



HELLER PREMIUM TOOLS

Est. 1849

Dear Customer,

Welcome to the drill bit manufacturer with the longest tradition in the world! We offer our customers expertise from more than 170 years of development and production of excellent drilling tools. We are really proud of this! And we are motivated to move forward with the Heller success story. We offer you and your customers a comprehensive selection of premium tools from a single source with innovative premium quality product solutions in the drilling, chiseling, sawing and cutting as well as screwdriving segments.

In our catalogue, you will discover numerous new products and further enhancements of existing bestsellers. Detailed product descriptions, meaningful pictures and direct links to videos provide you with all the important information you need to sell our range. These and other data are naturally also available in digital form.

If you have requirements that we do not currently cover, please get in touch with your Heller head office or field services contact.

To ensure your success with our premium products, we also

offer you a comprehensive range of services that we are constantly developing and adapting to your needs. They include, for example, a variety of videos, tutorials and product videos, versatile data exchange systems so that you can also showcase your portfolio digitally in the best possible way, an optimised reseller section with various added-value items for retailers and our popular product showcasing systems for the best possible presentation. Discover all of this for yourself directly by talking to your head office or field service customer advisor, or visit our website on www.hellertools. com or our attractive virtual showroom on www.hellertools. de/de/showroom/

We look forward to successful cooperation.

With kind regards,

Henning Warrink

TABLE OF CONTENTS

DRILLING

Hammer drill bits		Hinge boring bits	73
Trijet Ultimate SDS-plus & SDS-max Hammer drill bit	14	Dowel cutters	74
4Power Pro SDS-plus Hammer drill bit	17	Wood countersinks	75
Bionic Pro SDS-plus Hammer drill bit	19	Drill mounted countersinks	76
Speed2Max SDS-max Hammer drill bit	22		
Prefix SDS-plus Hammer drill bit	24	Metal drill bits	
Rebar Breaker SDS-plus Hammer drill bit	26	HSS-CO DIN 338 RN Cobalt stainless steel drill bit	81
·		HSS TIN DIN 338 Steel drill bit	84
Dust extraction drills		HSS-G TURBO DIN 338 RN Metal drill bit	86
Duster Expert SDS-plus & SDS-max Dust extraction drill	29	HSS-G SUPER DIN 338 RN Steel drill bit	88
Duster Expert XC SDS-plus Dust extraction drill	31	HSS-R DIN 338 RN Steel drill bit	91
·		HSS-G SUPER DIN 340 Steel drill bit long	95
Ratio System		HSS-G SUPER DIN 1869 Steel drill bit extra long	98
Stonebreaker SDS-max Ratio-drill head	32	HSS-G Super Double end drill bit	99
Super Quick SDS-max Core bit	33	HSS Blacksmith Steel drill bit	100
Starcutter Ratio-drill head	36	HSS Steel drill bit with stepped shaft	101
Ratio Quick Core bit	37	HSS DIN 345 Steel drill bit with Morse taper shaft	102
Ratio Core cutter	39	HSS Taper and deburring countersink 90°	103
Ratio Accessories	40	HSS Transverse countersink 90°	104
Natio Additional	10	HSS Step drill bit	105
Concrete & Masonry Drill Bits/		HSS Sheet metal cone bit	106
Diamond Tools			
ProXtreme Concrete & Natural Stone drill bit	44	Universal- & Special material	
ProConcrete Concrete & Natural Stone drill bit	46	Allmat Pro Universal drill bit	108
ProStone Stone drill bit	48	Allmat Universal drill bit	110
Core bit Drill bit for socket outlets	50	Allround Universal drill bit	112
DiamondWizard Drill bit for socket outlets	52	Quickbit Ceramicmaster Glass- and Tile drill bit	113
Diamond Drill bit for socket outlets	53	Cera Expert Stoneware & Roofing tile drill	114
Cera Expert Highspeed/ Accuspeed	54		
Stoneware & Roofing tile drill			
Wood drill bits		CHISELLING	
HSS Turbo Wood drill bit	58		
Brad point bits	60	Chisels	
Quickbit Spade bit	62		
Lewis Long Life Auger drill bit	64	Enduro Chisel SDS-plus	117
Lewis Universal auger drill bit	65	SDS-plus Power Chisel	118
Formwork drill bits	67	SDS-plus Chisel	119
Forstner High Speed Forstner bit	69	Enduro Chisel SDS-max	120
Forstner Universal Forstner bit	71	SDS-max Chisel	121

71

Forstner Universal Forstner bit

SAWING

Superior Grind Flap disc

Superior Grind Grinding disc

Sawblades		Abrasives on backing	
Jigsawblades	126	Superior Grind Velcro-backed sanding disc	18
Sabresawblades	137	Superior Grind Velcro sanding triangles	18
Speed Blades Circular saw blades	148	Superior Grind Velcro sanding strips	18
Starlock Blades	155	Superior Grind Sanding sheets	18
		Superior Grind Sanding sheets wet	18
Hole saws		Superior Grind Sanding sponge	18
HSS-Co Stainless steel hole saw	164	Superior Grind Abrasive on roll (paper backing)	18
HSS-Bi-Metal Hole saw	165		
Allmat Universal hole saw	168		
CUTTING & GR	INDING	BOLTING Bits	
		BIIC	
Diamond and in diam			
Diamond cutting discs		Torsion & Impact Bits	-
Diamond Blade Universal Pro Plus	172		-
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro	173	Torsion & Impact Bits Universal Bits	19 19
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic	173 173	Torsion & Impact Bits	19
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro	173	Torsion & Impact Bits Universal Bits	19
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic	173 173 174 174	Torsion & Impact Bits Universal Bits	-
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus	173 173 174 174 175	Torsion & Impact Bits Universal Bits	19
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus Diamond Blade Rooftile Pro	173 173 174 174	Torsion & Impact Bits Universal Bits	19
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus Diamond Blade Rooftile Pro Diamond Blade Ceramic Pro Plus	173 173 174 174 175	Torsion & Impact Bits Universal Bits	19
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus Diamond Blade Rooftile Pro Diamond Blade Ceramic Pro Plus Diamond Blade Ceramic Pro	173 173 174 174 175	Torsion & Impact Bits Universal Bits Cone- and Collar drills SERVICES	15
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus Diamond Blade Rooftile Pro Diamond Blade Ceramic Pro Plus Diamond Blade Ceramic Pro Diamond Blade One for All	173 173 174 174 175	Torsion & Impact Bits Universal Bits Cone- and Collar drills	15
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus Diamond Blade Rooftile Pro Diamond Blade Ceramic Pro Plus Diamond Blade Ceramic Pro Diamond Blade One for All	173 173 174 174 175 175	Torsion & Impact Bits Universal Bits Cone- and Collar drills SERVICES	1:
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus Diamond Blade Rooftile Pro Diamond Blade Ceramic Pro Plus Diamond Blade Ceramic Pro Diamond Blade One for All Diamond cup wheels Diamond cup wheel Universal Pro Plus	173 173 174 174 175 175 176	Torsion & Impact Bits Universal Bits Cone- and Collar drills SERVICES Heller Point of Sale	1:
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus Diamond Blade Rooftile Pro Diamond Blade Ceramic Pro Plus Diamond Blade Ceramic Pro Diamond Blade One for All Diamond cup wheel Universal Pro Plus Diamond cup wheel Universal Pro	173 173 174 174 175 175 176	Torsion & Impact Bits Universal Bits Cone- and Collar drills SERVICES Heller Point of Sale	19
Diamond Blade Universal Pro Plus Diamond Blade Universal Pro Diamond Blade Universal Classic Diamond Blade Concrete Pro Plus Diamond Blade Rooftile Pro Diamond Blade Ceramic Pro Plus Diamond Blade Ceramic Pro Diamond Blade One for All Diamond cup wheels Diamond cup wheel Universal Pro Diamond cup wheel Universal Pro Resin cutting discs	173 173 174 174 175 175 176	Torsion & Impact Bits Universal Bits Cone- and Collar drills SERVICES Heller Point of Sale	19

181

182



PREMIUM TOOLS – TOOLS FOR PROFESSIONALS

EST 1849 – THE DRILL MANUFACTURER WITH THE LONGEST TRADITION IN THE WORLD. FROM GERMANY, FOR THE WORLD

For close to 175 years, the name Heller has been inseparably linked with outstanding drilling tools "Made in Germany". With many years of experience since the company was founded in 1849, Heller has continuously developed and optimised its product range. The company has repeatedly demonstrated its innovative strength, for example with the world's first carbide-tipped drill bit or with the extraction drill bit, which was presented for the first time in the 1980s and was the basis for the latest generation of "Duster Expert" hammer drill bits for dust-free drilling. Today, we offer drill bits for use in countless materials and leverage our know-how to improve existing product solutions and develop new ones. Beyond drill bits, our product portfolio now also includes chisels, di-

amond tools, jig and reciprocating saw blades, circular saw blades, cutting, bits and oscillating tools. Thanks to this broad and deep product range, Heller empowers its customers to source a large part of their power tool accessory requirements for professional users from a single source.



Heller has made absolute top quality a priority. As an expert for the development, production and marketing of drill bits and other power tool accessories for all materials, Heller is the preferred choice of professionals on construction sites and throughout the industry. Our priority is to be leaders in technology and quality. We apply the most cutting-edge methods at our research centre and in production in Dinklage, Germany.

Heller uses top-quality materials and manufactures using the latest computer-operated machines with highly motivated employees who often yield more than 30 years of experience, according to the highest quality standards. Certified to ISO 9001 quality management standards, Heller is one of today's most cutting edge and efficient producers of tool accessories in the world. Today, we hold numerous patents and operate in more than 80 countries.



COMPREHENSIVE SERVICE PACKAGE

Heller supports specialist retailers as a reliable partner with an exceptional service portfolio. Digital topics are playing an increasingly important role. The Heller website www.hellertools.com has developed into a central digital platform that provides valuable information for both the retailer and the user. It includes the product advisor for an intuitive product search experience, a knowledge database, Heller TV with comprehensive information on products and tips for their use, an exclusive reseller section with a large collection of content tailored to the needs of retail customers, such as the optimised download area for product images and texts. We also offer various data exchange programs, helping you to populate your webstore quickly and reliably.

You can also check out the complete Heller experience in our innovative virtual show-room on https://www.hellertools.de/de/showroom/



We also offer leading services in terms of analogue communication: Heller supports retailers at the point of sale with individually configurable product presentation systems, pre-loaded modules and attractive secondary placements with maximum returns on shelf space. In addition, we offer our customers special training courses at the Heller Training Academy in Dinklage, on-site and by video conference, in which we explain the properties and possible applications of our products in detail.





THE PRODUCT RANGE

Heller has been manufacturing its drills and other premium tools industrially since way back in 1849.

Today, the Heller Tools product portfolio includes a wide selection of high-quality solutions for professional users. The product range covers the hammer drill, concrete and masonry drill categories along with diamond tools, wood drills, metal drills, universal and special-purpose drills, circular saw blades, oscillating tools, saw blades and bits.

DRILLING: QUALITY FEATURES AND APPLICATION NOTES

DRILLING METHODS

Basically, the three drilling methods available for drilling are hammer drilling, percussion drilling and rotary drilling:



Hammer drilling:

Strong impact supports the drill bit during hammer drilling. A normal percussion drill cannot offer this performance; a special hammer drill is required. These machines typically support all three drilling technologies.



Rotary drilling:

In rotary drilling, the hole is created simply by the rotation of the drill bit. The material is machined by cutting here.



Percussion drilling:

During percussion drilling, the drill is supported by light impact from the machine. They guarantee improved drilling progress.

DESIGNING A DRILLING TOOL

If you need drill masonry and concrete, it is advisable to use hammer bits to achieve fast and reliable results.

To ensure correct installation of construction parts, it is important to use drills from certified manufacturing. Only the use of bits from audited manufacturing can guarantee dimensional compliance with the intended drill-hole diameter, and ensure sustainably good results. Drills that are too far out of round, or with excessive tolerances in the carbide cutting edge can lead to drill holes that do not give a plug

sufficient hold. In extreme cases, installed elements will work loose causing severe damage. We thus recommend the use of bits that comply with the rules established by the Prüfgemeinschaft Mauerbohrer (PGM - Wall Drill Test Association), an independent institute. You can identify these bits by the PGM kite mark

MARK OF QUALITY CERTIFIED AND SAFE WITH PGM SEAL

Heller offers drill bits with the certificate of the independent Prüfgemeinschaft Mauerbohrer e.V. (PGM), which defines the highest requirements for a secure drill hole-dowel connection.

Through monitoring and testing, the PGM ensures that that the user is only offered products that are suitable for application with approved anchors.

Only a few authorized manufacturers worldwide are entitled to bear this seal, which every user of hammer or impact drills has already seen. Drill bits with this mark guarantee geometrically accurate holes that provide maximum hold for the dowels and maximum safety for the user.

DRILLING KNOWLEDGE

Heller exclusively uses the finest steel and tungsten carbide plates for its hammer drill bits. At the same time, great importance is attached to precise processing, which can be seen, for example, in the exact alignment and soldering of the carbide inserts or in high-precision concentricity values. Finally, aspects, such as ergonomics and occupational

safety are paramount. We always focus on the most exacting requirements of the professional user and leverage our expertise from over 170 years of experience in the production of tools.

DESIGN AND QUALITY FEATURES OF DRILLING TOOLS



Carbide edges

Our innovative, patented Heller carbide metal edges have been optimised for the most challenging applications in concrete and masonry, even for reinforcements in concrete. An aggressive carbide metal profile ensure fast drilling progress. The integrated tip design ensures ideal drilling performance and perfect centring. The precise workmanship of Heller drill bits is evidenced in the precise alignment and soldering of tungsten carbide plates and the excellent concentricity values.



Production technique

The helix is produced by grinding or milling. The spiral is created from solid material. This guarantees the precision of the spiral progression. The external and internal diameter dimensions of the helical are precisely complied with. The benefits during application include a smoother drilling process and continuous drilling dust removal, thus minimising the deflagration risk.



Helix shapes

Patented helix shapes guarantee optimal removal of drilling dust without risk of deflagration, for example, thanks to alternating narrow and wide backs. Maximum speed with ideal impact energy performance is a result of reduced friction thanks to computer-aided design.



Heller curing technology HST

The special HST curing process ensures an ideal surface texture: Heller hammer drill bits thus only exhibit minimal susceptibility to breakage under the most demanding applications – even including impacting on reinforced concrete. Ideal especially for long bits, the HST curing process at the same time guarantees excellent bending flexibility without the risk of breakage.



Run out check

Each Heller drill bit is subject to a detailed run out test after having completed production. Computer-controlled measuring sensors identify deviations within the micro millimetre range. The advantages for users are more precise holes in terms of diameter and depth as well as lower degrees of vibration during operation.

DRILLING TOOL SHANKS AND CONNECTION TYPES



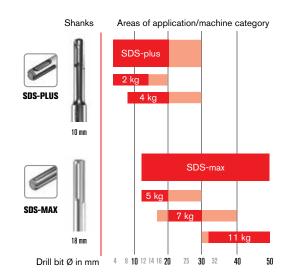
SDS-plus



SDS-max

SDS

The SDS quick-release system is the established standard connection for hammer drill bits today. It guarantees best-in-class power transfer from the drilling system while at the same time offering fast, simple and safe clamping of the drill bit in the hammer drill. Depending on the task, there is the most widespread format, SDS-plus with a shaft diameter of approx. 10 mm for hammer drills < 5 kg and SDS-Max for hammer drills > 5 kg with a shaft diameter of approx. 18 mm.





HEX

Hexagonal holder without a specific width across flats to prevent rotation in the 3-jaw drill chuck



CYL

Round shank, cylindrical in the drill diameter, or with a shouldered shank



TRI

Round shank of drill bit diameter with three recessed flats as anti-twist devices in 3-jaw key type drill chucks



RATIO

Threaded shank, 14 mm outer diameter, with special double-start round threads



1/4" HEX

Hexagonal shank with 6.35 mm (=1/4") wide flat edges, generally used for cord-less (drilling) driving tools



M14

Metric standard thread shank, size M14, mainly used on angle grinders



M16

Metric standard thread shank, size M16, mainly used for diamond core bits

HAMMER DRILL BITS - THE VARIANTS



2 cutters

- √ The fastest SDS-plus hammer drill bit in concrete
- Slim head and large drilling dust grooves for fastest possible drilling dust removal
- ✓ Will also survive impact on reinforcement



4 cutters

- → Robust multiple cutter designed for use in reinforced concrete
- ✓ Longer service life thanks to multiple cutter head
- ✓ No snagging on impacting on reinforcement thanks to multiple cutters



Trijets

- ✓ Our best SDS-plus hammer drill
- ✓ Durable and faster than a 4 cutter thanks to cutters with equal heights on same circumference
- ✓ More robust than a 2 cutter thanks to multiple cutter head
- ✓ No snagging on reinforcments due to cutters with reverse curvature
- ✓ Lowest price per hole drilled thanks to long service life
- ✓ Large drilling dust grooves optimise drilling dust removal



Y cutters

- → Robust multiple cutter for larger diameters
- ✓ Enlarged drilling dust grooves optimise drilling dust removal
- ✓ Asymmetrical angle distribution for lower vibration and a more pleasant drilling experience

You can also discover the best possible drill bit for every application interactively in our online drilling advisor: www.hellertools.de/de/produktberater

Hammer drill bits are also showcased in our category video:

Detailed videos on the individual drills and their properties are available on Heller TV

www.hellertools.de/de/heller-tv, our Youtube channel www.youtube.com/c/HellerToolsGmbHDinklage and directly via the QR codes on the product pages in this catalogue.



HAMMER DRILL BITS FOR CONCRETE AND REINFORCEMENTS

Hammer drills consist of three main components: the drive, the percussion unit and the tool holder. The impact mechanism with its solid flying piston generates high impact energy, therefore enabling fatigue-free work with minimum effort. The no-tools SDS quick-change system, co-developed by Heller, has established itself worldwide as the standard for hammer drilling in concrete and reinforcement. The SDS slot-in system features special grooves to ensure safe and

optimum power transmission. SDS-plus is the most commonly used format with a shank diameter of 10 mm in machines up to approx. 5 kg. SDS-max machines, starting at 5 kg, and matching drill bits with an 18 mm shank diameter are used for particularly hard tasks.

ADVISOR HAMMER DRILL BITS

Product group	Hammer drill bits						action bits	Core cut		Ra	tio Syste	em		
Shank		S	SDS-plu	s		SDS	-max)S- /max	SDS	-max		Ratio	
Product	Trijet Ultimate	4Power	Bionic Pro	Prefix	Rebar Breaker	Trijet Ultimate	Speed2max	Duster Expert	Duster Expert XC	SuperQuick	Stonebreaker	Starcutter	Ratio Quick Core drill	Ratio Core Cutter
Page	14	17	19	24	26	14	22	29	31	33	32	36	37	39
Concrete	***	***	***	**		***	***	***	***	***	***	***	***	***
Reinforced Concrete	***	**	**		***	***		*	*			*		**
Sand lime brick	***	***	***	**		***	***	***		***		***	***	***
Masonry	***	***	***	**		***	**	***	***	***	***	***	***	***
Brick	***	***	***			***	**	***		***		***	***	**
Granite	**	**				**		***						
Natural stone	***	***				***	***	***	***	**	**			
Marble	**	**				**								

Quality Stages

Professional Plus

Professional

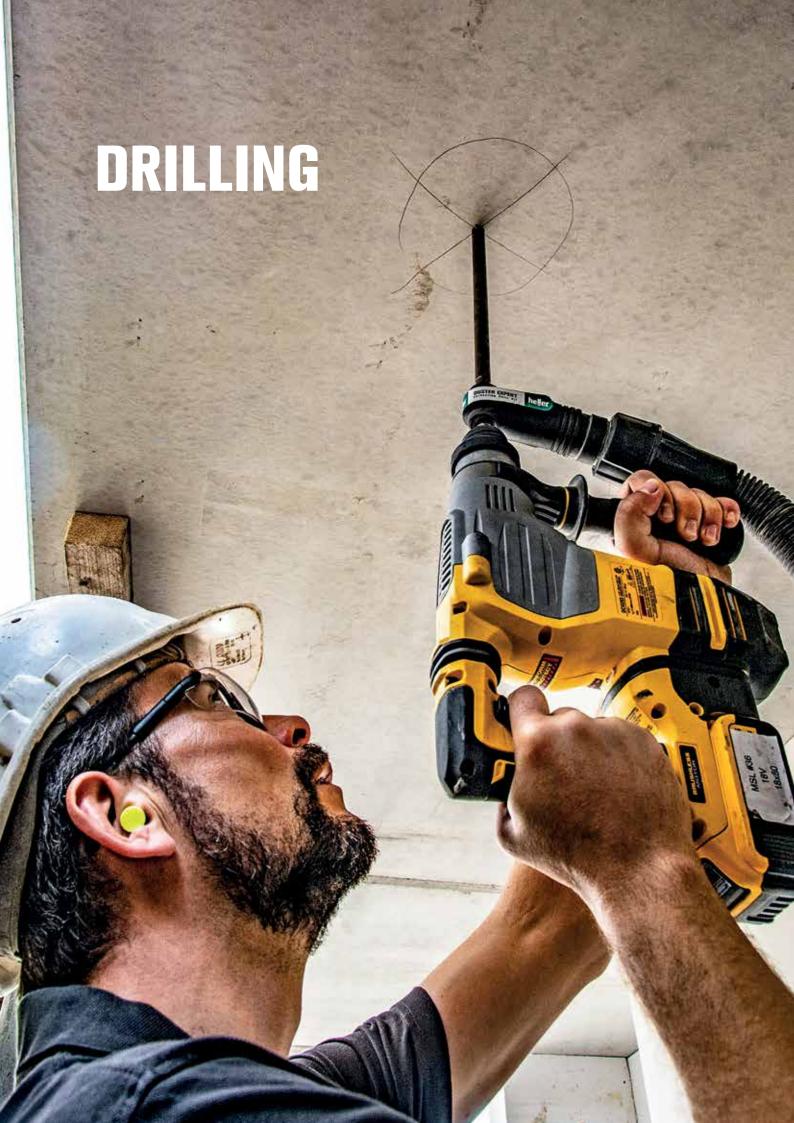
Classic

Material suitability

*** Recommended

★★ Well suited

★ Suitable





TRIJET ULTIMATE SDS-PLUS/SDS-MAX

HAMMER DRILL BIT

Our best SDS-plus multi-cutter with the longest service life in concrete and reinforcement.



PRODUCT DESCRIPTION









· Highest service life and extremely resilient to wear

- · Particularly powerful and rugged multi-cutter with patented Trijet tip
- · With recessed carbide tip for extreme resilience in reinforcement steel and powerful drilling progress
- · Lowest cost per hole
- · Highest effectiveness and speed thanks to Trijet tip plus optimised helix design
- · Best possible drill dust transport without risk of deflagration thanks to large-volume, low-vibration triple helix, also in deep holes
- · Lowest vibration thanks to computer-simulated helix reduces the load on the user
- · Particularly easy positioning and avoids spalling even after drilling many holes thanks to double centring tip







Diameter 5-50 mm

















TRIJET ULTIMATE SDS-PLUS

26740 3 5 50 110 1 26741 0 5 100 160 1 26742 7 5,5 50 110 1 26743 4 5,5 50 110 1 26744 1 6 50 110 1 26745 8 6 100 160 1 26746 5 6 150 210 1 26746 5 6 150 210 1 26748 9 6,5 50 110 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7<	(Art)	100	48	ţā	⇔
26742 7 5,5 50 110 1 26743 4 5,5 100 160 1 28465 3 5,5 250 310 1 26744 1 6 50 110 1 26745 8 6 100 160 1 26746 5 6 150 210 1 26746 6 6 250 310 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0	26740 3	5	50	110	1
26743 4 5,5 100 160 1 28465 3 5,5 250 310 1 26744 1 6 50 110 1 26745 8 6 100 160 1 26746 5 6 150 210 1 26747 2 6 200 260 1 28466 0 6 250 310 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8	26741 0	5	100	160	1
28466 3 5,5 250 310 1 26744 1 6 50 110 1 26745 8 6 100 160 1 26746 5 6 150 210 1 26747 2 6 200 260 1 28466 0 6 250 310 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26768 8 400 460 1 26769 5 10 200 260 1 26766 1 10 100 160 1 26766 5 10 200 260 1 26766 7 100 160 1 26766 8 10 150 210 1 26766 9 10 400 460 1 26767 1 10 200 260 1 26767 1 10 200 260 1 26768 1 10 200 260 1 26768 1 10 250 310 1 26766 1 26767 1 10 250 310 1 26766 1 10 250 310 1 26766 1 10 250 310 1 26766 1 10 250 310 1 26766 1 10 250 310 1 26766 1 10 250 310 1 26766 1 10 250 310 1 26766 1 10 250 310 1 26767 1 12 250 310 1 26767 1 12 250 310 1 26768 7 12 200 260 1 26767 1 12 250 310 1 26767 1 12 250 310 1 26768 7 12 200 260 1 26777 1 12 550 600 1 31271 1 12 950 1000 1 26768 7 12 200 260 1 26770 12 150 210 1 26867 1 12 250 310 1 26770 12 400 450 1 26771 12 550 600 1 31271 4 12 950 1000 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26742 7	5,5	50	110	1
26744 1 6 50 110 1 26745 8 6 100 160 1 26746 5 6 150 210 1 26747 2 6 200 260 1 28466 0 6 250 310 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26766 1 10 100 160 1 26766 5 10 200 260 1 26766 7 10 200 260 1 26766 7 10 10 10 10 10 10 10 10 10 10 10 10 10	26743 4	5,5	100	160	1
26745 8 6 100 160 1 26746 5 6 150 210 1 26747 2 6 200 260 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26754 7 8 150 210 1 26754 8 8 200 260 1 26757 1 8 250 310 1 26768 8 8 <td>28465 3</td> <td>5,5</td> <td>250</td> <td>310</td> <td>1</td>	28465 3	5,5	250	310	1
26746 5 6 150 210 1 26747 2 6 200 260 1 28466 0 6 250 310 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26755 7 8 150 210 1 26755 7 8 150 210 1 26755 8 8 400 460 1 26757 1 8 250 310 1 26760 1 10 100 160 1 26760 1 10 100 160 1 26760 2 10 200 260 1 26763 2 10 250 310 1 26766 3 12 100 160 1 26766 7 12 250 310 1 26766 7 12 250 310 1 26766 7 12 250 310 1 26766 7 12 250 310 1 26766 7 12 250 310 1 26767 0 12 150 210 1 26760 1 10 400 460 1 26767 1 10 200 260 1 26767 1 10 250 310 1 26766 3 12 100 160 1 26767 1 10 250 310 1 26766 3 12 100 160 1 26767 1 10 250 310 1 26766 3 12 100 160 1 26767 1 10 250 310 1 26767 1 10 250 310 1 26768 7 12 200 260 1 26767 1 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26769 4 12 250 310 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 550 600 1 31272 1 14 550 600 1 31272 1 14 550 600 1 31272 1 14 550 600 1 31272 1 14 550 600 1 31272 1 14 550 600 1 31272 1 14 550 600 1 31272 1 14 550 600 1	26744 1	6	50	110	1
26747 2 6 200 260 1 28466 0 6 250 310 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26755 8 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26761 8 10 </td <td>26745 8</td> <td>6</td> <td>100</td> <td>160</td> <td>1</td>	26745 8	6	100	160	1
28466 0 6 250 310 1 26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26761 8 10 </td <td>26746 5</td> <td>6</td> <td>150</td> <td>210</td> <td>1</td>	26746 5	6	150	210	1
26748 9 6,5 50 110 1 26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26766 1 10 100 160 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26766 1 10 550 600 1 31270 7 10 950 1000 1 26768 7 12 200 260 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26769 4 12 250 310 1 267769 4 12 250 310 1 26777 7 12 550 600 1 26771 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26774 8 14 200 260 1 26772 4 14 100 160 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 1 12 550 600 1 31271 4 12 950 1000 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26776 2 14 400 450 1 26777 5 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28090 7 15 200 260 1 28090 7 15 200 260 1 28090 7 15 200 260 1	26747 2	6	200	260	1
26749 6 6,5 100 160 1 26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26758 8 8 400 460 1 26757 1 8 250 310 1 26760 1 10 100 160 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26766 3 12 100 160 1 26766 3 12 100 160 1 26766 7 12 150 210 1 26766 8 12 200 260 1 26767 0 12 150 210 1 26769 4 12 250 310 1 26769 4 12 250 310 1 26770 1 2 400 450 1 26771 1 2 550 600 1 31271 4 12 950 1000 1 26886 0 13 100 160 1 26887 7 13 200 210 1 26888 4 13 250 310 1 268772 4 14 100 160 1 26774 8 14 200 260 1 26774 8 14 200 260 1 26774 8 14 200 260 1 26777 1 14 150 210 1 268772 4 14 100 160 1 26774 8 14 200 260 1 26774 8 14 200 260 1 26775 1 14 150 210 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 26889 1 15 100 160 1 28089 1 15 100 160 1 28090 7 15 200 260 1	28466 0	6	250	310	1
26750 2 6,5 150 210 1 28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 </td <td>26748 9</td> <td>6,5</td> <td>50</td> <td>110</td> <td>1</td>	26748 9	6,5	50	110	1
28082 2 6,5 200 260 1 28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26755 7 8 150 210 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26760 1 10 100 160 1 26763 2 10 250 310 1 26763 2 10 250 310 1 26766 3 12 100 160 1 26766 7 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26769 4 12 250 310 1 26770 12 400 450 1 26771 7 12 550 600 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26774 8 14 200 260 1 26773 1 14 150 210 1 26776 2 14 400 450 1 26777 9 14 550 600 1 26777 9 14 550 600 1 26777 9 14 550 600 1 28089 1 15 100 160 1 28089 1 15 100 160 1 28089 1 15 100 160 1 28089 1 15 100 160 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28090 7 15 200 260 1	26749 6	6,5	100	160	1
28083 9 6,5 230 290 1 28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 <td>26750 2</td> <td>6,5</td> <td>150</td> <td>210</td> <td>1</td>	26750 2	6,5	150	210	1
28084 6 6,5 300 360 1 26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26758 8 8 400 460 1 26769 5 10 50 110 1 26760 1 10 100 160 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26769 4 12 250 310 1 26769 4 12 250 310 1 26767 0 12 400 450 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1	28082 2	6,5	200	260	1
26751 9 7 100 160 1 26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26758 8 8 400 460 1 26760 1 10 100 160 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26769 4 12 250 310 1 26769 4 12 250 310 1 26770 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 26772 4 14 100 160 1 26776 2 14 250 310 1 26774 8 14 200 260 1 26777 9 14 550 600 1 28089 1 15 100 160 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28090 7 15 200 260 1 28090 7 15 200 260 1 28090 7 15 200 260 1	28083 9	6,5	230	290	1
26752 6 7 150 210 1 26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26768 7 12 200 260 1 26768 7 12 <td>28084 6</td> <td>6,5</td> <td>300</td> <td>360</td> <td>1</td>	28084 6	6,5	300	360	1
26753 3 8 50 110 1 26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26766 7 12 <td>26751 9</td> <td>7</td> <td>100</td> <td>160</td> <td>1</td>	26751 9	7	100	160	1
26754 0 8 100 160 1 26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26766 7 12 150 210 1 26768 7 12 200 260 1 26770 0 12<	26752 6	7	150	210	1
26755 7 8 150 210 1 26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26758 9 10 50 110 1 26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26770 0 12 400 450 1 26771 7 12	26753 3	8	50	110	1
26756 4 8 200 260 1 26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26771 7 12 550 600 1 31271 4 1	26754 0	8	100	160	1
26757 1 8 250 310 1 26758 8 8 400 460 1 26759 5 10 50 110 1 26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 1	26755 7	8	150	210	1
26758 8 8 400 460 1 26759 5 10 50 110 1 26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100	26756 4	8	200	260	1
26759 5 10 50 110 1 26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 <	26757 1	8	250	310	1
26760 1 10 100 160 1 26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28088 4 13 250 310 1 26772 4	26758 8	8	400	460	1
26761 8 10 150 210 1 26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4	26759 5	10	50	110	1
26762 5 10 200 260 1 26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26775 5	26760 1	10	100	160	1
26763 2 10 250 310 1 26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26775 5 14 250 310 1 26776 2	26761 8	10	150	210	1
26764 9 10 400 460 1 26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 <t< td=""><td>26762 5</td><td>10</td><td>200</td><td>260</td><td>1</td></t<>	26762 5	10	200	260	1
26765 6 10 550 600 1 31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1	26763 2	10	250	310	1
31270 7 10 950 1000 1 26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1	26764 9	10	400	460	1
26766 3 12 100 160 1 26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1	26765 6	10	550	600	1
26767 0 12 150 210 1 26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7	31270 7	10	950	1000	1
26768 7 12 200 260 1 26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26776 2 14 400 450 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7	26766 3	12	100	160	1
26769 4 12 250 310 1 26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4	26767 0	12	150	210	1
26770 0 12 400 450 1 26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26768 7	12	200	260	1
26771 7 12 550 600 1 31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26769 4	12	250	310	1
31271 4 12 950 1000 1 28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26770 0	12	400	450	1
28086 0 13 100 160 1 28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26771 7	12	550	600	1
28087 7 13 200 210 1 28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	31271 4	12	950	1000	1
28088 4 13 250 310 1 26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	28086 0	13	100	160	1
26772 4 14 100 160 1 26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	28087 7	13	200	210	1
26773 1 14 150 210 1 26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	28088 4	13	250	310	1
26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26772 4	14	100	160	1
26774 8 14 200 260 1 26775 5 14 250 310 1 26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26773 1	14	150	210	1
26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26774 8	14	200	260	1
26776 2 14 400 450 1 26777 9 14 550 600 1 31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26775 5	14	250	310	1
31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26776 2	14	400	450	1
31272 1 14 950 1000 1 28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1	26777 9	14	550	600	1
28089 1 15 100 160 1 28090 7 15 200 260 1 28091 4 15 250 310 1					
28090 7 15 200 260 1 28091 4 15 250 310 1	28089 1	15	100	160	1
28091 4 15 250 310 1	28090 7				1
	28091 4				1
	28849 1	16	10	150	1

(Art)	10	48	₫ā	⇔
26778 6	16	150	210	1
26779 3	16	200	260	1
26780 9	16	250	310	1
26781 6	16	400	450	1
26782 3	16	550	600	1
31278 3	16	950	1000	1
29950 3	18	200	250	1
29951 0	18	250	300	1
29952 7	18	400	450	1
29953 4	18	550	600	1
29954 1	20	200	250	1
29955 8	20	250	300	1
29956 5	20	400	450	1
29957 2	20	550	600	1
22528 1*	22	400	450	1
22529 8*	24	200	250	1
22530 4*	24	400	450	1
22531 1*	25	400	450	1
22532 8*	28	200	250	1
22533 5*	28	400	450	1
22534 2*	30	400	450	1

^{*} designed with multiple-piece carbide

SETS



(Art)	ıø	*
26812 7	5/6/8 x 100/160mm	3
27465 4	6/8 x 50/110mm 6/8/10 x 100/160mm,	5
28901 6	6/8/10/12/14 x 100/160mm	5
27588 0	5/5.5/6 x 50/110mm 6/7/8/10 x 100/160mm	7
26813 4	5/6/8 x 50/110mm 6/8/10/12 x 100/160mm	7

MULTIPACKS

MOEIN /1010						
<u>@r</u>	100		₫ā	⇔		
31007 9	5	50	110	10+1		
31008 6	6	50	110	10+1		
31009 3	6	100	160	10+1		
29848 3	6	150	210	10+1		
30574 7	6.5	150	210	10+1		
310109	8	50	110	10+1		
31011 6	8	100	160	10+1		
29849 0	8	150	210	10+1		
310123	10	100	160	10+1		
29850 6	10	150	210	10+1		
31013 0	12	100	160	10+1		
31014 7	12	150	210	10+1		
29852 0	14	150	210	10+1		
29853 7	16	150	210	10+1		

TRIJET ULTIMATE SDS-MAX

Art. 4010159-				
28178 2	12	200	340	1
28179 9	12	400	540	1
28180 5	12	600	740	1
28181 2	13	200	340	1
28182 9	13	400	540	1
28183 6	14	200	340	1
28184 3	14	400	540	1
28185 0	14	600	740	1
28186 7	15	200	340	1
28187 4	15	400	540	1
28188 1	16	200	340	1
28189 8	16	400	540	1
28190 4	16	600	740	1
28191 1	16	800	940	1
281928	16	1200	1340	1
22363 8	18	200	340	1
22364 5	18	400	540	1
28193 5	18	600	740	1
22535 9	18	800	940	1
23111 4	19	200	320	1
23112 1	19	400	520	1
22365 2	20	200	320	1
22366 9	20	400	520	1
28194 2	20	600	720	1
22367 6	20	800	920	1
22368 3*	22	200	320	1
22369 0*	22	400	520	1
28195 9*	22	600	720	1
22370 6*	22	800	920	1
23399 6*	22	1200	1320	1
22371 3*	24	200	320	1
22372 0*	24	400	520	1
22373 7*	25	200	320	1
22374 4*	25	400	520	1
28196 6*	25	600	720	1
22375 1*	25	800	920	1
22376 8*	25	1200	1320	1
23113 8*	26	200	320	1
23114 5*	26	400	520	1
22377 5*	28	200	320	1
22378 2*	28	400	520	1
22379 9*	28	600	720	1

Art. 4010159-				
28197 3*	28	800	920	1
22380 5*	30	200	320	1
22381 2*	30	400	520	1
28198 0*	30	600	720	1
22382 9*	32	200	320	1
22383 6*	32	400	520	1
28199 7*	32	600	720	1
22384 3*	32	800	920	1
22385 0*	32	1200	1320	1
22386 7*	35	200	320	1
22387 4*	35	400	520	1
22388 1*	35	600	720	1
22389 8*	38	200	320	1
22390 4*	38	400	520	1
28200 0*	38	600	720	1
22391 1*	40	200	320	1
22392 8*	40	400	520	1
28201 7*	40	600	720	1
22393 5*	40	800	920	1
22394 2*	40	1200	1320	1
23343 9*	45	400	520	1
23344 6*	50	400	520	1

^{*} designed with multiple-piece carbide

SETS



Art. 4010159-		
28202 4	12/14/16 x 400/540mm	3
28205 5	20/22/25 x 400/520mm	3
27908 6	20/28/35 x 400/520mm	3
22470 3	25/30/35 x 400/520mm	3



4POWER PROHAMMER DRILL BIT

Hammer drill bit with 4 cutting edges combines speed and long life.





