



DEEPTRIO™

DRILLING PRODUCTS

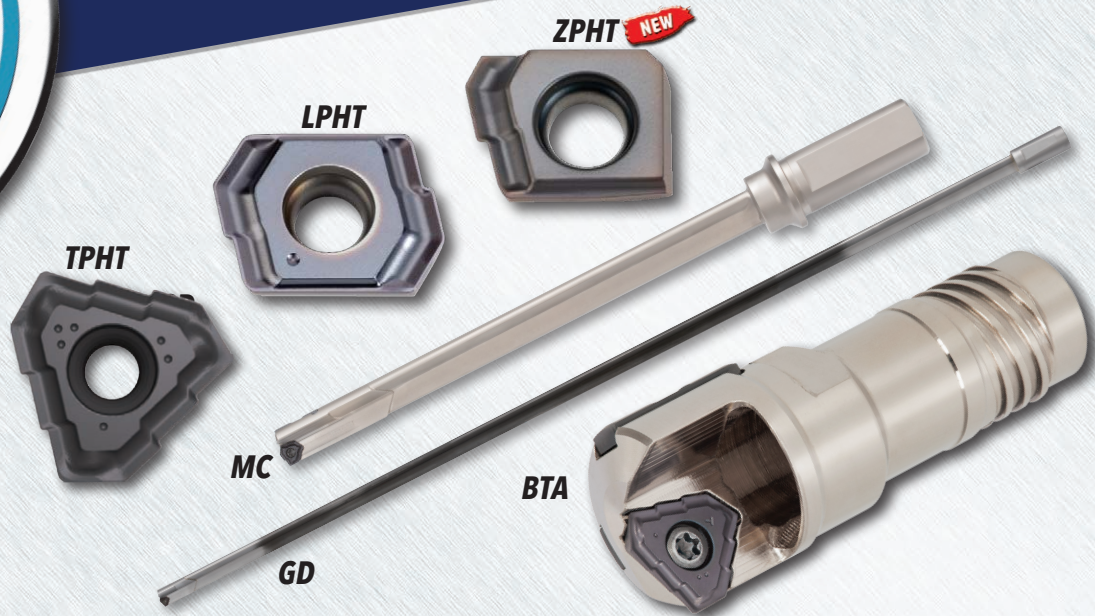
Drilling Range:
 Ø .394 - 1.575" (10mm - 40mm)

Thread Types:
 STS Outer four start thread
 STS Inner single start thread
 DTS Outer four start thread

Insert Grades*:
 IN2005

Chip breakers:
 "DT" - Standard
 "ML" - Low Feed/Power Applications

Guide Pads*:
 IN2040 (CD-SA) - Solid carbide pad
 High wear resistance
 IN2005 (CD-SB) - Solid carbide pad
 High toughness
 IN2030 (CD-SC) - Solid carbide pad
 Higher toughness



An Extensive Family of Deep Hole Drilling Tools

DEEPTRIO^{MC} - Conventional style drill for lathes or mills,
 Conventional cross-hole style drill for lathes or mills
 Standard Lengths 10xD, 15xD and 25xD
 Dia. Range: .394" - 1.260" (10 mm - 32 mm)

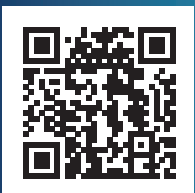
DEEPTRIO^{GD} - Gundrill style
 Gundrill cross-hole style
 Both styles offer lengths up to 94.488" OAL (2400mm)
 Dia. Range: .394" - 1.260" (10 mm - 32 mm)

DEEPTRIO^{BTA} - BTA drilling head available for STS & DTS systems
 Dia. Range: .629" - 1.575" (16 mm - 40 mm)

Features & Benefits:

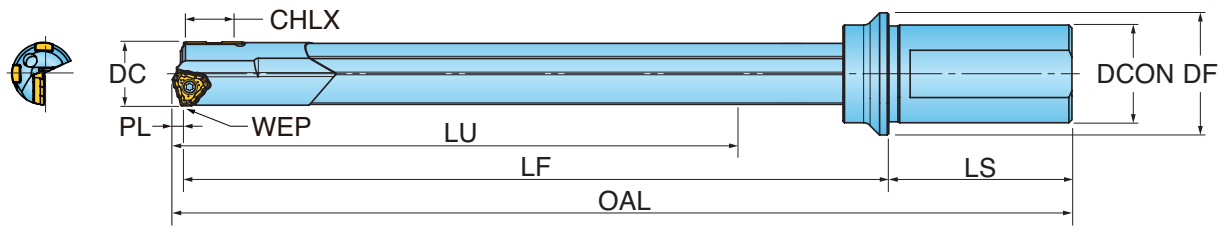
- Expanded Diameter Range: .394" (10 mm) - 1.575" (40 mm)
- Excellent Hole Accuracy (IT10) and Surface Finish
- Very High Feed Rates
- Replaceable Inserts Provide Long Tool Life and Eliminate Regrinding
- Cross-holes up to 1.259" (32 mm) Diameter
- Diameter Adjusting Shims
- Available in Two Chip Breakers
- TRH Replacement Heads for Brazing

*Guide Pads and inserts must be purchased separately.





DEEPTRIOMC™ CONVENTIONAL DRILLS: 10XD



INCH

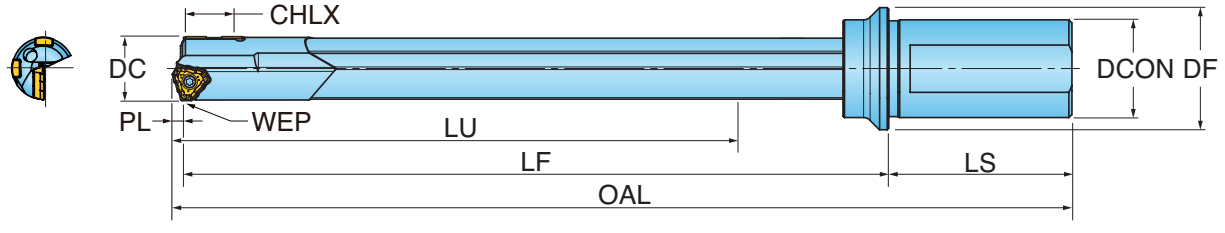
Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
GT14680146N5R01	0.578	0.079	0.63	5.91	7.36	2.21	9.65	1.000	1.26	10
GT15060146N5R01	0.593	0.079	0.63	6.30	7.80	2.21	10.08	1.000	1.26	10
GT15880160N5R01	0.625	0.079	0.63	6.30	7.84	2.21	10.12	1.000	1.26	10
GT17450175N5R01	0.687	0.087	0.63	7.17	8.66	2.21	10.95	1.000	1.26	10
GT18240182N5R01	0.718	0.118	0.63	7.60	9.13	2.21	11.46	1.000	1.26	10
GT18640186N5R01	0.734	0.118	0.63	7.60	9.13	2.21	11.46	1.000	1.26	10
GT19050191N5R01	0.750	0.118	0.63	7.99	9.57	2.21	11.89	1.000	1.26	10
GT20620206N6R01	0.812	0.126	0.63	8.39	10.04	2.36	12.53	1.250	1.26	10
GT22230222N6R01	0.875	0.134	0.63	9.19	10.95	2.36	13.44	1.250	1.26	10
GT23800238N6R01	0.937	0.134	0.63	9.98	11.85	2.36	14.34	1.250	1.26	10
GT25400254N6R01	1.000	0.134	0.63	10.38	12.28	2.36	14.78	1.250	1.26	10
GT26970270N6R01	1.062	0.146	0.63	11.17	13.19	2.36	15.70	1.250	1.26	10
GT28580285N6R01	1.125	0.181	0.63	11.42	14.17	2.36	16.71	1.250	1.26	10
GT29360285N6R01	1.156	0.181	0.63	11.81	14.65	2.36	17.19	1.250	1.57	10
GT31750318N6R01	1.250	0.181	0.63	12.60	15.55	2.36	18.09	1.250	1.57	10

