cable bushing prevents cable breakage. 4-metre power cable with FLEX-red plug.

FLEX electronics:

More power, safer, longer service life

- **Four-fold microprocessor electronics:** with consistent speed control, soft start, starter lock, and overload protection
- **Five-fold microprocessor electronics:** with consistent speed control, soft start, starter lock, overload protection, and temperature monitoring
- **Six-fold microprocessor electronics:** with consistent speed control, soft start, starter lock, overload protection, temperature monitoring, and speed selection set by an adjustment wheel

FLEX Performance:

What is transferred to the disc is critical

- **Outstanding output:** thanks to complexly machined high-performance armature
- **High operating efficiency:** great energy with cost-efficient operation
- **Best endurance run characteristics:** due to high manufacturing precision

FLEX Ergo design:

created for precise, low-fatigue work

- **„Optimal centre of gravity:** precisely in the middle of the machine; fine balanced to the gram
- **Sleek motor case:** with ergonomic, waisted grip depression
- **Structure surface*:** no slipping, for a secure grip

**on G-versions with super-sleander rear special grip*

Angle grinders

L 3709/115

334.979

New



L 3709/125

334.987

New



ADVANTAGES AT A GLANCE

- Compact dimensions
- Additional handle for right and left handed use
- Tool-free adjusting of safety guard
- Extensive dust protection for motor and gears
- Flat gearbox of light alloy: reaches into all corners
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

The 750 Watt angle grinder

Extreme slim body design with ergonomic form, light weighted and an excellent price performance ratio.

SPECIFICATIONS	L 3709/115
Max. disc diameter	115 mm
Speed without load	11000 rpm
Power input	750 Watt
Power output	450 Watt
Tool fixture	M 14
Weight	1,8 kg

The 800 Watt angle grinder

Extreme slim body design with ergonomic form, light weighted and an excellent price performance ratio.

SPECIFICATIONS	L 3709/125
Max. disc diameter	125 mm
Speed without load	11000 rpm
Power input	800 Watt
Power output	470 Watt
Tool fixture	M 14
Weight	1,8 kg

STANDARD EQUIPMENT

1 side handle 1 piece

STANDARD EQUIPMENT

1 side handle 1 piece

Angle grinders / straight grinders

ADVANTAGES AT A GLANCE

- FLEX Motor: designed to handle substantial loads with high efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front
- With elastic SoftVib-Handle: greatly reduces the vibration level so the user is subjected to less stress. Also with integrated pin spanner for wrench-free disc changing. It can be fitted on the left or right.
- Safety guard: patented, with anti-twisting lock
- Spindle lock: for easy disc changes
- Gearbox: particularly flat and robust aluminium die-cast construction, accesses all corners
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug

ADDITIONALLY FOR L 3309 FR

- FLEX four-fold microprocessor electronic control: consistent speed control by tachometer generator, soft start, power interruption safety lockout, overload protection



Patented safety disc guard

Can be adjusted without tools in 24 steps by 360°. Rotates in one direction only. With rotation lock.

L 3309/125

299.235



The 710 Watt FLEX, a handy model without any rough edges

Handy, light, and versatile - that's the small FLEX. So that you can guide it especially carefully and precisely its motor housing has a very slender waist in the grip area. The operator's hand rests safe and secure right over the centre of gravity of the machine. And the switch on the side can be easily reached from all positions. You work much more easily and less stressfully because of the optimal balance and the low weight.

SPECIFICATIONS	L 3309/125
Max. disc diameter	125 mm
Speed without load	10000 rpm
Power input	710 Watt
Power output	420 Watt
Tool fixture	M 14
Weight	1,9 kg

STANDARD EQUIPMENT

1 guard 125 Ø	294.438
1 SoftVib-Handle	316.857

L 3309 FR

296.805



The 1010 Watt FLEX puts power in the disc

This little giant can output around 50% more power than the L 3309, thanks to electronic motor management. In addition to this, FLEX four-fold microprocessor electronic control enables controlled acceleration to suit the particular stress level, stepping on the gas if increased load occurs until the optimum speed is achieved again. Fits perfectly in the hand thanks to the slim, saddle-shaped motor housing and easily-accessible side switch.

SPECIFICATIONS	L 3309 FR
Max. disc diameter	125 mm
Speed without load	11000 rpm
Power input	1010 Watt
Power output	610 Watt
Tool fixture	M 14
Weight	1,9 kg

STANDARD EQUIPMENT

1 guard 125 Ø	294.438
1 SoftVib-Handle	316.857
1 FixTec quick-clamp nut M 14	313.459

Angle grinders

L 3309 FRG

298.425



The super-slim 1010 Watt FLEX takes care of every surface

The slender back stick handle of the surface-pro makes extremely flat attack angles possible. With lockable on/off switch located underneath. Thanks to balanced weight distribution the machine rests well in your hand. The structured handle surface is non-slip and provides a safe grip even when wearing work gloves.

SPECIFICATIONS	L 3309 FRG
Max. disc diameter	125 mm
Speed without load	11000 rpm
Power input	1010 Watt
Power output	610 Watt
Tool fixture	M 14
Weight	1,9 kg

STANDARD EQUIPMENT	
1 guard 125 Ø	294.438
1 SoftVib-Handle	316.857
1 FixTec quick-clamp nut M 14	313.459

L 3410 FR

296.007



The 1400 Watt FLEX with superior power performance

This powerful FLEX is exactly what you need where a particularly high torque is called for. Its power input can be increased briefly to a staggering 2200 Watt if needed. This enormous power is derived from a high-performance armature and the electronic control. For the highest level of efficiency and operation which saves both energy and costs. Because power to the disc is what counts.

SPECIFICATIONS	L 3410 FR
Max. disc diameter	125 mm
Speed without load	11000 rpm
Power input	1400 Watt
Power output	880 Watt
Tool fixture	M 14
Weight	2,2 kg

STANDARD EQUIPMENT	
1 guard 125 Ø	294.438
1 SoftVib-Handle	316.857
1 FixTec quick-clamp nut M 14	313.459

ADVANTAGES AT A GLANCE

- With elastic SoftVib-Handle: greatly reduces the vibration level so the user is subjected to less stress. Also with integrated pin spanner for wrench-free disc changing. It can be fitted on the left or right.
- Safety guard: patented, with anti-twisting lock
- Spindle lock: for easy disc changes
- Gearbox: particularly flat and robust aluminium die-cast construction, accesses all corners
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug

ADDITIONALLY FOR L 3309 FRG

- FLEX four-fold microprocessor electronic control: consistent speed control by tachometer generator, soft start, power interruption safety lockout, overload protection
- FLEX Motor: designed to handle substantial loads with high efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front
- Switch: with lock-off / lock-on switch
- Slender back stick handle: with dust-protected on/off switch located underneath, safety catch and lock

ADDITIONALLY FOR L 3410 FR

- FLEX five-fold microprocessor electronic control: consistent speed control by tachometer generator, soft start, power interruption safety lockout, overload protection and temperature monitoring
- FLEX Motor: designed to handle substantial loads with highest efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front

Angle grinders / straight grinders

ADVANTAGES AT A GLANCE

- FLEX Motor: designed to handle substantial loads with highest efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front
- With elastic SoftVib-Handle: greatly reduces the vibration level so the user is subjected to less stress. Also with integrated pin spanner for wrench-free disc changing. It can be fitted on the left or right.
- Safety guard: patented, with anti-twisting lock
- Spindle lock: for easy disc changes
- Gearbox: particularly flat and robust aluminium die-cast construction, accesses all corners
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug

ADDITIONALLY FOR L 3410 FRG

- FLEX five-fold microprocessor electronic control: consistent speed control by tachometer generator, soft start, power interruption safety lockout, overload protection and temperature monitoring
- Switch: with lock-off / lock-on switch
- Slender back stick handle: with dust-protected on/off switch located underneath, safety catch and lock

ADDITIONALLY FOR L 3410 VR

- FLEX Six-fold microprocessor electronics: Speed selection, consistent speed control by tachometer generator, soft start, restart protection after power interruption, overload protection, and temperature monitoring



Slender rear special grip

Ideal for surface finishing because of the extremely flat approach angle and balanced weight distribution. With dust-protected on/off switch located underneath, safety catch and lock.

L 3410 FRG

296.201



The super-slim 1400 Watt FLEX roughs down everything with ease

The superior staying power, combined with the slender back stick handle for extremely flat attack angle and balanced weight distribution: That is what an angle grinder should look like that can take on the thickest layers and widest areas. The structured handle surface provides a secure grip. With lockable on/off switch located underneath.

SPECIFICATIONS	L 3410 FRG
Max. disc diameter	125 mm
Speed without load	11000 rpm
Power input	1400 Watt
Power output	880 Watt
Tool fixture	M 14
Weight	2,2 kg

STANDARD EQUIPMENT

1 guard 125 Ø	294.438
1 SoftVib-Handle	316.857
1 FixTec quick-clamp nut M 14	313.459

L 3410 VR

296.260



The variable 1400 Watt FLEX for the high speed range

A master of versatility, thanks to variable speed and excellent power. Ideal for grinding, roughing, cutting, deburring and removal of rust. No matter what the task may be, the slim, saddle-shaped motor housing and easily-accessible side switch mean that this FLEX sits perfectly in your hand.

SPECIFICATIONS	L 3410 VR
Max. disc diameter	125 mm
Speed without load	2900-11000 rpm
Power input	1400 Watt
Power output	880 Watt
Tool fixture	M 14
Weight	2,2 kg

STANDARD EQUIPMENT

1 guard 125 Ø	294.438
1 SoftVib-Handle	316.857
1 FixTec quick-clamp nut M 14	313.459

Angle grinders

L 1710 FRA

259.733



The classical 1400 Watt FLEX with the extra-flat gearbox

A soft start - then full grinding and cutting power. The three-fold full-wave electronic control enables extremely powerful disc control. The tightest corners and areas difficult to access are no longer a problem, thanks to the flat gearbox design.

SPECIFICATIONS	L 1710 FRA
Max. disc diameter	125 mm
Speed without load	10000 rpm
Power input	1400 Watt
Power output	880 Watt
Tool fixture	M 14
Weight	2,4 kg

STANDARD EQUIPMENT

1 guard 125 Ø	274.658
1 SoftVib-Handle	316.857

L 1710 FRC

334.200

New



The classic 1400-Watt-Flex with clean air pipe

Soft start- and then the complete power for grinding and cutting. Its three fold electronic brings all the energy to the disc. Thanks to its flat construction even tight and difficult areas are not a problem. The 0,5 m Clean-Air Pipe greatly reduces the amount of dirty air sucked into the machine preventing contamination of the motor, the electric cable also runs through the pipe keeping things neat and tidy.

SPECIFICATIONS	L 1710 FRC
Max. disc diameter	125 mm
Speed without load	10000 rpm
Power input	1400 Watt
Power output	880 Watt
Tool fixture	M 14
Weight	2,5 kg

STANDARD EQUIPMENT

1 guard 125 Ø	274.658
1 SoftVib-Handle	316.857

ADVANTAGES AT A GLANCE

- FLEX three-fold full-wave electronic control: consistent speed control by tachometer generator, soft start, over-load protection
- FLEX Motor: designed to handle substantial loads with highest efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front
- With elastic SoftVib-Handle: greatly reduces the vibration level so the user is subjected to less stress. Also with integrated pin spanner for wrench-free disc changing. It can be fitted on the left or right.
- Quick-change guard for universal adjustment. Safety groove prevents the guard from slipping off
- Spindle lock: for easy disc changes
- Gearbox: particularly flat and robust aluminium die-cast construction, accesses all corners
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug

ADDITIONALLY FOR L 1710 FRC

- 0,5 m Clean-Air Pipe: The cooling air is not sucked into the machine from the dusty air that surrounds the work area so the motor is protected



Always clean cooling air

The cooling air is no longer sucked in through the motor housing but exclusively through the end of the clean air pipe. Grinding dust does not stand a chance to enter the motor, optimal protection for the machine.

Angle grinders / straight grinders

ADVANTAGES AT A GLANCE

- Spindle lock: for easy disc changes
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR L 3406 VRG

- FLEX Six-fold microprocessor electronics: Speed selection, consistent speed control by tachometer generator, soft start, restart protection after power interruption, overload protection, and temperature monitoring
- FLEX Motor: designed to handle substantial loads with highest efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front
- With elastic SoftVib-Handle: greatly reduces the vibration level so the user is subjected to less stress. Also with integrated pin spanner for wrench-free disc changing. It can be fitted on the left or right.
- Quick-change guard for universal adjustment. Safety groove prevents the guard from slipping off
- Switch: with lock-off / lock-on switch
- Gearbox: particularly flat and robust aluminium die-cast construction, accesses all corners
- 4 m power cord: with FLEX red plug

ADDITIONALLY FOR LK 604

- FLEX Motor: designed to handle substantial loads with high efficiency for powerful output, great endurance thanks to perfect cooling
- Flexible sanding pad: included with 170 mm Ø in standard equipment
- Grip cover: extremely sensitive guiding
- 4 m power cord

L 3406 VRG

297.321



The variable 1400 Watt FLEX for the medium speed range

Great staying power, low gear ratio, plus speed selection with adjustment wheel for controlled acceleration to the required speed. This gives you a sensitive polisher on one hand and a powerful grinder in the mid-speed range on the other hand. With special slender ergonomic rear handle for extremely flat approach angles.

SPECIFICATIONS	L 3406 VRG
Max. disc diameter	125 mm
Max. polishing pad diameter	150 mm
Speed without load	2100-7500 rpm
Power input	1400 Watt
Power output	880 Watt
Tool fixture	M 14
Weight	2,2 kg

STANDARD EQUIPMENT

1 guard 125 Ø	274.658
1 SoftVib-Handle	316.857
1 FixTec quick-clamp nut M 14	313.459

LK 604

250.346



The 1200 Watt FLEX with optimum guiding characteristics

Light, easy to guide and still extremely powerful, that's the robust medium-range grinder from FLEX. It can be operated without a guard when using flexible 170 mm sanding pads. The practical gearbox and slim back handle enable sensitive working and optimum machine guiding.

SPECIFICATIONS	LK 604
Max. disc diameter	175 mm
Speed without load	4000 rpm
Power input	1200 Watt
Power output	720 Watt
Tool fixture	M 14
Weight	3,2 kg

STANDARD EQUIPMENT

1 side handle	252.721
1 pin wrench	100.110
1 flexible sanding pad 170 Ø + clamping nut M 14	124.079
1 grip cover	253.676

Angle grinders

LG 1707 FR

256.131



The light, powerful FLEX Tadpole®

A powerful gearbox at the front and slim and slender rear design. The FLEX Tadpole® only weighs 2500 grams and produces 1500 Watts of enduring power. The three-fold full-wave electronic control ensures consistent speed control, even under extreme loads. It also features soft start and overload protection.

SPECIFICATIONS	LG 1707 FR
Max. disc diameter	180 mm
Speed without load	7500 rpm
Power input	1500 Watt
Power output	1060 Watt
Tool fixture	M 14
Weight	3,1 kg

STANDARD EQUIPMENT	
1 guard 180 Ø	251.481
1 SoftVib-Handle	316.857

L 3806 C

306.363



The new FLEX 2100 Watt model

Powerful angle grinder for cutting, roughing down, and sanding with 230-grit discs. Exceptional ergonomic design with flat gear head and special dust protection at a very good price-performance ratio.

SPECIFICATIONS	L 3806 C
Max. disc diameter	230 mm
Speed without load	6500 rpm
Power input	2100 Watt
Power output	1385 Watt
Tool fixture	M 14
Weight	5,6 kg

STANDARD EQUIPMENT	
1 guard 230 Ø	311.952
1 side handle	311.979
1 pin wrench	100.110

ADVANTAGES AT A GLANCE

- Spindle lock: for easy disc changes
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR LG 1707 FR

- FLEX three-fold full-wave electronic control: consistent speed control by tachometer generator, soft start, overload protection
- FLEX Motor: designed to handle substantial loads with high efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front by additional air-flow baffle
- With elastic SoftVib-Handle: greatly reduces the vibration level so the user is subjected to less stress. Also with integrated pin spanner for wrench-free disc changing. It can be fitted on the left or right.
- 4 m power cord

ADDITIONALLY FOR L 3806 C

- Electrical surge protection: for a soft start without power overloading
- Tool-free adjusting of safety guard
- Optimized dust protection of the motor and the gearbox
- Air exits at front, so the user is protected against grinding dust
- Additional handle: can be used in 3 positions

Angle grinders / straight grinders

ADVANTAGES AT A GLANCE

- FLEX Motor: designed to handle substantial loads with high efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front
- Electrical surge protection: for a soft start without power overloading
- FLEX Metal composite housing: endurance tested and robust
- Additional handle: can be used in 3 positions
- Switch: with lock-off / lock-on switch
- Quick-release guard: tool-free adjustment
- Spindle lock: for easy disc changes
- Carbon brush holders: particularly large, solid brass for rapid thermal dissipation
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord



FLEX Metal composite housing

A classic of sandwich construction design by FLEX: A tough, heat-resistant, light aluminium die-cast outer shell. On the inside a highly insulating plastic shell for electrical protection and motor noise reduction. Plus solid brass carbon holders for optimal heat dissipation.

L 2106 VC

259.017



The classic 2000 Watt FLEX for cutting, roughing and grinding

With 6000 revs it's perfect for all jobs with 230-grit discs on metal and concrete. Its heat-resistant FLEX metal composite housing guarantees an additional cooling effect by improved heat exchange, even after switching off the machine. Plus it withstands the greatest loads.

SPECIFICATIONS	L 2106 VC
Max. disc diameter	230 mm
Speed without load	6000 rpm
Power input	2000 Watt
Power output	1400 Watt
Tool fixture	M 14
Weight	6,1 kg

STANDARD EQUIPMENT

1 guard 230 Ø	265.179
1 side handle	193.356
1 pin wrench	100.110

L 2108 VC

259.179



The classic 2000 Watt FLEX roughs its way through everything

With 8500 revs exactly right for roughing down with the 180-grit disc. Be it rust or weld seams, it clears out everything. Its heat-resistant FLEX metal composite housing guarantees an additional cooling effect by improved heat exchange, even after switching off the machine. Plus it withstands the greatest loads.

SPECIFICATIONS	L 2108 VC
Max. disc diameter	180 mm
Speed without load	8500 rpm
Power input	2000 Watt
Power output	1400 Watt
Tool fixture	M 14
Weight	6,1 kg

STANDARD EQUIPMENT

1 guard 180 Ø	265.160
1 side handle	193.356
1 pin wrench	100.110

The FLEX RedBear: Bear power and utmost convenience

1 Robust gears

With extra-wide tooth flanks for optimal transmission of power.

2 Needle roller born drive shaft

For low-wear run and precise guiding of the grinding or cutting disc.

3 High-performance ball bearing

Sealed at both ends. Rear bearing with rubber damping for reduced vibration run.

4 FLEX Special ventilator

High air flow, better cooling – for extended service life and more output.

5 High-quality insulating material

Winding protected from abrasive swarf by a winding protecting cage. More power by tight winding.

6 Winding protecting cage

Rotating ribs prevent abrasive swarf from damaging the windings of the armature and provide for additional cooling. This extends the service life of the motor considerably.

7 High-performance armature

Precisely balanced. Shaft with ribbing for reliable torque transmission. High armature speed provides more power and air flow.

8 Armoured collector

With reinforced ring for stabilization against centrifugal forces.

9 Quality auto-stop carbon brushes

With extra long replacement interval, dust-protected carbon brush holders. Easy carbon brush replacement.

10 Flat gear head

Good in tight spaces.

11 Disc guard with coding

With tool-free quick clamp and safety coding.

12 Spindle lock

For easy disc changes.

13 Patented multi-grip system

Handle with safety catch, adjustable in steps by 180 degrees: Unscrew, snap in, screw in – finished! The vibration damping construction of the elastic body of the SoftVib-Handle reduces vibration levels noticeable.

14 Three point support

For secure deposit of the FLEX.

15 Robust motor case

Buckling resistant, glass fibre reinforced polyamide. Short design.

16 Damping element

Reduces the amount of vibration which is transferred to the back handle.

17 Starting-current limitation

For a safe start without overloading the mains.

18 Turning handle

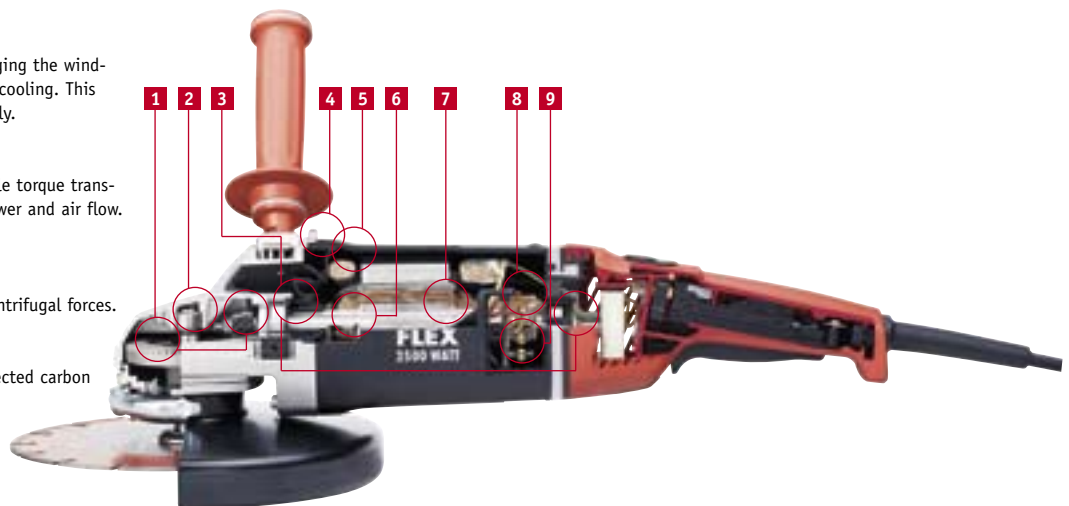
Adjustable at the press of a button by 2 x 90°. Made of glass fibre reinforced polyamide.

19 Dead-man's safety switch

Dust-proof switch with safety catch and lock.

20 Perfection to the very last detail

Extra robust cable bushing and 4-metre cable with FLEX-red plug.



Angle grinders / straight grinders

ADVANTAGES AT A GLANCE

- FLEX Motor: designed to handle substantial loads with high efficiency for powerful output, great endurance thanks to perfect cooling, and air vents aimed to front
- FLEX Multi-Grip-System with Vibration damping: front Soft-Vib hand grip can be adjusted in steps up to 180°. With safety locking. The back anti vibration handle can be adjusted 2 x 90° for cutting left and right handed.
- With elastic SoftVib-Handle: greatly reduces the vibration level so the user is subjected to less stress
- Electrical surge protection: for a soft start without power overloading
- Gearbox: particularly flat and robust aluminium die-cast construction
- Quick-release guard: tool-free adjustment
- Spindle lock: for easy disc changes
- 3 point rest: Safe resting for your FLEX
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord

L 3206 CD

322.717

New



The FLEX Red Bear: cutting and grinding made easy

Strong as a Bear 2500 Watt continuous power by 6500 rpm: steel, welding seams and concrete do not stand a chance, because with tough jobs perfect ergonomics are what counts, the RedBear is fitted with the FLEX Multi-Grip and vibration damping system. The side SoftVib Hand grip and the elastic jointed rear handle allows for greatly reduced vibration and more comfortable working, its weight is perfectly balanced.

SPECIFICATIONS

	L 3206 CD
Max. disc diameter	230 mm
Speed without load	6500 rpm
Power input	2500 Watt
Power output	1700 Watt
Tool fixture	M 14
Weight	6,2 kg

STANDARD EQUIPMENT

1 guard 230 Ø	265.179
1 SoftVib-Handle	325.376
1 pin wrench	100.110

L 3208 CD

322.725

New



The FLEX Red Bear: your choice for roughing work

With 8500 rpm, the fast RedBear is particularly in its element when roughing down. The lead hand lies in a perfectly balanced position in front of the centre of gravity. In this way, delicate work such as sanding down weld seams can be carried out with as little effort as possible. It is equipped with the FLEX multi-grip system and with vibration damping: thanks to the SoftVib side handle and the elastic connecting elements isolating the rear handle, the vibrations are noticeably reduced in both handle positions. This prevents the user from becoming fatigued too quickly and guarantees faster work progress.

SPECIFICATIONS

	L 3208 CD
Max. disc diameter	180 mm
Speed without load	8500 rpm
Power input	2500 Watt
Power output	1700 Watt
Tool fixture	M 14
Weight	6,0 kg

STANDARD EQUIPMENT

1 guard 180 Ø	265.160
1 SoftVib-Handle	325.376
1 pin wrench	100.110

Straight grinders

H 1105 VE

269.956



H 1127 VE

270.067



Low-speed FLEX straight grinder

The low-speed lightweight is ideally suitable for precision grinding in tool and die construction with grinding pins and flap-type grinding wheels up to max. 25 m/sec. Its practical grip cover facilitates extremely sensitive guiding. It can also be used as a support grinder without the grip cover.

High-speed FLEX straight grinder

The high-rev, long-neck version provides the best grinding capacity and vibration free running: Just the right thing for working on metal, wood and plastics. Machine length approx. 325 mm, collar length approx. 60 mm.

SPECIFICATIONS	H 1105 VE
Max. disc diameter resin/ceramic up to	30 mm
Max. disc diameter fiber reinforced up to	50 mm
Tool fixture	Ø 3, 1/4", 6, 8 mm
Speed without load	2500-6500 rpm
Power input	710 Watt
Power output	420 Watt
Weight	2,1 kg

SPECIFICATIONS	H 1127 VE
Max. disc diameter resin/ceramic up to	30 mm
Max. disc diameter fiber reinforced up to	50 mm
Tool fixture	Ø 3, 1/4", 6, 8 mm
Speed without load	10000-30000 rpm
Power input	710 Watt
Power output	420 Watt
Weight	1,8 kg

STANDARD EQUIPMENT	
1 collet 6 mm Ø with clamping nut	228.656
1 stopping claw SW 14	254.917
1 open-ended wrench SW 19	104.914

STANDARD EQUIPMENT	
1 collet 6 mm Ø with clamping nut	228.656
1 stopping claw SW 14	254.917
1 open-ended wrench SW 19	104.914

ADVANTAGES AT A GLANCE

- FLEX VE electronic control: variable speed and overload protection
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- Clamping collar: 40 mm diameter

ADDITIONALLY FOR H 1105 VE

- Machine length: approx. 330 mm
- Clamping collar length: approx. 53 mm

ADDITIONALLY FOR H 1127 VE

- Machine length: approx. 325 mm
- With long-necked design



For excellent precision

Perfect balance and vibration free running ensure optimal results with the H 1127 VE.

Angle grinders / straight grinders

ADVANTAGES AT A GLANCE

- FLEX Metal composite housing: endurance tested and robust
- Plastic grip cover: for a firm hold at high speeds and extreme torque

ADDITIONALLY FOR H 1212 Z

- Clamping collar: 40 mm diameter
- Machine length: approx. 570 mm
- For collets with 6 mm and 8 mm Ø

H 1212 Z

183.423



High-speed FLEX straight grinder

Grinding, brushing, polishing and deburring are the main tasks for this large speedy FLEX. It's also quick when it comes to changing tools. All discs and application tools can be changed in a flash.

SPECIFICATIONS	H 1212 Z
Max. disc diameter resin/ceramic up to	75 mm
Max. disc diameter fiber reinforced up to	75 mm
Tool fixture	Ø 6, 8 mm
Speed without load	12000 rpm
Power input	1600 Watt
Power output	1040 Watt
Weight	4,5 kg

STANDARD EQUIPMENT

1 collet 6 mm Ø	141.755
1 union nut	140.368
1 locking claw SW 22	141.658
1 open-ended wrench SW 22	109.398

H 1206

202.754



Low-speed FLEX straight grinder

The big power puts a high torque onto the sanding discs. So that it takes off fast that what should be sanded off. Especially practical: the plastic grip hood for secure handling in any situation.

SPECIFICATIONS	H 1206
Max. disc diameter resin/ceramic up to	150 mm
Tool fixture	M 20
Speed without load	5700 rpm
Power input	1600 Watt
Power output	1040 Watt
Weight	5,4 kg

STANDARD EQUIPMENT

1 guard	121.878
2 clamping discs	110.299
1 open-ended wrench SW 22	109.398
1 open-ended wrench SW 30/17	110.272
1 hex. nut	110.310

Quality accessories for angle and straight grinders

Velcro system 115 mm to 160 mm Ø for L 3406 VRG

Velcro sanding pad M 14



Dimensions in mm	QP	Order number
115 Ø	1	208.817
125 Ø	1	231.983

with rubber cushioning for uniform pressure distribution



Dimensions in mm	QP	Order number
115 Ø	1	240.311

Velcro sand paper



Dimensions in mm	Grit	QP	Order number
115 Ø	grit 50	25	208.833
115 Ø	grit 80	25	208.868
115 Ø	grit 120	25	208.884

Velcro polishing sponge



For repolishing

Dimensions in mm	QP	Order number
120 Ø x 40	10	230.596

Velcro lambswool pad



Dimensions in mm	QP	Order number
120 Ø	10	230.626

Velcro pad



Soft and pliable for uniform pressure distribution, universal applications for holding polishing accessories, with centering hole and centering tube, adapter M 14

Dimensions in mm	QP	Order number
160 Ø	1	252.583

Velcro sponge, blue (coarse, hard)



Universal sponge with high resistance to tearing. Coarse foam structure for pre-polishing surfaces. Particularly suitable for extremely weathered or dull painted surfaces. Centering hole, inner diameter 22 mm.

Dimensions in mm	QP	Order number
160 Ø x 30	1	304.751

Velcro sponge, white (fine, soft)



Fine polishing sponge with high resistance to tearing. For cleaning, polishing and care of lightly-weathered paint surfaces. Centering hole, inner diameter 22 mm.

