

A blue industrial mag drill with a large, multi-fluted drill bit. The machine has a control panel on the right side with a red and green power switch and a red magnet indicator light. The background is dark with a brick wall texture.

uniber

Mag Drills
Annular Cutters
Accessories
Service &
Support

uniber

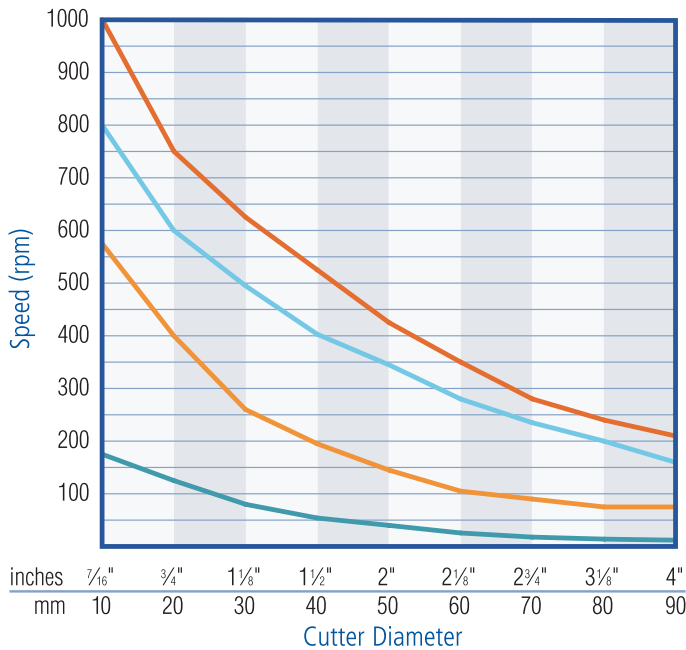
Index

Cutters.....	2-5
EQ35	6
EQ50/E40	7
EQ100/E100	8
Airbor®	9
Hydrobor®	10
Accessories	11

Hole Drilling Factors:

- Hardness of Material
- Condition of Cutting Tool
- Lubrication
- Abrasion resistance
- Machine HP
- Feed Rate
- Speed (RPM)

Tool Rate Feed Chart



Material Feed Rate (inches/mm per minute)

Aluminum	2 3/8" (60 mm)
Brass	1 3/4" (45 mm)
Mild Steel	1" (24 mm)
Hi Tensile Steel	3/8" (9 mm)

Universal Drilling & Cutting...

From humble beginnings 30 years ago as a contractors' plant, tool rental and sales outlet, Universal Drilling and Cutting Equipment has developed into one of the world's largest manufacturer of broaching hole cutters and electro-magnetic drilling machines.

Our Unibor brand is a range of high quality engineering tools and products manufactured by us and our 30 year track record of excellence around the world. Specialising in the design, development and manufacture of equipment which cuts accurate holes in metal more quickly and cost effectively, at the heart of the business are the electro-magnetic drilling systems and annular cutters which provide the efficiency and accuracy of bench and machine tools in portable, versatile units.

Widely used in steel fabrication and construction - both in the shop and out on site - the broach cutting system provides great benefits in terms of accuracy, efficiency, portability, versatility, and time (and therefore cost) savings. State of the art, semi- and fully automatic CNC machine tools now produce most of the components of the drill stands and upwards of 50,000 cutters a month. Using its extensive experience of solving hole cutting problems, Universal has also developed specialist machines such as the Airbor and the Hydrobor, operated entirely by compressed air or hydraulic power, for use in hazardous environments or even underwater, where electric power is impossible.

The company's highly skilled engineers have also developed many cutters for specialist applications and situations, and are always happy to consult on particular problems. With marketing subsidiaries in the USA, Holland and France and distributors throughout the world, the company is driven by the energy, commitment and enthusiasm of its leadership and team of specialists, all striving to keep Universal Drilling and Cutting Equipment at the forefront of hole cutting excellence.

If you have any questions, comments, please contact us at usa@unibor.com or 800-969-9644

Why Unibor® Cobalt Cutters?

Specifically designed for use with the Unibor range of electro-magnetic drilling machines, our cutters also deliver extra capacity and performance in other machine tools. Carefully made on the very latest CNC machines for consistent quality and continuity of production, larger diameter and longer cutters can be made to order along with specials for particular applications, or more specialized industrial cutters. Cutters can also be produced with a wide variety of specialised, performance enhancing treatments and cosmetic coatings.

