



## FEIN Annular Cutter

FEIN HM ULTRA 2"  
FEIN HSS PRIMA 1"  
FEIN HSS NOVA 1"



# The new dimension of mag drilling.



# Sets standards – Core drilling with the FEIN mag drilling system.

FEIN has had over 20 years of market success with its innovative mag drilling machines, mag drill bits and accessories. New features such as the QuickIN system or the dual dove-tail guide have set standards for efficiency, ergonomics, safety and work quality establishing FEIN as a leader in quality and innovation. A position that we are building on with the new FEIN HM ULTRA mag drill bits.



# Ultra long lasting, Ultra efficient, Ultra flexible – FEIN HM ULTRA. The mag drill bits with innovative cutting geometry.



## Better in every way:

- Ultra long life:**  
thanks to innovative cutting geometry, FEIN HM ULTRA mag drill bits last longer than traditional carbide tipped mag drill bits.
- Ultra efficient:**  
FEIN HM ULTRA mag drill bits ensure up to 20% more chip removal through simultaneous cutting on the material surface.
- Ultra flexible:**  
FEIN HM ULTRA mag drill bits can be used for stainless steel and non-ferrous metals.
- Ultra comfortable:**  
FEIN HM ULTRA mag drill bits need less contact pressure, thus saving energy. And with the QuickIN system, you can change the mag drill bit in seconds– without tools!
- Ultra safe:**  
thanks to a new cutting geometry there is a short chip break. You have a better view of your workpiece. Safe for you, safe for the material.



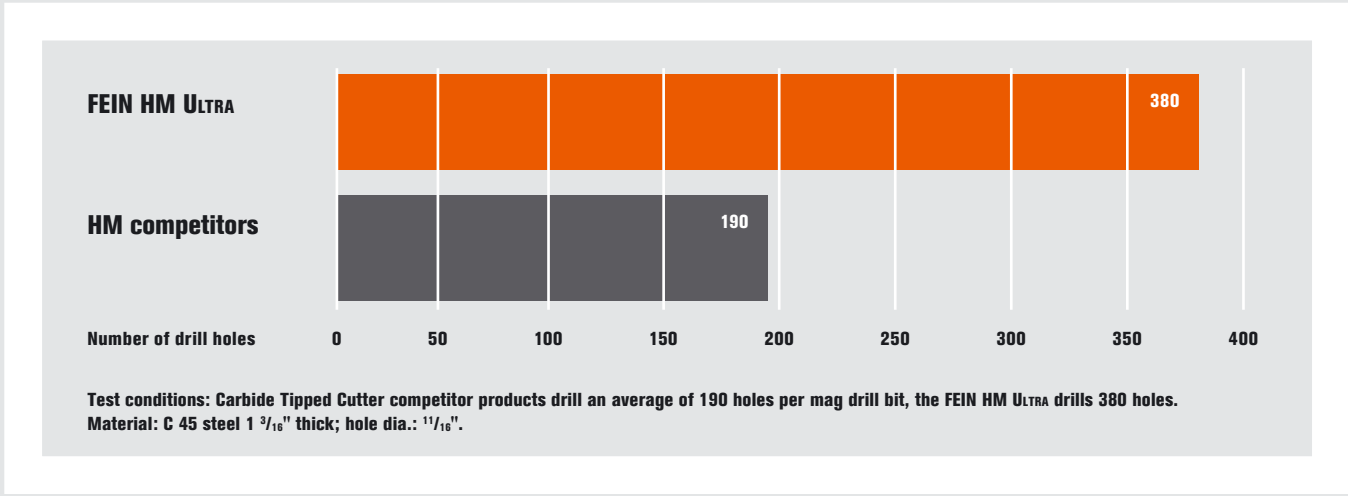


# Ultra flexible – FEIN HM ULTRA. More quality in every way.

**Ultra durable:** Longer life thanks to a new cutting geometry. An innovation that pays off in terms of durability and work quality: on the one hand, the load on the individual teeth has been reduced considerably, and on the other the stress is equally distributed around the cutter.

The result: FEIN HM ULTRA mag drill bits last longer than traditional Carbide Tipped Cutters.

## How do we know that? We have performed tests:



**Ultra efficient:** the innovative cutting geometry ensures that the chips removed are a uniform size. Material removal is thus optimized for top quality work results.

In other words: with FEIN HM ULTRA mag drill bits you get more work done per hour.



**Ultra flexible:** FEIN HM ULTRA mag drill bits are highly specialized: for optimal mag drilling results in all current types of steel, including high quality steel and non-ferrous metals.

A FEIN HM ULTRA excels through precise boring – even when not used with a FEIN mag drill. And of course, you still get the time saving benefits of the FEIN QuickIN system!



**Ultra comfortable:** The combination of HM ULTRA and QuickIN offers in every respect the highest level of mag drilling comfort. Changing tools with the QuickIN quick-change system is ultra comfortable and time saving: Insert the mag drill bit, click it into place and your ready.



**Ultra safe:** Sharp cutting and powerful – the FEIN HM ULTRA provides greater safety: its innovative cutting geometry with multiple cutting surfaces keeps the chips short and removes them quickly from the cutting surface. This has two benefits: You have a better view of the cutting area to work safer.

# A worthwhile investment- FEIN HM ULTRA mag drill bits

**40% more efficient than twist drilling.** Mag drilling is an extremely efficient process: faster, quieter and more accurate than twist drilling. With mag drilling, you can successfully drill large diameters in various thicknesses of material with considerably less power – in significantly less time. And because there is no need for pre-drilling and tool change, you can work 40% faster and therefore more efficiently than with twist drilling; a mag drilling machine achieves in one step what twist drilling achieves in four: center punching, centering, drilling out and drill finishing. And with the new FEIN HM ULTRA-core drill bits, you can work more economically and efficiently: after approximately 40 holes the FEIN HM ULTRA has already paid for itself!\*



## FEIN offers two bit sets to get started with



### FEIN HM ULTRA 2" mag drilling kit:

Consisting of 4 QuickIN mag drill bits.  
2" depth of cut. DIA.  $\frac{9}{16}$ ",  $\frac{11}{16}$ ",  $\frac{13}{16}$ ",  $\frac{15}{16}$ "  
with centering pin in a plastic carrying case.

**Part Number**                    **6 31 27 384 02 0**

### FEIN HSS PRIMA 1" Co5 mag drilling kit:

Consisting of 4 QuickIN mag drill bits.  
1" depth of cut. DIA.  $\frac{9}{16}$ ",  $\frac{11}{16}$ ",  $\frac{13}{16}$ ",  $\frac{15}{16}$ " and  
a centering pin in a plastic carrying case.

**Part Number**                    **6 31 27 411 02 0**

## FEIN mag drill bit comparison

Material	Alu- minum	Alu- minum	Steel	Steel	Steel	Steel	Steel	Hardox/Weldox	Stainless steel	Ti	GG(G)	CuZn
Tensile strength in lbf/in	< 10% Si	> 10% Si	< 72,000	< 108,000	< 130,000	< 170,000	< 173,000	< 45 HRC	< 173,000	< 173,000	< 130,000	< 100,000
HSS (competition)	▲▲	-	▲▲	▲▲	-	-	-	-	▲	-	▲	-
HM (competition)	▲	▲▲	▲▲▲	▲▲	▲▲	▲▲	▲	▲	▲▲	▲	▲▲	▲
FEIN HSS NOVA 1"	▲▲	-	▲▲	▲▲	-	-	-	-	▲	-	▲	-
FEIN HSS PRIMA 1"	▲▲	▲	▲▲	▲▲	▲	-	-	-	▲	-	▲	-
FEIN HM ULTRA 2"	▲▲	▲▲	▲▲▲	▲▲▲	▲▲▲	▲▲	▲▲	▲▲	▲▲	▲▲	▲▲▲	▲▲
Coolant needed	Petroleum, Emulsion		Emulsion	Emulsion	Emulsion	Emulsion	Emulsion	Emulsion	Emulsion	Pneumatic	Pneumatic	Emulsion
Property	Non-ferrous metal, tough, lubricated, breaks teeth,		Universal varieties of steel					tempered steel, difficult to cut	tough, hard, rust and acid resistant	exotic alloy difficult to cut	No chips, brittle, creates crumbs, causes clogging	brittle brass bronze

▲▲▲ optimal / ▲▲ suitable / ▲ possible / - not suitable/ Non-binding recommendation table

\* Comparison of core drilling with full drilling: Calculated with drill hole diameter of 1 1/4" in S 235 steel  $\frac{13}{16}$ " thick, an hourly rate of \$ 31 and acquisition costs of approx. \$ 55 (full drill) or \$ 88 (FEIN HM ULTRA 2").

**HM  
QuickIN Shank**

**HM ULTRA 2" mag drill bit  
with QuickIN shank**  
Depth of cut 2"



Drill dia.	Part Number
1/2"	6 31 27 383 01 0
9/16"	6 31 27 384 01 0
5/8"	6 31 27 385 01 0
11/16"	6 31 27 386 01 0
3/4"	6 31 27 387 01 0
13/16"	6 31 27 388 01 0
7/8"	6 31 27 389 01 0
15/16"	6 31 27 390 01 0
1"	6 31 27 391 01 0
1 1/16"	6 31 27 392 01 0
1 1/8"	6 31 27 393 01 0
1 3/16"	6 31 27 394 01 0
1 1/4"	6 31 27 395 01 0
1 5/16"	6 31 27 396 01 0
1 3/8"	6 31 27 397 01 0
1 7/16"	6 31 27 398 01 0
1 1/2"	6 31 27 399 01 0
1 9/16"	6 31 27 400 01 0
1 5/8"	6 31 27 401 01 0
1 11/16"	6 31 27 402 01 0
1 3/4"	6 31 27 403 01 0
1 13/16"	6 31 27 404 01 0
1 7/8"	6 31 27 405 01 0
1 15/16"	6 31 27 406 01 0
2"	6 31 27 407 01 0
2 1/16"	6 31 27 408 01 0

**HSS  
QuickIN Shank**

**HSS PRIMA 1" Co 5 mag drill  
bit with QuickIN shank**  
Depth of cut 1"



Drill dia.	Part Number
7/16"	6 31 27 409 01 0
1/2"	6 31 27 410 01 0
9/16"	6 31 27 411 01 0
5/8"	6 31 27 412 01 0
11/16"	6 31 27 413 01 0
3/4"	6 31 27 414 01 0
13/16"	6 31 27 415 01 0
7/8"	6 31 27 416 01 0
15/16"	6 31 27 417 01 0
1"	6 31 27 418 01 0
1 1/16"	6 31 27 419 01 0
1 1/8"	6 31 27 420 01 0
1 3/16"	6 31 27 421 01 0
1 1/4"	6 31 27 422 01 0
1 5/16"	6 31 27 423 01 0
1 3/8"	6 31 27 424 01 0
1 7/16"	6 31 27 425 01 0
1 1/2"	6 31 27 426 01 0
1 9/16"	6 31 27 427 01 0
1 5/8"	6 31 27 428 01 0
1 11/16"	6 31 27 429 01 0
1 3/4"	6 31 27 430 01 0
1 13/16"	6 31 27 431 01 0
1 7/8"	6 31 27 432 01 0
1 15/16"	6 31 27 433 01 0
2"	6 31 27 434 01 0
2 1/16"	6 31 27 435 01 0

**HSS  
3/4" Weldon Shank**

**HSS Nova 1" mag drill bit  
with 3/4" Weldon shank**  
Depth of cut 1"



Drill dia.	Part Number
7/16"	6 31 27 356 01 0
1/2"	6 31 27 357 01 0
9/16"	6 31 27 358 01 0
5/8"	6 31 27 359 01 0
11/16"	6 31 27 360 01 0
3/4"	6 31 27 361 01 0
13/16"	6 31 27 362 01 0
7/8"	6 31 27 363 01 0
15/16"	6 31 27 364 01 0
1"	6 31 27 365 01 0
1 1/16"	6 31 27 366 01 0
1 1/8"	6 31 27 367 01 0
1 3/16"	6 31 27 368 01 0
1 1/4"	6 31 27 369 01 0
1 5/16"	6 31 27 370 01 0
1 3/8"	6 31 27 371 01 0
1 7/16"	6 31 27 372 01 0
1 1/2"	6 31 27 373 01 0
1 9/16"	6 31 27 374 01 0
1 5/8"	6 31 27 375 01 0
1 11/16"	6 31 27 376 01 0
1 3/4"	6 31 27 377 01 0
1 13/16"	6 31 27 378 01 0
1 7/8"	6 31 27 379 01 0
1 15/16"	6 31 27 380 01 0
2"	6 31 27 381 01 0
2 1/16"	6 31 27 382 01 0

**Adapter**

**Adapter with QuickIN shank**  
Output M18 x 6 P 1.5  
e.g.  
Milwaukee bits



Part Number 6 39 01 020 00 6

3/4" shank (Weldon), e.g.  
Sluggger-Jancy and Nitto bits with  
1/4" pilot hole



Part Number 6 39 01 021 01 4

3/4" shank (Weldon Special),  
e.g. Hougén and Rotabroach bits  
with a pilot hole bigger than 1/4"



Part Number 6 39 01 024 01 9

Output 1/2" for drill chuck



Order number 6 39 01 022 00 8

Output B 16 for drill chuck



Part Number 6 39 01 023 00 2

**Adapter with Weldon fitting**  
to convert other manufacturers'  
tools to QuickIN.



Part Number 6 39 01 027 01 0

**General information  
Accessories**

**Center pins**

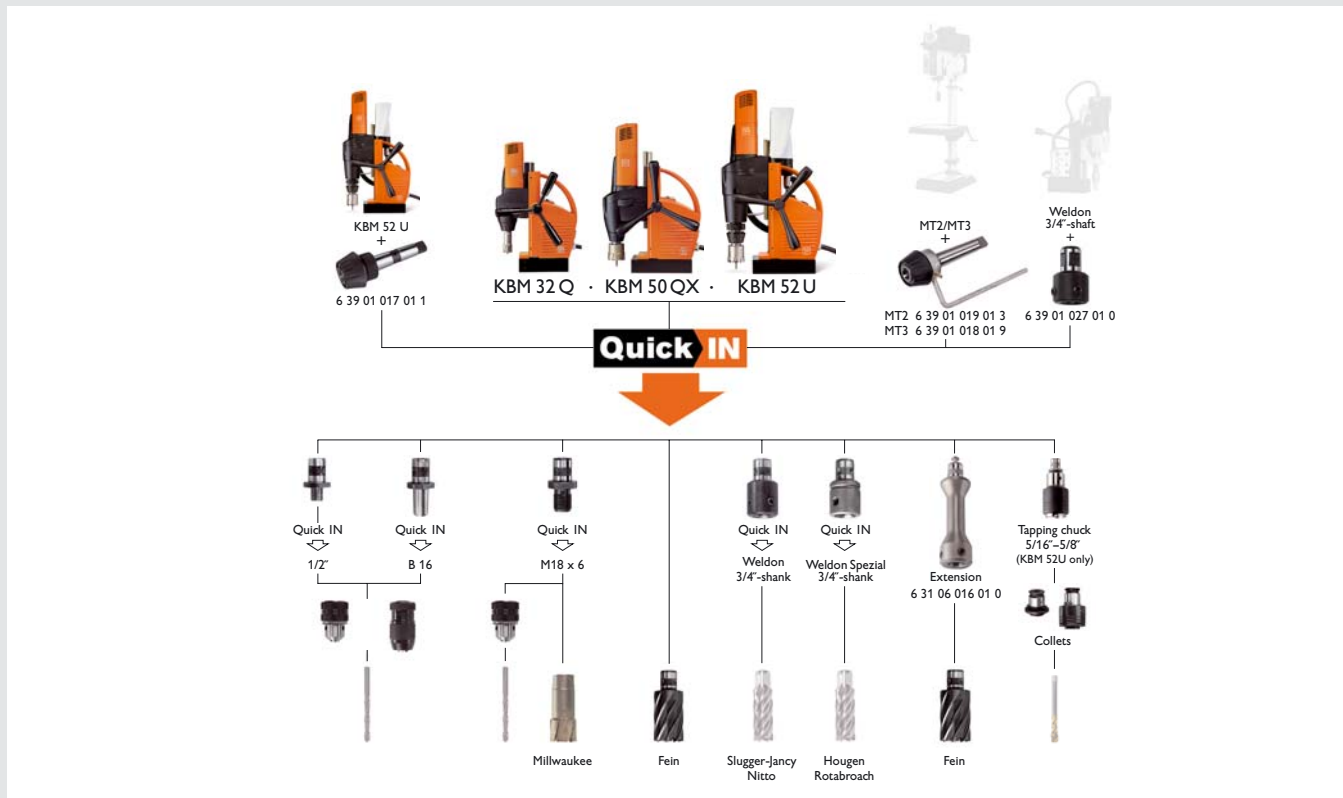


Length

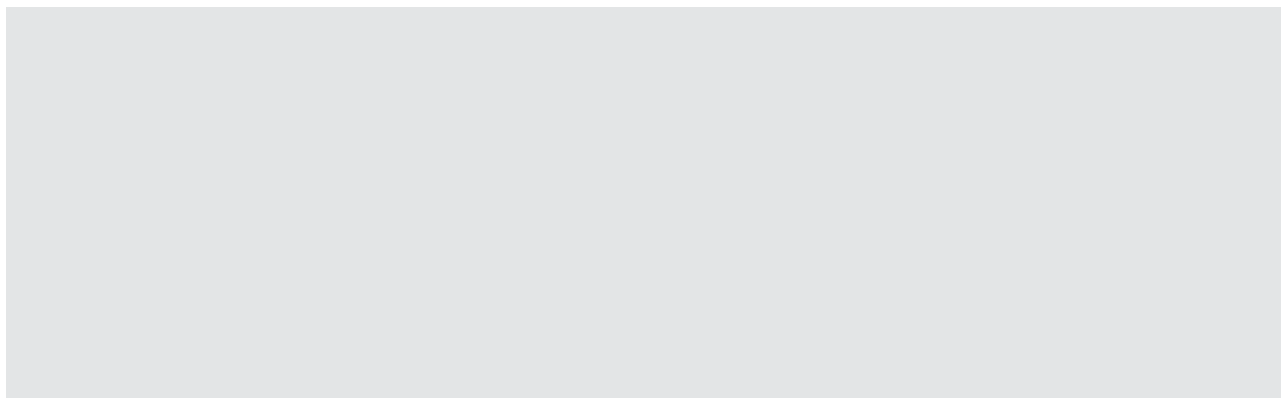
Length	Part Number
4 1/8"	3 02 17 332 00 9
5 5/16"	3 02 17 355 00 0



# FEIN mag drill machines. With the QuickIN system for all adapters.



To see a demonstration of our equipment, please contact your FEIN specialist supplier.



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