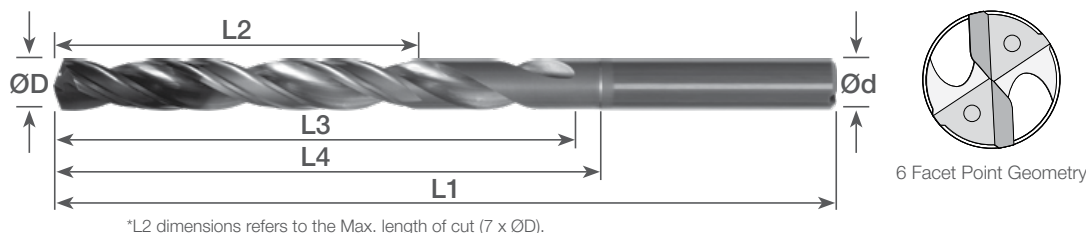


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HYDROS 7XD COOLANT FED DEEP DRILLS
DEEP HOLE DRILLING PRIORITY
 Excellent for Difficult-to-Cut Materials



0.1250" - 0.5000" DIAMETER
 Sub Micron Grain Carbide
 Superior Hole Wall Surface Finishes
 Double Margin Design
 Straight Through Drilling Without Pecking



HYDROS 7xD Coolant Fed



AITIN Nano		Dimensions (in)						Point Angle
Part Number	Stock	ØD	Ød	L1	*L2	L3	L4	
860-1250AG1250	●	0.1250 (1/8)	1/8	3 1/2	0.875	1.250	1.313	135°
860-1406AG1406	●	0.1406 (9/64)	3/16	3 1/2	0.984	1.406	1.476	135°
860-1563AG1563	●	0.1563 (5/32)	3/16	3 1/2	1.094	1.563	1.641	135°
860-1719AG1719	●	0.1719 (11/64)	3/16	3 1/2	1.203	1.719	1.805	135°
860-1875AG1875	●	0.1875 (3/16)	3/16	4	1.313	1.875	1.969	135°
860-2031AG2031	●	0.2031 (13/64)	1/4	4	1.422	2.031	2.133	135°
860-2188AG2188	●	0.2188 (7/32)	1/4	4	1.532	2.188	2.297	135°
860-2344AG2344	●	0.2344 (15/64)	1/4	4 1/2	1.641	2.344	2.461	135°
860-2500AG2500	●	0.2500 (1/4)	1/4	4 1/2	1.750	2.500	2.625	135°
860-2570AG2570	●	0.2570 (F)	5/16	4 1/2	1.799	2.570	2.699	135°
860-2656AG2656	●	0.2656 (17/64)	5/16	4 1/2	1.859	2.656	2.789	135°
860-2813AG2813	●	0.2813 (9/32)	5/16	5	1.969	2.813	2.954	135°
860-3125AG3125	●	0.3125 (5/16)	5/16	5	2.188	3.125	3.281	135°
860-3320AG3320	●	0.3320 (Q)	3/8	5 1/2	2.324	3.320	3.486	135°
860-3438AG3438	●	0.3438 (11/32)	3/8	5 1/2	2.407	3.438	3.610	135°
860-3750AG3750	●	0.3750 (3/8)	3/8	6	2.625	3.750	3.938	135°
860-4219AG4219	●	0.4219 (27/64)	7/16	6 1/2	2.953	4.219	4.430	135°
860-4375AG4375	●	0.4375 (7/16)	7/16	6 1/2	3.063	4.375	4.594	135°
860-4531AG4531	●	0.4531 (29/64)	1/2	6 1/2	3.172	4.531	4.758	135°
860-5000AG5000	●	0.5000 (1/2)	1/2	7	3.500	5.000	5.250	135°

If a pilot drill is needed for your application please match with
 ORION High Performance Drills **Series 160** [Page L48](#)

Cutting Diameter Tolerance

Cutting Dia. (ØD)	0.1250" - 0.2344"	0.2500" - 0.3750"	0.4219" - 0.5000"
Tolerance + / -	+0.00000"/-0.00047"	+0.00000"/-0.00059"	+0.00000"/-0.00071"

Shank Tolerance

Shank Dia. (Ød)	0.1250" - 0.2500"	0.3125" - 0.3750"	0.4375" - 0.5000"
Tolerance + / -	+0.00000"/-0.00032"	+0.00000"/-0.00035"	+0.00000"/-0.00043"

HYDROS SERIES 860 WORKPIECE MATERIAL

Coating	P	P	H	H	M	K	N	N	N	N	N	N	N	S	S	
	Steel ~30HRC	Steel 30~40HRC	Hardened Steel ~55HRC	Hardened Steel ~68HRC	Stainless Steel	Cast Iron	Aluminum	Graphite	Copper Alloy	Brass	CFRP	Plastic	Thermoset Plastic	High Density Plastic	Nickel / Cobalt	Titanium Alloy
AlTiN Nano	★	★	★	★	★	☆		☆	☆	☆		☆	☆	☆	★	★

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions [Page L218](#)

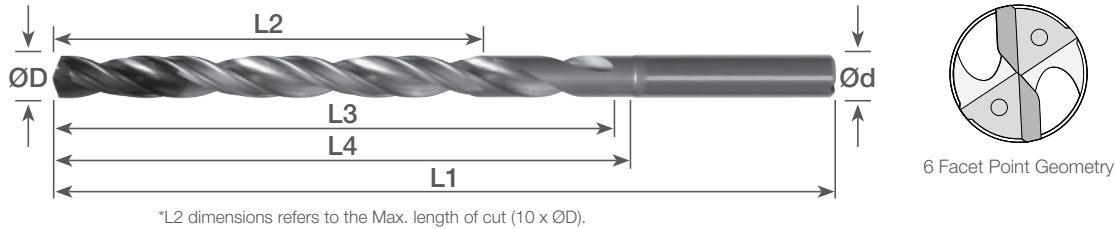
Symbol Descriptions [Page L3](#)