PRODUCT DESCRIPTION







- · Multi-cutter for concrete and rebar
- · Extremely robust head with 4 edges for long life
- With recessed carbide tip for extreme resilience in reinforcement steel and powerful drilling progress
- · Quick drilling progress
- · Optimised head and flute design for highly efficient dust removal and minimised blow out effect
- Lowest vibration thanks to computer-simulated helix reduces the load on the user
- \cdot Easy positioning thanks to double centre tip





Diameter 5-25 mm



















4POWER PRO SDS-PLUS

Art. 4010159-				
29116 3	5	50	110	1
29117 0	5	100	160	1
29731 8	5	150	210	1
29732 5	5	250	310	1
29118 7	5.5	50	110	1
29119 4	5.5	100	160	1
29733 2	5.5	150	210	1
29120 0	6	50	110	1
29121 7	6	100	160	1
29122 4	6	150	210	1
29123 1	6	200	260	1
29734 9	6	250	310	1
29735 6	6	400	460	1
31242 4	6	550	600	1
29124 8	6.5	50	110	1
29125 5	6.5	100	160	1
29126 2	6.5	150	210	1
29127 9	6.5	200	260	1
31243 1	6.5	250	310	1
29128 6	7	100	160	1
29129 3	7	150	210	1
29737 0	7	200	260	1
29130 9	8	50	110	1
29131 6	8	100	160	1
29132 3	8	150	210	1
29133 0	8	200	260	1
29134 7	8	250	310	1
29135 4	8	400	460	1
29739 4	8	550	600	1
29740 0	8	900	950	1
29136 1	10	50	110	1
29137 8	10	100	160	1
29138 5	10	150	210	1
29139 2	10	200	260	1
29140 8	10	250	310	1
29141 5	10	400	460	1
29741 7	10	550	600	1
29742 4	10	950	1000	1
29142 2	12	100	160	1
29143 9	12	150	210	1
29144 6	12	200	260	1
29145 3	12	250	310	1
29146 0	12	400	450	1
29147 7	12	550	600	1
29743 1	12	950	1000	1
29148 4	14	100	160	1
29149 1	14	150	210	1
29150 7	14	200	260	1
29151 4	14	250	310	1
29152 1	14	400	450	1
29153 8	14	550	600	1
31244 8	14	950	1000	1
31245 5	15	200	260	1
31246 2	15	400	450	1
29154 5	16	150	210	1

Art. 4010159-				
29155 2	16	200	260	1
29156 9	16	250	310	1
29157 6	16	400	450	1
29158 3	16	550	600	1
29744 8	16	950	1000	1
31247 9	18	200	250	1
31248 6	18	250	300	1
31249 3	18	400	450	1
31250 9	18	550	600	1
31251 6	20	200	250	1
31252 3	20	250	300	1
31253 0	20	400	450	1
31254 7	20	550	600	1
31255 4*	22	200	400	1
31256 1*	22	400	450	1
31257 8*	24	200	250	1
31258 5*	24	400	450	1
31259 2*	25	200	250	1
31260 8*	25	400	450	1

^{*} designed with multiple-piece carbide

SETS









29202 3 6/6/8/8/10 x 100/160mm 29199 6 5/6/8 x 50/110mm 6/8/10/12 x 100/160mm

7

MULTIPACK



Art. 4010159-				heder
29195 8	6	100	160	10+1
29854 4	6	150	210	10+1
31000 0	6.5	100	160	10+1
30573 0	6.5	150	210	10+1
29196 5	8	100	160	10+1
29855 1	8	150	210	10+1
29197 2	10	100	160	10+1
29856 8	10	150	210	10+1
29198 9	12	100	160	10+1
29857 5	12	150	210	10+1
29858 2	14	150	210	10+1
29859 9	16	150	210	10+1



BIONIC PRO SDS-PLUS

HAMMER DRILL BIT

High-speed drill for professional results in concrete and reinforcements.





PRODUCT DESCRIPTION

- · Dual-cutter for concrete and reinforcement steel
- Extremely robust with long service liles thanks to the patented drill head
- · With recessed carbide tip for extreme resilience in reinforcement steel and powerful drilling progress
- · Best drilling process thanks to the optimised carbide cutting edge
- Twinmax 3D helix for highly effective drilling dust transport and minimal dust inflagration even in deep holes
- · Low vibration reduces the load on the user
- · Particularly easy positioning and avoids spalling even after drilling many holes thanks to double centring tip









t video Website





Diameter 4–26 mm















BIONIC PRO SDS-PLUS

	8	4	.	haber
4010159-	ξŎ			
16306 4	4	50	110	1
22016 3	4	100	160	1
15620 2	5	50	110	1
17650 7	5	100	160	1
26257 6	5	100	410	1
23642 3	5	150	210	1
28536 0	5	300	360	1
28206 2	5	550	600	1
15965 4	5.5	50	110	1
17298 1	5.5	100	160	1
26258 3	5.5	100	410	1
24158 8	5.5	150	210	1
28537 7	5.5	300	360	1
15622 6	6	50	110	1
15623 3	6	100	160	1
16813 7	6	150	210	1
15658 5	6	200	260	1
27787 7	6	250	310	1
22263 1	6	300	350	1
28484 4	6	400	460	1
28485 1	6	550	600	1
18308 6	6.5	50	110	1
19350 4	6.5	100	160	1
16304 0	6.5	150	210	1
23645 4	6.5	200	260	1
21798 9	6.5	230	290	1
28085 3	6.5	300	360	1
19874 5	7	50	110	1
15625 7	7	100	160	1
21687 6	7	150	210	1
28486 8	7	300	360	1
15966 1	8	50	110	1
15626 4	8	100	160	1
15627 1	8	150	210	1
15659 2	8	200	260	1
16934 9	8	250	310	1
28487 5	8	300	360	1
15661 5	8	400	460	1
21989 1	8	550	600	1
16152 7	9	100	160	1
16561 7	9	150	210	1
27715 0	9.5	250	310	1
16465 8	10	50	110	1
15628 8	10	100	160	1
15629 5	10	150	210	1
15630 1	10	200	260	1
18687 2	10	250	310	1
16489 4	10	300	350	1
15967 8	10	400	460	1

Art. 4010159-				
17882 2	10	550	600	1
19882 0	10	950	1000	1
28488 2	10	1350	1400	1
18927 9	11	100	160	1
18202 7	11	200	260	1
23650 8	11	250	310	1
15631 8	12	100	160	1
15632 5	12	150	210	1
15633 2	12	200	260	1
15973 9	12	250	310	1
15969 2	12	400	450	1
15970 8	12	550	600	1
19883 7	12	950	1000	1
23418 4	12	1350	1400	1
18309 3	13	100	160	1
28489 9	13	150	210	1
18310 9	13	200	250	1
17299 8	13	250	300	1
22017 0	13	400	450	1
28490 5	13	550	600	1
15636 3	14	100	160	1
15637 0	14	150	210	1
15638 7	14	200	260	1
16316 3	14	250	300	1
16317 0	14	400	450	1
15971 5	14	550	600	1
19884 4	14	950	1000	1
24163 2	14	1350	1400	1
17394 0	15	100	160	1
15639 4	15	150	210	1
15640 0	15	200	260	1
16661 4	15	400	450	1
15641 7	16	100	160	1
15642 4	16	150	210	1
16930 1	16	200	260	1
18688 9	16	250	300	1
15643 1	16	400	450	1
15972 2	16	550	600	1
15899 2	16	750	800	1
19885 1	16	950	1000	1
23419 1	16	1350	1400	1
17927 0	17	150	200	1
27795 2	17	250	300	1
15644 8	18	150	200	1
17656 9	18	200	250	1
18689 6	18	250	300	1
16709 3	18	400	450	1
15974 6	18	550	600	1
25888 3	18	750	800	1

BIONIC PRO SDS-PLUS

Art. 4010159-				
19886 8	18	950	1000	1
15645 5	19	150	200	1
15646 2	19	400	450	1
15647 9	20	150	200	1
28491 2	20	200	250	1
18690 2	20	250	300	1
15648 6	20	400	450	1
15660 8	20	550	600	1
19887 5	20	950	1000	1
15649 3	22	200	250	1
27798 3	22	250	300	1
15650 9	22	400	450	1
23647 8	22	550	600	1
25890 6	22	750	800	1
23648 5	22	950	1000	1
15651 6	24	200	250	1
17247 9	24	400	450	1
15652 3	25	200	250	1
22340 9	25	250	300	1
15653 0	25	400	450	1
23649 2	25	950	1000	1
21935 8	26	200	250	1
15654 7	26	400	450	1

SETS



	Art. 4010159-		*
*1	17748 1	5/6/8 x 50/110mm	3
*2	16490 0	5/6 x 50/110mm 8/10 x 100/160mm	4
	23464 1	10/12/14/16/20 x 400/450mm	5
*3	16491 7	5/6 x 50/110mm 6/8/10 x 100/160mm	5
*4	16315 6	5/6/8 x 50/110mm 6/8/10/12 x 100/160mm	7
*5	23243 2	5 Stk. 6 x 50/110mm 5 Stk. 6/8/10/12 x 100/160 5 Stk. 8/10/12 x 150/210	40

MULTIPACK



Art. 4010159-				belæ
31015 4	4	50	110	10+1
31016 1	5	50	110	10+1
310178	5	100	160	10+1
310185	5.5	100	160	10+1
31019 2	6	50	110	10+1
310208	6	100	160	10+1
31021 5	6	150	210	10+1
31022 2	7	100	160	10+1
31023 9	8	50	110	10+1
31024 6	8	100	160	10+1
31025 3	8	150	210	10+1
31026 0	8	200	260	10+1
31027 7	10	100	160	10+1
31028 4	10	150	210	10+1
31029 1	10	200	260	10+1
31030 7	12	100	160	10+1
31031 4	12	150	210	10+1
31032 1	12	200	260	10+1
31033 8	14	150	210	10+1
31034 5	16	150	210	10+1

Art. 4010159-				helio
19455 6	6	50	110	50
19456 3	6	100	160	50
26008 4	6	150	210	50
19457 0	8	100	160	50
25169 3	8	150	210	50
19458 7	10	100	160	50
26009 1	10	150	210	50
25171 6	12	100	160	50
26010 7	12	150	210	50
19451 8	14	100	160	50
19452 5	14	150	210	50
23348 4	14	200	260	50
19453 2	16	150	210	50



SPEED2MAX SDS-MAX

HAMMER DRILL BIT

Inexpensive quality drill bits for concrete and stone.





PRODUCT DESCRIPTION

- · Fast dual-cutter for all concrete and stone applications
- \cdot Features proven dual-cutter design and rugged tungsten carbide plate
- · Genuinely low entry-level price
- · High drilling speed thanks to an optimised tip geometry
- · Fast drilling dust removal thanks to wide helix
- · Low vibration reduces the load on the user
- \cdot Easy and precise positioning thanks to centring tip











Diameter 12-40 mm









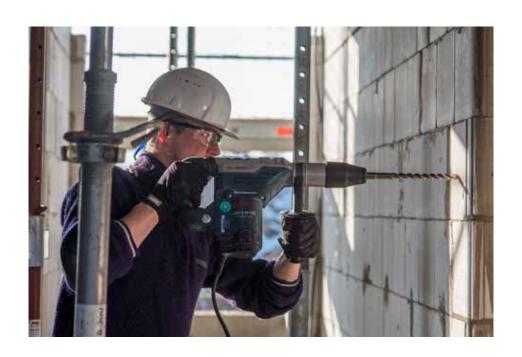






SPEED2MAX SDS-MAX

Art. 4010159-	WE O			() # (C)
27753 2	12	200	340	1
27754 9	12	400	540	1
28234 5	12	600	740	1
27755 6	14	200	340	1
27756 3	14	400	540	1
28237 6	15	200	340	1
27757 0	16	200	340	1
27758 7	16	400	540	1
27759 4	18	200	340	1
27760 0	18	400	540	1
27761 7	20	200	320	1
27762 4	20	400	520	1
27763 1	22	200	320	1
27764 8	22	400	520	1
27765 5	24	200	320	1
27766 2	24	400	520	1
27767 9	25	200	320	1
27768 6	25	400	520	1
27769 3	28	200	320	1
27770 9	28	400	520	1
27771 6	30	200	320	1
27772 3	30	400	520	1
27773 0	32	200	320	1
27774 7	32	400	520	1
27776 1	35	400	520	1
27778 5	40	400	520	1

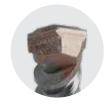




PREFIX SDS-PLUS

HAMMER DRILL BIT

Reliable entry-level hammer drill bit.





PRODUCT DESCRIPTION

- · Dual-cutter for all concrete and stone applications
- · Features proven design and rugged carbide plate
- · Genuinely low entry-level price
- · Effective bore dust removal thanks to aggressive tip and helix design
- · Low vibration reduces the load on the user
- Easy positioning thanks to centring tip





Website info





Diameter 4-25 mm













PREFIX SDS-PLUS

Art. 4010159-				
26837 0	4	50	110	1
25300 0	4	100	160	1
25301 7	5	50	110	1
25302 4	5	100	160	1
25303 1	5.5	50	110	1
25304 8	5.5	100	160	1
25305 5	5.5	150	210	1
25306 2	6	50	110	1
25307 9	6	100	160	1
25308 6	6	150	210	1
26838 7	6	200	260	1
25309 3	6.5	100	160	1
25310 9	6.5	150	210	1
25312 3	7	100	160	1
25313 0	7	150	210	1
25314 7	8	50	110	1
25315 4	8	100	160	1
25316 1	8	150	210	1
25317 8	8	200	260	1
25318 5	9	100	160	1
26839 4	10	50	110	1
25320 8	10	100	160	1
25321 5	10	150	210	1
25322 2	10	200	260	1
25323 9	10	250	310	1
26840 0	10	400	450	1
25324 6	11	250	310	1
25325 3	12	100	160	1
25326 0	12	150	210	1
25327 7	12	200	260	1
25328 4	12	250	310	1
26841 7	12	400	450	1
25329 1	14	100	160	1
25330 7	14	150	210	1
25331 4	14	200	250	1
25332 1	14	250	310	1
26842 4	14	400	450	1
25333 8	16	100	160	1
25334 5	16	150	210	1
25335 2	16	250	300	1
26843 1	16	400	450	1
26844 8	18	200	260	1
26845 5	18	250	300	1
26846 2	18	400	450	1
26847 9	20	250	300	1
26848 6	20	400	450	1
26849 3	20	400	450	1
26850 9	25	400	450	
20000 9	20	400	400	1

SETS









26594 2

5/6/8 x 50/110mm 6/8/10/12 x 100/160mm

7

MULTIPACK

Art. 4010159-				heler
25342 0	5	100	160	25
25343 7	5.5	50	110	25
25344 4	5.5	100	160	25
25345 1	5.5	150	210	25
25346 8	6	50	110	25
25347 5	6	100	160	25
25348 2	6	150	210	25
25351 2	7	50	110	25
25352 9	7	100	160	25
25353 6	7	150	210	25
25355 0	8	100	160	25
25356 7	8	150	210	25
25357 4	8	200	260	25
25359 8	9	150	210	25
25360 4	10	100	160	10
25361 1	10	150	210	10
25362 8	10	200	260	10
25363 5	10	250	310	10
25365 9	12	100	160	10
25366 6	12	150	210	10
25367 3	12	200	260	10
25371 0	14	200	250	10
25374 1	16	150	210	10
25375 8	16	250	300	10
26858 5	18	200	260	10
26862 2	20	400	450	10
26864 6	25	400	450	10



REBAR BREAKER SDS-PLUS

REBAR CUTTER

The ultimate opponent for reinforcements – particularly efficient thanks to hammer action.



PRODUCT DESCRIPTION

- · Maximum productivity when drilling in reinforcement steel
- · Up to 6x longer service life
- · Particularly robust with optimised power transfer due to manufacture from a single piece of steel
- · Consistently high cutting speed over the entire service life
- · Extremely long service life thanks to specially developed carbide
- · One-piece carbide (up to 14 mm ø) with 4 cutting edges prevents jamming on reinforcements

Art.) 4010159-				beller
29902 2*	12	250	300	1
29903 9*	14	250	300	1
29904 6	16	250	300	1
29905 3	18	250	300	1
29906 0	20	250	300	1
29907 7	22	250	300	1
31220 2	24	250	300	1
29908 4	25	250	300	1
29909 1	28	250	300	1
29910 7	30	250	300	1
29911 4	32	250	300	1
29912 1	35	250	300	1

* one-piece carbide





Diameter 12-35 mm

















EXTRACTION DRILL BITS FOR CONCRETE

Heller extraction drill bits enable dust-free drilling in compliance with typical, stricter health protection standards (e.g., TRGS 900). Nearly all of the drilling dust is removed where it originates at the drill head. This makes extraction drill bits perfect for interior applications. Positive side effect: maximum productivity and process assurance when installing

chemical plugs, as there is no need to clean the hole additionally. These drill bits are also available as an XC variant with interchangeable heads for special flexibility and sustainability. The Duster Expert is available with SDS plus and SDS-max shanks.

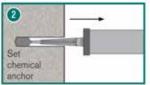
FUNCTION:

The Heller extraction drill bit combines two steps in one: it drills and simultaneously extracts the drilling dust directly at the drill head.

- ✔ Health protection: virtually no dust emissions compared to conventional drilling
- ✓ Safety thanks to reliable cleaning of the hole
- ✓ Simple, fast and reliable
- ✓ Faster due to extra large head bores and reduced drilling resistance thanks to internal routing of the drilling dust
- ✓ For use with all popular hammer drills as well as commercially available M-class industrial vacuum cleaners with a volume flow: V ≥ 40l/sec, negative pressure: p > 230
- ✓ Removes the need for irritating, tedious cleaning.

3 WORK STEPS FOR CERTIFIED ANCHORING*







- ✓ Holes for structural connections by means of retroactive rebar connection
- ✓ Drilling anchor holes for fastening structure steel constructions (e.g. steel girders)
- ✓ Plug holes for fastening subordinate steel constructions (e.g., stairs, steel girders)
- ✓ Drill holes for structural renovation/changes with retroactively installed rebars
- ✓ Drills for replacing incorrectly positioned or missing rebars
- ✓ Interiors and inadequately ventilated rooms

SAVES TIME AND REDUCES THE OVERHEAD INVOLVED IN INSTALLING CHEMICAL ANCHORS*

Without extraction drill:
9 work steps for certified anchoring

Drilling time only:

00:37 min.

Total time for installing one chemical anchor:

2:15 min.

With extraction drill:

3 work steps for certified anchoring*



Drilling time only:

00:25 min.

Total time for installing one chemical anchor:

1:23 min.

See our application videos for detailed information:





*OBSERVE ETA APPROVAL OF THE RESPECTIVE MANUFACTURER!

DUSTER EXPERT SDS-MAX/PLUS

EXTRACTION DRILL BIT

The innovative 2-in-1 drill bit: enhances dust-free drilling.



PRODUCT DESCRIPTION

- The Duster Expert combines drilling and dust extraction in a single step for all concrete work
- \cdot Removes nearly all of the drilling dust where it originates at the drill head
- · Rugged design of the drill head and shaft for a long service life
- · Maximum productivity when setting chemical anchors
- Fast thanks to extra large openings at the tip and reduced drilling resistance as drilling dust is routed internally
- · Saves annoying cleaning of the surroundings
- · Perfect for use in interior applications







Product video

Website info







Diameter 6-40 mm

















DUSTER EXPERT SDS-PLUS

	Art. 4010159-		E		
	29630 4	6	100	220	1
	29727 1	8	100	220	1
	28970 2	8	150	270	1
	29728 8	10	100	220	1
0	28971 9	10	150	270	1
Bionic	28783 8	12	200	320	1
	28784 5	14	250	370	1
	28786 9	16	250	370	1
	28787 6	18	250	370	1
	28788 3	20	250	370	1
	28789 0	24	250	370	1

DUSTER EXPERT SDS-MAX

	(Art.) 4010159-				
Bionic	29724 0	14	400	600	1
Bio	29419 5	16	400	600	1
	28622 0	18	400	600	1
	28623 7	20	400	600	1
	28624 4	22	400	600	1
	28825 5	24	400	600	1
Y-Cutter	28625 1	25	400	600	1
\ \ \ \	28626 8	28	400	600	1
	28627 5	30	400	600	1
	28628 2	32	400	600	1
	28629 9	35	400	600	1
	29095 1	40	400	600	1

ADAPTER



heller



29730 1





100

220

6, 8, 10

DUSTER EXPERT XC SDS-PLUS

EXTRACTION DRILL BIT



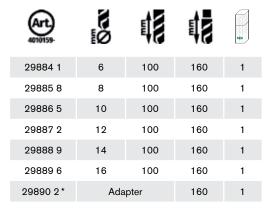
The innovative 2-in-1 drill bit with exchangeable attachments.



PRODUCT DESCRIPTION

The Duster Expert XC is the Duster Expert SDS-plus variant with exchangeable cutterheads. It means that several diameters can be used with one extraction adapter and with the same performance. This makes the Duster Expert XC a practical option for all users who require dust-free drilling.

- · Combines drilling and extraction in a single step
- Removes nearly all of the drilling dust where it originates at the drill head
- · Toolless replacement of the drill heads ensures fast and costefficient drilling diameter changes
- · Ideal for chemical anchors and interior work
- · Complies with all dust emission and avoidance standards
- · Saves annoying cleaning of the surroundings
- · Fast, practial and efficient work





Product video







Diamter 6-16 mm















STONEBREAKER SDS-MAX

TUNNEL BIT

Premium tunnel bits for professionals.







PRODUCT DESCRIPTION

- · High drilling advance
- · Avoids jamming in the hole
- · Reduced vibration
- · Long service life
- · Precise drilling geometry

Art. 4010159-				taker
29753 0	45	440	550	1
29754 7	45	1005	1125	1
29755 4	55	440	550	1
29756 1	55	1005	1125	1
29757 8	68	440	550	1
29758 5	68	1005	1125	1
29759 2	80	440	550	1
29760 8	80	1005	1125	1

Compatible with 2270 RATIO SDS-max adapters page 38

2131 THREAD GREASE

Recommended for use with Ratio Threaded joints











19947 6



Diameter 45-80 mm















32



SUPER QUICK SDS-MAX

CORE DRILL

The high-performance hammer drill bit.



PRODUCT DESCRIPTION

- · Powerful, fast & durable
- · Ideal for placing pipes through brickwork and concrete
- High drilling speed thanks to breaking down the edge area of the drilled hole
- · Extremely rugged design ensures long service life
- · Increased core dust removal thanks to patented tooth geometry with changing sequence of flat and pointed teeth
- · Effective penetration also in reinforced concrete



Art. 4010159-	WW O			heler
24527 2	50	170	290	1
24528 9	50	430	550	1
24529 6	68	170	290	1
24530 2	68	430	550	1
24531 9	80	170	290	1
24532 6	80	430	550	1
24533 3	90	430	550	1
24534 0	100	430	550	1

2207 PILOT BITS

for SuperQuick core drill











24542 5 12 77 128 1

Product group
2225



Diamter 50-100 mm















HELLER RATIO SYSTEM – THE MOST RATIONAL TOOL SYSTEM FOR HAMMER DRILL BITS

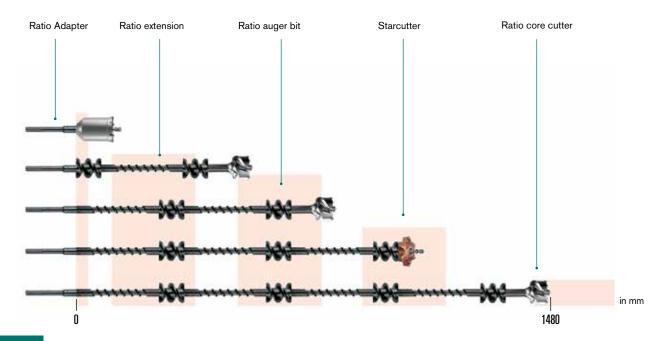
Flexible equipment for drilling professionals.

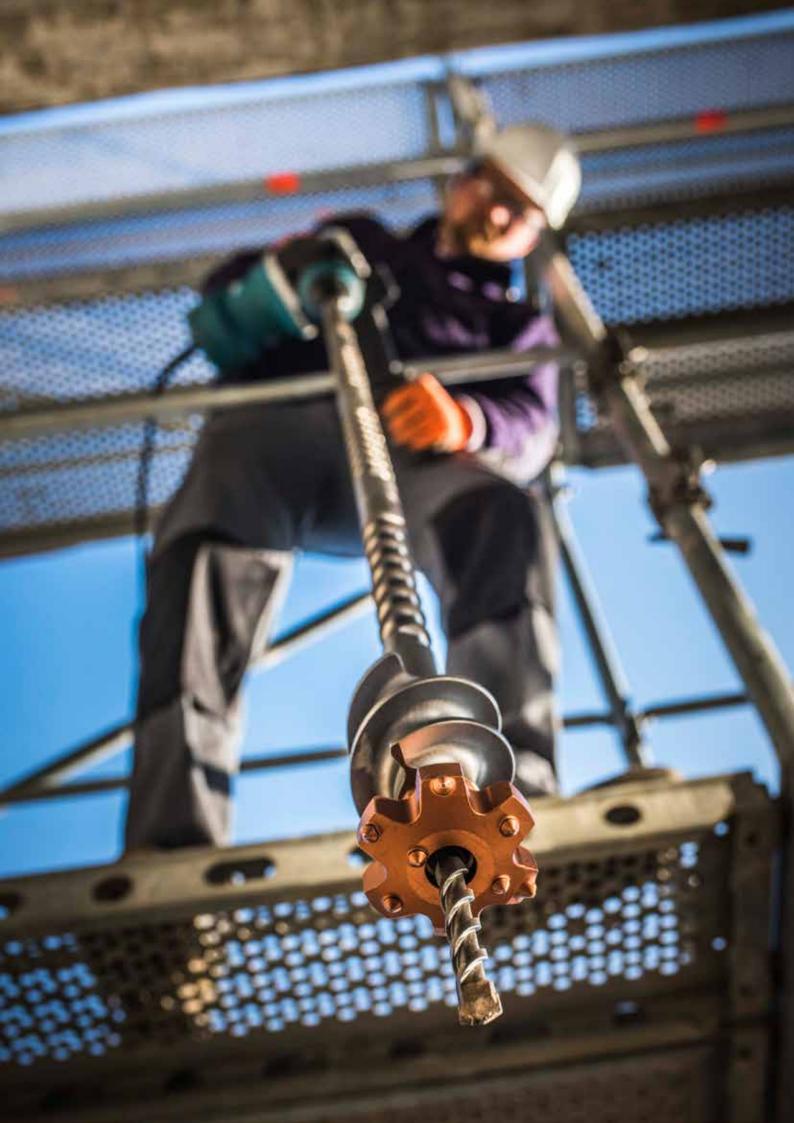
- ✓ Highest drilling performance and long service lives thanks to the use of special carbide
- ✓ Rapid progress even in hard concrete
- ✔ Precise positioning even in difficult corners

The Heller Ratio system is a tool system which lets you individually combine the various components: pilot bits with auger bits, extensions and adapters. Depending on the diameter and the desired drilling depth, you can compose the perfect tool thanks to the stable screw connections between the individual components. The precision-made Ratio custom thread safely holds the tool together, but is easy to re-

lease again after use. The Ratio system has been used to create tool lengths of up to 1,480 mm – and with excellent results. The hole diameters are between 12 and 150 mm and underline the wide bandwidth of possible applications for the system. Note: Observe details on the drill bit's areas of application. Particularly efficient and individually combinable with various connection options in the flexible Ratio System.

Tip: Use our thread grease to minimise wear (Art no.: 19947 6).





STARCUTTERRATIO DRILL HEAD







Brickwork drilled through quickly - flexible in depth and diameter.

PRODUCT DESCRIPTION

- Highest drilling performance and long service life thanks to highalloy special steel
- · Fast progress even in hard concrete

2260 RATIO ADAPTER FOR HAMMER DRILL BITS

Art. 4010159-			beller
15547 2	SDS-plus	108	1
10243 8	SDS-max	185	1
29790 5	SDS-max	400	1
29791 2	SDS-max	975	1

Art. 4010159-			heler
19933 9	35	40	1
19934 6	42	40	1
19935 3	52	40	1
19936 0	65	40	1
19937 7	80	40	1
19970 4	90	40	1
19938 4	100	40	1
19969 8	110	40	1
19939 1	125	40	1



2208 PILOT BITS

Art. 4010159-				hile
19945 2	18	50	125	1
19946 9	18	100	175	1

2131 THREAD GREASE

Recommended for use with Ratio Threaded joints















Diameter 35-125 mm















RATIO QUICK CORE DRILL

The better core drill: fast, reliable and clean.







PRODUCT DESCRIPTION

- · With fast and stable teeth for best-in-class results and efficient drilling dust removal thanks to an alternating sequence of flat and pointed teeth
- · Extremely rugged design ensures long service life
- · Extremely rugged design ensures long service life
- · Effective penetration also in reinforced concrete
- · Extremely rugged design ensures long service life
- · New! The Core Breaker also removes jammed cores quickly and easily*





Diameter 40-150 mm













Art. 4010159-				take
23390 3	40	80	105	1
23391 0	50	80	105	1
23392 7	65	80	105	1
23393 4	68	80	105	1
23394 1	80	80	105	1
23395 8	90	80	105	1
23396 5	100	80	105	1
23397 2	125	80	105	1
23400 9	150	80	105	1

2206 PILOT BITS

Art. 4010159-			haller .
10230 8	12	155	1
19946 9	18	175	1

2260/2270 RATIO ADAPTER FOR HAMMER DRILL BITS



2131 THREAD GREASE

Recommended for use with Ratio Threaded joints







RATIOCORE CUTTER

Premium core cutters for professionals.