METRIC

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
GT16000160JFR02	16.00	2.20	16.0	172.2	209.0	56.0	267.2	25.00	32	10
GT16500160JFR02	16.50	2.20	16.0	172.2	209.0	56.0	267.2	25.00	32	10
GT17000170JFR02	17.00	2.20	16.0	182.2	220.0	56.0	278.2	25.00	32	10
GT18000180JFR02	18.00	2.20	16.0	192.2	232.0	56.0	290.2	25.00	32	10
GT19000190JFR01	19.00	3.00	16.0	203.0	243.0	56.0	302.0	25.00	32	10
GT20000200JGR01	20.00	3.00	16.0	213.0	255.0	60.0	318.0	32.00	40	10
GT21000210JGR01	21.00	3.20	16.0	223.2	266.0	60.0	329.2	32.00	40	10
GT22000220JGR01	22.00	3.40	16.0	233.4	278.0	60.0	341.4	32.00	40	10
GT23000230JGR01	23.00	3.40	16.0	243.4	289.0	60.0	352.4	32.00	40	10
GT24000240JGR01	24.00	3.40	16.0	253.4	301.0	60.0	364.4	32.00	40	10
GT25000250JGR01	25.00	3.40	16.0	263.4	312.0	60.0	375.4	32.00	40	10
GT26000260JHR01	26.00	3.60	16.0	273.7	324.0	70.0	397.6	40.00	50	10
GT27000270JHR01	27.00	3.60	16.0	283.7	335.0	70.0	408.6	40.00	50	10
GT28000280JHR01	28.00	3.60	16.0	283.7	337.0	70.0	410.6	40.00	50	10



DEEPTRIOMC™ CONVENTIONAL DRILLS: 15XD (INCH)

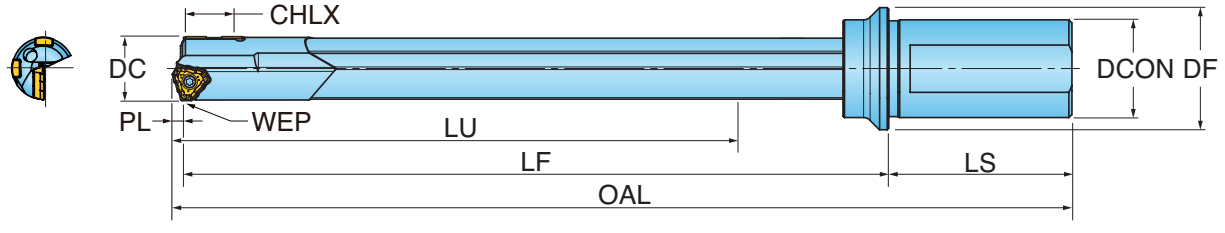


INCH

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
NEW GT11110180N4R01	0.437	0.071	0.63	7.16	8.23	1.97	10.27	0.750	0.98	15
GT12700190N5R01	0.500	0.071	0.63	7.75	9.02	2.21	11.29	1.000	1.26	15
GT13490202N5R01	0.531	0.071	0.63	8.34	9.65	2.21	11.92	1.000	1.26	15
GT14270225N5R01	0.562	0.079	0.63	8.94	10.28	2.21	12.56	1.000	1.26	15
GT14680225N5R01	0.578	0.079	0.63	8.94	10.32	2.21	12.60	1.000	1.26	15
GT15060225N5R01	0.593	0.079	0.63	9.53	10.95	2.21	13.23	1.000	1.26	15
GT15880240N5R01	0.625	0.079	0.63	9.53	10.98	2.21	13.27	1.000	1.26	15
GT17450262N5R02	0.687	0.087	0.63	10.72	12.21	2.21	14.50	1.000	1.26	15
GT18240274N5R01	0.718	0.118	0.63	11.34	12.87	2.21	15.20	1.000	1.26	15
GT18640280N5R01	0.734	0.118	0.63	11.34	12.87	2.21	15.20	1.000	1.26	15
GT19050286N5R01	0.750	0.118	0.63	11.93	13.50	2.21	15.83	1.000	1.26	15
GT20620309N6R01	0.812	0.126	0.63	12.53	14.17	2.36	16.66	1.250	1.57	15
GT22230333N6R01	0.875	0.134	0.63	13.72	15.47	2.36	17.97	1.250	1.57	15
GT23800357N6R01	0.937	0.134	0.63	10.96	16.77	2.36	19.27	1.250	1.57	15
GT25400381N6R01	1.000	0.146	0.63	15.50	17.40	2.36	19.91	1.250	1.57	15
GT26970405N6R01	1.062	0.146	0.63	16.68	18.70	2.36	21.21	1.250	1.57	15
GT28580428N6R01	1.125	0.181	0.63	17.13	19.88	2.36	22.42	1.250	1.57	15
GT29360429N6R01	1.156	0.181	0.63	17.72	20.55	2.36	23.09	1.250	1.57	15
GT31750476N6R01	1.250	0.181	0.63	18.90	21.85	2.36	24.39	1.250	1.57	15



DEEPTRIOMC™ CONVENTIONAL DRILLS: 15XD (METRIC)