INCH SHANK

HYDROS 10XD COOLANT FED DEEP DRILLS
DEEP HOLE DRILLING PRIORITY
Excellent for Difficult-to-Cut Materials



0.1250" - 0.5000" DIAMETER
Sub Micron Grain Carbide
Superior Hole Wall Surface Finishes
Double Margin Design
Straight Through Drilling Without Pecking



HYDROS 10xD Coolant Fed



AITiN Nano		Dimensions (in)						Point Angle
Part Number	Stock	ØD	Ød	L1	*L2	L3	L4	
860-1250AG1625	●	0.1250 (1/8)	1/8	3 1/2	1.250	1.625	1.688	135°
860-1406AG1828	●	0.1406 (9/64)	3/16	4	1.406	1.828	1.898	135°
860-1563AG2031	●	0.1563 (5/32)	3/16	4	1.563	2.031	2.109	135°
860-1719AG2234	●	0.1719 (11/64)	3/16	4	1.719	2.234	2.320	135°
860-1875AG2438	●	0.1875 (3/16)	3/16	4 1/2	1.875	2.438	2.532	135°
860-2031AG2641	●	0.2031 (13/64)	1/4	4 1/2	2.031	2.641	2.743	135°
860-2188AG2844	●	0.2188 (7/32)	1/4	5	2.188	2.844	2.953	135°
860-2344AG3047	●	0.2344 (15/64)	1/4	5	2.344	3.047	3.164	135°
860-2500AG3250	●	0.2500 (1/4)	1/4	5	2.500	3.250	3.375	135°
860-2570AG3341	●	0.2570 (F)	5/16	5 1/2	2.570	3.341	3.470	135°
860-2656AG3453	●	0.2656 (17/64)	5/16	5 1/2	2.656	3.453	3.586	135°
860-2813AG3656	●	0.2813 (9/32)	5/16	5 1/2	2.813	3.656	3.797	135°
860-3125AG4063	●	0.3125 (5/16)	5/16	6	3.125	4.063	4.219	135°
860-3320AG4316	●	0.3320 (Q)	3/8	6 1/2	3.320	4.316	4.482	135°
860-3438AG4469	●	0.3438 (11/32)	3/8	6 1/2	3.438	4.469	4.641	135°
860-3750AG4875	●	0.3750 (3/8)	3/8	7	3.750	4.875	5.063	135°
860-4219AG5484	●	0.4219 (27/64)	7/16	7 1/2	4.219	5.484	5.695	135°
860-4375AG5688	●	0.4375 (7/16)	7/16	7 1/2	4.375	5.688	5.907	135°
860-4531AG5891	●	0.4531 (29/64)	1/2	8	4.531	5.891	6.118	135°
860-5000AG6500	●	0.5000 (1/2)	1/2	8 1/2	5.000	6.500	6.750	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 160** • **Page L48**

Cutting Diameter Tolerance

Cutting Dia. (ØD)	0.1250" - 0.2344"	0.2500" - 0.3750"	0.4219" - 0.5000"
Tolerance + / -	+0.00000"/-0.00032"	+0.00000"/-0.00035"	+0.00000"/-0.00043"

Shank Tolerance

Shank Dia. (Ød)	0.1250" - 0.2500"	0.3125" - 0.3750"	0.4375" - 0.5000"
Tolerance + / -	+0.00000"/-0.00032"	+0.00000"/-0.00035"	+0.00000"/-0.00043"

HYDROS SERIES 860 WORKPIECE MATERIAL

Coating	P Steel ~30HRC	P Steel 30-40HRC	H Hardened Steel ~55HRC	H Hardened Steel ~68HRC	M Stainless Steel	K Cast Iron	N Aluminum	N Graphite	N Copper Alloy	N Brass	N CFRP	N Plastic	N Thermoset Plastic	N High Density Plastic	S Nickel / Cobalt	S Titanium Alloy
AlTiN Nano	★	★	★	★	★	☆		☆	☆	☆		☆		☆	★	★

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions • **Page L218**

Symbol Descriptions • **Page L3**

● : U.S. Stock Standard
■ : NOT STOCKED - Call for Delivery

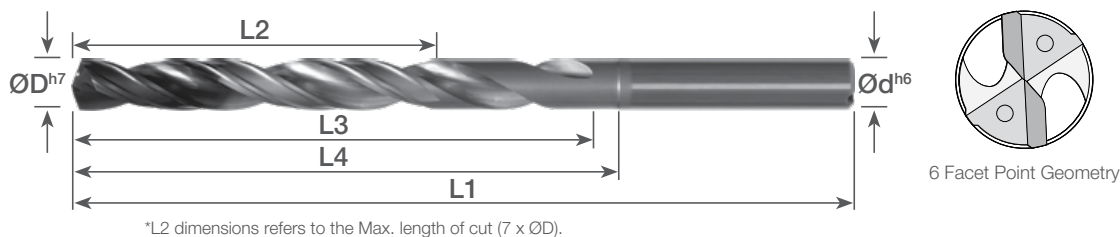
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3.00mm - 4.10mm DIAMETER
Sub Micron Grain Carbide
Superior Hole Wall Surface Finishes
Double Margin Design
Straight Through Drilling Without Pecking