Unibor Cobalt Cutters

Our Cobalt cutters have an additional 5% cobalt added for much greater wear resistance, and will give longer cutting life in mild steel and better performance in more exotic materials. Available in 1", 2" and 3" lengths in imperial and metric sizes. Stock sizes from 7/16" up to 2 1/2" and in metric from 12mm to 50mm. Standard sizes come with 3/4" shank.

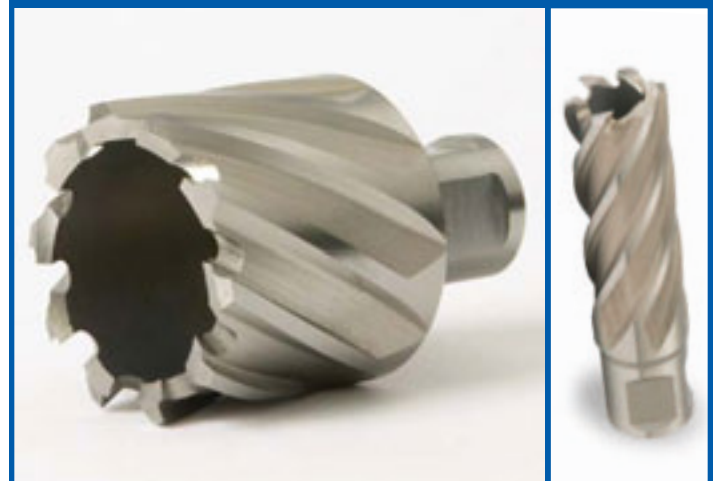
Unibor M2 HSS Cutters

The standard cutters are carefully made from M2 high speed tool steel in diameters of 7/16" to 2" in 1/16" increments, and are available in cutting depths of 1" and 2" (3" and 4" also available). Specifically designed for use with the Unibor range of magdrilling machines, the cutters will also deliver extra capacity and performance in other machine tools such as lathes, pillar drills and machining centres. See also the range of M2 industrial cutters.

Special Order Our Industrial Cutters are available with shanks, arbors and accessories to fit all kinds of machine tools, drills, lathes and CNC machining centers. They produce significant benefits in productivity, accuracy and cost savings. The sizes range from 3/4" to 4" diameter, and cutting depths of 3", 4" and 6" are made of alloy steel with a greater nominal wall thickness of 0.265". Cutters from 3/4" to 1 7/16" diameter have a 3/4" diameter Weldon shank. Cutters from 1 1/2" to 4" diameter have a 1 1/4" diameter Weldon shank. Other shank configurations may be specially ordered.



M35 COBALT OR M2 HSS



METRIC AND TAPPING SIZES



M35 Cobalt Annular Cutters

Diameter	Decimal	1" DOC	2" DOC	3" DOC	4" DOC
7/16"	0.438	25114*	25214*	N/A	N/A
1/2"	0.500	25116	25216	N/A	N/A
9/16"	0.563	25118	25218	N/A	N/A
5/8"	0.625	25120	25220	N/A	N/A
11/16"	0.688	25122	25222	N/A	N/A
3/4"	0.750	25124	25224	25324	25424
13/16"	0.813	25126	25226	25326	25426
7/8"	0.875	25128	25228	25328	25428
15/16"	0.938	25130	25230	25330	25430
1"	1.000	25132	25232	25332	25432
1-1/16"	1.063	25134	25234	25334	25434
1-1/8"	1.125	25136	25236	25336	25436
1-3/16"	1.188	25138	25238	25338	25438
1-1/4"	1.250	25140	25240	25340	25440
1-5/16"	1.313	25142	25242	25342	
1-3/8"	1.375	25144	25244	25344	
1-7/16"	1.438	25146	25246	25346	
1-1/2"	1.500	25148	25248	25348	
1-9/16"	1.563	25150	25250	25350	
1-5/8"	1.625	25152	25252	25352	
1-11/16"	1.688	25154	25254	25354	
1-3/4"	1.750	25156	25256	25356	
1-13/16"	1.813	25158	25258	25358	
1-7/8"	1.875	25160	25260	25360	
1-15/16"	1.938	25162	25262	25362	
2"	2.000	25164	25264	25364	
2-1/16"	2.063	25166	25266	25366	
2-1/8"	2.125	25168	25268	25368	
2-3/16"	2.188	25170	25270	25370	
2-1/4"	2.250	25172	25272	25372	
2-5/16"	2.313	25174	25274	25374	
2-3/8"	2.375	25176	25276	25376	
2-7/16"	2.438	25178	25278	25378	
2-1/2"	2.500	25180	25280	25380	
2-9/16"	2.563	25182	25282	25382	
2-5/8"	2.625	25184	25284	25384	
2-11/16"	2.688	25186	25286	25386	
2-3/4"	2.750	25188	25288	25388	
2-13/16"	2.813	25190	25290	25390	
2-7/8"	2.875	25192	25292	25392	
2-15/16"	2.938	25194	25294	25394	
3"	3.000	25196	25296	25396	
Pilot Pins		USP-1	USP-2	USP-3	USP-4
		*USP-1A	*USP-2A		

