



A Brand ADO-SUS

Advanced Performance Carbide Drills for Stainless Steels & Titanium Alloys

List 5200 - A Brand ADO-SUS: 3D

List 5210 - A Brand ADO-SUS: 5D

List 5220 - A Brand ADO-SUS: 8D

General Drilling Operations

Work Material	Carbon Steels, Mild Steels 1010, 1050, 12L14		Alloy Steels 4140, 4130		300 Series Austenitic Stainless Steels				400 Series Ferritic Stainless Steels Martensitic Stainless Steels				
	Hardness				≤15HRC		> 15 HRC		≤15HRC		> 15 HRC		
Drilling Speed		260-325 SFM		260-325 SFM		200-330 SFM		130-260 SFM		200-330 SFM		130-260 SFM	
Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
mm	Inch												
2	-	14,190	0.0013 - 0.003	14,190	0.0013 - 0.003	12,850	0.0013 - 0.003	9,460	0.0013 - 0.003	12,850	0.0013 - 0.003	9,460	0.0013 - 0.003
3	-	9,450	0.002 - 0.005	9,450	0.002 - 0.005	8,570	0.002 - 0.005	6,310	0.002 - 0.005	8,570	0.002 - 0.005	6,310	0.002 - 0.005
-	1/8	8,940	0.002 - 0.005	8,940	0.002 - 0.005	8,100	0.002 - 0.005	5,960	0.002 - 0.005	8,100	0.002 - 0.005	5,960	0.002 - 0.005
4	-	7,090	0.003 - 0.006	7,090	0.003 - 0.006	6,430	0.003 - 0.006	4,730	0.003 - 0.006	6,430	0.003 - 0.006	4,730	0.003 - 0.006
-	3/16	5,960	0.004 - 0.007	5,960	0.004 - 0.007	5,400	0.004 - 0.007	3,970	0.004 - 0.007	5,400	0.004 - 0.007	3,970	0.004 - 0.007
6	-	4,730	0.005 - 0.009	4,730	0.005 - 0.009	4,280	0.005 - 0.009	3,150	0.005 - 0.008	4,280	0.005 - 0.008	3,150	0.005 - 0.008
-	1/4	4,470	0.005 - 0.009	4,470	0.005 - 0.009	4,050	0.005 - 0.008	2,980	0.005 - 0.008	4,050	0.005 - 0.008	2,980	0.005 - 0.008
8	-	3,550	0.006 - 0.011	3,550	0.006 - 0.011	3,210	0.006 - 0.009	2,360	0.006 - 0.009	3,210	0.006 - 0.009	2,360	0.006 - 0.009
-	3/8	2,980	0.007 - 0.012	2,980	0.007 - 0.012	2,700	0.007 - 0.011	1,990	0.007 - 0.011	2,700	0.007 - 0.011	1,990	0.007 - 0.011
10	-	2,840	0.008 - 0.012	2,840	0.008 - 0.012	2,570	0.008 - 0.012	1,890	0.007 - 0.011	2,570	0.007 - 0.011	1,890	0.007 - 0.011
-	7/16	2,550	0.008 - 0.012	2,550	0.008 - 0.012	2,310	0.008 - 0.012	1,700	0.007 - 0.011	2,310	0.007 - 0.011	1,700	0.007 - 0.011
12	-	2,360	0.008 - 0.012	2,360	0.008 - 0.012	2,140	0.008 - 0.012	1,580	0.007 - 0.012	2,140	0.007 - 0.012	1,580	0.007 - 0.012
-	1/2	2,230	0.008 - 0.013	2,230	0.008 - 0.013	2,020	0.008 - 0.012	1,490	0.008 - 0.012	2,020	0.008 - 0.012	1,490	0.008 - 0.012
14	-	2,030	0.009 - 0.014	2,030	0.009 - 0.014	1,840	0.008 - 0.013	1,350	0.008 - 0.013	1,840	0.008 - 0.013	1,350	0.008 - 0.013
-	5/8	1,790	0.010 - 0.015	1,790	0.010 - 0.015	1,620	0.009 - 0.015	1,190	0.009 - 0.015	1,620	0.009 - 0.015	1,190	0.009 - 0.015
16	-	1,770	0.010 - 0.015	1,770	0.010 - 0.015	1,610	0.009 - 0.015	1,180	0.009 - 0.015	1,610	0.009 - 0.015	1,180	0.009 - 0.015
18	-	1,580	0.011 - 0.015	1,580	0.011 - 0.015	1,430	0.010 - 0.016	1,050	0.010 - 0.016	1,430	0.010 - 0.016	1,050	0.010 - 0.016
-	3/4	1,490	0.012 - 0.016	1,490	0.012 - 0.016	1,350	0.011 - 0.016	990	0.011 - 0.016	1,350	0.011 - 0.016	990	0.011 - 0.016
20	-	1,420	0.012 - 0.016	1,420	0.012 - 0.016	1,280	0.011 - 0.016	950	0.011 - 0.016	1,280	0.011 - 0.016	950	0.011 - 0.016

