This innovative step drill has been designed for use with our popular range of Powerbor® Electromagnetic drilling machines. The unique design of the Powerbor® Step Drill allows a number of popular hole sizes to be drilled with just one tool. The new Powerbor® Step Drill offers a number of advantages over conventional drilling and cutting methods and can be used for many different industrial applications.



### ONE STEP DRILL = UP TO FIVE DRILLS

# POWERBOR®

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### Industrial Application Examples:

- General engineering
- Bridge and highway maintenance
- Truck and trailer manufacturing
- Construction
- Shipbuilding and railroad
- Offshore rigs and pipelines
- Elevator repair
- General metal fabrications



### **STEP DRILL**

### STEP DRILLS | FIVE STEPS



		NOMINAL STEP Ø (MM)							
TOOL NO	STARTER/ FOLLOW ON	1st STEP	2ND STEP	3rd STEP	4тн STEP	5тн STEP	MAX MATERIAL THICKNESS	SHANK Ø	NO OF FLUTES
MPSD 0816	STARTER	8	10	12	14	16	12mm	3/4"	2
MPSD 1018	STARTER	10	12	14	16	18	12mm	3/4"	2
MPSD 2028	STARTER	20	22	24	26	28	12mm	3/4"	2
MPSD 3038	FOLLOW ON	30	32	34	36	38	12mm	3/4"	3
MPSD 4048	FOLLOW ON	40	42	44	46	48	12mm	3/4"	3

		NOMINAL STEP Ø INCHES							
TOOL NO	STARTER/ FOLLOW ON	1st STEP	2 <sub>ND</sub> STEP	3rd STEP	4тн STEP	5тн STEP	MAX MATERIAL THICKNESS	SHANK Ø	NO OF FLUTES
IPSD 3156	STARTER	5/16	3/8	7/16	1/2	9/16	12mm	3/4"	2
IPSD 3863	STARTER	3/8	7/16	1/2	9/16	5/8	12mm	3/4"	2
IPSD 6994	STARTER	11/16	3/4	13/16	7/8	15/16	12mm	3/4"	2
IPSD 1013	FOLLOW ON	1	1.1/16	1.1/8	1.3/16	1.1/4	12mm	3/4"	3
IPSD 1316	FOLLOW ON	1.5/16	1.3/8	1.7/16	1.1/2	1.9/16	12mm	3/4"	3
IPSD 1619	FOLLOW ON	1.5/8	1.11/16	1.3/4	1.13/16	1.7/8	12mm	3/4"	3
IPSD 1922	FOLLOW ON	1.15/16	2	2.1/16	2.1/8	2.3/16	12mm	3/4"	3

### **STEP DRILLS | THREE STEPS**



		NOMINAL STEP Ø (MM)							
TOOL NO	STARTER/ FOLLOW ON	1st STEP	2ND STEP	3rd STEP	4тн STEP	5тн STEP	MAX MATERIAL THICKNESS	SHANK Ø	NO OF FLUTES
MPSD 1014	STARTER	10	12	14	-	-	25mm	3/4"	2
MPSD 1620	STARTER	16	18	20	-	-	25mm	3/4"	2
MPSD 2226	FOLLOW ON	22	24	26	-	-	25mm	3/4"	3
MPSD 2832	FOLLOW ON	28	30	32	-	-	25mm	3/4"	3
MPSD 3438	FOLLOW ON	34	36	38	-	-	25mm	3/4"	3
MPSD 4044	FOLLOW ON	40	42	44	-	-	25mm	3/4"	3
MPSD 4650	FOLLOW ON	46	48	50	-	-	25mm	3/4"	3

		NOMINAL STEP Ø INCHES							
TOOL NO	STARTER/ FOLLOW ON	1st STEP	2 <sub>ND</sub> STEP	3rd STEP	4тн STEP	5тн STEP	MAX MATERIAL THICKNESS	SHANK Ø	NO OF FLUTES
IPSD 4456	STARTER	7/16	1/2	9/16	-	-	25mm	3/4"	2
IPSD 6375	STARTER	5/8	11/16	3/4	-	-	25mm	3/4"	2
IPSD 8194	FOLLOW ON	13/16	7/8	15/16	-	-	25mm	3/4"	3
IPSD 1011	FOLLOW ON	1	1.1/16	1.1/8	-	-	25mm	3/4"	3
IPSD 1213	FOLLOW ON	1.3/16	1.1/4	1.5/16	-	-	25mm	3/4"	3
IPSD 1415	FOLLOW ON	1.3/8	1.7/16	1.1/2	-	-	25mm	3/4"	3
IPSD 1617	FOLLOW ON	1.9/16	1.5/8	1.11/16	-	-	25mm	3/4"	3
IPSD 1819	FOLLOW ON	1.3/4	1.13/16	1.7/8	-	-	25mm	3/4"	3
IPSD 1921	FOLLOW ON	1.15/16	2	2.1/16	-	-	25mm	3/4"	3



### 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 13.



## **POWERBOR®**

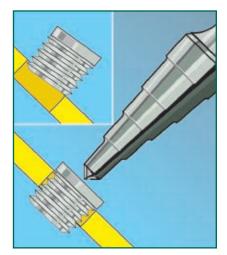
### STEP DRILL



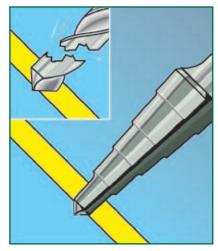




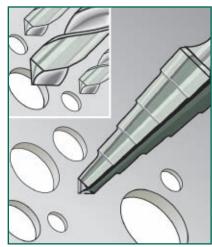
# ADVANTAGES OVER CONVENTIONAL DRILLS:



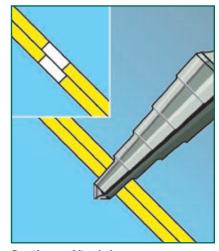
Easy to enlarge holes



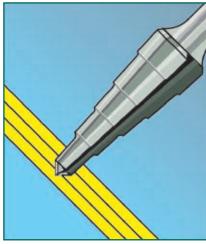
Increased rigidity



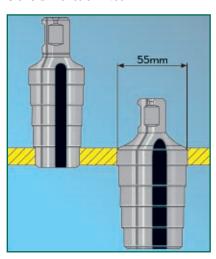
3 or 5 drill sizes on 1 tool



Rectify out of line holes



Drill through several stacked plates



Increased maximum diameter capability of Powerbor® Drilling Machine