HYDROS 7xD Coolant Fed



AITiN Nano		Dimensions (mm)						Point Angle
Part Number	Stock	ØD ^{h7}	Ød ^{h6}	L1	*L2	L3	L4	
865-1181AG1181	●	3.00	3.00	80.37	21.00	30.00	31.50	135°
865-1220AG1220	●	3.10	4.00	80.37	21.70	31.00	32.55	135°
865-1260AG1260	●	3.20	4.00	80.37	22.40	32.00	33.60	135°
865-1299AG1299	●	3.30	4.00	80.37	23.10	33.00	34.65	135°
865-1339AG1339	●	3.40	4.00	80.37	23.80	34.00	35.70	135°
865-1378AG1378	●	3.50	4.00	80.37	24.50	35.00	36.75	135°
865-1417AG1417	●	3.60	4.00	80.37	25.20	36.00	37.80	135°
865-1457AG1457	●	3.70	4.00	90.37	25.90	37.00	38.85	135°
865-1496AG1496	●	3.80	4.00	90.37	26.60	38.00	39.90	135°
865-1535AG1535	●	3.90	4.00	90.37	27.30	39.00	40.95	135°
865-1575AG1575	●	4.00	4.00	90.37	28.00	40.00	42.00	135°
865-1614AG1614	●	4.10	6.00	90.37	28.70	41.00	43.05	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 165** [Page L50](#)

HYDROS SERIES 865 WORKPIECE MATERIAL

Coating	P Steel ~30HRC	P Steel 30~40HRC	H Hardened Steel ~55HRC	H Hardened Steel ~68HRC	M Stainless Steel	K Cast Iron	N Aluminum	N Graphite	N Copper Alloy	N Brass	N CFRP	N Plastic	N Thermoset Plastic	N High Density Plastic	S Nickel / Cobalt	S Titanium Alloy
AlTiN Nano	★	★	★	★	★	☆		☆	☆	☆		☆	☆	☆	★	★

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions [Page L218](#)

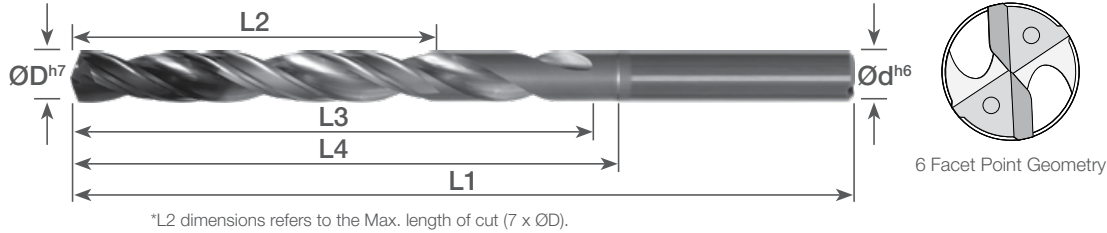
Symbol Descriptions [Page L3](#)

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DEEP HOLE DRILLING PRIORITY
Excellent for Difficult-to-Cut Materials



4.20mm - 6.80mm DIAMETER
Sub Micron Grain Carbide
Superior Hole Wall Surface Finishes
Double Margin Design
Straight Through Drilling Without Pecking



HYDROS 7xD Coolant Fed



AITIN Nano		Dimensions (mm)						Point Angle
Part Number	Stock	ØD ^{h7}	Ød ^{h6}	L1	*L2	L3	L4	
865-1654AG1654	●	4.20	6.00	90.37	29.40	42.00	44.10	135°
865-1693AG1693	●	4.30	6.00	90.37	30.10	43.00	45.15	135°
865-1732AG1732	●	4.40	6.00	90.37	30.80	44.00	46.20	135°
865-1772AG1772	●	4.50	6.00	100.37	31.50	45.00	47.25	135°
865-1811AG1811	●	4.60	6.00	100.37	32.20	46.00	48.30	135°
865-1850AG1850	●	4.70	6.00	100.37	32.90	47.00	49.35	135°
865-1890AG1890	●	4.80	6.00	100.37	33.60	48.00	50.40	135°
865-1929AG1929	●	4.90	6.00	100.37	34.30	49.00	51.45	135°
865-1969AG1969	●	5.00	6.00	100.37	35.00	50.00	52.50	135°
865-2008AG2008	●	5.10	6.00	100.37	35.70	51.00	53.55	135°
865-2047AG2047	●	5.20	6.00	100.37	36.40	52.00	54.60	135°
865-2087AG2087	●	5.30	6.00	110.37	37.10	53.00	55.65	135°
865-2126AG2126	●	5.40	6.00	110.37	37.80	54.00	56.70	135°
865-2165AG2165	●	5.50	6.00	110.37	38.50	55.00	57.75	135°
865-2205AG2205	●	5.60	6.00	110.37	39.20	56.00	58.80	135°
865-2244AG2244	●	5.70	6.00	110.47	39.90	57.00	59.85	135°
865-2283AG2283	●	5.80	6.00	110.47	40.60	58.00	60.90	135°
865-2323AG2323	●	5.90	6.00	110.47	41.30	59.00	61.95	135°
865-2362AG2362	●	6.00	6.00	110.47	42.00	60.00	63.00	135°
865-2402AG2402	●	6.10	8.00	110.47	42.70	61.00	64.05	135°
865-2441AG2441	●	6.20	8.00	110.47	43.40	62.00	65.10	135°
865-2480AG2480	●	6.30	8.00	110.47	44.10	63.00	66.15	135°
865-2520AG2520	●	6.40	8.00	120.47	44.80	64.00	67.20	135°
865-2559AG2559	●	6.50	8.00	120.47	45.50	65.00	68.25	135°
865-2598AG2598	●	6.60	8.00	120.47	46.20	66.00	69.30	135°
865-2638AG2638	●	6.70	8.00	120.47	46.90	67.00	70.35	135°
865-2677AG2677	●	6.80	8.00	120.47	47.60	68.00	71.40	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 165** • **Page L51**

