Practical Tools Inc. $905-727-0014$ / 888-847-8880 email: practicaltools@bellnet.ca


## Portable Magnetic Drilling Machines

## Fast, accurate hole cutting... on the job site or in the shop!

Designed for continuous operation, CS Unitec's portable magnetic drills are ideal for drilling structural steel and virtually any metal. We offer the most compact, powerful and reliable series of portable magnetic drills for holes up to $5-1 / 8$ " diameter. All CS Unitec drills are heavy-duty for use in construction and industry. Our complete line includes electric, pneumatic and hydraulic tools. They are available for prompt delivery.

## CS Unitec is the industry leader in: Our drills have unique features:

- Power-to-weight ratios
- Strongest clamping force with high-density (HD) dual-coil magnets
- Magnetic drills for tapping
- Annular Cutters: TiAIN, HSS, cobalt steel and carbide-tipped
- Longest drill stroke in the industry
- Variable-speed, multiple-geared models
- Electric, pneumatic and hydraulic power
- Reversible motors for tapping
- Swivel base stand for hard-to-reach areas
- Battery-operated for on-site cordless drilling


## Rugged construction and sophisticated functionality.



Intuitive magnets, ergonomic controls and simple operation for superior cuts.

CoolMag

## COOLMAG ${ }^{\text {M }}$ Electromagnets

ensure that the magnet does not overheat. When the magnet is switched on for long periods of time, the coils could overheat or even burn out. The CoolMag feature reduces the power of the magnets when the drill motor is not active. Therefore, it won't build up heat.
CS Unitec high-density dual-coil magnets are ground, not cast, and are wound into two circles to increase the surface area and density of the magnetic field.


## IQ Magnetic System for Active Safety

Magnetic force is the key to safety and success.
The magnetic force of your magnet depends on a number of factors:

- Thickness of material being drilled

Coatings or paint layers on material

- Chips, dirt or grease between the magnet and the material

SafeMag
System
Electronic Safety
Shutoff Sensor

The SAFEMAG ${ }^{\text {TM }}$ System measures whether the magnet has sufficient adhesive force on the material. An LED indicator on the switch panel warns you of insufficient magnetic force (Red Light) or tells you if the correct force is present (Green Light).




MAB 150
p. 12

Capacity: ø 1-1/2" cutter For drilling in tight spaces

MAB 485 \& MAB 485 SB
p. 16

Capacity: $\varnothing$ 2" cutter; ø 7/8" twist drill; $\varnothing$ 15/16" tapping
Reversible, 2-gear motor
Swivel base (MAB 485 SB)

AutoMAB 1500 \& AutoMAB 1500 SB p. 20
Capacity: ø 1-1/2" cutter
Automatic feed
Swivel base (AutoMAB 1500 SB)


## MABasic Series

Capacity: ø 1-1/4" to $3^{\prime \prime}$ cutter
Professional grade, versatile


## MAB 455 \& MAB 455 SB p. 14

1 - Capacity: ø 2" cutter; $\varnothing 7 / 8^{\prime \prime}$ twist drill
Swivel base (MAB 455 SB)
2 speeds


MAB 525 \& MAB 525 SB
p. 18
(1) Capacity: ø 2-1/2" cutter; ø 1" twist drill; ø 15/16" tapping
Reversible, 2-gear motor
Swivel base (MAB 525 SB)


MAB 825 KTS
Capacity: ø 2-3/8" cutter; ø 1" twist drill; $\varnothing 1-1 / 8$ " tapping
Multi-axis positioning for boring, slotting, etc. Reversible, 4-gear motor


## MAB 825, MAB 825 V \& MAB 845

p. 22

Capacity: ø 4" cutter; ø 1-1/4" twist drill;
ø 1-1/8" tapping
Auto feed (MAB 825 V ) Swivel base (MAB 845)
Reversible, 4-gear motor


MAB 1300 p. 24

Capacity: ø 5-1/8" cutter ø 1-3/4" twist drill ø 1-5/8" tapping
Reversible, 4-gear motor The ultimate in power

Pneumatic power
Capacity: ø 2-1/16" cutter; ø 1/2" twist drill ATEX for hazardous environments


HB 4400
Hydraulic power
Capacity: ø 2-1/16" cutter; ø 1/2" twist drill
For marine, construction and underwater applications

## Warranty

Products of CS Unitec, Inc. are warranted to be free from defects in material and workmanship for one year from date of purchase. This warranty does not apply to normal wear or products which have been abused, misused, modified or repaired by someone other than CS Unitec, Inc. or its Authorized Service Representatives.
If a product proves defective in material or workmanship within one year after purchase, return it to CS Unitec, Inc. or an Authorized Service Center, transportation prepaid. CS Unitec, Inc. will, at its option, repair or replace defective products free of charge.
CS Unitec, Inc. 's sole liability and your exclusive remedy under this warranty is limited to repair or replacement of the defective product. There are no other warranties expressed or implied and CS Unitec, Inc. shall not be liable for incidental, consequential or special damages, or expenses excepting only the cost or expense of repair or replacement as described above.

## Safety

Operators of any power tool should use appropriate safety precautions for work being performed. This includes safety chains, eye protection, hearing protection, gloves and more. Follow instructions included in operating manual.


## Magnetic Drill Comparison Chart

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MDM 40 | MABasic 200 | MABasic 400 | MABasic 450 | MABasic 850 | MAB 150 | $\begin{aligned} & \text { MAB } 455 \\ & \text { MAB } 455 \text { SB } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { MAB } 485 \\ \hline \text { MAB } 485 \text { SB } \end{array}$ | $\begin{array}{\|l\|l} \text { MAB } 525 \\ \text { MAB } 525 \text { SB } \end{array}$ |
|  | Page 8 | Page 9 | Page 10 | Page 10 | Page 11 | Page 12 | Page 14 | Page 16 | Page 18 |
| Annular Cutters Diameter (ø) | up to <br> ø $1-1 / 2^{\prime \prime}$ | up to <br> © 1-3/8" | up to © 1-5/8" | up to Ø 1-5/8" | up to © $3^{\prime \prime}$ | up to <br> © 1-1/2" | up to ø $2^{\prime \prime}$ | $\begin{aligned} & \text { up to } \\ & \text { o 2" } \end{aligned}$ | up to ø 2-1/2" |
| Twist Drills Diameter (ø) |  | up to <br> o $1 / 2^{\prime \prime}$ | $\begin{aligned} & \text { up to } \\ & 05 / 8 " \end{aligned}$ | $\begin{aligned} & \text { up to } \\ & \text { o } 3 / 4 \text { " } \end{aligned}$ | up to <br> ø $1-1 / 4^{\prime \prime}$ |  | up to ø 7/8" | up to $\varnothing 7 / 8 "$ | up to 01 " |
| Tapping Diameter (ø) |  |  |  |  |  |  |  | up to o 15/16" | $\begin{aligned} & \text { up to ø } \\ & 15 / 16^{\prime \prime} \end{aligned}$ |
| Countersinking Diameter (ø) |  |  |  |  |  |  |  | $\begin{aligned} & \text { up to ø } \\ & 1-5 / 8^{\prime \prime} \end{aligned}$ | up to ø 2" |
| Reaming Diameter (ø) |  |  |  |  |  |  |  | up to $\varnothing 7 / 8$ " | up to ø $7 / 8{ }^{\prime \prime}$ |
| Stroke | 3-1/8" | 6-1/3" | 6-1/3" | 6-1/3" | $10^{\prime \prime}$ | 1" | 6-1/3" | 6-1/3" | 6-1/3" |
| Weight | 24 lbs. | 27 lbs . | 27 lbs . | 29 lbs. | 53 lbs. | 24 lbs. | 29 lbs. | 29 lbs. | 35 lbs. |
| Speed Range 1 (RPM) | 440 | 450 | 430 | 250 | 110 | 400 | 250 | 50-250 | 70-280 |
| Speed Range 2 (RPM) |  |  | 760 | 450 | 175 |  | 450 | 100-450 | 180-580 |
| Speed Range 3 (RPM) |  |  |  |  | 245 |  |  |  |  |
| Speed Range 4 (RPM) |  |  |  |  | 385 |  |  |  |  |
|  |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |
| CoolMag |  |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ |
| $\begin{aligned} & \text { SafeMag } \\ & \text { System } \end{aligned}$ |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Electronic Safety Shutoff Sensor |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Tool Holder | Set Screw | Set Screw | Set Screw | Set Screw | Set Screw | Set Screw | Quick-change keyless | Quick-change keyless | Quick-change keyless |
| Morse Taper (MT) |  |  |  | MT2 |  |  | MT2 | MT2 | MT3 |
| Safety Friction Clutch |  |  |  |  |  |  |  |  |  |
| Torque Control |  |  |  |  |  |  |  |  | $\checkmark$ |
| Swivel/Adjustable Base |  |  |  |  |  |  | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Magnet Size | $\begin{aligned} & 6-1 / 2^{\prime \prime} x \\ & 3-1 / 4^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 6-5 / 8^{\prime \prime \prime} x \\ & 3-1 / 3^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 6-5 / 8^{\prime \prime \prime} x \\ & 3-1 / 3^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 6-5 / 8^{\prime \prime} x \\ & 3-1 / 3^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 8-5 / 8^{\prime \prime} x \\ & 4-1 / 3^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 6-5 / 16^{\prime \prime} x \\ & 3-3 / 16^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 6-5 / 8^{\prime \prime \prime} x \\ & 3-1 / 3^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 6-5 / 8^{\prime \prime \prime} x \\ & 3-1 / 3^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 7-1 / 8^{\prime \prime} x \\ & 3-1 / 2^{\prime \prime} \end{aligned}$ |



Cutter capacity $11 / 2^{\prime \prime}$ dia.

Heavy-duty compact hole drilling machine with internal cable routing

Powerful • Reliable

- 9.25 Amp doubleinsulated motor
- Compact, 13" high
- Lightweight, 24 lbs .
- Designed for continuous use
- Intelligent electronic torque control

Drill up to 1-1/2" dia.

- Uses annular cutters
- Integrated cutting oil reservoir
- Automatic internal lubrication

Special Feature

- Internal cable routing protects the motor power cord from external damage


Model MDM 40


All CS Unitec high-density dualcoil magnets are ground, not cast, and are wound into two circles to increase the surface area and density of the magnetic field.


Model MDM 40 Specifications

Motor Power
Weight
Hole Capacity
Speed
Magnet Base Size
Dimensions
Magnetic Force (1" plate)
Arbor Bore
Automatic Lubrication

* 220 Volt / 50 Hz also available


## Standard Equipment

1 Magnetic drilling machine
1 Pilot pin
1 Safety chain
1 Hexagon socket screw key SW 4
9.25 Amp / 110 Volt 24 lbs .
$1^{1122 " ~ d i a . ~}$
440 RPM
$6^{1122^{\prime \prime}} \mathrm{L} \times 3^{11 / 4 " ~ W}$
$13^{\prime \prime} \mathrm{H} \times 9^{1 / 2} 2^{\prime \prime} \mathrm{L} \times 7$ " W
2640 lbs.
3/4" Weldon Shank
Included
† Steel case intended mainly for shipping purposes; damage may occur in transit.

Heavy-duty, purpose-built, single-speed workhorse

## Powerful • Reliable

- Strong 8.2 Amp motor
- Compact, lightweight and portable - 14-1/4" high, 27 lbs.


## Drill up to 1-3/8" dia.

- Uses annular cutters; 6-1/3" stroke
- Twist drilling up to $1 / 2^{\prime \prime}$ dia.; 3-1/3" stroke with included geared chuck
- Internal lubrication system


Standard Equipment includes lubrication bottle, $3 / 4^{"}$ weldon shank, $1 / 2^{\prime \prime}$ geared chuck, safety strap, carabin hook, allen keys, pilot pin and carrying case.


Cutter capacity $15 / 8^{\prime \prime}$ dia.

Professional-grade, two-speed versatility powerful and reliable


MABasic 450 Drill up to 1-5/8" dia.
-10.5 Amp doubleinsulated motor

- MT2 - 3/4" direct arbor with automatic cooling - Uses annular cutters
- Twist drilling up to $3 / 4$ " dia.; 6-1/3" stroke with chuck
- Internal lubrication system
- Compact and lightweight

Equipped with Electronic Safety Shutoff Sensor (see p. 3)

With included ${ }^{1} / 2^{\prime \prime}$ geared chuck (Part No. IBC 18), the MABasic 400 easily converts to standard drill press with a $3^{1} / 3^{\prime \prime}$ stroke for conventional twist drills.

With included 3 ³" " geared chuck (Part No. IBC 22), the MABasic 450 easily converts to standard drill press with a $6^{1} / 3^{\prime \prime}$ stroke for conventional twist drills.


| Specifications | MABasic 400 | MABasic 450 |
| :---: | :---: | :---: |
| Motor Power | 9.5 Amp / 110 Volt* | 10.5 Amp / 110 Volt* |
| Weight | 27 lbs . | 29 lbs . |
| Hole Capacity | $1^{5} / 8$ dia. | $1^{5} / 8^{\prime \prime} \mathrm{dia}$. |
| Twist Drill Capacity | 5/8" dia. | 3/4" dia. |
| Speeds | 430 / 760 RPM (2 gears) | 250 / 450 RPM (2 gears) |
| Magnet Base Size | $6^{5} / 8^{\prime \prime} \mathrm{W} \times 3^{1 / 3} 3^{\prime \prime} \mathrm{H}$ | $65 / 8^{\prime \prime} \mathrm{W} \times 3^{1 / 3} 3^{\prime \prime} \mathrm{H}$ |
| Dimensions | $14^{1 / 4} 4^{\prime \prime} \mathrm{H} \times 91 / 2^{\prime \prime} \mathrm{Lx} \mathrm{4} 3 / 8^{\prime \prime} \mathrm{W}$ | $14^{1 / 4} 4^{\prime \prime} \mathrm{H} \times 9^{1 / 2} 2^{\prime \prime} \mathrm{Lx} 44^{3} 8^{\prime \prime} \mathrm{W}$ |
| Magnetic Force (1" plate) | 3080 lbs. | 3080 lbs . |
| Arbor Bore | 3/4" Weldon Shank | 3/4" Weldon Shank |
| Spindle | N/A | MT2 |
| Internal Lubrication | Oil Pump Bottle Included | Oil Pump Bottle Included |



Standard Equipment includes lubrication bottle, geared chuck, safety strap, carabin hook, allen keys, pilot pin and carrying case.


## Powerful • Reliable

- 16 Amp double-insulated motor -MT3 - 3/4" direct arbor with automatic cooling
-19-3/8" high, 53 lbs.
- High-speed, 4-speed gearbox


## Drill up to 3" dia.

- Uses annular cutters; 10" stroke
- Twist drilling up to 1-1/4" dia. with included chuck
- Internal lubrication system


With included 3/4" chuck (Part No. IBC 21), or MT3, this model easily converts to a standard drill press for conventional twist drills.