M2 High Speed Steel

Diameter	Decimal	1" DOC	2" DOC
27/64"	0.422	T-27641*	T-27642*
7/16"	0.438	24114*	24214*
29/64"	0.453	T-29641	T-29642
31/64"	0.484	T-31641	T-31642
1/2"	0.500	24116	24216
17/32"	0.531	T-17321	T-17322
9/16"	0.563	24118	24218
19/32"	0.594	T-19321	T-19322
5/8"	0.625	24120	24220
41/64"	0.641	T-41641	T-41642
21/32"	0.656	T-21321	T-21322
11/16"	0.688	24122	24222
23/32"	0.719	T-23321	T-23322
3/4"	0.750	24124	24224
49/64"	0.766	T-49641	T-49642
25/32"	0.781	T-25321	T-25322
51/64"	0.797	T-51641	T-51642
13/16"	0.813	24126	24226
27/32"	0.844	T-27321	T-27322
7/8"	0.875	24128	24228
29/32"	0.906	T-29321	T-29322
59/64"	0.922	T-59641	T-59642
15/16"	0.938	24130	24230
1"	1.000	24132	24232
1-1/32"	1.031	T-11321	T-11322
1-1/16"	1.063	24134	24234
1-1/8"	1.125	24136	24236
1-3/16"	1.188	24138	24238
1-1/4"	1.250	24140	24240
1-9/32"	1.281	T-1-9321	T-1-9322
1-5/16"	1.313	24142	24242
1-3/8"	1.375	24144	24244
1-7/16"	1.438	24146	24246
1-1/2"	1.500	24148	24248
1-9/16"	1.563	24150	24250
1-5/8"	1.625	24152	24252
1-11/16"	1.688	24154	24254
1-3/4"	1.750	24156	24256
1-13/16"	1.813	24158	24258
1-7/8"	1.875	24160	24260
1-15/16"	1.938	24162	24262
2"	2.000	24164	24264
Pilot Pins		USP-1	USP-2
		*USP-1A	*USP-2A

