

Selection guide for drills

Choosing a drill is based on two criteria:

- ▶ the drilling diameter
- ▶ the recommended cutting speed of the material to be processed (see Page 12).





In the table, the optimal cutting speeds and drilling diameters for some common materials are allocated to the individual drill models.

These recommendations are based on guide speeds for HSS twist drill bits. If nothing is specified, the required drilling diameter is outside the capacity of the standard chuck.

The table shows which drill bit sizes the individual models can accept and the drilling speeds. The individual tools have additionally been assigned the maximum drilling diameters for steel, determined in tests.

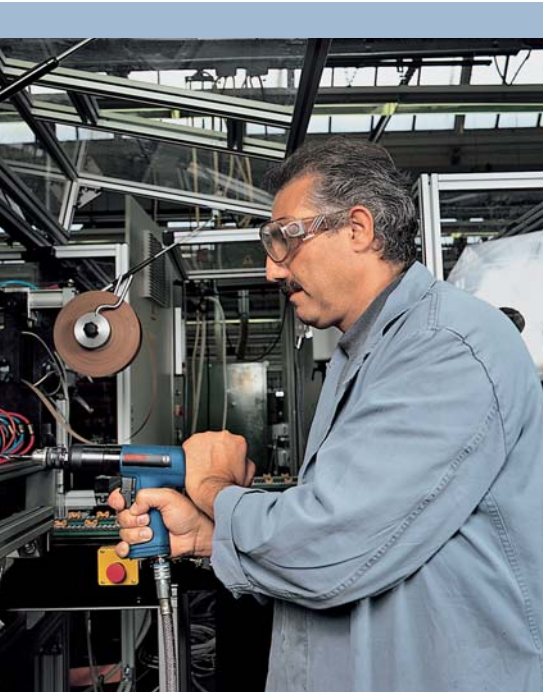
To ensure that a sufficient cutting speed is always achieved, some materials should be pre-drilled as of the following drilling diameter:

- ▶ Steel up to 600 N/mm²
as of 8 mm
- ▶ Steel over 600 N/mm²
as of 6 mm
- ▶ Cast iron up to 180 N/mm²
as of 10 mm
- ▶ Cast iron up to 300 N/mm²
as of 8 mm




	Part number	No-load speed (rpm)
Cutting speed (m/min):		
		controlled
	0 607 154 101	3200
	0 607 153 103	1000
	0 607 153 106*	1000
		uncontrolled
	0 607 161 100	2560
	0 607 161 102*	2560
	0 607 161 101	1200
		uncontrolled
	0 607 153 520	4000
	0 607 153 523*	4000
	0 607 153 521	3000
	0 607 153 524*	3000
	0 607 153 522	1300
		uncontrolled
	0 607 161 500	2560
	0 607 161 504*	2560
	0 607 161 501	1200
	0 607 161 505*	1200
	0 607 161 502	800
	0 607 161 506*	800
	0 607 161 503	640
0 607 161 507*	640	

* with keyless chuck

Drills



- ▶ The suitable drills for a very wide variety of materials
- ▶ Centre grip drills have a very ergonomic, glass-fibre-reinforced polyamide housing that ensures effortless working and protects the user against the dreaded "White finger syndrome"
- ▶ Air rotary hammer with the tried and tested pneumatic hammer mechanism
- ▶ For working in wet areas – where electric tools are unsafe

	Part number	Drill chuck
Drill 120/180 watts 	0 607 154 101	Keyed chuck
	0 607 153 103	Keyed chuck
	0 607 153 106	Keyless chuck
Drill 400 watts 	0 607 161 100	Keyed chuck
	0 607 161 102	Keyless chuck
	0 607 161 101	Keyed chuck
	0 607 161 103	Keyless chuck
Drill 180 watts 	0 607 153 520	Keyed chuck
	0 607 153 523	Keyless chuck
	0 607 153 521	Keyed chuck
	0 607 153 524	Keyless chuck
	0 607 153 522	Keyed chuck
	0 607 153 525	Keyless chuck