## Standard Equipment

includes geared chuck, safety strap, carabin hook, allen keys, pilot pin and carrying case.


## MABasic 850 Specifications

| Motor Power | 16 Amp / 110 Volt |
| :---: | :---: |
| Weight | 53 lbs . |
| Hole Capacity | 3" dia. |
| Twist Drill Capacity | $1^{1 / 4} 4^{\prime \prime}$ dia. |
| Speeds | 1: 110 RPM, 2: 175 RPM |
|  | 3: 245 RPM, 4: 385 RPM |
| Magnet Base Size | 41/3" W x 85/8"L |
| Dimensions | $19^{3} / 8^{\prime \prime} \mathrm{H} \times 11^{5} / 8^{\prime \prime} \mathrm{L} \times 8^{1 / 4} 4^{\prime \prime} \mathrm{W}$ |
| Magnetic Force (1" plate) | 6000 lbs. |
| Arbor Bore | 3/4" Weldon Shank |
| Spindle | MT3 |
| Internal Lubrication | Included |

[^0]Cutter capacity $11 / 2^{\prime \prime}$ dia.

Horizontal motor mount for drilling in tight spaces

Powerful • Reliable
-9.25 Amp doubleinsulated motor

- Ultra compact, 7" high
- Lightweight, 24 lbs.
- Designed for continuous use
- Intelligent electronic torque control

Drill up to 1-1/2" dia.*

- Uses annular cutters
- Integrated cutting oil reservoir
- Automatic internal lubrication

Integrated Safety

- Internal cable routing
- Simple, ergonomic arrangement of controls for one-handed operation

* Model MAB 150 accepts cutters with a 3/4" weldon shank and a maximum depth of cut of 1".


## Cutter Capacity


$ø 1 / 22^{1}$

Stroke (length)


1"

Automatic internal
lubrication with pressure pump bottle


* 220 Volt / 50 Hz also available


## Standard Equipment

1 Magnetic drilling machine
1 Pilot pin
1 Steel shipping case ${ }^{\dagger}$
1 Safety chain
1 Hexagon socket screw key SW 4
1 Operating manual
1 Warranty certificate

Standard Equipment also includes auto lubrication, safety strap, carabin hook and allen keys.
† Steel case intended mainly for shipping purposes; damage may occur in transit.


Advancing lever can be mounted on either the left or right side of the MAB 150.


Model MAB 150 accepts cutters with 3/4" weldon shank. This unit has a maximum depth of cut of $1^{1 "}$.

See pages 32-41 for our HSS, TiAIN and Carbide-tipped cutters.


Cutter capacity 2" dia.

High power with keyless quick-change chuck system

Powerful • Reliable
-10.5 Amp doubleinsulated motor
-17-1/4" high, 29 lbs.

- High-speed, 2-speed oilbath gearbox, ideal for annular cutters and twist drills
- Designed for continuous use
- Intelligent electronic torque control


## Drill up to 2" dia.

- Uses annular cutters
- Twist drilling up to 7/8" (with included chuck IBC 22)
- Integrated cutting oil reservoir
- Automatic internal lubrication
- Swivel base (model MAB 455 SB) has max. capacity of $1-3 / 4$ " dia.


## Keyless Cutter Mount

- Quick-change keyless cutter system for 3/4" Weldon shank, standard
- Also includes manual arbor for 3/4" Weldon shank (MT2) with set screws
Integrated Safety
- Green/Red LED magnetic force indicator for safe operation
- Internal cable routing
- Simple, ergonomic arrangement of controls for one-handed operation
Emergency-off function one-handed operation
- Emergency-off function


With included 3/4" chuck (Part No. IBC 22), or MT2, this model easily converts to a standard drill press with a 5" stroke for conventional twist drills.

MAB 455
For swivel
base, order
MAB 455 SB

| Cutter Capacity | Twist Drill/ <br> Countersink | Stroke <br> (length) | Two-Speed <br> (RPM) | Magnet Force <br> Indicator |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MAB 455: 02 |  |  |  |  |

## Equipped with <br> Electronic <br> Safety Shutoff <br> Sensor (see p. 3)

## MAB 455 \& MAB 455 SB Specifications



Cutter capacity 2" dia.


Model MAB 455 \& MAB 455 SB

| Model MAB 455 \& 455 SB Specifications |  |
| :---: | :---: |
| Motor Power | 10.5 Amp / 110 Volt |
| Weight | 29 lbs . |
| Hole Capacity MAB 455 | 2" dia. |
| Hole Capacity MAB 455 SB | 13/4" dia. |
| Twist Drill Capacity | 7/8" dia. |
| Speeds | 250 / 450 RPM (2 g |
| Magnet Base Size | $3^{1 / 3} 3^{\prime \prime} \mathrm{W} \times 6^{5 / 8 \mathrm{l}} \mathrm{L}$ |
| Dimensions | $17^{1 / 44^{\prime \prime} \mathrm{H}}$ x 115/8" L x |
| Magnetic Force (1" plate) | 3750 lbs . |
| Arbor Bore | 3/4" Weldon Shank |
| Spindle | MT2 |
| Automatic Lubrication | Included |
| Swivel Base | Order MAB 455 SB |
| * 220 Volt/50 Hz also available |  |
| Standard Equipment |  |
| 1 Magnetic drilling machine |  |
| 1 Quick-change arbor system KEYLESS Weldon 3/4" |  |
| 1 Manual arbor with set screws, Weldon 3/4", MT2 |  |
| $13 / 4$ " geared chuck, MT2 |  |
| 2 Pilot pins-1" and 2 " depth |  |
| 1 Safety chain |  |
| 1 Drift key MT2 |  |
| 1 Warranty certificate |  |

Standard Equipment also includes molded plastic carrying case, operating manual, auto Iubrication, safety strap, carabin hook and allen keys.
$\sum$ UNITEC

## Cutter capacity

 2" dia.
## Versatile for workshop and assembly applications

Powerful • Reliable

- 10.5 Amp doubleinsulated motor
-17-1/4" high, 29 lbs.
- High-speed, variable-speed oilbath gearbox, ideal for annular cutters and twist drills
- Designed for continuous use
- Intelligent electronic torque control
Drill up to 2" dia. Tap up to 15/16" dia.
- Uses annular cutters
- Twist drilling up to 7/8" dia. (with included chuck IBC 22)
- Tapping capacity 3/16" to $15 / 16$ " dia.
- Integrated cutting oil reservoir
- Automatic internal lubrication
- Swivel base (model MAB 485 SB)


## Keyless Cutter Mount

- Quick-change keyless cutter system for 3/4" Weldon shank, standard
- Also includes manual arbor for $3 / 4$ " Weldon shank (MT2) with set screws


## Included Geared Chuck

With a 3/4" chuck (Part No. IBC 22), or MT2, this model easily converts to a standard drill press with a 5" stroke for conventional twist drills.



Model MAB 485 SB features a swivel base providing $20^{\circ}$ movement left and right and 5/8" forward and backward.

## Integrated Safety

- Green/Red LED magnetic force indicator for safe operation
- Internal cable routing
- Simple, ergonomic arrangement of controls for one-handed operation
- Emergency-off function


$ø 2$

$\varnothing 7 / 8^{\prime \prime} / \varnothing 1^{5} / 8$

ø 7/8" $/$
$6^{1 / 3 "}$

Annular Cutters: pages 32-41 $>$ Accessories: pages 42-50


Variable-speed CoolMagTm
SafeMagTM
50-250

100-450


Control

Model MAB 485 \& MAB 485 SB

Model MAB 485 Specifications


Motor Power
Weight
Hole Capacity
Twist Drill Capacity
Tapping Capacity
Speeds
Magnet Base Size
Dimensions
Magnetic Force (1" plate)
Arbor Bore
Spindle
Automatic Lubrication
Swivel Base
10.5 Amp / 110 Volt 29 lbs. 2" dia. 7/8" dia. 15/16" dia.
50-250 and 100-450 RPM $3^{1} / 3^{\prime \prime} \mathrm{W} \times 6^{5} / 8^{\prime \prime} \mathrm{L}$ $17^{1 / 4 " ~ H ~ x ~ 115 / 8 " ~ L ~ x ~ 7 " ~ W ~}$ 3750 lbs.
3/4" Weldon Shank MT2
Included
Order MAB 485 SB

* 220 Volt / 50 Hz also available


## Standard Equipment

1 Magnetic drilling machine
1 Quick-change arbor system KEYLESS Weldon 3/4"

1 Manual arbor with set screws, Weldon 3/4", MT2
$13 / 4^{\prime \prime}$ geared drill chuck, MT2
2 Pilot pins - 1 " and $2^{\prime \prime}$ depth
1 Safety chain
1 Drift key MT2
Tap collet adapters - $3 / 8^{\prime \prime}$, $1 / 2^{\prime \prime}$ and $3 / 4$ "
1 Warranty certificate

## Standard

 Equipment also includes molded plastic carrying case, operating manual, auto lubrication, safety strap, carabin hook and allen keys.Cutter capacity $2^{1 / 2} 2^{\prime \prime}$ dia.

High power, ideal for production use

## Powerful • Reliable

- 14.5 Amp doubleinsulated motor
- 19" high, 35 lbs.
- High-speed, 2-speed oilbath gearbox, ideal for annular cutters and twist drills
- Designed for continuous use
- Intelligent electronic torque control

Drill up to 2-1/2" dia. Tap up to 15/16" dia.

- Uses annular cutters
- Twist drilling up to 1 " (with included chuck IBC 21)
- Tapping capacity $15 / 16$ "
- Integrated cutting oil reservoir
- Automatic internal lubrication
- Swivel base (model MAB 525 SB)


## Keyless Cutter Mount

- Quick-change keyless cutter system for 3/4" Weldon shank
- Also includes manual arbor for 3/4" Weldon shank (MT3) with set screws


## Integrated Safety

- Green/Red LED magnetic force indicator for safe operation
- Internal cable routing
- Simple, ergonomic arrangement of controls for one-handed operation
- Emergency-off function

Model MAB 525 SB features a swivel base providing $20^{\circ}$ movement left and right and 5/8" forward and backward.


With included 3/4" chuck (Part No. IBC 21), or MT3, this model easily converts to a standard drill press with a 5" stroke for conventional twist drills.


Annular Cutters: pages 32-41 > Accessories: pages 42-50

UNITEC Practical Tools Inc.

Model MAB 525 \& MAB 525 SB

## Model MAB 525 Specifications

| Motor Power | 14.5 Amp / 110 Volt |
| :---: | :---: |
| Weight | 35 lbs . |
| Hole Capacity | 21/2" dia. |
| Twist Drill Capacity | 1" dia. |
| Tapping Capacity | 15/16" dia. |
| Speeds | 70-280 and 180-580 RPM |
| Magnet Base Size | $3^{1 / 2} / 2^{\prime \prime} \mathrm{W} \times 7^{1 / 88^{\prime \prime}} \mathrm{L}$ |
| Dimensions | 19 H H x 113/4" Lx 63/4" W |
| Magnetic Force (1" plate) | 4500 lbs . |
| Arbor Bore | $3 / 4{ }^{\text {" }}$ Weldon Shank |
| Spindle | MT3 |
| Automatic Lubrication | Included |
| Swivel Base | Order MAB 525 SB |

## * 220 Volt / 50 Hz also available

## Standard Equipment

1 Magnetic drilling machine
1 Quick-change arbor system KEYLESS Weldon 3/4"

1 Manual arbor with set screws, Weldon 3/4", MT3
$13 / 4$ " geared drill chuck with MT3
2 Pilot pins - 1 " and $2^{\prime \prime}$ depth
1 Safety chain
1 Drift key MT3
Tap collet adapters - 1/4", 3/8",
1/2" and 3/4"
1 Warranty certificate

Standard Equipment also includes molded plastic carrying case, operating manual, auto Iubrication, safety strap, carabin hook and allen keys.

Cutter capacity $1^{11 / 2 "}$ dia.

Heavy-duty compact drill with automatic feed

## Powerful • Reliable

- 10.5 Amp double-insulated motor
- Compact, lightweight and portable: 16-1/8" high, 37-1/2 lbs.
- Power feed automatically controls drill pressure to maintain optimal RPM and feed rate
- Designed for continuous use
- Ideal hole cutting machine for steel fabricators, contractors and plant maintenance professionals

Drill up to 1-1/2" dia.

- Uses annular cutters
- Automatic feed mechanism with automatic stop and manual retraction
- Integrated cutting oil reservoir
- Automatic internal lubrication
- Swivel base $30^{\circ}$ left and right (model AutoMAB 1500 SB)


## Integrated Safety

- Internal cable routing
- Simple, ergonomic arrangement of controls for one-handed operation
- Emergency-off function


## Standard Equipment

1 Magnetic drilling machine
1 Steel carrying case ${ }^{\dagger}$
1 Safety chain
1 Operating manual
1 Warranty certificate

$01^{1 / 2 "}$


3"

## Standard

Equipment also includes auto lubrication, safety strap, carabin hook and allen keys.
${ }^{+}$Steel case intended mainly for shipping purposes; damage may occur in transit.

Speed Range (RPM)

360



Automatic Feed is ideal for production applications, as well as steel fabricators, contractors and plant maintenance professionals.


Model AutoMAB 1500 SB features a swivel base providing $30^{\circ}$ movement left and right.

Model AutoMAB 1500 Specifications

| Motor Power | 10.5 Amp / 110 Volt |
| :---: | :---: |
| Weight | $37^{1 / 2} \mathrm{lbs}$. |
| Hole Capacity | 11/2" dia. |
| Speed | 360 RPM |
| Magnet Base Size | $3^{11 / 2 " ~ W ~ x ~} 7^{1 / 188^{\prime \prime} \mathrm{L}}$ |
| Dimensions | $16^{1 / 8 " ~} \mathrm{H} \times 11^{\prime \prime} \mathrm{L} \times 7^{13} / 16^{\prime \prime} \mathrm{W}$ |
| Magnetic Force (1" plate) | 2640 lbs. |
| Arbor Bore | $3 / 4$ " Weldon Shank |
| Automatic Lubrication | Included |
| Swivel Base | Order AutoMAB 1500 SB |

[^1]
## Versatile machine with adjustable $X$ and $Y$ positioning

## Powerful • Reliable

-16 Amp double-insulated motor

- 4-speed oilbath gearbox for applications requiring high power
- Designed for continuous use
- Infinitely variable torque control and full-wave control electronics
- Ideal for a wide variety of drilling, boring and slotting applications
- Includes servo-assisted drilling feature to help maintain feed pressure during operation


## Drill up to 1-5/8" dia. <br> Tap up to 1-1/8" dia.

- Multi-axis positioning
- Uses annular cutters
-10" stroke
-Twist drilling 1" dia., with included geared chuck IBC 21
- Tapping to 1-1/8"
- Integrated cutting oil reservoir
- Automatic internal lubrication


## Integrated Safety

- Simple, ergonomic arrangement of controls for one-handed operation
- Emergency-off function


Model MAB 825 KTS features multi-axis positioning, allowing the drill to be adjusted up to 2-5/32" forward/backward and up to 4-3/4" left/right after magnet is adhered to surface. Ideal for job site drilling, boring and slotting applications where dismantling is not feasible.


