

Angle Drill Selection



Considerations

- Size of hole to be drilled
- Cutting speed of material to be drilled
- Application – access to hole position
- Type of drill bit to be used
- Tool orientation
- Operator comfort/preference













There are also other considerations to be taken into account when selecting the right tool for the job.

Select the tool with the appropriate capacity and collet/chuck to suit the size of drill bit and hole to be drilled.

Where cycle time is critical it is advisable to use the higher power angle drills. This ensures that cutting speed is optimized during the drilling process.

Optimal cutting speed = Optimal cycle time = Productivity

DRILL SELECTION GUIDE – ANGLE DRILL

TOOL TYPE	FREE SPEED	TITANIUM	STAINLESS STEEL	HARD CAST IRON, MEDIUM HARD STEEL	SOFT CAST IRON, MILD STEEL	HARD PLASTICS	ALUMINIUM, BRASS, COPPER, BRONZE	COMPOSITE	WOOD, SOFT PLASTICS, CHIPBOARD	
	r/min		30-50ft/min	30-65ft/min	65-115ft/min	100-130ft/min	165-265ft/min	165-330ft/min	260-400ft/min	
		Drill Ø (in.)								
C32 (90° head) 	2900	–	–	–	1/8"	3/16"	3/16"	–	–	
D32 	5200	–	–	–	5/64"	3/16"	3/16"	5/32"	3/16"	
	4000	–	–	–	5/64"	3/16"	3/16"	3/16"	–	
	2800	–	–	–	1/8"	3/16"	3/16"	–	–	
	1800	–	–	5/32"	3/16"	–	–	–	–	
D33 (30° head) 	2000	–	–	5/32"	3/16"	–	–	–	–	
D370 (360° head) 	3000	–	–	–	3/16"	3/16"	3/16"	3/16"	–	
	2000	–	–	5/32"	3/16"	–	–	–	–	
	3000	–	–	–	3/16"	3/16"	3/16"	3/16"	–	
F32 (90° head) 	4500	–	–	–	–	1/8"	3/16"	3/16"	3/16"	
	3100	–	–	–	1/8"	3/16"	3/16"	3/16"	–	
	2200	–	1/8"	5/32"	3/16"	–	–	–	–	
	1200	–	5/32"	3/16"	–	–	–	–	–	
	830	5/64"	3/16"	–	–	–	–	–	–	
	580	3/16"	–	–	–	–	–	–	–	
D314 (90° head) 	4400	–	–	–	–	1/8"	1/4"	3/16"	1/4"	
	2800	–	–	–	1/8"	3/16"	1/4"	1/4"	–	
	1750	–	1/8"	5/32"	1/4"	1/4"	–	1/4"	–	
	1050	–	5/32"	1/4"	1/4"	–	–	–	–	
	400	1/4"	1/4"	1/4"	–	–	–	–	–	
D315 (45° head) 	4400	–	–	–	–	1/8"	1/4"	3/16"	1/4"	
	2800	–	–	–	1/8"	3/16"	1/4"	1/4"	–	
	1750	–	1/4"	5/32"	1/4"	1/4"	–	1/4"	–	
	1050	–	5/32"	1/4"	1/4"	–	–	–	–	
	2800	–	–	–	1/8"	3/16"	1/4"	1/4"	1/4"	
D374 (360° head) 	2100	–	1/8"	1/8"	1/4"	5/16"	5/16"	5/16"	5/16"	
D3141 (90° head) 	770	–	9/32"	5/16"	5/16"	–	–	–	–	
D3143 (90° head) 	2100	–	1/8"	1/8"	1/4"	1/4"	1/4"	1/4"	1/4"	
	770	–	1/4"	1/4"	1/4"	–	–	–	–	

Modular Angle Heads

Collet spindle 1/4" x 28 spindle

90° head
3/16" - 5mm capacity

0.16HP
120W

0.27HP
200W

0.38HP
280W

0.52HP
390W

Collet spindle & 1/4" x 28 spindle

30° head
3/16" - 5mm capacity

360° head
3/16" - 5mm capacity

0.16HP
120W

Collet spindle & 1/4" x 28 spindle

90° head
1/4" - 6.4mm capacity

360° head
1/4" - 6.4mm capacity

45° head
1/4" - 6.4mm capacity

0.38HP
280W

Collet Spindle Key chuck

90° head
8mm capacity

90° head
6.5mm capacity

0.38HP
280W

Accessories

Model	A	
	in.	mm
F32-L-4500C/S	10.55	268
F32-L-3100C/S	10.55	268
F32-L-2200C/S	10.55	268
F32-L-1200C/S	11.22	285
F32-L-830C/S	11.22	285
F32-L-580C/S	11.22	285

Model	A	
	in.	mm
D32-L-2800C/S	9.88	251
D32-LX-1800C/S	9.88	251
D32-S-5200	9.88	251
D32-S-4000	9.88	251
D32-S-2800	9.88	251

Model	A	
	in.	mm
C32-L-2900C/S	9.61	244

F32-L-.. / D32-L-.. / D32-LX-.. / D32-S-.. / C32-L-..