PRODUCT DESCRIPTION

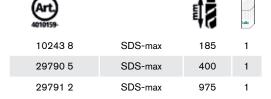
- · Extremely rugged design ensures long service life
- · Fast progress even in hard concrete
- · Precise pilot drilling even in difficult corners
- · In the flexible Ratio system, individually combinable with a variety of connection options

Art.) 4010159-		₽Į.		beler
28920 7	45	75	150	1
28921 4	50	75	150	1
28922 1	55	75	150	1
28923 8	60	75	150	1
28924 5	68	75	150	1
28925 2	80	75	150	1



Website info

2260/2270 RATIO ADAPTER FOR HAMMER DRILL BITS







Diameter 45-80 mm















2260/2270 RATIO ADAPTER FOR HAMMER DRILL BITS



Art. 4010159-			
15547 2	SDS-plus	108	1
10243 8	SDS-max	185	1
29790 5	SDS-max	400	1
29791 2	SDS-max	975	1

2129 RATIO THREADED BOLT

10232 2



63

2412 **RATIO AUGER BIT**



Art.		1	The state of the s	Ø mm	
19941	4 32	2 80	115	35-50	1
19942	1 47	7 80	115	52-60	1
19943	8 63	80	115	65-68	1
19944	5 78	80	115	80-160	1

2025 SDS-PLUS COUPLING FOR SDS-MAX SHANK

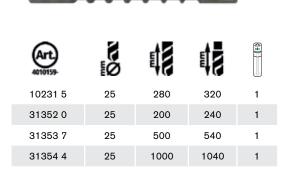


2131 THREAD GREASE

Recommended for use with Ratio Threaded joints



2281 RATIO EXTENSION







IMPACT DRILLING TOOLS FOR CONCRETE AND STONE

An impact drill specifically differs from a hammer drill in terms the impact mechanism design. Two toothed rings over each other during drilling and generate a considerably lighter impact. The tool is also clamped using a three-jaw chuck. When the impact function is switched off, impact drills are also suitable for working in wood, metal or plastic.

Heller Tools offers a comprehensive range of innovative and proven premium-quality tools for drilling in concrete, stone and masonry for all requirements and drills. Heller produces drill bits manufactured in line with the regulations of the Prüf-

gemeinschaft Mauerbohrer (PGM), an independent institute, which confirms both the outstanding properties and audited production. This quality mark is embossed on the drill bit. Heller's concrete and stone tools are also manufactured from the best steels and tungsten carbide plates with strict quality controls; this is evident, for example, in the exact alignment and soldering of the carbide plates or from the strict concentricity tolerance.

Rotational speeds

Regardless of the diameter, impact drilling should be carried out at speeds between 2500 – 3000 rpm.

DRILLING PROCEDURE



Percussion drilling

Concrete, sand lime brick, natural stone, masonry, brick



Impact-free fotating drilling

Aerated concrete, hard burnt tiles, fibre cement panels, light sand lime brick, wall tiles

TIPS AND TRICKS

Material suitability

Impact drills are designed for processing masonry, stone and also concrete, depending on the type. The soldered-in carbide plate means that concrete drill bits can withstand heavy loads. However, special products are required to cut through reinforcements.

Cleaning the hole

Before fitting a plug, you should always remove material residues from the drill hole to guarantee the best possible hold for the plug.

ADVISOR CONCRETE AND MASONRY DRILL BITS

Product group		Concrete & Ma	asonry drill bits	3	Diamond	products	Ceramic & tile drill bits
Shank	TRI	CYL	CYL	M16	M16	M16	M14/HEX
Product	ProXtreme concrete drill bit	ProConcrete concrete drill bit	ProStone masonry drill bit	Core drill	DiamondWizard	Diamond drill bit for socket outlets	Cera Expert Highspeed/ Accuspeed
Page	44	46	48	50	52	53	54
Concrete		**		**	***		
Reinforced Concrete							
Aerated concrete	***	***	**	***	***	***	
Sand lime brick	***	***	**	***	***	**	
Masonry	***	***	**	***	**	**	
Brick	**	**	**		***	***	
Rooftiles			*				***
Granite			*				***
Tiles							***
Marble	***		*		**		**
Wall tiles			**				***
Natural stone	***		**	***	**		
Glass							

Quality Stages

Professional Plus

Professional

Classic

Material suitability

★★★ Recommended

★★ Well suited

★ Suitable



PROXTREME

CONCRETE & NATURAL STONE DRILL BIT

Our best hammer drill for extreme requirements in concrete and natural stone.





PRODUCT DESCRIPTION

- · POWERFUL. Durable. Convenient: The multi-talent for concrete and all natural stone types with superior performance
- · Long service life and excellent positioning behaviour
- · 3-edged "Tri" shank prevents slipping in the drill chuck
- · Wide range of applications and perfect centring thanks to ground carbide plate and high-strength tip soldering
- · Specially designed for challenging drilling tasks, e.g., in concrete, granite, marble and vertically perforated bricks
- · Extremely high speed thanks to optimal tip geometry and largevolume helix design
- Heller curing technology ensures extreme performance characteristics and break resilience
- · Designed as a rotary drill, but also suitable for percussion drilling





Website info





Diameter 4-14 mm



















Art. 4010159-				hiller
28245 1	4	45	115	1
28247 5	5	50	115	1
28656 5	5	135	200	1
28249 9	6	60	125	1
28250 5	6	110	175	1
28657 2	6	185	250	1
28252 9	7	60	125	1
28253 6	8	80	145	1
28658 9	8	185	250	1
28254 3	9	80	145	1
28255 0	10	80	145	1
28659 6	10	185	250	1
28256 7	12	90	150	1
28257 4	14	90	150	1

MIXED SET









28813 2

Cera Expert 6 x 60/124 8 x 80/145 ProXtreme 6 x 120 / 8 x 125mm

PROXTREME CASSETTES





5 x 50/115 / 6 x 60/125

10 x 80/145mm



*1	28262 8	5 x 50/115 / 6 x 60/125 8 x 80/145mm	3
*2	28263 5	5 x 50/115 / 6 x 60/125 8 x 80/145 10 x 80/145mm	4
*3	28264 2	4 x 45/115 / 5 x 50/115 6 x 60/125 / 8 x 80/145	5







MIXED SET (CASE)





288163



Cera Expert Highspeed Ø 6/8/10

ProXtreme Ø 6/8/10







PROCONCRETE

CONCRETE AND MASONRY DRILL BITS

Quality hammer drill bits for professional drilling solutions.





PRODUCT DESCRIPTION

- · Extremely robust quality hammer drill bits with significantly longer service life compared to legacy concrete drill bits
- · Fast drilling speed thanks to wide helix
- · Special Heller curing technology of the surface guarantees excellent break resilience
- \cdot Developed for frequent use in concrete and stone, sand lime brick and masonry
- · Long service life thanks to optimised carbide geometry with enlarged point angle









Diameter 3-20 mm

















Art. 4010159-	NE (O			heler
10000 7	3	45	85	1
10001 4	4	45	85	1
10003 8	5	50	90	1
10026 7	5	110	150	1
10005 2	6	60	100	1
10027 4	6	110	150	1
10007 6	7	60	100	1
10008 3	8	80	120	1
10028 1	8	135	200	1
18001 6	8	350	400	1
10010 6	9	80	120	1
10011 3	10	80	120	1
10029 8	10	150	200	1
18002 3	10	350	400	1
10013 7	12	90	130	1
10030 4	12	150	200	1
18004 7	12	350	400	1
10015 1	14	90	150	1
16229 6	14	200	260	1
18006 1	14	350	400	1
10016 8	16	90	150	1
18008 5	16	350	400	1
10017 5	18	100	160	1
10018 2	20	100	160	1







4010133		<i>V</i>
17751 1	5 x 50/90 / 6 x 60/100mm 8 x 80/120mm	3
16873 1	5 x 50/90 / 6 x 60/100mm 8 x 80/120 / 10 x 80/120mm	4
17755 9	4 x 45/85mm 5 x 50/90 / 6 x 60/100mm 8 x 80/120 / 10 x 80/120mm	5
16884 7	4 x 45/85 / 5 x 50/90mm 2 Stk. 6 x 60/100mm 8 x 80/120 / 10 x 80/120mm 12 x 90/130mm	7







PROSTONEMASONRY DRILL BITS

Entry-level impact drilling – fast, good and reliable.





PRODUCT DESCRIPTION

- · Quality drill bits for stone
- · Optimised for masonry
- · Ideal for use in cordless drills
- · Quick dust collection thanks to 4-fluted helix
- · Long service life thanks to stable carbide plate









Diameter 4-20 mm

















18017 7 4 45 75 1 24608 8 4 110 150 1 24609 5 4.5 110 150 1 18018 4 5 45 95 1 18019 1 5 110 150 1 19279 8 5.5 50 95 1 19281 1 5.5 50 95 1 19281 1 5.5 50 95 1 18020 7 6 60 100 1 18020 1 6.5 60 100 1 18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 18024 5 7 60 100 1 18024 5 7 60 100 1 18025 2 8 80 120 1 18025 2 8 <t< th=""><th>Art. 4010159-</th><th></th><th></th><th></th><th>heler</th></t<>	Art. 4010159-				heler
24609 5 4.5 110 150 1 18018 4 5 45 95 1 18019 1 5 110 150 1 19279 8 5.5 50 95 1 19281 1 5.5 50 95 1 18020 7 6 60 100 1 18021 4 6 110 150 1 18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 18025 2 8 80 120 1 18025 2 8 120 1 18026 9 8 135	18017 7	4	45	75	1
18018 4 5 45 95 1 18019 1 5 110 150 1 19279 8 5.5 50 95 1 19281 1 5.5 50 95 1 18020 7 6 60 100 1 18021 4 6 110 150 1 18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 18024 5 7 60 100 1 19282 8 7 110 150 1 19282 8 7 110 150 1 18024 5 7 60 100 1 18025 2 8 80 120 1 18025 2 8 80 120 1 18026 9 8 135 200 1 18026 9 8	24608 8	4	110	150	1
18019 1 5 110 150 1 19279 8 5.5 50 95 1 19281 1 5.5 110 150 1 18020 7 6 60 100 1 18021 4 6 110 150 1 18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 18025 2 8 80 120 1 18026 9 8 135 200 1 24612 5 8 110 150 1 18026 9 8	24609 5	4.5	110	150	1
19279 8 5.5 50 95 1 19281 1 5.5 110 150 1 18020 7 6 60 100 1 18021 4 6 110 150 1 18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 18025 2 8 80 120 1 18025 2 8 10 150 1 18026 9 8 135 200 1 24612 5 8 110 150 1 18027 6 10	18018 4	5	45	95	1
19281 1 5.5 110 150 1 18020 7 6 60 100 1 18021 4 6 110 150 1 18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 19282 8 7 110 150 1 18025 2 8 80 120 1 18025 2 8 80 120 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18027 6 10 80 120 1 18027 6 10	18019 1	5	110	150	1
18020 7 6 60 100 1 18021 4 6 110 150 1 18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 24611 8 7 275 400 1 18025 2 8 80 120 1 18025 2 8 80 120 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18027 6 10 80 120 1 18027 6 10 80 120 1 18028 3 10	19279 8	5.5	50	95	1
18021 4 6 110 150 1 18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 24611 8 7 275 400 1 18025 2 8 80 120 1 18025 2 8 80 120 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18026 9 8 135 200 1 18027 6 10 80 120 1 18027 6 10 80 120 1 18028 3 10	19281 1	5.5	110	150	1
18022 1 6.5 60 100 1 18023 8 6.5 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 24611 8 7 275 400 1 18025 2 8 80 120 1 18025 5 8 110 150 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18026 9 8 135 200 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18027 6 10 80 120 1 18028 3 10 110 150 1 18028 3 10 135 200 1 18030 6 12 150 220 <t< td=""><td>18020 7</td><td>6</td><td>60</td><td>100</td><td>1</td></t<>	18020 7	6	60	100	1
18023 8 6.5 110 150 1 18024 5 7 60 100 1 19282 8 7 110 150 1 24611 8 7 275 400 1 18025 2 8 80 120 1 18025 2 8 80 120 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18027 6 10 80 120 1 18027 6 10 80 120 1 18028 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600	18021 4	6	110	150	1
18024 5 7 60 100 1 19282 8 7 110 150 1 24611 8 7 275 400 1 18025 2 8 80 120 1 24612 5 8 110 150 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18027 6 10 80 120 1 18027 6 10 80 120 1 18028 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600	18022 1	6.5	60	100	1
19282 8 7 110 150 1 24611 8 7 275 400 1 18025 2 8 80 120 1 24612 5 8 110 150 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18027 6 10 80 120 1 24616 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 18033 7 16 90 150 1 24625 5 16 150 200	18023 8	6.5	110	150	1
24611 8 7 275 400 1 18025 2 8 80 120 1 24612 5 8 110 150 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18027 6 10 80 120 1 24616 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400	18024 5	7	60	100	1
18025 2 8 80 120 1 24612 5 8 110 150 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18027 6 10 80 120 1 24616 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600	19282 8	7	110	150	1
24612 5 8 110 150 1 18026 9 8 135 200 1 24615 6 9 80 120 1 18027 6 10 80 120 1 24616 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600	24611 8	7	275	400	1
18026 9 8 135 200 1 24615 6 9 80 120 1 18027 6 10 80 120 1 24616 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24626 2 16 275 400 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160	18025 2	8	80	120	1
24615 6 9 80 120 1 18027 6 10 80 120 1 24616 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400	24612 5	8	110	150	1
18027 6 10 80 120 1 24616 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 <td>18026 9</td> <td>8</td> <td>135</td> <td>200</td> <td>1</td>	18026 9	8	135	200	1
24616 3 10 110 150 1 18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 </td <td>24615 6</td> <td>9</td> <td>80</td> <td>120</td> <td>1</td>	24615 6	9	80	120	1
18028 3 10 135 200 1 24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	18027 6	10	80	120	1
24618 7 10 400 600 1 18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	246163	10	110	150	1
18029 0 12 90 150 1 18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	18028 3	10	135	200	1
18030 6 12 150 220 1 18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	24618 7	10	400	600	1
18031 3 13 90 150 1 18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	18029 0	12	90	150	1
18032 0 14 90 150 1 24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	18030 6	12	150	220	1
24622 4 14 275 400 1 24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	18031 3	13	90	150	1
24623 1 14 500 600 1 24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	18032 0	14	90	150	1
24624 8 15 90 150 1 18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	24622 4	14	275	400	1
18033 7 16 90 150 1 24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	24623 1	14	500	600	1
24625 5 16 150 200 1 24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	24624 8	15	90	150	1
24626 2 16 275 400 1 24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	18033 7	16	90	150	1
24627 9 16 500 600 1 18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	24625 5	16	150	200	1
18034 4 18 100 160 1 24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	24626 2	16	275	400	1
24628 6 18 275 400 1 24629 3 18 500 600 1 18035 1 20 100 160 1	24627 9	16	500	600	1
24629 3 18 500 600 1 18035 1 20 100 160 1	18034 4	18	100	160	1
18035 1 20 100 160 1	24628 6	18	275	400	1
	24629 3	18	500	600	1
24631 6 20 500 600 1	18035 1	20	100	160	1
	24631 6	20	500	600	1







177443 5 x 4

5 x 40/85 / 6 x 55/100mm 8 x 75/120 / 10 x 75/120mm

17745 0

4 x 45/75mm 5 x 40/85 / 6 x 55/100mm 8 x 75/120 / 10 x 75/120mm 5

18037 5

4 x 45/75mm 5 x 40/85 / 6 x 55/100mm 8 x 75/120 / 10 x 75/120mm 12 x 85/150mm

7







CORE BIT/ DRILL BIT FOR SOCKET OUTLETS

Core bit for installing socket outlets, recessed lighting, etc.

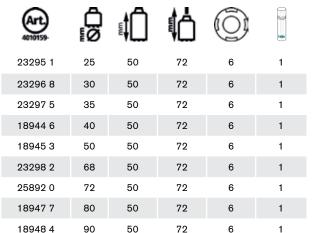


PRODUCT DESCRIPTION

- · Powerful, fast & durable with exchangeable pilot bit
- · Low-wear carbide teeth for particularly fast and convenient drilling
- · Precise concentricity for precise drilling and convenient work
- · With M16 internal thread for fitting a pilot bit



Website info







Diameter 25-100 mm



18949 1

100



50

72







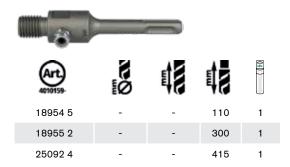




3226 PILOT BITS



3270/18 DRIVE ADAPTER SDS-PLUS



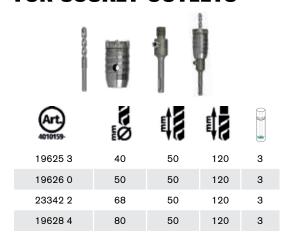
3270 HEXAGONAL DRIVE ADAPTER



3215 HEXAGONAL CORE BITS, SETS OF DRILL BITS FOR SOCKET OUTLETS



3215/18 SDS-PLUS CORE BITS, SETS OF DRILL BITS FOR SOCKET OUTLETS



3390/09 UNIVERSAL CAS-SETTE HSS, STONE & WOOD



3090/09 UNIVERSAL CAS-SETTE HSS & STONE





DIAMONDWIZARD

DRILL BIT FOR SOCKET OUTLETS

Perfect for installing socket outlets for plug sockets and junction boxes.

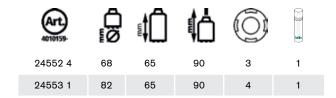




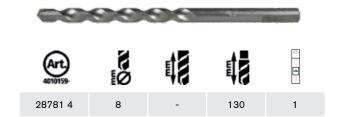
PRODUCT DESCRIPTION

- · For professional installation work
- Extremely resilient high-end diamond cutters for fast material removal and low wear
- · Can be used for dry drilling
- · Ideally suited for use in high-density sand lime brick, wet sand lime brick and all types of masonry
- Fast drill dust removal and reduced jamming effect thanks to the innovative drilling template with wizard spiral
- With anti-vibration feature for fast and optimal centring
- · Accessories and extras: adapter and pilot bit available separately

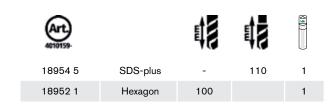
3285 **DIAMONDWIZARD**



PILOT BITS



3270/18 DRIVE ADAPTER





Website info





Diameter 68-82 mm



















DIAMOND DRILL BIT FOR SOCKET **OUTLETS**

Entry-level - quality drill bit for socket outlets.





Art. 4010159-	Ö				hid er
27217 9	68	65	95	4	1
27219 3	82	65	95	5	1

PRODUCT DESCRIPTION

- · Diamond drill bit for socket outlets for installation work
- · Reliable segment connection
- · Fast progress
- · Universally deployable

3270/18 DRIVE ADAPTER







PILOT BITS







Diameter 68-82 mm

















CERA EXPERT HIGHSPEED / ACCUSPEED

STONEWARE & ROOFING TILE DRILL

Perfect for the toughest challenges.









PRODUCT DESCRIPTION

- · Maximum service life and perfect results in the hardest of tiles, roofing tiles and stoneware
- · Cooling is ensure through integrated paraffin emulsion. Removes the need for additional cooling
- \cdot Can be used with angle grinders with M14 collet at high rotational speeds/in chucks with hexagon collet
- · Heller tip: Work without exerting great pressure for centring and start drilling at one edge









Website info

















Diameter 6-82 mm





CERA EXPERT HIGHSPEED

	9	
42	1	
42	1	
42	1	
42	1	
42	1	
42	1	
65	1	
65	1	
65	1	
65	1	
65	1	
65	1	
65	1	
65	1	
	42 42 42 42 42 42 65 65 65 65 65 65	42 1 42 1 42 1 42 1 65 1 65 1 65 1 65 1 65 1 65 1 65 1 65 1 65 1 65 1 65 1 65 1

SETS



CERA EXPERT ACCUSPEED



Art. 4010159-				*
296168	6	35	67	1
296175	8	35	67	1
29618 2	10	42	80	1
29620 5	12	42	80	1
29621 2	14	42	80	1
29619 9	6/8/10	42	80	3

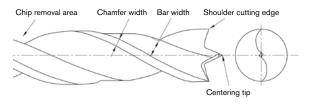


WOOD DRILLING TOOLS

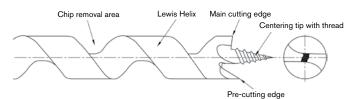
Heller offers an extensive, premium-quality range of wood drills for all professional tasks of carpenters, joiners and anyone who specifically focuses on achieving the best possible results in wood. Accurately machined holes are vital when processing construction elements or producing high-quality wood parts. Where visible, they underline the looks of furniture and in the non-visible area holes are paramount for the accuracy of the design. For this reason, special, precisely machined wood drill bits must be used to process wood. Like the entire product range, Heller's woodworking tools are manufactured from the best steels under strict quality controls.

Wood drill bits are equipped with a distinctive centring tip. The hole is precisely determined using the centring tip. Lateral shoulder cuts enable clean-cut fibres around the edge of the bore.





Lewis auger drill bits



TIPS AND TRICKS FOR DRILLING IN WOOD

Avoiding break-out

Securely clamp the workpiece onto a base plate (rest) and slightly drill into the base plate when drilling through materials. This prevents cracks on the bottom of the workpiece.

Guiding the drill

Drilling with a box column drill creates precise holes and a straight progression of the drilling action. Holes produced with a hand-held drill require precise guiding by hand.

Chip removal during drilling

Pull the tool back through the bore regularly during drilling to remove chips from the drilling channel. If there is no ventilation, which also means that the chips are not discharged, the drilling channel clogs up, the drill bit jams in the hole and causes overheating and burning.

Material suitability

The sharpness of drill bits can be maintained over a prolonged period of time if the drill bits are handled with care. For this purpose, it is important to exclusively use tools in solid wood or wood materials. Metal or masonry will make the drill bit blunt or cause it to fracture.

ADVISOR WOOD DRILL BITS

Product group			Tv	vist drill bi	its				Соц	ıntersinkir	ıg and dril	lling	
Shank	CYL	CYL	HEX	SDS- plus	SDS- plus	CYL	1/4 HEX	CYL	CYL	CYL	CYL	CYL	
Product	HSS TURBO Wood drill bit	Brad point bit	Lewis Long Life Auger drill bit	Lewis Universal Auger drill bit	Formwork drill bit	Formwork drill bit	QuickBit Spade bit	Forstner HighSpeed	Forstner Universal	Hinge Boring bit	Dowel cutter	Wood countersink	Drill-mounted countersink
Page	58	60	64	65	67	67	62	69	71	73	74	75	76
Coated chipboard	***		*				**	***	***	***	***	***	***
Formwork	***	**	***	***	***	***							
Beams	***	***	***	***	**	**	***	***	**	**			***
Greenwood	***	**	***	**	*	*	*	***	*	*			*
Chipboard	***	*	**				**	***	***	***			***
Veneer wood	***		***	*			*	***	***	***		***	***
Hardwood	***	**	***	***	**	**	*	***	***	***		***	***
Softwood	***	***	***	***	***	***	***	***	***	***	***	***	***
Plywood	***	**	***	***	**	**	***	***	***	**	**	***	***

Quality stages

Professional Plus

Professional

Classic

Material suitability

★★★ Recommended

★★ Well suited

★ Suitable



HSS TURBO

WOOD DRILL BIT

The professional wood drill bit for the strictest requirements, even in the hardest woods.





PRODUCT DESCRIPTION

- Extremely quick progress and chip removal in all types of wood. Plus lasting precision and reliability in the highest quality woods
- · HSS steel grade for the longest service life and stability in many drilling actions
- · Good chip removal thanks to large volume helix design
- · Clean and smooth holes thanks to high-precision special grinding
- Precision pilot drilling and neat drill holes thanks to ground centring tips and two shoulder cutters
- · Also ideal for use in cordless drills
- · For all types of wooden materials from soft wood through to the hardest woods, such as Bangkirai, Australian Jarrah, Lignum Vitea, American Black Walnut, Rosewood, Sycamore, Bongossi, coated woods
- · Heller tip: Apply little pressure while working









Diameter 3–16 mm















Art. 4010159-				₹ <u></u>
28560 5	3	33	61	1
28561 2	4	43	75	1
28562 9	5	52	86	1
28563 6	6	57	93	1
28564 3	7	69	109	1
28565 0	8	75	117	1
28567 4	10	87	133	1
28569 8	12	101	151	1
28570 4	14	108	160	1
28571 1	16	120	178	1







*1 28817 0 3 x 33/61 / 4 x 43/75mm 5 x 52/86 / 6 x 57/93mm 8 x 75/117mm 5 *2 28708 1 3/4/5/6/7/8/9/10/11/12 10





BRAD POINT BITS

Proven classic for drilling solutions in any type of wood.





PRODUCT DESCRIPTION

- · Precision pilot drilling and neat drill holes thanks to ground centring tips and two shoulder cutters
- \cdot Additional stability thanks to wear-resistant steel
- · Fast progress and chip removal in hardwood and softwood
- · Also suitable for use in cordless drills
- · Ideally combinable with the 90° countersink





Website into

Product group 0333



Diameter 3-22 mm















(Art.)			et 🖥	4	
4010159-	Ø	40	40		₩
13242 8	3	30	60	1	3
119108	4	43	75	1	4
11912 2	5	50	85	1	5
11913 9	6	52	90	1	6
23354 5	6	200	250	1	6
11915 3	7	68	110	1	7
11917 7	8	75	120	1	8
23355 2	8	200	250	1	8
11919 1	9	78	125	1	9
11920 7	10	80	130	1	9.5
23356 9	10	200	250	1	9.5
11921 4	11	90	140	1	9.5
11922 1	12	100	150	1	9.5
23357 6	12	200	250	1	9.5
11923 8	13	100	150	1	9.5
11924 5	14	105	160	1	9.5
23358 3	14	200	250	1	9.5
11925 2	15	105	170	1	9.5
11926 9	16	115	180	1	9.5
23359 0	16	200	250	1	9.5
11927 6	18	120	190	1	9.5
23360 6	18	200	250	1	9.5
11928 3	20	130	200	1	9.5
23361 3	20	200	250	1	9.5
23349 1	22	140	210	1	13







*1 16872 4

4 x 43/75 / 5 x 50/85mm 6 x 52/90 / 8 x 75/120mm 10 x 80/130mm

5

*2 18736 7

3 x 30/60 / 4 x 43/75mm 5 x 50/85/ 6 x 52/90mm 7 x 68/110 / 8 x 75/120mm 9 x 78/125 / 10 x 80/130mm

8

*3 24646 0

3 x 30/60 / 4 x 43/75mm 5 x 50/85/ 6 x 52/90mm 7 x 68/110 / 8 x 75/120mm 9 x 78/125 / 10 x 80/130mm 11 x 90/140 / 12 x 90/150mm

10









QUICKBIT SPADE BIT

Wood drill bit for blind holes and through holes.





PRODUCT DESCRIPTION

- · For all applications in wood and wooden materials
- · Fast and precise cutting thanks to specially hardened pre-cutters
- · Extremely accurate pilot drilling without tear-out at the edge of the
- · 1/4" hexagonal shank prevents the drill bit from slipping in the drill chuck
- · Extra long dimensions, extension available
- · Heller QuickBIT® system: perfectly tuned for use with cordless machines
- · Ideal for cordless drills











Diameter 6-40 mm

















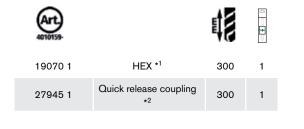
19053 4 6 152 1 27785 3 6 400 1 19054 1 8 152 1 23377 4 8 400 1 19055 8 10 152 1 23362 0 10 400 1 19056 5 12 152 1 23363 7 12 400 1 21787 3 13 152 1 19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 19059 6 18 152 1 19060 2 20 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19068 8 38 152 1 19068 8 38 152 1	Art. 4010159-	NE O		4
19054 1 8 152 1 23377 4 8 400 1 19055 8 10 152 1 23362 0 10 400 1 19056 5 12 152 1 23363 7 12 400 1 21787 3 13 152 1 19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 19059 6 18 152 1 19069 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23381 1 25 400 1 1	19053 4	6	152	1
23377 4 8 400 1 19055 8 10 152 1 23362 0 10 400 1 19056 5 12 152 1 23363 7 12 400 1 21787 3 13 152 1 19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1	27785 3	6	400	1
19055 8 10 152 1 23362 0 10 400 1 19056 5 12 152 1 23363 7 12 400 1 21787 3 13 152 1 19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 19059 6 18 152 1 19059 6 18 152 1 19059 7 19 152 1 19060 2 20 152 1 23366 8 18 400 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 <td< td=""><td>19054 1</td><td>8</td><td>152</td><td>1</td></td<>	19054 1	8	152	1
23362 0 10 400 1 19056 5 12 152 1 23363 7 12 400 1 21787 3 13 152 1 19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19065 7 30 152 1 <td< td=""><td>23377 4</td><td>8</td><td>400</td><td>1</td></td<>	23377 4	8	400	1
19056 5 12 152 1 23363 7 12 400 1 21787 3 13 152 1 19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 <td< td=""><td>19055 8</td><td>10</td><td>152</td><td>1</td></td<>	19055 8	10	152	1
23363 7 12 400 1 21787 3 13 152 1 19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 <td< td=""><td>23362 0</td><td>10</td><td>400</td><td>1</td></td<>	23362 0	10	400	1
21787 3 13 152 1 19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 <td< td=""><td>19056 5</td><td>12</td><td>152</td><td>1</td></td<>	19056 5	12	152	1
19057 2 14 152 1 23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19067 1 35 152 1 19068 8 38 152 1 <td>23363 7</td> <td>12</td> <td>400</td> <td>1</td>	23363 7	12	400	1
23364 4 14 400 1 19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 19068 8 38 152 1	21787 3	13	152	1
19058 9 16 152 1 23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19067 1 35 152 1 19068 8 38 152 1	19057 2	14	152	1
23365 1 16 400 1 21788 0 17 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 19068 8 38 152 1	23364 4	14	400	1
21788 0 17 152 1 19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 19068 8 38 152 1	19058 9	16	152	1
19059 6 18 152 1 23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 19068 8 38 152 1	23365 1	16	400	1
23366 8 18 400 1 21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 19068 8 38 152 1	21788 0	17	152	1
21789 7 19 152 1 19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 19068 8 38 152 1	19059 6	18	152	1
19060 2 20 152 1 23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 19068 8 38 152 1	23366 8	18	400	1
23367 5 20 400 1 19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	21789 7	19	152	1
19061 9 22 152 1 23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	19060 2	20	152	1
23378 1 22 400 1 19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	23367 5	20	400	1
19062 6 24 152 1 23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	19061 9	22	152	1
23380 4 24 400 1 19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	23378 1	22	400	1
19063 3 25 152 1 23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	19062 6	24	152	1
23381 1 25 400 1 19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	23380 4	24	400	1
19064 0 28 152 1 19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	19063 3	25	152	1
19065 7 30 152 1 19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	23381 1	25	400	1
19066 4 32 152 1 19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	19064 0	28	152	1
19067 1 35 152 1 22439 0 36 152 1 19068 8 38 152 1	19065 7	30	152	1
22439 0 36 152 1 19068 8 38 152 1	19066 4	32	152	1
19068 8 38 152 1	19067 1	35	152	1
	22439 0	36	152	1
21790 3 40 152 1	19068 8	38	152	1
	21790 3	40	152	1



4010133-		
19069 5	10/13/16/19/22/25 x 152mm	6
26508 9	10/12/14/16/18/20	11

0331 **EXTENSION**







LEWIS LONG LIFE

AUGER DRILL BIT

Corrosion-resistant professional auger bit for permanent fast drilling.





PRODUCT DESCRIPTION

- · Special coating for permanent corrosion protection and fast, low-friction drilling progress
- · Holes of all diameters without tear-out
- · Twice the service life compared with standard auger bits
- \cdot Up to 40% lower load on the drill and longer battery life to match
- Pull-in thread for autonomous drilling progress with minimal force application
- · Can be re-sharpened up to 15 times
- Suitable for hard- and softwoods, also for moist woods and wet environments











29246 7	12	380	450	1
29247 4	14	380	450	1
29248 1	16	380	450	1
29249 8	18	380	450	1
29250 4	20	380	450	1
29251 1	22	380	450	1

Lewis Long Life Set 6-part Ø12/14/16/18/20/22 x 450mm



29340 2

Website info





Diameter 12-22 mm



















LEWISUNIVERSAL AUGER BIT

Self-sinking drill bits for all woods.



PRODUCT DESCRIPTION

- · Self-sinking thread tip for precision drilling
- · Excellent drilling progress thanks to extra sharp cutter tip
- · Hardened pre- and main cutter ensures a long service life and maximum stability
- · Lewis helix proven for fastest chip removal
- · Ideal for cordless drills, too



Website info

















Diameter 6-32 mm





(Art.)			ŧ.	
4010159-	EKO	150	005	
19029 9 25722 0	6	150 255	235 320	1
22702 5	6 8	100	200	1
19030 5	8	150	235	1
25723 7	8	255	320	1
23310 1	8	375	460	1
19031 2	10	150	235	1
15484 0	10	255	320	1
19035 0	10	375	460	1
19032 9	12	150	235	1
15485 7	12	255	320	1
19036 7	12	375	460	1
23312 5	12	515	600	1
19033 6	14	150	235	1
15486 4	14	245	320	1
19037 4	14	375	460	1
19034 3	16	150	235	1
15487 1	16	245	320	1
19038 1	16	375	460	1
23314 9		515		
23314 9	16 18	150	600 235	1
15488 8	18	245	320	1
19039 8	18	370	460	1
23315 6	18	510	600	1
23301 9	19	150	235	1
23301 9	20	150	235	1
15489 5	20	245	320	1
19040 4	20	370	460	1
23316 3	20	510	600	1
23303 3	22	145	235	1
15490 1	22	245	320	1
19041 1	22	365	460	1
23317 0	22	510	600	1
23304 0	24	145	235	1
19042 8	24	365	460	1
23318 7	24	510	600	1
23305 7	25	140	235	1
18733 6	25	365	460	1
23306 4	26	140	235	1
19043 5	26	365	460	1
23319 4	26	505	600	1
23307 1	28	140	235	1
19044 2	28	365	400	1
23320 0	28	505	600	1
		300		

Art. 4010159-			E S	
23308 8	30	135	235	1
19045 9	30	360	460	1
23321 7	30	500	600	1
23309 5	32	135	235	1
19046 6	32	360	460	1
23322 4	32	500	600	1









_
- 73
- 11
1
12
(4
0.0

8981 1	10/12/14/16/18/20
0000 4	0/0/10/10/14/10

450

235

0398/18 LEWIS UNIVERSAL AUGER BITS SDS-PLUS



Art. 4010159-				
22702 5	8	100	200	1
22703 2	10	160	235	1
22704 9	12	160	235	1
22705 6	16	160	235	1
22706 3	20	160	235	1
22707 0	22	160	235	1
22708 7	25	160	235	1



FORMWORK DRILL BITS

Specifically for casings with specially designed drill bits, also for concrete residues.