## Standard Equipment

Standard Equipment also includes auto lubrication, safety strap, carabin hook and allen keys.
${ }^{\dagger}$ Steel case intended mainly for shipping purposes; damage may occur in transit.

1 Magnetic drilling machine
1 Steel carrying case ${ }^{\dagger}$
$13 / 4$ geared chuck
1 Safety chain
1 Operating manual
1 Warranty certificate

Model MAB 825 KTS Specifications

| Motor Power | 16 Amp / 110 Volt |
| :---: | :---: |
| Weight | 99 lbs . |
| Hole Capacity | 15/8" dia. |
| Twist Drill Capacity | 1" dia. |
| Tapping Capacity | 1¹/8" dia. |
| Speeds | $\begin{aligned} & 40-110,65-175 \\ & 140-360,220-600 \mathrm{RPM} \end{aligned}$ |
| Magnet Base Size | $8^{11 / 16 " ~ W ~ x ~} 8^{11 / 16 " L}$ |
| Dimensions | $185 / 8^{\prime \prime} \mathrm{H} \times 14^{7 / 16^{\prime \prime}} \mathrm{L} \times 9^{7} / 16^{\prime \prime} \mathrm{W}$ |
| Magnetic Force (1" plate) | 6600 lbs . |
| Arbor Bore | $3 / 44^{\prime \prime}$ and $1^{1 / 4} 4^{\prime \prime}$, standard |
| Spindle | MT3 |
| Automatic Lubrication | Included |
| * 220 Volt / 50 Hz also available |  |

Powerful • Reliable
-16 Amp double-insulated motor

- 4-speed oilbath gearbox for applications requiring high power
- Designed for continuous use
- Infinitely variable torque control and full-wave control electronics

Drill up to 4" dia. Tap up to 1-1/8" dia.

- Uses annular cutters
- Twist drilling and reaming up to 1-1/4" dia. with included geared chuck IBC 21
- Tapping up to 1-1/8"
- Integrated cutting oil reservoir
- Automatic internal lubrication
- Automatic feed (model MAB 825 V), ideal for production applications
- Swivel base (model MAB 845)


## Keyless Cutter Mount

- Quick-change keyless cutter system for 3/4" Weldon shank
- Arbor for 1-1/4" Weldon shank
- Also includes manual arbor for 3/4" Weldon shank (MT3) with set screws


## Integrated Safety

- Green/Red LED magnetic force indicator for safe operation
- Internal cable routing
- Simple, ergonomic arrangement of controls for one-handed operation
- Emergency-off function



Model MAB 825, 825 V \& 845

| Model MAB 825 \& 845 Specifications |  |
| :---: | :---: |
| Motor Power | 16 Amp / 110 Volt |
| Weight | 55 lbs . |
| Hole Capacity | 4" dia. |
| Twist Drill Capacity | $1^{1 / 4} 4^{\prime \prime}$ dia. |
| Tapping Capacity | $1^{1 / 8} 8^{\prime \prime}$ dia. |
| Speeds | $\begin{aligned} & 40-110,65-175 \\ & 140-360,220-600 \mathrm{RPM} \end{aligned}$ |
| Magnet Base Size | $4^{1 / 3} 3^{\prime \prime} \mathrm{W} \times 88^{5 / 8^{\prime \prime} \mathrm{L}}$ |
| Dimensions | 185/8" H x 147/16" Lx 97/16" W |
| Magnetic Force (1" plate) | 6600 lbs . |
| Arbor Bore | $3 / 4$ " and $1^{1 / 4} 4^{\prime \prime}$, standard |
| Spindle | MT3 |
| Automatic Lubrication | Included |
| Automatic Feed | Order MAB 825 V |
| Swivel Base | Order MAB 845 |

* 220 Volt / 50 Hz also available


## Standard Equipment

1 Magnetic drilling machine
1 Quick-change arbor system KEYLESS Weldon 3/4"
1 Manual arbor with set screws, Weldon 3/4", MT3
1 Arbor 1¼" Weldon, MT3*
$13 / 4^{\prime \prime}$ geared chuck
4 Pilot pins - 1", 2", 3" and 4" depth
1 Safety chain
1 Hexagon socket screw key SW 6
1 Drift key MT3
1 Warranty certificate
1 Carrying case**

[^2]
# Large holes - up to $5^{11 / 8 "}$ diameter Tapping up to $15 / 8^{\prime \prime}$ diameter 

REVERSIBLE
4 Gears with Variable Speed


Twist Drilling


Tapping


Reaming


Countersinking


Optional Special-Purpose Cutting Tool
$\qquad$
ZIA 419M adapter and 1-1/4" Weldon adapter.



| Model MAB 1300 |  |
| :---: | :---: |
| Model MAB 1300 Sp | fications |
| Motor Power | 20 Amp / 110 Volt |
| Weight | 112 lbs. |
| Hole Capacity | 51/8" dia.** |
| Twist Drill Capacity | $1^{3 / 4} 4^{\prime \prime}$ dia. |
| Tapping Capacity | $1^{5 / 8 " ~ d i a .}$ |
| Speeds | $\begin{aligned} & 30-80,50-120 \\ & 130-350,210-550 \text { RPM } \end{aligned}$ |
| Magnet Base Size | $43^{3} 4^{\prime \prime} \mathrm{W}$ W $14^{\prime \prime} \mathrm{L}$ |
| Dimensions | $341 / 2^{\prime \prime} \mathrm{H} \times 19^{1 / 2 " L}$ L 10 " W |
| Magnetic Force (1" plate) | 23,600 lbs. |
| Arbor Bore | 1¹/4" (3/4" adapter included) |
| Spindle | MT4 |
| Automatic Lubrication | Included |

* 220 Volt / 50 Hz also available
** Maximum hole diameter is with TCT Carbide cutters - see p. 38-39.


## Standard Equipment

1 Magnetic drilling machine
1 Carrying case on wheels
1 Arbor adapter to 3/4" Weldon
1 Safety chain
1 Hexagon socket screw key SW6
1 Drift key MT4
1 Operating manual
1 Warranty certificate

Standard Equipment also includes auto lubrication, safety strap, carabin hook and allen keys.

Cutter capacity $5^{1 / 8^{\prime \prime}}$ dia.

ZHK 1300
wheeled carrying case included with MAB 1300

## Order No. ZHK 1300

Robust transport case with wheels, carrying handle and sturdy closures. Protect your investment from water and dust with this rugged case. Four large ABS locks and an interior configuration customized for machine to secure drill and accessories during transit. Lightweight, heavyduty plastic construction and robust ABS wheels.

Drill not included with ZHK 1300. Purchase of MAB 1300 drill includes ZHK 1300 case.
See page 23 for MAB 825/845 case.


## Tapping Accessories for MAB 1300, MAB 825, MAB 845 and CSU 100/3RL



Part No. GSW-444 quick-change tapping chuck with MT4 connection (for MAB 1300). Collets not included. GSW-444 and GSS-4xx collet set shown below. GSS-420 collet for 20mm shanks GSS-422 collet for 22 mm shanks GSS-427 collet for 27 mm shanks GSS-433 collet for 33 mm shanks GSS-442 collet for 42 mm shanks


Tap Collets and Reducing Adapters
Tap Collets with $3 / 4^{\prime \prime}$ or 1-1/4" Weldon shank
all threads shown are ASA Standard (or DIN 376 for metric)

| Thread | Order No. | Thread | Order No. |
| :--- | :--- | :--- | :--- |
| $1 / 4$ | ZGA 1/4 | $9 / 16$ | ZGA 9/16 |
| 5/16 | ZGA 5/16 | $5 / 8$ | ZGA 5/8 |
| 3/8 | ZGA 3/8 | $11 / 16$ | ZGA 11/16 |
| 7/16 | ZGA 7/16 | $3 / 4$ | ZGA 3/4 |
| $1 / 2$ | ZGA 1/2 |  |  |

Bushing - Reduces
1-1/4" Weldon shank to 3/4" Weldon shank
Order No. ZAP 200


Reducing Sleeve
DIN 2185
Order No. ZRH 430 for MT 4:3
(adapts MT4 to MT3)

## Powerful • Reliable

- Strong 8.2 Amp motor
- Compact, lightweight and portable - 14-1/4" high, 24 lbs.
- Designed for continuous use - Variable speed


## Drill up to 1-1/4" dia.

- Uses annular cutters; 5-3/4" stroke
- Twist drilling up to $1 / 2^{\prime \prime}$ dia.; 6-1/2" stroke with chuck
- Tapping up to 3/4" dia.*
- Automatic lubrication system


## REVERSIBLE <br> Model CSU 32RL has a variable-speed (100-450 RPM), reversible motor for tapping up to 3/4"



With included ${ }^{1} / 2^{\prime \prime}$ chuck (Part No. IBC 17), this model easily converts to standard drill presses with a $6^{1} / 2^{\prime \prime}$ stroke for conventional twist drills.


Standard Equipment includes auto lubrication, auto chuck cutter holder, 1/2" geared chuck, safety chain, carabin hook, allen keys, pilot pins and carrying case.

## CSU 32RL Specifications

| Motor Power | 8.2 Amp / 110 Volt |
| :---: | :---: |
| Weight | 24 lbs . |
| Hole Capacity | $1^{1 / 4} 4^{\prime \prime}$ dia. |
| Twist Drill Capacity | 1/2" dia. |
| Tapping Capacity | $3 / 4$ " |
| Speed | 450 RPM |
| Magnet Base Size | $65 / 16^{\prime \prime} \mathrm{W} \times 3^{1 / 1 / 4 " ~ H}$ |
| Dimensions | $14^{1 / 4} 4^{\prime \prime} \mathrm{H} \times 9{ }^{1 / 2} 2^{\text {" L x }} 43 / 8{ }^{\text {" W W }}$ |
| Magnetic Force (1" plate) | 3080 lbs . |
| Arbor Bore | $3 / 4$ " Weldon Shank |
| Spindle | 1/2"-20 UNF Thread |
| Automatic Lubrication | Included |
| Power Assist | Order Accessory ZPA 401 |

- Strong 10.5 Amp motor
- Compact, lightweight and portable - 16-1/2" high, 29 lbs.
- 2 -gear variable speed gearbox
- Designed for continuous use


## Drill up to 2" dia.

- Uses annular cutters; 5-1/4" stroke
- Twist drilling up to $7 / 8^{\prime \prime}$ dia.
- Tapping up to $15 / 16^{\prime \prime}$ dia.*
- Automatic lubrication system


## Keyless Cutter Mount

- Easy "twist and lock" keyless arbor
- Also includes manual arbor for 3/4" Weldon shank (MT2) with set screws


## REVERSIBLE

Model CSU 50RL has a variable-speed, reversible motor for tapping up to 15/16"
Optional quick-change tapping chuck with MT2 connection (Model GSW-222) has flexible collet to fit taps $5 / 16^{\prime \prime}$ to $5 / 8^{\prime \prime}$

## CSU 50AC Specifications

| Motor Power | 10.5 Amp / 110 Volt |
| :---: | :---: |
| Weight | 29 lbs . |
| Hole Capacity | 2" dia. |
| Twist Drill Capacity | 7/8" dia. |
| Tapping Capacity | 15/16" (CSU 50RL only) |
| Speeds | 1: 250 RPM, 2: 450 RPM |
| Magnet Base Size | $6^{1} / 2^{\prime \prime} \mathrm{W} \times 3{ }^{1} 22^{\prime \prime} \mathrm{H}$ |
| Dimensions | 161/2" H x 9"Lx 63/8" W |
| Magnetic Force (1" plate) | 3750 lbs . |
| Arbor Bore | $3 / 4$ " Weldon Shank |
| Spindle | MT2 |
| Automatic Lubrication | Included |
| Reversible Motor | Order CSU 50RL |
| Power Assist | Order Accessory ZPA 401 |

* Model CSU 50RL for tapping up to 15/16" dia.


## Integrated Safety

- SafeMag ${ }^{\text {TM }}$ Green/Red LED magnetic force indicator for safe operation
- Equipped with CoolMag ${ }^{\text {TM }}$ overheat protection
- Emergency-off function


With included $3 / 4^{\prime \prime}$ chuck (Part No. IBC 22) or MT2, these models easily convert to standard drill presses with a $4^{1 / 2 "}$ stroke for conventional twist drills.

Standard Equipment includes auto lubrication, auto chuck cutter holder, manual chuck with set screws, 1/2" geared chuck, safety chain, carabin hook, allen keys, pilot pins and carrying case. (CSU 50RL shown)

$\qquad$
$\qquad$
$\qquad$

UNITEC Practical Tools Inc.

## CSU 80AC \& CSU 100/3RL

## CSU 80AC

## Powerful high-torque motor with multiple speeds



CSU 80AC Specifications

| Motor Power | 15 Amp / 110 Volt* |
| :---: | :---: |
| Weight | 57 lbs . |
| Hole Capacity | 3/16" dia. |
| Twist Drill Capacity | 11/4" dia. |
| Speeds | 1: 100 RPM, 2: 175 RPM 3: 245 RPM, 4: 385 RPM |
| Magnet Base Size | $9 \mathrm{CW} \times 43 / 8 \mathrm{C}$ |
| Dimensions | $19^{1} / 2^{\prime \prime} \mathrm{H} \times 13^{3} / 8^{\prime \prime} \mathrm{L} \times 71 / 2^{\prime \prime} \mathrm{W}$ |
| Magnetic Force (1" plate) | 7040 lbs . |
| Arbor Bore | $3 / 44^{\prime \prime}$ (11/4" also available) |
| Spindle | MT3 |
| Automatic Lubrication | Included |
| Power Assist | Order Accessory ZPA 402 |

[^3]
## CSU 100/3RL

## Powerful reversible motor for drilling and tapping

See pages 26 and 43 for Tap Holders and Accessories

## CSU 100/3RL Specifications

| Motor Power | 16 Amp / 110 Volt ${ }^{*}$ |
| :---: | :---: |
| Weight | 57 lbs . |
| Hole Capacity | 4 ldia . |
| Twist Drill Capacity | 11/4" dia. |
| Tapping Capacity | $11 / 8 \mathrm{c}$ dia. |
| Speeds (variable) | 40-140 RPM, 120-480 RPM |
| Magnet Base Size | 9" W x 4" H |
| Dimensions | $19^{1} / 2^{\prime \prime} \mathrm{H} \times 13^{3} / 8^{\prime \prime} \mathrm{Lx} 7^{1} / 2^{\prime \prime} \mathrm{W}$ |
| Magnetic Force (1" plate) | 6600 lbs . |
| Arbor Bore | $3 / 44^{\prime \prime}$ ( $1^{1 / 4 " ~ a l s o ~ a v a i l a b l e) ~}$ |
| Spindle | MT3 |
| Automatic Lubrication | Included |
| Power Assist | Order Accessory ZPA 402 |

* 220 Volt / 50 Hz also available


Cutter capacity $2^{1 / 16 " 1}$ dia.