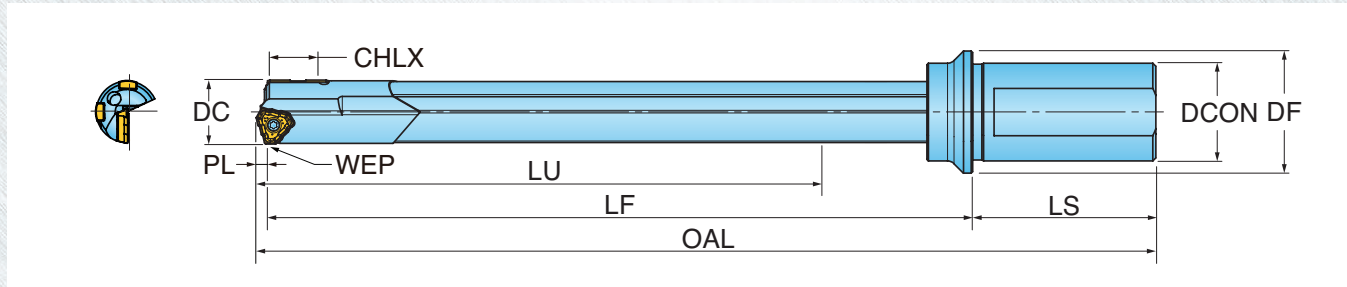


METRIC

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
NEW GT10000158JER01	10.00	1.80	16.0	159.3	184.5	50.0	236.3	20.00	25	15
NEW GT10500165JER01	10.50	1.80	16.0	166.8	193.0	50.0	244.8	20.00	25	15
NEW GT11000180JER01	11.00	1.80	16.0	181.8	209.0	50.0	260.8	20.00	25	15
NEW GT11500180JER01	11.50	1.80	16.0	181.8	209.0	50.0	260.8	20.00	25	15
GT12000197JER01	12.00	1.80	16.0	196.8	225.0	50.0	276.8	20.00	25	15
GT12500197JER01	12.50	1.80	16.0	196.8	226.0	50.0	277.8	20.00	25	15
GT13000212JFR01	13.00	1.80	16.0	211.8	245.0	56.0	302.8	25.00	32	15
GT13500212JFR01	13.50	1.80	16.0	211.8	245.0	56.0	302.8	25.00	32	15
GT14000225JFR01	14.00	2.00	16.0	227.0	245.0	56.0	303.0	25.00	32	15
GT14500225JFR01	14.50	2.00	16.0	227.0	262.0	56.0	320.0	25.00	32	15
GT15000240JFR01	15.00	2.00	16.0	242.0	278.0	56.0	336.0	25.00	32	15
GT16000240JFR02	16.00	2.20	16.0	257.2	294.0	56.0	352.2	25.00	32	15
GT16500248JFR02	16.50	2.20	16.0	257.2	294.0	56.0	352.2	25.00	32	15
GT17000255JFR02	17.00	2.20	16.0	272.2	310.0	56.0	368.2	25.00	32	15
GT17500263JFR02	17.50	2.20	16.0	272.2	310.0	56.0	368.2	25.00	32	15
GT18000270JFR02	18.00	2.20	16.0	287.2	327.0	56.0	385.2	25.00	32	15
GT18500278JFR01	18.50	3.00	16.0	288.0	327.0	56.0	386.0	25.00	32	15
GT19000285JFR01	19.00	3.00	16.0	303.0	343.0	56.0	402.0	25.00	32	15
GT19500293JFR01	19.50	3.00	16.0	303.0	343.0	56.0	402.0	25.00	32	15
GT20000300JGR01	20.00	3.00	16.0	318.0	360.0	60.0	423.0	32.00	40	15
GT21000315JGR01	21.00	3.20	16.0	333.2	376.0	60.0	439.2	32.00	40	15
GT22000330JGR01	22.00	3.40	16.0	348.4	393.0	60.0	456.4	32.00	40	15
GT23000345JGR01	23.00	3.40	16.0	363.4	409.0	60.0	472.4	32.00	40	15
GT24000360JGR01	24.00	3.40	16.0	378.4	426.0	60.0	489.4	32.00	40	15
GT25000375JGR01	25.00	3.40	16.0	393.4	442.0	60.0	505.4	32.00	40	15
GT26000390JHR01	26.00	3.60	16.0	408.7	459.0	70.0	532.6	40.00	50	15
GT27000405JHR01	27.00	3.60	16.0	423.7	475.0	70.0	548.6	40.00	50	15
GT28000420JHR01	28.00	3.60	16.0	423.7	477.0	70.0	550.6	40.00	50	15



DEEPTRIOMC™ CONVENTIONAL DRILLS: 20XD (METRIC)

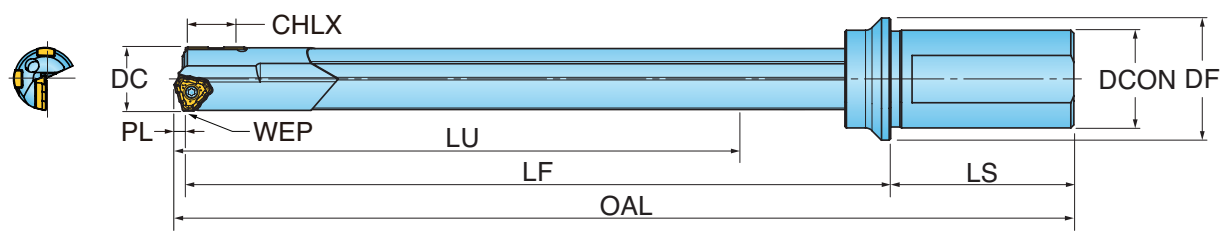


METRIC

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
NEW GT10000210JER01	10.00	1.80	16.0	211.8	237.0	50.0	288.8	20.00	25	20
NEW GT10500220JER01	10.50	1.80	16.0	221.8	248.0	50.0	299.8	20.00	25	20
NEW GT11000240JER01	11.00	1.80	16.0	241.8	269.0	50.0	320.8	20.00	25	20
NEW GT11500240JER01	11.50	1.80	16.0	241.8	269.0	50.0	320.8	20.00	25	20



DEEPTRIOMC™ CONVENTIONAL DRILLS: 25XD (INCH)

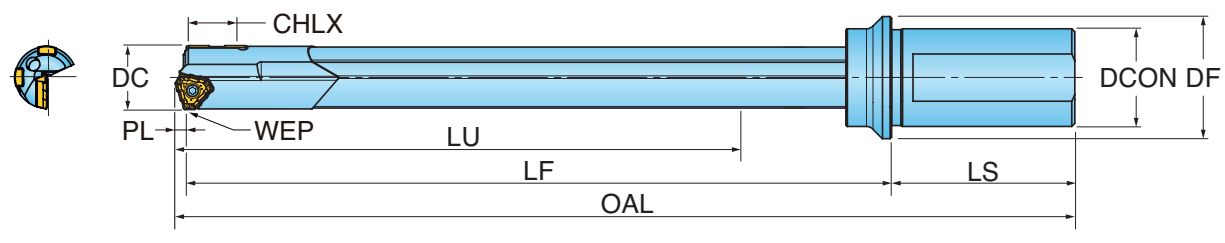


INCH

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
NEW GT11110300N4R01	0.437	0.071	0.63	11.88	12.95	1.97	14.99	0.750	0.98	25
GT12700317N5R01	0.500	0.071	0.63	12.87	14.13	2.21	16.41	1.000	1.26	25
GT13490337N5R01	0.531	0.071	0.63	13.85	15.16	2.21	17.43	1.000	1.26	25
GT14270357N5R01	0.562	0.079	0.63	14.84	16.18	2.21	18.47	1.000	1.26	25
GT14680375N5R01	0.578	0.079	0.63	14.84	16.22	2.21	18.50	1.000	1.26	25
GT15060400N5R01	0.593	0.079	0.63	15.83	17.24	2.21	19.53	1.000	1.26	25
GT15880400N5R01	0.625	0.079	0.63	15.83	17.28	2.21	19.57	1.000	1.26	25
GT17450436N5R02	0.687	0.087	0.63	17.80	19.29	2.21	21.58	1.000	1.26	25
GT18240456N5R01	0.718	0.118	0.63	18.82	20.35	2.21	22.68	1.000	1.26	25
GT18640466N5R01	0.734	0.118	0.63	18.82	20.35	2.21	22.68	1.000	1.26	25
GT19050476N5R01	0.750	0.118	0.63	19.80	21.38	2.21	23.70	1.000	1.26	25
GT20620516N6R01	0.812	0.126	0.63	20.80	22.44	2.36	24.93	1.250	1.57	25
GT22230556N6R01	0.875	0.134	0.63	22.77	24.53	2.36	27.02	1.250	1.57	25
GT23800595N6R01	0.937	0.134	0.63	24.74	26.61	2.36	29.11	1.250	1.57	25
GT25400635N6R01	1.000	0.146	0.63	25.74	27.64	2.36	30.14	1.250	1.57	25
GT26970674N6R01	1.062	0.146	0.63	27.71	29.72	2.36	32.23	1.250	1.57	25
GT26970675N6R01	1.062	0.146	0.63	27.71	29.72	2.36	32.23	1.500	1.57	25
GT28580715N6R01	1.125	0.181	0.63	28.54	31.30	2.36	33.84	1.250	1.57	25
GT29360715N6R01	1.156	0.181	0.63	29.53	32.36	2.36	34.90	1.250	1.57	25
GT31750806N6R01	1.250	0.181	0.63	31.50	34.45	2.36	36.99	1.250	1.57	25