PRODUCT DESCRIPTION

- · Long service life even for demanding casings in slabs with concrete residues due to special alloy
- · High load bearing capacity and resistance to breakage thanks to wear resistant CV steel
- \cdot Offset shaft with open helix runout prevents the drill bit from jamming
- · Optimum chip removal, even in deep drill holes
- · Excellent runout for precise holes
- · Note: Only for use in rotation drilling!
- \cdot Also available as an SDS-plus variant





Website info

Product group
0337
0338















Diameter 8-30 mm





0337 CV FORMWORK DRILL BITS

Art. 4010159-				Ĩ	4
12091 3	8	350	400	6	1
12103 3	8	550	600	6	1
12092 0	10	350	400	8	1
12104 0	10	550	600	8	1
12093 7	12	350	400	8	1
12105 7	12	550	600	8	1
12094 4	14	350	400	8	1
12106 4	14	550	600	8	1
12095 1	16	350	400	10	1
12107 1	16	550	600	10	1
12096 8	18	350	400	10	1
12108 8	18	550	600	10	1
12097 5	20	350	400	10	1
12109 5	20	550	600	10	1
12098 2	22	350	400	10	1
12110 1	22	550	600	10	1
12099 9	24	350	400	11	1
12111 8	24	550	600	11	1
121125	26	550	600	11	1
12113 2	28	550	600	11	1
12114 9	30	550	600	11	1

0338 CV FORMWORK DRILL BITS

Art. 4010159-				
19047 3	10	350	400	1
23330 9	10	550	600	1
19048 0	12	350	400	1
23331 6	12	550	600	1
261838	12	750	800	1
19049 7	14	350	400	1
19050 3	16	350	400	1
23333 0	16	550	600	1
19051 0	18	350	400	1
23334 7	18	550	600	1
19052 7	20	350	400	1
23335 4	20	550	600	1
23325 5	22	350	400	1
23336 1	22	550	600	1
23337 8	24	550	600	1
23338 5	26	550	600	1
23339 2	28	550	600	1
23340 8	30	550	600	1



FORSTNER HIGH SPEED

FORSTNER BIT

Professional precision Forstner drill bits for the highest speed in any wood.





PRODUCT DESCRIPTION

- · Extremely fast drilling progress thanks to innovative cutting edges and drill bit geometry
- · Patented serrated edge of main cutters causes lower friction, low wear and precise chip removal for precision drilling
- \cdot More than three times the service life compared with Universal Forstner drill bits
- · Can be re-sharpened up to 30 times
- · Suitable for all types of wood, panels and chipboard









Website info





Diameter 10-50 mm

















Art. 4010159-			₽		
29227 6	12	60	90	1	
29229 0	15	60	90	1	
29230 6	16	60	90	1	
29231 3	18	60	90	1	
29232 0	20	60	90	1	
29233 7	22	60	90	1	
29234 4	24	60	90	1	
29235 1	25	60	90	1	
29236 8	26	60	90	1	
29237 5	28	60	90	1	
29238 2	30	60	90	1	
29239 9	32	60	90	1	
29240 5	34	60	90	1	
29241 2	35	60	90	1	
29242 9	38	60	90	1	
29243 6	40	60	90	1	
29244 3	45	60	90	1	
29245 0	50	60	90	1	
	Forstner High Speed Set 5-part				

29339 6 Forstner High Speed Set 5-part. (Ø15/20/25/30/35)







FORSTNER UNIVERSAL

FORSTNER BIT

The professional precision Forstner drill bit for precise results in any wood.





PRODUCT DESCRIPTION

- \cdot Ideal for blind holes in solid wood and wooden composites
- · Serrated peripheral cutting edges and two main cutting edges also ensure precise drill holes near edges
- · With precision-ground centring tip for precise tapping











Diameter 10-50 mm







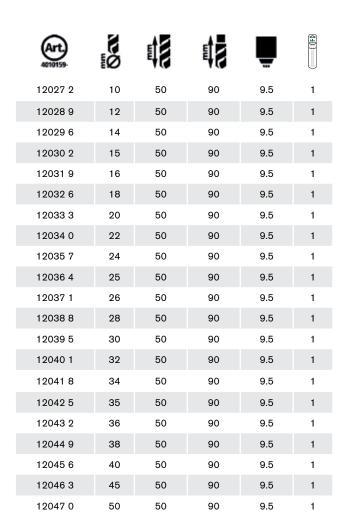


















HINGE BORING BITS

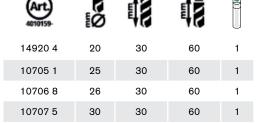
Quality drill bit specially for hinges.





PRODUCT DESCRIPTION

- \cdot The perfect hinge hole drill in any panel material
- · Ideal for use in box column machines
- \cdot Small centring tip protrusion enables drilling of hinge holes in thin panel materials
- · HM centring tip maximises the service life
- Two carbide precutting edges and two carbide main cutting edges for a long service life and precisely drilled holes
- · Heller tip: Select a speed below 3000 rpm





10709 9

Website info





Diameter 20-35 mm







1













DOWEL CUTTERS

Special drill bit for manufacturing pins and knothole plugs.





PRODUCT DESCRIPTION

- \cdot The Heller plug cutter perfection in every detail
- \cdot This means that every plug matches the colour and type of wood for each workpiece
- \cdot Ideal for staircase construction and laying floorboards
- · Design according to DIN 7489

Art. 4010159-				w	
12078 4	10	35	140	13	1
12079 1	12	35	140	13	1
12080 7	15	35	140	13	1
12081 4	20	35	140	13	1
12083 8	30	35	140	13	1



Website info





Diameter 10-30 mm











WOOD COUNTERSINKS

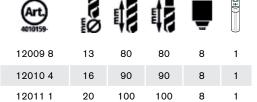
Special drill bit for countersinking any screw head.





PRODUCT DESCRIPTION

- · Reliable and precise work in all types of wood
- · Fast chamfering of drilled holes
- Precise sinking of countersunk head screws and raised countersunk-head screws
- \cdot Five cutting edges ensure precise work





Website info

Product group 0122



Diameter 13-20 mm



















DRILL-MOUNTED COUNTERSINKS

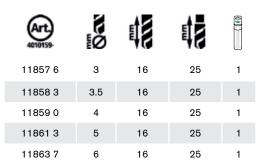
Practical drill-mounted countersink: drilling and countersinking in a single step.





PRODUCT DESCRIPTION

- · Universally deployable
- 5-cutting edge geometry for clean countersinking, also in hard materials
- 90° countersink angle allows for precise countersinking for screws
- · Can also be used as a depth stop
- \cdot Ideal for battery-powered machines





Website info

Product group 0102

Diameter 3-6 mm



















METAL DRILL BITS

Heller offers a very wide and comprehensive range of high-quality metal drills, after all, high-quality tools are decisive when it comes to machining metals. Achieving a precise fit of the joints between components means that holes need to be drilled with precision. Eccentric or skewed holes with burrs can mean that rework is needed; this in turn decisively influences the quality of the workmanship. Against this background, it is essential to use drill bits manufactured in compliance with the applicable DIN standards.

The following DIN standards apply for helical drills

with a parallel shank:

DIN 338 Helical drill bits with parallel shank

DIN 1897 Extra short helical drill bits with parallel shankDIN 340 Long helical drill bits with parallel shank

DIN 1869 Extra long helical drill bits with parallel shank **DIN 1414** Technical delivery conditions for helical drill

bits made of high-speed steel (HSS)

MANUFACTURING PROCESSES



Helical grinding

In this process, the spiral is ground out of a round rod. These drill bits are extremely precise and used for high-quality work. A ground drill bit can often be identified by its silver colour.

Roll forming process



More simple bits are manufactured using a (hot) roll forming process. The round metal bar is formed by a mould; this gives the drill bit its helical shape. These drill bits are primarily suitable for less detailed work. Roll formed bits are often identifiable by their black colour.

TIPS AND TRICKS FOR DRILLING WITH METAL DRILL BITS

Chip removal during drilling

Regular retraction of (lifting off with) the drill bit prevents chips from accumulating in the drill bit helix. If there is no ventilation, which also means that the chips are not discharged, the drilling channel clogs up; the drill bit then jams in the hole and can break.

Material suitability

The sharpness of the drill bit – and thus the cutting capability in metal and plastic – can be maintained over a prolonged period of time

if the drill bits are handled with care. It is important that the tools are not used in ceramics, stone or other "unintended"

materials.

Guiding the drill

Drilling with a box column drill creates precise holes and a straight progression of the drilling action. Holes produced with a hand-held drill require very precise manual guiding.

Cooling

Drilling into harder material may cause the tools to heat up. This speeds up the wear on the cutting edge and the probability of breakage increases. In order to achieve a long service life, it is important to continuously feed in the correct coolant while drilling.

APPLICATION TIPS, SPEEDS AND FEED RATE

Material	Cutting	Speed per minute for Ø							Cooling
Waterial	speed	3 mm	4 mm	6 mm	10 mm	16 mm	25 mm	40 mm	lubricant
Non-alloy construction steels <700 N/mm²	30 m/min	3184	2388	1592	955	597	382	239	Cooling lubricant emulsion
Non-alloy construction steels >700 N/mm²	20 m/min	2123	1592	1062	637	398	255	160	Cooling lubricant emulsion
Alloy steel < 1000 N/mm²	20 m/min	2123	1592	1062	637	398	255	160	Cooling lubricant emulsion
Cast iron	15 m/min	1592	1194	796	478	299	191	120	Dry (compressed air)
CuZn alloys	60 m/min	6367	4775	3184	1910	1194	764	478	Dry (compressed air)
Al alloys	40 m/min	4245	3184	2123	1274	796	510	319	Cooling lubricant emulsion
Thermoplastics	35 m/min	3714	2786	1857	1115	697	446	279	Water, compressed air
Thermoset plastics	25 m/min	2653	1990	1327	796	498	319	199	Dry (compressed air)

Material	Advance in mm per revolution at Ø								
Material	3 mm	4 mm	6 mm	10 mm	16 mm	25 mm	40 mm		
Non-alloy construction steels <700 N/mm ²	0,08	0,10	0,16	0,26	0,42	0,65	1,04		
Non-alloy construction steels >700 N/mm²	0,08	0,10	0,16	0,26	0,42	0,65	1,04		
Alloy steel < 1000 N/mm²	0,08	0,10	0,16	0,26	0,42	0,65	1,04		
Cast iron	0,08	0,10	0,16	0,26	0,42	0,65	1,04		
CuZn alloys	0,08	0,10	0,16	0,26	0,42	0,65	1,04		
Al alloys	0,05	0,06	0,09	0,15	0,24	0,38	0,63		
Thermoplastics	0,05	0,08	0,12	0,18	0,25	0,32	0,4		
Thermoset plastics	0,05	0,08	0,12	0,18	0,25	0,32	0,4		

ADVISOR METAL DRILL BITS

Product group	HSS	metal dril	l bits	HSS st	eel drill ts	drill HSS special steel drill bits							
Shank	CYL	CYL	CYL	CYL	CYL	CYL	CYL	CYL	MOR- SE	CYL	CYL	CYL	CYL
Product	HSS-CO Cobalt	NIL-8SH	HSS-G Turbo	HSS-G Super	HSS-R DIN 338 RN	HSS-G Super DIN 340	HSS steel drill bit with offset shank	HSS Blacksmith	Morse taper shank	HSS steel metal cone bit	HSS step drill bit	Tapering & deburring countersink	HSS Transverse countersink 90°
Page	81	84	86	88	91	95	99	98	100	106	105	103	104
Sheet metal	***	***	***	***	***	***	***	***	***	***	***	**	**
Non-ferrous metals	***	***	***	**	**	**	**	**	**	***	***	**	**
Iron	***	***	***	***	**	***	**	**	**			***	***
Cast iron	***	***	***	***	**	***	**	**	**			***	***
Stainless steeö	***	**	*	**		*						*	*
Steel	***	**	***	**	*	**	*	*	*				

Quality stages

Professional Plus

Professional

Classic

Material suitability

★★★ Recommended

★★ Well suited

★ Suitable



HSS-CO DIN 338 RN

COBALT STAINLESS STEEL DRILL BIT

Premium HSS drill bit for the toughest challenges in stainless steel and metal.





PRODUCT DESCRIPTION

- Unbeatable in high-alloy steel and stainless steel the perfect solution for the most challenging drilling tasks
- \cdot Made of special HSS steel with 5% cobalt for an extremely long service life
- Pinpoint drilling thanks to split point grinding and 135°-point angle
- Precision tool as per DIN 338 RN for outstanding dimensional accuracy of the hole
- · Excellent concentricity according to DIN 1414

















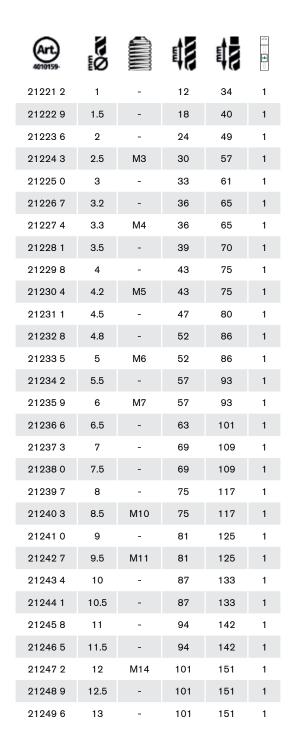












MULTIPACK

Art. 4010159-					
21251 9	1	-	12	34	10
21252 6	1.1	-	14	36	10
21253 3	1.2	-	16	38	10
21254 0	1.3	-	16	38	10
21255 7	1.4	-	18	40	10
21256 4	1.5	-	18	40	10

Art. 4010159-					helor
21257 1	1.6	M2	20	43	10
21258 8	1.7	-	20	43	10
21259 5	1.8	-	22	46	10
21260 1	1.9	-	22	46	10
21261 8	2	-	24	49	10
21262 5	2.1	-	24	49	10
21263 2	2.2	-	27	53	10
21264 9	2.3	-	27	53	10
21265 6	2.4	-	30	57	10
21266 3	2.5	МЗ	30	57	10
21267 0	2.6	-	30	57	10
21268 7	2.7	-	33	61	10
21269 4	2.8	-	33	61	10
21270 0	2.9	-	33	61	10
21271 7	3	-	33	61	10
21272 4	3.1	-	36	65	10
21273 1	3.2	-	36	65	10
21274 8	3.3	M4	36	65	10
21275 5	3.4	-	39	70	10
21276 2	3.5	-	39	70	10
21277 9	3.6	-	39	70	10
21278 6	3.7	-	39	70	10
21279 3	3.8	-	43	75	10
21280 9	3.9	-	43	75	10
21281 6	4	-	43	75	10
21282 3	4.1	-	43	75	10
21283 0	4.2	M5	43	75	10
21284 7	4.3	-	47	80	10
21285 4	4.4	-	47	80	10
21286 1	4.5	-	47	80	10
21287 8	4.6	-	47	80	10
21288 5	4.7	-	47	80	10
21289 2	4.8	-	52	86	10
21290 8	4.9	-	52	86	10
21291 5	5	M6	52	86	10
21292 2	5.1	-	52	86	10
21293 9	5.2	-	52	86	10
21294 6	5.3	-	52	86	10
21295 3	5.4	-	57	93	10
21296 0	5.5	-	57	93	10
212977	5.6	_	57	93	10

57

93

10

21297 7

5.6

12

A **=**

Art. 4010159-					heler
21298 4	5.7	-	57	93	10
21299 1	5.8	-	57	93	10
21300 4	5.9	-	57	93	10
21301 1	6	M7	57	93	10
21302 8	6.1	-	63	101	10
21303 5	6.2	-	63	101	10
21304 2	6.3	-	63	101	10
21305 9	6.4	-	63	101	10
21306 6	6.5	-	63	101	10
21307 3	6.6	-	63	101	10
21308 0	6.7	-	63	101	10
21309 7	6.8	M8	69	109	10
213103	6.9	-	69	109	10
21311 0	7	-	69	109	10
21312 7	7.1	-	69	109	10
21313 4	7.2	-	69	109	10
21314 1	7.3	-	69	109	10
21315 8	7.4	-	69	109	10
21316 5	7.5	-	69	109	10
21317 2	7.6	-	75	117	10
21318 9	7.7	-	75	117	10
21319 6	7.8	M9	75	117	10
21320 2	7.9	-	75	117	10
21321 9	8	-	75	117	10
21322 6	8.1	-	75	117	10
21323 3	8.2	-	75	117	10
21324 0	8.3	-	75	117	10
21325 7	8.4	-	75	117	10
21326 4	8.5	M10	75	117	10
21327 1	8.6	-	81	125	10
21328 8	8.7	-	81	125	10
21329 5	8.8	-	81	125	10
21330 1	8.9	-	81	125	10
21331 8	9	-	81	125	10
21332 5	9.1	-	81	125	10
21333 2	9.2	-	81	125	10
21334 9	9.3	-	81	125	10
21335 6	9.4	-	81	125	10
21336 3	9.5	M11	81	125	10
21337 0	9.6	-	87	133	10
21338 7	9.7	-	87	133	10

Art. 4010159-					heler
21339 4	9.8	-	87	133	10
21340 0	9.9	-	87	133	10
21341 7	10	-	87	133	10
21342 4	10.2	M12	87	133	5
21343 1	10.5	-	87	133	5
21344 8	11	-	94	142	5
21345 5	11.5	-	94	142	5
21346 2	12	M14	101	151	5
21347 9	12.5	-	101	151	5
21348 6	13	-	101	151	5
23848 9	14	M16	108	160	5
23849 6	16	-	120	178	5

SETS

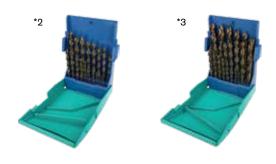






*1	17735 1	Ø 2/3/4/5/6/8	6
*2	21962 4	Ø 1/1.5/2/2.5/3,,,8.5/9/9.5/10	19
*3	21965 5	Ø 1/1.5/2/2.5/3,,,12/12.5/13	25







HSS TIN DIN 338

STEEL DRILL BIT

High-quality steel drill bits coated in titanium nitride.





PRODUCT DESCRIPTION

- Particularly long service life and drilling performance thanks to Titanium nitride coating
- · In special HSS quality for a long service life
- Split point grinding and 135° point angle for optimum centring during drilling
- Precision tool as per DIN 338 RN for outstanding dimensional accuracy of the hole
- · Excellent concentricity according to DIN 1414
- · Applications: Steel (alloyed and unalloyed), iron, cast iron, sheet metal, non-ferrous metals, plastics, steel and cast steel









Diameter 1-13 mm

















Art. 4010159-				
29252 8	1	12	34	1
29253 5	1.5	18	40	1
29254 2	2	24	49	1
29255 9	2.5	30	57	1
29256 6	3	33	61	1
29257 3	3.2	36	65	1
29258 0	3.3	36	65	1
29259 7	3.5	39	70	1
29260 3	4	43	75	1
29261 0	4.2	43	75	1
26262 7	4.5	47	80	1
29263 4	4.8	52	86	1
29264 1	5	52	86	1
29265 8	5.5	57	93	1
29266 5	6	57	93	1
29267 2	6.5	63	101	1
29268 9	7	69	109	1
29269 6	7.5	69	109	1
29270 2	8	75	117	1
29271 9	8.5	75	117	1
29272 6	9	81	125	1
29273 3	9.5	81	125	1
29274 0	10	87	133	1
29275 7	10.5	87	133	1
29276 4	11	94	142	1
29277 1	11.5	94	142	1
29278 8	12	101	151	1
29279 5	12.5	101	151	1
29280 1	13	101	151	1

MULTIPACK

Art. 4010159-				helo
29281 8	1	12	34	10
29282 5	1.5	18	40	10
29283 2	2	24	49	10
29284 9	2.5	30	57	10
29285 6	3	33	61	10
29286 3	3.2	36	65	10
29287 0	3.3	36	65	10
29288 7	3.5	39	70	10

Art. 4010159-				halte
29289 4	4	43	75	10
29290 0	4.2	43	75	10
29291 7	4.5	47	80	10
29292 4	4.8	52	86	10
29293 1	5	52	86	10
29294 8	5.5	57	93	10
29295 5	6	57	93	10
29296 2	6.5	63	101	10
29297 9	7	69	109	10
29298 6	7.5	69	109	10
29299 3	8	75	117	10
29300 6	8.5	75	117	10
29301 3	9	81	125	10
29302 0	9.5	81	125	10
29303 7	10	87	133	10
29304 4	10.5	87	133	5
29305 1	11	94	142	5
29306 8	11.5	94	142	5
29307 5	12	101	151	5
29308 2	12.5	101	151	5
29309 9	13	101	151	5

SETS





HSS-G TURBO DIN 338 RN

METAL DRILL BIT

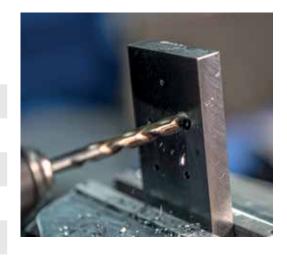
Ground precision drill bit for challenging drilling in metal and steel.





PRODUCT DESCRIPTION

- · Drilling without centre-punching. For extremely precise holes
- · HSS-G quality for a long service life
- · Aggressive, self-centring W tip
- · ·Fully ground helix design
- · Virtually burr-free, extremely precise and perfectly circular holes
- · Great results, also in thin steel sheets
- · Quick drilling progress
- · Ideal for battery-powered drills or drill presses





Product video







Diameter 3-13 mm







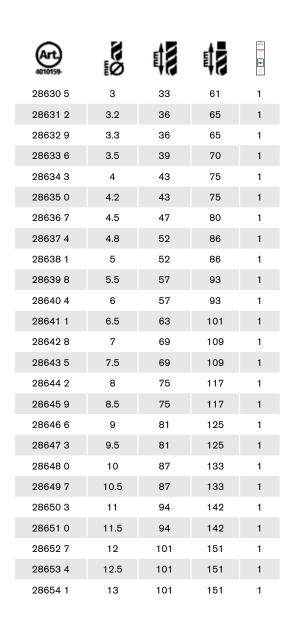












SETS







*1 28706 7 *2 28707 4 Ø 1-10 mm

Ø 1-13 mm

19 25





HSS-G SUPER DIN 338 RN

STEEL DRILL BIT

High-quality drill bit for alloyed and unalloyed steels





PRODUCT DESCRIPTION

- \cdot High precision and durable with best grinding in metal
- Precision Drilling according to DIN 338 RN for outstanding dimensional accuracy of the hole
- Split point grinding and 135° point angle for optimum centring during drilling
- · Excellent concentricity according to DIN 1414





Website info





Diameter 1-14 mm

















Art. 4010159-				
17760 3	1	12	34	2
17761 0	1.5	18	40	2
17762 7	2	24	49	2
17763 4	2.5	30	57	2
17764 1	3	33	61	2
17765 8	3.2	36	65	2
17766 5	3.3	36	65	2
17767 2	3.5	39	70	2
17768 9	4	43	75	1
17769 6	4.2	43	75	1
17770 2	4.5	47	80	1
17771 9	4.8	52	86	1
17772 6	5	52	86	1
17773 3	5.5	57	93	1
17774 0	6	57	93	1
17775 7	6.5	63	101	1
17776 4	7	69	109	1
17777 1	7.5	69	109	1
17778 8	8	75	117	1
17779 5	8.5	75	117	1
17780 1	9	81	125	1
17781 8	9.5	81	125	1
17782 5	10	87	133	1
17783 2	10.5	87	133	1
17784 9	11	94	142	1
17785 6	11.5	94	142	1
17786 3	12	101	151	1
17787 0	12.5	101	151	1
17788 7	13	101	151	1

MULTIPACK

Art. 4010159-					bilkr
23022 3	0.2	-	3	19	10
23023 0	0.3	-	3	19	10
23024 7	0.4	-	5	20	10
23025 4	0.5	-	6	22	10
23026 1	0.6	-	7	24	10
23027 8	0.7	-	9	28	10
23028 5	0.8	M1	10	30	10
23029 2	0.9	-	11	32	10

Art) 4010159-					beler
21121 5	1	-	12	34	10
21122 2	1.1	-	14	36	10
21123 9	1.2	-	16	38	10
21124 6	1.3	-	16	38	10
21125 3	1.4	-	18	40	10
21126 0	1.5	-	18	40	10
21127 7	1.6	M2	20	47	10
21128 4	1.7	-	20	43	10
21129 1	1.8	-	22	46	10
21130 7	1.9	-	22	46	10
21131 4	2	-	24	49	10
21132 1	2.1	-	24	49	10
21133 8	2.2	-	27	53	10
21134 5	2.3	-	27	53	10
21135 2	2.4	-	30	57	10
21136 9	2.5	МЗ	30	57	10
21137 6	2.6	-	30	57	10
211383	2.7	-	33	61	10
21139 0	2.8	-	33	61	10
21140 6	2.9	-	33	61	10
21141 3	3	-	33	61	10
21142 0	3.1	-	36	65	10
21143 7	3.2	-	36	65	10
21144 4	3.3	M4	36	65	10
21145 1	3.4	-	39	70	10
21146 8	3.5	-	39	70	10
21147 5	3.6	-	39	70	10
21148 2	3.7	-	39	70	10
21149 9	3.8	-	43	75	10
21150 5	3.9	-	43	75	10
21151 2	4	-	43	75	10
21152 9	4.1	-	43	75	10
21153 6	4.2	M5	43	75	10
21154 3	4.3	-	47	80	10
21155 0	4.4	-	47	80	10
21156 7	4.5	-	47	80	10
21157 4	4.6	-	47	80	10
21158 1	4.7	-	47	80	10
211598	4.8	-	52	86	10
21160 4	4.9	-	52	86	10
21161 1	5	M6	52	86	10

Art) 4010159-					
211628	5.1	-	52	86	10
21163 5	5.2	-	52	86	10
21164 2	5.3	-	52	86	10
21165 9	5.4	-	57	93	10
21166 6	5.5	-	57	93	10
211673	5.6	-	57	86	10
21168 0	5.7	-	57	93	10
21169 7	5.8	-	57	93	10
211703	5.9	-	57	93	10
21171 0	6	M7	57	93	10
21172 7	6.1	-	63	101	10
21173 4	6.2	-	63	101	10
21174 1	6.3	-	63	101	10
21175 8	6.4	-	63	101	10
21176 5	6.5	-	63	101	10
21177 2	6.6	-	63	101	10
21178 9	6.7	-	63	101	10
21179 6	6.8	M8	69	109	10
21180 2	6.9	-	69	109	10
21181 9	7	-	69	109	10
21182 6	7.1	-	69	109	10
211833	7.2	-	69	109	10
21184 0	7.3	-	69	109	10
21185 7	7.4	-	69	109	10
21186 4	7.5	-	69	109	10
21187 1	7.6	-	75	117	10
21188 8	7.7	-	75	117	10
21189 5	7.8	M9	75	117	10
21190 1	7.9	-	75	117	10
21191 8	8	-	75	117	10
211925	8.1	-	75	117	10
21193 2	8.2	-	75	117	10
21194 9	8.3	-	75	117	10
21195 6	8.4	-	75	117	10
211963	8.5	M10	75	117	10
21197 0	8.6	-	81	125	10
21198 7	8.7	-	81	125	10
21199 4	8.8	-	81	125	10
21200 7	8.9	-	81	125	10
21201 4	9	-	81	125	10

Art. 4010159-					
21202 1	9.1	-	81	125	10
21203 8	9.2	-	81	125	10
21204 5	9.3	-	81	125	10
21205 2	9.4	-	81	125	10
21206 9	9.5	M11	81	125	10
21207 6	9.6	-	87	133	10
212083	9.7	-	87	133	10
21209 0	9.8	-	87	133	10
212106	9.9	-	87	133	10
212113	10	-	87	133	10
212120	10.2	M12	87	133	5
21213 7	10.5	-	87	133	5
21214 4	11	-	94	142	5
212168	11.5	-	94	142	5
21217 5	12	M14	101	151	5
21219 9	12.5	-	101	151	5
21220 5	13	-	101	151	5
25734 3	13.5	-	108	160	5
25736 7	14	M16	108	160	5

SETS







1	17731 3	Ø 2/3/4/5/6/8	6
'2	17733 7	Ø 2/2.5/3/3.5,,,7/7.5/8	13
' 3	21961 7	Ø 1/1.5/2/2.5,,,9/9.5/10	19
4	21964 8	Ø 1/1.5/2/2.512/12.5/13	25





HSS-R DIN 338 RN STEEL DRILL BIT

Proven steel drill bit in Heller quality.





PRODUCT DESCRIPTION

- · The classic drill bit your daily solution for working in metal. Ideal in unalloyed steels
- \cdot Reliable, roll formed HSS drill bit with continuous helix hardness
- \cdot Chisel edge with a point angle of 118° for a long service life
- \cdot Precision tool according to DIN 338 RN





Website info























MULTIPACK

Art. 4010159-					biller
18450 2	1	-	12	34	10
18451 9	1.1	-	14	36	10
18452 6	1.2	-	16	38	10
18453 3	1.3	-	16	38	10
18454 0	1.4	-	18	40	10
18455 7	1.5	-	18	40	10
18456 4	1.6	M2	20	43	10
18457 1	1.7	-	20	43	10

Art) 4010159-					biller
18458 8	1.8	-	22	46	10
18459 5	1.9	-	22	46	10
18460 1	2	-	24	49	10
18461 8	2.1	-	24	49	10
18462 5	2.2	-	27	53	10
18463 2	2.3	-	27	53	10
18464 9	2.4	-	30	57	10
18465 6	2.5	МЗ	30	57	10
18466 3	2.6	-	30	57	10
18467 0	2.7	-	33	61	10
18468 7	2.8	-	33	61	10
18469 4	2.9	-	33	61	10
18470 0	3	-	33	61	10
18471 7	3.1	-	36	65	10
18472 4	3.2	-	36	65	10
18473 1	3.3	M4	36	65	10
18474 8	3.4	-	39	70	10
18475 5	3.5	-	39	70	10
18476 2	3.6	-	39	70	10
18477 9	3.7	-	39	70	10
18478 6	3.8	-	43	75	10
18479 3	3.9	-	43	75	10
18480 9	4	-	43	75	10
18481 6	4.1	-	43	75	10
18482 3	4.2	M5	43	75	10
18483 0	4.3	-	47	80	10
18484 7	4.4	-	47	80	10
18485 4	4.5	-	47	80	10
18486 1	4.6	-	47	80	10
18487 8	4.7	-	47	80	10
18488 5	4.8	-	52	86	10
18489 2	4.9	-	52	86	10
18490 8	5	M6	52	86	10
18491 5	5.1	-	52	86	10
18492 2	5.2	-	52	86	10
18493 9	5.3	-	52	86	10
18494 6	5.4	-	57	93	10
18495 3	5.5	-	57	93	10
18496 0	5.6	-	57	93	10
18497 7	5.7	-	57	93	10
18498 4	5.8	-	57	93	10
18499 1	5.9	-	57	93	10
18500 4	6	M7	57	93	10
18501 1	6.1	-	63	101	10

(Art.)					
18502 8	6.2		63	101	10
18503 5	6.3	_	63	101	10
18504 2	6.4	-	63	101	10
18505 9	6.5	_	63	101	10
18506 6	6.6	-	63	101	10
18507 3	6.7	-	63	101	10
18508 0	6.8	M8	69	109	10
18509 7	6.9	-	69	109	10
18510 3	7	-	69	101	10
18511 0	7.1	-	69	109	10
18512 7	7.2	-	69	109	10
18513 4	7.3	-	69	109	10
18514 1	7.4	-	69	109	10
18515 8	7.5	-	69	109	10
18516 5	7.6	-	75	117	10
18517 2	7.7	-	75	117	10
18518 9	7.8	M9	75	117	10
18519 6	7.9	-	75	117	10
18520 2	8	-	75	117	10
18521 9	8.1	-	75	117	10
18522 6	8.2	-	75	117	10
18523 3	8.3	-	75	117	10
18524 0	8.4	-	75	117	10
18525 7	8.5	M10	75	117	10
18526 4	8.6	-	81	125	10
18527 1	8.7	-	81	125	10
18528 8	8.8	-	81	125	10
18529 5	8.9	-	81	125	10
18530 1	9	-	81	125	10
18531 8	9.1	-	81	125	10
18532 5	9.2	-	81	125	10
18533 2	9.3	-	81	125	10
18534 9	9.4	-	81	125	10
18535 6	9.5	M11	81	125	10
18536 3	9.6	-	87	133	10
18537 0	9.7	-	87	133	10
18538 7	9.8	-	87	133	10
18539 4	9.9	-	87	133	10
18540 0	10	-	87	133	10
18541 7	10.2	M12	87	133	5
18542 4	10.5	-	87	133	5
18544 8	11	-	94	142	5
18546 2	11.5	-	94	142	5
18548 6	12	M14	101	151	5

Art. 4010159-					and lor
18550 9	12.5	-	101	151	5
18552 3	13	-	101	151	5
18554 7	13.5	-	108	160	5
18556 1	14	M16	108	160	5
18558 5	14.5	-	114	169	5
18560 8	15	-	114	169	5
18562 2	15.5	M18	120	178	5
18564 6	16	-	120	178	5

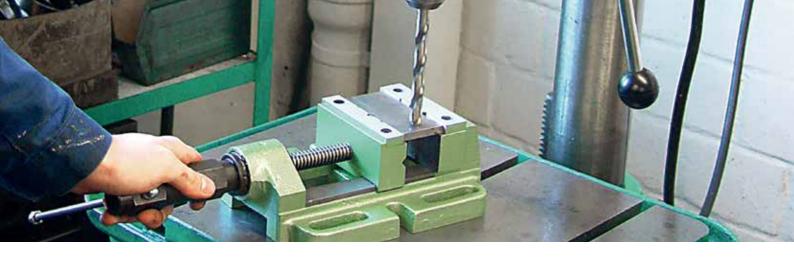
SETS





901/44 MULTIPACK STEEL DRILL BITS, IMPE-RIAL DIMENSIONS

Art. 4010159-					
23255 5	1/16"	-	20	43	10
23256 2	5/64"	-	24	49	10
23257 9	3/32"	-	30	57	10
23258 6	7/64"	-	33	61	10
23260 9	9/64"	-	36	70	10
23259 3	1/8"	-	36	65	10
23261 6	5/32"	-	43	75	10
23262 3	11/64"	-	47	80	10
23263 0	3/16"	-	52	86	10
23264 7	13/64"	-	52	86	10
23266 1	15/64"	-	57	93	10
23265 2	7/32"	-	57	93	10
23267 8	1/4"	-	63	101	10
23270 8	19/64"	-	69	109	10
23268 5	17/64"	-	69	109	10
23269 2	9/32"	-	69	109	10
23272 2	21/64"	-	75	117	10
23271 5	5/16"	-	75	117	10
50130 9	23/64"	-	81	125	10
23273 9	11/32"	-	81	125	10
23275 3	3/8"	-	87	133	10
18044 3	13/32"	-	87	133	10
23279 1	7/16"	-	94	142	5
50132 3	27/64"	-	94	142	5
50133 0	29/64"	-	94	142	5
50134 7	31/64"	-	101	151	5
23281 4	15/32"	-	101	151	5
18045 0	1/2"	-	101	151	5



HSS-G SUPER DIN 340

LONG STEEL DRILL BIT

Extra long high-quality drill bit for alloyed and unalloyed steels.