ACCESSORIES INCLUDED

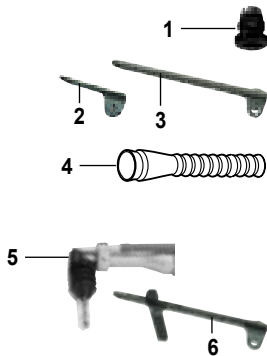
ITEM	PART NO.
1 \varnothing 3/16" (4.8mm) capacity collet	2552
2 Compact lever	410303
3 Standard lever	305983
4 Exhaust hose	222458
• Clamp	235203

OPTIONAL ACCESSORIES

ITEM	PART NO.
5 Dust extractor kit	94972
6 Lock off lever	323893

Collets

Capacity	PART NO.	Capacity	PART NO.
• \varnothing 0.8mm	2152	• \varnothing 3.2mm (1/8")	2392
• \varnothing 0.9mm	2162	• \varnothing 3.3mm	2402
• \varnothing 1.0mm	2172	• \varnothing 3.4mm	2412
• \varnothing 1.1mm	2182	• \varnothing 3.5mm	2422
• \varnothing 1.2mm	2192	• \varnothing 3.6mm	2432
• \varnothing 1.3mm	2202	• \varnothing 3.7mm	2442
• \varnothing 1.4mm	2212	• \varnothing 3.8mm	2452
• \varnothing 1.5mm	2222	• \varnothing 3.9mm	2462
• \varnothing 1.6mm	2232	• \varnothing 4.0mm (5/32")	2472
• \varnothing 1.7mm	2242	• \varnothing 4.1mm	2482
• \varnothing 1.8mm	2252	• \varnothing 4.2mm	2492
• \varnothing 1.9mm	2262	• \varnothing 4.3mm	2502
• \varnothing 2.0mm	2272	• \varnothing 4.4mm	2512
• \varnothing 2.1mm	2282	• \varnothing 4.5mm	2522
• \varnothing 2.2mm	2292	• \varnothing 4.6mm	2532
• \varnothing 2.3mm	2302	• \varnothing 4.7mm	2542
• \varnothing 2.4mm (3/32")	2312	• \varnothing 4.8mm (3/16")	2552
• \varnothing 2.5mm	2322	• \varnothing 4.9mm	2562
• \varnothing 2.6mm	2332	• \varnothing 5.0mm	2572
• \varnothing 2.7mm	2342	• 1/16"	91442
• \varnothing 2.8mm	2352	• 3/32"	91452
• \varnothing 2.9mm	2362	• 1/8"	91462
• \varnothing 3.0mm	2372	• 5/32"	91472
• \varnothing 3.1mm	2382	• 3/16"	91482



Angle Drills

Compact 90° Angle Head

0.16 - 0.50 Hp (0.12 - 0.38 kW) - 580 to 5200 r/min



A



B



C



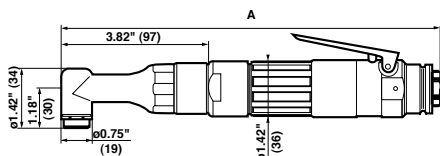
D

Vibration level: <math><2.5\text{ m/s}^2</math>

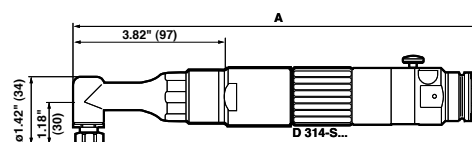
PICTURE REF	MODEL	PART NUMBER	FREE SPEED		MOTOR POWER		WEIGHT		AIR FLOW		AIR INLET	MIN HOSE BORE		SOUND LEVEL
			r/min		Hp	kW	lb	kg	cfm	l/s	BSP/NPT	in.	mm	dB(A)
COLLET SPINDLE – 3/16" (5mm) CAPACITY														
Lever Start														
A	F32-L-4500C	1462124	4500		0.50	0.38	2.2	1.00	24	11.5	1/4	3/8	10	76
A	F32-L-3100C	1462104	3100		0.50	0.38	2.2	1.00	24	11.5	1/4	3/8	10	76
A	F32-L-2200C	1462084	2200		0.50	0.38	2.2	1.00	24	11.5	1/4	3/8	10	76
A	F32-L-1200C	1462064	1200		0.50	0.38	2.5	1.15	24	11.5	1/4	3/8	10	76
A	F32-L-830C	1462044	835		0.50	0.38	2.5	1.15	24	11.5	1/4	3/8	10	76
A	F32-L-580C	1462024	580		0.50	0.38	2.5	1.15	24	11.5	1/4	3/8	10	76
B	D32-L-2800C	1460764	2800		0.38	0.28	1.6	0.72	19	9.4	1/4	3/8	10	77
B	D32-LX-1800C	1458224	1800		0.16	0.12	1.6	0.72	10	5.0	1/4	1/4	6	73
Button Start														
C	D32-S-5200	1465344	5200		0.38	0.28	1.6	0.72	20	9.4	1/4	3/8	10	77
C	D32-S-4000	1465354	4000		0.38	0.28	1.6	0.72	20	9.4	1/4	3/8	10	77
C	D32-S-2800	1465364	2800		0.38	0.28	1.6	0.72	20	9.4	1/4	3/8	10	77
Lever Start														
D	C32-L-2900C	1394434	2900		0.27	0.20	1.4	0.65	16	7.8	1/4	1/4	6	76
1/4" x 28 SPINDLE – 3/16" (5mm) CAPACITY														
Lever Start														
A	F32-L-4500S	1462114	4500		0.50	0.38	2.2	1.00	24	11.5	1/4	3/8	10	76
A	F32-L-3100S	1462094	3100		0.50	0.38	2.2	1.00	24	11.5	1/4	3/8	10	76
A	F32-L-2200S	1462074	2200		0.50	0.38	2.2	1.00	24	11.5	1/4	3/8	10	76
A	F32-L-1200S	1462054	1200		0.50	0.38	2.5	1.15	24	11.5	1/4	3/8	10	76
A	F32-L-830S	1462034	835		0.50	0.38	2.5	1.15	24	11.5	1/4	3/8	10	76
A	F32-L-580S	1462014	580		0.50	0.38	2.5	1.15	24	11.5	1/4	3/8	10	76
B	D32-L-2800S	1460754	2800		0.38	0.28	1.6	0.72	20	9.4	1/4	3/8	10	77
B	D32-LX-1800S	1458204	1800		0.16	0.12	1.6	0.72	10	5.0	1/4	1/4	6	73
D	C32-L-2900S	1394354	2900		0.27	0.20	1.4	0.65	16	7.8	1/4	1/4	6	76