HYDROS SERIES 865 WORKPIECE MATERIAL																							
Coating	P Steel ~30HRC	P Steel 30~40HRC	H Hardened Steel ~55HRC	H Hardened Steel ~68HRC	M Stainless Steel	K Cast Iron	N Aluminum	N Graphite	N Copper Alloy	N Brass	N CFRP	N Plastic	N Thermoset Plastic	N High Density Plastic	S Nickel / Cobalt	S Titanium Alloy							
AITIN Nano	★	★	★	★	★	☆		☆	☆			☆	☆	☆	★	★							
★ : Priority ☆ : Applicable Materials					Recommended Cutting Conditions					Page L218							Symbol Descriptions					Page L3	

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions • **Page L218**

Symbol Descriptions • **Page L3**

● : U.S. Stock Standard
■ : NOT STOCKED - Call for Delivery

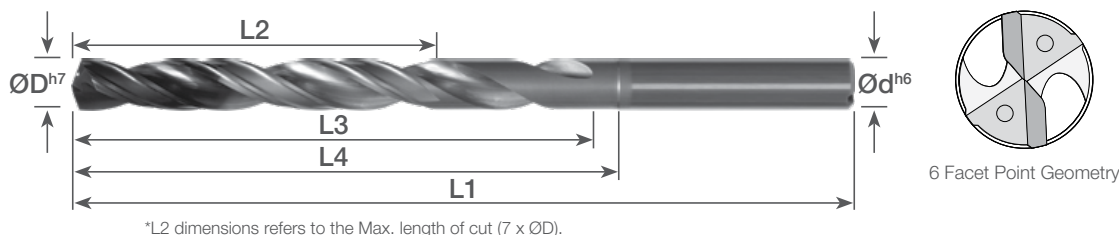
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6.90mm - 9.50mm DIAMETER
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HYDROS 7xD Coolant Fed



AITiN Nano		Dimensions (mm)						Point Angle
Part Number	Stock	ØD ^{h7}	Ød ^{h6}	L1	*L2	L3	L4	
865-2717AG2717	●	6.90	8.00	120.47	48.30	69.00	72.45	135°
865-2756AG2756	●	7.00	8.00	120.47	49.00	70.00	73.50	135°
865-2795AG2795	●	7.10	8.00	120.47	49.70	71.00	74.55	135°
865-2835AG2835	●	7.20	8.00	120.47	50.40	72.00	75.60	135°
865-2874AG2874	●	7.30	8.00	120.47	51.10	73.00	76.65	135°
865-2913AG2913	●	7.40	8.00	130.47	51.80	74.00	77.70	135°
865-2953AG2953	●	7.50	8.00	130.47	52.50	75.00	78.75	135°
865-2992AG2992	●	7.60	8.00	130.62	53.20	76.00	79.80	135°
865-3031AG3031	●	7.70	8.00	130.62	53.90	77.00	80.85	135°
865-3071AG3071	●	7.80	8.00	130.62	54.60	78.00	81.90	135°
865-3110AG3110	●	7.90	8.00	130.62	55.30	79.00	82.95	135°
865-3150AG3150	●	8.00	8.00	130.62	56.00	80.00	84.00	135°
865-3189AG3189	●	8.10	10.00	140.62	56.70	81.00	85.05	135°
865-3228AG3228	●	8.20	10.00	140.62	57.40	82.00	86.10	135°
865-3268AG3268	●	8.30	10.00	140.62	58.10	83.00	87.15	135°
865-3307AG3307	●	8.40	10.00	140.62	58.80	84.00	88.20	135°
865-3346AG3346	●	8.50	10.00	140.62	59.50	85.00	89.25	135°
865-3386AG3386	●	8.60	10.00	140.62	60.20	86.00	90.30	135°
865-3425AG3425	●	8.70	10.00	140.62	60.90	87.00	91.35	135°
865-3465AG3465	●	8.80	10.00	140.62	61.60	88.00	92.40	135°
865-3504AG3504	●	8.90	10.00	140.62	62.30	89.00	93.45	135°
865-3543AG3543	●	9.00	10.00	140.62	63.00	90.00	94.50	135°
865-3583AG3583	●	9.10	10.00	140.62	63.70	91.00	95.55	135°
865-3622AG3622	●	9.20	10.00	140.62	64.40	92.00	96.60	135°
865-3661AG3661	●	9.30	10.00	140.62	65.10	93.00	97.65	135°
865-3701AG3701	●	9.40	10.00	150.62	65.80	94.00	98.70	135°
865-3740AG3740	●	9.50	10.00	150.62	66.50	95.00	99.75	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 165** • **Page L52**

HYDROS SERIES 865 WORKPIECE MATERIAL

Coating	P Steel ~30HRC	P Steel 30~40HRC	H Hardened Steel ~55HRC	H Hardened Steel ~68HRC	M Stainless Steel	K Cast Iron	N Aluminum	N Graphite	N Copper Alloy	N Brass	N CFRP	N Plastic	N Thermoset Plastic	N High Density Plastic	S Nickel / Cobalt	S Titanium Alloy
AlTiN Nano	★	★	★	★	★	☆		☆	☆	☆		☆	☆	☆	★	★
★ : Priority ☆ : Applicable Materials Recommended Cutting Conditions Page L218 Symbol Descriptions Page L3																