Dimensions in mm	QP	Order number
160 Ø x 30	1	304.786

Sanding pad for LG 1707 FR and LK 604

Flexible sanding pad with clamping nut M 14



Backing pads for fiber grinding discs

Dimensions in mm	QP	Order number
170 Ø	1	124.079

Clamping nut M 14



QP	Order number
1	124.109

Brush for rust and paint removal for L 3406 VRG, L 1710 FRA and L 1710 FRC

Steel wire 0,3 mm



Corrugated, mount M 14

Dimensions in mm	QP	Order number
60 Ø	1	124.516

Steel wire 0,5 mm



Knot-type, mount M 14

Dimensions in mm	QP	Order number
65 Ø	1	124.524

Straight grinders: collets for H 1105 VE and H 1127 VE

Collet



with clamping nut










Dimensions in mm	QP	Order number
3 Ø	1	229.741
1/4" Ø	1	229.776
6 Ø	1	228.656
8 Ø	1	229.768

Straight grinders : collets for H 1212 Z



Dimensions in mm	QP	Order number
6 Ø	1	141.755
8 Ø	1	140.376

Angle grinders / straight grinders

	Dimensions in mm	QP	Order number	L 3710/L 3309	L 3410/L 3406 VRG	L 1710	LG 1707 FR	L 2106 VC	L 2108 VC	L 3206 CD	L 3208 CD
Cutting stones with diamond discs and dust extraction											
125 mm cutting guard											
 with guide block and 32 mm Ø extraction nozzle for cutting discs with 125 mm Ø for flange without groove	125 Ø	1	254.797	-	-	■	-	-	-	-	-
230 mm cutting guard											
 for drawing and pressure cuts with vacuum set and adjustable support, extraction nozzle with 32 mm outer Ø, collar Ø 62 mm, cut depth 65 mm max., for flange without groove	230 Ø	1	252.963	-	-	-	-	■	-	■	-
Vacuum hose											
 32 mm internal Ø, 4,0 m long, temperature resistant to 70°C, incl. coupling adapter for vacuum cleaner and 32/28 mm adapter		1	259.630	-	-	■	-	■	-	■	-
Quick-clamp nut											
FixTec quick clamp nut M 14											
 for tool-free tool changes, approved for discs up to 150 mm Ø		1	313.459	■	■	■	-	-	-	-	-
SDS-Clic quick-clamp nut											
 for tool-free tool changes, approved for discs up to 150 mm Ø		1	253.049	■	■	■	■	■	■	■	■
Side handles											
SoftVib side handle with pin wrench											
 The elastic SoftVib side handle is isolated from the machine housing by damping elements and this reduces vibration noticeably. This is easy on the operator's wrists, which leads to better comfort and faster progress while working. With built-in face pin wrench for exchanging the discs quickly without additional tools.		1	316.857	■	■	■	■	-	-	-	-
SoftVib side handle											
 The elastic SoftVib side handle is isolated from the machine housing by damping elements and this reduces vibration noticeably. This is easy on the operator's wrists, which leads to better comfort and faster progress while working.		1	325.376	-	-	-	-	■	■	■	■
Carrying case											
Small metal carrying case											
 for all angle grinders with disc Ø up to 125 mm		1	303.224	■	■	■	-	-	-	-	-
Plastic Multi-Carry case											
 Perfect fitting, impact resistant carry case, universally adaptable for many different FLEX-Maschinen		1	329.908	-	-	-	-	■	■	■	■

**Brilliant for sanding and polishing:
The FLEX surface program**



Do you need something
for the perfect finish of
sensitive surfaces?



Regardless whether surface or curve, whether angle or corner: The FLEX surface program is always the right choice. Your work shines everywhere. To make the job easier, the machines and accessories are also bundled as practical PRO kits in the FLEX toolboxes.

Simply unpack and start working!

Application examples: Surface finishing



ADAPTING TO ANY CONTOUR
Even difficult to reach places on welded pipe constructions can be worked on with the pre-profiled sanding discs. Fillet weld grinder LLK 1503 VR
▶ on page 30



POLISH AND SAND PIPES MUCH MORE QUICKLY WITH THE SANDING BOA
When applied the flexible sanding arm wraps itself around the pipe like a snake – up to a radius of 270°. Sanding boar LRP 1503 VRA
▶ on page 29



THIS ROUNDS IT OFF
Rubber drive roller and polishing fleece mirror-finish stainless steel guard-rails. Burnishing machine LP 1503 VR PROFI kit
▶ on page 26



BURNISH WITH EASE WITH THE RUBBER AIR ROLLER
The air cushion adapts to any material contour. Burnishing machine LP 1503 VR PROFI kit
▶ on page 26



THE SPECIALIST FOR LARGER PIPE DIAMETERS
The sanding belt nestles itself to any curve – up to 250 mm diameter. Weld seam and pipe belt sander LBR 1506 VRA
▶ on page 28



PERFECT FOR SANDING WELD SEAMS

The circulating belt carries off the heat. That is how weld seams can be sanded down on stainless steel without tempering. Weld seam and pipe belt sander LBR 1506 VRA
▶ on page 28

STABLE FLEX TOOLBOXES KEEP EVERYTHING TIDY

Everything in order and in the right place – PROFI kits with machine, sanding discs, and accessories
▶ starting page 26



For working on metal and stainless steel:

Weld seams and points are sanded in linear direction on stainless steel, steel, and aluminium nearly to concision using grit sizes 60 to 100. Grit sizes 120 to 180 are used for smoothing. For the decorative finish a polishing fleece or fleece belt is used. Fineness as required (matte: polishing fleece 100/120 or 180/240, fleece belt medium fabric. Shining bright: polishing fleece 400, fleece belt fine fabric).

For scratches in stainless steel and nonferrous metal: The deeper they are, the rougher the grit with which you start. Then gradually proceed to finer grit. Use polishing fleece or fleece belts for the finish as described above.

For the mirror-finish polish „on stainless steel and nonferrous metal you also proceed gradually from rough grit to finer grit. Pre-polishing is then done using a cotton buffer or a felt belt and pre-polishing paste „„white““. Mirror finish is provided by repolishing paste „„blue““. Perfection is attained using finishing cream in the last step (applied manually, then polished). Important: Use a separate set of buffers / felt belts for each paste (dirt particles!).“

FLEX abrasive accessories do not contain any iron or sulphur additives and are especially suited for processing stainless steel. Abrasive grain, carrier material, bonding material, and coatings of the high-quality sanding discs meet the highest requirements for grinding performance, quality, and operating efficiency.

FLEX accessories and abrasive accessories starting page 31



FLOUNDER INSTEAD OF STRENUOUS MANUAL LABOUR

Even when things get tight, the flounder can reach in everywhere – under heaters too. Flat head grinder Flounder LL 1107 VEA
▶ on page 37

Metal surface finishing

LP 1503 VR PROFI-Set

319.015



The FLEX burnishing machine for highly polished surfaces in the PRO kit

Shadow-free and transition-free metal, wood, or plastic surfaces are its specialty. Its extensive FLEX accessories make it ideal for satin-finishing, polishing, descaling, smoothing, matting, structuring, brush polishing, and deburring. Start right up with the PROFI kit in the toolboxes; everything is on hand.

Machine without standard equipment:

Order no. 244.333

SPECIFICATIONS	LP 1503 VR PROFI-SET
Power input	1200 Watt
Power output	700 Watt
Max. tool Ø	115 mm
Tool width	100 mm
Tool fixture	19 mm
Speed without load	1200-3700 rpm
Weight	3,1 kg

STANDARD EQUIPMENT

1 air pump	256.284
1 rubber air roller	256.415
1 drive roller	255.731
1 kit of distance rings	250.522
1 fleece grit 280/320	256.975
1 sanding sleeve, grit 60	1 piece of 256.285
1 sanding sleeve, grit 100	1 piece of 256.286
1 sanding sleeve, grit 180	1 piece of 256.287
1 fleece sanding sleeve, red	256.289

ADVANTAGES AT A GLANCE

- FLEX four-fold full-wave electronic control: with consistent speed control by tachometer generator, soft start, overload protection and speed pre-selection
- Adjustable guard: for sanding tools up to Ø 115 mm
- Sanding tool replacement: tool-free
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug



Practical PRO kit

Everything needed for universal application of the burnishing machine is clearly arranged in the case. Beyond that it provides sufficient room for additional accessories.

1 fleece sanding sleeve, blue	256.290
1 sanding-polishing sleeve, grit 600	318.175
1 sanding-polishing sleeve, grit 1500	318.183
2 Velcro drive belts	281.050
1 Velcro fleece belt A 180	1 piece of 281.077
2 Velcro sanding belts, grit 120	2 pieces of 284.726
1 Velcro polishing belt, grit 1500	1 piece of 318.736
1 plastic carrying case with padding	319.066

ADVANTAGES AT A GLANCE

- FLEX VE electronic control: for infinitely-adjustable belt speed
- Sanding head: rotates by 140°
- Quick belt replacement system: for quick, tool-free belt replacement
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug



Swivelling sanding head

The sanding head can be swivelled by 140°. No matter how winding the steps are - they are polished off.



Start up immediately

The FLEX belt filing machine with two sanding arms complete in the PRO kit. There is room in the case also for a ST 1005 VE including accessories.

LBS 1105 VE PROFI-Set

319.007



The FLEX belt filing machine ready to go in the PRO kit

Equipped with the two 9 mm and 30 mm arms, mounted on the sanding head that rotates 140°, the flexible file can reach into corners, grooves, and folds, is also suited for pipes and curves. Both sanding arms are included in the PROFI kit, as well as extensive accessories in the practical plastic carrying case. Everything's there; nothing's missing. Ready - set - sand! Machine with 9-mm arm: Order no. 270.113

SPECIFICATIONS	LBS 1105 VE PROFI-SET
Power input	710 Watt
Power output	420 Watt
Belt speed	4-12 m/sec
Belt dimensions	520/533 x 4-30 mm
Weight	2,5 kg

STANDARD EQUIPMENT	
1 sanding arm, pointed, 9 mm	256.525
1 sanding arm, with big roll, 30 mm	258.888
2 sanding belts, grit 60, 4 mm	2 pieces of 303.615
2 sanding belts, grit 120, 4 mm	2 pieces of 303.623
2 sanding belts, grit 60, 9 mm	2 pieces of 257.105
2 sanding belts, grit 120, 9 mm	2 pieces of 257.102
2 sanding belts, grit 60, 30 mm	2 pieces of 255.328
2 sanding belts, grit 120, 30 mm	2 pieces of 255.329
1 sanding fleece medium, 9 mm	1 piece of 318.663
1 sanding fleece medium, 30 mm	1 piece of 318.647
1 side handle	194.034
1 hexagon socket screw key, special tool 5	115.460
1 plastic carrying case with padding	319.074

Metal surface finishing

LBR 1506 VRA

282.499



The combination weld and pipe belt sander

Welds on flat surfaces are removed by the versatile belt sander without leaving any edges or wavy finish. The application pressure acts directly on the drive roller. The sanding belt also follows every contour closely when sanding pipes, so that even stainless steel can be given a high-gloss finish.

SPECIFICATIONS	LBR 1506 VRA
Power input	1200 Watt
Power output	700 Watt
Belt speed	10-30 m/sec
Belt dimensions	40 x 618 mm
Weight	4,2 kg

STANDARD EQUIPMENT

1 side handle	252.721
1 bail handle	259.290
1 sanding belt, continuous, grit 60	1 piece of 223.689
1 sanding belt, continuous, grit 120	1 piece of 266.132
1 sanding belt, continuous, grit 240	1 piece of 250.610
1 sanding fleece 618 x 40 medium	1 piece of 317.977
1 hexagon socket screw key, special tool 5	115.460
1 hexagon socket screw key, special tool 6	104.167
1 hexagon socket screw key, special tool 3	178.772

ST 1005 VE

259.540



The specialized FLEX for inside corners and edges

Because of the linear movement of the tilted sanding pad the finger sander can reach into corners and edges. Depending on the grit of the sandpaper this opens up a broad range of applications up to the perfect finish of stainless steel.

SPECIFICATIONS	ST 1005 VE
Power input	400 Watt
Power output	220 Watt
Sanding medium	39 x 60 mm
Orbit	8 mm
Orbit rate, without load	1200-4500 rpm
Weight	2,2 kg

STANDARD EQUIPMENT

2 polishing shoes with Velcro polishing cushion	1 set
10 Velcro sand paper grit 60	258.299
10 Velcro sand paper grit 120	258.300
10 Velcro sand paper grit 180	258.301
10 Velcro fleece 39 x 60 medium	258.302
1 hexagon socket screw key, special tool 3	217.794

ADVANTAGES AT A GLANCE

- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug

ADDITIONALLY FOR LBR 1506 VRA

- FLEX four-fold full-wave electronic control: with consistent speed control by tachometer generator, soft start, overload protection and speed pre-selection
- Sanding belt tension: spring loaded, adapts to pipe diameter from 10 to 250 mm
- Sanding belt replacement: quick and easy
- Light design: for work without fatigue
- Sanding belts: wide assortment included sanding fleece for stainless steel applications

ADDITIONALLY FOR ST 1005 VE

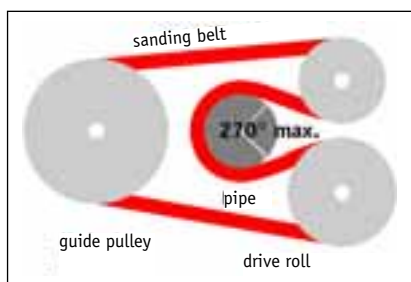
- FLEX VE electronic control: for infinitely-adjustable stroke speed control
- Free view of the tool
- 2 polishing shoes with Velcro polishing cushion 39 x 60 mm





The sanding boa as complete kit

The extensive accessories are included as standard with the LRP 1503 VRA.



Polishing and sanding pipes

The FLEX sanding boa sands and polishes radii of up to 270°.

ADVANTAGES AT A GLANCE

- FLEX four-fold full-wave electronic control: with consistent speed control by tachometer generator, soft start, overload protection and speed pre-selection
- Sanding belt replacement: quick and tool-free
- High-quality 270° sanding arm: light alloy with 2 deflection rollers. Quicker progress, perfect finish, simple operation
- Additional side handle: can be rotated 180°, for narrow places
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug
- Plastic carrying case: everything where you want it, when you want it. Standard design with extensive accessories

LRP 1503 VRA

324.442



The FLEX Boa sander: the all-round polishing solution

The perfect solution for sanding and polishing pipe constructions. The sanding arm wraps itself around the pipe like a snake when pressure is applied, tackling radii up to 270°. Spring resistance between the deflection rollers means that the sanding arm and sanding belt are always uniformly pre-tensioned. The Boa needs only be rotated slightly to continue treatment and achieve the perfect finish. In tight places - e.g. handrails that are fixed close to walls - the additional handle can be rotated 180°.

SPECIFICATIONS	LRP 1503 VRA
Power input	1200 Watt
Power output	700 Watt
Belt speed	4-12 m/sec
Belt dimensions	760 x 40/20 mm
Pipe Ø max.	125 mm
Weight	3,7 kg

STANDARD EQUIPMENT

1 sanding belt, continuous, grit 80, 760 x 40 mm	1 piece of 326.739
1 sanding belt, continuous, grit 120, 760 x 20 mm	1 piece of 326.801
1 sanding belt, continuous, grit 220, 760 x 20 mm	1 piece of 326.836
1 sanding fleece, continuous, fine, 760 x 40 mm	1 piece of 326.852
1 sanding fleece, continuous, medium, 760 x 40 mm	1 piece of 326.879
1 sanding-polishing belt, continuous, grit 600, 760 x 40 mm	326.917
1 sanding-polishing belt, continuous, grit 1500, 760 x 40 mm	326.933
1 plastic carrying case with padding	327.603

Metal surface finishing

LLK 1503 VR

315.257



The fillet weld grinder for smooth transitions in tight spots

When weld seam and pipe belt sanders have reached their limits, then it is time for a fillet weld grinder. Its extremely narrow grinding head and flexible FLEX sanding discs can reach most any hard-to-get-at weld seam. For the perfect surface finish on railings, pipe constructions, and other tight spots.

SPECIFICATIONS	LLK 1503 VR
Power input	1200 Watt
Power output	700 Watt
Max. disc diameter	152 mm
Speed without load	1500-4700 rpm
Weight	3,4 kg

STANDARD EQUIPMENT	
1 profiling stone	315.494
1 FixTec quick-clamp nut M 14	313.459
1 compact grinding disc, 3 mm, soft	313.416
1 compact grinding disc, 3 mm, hard	313.424
1 compact grinding disc, 6 mm, soft	313.432
1 compact grinding disc, 6 mm, hard	313.440
1 plastic carrying case with padding	319.082

ADVANTAGES AT A GLANCE

- 1200 Watt high-power motor: ideal for flexible grinding and polishing of metals and stainless steel to suit the material
- FLEX four-fold full-wave electronics: with speed selection and consistent speed control, soft start, overload protection.
- Slim grinding head: sand and polish with power and ease in tight angles
- FLEX quality sanding discs: made of compressed fleece-fibre nylon
- Profiling stone: for pre-profiling the sanding discs
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug
- Heavy-duty carrying case



Sanding with individualised profiles

The standard profiling stone can pre-profile the sanding disc.



Everything included

Fillet weld grinder, sanding discs, and profiling stone in the practical FLEX case.

Accessories for the LP 1503 VR finishing machine for metal and stainless steel

Poli-clean



Hard-structured fleece wheel. For cleaning welds and intensive, pore-deep removal of rust and oxidation layers. Also creates particularly decorative longitudinal finishes on stainless steel.

Dimensions in mm	QP	Order number
100 Ø x 100	1	257.375

Flap wheel sanding



Flexible sanding wheel with individual flexible flap-type sanding lamellae and keyway. 2 wheels are required. For paint removal, sanding and strong graining applications. Removes scratches, rust, old paint, scale and burrs. The 40 grit employed enables the removal of even deep scratches on stainless steel.

Dimensions in mm	Grit	QP	Order number
100 Ø x 50	grit 40	1	250.496
100 Ø x 50	grit 50	1	250.497
100 Ø x 50	grit 60	1	250.498
100 Ø x 50	grit 80	1	250.499
100 Ø x 50	grit 120	1	250.501
100 Ø x 50	grit 180	1	250.504
100 Ø x 50	grit 240	1	250.505

Sanding fleece



Flexible polishing wheel made of sanding grit-impregnated nylon web with a keyway. Two wheels are required (for 50 mm wide fleece only). Achieves effective surface finishes on stainless steel, copper, aluminum, brass, etc. Also ideal for cleaning oxidized coatings and smoothing plastic and wood.

Dimensions in mm	Grit	QP	Order number
100 Ø x 50	grit 80/100	1	250.509
100 Ø x 50	grit 180	1	250.510
100 Ø x 50	grit 280/320	1	250.512
100 Ø x 50	grit 400	1	250.513
100 Ø x 100	grit 80/100	1	256.973
100 Ø x 100	grit 180	1	256.974
100 Ø x 100	grit 280/320	1	256.975
100 Ø x 100	grit 400	1	256.976

Sanding fleece flap



Flexible combination of sanding flap and sanding fleece. Two wheels are required (for 50 wide). Suitable for dulling and finishing. Removes small scratches on metal, hard plastics and wood.

Dimensions in mm	Grit	QP	Order number
100 Ø x 50	grit 80/100	1	250.515
100 Ø x 50	grit 150/180	1	250.516
100 Ø x 100	grit 80/100	1	256.977
100 Ø x 100	grit 150/180	1	256.978

Nylon brushes



Impregnated with sanding grits. Flexible, interspersed plastic brushes. For deburring, cleaning, roughing and smoothing. (Also suitable for wood, brushing applications and removing fibres.) Needed is one piece plus distance ring set (order no. 250.522).

Dimensions in mm	QP	Order number
100 Ø x 70	1	251.624

Stainless steel wire brush



Flexible stainless steel wire brush. Rust removal, deburring, roughing and paint removal. Needed is one piece plus distance ring set (Order no. 250.522).

Dimensions in mm	QP	Order number
100 Ø x 70	1	251.625

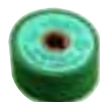
Stranded wire brushes



Made of strong, twisted, gold-colored steel wire. Extremely tough and rigid. For rust removal, deburring, removing dirt and old paint. Brings up the grain structure in wood. Needed is one piece plus distance ring set (order no. 250.522).

Dimensions in mm	QP	Order number
100 Ø x 70	1	251.626

Fine sanding roller



Soft rubber polishing wheel made of grit-impregnated rubber web. 2 rollers are required. For particularly bright longitudinal structures. Best effects are achieved on stainless steel.

Dimensions in mm	Grit	QP	Order number
100 Ø x 50	grit 60	1	250.525
100 Ø x 50	grit 180	1	250.526

Quality accessories surface finishing metal

Accessories for the LP 1503 VR finishing machine for metal and stainless steel

Polishing fleece



Soft, flexible fleece polishing wheel. Two wheels are required. For high-gloss polishing when using polishing pastes and creams.

Dimensions in mm	QP	Order number
100 Ø x 50	1	257.374

Cotton buffing wheel



Polishing ring made of impregnated cotton cloth. Achieves a high-gloss polished finish on aluminum, brass and stainless steel. Needed are 8 pieces plus distance ring set (order no. 250.522).

Dimensions in mm	QP	Order number
100 Ø x 10	8	317.950

Distance ring set



Required for nylon brushes, stainless steel wire brushes, stranded wire brushes, cotton buffing wheels. Also necessary for sanding flaps, sanding fleeces, sanding fleece flaps, fine sanding rollers and sanding wheels less than 100 mm wide if only one sanding wheel is to be mounted.

QP	Order number
8	250.522

High-gloss range

consisting of: 1 felt polishing belt, 40 x 618 mm: 255.003; 1 Pre-polishing paste, white, 700 g: 255.004; 1 Repolishing paste blue, 700 g: 255.005; 1 Finishing cream, 1000 g: 255.006; 1 VA preservative, 400 ml: 255.007.



For high-gloss effects, particularly with stainless steel and for sealing surfaces.

QP	Order number
1 set	255.002

Rubber air roller



For sensitive contour sanding

Dimensions in mm	QP	Order number
90 Ø x 100	1	256.415

With air pump and ring fastener. For sensitive contour sanding

Dimensions in mm	QP	Order number
90 Ø x 100	1	257.004

Air pump



For pumping up rubber air rollers

QP	Order number
1	256.284

Sanding-polishing sleeve



For high-gloss polishing without polishing agents in two steps

Dimensions in mm	Grit	QP	Order number
90 Ø x 100	grit 600	1	318.175
90 Ø x 100	grit 1500	1	318.183

Zirconium corundum sanding sleeves



For coarse and medium sanding

Dimensions in mm	Grit	QP	Order number
90 Ø x 100	grit 60 blue	5	256.285
90 Ø x 100	grit 100 grey	5	256.286
90 Ø x 100	grit 180 brown	5	256.287

Fleece sanding sleeves



For decorative finishes

Dimensions in mm	Grit	QP	Order number
90 Ø x 100	grit 100/120 brown	1	256.288
90 Ø x 100	grit 180/240 red	1	256.289
90 Ø x 100	grit 400 blue	1	256.290

Drive roller



For sanding belt drive

Dimensions in mm	QP	Order number
60 Ø x 100	1	255.731



With stainless steel guide discs. Needed is the distance ring set (Order no. 250.522).

Dimensions in mm	QP	Order number
62 Ø x 70	1	303.054

Belts without Velcro seal for LP 1503 VR / LBR 1506 VRA

Sanding belt, continuous



For polishing pipes and pipe fittings

Dimensions in mm	Grit	QP	Order number
618 x 40	grit 36	10	223.670
618 x 40	grit 60	10	223.689
618 x 40	grit 120	10	266.132
618 x 40	grit 240	10	250.610

Sanding fleece, continuous



For polishing pipes and pipe fittings

Dimensions in mm	Grit	QP	Order number
618 x 40	grit 100	3	317.969
618 x 40	grit 240	3	317.977
618 x 40	grit 400	3	317.985

Felt belt



For polishing stainless steel surfaces

Dimensions in mm	QP	Order number
618 x 40	1	255.003

Adhesive tape for sanding belt



For sealing open sanding belts for the LP 1503 VR

Dimensions in mm	QP	Order number
40 x 5000	1	251.838

Belts with hook and loop attachment for burnishing machine LP 1503 VR

Velcro sanding belt



For polishing pipes and pipe fittings

Dimensions in mm	Grit	QP	Order number
600 x 40	grit 60	10	284.718
600 x 40	grit 120	10	284.726

Velcro fleece



For polishing pipes and pipe fittings

Dimensions in mm	Grit	QP	Order number
600 x 40	A 100	2	281.069
600 x 40	A 180	2	281.077
600 x 40	S 400	2	281.085

Velcro polishing belt



For high-gloss polishing of stainless steel

Dimensions in mm	Grit	QP	Order number
600 x 40	S 1500	2	318.736

Velcro drive belt, blue



For closing and releasing the different belts. Simple application - tensile resistance up to 100 kg

Dimensions in mm	QP	Order number
700 x 30	2	281.050

Quality accessories surface finishing metal

Accessories for the LBS 1105 VE finger belt sander

Sanding arm, 9 mm, pointed



for extremely tight spaces. Application cases: Sanding wedge seams (small radius), sanding down corrosion spots, smoothen tight contours, deburring edges, sanding banisters, sanding groove gaps for tongue-and-groove boards

Dimensions in mm	QP	Order number
9	1	256.525

Sanding arm, 9 mm, cambered



For angles and tight spaces. Application cases: Sanding wedge seams (large radius), deburring edges, sanding banisters, sanding groove gaps for tongue-and-groove boards

Dimensions in mm	QP	Order number
9	1	256.532

Sanding arm, 30 mm, small roller



For edges and surfaces. Application cases: Sanding butt seam welds, deburring edges, sanding surfaces, removing rust

Dimensions in mm	QP	Order number
30	1	255.282

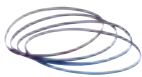
Sanding arm, 30 mm, large roller



For pipes and curves. Application cases: Sanding weld seams on pipes, sanding down radii and transitions, deburring

Dimensions in mm	QP	Order number
30	1	258.888

Sanding belt, 4 mm



continuous, for 9 mm sanding arm

Dimensions in mm	Grit	QP	Order number
533 x 4	grit 40	10	303.607
533 x 4	grit 60	10	303.615
533 x 4	grit 120	10	303.623
533 x 4	grit 220	10	303.631

Sanding belt, 9 mm



continuous, for 9 mm sanding arm

Dimensions in mm	Grit	QP	Order number
533 x 9	grit 40	10	257.101
533 x 9	grit 60	10	257.105
533 x 9	grit 120	10	257.102
533 x 9	grit 220	10	257.103

Sanding belt, 30 mm



continuous, for 30 mm sanding arm

Dimensions in mm	Grit	QP	Order number
533 x 30	grit 40	10	256.538
533 x 30	grit 60	10	255.328
533 x 30	grit 120	10	255.329
533 x 30	grit 220	10	255.330

Sanding fleece, 9 mm



continuous, for 9 mm sanding arm

Dimensions in mm	Grit	QP	Order number
533 x 9	grit 240 medium	3	318.663
533 x 9	grit 400 fine	3	318.671

Sanding fleece, 30 mm



continuous, for 30 mm sanding arm

Dimensions in mm	Grit	QP	Order number
533 x 30	grit 240 medium	3	318.647
533 x 30	grit 400 fine	3	318.655

Sanding-polishing belt, continuous



For high-gloss polishing without polishing agents in two steps

Dimensions in mm	Grit	QP	Order number
533 x 30	grit 600	1	318.132
533 x 30	grit 1500	1	318.140

Felt belt, 9 mm



For polishing stainless steel surfaces

Dimensions in mm	QP	Order number
533 x 9	1	259.420

Felt belt, 30 mm

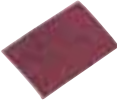


For polishing stainless steel surfaces

Dimensions in mm	QP	Order number
533 x 30	1	259.419

Accessories for the ST 1005 VE finger belt sander


Velcro sand paper

	Dimensions in mm	Grit	QP	Order number
	39 x 60	grit 60	10	258.299
	39 x 60	grit 120	10	258.300
	39 x 60	grit 180	10	258.301


Velcro sanding fleece

	Dimensions in mm	Grit	QP	Order number
	39 x 60	grit 240	10	258.302

Polishing shoe, slanted


	with Velcro polishing cushion	QP	Order number
		1	258.031

Polishing shoe, pointed


	with Velcro backing	QP	Order number
		1	255.265

Accessories for Boa sander LRP 1503 VRA

Sanding belt, continuous

	For polishing pipes and pipe fittings	Dimensions in mm	Grit	QP	Order number
		760 x 40	grit 80	10	326.739
		760 x 40	grit 120	10	326.755
		760 x 40	grit 220	10	326.771
		760 x 20	grit 120	10	326.801
		760 x 20	grit 220	10	326.836

Sanding fleece, continuous

	For polishing pipes and pipe fittings	Dimensions in mm	Grit	QP	Order number
		760 x 40	fine	3	326.852
		760 x 40	medium	3	326.879
		760 x 40	coarse	3	326.895

Sanding-polishing belt, continuous



For high-gloss polishing without polishing agents in two steps

Dimensions in mm	Grit	QP	Order number
760 x 40	grit 600	1	326.917
760 x 40	grit 1500	1	326.933

INOX Clean spray



To seal the surface, 400 ml tin

QP	Order number
1	298.301

Accessories for filled weld grinder LLK 1503 VR

Compact grinding disc



Professional sanding discs: hot-compressed compact sanding discs for stainless steel, metal, and other materials in 2 different thicknesses and hardnesses: the hard sanding disc is used for sanding, the soft one for polishing.