Accessories

Model	A	
	in.	mm
D314-L-4400	9.61	244
D314-L-2800	9.61	244
D314-L-1750	10.47	266
D314-L-1050	10.47	266
D314-L-400	10.47	266



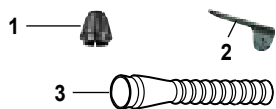
Model	A	
	in.	mm
D314-S/L-4400	9.61	244
D314-S/L-2800	9.61	244
D314-S/L-1750	10.47	266
D314-S/L-1050	10.47	266
D314-S/L-400	10.47	266



D314-S-.. / D314-L-..

ACCESSORIES INCLUDED

ITEM	PART NO.
1 \emptyset 1/4" (6.4mm) capacity collet	19182
2 Compact lever	410303
3 Exhaust hose	222458
• Clamp	235203



OPTIONAL ACCESSORIES

ITEM	PART NO.
4 Lock off lever	323893



Collets

Capacity	PART NO.
• \emptyset 1.6mm	18922
• \emptyset 1.8mm	18932
• \emptyset 2.0mm	18942
• \emptyset 2.2mm	18952
• \emptyset 2.4mm ($3/32$ ")	18962
• \emptyset 2.6mm	18972
• \emptyset 2.8mm	18982
• \emptyset 3.0mm	18992
• \emptyset 3.2mm ($1/8$ ")	19002
• \emptyset 3.4mm	19022
• \emptyset 3.6mm	19032
• \emptyset 3.8mm	19042
• \emptyset 4.0mm ($5/32$ ")	19052
• \emptyset 4.2mm	19062
• \emptyset 4.4mm	19072
• \emptyset 4.6mm	19082
• \emptyset 4.8mm ($3/16$ ")	19092
• \emptyset 5.0mm	19102
• \emptyset 5.2mm	19122
• \emptyset 5.4mm	19132
• \emptyset 5.6mm ($7/32$ ")	19142
• \emptyset 5.8mm	19152
• \emptyset 6.0mm	19162
• \emptyset 6.2mm	19172
• \emptyset 6.4mm ($1/4$ ")	19182



Angle Drills

Standard 90° Angle Head
0.38 Hp (0.28 kW) - 400 to 4400 r/min



A



B

Vibration level: <math><2.5 \text{ m/s}^2</math>

PICTURE REF	MODEL	PART NUMBER	FREE SPEED		MOTOR POWER		WEIGHT		AIR FLOW		AIR INLET	MIN HOSE BORE		SOUND LEVEL
			r/min		Hp	kW	lb	kg	cfm	l/s	BSP/NPT	in.	mm	dB(A)

COLLET SPINDLE – 1/4" (6.4mm) CAPACITY

Button Start

A	D314-S-4400	1380814	4400		0.38	0.28	1.7	0.77	20	9.4	1/4	1/4	6	77
A	D314-S-2800	1381204	2800		0.38	0.28	1.7	0.77	20	9.4	1/4	1/4	6	77
A	D314-S-1750	1381884	1750		0.38	0.28	2.0	0.90	20	9.4	1/4	1/4	6	77
A	D314-S-1050	1382274	1050		0.38	0.28	2.0	0.90	20	9.4	1/4	1/4	6	77

Lever Start

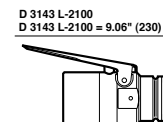
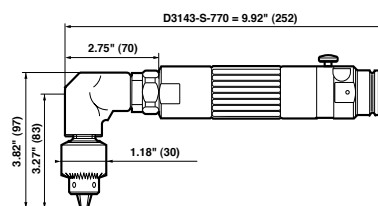
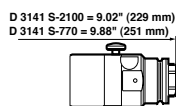
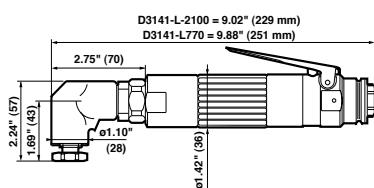
B	D314-L-4400	1380994	4400		0.38	0.28	1.7	0.77	20	9.4	1/4	1/4	6	77
B	D314-L-2800	1381384	2800		0.38	0.28	1.7	0.77	20	9.4	1/4	1/4	6	77
B	D314-L-1750	1381964	1750		0.38	0.28	2.0	0.90	20	9.4	1/4	1/4	6	77
B	D314-L-1050	1382354	1050		0.38	0.28	2.0	0.90	20	9.4	1/4	1/4	6	77
B	D314-L-400	1382774	400		0.38	0.28	2.0	0.90	20	9.4	1/4	1/4	6	77