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions • **Page L218**

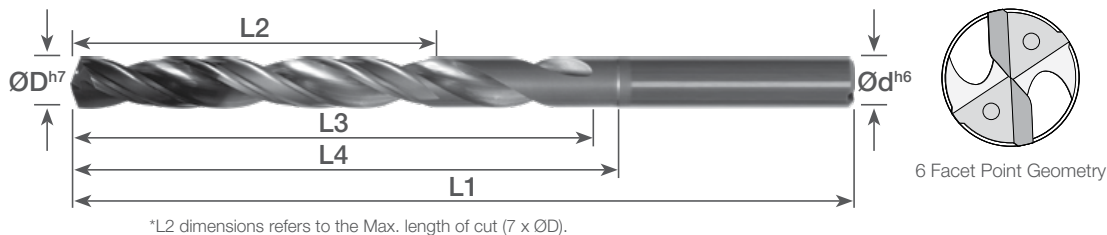
Symbol Descriptions • **Page L3**

METRIC SHANK NEW

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9.60mm - 12.00mm DIAMETER
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Double Margin Design
Straight Through Drilling Without Pecking



HYDROS 7xD Coolant Fed



AITIN Nano		Dimensions (mm)						Point Angle
Part Number	Stock	ØD ^{h7}	Ød ^{h6}	L1	*L2	L3	L4	
865-3780AG3780	●	9.60	10.00	150.62	67.20	96.00	100.80	135°
865-3819AG3819	●	9.70	10.00	150.62	67.90	97.00	101.85	135°
865-3858AG3858	●	9.80	10.00	150.62	68.60	98.00	102.90	135°
865-3898AG3898	●	9.90	10.00	150.62	69.30	99.00	103.95	135°
865-3937AG3937	●	10.00	10.00	150.62	70.00	100.00	105.00	135°
865-3976AG3976	●	10.10	12.00	150.62	70.70	101.00	106.05	135°
865-4016AG4016	●	10.20	12.00	160.62	71.40	102.00	107.10	135°
865-4055AG4055	●	10.30	12.00	160.62	72.10	103.00	108.15	135°
865-4094AG4094	●	10.40	12.00	160.62	72.80	104.00	109.20	135°
865-4134AG4134	●	10.50	12.00	160.62	73.50	105.00	110.25	135°
865-4173AG4173	●	10.60	12.00	160.62	74.20	106.00	111.30	135°
865-4213AG4213	●	10.70	12.00	160.62	74.90	107.00	112.35	135°
865-4252AG4252	●	10.80	12.00	160.62	75.60	108.00	113.40	135°
865-4291AG4291	●	10.90	12.00	160.62	76.30	109.00	114.45	135°
865-4331AG4331	●	11.00	12.00	160.62	77.00	110.00	115.50	135°
865-4370AG4370	●	11.10	12.00	160.62	77.70	111.00	116.55	135°
865-4409AG4409	●	11.20	12.00	170.62	78.40	112.00	117.60	135°
865-4449AG4449	●	11.30	12.00	170.77	79.10	113.00	118.65	135°
865-4488AG4488	●	11.40	12.00	170.77	79.80	114.00	119.70	135°
865-4528AG4528	●	11.50	12.00	170.77	80.50	115.00	120.75	135°
865-4567AG4567	●	11.60	12.00	170.77	81.20	116.00	121.80	135°
865-4606AG4606	●	11.70	12.00	170.77	81.90	117.00	122.85	135°
865-4646AG4646	●	11.80	12.00	170.77	82.60	118.00	123.90	135°
865-4685AG4685	●	11.90	12.00	170.77	83.30	119.00	124.95	135°
865-4724AG4724	●	12.00	12.00	170.77	84.00	120.00	126.00	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 165** [Page L53](#)

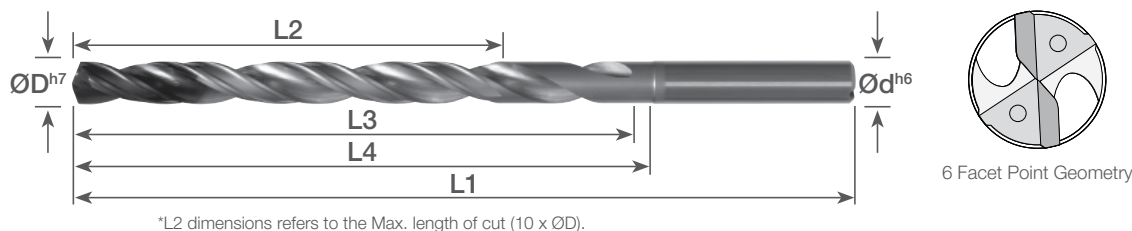
HYDROS SERIES 865 WORKPIECE MATERIAL																
Coating	P Steel ~30HRC	P Steel 30~40HRC	H Hardened Steel ~55HRC	H Hardened Steel ~68HRC	M Stainless Steel	K Cast Iron	N Aluminum	N Graphite	N Copper Alloy	N Brass	N CFRP	N Plastic	N Thermoset Plastic	N High Density Plastic	S Nickel / Cobalt	S Titanium Alloy
AlTiN Nano	★	★	★	★	★	☆		☆	☆	☆		☆	☆	☆	★	★
★ : Priority ☆ : Applicable Materials Recommended Cutting Conditions Page L218 Symbol Descriptions Page L219																

METRIC SHANK

HYDROS 10xD COOLANT FED DEEP DRILLS
DEEP HOLE DRILLING PRIORITY
Excellent for Difficult-to-Cut Materials



