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G&J HALL TOOLS

PRODUCT CATALOGUE

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OSL Cutting Technologies

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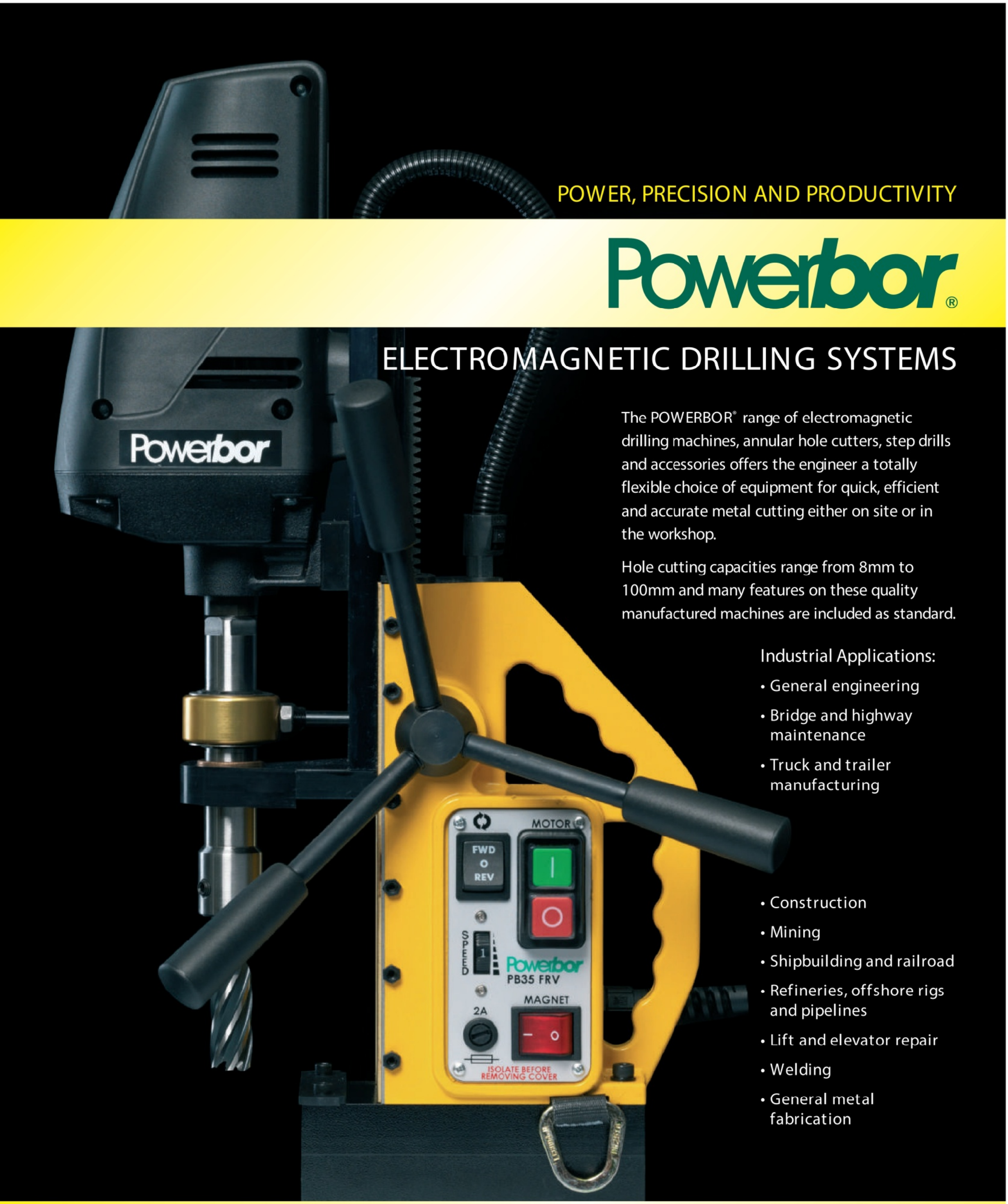
www.gjhall.co.uk

www.powerbor.co.uk

POWER, PRECISION AND PRODUCTIVITY

Powerbor®

ELECTROMAGNETIC DRILLING SYSTEMS



The POWERBOR® range of electromagnetic drilling machines, annular hole cutters, step drills and accessories offers the engineer a totally flexible choice of equipment for quick, efficient and accurate metal cutting either on site or in the workshop.

Hole cutting capacities range from 8mm to 100mm and many features on these quality manufactured machines are included as standard.

Industrial Applications:

- General engineering
- Bridge and highway maintenance
- Truck and trailer manufacturing
- Construction
- Mining
- Shipbuilding and railroad
- Refineries, offshore rigs and pipelines
- Lift and elevator repair
- Welding
- General metal fabrication

THE Powerbor® STANDARD

INCLUDED WITH ALL MACHINES

- Dual carrying handles for enhanced operating maneuverability
- Reversible handles for use in restrictive conditions
- Improved high density magnet for maximum adhesion
- Corrosive resistant, tangle-free cable from stand to drill unit
- Isolating power relay for improved handling safety
- Control panel situated conveniently on the same side as the traverse handles
- Free protective carrying case complete with safety strap, safety guard and hex key set

PB32

The Powerbor® PB32-S has been ergonomically designed to provide an electromagnetic drilling machine that is totally user friendly.

- Fitted with the reliable and proven HITACHI D13 power unit
- 13mm drill chuck and key included*
- A complete coolant system is available
- All Powerbor® standard features are backed by a full range of replacement spares

12 months comprehensive warranty as standard

PART NUMBER	ITEM NO	DESCRIPTION
18A32/110	18011	PB32-S 110V

HEIGHT (Min/Max)	WIDTH (Min/Max)	DEPTH	TRAVEL	WEIGHT
320mm/480mm	90mm/202mm	240mm	160mm	12.5kgs

TOTAL POWER	780W
MOTOR	720W
MAGNETIC ADHESION	1000kgs
VOLTAGE	110V (AC supply)
RATED LOAD SPEED	380 rpm
DEPTH OF CUT	25mm
CUTTER CAPACITY	12mm to 32mm
DRILLING CAPACITY	18mm - with reduced shank drill

* To fit drill chuck (13mm with 1/2" x 20) remove arbor (RH thread) and arbor support bracket

See PB32-S user manual for complete specification at www.gjhall.co.uk

SAFETY GUARD...
Machine shown without Safety Guard for clarity

THE Powerbor® STANDARD INCLUDED (SEE PAGE 4)

PB35

The Powerbor® PB35 has excellent power to weight ratio, with optimum cutting and drilling capability for both HSS and TCT cutters.

- Annular cutter capacity (Ø35mm - HSS / Ø38mm - TCT)
- Arbor depth of cut Ø50mm
- 3/4" Weldon Shank arbor
- Custom moulded carrying case complete with Safety strap, Safety guard, Chrome Vanadium spanners/wrenches and Hex keys / Allen keys
- Optional coolant
- Optional drill chuck and key
- Optional chuck extension

12 months comprehensive warranty as standard

PART NUMBER	ITEM NO	DESCRIPTION
18C110	18811	PB35 110V
18C230	18814	PB35 230V

HEIGHT (Min/Max)	WIDTH (Min/Max)	DEPTH	TRAVEL	WEIGHT
395mm/530mm	95mm/202mm	300mm	135mm	13kgs

TOTAL POWER	1010W
MOTOR	960W
MAGNETIC ADHESION	1000kgs
VOLTAGE	110/230V (AC Supply)
RATED LOAD SPEED	360 rpm
DEPTH OF CUT	50mm
CUTTER CAPACITY	35mm HSS 38mm TCT
DRILLING CAPACITY	13mm

See PB35 user manual for complete specification at www.gjhall.co.uk

SAFETY GUARD...
Machine shown without Safety Guard for clarity

THE Powerbor® STANDARD INCLUDED (SEE PAGE 4)

SCAN THE QR CODE...

Find out more about all our Powerbor® machines, including manuals and videos.

Powerbor®

ELECTROMAGNETIC DRILLING SYSTEMS

PB35 FRV

The Powerbor® PB35 FRV has excellent power to weight ratio and forward, reverse and variable speed brings a choice of tapping, cutting and drilling capability.

- Annular cutter capacity (Ø35mm - HSS / Ø38mm - TCT)
- Single gear - electronically variable
- Coolant as Standard
- Forward/Reverse for tapping (M6 - M16)
- Arbor depth of cut 50mm
- 3/4" Weldon Shank arbor
- Optional drill chuck and key
- Custom moulded carrying case complete with Safety strap, Safety guard, Chrome Vanadium spanners/wrenches and Hex keys/allen keys
- Optional chuck extension

12 months comprehensive warranty as standard

PART NUMBER	ITEM NO	DESCRIPTION
18C110/FRV	18817	PB35 FRV 110V
18C230/FRV	18819	PB35 FRV 230V

HEIGHT (Min/Max)	WIDTH (Min/Max)	DEPTH	TRAVEL	WEIGHT
395mm/530mm	95mm/276mm (with coolant)	300mm	135mm	13.9kgs

TOTAL POWER	1010W
MOTOR	960W
MAGNETIC ADHESION	1000kgs
VOLTAGE	110-230V (AC Supply)
RATED LOAD SPEED	150-360 rpm
DEPTH OF CUT	50mm
CUTTER CAPACITY	35mm HSS 38mm TCT
DRILLING CAPACITY	13mm
TAPPING CAPACITY	M16 (with Powerbor® Weldon Shank Spiral Point Taps)

See PB35 FRV user manual for complete specification at www.gjhall.co.uk

SAFETY GUARD... Machine shown without Safety Guard for clarity

THE Powerbor® STANDARD INCLUDED (SEE PAGE 4)

PB45

The cutting capacity to weight ratio of the Powerbor® PB45-S complements the PB32-S but adds more cutting power.

The relatively light overall weight of the PB45-S disguises the cutting and drilling power normally associated with much heavier machines.