DEEPTRIOMC™ CONVENTIONAL DRILLS: 25XD (METRIC)

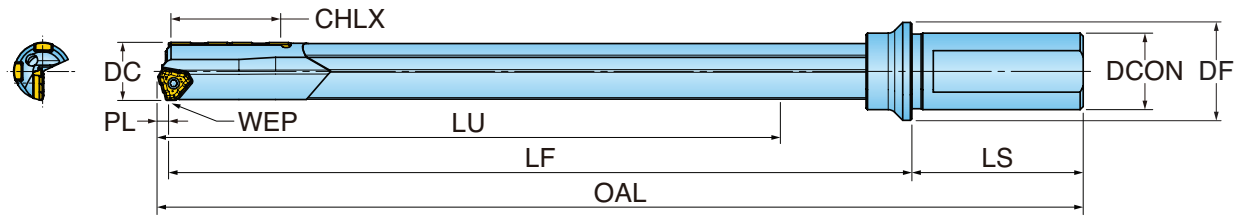


METRIC

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
NEW GT10000263JER01	10.00	1.80	16.0	264.3	289.5	50.0	341.3	20.00	25	25
NEW GT10500275JER01	10.50	1.80	16.0	276.8	303.0	50.0	354.8	20.00	25	25
NEW GT11000300JER01	11.00	1.80	16.0	301.8	329.0	50.0	380.8	20.00	25	25
NEW GT11500300JER01	11.50	1.80	16.0	301.8	329.0	50.0	380.8	20.00	25	25
GT12000327JER01	12.00	1.8	16.0	326.8	355.0	50.0	406.8	20.00	25	25
GT12500327JER01	12.50	1.8	16.0	326.8	356.0	50.0	407.8	20.00	25	25
GT13000352JFR01	13.00	1.8	16.0	351.8	385.0	56.0	442.8	25.00	32	25
GT13500352JFR01	13.50	1.8	16.0	351.8	385.0	56.0	442.8	25.00	32	25
GT14000375JFR01	14.00	2.0	16.0	377.0	411.0	56.0	469.0	25.00	32	25
GT14500375JFR01	14.50	2.0	16.0	377.0	412.0	56.0	470.0	25.00	32	25
GT15000400JFR01	15.00	2.0	16.0	402.0	438.0	56.0	496.0	25.00	32	25
GT16000400JFR02	16.00	2.2	16.0	427.2	464.0	56.0	522.2	25.00	32	25
GT16500413JFR02	16.50	2.2	16.0	427.2	464.0	56.0	522.2	25.00	32	25
GT17000425JFR02	17.00	2.2	16.0	452.2	490.0	56.0	548.2	25.00	32	25
GT17500445JFR02	17.50	2.2	16.0	452.2	490.0	56.0	548.2	25.00	32	25
GT18000450JFR02	18.00	2.2	16.0	477.2	517.0	56.0	575.2	25.00	32	25
GT18500463JFR01	18.50	3.0	16.0	478.0	517.0	56.0	576.0	25.00	32	25
GT19000475JFR01	19.00	3.0	16.0	503.0	543.0	56.0	602.0	25.00	32	25
GT19500488JFR01	19.50	3.0	16.0	503.0	543.0	56.0	602.0	25.00	32	25
GT20000500JGR01	20.00	3.0	16.0	528.0	570.0	60.0	633.0	32.00	40	25
GT21000525JGR01	21.00	3.2	16.0	553.2	596.0	60.0	659.2	32.00	40	25
GT22000550JGR01	22.00	3.4	16.0	578.4	623.0	60.0	686.4	32.00	40	25
GT23000575JGR01	23.00	3.4	16.0	603.4	649.0	60.0	712.4	32.00	40	25
GT24000600JGR01	24.00	3.4	16.0	628.4	676.0	60.0	739.4	32.00	40	25
GT25000625JGR01	25.00	3.4	16.0	653.4	702.0	60.0	765.4	32.00	40	25
GT26000650JHR01	26.00	3.7	16.0	678.7	729.0	70.0	802.7	40.00	50	25
GT27000675JHR01	27.00	3.7	16.0	703.7	755.0	70.0	828.7	40.00	50	25
GT28000700JHR01	28.00	3.7	16.0	703.7	757.0	70.0	830.7	40.00	50	25



DEEPTRIOMC™ CONVENTIONAL CROSS-HOLE DRILLS (INCH)

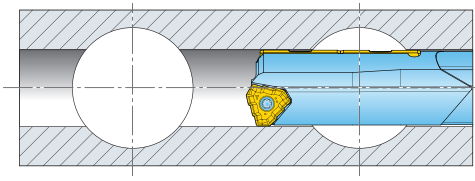


INCH

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
GTADP14680147N5R01	0.578	0.079	1.26	5.91	7.36	2.21	9.65	1.000	1.26	10
GTADP15060151N5R01	0.593	0.079	1.26	6.30	7.79	2.21	10.08	1.000	1.26	10
GTADP18240182N5R01	0.718	0.118	1.26	7.48	9.13	2.21	11.46	1.000	1.26	10
GTADP18640186N5R01	0.734	0.118	1.26	7.48	9.13	2.21	11.46	1.000	1.26	10
GTADP23800238N6R01	0.937	0.134	1.26	9.84	11.85	2.36	14.35	1.250	1.57	10
GTADP29360293N6R01	1.156	0.181	1.26	11.81	14.65	2.36	17.19	1.250	1.57	10

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
NEW GTADP11110180N4R01	0.437	0.071	1.26	7.16	8.23	1.97	10.27	0.750	0.98	15
GTADP14680220N5R01	0.578	0.079	1.26	8.86	10.31	2.21	12.60	1.000	1.26	15
GTADP15060226N5R01	0.593	0.079	1.26	9.45	10.94	2.21	13.23	1.000	1.26	15
GTADP18240274N5R01	0.718	0.118	1.26	11.22	12.87	2.21	15.20	1.000	1.26	15
GTADP18640280N5R01	0.734	0.118	1.26	11.22	12.87	2.21	15.20	1.000	1.26	15
GTADP23800357N6R01	0.937	0.134	1.26	14.76	16.77	2.36	19.27	1.250	1.57	15
GTADP29360440N6R01	1.156	0.181	1.26	17.72	20.55	2.36	23.09	1.250	1.57	15

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.	DF Flange Dia.	ULDR Usable Length Dia. Ratio
NEW GTADP11110300N4R01	0.437	0.071	1.26	11.88	12.95	1.97	14.99	0.750	0.98	25
GTADP14680367N5R01	0.578	0.079	1.26	14.84	16.22	2.21	18.50	1.000	1.26	25
GTADP15060377N5R01	0.593	0.079	1.26	15.83	17.24	2.21	19.53	1.000	1.26	25
GTADP18240456N5R01	0.718	0.118	1.26	18.82	20.35	2.21	22.68	1.000	1.26	25
GTADP18640466N5R01	0.734	0.118	1.26	18.82	20.35	2.21	22.68	1.000	1.26	25
GTADP23800507N6R01	0.937	0.134	1.26	21.27	23.15	2.36	25.65	1.250	1.57	21
GTADP23800595N6R01	0.937	0.134	1.26	24.74	26.61	2.36	29.11	1.250	1.57	25
GTADP29360734N6R01	1.156	0.102	1.26	28.90	31.55	2.36	34.09	1.250	1.57	25
GTADP-2936-1219-N6-R01	1.156	0.102	1.26	42.54	48.00	2.36	48.09	1.250	1.57	36
GTADP-2936-1524-N6-R01	1.156	0.102	1.26	54.55	60.00	2.36	60.10	1.250	1.57	47



Extra long guide pads allow drilling through cross-holes up to 1.26" (32mm) dia.