Dimensions in mm	Grit	QP	Order number
152 x 3 x 25	soft	1	313.416
152 x 3 x 25	hard	1	313.424
152 x 6 x 25	soft	1	313.432
152 x 6 x 25	hard	1	313.440

Profiling stone



for pre-profiling the compact sanding discs

QP	Order number
1	315.494

FixTec quick clamp nut M 14



for tool-free tool changes, approved for discs up to 150 mm Ø

QP	Order number
1	313.459

Universal surface finishing

XS 713

334.111

New



MS 713

332.380

New



The new handy FLEX rotating-orbital sander

With higher stroke rate and shorter strokes this handy sized machine with its ergonomic grip achieves an evenly smooth surface. The machines low profile allows for extremely sensitive sanding close the work surface.

The new FLEX mini sander is slender and ergonomically designed

This compact and lightweight mini sander is the ideal complement to surface finishing, especially fine work. The universal application underlines the versatility of this machine. The sanding paper is fixed to the square backing pad by either Velcro or clamp fasteners.

SPECIFICATIONS	XS 713
Power input	230 Watt
Power output	75 Watt
Orbit rate, without load	12000 rpm
Orbit	1,6 mm
Sand paper	Ø 125 mm
Sanding media fixing	hook and loop
Weight	1,3 kg

SPECIFICATIONS	MS 713
Power input	220 Watt
Power output	120 Watt
Orbit rate, without load	14000 rpm
Orbit	1,6 mm
Sand paper	115 x 105 mm
Sanding media fixing	hook and loop / clamp
Weight	1,2 kg

STANDARD EQUIPMENT	
1 Velcro sand paper, with 8 perforations	1 piece
1 dust bag	332.992
1 adapter for dust extractor	333.026

STANDARD EQUIPMENT	
1 paper punch	1 piece
1 dust bag	332.992
1 adapter for dust extractor	333.026

ADVANTAGES AT A GLANCE

- Anti-slip rubber covered grip, for vibration reduced and tireless working
- Dust-proof on/off switch
- Possible to connect external dust extractor using the supplied as standard adapter

ADDITIONALLY FOR MS 713

- Aluminium sanding support plate
- Rubber support bearing: extremely low vibration and easy to guide

ADVANTAGES AT A GLANCE

- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR X 1107 VE

- FLEX VE electronic control: with infinitely-adjustable speed control
- Vacuum fitting: for connecting to vacuum cleaner, diameter 28 mm

ADDITIONALLY FOR F 1109

- 4 HSS reversible cutters: the cutters can be reversed four times, and that saves money
- Cutting head: 80 mm diameter, M 14 tool fixture
- Metal carrying case: rugged carrying case included with room for replacement cutters and tool



Everything under cover

True to dimension grooves for fitting in gutter support are cut out in a flash with this FLEX.

X 1107 VE

218.669



The powerful FLEX orbital sander with dust collection

The powerful all-round sander with variable speed control for coarse and fine wood finishing, painted metal surfaces and automobile body work. The extremely high sanding orbit of 8,8 mm ensures quick yet fine sanding. A grip cover means that the sander always feels good to hold.

SPECIFICATIONS	X 1107 VE
Power input	710 Watt
Power output	420 Watt
Orbit	8,8 mm
Orbit rate, without load	4300-13000 rpm
Max. disc diameter	150 mm
Sanding media fixing	hook and loop
Weight	2,7 kg

STANDARD EQUIPMENT

1 side handle	194.034
Velcro sand paper, with 6 perforations, grit 40, 150 Ø	1 piece of 302.988
Velcro sand paper, with 6 perforations, grit 80, 150 Ø	1 piece of 302.996
Velcro sand paper, with 6 perforations, grit 120, 150 Ø	1 piece of 303.003
Velcro sand paper, with 6 perforations, grit 180, 150 Ø	1 piece of 303.011
Velcro sand paper, with 6 perforations, grit 320, 150 Ø	1 piece of 303.038
1 open-ended wrench SW 14	100.102
1 hexagon socket screw key, special tool 4	102.229
1 grip cover	239.771
1 Velcro pad (hard) 150 Ø	228.176

F 1109

251.338



The FLEX gutter support groove cutter with directed shaving removal

Gutter supports can be fitted quickly and cleanly, thanks to the practical cutter. 6 to 8 mm deep and 40 mm wide grooves are cut in a flash. The cutting guide ensures that the shavings produced are blown out in the right direction and are no longer scattered all over the roof.

SPECIFICATIONS	F 1109
Power input	710 Watt
Power output	420 Watt
Speed without load	10000 rpm
Planer width	40 mm
Planer depth	6 / 8 mm
No. of cutters	4 pieces
Weight	3,9 kg

STANDARD EQUIPMENT

1 set HSS reversible cutters (4 pieces)	241.091
1 metal carrying case	256.519
1 torx wrench	258.861
1 open-ended wrench SW 30/17	106.461

Universal surface finishing

LL 1107 VEA

289.434



ADVANTAGES AT A GLANCE

- FLEX VE electronic control: with infinitely-adjustable speed control
- Foam coating under gearbox housing: prevents scratching of already treated surfaces
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- Special accessory: metal carrying case (order no. 303.224)



The FLEX Flounder, when things get tight

The Flounder is in its element wherever narrow intermediate spaces need sanding. The extremely flat grinding head can access slits with a gap width of only 15 mm or more. This saves strenuous work and troublesome caustic removal on shutters, balcony panels and floors under heating radiators.

SPECIFICATIONS	LL 1107 VEA
Power input	710 Watt
Power output	420 Watt
Speed without load	700-2300 rpm
Max. disc diameter	115 mm
Sanding head level	13 mm
Weight	2,7 kg

STANDARD EQUIPMENT	
1 side handle	194.034
Sandpaper grit 50, 115 Ø	1 piece of 208.833
Sand paper grit 80, 115 Ø	1 piece of 208.868
Sand paper grit 120, 115 Ø	1 piece of 208.884
1 Velcro velours with foam coating 80 mm Ø	296.155

Accessories for the XS 713 orbital sander

Velcro sanding pad



with 8 perforations

Dimensions in mm	QP	Order number
125 Ø	1	334.146

Velcro sand paper



with 8 perforations

Dimensions in mm	Grit	QP	Order number
125 Ø	grit 40	25	334.308
125 Ø	grit 60	25	334.324
125 Ø	grit 80	25	334.340
125 Ø	grit 100	25	318.027
125 Ø	grit 120	25	317.993
125 Ø	grit 180	25	318.000
125 Ø	grit 220	25	318.019

Accessories for the MS 713 finishing sander

Velcro sand paper, square



with 8 perforations

Dimensions in mm	Grit	QP	Order number
115 x 105	grit 40	25	334.251
115 x 105	grit 60	25	334.286
115 x 105	grit 80	25	332.771
115 x 105	grit 100	25	332.798
115 x 105	grit 120	25	332.801
115 x 105	grit 180	25	332.828
115 x 105	grit 220	25	332.836

Accessories for the X 1107 VE orbital sander

Velcro sanding pad



with 6 perforations

Dimensions in mm	Grit	QP	Order number
150 Ø	hard	1	228.176
150 Ø	soft	1	228.184

Velcro sand paper



With 6 perforations. Main application: wood. Other applications: steel, stainless steel, plastic, paint/varnish/fillers

Dimensions in mm	Grit	QP	Order number
150 Ø	grit 40	10	302.988
150 Ø	grit 80	10	302.996
150 Ø	grit 120	10	303.003
150 Ø	grit 180	10	303.011
150 Ø	grit 320	10	303.038

Accessories for gutter support groove cutter F 1109

Reversing blade



HM reversing blade

Dimensions in mm	QP	Order number
21 x 21	4	229.555



HSS reversing blade

Dimensions in mm	QP	Order number
21 x 21	4	241.091

Accessories for the LL 1107 VEA Flounder

Velcro sand paper



Dimensions in mm	Grit	QP	Order number
115 Ø	grit 50	25	208.833
115 Ø	grit 80	25	208.868
115 Ø	grit 120	25	208.884

Velcro velour

with foam coating



Dimensions in mm	QP	Order number
80 Ø	1	296.155

Small metal carrying case



for all angle grinders with disc Ø up to 125 mm

QP	Order number
1	303.224

**Brilliant job:
The FLEX polisher for highly sensitive surfaces**



Reflecting automotive lacquers?
Perfect furniture surfaces?
FLEX puts customised
solutions in your hand
for that optimal finish.



Take a FLEX polisher:
Its motor windings and gears have been designed especially for low speeds and high torques. Because of generous power reserves and electronics with overload protection it can also sustain high loads. Thanks to speed selection and accelerator trigger switch it seamlessly covers the low speed range. And with its ergonomic handle system it is fully tuned to careful working.

Add to that polishing accessories of FLEX: For example the FLEX sponges. Rip-proof, solvent-resistant, and with a heat-stable hook and loop attachment. Since nothing is cemented, no toxic fumes will develop. Just as valuable are the FLEX lambs wool, fleece, polishing kits, and much more. Let it shine!

Application examples: Polishers

3



IS GENTLE ON TEMPERATURE-SENSITIVE FINISHES
 Due to the orbital rotation movement of the XC 3401 VRG, very little heat develops on the surface. Orbital polisher XC 3401 VRG
 ▶ on page 46



STRONG ON POLISHING SURFACES

Thanks to the handles that are spaced wide apart the light-weight polisher can be guided with special care and precision even over large surfaces. Polisher L 3403 VRG
 ▶ on page 45



THE LOW-SPEED FLEX FOR HIGHLY SENSITIVE SURFACES
 With extremely low speed and high torque it is ideal for acrylic paints, Corian, GFRP, glass, stone, and water-soluble paints. Polisher L 1501 VR
 ▶ on page 47

WELL HANDLED IN ANY POSITION

For everyone who needs to polish over sensitive surfaces with special precision and care. Polisher L 602 VR with bail handle
 ▶ on page 44

BUFFER AND POLISH LACQUERED FURNITURE

For toughest non-stop operation during brushing, polishing, and buffering wood and stainless steel. Polisher L 1202
 ▶ on page 47





UNPACK MACHINE AND START WORKING

Made possible by the extensive standard equipment.
 Polisher L 3403 VRG as complete kit
 ▶ on page 45

STANDARD IN ALL POLISHER KITS

Microfibre cloth for perfect surface finish and brilliant deep sheen. Polisher kits
 ▶ starting page 44



For a professional polish:

Water-soluble, ecological automotive paints should be processed with little force, but rather at low speed and gentle pressure. That prevents the heating up of the polishing medium and too much paint abrasion. FLEX sponges and appropriate quality polishing media ensure the proper treatment to suit the material (observe the recommended speeds / metallic enamels require special polishing media).

FLEX recommendations:

- Single-coated lacquering (without clear coat varnish): 2200 to 2800 rpm with blue or yellow FLEX polishing sponges
- Double-coated lacquering (without clear coat varnish): 1200 to 1700 rpm with white FLEX polishing sponges
- Processing beads and curves as well as repolishing: with black FLEX Velcro sponges

For a perfect finish always work on one section of the vehicle at a time (engine bonnet, boot, etc.). Do not circulate, but rather polish the surfaces length- and cross-wise. Mechanically remove polishing medium residues with a slightly moistened lamb or wool fleece.

To conserve the enamel wax can be applied (soft Velcro sponge). This deepens the sheen of the enamel especially for black cars. After absorption and drying, polish down with lamb and wool fleece.

Important: Use a separate sponge for each polishing medium and colour!

FLEX polishing accessories starting page 48

Polishing machines

L 602 VR

329.800



L 602 VR-Set

329.819



ADVANTAGES AT A GLANCE

- FLEX five-fold VR electronics: with consistent speed control by tachometer generator, soft start with accelerator trigger switch, overload protection, temperature monitoring, and speed selection with optimised lower speed range
- Integrated air deflection: protects against dust
- Spindle lock: for easy disc changes
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

The FLEX polisher with powerful drive, speed control and two grip variations

High durability thanks to perfect cooling. Grip and balance means perfect handling. The supplied bail handle offers an optional grip alternative. For the best polishing results on large surfaces, especially for sensitive surfaces

The FLEX polisher with powerful drive, speed control and two grip variations as complete kit

High durability thanks to perfect cooling. Grip and balance means perfect handling. The supplied bail handle offers an optional grip alternative. For the best polishing results on large surfaces, especially for sensitive surfaces. Complete in kit with Velcro backing pad, sponge and microfaser polishing cloth.

SPECIFICATIONS	L 602 VR
Max. polishing pad diameter	220 mm
Max. back-up pad diameter	160 mm
Speed without load	0-2400 rpm
Power input	1500 Watt
Power output	1000 Watt
Tool fixture	M 14
Weight	3,3 kg

STANDARD EQUIPMENT

1 grip cover	259.508
1 side handle	252.721
1 bail handle	287.709

SPECIFICATIONS	L 602 VR-SET
Max. polishing pad diameter	220 mm
Max. back-up pad diameter	160 mm
Speed without load	0-2400 rpm
Power input	1500 Watt
Power output	1000 Watt
Tool fixture	M 14
Weight	3,3 kg

STANDARD EQUIPMENT

1 grip cover	259.508
1 side handle	252.721
1 bail handle	287.709
1 Velcro pad 160 Ø	252.583
1 Velcro sponge 200 Ø x 30	304.778
1 microfibre polishing cloth	317.098



Perfect control with grip hood and slender handle

For balanced weight distribution and optimal handling.

ADVANTAGES AT A GLANCE

- FLEX seven-fold microprocessor electronics: with consistent speed control by tachometer generator, soft start, accelerator trigger switch, restart protection after power interruption, overload protection, temperature monitoring, and speed selection
- High-powered motor: can handle extreme loads
- Spindle lock: for easy disc changes
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- Bail handle
- 4 m power cord: with FLEX red plug



Ideal for hard to reach places

The light-weight L 3403 VRG has the advantage wherever large polishers can't get to or would be too cumbersome.

L 3403 VRG

299.278



The light-weight FLEX polishing machine with accelerator trigger switch for sanding and polishing

Slim stick handle, high torque motor, light weight, and a practical bail handle. That is how to polish easily and effortlessly in every job. The accelerator trigger switch and speed selection allow for a controlled acceleration to the optimal mixing speed.

SPECIFICATIONS	L 3403 VRG
Max. polishing pad diameter	160 mm
Max. back-up pad diameter	160 mm
Speed without load	1100-3700 rpm
Power input	1400 Watt
Power output	880 Watt
Tool fixture	M 14
Weight	2,2 kg

STANDARD EQUIPMENT

1 bail handle	298.506
1 side handle	252.721

L 3403 VRG-Set

313.807



The light FLEX polisher as complete kit

Slim stick handle, high torque motor, light weight, and a practical bail handle. That is how to polish easily and effortlessly in every job. The accelerator trigger switch and speed selection allow for a controlled acceleration to the optimal speed. The kit version includes a Velcro backing pad and two sponges. Simply attach the respective Velcro polishing tool centrally to the polishing backing pad using the centring pipe and start working. Afterwards clean the polished surfaces with the microfibre polishing cloth in order to get a perfect deep sheen.

SPECIFICATIONS	L 3403 VRG-SET
Max. polishing pad diameter	160 mm
Max. back-up pad diameter	160 mm
Speed without load	1100-3700 rpm
Power input	1400 Watt
Power output	880 Watt
Tool fixture	M 14
Weight	2,2 kg

STANDARD EQUIPMENT

1 bail handle	298.506
1 side handle	252.721
1 Velcro pad 125 Ø	258.705
1 Velcro sponge blue, 160 Ø x 30	304.751
1 Velcro sponge white, 160 Ø x 30	304.786
1 microfibre polishing cloth	317.098

Polishing machines

XC 3401 VRG

322.008

New



The unique FLEX orbital polisher - the machine for the perfect finish

The orbital rotation of this innovative polisher simulates the circular movement of the human hand while polishing. At the same time, the polisher's highly smooth running facilitates a careful, precise finish and even provides what is necessary for hologram-free polishing. That's just what this polisher, with its ergonomically designed knob handle, was made for. The positive drive ensures a uniform movement, even under load, thanks to constant lift. Taken in conjunction with the large stroke length there is also the possibility of removing existing holograms from black finishes. Thanks to the direct orbital drive, very little heat develops on the surface, which is ideally suited to temperature-sensitive finishes. The accelerator trigger switch and speed selection allow for a controlled acceleration to the optimal speed. Note: the machine's orbital movement has been optimised for the special back pad and sponge Ø 160 x 30 mm included with it.

SPECIFICATIONS	XC 3401 VRG
Max. polishing pad diameter	160 mm
Velcro pad Ø	150 mm
Speed without load	160-480 rpm
Orbit	8 mm
Orbit rate, without load	3200-9600 rpm
Power input	900 Watt
Power output	590 Watt
Weight	2,6 kg

STANDARD EQUIPMENT

1 grip cover	332.402
1 knob grip	333.565
1 Special Velcro backing pad, 150 Ø	328.200

XC 3401 VRG-Set

334.081

New



The unique FLEX orbital polisher for the perfect finish, complete as kit

The orbital rotation of this innovative polisher simulates the circular movement of the human hand while polishing. At the same time, the polisher's highly smooth running facilitates a careful, precise finish and even offers what is necessary for hologram-free polishing. That's just what this polisher, with its ergonomically designed knob handle, was made for. The positive drive ensures a uniform movement, even under load, thanks to constant lift. Taken in conjunction with the large stroke length there is also the possibility of removing existing holograms from black finishes. Thanks to the direct orbital drive, very little heat develops on the surface, which is ideally suited to temperature-sensitive finishes. The accelerator trigger switch and speed selection allow for a controlled acceleration to the optimal speed. The kit version contains a fine Velcro sponge, a microfibre polishing cloth, a mirror-finish polishing wax and a practical kit bag for the machine itself and further accessories. Note: the machine's orbital movement has been optimally adapted for the special back pad and sponge Ø 160 x 30 mm included with it.

SPECIFICATIONS	XC 3401 VRG-SET
Max. polishing pad diameter	160 mm
Velcro pad Ø	150 mm
Speed without load	160-480 rpm
Orbit	8 mm
Orbit rate, without load	3200-9600 rpm
Power input	900 Watt
Power output	590 Watt
Weight	2,6 kg

ADVANTAGES AT A GLANCE

- FLEX seven-fold microprocessor electronics: with consistent speed control by tachometer generator, soft start, accelerator trigger switch, restart protection after power interruption, overload protection, temperature monitoring, and speed selection
- 8 mm orbital movement
- Permanent direct drive for an even polished surface
- removable, ergonomic knob grip
- High-powered motor: can handle extreme loads
- Spindle lock
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- 4 m power cord: with FLEX red plug

STANDARD EQUIPMENT

1 grip cover	332.402
1 knob grip	333.565
1 Special Velcro backing pad, 150 Ø	328.200
1 Velcro sponge white, 160 Ø x 30	304.786
1 microfibre polishing cloth	317.098
1 bottle polishing wax	335.177
1 set-bag	333.573

ADVANTAGES AT A GLANCE

L 1501 VR

- FLEX four-fold full-wave electronic control: with consistent speed control by tachometer generator, soft start, overload protection and speed pre-selection
- Two-stage gear reduction: for low speed and high torque
- Spindle lock: for easy disc changes
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- Bail handle

L 1202

- High-powered motor: can handle extreme loads
- Reduction gears: for low speed and high torque
- FLEX Metal composite housing: endurance tested and robust

L 1501 VR

251.664



The low-speed FLEX for highly sensitive surfaces

The gentle middleweight with two-stage gear reduction polishes at extremely low speed but with a high torque. Its speed can also be adapted to suit sensitive surfaces. Ideal for acrylic paints, Corian®, glass fiber-reinforced plastics, glass, stone and water-soluble paints.

SPECIFICATIONS	L 1501 VR
Max. polishing pad diameter	220 mm
Max. back-up pad diameter	175 mm
Speed without load	275 - 900 rpm
Power input	1200 Watt
Power output	700 Watt
Tool fixture	M 14
Weight	2,6 kg

STANDARD EQUIPMENT

1 bail handle	236.934
1 flexible pad 175 Ø	123.862
1 lambswool pad 180 Ø	123.870

L 1202

278.688



The FLEX marathon polishing machine with metal composite housing

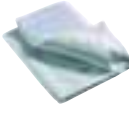






Very high torque, low speed and solid 1600 Watt for toughest non-stop operation with large polishing discs during brushing, polishing, and buffering wood and stainless steel.







SPECIFICATIONS	L 1202
Max. polishing pad diameter	250 mm
Max. back-up pad diameter	175 mm
Speed without load	1750 rpm
Power input	1600 Watt
Power output	1100 Watt
Tool fixture	M 14
Weight	5,1 kg

STANDARD EQUIPMENT






1 side handle	193.356
1 hand guard	253.618
1 handle	253.510






Quality accessories for polishers

		Dimensions in mm	QP	Order number	L 602 VR	L 3403 VRG	XC 3401 VRG	L 1501 VR	L 1202	L 3406 VRG
Accessories for polishing systems										
Microfibre polishing cloth										
	for perfect surface finish and brilliant deep sheen.	400 x 400	1	317.098	■	■	■	■	■	■
High gloss wax										
	Long lasting paint protection. For a brilliant and full gloss mirror finish, for all paints. Non abrasive. 532 ml bottle.		1	335.177	-	-	■	-	-	-
Velcro pad										
	Soft and pliable for uniform pressure distribution, universal applications for holding polishing accessories, with centering hole and centering tube, adapter M 14	125 Ø	1	258.705	■	■	-	■	-	■
		160 Ø	1	252.583	■	■	-	■	■	■
Velcro sanding pad M 14										
		115 Ø	1	208.817	-	■	-	-	-	■
		125 Ø	1	231.983	-	■	-	-	-	■
	with rubber cushioning for uniform pressure distribution	115 Ø	1	240.311	-	■	-	-	-	■
Velcro sponge, blue (coarse, hard)										
	Universal sponge with high resistance to tearing. Coarse foam structure for pre-polishing surfaces. Particularly suitable for extremely weathered or dull painted surfaces. Centering hole, inner diameter 22 mm.	160 Ø x 30	1	304.751	■	■	■	■	■	■
		200 Ø x 30	1	304.778	■	-	-	■	■	-
Velcro sponge, yellow (coarse, hard)										
	Cambered, for polishing edges, extremely weathered or dull paint finishes and for paint treatment. With perforations, inner diameter 22 mm.	220 Ø x 20	1	256.908	■	-	-	■	■	-

	Dimensions in mm	QP	Order number	L 602 VR	L 3403 VRG	XC 3401 VRG	L 1501 VR	L 1202	L 3406 VRG
Accessories for polishing systems									
Velcro sponge, white (fine, soft)									
 <p>Fine polishing sponge with high resistance to tearing. For cleaning, polishing and care of lightly-weathered paint surfaces. Centering hole, inner diameter 22 mm.</p>	160 Ø x 30	1	304.786	■	■	■	■	■	■
	200 Ø x 30	1	304.794	■	-	-	■	■	-
 <p>Cambered, for cleaning and repolishing edges, mildly weathered paint and caring for painted surfaces. With perforations, inner diameter 22 mm.</p>	220 Ø x 20	1	256.909	■	-	-	■	■	-
Velcro sponge, black (supersoft)									
 <p>Extremely fine and soft for removing holographs on dark paint and minimal paint unevenness. Specially designed for repolishing curves and depressions. Centering hole, inner diameter 22 mm.</p>	160 Ø x 30	1	304.824	■	■	■	■	■	■
	200 Ø x 30	1	304.832	■	-	-	■	■	-
	160 Ø x 75	1	304.808	■	-	-	■	■	-
	200 Ø x 75	1	304.816	■	-	-	■	■	-
Velcro polishing sponge									
 <p>For repolishing</p>	120 Ø x 40	10	230.596	-	■	-	-	-	■
Velcro wool pad									
 <p>Centering hole, inner diameter 22 mm.</p>	150 Ø	1	258.704	■	■	■	■	■	-
	200 Ø	1	252.278	■	-	-	■	■	-
Velcro lambswool pad									
	120 Ø	10	230.626	-	■	-	-	-	■

Quality accessories for polishers

		Dimensions in mm	Grit	QP	Order number	L 602 VR	L 3403 VRG	XC 3401 VRG	L 1501 VR	L 1202	L 3406 VRG
Accessories for polishing systems											
Sanding-polishing pad											
	For high-gloss polishing of stainless steel without polishing medium in three stages	125 Ø	grit 600	1	318.191	-	■	-	-	-	■
		125 Ø	grit 1500	1	318.205	-	■	-	-	-	■
		125 Ø	grit 2500	1	320.234	-	■	-	-	-	■
Flexible backing pad											
	for M 14 backed lambswool	175 Ø		1	123.862	■	-	-	■	■	-
Backed lambswool											
	only for elastic pad, order no. 123.862	180 Ø		1	123.870	■	-	-	■	■	-
Backed fleece											
	Fiber backing with M 14 threaded flange, for removing scratches in glass and acrylics	125 Ø		1	122.726	■	■	-	■	■	-
		175 Ø		1	122.734	■	-	-	-	■	-
Spare fleece											
	with fiber backing	125 Ø		1	122.742	■	■	-	■	■	-
		175 Ø		1	122.750	■	-	-	-	■	-

	Dimensions in mm	QP	Order number	L 602 VR	L 3403 VRG	XC 3401 VRG	L 1501 VR	L 1202											
Accessories for polishing systems																			
Molleton buffing wheel																			
	125 Ø	1	123.749	■	■	-	■	■											
Muslin buffing wheel, coarse																			
	150 Ø x 40	1	250.159	-	-	-	■	■											
	250 Ø x 20	2	123.765	-	-	-	-	■											
Flannel buffing wheel, medium																			
	150 Ø x 40	1	250.158	-	-	-	■	■											
	250 Ø x 20	2	123.773	-	-	-	-	■											
Buffing wheel mount, M 14																			
	60	1	123.803	-	-	-	■	■	-	-	-								
Buffing wax																			
light/fine		1	123.811	■	■	■	■	■											
dark/medium		1	123.838	■	■	■	■	■											
red/coarse		1	123.846	■	■	■	■	■											
Carry bag for polisher																			
	Practical mobile carry bag offer lots of room for machine and accessories, with variable pockets.	1	333.573	-	■	■	-	-											

**Eager to cut pipes, profiles and angles:
FLEX saws for the professional**





**Whether for metal,
plastic, or wood; you'll
find a robust professional
saw for any material at FLEX.**

Foremost the unique reciprocating saw FLEX Tiger Claw SKL 2903 VV. Its rotatable joints make it possible to saw in the tightest corners without you having to get all bent out of shape. Further power packs available: pipe reciprocating saws, jigsaws, metal circular saws, circular saws for wood, metal and stone, as well as an elaborate accessories program.

Application examples: Saws



A RECIPROCATING
SAW FOR ANY JOB
Saw pipe corners...



...pipes
in remotest corner:

Simply turn the joint and
continue sawing! Special
reciprocating saw Tiger
Claw SKL 2903 VV with 3-D
function joint
▶ on page 57



TOOL-FREE SAW
BLADE CHANGE

Patented FLEX Quik-Change®
exchange system: Turn tool
holder, exchange saw blade
– and continue sawing. FLEX
Quik-Change®
▶ starting page 56



PIPE SAWING EXACTLY
AT RIGHT ANGLES

Simply fasten the pipe
bracket and put on the
power. Pipe reciprocating
saw SR 602 VV
▶ on page 58





THE POWERFUL

When cut-off grinders aren't suited for or don't do a clean cut, the CSM 4060 cuts everything: Panels, profiles, corrugated sheets, composite materials, and much more. Metal circular saw CSM 4060
 ▶ on page 61



UNOBSTRUCTED VIEW OF THE SAW BLADE

You can see the saw blade also from the left. Quite practical for bevel cuts. Circular saw CS 3455 A
 ▶ on page 60

BROAD RANGE OF APPLICATIONS

The jigsaw is particularly well suited to clean and precise sawing of wood, plastic and metal. Orbit cutting jigsaw S 203 BVE
 ▶ on page 59



PRECISE WET CUTS THROUGH NATURAL AND ARTIFICIAL STONE

Marble, granite or exposed aggregate panels are cut precisely with the edge guide. Diamond masonry cutter CSW 4160
 ▶ on page 62



Sabre saws

S 2902 VV-Basic

307.779



The 1200 Watt universal reciprocating saw with accelerator trigger switch

It has everything that a reciprocating saw really needs for daily use. As much as necessary, as perfect as possible: powerful, versatile, and robust.

SPECIFICATIONS	S 2902 VV-BASIC
Orbit rate, without load	0-2600 rpm
Orbit	28 mm
Power input	1200 Watt
Power output	670 Watt
Weight	3,8 kg

STANDARD EQUIPMENT

1 assortment of saw blades	198.757
1 hexagon socket screw key, special tool 3/16"	802.905
1 hexagon socket screw key, special tool 5/32"	802.876
1 plastic carrying case	1 piece

SKE 2902 VV

331.678



The 1200-Watt reciprocating saw with orbital cutting action

The premium model of the FLEX universal reciprocating saws, with all the extras e.g. switchable orbital stroke, keyless support shoe adjustment and Quik-Change® blade holder for fast blade changing.

SPECIFICATIONS	SKE 2902 VV
Orbit rate, without load	0-2600 rpm
Orbit	28 mm
Power input	1200 Watt
Power output	670 Watt
Weight	4,0 kg

STANDARD EQUIPMENT

1 assortment of saw blades	198.757
1 plastic carrying case	1 piece

ADVANTAGES AT A GLANCE

- 1200 Watt high-power motor: enduring, reliable power pack
- Softgrip handle: eliminates most of the vibration
- FLEX two-fold VV electronics: with consistent stroke control, soft start with accelerator trigger switch
- Saw blade positioning: 0° and 180°, even for over-head sawing
- Heavy-duty carrying case

ADDITIONALLY FOR S 2902 VV-BASIC

- Universal saw blade holder: for an easy saw blade exchange
- Saw support: tilt adjustment

ADDITIONALLY FOR SKE 2902 VV

- Orbital stroke: switch-activated, especially for fast sawing through wood
- Quik-Change®: Exchange saw blades quickly without tools with the stainless steel saw blade tool holder
- Saw support: tilting and depth-adjustable to 4 levels without tools

ADVANTAGES AT A GLANCE

- FLEX two-fold VV electronics: with consistent stroke control, soft start with accelerator trigger switch
- Two joints facilitate almost unlimited positioning possibilities
- Quik-Change®: Exchange saw blades quickly without tools with the stainless steel saw blade tool holder
- Saw support: adjustable angle, additional four-fold depth adjustment



SKL 2903 VV: the 3-D function joint
Gets into every corner.