PRODUCT DESCRIPTION

- · Extra long for deep drilling depths, e.g., when drilling through drill bushes
- \cdot High precision and durable with best grinding in metal
- Precision grinding of grooves and diameters for outstanding centring
- · Manufactured according to DIN 340
- · Reinforced core for special break resistance





Website in





Diameter 1,5-13 mm







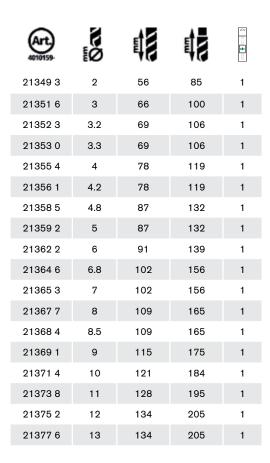












MULTIPACK

Art. 4010159-	mm O			halier
22349 2	1.5	45	70	10
21379 0	2	56	85	10
21380 6	2.5	62	95	10
21381 3	3	66	100	10
21382 0	3.2	69	106	10
21383 7	3.3	69	106	10
22352 2	3.4	73	112	10
21384 4	3.5	73	112	10
22353 9	3.8	78	119	10
21385 1	4	78	119	10
24510 4	4.1	78	119	10
21386 8	4.2	78	119	10
21387 5	4.5	82	126	10
21388 2	4.8	87	132	10
21389 9	5	87	132	10
21390 5	5.1	87	132	10
24511 1	5.2	87	132	10
21391 2	5.5	91	139	10
24513 5	5.7	91	139	10
24514 2	5.8	91	139	10
21392 9	6	91	139	10
21393 6	6.5	97	148	10
21394 3	6.8	102	156	10
21395 0	7	102	156	10
21396 7	7.5	102	156	10
21397 4	8	109	165	10
21398 1	8.5	109	165	10
21399 8	9	115	175	10
21400 1	9.5	115	175	10
21401 8	10	121	184	10
24515 9	10.2	121	184	5
21402 5	10.5	121	184	5
21403 2	11	128	195	5
21404 9	11.5	128	195	5
21405 6	12	134	205	5
21406 3	12.5	134	205	5
21407 0	13	134	205	5





HSS-G SUPER DIN 1869EXTRA LONG STEEL DRILL BITS

HSS helical drill bits for extra deep drill holes and deep-lying bores.





PRODUCT DESCRIPTION

· Rapid chip removal thanks to parabolic helix

stability of the drill bit

- · For a variety of metals up to a strength of 900 N/mm²
- · Heller tip: Lifting off regularly speeds up the drilling process and prolongs the service life

· Special helical design for excellent concentricity and dimensional



Website info







Diameter 3-13 mm

















HSS-GSUPER DOUBLE-END DRILL BIT

Can be used at both ends - simply twice as good.





PRODUCT DESCRIPTION

- · Sheet metal drill bits for bodywork and metalworking
- · Quick change possible due to double end
- Precision grinding of groove and diameter for outstanding dimensional accuracy



Website info

MULTIPACK

Art. 4010159-				halor
21408 7	3	11	46	10
21409 4	3.1	11	49	10
21410 0	3.2	11	49	10
21411 7	3.3	11	49	10
21412 4	3.5	12	52	10
21413 1	4	14	55	10
21414 8	4.1	14	55	10
21415 5	4.2	14	55	10
21417 9	4.8	17	62	10
21418 6	5	17	62	10
21419 3	5.1	17	62	10
21420 9	5.2	17	62	10





Diameter 3-5,2 mm



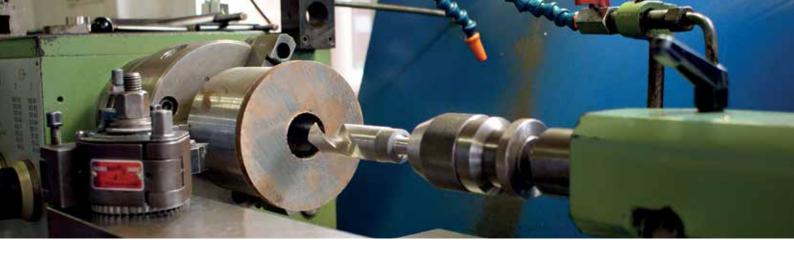












HSS BLACKSMITH

STEEL DRILL BIT

Premium quality steel drill bit for stationary drilling.





PRODUCT DESCRIPTION

- Shank form and tool length optimised for use in upright drilling machines
- · Ground HSS steel drill bit of highest precision
- · Ideal for drilling in alloyed and unalloyed steels up to 1100 N/mm²
- \cdot Chisel edge with a point angle of 118° maximises the service life



Website info

Art. 4010159-				Ţ,	
26036 7	10	76	165	10	1
26037 4	10.5	76	165	10	1
26038 1	11	76	165	10	1
26039 8	11.5	76	165	10	1
26040 4	12	76	165	10	1
26041 1	12.5	76	165	10	1
26042 8	13	76	165	1/2"	1
26043 5	13.5	76	165	1/2"	1
26044 2	14	76	165	1/2"	1
26045 9	14.5	76	165	1/2"	1
26046 6	15	76	165	1/2"	1
26047 3	15.5	76	165	1/2"	1
26048 0	16	76	165	1/2"	1
26049 7	16.5	76	165	1/2"	1
26050 3	17	76	165	1/2"	1
26051 0	17.5	76	165	1/2"	1
26052 7	18	76	165	1/2"	1
26053 4	18.5	76	165	1/2"	1
26054 1	19	76	165	1/2"	1
26055 8	19.5	76	165	1/2"	1
26056 5	20	76	165	1/2"	1
26057 2	22	76	165	1/2"	1
26058 9	25	76	165	1/2"	1





Diameter 10-25 mm

















HSSSTEEL DRILL BITS WITH STEPPED SHAFT

Universal steel drill bits for any drill chuck.





PRODUCT DESCRIPTION

- Premium steel drill bits with offset shaft support drilling of larger diameters in a small chuck and with hand-held drills
- · Ground HSS steel drill bit of highest precision
- · Ideal for stationary drilling



Website info

4010159-	ĒÓ		₽Į.	_	
215428	10	87	133	8	1
21544 2	11	94	142	8	1
21546 6	12	101	151	8	1
21548 0	13	101	151	8	1
21549 7	13.5	108	160	10	1
21550 3	14	108	160	10	1
21551 0	14.5	114	169	10	1
21552 7	15	114	169	10	1
21553 4	15.5	120	178	10	1
21554 1	16	120	178	10	1
21555 8	16.5	125	184	13	1
21556 5	17	125	184	13	1
21557 2	17.5	130	191	13	1
21558 9	18	130	191	13	1
21559 6	18.5	135	198	13	1
21560 2	19	135	198	13	1
21561 9	19.5	140	205	13	1
21562 6	20	140	205	13	1
23998 1	22	150	219	13	1
23999 8	25	150	246	13	1





Diameter 10-25 mm

















HSS DIN 345

STEEL DRILL BITS, MORSE TAPER SHAFT

Steel drill bits with morse taper shank.





PRODUCT DESCRIPTION

- Chisel edge with a point angle of 118° maximises the service life
- · Indispensable for stationary drilling in steel
- · Morse taper collet according to DIN 345
- · Good chip removal and concentricity
- \cdot Diameter tolerance according to h8



Website info

21480 3	12	101	182	1	1
21482 7	13	101	182	1	1
21484 1	14	108	189	1	1
21486 5	15	114	212	2	1
21488 9	16	120	218	2	1
21490 2	17	125	223	2	1
21492 6	18	130	228	2	1
21494 0	19	135	233	2	1
21496 4	20	140	238	2	1
21498 8	21	145	243	2	1
21500 8	22	150	248	2	1
21502 2	23	155	253	2	1
21504 6	24	160	281	3	1
21506 0	25	160	281	3	1
21508 4	26	165	286	3	1
21510 7	27	170	291	3	1
21512 1	28	170	291	3	1
215145	29	175	296	3	1
21516 9	30	175	296	3	1
215183	31	180	301	3	1
21520 6	32	185	334	4	1
21526 8	35	190	339	4	1

Art. E E E





Diameter 12–35 mm

















HSS

TAPER AND DEBURRING COUNTERSINK 90°

Trijet precision tool in professional quality.





Art. 4010159-				O In Control of the C
22583 0	6.3	-	45	1
22584 7	8.3	-	50	1
22585 4	10.4	-	50	1
22586 1	12.4	-	56	1
22587 8	16.5	-	60	1
22588 5	20.5	-	63	1
22589 2	25	-	67	1

PRODUCT DESCRIPTION

· Deburrs and countersinks at same time

· Long service life

· Extremely precise



Website info











6

22590 8

Ø 6.3/8.3/10.4/12.4/16.5/20.5/









Diameter

6,3-25 mm











HSSTRANSVERSE COUNTERSINK 90°

Countersinking and deburring in a single step - quickly and easily.





Art.) 4010159-			Ħ	_	
22591 5	2-5	10	45	6	1
22592 2	5-10	14	48	8	1
22593 9	10-15	21	65	10	1
22594 6	15-20	28	85	12	1

PRODUCT DESCRIPTION

- · High performance quality for professional users
- · Innovative chip removal



Website info











22596 0

2-5/5-10/10-15/15-20

4





Diameter 2-20 mm

















HSS STEP DRILL BIT

One drill bit a Multitude of drilling diameters.





Art.)				w	No.	
22605 9	4-12	-	65	6	0.9	1
22606 6	4-20	-	75	8	1	1
226103	6-37	-	100	10	9	1
22608 0	6-26.75	-	77	10	4	1
22607 3	4-30	-	100	10	2	1
22609 7	4-39	-	107	10	5	1

PRODUCT DESCRIPTION

- \cdot Precision tools for professionals
- · Ideal for drilling in cable ducts and in switch cabinet construction
- · Diameter scale integrated into drill bit
- · Extremely long service life



Website info









22611 0

No. 0.9/1/2





Diameter 4-39 mm













HSS

SHEET METAL CONE BIT

Cuts through sheet metal and plastic quickly and reliably.







2	22597 7	3-14	34	58	6	1	1
2	22598 4	5-20	44	71	8	2	1
2	22599 1	16-30.5	52	76	9	3	1
2	22600 4	24-40	62	89	10	-	1
2	22601 1	36-50	68	97	12	-	1
2	22603 5	5-31	81	103	9	-	1

PRODUCT DESCRIPTION

- · Diameter scale integrated into drill bit
- · Taper angle 20° 30°
- · Highly flexible in terms of drilling diameters
- · Ideal for all sheet metal work and for drilling in switch cabinet building



Website info











22604 2

No. 1/2/3





Diameter 3-31 mm









UNIVERSAL & SPECIAL DRILLING TOOLS

UNIVERSAL TOOLS

Besides drilling tools that are specially designed for specific materials such as concrete, stone, metal or wood, Heller also offers universal drill bits that can be used as a general purpose option in various materials and which are also ideal for use in composites made of different materials. On top of this, time savings are often achieved by using tools which can drill through different materials in a single operation. Where building elements need to be fixed in the masonry, this removes the need for adjustment and measuring work.

Additionally, these tools are a great choice for occasional drilling work. You can then use a matching universal tool suitable for drilling through many different materials. They also ensure maximum flexibility.

SPECIAL TOOLS

Some modern construction materials nowadays demand properties traditional drilling tools can no longer meet. This is why Heller also offers special solutions designed to process these novel materials.

ADVISOR UNIVERSAL & SPECIAL DRILL BITS

Product group	Universal drill bits			Special drill bits		
Shank	TRI	CYL/SDS-plus/1/4 HEX	CYL	1/4 HEX	TRI	
Product	Allmat Pro	AllMat	Allround	Quickbit Ceramic Master	Cera Expert Stoneware and roofing tile drill	
Page	108	110	112	113	114	
Insulating materials		***	***			
Sand lime brick	***	***				
Granite	*				**	
Roofing tiles	***			***	***	
Wall tiles	***		***	**	**	
Hard fired tiles	***				***	
Marble	*				**	
Aluminium			***			
PVC	***		***			
Hardwood			***			
Laminated chipboard			***			
Aerated concrete	***	***	***			
Brick	***	***				
Masonry	***	***				
Natural stone	***	***				
Concrete	*	***				



ALLMAT PRO UNIVERSAL DRILL BIT

Universal drill bit with diamond-ground carbide tip for precise drilling in a wide variety of materials.



PRODUCT DESCRIPTION

- · All-rounder for a wide range of materials
- \cdot TRI shank prevents twisting in the drill chuck
- \cdot Perfect for professionals with constantly changing tasks
- · Ideal for a wide range of materials such as masonry, roof tiles, tiles and plastic













Diameter 3-16 mm





Art. 4010159-				
32080 1	3	45	85	1
32081 8	4	45	85	1
32082 5	5	50	110	1
32083 2	5	110	170	1
32084 9	5,5	50	110	1
32085 6	6	60	120	1
32086 3	6	110	170	1
32087 0	6,5	60	120	1
32088 7	6,5	110	170	1
32089 4	8	80	140	1
32090 0	8	160	220	1
32091 7	8	360	420	1
32092 4	10	80	140	1
32093 1	10	160	220	1
32094 8	10	360	420	1
32095 5	12	90	150	1
32096 2	12	140	200	1
32097 9	12	340	400	1
32098 6	14	90	150	1
32099 3	14	140	200	1
32100 6	14	340	400	1
32101 3	16	90	150	1
32102 0	16	140	200	1
32103 7	16	340	400	1
32104 4	16	540	600	1



ALLMAT

UNIVERSAL DRILL BIT

Ideal universal drill bit for a large variety of materials.



PRODUCT DESCRIPTION

- The all-rounder: ideal for a large number of materials used on the construction site
- · Time and cost savings due to using a drill bit for various materials and composites
- Drilling on smooth and hard surfaces also possible thanks to diamond ground, carbide, centring cutting edge
- · For drilling in masonry & stone also deployable with light impact
- · Also available with SDS-Plus & 1/4" HEX coupling





















Diameter 3-14 mm





UNIVERSAL & SPECIAL MATERIAL

3740 ALLMAT CYL



Art. 4010159-				4
22680 6	3	30	70	1
21985 3	4	45	85	1
19414 3	5	50	95	1
21673 9	5	110	150	1
19415 0	6	60	100	1
21674 6	6	110	150	1
19416 7	8	80	120	1
21675 3	8	135	200	1
19417 4	10	80	120	1
21676 0	10	135	200	1
19420 4	12	90	150	1
21677 7	12	150	220	1
21678 4	14	200	260	1

SET







22697 4

5 x 50/95 / 6 x 60/100mm 8 x 80/120 / 10 x 80/120mm



3718 ALLMAT SDS-PLUS



3775 **ALLMAT QUICKBIT HEX**



SET







26284 2

4 x 45/85 / 5 x 50/95mm 6 x 60/100 / 8 x 70/120mm 10 x 70/120mm

5





ALLROUND UNIVERSAL DRILL BIT

One drill bit a Multitude of drilling diameters.



Art. 4010159-				3
22711 7	3	45	90	1
10334 3	4	45	90	1
10335 0	5	50	100	1
10336 7	6	50	100	1
10337 4	8	90	150	1
10338 1	10	90	150	1
10339 8	12	90	150	1

PRODUCT DESCRIPTION

- · For universal deployment in many materials
- \cdot Also ideal for coated roofing tiles, the hardest wood and sandwich materials
- · On the dot drilling thanks to carbide centring tip
- · Drill easily on smooth surfaces









Diameter 3-12 mm





















5 x 50/100 / 6 x 50/100mm 169165 8 x 90/150 / 10 x 90/150mm



QUICKBIT CERAMICMASTER

GLASS & TILE DRILL BIT

The expert for critical materials - ideal for glass and tiles.





PRODUCT DESCRIPTION

- · For rotary drilling in glass and soft ceramic materials
- · Pointed centring cutting edge which can be sharpened at any time allows for precise drilling
- · Heller QuickBIT® system: perfectly designed for use with cordless machines
- · Fastest switching between drills and bits
- \cdot 1/4" hexagonal shank prevents the drill bit from slipping into the drill chuck
- · Heller tip: Only deploy for rotary drilling at low speeds; cool with water during drilling

Art. 4010159-			0
50091 3	3	75	1
50092 0	4	75	1
50093 7	5	75	1
50094 4	6	75	1
50095 1	6.5	78	1
26209 5	7	85	1
50096 8	8	85	1
50097 5	10	85	1
50098 2	13	100	1
50099 9	14	100	1

SET







24942 3

4 x 75 / 5 x75 / 6 x 75mm 8 x 85 / 10 x 85mm

.

29628 1

2 Stk. 6 x 75 / 2 Stk. 8 x 85 10 x 85mm

5



Website info





Diameter 3-14 mm













CERA EXPERT

STONEWARE & ROOFING TILE DRILL

Perfect for the hardest materials.





PRODUCT DESCRIPTION

- · Perfect results in the hardest of tiles, roofing tiles and stoneware
- · No cooling required carbide drill bit suitable for dry use
- · With 3-edged shank as twist lock
- Heller tip: Do not apply an excessive amount of pressure for centring. Continue by applying high contact pressure once the drill has penetrated the material. Change to a concrete drill bit (e.g., ProXtreme) after drilling through the tiles. Use rotary action; do not use impact

Art. 4010159-			
28674 9	5	120	1
28675 6	6	120	1
28676 3	8	125	1
28677 0	10	125	1

MIXED SET CERA EXPERT AND PROXTREME









Cera Expert 6 x 60/124 8 x 80/145 ProXtreme 6 x 120 / 8 x 125mm

4







Mahaita infa





Diameter 5-10 mm





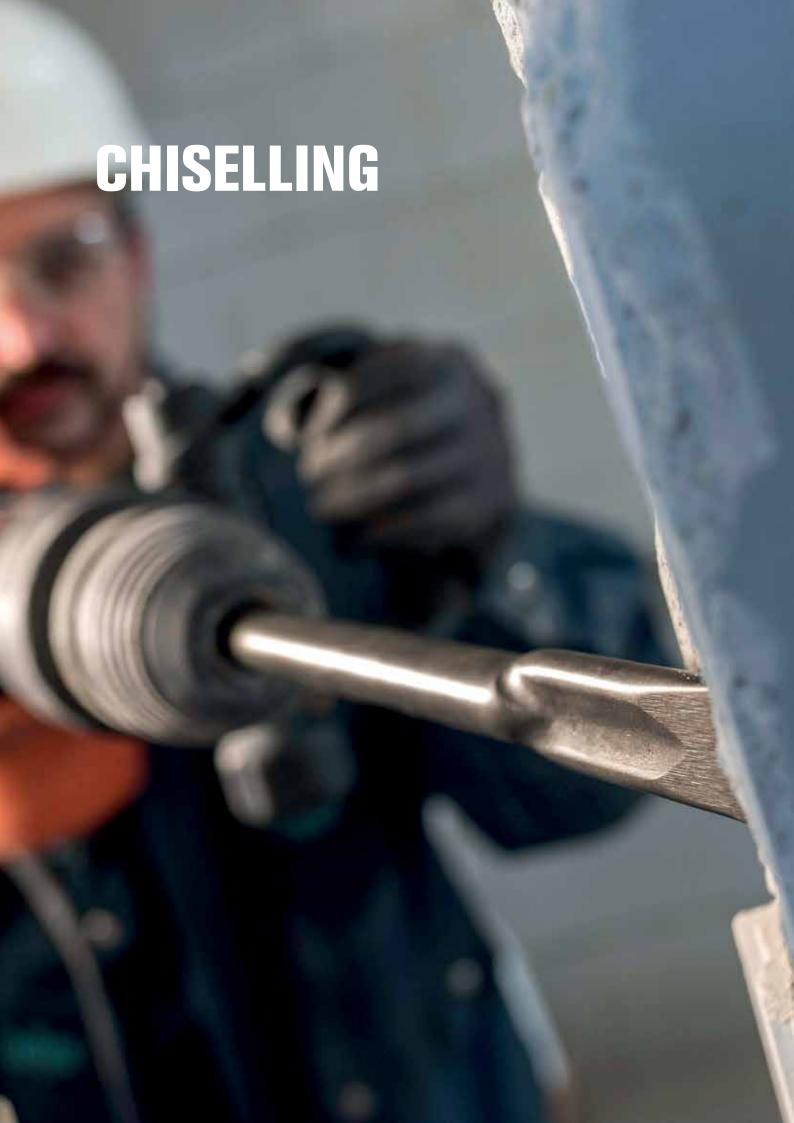














CHISELS FOR CONCRETE AND STONE

Heller offers an extensive range of products for chiselling applications in concrete and stone, for all common tasks and special applications. This makes them particularly suitable for demolition work and precise chiselling work. The use of low-wear tool steel, and the special hardening process, give Heller chisels a long service life. The rugged design, which allows the user to regrind the chisel, is another advantage. Chisels fit into machines with an SDS chuck and are used in impact mode.

You can also discover the best possible chisel for every application interactively in our online product advisor: www.hellertools.de/de/produktberater/.

Chisels are also showcased in our category video:





Pointed chisel: For routing cables and all chiselling/demolition work as well as through holes.



Ducting chisel: For ducting, chiselling and slotting work.



Toothed chisel: For refurbishing masonry and joints.



Joint chisel: For removing & cleaning joints and masonry.



Flat chisel: For targeted breaking effect as well as all chiselling/demolition work and throughholes.



Grout chisel: For removing and cleaning joints in masonry and grouting.



Wing chisel: For chiselling, grooving and ducting with depth limit.



Tile chisel: For removing tiles.



Spade chisel: For universal removal of large amounts of material.



Grooving chisel: For creating narrow ducts in concrete & masonry.



Carbide joint chisel: For removing & cleaning joints & masonry and an extra long service life



ENDURO SDS-PLUS

CHISELS

Premium chisels with self-sharpening effect offer the longest service lives for maximum efficiency in terms of the results. Durable and powerful.

PRODUCT DESCRIPTION

- · Next generation chisels. The best choice for anyone wanting the utmost quality. Can be delivered as a pointed, flat or spade chisels
- · Longer service life thanks to innovative chisel blade design and longer blade length
- · Reduced profile wear over the entire service life
- · Reduces work time thanks to ideal tip design
- · Increases comfort by reducing vibrations
- · Maximum ruggedness with wear resistant material quality



Art) 4010159-		 ←		
28542 1	Pointed chisel	14	250	1
28543 8	Flat chisel	20	250	1
28544 5	Spade chisel	44	250	1
31142 7	Tile chisel	40	250	1

SETS







	SDS-plus set	
28814 9	Pointed / flat / spade	2
	chisel	

3

Enduro chisel and standard chisel compared:



Before use Enduro Standard



After 10 hours Enduro Standard







Website info





Width 14-40 mm Total length

250 mm



















SDS-PLUSPOWER CHISEL

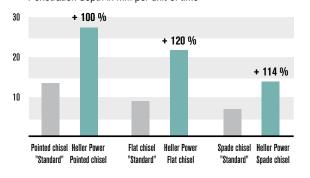
Power chisels for all popular applications.

PRODUCT DESCRIPTION

The right product for all chisel work

- Particularly hard materials and an optimised design noticeably increase the power chisel's performance and durability
- · Improved power transmission thanks to the shorter chisel length
- · Ideal chisel effect without notable loss of impact energy
- · Long service life thanks to the use of special steel
- · Rugged design forged from one piece
- \cdot Available in pointed, flat and spade versions with SDS-plus

Penetration depth in mm per unit of time





Art. 4010159-		 ←→ 		
26279 8	Pointed chisel	-	140	1
26280 4	Flat chisel	22	140	1
26281 1	Snade chisel	30	140	1

MIXED SET DRILL BITS & CHISELS



26288 0 Bionic (Ø 6/8 x 100/160 mm) Chisel (140 mm)









Width 22-30 mm Total length 140 mm

















SDS-PLUS

CHISELS

Create through-holes easily, even in difficult areas.













Art. 4010159-		 ←		Nation (II)
16114 5	Pointed chisel, round	11	250	1
19620 8	Pointed chisel, square	14	250	1
19621 5	Flat chisel	20	250	1
19622 2	Spade chisel	40	250	1
19623 9	Hollow chisel	22	250	1
22833 6	Tile chisel	40	250	1
16811 3	Tile chisel	75	165	1
22835 0	Wing chisel	22	250	1
19624 6	Joint chisel	6	250	1
19771 7	Carbide joint chisel	32	125	1
19772 4	Carbide joint chisel	32	200	1
31566 1	Floor Scraper	100	250	1

SETS

Art. 4010159-				heller
23772 7	Pointed / flat / spade chisel	-	250	3
23368 2	Pointed chisel, round	11	250	5
22884 8	Pointed chisel, square	14	250	5
22885 5	Flat chisel	20	250	5
22886 2	Spade chisel	40	250	5
23372 9	Hollow chisel	22	250	5
23373 6	Joint chisel	6	250	5
23374 3	Tile chisel	40	250	5



*1



Width 11-40 mm Total length 125-250 mm

















ENDURO SDS-MAX

CHISELS

Premium chisel: long-life. Powerful. Self-sharpening.



PRODUCT DESCRIPTION

- · Longer service life thanks to innovative chisel blade design and longer blade length
- · Reduced profile wear over the entire service life
- · Reduces work time thanks to ideal tip design
- · Increases comfort by reducing vibrations
- · Maximum ruggedness with wear resistant material quality

Art. 4010159-		 ←→ 		
28545 2	Pointed chisel	18	350	1
28546 9	Flat chisel	25	350	1
28547 6	Spade chisel	50	350	1
31143 4	Tile chisel	50	300	1

Art) 4010159-			hdir
28815 6	Set SDS-max	350	3

Enduro chisel and standard chisel compared:



Before use Enduro Standard



After 10 hours Enduro Standard









Width 14-50 mm Total length 250 mm



















SDS-MAX

CHISELS

For the toughest tasks.



PRODUCT DESCRIPTION

- · The solution for all serious chiselling tasks.
- · Forged from one piece: stable and regrindable for many tasks
- · Extremely powerful thanks to improved power transmission
- · Available in many variants the right chisel for any task



Website info





Width 25-100 mm Total length 280-600 mm















SETS

Art. 4010159-		 ←→ 		heller
23765 9	Pointed / flat / spade chisel	-	400	3
23376 7	Pointed chisel	-	280	5
22879 4	Pointed chisel	-	400	5
22880 0	Pointed chisel	-	600	5
23379 0	Flat chisel	25	280	5
22881 7	Flat chisel	25	400	5
22882 4	Flat chisel	25	600	5
22883 1	Spade chisel	50	400	5
23383 5	Spade chisel	75	300	5
23388 0	Tile chisel	50	300	5







JIGSAW AND SABRESAW BLADES

RECOMMENDED APPLICATIONS

Wood & metal processors alike appreciate the advantages provided by Heller jigsaw & reciprocating saw blades. Much cutting on the construction site or in industrial production can be carried out in a particularly flexible way using a jigsaw or reciprocating saw. Be it to disassemble components or accurately cut plates or profiles made of wood, metal or

plastic: jigsaw and reciprocating saw blades are ideal for this purpose. It is just as easily possible to create cut-outs in panels as to precisely work the outer edges. Today, saw blades are even used for cutting aerated concrete and tiles.

SHANKS

Jigsaw blades suitable for machines by



AEG, Atlas Copco, Bosch, DeWalt, Bosch, Elu, Fein, Flex, Hitachi, Holz-Her, Kress, Mafell, Makita, Metabo, Protool and many more Reciprocating saw blades suitable for machines by



AEG, Atlas Copco, Black & Decker, Bosch, Elu, Fein, Flex, Hitachi, Makita, Metabo, Milwaukee, Porter Cable, Rems, Rockwell, Roller, Skil and many more

CUTTING MATERIALS

Depending on the requirements for cutting speed and service life of the saw blade, one of the following cutting materials can be chosen as a function of the material to be processed:

Cutting material	Material
HCS - High Carbon Steel = CV (chrome vanadium steel)	For woods or plastics
HSS - High Speed Steel	For non-ferrous and sheet metals
BIM – Bi-metal = Blade body made of spring steel laser-welded with tooth bar made of HSS	For stainless steel, steel, non-ferrous metals, sheet metals, but also wood with metal residues
HM - Carbide (=TC / tungsten carbide) teeth, soldered onto the blade body	For stainless steel, cast iron, aerated concrete or fibre-reinforced plastics
Diamond – Industrial diamonds soldered onto the blade body	For glass, ceramics, cast iron or fibre-reinforced plastics

FREE CUTS

Tooth setting	Figure	Meaning
Rip cut		The saw teeth are alternately set to the right and left, making a wider cut than the thickness of the blade body.
Serrated		Above a certain tooth size, the teeth can no longer be set individually, so that a wave-form setting of several teeth is used here.
Tapered Ground		For particularly precise cutting, the entire blade body can be taper ground without setting the teeth, so that the back of the blade is narrower than the cutting width of the teeth.
Carbide overhang	m	Brazed-on carbide teeth or grains are usually wider than the blade body itself, so that separate free cutting is no longer required here.

TOOTH SHAPES

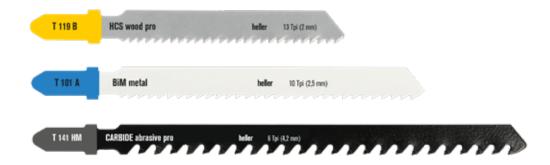
Different materials require individually adapted tooth geometries. The execution of the cut, angular, straight or curved, also has an impact on the design. In addition, the desired

cutting quality determines the selection of the appropriately designed saw blade.

Tooth shape	Figure	Meaning
Japan	A1A1A1A1	Triple trapezoidal ground teeth with alternating angles, usually featuring taper grinding of the saw blade.
Chamfered blade		In contrast to straight sharpening, the saw tooth is chamfered at a positive angle towards the cutting direction.
Curve cut		Curve cut saw blades are not as tall as straight cut saw blades to allow for smaller cutting radii.
Double toothing		In addition to the low blade height, curve cut saws can be provided with toothing on the rear to produce a free cut in particularly tight curve radii and thus avoid friction and overheating.
Vario toothing	And	Tpi with variable tooth spacing to provide pre-cutting and reaming teeth respectively. This has advantages in terms of working speed, especially in metalworking.
Pull stroke alignment		As standard, jigsaws and reciprocating saws are sharpened for pull stroke alignment, so that the saw stop is always pulled towards the workpiece by this form. This offers benefits in terms of working comfort, especially when using pendulum reciprocating saws
Push stroke alignment	*	Each tool causes less tear-out on the entry side than on the exit side. Certain applications therefore require saw blades that are sharpened for a push stroke alignment to produce a particularly clean surface quality.



Professional reciprocating saw blades: fast, precise, durable.



PRODUCT DESCRIPTION

- · The right jigsaw blade for any application
- $\boldsymbol{\cdot}$ Available in various materials, toothing types and cuts for optimum results
- · Adapt to all common machines
- · Superior performance with precise cuts





Website info



Cutting width 1-2,3 mm Cutting length 50-205 mm

















Jigsaw blade single-cam shank T-shank

Conically ground, cross ground teeth. Clean cut; wood, plastics (3.0 - 30 mm).

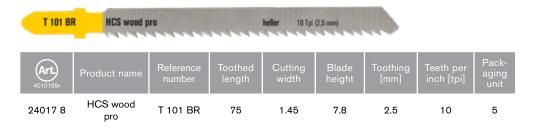


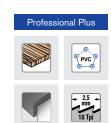
Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24013 0	HCS wood pro	T 101 B	75	1.45	7.8	2.5	10	5
27632 0	BiM wood long life	T 101 DP	75	1.45	7.8	2.5	10	5



Jigsaw blade single-cam shank T-shank

Conically ground, cross ground teeth. Push stroke toothing. Clean, splinter-free surface cut; wood, plastics (3.0 - 30 mm).





Jigsaw blade single-cam shank T-shank

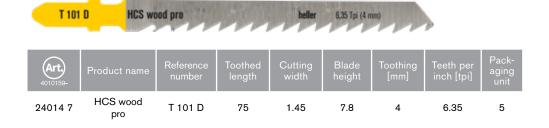
Tapered grinding, teeth 3-point angle ground. Cleanest, fast cut; wood, plastics (3.0 - 60 mm).





Jigsaw blade single-cam shank T-shank

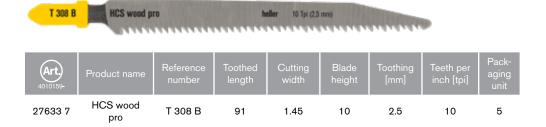
Conically ground, cross ground teeth. Clean, fast cut; wood, plastics (10 - 45 mm).