Max. drilling dia. in steel (mm)	No-load speed (rpm)	Power output (W)	Air consumption under load (l/s) (cfm)	Weight (kg)	Drill spindle thread	Connecting thread	Hose inner diameter (mm)	Comes complete with
	controlled							Keyed chuck or keyless chuck Chuck capacity 1-10 mm Hanging hook Hose nipple G 1/8"
4	3200	120	4.5	0.45	3/8"-24 UNF-2A	G 1/8"	6	
			9.5					
8	1000	180	6.0	0.73	3/8"-24 UNF-2A	G 1/8"	6	
			12.7					
8	1000	180	6.0	0.83	3/8"-24 UNF-2A	G 1/8"	6	
			12.7					
	uncontrolled							Keyed chuck or keyless chuck Chuck capacity 1-10 mm Hanging hook Hose nipple G 1/4" Auxiliary handle
8	2560	400	11.0	1.1	1/2"-20 UNF-2A	G 1/4"	10	
			23.3					
8	2560	400	11.0	1.3	1/2"-20 UNF-2A	G 1/4"	10	
			23.3					
10	1200	400	11.0	1.2	1/2"-20 UNF-2A	G 1/4"	10	
			23.3					
10	1200	400	11.0	1.45	1/2"-20 UNF-2A	G 1/4"	10	
			23.3					
	uncontrolled							Keyed chuck or keyless chuck Hose nipple G 1/4" Hanging hook
4	4000	180	6.0	0.8	3/8"-24 UNF-2A	G 1/4"	6	
			12.7					
4	4000	180	6.0	0.9	3/8"-24 UNF-2A	G 1/4"	6	
			12.7					
5	3000	180	6.0	0.8	3/8"-24 UNF-2A	G 1/4"	6	
			12.7					
5	3000	180	6.0	0.9	3/8"-24 UNF-2A	G 1/4"	6	
			12.7					
8	1300	180	6.0	0.8	3/8"-24 UNF-2A	G 1/4"	6	
			12.7					
8	1300	180	6.0	0.9	3/8"-24 UNF-2A	G 1/4"	6	
			12.7					

Max. drilling dia. in steel (mm)	No-load speed (rpm)	Power output (W)	Air consumption under load (l/s) (cfm)	Weight (kg)	Drill spindle thread	Connecting thread	Hose inner diameter (mm)	Comes complete with
	uncontrolled							Keyed chuck or keyless chuck Chuck capacity 1-10 mm Hose nipple G 1/4" Sintered metal silencer Auxiliary handle
8	2560	400	10.5	1.1	1/2"-20 UNF-2A	G 1/4"	10	
			22.2					
8	2560	400	10.5	1.3	1/2"-20 UNF-2A	G 1/4"	10	
			22.2					
10	1200	400	10.5	1.3	1/2"-20 UNF-2A	G 1/4"	10	
			22.2					
10	1200	400	10.5	1.5	1/2"-20 UNF-2A	G 1/4"	10	
			22.2					
13	800	400	10.5	1.45	1/2"-20 UNF-2A	G 1/4"	10	
			22.2					
13	800	400	10.5	1.5	1/2"-20 UNF-2A	G 1/4"	10	
			22.2					
13	640	400	10.5	1.45	1/2"-20 UNF-2A	G 1/4"	10	
			22.2					
13	640	400	10.5	1.6	1/2"-20 UNF-2A	G 1/4"	10	
			22.2					

Impact rate (bpm)	Power output (W)	Air consumption under load (l/s) (cfm)	Weight (kg)	Toolholder	Connecting thread	Hose inner diameter (mm)	Comments	Comes complete with		
3900	740	16	2.7	SDS-plus with auto-locking system	G 1/4"	13	The Bosch Air Rotary Hammer with its tried and tested pneumatic hammer mechanism is particularly suitable for damp and wet environments where an electric drive is unsuitable. It also offers safety and efficiency in the chemicals industry.	Auxiliary handle Depth stop Hose nipple Plastic carrying case		
		33.9								

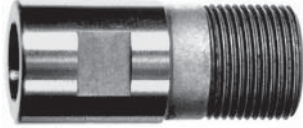



Recommended speeds for HSS twist drill bits

The Bosch Drill range comprises machines from 120 – 400 watts in straight and pistol format.