3.00mm - 4.10mm DIAMETER
Sub Micron Grain Carbide
Superior Hole Wall Surface Finishes
Double Margin Design
Straight Through Drilling Without Pecking



HYDROS 10xD Coolant Fed



AITiN Nano		Dimensions (mm)						Point Angle
Part Number	Stock	ØD ^{h7}	Ød ^{h6}	L1	*L2	L3	L4	
865-1181AG1535	●	3.00	3.00	90.00	30.00	39.00	40.50	135°
865-1220AG1587	●	3.10	4.00	90.00	31.00	40.30	41.85	135°
865-1260AG1638	●	3.20	4.00	90.00	32.00	41.60	43.20	135°
865-1299AG1689	●	3.30	4.00	90.00	33.00	42.90	44.55	135°
865-1339AG1740	●	3.40	4.00	90.00	34.00	44.20	45.90	135°
865-1378AG1791	●	3.50	4.00	90.00	35.00	45.50	47.25	135°
865-1417AG1843	●	3.60	4.00	90.00	36.00	46.80	48.60	135°
865-1457AG1894	●	3.70	4.00	100.00	37.00	48.10	49.95	135°
865-1496AG1945	●	3.80	4.00	100.00	38.00	49.40	51.30	135°
865-1535AG1996	●	3.90	4.00	100.00	39.00	50.70	52.65	135°
865-1575AG2047	●	4.00	4.00	100.00	40.00	52.00	54.00	135°
865-1614AG2098	●	4.10	6.00	100.00	41.00	53.30	55.35	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 165** Page L50

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DRILLS
END MILLS
ROUTERS
THREAD MILLS & TAPS
ENGRAVERS
BORING BARS
REAMERS
TECHNICAL

HYDROS SERIES 865 WORKPIECE MATERIAL													
Coating	P	P	H	H	M	K	N	N	N	N	N	N	S
	Steel ~30HRC	Steel 30~40HRC	Hardened Steel ~55HRC	Hardened Steel ~68HRC	Stainless Steel	Cast Iron	Aluminum	Graphite	Copper Alloy	Brass	CFRP	Plastic	Titanium Alloy
AITiN Nano	★	★	★	★	★	☆	☆	☆	☆	☆	☆	☆	★

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions Page L218

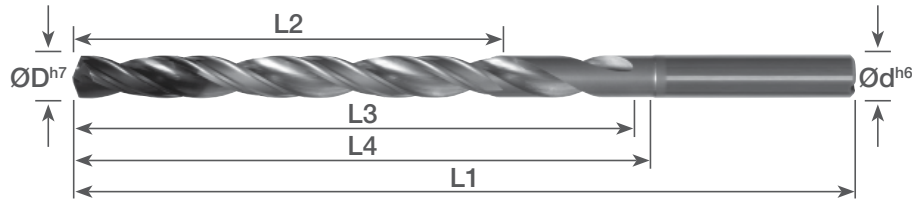
Symbol Descriptions Page L3

METRIC SHANK

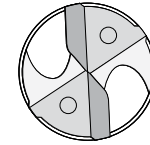
HYDROS 10XD COOLANT FED DEEP DRILLS
DEEP HOLE DRILLING PRIORITY
Excellent for Difficult-to-Cut Materials



4.20mm - 6.80mm DIAMETER
Sub Micron Grain Carbide
Superior Hole Wall Surface Finishes
Double Margin Design
Straight Through Drilling Without Pecking



*L2 dimensions refers to the Max. length of cut (10 x ØD).



6 Facet Point Geometry

HYDROS 10xD Coolant Fed



AITIN Nano		Dimensions (mm)						Point Angle
Part Number	Stock	ØD ^{h7}	Ød ^{h6}	L1	*L2	L3	L4	
865-1654AG2150	●	4.20	6.00	110.00	42.00	54.60	56.70	135°
865-1693AG2201	●	4.30	6.00	110.00	43.00	55.90	58.05	135°
865-1732AG2252	●	4.40	6.00	110.00	44.00	57.20	59.40	135°
865-1772AG2303	●	4.50	6.00	110.00	45.00	58.50	60.75	135°
865-1811AG2354	●	4.60	6.00	110.00	46.00	59.80	62.10	135°
865-1850AG2406	●	4.70	6.00	110.00	47.00	61.10	63.45	135°
865-1890AG2457	●	4.80	6.00	110.00	48.00	62.40	64.80	135°
865-1929AG2508	●	4.90	6.00	110.00	49.00	63.70	66.15	135°
865-1969AG2559	●	5.00	6.00	110.00	50.00	65.00	67.50	135°
865-2008AG2610	●	5.10	6.00	120.00	51.00	66.30	68.85	135°
865-2047AG2661	●	5.20	6.00	120.00	52.00	67.60	70.20	135°
865-2087AG2713	●	5.30	6.00	120.00	53.00	68.90	71.55	135°
865-2126AG2764	●	5.40	6.00	120.00	54.00	70.20	72.90	135°
865-2165AG2815	●	5.50	6.00	120.00	55.00	71.50	74.25	135°
865-2205AG2866	●	5.60	6.00	120.00	56.00	72.80	75.60	135°
865-2244AG2917	●	5.70	6.00	120.00	57.00	74.10	76.95	135°
865-2283AG2969	●	5.80	6.00	120.00	58.00	75.40	78.30	135°
865-2323AG3020	●	5.90	6.00	120.00	59.00	76.70	79.65	135°
865-2362AG3071	●	6.00	6.00	130.00	60.00	78.00	81.00	135°
865-2402AG3122	●	6.10	8.00	130.00	61.00	79.30	82.35	135°
865-2441AG3173	●	6.20	8.00	130.00	62.00	80.60	83.70	135°
865-2480AG3224	●	6.30	8.00	130.00	63.00	81.90	85.05	135°
865-2520AG3276	●	6.40	8.00	130.00	64.00	83.20	86.40	135°
865-2559AG3327	●	6.50	8.00	140.00	65.00	84.50	87.75	135°
865-2598AG3378	●	6.60	8.00	140.00	66.00	85.80	89.10	135°
865-2638AG3429	●	6.70	8.00	140.00	67.00	87.10	90.45	135°
865-2677AG3480	●	6.80	8.00	140.00	68.00	88.40	91.80	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 165** • **Page L51**

