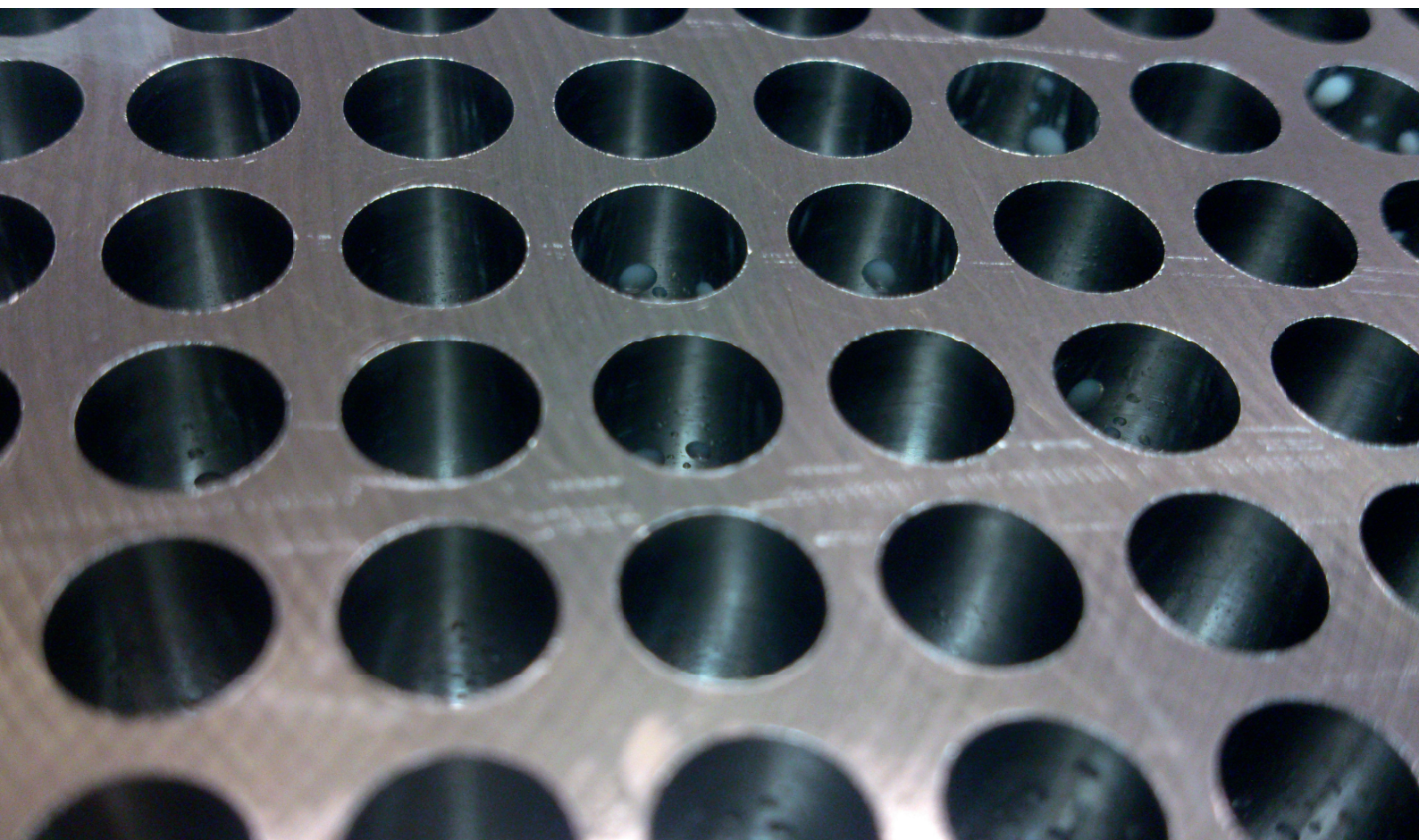




EFFECTIVE H7 HOLES



DRILL REAMER BROCHURE

2016

FOUR DYNAMIC ALTERNATIVES

H7 holes are not easily aquired. Also when using traditional methods like a drill and a reamer separately, problems occur in many situations.

Depending on material properties and other parameters, the result may be compromised, in terms of surface or tolerance accuracy. In order to minimize the problems caused by material properties, our drill reamers come in four different versions, and of course all kinds of intermediate dimensions, can be produced on demand.

← Softer materials

Harder materials →



	a+s	drp	brbs	dr
Reamer cut helix:	+30°	+15°	-20°	+5°
Typical work materials:	Aluminium, brass	Low carbon steel, austenitic stainless steel	Cast iron, annealed steel, tool steel	Hardened steel, 50-65 HRC
Regrindable (normal wear):	2-5 times	3-5 times	1-2 times	3-5 times

Preferred conditions:

- Through coolant (6-12% depending on material group)
- Pressure 20-50bar
- Firm holders (shrink fit or hydraulic for example) with minimum runout
- Stable work piece. Well clamped, and good support from underneath