1/4" x 28 SPINDLE – 1/4" (6.4mm) CAPACITY

Lever Start

B	D314-L-4400S	1456054	4400		0.38	0.28	1.7	0.77	20	9.4	1/4	1/4	6	77
B	D314-L-2800S	1456884	2800		0.38	0.28	1.7	0.77	20	9.4	1/4	1/4	6	77
B	D314-L-1750S	1456894	1750		0.38	0.28	2.0	0.90	20	9.4	1/4	1/4	6	77
B	D314-L-1050S	1456904	1050		0.38	0.28	2.0	0.90	20	9.4	1/4	1/4	6	77
B	D314-L-400S	1456914	400		0.38	0.28	2.0	0.90	20	9.4	1/4	1/4	6	77

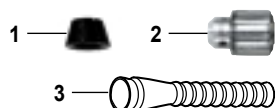
Accessories



D3141-S-.. / D3141-L-.. / D3143-S-.. / D3143-L-..

ACCESSORIES INCLUDED

ITEM	PART NO.	
	D3141	D3143
1 $\varnothing 5/16$ " (8mm) capacity collet	2872	28942
2 Chuck threaded $3/8$ " UNF capacity $1/4$ " (6.5mm)		28942
3 Exhaust hose	222458	222458
• Clamp	235203	235203



OPTIONAL ACCESSORIES

ITEM	D3141	D3143
4 Lock off lever	323893	323893



Collets		Capacity	
Capacity	D3141	Capacity	D3141
• $\varnothing 2.4$ mm ($3/32$ ")	2592	• $\varnothing 5.2$ mm	2732
• $\varnothing 2.6$ mm	2602	• $\varnothing 5.4$ mm	2742
• $\varnothing 2.8$ mm	2612	• $\varnothing 5.6$ mm ($7/32$ ")	2752
• $\varnothing 3.0$ mm	2622	• $\varnothing 5.8$ mm	2562
• $\varnothing 3.2$ mm ($1/8$ ")	2632	• $\varnothing 6.0$ mm	2772
• $\varnothing 3.4$ mm	2642	• $\varnothing 6.2$ mm	2782
• $\varnothing 3.6$ mm	2652	• $\varnothing 6.4$ mm ($1/4$ ")	2792
• $\varnothing 3.8$ mm	2662	• $\varnothing 6.6$ mm	2802
• $\varnothing 4.0$ mm ($5/32$ ")	2672	• $\varnothing 6.8$ mm	2812
• $\varnothing 4.2$ mm	2682	• $\varnothing 7.0$ mm	2822
• $\varnothing 4.4$ mm	2692	• $\varnothing 7.2$ mm ($9/32$ ")	2832
• $\varnothing 4.6$ mm	2702	• $\varnothing 7.4$ mm	2842
• $\varnothing 4.8$ mm ($3/16$ ")	2712	• $\varnothing 7.6$ mm	2852
• $\varnothing 5.0$ mm	2722	• $\varnothing 7.8$ mm	2862
		• $\varnothing 8.0$ mm ($5/16$ ")	2872



Angle Drills

Heavy Duty 90° Angle Head
0.38 Hp (0.28 kW) - 770 to 2100 r/min



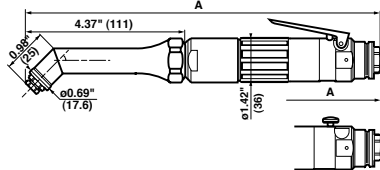
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PICTURE REF	MODEL	PART NUMBER	FREE SPEED	MOTOR POWER		WEIGHT		AIR FLOW		AIR INLET	MIN HOSE BORE		SOUND LEVEL
			r/min	Hp	kW	lb	kg	cfm	l/s	BSP/NPT	in.	mm	dB(A)
COLLET SPINDLE – 5/16" (8mm) CAPACITY													
Button Start													
A	D3141-S-2100	1383084	2100	0.38	0.28	1.9	0.86	20	9.4	1/4	1/4	6	77
A	D3141-S-770	1383244	770	0.38	0.28	2.2	1.00	20	9.4	1/4	1/4	6	77
Lever Start													
B	D3141-L-2100	1383164	2100	0.38	0.28	1.9	0.86	20	9.4	1/4	1/4	6	77
B	D3141-L-770	1383324	770	0.38	0.28	2.2	1.00	20	9.4	1/4	1/4	6	77
KEY CHUCK – 1/4" (6.5mm) CAPACITY													
Button Start													
C	D3143-S-2100	1383404	2100	0.38	0.28	2.1	0.96	20	9.4	1/4	1/4	6	77
C	D3143-S-770	1383664	770	0.38	0.28	2.2	1.00	20	9.4	1/4	1/4	6	77
Lever Start													
D	D3143-L-2100	1383584	2100	0.38	0.28	2.1	0.96	20	9.4	1/4	1/4	6	77