- Fitted with the tried and tested Eibenstock 2 speed motor unit
- Arbor depth of cut 50mm
- A complete coolant system is available as an option
- All Powerbor® standard features are backed by a full range of replacement spares

12 months comprehensive warranty as standard

PART NUMBER	ITEM NO	DESCRIPTION
18H45/110	18063	PB45-S 110V
18H45/240	18066	PB45-S 230V

HEIGHT (Min/Max)	WIDTH (Min/Max)	DEPTH	TRAVEL	WEIGHT
370mm/560mm	145mm/210mm	280mm	190mm	20kgs

TOTAL POWER	1225W
MOTOR	1150W
MAGNETIC ADHESION	1500kgs
VOLTAGE	110V or 220-240V (AC supply)
RATED LOAD SPEED	250-450rpm
DEPTH OF CUT	50mm
CUTTER CAPACITY	12mm to 50mm
DRILLING CAPACITY	20mm
ARBOR	M.T.2 to 3/4" Weldon Shank

See PB45-S user manual for complete specification at www.gjhall.co.uk

SAFETY GUARD... Machine shown without Safety Guard for clarity

THE Powerbor® STANDARD INCLUDED (SEE PAGE 4)

SCAN THE QR CODE...

Find out more about all our Powerbor® machines, including manuals and videos.

PB70/2

The Powerbor® PB70/2 has been carefully designed to guarantee enhanced power and versatility.

A proven, powerful performer and still portable enough to be used on-site or in the workshop, the PB70/2 provides the perfect solution to even the most difficult of drilling applications.

- 2 geared speeds
- Arbor depth of cut 50mm
- Mechanical Clutch
- MT3 fitting for accessories or up to 32mm twist drill
- 3/4" Weldon Shank arbor
- Optional coolant
- Optional MT3 drill chuck and key
- Optional MT3 x 1.1/4" arbor for large cutters
- Carrying case containing Safety strap, Safety guard, spanners/wrenches and Hex keys / allen keys

12 months comprehensive warranty as standard

PART NUMBER	ITEM NO	DESCRIPTION
18G702/110	18513	PB70/2 110V
18G702/240	18060	PB70/2 230V

HEIGHT (Min/Max)	WIDTH (Min/Max)	DEPTH	TRAVEL	WEIGHT
440mm/640mm	160mm/235mm	330mm	190mm	22kgs

TOTAL POWER	1675W
MOTOR	1600W
MAGNETIC ADHESION	1500kgs
VOLTAGE	110V or 220-240V (AC supply)
RATED LOAD SPEED	140-470 rpm
DEPTH OF CUT	50mm
CUTTER CAPACITY	12mm to 70mm*
DRILLING CAPACITY	32mm
ARBOR	M.T.3 to 3/4" Weldon Shank

* Cutters larger than 65mm need optional 1.1/4" arbor.

See PB70/2 user manual for complete specification at www.gjhall.co.uk

SAFETY GUARD...
Machine shown without Safety Guard for clarity

THE Powerbor® STANDARD
INCLUDED (SEE PAGE 4)

PB70 FRV

The Powerbor® PB70 FRV has excellent power to weight ratio and forward, reverse and variable speed version of the PB70/2. It brings a choice of tapping, cutting and drilling to our 70mm capacity magnetic drilling machine.

- Annular cutter capacity Ø70mm (HSS / TCT)
- Forward/Reverse for tapping (M6 - M24)
- MT3 fitting for accessories or up to Ø32mm twist drill
- 2 geared speeds - electronically variable
- Arbor depth of cut 50mm
- Torque boost and feedback control for speed
- Mechanical Clutch
- Electronic overload and thermal cut-out
- 3/4" Weldon Shank arbor
- Optional coolant
- Optional MT3 drill chuck and key
- Optional MT3 x 1-1/4" arbor for large cutters
- Carrying case containing Safety strap, Safety guard, spanners/wrenches and Hex keys / allen keys

12 months comprehensive warranty as standard

PART NUMBER	ITEM NO	DESCRIPTION
18P110	18806	PB 70 FRV 110V
18P230	18807	PB 70 FRV 230V

HEIGHT (Min/Max)	WIDTH (Min/Max)	DEPTH	TRAVEL	WEIGHT
440mm/640mm	160mm/255mm	330mm	190mm	22kgs

TOTAL POWER	1875W
MOTOR	1800W
MAGNETIC ADHESION	1500kgs
VOLTAGE	110/230V (AC supply)
RATED LOAD SPEED	60-140, 200-470 rpm*
DEPTH OF CUT	50mm
CUTTER CAPACITY	70mm HSS** 70mm TCT**
DRILLING CAPACITY	32mm
TAPPING CAPACITY	M24 (with Powerbor® Weldon Shank Spiral Point Taps)
ARBOR	M.T.3 to 3/4" Weldon Shank

* The load and no load speeds on the PB70 FRV are the same, this is because the machine has electronic feedback control so it tries to maintain speed under load, so the load speed stays the same as the no load speed until it reaches its limits.

** Cutters larger than 65mm need optional 1.1/4" arbor.

See PB70 FRV user manual for complete specification at www.gjhall.co.uk

Contact us for availability of this new machine added to the Powerbor® range

SAFETY GUARD...
Machine shown without Safety Guard for clarity

THE Powerbor® STANDARD
INCLUDED (SEE PAGE 4)

Powerbor®

ELECTROMAGNETIC DRILLING SYSTEMS

PB100E

The Powerbor® PB100E has a larger magnet and 4 speed gearbox, increasing its flexibility for cutter size and difficult applications.

Optional swivel base allows for movement of the machine's body through 2 x 60° and a lateral movement of 22mm.

- Cutting capacity of 100mm
- Fitted with proven Eibenstock 1700W motor unit
- A complete coolant system is available as an option
- All Powerbor® standard features are backed by a full range of replacement spares

12 months comprehensive warranty as standard

PART NUMBER	ITEM NO	DESCRIPTION
18B100/110/EIB	18032	PB100E 110V
18B100S/110/EIB	18048	PB100E 110V Swivel Base
18B100/240/EIB	18043	PB100E 230V

HEIGHT (Min/Max)	WIDTH (Min/Max)	DEPTH	TRAVEL	WEIGHT
455mm/705mm	160mm/255mm	360mm	260mm	25kgs

TOTAL POWER	1795W
MOTOR	1700W
MAGNETIC ADHESION	2000kgs
VOLTAGE	110V or 220-240V (AC supply)
RATED LOAD SPEED	110, 175, 245, 385 rpm
DEPTH OF CUT	50mm
CUTTER CAPACITY	100mm*
DRILLING CAPACITY	32mm
ARBOR	M.T.3 to 3/4" Weldon Shank

* Cutters larger than 65mm need optional 1.1/4" arbor.

See PB100E user manual for complete specification at www.gjhall.co.uk

SAFETY GUARD... Machine shown without Safety Guard for clarity

THE Powerbor® STANDARD INCLUDED (SEE PAGE 4)

PB100E FRV

The Powerbor® PB100E FRV is the forward, reverse and variable speed version of the PB100E. It brings a choice of tapping, cutting and drilling capability to our 100mm capacity magnetic drilling machine.

- Annular cutter capacity - Ø100mm (HSS / TCT)
- Forward/Reverse for tapping (M6 - M30)
- MT3 fitting for accessories or up to Ø32mm twist drill
- 4 geared speeds, all electronically variable
- Arbor depth of cut 50mm
- Torque boost and feedback control for speed
- Mechanical Clutch
- Electronic overload and thermal cut-out
- Optional coolant
- Optional MT3 drill chuck and key
- Optional MT3 x 1-1/4" arbor for large cutters
- Optional swivel/adjustable base
- Carrying containing Safety strap, Safety guard, MT3 x 3/4" Weldon arbor, Hex keys / allen keys and drill drift

12 months comprehensive warranty as standard

PART NUMBER	ITEM NO	DESCRIPTION
18N110	18804	PB100E FRV 110V
18N230	18805	PB100E FRV 230V

HEIGHT (Min/Max)	WIDTH (Min/Max)	DEPTH	TRAVEL	WEIGHT
455mm/705mm	160mm/255mm	360mm	260mm	25kgs

TOTAL POWER	1795W
MOTOR	1700W
MAGNETIC ADHESION	2000kgs
VOLTAGE	110/230V (AC supply)
RATED LOAD SPEED	60-140, 100-230, 140-330, 220-510 rpm*
DEPTH OF CUT	50mm
CUTTER CAPACITY	100mm HSS 100mm TCT
DRILLING CAPACITY	32mm
TAPPING CAPACITY	M30 (with Powerbor® Weldon Shank Spiral Point Taps)
ARBOR	M.T.3 to 3/4" Weldon Shank

* The load and no load speeds on the PB100E FRV are the same, this is because the machine has electronic feedback control so it tries to maintain speed under load, so the load speed stays the same as the no load speed until it reaches its limits.

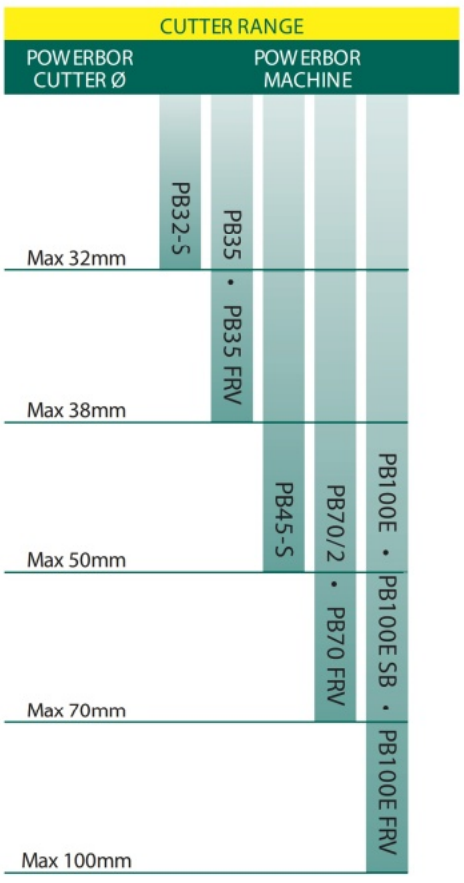
See PB100E FRV user manual for complete specification at www.gjhall.co.uk

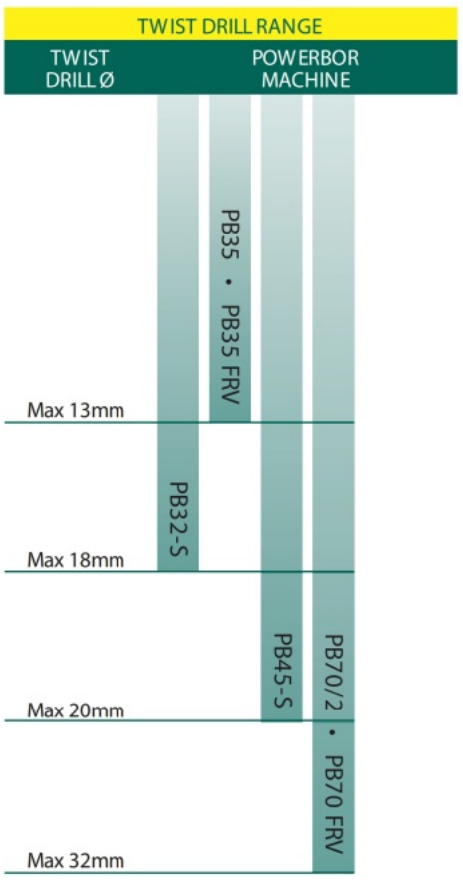
Contact us for availability of this new machine added to the Powerbor® range

SAFETY GUARD... Machine shown without Safety Guard for clarity

THE Powerbor® STANDARD INCLUDED (SEE PAGE 4)

ELECTROMAGNETIC DRILLING SYSTEMS : MACHINE SPECIFICATIONS





The hole making capacity on some of the machines can be extended using a Powerbor® Step Drill.