SKL 2903 VV

300.713



The FLEX Tiger Claw with 3-D function joint can cut round corners

The doubly rotatable reciprocating saw stands out because of its flexibility: the rear gear housing adjusts as much as 180° with 13 positive stop locations. The front gear housing scrolls 360° with 12 positive stop locations, both even during sawing. Ideal in tight spaces: disposing of old oil tanks, in sanitation, heating and ventilation installation, in automotive shops, and so forth.

SPECIFICATIONS	SKL 2903 VV
Orbit rate, without load	0-2900 rpm
Orbit	29 mm
Power input	1200 Watt
Power output	650 Watt
Weight	4,0 kg

STANDARD EQUIPMENT	
1 assortment of saw blades	198.757
1 saw blade adapter	302.864
1 plastic carrying case	1 piece

Sabre saws, Jigsaws

SR 602 VV

278.866



The FLEX sabre pipe saw with pipe clamp

The powerful 1300 Watt orbital stroke saw for plumbers is fitted with a generously-dimensioned, rectangular blade shaft designed to withstand extreme loads. It can easily saw pipes up to 4" at an exact right angle. The chain clamp fixture (accessory order no. 251.259) means that even steel pipes up to 6" and plastic pipes up to 8" can be cut. The infinitely variable electronic speed pre-selection combined with the acceleration trigger enables a soft sawing with all materials. The additional adjustable speed facilitates the adjustment and retention of a constant stroke.

SPECIFICATIONS	SR 602 VV
Orbit rate, without load	0-2400 rpm
Orbit	27 mm
Power input	1300 Watt
Power output	850 Watt
Weight	4,4 kg

STANDARD EQUIPMENT

1 side handle	198.633
1 hexagon socket screw key, special tool 4	211.494
1 standard cutting support	254.926
1 assortment of saw blades	1 set
1 pipe clamp for pipes up to 2"	259.983
1 plastic carrying case	329.908

SK 602 VV

282.308



The FLEX sabre saw with pipe cutting support

The 1300 Watt orbital stroke saw with reinforced blade shaft guidance and adjustable saw stop. You can tackle any metal work with this machine. The pipe cutting support supplied with the saw holds pipes up to 1 1/2" and facilitates precision pipe cutting in any position.

SPECIFICATIONS	SK 602 VV
Orbit rate, without load	0-2400 rpm
Orbit	27 mm
Power input	1300 Watt
Power output	850 Watt
Weight	3,9 kg

STANDARD EQUIPMENT

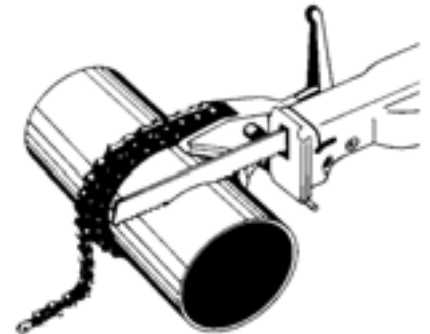
1 side handle	198.633
1 hexagon socket screw key, special tool 4	211.494
1 standard cutting support	210.935
1 assortment of saw blades	1 set
1 spare clamp for sabre saw blade	205.788
1 pipe cutting support	217.689
1 plastic carrying case	329.908

ADVANTAGES AT A GLANCE

- FLEX four-fold VV electronic control: with consistent speed control, soft start with accelerator trigger switch, overload protection and speed pre-selection with adjusting wheel
- Orbital stroke: selective
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR SK 602 VV

- Standard cutting support
- Pipe cutting support
- Acceleration trigger: sensitive sawing at the first cut



Chain clamp fixture for SR 602 VV

Fits for steel pipes from 1/2" to 6" and plastic pipes up to 8". Order no. 251.259

ADVANTAGES AT A GLANCE

- FLEX VE electronic control: for infinitely-adjustable stroke speed control
- Orbital stroke: 3 settings for higher cutting rate
- Toolless blade changing
- Saw blade guide: 2-fold, for cutting of exact angles.
- Foot plate quick adjustment: for bevel cuts with 15°, 30° and 45° catches. offset to back for sawing close to edges
- Vacuum flange: for a cleaner workplace and clear view of the cut
- Anti-splinter protection: removable, for clean cuts
- Stable base plate: with removable plastic guide block for the protection of delicate surfaces. Can be adjusted 45°
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage



S 203 BVE

329.363



The versatile FLEX jig saw with bail hand grip

Perfect angles, quick and exact curves cut in various materials, with or without mitre. these are the advantages of the powerful FLEX jig saw. With the bail handle ensures a light and perfect guidance of the machine in tight curves. The light weight, an elaborate saw blade guide, the adjustable cutting speed and an effective dust collection round off the quality of the FLEX jig saw.

SPECIFICATIONS	S 203 BVE
Power input	550 Watt
Power output	320 Watt
Orbit rate, without load	300-3200 rpm
Orbit	26 mm
Max. cutting depth in wood	110 mm
Max. material thickness in steel 400 N/mm ²	10 mm
Max. material thickness in aluminium 250 N/mm ²	20 mm
Pivoting range	0-45°
Weight	2,0 kg

STANDARD EQUIPMENT

1 assortment of saw blades	1 set
1 anti-splinter guard	1 piece
1 guide block	1 piece
1 hexagon socket screw key, special tool 4	1 piece
1 vacuum adapter	1 piece
1 chip deflector guard	1 piece
1 protection against flying swarf, closed	1 piece
1 metal carrying case	1 piece

S 203 KVE

329.371



The easy to handle jig saw with knob hand grip

Ideal for quick, exact and precise angle curved cutting in various materials. The knob grip allows easy guidance even in difficult working positions, e.g. when sawing kitchen worktops. Further advantages are: light weight, high-quality saw blade guide, infinite speed control, on off orbital stroke and efficient dust removal.

SPECIFICATIONS	S 203 KVE
Power input	550 Watt
Power output	320 Watt
Orbit rate, without load	300-3200 rpm
Orbit	26 mm
Max. cutting depth in wood	110 mm
Max. material thickness in steel 400 N/mm ²	10 mm
Max. material thickness in aluminium 250 N/mm ²	20 mm
Pivoting range	0-45°
Weight	1,9 kg

STANDARD EQUIPMENT

1 assortment of saw blades	1 set
1 anti-splinter guard	1 piece
1 guide block	1 piece
1 hexagon socket screw key, special tool 4	1 piece
1 vacuum adapter	1 piece
1 chip deflector guard	1 piece
1 protection against flying swarf, closed	1 piece
1 metal carrying case	1 piece

Circular saws

CS 3455 A

304.212



The powerful FLEX hand circular saw for tough on-site applications

All components of the 1100 Watt saw which are subject to particular stress are made of sturdy die-cast aluminum (e.g. the guide plate, gearbox housing and guard). The high speed of this saw ensures that cutting is extremely accurate, while the dust suction and the chip material channel in the guard keeps everything clean.

SPECIFICATIONS	CS 3455 A
Blade Ø	160 mm
Saw blade drill Ø	20 mm
Max. cutting depth (45°)	0-38 mm
Max. cutting depth (90°)	0-55 mm
Pivoting range	0-45°
Speed without load	4700 rpm
Power input	1100 Watt
Power output	660 Watt
Weight	3,7 kg

STANDARD EQUIPMENT

1 carbide tipped saw blade,	
12 teeth (160 x 20 mm)	271.888
1 parallel stop	272.566
1 open-ended wrench	272.582
1 hexagon socket screw key,	
special tool 5	115.460

TCS 3602

271.934



The FLEX metal circular saw for rapid, mobile sawing applications

This robust cutting professional, saws metal with carbide tipped circular saw blades. Requires no coolant, but cuts fast. This rapid-action saw can be used in assembly work for uncomplicated profiles, steel pipes, aluminum, copper and PVC cutting.

SPECIFICATIONS	TCS 3602
Blade Ø	355 x 25,4 mm
Max. cutting depth (45°)	90 mm
Max. cutting depth (90°)	130 mm
Speed without load	1380 rpm
Power input	1900 Watt
Power output	1200 Watt
Weight	28,3 kg

STANDARD EQUIPMENT

1 carbide tipped saw blade, 80 teeth	273.643
1 safety glasses	500.305
1 hexagon socket screw key	104.167
1 open-ended wrench	106.461

ADVANTAGES AT A GLANCE

CS 3455 A

- Pivoting base plate: with exact angle scale for miter cutting from 0° to 45°, tool-free adjustment
- Safety switch: with lock-off switch
- Chip channel: for noticeably improved chip channeling
- Dust extraction: with direct connection to the universal adapter of the FLEX industrial vacuum cleaner

TCS 3602

- Angle and parallel stop: tool-free adjustment, for miter cuts up to 45°
- Depth adjustment: for precision cutting
- Aluminum die-cast base: for secure positioning
- Spindle lock: for quick replacement of blades
- Chip collection box: removable
- Work without coolant
- Safety equipment: overload protection, safety switch, large guard, transportation lock



Saws metal without coolant

The metal saw with carbide tipped circular saw blades – for quick, mobile sawing jobs. Metal circular saw TCS 3602

ADVANTAGES AT A GLANCE

- 1400 Watt high-power motor: for precise cuts without coolant
- Spindle lock: for quick and easy changing of the saw blade
- Depth-adjustable saw foot for stepless setting of the cutting depth up to 63 mm for precise cuts
- Chip collection compartment with view window: large capacity, for a clean, chip-free work place
- Extensive selection of standard equipment with 2 carbide-tipped saw blades, assembly tools and edge guide
- Special carbide-tipped saw blades: nearly burr-free cuts, trimming threaded bars possible without recutting the thread
- Heavy-duty carrying case

Maximum cutting depths:

- Solid material / flat steel: 6 mm;
- Round material: 20 mm;
- Hollow sections: 63 mm



Swarf that could rust is caught in the swarf collecting container

Emptying is easy: Check the fill level through the view window, unscrew wing bolt, empty contents. Metal circular saw CSM 4060

CSM 4060

307.815



The versatile metal circular saw for dry cuts

For fast, clean cuts through pipes, threaded rods, profiles, cable ducts, corrugated and trapezoidal sheet metal, sandwich boards and much more. With integrated chip collection compartment.

SPECIFICATIONS	CSM 4060
Blade Ø	185 mm
Saw blade drill Ø	20 mm
Max. cutting depth (90°)	0-63 mm
Max. material thickness in steel 400 N/mm ²	6 mm
Max. material thickness in aluminium 250 N/mm ²	10 mm
Speed without load	3800 rpm
Power input	1400 Watt
Power output	720 Watt
Weight	5,4 kg

STANDARD EQUIPMENT

Carbide tipped saw blades for steel, 38 teeth (185 x 20 mm)	312.304 (2x)
1 parallel stop	312.312
1 ring / open-ended wrench	312.347
1 plastic carrying case	1 piece

Circular saws

CSW 4160

311.154



The diamond masonry cutter for wet cutting natural and man-made stone

4 For cuts through natural and artificial stone slabs up to 55 mm thick: for windowsills, worktops, facing tiles, terrazzo tiles in landscaping, and much more. Ideal as well for renewing joints in tiled flooring.

SPECIFICATIONS	CSW 4160
Diamond disc Ø	180 mm
Saw blade drill Ø	22 mm
Max. cutting depth (45°)	0-40 mm
Max. cutting depth (90°)	0-55 mm
Speed without load	5800 rpm
Power input	1600 Watt
Power output	810 Watt
Weight	5,3 kg

STANDARD EQUIPMENT	
1 parallel stop	309.273
1 Wrench for saw blade change	878.391
1 Diamantjet-V cutting disc (180 x 22,2 mm)	309.974
1 Velcro fleece support for guide foot	310.093
1 plastic carrying case	1 piece
1 GFCI operator protection circuit breaker in cord	283.606

ADVANTAGES AT A GLANCE

- 1600 Watt high-power motor: extra strong, for cutting stone, and milling joints
- Water supply: for an effective cooling of the diamond tool
- Quick-action, brass coupling: for 1/2" water hoses
- GFCI operator protector circuit breaker: integrated in cord
- Spindle lock: for easy diamond disc changes
- Tilting foot: for bevel cutting capacity 0° - 45°, tool-free adjustable
- Aluminium wheel guard with vacuum connection 25 mm Ø: to suck off saw sludge using the FLEX vacuum S 36
- Heavy-duty carrying case



Cleaner, healthier, and safer working

Use diamond wet masonry saw best together with the FLEX dry/wet vacuum S 36 or S 36 M. Efficiently removes saw sludge.




Renew grouting/joints quickly and neatly

The solution to the problem: mill out damaged joints without residues using suction - reseat - finished.


Accessories for SK 602 VV, SKE 2902 VV, S 2902 VV-Basic and SKL 2903 VV

Sabre saw blades for metal and sheet material


All reciprocating saw blades with common saw blade mount.

 Hard metals, 1.15 mm and thicker, bi-metal


Teeth per inch	Length in mm	QP	Order number
18	100	5	200.700

 Hard metals, 3.0 mm and thicker, bi-metal


Teeth per inch	Length in mm	QP	Order number
14	150	5	200.727

 Hard metals, 1.15 mm and thicker, bi-metal


Teeth per inch	Length in mm	QP	Order number
18	150	5	200.735

 Hard metals, 1.15 mm and thinner, bi-metal


Teeth per inch	Length in mm	QP	Order number
24	150	5	200.743

 Long metal strip 3 - 10 mm, bi-metal


Teeth per inch	Length in mm	QP	Order number
10	280	5	201.928

 Hard metals, 3.0 mm and thicker (also for palette repair), bi-metal

Teeth per inch	Length in mm	QP	Order number
14	200	5	217.190


 Hard metals, 1.50 mm and thicker, bi-metal

Teeth per inch	Length in mm	QP	Order number
18	200	5	217.751


 Trapezoidal sheet metals

Teeth per inch	Length in mm	QP	Order number
32	200	5	222.291


Sabre saw blade for wood, plaster, porous concrete and other applications

 All wood types


Teeth per inch	Length in mm	QP	Order number
4	150	5	200.751

 Wood with nails, bi-metal


Teeth per inch	Length in mm	QP	Order number
10	150	5	200.778

 Wooden board (coarse/standard cuts)


Teeth per inch	Length in mm	QP	Order number
6	300	5	201.936
6	150	5	200.786

 Coarse rapid cuts in wood


Teeth per inch	Length in mm	QP	Order number
3	225	5	250.054
3	300	5	250.055

 Coarse rapid cuts in green-wood

Teeth per inch	Length in mm	QP	Order number
3	220	5	250.056

 Plaster, porous concrete, eternit, non-ferrous metal, glass-fiber reinforced plastic, carbide tipped


Teeth per inch	Length in mm	QP	Order number
6	150	1	202.061
3	300	1	206.210

 Gypsum boards, porous concrete

Teeth per inch	Length in mm	QP	Order number
6	300	5	206.202

Sabre blade assortment for plastic/wood/metal

consisting of: 1 Plastic saw blade, 150 mm: 200.735; 1 Wood saw blade, 150 mm: 200.786; 1 Metal saw blade, 150 mm: 200.778, all bi-metal.



Length in mm	QP	Order number
150	3	198.757

Quality accessories saws

Accessories for SR 602 VV

Pipe saw blades

for pipe reciprocating saw with pipe bracket or chain tensioning device, with special saw blade mount. Extra strong for metal pipes.

Pipe Ø up to 2", wall thickness from 3.0 mm				
Teeth per inch	Length in mm	QP	Order number	
8	150	5	252.329	

Pipe Ø up to 4", wall thickness from 3.0 mm				
Teeth per inch	Length in mm	QP	Order number	
8	210	5	251.620	

Pipe Ø up to 6", wall thickness from 3.0 mm (only with chain clamp fixture)				
Teeth per inch	Length in mm	QP	Order number	
8	275	5	252.167	

Plastic pipe up to 125 mm Ø				
Teeth per inch	Length in mm	QP	Order number	
18	230	5	252.136	

Plastic pipe up to 200 mm Ø				
Teeth per inch	Length in mm	QP	Order number	
18	310	5	252.137	

Chain clamp fixture



Fits for steel pipes from 13 mm to 150 mm and plastic pipes up to 200 mm.

QP	Order number
1	251.259

Accessories for free-hand cutting with the SR 602 VV

Saw blades for free-hand cutting

with special saw blade mount.

Pallets - wood/nails				
Teeth per inch	Length in mm	QP	Order number	
10	200	5	252.103	

Palettes - wood/nails with variable toothing, bi-metal				
Teeth per inch	Length in mm	QP	Order number	
10/14	210	5	256.518	

Metal, wall thickness from 1.8 mm				
Teeth per inch	Length in mm	QP	Order number	
14	210	5	248.894	

Metal, wall thickness from 2.0 mm				
Teeth per inch	Length in mm	QP	Order number	
14	150	5	248.886	

Accessories for SR 602 VV and SK 602 VV

Plastic Multi-Carry case




Perfect fitting, impact resistant carry case, universally adaptable for many different FLEX-Maschinen


QP	Order number
1	329.908


Accessories for the jig saw S 203 BVE and S 203 KVE


Jigsaw blades for wood

All saw blades with common saw blade mount.

	Hardwood, plywood, hard fiber boards up to 30 mm		
Teeth per inch	Length in mm	QP	Order number
10	75	5	204.560


	Hard and soft wood, plywood boards up to 60 mm, curved cuts		
Teeth per inch	Length in mm	QP	Order number
6	75	5	204.579


	Hard and soft wood, hard fiber boards 60 mm		
Teeth per inch	Length in mm	QP	Order number
6	75	5	204.617


	Hard and soft wood, soft plastic, special for curved cuts		
Teeth per inch	Length in mm	QP	Order number
6	75	5	204.692

Jigsaw blades for fibrous wooden boards, metal, plastics, etc.

All saw blades with common saw blade mount.

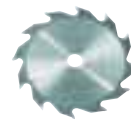
	Reinforced saw blade, for straight cutting with stop for thick materials (e.g. fibrous wooden boards).		
Teeth per inch	Length in mm	QP	Order number
6	75	5	216.216

	Iron, soft steel up to 4.0 mm, most prevalent metal strip		
Teeth per inch	Length in mm	QP	Order number
20	55	5	204.587

	Non-ferrous metal, soft steel up to 6.0 mm, iron, plastics		
Teeth per inch	Length in mm	QP	Order number
12	55	5	204.706

Accessories for hand circular saw CS 3455 A

HM alternating teeth saw blade



for wood or wood-like materials at medium cutting quality (12 teeth)

Dimensions in mm	QP	Order number
160 Ø x 20	1	271.888

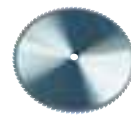


for wood or wood-like materials at good cutting quality (36 teeth)

Dimensions in mm	QP	Order number
160 Ø x 20	1	271.896

Accessories for metal circular saw TCS 3602

Saw blades



Special HM saw blade, 14 inch (Ø 355 mm), bore Ø 25.4 mm. For universal application

Dimensions in mm	Teeth	QP	Order number
355 Ø x 25,4	80	1	273.643



Special HM saw blade, 14 inch (Ø 355 mm), bore Ø 25.4 mm. For stainless steel (V2A). With fine toothing for stainless steel cuts, master blade with laser-cut ornaments for a low-noise cut. Very well suited also for sawing sheet metal.

Dimensions in mm	Teeth	QP	Order number
355 Ø x 25,4	90	1	280.712

Accessories for metal circular saw CSM 4060

Carbide tipped saw blade for steel



enables a practically burr-free cut, no touching up is necessary

Dimensions in mm	Teeth	QP	Order number
185 Ø x 20	38	1	312.304

Accessories for Diamond-Stone Saw CSW 4160

Diamond-V cutting disc



Dimensions in mm	QP	Order number
180 Ø x 22	1	309.974

**Even when the going gets tough:
The FLEX mixing machines pull through**



Bring in a mixer from FLEX!

It has to be compact. It has to be robust. It has to be protected from dirt and damage. Feature a lot of torque. Be comfortable to hold.

Many years of experience and intensive cooperation with the professionals in the field have flown into the FLEX mixing machine and mixing head program. The motor, the cooling, and the gears have been designed for tough, continuous operation lasting for hours. And the mixing heads made of powder-coated, high-quality metal feature

stable weld joints, burr-free edges, and circumferential protection rings.

Robust quality for professional practitioners.



Application examples: Mixing machines



For mixing to suit the material:

Thorough blending of the various materials commonly mixed today prevents construction damage and costly consequential charges. That is why several basic rules must be observed.

Viscous and heavy materials overstrains drills. Use specially constructed mixing machines, with optimised speeds and power transmission.

When selecting the mixer observe the direction of flow: Pulverized material from bottom to top, thin liquid materials from top to bottom or mix with parallel direction of flow. At immersion a reduced speed prevents spraying. FLEX mixing machines with accelerator trigger switches permit the gradual acceleration to the required speed. Air pockets are minimised by the complete immersion of the mixing head.

For your safety you should wear protective goggles and possibly a dust mask. Never mix solvents with a flashpoint below 21°C. Observe the processing and safety instructions of the material or machine manufacturers.

5





- 1 Optimal handling**
Low weight, upright body stance, and natural arm position makes mixing become a breeze.
- 2 Stable deposit and safety hoop**
Safe protection from dirt and damage.
- 3 Accelerator trigger switch and FR electronics**
With stepless speed regulation for a controlled acceleration to the optimal mixing speed. Sustained power in all speed ranges.
- 4 Special motors**
Robust, sustained power, and perfectly cooled – because the life of a mixer is especially rough.
- 5 Ergonomic handle**
Fits to the anatomy of various types of operator hands. With anti-slip coating in the grip area.
- 6 Robust 1-gear and 2-gear transmissions**
For every mixture mass the proper mixing speed – for non-spraying working and lump-free blending results suited to the material.
- 7 M 14 mixing head mount**
For a quick and easy change of the mixing heads.
- 8 Quality mixing heads**
Made of high-quality materials and powder-coated – so that valuable mixture masses are not contaminated for example by rust particles. Circumferential protection ring prevents damage to the mixing container.

Mixing machines

R 500 FR

314.587



The handy 1010 Watt single-gear mixer for smaller mixtures

Light powerful single-gear mixing machine with speed control for general mixing jobs. With standard mixing head RS 1 and broad speed range of 0-530 rpm perfect for mixing smaller batches with low viscosity such as paints, dispersion paints, adhesives, jointing mortar, ready mix plaster, and so forth up to about 35 kg.

SPECIFICATIONS	R 500 FR
Speed without load	0-530 rpm
Power input	1010 Watt
Power output	600 Watt
Tool fixture	M 14
Clamping neck Ø	43 mm
Max. mixing head Ø	130 mm
Weight	4,1 kg

STANDARD EQUIPMENT

1 mixing head RS 1, 120 Ø	320.498
1 adapter M 14 x M 14, SW 19	255.195

R 502 FR

314.595



The universal 1010 Watt 2-gear mixer with 2 mixing heads

Compact, power-sustaining 2-gear mixer for pulpy and thin liquid mixtures. 1st gear: With mixing head RS 1 ideal for mixing materials with low viscosity. 2nd gear: The mixing head RS 0 with counter-flow mixing action and the stepless adjustable speed of 0-740 rpm make it possible to blend thin liquid materials especially fast and thoroughly, such as lacquers, enamels, adhesives, primers.

SPECIFICATIONS	R 502 FR
Speed without load 1st gear	0-530 rpm
Speed without load 2nd gear	0-740 rpm
Power input	1010 Watt
Power output	600 Watt
Tool fixture	M 14
Clamping neck Ø	43 mm
Max. mixing head Ø	130 mm
Weight	4,2 kg

STANDARD EQUIPMENT

1 mixing head RS 1, 120 Ø	320.498
1 mixing head RS 0, 120 Ø	254.176
1 adapter M 14 x M 14, SW 19	255.195

ADVANTAGES AT A GLANCE

- 1010 Watt high performance motor: quiet operation, high robustness and long durability
- FLEX full-wave electronics: with soft start-current limitation, temperature monitoring, overload protection, and with stepless speed regulation with the accelerator trigger switch - for a controlled acceleration to the optimal mixing speed. Sustained power in all speed ranges
- Ergonomic handle: light weight, fatigue-free arm posture and erectness for a comfortable and vigour saving handling. With anti-slip coating
- Stable safety and deposit hoop: Protects the machine from dirt and damage
- Dust- and splash-proof housing: ensures a safe operation for machine and operator
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR R 500 FR

- Robust 1-gear speedbox: generously dimensioned and optimally transformed - for a high torque transmission and long durability
- With 1 mixing head: RS 1

ADDITIONALLY FOR R 502 FR

- Robust 2-gear transmission: generously dimensioned with optimal ratio - for speeds suited to the material, a powerful torque transmission and an especially long service life
- With 2 mixing heads: RS 1 and RS 0

ADVANTAGES AT A GLANCE

- FLEX four-fold full-wave electronic control: with consistent speed control, soft start with acceleration trigger, overload protection and speed pre-selection with adjusting wheel
- Protection frame
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- not suitable for use in explosive environments

ADDITIONALLY FOR R 600 VV

- With 1 mixing head: RS 3
- Mixing head adapter: M 18

ADDITIONALLY FOR RZ 600 VV

- With 2 mixing heads: I and II
- Mixing head adapter: 2 x 16 mm Ø with keyway



Getting down to business

The R 600 VV is especially suited for larger mixtures because of its powerful construction.

R 600 VV

282.359



The robust FLEX mixer with speed pre-selection

The stepless controllable R 600 VV is ideal for mixing paints, viscous adhesives, solvents, and insulating materials. Its speed selection allows it to be optimally set for any material. The accelerator trigger switch gradually increases the speed, avoiding spraying.

SPECIFICATIONS	R 600 VV
Speed without load	0-500 rpm
Power input	1300 Watt
Power output	850 Watt
Tool fixture	M 18
Clamping neck Ø	63 mm
Max. mixing head Ø	160 mm
Weight	5,4 kg

STANDARD EQUIPMENT

1 handle (long)	259.538
1 mixing head RS 3, 160 Ø	257.745
1 adapter M 18 x M 14	250.484
1 open-ended wrench SW 24	198.781

RZ 600 VV

282.413



The FLEX double positive mixer

This powerful mixer operates with two counter-rotating mixing heads. These counter external torque, making it easy to guide. Mixtures are also mixed particularly thoroughly. Ideal for tough adhesive, insulating material, multi-component resins, varnish and paint. Thanks to the speed pre/selection, it can be adjusted optimally to any material. The speed is slowly boosted by the acceleration trigger and prevents splashing.

SPECIFICATIONS	RZ 600 VV
Speed without load	0-400 rpm
Power input	1300 Watt
Power output	850 Watt
Tool fixture	2 x 16 mm Ø
Clamping neck Ø	63 mm
Max. mixing head Ø	130 mm
Weight	6,3 kg

STANDARD EQUIPMENT

1 handle (long)	257.580
Mixing head I and II	252.200

Quality accessories mixers

Mixing head for R 502 FR

Mixing head RS 0



For low-viscosity material, such as paint, light plaster, resin, etc. Ideally suited for materials in which a flow is created.

Parallel mixing principle: paddle mixer with counter-flow mixing action. Low construction for minimum air pockets.

Equipment

- Shaft with M 14 x 2.0 external thread
- Solid welded steel design with limit nut
- Powder coated
- 600 mm overall length

Mixing head in mm	Mixture in kg	QP	Order number
120 Ø	10 - 50	1	254.176

Mixing head RS 3



For highly-viscous material, such as adhesive and injection casting material, mortar, lime, cement, screed, grouting compound, liquid insulating and thermal insulating material, quartz-filled epoxy resin, shoulder bonding material, paste and granulates.

Mixing principle from bottom to top: the three mixer blades ensure that work progresses rapidly. Maximum mixing effect, thanks to high shear force. Effortless application and ease of motion.

Equipment

- Shaft with M 14 x 2.0 external thread
- Solid welded steel design with limit nut
- Powder coated
- 600 mm overall length

Mixing head in mm	Mixture in kg	QP	Order number
130 Ø	20 - 50	1	258.312
160 Ø	50 - 150	1	257.745

Mixing head for R 500 FR and R 502 FR

Mixing head RS 1



For highly-viscous material, such as adhesive and injection casting material, mortar, lime, cement, screed, grouting compound, liquid insulating and thermal insulating material, quartz-filled epoxy resin, shoulder bonding material, paste and granulates.

Mixing principle from bottom to top: three mixer blades ensure that work progresses rapidly. Maximum mixing effect, thanks to high shear force. Effortless application and easily controlled.

Equipment

- Shaft with M 14 x 2.0 male thread
- Stable, welded steel construction with limit nut
- Galvanized
- 600 mm overall length

Mixing head in mm	Mixture in kg	QP	Order number
120 Ø	5-35	1	320.498

Mixing head RS 4



For tough, adhesive, highly-viscous material, such as tile adhesive, thin-bed mortar, ready-mixed mortar, screed, plaster, grouting, etc.

Mixing principle from bottom to top: the mixing head is drawn downwards. This prevents air pockets developing. Two helixes with low shearing force for effortless mixing.

Equipment

- Shaft with M 14 x 2.0 external thread
- Solid welded steel design with limit nut
- Powder coated
- 600 mm overall length

Mixing head in mm	Mixture in kg	QP	Order number
130 Ø	20 - 30	1	258.313
160 Ø	30 - 100	1	258.314

Mixing head RS 5



For liquid, fibrous material, such as dispersion paint, paint, plaster, cement slurry, gypsum lime mortar and thermal resistant plaster. Even mixes fine, creamy plaster without forming lumps.