Accessories

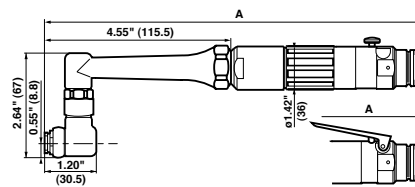
Model	in.	A	mm
D33-LX-2000	10.16		258
D33-L-3000	10.16		258

Model	in.	A	mm
D33-SX-2000	10.16		258
D33-S-5700	10.16		258
D33-S-4400	10.16		258
D33-S-2800	10.16		258



Model	in.	A	mm
D370-SX-2000	10.31		262

Model	in.	A	mm
D370-LX-2000	10.31		262
D370-L-3000	10.31		262



D33-SX-.. / D33-S-.. / D33-LX-.. / D33-L-.. / D370-SX-.. D370-LX-.. / D370-L-..

ACCESSORIES INCLUDED

ITEM

- 1 \emptyset $\frac{3}{16}$ " (4.8mm) capacity collet
- 2 Exhaust hose
- Clamp

PART NO.

D33-...
D370-..

2552
222458
235203

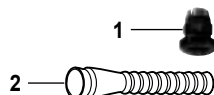
OPTIONAL ACCESSORIES

ITEM

- 3 Lock off lever
- 4 Compact lever

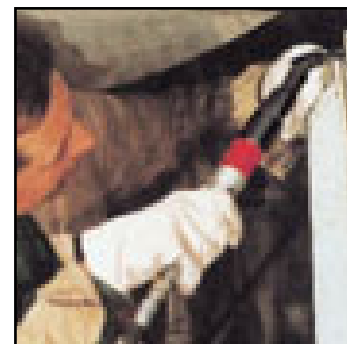
D33-...
D370-..

323893
410303



Collets

Capacity	D33-... D370-..	Capacity	D33-... D370-..
• \emptyset 0.8mm	2152	• \emptyset 3.2mm ($\frac{1}{8}$ "	2392
• \emptyset 0.9mm	2162	• \emptyset 3.3mm	2402
• \emptyset 1.0mm	2172	• \emptyset 3.4mm	2412
• \emptyset 1.1mm	2182	• \emptyset 3.5mm	2422
• \emptyset 1.2mm	2192	• \emptyset 3.6mm	2432
• \emptyset 1.3mm	2202	• \emptyset 3.7mm	2442
• \emptyset 1.4mm	2212	• \emptyset 3.8mm	2452
• \emptyset 1.5mm	2222	• \emptyset 3.9mm	2462
• \emptyset 1.6mm	2232	• \emptyset 4.0mm ($\frac{5}{32}$ "	2472
• \emptyset 1.7mm	2242	• \emptyset 4.1mm	2482
• \emptyset 1.8mm	2252	• \emptyset 4.2mm	2492
• \emptyset 1.9mm	2262	• \emptyset 4.3mm	2502
• \emptyset 2.0mm	2272	• \emptyset 4.4mm	2512
• \emptyset 2.1mm	2282	• \emptyset 4.5mm	2522
• \emptyset 2.2mm	2292	• \emptyset 4.6mm	2532
• \emptyset 2.3mm	2302	• \emptyset 4.7mm	2542
• \emptyset 2.4mm ($\frac{3}{32}$ "	2312	• \emptyset 4.8mm ($\frac{3}{16}$ "	2552
• \emptyset 2.5mm	2322	• \emptyset 4.9mm	2562
• \emptyset 2.6mm	2332	• \emptyset 5.0mm	2572
• \emptyset 2.7mm	2342	• $\frac{1}{16}$ "	91442
• \emptyset 2.8mm	2352	• $\frac{3}{32}$ "	91452
• \emptyset 2.9mm	2362	• $\frac{1}{8}$ "	91462
• \emptyset 3.0mm	2372	• $\frac{5}{32}$ "	91472
• \emptyset 3.1mm	2382	• $\frac{3}{16}$ "	91482



Angle Drills

Compact 30° and 90° x 90° Angle Head
 0.16 - 0.38 Hp (0.12 - 0.28 kW) - 2000 to 5700 r/min



Vibration level: <math><2.5 \text{ m/s}^2</math>

PICTURE REF	MODEL	PART NUMBER	FREE SPEED	MOTOR POWER		WEIGHT		AIR FLOW		AIR INLET	MIN HOSE BORE		SOUND LEVEL
			r/min	Hp	kW	lb	kg	cfm	l/s	BSP/NPT	in.	mm	dB(A)

COLLET SPINDLE – 3/16" (5mm) CAPACITY

Button Start

A	D33-SX-2000	1379204	2000	0.16	0.12	1.4	0.62	10	5.0	1/4	1/4	6	73
A	D33-S-5700	1465374	5700	0.38	0.28	1.4	0.62	20	9.4	1/4	3/8	10	77
A	D33-S-4400	1465384	4400	0.38	0.28	1.4	0.62	20	9.4	1/4	3/8	10	77
A	D33-S-2800	1465394	2800	0.38	0.28	1.4	0.62	20	9.4	1/4	3/8	10	77