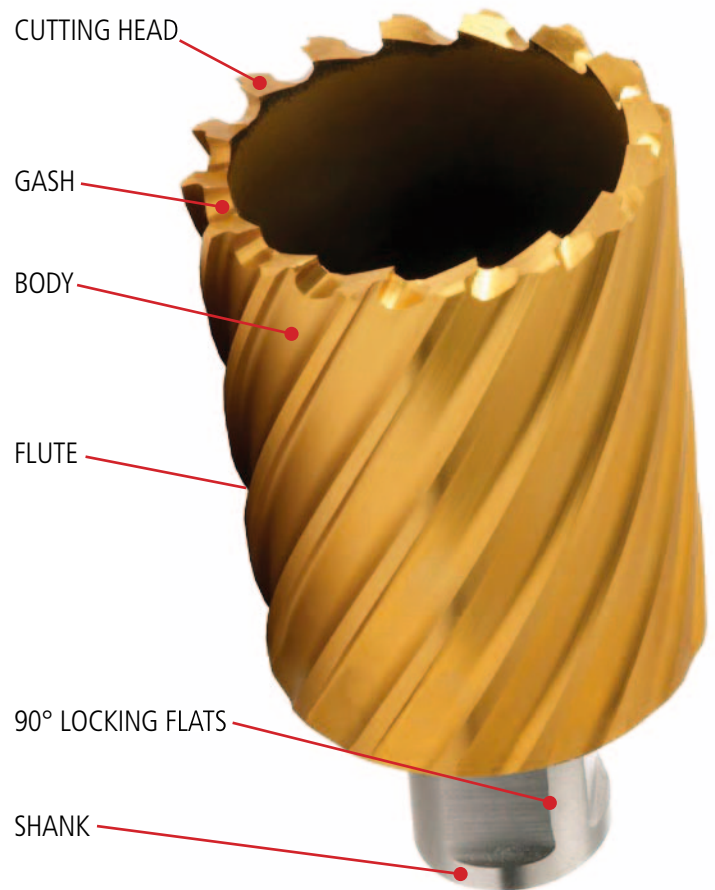
Metric Cutters - M2 HSS

Diameter	Decimal	1" DOC	2" DOC
12	0.472	MMS12	MML12
13	0.512	MMS13	MML13
14	0.551	MMS14	MML14
15	0.591	MMS15	MML15
16	0.630	MMS16	MML16
17	0.669	MMS17	MML17
18	0.709	MMS18	MML18
19	0.748	MMS19	MML19
20	0.787	MMS20	MML20
21	0.827	MMS21	MML21
22	0.866	MMS22	MML22
23	0.906	MMS23	MML23
24	0.945	MMS24	MML24
25	0.984	MMS25	MML25
26	1.024	MMS26	MML26
27	1.063	MMS27	MML27
28	1.102	MMS28	MML28
29	1.142	MMS29	MML29
30	1.181	MMS30	MML30
31	1.220	MMS31	MML31
32	1.260	MMS32	MML32
33	1.299	MMS33	MML33
34	1.339	MMS34	MML34
35	1.378	MMS35	MML35
36	1.417	MMS36	MML36
37	1.457	MMS37	MML37
38	1.496	MMS38	MML38
39	1.535	MMS39	MML39
40	1.575	MMS40	MML40
41	1.614	MMS41	MML41
42	1.654	MMS42	MML42
43	1.693	MMS43	MML43
44	1.732	MMS44	MML44
45	1.772	MMS45	MML45
46	1.811	MMS46	MML46
47	1.850	MMS47	MML47
48	1.890	MMS48	MML48
49	1.929	MMS49	MML49
50	1.969	MMS50	MML50
Pilot Pins		USP-1	USP-2

Specs for Standard Unibor Cutters

- Standard 3/4" shank with 2 flats at 90°
 - Fully ground
 - Resharpenable
 - M35 cobalt
 - Unique geometry - provides faster feed, less friction, and smooth hole finish
- *Coatings and carbide tipped cutters available upon request

Anatomy of a Unibor Cutter



EQ35N Features

- Integral arbor support for precise cuts
- Solid state electronic control panel for rugged, reliable service in all conditions
- Supplied coolant system provides smooth, accurate cuts
- At 28 pounds, the unit is easily handled no matter what the job.
- Quick conversion to twist drilling.

Drill Capacity DIAMETER



1 3/8" x 2



1/2"



Technical Specifications

Motor Type	Eibenstock UNI-I
Horse Power	1.3HP
Watts/Amps	1000W / 9AMPS
Motor Speed (RPM)	NO LOAD SPD 450
Capacity-Annular Cutters (in)	1.3/8" / 35mm
Capacity-Twist Drills (in)	1/2" / 13mm
Height (down position)	13 3/4" / 355mm
Stroke	6"
Magnet Dimensions (W x H x L)	3 1/8" x 2" x 6 1/4"
Magnet Push Off Test	1199lbs / 544kgs Minimum
Weight	25.9lbs / 11.75kgs
Arbor Type	Integrated Quick-Hitch, accepts all 3/4" shank cutters with at least one flat

Accessories (sold separately)

- 3-Jaw Chuck, P-CHUC05

P-CHUC05
(shown, comes with 1/2" chuck and key)



What's in the Box?
Drilling Guide, Warranty Card, Handles, Coolant Bottle (w/eco-friendly coolant and hose), coolant bottle assembly, safety strap, Drill and carrying case

EQ50/E40FR Features

- Integral arbor support for precise cuts
- Solid state electronic control panel for rugged, reliable service in all conditions
- Supplied coolant system provides smooth, accurate cuts
- At 41 pounds, the unit is easily handled no matter what the job.
- Quick conversion to twist drilling.
- Model EQ40FR is a reversible unit.