RATED LOAD SPEEDS

SPINDLE RPM	PB32-S	PB35	PB35 FRV	PB45-S	PB70/2	PB70 FRV	PB100E PB100E SB	PB100E FRV
50								
60								
70								
80								
90								
100								
110								
120								
130								
140								
150								
160								
170								
180								
190								
200								
210								
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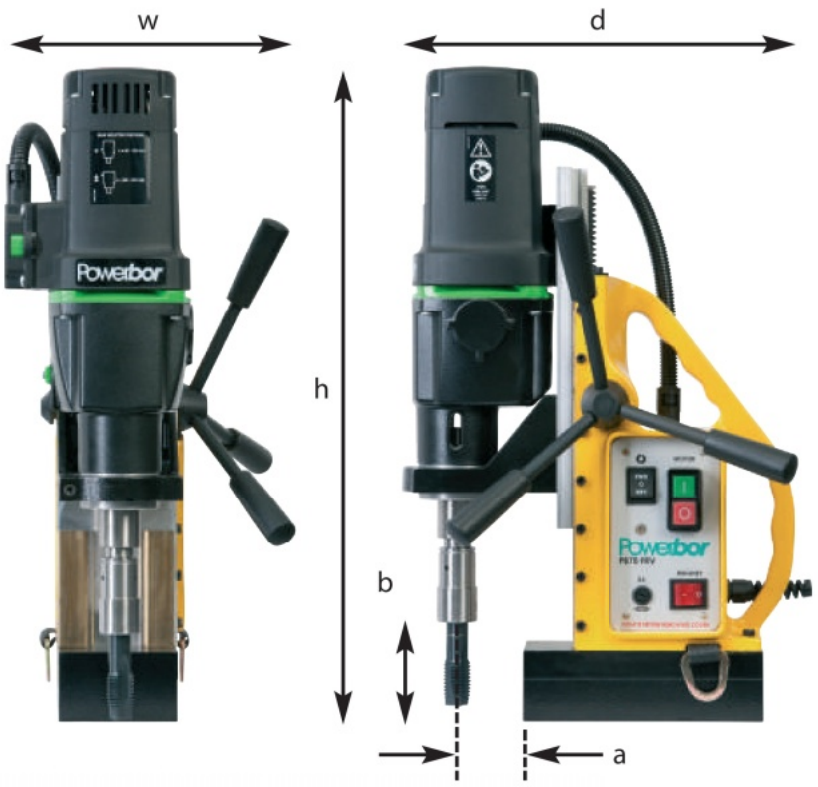
410								
420								
430								
440								
450								
460								
470								
480								
490								
500								
510								
520								
530								
540								
550								

= variable speed
= fixed or geared speed

For no load speed see machine user manuals at www.gjhall.co.uk



MACHINE DIMENSIONS (mm)

MACHINE	HEIGHT Min/Max (h)	WIDTH Min/Max (w)	DEPTH (d)	TRAVEL (Stroke)	WEIGHT (kg)	MAGNET TO SPINDLE CL (a)	HEIGHT UNDER ARBOR (b)	MAGNET AREA
PB32-S	320/480	90/202	240	160	12.5	44	163	160 x 85
PB35	395/530	95/202	300	135	13.5	32.5	131.5	160 x 85
PB35 FRV	395/530	95/276	300	135	13.9	32.5	131.5	160 x 85
PB45-S	370/560	145/210	280	190	20	35	133	200 x 100
PB70/2	440/640	160/235	330	190	22	56	180	200 x 100
PB70 FRV	440/640	160/255	330	190	22	56	180	200 x 100
PB100E	455/705	160/255	360	260	25	75	230	220 x 110
PB100E SB	455/705	160/255	360	260	25	75	230	220 x 110
PB100E FRV	455/705	160/255	360	260	25	75	230	220 x 110

Height under spindle for PB32-S is 190mm with drill chuck fitted and 160mm with Powerbor arbor fitted.

Powerbor®

ANNULAR CUTTERS

STANDARD M2 HSS CUTTERS

- For cutting general engineering and structural steels
- Dramatically outperform conventional twist drills, in terms of cutting speed and tool life
- Available to size 12 - 65mm • Other sizes available to order

PREMIUM M42 COBALT CUTTERS

- Keep their cutting edge for longer than standard HSS - producing more holes between resharpening, reducing the cost per cut and increasing productivity
- Available to size 12 - 65mm • Other sizes available to order

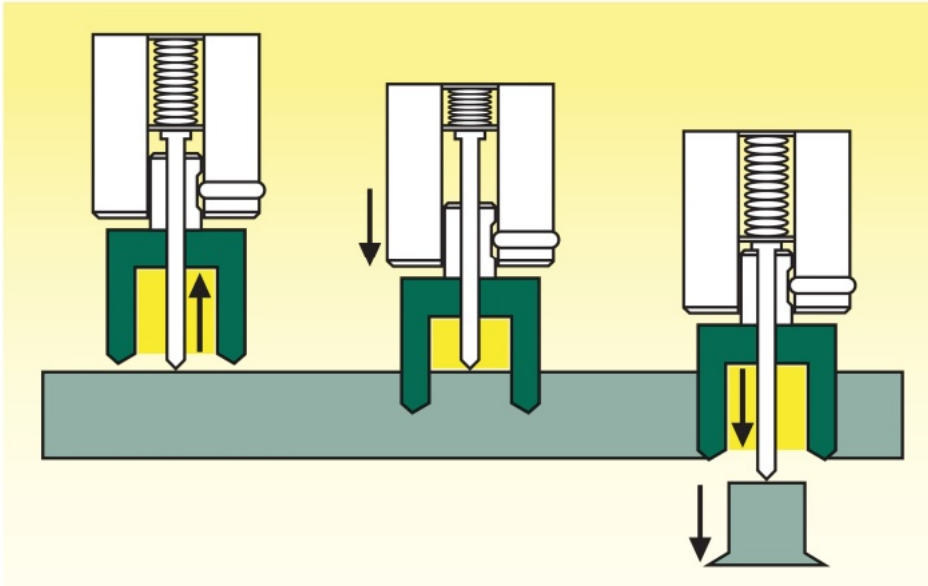
BLUE CUTTERS

- Distinctive 'blue' finish provides improved cutter properties and improved cutting performance
- Improved wear resistance, reducing friction and minimising 'pick up' of work piece material
- Greatly enhanced cutting tool life - three times longer - even without coolant
- Less stress on the drilling machine motor, leading to longer machine life
- Available to size 12 - 65mm • Other sizes available to order

TUNGSTEN CARBIDE CUTTERS

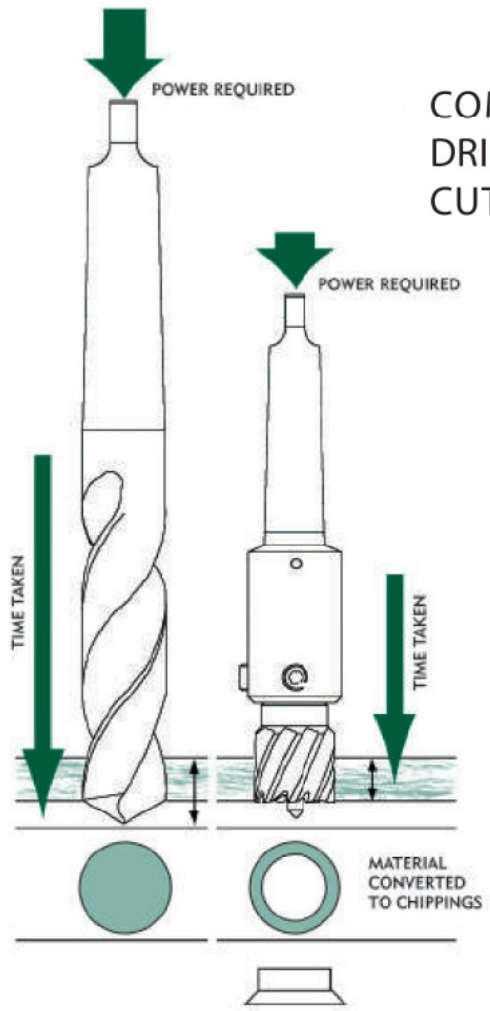
- Suitable for drilling harder materials such as stainless steel, castings and higher grade wear resistant steels
- Available to size 18 - 65mm • Other sizes available to order

The Powerbor® complete cutting technology allows holes to be produced quicker and more efficiently, compared to conventional drills, and due to the cutter design, the load per tooth is greatly reduced; and the power used by the machine is kept to a minimum. This greatly increases productivity and the life expectancy of the machine.



Powerbor® cutters produce a solid slug of steel which is ejected when the cutter breaks through and the hole is complete. This reduces the problems experienced by the swarf and chips generated by conventional drilling.

COMPARISON OF TWIST DRILL AND BROACHING CUTTER PERFORMANCE



SCAN THE QR CODE...