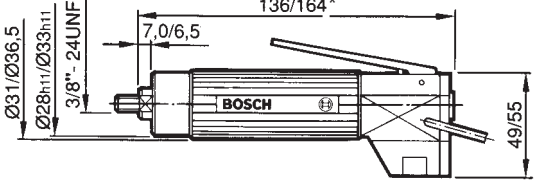
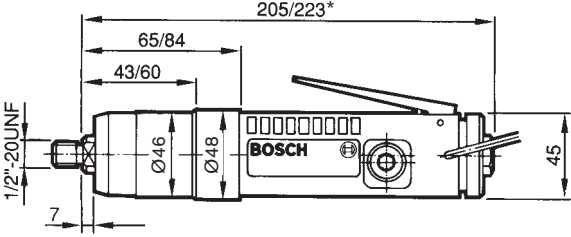
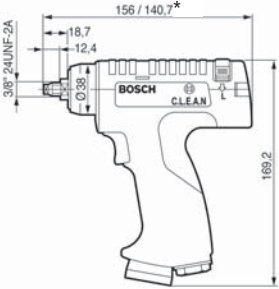
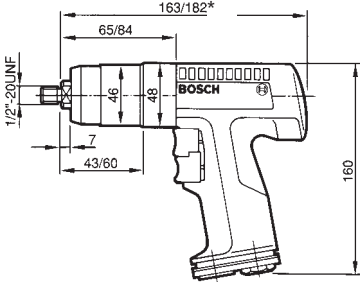
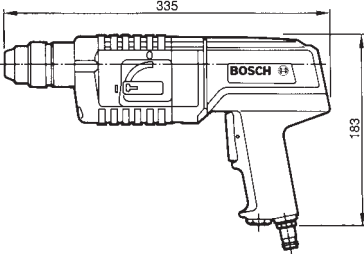
The table is intended to help you select the right drill.

up to drilling dia. (mm)	Steel up to 600 N/mm ² (rpm)	Steel over 600 N/mm ² (rpm)	Cast iron up to 180 N/mm ² (rpm)	Cast iron up to 300 N/mm ² (rpm)	Brass, copper, bronze (rpm)	Silumin (rpm)	Aluminium (rpm)
Cutting speed (m/min):	20 to 25	15 to 20	20 to 35	10 to 20	50 to 60	30 to 40	80 to 120
4	2380	1600	2200	1200	4400	2800	8000
5	1900	1270	1800	950	3500	2200	6400
6	1600	1060	1500	800	2900	1850	5300
7	1360	910	1300	680	2500	1600	4550
8	1200	800	1100	600	2200	1400	4000
9	1060	700	1000	530	1900	1200	3540
10	950	640	890	480	1700	1100	3200
11	860	580	810	430	1600	1000	2900
12	800	530	740	400	1500	930	2660
13	730	490	680	370	1350	860	2450
14	680	450	640	340	1250	800	2270
15	630	420	600	320	1150	740	2120
16	600	400	560	300	1100	700	2000
17	560	380	520	280	1050	660	1870
18	530	350	500	260	1000	620	1770
19	500	330	470	250	950	590	1680
20	480	320	450	240	900	560	1600
23	410	280	390	210	760	480	1380
30	310	210	300	160	580	370	1060

Special accessories for drills

		Part number	Use for drills Part number
Collet chuck 3/8" thread 	3/8" thread	3 608 570 003	0 607 154 101
	Collet dia. 6 mm	2 608 570 079	0 607 153 103
	Locking nut	3 603 342 001	0 607 153 106
			0 607 153 520 up to 525
Hanging hook 		3 601 923 019	0 607 153 520 up to 525
		2 604 720 004	0 607 154 101
			0 607 153 103
			0 607 153 106
		3 604 720 006	0 607 161 500 up to 507
Exhaust air set, decentralised 		3 607 030 024	0 607 161 101
			0 607 161 102
Exhaust air hose, centralised 		3 607 000 027	0 607 161 101
			0 607 161 102
		3 607 000 011	0 607 161 500 up to 507

Dimensional drawings Drills, rotary hammer

Dimensions in mm	Part number
	0 607 154 101 0 607 153 103* 0 607 153 106*
	0 607 161 100 0 607 161 101* 0 607 161 102 0 607 161 103*
	0 607 153 520 0 607 153 521 0 607 153 522* 0 607 153 523 0 607 153 524 0 607 153 525*
	0 607 161 500 0 607 161 501 0 607 161 502* 0 607 161 503* 0 607 161 504 0 607 161 505 0 607 161 506* 0 607 161 507*
	0 607 557 501

The specified dimensions are not binding.