General Drilling Operations

Work Material	Duplex Stainless Steels				Precipitation Hardened Stainless Steels 15-5, 17-4		Ductile Cast Iron/ Cast Iron		Cast Aluminum		Titanium Alloy		
	≤ 30 HRC		> 30 HRC		≤ 45 HRC						30-35 HRC		
Drilling Speed		130-260 SFM		100-165 SFM		130-200 SFM		195-330 SFM		325-700 SFM		100-165 SFM	
Drill Dia.		Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR	Speed RPM	Feed IPR
mm	Inch												
2	-	9,460	0.0013 - 0.003	6,430	0.0013 - 0.003	8,000	0.0013 - 0.003	12,700	0.0013 - 0.003	24,900	0.002 - 0.004	6,430	0.0013 - 0.003
3	-	6,310	0.002 - 0.005	4,280	0.002 - 0.005	5,330	0.002 - 0.005	8,470	0.002 - 0.005	16,600	0.004 - 0.006	4,280	0.002 - 0.005
-	1/8	5,960	0.002 - 0.005	4,050	0.002 - 0.005	5,040	0.002 - 0.005	8,000	0.002 - 0.005	15,680	0.004 - 0.006	4,050	0.002 - 0.005
4	-	4,730	0.003 - 0.006	3,210	0.003 - 0.006	4,000	0.003 - 0.006	6,350	0.003 - 0.006	12,450	0.005 - 0.007	3,210	0.003 - 0.006
-	3/16	3,970	0.004 - 0.007	2,700	0.004 - 0.007	3,360	0.004 - 0.007	5,330	0.004 - 0.007	10,450	0.006 - 0.008	2,700	0.004 - 0.007
6	-	3,150	0.005 - 0.008	2,140	0.005 - 0.008	2,670	0.005 - 0.008	4,230	0.005 - 0.009	8,300	0.008 - 0.010	2,140	0.005 - 0.008
-	1/4	2,980	0.005 - 0.008	2,020	0.005 - 0.008	2,520	0.005 - 0.008	4,000	0.005 - 0.009	7,840	0.009 - 0.011	2,020	0.005 - 0.008
8	-	2,360	0.006 - 0.009	1,600	0.006 - 0.009	2,000	0.006 - 0.009	3,170	0.006 - 0.011	6,220	0.012 - 0.014	1,600	0.006 - 0.009
-	3/8	1,990	0.007 - 0.011	1,350	0.007 - 0.011	1,680	0.007 - 0.011	2,670	0.007 - 0.012	5,230	0.014 - 0.016	1,350	0.007 - 0.011
10	-	1,890	0.008 - 0.012	1,280	0.007 - 0.011	1,600	0.008 - 0.012	2,540	0.008 - 0.012	4,980	0.015 - 0.017	1,280	0.007 - 0.011
-	7/16	1,700	0.008 - 0.012	1,160	0.007 - 0.011	1,440	0.008 - 0.012	2,290	0.008 - 0.012	4,480	0.017 - 0.019	1,160	0.007 - 0.011
12	-	1,580	0.008 - 0.012	1,070	0.007 - 0.012	1,330	0.008 - 0.012	2,120	0.008 - 0.012	4,150	0.018 - 0.020	1,070	0.007 - 0.012
-	1/2	1,490	0.008 - 0.012	1,010	0.008 - 0.012	1,260	0.008 - 0.012	2,000	0.008 - 0.013	3,920	0.019 - 0.021	1,010	0.008 - 0.012
14	-	1,350	0.008 - 0.013	920	0.008 - 0.013	1,140	0.008 - 0.013	1,810	0.009 - 0.014	3,560	0.021 - 0.023	920	0.008 - 0.013
-	5/8	1,190	0.009 - 0.015	810	0.009 - 0.015	1,010	0.009 - 0.015	1,600	0.010 - 0.015	3,140	0.023 - 0.026	810	0.009 - 0.015
16	-	1,180	0.009 - 0.015	800	0.009 - 0.015	1,000	0.009 - 0.015	1,590	0.010 - 0.015	3,110	0.023 - 0.026	800	0.009 - 0.015
18	-	1,050	0.010 - 0.016	710	0.010 - 0.016	890	0.010 - 0.016	1,410	0.011 - 0.015	2,770	0.026 - 0.030	710	0.010 - 0.016
-	3/4	990	0.011 - 0.016	670	0.011 - 0.016	840	0.011 - 0.016	1,330	0.012 - 0.016	2,610	0.027 - 0.031	670	0.011 - 0.016
20	-	950	0.011 - 0.016	640	0.011 - 0.016	800	0.011 - 0.016	1,270	0.012 - 0.016	2,490	0.028 - 0.032	640	0.011 - 0.016

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