Jigsaw blade single-cam shank T-shank

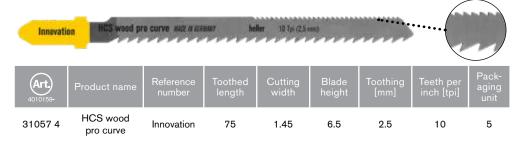
Tapered grinding, push stroke toothing and cross-sharpened. Special blade; clean, splinter-free surface cut; coated, thin wood, laminate and parquet (2.0 - 20 mm). Long service life. Conically ground, cross ground teeth. Clean cut; wood, plastics (3.0 - 30 mm).





Jigsaw blade single-cam shank T-shank

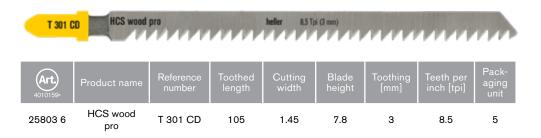
Taper ground, cross ground, for clean curved cuts; laminate, parquet, softwood, chipboard, plastic-coated panels/HPL, multiplex panels (2.5 - 35 mm).





Jigsaw blade single-cam shank T-shank

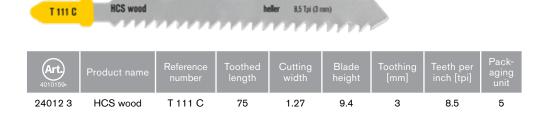
Conically ground, cross ground teeth. Clean cutting; extra long blade, wood, plastics (8.0 - 65 mm).





Jigsaw blade single-cam shank T-shank

Conically ground, cross ground teeth. Clean, fast cut; wood, plastics (10 - 45 mm).





Jigsaw blade single-cam shank T-shank

Teeth set and angle sharpened. Fast cutting; universal blade; wood.

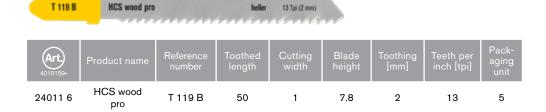


Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24015 4	HCS wood	T 144 D	75	1.27	7.8	4	6.35	5
25801 2	HCS wood curve	T 244 D	75	1.27	6.5	4	6.35	5
25802 9	HCS wood plus	T 144 D	105	1.27	7.8	4	6.35	5
27634 4	HCS wood plus	T 744 D	155	1,27	7.8	4	6.35	5



Jigsaw blade single-cam shank T-shank

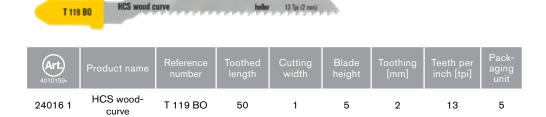
Teeth milled and corrugated. Softwood (2.0 - 15 mm).





Jigsaw blade single-cam shank T-shank

Teeth milled and corrugated. Curve blade; softwood (2.0 - 15 mm).





Jigsaw blade single-cam shank T-shank

Conically ground, cross ground teeth. Clean cut; wood, plastics (3.0 - 30 mm). Long service life.



Art.	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24018 5	BiM wood long life	T 101 BF	75	1.45	7.8	2.5	10	5

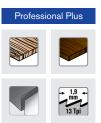


Jigsaw blade single-cam shank T-shank

Blade body with taper ground teeth for push cutting, and cross ground.



Art.) 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
25817 3	BiM wood long life	T 101 AIF	55	1	5	2	13	5



Jigsaw blade single-cam shank T-shank

Teeth set and angle sharpened. Fast cutting; wood (5.0 - 50 mm). Long service life.

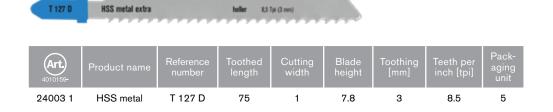


Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24019 2	BiM wood plus	T 144 DF	75	1.27	7.8	4	6.35	5



Jigsaw blade single-cam shank T-shank

Teeth milled and set. Especially for non-ferrous metal and aluminium, steel, plastics (3.0 - 15 mm).





Jigsaw blade single-cam shank T-shank

Teeth milled and corrugated. Thin sheet metals (0.5 - 1.5 mm).



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24000 0	HSS metal super	T 118 G	55	1	7.8	0.7	36	5



Jigsaw blade single-cam shank T-shank

Teeth milled and corrugated. Thin steel sheet (1.2 - 3.0 mm).



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24001 7	HSS metal extra	T 118 A	55	1	7.8	1.2	21	5
24007 9	HSS metal extra	T 218 A	50	1	6.4	1.2	21	5



Jigsaw blade single-cam shank T-shank

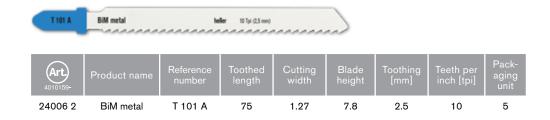
Teeth milled and corrugated. Steel, non-ferrous metal, aluminium (2.5 - 6.0 mm).





Jigsaw blade single-cam shank T-shank

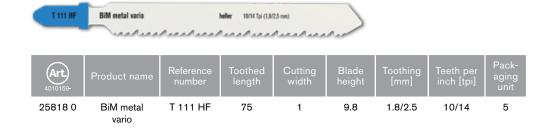
Taper ground, milled teeth. Special blade for Plexiglas, polycarbonate, acrylics (3-20 mm).





Jigsaw blade single-cam shank T-shank

Teeth milled and set. Extra long, flexible blade especially for construction wood with metal residues (< 80 mm). Steel pipes and sections (2.5 - 10 mm). Long service life.





Jigsaw blade single-cam shank T-shank

Teeth milled and corrugated. Flexible blade for thin sheet metal manufactured from steel and stainless steel (1.2 -3.0 mm). Long service life.



Art.) 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24008 6	BiM metal extra	T 118 AF	55	1	7.8	1.2	21	5
24004 8	BiM metal super	T 318 AF	105	1	9.8	1	25	5



Jigsaw blade single-cam shank T-shank

Teeth milled and corrugated. Flexible blade for steel and stainless steels, non-ferrous metal, aluminium (2.5 -6.0 mm). Long service life.



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24009 3	BiM metal fine	T 118 BF	55	1	7.8	2	13	5
24005 5	BiM metal fine	T 318 BF	105	1	9.8	1.8	14	5



Jigsaw blade single-cam shank T-shank

Carbide tooth rail throughout for stainless steel sheets and tubes/sections.



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
25805 0	CARBIDE metal extra	T 118	63	2.3	8.8	1.1	23	3



Jigsaw blade single-cam shank T-shank

Carbide coated, coarse grain. Glass, ceramics, GRP products (5.0 - 15 mm).



Art.) 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24010 9	CARBIDE grit	T 130 Riff	54	2.3	8.8	-	Corruga- tion	3



Jigsaw blade single-cam shank T-shank

Carbide teeth. GRP products, hardwood and aerated concrete (5.0 - 20 mm).

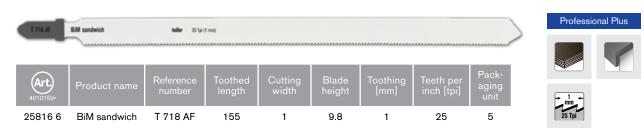


Art.) 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
31058 1	CARBIDE abrasive pro	T 141 HM	75	1.9	7.8	4.2	6	5
25800 5	CARBIDE abrasive pro	T 341 HM	105	1.9	7.8	4.2	6	3



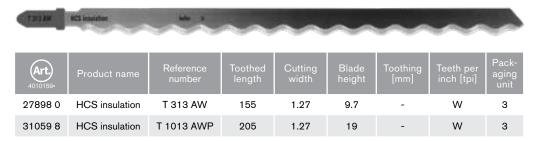
Jigsaw blade single-cam shank T-shank

Teeth milled and corrugated. Long, flexible special blade for facade construction for processing sandwich materials (1.5 - 120 mm). Long service life.



Jigsaw blade single-cam shank T-shank

Serrated blade. Extra long blade for insulating materials, leather, rubber, paper, expanded polystyrene, carpet (1.0 - 120 mm).





Jigsaw blades mix

Art. 4010159-	Product name	Contents	Packag- ing unit
27498 2	Mixed set, 5 parts.	24012 3, 24013 0, 24015 4, 24001 7, 24002 4	5

OVERVIEW OF JIGSAW BLADES

Heller article no.	Reference number	Catalogue page	Product name	Dimensions (WL x H x W [toothing])		All types of wood	Aluminium	Sheet metals	Non-ferrous metals	CFRP	Insulating materials	Thin sheet metals	Epoxy	Corrugated fibre cement	Fibre cement	Aerated concrete
24013 0	T 101 B	4	HCS woodpro	75 x 1.68 x 7.8 10 tpi (2.5 mm)	5	х										
27632 0	T 101 DP	4	BiM wood long life	75 x 1.45 x 7.8 10 tpi (2.5 mm)	5	х										
24017 8	T 101 BR	4	HCS woodpro	75 x 1.45 x 7.8 10 tpi (2.5 mm)	5	х										
25804 3	T 234 X	4	HCS woodpro	91 x 1.45 x 10 10 tpi (2.5 mm)	5	х										
24014 7	T 101 D	4	HCS woodpro	75 x 1.45 x 7.8 6.35 tpi (4 mm)	5	х										
27633 7	T 308 B	5	HCS woodpro	91 x 1.45 x 10 10 tpi (2.5 mm)	5	х										
31057 4	Innovation	5	HCS woodpro curve	75 x 1.45 x 6.5 10 tpi (2.5 mm)	5	х										
25803 6	T 301 CD	5	HCS woodpro	105 x 1.45 x 7.8 8.5 tpi (3 mm)	5	х										
240123	T 111 C	5	HCS wood	75 x 1.27 x 9.4 8.5 tpi (3 mm)	5											
24015 4	T 144 D	5	HCS wood	75 x 1.27 x 7.8 6.35 tpi (4 mm)	5	х										
25801 2	T 244 D	5	HCS woodcurve	75 x 1.27 x 6.5 6.35 tpi (4 mm)	5	х										
25802 9	T 344 D	5	HCS woodplus	105 x 1.27 x 7.8 6.35 tpi (4 mm)	5	х										
27634 4	T 744 D	5	HCS woodplus	155 x 1.27 x 7.8 6.35 tpi (4 mm)	5	х										
24011 6	T 119 B	6	HCS woodpro	50 x 1 x 7.8 13 tpi (2 mm)	5											
24016 1	T 119 BO	6	HCS woodcurve	50 x 1 x 5 13 tpi (2 mm)	5											
24018 5	T 101 BF	6	BiM wood long life	75 x 1.45 x 7.8 10 tpi (2.5 mm)	5	х										
258173	T 101 AIF	6	BiM wood long life	55 x 1.27 x 7.9 13 tpi (1.9 mm)	5											
24019 2	T 144 DF	6	BiM wood plus	75 x 1.27 x 7.8 6.35 tpi (4 mm)	5	х										
24003 1	T 127 D	7	HSS metal	75 x 1 x 7.8 8.5 tpi (3 mm)	5		х		х							
24000 0	T 118 G	7	HSS metal super	55 x 1 x 7.8 36 tpi (0.7 mm)	5							х				
24001 7	T 118 A	7	HSS metal extra	55 x 1 x 7.8 21 tpi (1.2 mm)	5							х				
24007 9	T 218 A	7	HSS metal extra	50 x 1 x 6.4 21 tpi (1.2 mm)	5							X				
24002 4	T 118 B	7	HSS metal extra	55 x 1 x 7.8 13 tpi (2 mm)	5		х		х							
24006 2	T 101 A	7	BiM metal	75 x 1.27 x 7.8 10 tpi (2.5 mm)	5		х		х							
25818 0	T 111 HF	8	BiM metal vario	75 x 1 x 9.8 10/14 tpi (1.8/2.5 mm)	5											
24008 6	T 118 AF	8	BiM metal extra	55 x 1 x 7.8 21 tpi (1.2 mm)	5							х				
24004 8	T 318 AF	8	BiM metal super	105 x 1 x 9.8 25 tpi (1 mm)	5							х				
24009 3	T 118 BF	8	BiM metal fine	55 x 1 x 7.8 13 tpi (2 mm)	5		х									
24005 5	T 318 BF	8	BiM metal fine	105 x 1 x 9.8 14 tpi (1.8 mm)	5				х							
25805 0	T 118 EHM	8	CARBIDE metal extra	63 x 2.3 x 8.8 23 tpi (1.1 mm)	3			х	х	х		x	х	х	х	
24010 9	T 130 Riff	8	CARBIDE grit	54 x 2.3 x 8.8 corrugation	3											
31058 1	T 141 HM	9	CARBIDE abrasive pro	75 x 1.9 x 7.8 6 tpi (4.2 mm)	5								х	х	х	x
25800 5	T 341 HM	9	CARBIDE abrasive pro	105 x 1.9 x 7.8 6 tpi (4.2 mm)	3					х			х	х	х	х
25816 6	T 718 AF	9	BiM sandwich	155 x 1 x 9.8 25 tpi (1 mm)	5											
27898 0	T 313 AW	9	HCS insulation	155 x 1.27 x 9.7 W	3						х					
310598	T 1013 AWP	9	HCS insulation	205 x 1.27 x 19 W	3						х					
27498 2	mix	9	Mixed set	0	5											

TIPS & TRICKS

For delicate work, we recommend switching off the pendulum stroke function of the saw. This applies in particular to curved cuts, but also to straight cuts that require a particularly high surface quality. In addition, conically ground blades are the best choice here.

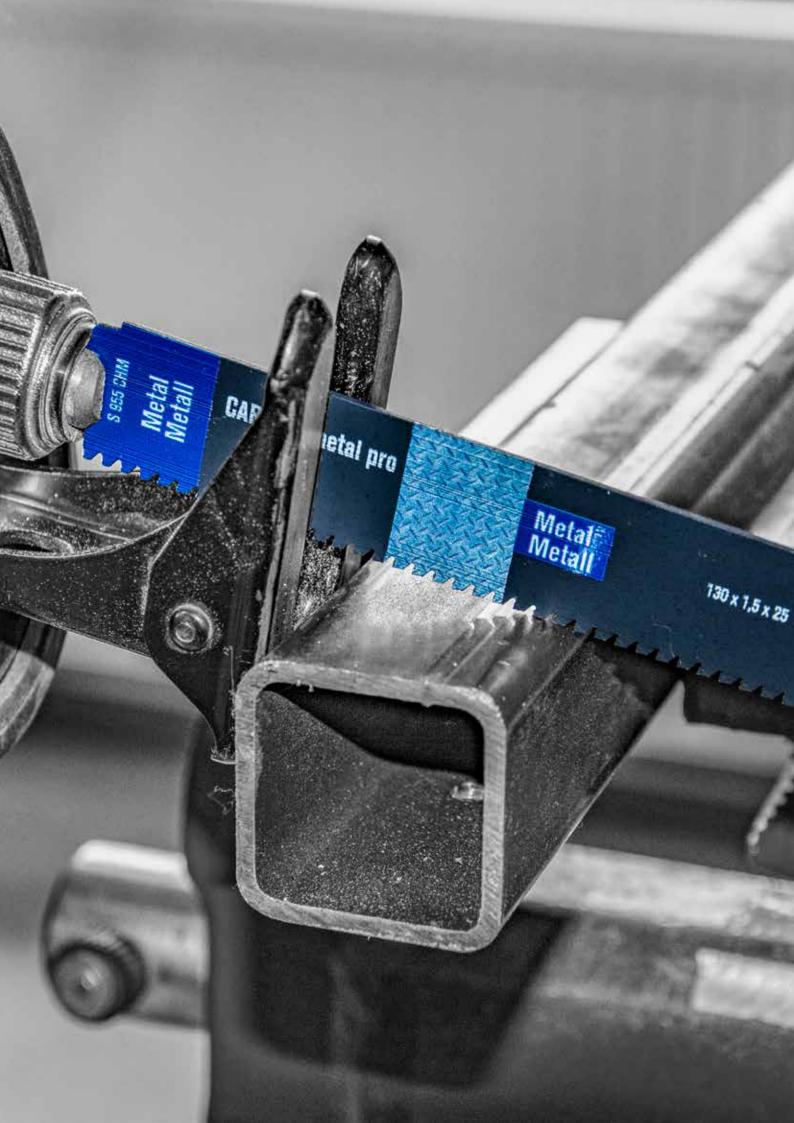
Masking the planned cutting line can also prevent tear-out, especially in softwood, even when working with a somewhat coarser saw blade. Always allow the saw to run down before pulling it out of the material. This prevents damage to the saw blade, machine and workpiece.

GRP	Plasterboard	Glass	Rubber	Cast iron	Hardwood	Wood with metal residues	Ceramics	Plastic-coated panels/HPL	Plastics	Laminate	Leather	Multiplex	Cardboard/paper	Parquet	Perspex	Polycarbonate	Stainless steel	Sandwich materials	Chipboard	Solid steels	Cast steel pipes	Steel sections	Steel pipes	Polystyrene	Carpet	Polymer-bonded solid surface materials (Varicor/ Corian)	Softwood
									x	х																	
									х	^																	
									x x						X											х	
								x	x	х				x					x								
								X	x	X		X							X								x
									X																		х
																											x x
									х																		
					х					X				X													
									х											x		x	x				
																				х		х	х				
																				x x		x x	x x				
															x	x										x	
						X											х			x		x	x				
																	х	x		x x		x x					
																		х		х		х	х				
x x		x		х			x										х			х	X	X	X				
х	X				х																						
X	X				X													х									
			x						X		x		x											x	x x		

VARIOUS DEGREES OF FINENESS

Depending on the material, especially the material thickness, different tooth pitches are recommended. Ideally, there are always 2-3 teeth in the material at the same time.

For thicker materials, a coarser tpi can therefore be used. Particularly with thin sheets, users need to make sure that the teeth are very finely spaced.









PRODUCT DESCRIPTION

- · The right sabresaw blade for any application
- · Available in various materials, toothing types and cuts for optimum results
- · Adapt to all common machines
- · Superior performance with precise cuts





Website info



Cutting width 1-2,3 mm

Cutting length 50-205 mm

















Reciprocating saw blade wood, plastics

Teeth cross-ground and set; fast, straight cut; wood, plastics, plasterboard.



Art.) 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24042 0	HCS wood	S 644 D	130	1.27	19	4.2	6	5
24046 8	HCS wood	S 1344 D	280	1.27	19	4.2	6	5

Professional Plus

Reciprocating saw blade wood, plastics

3x ground, extremely sharp toothing with induction-hardened tooth tips. Extra thick special blade for fast and precise cutting of greenwood.





Reciprocating saw blade wood, plastics

Teeth set, cross ground and induction-hardened. Special blade for green wood (< 190 mm).





Reciprocating saw blade wood, plastics

Teeth milled, set and angle sharpened. Blade with coarse teeth for wood and greenwood.





Reciprocating saw blade wood, plastics

Teeth cross-ground and set; fast, straight cut; wood, plastics, plasterboard.

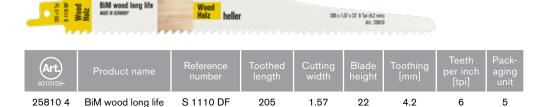


Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
25806 7	BiM wood long life	S 611 DF	130	1.27	19	4.2	6	5
31048 2	BiM wood long life	S 1111 DF	205	1.27	19	4.2	6	5
31049 9	BiM wood long life	S 1411 DF	55	1.27	19	4.2	6	5



Reciprocating saw blade wood, metal, extra strong

Teeth milled and set. Extra strong, robust blade; fast, straight cutting; wood (< 175 mm). Specially designed for removal and renovation work. Long service life.





Reciprocating saw blade, metal

Teeth milled and set. Flexible universal blade for steel and stainless steels (3.0 - 12 mm) and non-ferrous metals. Long service life.



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24041 3	BiM metal	S 922 HF	130	0.9	19	2.5	10	5
24040 6	BiM metal	S 1211 H	260	0.9	19	2.5	10	5



Reciprocating saw blade wood, metal, extra strong

Teeth milled and corrugated. Extra strong, robust blade; fast, straight cutting; steel (> 3.0 mm), wood with metal residues. Specially designed for removal and renovation work. Long service life.





Reciprocating saw blade, wood, metal

Teeth milled and set. Vario toothing. For wood with metal residues; steel (> 2.5 mm). Specially designed for pallet repair work. Long service life.

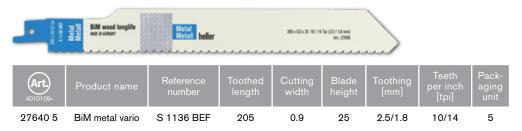


Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
25811 1	BiM metal vario	S 922 VF	130	0.9	19	2.5/1.8	10/14	5
25808 1	BiM metal vario	S 1122 VF	205	0.9	19	2.5/1.8	10/14	5
25807 4	BiM metal vario	S 1222 VF	260	0.9	19	2.5/1.8	10/14	5
31476 3	BiM metal vario	S 1122 VF	280	0,9	19	2,5/1,8	10/14	25



Reciprocating saw blade wood, metal, extra strong

Teeth milled and set. Universal high-performance saw blade made of bi-metal with new TWIN-CUT toothing for longer service life; fast, straight cut; metal (> 2.5 mm).





Reciprocating saw blade, M toothing

Patented M special toothing for maximum performance. Special saw blade with patented M toothing made of bi-metal. Especially for metal from 1.5 mm or 6.0 mm wall thickness.



Art.	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
25815 9	BiM metal rough	Innovation	130	0.9	19	1.3	8	5
25814 2	BiM metal rough	Innovation	180	0.9	19	1.7	5	5



Reciprocating saw blade, metal

Teeth milled and set. Flexible blade made of bi-metal with innovative Twin-Cut toothing for longer tool life and faster sawing progress in metal (> 2.5 mm) and wood with metal residues.



Art.,	Product name			Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit	
27636 8	BiM metal TWIN	S 925 VF	130	0.9	19	2.5/1.8	10/14	5
27637 5	BiM metal TWIN	S 3456 XF	205	0.9	19	2.5/1.8	10/14	5
28050 1	BiM metal TWIN	S 1211 H	260	0.9	19	2.5/1.8	10/14	5



Reciprocating saw blade, metal

Teeth milled and corrugated. Flexible universal blade for steel and stainless steels (2.0 - 8.0 mm) and non-ferrous metals. Long service life.



Art.,	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24036 9	BiM metal fine	S 922 BF	130	0.9	19	1.8	14	5
24038 3	BiM metal fine	S 1122 BF	180	0.9	19	1.8	14	5
31475 6	BiM metal fine	S 1122 BF	180	0,9	19	1,8	14	25



Reciprocating saw blade, metal

Teeth milled and corrugated. Flexible universal blade for steel and stainless steels (1.5 - 4.0 mm). Long service life.



Art. 4010159-	Product name	Reference number	Toothed length			Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
24037 6	BiM metal extra	S 922 EF	130	0.9	19	1.4	18	5
24039 0	BiM metal extra	S 1122 EF	180	0.9	19	1.4	18	5



Reciprocating saw blade, metal

Teeth milled and corrugated. Flexible, fine-toothed blade for sheet metals, steel (1.0 - 3.0 mm). Long service life.

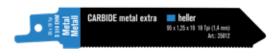


ı	Art.,	Product name	Reference Toothed number length		Cutting Blade width height		Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
	24047 5	BiM metal super	S 522 AF	80	0.9	19	1	24	5
	24048 2	BiM metal super	S 922 AF 130		0.9	19	1	24	5



Reciprocating saw blade for special applications

Carbide tooth rail, ground. Special blade for sheet metals and sections made of INOX, GRP, CFRP, epoxy, Perspex.



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Tooth- ing [mm]	Teeth per inch [tpi]	Pack- aging unit
258128	CARBIDE metal extra	S 518 EHM	95	1.25	19	1.4	18	2



Reciprocating saw blade for special applications

Carbide toothing, for fast cutting in metal, stainless steel, non-ferrous metal, reinforcements, SML casting, vehicle parts (A-B-C pillars), metal-reinforced rubber (< 100 mm).



Art., 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
31054 3	CARBIDE metal pro	S 955 CHM	130	1.5	25	3.2	8	1
31055 0	CARBIDE metal pro	S 1155 CHM	205	1.5	25	3.2	8	1

Professional Plus

Reciprocating saw blade for special applications

Carbide teeth. Special blade for hardwood, aerated concrete, corrugated fibre cement, and glass-fibre-reinforced plastics (GRP), epoxy.



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
27639 9	CARBIDE masonry	S 1241 HM	280	1.3	19	8.5	3	1
31051 2	CARBIDE masonry	S 2041 HM	380	1.3	19	8.5	3	1

Professional Plus

Reciprocating saw blade for special applications

Carbide toothing, for fast cutting in highly abrasive special materials, e.g., breeze block, aerated concrete, etc. Extra wide blade for true angular cutting (< 215 mm).



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Tooth- ing [mm]	Teeth per inch [tpi]	Pack- aging unit
31052 9	CARBIDE masonry pro	S 1243 HM	260	1.5	50	8.5	2	1
31053 6	CARBIDE masonry pro	S 2243 HM	410	1.5	50	8.5	2	1



Reciprocating saw blade for special applications

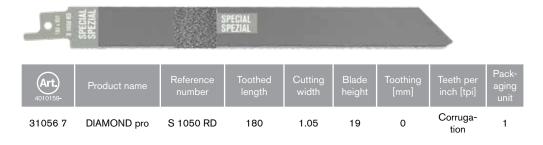
Carbide granulate coated. Special blade for cast steel pipes, cast iron (SML), red brick, ceramics, and glass fibre reinforced plastics (GRP), epoxy.





Reciprocating saw blade for special applications

Diamond pellet coated. Special blade for cast steel pipes, cast iron, red brick, ceramics, and glass fibre reinforced plastics (GRP), epoxy.





Reciprocating saw blade for special applications

Double serrated edge. Fast, cleanest cut; mineral wool, foams (EPS/PUR), Styrodur, polystyrene, leather, rubber, paper, carpet (< 175 mm).



Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
31060 4	HCS insulation	S 1113 AWP	200	1.27	19	-	W	3
27635 1	HCS insulation	S 1213 AWP	280	1.27	19	-	W	3
31061 1	HCS insulation	S 2013 AWP	430	1.27	19	-	W	2
310628	HCS insulation	Innovation	480	1.4	29	-	W	1



Sabre saw mix

Art. 4010159-	Product name	Reference number	Toothed length	Cutting width	Blade height	Toothing [mm]	Teeth per inch [tpi]	Pack- aging unit
27499 9	Mixed set, 5 parts.	Innovation	-	-	-	-	-	5
24042 0	HCS wood	S 644 D	130	1.27	19	4.2	6	1
24044 4	HCS wood	S 1531 L	220	1.27	19	6.35/5	4/5	1
24036 9	BiM metal fine	S 922 BF	130	0.9	19	1.8	14	1
24038 3	BiM metal fine	S 1122 BF	180	0.9	19	1.8	14	1
25808 1	BiM metal vario	S 1122 VF	205	0.9	19	2.5/1.8	10/14	1

Multihandle

The Multihandle handle accepts both reciprocating saw blades with 1/2" standard mount and standard bits on one handle for screw driving and sawing. Simple tool change thanks to rotating fastening ring.

Art.	Product name	Reference	Packag-
4010159-		number	ing unit
29764 6	Multihandle	Innovation	1



ÜBERSICHT SABRESAW BLADES

Heller Artikelnr.	Referenznummer	Prospektseite	Produktname	Abmessung (AL x H x B [Verzahnung])	VPE	All types of wood	Aluminium	Sheet metals	Non-ferrous metals	CFRP	Insulating materials	Thin sheet metals	Epoxy	Corrugated fibre cement	Fibre cement
24042 0	S 644 D	12	HCS wood	130 x 1,27 x 19 6 Tpi (4,2 mm)	5	х									
24046 8	S 1344 D	12	HCS wood	280 x 1,27 x 19 6 Tpi (4,2 mm)	5	х									
31050 5	Innovation	12	HCS wood	245 x 1,6 x 34 6 Tpi (4,2 mm)	2	х									
24044 4	S 1531 L	12	HCS wood	220 x 1,27 x 19 4/5 Tpi (6,35/5 mm)	5										
24045 1	S 617 K	12	HCS wood	130 x 1,27 x 19 3 Tpi (8,5 mm)	5	х									
24043 7	S 1617 K	12	HCS wood	280 x 2,27 x 20 3 Tpi (8,5 mm)	5	х									
25806 7	S 611 DF	13	BiM wood long life	130 x 1,27 x 19 6 Tpi (4,2 mm)	5	х									x
31048 2	S 1111 DF	13	BiM wood long life	205 x 1,27 x 19 6 Tpi (4,2 mm)	5	х									x
31049 9	S 1411 DF	13	BiM wood long life	280 x 1,27 x 19 6 Tpi (4,2 mm)	5	х									x
25810 4	S 1110 DF	13	BiM wood long life	205 x 1,57 x 22 6 Tpi (4,2 mm)	5	х									
24041 3	S 922 HF	13	BiM metal	130 x 0,9 x 19 10 Tpi (2,5 mm)	5				X						
24040 6	S 1211 H	13	BiM metal	260 x 0,9 x 19 10 Tpi (2,5 mm)	5				X						
25809 8	S 1122 HF	13	BiM metal	205 x 1,57 x 22 10 Tpi (2,5 mm)	5										
25811 1	S 922 VF	14	BiM metal vario	130 x 0,9 x 19 10/14 Tpi (2,5/1,8 mm)	5	Х									
25808 1	S 1122 VF	14	BiM metal vario	205 x 0,9 x 19 10/14 Tpi (2,5/1,8 mm)	5	х									
25807 4	S 1222 VF	14	BiM metal vario	260 x 0,9 x 19 10/14 Tpi (2,5/1,8 mm)	5	X									
27640 5	S 1136 BEF	14	BiM metal vario	205 x 0,9 x 25 10/14 Tpi (2,5/1,8 mm)	5										
25815 9	Innovation	14	BiM metal rough	130 x 0,9 x 19 8 Tpi (1,3 mm)	5				X						
25814 2	Innovation	14	BiM metal rough	180 x 0,9 x 19 5 Tpi (1,7 mm)	5				Х						
27636 8	S 123 XF	14	BiM metal TWIN	130 x 0,9 x 19 10/14 Tpi (2,5/1,8 mm)	5		х		х						
27637 5	S 3456 XF	14	BiM metal TWIN	205 x 0,9 x 19 10/14 Tpi (2,5/1,8 mm)	5		х		х						
28050 1	S 1211 H	14	BiM metal TWIN	260 x 0,9 x 19 10/14 Tpi (2,5/1,8 mm)	5				х						
24036 9	S 922 BF	15	BiM metal fine	130 x 0,9 x 19 14 Tpi (1,8 mm)	5				X						
24038 3	S 1122 BF	15	BiM metal fine	180 x 0,9 x 19 14 Tpi (1,8 mm)	5				х						
24037 6	S 922 EF	15	BiM metal extra	130 x 0,9 x 19 18 Tpi (1,4 mm)	5										
24039 0	S 1122 EF	15	BiM metal extra	180 x 0,9 x 19 18 Tpi (1,4 mm)	5										
24047 5	S 522 AF	15	BiM metal super	80 x 0,9 x 19 24 Tpi (1 mm)	5										
24048 2	S 922 AF	15	BiM metal super	130 x 0,9 x 19 24 Tpi (1 mm)	5										
25812 8	S 518 EHM	15	CARBIDE metal extra	95 x 1,25 x 19 18 Tpi (1,4 mm)	2			X		X			Х		
31054 3	S 955 CHM	16	CARBIDE metal pro	130 x 1,5 x 25 8 Tpi (3,2 mm)	1			X	X			X	X		
31055 0	S 1155 CHM	16	CARBIDE metal pro	205 x 1,5 x 25 8 Tpi (3,2 mm)	1			Х	Х			Х	Х		
27639 9	S 1241 HM	16	CARBIDE masonry	280 x 1,3 x 19 3 Tpi (8,5 mm)	1								X	X	
31051 2	S 2041 HM	16	CARBIDE masonry	380 x 1,3 x 19 3 Tpi (8,5 mm)	1								Х	X	
31052 9	S 1243 HM	16	CARBIDE masonry pro	260 x 1,5 x 50 2 Tpi (8,5 mm)	1									X	
31053 6	S 2243 HM	16	CARBIDE masonry pro	410 x 1,5 x 50 2 Tpi (8,5 mm)	1									х	
25813 5	S 1130 Riff	16	CARBIDE grit	210 x 1,05 x 19 Riff	2								х		
31056 7	S 1050 RD	17	DIAMOND pro	180 x 1,05 x 19 Riff	1								х		
31060 4	S 1113 AWP	17	HCS insulation	200 x 1,27 x 19 W	3						x				
27635 1	S 1213 AWP	17	HCS insulation	280 x 1,27 x 19 W	3						х				
31061 1	S 2013 AWP	17	HCS insulation	430 x 1,27 x 19 W	2						x				
31062 8	Innovation	17	HCS insulation	480 x 1,4 x 29 W	1						х				
27499 9	mixed	17	Mix Set		5										
29764 6	Handgriff	17	Multihandle		1										

Aerated concrete	GRP	Plasterboard	Hardwood	Rubber	Cast steel pipes	Hard wood	Wood with metal residues	Ceramics	Plastic-coated panels/ HPL	Leather	Cardboard/paper	Perspex	Stainless steel	Steel	Cast steel pipes	Steel profiles	Steel pipes	Polystyrene	Carpet	Tiles
		х							x											
			Х			х	х													
			X						x											
			Х																	
									X											
									x x											
													x	x		x	x			
							х						х	х		х	х			
							x x							x x		x x	x x			
							x							x		x	X			
							X							X		X	X			
							x x		X X					x x		x x	x x			
							x							x		x	X			
							х							х		х	х			
							X						х	x x		x x	x x			
													х	х		x	x			
													X	X		X	X			
													x x	x x		x x	x x			
													х	X		X	Х			
	х			x	х		x					X	x	x	х	x	x			
				X	X		X						x	X	X	X	X			
х	х	X				x														х
x	X	x				X														x
X		X																		x
	х				x										x					x
	X			x	X			X		x	x				X			x	x	X
				X					х	X	X							X	X	
				x						x	x							x	x	
				X						X	X							X	X	



CIRCULAR SAW BLADES

Heller Tools offers a large selection of circular saw blades for professional applications in a wide range of materials and for various saws.

SAW TYPES

(Cordless) handheld circular saw (also plunge-cut saw)



Hand-guided, portable circular saw for mobile use. The cutting depth and angle can typically be adjusted. The use of a guide rail is recommended for particularly precise cutting. The trend is towards battery-operated saws here that offer even more flexibility.

Circular table saw



Stationary or semi-stationary machines with a static machine table. Ideal for cutting larger work-pieces lengthwise or crosswise. Battery-operated lightweight saws for on-site use are available.

Pull/crosscut/ mitre saw



Stationary or semi-stationary machines with a fixed stop for cutting beams, boards, panels or sections to length, typically adjustable in terms of tilt and mitre angle, and with the ability to set a cutting depth limit. Special designs for pull function for particularly wide workpieces.

Brush cutters



Some brush cutters for gardening can be fitted with circular saw blades for special applications.

CUTTING MATERIALS

Depending on the requirements for cutting speed and service life of the saw blade, one of the following cutting materials can be chosen as a function of the material to be processed:

Cutting material	Material
HM - Carbide (=TC / tungsten carbide) teeth, soldered onto the blade body	For all types of wood, non-ferrous metals, sheet steel or steel sections
DP - Diamon - carbide teeth coated with industrial diamonds	For abrasive materials such as fibre cement, plasterboard or aerated concrete

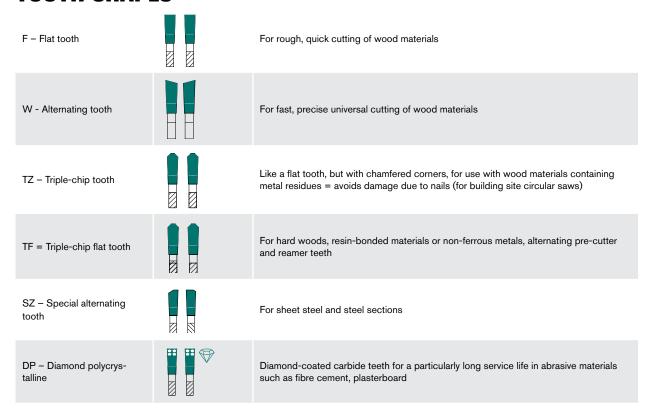
CUTTING DIRECTION

Rip cutting: Longitudinal separating cutting along the grain in solid wood; this usually produces longer chips and therefore requires more clearance in front of the saw tooth to be able to clear out the wood chips in the best possible way. Typically moderate material tear out on the entry and

exit sides.

Cross cutting: Separating cutting across the grain in solid wood; creates short/fine wood chips. As the likelihood of material tear-out on the exit side is higher, saw blades with lower teeth per inch count are preferable.

TOOTH SHAPES



TOOTH RAKE ANGLE



Positive tooth rake angle:

As the saw tooth rake angle opposite to the cutting direction becomes steeper, the saw cuts more aggressively and faster. However, the cutting pressure increases in proportion to this, that is, the force required to complete the cut.



Negative:

A negative tooth rake angle reduces the cutting pressure, but also means a slower cutting speed. This is used for compound mitre saws in particular where cross-cutting is the norm.

TEETH PER INCH

Coarse	For rough, quick cutting, often lengthwise, that is, with the grain
Medium	Universal tpi for rip and cross-cutting of wood materials
Fine	Fore precise cutting, often across the grain
Ultra fine	For particularly precise cutting, in particular of hard or brittle materials, often across the grain

SPEED BLADES

PROFESSIONAL CIRCULAR SAW BLADES

Reliable, safe, durable, fast - Quality Made in Germany.







PRODUCT DESCRIPTION

- · Precision ground for clean rip- and cross-cutting
- · Extremely durable, safe and fast thanks to induction-brazed carbide teeth
- · For a variety of materials
- · Compatible with saws from all manufacturers









Diameter 136-450 mm Cutting width 1,6–4 mm



















OVERVIEW OF WOOD-CUTTING CIRCULAR SAWS

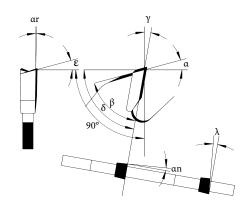
Art. 4010159-	Describtion	Dimensions	Special feature/Extra	Comer angle	Chip angle	Clearance angle	Cutting material	Solid wood, rip-cutting	Solid wood, cross-cut- ting
Wood & Plas	tics								
29553 6	Battery-powered hand-held circular saw	136 x1,6 x 20 T18 W (g)	Thin cutting	15.00°	20.00°	15.00°	HW	х	
29554 3	Battery-powered hand-held circular saw	136 x1.6 x 20 T36 W (f)	Thin cutting	15.00°	20.00°	15.00°	HW		x
29555 0	Battery-powered hand-held circular saw	160 x1.6 x 20 T18 W (g)	Thin cutting	15.00°	20.00°	15.00°	HW	х	
29556 7	Battery-powered hand-held circular saw	160 x1.6 x 20 T36 W (f)	Thin cutting	15.00°	20.00°	15.00°	HW		х
29557 4	Battery-powered hand-held circular saw	165 x1.8 x 20 T18 W (g)	Thin cutting	15.00°	20.00°	15.00°	HW	х	
29558 1	Battery-powered hand-held circular saw	165 x1.8 x 20 T36 W (f)	Thin cutting	15.00°	20.00°	15.00°	HW		x
29559 8	Battery-powered hand-held circular saw	184 x1.8 x 20 T18 W (g)	Thin cutting	15.00°	20.00°	15.00°	HW	x	
29560 4	Battery-powered hand-held circular saw	184 x1.8 x 20 T36 W (f)	Thin cutting	15.00°	20.00°	15.00°	HW		x
29561 1	Hand-held circular saw	160 x2.6 x 20 T18 W (w)		15.00°	15.00°	12.00°	HW	x	
29562 8	Hand-held circular saw	160 x2.6 x 20 T36 W (f)		15.00°	15.00°	15.00°	HW		x
29563 5	Hand-held circular saw	160 x2.6 x 20 T48 W (x)		10.00°	12.00°	120.00°	HW		х
29564 2	Hand-held circular saw	165 x2.6 x 20 T24 W (w)		15.00°	15.00°	15.00°	HW	x	
29565 9	Hand-held circular saw	165 x2.6 x 20 T36 W (f)		15.00°	15.00°	15.00°	HW		х
29566 6	Hand-held circular saw	190 x 2.6 x 30 T16 F (g)		0.00°	10.00°	12.00°	HW	x	
29567 3	Hand-held circular saw	190 x2.6 x 30 T30 W (f)		15.00°	15.00°	15.00°	HW	x	x
29568 0	Hand-held circular saw	190 x2.8 x 30 T40 W (x)		15.00°	15.00°	15.00°	HW		x
29569 7	Hand-held circular saw	210 x 2.8 x 30 T16 F (g)		0.00°	15.00°	12.00°	HW	x	
29570 3	Hand-held circular saw	210 x2.6 x 30 T30 W (f)		15.00°	15.00°	12.00°	HW	х	x
29571 0	Hand-held circular saw	210 x2.6 x 30 T40 W (x)		15.00°	15.00°	15.00°	HW		x
29572 7	Hand-held circular saw	230 x 3 x 30 T20 F (g)		0.00°	10.00°	12.00°	HW	x	
29573 4	Hand-held circular saw	230 x3 x 30 T36 W (f)		15.00°	15.00°	15.00°	HW	x	x
29574 1	Hand-held circular saw	230 x3 x 30 T48 W (x)		15.00°	15.00°	15.00°	HW		x
29747 9	Hand-held circular saw	235 x3 x 30 T20 W (g)		15.00°	15.00°	12.00°	HW	x	
29748 6	Hand-held circular saw	235 x3 x 30 T36 W (f)		15.00°	15.00°	15.00°	HW	x	x
29575 8	Mitre saw	216 x2.8 x 30 T48 W neg (f)		10.00°	-5.00°	15.00°	HW	x	х
29576 5	Mitre saw	216 x3 x 30 T60 W neg (x)		10.00°	-5.00°	15.00°	HW		х
29577 2	Mitre saw	250 x3.2 x 30 T48 W neg (f)		10.00°	-5.00°	15.00°	HW	x	х
29578 9	Mitre saw	250 x3.2 x 30 T60 W neg (x)		10.00°	-5.00°	15.00°	HW		х
29749 9	Mitre saw	305 x3.2 x 30 T60 W neg (x)		10.00°	-5.00°	15.00°	HW		х
29584 0	Circular table saw	250 x3.2 x 30 T42 W (w)		10.00°	10.00°	15.00°	HW		х
29585 7	Circular table saw	250 x3.2 x 30 T60 W (f)	Low-noise	10.00°	10.00°	15.00°	HW	x	х
29586 4	Circular table saw	250 x3.2 x 30 T80 W (x)	Low-noise	10.00°	8.00°	15.00°	HW	x	x
29587 1	Circular table saw	300 x3.2 x 30 T48 W (w)		10.00°	10.00°	15.00°	HW		х
29588 8	Circular table saw	300 x3.2 x 30 T72 W (f)	Low-noise	10.00°	10.00°	15.00°	HW	x	х
Wood with na	ails								
29579 6	Circular table saw	300 x3.2 x 30 T20 TZ (b)	Avoids damage due to nails	45° x 1/3	8.00°	12.00°	HW	х	х
29580 2	Circular table saw	315 x3.2 x 30 T20 TZ (b)	Avoids damage due to nails	45° x 1/3	8.00°	12.00°	HW	x	х
29581 9	Circular table saw	350 x3.5 x 30 T24 TZ (b)	Avoids damage due to nails	45° x 1/3	8.00°	12.00°	HW	х	х
29582 6	Circular table saw	400 x3.8 x 30 T28 TZ (b)	Avoids damage due to nails	45° x 1/3	8.00°	12.00°	HW	х	x
29583 3	Circular table saw	450 x4 x 30 T32 TZ (b)	Avoids damage due to nails	45° x 1/3	8.00°	12.00°	HW	х	x

nels,	ls,	ils,		б	Ü	າm, ລa,	olex	Вu	mi- 7.	es	PC	
Solid multiplex panels, rip-cutting	Solid wood panels, rip-cutting	Solid wood panels, cross-cutting	oard)	Chopstick board (STAE)	Chipboard (FPY), veneered board (FU)	PA, PMMA > 10mm, CPL,OSB, Trespa, GRP, CFRP	MDF, HDF, Multiplex	Soft fibre insulating board (HFD)	High Pressure Lami- nate, Resopal (HPL)	Veneers of all types (FU)	PE, PU, PVC, PP, PC <10mm	8mm
multiplex paripering	id wood par rip-cutting	W00C	CLV board (ST)	pstick (STA	boarc red bo	MMA OSB, RP, C	HDF,	ibre ir oard (1	Pressu	ars of (FU	J, PVC, PI <10mm	ABS >6mm
olid m		Solid		Cho	Chip	PA, PI CPL, G	MDF,	Soft f	High F	Vene	ű G	₹
S											ш.	
х	X	x										
x	X	*										
		x										
х	х											
		X										
х	X	X										
x	x											
		x										
		x	x	х	х	x	х					
x	x											
x	X	X										
x	x	x										
		x	x	х	х	x						
x	x											
x	x	x										
		x	x	X	х	x						
x x	x x	x										
-		x	x	x	х	x						
x	x											
x	x	x										
х	x	x										
x	x	x x	X		Х	Х	X		х		X	х
*	*	x	х		х	x	x		х		x	x
		x	x		х	x	х		x		x	x
x	x	x	x	x			x	x		X		
		x	x				х	x		X		
	x	X	x x	x x	Х		x x	x x				
x	*	x	X	*				X		x		
	,	.,										
	Х	Х										
	х	x										
	х	x										
	x	x										
	x	X										

OVERVIEW OF SPECIAL & METAL-CUTTING CIRCULAR SAWS

	Art. 4010159-	Describtion	Dimensions	Special feature/Extra	(ɛ) Corner angle	(γ) Chip angle	(αn) Clearance angle	Cutting material	Solid multiplex panels, rip-cutting	
	HPL boards & nor	n-ferrous metals								
	29745 5	Hand-held circular saw	165 x2.8 x 20 T52 TF (x)		40° x 1/3	0.00°	15.00°	HW	x	
	29746 2	Hand-held circular saw	190 x2.8 x 30 T54 TF (x)		40° x 1/3	0.00°	15.00°	HW	х	
	29860 5	Mitre saw	216 x3.2 x 30 T64 TF neg (x)		40° x 1/3	-5.00°	15.00°	HW		
	29861 2	Mitre saw	250 x3.4 x 30 T80 TF neg (x)		40° x 1/3	-5.00°	15.00°	HW		
	Fibre cement									
	29750 9	Hand-held circular saw	160 x2.2 x 20 T4 DP (g)	Diamond coated				DP		
∇	29751 6	Hand-held circular saw	190 x2.2 x 30 T6 DP (g)	Diamond coated				DP		
	29752 3	Mitre saw	216 x2.4 x 30 T8 DP (g)	Diamond coated				DP		
	Sheet steel & stee	el sections								
	31041 3	Hand-held circular saw	160 x2.2 x 20 T30 SZ (f)	Dry cutters	10° x 1/3	0.00°	10.00°	HW		
	31042 0	Hand-held circular saw	190 x2.2 x 30 T38 SZ (f)	Dry cutters	10° x 1/3	0.00°	10.00°	HW		
	31043 7	Mitre saw	216 x2.2 x 30 T40 SZ (f)	Dry cutters	10° x 1/3	0.00°	10.00°	HW		

ANGLE DESIGNATIONS



Symbol	Name	Name
α	Alpha	Clearance angle
an	Alpha n	Tangential clearance angle
αr	Alpha r	Radial clearance angle
β	Beta	Sharpening angle
γ	Gamma	Chip angle
δ	Delta	Cutting angle = $\alpha + \beta$
λ	Lambda	Axial angle
ε	Epsilon	Corner angle

Solid wood panels, cross-cutting	CLV board (ST)	Chopstick board (STAE)	Chipboard (FPY), ve- neered board (FU)	PA, PMMA >10mm, CPL,OSB, Trespa, GRP, CFRP	High Pressure Laminate, Resopal (HPL)	Fibre cement	Plasterboard	non-ferrous metals	Sheet steel/steel sections
x	х	x	х	x	x			x	
x	х	x	х	x	x			x	
					x			x	
					x			x	
			x			х	х		
			х			x	x		
			x			О	0		
								x	х
								x	x
								x	x



OSCILLATING MULTIFUNCTIONAL TOOLS

Oscillating multitools were originally developed for medical applications, but their flexibility and precision have also made them popular in construction and industry.

Heller Tools offers a wide selection of professional quality oscillating tools for various applications and materials. We use the state-of-the-art Starlock connection with its highly professional engineering. This fits the vast majority of oscillating tools, also known as multitools or multicutters. Starlock features 35% improved power transmission and particularly quick and easy tool changes.

Typical applications













OSCILLATING TOOLS



Sawing, cutting, scraping with the new Starlock connection - high-tech tools for professionals

PRODUCT DESCRIPTION

- · Comprehensive range for various materials Wood, metal, steel, stone, aluminium, copper, concrete, plaster/ render, plastics, silicone, etc.
- · Extremely long service life and professional quality
- · Various shapes and toothing for different tasks
- · As a saw, scraper & knife for optimal use of the multitool
- · With original Starlock connector, perfect for Bosch and Fine Starlock multitools
- · The patented Starlock system guarantees optimum power transmission and simplest clamping and unclamping of tools





Website info

COMPATIBLE WITH MACHINES FROM THE FOLLOWING MANUFACTURERS:

- ✓ FEIN MultiTalent *
- ✓ FEIN MultiMaster *
- ✓ FEIN SuperCut *
- ✓ Bosch OIS + Starlock *
- * Registered trademarks

- ✓ Bosch Starlock Plus & Max *
- Craftsman *
- Hitachi *
- ✓ Makita *
- ✓ Metabo *
- Milwaukee *
- ✓ Rockwell *
- ✓ Ryobi *
- ✓ Skil *
- ✓ Ridgid *



















HCS wood & PLASTIC SAW

Set toothing for all wood, plasterboard and plastic materials, high cut quality and good cutting speed. Medium width, tapered shape for optimum cutting speed and good chip removal. Includes depth gauge.



Art. 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Pack- aging unit
29530 7	HCS WOOD & PLASTIC SAW	42	33,5	0,8	HCS	1,4	18	1
29531 4	HCS WOOD & PLASTIC SAW	42	33,5	0,8	HCS	1,4	18	3

Professional Plus







HCS wood & PLASTIC SAW

Set toothing for all wood, plasterboard and plastic materials, high cut quality and good cutting speed. Curved cutting geometry for optimum plunging behaviour and clean, precise cutting edges. Includes depth gauge.



Art. 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Pack- aging unit
29532 1	HCS WOOD & PLASTIC SAW	42	65	0,85	HCS	1,4	18	1
29533 8	HCS WOOD & PLASTIC SAW	42	65	0,85	HCS	1,4	18	3

Professional Plu







BIM WOOD PRECISION SAW

Bi-metal with double-row HSS Japanese toothing for all wood materials, plasterboard and soft plastics. Longer service life and improved robustness. Fastest progress of work and greatest precision. Includes depth gauge.



	465							
Art.) 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Pack- aging unit
29539 0	BIM WOOD PRECISION SAW	42	65	0,9	BIM (HSS)	1,75	14	1
29540 6	BIM WOOD PRECISION SAW	42	65	0,9	BIM (HSS)	1,75	14	3







BIM WOOD PRECISION SAW

Bi-metal with double-row HSS Japanese toothing for all wood materials, plasterboard and soft plastics. Longer service life and improved robustness. Fastest progress of work and greatest precision. Includes depth gauge.



Art. 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Pack- aging unit
29538 3	BIM WOOD PRECISION SAW	42	33,5	0,9	BIM (HSS)	1,75	14	1

Professional Plus







BIM WOOD & NAIL SAW

Bi-metal with set HSS wood toothing for all woods, plasterboard and plastic materials. Excellent service life, high cut quality and good work progress. Extremely robust, insensitive even to nails, masonry, etc., in the wood, includes depth gauge.







Art. 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Packag- ing unit
29534 5	BIM WOOD & NAIL SAW	44	10	0,85	BIM (HSS)	1,4	18	1
29536 9	BIM WOOD & NAIL SAW	42	33,5	0,85	BIM (HSS)	1,4	18	1
311403	BIM WOOD & NAIL SAW	34	20	0,85	BIM (HSS)	1,4	18	1
29535 2	BIM WOOD & NAIL SAW	44	10	0,85	BIM (HSS)	1,4	18	3

Professional Plus







BIM WOOD & NAIL SAW

Bi-metal with set HSS wood toothing for all woods, plasterboard and plastic materials. Excellent service life, high cut quality and good work progress. Extremely robust, insensitive even to nails, masonry, etc., in the wood.



Art.) 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Pack- aging unit
29537 6	BIM WOOD & NAIL SAW	42	65	0,85	BIM (HSS)	1,4	18	1







BIM METAL & WOOD SAW

Bi-metal with corrugated HSS universal toothing. Wide range of applications for sheet metal up to 2 mm, aluminium profiles, copper pipes, wood, plasterboard and plastics. Includes depth gauge.





Art., 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Packag- ing unit
29541 3	BIM METAL & WOOD SAW	47	28	0,95	BIM (HSS)	1,4	18	1
29543 7	BIM METAL & WOOD SAW	47	43,6	0,95	BIM (HSS)	1,4	18	1
29542 0	BIM METAL & WOOD SAW	47	28	0,95	BIM (HSS)	1,4	18	3
29544 4	BIM METAL & WOOD SAW	47	43,6	0,95	BIM (HSS)	1,4	18	3





BIM METAL FINE SAW

Bi-metal with fine HSS toothing for sheet metal up to 2 mm, aluminium profiles, Cu pipes. Also for GRP and other hard plastics. Extremely precise and very good control of cutting with particularly thin kerf. Includes depth gauge.



Art. 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Pack- aging unit
29545 1	BIM METAL FINE SAW	42	30	0,6	BIM (HSS)	1,2	21	1

Orofoccional Dive







TCT METAL & WOOD SAW

Extremely wear-resistant carbide toothing for hard metals such as hardened screws (Spax) and high-strength machine screws. Also for abrasive materials such as brick, masonry, cement fibreboard, laminate and GRP/CRP. Includes depth gauge.



Art. 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Tooth pitch (mm)	Teeth per inch (tpi)	Pack- aging unit
31139 7	TCT METAL & WOOD SAW	40	32	1,31	Carbide	1,2	21	1







TC HARD MATERIAL SAW

For cutting out damaged tile joints. Also for milling slots in plaster/render, aerated concrete and similar building materials, as well as for cleaning and reworking bar deck joints. Not suitable for very hard epoxy or cement joints. The economical alternative to diamond tools.



Art.) 4010159-	Product name	Diameter [mm]	Cutting width [mm]	Cutting material	Pack- aging unit	
29547 5	TC HARD MATERIAL SAW	75	2,2	Carbide	1	









DIAMOND HARD MATERIAL SAW

For cutting marble, epoxy resin and trass joints. Excellent service life. Also suitable for very hard epoxy or cement joints. The right choice for frequent use and demanding tasks.



Professional Plus







HCS SOFT MATERIAL SAW

For all soft materials. Segmented, ideal for working in corners and on edges without overcut.



ı	Art.,	Product name	Diameter [mm]	Cutting width [mm]	Tooth pitch (mm)	Teeth per inch (tpi)	Cutting material	Pack- aging unit
	29546 8	HCS SOFT MATERIAL SAW	85	0,8	1,5	17	V2A	1







GLUE SCRAPER FIXED

For removing old paint, adhesive residues, carpeting, underbody coatings and silicone or acrylic joints.



Art.) 4010159-	Product name	Length [mm]	Width [mm]	Cutting width [mm]	Cutting material	Pack- aging unit
29549 9	GLUE SCRAPER FIXED	37,5	52	0,8	HCS	1





MULTI BLADE WITH 3 BLADES

For cutting carpet, PVC flooring, cardboard, bitumen shingles and roofing felt. With three cutting surfaces.



Art. 4010159-	Product name	Length [mm]	Width [mm]	Cutting material	Pack- aging unit
29548 2	MULTI BLADE WITH 3 BLADES	33	41	HCS	1





HM DELTA RASP

For rasping filler, tile adhesive, concrete, stone and wood.



4010159- 31037 6	Product name HM DELTA RASP	Blade diameter [mm]	Blade width [mm]	Cutting material Carbide	aging unit
(Art.)	Product come	Blade Boundary [com]	Districtible form	0.44	Pack-





TCT FILE

For deburring and filing CRP/GRP materials, plastics and wood. Particularly well suited for small recesses.



Art., 4010159-	Product name	Blade diameter [mm]	Blade width [mm]	Cutting width [mm]	Cutting material	Pack- aging unit
31141 0	TCT FILE	30	10	2,3	Carbide	1

Professional Plus



SANDING PAD TRIANGLE

Different shapes and sizes for perfect sanding – from the smallest recesses at corners and edges up to large surfaces. Plastic carrier plates to avoid damage and marks on the workpiece. Perforated designs for effective dust removal directly through the sanding plate. Secure seating of the sandpaper due to hook and loop fastener. Suitable for abrasive media by brand-named manufacturers.



Art. 4010159-		Length [mm]	Width [mm]	Packaging unit
29550 5	SANDING PAD TRIANGLE	93	93	1

Professional Plus







STARLOCK TILER SET

The Starlock Tiler Set in a rugged plastic case perfectly complements individual tools. The four tools included are perfectly matched to the requirements of tile and floor laying applications. Other Starlock items can be added to the case as required.



Art. 4010159-	Product name	Length [mm]	Width [mm]	Packaging unit
29547 5	TC HARD MATERIAL SAW	1	1	1
31037 6	HM DELTA RASP	80	80	1
29530 7	HCS WOOD & PLASTIC SAW	42	33,5	1
29549 9	GLUE SCRAPER FIXED	37,5	52	1







STARLOCK UNIVERSAL SET

The Starlock Universal Set in a rugged plastic case perfectly complements individual tools. It includes four general-purpose tools and covers a wide range of applications.







Art. 4010159-	Product name	Length [mm]	Width [mm]	Packaging unit
29546 8	HCS SOFT MATERIAL SAW	1	/	1
29543 7	BIM METAL & WOOD SAW	47	43,6	1
29541 3	BIM METAL & WOOD SAW	47	28	1
29538 3	BIM WOOD PRECISION SAW	42	33,5	1

PRODUCT RANGE

Art. 4010159-	Article name	Size in mm	Material	heller
29530 7	HCS wood & plastic saw	50 x 35	Wood & plastic	1
29531 4	HCS wood & plastic saw	50 x 35	Wood & plastic	3
31038 3	HCS wood & plastic saw	50 x 35	Wood & plastic	50
29532 1	HCS wood & plastic saw C	50 x 65	Wood & plastic	1
29533 8	HCS wood & plastic saw C	50 x 65	Wood & plastic	3
29534 5	BIM wood & nail saw	30 x 10	Wood & nails	1
29535 2	BIM wood & nail saw	30 x 10	Wood & nails	3
29536 9	BIM wood & nail saw	50 x 35	Wood & nails	1
29537 6	BIM wood & nail saw	50 x 65	Wood & nails	1
29538 3	BIM wood precision-cutting saw	50 x 35	Wood precision-cutting	1
31039 0	BIM wood precision-cutting saw	50 x 35	Wood precision-cutting	50
29539 0	BIM wood precision-cutting saw	50 x 65	Wood precision-cutting	1
29540 6	BIM wood precision-cutting saw	50 x 65	Wood precision-cutting	3
31005 5	BIM wood precision-cutting saw	50 x 65	Wood precision-cutting	50
29541 3	BIM metal and wood saw	50 x 28	Metal & wood	1
29542 0	BIM metal and wood saw	50 x 28	Metal & wood	3
31006 2	BIM metal and wood saw	50 x 28	Metal & wood	50
29543 7	BIM metal and wood saw	50 x 44	Metal & wood	1
29544 4	BIM metal and wood saw	50 x 44	Metal & wood	3
29545 1	BIM fine metal saw	50 x 30	Fine metal	1
29546 8	HCS soft materials saw	85	Soft materials	1
29547 5	TC hard materials saw	75 x 2.2	Joints & hard materials	1
29726 4	Diamond saw blade	75 x 2.2	Marble, epoxy resin, cement joints	1
29548 2	3x cutter	41 x 41	Carpets, PVC	1
29549 9	Scraper, rugged	34 x 50 x 0.8	Adhesives	1
29550 5	Sanding block - triangular	95	Sanding	1



HOLE SAWS

Our hole saws set new standards in terms of precision, durability and efficiency. These tools combine advanced technology with high quality materials to give you unrivalled performance when creating large holes. At the heart of this is a perfect combination of HCS (High Carbon Steel) for the drill body and a cutting edge material (HSS, HSS-Co or carbide). This bi-metal design not only ensures exceptional cutting performance, but also a long service life, even under the most demanding conditions.

The special tooth geometry ensures optimum chip removal and minimises friction, providing clean and precise cuts. The applications for these hole saws are diverse and range from cutting metal and wood through to plastics.

Whether you are an electrician, contractor, plumber, carpenter or metalworker – our hole saws are the perfect choice for

your individual requirements. Experience effortless precision and efficiency with every cut. The high-quality materials and innovative technology, optimise your work processes helping you to achieve professional results with ease.

HSS CO

STAINLESS-STEEL HOLE SAW



For premium-grade materials up 1 mm material thickness.





PRODUCT DESCRIPTION

Hole saw for recessed sockets, cables and pipe lead-throughs

- Precise holes thanks to 8% cobalt-alloyed high-quality speed steel toothing in bi-metal quality
- · Very smooth running thanks to Variotoothing system
- · Vibration-reduced drilling and fast sawing progress
- Long service life thanks to specially integrated tool steel structure with solid mounting plate
- · Heller tip: Use of cutting oil prolongs the service life
- · Accessories 934, 935, 936 (see page 165) Shank seat with pilot bit, pilot bit, ejector spring



Website info

Art. 4010159				heller
26632 1	16	38	48	1
26634 5	19	38	48	1
26635 2	20	38	48	1
26637 6	22	38	48	1
26640 6	25	38	48	1
26641 3	27	38	48	1
26642 0	29	38	48	1
26643 7	30	38	48	1
26644 4	32	38	48	1
27414 2	35	38	48	1
26645 1	38	38	48	1
26646 8	40	38	48	1
26647 5	44	38	48	1
26650 5	51	38	48	1
26652 9	57	38	48	1
26653 6	60	38	48	1
26654 3	64	38	48	1
26656 7	68	38	48	1
26657 4	70	38	48	1
27395 4	83	38	48	1
27396 1	105	38	48	1





















HSS

BI-METAL HOLE SAW

The universal professional for reliable results.





PRODUCT DESCRIPTION

- Quick advance and no jamming thanks to Vario-Pitch tooth system
- · Neat, circular holes thanks to precision manufacturing
- · Break-proof design thanks to alloyed tool steel and solid mounting plate
- · Accessories: adapter, pilot bit and ejector spring available separately





















Diameter 14-203 mm



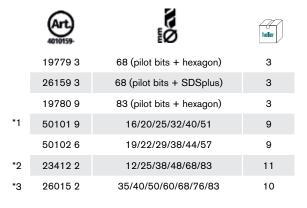




Art)	Ö	E C		heter
11903 0	14	32	1/2"-20	1
11904 7	16	32	1/2"-20	1
11905 4	17	32	1/2"-20	1
19071 8	19	32	1/2"-20	1
19072 5	20	32	1/2"-20	1
19073 2	22	32	1/2"-20	1
17907 2	24	32	1/2"-20	1
19074 9	25	32	1/2"-20	1
19908 7	27	32	1/2"-20	1
19909 4	29	32	1/2"-20	1
19075 6	30	32	1/2"-20	1
19076 3	32	32	5/8"-18	1
19910 0	33	32	5/8"-18	1
19077 0	35	32	5/8"-18	1
19078 7	38	32	5/8"-18	1
19079 4	40	32	5/8"-18	1
19912 4	41	32	5/8"-18	1
19913 1	43	32	5/8"-18	1
19080 0	44	32	5/8"-18	1
19914 8	46	32	5/8"-18	1
19915 5	48	32	5/8"-18	1
19081 7	50	32	5/8"-18	1
19916 2	51	32	5/8"-18	1
19917 9	52	32	5/8"-18	1
19082 4	54	32	5/8"-18	1
19083 1	57	32	5/8"-18	1
19084 8	60	32	5/8"-18	1
19085 5	64	32	5/8"-18	1
19918 6	65	32	5/8"-18	1
19919 3	67	32	5/8"-18	1
19086 2	68	32	5/8"-18	1
19087 9	70	32	5/8"-18	1
19920 9	73	32	5/8"-18	1
19088 6	76	32	5/8"-18	1
19921 6	79	32	5/8"-18	1
19089 3	83	32	5/8"-18	1
19922 3	86	32	5/8"-18	1
19090 9	89	32	5/8"-18	1
19923 0	92	32	5/8"-18	1
19924 7	95	32	5/8"-18	1
19925 4	98	32	5/8"-18	1
19091 6	102	32	5/8"-18	1
19926 1	105	32	5/8"-18	
24536 4	108	32	5/8"-18	1

Art. 4010159-	Ē	w C		heller
19927 8	111	32	5/8"-18	1
19928 5	114	32	5/8"-18	1
19929 2	121	32	5/8"-18	1
19930 8	127	32	5/8"-18	1
28801 9	133	32	5/8"-18	1
19931 5	140	32	5/8"-18	1
28802 6	146	32	5/8"-18	1
19932 2	152	32	5/8"-18	1
28803 3	168	32	5/8"-18	1
28804 0	177	32	5/8"-18	1
28805 7	203	32	5/8"-18	1

SETS







0934 SHANK SEAT AND PILOT BITS



Art. 4010159-		Shaft	Thread	heller
50103 3	14-30	HEX 9.5	1/2" x 20	1
190923	14-30	Triangular	1/2" x 20	1
19093 0	14-30	HEX 11	1/2" x 20	1
19094 7	32-203	HEX 11	5/8" x 18	1
10070 0	14-30	SDS-plus	1/2" x 20	1
10071 7	32-203	SDS-plus	5/8" x 18	1
100717	02 200	ODO-pius	3/0 X 10	'

0935 PILOT BITS



0936 EJECTOR SPRING



0927 **CUTTING PASTE**



0941 SCRIBERS



Art. 4010159-			
10319 0	7	145	1
10728 0	8	145	1

ALLMAT

GENERAL-PURPOSE HOLE SAW

Hole saw for all installations.