Lever Start

B	D33-LX-2000	1379384	2000	0.16	0.12	1.4	0.62	10	5.0	1/4	1/4	6	73
B	D33-L-3000	1464764	3000	0.38	0.28	1.4	0.62	20	9.4	1/4	3/8	10	77

1/4" x 28 SPINDLE – 3/16" (5mm) CAPACITY

Lever Start

B	D33-LX-2000S	1464834	2000	0.16	0.12	1.4	0.62	10	5.0	1/4	1/4	6	73
B	D33-L-3000S	1464824	3000	0.38	0.28	1.4	0.62	20	9.4	1/4	3/8	10	77

COLLET SPINDLE – 3/16" (5mm) CAPACITY

Button Start

C	D370-SX-2000	1379464	2000	0.16	0.12	1.6	0.72	10	5.0	1/4	1/4	6	73
D	D370-LX-2000	1379544	2000	0.16	0.12	1.6	0.72	10	5.0	1/4	1/4	6	73
D	D370-L-3000	1464794	3000	0.38	0.28	1.6	0.72	20	9.4	1/4	3/8	10	77

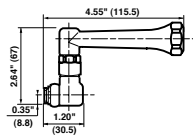
1/4" x 28 SPINDLE – 3/16" (5mm) CAPACITY

Lever Start

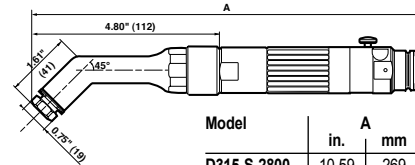
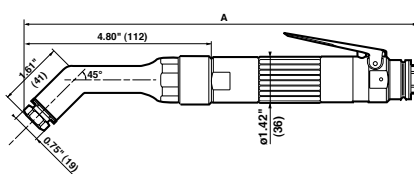
D	D370-LX-2000S	1464804	2000	0.16	0.12	1.6	0.72	10	5.0	1/4	1/4	6	73
D	D370-L-3000S	1464814	3000	0.38	0.28	1.6	0.72	20	9.4	1/4	3/8	10	77

Accessories

Model	in.	A	mm
D374-L/S-2800	10.31		262
D374-L-400	10.31		262



Model	in.	A	mm
D315-L-4400	10.59		269
D315-L-2800	10.59		269
D315-L-1750	11.46		291
D315-L-1050	11.46		291
D315-L-400	11.46		291



Model	in.	A	mm
D315-S-2800	10.59		269
D315-S-1750	11.46		291
D315-S-1050	11.46		291

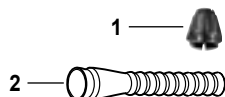
D315-S-.. / D315-L-.. / D374-S-.. / D374-L-..

ACCESSORIES INCLUDED

ITEM	PART NO.
1 \emptyset 1/4" (6.4mm) capacity collet	19182
2 Exhaust hose	222458
• Clamp	235203

