

CoroDrill[®] 805



Deep holes in conventional machines



The CoroDrill 805 makes it possible to drill deep holes without moving the workpiece to a dedicated deep hole drilling machine i.e. all operations can be completed in one set-up.

Deep holes can be performed with high productivity and reliability achieving a hole

quality comparable with traditional deep hole drilling. Another advantage is that no extra pump capacity is required.

CoroDrill 805 carries the same standard inserts as CoroDrill 800.

Assortment:

Diameter range: 25.00–65.00 mm
Hole depth: 13-7xD
Hole tolerance: IT 10
Surface finish: <math><Ra\ 2\ \mu m</math> (comparable with CoroDrill 800)

Application area:

Work piece materials: ISO P and K (steel and cast iron)
Machines: Horizontal machining centres, lathes and multi-task (turn-mill) machines.
Coolant: Internal coolant supply.
Emulsion, preferably with EP additives, with more than 8% mixture. The same coolant flow and pressure as for an indexable insert short hole drill in corresponding diameter.

CoroDrill® 805 how to use and order

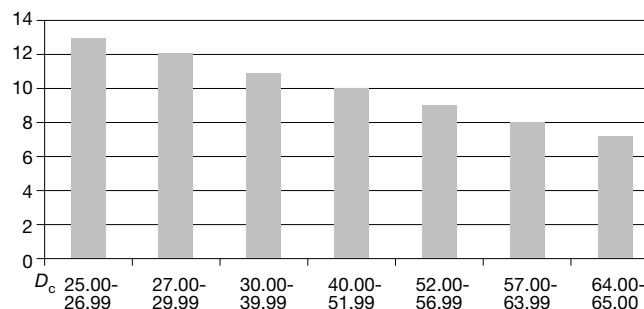
Cutting data:

ISO	CMC No.	Material	Specific cutting force k_c 0,4 N/mm ²	Hardness Brinell HB	Geometry/grade			Support pad grade	Cutting speed v_c m/min	Feed, f_n mm/r		
					Insert					Drill diameter, mm		
					P	I	C			25,00-43,00	43,01-65,00	
Steel	01.1	Unalloyed	Non-hardened 0,1-0,25% C	2000	90-200	G/1025	G/1025	G/1025	P1	70-130	0,11-0,31	0,14-0,34
	01.2		Non-hardened 0,25-0,55% C	2100	125-225	G/1025	G/1025	G/1025	P1	70-130	0,11-0,31	0,14-0,34
	01.3		Non-hardened 0,55-0,80% C	2180	150-250	G/1025	G/1025	G/1025	P1	70-130	0,11-0,31	0,14-0,34
	01.4		High carbon steel, annealed	2320	180-275	G/1025	G/1025	G/1025	P1	70-130	0,11-0,31	0,14-0,34
	02.1	Low alloy	Non-hardened	2100	150-260	G/1025	G/1025	G/1025	P1	70-120	0,11-0,31	0,20-0,34
	02.2		Hardened and tempered	2775	220-450	G/1025	G/1025	G/1025	P1	55-110	0,11-0,31	0,20-0,34
	03.11	High alloy	Annealed	2500	150-250	G/1025	G/1025	G/1025	P1	70-120	0,11-0,31	0,20-0,34
	03.13		Annealed HSS	2750	150-250	G/1025	G/1025	G/1025	P1	70-120	0,11-0,31	0,20-0,34
	03.21		Hardened tool steels	3750	250-350	G/1025	G/1025	G/1025	P1	55-110	0,11-0,29	0,20-0,30
	03.22		Hardened steels, others	4000	250-450	G/1025	G/1025	G/1025	P1	55-110	0,20-0,29	0,20-0,30
	06.1	Castings	Unalloyed	1800	90-225	G/1025	G/1025	G/1025	P1	55-110	0,11-0,31	0,20-0,34
	06.2		Low alloyed (alloying elements <5%)	2100	150-250	G/1025	G/1025	G/1025	P1	55-110	0,11-0,31	0,20-0,34
06.32	Castings	Stainless austenitic	2300	150-250	G/1025	G/1025	G/1025	P1	50-100	0,11-0,25	0,20-0,29	
06.33		Manganese steel 12-14% Mn	3600	200-300	G/1025	G/1025	G/1025	P1	35- 85	0,11-0,25	0,20-0,29	
Cast iron	07.1	Malleable	Ferritic	950	110-145	G/1025	G/1025	G/1025	M1	80-120	0,11-0,29	0,24-0,31
	07.2		Pearlitic	1100	150-270	G/1025	G/1025	G/1025	M1	80-120	0,11-0,29	0,24-0,31
	08.1	Grey	Low tensile strength	1100	150-220	G/1025	G/1025	G/1025	M1	60-110	0,11-0,29	0,24-0,31
	08.2		High tensile strength	1290	200-330	G/1025	G/1025	G/1025	M1	60-110	0,11-0,29	0,24-0,31
	09.1	Nodular	Ferritic	1050	125-230	G/1025	G/1025	G/1025	M1	50-110	0,11-0,29	0,24-0,31
	09.2		Pearlitic	1750	200-300	G/1025	G/1025	G/1025	M1	50-110	0,11-0,29	0,24-0,31

Method:

1. Make a short pilot hole, min 12 mm deep for diameter 25 mm and min 20 mm deep for diameter 65 mm. To achieve a hole with a close tolerance the diameter of the pilot hole should be of H8, which normally can be achieved by helical interpolation with a solid carbide endmill. If it's not critical with hole tolerance the pilot hole can be drilled with the CoroDrill 880 in corresponding diameter.
2. Feed the CoroDrill 805 into the pilot hole with slow rotation and coolant on.
3. Start rpm and feed movement.

Length/diameter ratio



How to order:

Contact your Sandvik Coromant representative to order the drill body in the required length and diameter.

Inserts (Ordered separately)						Support pads (Ordered separately)	
Intermediate and peripheral inserts are also available in L- geometry (ordering example: 800-05 03 08M-I-L) for long chipping materials see page 80-81 in Deep hole drilling catalogue C-1202:1.							
Diameter range, mm	Central	Diameter range, mm	Intermediate	Diameter range, mm	Peripheral	Diameter range, mm	Pad
25,00-28,70	05 800-05 03 08M-C-G	25,00-31,00	05 800-05 03 08M-I-G	25,00-31,00	06 800-06 03 08H-P-G	25,00-31,00	800-06A
28,71-33,99	06 800-06 T3 08M-C-G	31,01-34,99	06 800-06 T3 08M-I-G	31,01-38,99	08 800-08 T3 08H-P-G	31,01-39,60	800-07A
34,00-43,00	08 800-08 T3 08M-C-G	35,00-54,99	08 800-08 T3 08M-I-G	39,00-49,99	09 800-09 T3 08H-P-G	39,61-47,00	800-08A
43,01-47,00	10 800-10 T3 08M-C-G	55,00-65,00	12 800-12 T3 08M-I-G	50,00-65,00	11 800-11 T3 08H-P-G	47,01-54,99	800-10A
47,01-49,99	12 800-12 T3 08M-C-G					55,00-65,00	800-12A
50,00-57,99	10 800-10 T3 08M-C-G						
58,00-65,00	12 800-12 T3 08M-C-G						

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