For full specifications and technical data

Powerbor®

ANNULAR CUTTERS : SPECIFICATIONS

POWERBOR® STANDARD M2 HSS - METRIC

POWERBOR® STANDARD M2 HSS CUTTERS CUT DEPTH 25mm | 3/4" Shank		
PART NUMBER	ITEM NO	DIA mm
20AAM12*	40002	12
20AAM13	40004	13
20AAM14	40006	14
20AAM15	40008	15
20AAM16	40010	16
20AAM17	40012	17
20AAM18	40014	18
20AAM19	40016	19
20AAM20	40018	20
20AAM21	40020	21
20AAM22	40022	22
20AAM23	40024	23
20AAM24	40026	24
20AAM25	40028	25
20AAM26	40030	26
20AAM27	40032	27
20AAM28	40034	28
20AAM29	40036	29
20AAM30	40038	30
20AAM31	40040	31
20AAM32	40042	32
20AAM33	40044	33
20AAM34	40046	34
20AAM35	40048	35
20AAM36	40050	36
20AAM37	40052	37
20AAM38	40054	38
20AAM39	40056	39
20AAM40	40058	40
20AAM41	40060	41
20AAM42	40062	42
20AAM43	40064	43
20AAM44	40066	44
20AAM45	40068	45
20AAM46	40070	46
20AAM47	40072	47
20AAM48	40074	48
20AAM49	40076	49
20AAM50	40078	50
20AAM51	40080	51
20AAM52	40082	52
20AAM53	40084	53
20AAM54	40086	54
20AAM55	40088	55
20AAM56	40090	56
20AAM57	40092	57
20AAM58	40094	58
20AAM59	40096	59
20AAM60	40098	60
20AAM61	40000	61
20AAM62	40102	62
20AAM63	40104	63
20AAM64	40106	64
20AAM65	40108	65
EJECTOR/PILOT PIN • Part No : 20ZASR • Item No : 41002 Except * • Part No : 20ZAXL100P-7/16 • Item No : 41004		

Other cutting diameters to order

POWERBOR® STANDARD M2 HSS CUTTERS CUT DEPTH 50mm | 3/4" Shank		
PART NUMBER	ITEM NO	DIA mm
20ABM12*	40114	12
20ABM13	40116	13
20ABM14	40118	14
20ABM15	40120	15
20ABM16	40122	16
20ABM17	40124	17
20ABM18	40126	18
20ABM19	40128	19
20ABM20	40130	20
20ABM21	40132	21
20ABM22	40134	22
20ABM23	40136	23
20ABM24	40138	24
20ABM25	40140	25
20ABM26	40142	26
20ABM27	40144	27
20ABM28	40146	28
20ABM29	40148	29
20ABM30	40150	30
20ABM31	40152	31
20ABM32	40154	32
20ABM33	40156	33
20ABM34	40158	34
20ABM35	40160	35
20ABM36	40162	36
20ABM37	40164	37
20ABM38	40166	38
20ABM39	40168	39
20ABM40	40170	40
20ABM41	40172	41
20ABM42	40174	42
20ABM43	40176	43
20ABM44	40178	44
20ABM45	40180	45
20ABM46	40182	46
20ABM47	40184	47
20ABM48	40186	48
20ABM49	40188	49
20ABM50	40190	50
20ABM51	40192	51
20ABM52	40194	52
20ABM53	40196	53
20ABM54	40198	54
20ABM55	40200	55
20ABM56	40202	56
20ABM57	40204	57
20ABM58	40206	58
20ABM59	40208	59
20ABM60	40210	60
20ABM61	40212	61
20ABM62	40214	62
20ABM63	40216	63
20ABM64	40218	64
20ABM65	40220	65
EJECTOR/PILOT PIN • Part No : 20ZALR • Item No : 41000 Except * • Part No : 20ZAXL200P-7/16 • Item No : 41005		

Other cutting diameters to order

POWERBOR® STANDARD M2 HSS - IMPERIAL

POWERBOR® STANDARD M2 HSS CUTTERS CUT DEPTH 1" | 3/4" Shank		
PART NUMBER	ITEM NO	DIA inch
20AN7/16*	40278	7/16
20AN1/2	40250	1/2
20AN9/16	40280	9/16
20AN5/8	20251	5/8
20AN11/16	40251	11/16
20AN3/4	40276	3/4
20AN13/16	40252	13/16
20AN7/8	40279	7/8
20AN15/16	40253	15/16
20AN1	40234	1
20AN1.1/16	40235	1.1/16
20AN1.1/8	40238	1.1/8
20AN1.3/16	40242	1.3/16
20AN1.1/4	40237	1.1/4
20AN1.5/16	40245	1.5/16
20AN1.3/8	40244	1.3/8
20AN1.7/16	40247	1.7/16
20AN1.1/2	40236	1.1/2
20AN1.9/16	40249	1.9/16
20AN1.5/8	40246	1.5/8
20AN1.11/16	40239	1.11/16
20AN1.3/4	40243	1.3/4
20AN1.13/16	40240	1.13/16
20AN1.7/8	40248	1.7/8
20AN1.15/16	40241	1.15/16
20AN2	40255	2
20AN2.1/16	40515	2.1/16
20AN2.1/8	40518	2.1/8
20AN2.3/16	40522	2.3/16
20AN2.1/4	40517	2.1/4
EJECTOR/PILOT PIN • Part No : 20ZASR • Item No : 41002 Except * • Part No : 20ZAXL100P-7/16 • Item No : 41004		

Other cutting diameters to order

POWERBOR® STANDARD M2 HSS CUTTERS CUT DEPTH 2" | 3/4" Shank		
PART NUMBER	ITEM NO	DIA inch
20AO7/16*	40334	7/16
20AO1/2	40301	1/2
20AO9/16	40336	9/16
20AO5/8	40333	5/8
20AO11/16	40302	11/16
20AO3/4	40330	3/4
20AO13/16	40303	13/16
20AO7/8	40335	7/8
20AO15/16	40304	15/16
20AO1	40281	1
20AO1.1/16	40282	1.1/16
20AO1.1/8	40285	1.1/8
20AO1.3/16	40291	1.3/16
20AO1.1/4	40284	1.1/4
20AO1.5/16	40295	1.5/16
20AO1.3/8	40294	1.3/8
20AO1.7/16	40297	1.7/16
20AO1.1/2	40283	1.1/2
20AO1.9/16	40300	1.9/16
20AO1.5/8	40296	1.5/8
20AO1.11/16	40286	1.11/16
20AO1.3/4	40293	1.3/4
20AO1.13/16	40288	1.13/16
20AO1.7/8	40299	1.7/8
20AO1.15/16	40289	1.15/16
20AO2	40306	2
20AO2.1/16	40558	2.1/16
20AO2.1/8	40561	2.1/8
20AO2.3/16	40565	2.3/16
20AO2.1/4	40560	2.1/4
EJECTOR/PILOT PIN • Part No : 20ZALR • Item No : 41000 Except * • Part No : 20ZAXL200P-7/16 • Item No : 41005		

Other cutting diameters to order

POWERBOR® STANDARD M2 HSS CUTTERS CUT DEPTH 1" | 1.1/4" Shank		
PART NUMBER	ITEM NO	DIA inch
20AN2.5/16	40525	2.5/16
20AN2.3/8	40524	2.3/8
20AN2.7/16	40527	2.7/16
20AN2.1/2	40516	2.1/2
20AN2.9/16	40529	2.9/16
20AN2.5/8	40526	2.5/8
20AN2.11/16	40519	2.11/16
20AN2.3/4	40523	2.3/4
20AN2.13/16	40520	2.13/16
20AN2.7/8	40528	2.7/8
20AN2.15/16	40521	2.15/16
20AN3	40530	3
20AN3.1/16	20257	3.1/16
20AN3.1/8	20260	3.1/8
20AN3.3/16	20263	3.3/16
20AN3.1/4	20259	3.1/4
20AN3.5/16	20266	3.5/16
20AN3.3/8	20265	3.3/8
20AN3.1/2	20258	3.1/2
20AN3.9/16	20269	3.9/16
20AN3.5/8	20267	3.5/8
20AN3.3/4	20264	3.3/4
20AN3.13/16	20261	3.13/16
20AN3.7/8	20268	3.7/8
20AN3.15/16	20262	3.15/16
20AN4	40532	4
EJECTOR/PILOT PIN • Part No : 20ZASR • Item No : 41002		

Other cutting diameters to order

POWERBOR® STANDARD M2 HSS CUTTERS CUT DEPTH 2" | 1.1/4" Shank		
PART NUMBER	ITEM NO	DIA inch
20AO2.5/16	40568	2.5/16
20AO2.3/8	40567	2.3/8
20AO2.7/16	40570	2.7/16
20AO2.1/2	40559	2.1/2
20AO2.9/16	40572	2.9/16
20AO2.5/8	40569	2.5/8
20AO2.11/16	40562	2.11/16
20AO2.3/4	40566	2.3/4
20AO2.13/16	40563	2.13/16
20AO2.7/8	40571	2.7/8
20AO2.15/16	40564	2.15/16
20AO3	40573	3
20AO3.1/16	40574	3.1/16
20AO3.1/8	40577	3.1/8
20AO3.3/16	20280	3.3/16
20AO3.1/4	40576	3.1/4
20AO3.5/16	40578	3.5/16
20AO3.3/8	20282	3.3/8
20AO3.1/2	40575	3.1/2
20AO3.9/16	20285	3.9/16
20AO3.5/8	20283	3.5/8
20AO3.3/4	20281	3.3/4
20AO3.13/16	20278	3.13/16
20AO3.7/8	20284	3.7/8
20AO3.15/16	20279	3.15/16
20AO4	20286	4
EJECTOR/PILOT PIN • Part No : 20ZALR • Item No : 41000		

Other cutting diameters to order

Powerbor®

ANNULAR CUTTERS : SPECIFICATIONS

POWERBOR® PREMIUM M42 COBALT - METRIC

POWERBOR® PREMIUM M42 COBALT CUTTERS
CUT DEPTH 25mm | 3/4" Shank

PART NUMBER	ITEM NO	DIA mm
20BAM12*	40624	12
20BAM13	40626	13
20BAM14	40628	14
20BAM15	40630	15
20BAM16	40632	16
20BAM17	40634	17
20BAM18	40636	18
20BAM19	40638	19
20BAM20	40640	20
20BAM21	40642	21
20BAM22	40644	22
20BAM23	40646	23
20BAM24	40648	24
20BAM25	40650	25
20BAM26	40652	26
20BAM27	40654	27
20BAM28	40656	28
20BAM29	40658	29
20BAM30	40660	30
20BAM31	40662	31
20BAM32	40664	32
20BAM33	40666	33
20BAM34	40668	34
20BAM35	40670	35
20BAM36	40672	36
20BAM37	40674	37
20BAM38	40676	38
20BAM39	40678	39
20BAM40	40680	40
20BAM41	40682	41
20BAM42	40684	42
20BAM43	40686	43
20BAM44	40688	44
20BAM45	40690	45
20BAM46	40692	46
20BAM47	40694	47
20BAM48	40696	48
20BAM49	40698	49
20BAM50	40700	50
20BAM51	40702	51
20BAM52	40704	52
20BAM53	40706	53
20BAM54	40708	54
20BAM55	40710	55
20BAM56	40712	56
20BAM57	40714	57
20BAM58	40716	58
20BAM59	40718	59
20BAM60	40720	60
20BAM61	40722	61
20BAM62	40724	62
20BAM63	40726	63
20BAM64	40728	64
20BAM65	40730	65