## Pneumatic power for hazardous environments

## Safe • Reliable

- Inherently safer than electromagnetic drills in hazardous atmospheres and wet environments where electricity requires "hot work permits"
- ATEX classified
- Industry's first completely air-operated magnetic drill - NO ELECTRICITY!
- Fail-safe permanent magnet is activated "on" and "off" by air pressure; in the event of a loss of air flow, the magnet will not disengage
- 1600 lbs. magnet holding strength


## Drill up to 2-1/16" dia.

- Uses annular cutters
- Twist drilling up to 5/8"
- Powerful 1.6 HP drill motor
- Long drill stroke - up to $10^{1 / 2 "} 4^{\prime \prime}$
- Pressurized coolant system lubricates cutter and reduces risk of sparking

$A B-4300-2 R$ shown with extra rack up (left) and extra rack down (right).

Model Comparison
AB-4300-2R AB-4300-2

| Drill Stroke |  |  |  |
| :---: | :---: | :---: | :---: |
| w/cutters $10^{1 / 4 "}$ | w/chuck $7^{1 / 2 "}$ | w/cutters $4^{7 / 8 "}$ | w/chuck $1^{3 / 4 "}$ |
| Height |  |  |  |
| closed | open | closed | open |
| $13^{1 ⁄ 2} 2^{\prime \prime}$ | 22 | $13^{1 / 21}$ | $17^{1 / 2} 2^{\prime \prime}$ |
| Weight |  |  |  |
| lbs. | kg | lbs. |  |
| 43 | 20 | 38 | 18 |


$\emptyset 2^{1 / 116 "}$

Model AB-4300-2


With a geared chuck adapter (Part No. IBC 18) and extra rack (Model No. AB-4300-2R), AIRBOR ${ }^{\text {TM }}$ easily converts to a standard drill press with a $7^{11 / 2 "}$ stroke.

Pressurized lubrication system (Part No. 94002 0020)


400

## Model AB-4300-2 / AB-4300-2R Specifications

| Motor Power (Pneumatic) | 1.6 HP |
| :---: | :---: |
| Air Consumption @ 90 PSI | 64 CFM (1/2" NPT Air Connection) |
| Hole Capacity | $2^{1 / 166^{\prime \prime}}$ dia. |
| No Load Speed | 400 RPM |
| Magnet Base Size | $8^{3 / 4} 4^{\prime \prime} \mathrm{W} \times 3^{1 / 2} 2^{\prime \prime} \mathrm{L}$ |
| Dimensions | $13^{1} / 2^{\prime \prime} \mathrm{H} \times 12^{1} / 2^{\prime \prime} \mathrm{L} \times 4^{3} / 4^{\prime \prime} \mathrm{W}$ |
| Magnetic Force (1" plate) | 1600 lbs . |
| Arbor Bore | 3/4" Weldon Shank |
| Automatic Lubrication | Included |
| Stroke Length $4^{7} / 8^{\prime \prime}$ | Order Model AB-4300-2 |
| Stroke Length 101/4" | Order Model AB-4300-2R |

Annular Cutters: pages 32-41 > Accessories: pages 42-50

## HB 4400 for Subsea Drilling

## Hydraulic for marine and construction - works underwater

## Safe • Reliable

- Ideal for industrial, construction, marine and mining applications
- Drill structural steel and other metals
- Hydraulic motor safe for underwater use
- Manually operated permanent magnet with ratchet control has holding strength of 1300 lbs .


## Drill up to 2-1/16" dia.

- Uses annular cutters
- Twist drilling up to 1/2" dia.
- Automatic lubrication



With a 3/4"
chuck (Part No. 602045A), this model easily converts to a standard drill press with a $3^{\prime \prime}$ stroke.

## Model HB 4400 Specifications

| Motor Power (Hydraulic) | 1.5 HP |
| :---: | :---: |
| Weight | 481/2 lbs. |
| Hole Capacity | $2^{1 / 16 " ~ d i a . ~}$ |
| Twist Drill Capacity | 1/2" dia. |
| No Load Speed, Variable | 0-630 RPM |
| Hydraulic Supply | Flow 6.5 GPM @ 2000 PSI |
| Magnet Base Size | 71/4" W x 3"L |
| Dimensions | $18^{1} / 2^{\prime \prime} \mathrm{H} \times 12^{1 ⁄ 2 \prime 2} \mathrm{~L} \times 7^{\prime \prime} \mathrm{W}$ |
| Magnetic Force (1" plate) | 1300 lbs. |
| Automatic Lubrication | Included |

## Annular Cutters

## Achieve burr-free finished holes, without predrilling or stepdrilling



Benefits of CS Unitec's Cutter Design:
Double-action tooth geometry cuts, splits and ejects chips more efficiently,

- increasing cutting speed
- reducing tooth load
- minimizing tool wear
- lengthening cutter life

Engineered with a tapered inner wall for smooth, easy slug ejection.

Center hole for pilot pin accurately aligns the cutter, allows for internal lubrication and removes the slug.


For Cobalt Cutters, Rail Cutters and special sizes, see page 40. For One-Touch TCT Cutters, see page 41.


## Unibroach ${ }^{\circ}$ Annular Cutters

## High-speed steel for drilling 3x faster than twist drills



Annular Cutter Recommended Revolutions Per Minute
Recommended Feed Rate: . 002 - . 004 inches per revolution


Annular Cutters are the standard hole-making drills in the industry. Ideal for heavy-duty use on-site or in the shop, our HSS Unibroach ${ }^{\text {TM }}$ cutters are available in the following sizes:

| Drill Depth | 1" | 2" | $3{ }^{\prime \prime}$ | 4" | 6" | 8" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Diameter | $\varnothing^{7 / 16 "}$ to ఠ $5^{1 / 1 / 8}$ | $\varnothing^{7 / 16 "}$ to ఠ $5^{1} / 8^{\prime \prime}$ | $\left\lvert\, \begin{gathered} \varnothing^{3 / 4} 4^{\prime \prime} \\ \text { to } \\ \varnothing 5^{1 / 1} 8^{\prime \prime} \end{gathered}\right.$ | $\sigma^{3 / 4} 4^{\prime \prime}$ to ఠ $5^{1 / 8 "}$ | $\begin{aligned} & \text { o } 3 / 4 "^{\text {to }} \\ & \text { to } 5^{1 / 8 "} \end{aligned}$ | $\begin{gathered} \sigma^{3 / 4 " 1} \\ \text { to } \\ \text { o } 5^{1 / 8 "} \end{gathered}$ |

## Special sizes available; metric cutters available on request.

Every annular cutter includes a corresponding pilot pin.

- CNC precision ground for fast penetration, accuracy and long life
- Flutes run the length of the cutter for efficient chip clearance, increased drilling productivity and decreased cutter breakage
- Drill holes 3 times faster than twist drills
- Produce reamed-quality, burr-free holes and solid slugs
- Reduce machine size and weight
- Cutting edges are resharpenable
- Eliminate time-consuming, costly pilot holes and step drilling



## 6-Series HSS



## Unibroach ${ }^{\circ}$ Annular Cutters

## TiAIN coating for up to 4x tool life, less friction and more power

 Less Friction = Less Heat = More Holes!

ARMOR-PLATED Unibroach ${ }^{\text {TM }}$ Cutters, at 90Rc hardness, are the state-of-the-art in hole cutting technology. They multiply service life, reduce cost and increase productivity.

ARMOR-PLATED Unibroach ${ }^{\text {Tm }}$ cutters are available in the following sizes:

| Drill Depth | 1" | 2" | 3" |
| :---: | :---: | :---: | :---: |
| Diameter | $\varnothing^{7 / 16 "}$ to ø $51 / 8^{\prime \prime}$ | $\varnothing^{7 / 16 "}$ to © $51 / 8$ " | $\begin{gathered} \sigma^{3 / 4 "} \\ \text { to } \\ \text { o } 51 / 8^{\prime \prime} \end{gathered}$ |



Special sizes available; metric cutters available on request. Every annular cutter includes a corresponding pilot pin.

- 3 to 4 times longer tool life with TiAIN coating
- Drill with less friction and more power
- Withstands higher working temperatures - up to $1480^{\circ} \mathrm{F}\left(800^{\circ} \mathrm{C}\right)$
- Dry drilling or lubricating with water simplifies working conditions and cleanup*
- Prevents cold weld - metal chips do not adhere to the cutter
- Ideal for structural steel and hard metal
- 3/4" dia. shank ( $1^{1 / 1 / 4 " ~ d i a . ~ s h a n k ~ a v a i l a b l e) ~}$
* After the TiAIN coating is worn, lubricate with cutting oil


See page 46 for ARMORPLATED Unibroach ${ }^{\text {TM }}$ TiAIN Annular Cutter Starter Kit.

## 8-Series ARMOR-PLATED TIAIN

## ARMOR-PLATED = Less Friction = Less Heat = More Holes! Increase tool life and achieve faster feed rates



Shank size: 3/4" up to 3" dia.

> ARMOR-PLATED Unibroach 90Rc hardness, are the state-of-the-art in hole cutting technology. They multiply service life, reduce cost and increase productivity.


Pilot pin included with every annular cutter

## ARMOR-PLATED Cutter Kits

Each armor-plated cutter kit comes with the following: 9/16", 11/16", 13/16", 15/16", 1-1/16", pilot pins \& carrying case.

| Order No. | Description |
| :---: | :--- |
| $8-1-001$ T | 1" depth Cutter Kit |
| $8-1-002$ T | 2" depth Cutter Kit |



## 3"+ Diameter Cutters

Metric and larger diameter cutters available on request.

## ARMOR-PLATED Unibroach ${ }^{\text {™ }}$ TiAIN Cutters:

- Drill with less friction and more power
- Withstand higher working temperatures - up to $1480^{\circ} \mathrm{F}\left(800^{\circ} \mathrm{C}\right)$
- Dry drill or lubricate with water to simplify working conditions and cleanup**
- Prevent cold weld - metal chips do not adhere to the cutter
- Are ideal for structural steel and hard metal
** After the TiAIN coating is worn, lubricate with cutting oil


## Unibroach ${ }^{\circ}$ Annular Cutters

## TCT Carbide Hornet - tungsten carbide-tipped for high-speed cutting



- Use high-speed RPM for best results and faster holemaking
- Ideal for drilling steel with rust or paint and bolting applications
- Will outlast High-speed Steel cutters
- Leaves a burr-free finished hole
- Available in all sizes (fractional and metric)
- 2 flats
- $3 / 4$ " or $1^{1 / 4} 4^{\prime \prime}$ shank


Closeup of tungstencarbide teeth.

TCT Hornet cutters are available in the following sizes:

| Drill Depth | 1" | 1-3/8" | 2-3/8" | 3-3/8" | 4" | 6" | 8" |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Diameter | $\begin{array}{\|c\|} \hline \text { o } 1 / 2 " \\ \text { to } \\ \sigma 1^{1 / 2 "} \end{array}$ | $\begin{array}{\|c\|} \hline \propto 19 / 16 " \\ \text { to } \\ \varnothing 2 " \end{array}$ | $\begin{array}{\|c\|} \hline \text { ø } 1 / 2^{\prime \prime} \\ \text { to } \\ \text { ø } 5^{1 / 8 " ~} \end{array}$ | $\begin{array}{\|c\|} \hline \sigma^{3 / 4 "} \\ \text { to } \\ \text { o } 5^{1 / 8 "} \end{array}$ | $\begin{array}{\|c\|} \hline \sigma^{3 / 4} 4^{\prime \prime} \\ \text { to } \\ \varnothing 5^{1 / 1} 8^{\prime \prime} \end{array}$ | ø $13 / 16^{\prime \prime}$ to の $5^{1} / 8^{\prime \prime}$ | ø ${ }^{13 / 16 "}$ to の $5^{1} / 8^{\prime \prime}$ |

Special sizes available; metric cutters available on request.
Every annular cutter includes a corresponding pilot pin.


Armor plating available upon request.

| 9-Series Annular Cutter Recommended RPM Rates |  |  |  |
| :---: | :---: | :---: | :---: |
| Cutter Size | Stainless \& Alloy Steel | Mild <br> Steel | Iron Plate |
| Diameter | RPM | RPM | RPM |
| 1/2" - 5/8" | 500-800 | 600-1000 | 800-1200 |
| 11/16" - 13/16" | 400-640 | 480-800 | 640-960 |
| 7/8" - 15/16" | 330-530 | 400-660 | 530-800 |
| 1"-13/16" | 270-420 | 320-530 | 420-640 |
| $1^{1 / 4} 4^{\prime \prime}-1^{3} / 8^{\prime \prime}$ | 230-370 | 270-460 | 360-550 |
| 17/16" - 19/16" | 200-320 | 240-400 | 320-480 |
| $1^{5 / 88^{\prime \prime}}-1^{3 / 4}{ }^{\prime \prime}$ | 180-280 | 210-350 | 280-420 |
| $1^{13 / 16 " ~}-2^{\prime \prime}$ | 160-260 | 190-320 | 260-380 |
| $2^{1 / 166^{\prime \prime}-2^{3 / 16 "}}$ | 145-230 | 170-290 | 230-350 |
| $2^{1 / 4} 4^{\prime \prime}-2^{3 / 8^{\prime \prime}}$ | 135-210 | 160-270 | 210-320 |
| $2^{7 / 166^{\prime \prime}}-2^{9 / 16 "}$ | 120-200 | 150-250 | 200-300 |
| $2^{5 / 8} 8^{\prime \prime}-2^{3 / 4}{ }^{\prime \prime}$ | 115-180 | 140-230 | 180-270 |
| $2^{13 / 166^{\prime \prime}}-2^{15 / 16 "}$ | 110-170 | 130-210 | 170-260 |
| $3^{\prime \prime}-3^{1 / 8}{ }^{\text {" }}$ | 100-160 | 120-200 | 160-240 |
| $3^{3 / 16} 6^{\prime \prime}-3^{3} / 8^{\prime \prime}$ | 95-150 | 115-190 | 150-230 |
| 37/16" - 39/16" | 90-140 | 110-180 | 140-210 |
| $3^{5} 8^{\prime \prime}-3^{3 / 4}{ }^{\prime \prime}$ | 85-135 | 105-170 | 135-200 |
| $3^{13 / 16 " ~-~} 3^{15 / 16 "}$ | 80-130 | 95-160 | 130-195 |
| 4"-45/16" | 70-120 | 90-145 | 120-170 |
| $4^{3 / 8 / 8}-43 / 4{ }^{\prime \prime}$ | 70-110 | 80-135 | 110-160 |
| $4^{13 / 16 " ~}-5^{1 / 8 "}$ | 65-100 | 75-125 | 100-150 |

# 9-Series - TCT Carbide Hornet 

1" Depth

| Order No. | Diameter |
| :---: | :---: |
| 9-1-116 C | 1/2" |
| 9-1-118 C | 9/16" |
| 9-1-120 C | 5/8" |
| 9-1-122 C | 11/16" |
| 9-1-124 C | 3/4" |
| 9-1-126 C | 13/16" |
| 9-1-128 C | 7/8" |
| 9-1-130 C | 15/16" |
| 9-1-132 C | $1{ }^{\prime \prime}$ |


| Order No. | Diameter |
| :---: | :---: |
| 9-1-216 C | 1/2" |
| 9-1-218 C | 9/16" |
| 9-1-220 C | 5/8" |
| 9-1-222 C | 11/16" |
| 9-1-224 C | 3/4" |
| 9-1-226 C | 13/16" |
| 9-1-228 C | 7/8" |
| 9-1-230 C | 15/16" |
| 9-1-232 C | $1{ }^{11}$ |
| 9-1-234 C | 1-1/16" |
| 9-1-236 C | 1-1/8" |
| 9-1-238 C | 1-3/16" |
| 9-1-240 C | 1-1/4" |
| 9-1-242 C | 1-5/16" |
| 9-1-244 C | 1-3/8" |
| 9-1-246 C | 1-7/16" |
| 9-1-248 C | 1-1/2" |
| 9-1-250 C | 1-9/16" |
| 9-1-252 C | 1-5/8" |
| 9-1-254 C | 1-11/16" |
| 9-1-256 C | 1-3/4" |
| 9-1-258 C | 1-13/16" |
| 9-1-260 C | 1-7/8" |
| 9-1-262 C | 1-15/16" |
| 9-1-264 C | 2" |


| Order No. | Diameter |
| :---: | :---: |
| 9-1-324 C | 3/4" |
| 9-1-326 C | 13/16" |
| 9-1-328 C | 7/8" |
| 9-1-330 C | 15/16" |
| 9-1-332 C | $1{ }^{1 \prime}$ |
| 9-1-334 C | 1-1/16" |
| 9-1-336 C | 1-1/8" |
| 9-1-338 C | 1-3/16" |
| 9-1-340 C | 1-1/4" |
| 9-1-342 C | 1-5/16" |
| 9-1-344 C | 1-3/8" |
| 9-1-346 C | 1-7/16" |
| 9-1-348 C | 1-1/2" |
| 9-1-350 C | 1-9/16" |
| 9-1-352 C | 1-5/8" |
| 9-1-354 C | 1-11/16" |
| 9-1-356 C | 1-3/4" |
| 9-1-358 C | 1-13/16" |
| 9-1-360 C | 1-7/8" |
| 9-1-362 C | 1-15/16" |
| 9-1-364 C | 2" |
| 9-1-366 C | 2-1/16" |
| 9-1-368 C | 2-1/8" |

## 1-3/8" Depth

| Order No. | Diameter |
| :--- | :--- |
| $9-1-150$ C | $1-9 / 16^{\prime \prime}$ |
| $9-1-152$ C | $1-5 / 8^{\prime \prime}$ |
| $9-1-154$ C | $1-11 / 16^{\prime \prime}$ |
| $9-1-156$ C | $1-3 / 4^{\prime \prime}$ |
| $9-1-158$ C | $1-13 / 16^{\prime \prime}$ |
| $9-1-160$ C | $1-7 / 8^{\prime \prime}$ |
| $9-1-162$ C | $\mathbf{1 - 1 5 / 1 6 ^ { \prime \prime }}$ |
| $9-1-164$ C | $\mathbf{2 "}^{\prime \prime}$ |


| Order No. | Diameter |
| :---: | :---: |
| 9-1-2114 C | 3-9/16" |
| 9-1-2116 C | 3-5/8" |
| 9-1-2118 C | 3-11/16" |
| 9-1-2120 C | 3-3/4" |
| 9-1-2122 C | 3-13/16" |
| 9-1-2124 C | 3-7/8" |
| 9-1-2126 C | 3-15/16" |
| 9-1-2128 C | 4" |
| 9-1-2130 C | 4-1/16" |
| 9-1-2132 C | 4-1/8" |
| 9-1-2134 C | 4-3/16" |
| 9-1-2136 C | 4-1/4" |
| 9-1-2138 C | 4-5/16" |
| 9-1-2140 C | 4-3/8" |
| 9-1-2142 C | 4-7/16" |
| 9-1-2144 C | 4-1/2" |
| 9-1-2146 C | 4-9/16" |
| 9-1-2148 C | 4-5/8" |
| 9-1-2150 C | 4-11/16" |
| 9-1-2152 C | 4-3/4" |
| 9-1-2154 C | 4-13/16" |
| 9-1-2156 C | 4-7/8' |
| 9-1-2158 C | 4-15/16" |
| 9-1-2160 C | 5" |
| 9-1-2162 C | 5-1/8" |


| Order No. | Diameter |
| :---: | :---: |
| 9-1-3118 C | 3-11/16" |
| 9-1-3120 C | 3-3/4" |
| 9-1-3122 C | 3-13/16" |
| 9-1-3124 C | 3-7/8" |
| 9-1-3126 C | 3-15/16" |
| 9-1-3128 C | 4" |
| 9-1-3130 C | 4-1/16" |
| 9-1-3132 C | 4-1/8" |
| 9-1-3134 C | 4-3/16" |
| 9-1-3136 C | 4-1/4" |
| 9-1-3138 C | 4-5/16" |
| 9-1-3140 C | 4-3/8" |
| 9-1-3142 C | 4-7/16" |
| 9-1-3144 C | 4-1/2" |
| 9-1-3146 C | 4-9/16" |
| 9-1-3148 C | 4-5/8" |
| 9-1-3150 C | 4-11/16" |
| 9-1-3152 C | 4-3/4" |
| 9-1-3154 C | 4-13/16" |
| 9-1-3156 C | 4-7/8" |
| 9-1-3158 C | 4-15/16" |
| 9-1-3160 C | 5" |
| 9-1-3162 C | 5-1/8" |



Shank size:
3/4" for cutters up to 3" dia.
1-1/4" for cutters 3-1/16 to 5-1/8" dia.
Pilot pin included with every annular cutter

## Cutter Kits

Each hornet carbide cutter kit comes with the following: 9/16", 11/16", 13/16", 15/16", 1-1/16", pilot pins \& carrying case.

Order No. Description
9-1-001 C 1" depth Cutter Kit 9-1-002 C 2-3/8" depth Cutter Kit
**We also stock Metric Carbide cutters. Please call us for pricing and delivery. Larger diameters and special sizes are available upon request.

## Pilot Pins for 9-Series

| Order No. | Description |
| :--- | :--- |
|  | For 3/4" Shanks |
| $9-3-102$ C | $5 / 8^{\prime \prime}-2^{\prime \prime}$ dia., 1-3/8" depth |
| $9-3-202$ C | $11 / 16^{\prime \prime}-2-5 / 16^{\prime \prime}$ dia., 2" depth |
| $9-3-302$ C | $13 / 16^{\prime \prime}-2^{\prime \prime}$ dia., 3" depth |
|  | For 1-1/4" Shanks |
| 9-3-202A C $2-3 / 8^{\prime \prime}-5-1 / 8^{\prime \prime}$ dia., 2" depth <br> $9-3-302 A$ C $2-3 / 8^{\prime \prime}-5-1 / 8^{\prime \prime}$ dia., 3" depth |  |
| Option for Cutters $3^{\prime \prime}$ and $4^{\prime \prime}$ Depth |  |



## Unibroach ${ }^{\circ}$ Annular Cutters

## Unibroach ${ }^{\circ}$ Large-Hole Cutting

 Cut holes up to $5-1 / 8^{\prime \prime}$ dia., 12 " deep!

Drill perfect holes up to $5^{1 / 1 / 8}$ diameter without runout

- Standard with $3 / 4$ " or $1^{1 / 1 / 4 " ~ s h a n k ~ d i a m e t e r s ~}$
- More cutting teeth to distribute the load evenly increase tool life and achieve faster feed rates
- Use on milling machines, drill presses,

CNC and other equipment

- A solid slug has a higher value for scrap metal

Large HSS,
TCT or M42 Cutters

## Cut holes up to 5-1/8" dia. and 12" deep! Available in TCT Carbide, HSS, Cobalt and ARMOR-PLATED Unibroach ${ }^{\text {M }}$



## 4-Series Carbide-Tipped Rail Cutters Cut holes up to 1-11/16" dia. in track rail

- Carbide-tipped rail bits for long life and quick, efficient cutting through rust and corrosion
- Round, clean, burr-free hole better than spade drills
- 3/4" shank
- More cutting teeth to distribute the load evenly - increase tool life and achieve faster feed rates
- Pilot pin included with each cutter
- Armor plating available upon request


1-3/8" Depth

| Order No. | Diameter | Order No. | Diameter |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4-1-124 C | 3/4" | 4-1-140 C | 1-1/4" | Pilot Pin for 4-Series |  |
| 4-1-128 C | 7/8" | 4-1-142 C | 1-5/16" |  |  |
| 4-1-130 C | 15/16" | 4-1-144 C | 1-3/8" | Order No. | Description |
| 4-1-132 C | $1{ }^{1 \prime}$ | 4-1-146 C | 1-7/16" | For 3/4" Shanks |  |
| 4-1-134 C | 1-1/16" | 4-1-148 C | 1-1/2" |  |  |
| 4-1-136 C | 1-1/8" | 4-1-152 C | 1-5/8" | 4-3-102 | 5/8"-2" dia., |
| 4-1-138 C | 1-3/16" | 4-1-154 C | 1-11/16" |  | 1-3/8" depth |

## 10-Series One-Touch TCT

Tungsten carbide-tipped with one-touch shank


- No-tool cutter replacement
- When holding with a set screw, tighten to weldon flat rather than dimple area
- Leaves a burr-free finished hole
-3/4" shank
- Compatible with Nitto Kohki and other auto-feed machines
- Armor plating also available upon request

One-Touch TCT cutters are available in the following sizes:
1-3/8" drill depth - ø ${ }^{5 / 8 "}$ to ø 2 "
2" drill depth - ø ${ }^{1 / 2 "}$ to $\varnothing \mathbf{2}^{3 / 4} \mathbf{4}^{\prime \prime}$
Every annular cutter includes
a corresponding pilot pin.

- Metric cutters available on request


## 1-3/8" Depth

| Order No . | Diameter |
| :---: | :---: |
| 10-1-120 HC | 5/8" |
| 10-1-122 HC | 11/16 |
| 10-1-124 HC | 3/4" |
| 10-1-126 HC | 13/1 |
| 10-1-128 HC |  |
| 10-1-130 HC | 15/1 |
| 10-1-132 HC | $1{ }^{1 \prime}$ |
| 10-1-134 HC | 1-1/1 |
| 10-1-136 HC | 1-1/8" |
| 10-1-138 HC | 1-3/16" |
| 10-1-140 HC | 1-1/4" |
| 10-1-142 HC | 1-5/16" |
| 10-1-144 HC | 1-3/8 |
| 10-1-146 HC | 1-7/16" |
| 10-1-148 HC | 1-1/2" |
| 10-1-150 HC | 1-9/16" |
| 10-1-152 HC | 1-5/8" |
| 10-1-154 HC | 1-11/16 |
| 10-1-156 HC | 1-3/4" |
| 10-1-158 HC | 1-13/16 |
| 10-1-160 HC | 1-7/8" |
| 10-1-162 HC | 1-15/ |
| 10-1-164 HC | 2" |

## 2" Depth

| Order No. | Diameter | Order No. | Diameter |
| :---: | :---: | :---: | :---: |
| 10-1-216 HC | 1/2" | $10-1-266 \mathrm{HC}$ | 2-1/16" |
| 10-1-218 HC | 9/16" | $10-1-268 \mathrm{HC}$ | 2-1/8" |
| 10-1-220 HC | 5/8" | 10-1-270 HC | 2-3/16" |
| 10-1-222 HC | 11/16" | 10-1-272 HC | 2-1/4" |
| 10-1-224 HC | 3/4" | $10-1-274$ HC | 2-5/16" |
| $10-1-228$ HC | 7/8" | 10-1-276 HC | 2-3/8" |
| $10-1-230 \mathrm{HC}$ | 15/16" | $10-1-278 \mathrm{HC}$ | 2-7/16" |
| $10-1-232 \mathrm{HC}$ | $1{ }^{11}$ | $10-1-280 \mathrm{HC}$ | 2-1/2" |
| 10-1-234 HC | 1-1/16" | 10-1-282 HC | 2-5/8" |
| $10-1-236 \mathrm{HC}$ | 1-1/8" | $10-1-288 \mathrm{HC}$ | 2-3/4" |
| 10-1-238 HC | 1-3/16" |  |  |
| 10-1-240 HC | 1-1/4" |  |  |
| 10-1-242 HC | 1-5/16" |  |  |
| 10-1-244 HC | 1-3/8" |  |  |
| 10-1-246 HC | 1-7/16" |  |  |
| 10-1-248 HC | 1-1/2" |  |  |
| 10-1-250 HC | 1-9/16" |  |  |
| 10-1-252 HC | 1-5/8" |  |  |
| 10-1-254 HC | 1-11/16" |  |  |
| 10-1-256 HC | 1-3/4" |  |  |
| 10-1-258 HC | 1-13/16" |  |  |
| 10-1-260 HC | 1-7/8" |  |  |
| 10-1-262 HC | 1-15/16" |  |  |
| $10-1-264$ HC | 2" |  |  |

Pilot pin included with
every annular cutter


Shank size: 3/4"

Pilot Pins for 10-Series

| Order No. | Description |
| :--- | :--- |
|  | For $3 / 4^{\prime \prime}$ Shanks |
| $9-3-102$ C | $5 / 8^{\prime \prime}-2^{\prime \prime}$ dia., 1-3/8" depth |
| $9-3-202$ C | $11 / 16^{\prime \prime}-2-5 / 16^{\prime \prime}$ dia., 2" depth |

## Lubricants

Coolant extends the life of cutting tools

## ProLube ${ }^{\text {TM }}$ Ideal for cutting steel, stainless steel and hard metals



Your cutting tools will work cooler, longer and more efficiently with ProLube ${ }^{\text {TM }}$ Lubricants from CS Unitec.

- Prolong tool life by reducing friction and wear
- Unique composition provides excellent adhesion to cutting tools for maximum lubrication
- Corrosion inhibitor
- Non-toxic

ProLube Paste CS 7030-712
12 oz. tub

ProLube Liquid Water soluble 16:1

CS 7010-504-1 gal. bottle

Upgrade your drill's cooling system: see page 44 for arbors with automatic cooling.

## Cutting Oil

- High-performance, biodegradable, non-hazardous oils and pastes
- Oils for heavy removal of metal, including stainless steel
- Chlorine-free (MSDS on bottle/tub)
- Not necessary to dilute with water

Cutting Oil: Part No. ZHS 006 (quart) Part No. ZHS 005 (gallon)


## Pressurized Coolant Bottle

Use with any automatic internal lubrication system.
Part No. 940020020

## Pilot Pins for Cutters

- Milled channel efficiently supplies internal lubrication to cutting teeth
- Available for cutter diameters ranging from $7 / 16^{\prime \prime}$ to $5^{1 / 18 "}$ and $1^{\prime \prime}, 2^{\prime \prime}, 3^{\prime \prime}$ and 4 " depth of cut
- See price list for part numbers


Shown at right: 2-piece pin for 3" and 4" depth cutters with 8 mm pilot hole (Part No. 7-3-402).

## Accessories

## Drill Chucks for Straight Shank Twist Drills

- Two capacities: $1 / 22^{\prime \prime}$ and $3 / 4$ "; four chucks and adapters to fit all magnetic drills
A) IBC $17-1 / 2^{\prime \prime}$ chuck for MAB 425 and CSU 32 series
B) IBC 18 - $1 / 2$ " chuck with $3 / 4$ " shank for MABasic 200, MABasic 400, MAB 3000 and AIRBOR ${ }^{\text {TM }}$ (fits all drills with $3 / 4$ " arbor bore)
C) IBC 21 - 3/4" chuck with MT3 shank for MAB 825, MAB 845, CSU 80AC and CSU 100/3RL
D) IBC 22 - 3/4" chuck with MT2 shank for MABasic 450, MAB 455, MAB 485, MAB 525 and CSU 50 series



## Quick-change Tapping Tools, Collets and Chucks



| Tap Collets and Reducing Adapters |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Tap Collets with $3 / 4$ " or $1-1 / 4^{\prime \prime}$ Weldon shank all threads shown are ASA Standard (or DIN 376 for metric) |  |  |  |
|  | Thread | Order No. | Thread | Order No. |
|  | 1/4 | ZGA 1/4 | 9/16 | ZGA 9/16 |
|  | 5/16 | ZGA 5/16 | 5/8 | ZGA 5/8 |
|  | 3/8 | ZGA 3/8 | 11/16 | ZGA 11/16 |
|  | 7/16 | ZGA 7/16 | 3/4 | ZGA 3/4 |
|  | 1/2 | ZGA 1/2 |  |  |



See page 26 for additional tapping accessories.


Part No. GSW-830C tapping chuck includes two variable clamp collets to tap $3 / 8^{\prime \prime}$ to $1^{1 / 8 "}$. It is the least expensive system if you will tap more than 4 sizes. GSW-830C has an MT3 connection. For use with all MT3 drills.

Variable clamp collets for use in tap chuck No. GSW-830:
Part No. GST-160 variable clamp collet for shanks $3 / 8^{\prime \prime}-5 / 8^{\prime \prime}$.
Part No. GST-230 variable clamp collet for shanks $5 / 8^{\prime \prime}$ - $7 / 8^{\prime \prime}$.

Part No. GSW-444 quick-change tapping chuck with MT4 connection (for MAB 1300). Collets not included. GSS-420 collet for 20 mm shanks GSS-422 collet for 22 mm shanks GSS-427 collet for 27 mm shanks GSS-433 collet for 33 mm shanks GSS-442 collet for 42 mm shanks


[^4]

GSS-4xx Collet

## Accessories

## Arbors for Annular Cutters

- Use on any magnetic drill stand, drill press or shop equipment with a Morse Taper intake of No. 2, 3 or 4
- Available for Annular Cutter shank sizes of $3 / 4$ " or $11 / 4$ " Weldon
- Available for automatic internal cooling or manual cooling


Manual Cooling


ZIA 219M - Morse Taper No. 2
3/4" arbor bore
ZIA 319M - Morse Taper No. 3
3/4" arbor bore
ZIA 30/75 - Morse Taper No. 3
$3 / 4$ " arbor bore, 3 " depth
ZIA 419M - Morse Taper No. 4
3/4" arbor bore


## Automatic Cooling

ZIA 219KN - Morse Taper No. 2
3/4" arbor bore
ZIA 319KN - Morse Taper No. 3
3/4" arbor bore
ZIA 30/32 - Morse Taper No. 3
$1^{11 / 4 "}$ arbor bore

ZIA 432KMN - Morse Taper No. 4
$11 / 4$ " arbor bore

## Quick-lock Arbor with Automatic Internal Cooling

- Keyless for fast, no-tools changeover for 3/4" dia. shank annular cutters
- Automatic internal cooling
- Turn, click... go!

ZSS 200 - Morse Taper No. 2 for 3/4" dia. shank annular cutters

ZSS 300 - Morse Taper No. 3 for 3/4" dia. shank annular cutters


Keyless, quick-change system for annular cutters saves time and money.
Just twist and lock!


## Power Assist



The Power Assist is a standard capstan, designed with delayed torque transfer. This decreases the load on both cutter and drilling machine, allowing the machine to maintain max. RPM under full load.

- Reduces drilling time • Prevents cutter breakage
- Extends lifespan of cutter/drill bit and machine

ZPA 401 - Power Assist for CSU 32 and CSU 50 series
ZPA 402 - Power Assist for CSU 80 and CSU 100/3 series

Power
Assist Capstan

## Accessories

## Extensions for Annular Cutters <br> Extra-long holders extend stroke of drills



- Extend cutter reach up to 18"
- Available for magnetic drills with $3 / 4$ " arbor bore or MT3
- Also available with 3 flats for straight shank drill chucks and R8 shanks for drill presses
- Drill difficult-to-reach areas
- Extend cutter reach over the side or through an existing hole*

7-9-902-2" extension
7-9-903-3" extension
7-9-906-6" extension
7-9-912 - 12" extension 7-9-918 - 18" extension

* Hole diameter must be larger than 15/16" to accommodate width of extension

We also offer extensions with the following connections:


7-9-100 - 2-1/8" length, 1/2" shank
7-9-200 - 2" length, 3/4" shank


7-9-500 - R8, 1-3/4" length; 3/4" arbor bore
7-9-506 - R8, 6 " length; 3/4" arbor bore
7-9-70C - R8, 2-3/4" length; 1-1/4" arbor bore

## 2-in-1 Drill/Taps Drill and tap with one tool

National Coarse Threads (UNC) - sizes available:
CS500-1/2" x 13 UNC CS875-7/8" x 9 UNC
CS625-5/8" x 11 UNC CS1000-1" x 8 UNC
CS750-3/4" x 10 UNC CSDT-UNCKIT - 1/2", 5/8", 3/4" \& 1" drill/taps


## $82^{\circ}$ and $90^{\circ}$ Countersinks

- Manufactured of HSS with $5 \%$ cobalt
-3/4" Weldon shank

Countersink hole sizes:
CTS 30 from $5 / 8^{\prime \prime}$ to 2" / $82^{\circ}$
CTS 50 from ${ }^{5} / 8^{\prime \prime}$ to $2^{1 ⁄} 8^{\prime \prime} / 90^{\circ}$


## Detachable Chip Guard Protects against flying chips when drilling

ZSS 050 - for MAB 150, MAB 425, MAB 485 and MAB 525

## ACGOSOMOS

## Starter Kits

CS Unitec starter kits offer the essentials you need to begin drilling. We have two options that provide a cost-effective tool set for your application.


## HSS Steel Cutter Starter Kit

## ZST 100S Kit Includes:

Set of 5 annular cutters (one each of the following):
9/16" dia. x 1" depth (6-1-118) 11/16" dia. x 1" depth (6-1-122)
13/16" dia. x 1" depth (6-1-126) 15/16" dia. x 1" depth (6-1-130)

1-1/16" dia. x 1 " depth (6-1-134)
2 pilot pins • 1 cutter storage box • 1 Power Worker magnetic stick (POW 100) 1 quart high-performance cutting oil (ZHS 006)
See pages 34-35 for more information on HSS annular cutters.

## Armor-Plated TIAIN Cutter Starter Kit

ZST 100P Kit Includes:
Set of 5 annular cutters (one each of the following):
9/16" dia. x 1 " depth (8-1-118) 11/16" dia. x 1 " depth (8-1-122) $13 / 16$ " dia. $x 1^{\prime \prime}$ depth ( $8-1-126$ ) 15/16" dia. x 1 " depth ( $8-1-130$ ) 1-1/16" dia. x 1 " depth (8-1-134)
2 pilot pins • 1 cutter storage box • 1 Power Worker magnetic stick (POW 100) 1 quart high-performance cutting oil (ZHS 006)
See pages 36-37 for more information on Armor-Plated TiAIN annular cutters.


## Power Worker - simple cleanup of steel chips Rare earth magnet cleans metal parts and shavings



- Easily clean up sharp-edged drill chips, screws and other metal parts - Items are safely ejected off of Power Worker without hand contact - Ideal for hard-to-reach spaces

UNITEC

## Clamping Devices

## MOBIL CLAMP

## A true advance in magnetic drilling technology: The new clamping system MOBIL CLAMP can be used to convert a magnetic drilling machine into a bench drill.

Extends the functionality of your portable magnetic drill. Ideal for parts that previously could only be drilled in the workshop - they can now be machined on site. MOBIL CLAMP makes it possible to drill, countersink, ream or tap small parts, since these can be mounted into the quick clamping device.

With the mounting of a magnetic drilling machine onto the surface of the vice and the subsequent activation of the magnet, you will have a versatile, stationary drilling machine in next to no
 time. The magnetic drilling machine becomes a multi-purpose machine: whether large or small applications, flat or high, with the twist drill or the reamer, everything is possible. A stable support, designed for the MOBIL CLAMP clamping device, ensures the correct working height and a comfortable and reliable operation.


MOBIL CLAMP

| Order No. | Jaw <br> width | Quick-action <br> clamping jaw | V-block <br> clamping jaw |
| :---: | :---: | :---: | :---: |
| ZMC 180$4^{\prime \prime}$ | 3.15 " (80mm) | • |  |
|  | $(100 \mathrm{~mm})$ |  |  |
| clamping width |  |  |  |

ZMC 300 Base stand for clamping device


## Clamping Devices

## Drilling stand and vise for hand drills

Industrial drilling pillars for commercial hand drills with 43mm chuck journal diameter. Optimum stability by cast base plate combined with a pillar top of the MAB series.
Versatile usability by a drill vise with $4^{\prime \prime}(100 \mathrm{~mm})$ jaw width (special accessories).
Screws for slots are available for additional security under higher loads (special accessories). Working stroke of 9" - 17" (230-425mm).


## Drilling Pillar



## Vise

Order No. ZST 300 jaw width: 4" (100mm) clamping range: $4^{\prime \prime}$ ( 100 mm )

## Accessories

Screws for T-Slots
Order No. ZTN 100
Hexagon Nut with Collar Order No. ZSM 100

Order No. ZBS 100


## Vacuum Plates

## For applications where drill alone will not adhere to surface




## Pipe Saddle Clamp System

Ensures safe, secure drilling of pipes and tubular material



Pipe diameters $3^{1 ⁄ 1 / 4 "}-10^{\prime \prime}$
Chain length: 35½"
For models: MABasic 200, MABasic 400, MABasic 450, MAB 455, MAB 485, MDM 40 and CSU 32



Pipe diameters 6" - 20" (extension chain available) Chain length: 65"
For models: MAB 525, MAB 825, MAB 845, CSU 50, CSU 80, CSU 100/3, AB-4300-2 and HB 4400


Order No. ZRO 001 - extension chain for ZRO 500 pipe saddle clamp.

## Custom-engineered Machines

## Design a custom machine for your specific needs

Unusual applications require unique solutions. We can help you build custom drills for a wide variety of applications. With our considerable experience building custom drills, our engineers can assist you to create machines that can drill on uneven surfaces, in various directions, and more.

We enjoy a challenge! Contact us today for a professional solution for your unique application. Our capabilities include:

- In-house CAD design
- Prototype construction
- Manufacturing of special accessories


## Custom Machine Options Include:

## $\checkmark$ Reverse Drilling

$\checkmark$ Alternative Mounting Configurations
$\checkmark$ Magnet Variations
$\checkmark$ Motor Customization
$\checkmark$ Adjustable Drilling Depth


Machine
rendering above shows reverse-mount motor for drilling upside down.

Call 1-800-700-5919 for design assistance.


## Multi-purpose Beveling Machine

## Bevel, deburr \& chamfer edges of steel plate faster and cleaner than angle grinders

The EKF multi-purpose beveling machine is designed to bevel $30^{\circ}$ or $45^{\circ}$ weld seams on steel, stainless steel, nonferrous metals, brass and plastics. It can also be used to deburr and chamfer; straighten edges, internal and external radii; and countersink holes from 7/8" diameter.

- Fine adjustment feature for slight chamfers when deburring for the preparation of weld seams
- Four milling head options $-30^{\circ}, 45^{\circ}, 0.063$ " (1.6mm) and 0.098 " $(2.5 \mathrm{~mm})$ radius inserts available
- Ideal for the following applications: Moldmaking (straighten edges, internal and external radii and countersink holes from 7/8" dia.); Boiler and process plant construction (prepare weld seams on heat exchangers); Mechanical engineering (deburr machine parts, chamfer edges to protect against paint peeling and create visible edges); Sheet metal (deburr cut edges)

* EKF milling heads are interchangeable.
** Max. bevel width may require several passes, depending on material hardness.