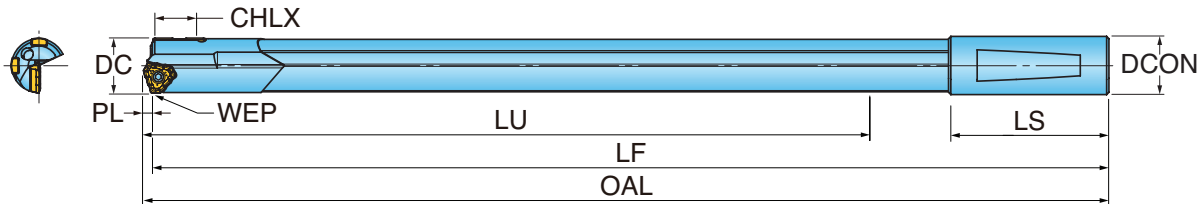


An additional guide pad stabilizes the drill when the insert passes the cross-hole

For Cross-Hole Applications: Deep-Trio BTA, MC and GD with single row of guide pads can cross up to a .63" (16 mm) hole.

Deep-Trio MC and GD with a double row of guide pads can cross up to a 1.26" (32 mm) hole.

DEEPTRIO^{GD} GUNDRILLS (INCH)



Deep-Trio Gundrills are made to order per application.
Use the following guideline to determine the Description:

GT **XXXX** **YYYY** **ZZ** **RXX**
Series Drill Dia. (mm) Drill Length (OAL) (mm) Driver Variation

Example:
.75" diameter drill with 72" OAL and 1.00" driver = GT-1905-1828-58-RXX

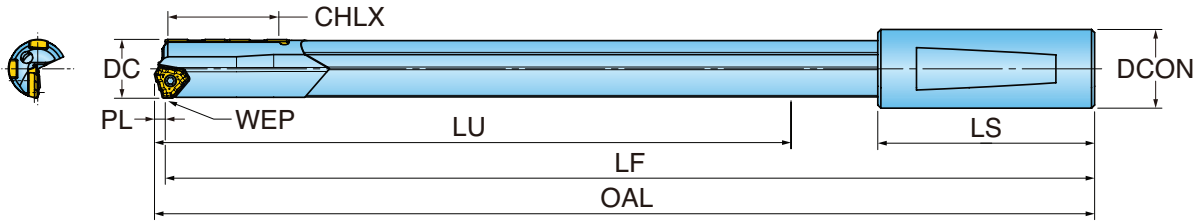
Reference pages 12-15 for Insert and Guide Pad information.
Reference page 9 for Driver information.

SEMI-STANDARD ITEMS

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.
GT-1270-1219-58-R01	0.500	0.071	0.630	43.78	48.00	2.21	48.07	1.000
GT-1270-1524-58-R01	0.500	0.071	0.630	55.78	60.00	2.21	60.07	1.000
GT-1348-1219-58-R01	0.531	0.071	0.630	43.66	48.00	2.21	48.07	1.000
GT-1348-1527-58-R01	0.531	0.071	0.630	55.66	60.00	2.21	60.07	1.000
GT-1745-1500-58-R01	0.687	0.086	0.630	55.40	59.05	2.21	59.14	1.000
GT-1824-1500-58-R01	0.718	0.118	0.630	55.35	59.05	2.21	59.17	1.000
GT-1864-1500-58-R01	0.734	0.118	0.630	55.81	59.05	2.21	59.17	1.000
GT-1905-1500-59-R01	0.750	0.118	0.630	55.35	59.05	2.76	59.17	1.250
GT-2062-1500-59-R01	0.812	0.118	0.630	55.24	59.05	2.76	59.18	1.250
GT-2223-1500-59-R01	0.875	0.134	0.630	55.13	59.05	2.76	59.19	1.250
GT-2380-1500-59-R01	0.937	0.134	0.630	55.02	59.05	2.76	59.19	1.250
GT-2540-1500-59-R01	1.000	0.146	0.630	54.98	59.05	2.76	59.20	1.250



DEEPTRIO^{GD}™ CROSS-HOLE GUNDRILLS (INCH)



Deep-Trio Gundrills are made to order per application. Use the following guideline to determine the Description:

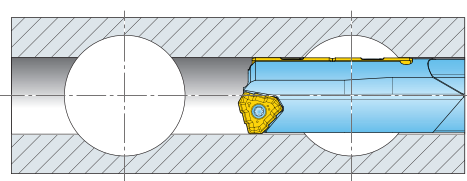
GTADP **XXXX** **YYYY** **ZZ** **RXX**
 Series Drill Dia. (mm) Drill Length (OAL) (mm) Driver Variation

Example:
 .75" diameter drill with 72" OAL and 1.00" driver = GTADP-1905-1828-58-RXX

Reference pages 12-15 for Insert and Guide Pad information.
 Reference page 9 for Driver information.

STANDARD ITEMS

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LU Usable Length Max.	LF Functional Length	LS Shank Length	OAL Overall Length	DCON Connection Dia.
NEW GTADP-1111-1524-S9-R01	0.437	0.071	1.26	56.58	60.00	2.76	60.07	1.25
GTADP-1427-1828-S9-R10	0.562	0.079	1.26	66.93	71.89	2.76	71.97	1.25
GTADP-1468-1524-S9-R01	0.578	0.079	1.26	55.00	60.20	2.76	60.28	1.25
GTADP-1468-1828-S9-R01	0.578	0.079	1.26	66.93	71.89	2.76	71.97	1.25
GTADP-1468-2286-S9-R01	0.578	0.079	1.26	84.72	89.92	2.76	90.00	1.25
GTADP-1506-1500-S9-R01	0.593	0.079	1.26	53.98	58.98	2.76	59.06	1.25
GTADP-1506-1828-S9-R01	0.593	0.079	1.26	66.89	71.89	2.76	71.97	1.25
GTADP-1824-1524-S9-R01	0.718	0.118	1.26	55.00	60.20	2.76	60.32	1.25
GTADP-1824-1828-S9-R01	0.718	0.118	1.26	66.65	71.65	2.76	71.77	1.25
GTADP-1824-2286-S9-R01	0.718	0.118	1.26	84.69	89.88	2.76	90.00	1.25
GTADP-1864-1500-S9-R01	0.734	0.118	1.26	53.70	58.94	2.76	59.06	1.25
GTADP-1864-1828-S9-R01	0.734	0.118	1.26	66.61	71.83	2.76	71.97	1.25
GTADP-2380-1500-S9-R01	0.937	0.126	1.26	52.76	58.93	2.76	59.06	1.25
GTADP-2380-1524-S9-R01	0.937	0.126	1.26	54.61	59.99	2.76	60.12	1.25
GTADP-2380-1828-S9-R01	0.937	0.126	1.26	65.67	71.84	2.76	71.97	1.25
GTADP-2380-2286-S9-R01	0.937	0.126	1.26	83.70	89.88	2.76	90.00	1.25
GTADP-2936-1828-S9-R01	1.156	0.102	1.26	66.52	71.97	2.76	92.07	1.25



For Cross-Hole Applications:
 Deep-Trio BTA, MC and GD with single row of guide pads can cross up to a .63" (16 mm) hole.
 Deep-Trio MC and GD with a double row of guide pads can cross up to a 1.26" (32 mm) hole.