EJECTOR/PILOT PIN
• Part No : 20ZASR • Item No : 41002
Except * • Part No : 20ZAXL100P-7/16 • Item No : 41004

Other cutting diameters to order

POWERBOR® PREMIUM M42 COBALT CUTTERS
CUT DEPTH 50mm | 3/4" Shank

PART NUMBER	ITEM NO	DIA mm
20BBM12*	40742	12
20BBM13	40744	13
20BBM14	40746	14
20BBM15	40748	15
20BBM16	40750	16
20BBM17	40752	17
20BBM18	40754	18
20BBM19	40756	19
20BBM20	40758	20
20BBM21	40761	21
20BBM22	40763	22
20BBM23	40765	23
20BBM24	40767	24
20BBM25	40769	25
20BBM26	40771	26
20BBM27	40773	27
20BBM28	40775	28
20BBM29	40777	29
20BBM30	40779	30
20BBM31	40781	31
20BBM32	40783	32
20BBM33	40785	33
20BBM34	40787	34
20BBM35	40789	35
20BBM36	40791	36
20BBM37	40793	37
20BBM38	40795	38
20BBM39	40797	39
20BBM40	40799	40
20BBM41	40801	41
20BBM42	40803	42
20BBM43	40805	43
20BBM44	40807	44
20BBM45	40809	45
20BBM46	40811	46
20BBM47	40813	47
20BBM48	40815	48
20BBM49	40817	49
20BBM50	40819	50
20BBM51	40821	51
20BBM52	40823	52
20BBM53	40825	53
20BBM54	40827	54
20BBM55	40829	55
20BBM56	40831	56
20BBM57	40833	57
20BBM58	40835	58
20BBM59	40837	59
20BBM60	40839	60
20BBM61	40841	61
20BBM62	40843	62
20BBM63	40845	63
20BBM64	40847	64
20BBM65	40849	65

EJECTOR/PILOT PIN
• Part No : 20ZALR • Item No : 41000
Except * • Part No : 20ZAXL200P-7/16 • Item No : 41005

Other cutting diameters to order

POWERBOR® PREMIUM M42 COBALT - IMPERIAL

POWERBOR® PREMIUM M42 COBALT CUTTERS
CUT DEPTH 1" | 3/4" Shank

PART NUMBER	ITEM NO	DIA inch
20BE7/16*	20182	7/16
20BE1/2	20174	1/2
20BE9/16	20184	9/16
20BE5/8	20181	5/8
20BE11/16	20175	11/16
20BE3/4	20180	3/4
20BE13/16	20176	13/16
20BE7/8	20183	7/8
20BE15/16	20177	15/16
20BE1	20158	1
20BE1.1/16	20159	1.1/16
20BE1.1/8	20162	1.1/8
20BE1.3/16	20166	1.3/16
20BE1.1/4	20161	1.1/4
20BE1.5/16	20169	1.5/16
20BE1.3/8	20168	1.3/8
20BE1.7/16	20171	1.7/16
20BE1.1/2	20160	1.1/2
20BE1.9/16	20173	1.9/16
20BE1.5/8	20170	1.5/8
20BE1.11/16	20163	1.11/16
20BE1.3/4	20167	1.3/4
20BE1.13/16	20164	1.13/16
20BE1.7/8	20172	1.7/8
20BE1.15/16	20165	1.15/16
20BE2	20178	2
20BE2.1/16	20179	2.1/16

EJECTOR/PILOT PIN
• Part No : 20ZASR • Item No : 41002
Except * • Part No : 20ZAXL100P-7/16 • Item No : 41004

Other cutting diameters to order

POWERBOR® PREMIUM M42 COBALT CUTTERS
CUT DEPTH 2" | 3/4" Shank

PART NUMBER	ITEM NO	DIA inch
20BF7/16*	20335	7/16
20BF1/2	20326	1/2
20BF9/16	20337	9/16
20BF5/8	20334	5/8
20BF11/16	20327	11/16
20BF3/4	20333	3/4
20BF13/16	20328	13/16
20BF7/8	20336	7/8
20BF15/16	20329	15/16
20BF1	20310	1
20BF1.1/16	20311	1.1/16
20BF1.1/8	20314	1.1/8
20BF1.3/16	20318	1.3/16
20BF1.1/4	20313	1.1/4
20BF1.5/16	20321	1.5/16
20BF1.3/8	20320	1.3/8
20BF1.7/16	20323	1.7/16
20BF1.1/2	20312	1.1/2
20BF1.9/16	20325	1.9/16
20BF1.5/8	20322	1.5/8
20BF1.11/16	20315	1.11/16
20BF1.3/4	20319	1.3/4
20BF1.13/16	20316	1.13/16
20BF1.7/8	20324	1.7/8
20BF1.15/16	20317	1.15/16
20BF2	20330	2
20BF2.1/16	20331	2.1/16
20BF2.1/8	20332	2.1/8

EJECTOR/PILOT PIN
• Part No : 20ZALR • Item No : 41000
Except * • Part No : 20ZAXL200P-7/16 • Item No : 41005

Other cutting diameters to order

SPECIAL SIZES

Other cutting diameters and cut depth (DOC) to order.
Contact us for details.

SCAN THE QR CODE...

For full specifications and technical data

Powerbor®

ANNULAR CUTTERS : SPECIFICATIONS

POWERBOR® BLUE - METRIC

POWERBOR® BLUE CUTTERS
CUT DEPTH 25mm | 3/4" Shank

PART NUMBER	ITEM NO	DIA mm
20AJM12*	40386	12
20AJM13	40387	13
20AJM14	40388	14
20AJM15	40389	15
20AJM16	40390	16
20AJM17	40391	17
20AJM18	40392	18
20AJM19	40393	19
20AJM20	40394	20
20AJM21	40395	21
20AJM22	40396	22
20AJM23	40397	23
20AJM24	40398	24
20AJM25	40399	25
20AJM26	40400	26
20AJM27	40401	27
20AJM28	40402	28
20AJM29	40403	29
20AJM30	40404	30
20AJM31	40405	31
20AJM32	40406	32
20AJM33	40407	33
20AJM34	40408	34
20AJM35	40409	35
20AJM36	40410	36
20AJM37	40411	37
20AJM38	40412	38
20AJM39	40413	39
20AJM40	40414	40
20AJM41	40415	41
20AJM42	40416	42
20AJM43	40417	43
20AJM44	40418	44
20AJM45	40419	45
20AJM46	40420	46
20AJM47	40421	47
20AJM48	40422	48
20AJM49	40423	49
20AJM50	40424	50
20AJM51	40425	51
20AJM52	40426	52
20AJM53	40427	53
20AJM54	40428	54
20AJM55	40429	55
20AJM56	40430	56
20AJM57	40431	57
20AJM58	40432	58
20AJM59	40433	59
20AJM60	40434	60
20AJM61	40435	61
20AJM62	40436	62
20AJM63	40437	63
20AJM64	40438	64
20AJM65	40439	65

EJECTOR/PILOT PIN
• Part No : 20ZASR • Item No : 41002
Except * • Part No : 20ZAXL100P-7/16 • Item No : 41004

Other cutting diameters to order

POWERBOR® BLUE CUTTERS
CUT DEPTH 50mm | 3/4" Shank

PART NUMBER	ITEM NO	DIA mm
20AKM12*	40440	12
20AKM13	40441	13
20AKM14	40442	14
20AKM15	40443	15
20AKM16	40444	16
20AKM17	40445	17
20AKM18	40446	18
20AKM19	40447	19
20AKM20	40448	20
20AKM21	40449	21
20AKM22	40450	22
20AKM23	40451	23
20AKM24	40452	24
20AKM25	40453	25
20AKM26	40454	26
20AKM27	40455	27
20AKM28	40456	28
20AKM29	40457	29
20AKM30	40458	30
20AKM31	40459	31
20AKM32	40460	32
20AKM33	40461	33
20AKM34	40462	34
20AKM35	40463	35
20AKM36	40464	36
20AKM37	40465	37
20AKM38	40466	38
20AKM39	40467	39
20AKM40	40468	40
20AKM41	40469	41
20AKM42	40470	42
20AKM43	40471	43
20AKM44	40472	44
20AKM45	40473	45
20AKM46	40474	46
20AKM47	40475	47
20AKM48	40476	48
20AKM49	40477	49
20AKM50	40478	50
20AKM51	40479	51
20AKM52	40480	52
20AKM53	40481	53
20AKM54	40482	54
20AKM55	40483	55
20AKM56	40484	56
20AKM57	40485	57
20AKM58	40486	58
20AKM59	40487	59
20AKM60	40488	60
20AKM61	40489	61
20AKM62	40490	62
20AKM63	40491	63
20AKM64	40492	64
20AKM65	40493	65

EJECTOR/PILOT PIN
• Part No : 20ZALR • Item No : 41000
Except * • Part No : 20ZAXL200P-7/16 • Item No : 41005

Other cutting diameters to order

POWERBOR® TUNGSTEN CARBIDE - METRIC

POWERBOR® TUNGSTEN CARBIDE CUTTERS
CUT DEPTH 35mm | 3/4" Shank

PART NUMBER	ITEM NO	DIA mm
20CAM12	57859	12
20CAM13	57860	13
20CAM14	57861	14
20CAM15	57862	15
20CAM16	20367	16
20CAM17	20368	17
20CAM18	40882	18
20CAM19	40884	19
20CAM20	40886	20
20CAM21	40888	21
20CAM22	40890	22
20CAM23	40892	23
20CAM24	40894	24
20CAM25	40896	25
20CAM26	40898	26
20CAM27	40900	27
20CAM28	40902	28
20CAM29	40904	29
20CAM30	40906	30
20CAM31	40908	31
20CAM32	40910	32
20CAM33	40912	33
20CAM34	40914	34
20CAM35	40916	35
20CAM36	40918	36
20CAM37	40920	37
20CAM38	40922	38
20CAM39	40924	39
20CAM40	40926	40
20CAM41	40928	41
20CAM42	40930	42
20CAM43	40932	43
20CAM44	40934	44
20CAM45	40936	45
20CAM46	40938	46
20CAM47	40940	47
20CAM48	40942	48
20CAM49	40944	49
20CAM50	40946	50