Drill Capacity DIAMETER



Technical Specifications *Pertains to E40FR Model

Motor Type	Eibenstock UNI-II, 2 Gear *Var. Speed, Reversible
Horse Power	1.47HP
Watts/Amps	1100W / 10AMPS
Motor Speed (RPM)	NO LOAD SPD 250/450
Capacity-Annular Cutters (in)	2" / 50mm
Tapping Capacity (E40)	5/8" / M16
Capacity-Twist Drills (in)	3/4" / 19mm
Height (down position)	17 1/2" / 447mm
Stroke	6 5/8"
Magnet Dim. (W x H x L)	4" x 2 3/8" x 7 1/8"
Magnet Push Off Test	1999lbs / 907kgs Minimum
Weight	41.8lbs / 19kgs
Arbor Type	2 Morse Taper Quick-Hitch *2MT side lock arbor

Accessories (sold separately)

- 3-Jaw Chuck, P-CHUC04

P-CHUC04
(shown, comes with 5/8" chuck and key,
2 Morse Taper arbor)



What's in the Box?
Drilling Guide, Warranty Card, Handles, Coolant Bottle
(w/eco-friendly coolant and hose), coolant bottle assembly,
safety strap, Drill and carrying case

EQ100/E100FR Features

- Integral arbor support for precise cuts
- Solid state electronic control panel for rugged, reliable service in all conditions
- Supplied coolant system provides smooth, accurate cuts
- Variable speed control with 2 gear ranges.
- Quick Hitch Arbor
- Quick conversion to twist drilling.
- Available with reverse and swivel base.
- Model E100FR is a reversible unit.

Drill Capacity DIAMETER



4" x 3*



1 1/2"

*Special arbors needed for larger sizes



Technical Specifications *Pertains to E100FR Model

Motor Type	Eibenstock UNI-III, 2 Gear, Var. speed, *Reversible
Horse Power	2.4HP
Watts/Amps	1800W / 16.5AMP
Motor Speed (RPM)	50-130/160-450rpm No Load SPD
Capacity-Annular Cutters (in)	4" / 100mm
Tapping Capacity (E100)	1" / M24
Capacity-Twist Drills (in)	1-1/4" / 32mm
Height (down position)	20-1/2" / 522mm
Stroke	10 1/4"
Magnet Dim. (W x H x L)	4" x 2 1/2" x 7 1/2"
Magnet Push Off Test	3798lbs / 1723kgs Minimum
Weight	59lbs / 27kgs
Arbor Type	UNI-3 3 Morse Taper, Quick Hitch *3MT side lock arbor

Accessories (sold separately)

- 3-Jaw Chuck, P-CHUC08

P-CHUC08
(shown, comes with 3/4" chuck and key, 3 Morse Taper arbor)



What's in the Box?
Drilling Guide, Warranty Card, Handles, Coolant Bottle (w/eco-friendly coolant and hose), coolant bottle assembly, safety strap, Drill and carrying case

Airbor Features

- Fully air-powered magnetic drill
- Failsafe permanent magnet
- Safety interlock system - Motor will only run if magnet is engaged
- Integral arbor support for precise cuts
- Supplied pressurized coolant system.
- At 28 pounds, the unit is easily handled no matter what the job.
- Spark-resistant body is designed for use in hazardous & explosive environments.