HYDROS SERIES 865 WORKPIECE MATERIAL													
Coating	P	P	H	H	M	K	N	N	N	N	N	S	S
	Steel ~30HRC	Steel 30~40HRC	Hardened Steel ~55HRC	Hardened Steel ~68HRC	Stainless Steel	Cast Iron	Aluminum	Graphite	Copper Alloy	Brass	CFRP	Plastic	Titanium Alloy
AITIN Nano	★	★	★	★	★	☆	☆	☆	☆	☆	☆	☆	★

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions • **Page L218**

Symbol Descriptions • **Page L3**

● : U.S. Stock Standard
■ : NOT STOCKED - Call for Delivery

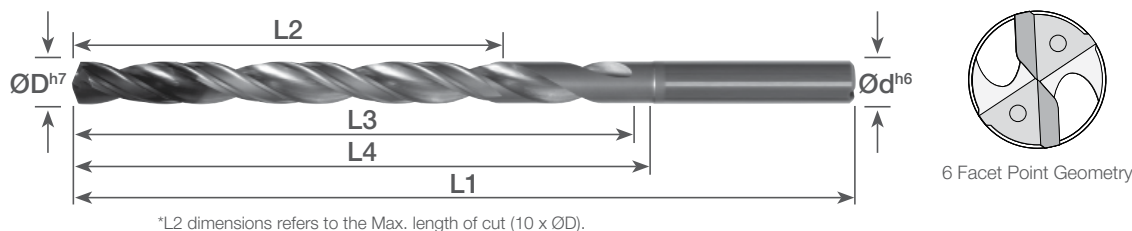
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METRIC SHANK

HYDROS 10xD COOLANT FED DEEP DRILLS
DEEP HOLE DRILLING PRIORITY
Excellent for Difficult-to-Cut Materials



6.90mm - 9.50mm DIAMETER
Sub Micron Grain Carbide
Superior Hole Wall Surface Finishes
Double Margin Design
Straight Through Drilling Without Pecking



HYDROS 10xD Coolant Fed



AITiN Nano		Dimensions (mm)						Point Angle
Part Number	Stock	ØD ^{h7}	Ød ^{h6}	L1	*L2	L3	L4	
865-2717AG3531	●	6.90	8.00	140.00	69.00	89.70	93.15	135°
865-2756AG3583	●	7.00	8.00	140.00	70.00	91.00	94.50	135°
865-2795AG3634	●	7.10	8.00	140.00	71.00	92.30	95.85	135°
865-2835AG3685	●	7.20	8.00	140.00	72.00	93.60	97.20	135°
865-2874AG3736	●	7.30	8.00	140.00	73.00	94.90	98.55	135°
865-2913AG3787	●	7.40	8.00	150.00	74.00	96.20	99.90	135°
865-2953AG3839	●	7.50	8.00	150.00	75.00	97.50	101.25	135°
865-2992AG3890	●	7.60	8.00	150.00	76.00	98.80	102.60	135°
865-3031AG3941	●	7.70	8.00	150.00	77.00	100.10	103.95	135°
865-3071AG3992	●	7.80	8.00	150.00	78.00	101.40	105.30	135°
865-3110AG4043	●	7.90	8.00	150.00	79.00	102.70	106.65	135°
865-3150AG4094	●	8.00	8.00	150.00	80.00	104.00	108.00	135°
865-3189AG4146	●	8.10	10.00	160.00	81.00	105.30	109.35	135°
865-3228AG4197	●	8.20	10.00	160.00	82.00	106.60	110.70	135°
865-3268AG4248	●	8.30	10.00	160.00	83.00	107.90	112.05	135°
865-3307AG4299	●	8.40	10.00	160.00	84.00	109.20	113.40	135°
865-3346AG4350	●	8.50	10.00	160.00	85.00	110.50	114.75	135°
865-3386AG4402	●	8.60	10.00	160.00	86.00	111.80	116.10	135°
865-3425AG4453	●	8.70	10.00	160.00	87.00	113.10	117.45	135°
865-3465AG4504	●	8.80	10.00	170.00	88.00	114.40	118.80	135°
865-3504AG4555	●	8.90	10.00	170.00	89.00	115.70	120.15	135°
865-3543AG4606	●	9.00	10.00	170.00	90.00	117.00	121.50	135°
865-3583AG4657	●	9.10	10.00	170.00	91.00	118.30	122.85	135°
865-3622AG4709	●	9.20	10.00	170.00	92.00	119.60	124.20	135°
865-3661AG4760	●	9.30	10.00	170.00	93.00	120.90	125.55	135°
865-3701AG4811	●	9.40	10.00	170.00	94.00	122.20	126.90	135°
865-3740AG4862	●	9.50	10.00	170.00	95.00	123.50	128.25	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 165** • **Page L52**