EJECTOR/PILOT PIN
• Part No : 20ZAT35 • Item No : 41011

Other cutting diameters to order

POWERBOR® TUNGSTEN CARBIDE CUTTERS
CUT DEPTH 50mm | 3/4" Shank

PART NUMBER	ITEM NO	DIA mm
20CBM12	20501	12
20CBM13	20502	13
20CBM14	20503	14
20CBM15	20504	15
20CBM16	20505	16
20CBM17	20506	17
20CBM18	20464	18
20CBM19	20507	19
20CBM20	20465	20
20CBM21	20508	21
20CBM22	20466	22
20CBM23	20509	23
20CBM24	20467	24
20CBM25	20468	25
20CBM26	20469	26
20CBM27	20510	27
20CBM28	20470	28
20CBM29	20511	29
20CBM30	20471	30
20CBM31	20512	31
20CBM32	20472	32
20CBM33	20473	33
20CBM34	20474	34
20CBM35	20475	35
20CBM36	20476	36
20CBM37	20477	37
20CBM38	20478	38
20CBM39	20513	39
20CBM40	20479	40
20CBM41	20514	41
20CBM42	20515	42
20CBM43	20516	43
20CBM44	20480	44
20CBM45	20517	45
20CBM46	20518	46
20CBM47	20519	47
20CBM48	20481	48
20CBM49	20520	49
20CBM50	20482	50

EJECTOR/PILOT PIN
• Part No : 20ZAT50 • Item No : 41012

Other cutting diameters to order

SPECIAL SIZES

Other cutting diameters and cut depth (DOC) to order.
Contact us for details.

SCAN THE QR CODE...

For full specifications and technical data

POWERBOR® ANNULAR CUTTER KITS

PB4 (20K04)

PB7 (20K07)

PB4BLUE (20K04BLUE)

PB7BLUE (20K07BLUE)

POWERBOR® ANNULAR CUTTER KITS		
PART NUMBER	ITEM NUMBER	INCLUDES
PB4 (20K04)	40994	25mm DOC M14, M16, M18, M20, M22 Powerbor® M2 HSS Cutters
PB7 (20K07)	40996	50mm DOC M14, M16, M18, M20, M22 Powerbor® M2 HSS Cutters
PB4BLUE (20K04BLUE)	40997	25mm DOC M14, M16, M18, M20, M22 Powerbor® M2 Blue Cutters
PB7BLUE (20K07BLUE)	40995	50mm DOC M14, M16, M18, M20, M22 Powerbor® M2 Blue Cutters

All kits include pins

Powerbor®

ANNULAR CUTTERS : SPECIFICATIONS

RAIL CUTTERS

Normal/Standard/260 Grade
HP Rail Grade • Head Hardened

The cutters are designed to produce high quality accurate holes in the toughest rail grades in use.

Suitable for all rail drilling machines that have a 3/4" (19.05mm) arbor bore.

METRIC SIZES:

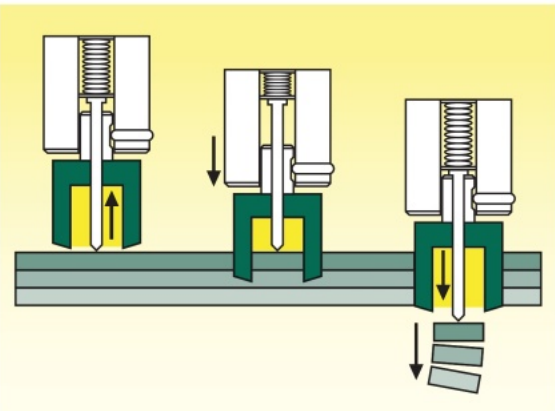
- Cutting diameters are 21mm to 40mm
- Standard depth of cut (DOC) is 25mm, and 35mm & 50mm DOC on request

IMPERIAL SIZES:

- Cutting diameters are 7/8" to 1.1/2"
- Standard depth of cut (DOC) is 1", and 1.3/8" & 2" DOC on request

Full details available on request.

STACK CUTTERS



A clear breakthrough is essential when drilling stacked plates. The Powerbor® Stack Cutter has specially designed cutting edges and flutes to provide better chip clearance and offers high cutting performance.

- Purpose designed for drilling a combination of stacked plates
- More cutting edges for greater cutting efficiency
- Smoother surface of cut with multiple edges

Full details available on request.

ANNULAR CUTTER SPEED RECOMMENDATIONS

CUTTER DIAMETER	HIGH TENSILE STEEL	MILD STEEL
MM	RPM	RPM
12	239	637
14	205	546
16	179	477
18	159	424
20	143	382
22	130	347
24	119	318
26	110	294
28	102	273
30	95	255
32	90	239
34	84	225
36	80	212
38	75	201
40	72	191
42	68	182
44	65	174
46	62	166
48	60	159
50	57	153
52	55	147
54	53	141
56	51	136
58	49	132
60	48	127
62	46	123
64	45	119
66	43	116
68	42	112
70	41	109
72	40	106
74	39	103
76	38	101
78	37	98
80	36	95
82	35	93
84	34	91
86	33	89
88	33	87
90	32	85
92	31	83
94	30	81
96	30	80
98	29	78
100	29	76

CUTTER DIAMETER	HIGH TENSILE STEEL	MILD STEEL
INCH	RPM	RPM
7/16	262	698
1/2	229	611
9/16	204	543
5/8	183	489
11/16	167	444
3/4	153	407
13/16	141	376
7/8	131	349
15/16	122	326
1	115	306
1.1/16	108	288
1.1/8	102	272
1.3/16	96	257
1.1/4	92	244
1.5/16	87	233
1.3/8	83	222
1.7/16	80	213
1.1/2	76	204
1.9/16	73	196
1.5/8	71	188
1.11/16	68	181
1.3/4	65	175
1.13/16	63	169
1.7/8	61	163
1.15/16	59	158
2	57	153
2.1/16	56	148
2.1/8	54	144
2.3/16	52	140
2.1/4	51	136
2.5/16	50	132
2.3/8	48	129
2.7/16	47	125
2.1/2	46	122
2.9/16	45	119
2.5/8	44	116
2.11/16	43	114
2.3/4	42	111
2.13/16	41	109
2.7/8	40	106
2.15/16	39	104
3	38	102
3.1/16	37	100
3.1/8	37	98
3.3/16	36	96
3.1/4	35	94
3.5/16	35	92
3.3/8	34	91
3.7/16	33	89
3.1/2	33	87
3.9/16	32	86
3.5/8	32	84
3.11/16	31	83
3.3/4	31	81
3.13/16	30	80
3.7/8	30	79
3.15/16	29	78
4	29	76

PERIPHERAL SPEED

MILD STEEL: 24m/min - 80ft/min

HIGH TENSILE STEEL: 9m/min - 30ft/min

The Powerbor® Step Drill offers advantages over conventional drilling and cutting methods and can be used for many different industrial applications.

The unique design of the Powerbor® Step Drill allows a number of popular hole sizes to be drilled with just one tool.

STEP DRILLS - FIVE STEPS

PART NUMBER	ITEM NO	DESCRIPTION - METRIC
19X8M5	19000	Step Drill - Starter - 8, 10, 12, 14, 16mm - 12mm plate - with 3/4" Weldon Shank
19X10M5	19002	Step Drill - Starter - 10, 12, 14, 16, 18mm - 12mm plate - with 3/4" Weldon Shank
19X20M5	19004	Step Drill - Starter - 20, 22, 24, 26, 28mm - 12mm plate - with 3/4" Weldon Shank
19X30M5	19006	Step Drill - Follow on - 30, 32, 34, 36, 38mm - 12mm plate - with 3/4" Weldon Shank
19X40M5	19008	Step Drill - Follow on - 40, 42, 44, 46, 48mm - 12mm plate - with 3/4" Weldon Shank

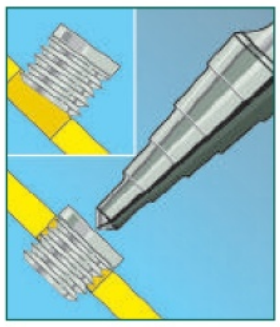
PART NUMBER	ITEM NO	DESCRIPTION - IMPERIAL
19X5/16E5	19040	Step Drill - Starter - 5/16, 3/8, 7/16, 1/2, 9/16" - 12mm plate - with 3/4" Weldon Shank
19X3/8E5	19042	Step Drill - Starter - 3/8, 7/16, 1/2, 9/16, 5/8" - 12mm plate - with 3/4" Weldon Shank
19X11/16E5	19044	Step Drill - Starter - 11/16, 3/4, 13/16, 7/8, 15/16" - 12mm plate - with 3/4" Weldon Shank
19X1E5	19046	Step Drill - Follow on - 1, 1.1/16, 1.1/8, 1.3/16, 1.1/4" - 12mm plate - with 3/4" Weldon Shank
19X1.5/16E5	19048	Step Drill - Follow on - 1.5/16, 1.3/8, 1.7/16, 1.1/2, 1.9/16" - 12mm plate - with 3/4" Weldon Shank
19X1.5/8E5	19050	Step Drill - Follow on - 1.5/8, 1.11/16, 1.3/4, 1.13/16, 1.7/8" - 12mm plate - with 3/4" Weldon Shank
19X1.15/16E5	19052	Step Drill - Follow on - 1.15/16, 2, 2.1/16, 2.1/8, 2.3/16" - 12mm plate - with 3/4" Weldon Shank

STEP DRILLS - THREE STEPS

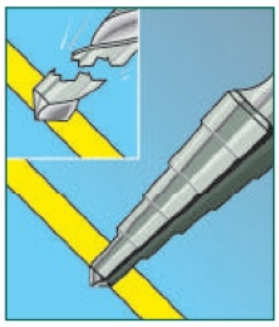
PART NUMBER	ITEM NO	DESCRIPTION - METRIC
19X10M3	19020	Step Drill - Starter - 10, 12,14mm - 25mm plate - with 3/4" Weldon Shank
19X16M3	19022	Step Drill - Starter - 16, 18, 20mm - 25mm plate - with 3/4" Weldon Shank
19X22M3	19024	Step Drill - Follow on - 22, 24, 26mm - 25mm plate - with 3/4" Weldon Shank
19X28M3	19026	Step Drill - Follow on - 28, 30, 32mm - 25mm plate - with 3/4" Weldon Shank
19X34M3	19028	Step Drill - Follow on - 34, 36, 38mm - 25mm plate - with 3/4" Weldon Shank
19X40M3	19030	Step Drill - Follow on - 40, 42, 44mm - 25mm plate - with 3/4" Weldon Shank
19X46M3	19032	Step Drill - Follow on - 46, 48, 50mm - 25mm plate - with 3/4" Weldon Shank

PART NUMBER	ITEM NO	DESCRIPTION - IMPERIAL
19X7/16E3	19060	Step Drill - Starter - 7/16, 1/2, 9/16" - 25mm plate - with 3/4" Weldon Shank
19X5/8E3	19062	Step Drill - Starter - 5/8, 11/16, 3/4" - 25mm plate - with 3/4" Weldon Shank
19X13/16E3	19064	Step Drill - Follow on - 13/16, 7/8, 15/16" - 25mm plate - with 3/4" Weldon Shank
19X1E3	19066	Step Drill - Follow on - 1, 1.1/16, 1.1/8" - 25mm plate - with 3/4" Weldon Shank
19X1.3/16E3	19068	Step Drill - Follow on - 1.3/16, 1.1/4, 1.5/16" - 25mm plate - with 3/4" Weldon Shank
19X1.3/8E3	19070	Step Drill - Follow on - 1.3/8, 1.7/16, 1.1/2" - 25mm plate - with 3/4" Weldon Shank
19X1.9/16E3	19072	Step Drill - Follow on - 1.9/16, 1.5/8, 1.11/16" - 25mm plate - with 3/4" Weldon Shank
19X1.3/4E3	19074	Step Drill - Follow on - 1.3/4, 1.13/16, 1.7/8" - 25mm plate - with 3/4" Weldon Shank
19X1.15/16E3	19076	Step Drill - Follow on - 1.15/16, 2, 2.1/16" - 25mm plate - with 3/4" Weldon Shank

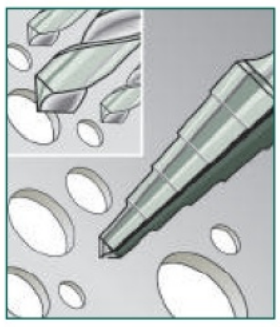
ADVANTAGES OVER CONVENTIONAL DRILLS AND ANNULAR CUTTERS:



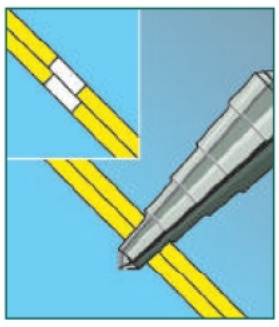
Easy to enlarge holes



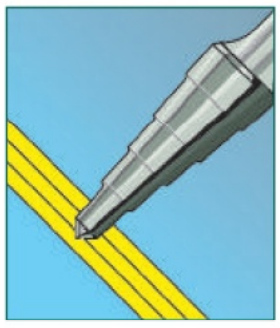
Increased rigidity



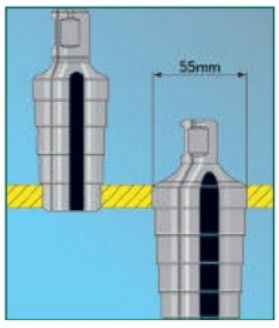
3 or 5 drill sizes on 1 tool



Rectify out of line holes



Drill through several stacked plates



Increased maximum diameter capability of Powerbor® Drilling Machine

PLEASE NOTE:
The recommended drilling speed for each step of the Powerbor® Step Drill is the same as for the equivalent size HSS cutter shown on page 16.

SCAN THE QR CODE...

Check out technical information on Step Drills and compatibility with Powerbor® machines

Powerbor®

ACCESSORIES

This is the complete drill/tap solution, ranging from M6 to M24. The Powerbor® Drill/Tap delivers great time and efficiency savings when compared to conventional tapping applications.

2-IN-1 DRILL TAP

Provides top quality threads every time, the 2-in-1 Drill/Tap is one tool that drills and taps. A great time saver, available in sizes M12, M16, M20 and M24. Also available as a handy set.

PART NUMBER	ITEM NO	DESCRIPTION
19AM12	19077	Drill Tap M12 x 1.75 - 2 in 1 with 3/4" Weldon Shank
19AM16	19078	Drill Tap M16 x 2.0 - 2 in 1 with 3/4" Weldon Shank
19AM20	19079	Drill Tap M20 x 2.5 - 2 in 1 with 3/4" Weldon Shank
19AM24	19080	Drill Tap M24 x 3.0 - 2 in 1 with 3/4" Weldon Shank

POWERBOR® COMBI DRILL/TAP KIT

Specially designed taps are used together with either Powerbor® Blue 1/4" Hex shank drills or Powerbor® Blue cutters for drilling the core diameters.

PART NUMBER	ITEM NO	DESCRIPTION
19KDT6	19205	Drill/Tap Kit M6 x 1.0 - with adaptor for 3/4" Weldon Shank
19KDT8	19206	Drill/Tap Kit M8 x 1.25 - with adaptor for 3/4" Weldon Shank
19KDT10	19200	Drill/Tap Kit M10 x 1.5 - with adaptor for 3/4" Weldon Shank

The Powerbor Combi Drill/Tap Kit eliminates the need for tapping attachments. The M6 - M10 combi range of drills and taps are used with a unique adaptor having a standard 3/4" dia 2 flat shank with a 1/4" Hex bit drive. Fitted in seconds it means threads can be drilled and tapped easily when required.

PART NUMBER	ITEM NO	DESCRIPTION
19KDT12	19201	Drill/Tap Kit M12 x 1.75 - annular cutter and tap with 3/4" Weldon Shank
19KDT16	19202	Drill/Tap Kit M16 x 2.0 - annular cutter and tap with 3/4" Weldon Shank
19KDT20	19203	Drill/Tap Kit M20 x 2.5 - annular cutter and tap with 3/4" Weldon Shank
19KDT24	19204	Drill/Tap Kit M24 x 3.0 - annular cutter and tap with 3/4" Weldon Shank

These kits come complete with ejector pin.

With the M12 - M24 range Powerbor® Blue cutters are used for core drilling.

POWERBOR® 2-IN-1 DRILL/TAP SET

PART NUMBER	ITEM NO	DESCRIPTION
19S1224	19217	Drill/Tap Kit M12, M16, M20, M24 - 2 in 1 with 3/4" Weldon Shank

All component parts can be purchased individually.

See Page 21 for Spiral Point Taps

SCAN THE QR CODE...

Check out compatibility of Drill Taps with Powerbor® machines

WELDON SHANK ARBORS

We have a large range of Weldon shank arbors to fit into our machines.

All machines are supplied with the standard arbor for that particular machine but there may be a need for a replacement or a longer depth of cut or conversion to coolant, etc.

Arbors are either 1/2" x 20 UN fitting, MT2, MT3 fitting Weldon shank sizes 3/4" and 1.1/4" are available (cutters up to 65mm are 3/4" shank - cutters above 65mm are 1.1/4" shank).

An MT3 to 3/4" Weldon Shank to Quick Release arbor is now available.

PART NUMBER	ITEM NO	DESCRIPTION
18Y130	18250	Arbor 1/2" - 20 UN to Weldon 3/4" - 1" DOC (STD)
18Y130/A	18251	Arbor 1/2" - 20 UN to Weldon 3/4" - 2" DOC (LONG)
18Y101	18236	Arbor Morse Taper 2 to 3/4" Weldon STD
18Y104	18239	Arbor Morse Taper 2 to 3/4" Weldon - Coolant
18Y102	18237	Arbor Morse Taper 3 to 3/4" to Weldon STD
18Y105	18240	Arbor Morse Taper 3 to 3/4" to Weldon - Coolant
18Y105/A	18241	Arbor Morse Taper 3 to 1.1/4" Weldon STD
18Y105/B	18242	Arbor Morse Taper 3 to 1.1/4" Weldon - Coolant
18Y106	18243	Arbor Morse Taper 4 to 1.1/4" Weldon - Coolant
18Y1220	95226	Arbor Morse Taper 3 Quick Release
18X691	68447	Arbor 1/2" - 20 UN to Weldon 3/4" - 2" DOC (PB35)

SCAN THE QR CODE...

Check out compatibility of all our Powerbor® Accessories with Powerbor® machines

DRILL CHUCKS

We stock a large range of quality Drill Chucks and Morse Taper arbors which can also be used in Powerbor® machines.

These allow the machines to use twist drills or any other plain shank cutting tool.

Chucks are available in capacities of 13mm, 16mm, 20mm.

Fittings are 1/2" x 20 UN, Morse Taper 2 or Morse Taper 3 (subject to machine capacity).

PART NUMBER	ITEM NO	DESCRIPTION
18ZA02B	18307	Chuck 1.5 - 13mm Capacity with 1/2" x 20 UN Thread (with KS2PK Key)
18Y109	06711	Chuck 1.5 - 16mm Capacity with Morse Taper 3 Arbor (with KS3 Key)
18Y111	18244	Chuck 1.5 - 16mm Capacity with Morse Taper 2 Arbor (with KS3 Key)
18Y1221	95229	Chuck 2.5mm-16mm Capacity - 1/2" x 20 UN Thread (with S2 Key)
18Y1222	95230	Chuck 2mm-13mm Capacity - 5/8" x 16 UN Thread (with K32 Key)
18Y1223	95231	Chuck 3.0mm-16mm Capacity - 5/8" x 16 UN Thread (with K3 Key)
18Y1224	95232	Chuck 5.0mm-20mm Capacity - 5/8" x 16 UN Thread (with K4 Key)
18Y1226	95234	Chuck 3.0mm-16mm Capacity - Jacobs 3JT Taper (with K3 Key)
18Y1227	95235	Chuck 5.0mm-20mm Capacity - Jacobs 3JT Taper (with K4 Key)

MORSE TAPER ARBORS AND MORSE TAPER SLEEVES

To compliment the Drill Chucks we also have a range of Morse Taper arbors and Sleeves.

Arbors are MT2/MT3.

Sleeves are MT1-2, MT2-3, MT3-4.

PART NUMBER	ITEM NO	DESCRIPTION
18X1228	95236	Arbor - MT2 to 5/8 x 16UN Thread
18Y1234	18542	Arbor - MT3 with 3JT mount
18Y1231	95238	Sleeve Morse Taper 1 - 2
18Y1232	95239	Sleeve Morse Taper 2 - 3
18Y1233	95240	Sleeve Morse Taper 3 - 4

Powerbor®

ACCESSORIES

DRIFTS AND KEYS

Spare Chuck Keys and Drill Drifts are available as spares accessories.

PART NUMBER	ITEM NO	DESCRIPTION
18ZA01	18306	Chuck Key KS2PK
18Y1229	95242	Chuck Key KS3
18X1236	18537	Chuck Key Type K4
18X1235	18536	Chuck Key Type K3B
18X1230	18531	Drift for Morse Taper 2-3

CHUCK ADAPTORS

We have a range of various adaptors for use with Powerbor® machines and cutters.

The 3/4" Weldon to 1/2" x 20 UN Chuck adaptor allows a 1/2"x 20 threaded drill chuck to be quickly placed into any 3/4" Weldon arbor to allow the used of twist drills and plain shank cutters.

The 3/4" Weldon to 1/4" female hexagon allows the machine to be converted to accept any 1/4" hex shank cutter.

The 1/2" x 20 UN threaded Tap Chuck allows the PB32 Combi to use standard DIN taps (Square drive).

The R8 to MT3 adaptor (used with our MT3 to 3/4" Arbor) allows Powerbor® cutters to be used in a Bridgeport type milling machine.*

Because to MT3 - 3/4" arbor is used the ejector pin mechanism will eject the slug as each hole is cut.

PART NUMBER	ITEM NO	DESCRIPTION
18Y170	18280	Adaptor 1/2" x 20 UN Thread to 3/4" Weldon
19D	19116	Adaptor 3/4" Weldon to 1/4" Female Hexagon
18Y108	18630	Adaptor 1/2" x 20 UN Thread Tap Chuck
*18Y1241	18544	Adaptor R8 to MT3 (To use with Powerbor® MT3 Arbor - Powerbor® cutters in milling m/c's)
18X1238	18867	Chuck Extension: 1. 1/2" long, 1/2" x 20 UN Threads

* For use with Powerbor® cutters in Bridgeport type milling machines.

EXTENSION ARBORS

Arbor Extensions are used to extend the reach of the magnetic drilling machine.

This allows a machine to cut through say a box section where the material thickness may only be small but the sections to be cut through are 50mm, 75mm, 100mm etc apart.

Use of extension arbors may require additional machine guarding; depending on the application.

PART NUMBER	ITEM NO	DESCRIPTION
18Y1250	18545	Extension Arbor 50mm - 3/4" Weldon
18Y1251	18546	Extension Arbor 75mm - 3/4" Weldon
18Y1252	18547	Extension Arbor 100mm - 3/4" Weldon
18Y1253	18548	Extension Arbor 150mm - 3/4" Weldon

SPIRAL POINT TAPS

Powerbor® Spiral Point Taps come in seven common thread sizes to suit the popular metric bolts sizes.

The Powerbor® Spiral Point Taps are suitable for cutting 25mm /1" thick material due to the safety recess at the end of the thread.

The advantages of Spiral Point Taps are:

- Reduce torque when compared to a hand tap
- A stronger cross section strength is permitted due to the shallow flute design
- Greater strength, allows higher tapping speeds
- Less power is required to drive
- The distinctive blue surface finish reduces the surface friction

PART NUMBER	ITEM NO	DESCRIPTION
19DM12	44009	M12 x 1.75
19DM14	44011	M14 x 2
19DM16	44013	M16 x 2
19DM20	44015	M20 x 2.5
19DM24	44017	M24 x 3
19DM27	44019	M27 x 3
19DM30	44021	M30 x 3.5

COUNTERSINKS

PART NUMBER	ITEM NO	DESCRIPTION
20ZB113	41008	Countersink 32mm with 3/4" Weldon Shank
20ZB114	41009	Countersink 65mm with 3/4" Weldon Shank

MORSE TAPER COUNTERSINKS

PART NUMBER	ITEM NO	DESCRIPTION
26D16	26007	Countersink 16mm with Morse Taper 1 Shank
26D20	26009	Countersink 20mm with Morse Taper 2 Shank
26D25	26011	Countersink 25mm with Morse Taper 2 Shank
26D31	26013	Countersink 30mm with Morse Taper 2 Shank
26D40	26015	Countersink 40mm with Morse Taper 3 Shank

MORSE TAPER COUNTERBORES

PART NUMBER	ITEM NO	DESCRIPTION
25C8	25150	Counterbore for M8 with Morse Taper 2 Shank
25C10	25152	Counterbore for M10 with Morse Taper 2 Shank
25C12	25154	Counterbore for M12 with Morse Taper 2 Shank
25C14	25156	Counterbore for M14 with Morse Taper 2 Shank
25C16	25158	Counterbore for M16 with Morse Taper 3 Shank
25C18	25160	Counterbore for M18 with Morse Taper 3 Shank
25C20	25162	Counterbore for M20 with Morse Taper 3 Shank
25C22	25164	Counterbore for M22 with Morse Taper 3 Shank
25C24	25166	Counterbore for M24 with Morse Taper 3 Shank

SCAN THE QR CODE...

Check out compatibility of all our Powerbor® Accessories with Powerbor® machines

Powerbor®

ACCESSORIES

EJECTOR PINS

PART NUMBER	ITEM NO	DESCRIPTION
20ZAXL100P-7/16	41004	Ejector / Pilot Pin 4.75mm x 82.5mm for 25mm depth of cut
20ZAXL200P-7/16	41005	Ejector / Pilot Pin 4.75mm x 101.6mm for 50mm depth of cut
20ZASR	41002	Ejector / Pilot Pin 6.35mm x 77.8mm pin for 25mm depth of cut
20ZALR	41000	Ejector / Pilot Pin 6.35mm x 101.6mm for 50mm depth of cut
20ZAXL300P	41006	Ejector / Pilot Pin 6.35mm x 134.9mm for 75mm depth of cut
20ZAM85	20376	Ejector / Pilot Pin 6.35mm x 144.5mm for 85mm depth of cut
20ZAXL400P	41007	Ejector / Pilot Pin 6.35mm x 158.75mm for 100mm depth of cut
20ZAM110	20375	Ejector / Pilot Pin 6.35mm x 168.30mm for 110mm depth of cut
20ZAT35	41011	Ejector / Pilot Pin 8mm x 88.9mm for 35mm depth of cut
20ZAT50	41012	Ejector / Pilot Pin 8mm x 101.6mm for 50mm depth of cut
20ZAT75	41013	Ejector / Pilot Pin 8mm x 134.9mm for 75mm depth of cut
20ZAT100	41010	Ejector / Pilot Pin 8mm x 158.75mm for100mm depth of cut

ADDITIONAL ACCESSORIES

With the pipe clamp attachment the magnetic drill can be mounted on round objects such as pipes, columns, etc.

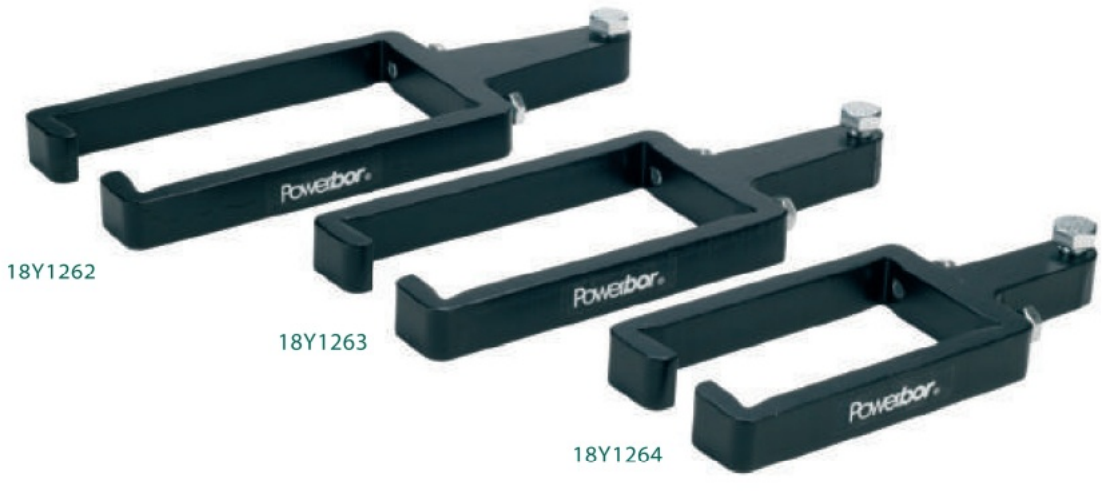
The pipe does not need to be magnetic since the attachment is held on by tensioning the two ratchet straps provided.

The magnetic drill is positioned over the top plate of the attachment then the electro-magnet is applied.

PART NUMBER	ITEM NO	DESCRIPTION
18YPIPE	18305	Pipe Clamp Adaptor
18X527	18177	Allen / Hex Key Set
18X419	18770	Safety Strap - Cam Buckle - 2 Metres Long
18X533	18773	Safety Strap - Hook to Ratchet - 0.2 Metres Long
18X535	18774	Safety Strap - Hook Strap - 2 Metres Long
18Y117	18247	Cutting Fluid - 250ml Bottle
18Y1260	95259	Magnetic Swarf Collector
18Y1262	18549	Mag Base Extension - Large Magnet
18Y1263	18550	Mag Base Extension - Medium Magnet
18Y1264	18551	Mag Base Extension - Small Magnet

SCAN THE QR CODE...

Check out compatibility of all our Powerbor® Accessories with Powerbor® machines



The Mag Base Extension accessory is available for Powerbor® machines.

This accessory is a retro-fit, it simply clamps on over the existing magnet. The purpose of this accessory is to extend the magnet base pivot point rearward, this in turn improves the magnets breakaway load. This is particularly useful if drilling with large twist drills, which tend to generate a high drill point load.

• Small = PB32-S, PB35, PB35 FRV • Medium = PB45-S, PB70/2, PB70 FRV • Large = PB100E, PB100E SB, PB100E FRV