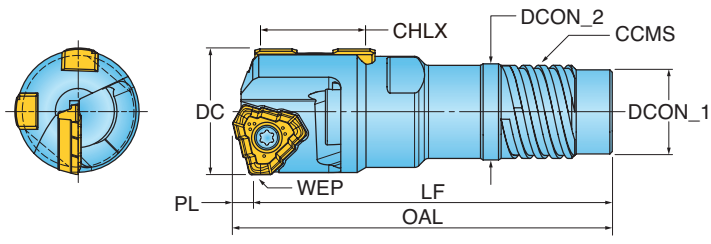
DEEPTRIO^{GD}™ STANDARD GUNDRILL DRIVERS

	Driver Type	Drawing	DCON	LS	Driver Code	Carbide Tipped Gun Drills	Solid Carbide Gun Drills
METRIC	Cylindrical DIN1835A DIN6535HA		10	40	05	●	●
			12	45	06	●	●
			16	48	08	●	●
			20	50	10	●	
			25	56	11	●	
	Weldon DIN1835B DIN6535HB		10	40	18	●	●
			12	45	19	●	●
			16	48	20	●	●
			20	50	22	●	●
			25	56	23	●	
	Whistle Notch DIN1835E		10	40	30	●	●
			12	45	31	●	●
			16	48	32	●	●
			20	50	34	●	●
			25	56	35	●	
	Whistle Notch DIN6535HE		10	40	40	●	●
			12	45	41	●	●
			16	48	42	●	●
			18	50	44	●	●
	Central clamping surface 15°		10	40	54	●	●
16			45	55	●		
25			70	57	●		
INCH	Central clamping surface 15°		.750	2.748	56	●	
			1.00	2.748	58	●	
	Central clamping tapered		.750	2.748	76	●	
	Frontal clamping surface 2°		.750	2.748	79	●	
			1.00	2.748	80	●	
	Cylindrical DIN1835A DIN6535HA		.500	1.781	94	●	
			.750	2.031	95	●	
			1.000	2.281	96	●	
			1.250	2.281	97	●	
1.250			2.755	59	●		
Weldon DIN1835B DIN6535HB		.500	1.781	98	●		
		.750	2.031	99	●		
		1.000	2.281	100	●		
		1.250	2.281	101	●		

● Recommended design



DEEPTRIO^{BTA}™ TBTA-DT DRILL HEADS **STS** Single Tube System **OUTER FOUR START THREAD**



Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LF Functional Length	OAL Overall Length	DCON Shank Dia.	DCON2 Shank Dia.	CCMS Connection Code	TUBE Part Number
TBTA-DTX.XXXSE4-14	.630 - .657	0.087	0.63	2.17	2.25	0.425	0.496	BTA SE4-14	BTSI014
TBTA-DTX.XXXSE4-15	.658 - .696	0.087	0.63	2.17	2.25	0.465	0.535	BTA SE4-15	BTSI015
TBTA-DTX.XXXSE4-16	.697 - .744	0.118	0.63	2.21	2.32	0.492	0.571	BTA SE4-16	BTSI016
TBTA-DTX.XXXSE4-17	.745 - .787	0.118	0.63	2.21	2.32	0.531	0.610	BTA SE4-17	BTSI017
TBTA-DTX.XXXSE4-18	.788 - .858	0.126	0.63	2.36	2.49	0.551	0.630	BTA SE4-18	BTSI018
TBTA-DTX.XXXSE4-20	.859 - .866	0.126	0.63	2.50	2.63	0.630	0.709	BTA SE4-20	BTSI020
TBTA-DTX.XXXSE4-20	.867 - .948	0.134	0.63	2.58	2.71	0.630	0.709	BTA SE4-20	BTSI020
TBTA-DTX.XXXSE4-22	.949 - .984	0.134	0.63	2.58	2.71	0.689	0.768	BTA SE4-22	BTSI020
TBTA-DTX.XXXSE4-22	.985 - 1.039	0.142	0.63	2.66	2.80	0.689	0.768	BTA SE4-22	BTSI022
TBTA-DTX.XXXSE4-24	1.040 - 1.102	0.142	0.63	2.66	2.80	0.748	0.827	BTA SE4-24	BTSI024
TBTA-DTX.XXXSE4-24	1.103 - 1.130	0.180	0.63	2.76	2.94	0.748	0.827	BTA SE4-24	BTSI024
TBTA-DTX.XXXSE4-26	1.130 - 1.220	0.180	0.63	2.95	3.13	0.827	0.925	BTA SE4-26	BTSI026
TBTA-DTX.XXXSE4-28	1.221 - 1.260	0.180	0.63	2.95	3.13	0.906	1.004	BTA SE4-28	BTSI028
TBTA-DTX.XXXSE4-28	1.261 - 1.311	0.214	0.63	2.95	3.13	0.906	1.004	BTA SE4-28	BTSI028
TBTA-DTX.XXXSE4-30	1.312 - 1.425	0.214	0.63	3.13	3.34	1.004	1.102	BTA SE4-30	BTSI030
TBTA-DTX.XXXSE4-33	1.426 - 1.559	0.214	0.63	3.52	3.74	1.063	1.181	BTA SE4-33	BTSI033
TBTA-DTX.XXXSE4-36	1.560 - 1.575	0.214	0.63	3.72	3.93	1.181	1.299	BTA SE4-36	BTSI036

STANDARD ITEMS

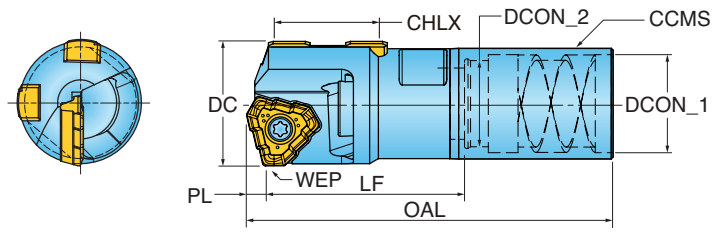
Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LF Functional Length	OAL Overall Length	DCON Shank Dia.	DCON2 Shank Dia.	CCMS Connection Code	TUBE Part Number
TBTA-DT.687SE4-15	0.687	0.087	0.566	2.165	2.252	0.465	0.535	BTA SE4-15	BTSI014
TBTA-DT.718SE4-16	0.718	0.118	0.629	2.205	2.323	0.492	0.571	BTA SE4-16	BTSI015
TBTA-DT.734SE4-16	0.734	0.118	0.629	2.205	2.323	0.492	0.571	BTA SE4-16	BTSI016
TBTA-DT.750SE4-17	0.750	0.118	0.629	2.205	2.323	0.531	0.610	BTA SE4-17	BTSI017
TBTA-DT.812SE4-18	0.812	0.126	0.629	2.362	2.488	0.531	0.630	BTA SE4-18	BTSI018
TBTA-DT.875SE4-20	0.875	0.134	0.629	2.579	2.713	0.630	0.709	BTA SE4-20	BTSI020
TBTA-DT.937SE4-20	0.937	0.134	0.629	2.579	2.713	0.630	0.709	BTA SE4-20	BTSI020
TBTA-DT1.000SE4-22	1.000	0.142	0.629	2.657	2.799	0.689	0.768	BTA SE4-22	BTSI022
TBTA-DT1.031SE4-22	1.031	0.142	0.629	2.657	2.799	0.689	0.768	BTA SE4-22	BTSI022
TBTA-DT1.250SE4-28	1.250	0.214	0.629	2.933	2.950	0.906	1.004	BTA SE4-28	BTSI028
TBTA-DT1.299SE4-28	1.299	0.214	0.629	2.933	2.950	0.906	1.004	BTA SE4-28	BTSI028
TBTA-DT1.375SE4-30	1.375	0.214	0.629	3.130	3.344	1.004	1.102	BTA SE4-30	BTSI030
TBTA-DT1.378SE4-30	1.378	0.214	0.629	3.130	3.344	1.004	1.102	BTA SE4-30	BTSI030
TBTA-DT1.456SE4-33	1.456	0.214	0.629	3.524	3.737	1.063	1.181	BTA SE4-33	BTSI033
TBTA-DT1.496SE4-33	1.496	0.214	0.629	3.524	3.737	1.063	1.181	BTA SE4-33	BTSI033
TBTA-DT1.500SE4-33	1.500	0.214	0.629	3.524	3.737	1.063	1.181	BTA SE4-33	BTSI033
TBTA-DT1.575SE4-36	1.575	0.214	0.629	3.720	3.934	1.181	1.299	BTA SE4-36	BTSI036



DEEPTRIO^{BTA}™ TBTA-DT DRILL HEADS



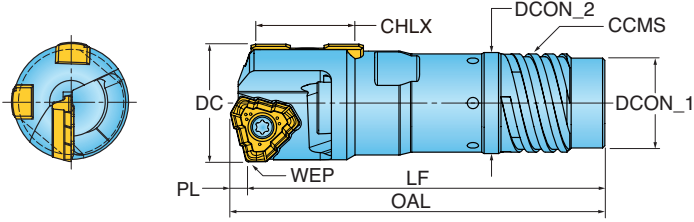
INNER SINGLE START THREAD



Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LF Functional Length	OAL Overall Length	DCON1 Shank Dia.	DCON2 Shank Dia.	CCMS Connection Code	TUBE Part Number
TBTA-DTX.XXXSI1-13A	0.629	0.087	0.63	2.11	2.19	0.488	0.425	BTA SI1-13A	BTSE013A
TBTA-DTX.XXXSI1-13B	.630 - .649	0.087	0.63	2.11	2.19	0.500	0.437	BTA SI1-13B	BTSE013B
TBTA-DTX.XXXSI1-14A	.650 - .679	0.087	0.63	2.11	2.19	0.528	0.465	BTA SI1-14A	BTSE014A
TBTA-DTX.XXXSI1-14B	.680 - .708	0.087	0.63	2.11	2.19	0.539	0.476	BTA SI1-14B	BTSE014B
TBTA-DTX.XXXSI1-15	.709 - .748	0.118	0.63	2.11	2.22	0.567	0.504	BTA SI1-15	BTSE015
TBTA-DTX.XXXSI1-16.5	.749 - .787	0.126	0.63	2.11	2.23	0.606	0.543	BTA SI1-16.5	BTSE016.5
TBTA-DTX.XXXSI1-18	.788 - .866	0.126	0.63	2.28	2.41	0.650	0.571	BTA SI1-18	BTSE018
TBTA-DTX.XXXSI1-20	.867 - .984	0.134	0.63	2.36	2.50	0.748	0.630	BTA SI1-20	BTSE020
TBTA-DTX.XXXSI1-22	.985 - 1.062	0.142	0.63	2.56	2.70	0.787	0.669	BTA SI1-22	BTSE022
TBTA-DTX.XXXSI1-24	1.063 - 1.102	0.142	0.63	2.56	2.70	0.866	0.748	BTA SI1-24	BTSE024
TBTA-DTX.XXXSI1-24	1.103 - 1.181	0.181	0.63	2.76	2.94	0.866	0.748	BTA SI1-24	BTSE024
TBTA-DTX.XXXSI1-26	1.182 - 1.259	0.181	0.63	2.95	3.13	0.945	0.827	BTA SI1-26	BTSE026
TBTA-DTX.XXXSI1-28	1.260 - 1.260	0.181	0.63	2.95	3.13	1.024	0.906	BTA SI1-28	BTSE028
TBTA-DTX.XXXSI1-28	1.261 - 1.338	0.213	0.63	2.93	3.15	1.024	0.906	BTA SI1-28	BTSE028
TBTA-DTX.XXXSI1-30	1.339 - 1.456	0.212	0.63	3.52	3.74	1.063	0.945	BTA SI1-30	BTSE030
TBTA-DTX.XXXSI1-33	1.457 - 1.535	0.213	0.63	3.72	3.93	1.181	1.063	BTA SI1-33	BTSE033
TBTA-DTX.XXXSI1-33	1.536 - 1.574	0.213	0.98	3.72	3.93	1.181	1.063	BTA SI1-33	BTSE033
TBTA-DTX.XXXSI1-36	1.575 - 1.575	0.213	0.98	3.92	4.13	1.299	1.181	BTA SI1-36	BTSE036



DEEPTRIO^{BTA}™ TBTA-DT DRILL HEADS **DTS** OUTER FOUR START THREAD
Double Tube System



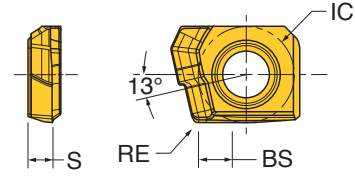
Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LF Functional Length	OAL Overall Length	DCON1 Shank Dia.	DCON2 Shank Dia.	CCMS Connection Code	TUBE Part No. (Outer)	TUBE Part No. (Inner)
TBTA-DTX.XXXDE4-18	.725 - .787	0.118	0.63	2.40	2.19	0.551	0.630	BTA DE4-18	BTDO018	BTDI012
TBTA-DTX.XXXDE4-19.5	.788 - .858	0.126	0.63	2.50	2.19	0.630	0.709	BTA DE4-19.5	BTDO019.5	BTDI014
TBTA-DTX.XXXDE4-21.5	.859 - .866	0.126	0.63	2.50	2.19	0.689	0.768	BTA DE4-21.5	BTDO021.5	BTDI015
TBTA-DTX.XXXDE4-21.5	.867 - .948	0.134	0.63	2.58	2.19	0.689	0.768	BTA DE4-21.5	BTDO021.5	BTDI015
TBTA-DTX.XXXDE4-23.5	.949 - .984	0.134	0.63	2.58	2.22	0.748	0.837	BTA DE4-23.5	BTDO023.5	BTDI016
TBTA-DTX.XXXDE4-23.5	.985 - 1.039	0.142	0.63	2.66	2.23	0.748	0.837	BTA DE4-23.5	BTDO023.5	BTDI016
TBTA-DTX.XXXDE4-26	1.040 - 1.102	0.142	0.623	2.78	2.41	0.827	0.925	BTA DE4-26	BTDO026	BTDI018
TBTA-DTX.XXXDE4-26	1.103 - 1.130	0.181	0.63	2.95	3.13	0.827	0.925	BTA DE4-26	BTDO026	BTDI018
TBTA-DTX.XXXDE4-28	1.131 - 1.181	0.181	0.63	2.95	3.13	0.906	1.004	BTA DE4-28	BTDO028	BTDI020
TBTA-DTX.XXXDE4-28	1.182 - 1.220	0.181	0.63	2.95	3.13	0.906	1.004	BTA DE4-28	BTDO028	BTDI020
TBTA-DTX.XXXDE4-30.5	1.221 - 1.260	0.181	0.63	3.15	3.33	1.004	1.102	BTA DE4-30.5	BTDO030.5	BTDI022
TBTA-DTX.XXXDE4-30.5	1.261 - 1.311	0.213	0.63	3.13	3.34	1.004	1.102	BTA DE4-30.5	BTDO030.5	BTDI022
TBTA-DTX.XXXDE4-33	1.312 - 1.425	0.212	0.63	3.52	3.74	1.063	1.181	BTA DE4-33	BTDO033	BTDI024
TBTA-DTX.XXXDE4-35.5	1.426 - 1.535	0.213	0.63	3.72	3.93	1.181	1.299	BTA DE4-35.5	BTDO035.5	BTDI026
TBTA-DTX.XXXDE4-35.5	1.536 - 1.559	0.213	0.98	3.72	3.93	1.181	1.299	BTA DE4-35.5	BTDO035.5	BTDI026
TBTA-DTX.XXXDE4-39	1.560 - 1.575	0.213	0.98	3.92	4.13	1.299	1.417	BTA DE4-39	BTDO039	BTDI029