Mixing principle from top to bottom: forces the material from the surface downwards with three meshing mixer blades, preventing splashing.

Equipment

- Shaft with M 14 x 2.0 external thread
- Solid welded steel design with limit nut
- Powder coated
- 600 mm overall length

Mixing head in mm	Mixture in kg	QP	Order number
160 Ø	30 - 60	1	305.197

Mixing heads for R 600 VV

Mixing head RS 2



For liquid, low viscosity material, such as paint, facade and dispersion paints, dual-component paint, lead primer, bitumen, insulation material, cement slurry, etc.

Mixing principle from top to bottom: forces the material from the surface downwards with two meshing mixer blades - preventing splashing.

Equipment

- Shaft with M 14 x 2.0 external thread
- Solid welded steel design with limit nut
- Powder coated
- 600 mm overall length

Mixing head in mm	Mixture in kg	QP	Order number
110 Ø	15 - 40	1	258.310
140 Ø	30 - 60	1	258.311

Accessories for mixer R 500 FR, R 502 FR, and R 600 VV

M 18 to M 14 adapter



For connecting FLEX mixing head fixtures to FLEX mixing machines R 600 and R 600 VV. All FLEX mixing head fixtures can be combined with any commercially available drive machine by using this adapter.

QP	Order number
1	250.484

M 14 to M 14 adapter



For connecting FLEX mixing head fixtures to FLEX mixing machines R 500 FR and R 502 FR. All FLEX mixing head fixtures can be combined with any commercially available drive machine by using this adapter.

QP	Order number
1	255.195

Mixing heads for the RZ 600 VV positive mixer

Mixing head I and II, galvanized version



Ideal for tough mixtures, adhesive, dual and multi-component resins and plastics, varnish and paint, sealing and insulation material, coating material, ready-mixed mortar, plaster, concrete adhesive, etc.

Counter-active mixing: Both mixing heads mesh and blend the mixture with particular intensity.

Equipment:

- Supplied in pairs, adapted for the FLEX positive mixer. For insertion in the positive mixer guides.
- 600 mm overall length

Please note: the mixing head with marking ring is inserted in fixture I, the mixing head with two marking rings in fixture II.

Mixing head in mm	Mixture in kg	QP	Order number
130 Ø	5 - 60	1	252.200

Mixing with the FLEX L 1202 angle mixer

Mixing paddle, M 14



For larger quantities. Used with an extension piece.

Dimensions in mm	QP	Order number
120 Ø	1	124.761

Mixing head, M 14



For smaller quantities. Used with an extension piece.

Dimensions in mm	QP	Order number
70 Ø	1	124.753

Extension piece, M 14 for mixing paddle + mixing head



Extension piece, M14 (can be extended as required)

Dimensions in mm	QP	Order number
400	1	124.818

**Effortless to the ceiling:
The FLEX Giraffe sands at highest level**



Need to sand off three-metre-high ceilings and wall surfaces?



You used to need a ladder. Now you take a long-neck sander: the Giraffe from FLEX. It goes so much faster, is cleaner thanks to dust extraction, and above all: perfect.

The outstanding qualities of the long-necked grinder FLEX Giraffe have been talked about around the whole world. Whether smoothing plasterboard panels or upgraded insulation Styrofoam panels, painting preparation, or polishing – the Giraffe has become the indispensable problem solver for every painter, plasterer, or other professional user: The unique Giraffe saves time, money, and muscle power every day.

In order to do its job especially neatly and effectively the Giraffe needs strong partners: An effective, robust industrial vacuum cleaner – such as the FLEX S 36 or S 36 M – and the right sanding discs. Only by applying the optimal triple combination of grinder, vacuum, and sanding disc accessories can the user get the most out of the Giraffe.

As a machine manufacturer FLEX let its entire experience flow into the development of the patented Giraffe sandpaper and has adapted its construction to the specific characteristics of the Giraffe.

Hit the ceiling – without a ladder and from a firm footing!

Application examples: Long-neck and short-neck sanders



PATENTED SANDING HEAD

The articulating sanding head can be adjusted to every tilt and angle.



A COMPLEMENTARY FAMILY

The short, versatile WSK 702 VEA for working from a scaffold, and the revolutionary WS 702 VEA for fatigue-proof working on walls and ceilings.

▶ starting page 78





A STRONG TEAM FOR DRY WALL
Orbital sander MS 713, long-neck sander WS 702 VEA, industrial vacuum cleaner S 36 and the perforated original FLEX Giraffe sandpapers – all this makes working much easier, quicker, neater, and healthier.

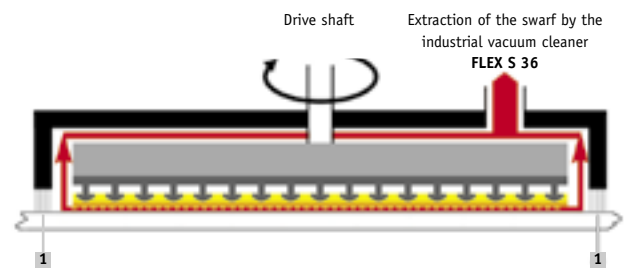


The patented original FLEX Giraffe sandpaper with perforations has an extremely strong base and top bond. This anchors the grit firmly and quite durably to the carrier material. Crucial though are the punched out perforations and the special grit distribution of the sandpaper. They guarantee an increased material abrasion, an extended service life, and optimal dust extraction.

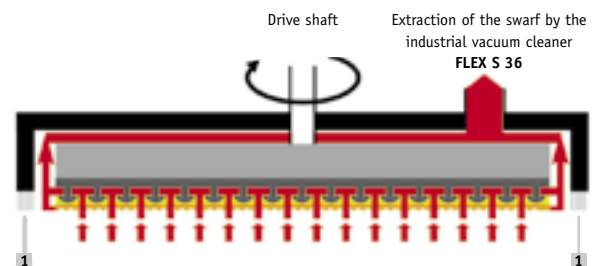
Dust extraction with non-perforated Velcro sandpaper: Swarf is created during abrasion between the grit of the sandpaper and the surface being ground. If the sandpaper is not perforated the swarf can be extracted only at the edge of the backing pad. The consequence: The sandpaper gums up, the abrasion performance drops, an even grinding isn't possible anymore, and a lot of residue swarf remains on the sanded surface and the surroundings.

Dust extraction with patented FLEX Velcro sandpaper with perforations across the whole surface: The swarf is extracted not only from the edge, but mostly through the holes. Gumming up is noticeably reduced, sanding performance is increased 4-fold. Beyond that the sanding surface remains dust-free to a large extent and can be worked on right away – wallpapered or plastered for instance. Less dust gets into the air and the lungs and even the clean-up effort is minimal.

Dust extraction with non-perforated Velcro sandpaper:



Dust extraction with patented FLEX Velcro sandpaper with perforations across the whole surface:



1
The outer brush ring prevents the swarf from being flung out, serves as a guide for a clean grinding surface pattern, and also ensures that enough air can be drawn in. A vacuum is thus prevented.

- Backing pad
- Velcro attachment
- Sanding disc
- Swarf
- Brush ring

Long-neck and short-neck sanders

WS 702 VEA

259.385



The FLEX Giraffe: the long-neck solution for sanding and polishing

The long-neck sander from FLEX has revolutionised drywall construction and surface preparation before wallpapering or plastering. Three-metre high ceilings and surfaces can be reached without ladders or scaffolding. The dust nuisance when working over head and also the clean-up costs are reduced to a minimum. Because the patented dust extraction system does a thorough job. The articulating sanding head permits a neat finish and the backing pad is padded; grooves and scratches are thus avoided. The optimal weight distribution - sanding head in front, motor in rear - makes endurance jobs possible. And with FLEX sanding discs the application range knows no limits. So the Giraffe is employed not only in drywall construction and renovation, but also in vehicle, trailer, container, and ship building.

ADVANTAGES AT A GLANCE

- FLEX VE electronic control: with infinitely-adjustable speed control
- Vacuuming system: with ring brush on the protective hood, flexible vacuum hose from the sanding pad to guiding pipe. Connection option for FLEX S 36 and S 36 M industrial vacuum cleaner on rear end of guiding pipe
- Velcro adapter: large surface, cushioned
- Easy guiding: by optimal balance between motor and grinding head



From the ceiling to the walls

The Giraffe makes interior work simply faster, cleaner, perfect. Long-neck sander WS 702 VEA Giraffe

SPECIFICATIONS

WS 702 VEA

Power input	400 Watt
Power output	200 Watt
Speed without load	1000-1650 rpm
Grinding disc Ø	225 mm
Length	1580 mm
Weight	4,2 kg

STANDARD EQUIPMENT

1 adapter for Velcro sand paper	260.232
Velcro sand paper, grit 40	1 piece of 280.739
Velcro sand paper, grit 60	1 piece of 260.233
Velcro sand paper, grit 80	1 piece of 260.234
Velcro sand paper, grit 100	1 piece of 260.235
Velcro sand paper, grit 220	1 piece of 260.236
Velcro sanding, grit 80	1 piece of 260.237
4-m vacuum hose (32 mm Ø)	
with two adapters	279.536
3 Velcro cable clips	887.428

ADVANTAGES AT A GLANCE

- FLEX VE electronic control: with infinitely-adjustable speed control
- easy to guide: due to light weight, compact design and as standard bail handle
- Velcro adapter: large surface, cushioned
- Vacuuming system: with ring brush on the protective hood, flexible vacuum hose from the sanding pad to guiding pipe. Connection option for FLEX S 36 and S 36 M industrial vacuum cleaner on rear end of guiding pipe



WSK 702 VEA

326.437



Short-neck "Okapi", the short versatile complement to the Flex Giraffe

The Giraffe, the long-neck sander from FLEX has revolutionised drywall construction and surface preparation. 3m high ceilings and walls can be reached without ladders or scaffolding. The FLEX Giraffe family has now grown. When a compact, light weight, agile machine is needed then the new short-neck Giraffe "Okapi" is the ideal compliment to the long-neck sander e.g when sanding walls and ceilings over 3 m high. When standing on scaffolding, ladders or in places with restricted movement, it allows hours of tireless working. The articulating sanding head reaches into all corners and angles. Patented dust extraction system for practically dust free working. With the wide range of Flex sanding discs for paint and varnish surface preparation, or for cleaning and polishing, the application range of these machines are limitless.

STANDARD EQUIPMENT

1 bail handle	301.825
1 adapter for Velcro sand paper	260.232
Velcro sand paper, grit 40	1 piece of 280.739
Velcro sand paper, grit 60	1 piece of 260.233
Velcro sand paper, grit 80	1 piece of 260.234
Velcro sand paper, grit 100	1 piece of 260.235
Velcro sand paper, grit 220	1 piece of 260.236
Velcro sanding, grit 80	1 piece of 260.237
4-m vacuum hose (32 mm Ø)	
with two adapters	279.536
3 Velcro cable clips	887.428

SPECIFICATIONS

SPECIFICATIONS	WSK 702 VEA
Power input	400 Watt
Power output	200 Watt
Speed without load	1000-1650 rpm
Grinding disc Ø	225 mm
Length	990 mm
Weight	4,0 kg

Quality accessories for long-neck and short-neck sanders

Patented Velcro sanding media for the WS 702 VEA and WSK 702 VEA, for the preparation of Drywall constructions for painting or varnishing

Velcro sand paper



For sanding polystyrene slabs (thermal protection)

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 16	10	279.102

Velcro sanding grid



For rapid removal of surface irregularities

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 80	25	260.237



For rapid removal of fine surface irregularities

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 100	25	260.230

6 Velcro sand paper (perforated)



For leveling coarse surface irregularities

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 40	25	280.739



For leveling light surface irregularities

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 60	25	260.233



For removing paint and paste

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 80	25	260.234



For rapid sanding and smoothing

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 100	25	260.235



For universal sanding

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 150	25	311.995



For sanding quick-bonding material

Dimensions in mm	Grit	QP	Order number
225 Ø	grit 220	25	260.236

Velcro sanding media for universal applications.
For cleaning, sanding and polishing with the WS 702 VEA and the WSK 702 VEA

Velcro SiC (silicon carbide) sand paper sheet



Dimensions in mm	Grit	QP	Order number
225 Ø	S 320	10	281.026
225 Ø	S 1200	10	281.018

Velcro sanding fleece



Dimensions in mm	Grit	QP	Order number
225 Ø	grit 100	10	281.042
225 Ø	grit 180	10	281.034

Velcro polishing sponge



Dimensions in mm	Grit	QP	Order number
225 Ø	soft	5	280.992

Accessories long-neck sander WS 702 VEA and the short-necked sander WSK 702 VEA

Padded adapter for Velcro paper



Velcro system for fixing the sanding medium

QP	Order number
1	260.232

Bail handle



For effortless working in difficult positions (e.g. overhead work)

QP	Order number
1	301.825

Padded carrying bag

The clean conveyor for the sander and accessories. Also protects against damage

QP	Order number
1	280.984



Connection Industrial vacuum cleaner S 36 and S 36 M to WS 702 VEA and WSK 702 VEA

Vacuum hose

Vacuum hose, 32 mm internal Ø, 4.0 m long, incl. coupling bush for vacuum (Order no. 328.308 + 882.428) and special adapter with metal ring (Order no. 890.961)

QP	Order number
1	279.536

Special adapter



with metal ring, for connecting the 32 mm vacuum hose to the original Giraffe and Okapi vacuum attachment

QP	Order number
1	890.961

Adapter rotating



Adapter 32/32 mm, for connecting machines with 32 mm Ø vacuum attachment (e.g. renovation sanders, angle grinders with cutting guard) to 32 mm vacuum hose. Alternatively as vacuum adapter in connection with part number 882.428

QP	Order number
1	328.308

Vacuum adapter



Adapter for S 36 and S 36 M to connect to vacuum adapter 264.709 or 328.308

QP	Order number
1	882.428

**They polish it off:
FLEX special machines for floor and wall working**





Crucial for effective floor and wall working are the proper tools.



If the task is to mill wall grooves for in-wall installation of cables or duct works, to carry off plaster, cement, or screed, or to remove coatings and cement slurry coatings – FLEX has the right problem solution for every task.

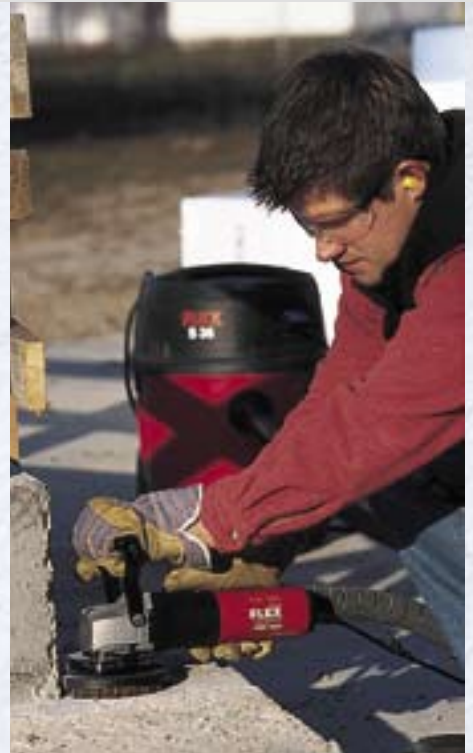
The perfectly adapted extraction and filter system of the new special vacuum S 36 M prevents dust that is harmful to your health from getting in the surrounding air.

Application examples: Floor and wall finishing



CAUTION:

Operate plaster mill, renovation sanders, and wall chasers only with the industrial vacuum cleaner S 36 M. Its highly effective fine filter system protects the operator from harmful dusts, the machine from abrasive particles, and the tools from too quick wear. Industrial vacuum cleaner S 36 M
▶ on page 125



RIGHT UP TO THE WALL

The disc guard with removable edge segment makes it possible to grind right up to the wall. Renovation sander LDB 1709 FR
▶ on page 89



PRECISION ALONG ALL EDGES

A variably-adjustable stop makes it possible to roughen slabs or steps exactly parallel to the outer edge. The working width can be adjusted over several stages. Bushhammer LST 1503 VR
▶ on page 91



GRINDING AND DESCALING IN AN UPRIGHT POSITION

The WS 1505 FR from our Giraffe Family makes it possible to work without a ladder or scaffold.
▶ on page 86



ARMED TO THE TEETH
35 toothed milling discs
made of solid carbide alloy
make short work of old
plaster and carpet adhesive
residues. Scouring machine
HPI 603
▶ on page 92



RENOVATION MADE EASY
For smaller renovation jobs
on your building, the
FS 3403 VRG is an
irreplaceable assistant.
▶ on page 92

SIMPLE ADJUSTMENT OF THE GRINDING DEPTH

The adjusting screw on the
extraction hood can be used
to set the grinding depth to
a maximum of 5 mm.



Long-neck renovation grinder

WS 1505 FR

322.857



The long-neck renovation grinder for floors, walls and ceilings

From a normal standing position smoothing of floors, walls and ceilings - Surface cosmetics on concrete and screed achieved from a comfortable standing position this is the strength of the renovation grinder. As with the FLEX Giraffe, difficult areas can be reached without ladders or scaffolding. Removing coverings and paint etc from floors, or roughing of screeds can be achieved without bending. Grinding of concrete seams and joints in high ceilings can be a quickly and cleanly finished without any Acrobatics or safety net. Due to the integrated dust extraction system, elastic rubber vacuum ring on the guard and the FLEX S36 industrial cleaner the dust is completely removed, leaving a clean and healthy working environment. When grinding hazardous materials the special FLEX S 36 M with fine filter system and diffusor should be used.

ADVANTAGES AT A GLANCE

- FLEX three-fold full-wave electronic control: consistent speed control by tachometer generator, soft start, overload protection
- Vacuum dust collection: protects against abrasive dust, reduces disc wear, keeps concrete pores for the new coat open
- Bail handle for easy guidance of the machine and less effort in difficult working position (e.g. overhead working)
- Flexible rubber vacuum ring: moves smoothly over the surface and protects against dust and stones flying out
- Dust extraction-system: with elastic rubber vacuum ring on the guard, flexible hose from the guard to the main support tube. At the rear of the main support tube it is possible to connect the S 36 or S 36 M using the Special adapter 890.961
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage



A perfect combination

The long-neck renovation sander with 3-D movement and its especially developed light weight Diamond disc. Bumps and ridges on Walls, Floors and Ceilings are quickly and easily eliminated.

SPECIFICATIONS

	WS 1505 FR
Disc Ø	125 mm
Speed without load	5500 rpm
Power input	1010 Watt
Power output	600 Watt
Tool fixture	28 mm Ø
Length	1580 mm
Weight	7,0 kg

STANDARD EQUIPMENT

1 Concrete-Whirljet 125 Ø	323.063
1 FixTec quick-clamp nut M 14	313.459
Guard	254.213
Bail handle	301.825
Cable clip	302.538 (3x)
4-m vacuum hose (32 mm Ø) with two adapters	279.536
Padded carrying bag	280.984

Accessories for long-neck renovation grinder WS 1505 FR

Dry grinding diamond cups



Thermo-whirljet for thin coatings and lightly abrasive materials: Thermoplastic coatings, Paint, Graffiti, thin glue residues on concrete or screed, Rubber based coatings. **Reduced weight with the FLEX flange. Only to be used on the FLEX long-neck renovation grinder.** The grinding disc with the angular arranged diamond segments allows for a quicker work rate than with normal disc. The large dimensioned delta shaped holes in the discs causes an air vortex that removes all dust from the working surface and prevents the segments from clogging or overheating and so reducing wear. The leight weight disc reduces wear on the motor. **Not for use on edges.**

Dimensions in mm	QP	Order number
125 Ø	1	323.071



Screed-Whirljet for abrasive materials: Abrasive screeds (with quartz sand), fresh concrete, plaster, mortar, abrasive limestone (with quartz sand) sandstone, fire clay, asphalt. **Reduced weight, with FLEX special flange - only to be used on the FLEX long-neck renovation grinder. Not to be used for working on edges.**

Dimensions in mm	QP	Order number
125 Ø	1	324.361



Concrete-Whirljet the grinding disc for concrete: old concrete, concrete slabs and stone - natural and artificial slabs, lime sand brick hard, paving slabs, tile glue, removing glazing from ceramic tiles. **Reduced weight, with the FLEX special flange - only to be used on the FLEX long-neck renovation grinder. Not to be used on edges.**

Dimensions in mm	QP	Order number
125 Ø	1	323.063

Rubber extraction rings



The flexible rubber vacuum ring moves smoothly over the surface and provides optimum protection against dust and stones flying out.

Dimensions in mm	QP	Order number
125 Ø	1	257.246

Padded carrying bag

The clean conveyor for the sander and accessories. Also protects against damage

QP	Order number
1	280.984



Renovation sanders

LD 1709 FR

256.486



LD 3206 C

303.798



The FLEX diamond renovation sander for surfaces

This renovation sander removes layers and concrete slurry coatings really quickly, thanks to the FLEX Thermojet Super diamond grinding pads. It does not rasp or jump, making it ideally suitable for both precision work and large surface removal. The effective turbo vacuum attachment prevents concrete pore clogging. Smearing and sticking is avoided. The surface underground structure is improved during grinding and work accomplished twice as quickly. The innovative dust evacuation guard with a detachable flexible brush ring permits to grind right up to the wall.

SPECIFICATIONS	LD 1709 FR
Disc Ø	125 mm
Speed without load	10000 rpm
Power input	1400 Watt
Power output	950 Watt
Tool fixture	M 14
Weight	2,9 kg

STANDARD EQUIPMENT

Thermojet Super 125 Ø	304.727
Clamping nut	100.080
Clamping flange SW 14	191.612
Guard	254.213
Bail handle	236.934
Cable clip	252.188 (3x)
Hose clip	252.050
Vacuum ring	257.246
1 hexagon socket screw key, special tool 4	102.229
Wrench holder	233.943
1 pin wrench	107.492
1 metal carrying case	306.207

The big FLEX renovation sander for surfaces

This renovation sander removes layers and concrete slurry coatings really quickly, thanks to the FLEX Thermojet Super diamond grinding pads. It does not rasp or jump, making it ideally suitable for both precision work and large surface removal. The effective turbo vacuum attachment prevents concrete pore clogging. Smearing and sticking is avoided. The surface underground structure is improved during grinding and work accomplished twice as quickly. The innovative dust evacuation guard with a detachable flexible brush ring permits to grind right up to the wall.

SPECIFICATIONS	LD 3206 C
Disc Ø	180 mm
Speed without load	6500 rpm
Power input	2500 Watt
Power output	1700 Watt
Tool fixture	M 14
Weight	7,6 kg

STANDARD EQUIPMENT

Thermojet Super 180 Ø	303.461
Clamping nut	100.080
Clamping flange SW 17	191.604
Guard	258.625
Bail handle	302.708
Cable clip	302.538 (3x)
Vacuum ring	258.626
1 hexagon socket screw key, special tool 6	256.832
1 pin wrench	100.110
1 pin spanner	258.629
1 plastic carrying case	329.908

ADVANTAGES AT A GLANCE

- Vacuum dust collection: protects against abrasive dust, reduces disc wear, keeps concrete pores for the new coat open
- Flexible rubber vacuum ring: moves smoothly over the surface and protects against dust and stones flying out
- Vacuum attachment: 32 mm exterior Ø
- Spindle lock: for easy disc changes
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR LD 1709 FR

- FLEX four-fold FR electronic control: with consistent speed control by tachometer generator, soft start, overload protection and temperature monitoring

ADVANTAGES AT A GLANCE

- FLEX four-fold FR electronic control: with consistent speed control by tachometer generator, soft start, overload protection and temperature monitoring
- Vacuum dust collection: protects against abrasive dust, reduces disc wear, keeps concrete pores for the new coat open
- Spindle lock: for easy disc changes
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- Protective guard: removable edge segment for close wall grinding
- Vacuum attachment: 32 mm interior Ø (suitable for universal adapter 259.827)

LDB 1709 FR

305.014









The FLEX diamond renovation sander for close wall grinding

Using the FLEX Thermojet Super diamond backing pads this renovation sander removes all coatings and cement slurry coatings super fast. And since it neither grates nor skips it is suitable for punctiform jobs as well as for milling larger surfaces. The effective turbo dust extraction prevents the clogging of concrete pores. Nothing smears - nothing sticks. Thus you refine the base already when you are sanding it off, doing two jobs in one. The new type of extraction hood with flexible, removable brush ring makes it possible to sand right up to the wall when a segment is removed.

SPECIFICATIONS	LDB 1709 FR
Disc Ø	125 mm
Speed without load	10000 rpm
Power input	1400 Watt
Power output	950 Watt
Tool fixture	M 14
Weight	2,9 kg

STANDARD EQUIPMENT	
Thermojet Super 125 Ø	304.727
Clamping nut	100.080
Disc guard with removable edge segment	305.235
Bail handle	236.934
Cable clip	252.188 (3x)
Hose clip	252.050
1 hexagon socket screw key, special tool 2.5	162.531
Wrench holder	233.943
1 pin wrench	107.492
1 metal carrying case	306.207

Quality accessories for renovation sanders

		Dimensions in mm	QP	Order number	LD 1709 FR	LDB 1709 FR	LD 3206 C											
Accessories for renovation sanders LD 1709 FR, LDB 1709 FR and LD 3206 C																		
Dry grinding diamond cups																		
 <p>Thermojet Super for surface grinding on thermo-plastic layers, coated sidewalk plates, for balcony and concrete renovation. The ingenious backing pad with the angled diamond segments in double rows ensure a roughly 30% faster work progress as compared to conventional backing pads. Thanks to the high number of specially shaped segments and the oval and patented turbo extraction bore holes (on the 125 pad) an ultra-strong air suction is created. It extracts the aggressive swarf, prevents the plugging and overheating of the segments and reduces the wear. No pre-sanding necessary. Calm, reduced-vibration operation due to precise balancing. No hooking on rough surfaces. Not suited for working on edges.</p>	125 Ø	1	304.727	■	■	-												
	180 Ø	1	303.461	-	-	■												
 <p>Screed Jet for levelling screed. Accessory for the FLEX cement grinder for levelling and removing screed. For sanding down sandstone. Fast work because of strong diamond segments that are embedded in rip-proof elastic support linings.</p>	125 Ø	1	252.452	■	■	-												
	180 Ø	1	259.248	-	-	■												
 <p>Concrete Jet for surface grinding cement. The strong diamond segments are embedded in rip-proof elastic support linings. For extended service life and reduced vibration run.</p>	125 Ø	1	258.637	■	■	-												
Rubber extraction rings																		
 <p>The flexible rubber vacuum ring moves smoothly over the surface and provides optimum protection against dust and stones flying out.</p>	125 Ø	1	257.246	■	-	-												
	180 Ø	1	258.626	-	-	■												
Disc guard with removable edge segment																		
 <p>Retrofitting kit, consisting of a protective guard with removable edge segment and special clamping flange SW 14 (Order no. 305.022).</p>	125 Ø	1	305.235	■	-	-												
Plastic Multi-Carry case																		
 <p>Perfect fitting, impact resistant carry case, universally adaptable for many different FLEX-Maschinen</p>		1	329.908	-	-	■												

ADVANTAGES AT A GLANCE

- FLEX four-fold full-wave electronics: with speed selection and consistent speed control, soft start, overload protection.
- Stop: stepless adjustable for precise work
- Dust extraction: for use even in occupied buildings
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR LST 1503 VR

- Working width adjustable: 3 stages from about 40 mm up to about 92 mm.

ADDITIONALLY FOR LST 803 VR

- Working width adjustable: 7 stages from about 55 mm to about 130 mm.



Bushhammering prevents slippage

Smooth natural stone floors can turn into slippery danger zones in wet weather. Roughening helps alleviate this problem and ensures better traction. In the past this was difficult once the natural stone slabs had been set. But with the FLEX bushhammers this job is taken care of in just a few minutes even on the hardest granite surfaces.

Accessories for FLEX bushhammers

Spare HM discs:

for LST 1503 VR: 6 pieces,

Order no. 259.833;

for LST 803 VR: 8 pieces,

Order no. 259.834;

Spare mounting with 2 HM wheels for LST 1503 VR and LST 803 VR:

Order no. 260.576

LST 1503 VR

259.229



The small FLEX bushhammer for stairs

60 aggressive hard-metal tips of the machine take care of the job quickly and with precision. The rotating bushhammer with the hard-metal discs is born by rubber shock absorbers which reduces vibration and is easy on your joints. The machine can be expertly guided by the grip hood.

SPECIFICATIONS	LST 1503 VR
Speed without load	800-2400 rpm
Power input	1200 Watt
Power output	700 Watt
Working width	40-92 mm
Weight	5,9 kg

STANDARD EQUIPMENT

1 grip cover	253.676
1 stop, complete	259.193
1 carbide tipped complete 100 Ø	261.653
1 hexagon socket screw key, special tool 5	115.460
1 pin wrench	100.110

LST 803 VR

259.639



The big FLEX bushhammer for stairways and larger surfaces

80 rubber-born hard-metal tips make this big one the fast tool for roughening up natural stone floors. Since the applied pressure is put right from the grip hood onto the tool head below it, the machine rests perfectly in your hand while under full power.

SPECIFICATIONS	LST 803 VR
Speed without load	800-2400 rpm
Power input	1800 Watt
Power output	1200 Watt
Working width	55-130 mm
Weight	7,2 kg

STANDARD EQUIPMENT

1 grip cover	253.676
1 stop, complete	259.193
1 carbide tipped complete 140 Ø	261.654
1 hexagon socket screw key, special tool 5	115.460
1 pin wrench	100.110

Renovation scouring machines

FS 3403 VRG

333.611

New



The handy FLEX scouring machine for renovation work

The small milling machine is suited to various tasks which arise during renovations, such as removing old plaster of up to 5 mm in thickness, milling the edges of concrete casings and mending small areas of insulation façades. The specially developed milling axle mounting guarantees even contact and uniform wear of the milling discs. This ensures the longest possible service life for the milling discs. Thanks to its modest weight it is also ideal for working over your head.