OPTIONAL ACCESSORIES

ITEM	PART NO.
3 Lock off lever	323893
4 Compact lever	410303

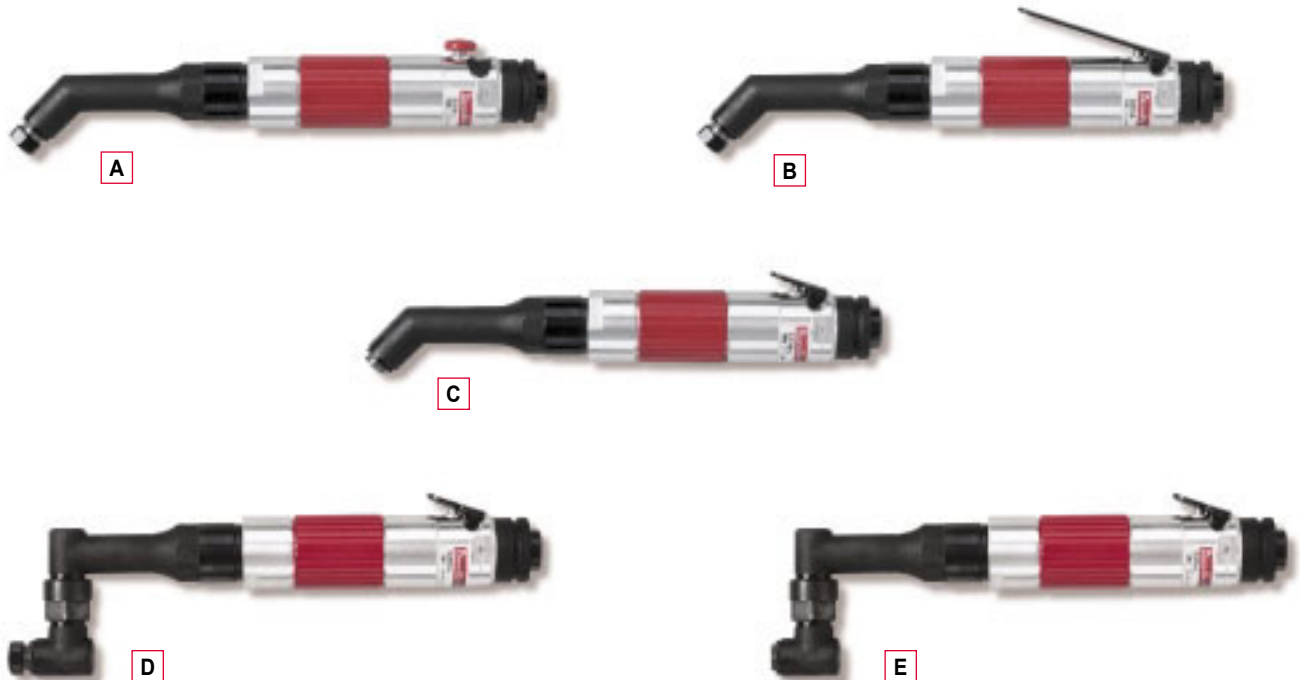


Collets

Capacity	PART NO.
• \emptyset 1.6mm	18922
• \emptyset 1.8mm	18932
• \emptyset 2.0mm	18942
• \emptyset 2.2mm	18952
• \emptyset 2.4mm (³ / ₃₂ ")	18962
• \emptyset 2.6mm	18972
• \emptyset 2.8mm	18982
• \emptyset 3.0mm	18992
• \emptyset 3.2mm (¹ / ₈ ")	19002
• \emptyset 3.4mm	19022
• \emptyset 3.6mm	19032
• \emptyset 3.8mm	19042
• \emptyset 4.0mm (⁵ / ₃₂ ")	19052
• \emptyset 4.2mm	19062
• \emptyset 4.4mm	19072
• \emptyset 4.6mm	19082
• \emptyset 4.8mm (³ / ₁₆ ")	19092
• \emptyset 5.0mm	19102
• \emptyset 5.2mm	19122
• \emptyset 5.4mm	19132
• \emptyset 5.6mm (⁷ / ₃₂ ")	19142
• \emptyset 5.8mm	19152
• \emptyset 6.0mm	19162
• \emptyset 6.2mm	19172
• \emptyset 6.4mm (¹ / ₄ ")	19182

Angle Drills

Standard 45° and 90° x 90° Angle Head
0.38 Hp (0.28 kW) - 400 to 4400 r/min



Vibration level: <2.5 m/s²

PICTURE REF	MODEL	PART NUMBER	FREE SPEED		MOTOR POWER		WEIGHT		LENGTH		AIR FLOW		AIR INLET	MIN HOSE BORE		SOUND LEVEL
			r/min	Hp	kW	lb	kg	in.	mm	cfm	l/s	BSP/NPT	in.	mm	dB(A)	
COLLET SPINDLE – 1/4" (6.4mm) CAPACITY																
Button Start																
A	D315-S-2800	1381464	2800	0.38	0.28	1.7	0.79	10.59	269	20	9.4	1/4	3/8	10	77	
A	D315-S-1750	1382014	1750	0.38	0.28	1.7	0.79	11.46	291	20	9.4	1/4	3/8	10	77	
A	D315-S-1050	1382434	1050	0.38	0.28	2.0	0.90	11.46	291	20	9.4	1/4	3/8	10	77	
Lever Start																
B	D315-L-4400	1462134	4400	0.38	0.28	1.7	0.79	10.59	269	20	9.4	1/4	3/8	10	77	
B	D315-L-2800	1381544	2800	0.38	0.28	1.7	0.79	10.59	269	20	9.4	1/4	3/8	10	77	
B	D315-L-1750	1382194	1750	0.38	0.28	2.0	0.90	11.46	291	20	9.4	1/4	3/8	10	77	
1/4" x 28 SPINDLE – 1/4" (6.4mm) CAPACITY																
Lever Start																
C	D315-L-4400S	1456934	4400	0.38	0.28	1.7	0.79	10.59	269	20	9.4	1/4	3/8	10	77	
C	D315-L-2800S	1456944	2800	0.38	0.28	1.7	0.79	10.59	269	20	9.4	1/4	3/8	10	77	
C	D315-L-1750S	1456954	1750	0.38	0.28	2.0	0.90	11.46	291	20	9.4	1/4	3/8	10	77	
C	D315-L-1050S	1456964	1050	0.38	0.28	2.0	0.90	11.46	291	20	9.4	1/4	3/8	10	77	
C	D315-L-400S	1456974	400	0.38	0.28	2.0	0.90	11.46	291	20	9.4	1/4	3/8	10	77	
COLLET SPINDLE – 1/4" (6.4mm) CAPACITY																
Button Start																
D	D374-S-2800	1381624	2800	0.38	0.28	1.9	0.88	10.31	262	20	9.4	1/4	1/4	6	77	
Lever Start																
D	D374-L-2800	1381704	2800	0.38	0.28	1.9	0.88	10.31	262	20	9.4	1/4	1/4	6	77	
D	D374-L-400	1465334	400	0.38	0.28	2.2	0.99	11.18	284	20	9.5	1/4	1/4	6	77	
1/4" x 28 SPINDLE – 1/4" (6.4mm) CAPACITY																
Lever Start																
E	D374-L-2800S	1456994	2800	0.38	0.28	1.9	0.88	10.31	262	20	9.4	1/4	1/4	6	77	

Safety Information

General Safety Instructions for the Operation of Power Tools

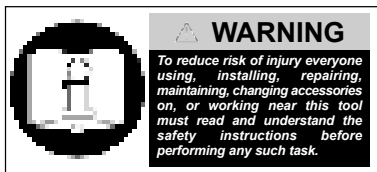
The goal of Chicago Pneumatic and Desoutter is to produce tools that help the operator work safely and efficiently.