GEOMETRY SELECTION AND CUTTING PARAMETERS

Geometry								Vc m/min	Feed mm/rev			
ISO	a+s	drp	brbs	dr	Material gr.	Description		Int kyln	Ø4	Ø6	Ø8	Ø12
P					1	Low carbon steel	Very soft <0.25% C	180	0,25	0,3	0,35	0,4
					2		Soft <= 0.25% C	160	0,25	0,3	0,35	0,4
					3		Normal >=0.25%C	140	0,25	0,3	0,35	0,4
					4	Low alloy steel	Normal <5% alloyed	120	0,25	0,3	0,35	0,4
					5		Harder <5% alloyed	110	0,25	0,3	0,35	0,4
					6	High alloy steel	Annealed >5% alloyed	100	0,25	0,25	0,27	0,3
					7		Hardened >5% alloyed	85	0,2	0,22	0,23	0,25
M					8	Stainless steel	Ferritic/martensitic	80	0,12	0,15	0,18	0,25
					9		Martensitic	70	0,12	0,15	0,18	0,25
					10		Austenitic	60	0,1	0,13	0,15	0,2
K					11	Nodular cast iron		120	0,3	0,4	0,4	0,4
					12			100	0,3	0,4	0,4	0,4
					13	Tough cast iron		90	0,3	0,4	0,4	0,4
N					14	Aluminium		250	0,3	0,4	0,4	0,4
					15	Brass/Copper		200	0,3	0,4	0,4	0,4
S					16	Super alloys (Ni)	Annealed	30	0,08	0,1	0,12	0,15
					17		Cured	20	0,08	0,1	0,1	0,1
					18	Super alloys (Ti)		40	0,15	0,2	0,25	0,25
H					19	Hardened steel	Hardness 48-55 HRc	60	0,1	0,12	0,15	0,2
					20		Hardness 55-65 HRc	25	0,08	0,1	0,1	0,1

Recommended

Recommended in some applications

Not recommended

			Tolerance		Dimension			
Article	Denomination	ØD	Min	Max	ØSh h6	Lfl	Ld	Ltot
23114	brbs-4004i-14-6c	4,004	4,004	4,012	6	20	14	58
25115	brbs-4004i-23-6c	4,004	4,004	4,012	6	29	23	70
23115	brbs-5004i-15-6c	5,004	5,004	5,012	6	22	15	60
25114	brbs-5004i-25-6c	5,004	5,004	5,012	6	32	25	70
23101	brbs-6004i-18-8c	6,004	6,004	6,012	8	26	18	64
25101	brbs-6004i-30-8c	6,004	6,004	6,012	8	38	30	76
28307	dr-601i-18-8c	6,010	6,006	6,014	8	26	18	64
28507	dr-601i-30-8c	6,010	6,006	6,014	8	38	30	76
28338	drp-601i-18-8c	6,010	6,006	6,014	8	26	18	64
28520	drp-601i-30-8c	6,010	6,006	6,014	8	38	30	76
24301	a+s-601i-18-8c	6,010	6,006	6,014	8	26	18	64
24501	a+s-601i-30-8c	6,010	6,006	6,014	8	38	30	76
23102	brbs-7004i-24-8c	7,004	7,004	7,014	8	34	24	72
25102	brbs-7004i-40-8c	7,004	7,004	7,014	8	50	40	88
23103	brbs-8004i-24-10c	8,004	8,004	8,014	10	35	24	76
25103	brbs-8004i-40-10c	8,004	8,004	8,014	10	51	40	92
28310	dr-801i-24-10c	8,010	8,005	8,015	10	35	24	77
28510	dr-801i-40-10c	8,010	8,005	8,015	10	51	40	93
28336	drp-801i-24-10c	8,010	8,005	8,015	10	35	24	77
28533	drp-801i-40-10c	8,010	8,005	8,015	10	51	40	93
24302	a+s-801i-24-10c	8,010	8,005	8,015	10	35	24	77
24502	a+s-801i-40-10c	8,010	8,005	8,015	10	51	40	93
28311	dr-802i-24-10c	8,020	8,015	8,025	10	35	24	77
23104	brbs-9004i-30-10c	9,004	9,004	9,014	10	42	30	83
25104	brbs-9004i-50-10c	9,004	9,004	9,014	10	62	50	103
23105	brbs-10004i-30-12c	10,004	10,004	10,014	12	44	30	90
25105	brbs-10004i-50-12c	10,004	10,004	10,014	12	64	50	110
28313	dr-1001i-30-12c	10,010	10,005	10,015	12	44	30	90
28339	drp-1001i-30-12c	10,010	10,005	10,015	12	44	30	90
28518	drp-1001i-50-12c	10,010	10,005	10,015	12	64	50	110
24303	a+s-1001i-30-12c	10,010	10,005	10,015	12	44	30	90
24503	a+s-1001i-50-12c	10,010	10,005	10,015	12	64	50	110
28314	dr-1002i-30-12c	10,020	10,015	10,025	12	44	30	90
28513	dr-1001i-50-12c	10,020	10,015	10,025	12	64	50	110
23107	brbs-12004i-36-14c	12,004	12,004	12,014	14	52	36	98
25107	brbs-12004i-60-14c	12,004	12,004	12,014	14	76	60	122
28315	dr-1201i-36-14c	12,010	12,005	12,015	14	52	36	98
28515	dr-1201i-60-14c	12,010	12,005	12,015	14	76	60	122
28333	drp-1201i-36-14c	12,010	12,005	12,015	14	52	36	98
28519	drp-1201i-60-14c	12,010	12,005	12,015	14	76	60	122
24304	a+s-1201i-36-14c	12,010	12,005	12,015	14	52	36	98
24504	a+s-1201i-60-14c	12,010	12,005	12,015	14	76	60	122
25109	brbs-14004i-70-16c	14,004	14,004	14,014	16	89	70	138