HYDROS SERIES 865 WORKPIECE MATERIAL

Coating	PSteel ~30HRC	PSteel 30~40HRC	HHardened Steel ~55HRC	HHardened Steel ~68HRC	MStainless Steel	KCast Iron	NAluminum	NNGraphite	NNCopper Alloy	NNBrass	NNCFRP	NNPlastic	NNThermoset Plastic	NHigh Density Plastic	SNickel / Cobalt	STitanium Alloy
AITiN Nano	★	★	★	★	★	☆		☆	☆	☆		☆	☆	☆	★	★
★ : Priority ☆ : Applicable Materials Recommended Cutting Conditions Page L218 Symbol Descriptions Page L3																

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions • **Page L218**

Symbol Descriptions • **Page L3**

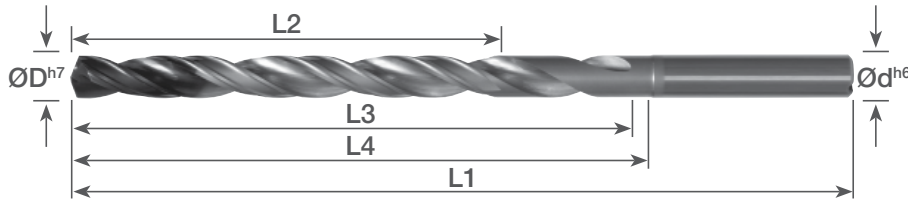
METRIC SHANK

HYDROS 10XD COOLANT FED DEEP DRILLS
DEEP HOLE DRILLING PRIORITY
Excellent for Difficult-to-Cut Materials

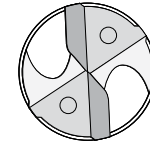


9.60mm - 12.00mm DIAMETER

Sub Micron Grain Carbide
Superior Hole Wall Surface Finishes
Double Margin Design
Straight Through Drilling Without Pecking



*L2 dimensions refers to the Max. length of cut (10 x ØD).



6 Facet Point Geometry

HYDROS 10xD Coolant Fed



AITIN Nano		Dimensions (mm)						Point Angle
Part Number	Stock	ØD ^{h7}	Ød ^{h6}	L1	*L2	L3	L4	
865-3780AG4913	●	9.60	10.00	180.00	96.00	124.80	129.60	135°
865-3819AG4965	●	9.70	10.00	180.00	97.00	126.10	130.95	135°
865-3858AG5016	●	9.80	10.00	180.00	98.00	127.40	132.30	135°
865-3898AG5067	●	9.90	10.00	180.00	99.00	128.70	133.65	135°
865-3937AG5118	●	10.00	10.00	180.00	100.00	130.00	135.00	135°
865-3976AG5169	●	10.10	12.00	180.00	101.00	131.30	136.35	135°
865-4016AG5220	●	10.20	12.00	190.00	102.00	132.60	137.70	135°
865-4055AG5272	●	10.30	12.00	190.00	103.00	133.90	139.05	135°
865-4094AG5323	●	10.40	12.00	190.00	104.00	135.20	140.40	135°
865-4134AG5374	●	10.50	12.00	190.00	105.00	136.50	141.75	135°
865-4173AG5425	●	10.60	12.00	190.00	106.00	137.80	143.10	135°
865-4213AG5476	●	10.70	12.00	190.00	107.00	139.10	144.45	135°
865-4252AG5528	●	10.80	12.00	190.00	108.00	140.40	145.80	135°
865-4291AG5579	●	10.90	12.00	190.00	109.00	141.70	147.15	135°
865-4331AG5630	●	11.00	12.00	200.00	110.00	143.00	148.50	135°
865-4370AG5681	●	11.10	12.00	200.00	111.00	144.30	149.85	135°
865-4409AG5732	●	11.20	12.00	200.00	112.00	145.60	151.20	135°
865-4449AG5783	●	11.30	12.00	200.00	113.00	146.90	152.55	135°
865-4488AG5835	●	11.40	12.00	200.00	114.00	148.20	153.90	135°
865-4528AG5886	●	11.50	12.00	200.00	115.00	149.50	155.25	135°
865-4567AG5937	●	11.60	12.00	200.00	116.00	150.80	156.60	135°
865-4606AG5988	●	11.70	12.00	200.00	117.00	152.10	157.95	135°
865-4646AG6039	●	11.80	12.00	200.00	118.00	153.40	159.30	135°
865-4685AG6091	●	11.90	12.00	210.00	119.00	154.70	160.65	135°
865-4724AG6142	●	12.00	12.00	210.00	120.00	156.00	162.00	135°

If a pilot drill is needed for your application please match with
ORION High Performance Drills **Series 165** • Page L53

HYDROS SERIES 865 WORKPIECE MATERIAL													
Coating	P	P	H	H	M	K	N	N	N	N	N	S	S
	Steel ~30HRC	Steel 30~40HRC	Hardened Steel ~55HRC	Hardened Steel ~68HRC	Stainless Steel	Cast Iron	Aluminum	Graphite	Copper Alloy	Brass	CFRP	Plastic	Thermoset Plastic
	Steel	Steel	Hardened Steel	Hardened Steel	Stainless Steel	Cast Iron	Aluminum	Graphite	Copper Alloy	Brass	CFRP	Plastic	Thermoset Plastic
AITIN Nano	★	★	★	★	★	☆	☆	☆	☆	☆	☆	☆	☆

★ : Priority ☆ : Applicable Materials

Recommended Cutting Conditions • Page L218

Symbol Descriptions • Page L3

● : U.S. Stock Standard
■ : NOT STOCKED - Call for Delivery

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