The most important safety device for this or any other tool is the operator. Care and good judgement are the best protection against injury.

All possible hazards cannot be covered here, but we have tried to highlight some of the important ones.

Individuals should look for and obey Caution, Warning and Danger signs placed on tools, and displayed in the workplace. Operators should read and follow safety instructions packed with each tool. For a copy of these instructions, contact your local Desoutter representative.

Learn how each tool works. Even if you have previously used similar tools, carefully check out each tool before you use it. Get the 'feel' of it and know its capabilities, limitations, potential hazards, how it operates and how it stops.



All tools are designed to operate at a line pressure of 6.3 bar +/- 0.15bar in accordance with ISO2787. Sound levels +/- 3dB(A)* measured in accordance with CAGI-PNEUROP test code or PNEUROP PN8NTC1.2. Vibration values* measured in accordance with ISO 8662.

*These declared values were obtained by laboratory testing in compliance with stated standards and are not adequate for risk assessments. Values measured in individual work places may be higher than the declared values. The actual exposure values and risk of harm experienced by an individual are unique and depend upon the way the user works, the workplace and the work station design, as well as upon the exposure time and the physical condition of the user. We Desoutter cannot be held liable for the consequences of using declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation over which we have no control.

Tools are CE marked to comply with European Machinery Directive.

Specifications subject to change without prior notice.

Further occupational health and safety information can be obtained from the following web sites
<http://www.osha.gov> (USA)
<http://europe.osha.eu.int> (Europe).



Compressed Air Hazards

- Air under pressure can cause injury. Never point an air hose at yourself or anyone else. Never blow your clothes free of dust with compressed air. Always direct exhaust air away from yourself and others in the work area.
- Always check for damaged or loose hoses and fittings before using an air tool, and replace if necessary. Whipping hoses can cause serious injury.
- Disconnect the tool from the air supply when not in use, before changing accessories, setting the torque, or when making repairs.
- Do not exceed rated air pressure to increase the output of the tool. This could cause injury and shorten tool life.
- Do not assemble quick coupler on the tool. Vibration can cause breakage resulting in a whipping air hose. Instead, use quick couplers on the end of a short leader hose.
- When universal twist couplings are used, lock pins must be installed to prevent accidental hose disconnection.
- Air tools are not intended for use in explosive atmospheres and are not insulated for contact with electric power sources.



Projectile Hazards

- Always wear impact resistant eye and face protection when involved with or near the operation or repair of tools.



Breathing Hazards

- Proper breathing protection must be worn when working with materials, which produce airborne particles.



Noise Hazards

- Hearing loss can result from prolonged exposure to excessive sound levels.
- Use hearing protection as recommended by your employer or Occupational Health and Safety Regulations.



Vibration Hazards

- Repetitive work motions, awkward positions, and exposure to vibration may be harmful to your hands and arms.
- If numbness, tingling, pain or whitening of the skin occurs, stop using tool and consult a physician.



Entanglement Hazards

- To reduce the risk of injury from entanglement, do not wear loose clothing when using rotating accessories.



Additional Hazards

- Slip/Trip/Fall is a major cause of serious injury or death. Beware of excessive hose/cord left on the walking or work surface.
- Operators and maintenance personnel must be physically fit to perform job tasks, and handle the bulk, weight and power of the tool.
- Deburring tools should be used to reduce the risk of cuts and abrasions due to burrs.
- Wear gloves to protect hands from sharp edges.

Specific Safety Instructions for Power Tool Groups

In addition to the General Safety Instructions, the following are safety instructions and warnings that apply to the safe operation of specific power tool groups.



Compression Tools

- To reduce the risk of injury always keep hands and fingers away from yoke and moving jaws, sets or dies. If possible, hold the tool body with both hands.
- Inspect the yoke daily for cracks. Injury may result if a cracked yoke fails during use.
- All yokes have a life limitation based on cycles and riveting force. This tool and its accessories must not be modified.
- The operator must always read and understand the safety instructions supplied with the tool.



Drills & Tappers

- Keep away from rotating bit and chuck. You can become cut or burned if you come into contact with the drill bit or tap, chips/swarf, or work surface.
- Use intermittent drill feed pressure to avoid long shaved chips/swarf.

- The drill bit or tap can suddenly bind and cause the workpiece or tool to rotate, causing arm and shoulder injuries.
- ANSI recommends use of a support handle on drills with a chuck larger than 3/8" (10mm).



Percussive Tools (Riveting Hammers, Air Scribe)

- All chisels, rivet sets and other associated accessories should be checked for cracks, excessive wear, or other physical damage before each use. Accessories that show signs of damage should be replaced immediately.
- Never use a tool without the proper accessory retainer.



Other Tools (Saws, Deburring, Rivet Milling/ Shaving, Vacuum Cleaner)

- Specific instructions/warnings affecting this group of tools are contained in product specific documents accompanying each product.



Accessories

- Always use accessories of correct size and design for the tool. Tool and accessories must not be modified in any way.
- Never use a tool without the proper accessory retainer.
- Do not use a tool or attachment for a purpose not intended by the manufacturer.



For further information on Ergonomics and Workplace Design ask for Desoutter publication LT198