One Machine, Three Milling Options

| $30^{\circ}$ | Radius |  |
| :--- | :--- | :--- |
| EKF300.3 |  |  |

Cutting Inserts - Sold as pack of 10 Order No. SHM 200: $30^{\circ}$ and $45^{\circ}$ Order No. SHM 200-E: $30^{\circ}$ and $45^{\circ}$ for stainless steel Order No. SHM 201: 1.6mm radius (0.063") Order No. SHM 202: 2.5mm radius (0.098")


Standard equipment includes milling head and three inserts, SW22 key, carrying case and user's manual. Please see our Price List for available accessories.


UNITEC

## Portable Beveling Machine

## Bevel angles from $15^{\circ}$ to $60^{\circ}$ on plate and pipes

CS Unitec's SKF 25 Beveling Machine provides fast and easy preparation of weld seams and bevels $15^{\circ}$ to $60^{\circ}$ angles on plate or pipe. It is ideal for use on steel, stainless steel, aluminum and nonferrous metals and offers high-quality performance that allows for superior weld connections.

- Continuously adjustable angle ( $15^{\circ}$ to $60^{\circ}$ ) and land width up to $3 / 4$ "
- Robust design, single operator control and easy handling; designed for continuous operation with smooth roller guides
- Anti-vibration system protects electronics and allows for more comfortable operation
- Includes one milling head and 10 indexable inserts for fast metal removal and extended tool life
- Work on welding angles and weld preparation on pipes/tubes with a minimum OD of $6-1 / 4^{\prime \prime}(160 \mathrm{~mm})$ with built-in pipe roller guide; ideal for beveling pipe 6-1/4" OD and larger

SKF 25


Cutting Plates - Sold as pack of 20 Order No. SHM 800: for beveling carbon and stainless steel

Standard equipment includes one milling head, 10 sintered carbide reversible cutting inserts, tools for assembly, built-in pipe roller guide, steel carrying case and user's manual. Please see our Price List for available accessories.
** Max. bevel width may require several passes, depending on material hardness. Steel case intended mainly for shipping purposes; damage may occur in transit.

## Self-Guiding Beveling Machine

## Powerful, automatic edge processing machine for $15^{\circ}$ to $60^{\circ}$ edges on plate up to $1-1 / 2^{\prime \prime}$ thick

CS Unitec's AutoCUT 500 Self-Propelled Beveling Machine provides fast and easy preparation of weld seams and bevels $15^{\circ}$ to $60^{\circ}$ angles on plate up to $1-1 / 2^{\prime \prime}$ thick. The unit propels itself on the plate - both forward and backward - without the need for a cart or stand. It is ideal for use on steel, aluminum and nonferrous metals and offers high-quality performance that allows for superior weld connections.

- Continuously adjustable angle ( $15^{\circ}$ to $60^{\circ}$ ) and land width up to 1-3/16"
- Robust design, single operator control and easy handling
- Automatic feed on plate without the need for a cart or stand
- Includes one milling head and 6 indexable inserts


|  | AutoCUT 500 |
| ---: | :---: |
| Beveling angle | $15^{\circ}-60^{\circ}$ |
| Bevel width (max.)** | $1-3 / 16^{\prime \prime}$ |
| Motor power | 10 Amp |
| Voltage | $230 \mathrm{~V}, 3$-phase |
| Cutting speed | 2750 SFPM |
| Cutting inserts | 6 |
| Dimensions (L x W x H) | $23-1 / 2^{\prime \prime} \mathrm{L} \times 24 \mathrm{~W}$ W x 20-1/2" H |
| Weight | 110 lbs. |

[^5]

## Sheet Metal Deburring Machine

## Double-sided deburring of sheet metal up to 0.2" thick in one pass with no additional treatment



Double-sided deburring of sheet metal up to $0.2^{\prime \prime}$ thick can be achieved in a single operation with no additional treatment. The machine's flap wheels can be easily adjusted as they wear. One set of wheels lasts for approximately 6500 feet of stainless steel sheet. Supplied standard with two 80 grit flap wheels, the ROLEI ${ }^{\circledR}$ BE 5 can be used with other optional grits to suit the facet width and materials of your particular application.

## Features two-speed operation:

Speed 1: fine deburring, 600 RPM
Speed 2: standard deburring, 1200 RPM
Optional accessories:

- Spare flap wheels (40, 60, 80, and 120 grit)
- Machine stand, made from strong steel
- Port for industrial dust extractor
(part no. 30330)
Can also be used on its side with roller tables for large thin sheets.

ROLEI BE 5 Specifications

| Order Number: 30310A (220 Volt) |  |
| ---: | :--- |
| 30310 (380 Volt) |  |



Spare flap wheels for sheet metal deburring machine BE 5 Grit 40, 60, 80, 120


Machine stand - P/N: 30320 Strong steel machine stand with black powder coating


Dust extraction port (end and bottom views shown above) P/N: 30330


Teflon protective tape - self-adhesive (2 required) P/N: 30340 (19.75" length x $3 / 4^{\prime \prime}$ width) P/N: 30341 ( $27.5^{\prime \prime}$ length $\times 3 / 4^{\prime \prime}$ width) For extension rail to protect from scratching the workpiece

## Carbide-Tipped Hole Saws



## Electric Drills and Drive Units

High-torque, multi-geared and variable-speed motors


[^6]
## Electric Drills and Drive Units

## Slow Speed: two-geared, variable-speed reversible motors



| Model No. | Motor Power (Amps) | Voltage** | Load Speed (RPM) | Drilling Cap. in Steel | Tube Rolling (max.) | Reversible | Torque Output (ft./lbs.) | Torque Control | Arbor | Weight (lbs.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| EHB 32/2.2 R/RL | 16.3 | 110V | $\left\lvert\, \begin{aligned} & 60-140 / \\ & 200-470 \end{aligned}\right.$ | 11/4" | 2" | YES | 92 max. | YES | MT3 | 14 |
| ETE 32/2.3 R/RL | 16.3 | 110V | $\begin{aligned} & 30-75 / \\ & 90-230 \end{aligned}$ | N/A | $3^{\prime \prime}$ *** | YES | 174 max. | NO | MT3 | 15 |

[^7]* 1/2" Square Drive with MT3 - Part No. 830-1230-050

3/4" Square Drive with MT3 - Part No. 830-1230-075

## Special Electric Motor Options

High-torque, reversible electric drill motors for custom applications



Control Boxes with On/Off, Variable Speed

Driving applications include mills, spindles, bar boring, tube rolling, valve turning and more.

Custom Design
Options Include:
$\checkmark$ Forward/Reverse
$\checkmark$ Variable Speeds
$\checkmark$ Multiple Gears
$\checkmark$ Spindle: MT or Special
$\checkmark$ Multifunctional Control Boxes or Handles
$\sqrt{ } 1 / 2$ to 4 HP
$\checkmark$ Modular Design
Contact us today to configure the motor that meets your specific driving applications.

Spindle Options:
MT2 / MT3 Square Drive or Threaded


## Pneumatic Drills and Drive Units

## High-torque reversible drilling and tapping machines

- High-torque reversible drilling, tapping and threading machines
- Ideal for drilling, reaming, tube rolling, tube expanding and tapping
- Use for special applications including mills, spindles, slides, controllers, pipe tapping, valve turning and more
- Drill chucks and Morse Taper arbors
- Hammer drills for drilling concrete with up to 2200 blows per minute
- Special OEM air motors available on request
- One-year warranty

D-handle Drills


Pneumatic Hammer Drills Pneumatic Pistol Drills


| Model No. | Motor Power (HP) | Load Speed <br> (RPM) | Reversible | Chuck/ Arbor | Drilling Cap. in Steel | Tube Rolling Cap. | Torque Output (ft./lbs) | $\begin{gathered} \text { CFM } \\ \text { at } 90 \\ \text { PSI } \end{gathered}$ | Length | Feed Length | Weight (lbs.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pistol Drills |  |  |  |  |  |  |  |  |  |  |  |
| 212610010 | 0.7 | 850 | NO | 1/2" Chuck | 1/2" | N/A | 7 max. | 21 | 93/4" | N/A | 4.6 |
| Hammer Drills (for concrete and underwater applications) |  |  |  |  |  |  |  |  |  |  |  |
| 212660010 | 0.75 | 950 | NO | 1/2" Chuck | $1 / 2^{\prime \prime}$ | N/A | 7 max. | 21 | 12" | N/A | 6.7 |
| D-handle Drills |  |  |  |  |  |  |  |  |  |  |  |
| 213100010 | 0.8 | 650 | NO | 1/2" Chuck | 1/2" | N/A | 8 max. | 24 | 121/2" | N/A | 12 |
| 213110010 | 0.8 | 650 | NO | MT1 | 5/8" | N/A | 8 max. | 24 | 11" | N/A | 12 |
| Morse Taper Drills w/ Feed Spindle |  |  |  |  |  |  |  |  |  |  |  |
| 2 2089* | 1.7 | 250 | YES | MT3 | 11/4" | 1" | 36 max. | 24 | 261/2" | 15/8" | 28 |
| 2 2506* | 2.5 | 220 | YES | MT3 | 11/4" | 2" | 63 max. | 70 | 261/2" | 21/2" | 32 |
| 2 2502* | 2.5 | 80 | YES | MT4 | 2" | 21/2" | 173 max. | 70 | 261/2" | 21/2" | 37 |

[^8]
## Corner Drills and Drives

## Pneumatic, electric and hydraulic: high-torque drilling,



Slow-speed, High-torque Straight Drive Units

## Model

220870010 with reverse and lever throttle

- Ideal for heavy-duty reaming, tube expanding and tapping
- Perfect for special driving applications, including pipe tapping and valve turning Square Drive Accessories
$220897020-7 / 8^{\prime \prime}$ Male Sq. Drive to $3 / 4^{\prime \prime}$ Male Sq. Drive 220897070 - 7/8" Male Sq. Drive to 1" Male Sq. Drive 610167940 - 7/8" Male Sq. Drive to 1" Male Sq. Drive with retaining pin


## Pneumatic

Corner Drill
Model No.

| $\begin{array}{c}\text { Morse } \\ \text { Taper }\end{array}$ | $\begin{array}{c}\text { Drilling } \\ \text { (in steel) }\end{array}$ | $\begin{array}{r}\text { Reaming } \\ \text { (in steel) }\end{array}$ |
| :---: | :---: | :---: |


| Tube |  |
| :---: | :---: |
| Rolling | Torque |
| Output |  |
| Cap. | (ft./lbs.) |


| $\begin{array}{c}\text { Load } \\ \text { Speed } \\ \text { (RPM) }\end{array}$ | $\begin{array}{c}\text { Motor } \\ \text { Power } \\ \text { (HP) }\end{array}$ | $\begin{array}{c}\text { CFM at } \\ 90 \text { PSI }\end{array}$ | Length | $\begin{array}{c}\text { Weight } \\ \text { (lbs.) }\end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Nonreversible

| 216020030 | $\# 1$ | $5 / 8^{\prime \prime}$ | $1 / 2^{\prime \prime}$ | N/A | 7 | 500 | 0.7 | 21 | $12.5^{\prime \prime}$ | 7 |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 217010030 | $\# 2$ | $7 / 8^{\prime \prime}$ | $5 / 8^{\prime \prime}$ | N/A | 35 | 270 | 1.8 | 49 | $20.9^{" \prime}$ | 19 |
| 218010030 | $\# 3$ | $1^{1 / 4 "}$ | $1^{\prime \prime}$ | N/A | 53 | 260 | 2.6 | 63 | $22.5^{\prime \prime}$ | 25 |

Reversible

| 221040030 | $\# 4$ | $2^{1 / 8 "}$ | $\mathbf{2 " ~}^{\prime \prime}$ | $2^{\prime \prime}$ | 86 | 180 | 3.0 | 71 | $23.8^{\prime \prime}$ | 37 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Model No. 216020030 has a $3 / 8^{\prime \prime}$ NPT air inlet. ${ }^{1 / 2 " 1}$ (13mm) hose is recommended. All other models have $3 / 4^{\prime \prime}$ NPT air inlet. A ${ }^{1 / 2 " 1}$ (13mm) hose is recommended for model 217010030 . A 5/8" (15mm) hose is recommended for models 218010030 and 221040030.

| Hydraulic Corner Drill Model No. | Morse Taper | Drilling (in steel) | Reaming <br> (in steel) | Tube Rolling Cap. |  | Torq Outp <br> (ft./lb | que <br> put <br> bs.) | Load Spe <br> (RP |  | Motor Power (HP) |  | Oil Flow/ PSI |  | Length | Weight (lbs.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 218060010 | \#3 | 11/4" | 1" | N/A |  | 60 |  | 220 |  | 3. |  |  |  | 21" | 25 |
| Electric Drill Model No. | Motor Power (Amps) | Voltage | Load Speed (RPM) | Drilling Cap. in Steel |  | Tube Rollin (max |  | Reve ible |  |  | que <br> tput <br> Ibs.) |  | $\begin{aligned} & \text { que } \\ & \text { trol } \end{aligned}$ | Arbor | Weight (lbs.) |
| $\begin{aligned} & \text { EHB 32/2.2 } \\ & \text { R/RL } \end{aligned}$ | 16.3 | 110 | $\begin{gathered} 60-140 \\ 200-470 \end{gathered}$ | 11/4" |  | 2" |  | Yes |  | 92 m | max. |  | es | MT3 | 14 |
| Pneumatic Drive Unit Model No. | Square Drive ID | Torque Output (ft./lbs.) | $\left\|\begin{array}{c} \text { Load } \\ \text { Speed } \\ \text { (RPMM) } \end{array}\right\|$ | Reversible | $\begin{gathered} \text { Tuk } \\ \text { Roll } \\ \text { Ca } \end{gathered}$ | ube ap. |  | pping Cap. |  |  |  |  |  | eight x ength | Weight (lbs.) |
| 2 2081* | 13/16" | 413 | 20 | YES | 3 | " |  | $1 / 2^{\prime \prime}$ | 1. | 35 | 53 |  | 10.9" | x 26.5" | 29 |
| 2 2087* | $7 / 8{ }^{\prime \prime}$ | 413 | 20 | YES | 3 | 3' |  | $1 / 2^{\prime \prime}$ | 1. | 35 | 53 |  | 10.9" | x 26.5" | 29 |
| 2 2088* | $7 / 81$ | 138 | 60 | YES | 2 | " |  | 3/4" | 1. | 35 | 53 |  | 10.9" | x 26.5" | 29 |

[^9]
## Pneumatic and hydraulic: powerful percussion drilling for

 concrete and masonry- SDS Plus or SDS Max models
- Safety clutch protects against overloading and jamming
- Hammer drill holes in concrete, brick and masonry
- Rotary drilling mode for straight drilling of steel and wood
- Open center hydraulic standard, closed center optional



## Closed Center Flow Control Valve

Optional accessory - Part No. 38632

## SDS Drill Bits




Small Masonry Bits SDS Plus up to 1 " dia. Large Masonry Bits SDS Max up to 2" dia.


## Woodboring Air Drills, Reversible

## Heavy-duty power for underwater drilling and other wood boring applications

Model 219240010 with self-closing roll throttle Up to 2 " for boring wood

- Ideal for drilling wood in marine timbers, underwater use and railroad repair work - Thrust bearing support for long life and efficient operation
- Lever throttle and durable spur gearing
- Breast plate and dead handle included - Includes threaded exhaust port
- Use underwater with Air Tool Line Conditioner (shown below)

Accessories and woodboring drill bits from ${ }^{1 / 2 "}$ dia. to $11 / 8^{\prime \prime}$ dia. in lengths from 12" to 36"

Model 219030010
1" Diameter

| Capacity in Wood | 1" Diameter |
| :---: | :---: |
| Reversible | Yes |
| Power | 2 HP |
| Chuck Style | 1/2" Woodboring |
| Spindle | Stub Taper |
| Free Speed | 750 RPM |
| Recommended Hose Size | 1/2" |
| Overall Height | 171/2" |
| Weight | 141/2 lbs. |
| Air Inlet Thread | 1/2" ID |
| Air Exhaust Thread | 1/2" NPT |
| Air Consumption at 90 PSI | 39 CFM |
| Optional Geared Drill Chuck | Part no. DE-99C |

Model 219240010
2" Diameter Yes

Model 219320010
3" Diameter Yes

3 HP
1/2" Woodboring
\#3 Morse Taper
380 RPM
$1 / 2^{1 /}$
$18^{1 / 2 "}$
$24^{3 / 4}$ lbs
1/2" ID

1/2" NPT
50 CFM
Part no. IBC 21 (MT3)

## AirPac Extends life of pneumatic power tools



Removes moisture and dirt from air lines; a float valve automatically ejects water and dirt

- Includes automatic oiler; prevents tools from freezing in cold environments
- Eliminates air motor downtime caused by water and dirt
- Connections for two tools; max. air flow 185 CFM


## Air Tool Line Conditioner

Underwater air tool conditioner for marine applications.
Displaces moisture and inhibits rust/corrosion of air motors.
MS 9105-1 quart/liter


## Pneumatic and hydraulic: ideal for turning valves, tightening,

 tapping, reaming, pipe beveling, expanding and more- Worm gear drive provides high torque - up to 554 ft -lbs.
- Lightweight and reversible
- Compact angle head allows access to confined spaces


Model numbers pictured above (listed from top to bottom): 610550075 (with male drive), 610550010 (female), 610140075 (with male drive)

Available with Male or Female Square Drives, in a variety of sizes


Male Sq. Drive Head $1 / 2^{\prime \prime}$ or $3 / 4^{\prime \prime}$


Female Sq. Drive Head $3 / 4$ " or 7/8"

## Square Drive Accessories

362127910 - 3/4" Male Square Drive 610157940 - 1" Male Square Drive

610157030 - 3/4" Male Square Drive with retaining hole (included with model numbers 610140075,610550075 and 61056 0075)

610177940 - 3/4" Male Square Drive with retaining pin


| Pneumatic Nut Runner Model No. | Square Drive F=Female M=Male | Stall Torque at 90 PSI (ft-lbs.) | Free Speed (RPM) | Load Speed (RPM) | Power (HP) | CFM at 90 PSI | Side to Center Distance (inches) | Length <br> (inches) | Weight (lbs.) | Air Connection (inches) | $\begin{aligned} & \text { Hose } \\ & \text { ID } \\ & \text { (inches) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $610140075^{*}$ | 3/4" M | 95 | 200 | 100 | 0.9 | 46 | 1 | 22 | 11 | NPT 3/8 | 1/2 |
| 610140099 | 1/2" M | 95 | 200 | 100 | 0.9 | 46 | 1 | 22 | 11 | NPT 3/8 | 1/2 |
| $610550075^{*}$ | 3/4" M | 405 | 40 | 22 | 0.9 | 46 | 1 | 21 | 10 | NPT ${ }^{3} / 8$ | 1/2 |
| 610550099 | 1/2" M | 405 | 40 | 22 | 0.9 | 46 | 1 | 21 | 10 | NPT 3/8 | 1/2 |
| $610560075^{*}$ | 3/4" M | 133 | 120 | 67 | 0.9 | 46 | 1 | 21 | 11 | NPT ${ }^{3} / 8$ | 1/2 |
| 610560099 | 1/2" M | 133 | 120 | 67 | 0.9 | 46 | 1 | 21 | 11 | NPT ${ }^{3} / 8$ | 1/2 |
| 61057 0075* | 3/4" M | 73.5 | 250 | 125 | 0.9 | 46 | 1 | 21 | 11 | NPT $3 / 8$ | 1/2 |
| 610570099 | 1/2" M | 73.5 | 250 | 125 | 0.9 | 46 | 1 | 21 | 11 | NPT ${ }^{3} / 8$ | 1/2 |
| 610610010 | 7/8" F | 405 | 40 | 22 | 0.9 | 46 | 1 | 21 | 11 | NPT ${ }^{3} / 8$ | $1 / 2$ |

* Also available with 3/4" Female Square Drive - use 0010 instead of 0075 in model number.

| Hydraulic Nut Runner Model No. | Square Drive F=Female M=Male | Drive Torque | Free Speed (RPM) | Load Speed (RPM) | Power <br> (HP) | Oil Flow (GPM) | Oil Pressure (PSI) | Side to Center Distance (inches) | Length (inches) | Weight (lbs.) | Connection Quick Couplers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36242 0010* | 3/4" F | 369 | 40 | 22 | 1.6 | 4-13 | 90-2000 | 1 | 20 | 22 | 1/2" FF |
| $362430010 *$ | 3/4" F | 125 | 180 | 90 | 1.6 | 4-13 | 1300-2000 | 1 | 20 | 22 | 1/2" FF |

* Also available with 1/2" (3 6242 0099) and 3/4" (3 6242 0075) Male Square Drive


## Dry Cutting Circular Saws - Electric

## Fast, clean, burr-free cutting of thin metal plates, pipes,

 profiles and more... without distortion!
## Super Hand-Held Dry Cut Saw

## 12-5/8" diameter, dry cut up to 4-3/4" depth; up to 3/8" thick steel

- Largest portable dry metal cutting saw on the market
- Cuts steel, sandwich panels, l-beams, trapezoidal sheets, conduits, metal pipes and more - no deburring necessary
- High-quality tungsten carbide-tipped blade
- Side-mounted tilt tray for disposal of chips
- Motor protection with optical overload indicator
- Dust collection port for clean operation


Order No. 608270 U

| Motor Power | $16 \mathrm{Amp} / 110 \mathrm{~V}^{*}$ |
| :--- | :---: |
| Blade Diameter | $12-5 / 8^{\prime \prime}(325 \mathrm{~mm})$ |
| Max. Depth of Cut | $4-3 / 4^{\prime \prime}(120 \mathrm{~mm})$ |
| Speed (Free) | 1,400 RPM |
| Arbor Size | $1^{\prime \prime}$ |
| Blade Part No. | $608276\left(12-5 / 8^{\prime \prime}\right.$ dia.) ${ }^{* *}$ |
| Blade No. of Teeth | 84 T |
| Weight | 21 lbs. |

* 230V also available - Order No. 608270
** Blade for standard use.
For Stainless Steel blade, Order No. 608276TI, $84 T$

8320 SHDC Super HandHeld Dry Cut Saw (608270 U) standard equipment includes a saw blade (P/N 608276).

Integrated dust collection port
(P/N 608275 shown at right) Ideal for straight cutting of sandwich panels and sheets, guide rail and clamping system provides secure and jam-free guidance of saw blade through material. Rail provides straight edge length up to $55^{\prime \prime}(1,400 \mathrm{~mm})$.


## Dry Cutting Miter Saws - Electric

Fast, clean, burr-free cutting of thin metal plates, pipes, profiles and more... without distortion!

Dry Cut Miter Saw - 10" dia.


## Precise $45^{\circ}$ cuts left and right

- Cuts tubes, profiles and more from steel, stainless, non-ferrous metal, plastic, composite and more - no deburring necessary
- Fine cuts in soft and sensitive materials
- Adjustable saw head for miter cuts of $-45^{\circ}$ to $+45^{\circ}$
- Secure clamping with 3 -step quick-release system
- Lightweight and portable at only 42 lbs.

| Order No. 608700 | 9410 ND standard equipment includes a carrying case and saw blade (P/N 600598). |
| :---: | :---: |
| Motor Power 13 Amp/110V* |  |
| Blade Diameter 10" (255mm) | 10" Saw Blades for 9410 ND P/N 600598, 60T, for mild steel P/N 600654, 66T, for thin steel P/N 600654TI, 66T, for stainless steel |
| Max. Depth of Cut 4" at 90 |  |
| Speed (Free) 1,600 RPM |  |
| Arbor Size 1" |  |
| Blade Part No. 600598 (10" dia.) |  |
| Blade No. of Teeth 60T |  |
| Weight of Saw and Stand 42 lbs. |  |
| * 230V also available - Order No. 600651 |  |

## Premium Super Dry Cutter - 14" dia.



## 6" max. depth of cut

- Cuts stainless steel, ferrous and non-ferrous metal, plastic and aluminum tubes, profiles and more - no deburring necessary
- Exclusive blade stabilizing system reduces vibration
- Powerful, high-torque motor for continuous operation
- Patented quick-release vise for precise bevel cuts

Order No. 608301

| Motor Power | $15 \mathrm{Amp} / 110 \mathrm{~V}^{*}$ |
| :--- | :---: |
| Blade Diameter | $14^{\prime \prime}(355 \mathrm{~mm})$ |
| Max. Depth of Cut | $6 "$ at $90^{\circ}$ |
| Speed (Free) | 1,600 RPM |
| Arbor Size | $1^{\prime \prime}$ |
| Blade Part No. | $600570\left(14{ }^{\prime \prime}\right.$ dia.) |
| Blade No. of Teeth | 90 T |
| Weight | 55 lbs. |

* 230V also available - Order No. 600560


14" Saw Blades for Model 9435
P/N 600570, 90T
for stainless and thin steel
P/N 600570SI, $96 T$
for stainless steel
P/N 600580, 72T
for stainless and medium steel
P/N 600590, 60T
for stainless and thick steel
P/N 600591, 60T
recommended for cast iron
P/N 600595, 66T
recommended for mild steel
P/N 600594, 96T
recommended for aluminum

## Dry Cutting Circular Saws - Pneumatic

## Air power ideal for foundries, petrochemical, marine, demolition and fabrication applications

## 7-1/2" dia. Heavy-Duty Air Saw <br> Cut up to 2-1/2" depth at $90^{\circ}$ and 1-1/2" at $45^{\circ}$

- Heavy-duty air-powered circular saw, ideal for wet and dirty conditions
- Pneumatic power eliminates burn out from stalls
- Cuts up to $2-1 / 2^{\prime \prime}$ depth at $90^{\circ}$ and $1-1 / 2^{\prime \prime}$ depth at $45^{\circ}$
-7-1/2" max. blade capacity
- D-handle design with inside trigger and safety lock button to prevent accidental starting
Standard equipment includes rip fence and blade wrench. Blade not included.

| Order No. 5 1116 $\mathbf{0 0 2 0}$ |  |
| :--- | :---: |
| Motor Power | $1.7 \mathrm{HP}(1.3 \mathrm{~kW})$ |
| Blade Diameter* | $7-1 / 2^{\prime \prime}(190 \mathrm{~mm})$ |
| Max. Depth of Cut | $2-1 / 2^{\prime \prime}$ at $90^{\circ} / 1-1 / 2^{2}$ at $45^{\circ}$ |
| Speed (Free) | $3,200 \mathrm{RPM}$ |
| Air Consumption | 53 CFM at 90 PSI |
| Air Connection | $1 / 2^{\prime \prime} \mathrm{NPT}$ |
| Vibration | $<2.5 \mathrm{~m} / \mathrm{s}^{2}$ |
| Length | $13-1 / 2^{\prime \prime}$ |
| Weight | 19 lbs |
| *The Model 5 | 1116 0020 saw also accepts $7-1 / 4^{4}$ dia. blades. |

## 12-5/8" dia. Air Circular Saw Dry cut up to 4-3/4" depth and 3/8" thick steel plate

- Cut I-beams, $3 / 8$ " thick steel plate, insulation boards, sandwich panels, aluminum, plastics and more
- Suction nozzle and internal chip collector for clean operation
- D-handle design with inside trigger and safety lock button to prevent accidental starting
-12-5/8" max. blade capacity

Order No. 511170020

| Motor Power | $2.4 \mathrm{HP}(1.8 \mathrm{~kW})$ |
| :--- | :---: |
| Blade Diameter | $12-5 / 8^{\prime \prime}$ |
| Max. Depth of Cut | $4-3 / 4^{\prime \prime}$ |
| Speed (Free) | $1,200 \mathrm{RPM}$ |
| Air Consumption | 71 CFM at 90 PSI |
| Air Connection | $1 / 2^{\prime \prime} \mathrm{NPT}$ |
| Vibration | $<2.5 \mathrm{~m} / \mathrm{s}^{2}$ |
| Weight | 24 lbs. |

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[^0]:    * 220 Volt / 50 Hz also available

[^1]:    * 220 Volt / 50 Hz also available

[^2]:    * Optional accessory for MAB 825 V
    ** Not available for MAB 825 V

[^3]:    * 220 Volt / 50 Hz also available

    Standard Equipment includes auto lubrication, auto chuck cutter holder, manual chuck with set screws, safety chain, carabin hook, allen keys, pilot pins and carrying caset.
    ${ }^{\dagger}$ Steel case intended mainly for shipping purposes; damage may occur in transit.

[^4]:    GSW-444
    QuickChange

[^5]:    ** Max. bevel width may require several passes, depending on material hardness.

[^6]:    * All units available in 220 Volt / 50Hz ** EAU 34/4 available with control box (on/off, reverse) - order Model. No. EAU 34/4 CB
    ** EAU 36/4 R R/L available with control box - order Model. No. EAU 36/4 R R/L CB Special Motors available upon request.

[^7]:    ** All units available in 220 Volt / 50 Hz
    *** With Expander (Up to 2 ½" with Bead Roller)

[^8]:    * The last four digits of the Model No. identify the type of throttle.

    Please specify the four digits when ordering: 0010 for Lever Throttle or 0030 for Safety Twist Throttle.

[^9]:    * The last four digits of the Model No. identify the type of throttle. $\quad+$ Square drive accessories available (see above). Please specify the four digits when ordering: 0010 for Lever Throttle or 0030 for Safety Twist Throttle.