PRODUCT DESCRIPTION

- \cdot A great choice for all trades: sinks sockets & pipes at lightning speed
- · Universally deployable with a variety of materials
- · Long service life thanks to carbide tips that can be re-sharpened
- · Precise positioning when drilling is ensured by the pilot bit





Website info





Diameter 25-105 mm











Art. 4010159		w C	₽	heller of
25945 3	25	65	100	1
25946 0	30	65	100	1
25947 7	35	65	100	1
25948 4	40	65	100	1
25987 3	45	65	100	1
25949 1	50	65	100	1
25950 7	60	65	100	1
25988 0	65	65	100	1
25951 4	68	65	100	1
25952 1	76	65	100	1
26071 8	80	65	100	1
25953 8	82	65	100	1
25954 5	105	65	100	1

COUNTERSINKER



3770 & 3770/18 **ACCESSORIES**



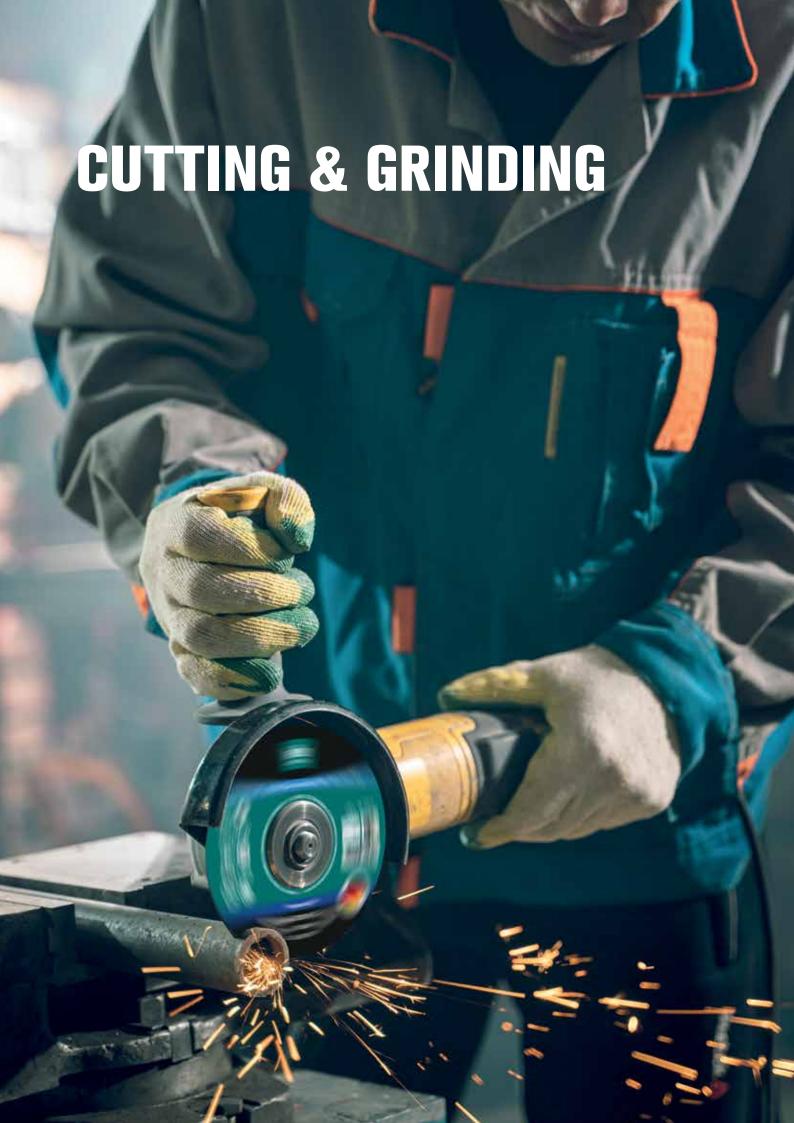
SETS



Art. 4010159-		hala
26029 9	68, HEX	3
26157 9	68, SDS-plus	3
28535 3	68, SDS-plus countersink	4
25956 9	60/68/76/82 HEX	6

PILOT BIT ACCESSORIES







DIAMOND TOOLS



QUALITY FEATURES

In addition to carbide-tipped tools, diamond tools have established themselves on the market for machining very hard materials. Diamond products are an ideal tool for extremely precise, fast and low-vibration applications in many materials as well as for separating cuts or drilling large diameters.

This makes it all the more important to choose a product from a renowned manufacturer when selecting a tool. Heller can draw on decades of experience in the field of diamond tool manufacture.

For example, our products are certified by the OSA (Organisation for the Safety of Abrasive Tools) and in accordance with EN standards (e.g. EN 13236).

DIAMOND TOOL STRUCTURE

All diamond tools consist of at least two parts, a base body 1 and the actual diamond layer 2. The parts of the diamond tool that work their way into the material you are processing, the diamond segments, are just as crucial for the cutting capability and service life as is the connection between the segments and the base body.

The 5 OSA quality features

- **1.** globally protected mark for the highest level of tested safety for cut-off and grinding tools
- **2.** compliance with EN standards and additional oSa requirements
- **3.** regular production inspections and product monitoring
- **4.** regularly audited manufacturers with certified quality management and documented processes
- **5.** high-performance premium products with traceability to the manufacturer





DESIGN AND FUNCTION OF DIAMOND SEGMENTS

Diamond segments are tool-adapted moulds composed of a sinter metal and embedded diamond grains. They are soldered or welded onto the carrier. On account of chip formation, the diamond segments may only be of a limited length in order to allow the worn material particles to be removed from the segment surface via the formed chip grooves. Consequently, the coolant (air or water, depending on the application) must reach the segment surface. A further purpose of the cavities is to remove the machining dust or slurry. In this case, toothed tools demonstrate crucial advantages. Tools with a closed edge, however, provide a better surface and fewer cracks around the edges of the workpieces – crucial for tiles, for instance.

UNIVERSAL PRO PLUS

Universal high-performance cutting disc.





PRODUCT DESCRIPTION

- · Fast and clean cuts even in the hardest reinforced concrete
- · Laser-welded special groove segments for reduced heat generation
- · Suitable for dry and wet cutting
- · Cooling holes for reduced vibration and optimised cooling
- · Suitable for angle grinders and petrol cutters





Art. 4010159-	8			heller
31527 2	115	22,23	12	1
31528 9	125	22,23	12	1
31529 6	150	22,23	12	1
31530 2	230	22,23	15	1
31531 9	300	30	15	1
31532 6	300	25,4	15	1
31533 3	350	20	15	1
31534 0	350	25,4	15	1
31535 7	400	20	15	1
31536 4	400	25,4	15	1





Diameter 115-400mm













UNIVERSAL PRO

Universal cutting disc for concrete and stone.



PRODUCT DESCRIPTION

- · Laser-welded segments
- · 10 mm segment height for long service life
- · Solid core for low-vibration work

Art. 4010159-	8	(3)		heller
31382 7	115	22,23	10	1
31383 4	125	22,23	10	1
31384 1	230	22,23	10	1

Product group 3876



Diameter 115–230mm









UNIVERSAL CLASSIC

Entry-level cutting disc for concrete and stone.



PRODUCT DESCRIPTION

- · Very good price/performance ratio
- · 10 mm segment height for long service life
- · Good cutting ability



Product group 3878













CONCRETE PRO PLUS

Aggressive, laser-welded diamond cutting disc for professional use in concrete.





PRODUCT DESCRIPTION

- \cdot Easy to use in all types of concrete
- · High cutting speed
- · Good service life
- · 10 mm segment height
- · Laser welded no cooling pauses

Art. 4010159-	8	(3)		heller
31543 2	115	22,23	10	1
31544 9	125	22,23	10	1
31545 6	150	22,23	10	1
31546 3	230	22,23	10	1

Product group 3872





Diameter 115–230mm







ROOFTILE PRO

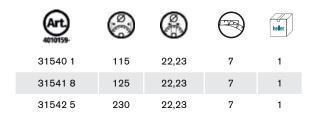
Cutting disc for roof tiles and natural stone.





PRODUCT DESCRIPTION

- · Closed turbo cutting disc for universal use
- · Cuts stone slabs, granite, terrazzo and bricks
- · Suitable for wet and dry cutting



Product group **3879**













CERAMIC PRO PLUS

Premium cutting disc for ceramics and tiles.





PRODUCT DESCRIPTION

- · Closed cutting edge for clean, fast cuts
- · Up to 10 mm segment height for a long service life
- Extra-thin cutting disc for porcelain stoneware and hard-fired tiles
- · Reinforced flange for smooth running and reduced noise
- · For angle grinders

Art. 4010159-	8	(3)		heller
31520 3	115	22,23	10	1
31521 0	125	22,23	10	1
31522 7	230	22,23	7,5	1

Product group 3875





Diameter 115–230mm





CERAMIC PRO

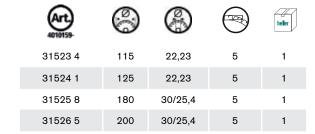
Cutting disc for ceramics and tiles.





PRODUCT DESCRIPTION

- · Closed cutting edge for clean cuts
- · Suitable for angle grinders and tile cutting tables



Product group

3877





Diameter 115-200mm





ONE FOR ALLDIAMOND CUTTING DISC

The all-rounder cutting disc. For all building materials.





PRODUCT DESCRIPTION

- Universal disc for fast cutting of concrete, reinforced concrete, bricks, natural stone, metal, sheet metal, wood, plastic, composite material and much more
- · Can be used dry
- · Very long service life
- · Excellent cutting performance

Art. 4010159-	8		heller
31547 0	125	22.23	1
31548 7	230	22.23	1













Diameter 125-230 mm





DIAMOND CUP WHEEL

UNIVERSAL PRO PLUS

Universal diamond cup wheel for hard stone and abrasive materials.



PRODUCT DESCRIPTION

- · High removal rate
- · Significantly more stock removal and more comfortable handling with double-row design

Art. 4010159-	8	(3)		heller
31392 6	115	22,23	5	1
31393 3	125	22,23	5	1
31394 0	180	22.23	5	1

Product group **3800**













UNIVERSAL PRO

A universally applicable diamond cup wheel for grinding stone and screed floors, but also for concrete burrs and stonemasonry work.



PRODUCT DESCRIPTION

· Good removal rate under normal loads

Art. 4010159-	8	(3)		heller
31390 2	115	22,23	5	1
31391 9	125	22,23	5	1

Product group















RESIN CUTTING DISKS AND ABRASIVE FLAP DISKS

TOP QUALITY

From solid craftsman quality to high-end high-performance tools for intensive industrial use. We offer you precisely the right tool for every requirement.

All products comply with the applicable standards, achieve high specific cutting efficiency and guarantee maximum safety.

A top product belongs in attractive packaging. That's why

SIMPLE DESIGN

Heller has a carefully considered, eye-catching design that communicates visually and impresses your customers. Outstanding product quality and premium branding boost your image as a reseller and quality supplier. Self-explanatory packaging and the printing on the disks themselves make it easier for you to give your customers advice and promote sales.

FIRST-CLASS SAFETY

Heller cutting and grinding disks are manufactured and tested in line with the latest standards, directives and regulations in terms of safety and quality. They comply with the European EN 12 413 safety standard.

Most products also comply with the strictest oSa (Organisation for the Safety of Abrasive Tools) safety guidelines.



.....

The 5 OSA quality features

- **1.** globally protected mark for the highest level of tested safety for cut-off and grinding tools
- **2.** compliance with EN standards and additional oSa requirements
- **3.** regular production inspections and product monitoring
- **4.** regularly audited manufacturers with certified quality management and documented processes
- **5.** high-performance premium products with traceability to the manufacturer

	Powerful machines start at					
		Ø 100	Ø 115	Ø 125	Ø 180	Ø 230
Maahina tuus	Air pressure	> 450 W	> 650 W	> 850 W	> 1600 W	> 1900 W
Machine type	Electro	> 550 W	> 1000 W	> 1200 W	> 2000 W	

SUPERIOR CUT

Extra-thin cutting disc with a very long life and an extremely good price/performance performance ratio.



PRODUCT DESCRIPTION

- · Very low burr formation
- · High cutting ability
- · Low flying spark formation

Art) 4010159-	8	4	₩m+	heller
31420 6	115	22,23	1,0	25
31421 3	115	22,23	1,5	25
31422 0	125	22,23	1,0	25
31423 7	125	22,23	1,5	25
31424 4	150	22,23	1,5	25
31425 1	180	22,23	1,5	25
31426 8	230	22,23	1,9	25

Product group
4301





Diameter 115-230mm







Reliable cutting disc for the price-conscious professional. Ideal for low-drive machines.



PRODUCT DESCRIPTION

- · low burr formation
- · high cutting speed
- · Low flying spark formation

Art. 4010159-	8	(3)		heller
31427 5	115	22,23	1,0	10+1
31428 2	115	22,23	1,5	10+1
31429 9	125	22,23	1,0	10+1
31430 5	125	22,23	1,5	10+1

Product group 4302





Diameter 115-125mm





SUPERIOR CUT

The classic metal cutting disc.
Cuts easily with a good service life.



PRODUCT DESCRIPTION

- · high cutting speed
- · easy cutting
- · Convenient separation behaviour

Art. 4010159-	8	8	→ ←	heller
31433 6	115	22,23	3,0	10
31434 3	125	22,23	3,0	10
31435 0	150	22,23	3,0	10
31436 7	180	22,23	3,0	10
31437 4	230	22,23	3,0	10

Product group
4321





Diameter 115-230mm



SUPERIOR CUT MULTI

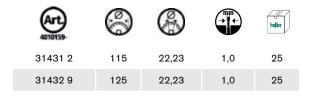


Extra-thin cut-off wheel with a long service life, a wide range of applications and an optimum price-performance ratio.



PRODUCT DESCRIPTION

- · low burr formation
- · high cutting speed
- · Low flying spark formation
- · Low edge chipping



Product group **4311**













FLAP DISC



Zirconia flap disc with fibre backing.

Very good performance on stainless steel and top performance on steel.





PRODUCT DESCRIPTION

· Long service life

	_		
٠	Fast	arinc	lina

· Pleasant grinding behaviour

Art.) 4010159-	(3)	(3)		heller
31438 1	115	22,23	40	10
31439 8	115	22,23	60	10
31440 4	115	22,23	80	10
31441 1	125	22,23	40	10
31442 8	125	22,23	60	10
31443 5	125	22,23	80	10





Diameter 115-125 mm







GRINDING DISC



The classic for the price-conscious specialist grinds easily and with a good tool life. Ideal for low-drive machines.





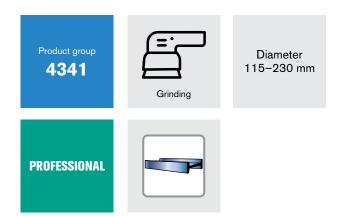
PRODUCT DESCRIPTION

· Pleasant grinding behaviour

· Good stock removal

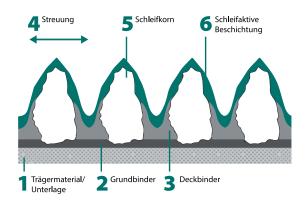
· Long service life

Art. 4010159-	8		mm → +	heller
31444 2	115	22,23	7,0	5
31445 9	125	22,23	7,0	5
31446 6	230	22.23	7.0	5





ABRASIVES ON BACKING



HIGHEST QUALITY

Five factors determine the optimum composition of an abrasive: backing, bond, grain, grit and abrasive coating - the right combination produces the right tool, precisely tailored to your work requirements.

BASE

Most types of backing can be divided into three categories: Paper and film Paper and film-based abrasives are the main types used when processing paints, varnishes and composites. Fabric backings are more durable, offer greater tear resistance compared to paper and can be folded and bent several times during use. Fabric-based abrasives are used in woodworking and, above all, in metalworking.

BINDING

The base binder is used to initially fix the grit to the substrate and is primarily made from synthetic resin. The abrasive grit is then applied evenly using various coating methods to achieve the desired performance.

In a subsequent step, the top binder is applied and ensures a stable bond between the abrasive grains. It also protects them against the forces and optimises grain degradation during the sanding process. This binder is also made from synthetic resin.

GRIT DENSITY

Abrasives on a backing are coated with different grit densities. The term 'grit density' describes the abrasive grain distribution and the distance between them on the backing.

The basic rule is:

Closed grit distribution = surface grinding

Open grit distribution = material removal grinding

GRAIN

The right abrasive grain determines performance, surface quality and cost-effectiveness, as it is largely responsible for grinding and stock removal. The 'hardness' and 'toughness' properties of a grit

type influence the performance of each material application. The grit sizes for coated abrasives range from P12-P2500 and are defined by FEPA (based on the ISO standard).

COATING

Additional coatings with abrasive additives have a positive effect on the sanding process, either by providing cooler sanding performance, preventing clogging or extending the service life of the abrasive. This type of coating is particularly beneficial for materials that

smear easily such as aluminium and paints or materials with poor thermal conductivity such as stainless steel (INOX). These coatings are applied as additional top coats, which sometimes also colour the product. All coatings are suitable for stainless steel (Fe-S free)

Velcro-backed sanding discs



PRODUCT DESCRIPTION

- · Multi-perforation
- · For wood, metal, paint and drywall
- · Very good price/performance ratio







80

10

10

10



£	Econotrio	

32305 5	125	40	5
32306 2	125	80	5
32307 9	125	120	5
32308 6	125	180	5
32300 0	150	40	5
32301 7	150	80	5
32302 4	150	120	5
32303 1	150	180	5
fc	r Drywall s	ander	
32325 3	225	60	10

225

225

225

Product group 4020

32326 0

32327 7

32328 4













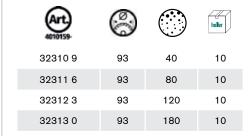
Velcro sanding triangles





PRODUCT DESCRIPTION

- · Perfect preparation for further processing
- · For wood, metal, paint and drywall
- · Low clogging behaviour



Product group
4021









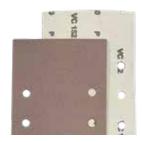




UNIVERSAL & SPECIAL MATERIAL

SUPERIOR GRIND





PRODUCT DESCRIPTION

- · Multi-perforation
- · For wood, metal, paint and drywall
- · Flexible, adaptable paper backing

Art. 4010159-	Width x Length		heller
32315 4	93 x 230 mm	40	10
32316 1	93 x 230 mm	80	10
32317 8	93 x 230 mm	120	10
32318 5	93 x 230 mm	180	10
32320 8	115 x 280 mm	40	10
32321 5	115 x 280 mm	80	10
32322 2	115 x 280 mm	120	10
32323 9	115 x 280 mm	180	10

Sanding sheets



PRODUCT DESCRIPTION

- \cdot For wood, metal, paint and drywall
- · Low clogging behaviour

Art. 4010159-	Width x Length		heller
32329 1	230 x 280 mm	40	25
32330 7	230 x 280 mm	80	25
32331 4	230 x 280 mm	120	25
32332 1	230 x 280 mm	180	25
32333 8	230 x 280 mm	240	25















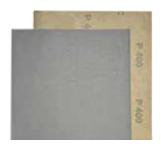








Wet sanding sheets



PRODUCT DESCRIPTION

- · For wood, metal, paint and drywall
- · Low clogging behaviour
- · suitable for wet grinding

Art. 4010159-	Width x Length		heller
32335 2	230 x 280 mm	80	25
32336 9	230 x 280 mm	120	25
32337 6	230 x 280 mm	180	25
32338 3	230 x 280 mm	240	25
32339 0	230 x 280 mm	400	25
32340 6	230 x 280 mm	1000	25

Sanding sponge



PRODUCT DESCRIPTION

- · 4 sides
- \cdot For wood, metal, paint and drywall
- · Good adaptability to contours
- · Can be used dry, damp or wet

Art. 4010159-	Width x Length x Height		heller
32342 0	70 x 100 x 25 mm	60	20
32343 7	70 x 100 x 25 mm	100	20
32344 4	70 x 100 x 25 mm	180	20

























UNIVERSAL SPECIAL MATERIA

SUPERIOR GRIND

Abrasive on roll (paper backing)





PRODUCT DESCRIPTION

- \cdot on a practical 20 metre roll for tearing off
- · For a wide range of materials
- · Optimum adaptability to tight contours and radii

Art)	Width x Length		heller
32351 2	100mm x 20m	40	1
32352 9	100mm x 20m	80	1
32353 6	100mm x 20m	120	1
32354 3	100mm x 20m	180	1















BITS

Heller offers the highest quality bits for professionals in the form of its torsion and impact bits. The bits are characterised by their premium S2 quality and feature high precision head machining for an optimum fit to minimise over-tightening.

Heller bits are suitable for all driving applications, supporting an impact driving option, thanks to their 2 in 1 function with a torsion zone and impact function; they are also a good choice for hard driving applications (hard end stop in very

tough materials) thanks to their torsion zone, which absorbs torque peaks.

Heller Bits are available in the typical forms of common screw types. In addition to individual bits in practical storage boxes, there are also sets in mini boxes.



2 IN 1 TORSION & IMPACT BITS

Premium bits for use in impact machines thanks to impact magnetic holder and special bit design.

- ✓ Combined impact and torsion = 2 in 1 bit
- Can be used in impact machines thanks to impact magnetic holder and special bit design
- ✓ Torsion zone absorbs load on bit head and reduces the risk of breaks
- ✓ Find the right bit quickly thanks to colour coding.
- ✓ Application scope: Hard and soft materials thanks to torsion zone (buffers hard screw-joints)
- ✓ Available in the practical and rugged set box with 32 parts, and as a mini box equipped with 3 or 5 bits
- ✓ S2 quality bronzed in 25, 50 and 90mm with 1/4" connection and PH, PZ, HX, TX drives



UNIVERSAL BITS

Premium bits for professionals.

- ✓ Sets designed for common screw connections
- ✓ Ultra-precise tip machining to minimise the cam-out effect and for best possible torque transmission
- ✓ Premium S2 quality
- ✓ Practical and extremely handy magnet holder
- Available in a particularly attractive and practical MiniBox with sizes 24 and 32 (PH, PZ, HX, TX, TT, SL plus holder, adapter and key) and also as an attractive counter-top display



TORSION & IMPACT

BITS

Premium bits for use in impact machines thanks to impact magnetic holder and special bit design.



PRODUCT DESCRIPTION

- · Combined impact and torsion = 2 in 1 bit
- · Can be used in impact machines thanks to impact magnetic holder and special bit design
- · Torsion zone absorbs load on bit head and reduces the risk of breaks
- · Find the right bit quickly thanks to colour coding
- · Application scope: Hard and soft materials thanks to torsion zone (buffers hard screw-joints)
- · Practical and robust mini box





Product video







Bit length 25-90 mm

Art.	Drive	ŧ₽	heller
30530 3	PH 1	25	5
30531 0	PH 2	25	5
30532 7	PH 3	25	5
30533 4	PZ 1	25	5
30534 1	PZ 2	25	5
30535 8	PZ 3	25	5
30536 5	НХ З	25	5
30537 2	HX 4	25	5
30538 9	HX 5	25	5
30539 6	HX 5,5	25	5
30540 2	HX 6	25	5
30541 9	TX 10	25	5
30542 6	TX 15	25	5
30543 3	TX 20	25	5
30544 0	TX 25	25	5
30545 7	TX 27	25	5
30546 4	TX 30	25	5
30547 1	TX 40	25	5
30548 8	PH 1	50	3
30549 5	PH 2	50	3
30550 1	PH 3	50	3
30551 8	PZ 1	50	3
30552 5	PZ 2	50	3
30553 2	PZ 3	50	3
30554 9	TX 10	50	3
30555 6	TX 15	50	3
30556 3	TX 20	50	3
30557 0	TX 25	50	3
30558 7	TX 27	50	3
30559 4	TX 30	50	3
30560 0	TX 40	50	3
30561 7	PH1	90	3
30562 4	PH2	90	3
30563 1	PZ1	90	3
30564 8	PZ2	90	3
30565 5	TX20	90	3
30566 2	TX25	90	3
30567 9	TX30	90	3



Art. 4010159-	Designation	Drive		heller
30568 6	Bit holder	1/4"	60	1
30569 3	Quick change bit holder	1/4"	60	1
30570 9	Quick change bit holder	1/4"	150	1
30571 6	Handle with quick change holder	1/4"	150	1



EQUIPMENT DETAILS: SET 32

For screw	Size and number of bits				
Philips PH	1 x PH1, 2 x PH2, 1 x PH3				
Pozidriv PZ	1 x PZ1, 2 x PZ2, 1 x PZ3				
Slot SL	3, 4, 5, 6				
HEX	3, 4, 5, 6				
Torx	2x (T10, T15, T20, T25, T27, T30, T40)				
1 x Impact magnet holder					
1x 1/4" adapter					

S2 quality material bronzed/length 25mm 1/4" bits

UNIVERSAL

BITS

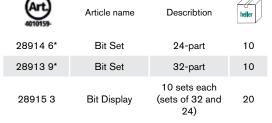
Premium bits for professionals.





PRODUCT DESCRIPTION

- · Sets designed for common screw connections
- · Premium S2 quality
- Ultra-precise tip machining to minimise the cam-out effect and for best possible torque transmission
- · Practical and extremely handy magnet holder
- · Available in a highly attractive and practical mini-box



* Package quantity 10 sets



Website info

MINIBOX EQUIPMENT DETAILS SET 24

For screw	Size and number of bits				
Philips PH	1 x PH1, 1 x PH2, 1 x PH3				
Pozidriv PZ	1 x PZ1, 1 x PZ2, 1 x PZ3				
Allen key HEX	HEX: 4, 5, 6				
Torx Tamper	T10, T15, T20, T25, T30, T40				
CrV socket wrench, 6 mm, 7 mm, 8 mm, 10 mm, 11 mm, 13 mm					
1x 1/4" adapter					
1x 1/4" quick change tool holder, magnetic					
Comfort ratchet					
S2 quality material Length 25 mm 1/4" Bits					





Bit length 25 mm

SET 32

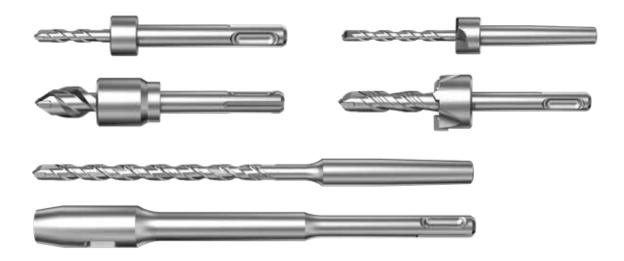
For screw	Size and number of bits			
Philips PH	1 x PH1, 2 x PH2, 1 x PH3			
Pozidriv PZ	1 x PZ1, 2 x PZ2, 1 x PZ3			
Slot SL	3 mm, 4 mm, 5 mm, 6 mm			
Allen key HEX	3,4,5,6			
Torx Tamper	T10, T15, T20, T25, T27, T30, T40			
Torx	TT10, TT15, TT20, TT25, TT27, TT30, TT40			
1x 1/4" adapter				
1 x bit holder				
S2 quality material Length 25 mm 1/4" Bits				

CONE- & COLLAR DRILLS

SPECIAL DRILL BITS



With the highest quality standards of a German premium manufacturer, Heller offers customised customised special drill bits for creating exactly the right drill hole for dowel elements.



PRODUCT DESCRIPTION

- · SDS-plus or A-cone holder
- · Task-specific collars, stop collar or cutting collar
- Perfect solutions individually designed for you, manufactured for safe and quick assembly
- · Product information on request





Diameters on request











INFORMATIONEN ZUM DOWNLOAD















HELLER SYSTEMS FOR OPTIMUM PRODUCT PRESENTATION ON THE SALES FLOORSPACE

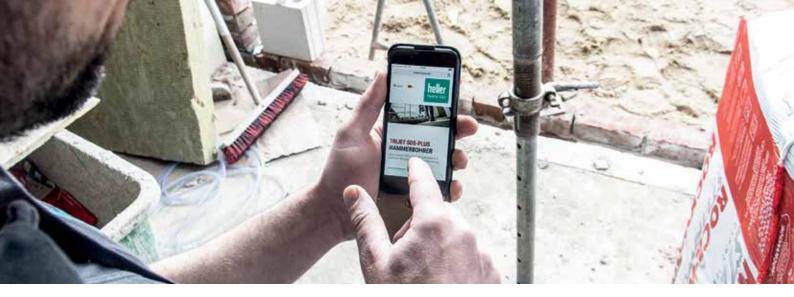
- ✓ Sales support through clear-cut and self-explanatory systems for product presentation
- ✓ Easy and quick orientation thanks to the Heller colour guidance system
- ✓ Optimised space profitability
- ✓ Various modul options
- ✓ Also individually configurable
- ✓ Attractive options for secondary placement











COMPREHENSIVE DIGITAL SERVICES FOR YOUR SUCCESS!

- ✓ State-of-the-art and packed with features: the Heller website www.hellertools.de
- ✓ On the dot: Meaningful tutorials and product and category videos
- ✓ Unique product advisor for finding the right product reliably and easily
- ✓ Exclusive reseller area: comprehensive service package providing data on products and services, photos and texts
- √ Various data exchange systems for quickly populating reseller sites such as BMEcat, Loadbee, Oxomi, EZBaze
- ✓ Virtual showroom: Experience Heller in a comprehensive and entertaining way.





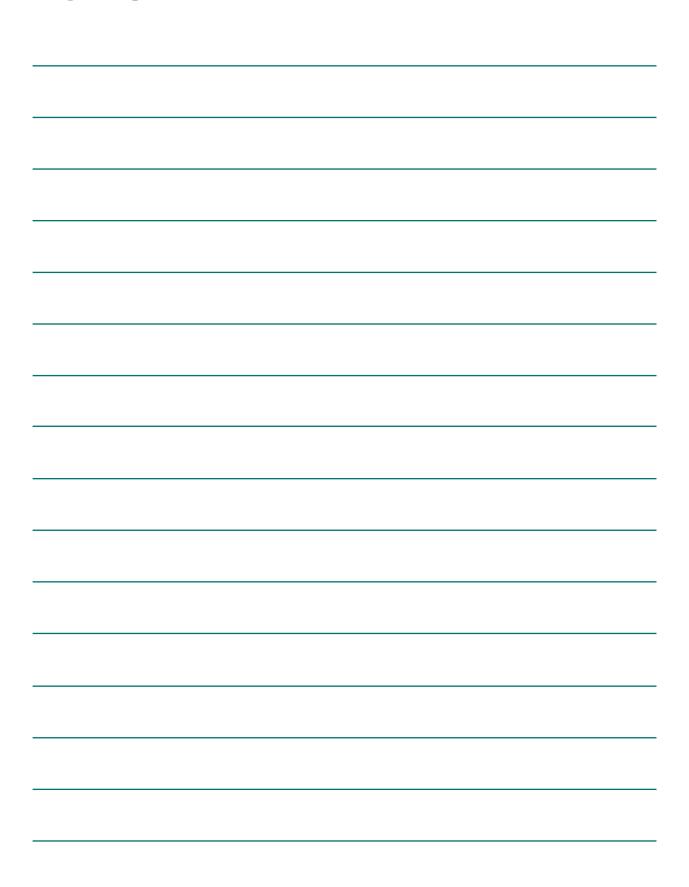


www.hellertools.de/de/produktberater

NO 1 E 2			

MOTEO

NOTES



GENERAL TERMS AND CONDITIONS

Extract from the general terms and conditions of Heller Tools GmbH. The complete terms and conditions are available on our website at: **www.hellertools.com.**

APPLICABILITY

- 1. Our shipments and services are provided exclusively under the following conditions.
- 2. Business terms of the buyer that are not expressly accepted by us shall not apply.

GENERAL PROVISIONS

5. Details and figures of our products that are contained in the brochures and catalogues are subject to changes to the extent that they do not impair the utilisation purpose to an unacceptable extent.

DELIVERY

- 8. Unless agreed otherwise, the delivery within Germany will take place by parcel service. Outside of Germany, individual agreements on the shipping method apply.
- 10. The minimum order value per shipment is EUR 100.00 (net, exclusive of value-added tax) for package shipments listed in Section 8. Outside of these countries, individual agreements on the shipping method apply.
- 13. Free delivery is available for goods with an order value above EUR 250.00 (net without VAT). For goods shipments with an order value below EUR 250.00 (net excluding VAT) we charge the following shipping flat rates in Germany: net order value excluding VAT: EUR 150.00 to 249.99 shipping flat rate of EUR 5.90; EUR 100.00 to 149.99 shipping flat rate of EUR 8.90; up to EUR 99.99 shipping flat rate of EUR 9.90. Individual freight charges apply for shipments outside of Germany.
- 14. As a matter of principle, all kinds of return shipments must coordinated and must be delivered by the buyer on a freight prepaid basis. In the case of return shipments on a freight collect basis and uncoordinated return shipments, we reserve the right to reject the return shipment and bill the costs we incur. Returns of goods without defects will only be accepted in exceptional cases, subject to prior arrangement and a processing fee of 10% of the net value of the goods.

TERMS AND CONDITIONS OF PAYMENT

- 16. All invoices are due immediately upon invoicing without deduction, unless otherwise agreed in writing. Withholding of payments or offsetting of any counterclaims of the buyer that are disputed by us is not permitted.
- 19. Payments shall be made as agreed. If the payment deadline is missed, we may charge default interest in the amount that the bank charges us for overdraw facilities, but at least in the amount of 8 percentage points over the respective base interest rate of the European Central Bank.
- 21. Our sales representatives are not authorised to collect payments.

RETENTION OF TITLE

- 22. We reserve title to the delivered goods until all claims arising from the business relationship with the buyer have been settled.
- 25. The buyer proactively assigns all claims and rights from the sale or letting (if the buyer is permitted to do so) of goods to which we hold property rights to us as collateral. We hereby accept the assignment.

MATERIAL DEFECTS

31. Claims for material defects expire after 12 months. This does not apply where the law mandates longer periods.

PLACE OF FULFILMENT, JURISDICTION AND APPLICABLE LAW

- 43. Unless specified otherwise in the order confirmation, the location of our registered office shall be the place of performance.
- 44. Vechta is the location of jurisdiction for all legal disputes, including disputes involving bills of exchange and cheques. We may also file charges at the domicile of the buyer.
- 45. The contractual relationship shall be governed exclusively by the law of the Federal Republic of Germany. The UN Convention on Contracts for the International Sale of Goods of 11 April 1980 (CISG) shall not apply.

LEGEND



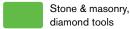
Universal & special materials



Concrete



Metal





Wood



Aluminium



Reinforced concrete



Beams



Coated chipboard



Concrete



Sheet metals



Non-ferrous metals



Roof tiles



Stainless-steel



Iron



Veneer wood



Aerated concrete



Nailed wood



Plasterboard



Glass



Granite



Greenwood



Cast iron



Hard fired tiles



Hardwood



Insulation and insulating materials



Sand lime brick



Brick



Marble



Masonry



Natural stone



Stainless-steel



PVC



Formwork



Chipboard



Plywood



Plate glass



Steel



Tiles



Softwood



Cement



SDS-max



SDS-plus



RATIO



TRI



CYL



M16



HEX





1/4" HEX



MORSE



Case



Other packaging



Hanger

Blister



Square pack

Square pack

(Content: 1 pc.)

Twist pack



Product range



C&C (round hole)



C&C tube





MaxxBox



C&C (Euro hole)



Folding box



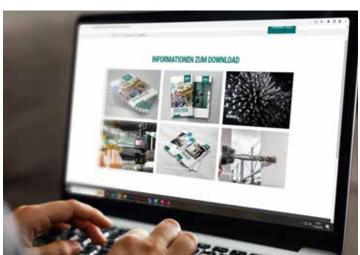
MODUL











Heller Tools GmbH

Steinfelder Str. 11 D-49413 Dinklage Germany

Tel.: +49 (0) 4443 - 9621 - 0 Fax: +49 (0) 4443 - 9621 - 10

info@hellertools.com www.hellertools.com



Simply scan the QR-Code and watch the Heller brand portrait.