SPECIFICATIONS	FS 3403 VRG
Milling head Ø	85 mm
Working width	76 mm
Max. milling depth	5 mm
Speed without load	1100-3700 rpm
Power input	1400 Watt
Power output	880 Watt
Weight	3,0 kg

STANDARD EQUIPMENT

12 flat tooth milling disc	333.719
1 bail handle	298.506
1 hexagon socket screw key	1 piece
1 Torx-wrench	1 piece
1 metal carrying case	334.073

HPI 603

256.584



The FLEX scouring machine clears plaster, concrete and screed

This powerful milling machine is ideal for preparing large surfaces, removing plaster, roughing concrete or leveling shuttering joints and screed. Two handles facilitate guiding and go easy on the joints, while seven scouring axes enable a high level of material removal.

SPECIFICATIONS	HPI 603
Milling head Ø	150 mm
Max. milling depth	5 mm
Speed without load	2400 rpm
Power input	1200 Watt
Power output	700 Watt
Weight	6,8 kg

STANDARD EQUIPMENT

28 flat toothed milling discs	256.587
1 side handle	256.799
1 socket wrench	256.801
1 tommy bar	256.808
1 pull-off fixture	256.807
1 Adapter 32/36 mm Ø	257.169
1 metal carrying case	1 piece

ADVANTAGES AT A GLANCE

- Vacuum hood: with stepless height adjustment
- Sturdy milling discs: from high quality solid carbide alloy
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR FS 3403 VRG

- FLEX Six-fold microprocessor electronics: Speed selection, consistent speed control by tachometer generator, soft start, restart protection after power interruption, overload protection, and temperature monitoring
- Optimal milling axle mounting: for the maximum service life of the twelve milling discs
- Vacuum attachment

ADDITIONALLY FOR HPI 603

- Possible to connect external dust extractor using the supplied as standard adapter
- 7 milling axes with 28 flat-toothed milling discs

Accessories for FS 3403 VRG

Carbide pointed tooth milling discs



12 flat milling discs for replacement, made of solid carbide alloy. For light, soft plaster. Also for removing carpet adhesive residues when a clean, smooth base is required.

QP	Order number
12	333.719



12 pointed milling discs for replacement, made of solid carbide alloy. For removing hard plaster and cement. For removing carpet adhesive residues when a roughened base is required.

QP	Order number
12	333.700

Milling head complete

To switch quickly from sharp to flat milling discs. Complete with twelve flat HM milling discs (order number 333.719).

QP	Order number
1	333.697

To switch quickly from flat to sharp milling discs. Complete with twelve sharp HM milling discs (order number 333.700).

QP	Order number
1	333.689

Accessories for HPI 603

Carbide pointed tooth milling discs



28 replacement flat milling discs, solid carbide. For light soft plaster and removing carpet adhesive residues when a clean smooth surface is required.

QP	Order number
28	256.587



35 replacement pointed solid carbide milling discs for removing hard plaster and cement. Also for removing carpet adhesive residues when a roughened surface is required.

QP	Order number
35	256.589

Application examples: Wall chaser



COMPLETE KIT

Plastic carrying case and two Diamond Jet VI-Speedcut cutting discs for rapid cutting of masonry, limestone and porous concrete.



POWERFUL IN EVERY POSITION

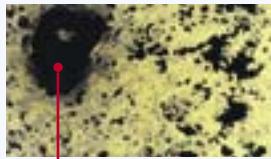
The wall chaser MS 1706 FR cuts grooves effortlessly into walls, limestone and porous concrete. Its patented, swivelling motor makes horizontal push cutting as well as vertical pull cutting possible.

6



MILLING CUTS WITH 2 PARALLEL RUNNING FLEX HIGH-PERFORMANCE DIAMOND CUTTING DISCS

The middle partition can then be broken out using the supplied slot breaker. Wall chaser MS 1706 FR-Set
► on page 96



Microscopic imaging of a conventional diamond cover clearly shows insufficient integration of the diamond grain into the bond, as well as cavities in the binding system. This leads to premature breaking of the grain and a large amount of wear and tear.

Diamond



Microscopic image of the Diamantjet VI - Speedcut with **HDS technology**. The binding components are very homogeneous and show high density as well as complete integration of the diamond grain. This means the diamond lasts a long time and is used to its full potential. A long life and good cutting are guaranteed.
► Accessories on page 97

EASY DISC EXCHANGE AND WIDTH ADJUSTMENT

The disc guard can be opened and the quick-clamp nut can be loosened without any additional tools. In this way you can switch the diamond cutting discs and quickly re-arrange the distance rings according to the desired groove width.



6



Wall chaser

MS 1706 FR-Set

329.673

New



The new FLEX wall chaser for push and pull cutting

The unique rotating motor system allows the machine to be used for pull cutting for vertical slots, and push cutting for horizontal slots. Now wall chasing for the laying of cables or conduits is child's play. Cuts two parallel slits up to 35 mm deep and 30 mm wide. The new MS 1709 FR when combined with the Flex S 36 M vacuum cleaner gives optimal dust protection for the user even when plunge cutting.

SPECIFICATIONS	MS 1706 FR-SET
Cutting depth	0-35 mm
Groove width	10-30 mm
Disc Ø	140 mm
Speed without load	7500 rpm
Power input	1400 Watt
Power output	950 Watt
Tool fixture	M 14
Weight	3,7 kg

STANDARD EQUIPMENT

Diamantjet VI-Speedcut-cutting disc 140 mm Ø	334.464 (2x)
1 side handle	194.034
1 SDS-Clie quick-clamp nut M 14	253.049
Distance spacers	318.914 (5x)
Clamping flanges	191.612 (2x)
1 web remover	229.253
1 adapter for dust extractor	327.026
Cable clip	252.188 (3x)
1 plastic carrying case	327.034

ADVANTAGES AT A GLANCE

- FLEX four-fold FR electronic control: with consistent speed control by tachometer generator, soft start, overload protection and temperature monitoring
- Rotating motor allows for push and pull cutting
- Optimal dust extraction and maximum safety due to enclosed guard
- Toolless blade changing and slit width adjustment
- Rotating adaptor for dust extractor
- Adjustable cutting depth
- Plunge cut stop
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage
- Complete kit: with plastic carrying case and 2 Diamond Jet VI-Speedcut discs for rapid cutting of masonry, limestone, concrete and porous concrete



The patented turn

It's only possible with the FLEX wall chaser, pull cutting for vertical and push cutting for horizontal slots. Just unlock, swivel the motor, lock - finished!







Rotating vacuum adapter

According to the direction you are working in, the hose of the FLEX industrial vacuum cleaner can be fed through the rotatable nozzle so that it does not hinder the user.



Easy cutting depth adjustment

You can use the scale - which is divided into 5 mm increments - on the disc guard to set how deep the milled cut should be.

	Dimensions in mm	QP	Order number	MS 1706 FR-SET
Accessories for wall chaser MS 1706 FR-Set				
Diamond Jet II - high-performance diamond discs in silver				
 <p>For tiles and bonded ceramic materials. Suitable for very accurate, sharp-edged cuts.</p>	140 Ø	1	252.290	■
Diamond Jet IV				
 <p>For rapid cutting of masonry, limestone and concrete. Particularly hard, with large segment spacing for improved cooling and optimum dust ejection.</p>	140 Ø	1	303.593	■
Diamantjet VI - Speedcut				
 <p>For cuts in walls, limestone, concrete and gas concrete. Thanks to the innovative HDS (high density sintered) technology, which can be recognised by the high density and homogeneity of the binding components, the Speedcut cutting disc stands out due to its uniform willingness to cut, its long life span and the overheating protection it offers. Due to the ribbed cover, only minimal pressure needs to be applied and the swarf is removed quickly: the workpiece is sliced through cleanly and smoothly.</p>	140 Ø	1	334.464	■
Sharpening stone for diamond tools				
	320 x 160 x 30	1	251.756	■

**Whether power from the mains or the battery pack:
FLEX tools got the power**



Screwdrivers,
drills,
hammers



FLEX screwdrivers, drills and hammers are real power packs.

Designed for professional continuous operation constructed appropriately robust – for example solid, yet light aluminium gear housing and fully-metal drill chucks on the cordless drills and hammer driver drills ensure enduring stability and long service lives.

And the user friendliness is exemplary: Grip modules that can be adapted individually to various hand sizes. Or especially sensitive accelerator trigger switches with quick stop. The list of examples could be continued.

You see: FLEX wants to make sure you will enjoy using your machines for a long time.

Application examples: Screwdrivers, drills and hammers



VERSATILITY IS THE CLINCHER – FOR INSTANCE FOR BATHROOM RENOVATION

Drilling or screwing, rotary hammering or chiselling – the synchronised switch with turn-stop makes it possible.



PERFECT ERGONOMICS

With grip-to-fit, the exchangeable grip modules for each hand size. With handle on the side that provides you with a secure grip even at great torques. And with perfect balance for unerring work with nearly no fatigue. Cordless drills and rotary hammer drill-screwguns
▶ starting page 102



PERFECT BALANCE FOR UNERRING WORK

The central grip position right behind the hammer mechanism and the balanced weight distribution make it possible to drill perpendicular bore holes perfectly.
Hammer and chisel drill
BRL 3501 A
▶ on page 103



ROBUST METAL CHUCK

The carbide clamping jaws in the ACH 14 and ACH 19 don't let loose even during hammer drilling. The firm grip of the chuck prevents slipping during tightening.





- 1 Carbide clamping jaw**
Low-wear for long service life and firmer grip of the tool, especially during hammer drilling (on ACH 14 and ACH 19).
- 2 Single-piece, fully-metal, quick-clamp chuck, 13 mm**
For quick and easy tool exchange with one hand: Auto spindle lock. Locking and release mechanism with audible click. This avoids unintentional release during vibrations, with quick-release function.
- 3 Increased torque, pre-selectable**
22 torque settings, additional hammer drill level (on ACH 14 and ACH 19). For turning in thicker and longer connection elements in harder material.
- 4 Attachment point for side handle**
Screw in on right or left. For better control on jobs with great torques. Handle is supplied with ACH 14 and ACH 19.
- 5 Aluminium gear housing**
Ensures stability and long service life.
- 6 Two-speed planetary gears**
Robust, for high and low speeds. Broad speed range from 0 to 1400 rpm maximum.
- 7 Integrated bit holder**
On each side, including a screwdriving bit.
- 8 Reversible**
Middle setting: Safety lock for safe tool changing and transport.
- 9 Accelerator trigger switch with quick stop**
For sensitive tasks and rapid screwing in succession.
- 10 Grip-to-fit (GTF)**
New type of grip exchange system, consisting of 3 different-sized, padded grip modules to adapt individually to all hand sizes.
- 11 Segmented handle padding**
Protects against slipping, reduces vibration.
- 12 NiCd battery**
Up to 3000 recharges. Simple exchange with a snap-on mechanism. Even the battery packs of previous models can be used (AB 12; ABH 14.4; ABH 19.2). Included: Universal 1h rapid charger for battery packs from 12 V–19.2 V.

LIGHTS ON WITH AUXILIARY BATTERY PACK

The standard auxiliary battery pack can be used for illumination with the appropriate FLEX cordless lamp. 12 V lamp is supplied along with the AC 12. Cordless lamps:
 12 V: Weight: 950 g, Order no. 280.976 (Replacement bulbs: 290.250)
 14.4 V: Weight: 1100 g, Order no. 280.968 (Replacement bulbs: 284.912)
 19.2 V: Weight: 1360 g, Order no. 280.941 (Replacement bulbs: 284.920)



TIME IS MONEY!

FLEX universal rapid charger charges all FLEX battery packs from 12 V to 19.2 V within an hour. With automatic temperature and charge control. Also for battery packs of previous models (AB 12; ABH 14.4; ABH 19.2).

Cordless machines, Hammer Drill

AC 12

304.344



The FLEX cordless driver drill with 12 V/2.0 Ah

The grip-to-fit function means that this handy machine can be adapted to suit dainty feminine hands as flexibly as heavy masculine ones! The extremely powerful 12 V motor makes it ideal for medium to extreme drilling and screwdriving applications. A FLEX 12 V cordless lamp is included as a standard accessory.

SPECIFICATIONS	AC 12
Battery voltage	12 V
Battery capacity	2 Ah
Torque adjusting range	1-16 Nm
Torque positions	22
Max. torque soft/hard	27/59 Nm
Speed without load 1st gear	0-425 rpm
Speed without load 2nd gear	0-1300 rpm
Max. drill hole Ø in steel	13 mm
Max. drill hole Ø in wood	36 mm
Chuck Ø	1,5-13 mm
Weight with battery	2,3 kg

STANDARD EQUIPMENT

Battery pack	280.747 (2 x)
1 universal 1 hour rapid battery charger	304.379
1 screwdriver bit	895.517
1 cordless lamp for 12 Volt	280.976
1 plastic carrying case	1 piece

ACH 14

304.352



The FLEX cordless hammer driver drill with 14.4 V/2.0 Ah

This powerful machine is used for difficult screwdriving, drilling and hammering work. Its compact design makes it the primary choice for confined areas and particularly easy to guide. With extreme torque for large screw and drill diameters.

SPECIFICATIONS	ACH 14
Battery voltage	14,4 V
Battery capacity	2 Ah
Torque adjusting range	1-19 Nm
Torque positions	22
Max. torque soft/hard	30/63 Nm
Speed without load 1st gear	0-450 rpm
Speed without load 2nd gear	0-1400 rpm
Idle blows 1st gear	6000 rpm
Idle blows 2nd gear	18200 rpm
Max. drill hole Ø in steel	13 mm
Max. drill hole Ø in stone	13 mm
Max. drill hole Ø in wood	40 mm
Chuck Ø	1,5-13 mm
Weight with battery	2,6 kg

STANDARD EQUIPMENT

Battery pack	280.755 (2 x)
1 universal 1 hour rapid battery charger	304.379
1 screwdriver bit	895.517
1 side handle	305.189
1 plastic carrying case	1 piece

ADVANTAGES AT A GLANCE

- Solid metal quick-action chuck: for rapid tool changing, with automatic spindle lock
- Grip-to-fit: 3 different handle modules to suit every hand size
- Aluminum gearbox: for a long service life
- 2-speed planetary gearbox: sturdy, for high and low-speed applications
- Clockwise and counterclockwise rotation: middle setting: safety blocking
- Accelerator trigger switch with quick-stop for sensitive applications and screwdriving in rapid succession
- Spacious, unbreakable carrying case with metal latches: lots of room for the complete standard equipment as well as for further bits.

ADDITIONALLY FOR ACH 14

- Carbide chuck: for a long service life and firmer grip of the tool
- Additional hammer-action: for drilling roof tiles and masonry
- Side handle: can be fitted on both sides. For improved control during difficult screwdriving applications and extreme torques
- Compact design: perfectly balanced to facilitate guiding

Screwdrivers, drills, hammers

ADVANTAGES AT A GLANCE

ACH 19

- Solid metal quick-action chuck: for rapid tool changing, with automatic spindle lock
- Grip-to-fit: 3 different handle modules to suit every hand size
- Aluminum gearbox: for a long service life
- Carbide chuck: for a long service life and firmer grip of the tool
- Additional hammer-action: for drilling roof tiles and masonry
- Side handle: can be fitted on both sides. For improved control during difficult screwdriving applications and extreme torques
- Compact design: perfectly balanced to facilitate guiding
- 2-speed planetary gearbox: sturdy, for high and low-speed applications
- Clockwise and counterclockwise rotation: middle setting: safety blocking
- Accelerator trigger switch with quick-stop for sensitive applications and screwdriving in rapid succession
- Spacious, unbreakable carrying case with metal latches: lots of room for the complete standard equipment as well as for further bits.

BRL 3501 A

- 700 Watt high-power motor: with powerful 2,9 Joule impact energy
- Hammer mechanism: for effortless drilling and chiselling
- Quick tool change: universal application, with SDS Plus drill chuck or 13 mm quick-release chuck incl. screw adapter
- Right/left rotation: for turning screws in and out
- Accelerator trigger switch: for sensitive working even when wearing work gloves
- Safety ratchet coupling: protects the user in case the drill blocks
- Hammer-stop: for non-hammering when screwing or drilling with the quick-release chuck
- Softgrip handle: made of special plastic-rubber composite material for a non-slip grip and precise, low-vibration drilling
- Depth limit gauge: for precision drilling
- Heavy-duty carrying case: lots of room for standard equipment and accessories

ACH 19

304.360



The FLEX cordless hammer driver drill with 19.2 V/2.4 Ah

This powerful machine packs a punch and demonstrates impressive endurance when it comes to the most difficult screwdriving, drilling and hammering work. Its compact design makes it easy to guide. With enormous torque for large screw and drill diameters.

SPECIFICATIONS	ACH 19
Battery voltage	19,2 V
Battery capacity	2,4 Ah
Torque adjusting range	1-21 Nm
Torque positions	22
Max. torque soft/hard	37/68 Nm
Speed without load 1st gear	0-450 rpm
Speed without load 2nd gear	0-1400 rpm
Idle blows 1st gear	6500 rpm
Idle blows 2nd gear	19500 rpm
Max. drill hole Ø in steel	13 mm
Max. drill hole Ø in stone	13 mm
Max. drill hole Ø in wood	45 mm
Chuck Ø	1,5-13 mm
Weight with battery	3,0 kg

STANDARD EQUIPMENT

Battery pack	304.719 (2 x)
1 universal 1 hour rapid battery charger	304.379
1 screwdriver bit	895.517
1 side handle	305.189
1 plastic carrying case	1 piece

BRL 3501 A

309.907



The 700 Watt rotary hammer drill with double ventilator

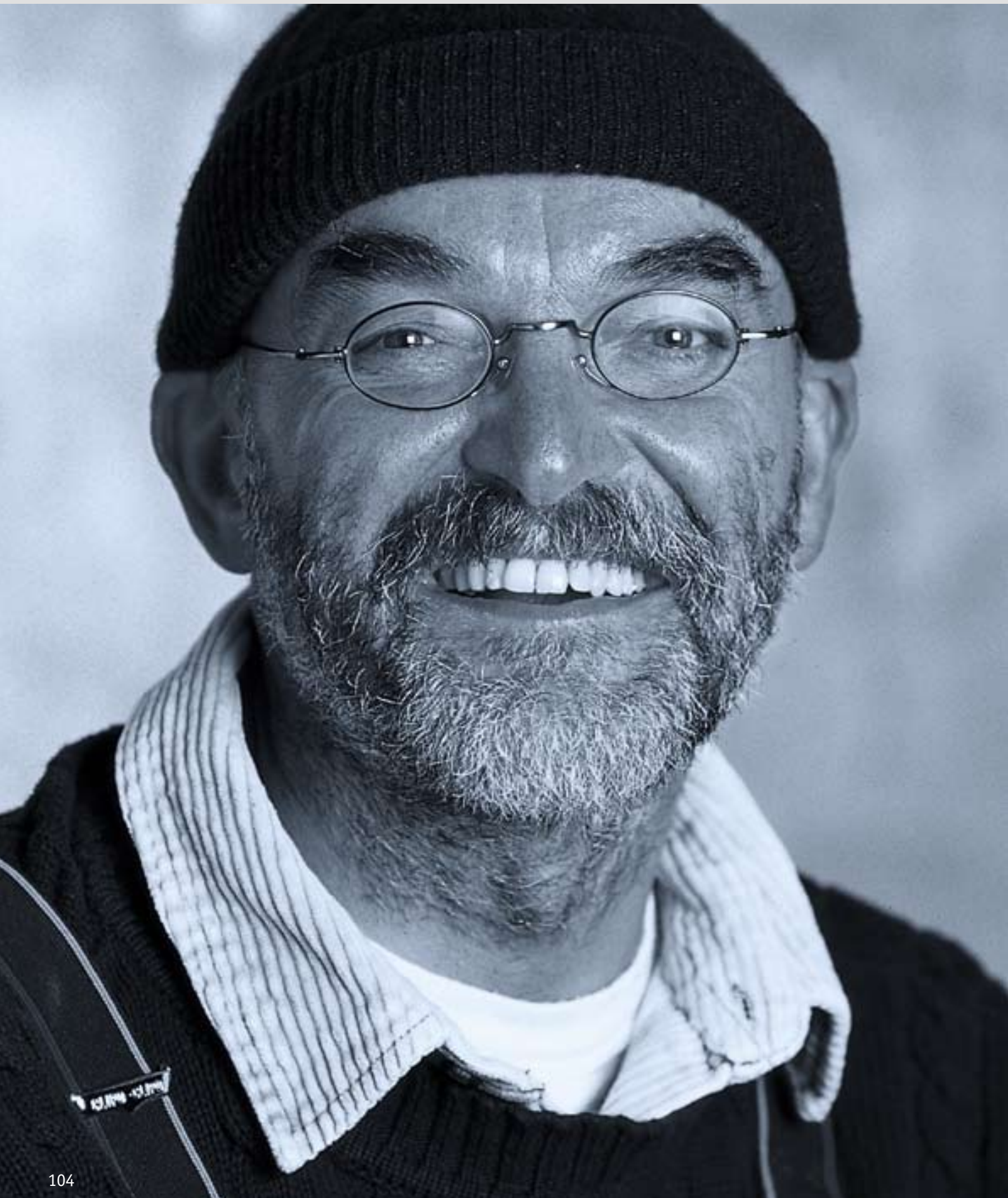
Now powered by a 700 Watt motor and powerful 2.9 Joule impact energy. The central grip position of the spade handle and the robust rotary hammer mechanism of the new FLEX rotary hammer drill provide an optimal weight balance and an extremely fast drill advance. Optimal motor and gear cooling by integrated dual ventilator. With turn-stop lock for chiselling work.

SPECIFICATIONS	BRL 3501 A
Speed without load	0-1050 rpm
Idle blows	0-4270 rpm
Max strength of single blow	2,9 J
Tool fixture	SDS-plus
Max. drill hole Ø in steel	13 mm
Max. drill hole Ø in concrete	26 mm
Max. drill hole Ø in wood	30 mm
Power input	700 Watt
Power output	300 Watt
Chuck Ø	13 mm
Weight	3,1 kg

STANDARD EQUIPMENT

1 Softgrip handle	310.301
1 drill depth stop	272.604
1 screw adapter 1/4"	272.620
1 quick-clamp chuck Ø 1.5-13 mm	272.639
1 plastic carrying case	310.409

**Called for in sensitive areas:
FLEX core drill technology for vibration-free jobs**





Where drilling with low noise, little dust, and reduced vibration is required, that is where FLEX core drill technology goes to work.

Without hammering or with soft hit mode a cement core is milled out with absolute precision and reinforcements are no hindrance. Ideal for drilling and break-through work in sensitive areas such as hospitals, laboratories, computer facilities, office buildings, and schools.

Accelerate – drill through, without disruption!

Core drill units

Blind hole drills



BED 55
257.081

BED 163
257.124

BED 303
258.782

BED 69
254.175

BHW 1549 VR
299.197

BSW 1513 VR
256.666

BSW 2123 C
256.840

BSW 3023 C
265.616

BSW 1549 VR
299.189

BD 05
254.436

BD 160
256.955

BD 300
258.783

BD 06
254.186

G 1/2" drill bits, wet for concrete and natural stone see page 116

Wet drill bits for concrete | see page 116

Transport carriage 258.864

VP 5 Vacuum pump 259.458 | see page 115

Quick-clamp post 250 cm 253.514

Fastening set with 25 drive-in dowels 329.606 see page 119

Conversion kit for vacuum attachment | 256.959 | 258.854

Water collector ring, complete for drill Ø up to 130 mm | 257.076

Dry/wet vacuum cleaner S 36 and S 36 M 297.003 / 319.252

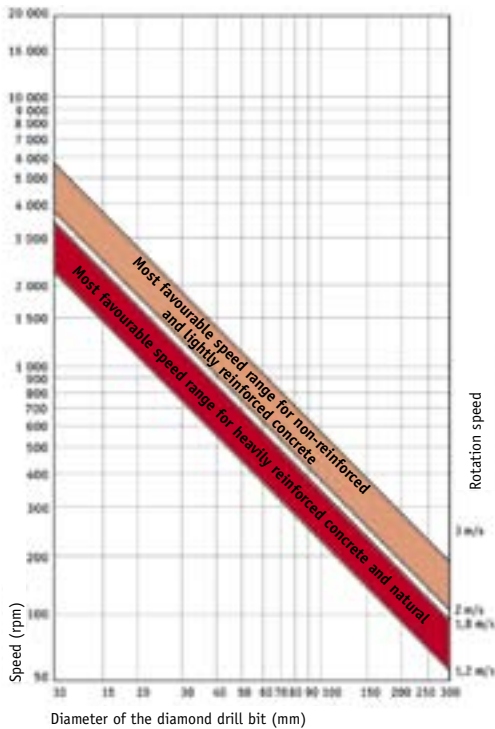
Rubber cap for 130 mm Ø 256.958

WD 10 Portable pressurised water tank | 251.622 | see page 115

Diamond blind hole drill from 5-10 mm Ø | see page 117

Hollow diamond drill bit from 6-14 mm Ø | see page 117

Application examples: Core drill technology



STANDARDS FOR OPTIMAL SPEEDS

For non-reinforced and lightly reinforced concrete the upper speeds are valid from the most favourable range. The lower speed values are valid for heavily reinforced concrete. Too low speeds mean slow drill advance. Too high speed means unnecessary great wear.

Always use water cooling when working in cement.

The greater the drill diameter, the more rinsing water is necessary. And always with sufficient water pressure to flush out all drilling sludge, otherwise the diamond coating wears off. Exception: the new BHI 822 VR can also drill dry in concrete. The switchable soft hit mode quickly and completely removes the bore dust from the bore hole.

The drilling pressure „should not be too high. Slow down the drill advance in reinforced concrete; work with low speed in heavier reinforcement.“

In case diamond segments come off, turn in the segments along with the drill bit for repair. Never drill in a hole with broken off segments in it.

Drill cores jammed into drill bits have to be pressed out upwards. Don't use a hammer. It could dent the drill bit and jam the core in rock-solid. Diamond segments could break off.

If drill bit is loaded, briefly drill into a sharpening stone, then it draws through again.

FLEX accessories core drill technology starting page 116

ADVANTAGES AT A GLANCE

- FLEX seven-fold microprocessor electronics: with consistent speed control by tachometer generator, soft start, accelerator trigger switch, restart protection after power interruption, overload protection, temperature monitoring, and speed selection
- Two-gear transmission: for speed-compatible working
- Additional handle: rotating auxiliary handle with stops to prevent turning
- Safety slip clutch: offers protection if the core drill is jammed
- Depth limit gauge: for precision drilling
- Machine connection: 5/8" 16 UN
- Clamping neck: 53 mm, suitable for application in drilling stands
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR BHI 822 VR

- Switchable soft hit mode for working in concrete without water supply
- Drill bit adapter: M 16

BH 612 VR

333.255

New



The robust compact core drilling machine for dry drilling

The newest entry in the FLEX dry drilling system can drill up to 120 mm into walls without hammering, thanks to its proven gear technology. Accessories broaden the use of the basic model - customised for electrical installation, for example. This facilitates dust-free work and faster progress.

SPECIFICATIONS	BH 612 VR
Power input	1500 Watt
Power output	1000 Watt
Machine connection	5/8"-16 UN
Speed under load 1st/2nd gear	0-1000 / 0-2500 rpm
Nominal torque 1st/2nd gear	9,5 / 3,8 Nm
Max. drilling Ø masonry	120 mm
Weight	4,1 kg

STANDARD EQUIPMENT

1 handle	257.580
1 open-ended wrench SW 22	109.398
1 drill depth stop	251.047
1 clamp fitting with ratchet clip	259.490
1 plastic carrying case	329.908

BHI 822 VR

315.621



The FLEX core drilling machine for dry drilling with switchable soft hit mode

This versatile tool can dry drill masonry and now even concrete walls. In masonry it is ideal for non-hammering placement of junction or switch boxes, flute connections, break-throughs, or connections of range hoods. For working in concrete the soft hit mode can be switched on for faster drill advance without water supply.

SPECIFICATIONS	BHI 822 VR
Power input	1800 Watt
Power output	1200 Watt
Tool fixture	M 16
Speed under load 1st/2nd gear	0-1400 / 0-3500 rpm
Nominal torque 1st/2nd gear	8,2 / 3,3 Nm
Max. drilling Ø in masonry	180 mm
Max. drill hole Ø in concrete	82 mm
Weight	5,1 kg

STANDARD EQUIPMENT

1 handle	257.580
1 adapter 5/8"-16UN/M16	255.424
1 open-ended wrench SW 24	198.781
1 open-ended wrench SW 22	109.398
1 wrench case	258.523
1 drill depth stop	251.047
1 clamp fitting with ratchet clip	259.490
1 plastic carrying case	329.908

Core drilling machines, Blind hole drills

BHW 812 VV

277.940



The handy FLEX core drilling machine for wet drilling

The wet version of this handy machine is designed for drilling concrete (without hammer action) for distributor boxes, fireplace connections, junction boxes and conduits. Also ideally suited for precision drilling when securing heavy-load anchors.