Drill Capacity DIAMETER



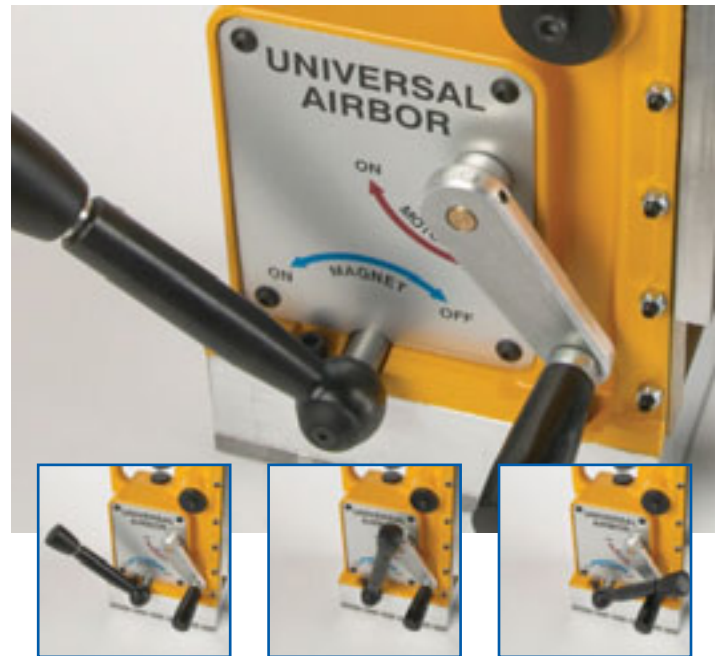
2" x 2



Technical Specifications

Power	90 psi, 32 cfm
Speed	400 RPM
Overall Dimensions	20" h x 5.5" w x 10.5" l
Weight	27.5lbs / 12.5kgs
Magnet Dimensions (W x H x L)	6.5" x 4" x 2"
Magnet Adhesion	1450 lbs
Stroke	5"
Cutting Thickness	1/2" x 2"
Arbor Type	Integrated Arbor for 3/4" Shank Cutter

Details



What's in the Box?

Drilling Guide, Warranty Card, Handles, Coolant Bottle (w/eco-friendly coolant and hose), coolant bottle assembly, safety strap, Drill and carrying case

Hydrobor Features

- Hydraulic powered.
- Specifically designed for under water applications.
- Available higher performance motors for increased cutter capacity.
- Reversible with reversing power pack.

Drill Capacity DIAMETER



2 1/2" x 2



Technical Specifications

Power	90 psi, 32 cfm
Speed	400 RPM
Flow Rate	2.65 - 13 gal/min
Optimum Working Pressure	2000 psi
Height	16.5" (in down position)
Weight	53lbs / 25kgs
Magnet Dimensions <small>(W x H x L)</small>	6.25" x 3.125" x 2"
Magnet Adhesion	1200lbs
Stroke	6.5"
Cutting Thickness	1/2" - 2"
Arbor Type	Integrated Arbor for 3/4" Shank Cutter

Detail



Quick, easy hook-up to your hydraulic system

MagDrill & Industrial Machining

Part #	Description
Industrial Drill Centers Accessories	
CHUC 11	1/2" chuck to annular adapter
ADAPT 1	milling machine adapter 3/4" weldon shank
ARBOR R8	R8 collett adapter to 3/4" weldon shank
ARB 02	standard number 2 morse taper arbor
ARB 03	standard number 3 morse taper arbor
ARB 04	standard number 4 morse taper arbor
Magnetic Drillstand Accessories	
PIPE 01	pipe drilling attachment
UP 102	500 ml Unibor coolant
OIL 01	5 liter Unibor coolant
CASE 01	small machine carrying case
CASE 14	large machine carrying case
SKIT 01	cutter kit: 9/16", 5/8", 11/16", 3/4", 13/16", 15/16", 1" depth + 1" pilot
Unibor Chucks	
CHUC 05	1/2" chuck and key
CHUC 04	5/8" chuck and key
CHUC 08	3/4" chuck and key
Magnetic Drill Chuck Adapters	
ARB 07	number 2 morse taper chuck adapter
ARB 09	number 3 morse taper chuck adapter for 3/4" chuck
Additional Unibor Arbors	
UP 317	number 3 morse taper extended arbor
ARBOIL 2	number 2 morse taper arbor with coolant feed
ARBOIL 3	number 3 morse taper arbor with coolant feed
JARBOR	number 3 morse taper arbor, 1-1/4" Weldon shank, for ind machining centers can be used on E100/32





Universal Drilling & Cutting
974 N. DuPage Avenue
Lombard, IL, 60148 USA

p: 630.495.9940
f: 630.495.9941
800.969.9644

www.unibor.com
usa@unibor.com

DESIGN CHANGES:

Universal Drilling and Cutting Equipment is constantly developing new products, and refining and improving the existing product range. Consequently, we reserve the right to change without notice the details and specifications shown in this document.

WARRANTY:

Universal Drilling Inc. warrants its portable magnetic drills for one (1) year from date of purchase. This warranty covers defects due to faulty material or workmanship. Warranty is voided if unauthorized repair work has been attempted or machinery has been used in a way not intended by design. Warranty is also voided if machine is inoperable for reasons not resulting from defects in material or workmanship. Universal Drilling reserves the right to inspect machinery to determine cause of claim and whether covered under warranty. No other warranty is implied or sanctioned. Universal Drilling disclaims any implied warranty beyond the original warranty period of 12 months and shall not be liable for any incidental or consequential damages. Some of the products shown herein are protected under U.K., U.S. and International patents.

DISTRIBUTED BY: