

NACHI



*Taper Shank Oil Hole Drills
For Steel Fabrication Industry*



The NACHI Difference:

NACHI-FUJIKOSHI CORP. is a pioneer of precision cutting tools in Japan and one of the leading manufacturers of tools worldwide. No manufacturer of cutting tools anywhere in the world exercises greater control over the quality of its products than NACHI. NACHI quality starts with the material itself because the High Speed Steel, premium Cobalt High Speed Steel, Powder High Speed, and Cermet we use comes from our own mills. The technology of the coating, such as Mixed Component multi-layer coating and Diamond coating (thin film diamond) has been developed specifically for our cutting tools.

Cutting tools are basic products for the machine industries. Successful performance of machine tools cannot be expected without precise cutting tools and high quality. NACHI pursues the highest quality 100% of the time. NACHI is the first Japanese cutting tool manufacturer to be awarded the prestigious honor of the Deming Award for Quality.

When You Buy From NACHI:

When you purchase cutting tools from NACHI you are using products produced by one of the largest, most innovative manufacturers of industrial equipment in the world. Established more than 75 years ago, The NACHI-FUJIKOSHI CORP. has grown into a world-class, worldwide leader in its industry. The company has approximately ten million square feet of plant area and facilities in Japan, Production plants in The U.S.A., Singapore, Brazil, Taiwan, Spain and Korea, and sales marketing subsidiaries in all major industrial nations.

DRILLS

OIL HOLE DRILLS / TAPER SHANK

List No.683



M35 COBALT Bright Finish



Used in heavy-duty applications. Delivers coolant to the point permit higher speeds and feeds and reduce high temperatures.

Size	Decimal Equivalent	Flute Length	Overall Length	Shank Taper
3/8	0.3750	4 1/4	8 1/8	2
25/64	0.3906	4 3/8	8 1/4	2
13/32	0.4063	4 3/8	8 1/4	2
27/64	0.4219	4 5/8	8 1/2	2
7/16	0.4375	4 5/8	8 1/2	2
29/64	0.4531	4 7/8	8 3/4	2
15/32	0.4688	4 7/8	8 3/4	2
31/64	0.4844	5	9 5/8	3
1/2	0.5000	5	9 5/8	3
33/64	0.5156	5 1/8	9 3/4	3
17/32	0.5313	5 1/8	9 3/4	3
35/64	0.5469	5 1/4	9 7/8	3
9/16	0.5625	5 1/4	9 7/8	3
37/64	0.5781	5 1/2	10 1/8	3
19/32	0.5938	5 1/2	10 1/8	3
39/64	0.6094	5 5/8	10 1/4	3
5/8	0.6250	5 5/8	10 1/4	3
41/64	0.6406	5 3/4	10 3/8	3
21/32	0.6563	5 3/4	10 3/8	3
43/64	0.6719	5 7/8	10 1/2	3
11/16	0.6875	5 7/8	10 1/2	3
45/64	0.7031	6 1/8	10 3/4	3
23/32	0.7188	6 1/8	10 3/4	3
47/64	0.7344	6 1/4	10 7/8	3
3/4	0.7500	6 1/4	10 7/8	3

Size	Decimal Equivalent	Flute Length	Overall Length	Shank Taper
49/64	0.7656	6 3/8	11	3
25/32	0.7813	6 3/8	11	3
51/64	0.7969	6 1/2	11 1/8	3
13/16	0.8125	6 1/2	11 1/8	3
53/64	0.8281	6 5/8	11 1/4	3
27/32	0.8438	6 5/8	11 1/4	3
55/64	0.8594	6 7/8	11 1/2	3
7/8	0.8750	6 7/8	11 1/2	3
57/64	0.8906	6 7/8	11 1/2	3
29/32	0.9063	6 7/8	11 1/2	3
59/64	0.9219	6 7/8	11 1/2	3
15/16	0.9375	6 7/8	11 1/2	3
61/64	0.9531	7	11 5/8	3
31/32	0.9688	7	11 5/8	3
63/64	0.9844	7 1/8	11 3/4	3
1	1.0000	7 1/8	11 3/4	3
1 1/16	1.0625	7 1/4	12 7/8	4
1 1/8	1.1250	7 3/4	13 3/8	4
1 3/16	1.1875	8	13 5/8	4
1 1/4	1.2500	8 1/4	13 7/8	4
1 5/16	1.3125	9 1/8	14 3/4	4
1 3/8	1.3750	9 3/8	15	4
1 7/16	1.4375	9 1/2	15 1/8	4
1 1/2	1.5000	9 3/4	15 3/8	4

1 per box

- Made from **HSS-Co** with high cobalt content for long lasting operation and re-grinds.
- Solid **“One piece”** construction with **coolant** holes.
- Delivers coolant to the point and permits higher speeds and feeds. Reduces heat and friction.
- 118° drill point with "N"-type thinning.
- Thick web on the drill reduces thrust force substantially making it conducive for heavy duty deep hole drilling.
- All sizes stocked in **USA**.

DRILLS

STANDARD DRILLING CONDITION

Taper Shank Oil Hole Drills / Cobalt List No. 683

Workpiece Material		Carbon Steels		Alloy Steels Hardened Steels		Mold Steels Stainless Steels		Cast Irons		Aluminum Alloys Nonferrous Metals	
Speed (SFM)		55 - 65 SFM		50 - 60 SFM		35 - 45 SFM		65 - 80 SFM		100 - 110 SFM	
Drill Diameter		55 - 65 SFM		50 - 60 SFM		35 - 45 SFM		65 - 80 SFM		100 - 110 SFM	
Fractional	Decimal	RPM	Feed (IPR)	RPM	Feed (IPR)	RPM	Feed (IPR)	RPM	Feed (IPR)	RPM	Feed (IPR)
3/8	0.3750	680	0.008	620	0.007	460	0.006	820	0.010	1,200	0.010
7/16	0.4375	580	0.009	530	0.007	400	0.006	700	0.011	970	0.011
1/2	0.5000	510	0.009	460	0.008	350	0.007	620	0.012	850	0.012
5/8	0.6250	410	0.011	370	0.010	280	0.008	490	0.014	680	0.014
23/32	0.7188	360	0.012	320	0.010	240	0.009	430	0.015	590	0.014
3/4	0.7500	340	0.013	310	0.011	230	0.009	410	0.015	570	0.015
7/8	0.8750	290	0.013	270	0.011	200	0.010	350	0.017	490	0.017
1	1.0000	260	0.014	230	0.012	180	0.011	310	0.018	430	0.018
1 1/4	1.2500	210	0.016	190	0.013	140	0.011	250	0.019	340	0.019
1 1/2	1.5000	170	0.017	160	0.014	120	0.012	210	0.021	290	0.021

1) The above values apply when coolant is used in a vertical machine. In a horizontal machine or deep hole, use pecking.

2) Adjust drilling condition when unusual vibration or different sound occurs.

NACHI

CUTTING TOOL PRODUCTS

NACHI AMERICA INC.

HEADQUARTERS AND MAIN WAREHOUSE

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