SPECIFICATIONS	BHW 812 VV
Power input	1800 Watt
Power output	1200 Watt
Speed under load 1st/2nd gear	0-1000 / 0-3800 rpm
Tool fixture	G 1/2"
Clamping neck Ø	53 mm
Max. drill hole Ø in concrete	85 mm
Max. drilling Ø masonry	185 mm
Weight	4,7 kg

STANDARD EQUIPMENT

1 handle	257.580
1 open-ended wrench SW 22	109.398
1 open-ended wrench SW 32	251.475
1 wrench case	258.523
1 drill depth stop	251.047
1 clamp fitting with ratchet clip and centering aid	259.491
1 GFCI operator protection circuit breaker in cord	257.373
1 plastic carrying case	329.908

ADVANTAGES AT A GLANCE

- FLEX five-fold VV electronic control: consistent speed control, soft start with acceleration trigger, overload protection, temperature monitoring and speed pre-selection
- Two-gear transmission: for speed-compatible working
- Additional handle: rotating auxiliary handle with stops to prevent turning
- Safety slip clutch: offers protection if the core drill is jammed
- Depth limit gauge: for precision drilling
- Drill bit adapter: G 1/2" (internal)
- Clamping neck: 53 mm, suitable for application in drilling stands
- Water supply: integrated, water collection ring available as accessory
- GFCI operator protector circuit breaker: integrated in cord
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADVANTAGES AT A GLANCE

- FLEX triple VR electronics: with consistent speed control by tachometer generator, overload protection, and speed selection
- Quick-action, brass coupling: for 1/2" water hoses
- GFCI operator protector circuit breaker: integrated in cord
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR BHW 1549 VR

- Tool fixture: M 14 for 5-10 mm Ø diamond blind hole drills

ADDITIONALLY FOR BED 18

- Stationary drill stand: with precision column guide
- Suction cup and vacuum: for fixing to smooth surfaces
- Adapter for vacuum extraction
- Tool fixture: M 14 for hollow diamond drills 6-14 mm Ø

BHW 1549 VR

299.197



The FLEX blind hole drill with integrated water supply

The water supply is integrated into the gearbox of this drill. This cools the diamond drill bit optimally and flushes away the drilling sludge. Perfect holes can be drilled in concrete and stone in next to no time. Tilting is avoided, thanks to the low structural silhouette. It can also be used with the FLEX pressurised water tank.

SPECIFICATIONS	BHW 1549 VR
Power input	1200 Watt
Power output	700 Watt
Speed under load	3000-9000 rpm
Speed without load	3500-10000 rpm
Tool fixture	M 14
Diamond drill Ø	5-10 mm
Weight	3,3 kg

STANDARD EQUIPMENT

1 bail handle	236.934
1 open-ended wrench SW 17	106.461
1 splash guard	255.171
1 GFCI operator protection circuit breaker in cord	257.373
1 metal carrying case	273.686

BED 18

290.300



The light FLEX anchor drilling unit with integrated water supply

Exemplary light weight and a play-free column guide of the stationary drill stand ensure precision right-angled drilling results. Ideal for hard, brittle material, such as natural stone tiles, fine stoneware tiles, concrete, rock, or masonry. Swivelling vacuum fixing keeps the drill from slipping and thus prevents scratching of sensitive surfaces. Precision drilling is guaranteed by positioning the unit with the crosshairs. Extraction of the drilling sludge is taken care of by the FLEX industrial vacuum cleaner. It also creates extra suction for the vacuum fixation of the stationary drill stand.

SPECIFICATIONS	BED 18
Power input	1200 Watt
Power output	700 Watt
Speed without load	3500-10000 rpm
Tool fixture	M 14
Diamond drill Ø	6-14 mm
Weight	4,1 kg

STANDARD EQUIPMENT

1 suction cup	292.052
1 bail handle	236.934
1 stationary drill stand with column guide	290.343
1 Vacuum hose connection	255.507
1 sharpening stone	1 piece
1 GFCI operator protection circuit breaker in cord	257.373
1 metal carrying case	293.008

Core drilling units

BED 55

257.081



The FLEX core drilling unit for confined areas

The slim, stable drill stand, lateral supports and long feed column are characteristic of this drilling unit, enabling drilling of the next higher step from a lower one. Swivelling the feed column enables drilling in corners and recesses on banisters, gravestones and baths. Drilling speed can be adapted to any bit diameter (12-85 mm) thanks to mechanical 3-speed gearing and VR full-wave electronic control.

SPECIFICATIONS	BED 55
Power input	1200 Watt
Power output	700 Watt
Speed under load 1st/2nd/3rd gear	350-1000 / 800-2300 / 1600-4600 rpm
Tool fixture	G 1/2"
Diamond drill bit Ø	12-85 mm
Surface area occupied by stand	420 x 120 mm
Weight (complete unit)	17,2 kg

STANDARD EQUIPMENT

Water collection up to 50 mm Ø	256.370
1 GFCI operator protection circuit breaker in cord	256.790
Stationary drill stand BD 05	254.436

BED 69

254.175



The FLEX core drilling unit for drilling edges in facing slabs

The drilling unit consists of the BSW 1549 VR drilling machine permanently mounted on the stable BD 06 stationary drill stand. Speed range is designed for diamond blind hole drills and drill bits with a diameter of 6 to 14 mm. The drills are screwed directly onto the machine, prevent twisting and enabling precise drilling at right angles.

SPECIFICATIONS	BED 69
Power input	1200 Watt
Power output	700 Watt
Speed under load	3000-9000 rpm
Speed without load	3500-10000 rpm
Tool fixture	M 14
Diamond drill bit Ø	5-14 mm
Weight (complete unit)	15,5 kg

STANDARD EQUIPMENT

1 GFCI operator protection circuit breaker in cord	257.373
Stationary drill stand BD 06	254.186

ADVANTAGES AT A GLANCE

- FLEX triple VR electronics: with consistent speed control by tachometer generator, overload protection, and speed selection
- Integrated water supply: through the gear head
- GFCI operator protector circuit breaker: integrated in cord
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR BED 55

- Stationary drill stand: with precision column guide, drill stroke up to 300 mm
- Water collector with suction cup: for collecting water, even on stairs
- Drill bit connection: G 1/2"
- Safety slip clutch: offers protection if the core drill is jammed

ADDITIONALLY FOR BED 69

- Clamping device: for slab thickness from 20 to 50 mm, with 2 adjustable stops (60/60 cm)
- Tool fixture: M 14



BED 55: Pick up water even on stairs

Fasten the water collector with suction cup up to approx. 50 mm Ø in drilling position, position feed column with drill bit over the water collector, extract water.

Core drill technology

ADVANTAGES AT A GLANCE

- Mechanical 3-speed gearbox: with optimum speed graduation
- Safety clutch: offers protection if the core drill is jammed
- Bubble level: for accurate unit alignment
- Drill centering indicator: with drill center indicator
- Quick-release core bit ring: 1 1/4" UNC
- Slanted drilling: up to 45°
- Hand crank: attaches to both sides
- GFCI operator protector circuit breaker: integrated in cord
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR BED 163

- Drill bit connections: combination shaft with two connections, G 1/2" (internal), 1 1/4" UNC (external)
- Effective drill bit length: max. 450 mm
- Mounting for water collection ring: for drill Ø up to 130 mm

ADDITIONALLY FOR BED 303

- Overload protection: for a long service life
- Electrical surge protection: for a soft start without power overloading
- Effective drill bit length: max. 700 mm
- Drill bit connection: 1 1/4" UNC (external)
- Combined anchor and vacuum pad
- Quick-clamping fixture: for speedy fitting of the detachable drive motor
- Seals: can be replaced quickly from the outside

BED 163

257.124



The portable FLEX core drilling unit with anchor or vacuum attachment

The 2000 Watt strong, three-gear drill BSW 2123 C combined with the BD 160 stationary drill stand - that is what a light, mobile unit looks like for a one-man operation. The drill bits are cooled directly by the central water supply. The seals can be replaced quickly from the outside. The combination shaft with two connections, G 1/2" inside, 1 1/4" UNC outside, makes the connection of FLEX drill bits possible. The water collector ring prevents water damage.

SPECIFICATIONS	BED 163
Power input	2000 Watt
Power output	1400 Watt
Speed under load 1st/2nd/ 3rd gear	450 / 1080 / 2100 rpm
Tool fixture	G 1/2" (internal), 1 1/4" UNC (external)
Diamond drill bit Ø 1st/2nd/ 3rd gear	80-162 / 35-80 / 12-35 mm
Surface area occupied by stand	430 x 200 mm
Weight (complete unit)	18,0 kg
Weight (machine)	8,8 kg

STANDARD EQUIPMENT

1 open-ended wrench SW 24	198.781
1 open-ended wrench SW 36	253.649
1 GFCI operator protection circuit breaker in cord	257.264

BED 303

258.782



The universal FLEX three-gear core drill unit with anchor or vacuum attachment

No other unit in this performance class is this light, this mobile, and so universally employable for concrete and reinforced concrete. Because of its husky 3000 Watt drive and its three-gear transmission it covers the entire bandwidth of the important drilling range of 35 to 300 mm diameters.

SPECIFICATIONS	BED 303
Power input	3000 Watt
Power output	2100 Watt
Speed under load 1st/2nd/ 3rd gear	250 / 500 / 1000 rpm
Tool fixture	1 1/4" UNC (external)
Diamond drill bit Ø 1st/2nd/ 3rd gear	150-300 / 75-150 / 35-75 mm
Surface area occupied by stand	300 x 650 mm
Weight (complete unit)	36,0 kg
Weight (machine)	12,5 kg

STANDARD EQUIPMENT

1 open-ended wrench SW 32	251.475
1 GFCI operator protection circuit breaker in cord	258.562

Core drilling units

BSW 2123 C

256.840



The powerful 2000 Watt core drilling machine for 12-162 mm Ø

The powerful 2000 Watt BSW 2123 C is perfectly at home in the 12 to 162 mm diameter range. The water supply cools the core bits directly. Seals can be replaced quickly from the outside. The combination shaft with 2 drill bit connections allows to connect any drill bit.

SPECIFICATIONS	BSW 2123 C
Power input	2000 Watt
Power output	1400 Watt
Speed under load 1st/2nd/ 3rd gear	450 / 1080 / 2100 rpm
Tool fixture	G 1/2" / 1 1/4" UNC
Diamond drill bit Ø 1st/2nd/ 3rd gear	80-162 / 35-80 / 12-35 mm
Weight	8,8 kg

STANDARD EQUIPMENT

1 open-ended wrench SW 36	253.649
1 GFCI operator protection circuit breaker in cord	257.264

BSW 3023 C

265.616



The 3000 Watt core drilling machine for 35-300 mm Ø

This powerful machine produces 3000 Watt and covers the entire diameter range from 35 to 300 mm in concrete and reinforced concrete. The water supply cools the core bits directly. Seals can be replaced quickly from the outside.

SPECIFICATIONS	BSW 3023 C
Power input	3000 Watt
Power output	2100 Watt
Speed under load 1st/2nd/ 3rd gear	250 / 500 / 1000 rpm
Tool fixture	1 1/4" UNC (external)
Diamond drill bit Ø 1st/2nd/ 3rd gear	150-300 / 75-150 / 35-75 mm
Weight	12,5 kg

STANDARD EQUIPMENT

1 open-ended wrench SW 32	251.475
1 GFCI operator protection circuit breaker in cord	258.562

ADVANTAGES AT A GLANCE

- Mechanical 3-speed gearbox: with optimum speed graduation
- Overload protection: for a long service life
- Electrical surge protection: for a soft start without power overloading
- Safety clutch: offers protection if the core drill is jammed
- Seals: can be replaced quickly from the outside, no need to dismantle the motor
- Quick-release core bit ring: 1 1/4" UNC
- GFCI operator protector circuit breaker: integrated in cord
- Quality shut-off carbon brushes: if the carbon brushes wear down, the motor will be automatically switched off and thus protected from damage

ADDITIONALLY FOR BSW 2123 C

- Drill bit connections: combination shaft with two connections, G 1/2" (internal), 1 1/4" UNC (external)

ADDITIONALLY FOR BSW 3023 C

- Drill bit connection: 1 1/4" UNC (external)

Vacuum pump, Water pressure tank

ADVANTAGES AT A GLANCE

VP 5

- Carrying handle: for easy transportation
- Filter and trap: dirt and dust is not sucked up
- Safety valve: pressure monitoring gauge, non-return valve, safety tank

VP 5

259.458



The FLEX vacuum pump for BED 163 and BED 303

The handy pump with its high capacity of 5 m³/h, provides the necessary suction and secure stance for the stationary drill stand. It is put to use everywhere on level surfaces where the stationary drill stand cannot be affixed with dowels, but rather with the conversion kit for vacuum attachment.

SPECIFICATIONS	VP 5
Power input	350 Watt
Pumping capacity	83 l/min
Capacity	8 l
Weight	12,0 kg

STANDARD EQUIPMENT

2,5 m vacuum hose	259.460
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WD 10

251.622



The FLEX pressurized water tank







The 10 liter pressurized water tank is used on construction sites where a water connection is not available. It provides sufficient cooling and rinsing water at an operating pressure of 6 bar and is highly mobile, thanks to the 4 m pressure hose and an empty weight of only 4,5 kg.

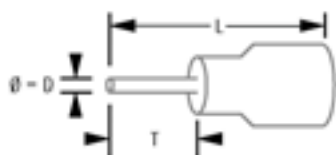
SPECIFICATIONS	WD 10
Capacity	10 l
Weight	4,5 kg



STANDARD EQUIPMENT

4 m pressure hose	252.317
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Quality accessories Core drill technology








	Diameter in mm	QP	Order number	BHW 812 VV	BED 55	BED 163	BED 303												
Wet core drill bits for the BHW 812 VV, BED 55, BED 163 and BED 303																			
Diamond drill bits for marble and granite																			
 <p>wet, G 1/2", external thread, effective length 100 mm, continuous segments for 12-15 mm Ø, divided segments for 18-65 mm Ø</p>	12 Ø	1	254.563	■	■	■	-												
	14 Ø	1	254.564	■	■	■	-												
	15 Ø	1	258.753	■	■	■	-												
	25 Ø	1	254.567	■	■	■	-												
	30 Ø	1	254.566	■	■	■	-												
	42 Ø	1	254.882	■	■	■	-												
	45 Ø	1	258.755	■	■	■	-												
Diamond core drill bits for concrete																			
 <p>wet, G 1/2", external thread, effective length 300 mm</p>	42 Ø	1	258.769	■	■	■	-												
	52 Ø	1	258.770	■	■	■	-												
	61 Ø	1	252.594	■	-	■	-												
 <p>wet, G 1/2", external thread, effective length 400 mm</p>	40 Ø	1	252.592	■	■	■	-												
	 <p>wet, 1 1/4" UNC, internal thread, effective length 400 mm</p>	62 Ø	1	254.180	-	-	■	■											
		72 Ø	1	253.543	-	-	■	■											
		82 Ø	1	253.544	-	-	■	■											
		92 Ø	1	253.545	-	-	■	■											
		102 Ø	1	253.546	-	-	■	■											
		112 Ø	1	253.547	-	-	■	■											
		122 Ø	1	253.548	-	-	■	■											
		132 Ø	1	257.015	-	-	■	■											
	152 Ø	1	257.016	-	-	■	■												
	162 Ø	1	257.017	-	-	■	■												
	202 Ø	1	258.772	-	-	-	■												
	 <p>wet, 1 1/4" UNC, inside thread, effective length 450 mm</p>	300 Ø	1	258.775	-	-	-	■											
		Diamond core drill bits for junction boxes in concrete																	
	 <p>wet, G 1/2", external thread, effective length 70 mm</p>	68 Ø	1	253.541	■	-	-	-											
82 Ø		1	253.542	■	-	-	-												



		D in mm	T in mm	L in mm	QP	Order number	BHW 1549 VR	BED 18	BED 69											
Wet drills for the BHW 1549 VR, BED 18 and BED 69																				
Diamond blind hole drill bit																				
 <p>M 14, wet, for natural stone</p>	5 Ø	25	60	1	250.491	■	-	■												
	6 Ø	50	80	1	250.492	■	-	■												
	8 Ø	50	80	1	250.493	■	-	■												
	10 Ø	50	80	1	250.494	■	-	■												
Hollow diamond drill bit																				
 <p>M 14, wet, for natural stone and fine stoneware tiles</p>	6 Ø	65	95	1	315.052	-	■	-												
	8 Ø	80	110	1	315.060	-	■	-												
	10 Ø	95	125	1	315.079	-	■	-												
	12 Ø	105	135	1	315.087	-	■	-												
	14 Ø	115	145	1	315.095	-	■	-												

Quality accessories Core drill technology

		Dimensions in mm	Diameter in mm	QP	Order number	BH 612 VR/BHI 822 VR	BHW 812 VV	BHW 1549 VR	BED 18	BED 55	BED 69	BED 163	BED 303
Accessories for BH 612 VR and BHI 822 VR													
Diamond core drill bits for bricks and concrete, without extraction													
	dry, M 16, internal thread without dust vacuum extraction, with roofing profile segments, for improved centering, effective length 60 mm		82 Ø	1	250.524	■	-	-	-	-	-	-	-
Diamond junction box bits for brick and concrete, with dust extraction													
	dry, M 30 x 2, 4 segments, inside thread with dust extraction, for extraction rotor: Order no. 251.568		68 Ø	1	251.570	■	-	-	-	-	-	-	-
			82 Ø	1	251.571	■	-	-	-	-	-	-	-
Centering cross													
	for Core bit with dust extraction, magnetic			1	251.569	■	-	-	-	-	-	-	-
Dust extraction													
	Extracts health-hazardous dust and also lengthens the service life of the drill bit. With torsion block. Drill bit connection: M 30 x 2, machine connection: M 16.			1	251.568	■	-	-	-	-	-	-	-
Adapter													
	Adapter 5/8-16 UN to M 16 for connecting the machine to the dust extractor or core bit			1	255.424	■	-	-	-	-	-	-	-
Additional accessories													
Sharpening stone for diamond tools													
		320 x 160 x 30		1	251.756	■	■	■	■	■	■	■	■
Plastic Multi-Carry case													
	Perfect fitting, impact resistant carry case, universally adaptable for many different FLEX-Maschinen			1	329.908	■	■	-	-	-	-	-	-
Water collection ring													
	The water collection ring and water vacuum prevent dirt and water damage. With centering aid, 1 guide ring kit, seals, hose.			1	255.036	-	■	-	-	-	-	-	-
Vacuum hose for water collection ring													
	Vacuum hose, consisting of: 1 vacuum hose (255.505) and 1 vacuum hose connection (255.507)			1	255.506	-	■	-	■	-	-	-	-

	Ring-Ø in mm	Drill bit Ø in mm	QP	Order number	BH 612 VR/BHT 822 VR	BHW 812 VV	BHW 1549 VR	BED 18	BED 55	BED 69	BED 163	BED 303
Additional accessories												
Vacuum hose				1	255.505	-	■	-	■	-	-	-
Vacuum hose connection				1	255.507	-	■	-	■	-	-	-
Centering aid with clamp fitting  For drill bits with an effective length of 180 mm				1	259.491	■	■	-	-	-	-	-
Extension for centering aid  For drill bits with an effective length of 400 mm				1	255.468	■	■	-	-	-	-	-
Seal ring kit from 20-56 mm Ø  For drill bit Ø 25-61 mm. The internal Ø of a seal ring is 5 mm smaller than the diamond drill bit Ø	Set with 5 different Ø			5	255.514	-	■	-	-	-	-	-
Seal ring  For drill bit Ø 25-61 mm. The internal Ø of a seal ring is 5 mm smaller than the diamond drill bit Ø	20 Ø	25 Ø		1	255.484	-	■	-	-	-	-	-
	26 Ø	31 Ø		1	255.485	-	■	-	-	-	-	-
	36 Ø	41 Ø		1	255.486	-	■	-	-	-	-	-
	50 Ø	55 Ø		1	255.487	-	■	-	-	-	-	-
	56 Ø	61 Ø		1	255.488	-	■	-	-	-	-	-
Guide ring kit from 25-61 mm Ø  The internal Ø of a guide ring is 1 mm greater than the diamond drill bit Ø.	Set with 5 different Ø			5	255.515	-	■	-	-	-	-	-
Guide ring  The internal Ø of a guide ring is 1 mm greater than the diamond drill bit Ø.	25 Ø	26 Ø		1	255.493	-	■	-	-	-	-	-
	31 Ø	32 Ø		1	255.494	-	■	-	-	-	-	-
	41 Ø	42 Ø		1	255.495	-	■	-	-	-	-	-
	55 Ø	56 Ø		1	255.496	-	■	-	-	-	-	-
	61 Ø	62 Ø		1	255.497	-	■	-	-	-	-	-
Fastening set  The fixing set for Core drilling units - for demanding building site applications -includes 1 fixing bolt: 329.614; 1 wing nut washer: 331.082 and 25 drive in anchors: 329.622				1 set	329.606	-	-	-	-	-	■	■

Remove hazardous materials as well: The FLEX industrial vacuum cleaners



The 12 best advantages of the FLEX industrial vacuum cleaners:

1 Integrated flat-fold filter

Is extremely flat and, different from cartridge filters, does not reach into the container. Thus the container can be used 100% and the filter remains absolutely dry even during wet vacuuming. Filter exchange from outside – quick, easy, and no dirty fingers.

2 Highly efficient filter cleaning

Can be activated during running operation at any time by pressing the filter-free switch on the handle – fully automatic.

3 Strengthened paper bags

Extra rip-proof and safe even with sharp-edged objects.

4 Deposit surface and holders

Keep hoses and accessories tidy.

5 Drive motor with bypass ventilator

Vacuum air and motor cooling air blow separately in two channels. Dirty vacuum air is not fed through the motor. That protects the motor and increases the vacuum performance.

6 Sound insulation hood

The suction turbine is encapsulated; operating noise is especially quiet.

7 Armoured housing

The impact resistant, recyclable plastic makes the housing strong and light, easy to clean, and corrosion free.

8 Smooth-running carriage

Two large wheels and two double-rollers provide mobility. The locking brake ensures a firm stance.

9 Device socket

To connect other devices. Starts and stops the vacuum as the machine is switched on and off. With 15-second automatic after-running.

10 Meets the BIA user category G (for S 36 M)

Extremely high interception ratio of 99.9% – for lowest dust concentrations and healthier working.

11 Bayonet turn catch

The suction hose connection is rotatable and is fastened by bayonet: no twisting, no accidental loosening of the suction hose during operation.

12 Top accessories program

All adapters and auxiliary attachments in store.

FLEX industrial vacuum cleaners suck it all up.

Their filter systems intercept all dust – even health-hazardous substances. This provides even more safety during dry and wet operation. And once the filter is full, it is shaken out from the suction hose by remote control while the motor is running: Press the filter-free switch and the full vacuum power is there again!



Application examples: Industrial vacuum cleaner



PERFECTLY ADAPTED TO EACH OTHER

Only in connection with a powerful vacuum such as the S 36 the FLEX Giraffe can show its full potential. WS 702 VEA Giraffe, long-neck sander
 ▶ on page 78



FILTER-FREE SWITCH ON SUCTION HOSE

When the flat-fold filter is full it can be shaken out by remote control during the vacuum. Industrial vacuum cleaner S 36 and S 36 M
 ▶ on page 124

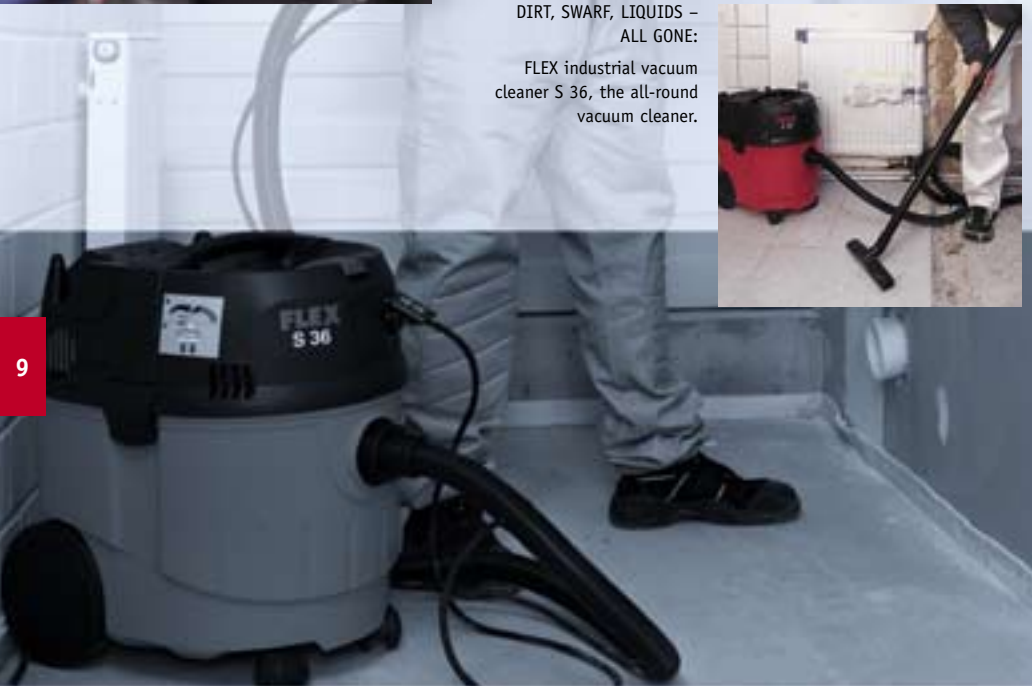
DIRT, SWARF, LIQUIDS – ALL GONE:

FLEX industrial vacuum cleaner S 36, the all-round vacuum cleaner.



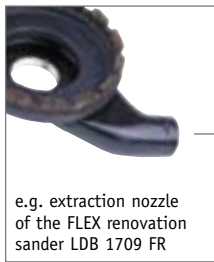
CLEANER AND HEALTHIER WORKING

The FLEX industrial vacuum cleaners extract dust and dirt where it is created: right at the power tool.







Overview of the FLEX extraction system: Which suction hose adapter fits to which FLEX electrical power tool?

FLEX electrical power tool with extraction nozzle:



e.g. extraction nozzle of the FLEX renovation sander LDB 1709 FR

Matching adapter for suction hose:

- 1**  **Universal adapter**
Can be trimmed to 3 Ø:
from 25mm to 32mm Ø
Order no. **320.188**
- 2**  **Universal adapter**
Can be trimmed to 3 Ø:
from 25mm to 32mm Ø
Order no. **259.827**
- 3**  **Adapter 32/28**
Reduction of 32mm to
28mm Ø
Order no. **251.847**
- 4**  **Adapter 32/32**
from 32mm to 32mm Ø
Order no. **328.308**
- 5**  **Adapter 32/36**
Expansion from 32mm to
36mm Ø
Order no. **257.169**



6 Suction hose extension with snap connection
Order no. **296.953**

FLEX suction hose with snap connection:



FLEX industrial vacuum cleaners S 36 and S 36 M:



FLEX electrical power tool with extraction nozzle:	Extraction nozzle Outer/inner ø in mm:	Matching adapter for suction hose:	Instructions for trimming the universal adapter 1 and 2 for adapting to the extraction nozzles of the power tool:
Angle grinder with cutting guard L 1710 FRA, L 1710 FRC, L 1710 VR, L 2106 VC, L 3206 CD	32/-	or or 1 2 + 6 4 + 6	→ Trim 2 segments, slide on extraction nozzle from outside → Trim 2 segments, slide on extraction nozzle from outside
Renovation scouring machines FS 3403 VRG		or 1 2 + 6	→ Trim 1/2 segment, slide on extraction nozzle from outside → Trim 1/2 segment, slide on extraction nozzle from outside
HPI 603	36/-	5	
Renovation sanders LD 1709 FR, LD 3206 C	32/-	or or 1 2 + 6 4 + 6	→ Trim 2 segments, slide on extraction nozzle from outside → Trim 2 segments, slide on extraction nozzle from outside
LDB 1709 FR	-/32	or 1 2 + 6	→ Trim 2 segments, plug into extraction nozzle → Trim 2 segments, plug into extraction nozzle
Wall chaser MS 1706 FR-Set with included adapter 327.026	28/-	without adapter 3 + 6	
Circular saws CS 3455 A	-/36	or 1 2 + 6	→ Trim 2 segments, plug into extraction nozzle → Trim 2 segments, plug into extraction nozzle
CSW 4160	25/-	or 1 2 + 6	→ Slide on extraction nozzle from outside → Slide on extraction nozzle from outside
Jigsaws S 203 BVE	36/32	or 1 2 + 6	→ Trim 2 segments, plug into extraction nozzle → Trim 2 segments, plug into extraction nozzle
S 203 KVE	36/32	or 5	
Universal sanders X 1107 VE	28/-	or or 1 2 + 6 4 + 6	→ Trim 1 segment, slide on extraction nozzle from outside → Trim 1 segment, slide on extraction nozzle from outside
MS 713	-/36	or 1	→ Trim 2 segments, plug into extraction nozzle
XS 713	-/36	or 2 + 6	→ Trim 2 segments, plug into extraction nozzle

All-round vacuum cleaner

S 36

297.003



The versatile FLEX all-round vacuum cleaner with automatic filter cleaning

Thanks to the great suction capacities the all-round vacuum picks up everything: Dust, dirt, swarf, and even liquids. And it is especially well suited for operation with the long-necked grinder FLEX Giraffe WS 702 VEA: Fine sanding dust that is created when plaster-board panels are sanded is nearly totally filtered out. Should the large-volume flat-fold filter be full it can be shaken down automatically at the press of a button. An when it needs to be replaced - simply pull it out from the outside. If an electrical power tool has been connected to the tool power socket of the vacuum, then the vacuum starts up within 0,5 seconds after the power tool is switched on. And once the machine is switched off the vacuum runs on for 15 more seconds to extract the remaining dust. A deposit surface and a holder for hose and accessories keeps everything neat. Two large wheels and two double-coasters, one with locking brake, makes the vacuum mobile.

ADVANTAGES AT A GLANCE

- Connection for power tools: up to 2200 Watt power input
- Patented filter vibration: vibration at the press of a button on the vacuum hose
- Suitable for wet vacuuming: with electronic liquid monitoring
- Vacuum hose: 4 m long, 32 mm internal Ø, with minimum flow resistance for maximum vacuuming performance
- 2 connection adapters: adapter for 28 mm vacuum connection and universal adapter for 25-32 mm vacuum connections



Extra rip-proof filter bags

Even sucked-up bits of stone cause no damage.



With plug for power tools.

Plug in – start saw – the vacuum starts up immediately and continues running for 15 seconds after the Tool is switched off.

SPECIFICATIONS

	S 36
Filter surface	6200 cm ²
Power input	1200 Watt
Max. air flow rate	56 l/sec
Max. vacuum	235 mbar
Container volume	35 l
Weight	10,0 kg

STANDARD EQUIPMENT

4 m vacuum hose 32 mm Ø with 32/28 mm Ø adapter, 25-32 mm Ø universal adapter and vacuum hose extension	297.011
1 filter bag	1 piece
1 flat folded filter	296.945
0,5 m metal vacuum tube	300.691 (2x)
1 floor nozzle complete with carpet combination insert	300.659
1 crevice nozzle	259.627

ADVANTAGES AT A GLANCE

- Safety filter system: Meets the BIA user category G, maximum permeability < 0,1 %, special for health-hazardous materials
- Visual and acoustical flow-rate monitor: Full suction under all conditions
- Exhaust diffusor: Protection against raising dust due to exhausts
- Connection for power tools: up to 2200 Watt power input
- Patented filter vibration: vibration at the press of a button on the vacuum hose
- Suitable for wet vacuuming: with electronic liquid monitoring
- Universal connection adapter: Standard, for 25-32 mm extraction connections



Cover on and close

Suction nozzle closing prevents pathogenic dusts that are harmful to health from escaping during transport.

STANDARD EQUIPMENT

2,5 m vacuum hose 32 mm Ø with snap	1 piece
1 universal adapter with snap 25-32 mm Ø	320.188
1 filter bag	1 piece
1 flat folded filter	296.945
1 elbow	297.038
0,5 m metal vacuum tube	300.691

S 36 M

319.252



The FLEX special vacuum for hazardous dusts

Especially constructed for a clean extraction of at least 99,9 percent of health-hazardous dusts and fluids: Granulates, sanding dust and swarf, e.g. from wood and metals, materials containing cement as well as plastics. The diffusor attached outside on the vacuum housing reduces the air exhaust speed and thus avoids swirling up harmful dusts from the floor. And in order to prevent dust from escaping from the refuse container while the vacuum is transported, the suction nozzle can be locked on the device. In case the capacity of the vacuum drops below 20 l/sec this will be indicated by a visual and acoustical warning signal. Just as with the all-purpose vacuum S 36 the filter can be conveniently shaken down at the press of a button using the filter-free switch on the suction hose. The device has the full extraction capacity once more following the shake down. The S 36 M is also equipped with a plug for electrical power tools - with automatic 0,5 sec switch-on and 30 sec. after-running. Remaining dust does not have a chance to get into the surrounding air. Large wheels and double-coasters provide smooth running.

SPECIFICATIONS

	S 36 M
Filter surface	6200 cm²
Power input	1200 Watt
Max. air flow rate	56 l/sec
Max. air flow rate according to EN 60312	35 l/sec
Max. vacuum	235 mbar
Container volume	35 l
Weight	11,0 kg

Quality accessories industrial vacuum cleaner

Accessories for FLEX industrial vacuum cleaners S 36 and S 36 M

Fleece filter bags



Filter bag with FLEX VacuFleece Technologie for the S 36 and S 36 M double volume capacity compared to paper filter bags (Order no. 296.961). Tear resistant 4 layered VacuFleece material offers protection against damage from sharp objects. Resistant to unintentional wet or damp objects.

QP	Order number
5	329.630

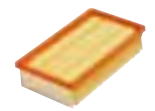
Paper-Filter bags



Filter bag for S 36 and S 36 M

QP	Order number
5	296.961

Flat folded filter



Flat-fold filter for S 36 and S 36 M

QP	Order number
1	296.945

Adapter



Adapter 32/28 mm, for connecting machines with 28 mm \emptyset vacuum attachment to 32 mm vacuum hose

QP	Order number
1	251.847

Adapter rotating



Adapter 32/32 mm, for connecting machines with 32 mm \emptyset vacuum attachment (e.g. renovation sanders, angle grinders with cutting guard) to 32 mm vacuum hose. Alternatively as vacuum adapter in connection with part number 882.428

QP	Order number
1	328.308

Adapter



Adapter 32/36 mm, for connecting machines with 36 mm \emptyset extraction connection (e.g. HPI 603) with 32 mm suction hose

QP	Order number
1	257.169



Universal adapter for universal connection of machines with 25-32 mm \emptyset extraction connection with 32 mm suction hose, adapter can be trimmed to 3 different diameters. Only for S 36.

QP	Order number
1	259.827



Universal adapter for universal connection of machines with 25-32 mm \emptyset extraction connection with 32 mm suction hose, for adapter with snap connection, can be trimmed to 3 different diameters.

QP	Order number
1	320.188

Cable clip



for fixing power tool cable to vacuum hose, suitable for 27-36 mm external \emptyset

QP	Order number
1	252.188

Vacuum tube



Metal vacuum tube, 0.5 m long, galvanized

QP	Order number
1	300.691

Vacuum hose



32 mm internal \emptyset , with snap coupling, 4.0 m long, temperature resistant to 70°C, incl. coupling bush for vacuum, filter-free switch module with snap coupling, vacuum hose extension, 32/28 mm adapter and universal adapter

QP	Order number
1	297.011

Vacuum hose extension



for connecting the vacuum hose snap coupling to the adapters 32/28 mm, 32/32 mm, 32/36 mm and the universal adapter

QP	Order number
1	296.953

Coupling bush



for connecting two FLEX vacuum hoses

QP	Order number
1	296.996

Vacuum hose snap coupling repair kit



Coupling bush for vacuum hose with snap coupling, 3-part

QP	Order number
1	296.988

Elbow



for connecting the vacuum hose and vacuum tube, with snap coupling

QP	Order number
1	297.038

Nozzle



Crevice nozzle

QP	Order number
1	259.627



Upholstery nozzle

QP	Order number
1	259.628



Floor nozzle, complete with carpet and combination insert

QP	Order number
1	300.659



Carpet insert for use with the floor nozzle

QP	Order number
1	300.675



Combination insert for use with the floor nozzle

QP	Order number
1	300.683

Accessories for FLEX industrial vacuum cleaners S 31 R, S 34 E, S 34 K, S 35 and S 35 H0

Paper-Filter bags

for S 31 R

QP	Order number
5	254.490

for S 34 E

QP	Order number
5	219.053

for S 34 K

QP	Order number
5	246.786

for S 34 K, double-wall reinforcement, specially designed for working with chasers, cutting and scouring machines

QP	Order number
5	252.222

for S 35



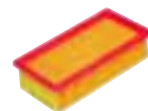
QP	Order number
10	259.264

for S 35 H0



QP	Order number
10	259.828

Flat folded filter



Flat folded filter for S 35 and S 35 H0

QP	Order number
1	259.307

Precise measurements and levelling: FLEX laser measuring technology



Application examples:

- Horizontal and vertical measuring/levelling
- Align wall frames, walls, windows, doors, mirror tiles, and so forth
- Lowering ceilings
- Determine heights of power outlets and light switches
- Determine top edge of screed
- Layout rows of tiles and floor panels
- Transfer heights and points for mounting – for mounting bus bars, recessed ceiling lamps, etc.
- Align advertising signs
- Determine slants and angles
- Project lines to align for example posters, pictures, and paintings

Laser technology has revolutionised measuring and levelling in the construction industry.

The tightly bundled laser beam is emitted absolutely straight and makes precise transfer of heights, angles in space, and verticals possible. In building and drywall construction and interior work, rotation lasers for example have now become indispensable. The emittance of their 360° beams can be conveniently remotely controlled in some applications. Even complicated measuring tasks can be easily done by one person. Aids are not needed any more.

Whether drywall constructors, tile layers, electricians, plumbers, kitchen installers, exhibition stand constructors, carpenters, painters, brick layers, and so forth – FLEX has the appropriate precision device for every professional craftsman, for every measuring application, and for every construction site: From the handy laser water level and the self-leveling line laser to the fully automatic rotation laser.

The introduction of these intelligent helpers has finally rendered bubble water levels, plumb lines, and complicated construction aids obsolete. Luminously intense diodes and the high projection precision of the FLEX-Lasers as well as auxiliary devices such as receivers make laser points or laser lines well visible even under poor light conditions and at greater distances.



Application examples: Laser Measuring Technology



ROTATION LASER WITH WALL AND CEILING MOUNT

Lowering of ceilings becomes a breeze thanks to the rotation laser, remote control, and optimal wall/ceiling mount.



ROTATION LASER IN INTERIOR CONSTRUCTION

Applying a cutting check is quickly done even on curved walls with the help of the rotating beam. Rotation laser ALR 512
▶ on page 133



ALIGNMENT OF PRE-FABRICATED BUILDING AND LIVING ELEMENTS

It's one horizontal and two switchable vertical laser lines project in the whole room, allowing for quick levelling and exact assembly.



MULTI-LINE LASER FOR THE HIGHEST DEMANDS

A permanent visible laser line with a 180° wide angle projection simulates the layout of the room. Self-levelling multi-line laser ALC 514
▶ on page 132



CROSSLINE LASER FOR DRY-WALL CONSTRUCTION

The individually switchable laser lines can easily dimension dividing walls and precisely align metal frame profiles. Self-levelling crossline laser ALC 311
▶ on page 132



CROSSLINE LASER IN BATHROOMS

For exact levelling of mirror tiles and for sanitary installations true to dimensions.



QUICK ALIGNMENT USING THE LASER MOUSE
Sticks with 3 adhesion points also on dry, dust-free surfaces. Laser mouse AL 11
▶ on page 135



5-POINT LASER FOR DETERMINING POSITIONS PRECISELY
Spatial transfer of orientation points and right angles in 3 axes.



5-POINT LASER FOR PLUMBING
Easy transfer of contours and cutouts using the plumb function. With automatic self-levelling. Self-levelling 5-point laser ALP 305
▶ on page 134

Safety information:

FLEXLaser measuring devices meet all international safety standards. They comply with laser class 2 or 2M according to DIN EN 60825-1: 2001-11 (wave length 635-670 nm, < 1mW output) and are safe for eyes and skin under normal use. Nevertheless one should never look directly into the laser beam when using laser measuring devices.



LASER WATER LEVEL WITH LASER POINT
e.g. for aligning substructures. Laser water level AL 10
▶ on page 135



LASER WATER LEVEL WITH LASER LINE
e.g. for transferring heights.



Laser Measuring Technology

ALC 311

311.286



The self-levelling crossline laser for interior work

The ideal tool for interior construction: Vertical and horizontal levelling plus right-angles. For drywall, exhibition stand and kitchen constructors, carpenters, plumbers, electricians, tile layers, and other professional craftsmen. For example for lowering ceilings, aligning metal frame walls in drywall construction, aligning doors and windows, transferring of heights, levelling of mirror tiles, for alignments, etc.

SPECIFICATIONS	ALC 311
Precision	± 3 mm/10 m
Self-levelling range	± 3,5°
Operation duration	15 h
Visible laser diodes	3 x 635 nm
Max. working range	20 m
Laser class	2M
Weight	0,7 kg

STANDARD EQUIPMENT

Wall and tripod console	1 piece
Magnetic target panel	315.281
Laser goggles	312.134
Batteries 1,5 V (AA) for measuring device	3 pieces
Padded carrying bag	1 piece

ALC 514

329.460



The self-levelling multi-line laser for visual room layout

The professional multi-line laser with 180° wide angle projection of the laser line. Perpendicular laser point function. With the optional FLEX receiver RC 2 and on/off pulsating beam of the ALC 514, the working distance can be increased up to 50 m. For all complicated grading and levelling projects, e.g. building engineering, interior construction and outdoor area.

SPECIFICATIONS	ALC 514
Precision	± 3 mm/10 m
Self-levelling range	± 3°
Operation duration with battery drive	12 h
Visible laser diodes	5 x 635 / 1 x 650 nm
Max. working range	20 m
Max. range with receiver	50 m
Laser class	2M/2
Weight	1,6 kg

STANDARD EQUIPMENT

Magnetic target panel	315.281
Mains adapter 6 V	1 piece
Laser goggles	312.134
Battery pack 3.6 V	2 pieces
Padded carrying case	1 piece

ADVANTAGES AT A GLANCE

- Cross-laser projection
- Self-levelling with robust magnetic damping
- Optical and acoustical warning signal when self-levelling range is exceeded
- Transportation lock

ADDITIONALLY FOR ALC 311

- Three visible, individually switchable laser lines
- Vertical line 90° to cross laser
- Padded carrying bag



ADDITIONALLY FOR ALC 514

- Three visible single laser lines with 180° wide angle beams individually on/off switchable
- On/Off switchable perpendicular point function
- Pulsating beam for use with receiver
- with universal floor tripod
- Dust- and splash-proof
- Padded carrying case





ADVANTAGES AT A GLANCE

- Full automatic horizontal and vertical self-leveling
- Switchable automatic to manual leveling function in combination with grade mount, obtainable as accessory (order no. 329.479)
- Switchable TILT alarm function: safety modus against unintentional disturbance of the unit
- Two step rotation or target point only
- Incremental manual angle adjustment up to max $\pm 5^\circ$ horizontal and vertical
- Permanent perpendicular beam
- Re-chargeable and normal battery operation
- Two-level scanning function
- Automatic switch-off and acoustical signal when limits are exceeded, can be switched off
- Rechargeable battery packs and charger
- Dust- and splash-proof
- Padded carrying case



ALR 512

329.452



The self-leveling rotating laser for vertical and horizontal use

Showerproof full automatic rotation-laser with remote control for universal indoor and outdoor use. With scanning, point and leveling function. Complete with receiver.

SPECIFICATIONS	ALR 512
Precision	$\pm 1 \text{ mm}/10 \text{ m}$
Self-levelling range	$\pm 5^\circ$
Operation duration with battery drive	14 h
Visible laser diodes	635 nm
Max. range with receiver	300 m
Range rotating (without receiver)	ca. 30 m
Range point / scan function (without receiver)	ca. 50 m / ca. 30 m
Rotation speed	500 / 200 rpm
Laser class	2
Weight	1,7 kg

STANDARD EQUIPMENT

Magnetic target panel	315.281
Wall and floor mount	1 piece
Conus for wall and floor use	1 piece
6 V battery pack	324.159
Mains adapter 6 V	1 piece
Battery container	1 piece
Receiver with dual-display	1 piece
Batteries 1,5 V (AA)	2 pieces
bracket	1 piece
Remote control, incl. 1 battery 9 V	1 piece
Padded carrying case	1 piece

Laser Measuring Technology

ALP 305

318.639



The self-levelling FLEX 5-point laser with floor and wall console

Universal laser point levelling device for metal construction, carpentry, interior work, sanitation, and other construction. Five automatically self-levelling laser points determine the horizontal (by readjusting the rotary plate), all right angles in space, and a continuous plumb. Thanks to the multiple projections of the right angles precise positions of construction elements, walls, or openings can be quickly measured and determined over distances of up to 30 meters. Beyond that the laser plumb function simplifies measuring in the floor and ceiling areas. In addition to placement on walls, floors, or on tripods, the magnetic floor and wall console of the 5-point laser makes it possible to mount it on metal frame profiles.

ADVANTAGES AT A GLANCE

- 5 visible, permanent laser points that can be aligned at 90° angles to each other.
- Quick self-levelling with robust magnetic damping
- Optical and acoustical warning signal when self-levelling range is exceeded
- Optical warning signal for discharged batteries
- Multi-purpose, magnetic floor and wall console
- Dust- and splash-proof
- Padded carrying case



Fully automatic in all 3 axes

Quick and easy transfer of zenith point to plumb point and radiation of points for spatial right angles.



SPECIFICATIONS

ALP 305

Precision	± 2 mm/10 m
Self-levelling range	± 3,5°
Operation duration	24 h
Visible laser diodes	650 nm
Max. working range	30 m
Laser class	2
Temperature range	-10 / +40 °C
Weight	0,8 kg

STANDARD EQUIPMENT

Batteries 1,5 V (AA)	3 pieces
Magnetic floor and wall console	1 piece
Magnetic target panel	315.281
Clip belt	1 piece
Padded carrying case	1 piece

ADVANTAGES AT A GLANCE

AL 10

- Laser point or laser line
- Laser line can be set stepless from vertical to horizontal, additional snaps in 90° positions
- 45°, 90°, and 180° spirit levels
- Fastening magnet
- 1/4" thread for camera tripod
- Padded carrying bag

AL 11

- Laser line easily visible for up to 9 meters (depending on light conditions)
- Horizontal and vertical level
- Good adhesive strength by three replaceable adhesion points
- The ideal helper for construction, e.g. for building shelves, sanitation, painting and wallpapering jobs, alignment of construction elements and pictures, etc.
- Practical case with belt loop



Laser water level with laser line
e.g. for transferring heights.



Determining reference lines with the laser mouse

Projection of precise line markings along walls and floors. Laser mouse AL 11

AL 10

311.278



The handy laser spirit level with laser point and laser line

With precision spirit levels and absolutely parallel laser beam the low-cost alternative to conventional spirit levels and ruler. Creates either a laser point or a laser line for transfer of heights and the determination of angles. Magnetic base.

SPECIFICATIONS	AL 10
Precision	± 3 mm/10 m
Operation duration	30 h
Visible laser diodes	650 nm
Range of laser	max. 30 m
Laser class	2
Temperature range	0-40 °C
Weight	0,3 kg

STANDARD EQUIPMENT

Batteries 1,5 V (AAA)	2 pieces
Padded carrying bag	1 piece

AL 11

318.620



The mouse, the FLEX line laser for horizontal and vertical alignments

Line laser for projecting line markings. Horizontal and vertical levels make a precise and split-second alignment possible along walls and floors. The laser mouse is easy to use and can be attached to dust-free surfaces by self-adhesive adhesion points. This little helper shouldn't be missing in any toolbox.

SPECIFICATIONS	AL 11
Precision	± 1,3 mm/m
Operation duration	20 h
Visible laser diodes	635 nm
Range of laser	max. 9 m
Laser class	2M
Weight	0,13 kg

STANDARD EQUIPMENT

Batteries 1,5 V (AA)	2 pieces
Case with belt loop	1 piece
Self-adherent glue dots	1 set

Laser Measuring Technology

Elevating tripod, medium

312.118



Elevating tripod, medium

Robust and yet easy to transport elevating tripod with quick clamping of the extendable legs. With carry straps and rubber feet can be screwed outwards for smooth floors.

SPECIFICATIONS	ELEVATING TRIPOD, MEDIUM
Working range	0,65 - 2 m
Adjustability of elevator post	0,39 m
Weight	5,1 kg

STANDARD EQUIPMENT

Adapter plate	1 piece
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Elevating tripod, large

312.126



Elevating tripod, large

Robust and yet easy to transport elevating tripod with quick clamping of the extendable legs. With carry straps and rubber feet can be screwed outwards for smooth floors.

SPECIFICATIONS	ELEVATING TRIPOD, LARGE
Working range	0,9 - 2,85 m
Adjustability of elevator post	0,4 m
Weight	9,1 kg

STANDARD EQUIPMENT

Adapter plate	1 piece
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ADVANTAGES AT A GLANCE

- Lockable elevator post with mm scale

ADDITIONALLY FOR ELEVATING TRIPOD, MEDIUM

- With opening to bottom for plumb line projection to floor

Accessories for laser measuring technology

Clamping post



The five-segment clamping post is clamped between floor and ceiling (max. height 3,4 m). With a holder that is steplessly adjustable in height for attaching laser measuring devices with 5/8" threads, for FLEX Laser ALC 311, ALC 514, ALR 411 M and ALP 305.

Tool fixture	QP	Order number
G 5/8"	1	312.096

Wall and ceiling mount



Stable mount for attaching rotation and line lasers to ceiling profiles or to the wall. With 5/8" thread, e.g. for FLEX Laser ALC 311, ALR 411 M, ALR 511 A, ALR 512 and ALP 305. Equipped with a height fine tuning.

Tool fixture	QP	Order number
G 5/8"	1	312.088

Magnetic target panel



Boosts the projection of the laserbeam over long distances or in light surroundings.

QP	Order number
1	315.281

Receiver RC 2



For ALC 514. Hand-Receiver to locate the laser beam when it cannot be seen with the human eye. With bracket, as well as optical and acoustic signal.

QP	Order number
1	329.487

Grade mount



For ALR 512. To set the rotation laser in infinite gradings when operating on manual setting.

QP	Order number
1	329.479

Laser goggles



Improves the visibility of the laser beam especially at greater distances.

QP	Order number
1	312.134

For your safety: FLEX safety features and warranty

FLEX machines meet all legal trade and professional association safety regulations. FLEX stands for practical solutions and professional quality down to the last detail. Should there be any faults on a machine, the FLEX manufacturer warranty will take care of it, quickly and unbureaucratically.



Technical modifications and illustrations. Our FLEX electrical power tools are always brought to the current state of the art. We therefore reserve the right to change technical specifications. Illustrations are also non-binding.

Electrical safety of operation

Faulty tools pose a hazard to the user when precautions are not taken seriously in high voltage areas, to prevent electric shock. FLEX electrical power tools are insulated according to the safety classes I and II from EN 60745.

Electrical safety devices

A) Machines with water supply

The safety of FLEX devices with water supply is guaranteed as follows:

a) Isolating transformer

Devices that are equipped with a plug (position of the earth pin: 12h) acc. to IEC 60309-2 are delivered in safety class II and can be operated only in combination with a isolating transformer according to EN 60742.

b) Residual current operated device (GFCI)

Devices with a GFCI in the power supply line (trip circuit 10 mA) are supplied with increased insulation and protective earth conductor (earth connection of the metal parts that can be touched from outside).

B) Transportable motor driven electrical power tools acc. EN 61029-1

Residual current operated device (GFCI) Devices with a GFCI in the power supply line (trip circuit 30 mA) are supplied with increased insulation and protective earth conductor (earth connection of the metal parts that can be touched from outside).

Radio interference suppression

FLEX electrical power tools are shielded according to EN 55014 and EN 61000 according to EU directive 89/336/EEC.

Warranty

When purchasing a new machine FLEX provides a **2-year manufacturer warranty**, beginning on the day of the sale of the machine to the end customer. The warranty covers only damages that can be traced back to material and/or manufacturing faults as well as the non-compliance of promised features. In case of assertion of claims from this warranty the original sales receipt that shows the purchase date has to be submitted. Warranty repairs may be made only by shops or service stations authorised by FLEX. An assertion of claims exists only when used appropriately. Excluded from this warranty are in particular regular operational wear, improper use, partially or completely disassembled power tools, as well as damage due to overload of the machine, the use of non-permitted, defective, or improperly applied tools. Damages caused by the machine on the application tool or workpiece, use of force, consequential damages, that can be traced to improper or insufficient maintenance by the customer or third parties, damaging due to external influence such as sand or stones as well as damages due to nonobservance of the instructions such as connection to wrong voltages or type of electricity.

Greater performance, longer service life: FLEX electronics for top performances

More power, gradual acceleration of the speed that is easy on the motor, speeds kept in the optimal range, and safe protection from overload. Those are, briefly summarised, the typical characteristics of FLEX electronics. A further advantage on machines with greater Wattage is the starting-current limitation. It briefly reduces the high starting current and thus prevents the tipping of the fuse in the mains.

«The tachometer generator is also a technology with many great features. It constantly monitors the speed of the armature. If it

deviates from the nominal value, the current is regulated appropriately. It goes full throttle for example if there is an extra load until the set speed has been reached again. If the motor is unduly loaded, the drawing of current is automatically reduced to a «healthy» level.»

In highly loaded motors a temperature monitoring with PTC resistance is employed. It protects the windings from overheating and overloading. FLEX electronics so things runs smoothly.

The electronics is, so to say, used for tuning a machine. With FLEX electronics the motor output can be increased significantly if necessary. The best part is: This also extends the service life of the motor.



FLEX Electronics	FE	FR	VE	VR	FV	VV	Microprocessor electronics	
							FR, FRG	VR, VRG
Speed selection	none	none	stepless (adjustment wheel)	stepless (adjustment wheel)	none	stepless (accelerator trigger switch and adjustment wheel)	none	stepless
Regulation	depends on current	depends on speed	none	depends on speed	depends on current	depends on current	depends on speed	depends on speed
Control system	full wave	full wave	half wave	full wave	full wave	full wave	full wave	full wave
Starting-current limitation*	yes	yes	no	yes	yes	yes	yes	yes
Temperature monitoring with PTC resistance	no	on especially loaded machines	no	on especially loaded machines	yes	yes	L3410FR L3410FRG	L3410VR L3406VRG L3403VRG
Protection from overload	current monitoring	current monitoring	automatic reduction of the speed when motor load too great	current monitoring	current and temperature monitoring	current and temperature monitoring of the motor	current, partially temperature monitoring	current, partially temperature monitoring
Other advantages	- power increase	- power increase - tachometer generator	none	- power increase - tachometer generator	- power increase	- speed switch - power increase	- power increase - restart protection after power interruption	- power increase - restart protection after power interruption - partially accelerator trigger switch
Frequency	50 Hz	50/60 Hz	50 Hz	50/60 Hz	50 Hz	50 Hz	50/60 Hz	50/60 Hz

*on machines with high power consumption

Customised solutions: FLEX drives in modular system

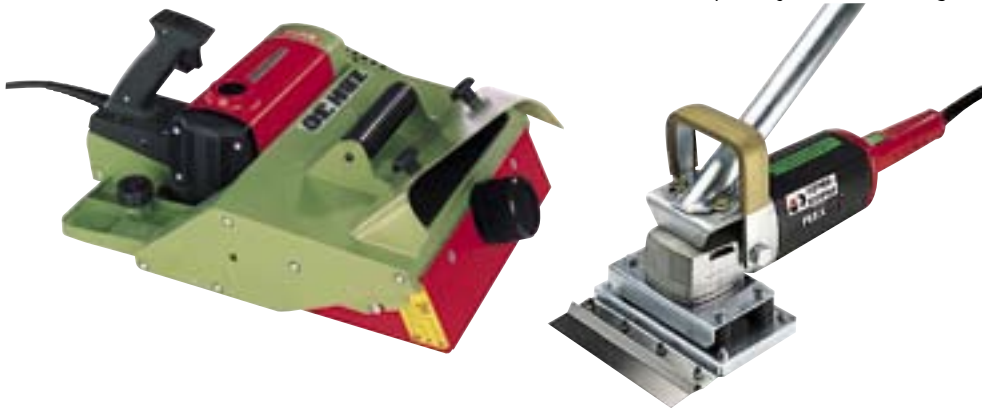
You can also tap our broad knowledge of electric motors to develop drives for your own machine constructions. Whether motors for light work or heavy-duty endurance – we'd be glad to consult you.

Most versatile combinations possible

The output of the FLEX drives range from 710 Watt to 3000 Watt. The combination possibilities of housings, grips, switches, and electronics are nearly limitless. If you select a massive metal composite housing, you can combine it with cover plate, stick handle or spade handle, with on/off switch, or safety catch.

As an alternative especially slender housings

with semi-rough surfaces ensuring a secure grip and made of weathering-resistant special plastic are available. There is a choice of six different electronics with full- and half-wave technology (current- or speed-dependent), some are microprocessor controlled. Engineering by FLEX – for your customised solutions.



Tips and know-how for craftsmen: FLEX Training courses

FLEX trains its dealers

In our seminars held in our Steinheim/Murr headquarters FLEX dealers and FLEX sales personnel learn everything about innovative processing methods and the latest tools and machines. This, so that they can always offer their customers the best and most up-to-date solutions. If you are interested, contact your FLEX retailer.



FLEX presents its machines

Much better than words - a test run with a new FLEX machine is convincing. That is why FLEX dealers gladly make use of an offer provided by our company: the FLEX demonstration service.

This includes a visit by the FLEX dealer along with the demonstration technicians to the customer, directly in his shop or on the construction site. The professional practitioners can then put over 60 machines and tools through their paces on site. With convincing success! If you are interested, contact your FLEX retailer.



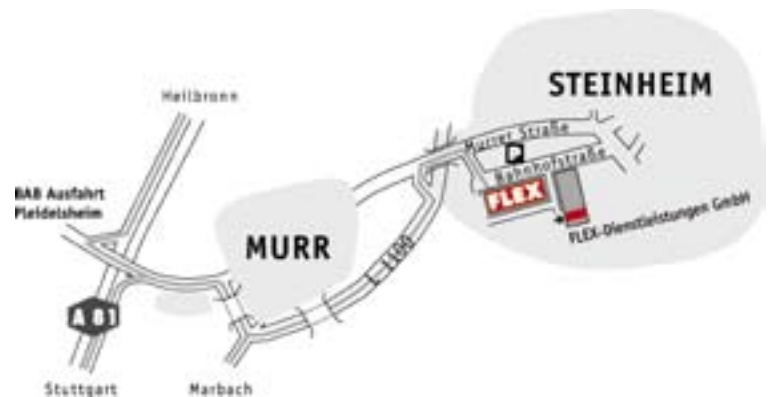
The practical FLEX ideas are created not only in the development labs, but also on construction sites and in the shops. This practical know-how helps us develop new machines and tools. And it helps our customers in the applications and in sales.

We gladly pass it on.



HOW TO GET TO FLEX

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FLEX Customer service.

On-line around the clock for you.

Our customer service can be reached by phone Monday through Friday and any day via the Internet. For all questions about FLEX quality electrical power tools, accessories, and spare parts, but also for quick referral to the nearest FLEX dealer in your area.

Customer service:

Telephone: 07144 828-0 | Telefax: 07144 25899

e-mail: info@flex-tools.com

Internet: www.flex-tools.com

Should you wish to give us your opinion, make suggestions on improving FLEX machines, or tell us how we can expand our program – please do send us an e-mail:

IhreMeinung@flex-tools.com

FLEX Service centre.

The experts for quick action and good advice.

In case your FLEX requires service – no problem: You send your machine with a brief fault description to our local service centre, we will carry out the service and send your FLEX back to you as fast as possible. And should you have any questions on the technology or the accessories, just give us a call.

FLEX retailers.

Where professional technology and competent consultation meet.

No question: advance technology is accompanied by knowledgeable specialist consulting. That is why FLEX quality electrical power tools are available exclusively from qualified dealers. And qualified means in this case: Whoever is a FLEX dealer has been trained on FLEX and has competent answers for the trickiest questions.





Your FLEX retailer

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Subject to technical modifications.