STANDARD ITEMS

Part Number	DC Cutting Dia.	PL Point Length	CHLX Cross-Hole Length Max.	LF Functional Length	OAL Overall Length	DCON1 Shank Dia.	DCON2 Shank Dia.	CCMS Connection Code	TUBE Part No. (Outer)	TUBE Part No. (Inner)
TBTA-DT.750DE4-18	0.750	0.118	0.629	2.402	2.193	0.551	0.630	BTA DE4-18	BTDO018	BTDI012
TBTA-DT1.000DE4-23.5	1.000	0.142	0.629	2.657	2.232	0.748	0.837	BTA DE4-23.5	BTDO023.5	BTDI016



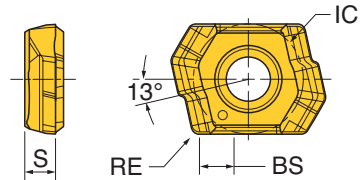
DEEPTRIO™ ZPHT INSERT **NEW**



Drill Diameter - inch (mm)	Insert Number	Dims (inch)		Grade
		IC Inscribed Circle	S Thickness	IN2005
.394 - .471" (10.00mm - 11.99mm)	ZPHT060204R-DT	0.236	0.059	•

• = Stocked Items

DEEPTRIO™ LPHT INSERT



Drill Diameter - inch (mm)	Insert Number	Dims (inch)		Grade
		IC Inscribed Circle	S Thickness	IN2005
.472 - .550" (12.00mm - 13.99mm)	LPHT060204R-DT	0.278	0.078	•

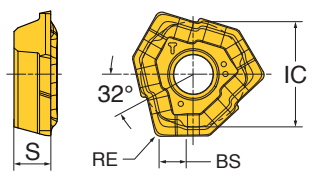
• = Stocked Items



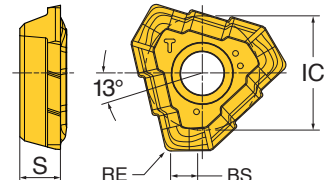
DEEPTRIO™ TPHT...-DT INSERTS



TPHT07...-DT - TPHT08...-DT



TPHT09...-DT - TPHT13...-DT



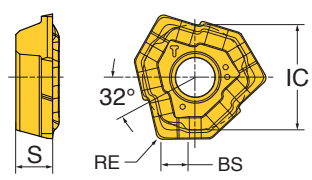
Drill Diameter - inch (mm)	Insert Number	Dims (inch)		Grade
		IC Inscribed Circle	S Thickness	IN2005
.551 - .629" (14.00mm - 15.99mm)	TPHT070304R-DT	0.302	0.090	•
.630 - .708" (16.00mm - 18.00mm)	TPHT080304R-DT	0.336	0.090	•
.709 - .787" (18.01mm - 20.00mm)	TPHT090305R-DT	0.328	0.118	•
.788 - .865" (20.01mm - 21.99mm)	TPHT100305R-DT	0.363	0.130	•
.866 - .984" (22.00mm - 25.00mm)	TPHT110405R-DT	0.409	0.150	•
.985 - 1.102" (25.01mm - 28.00mm)	TPHT120405R-DT	0.456	0.169	•
1.103 - 1.260" (28.01mm - 32.00mm)	TPHT130408R-DT	0.506	0.187	•
1.261 - 1.575" (32.01mm - 40.00mm)	TPHT140510R-DT	0.663	0.207	•

• = Stocked Items

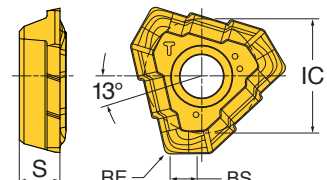
DEEPTRIO™ TPHT...-ML INSERTS



TPHT07...-DT - TPHT08...-DT



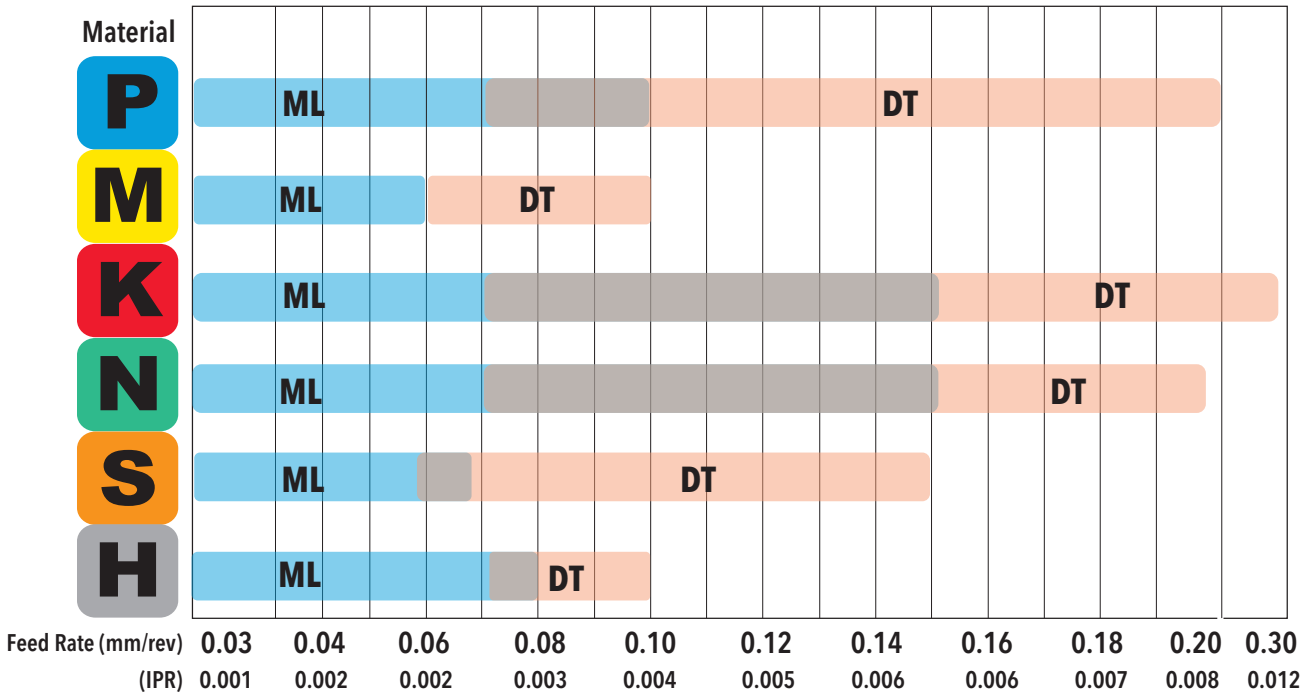
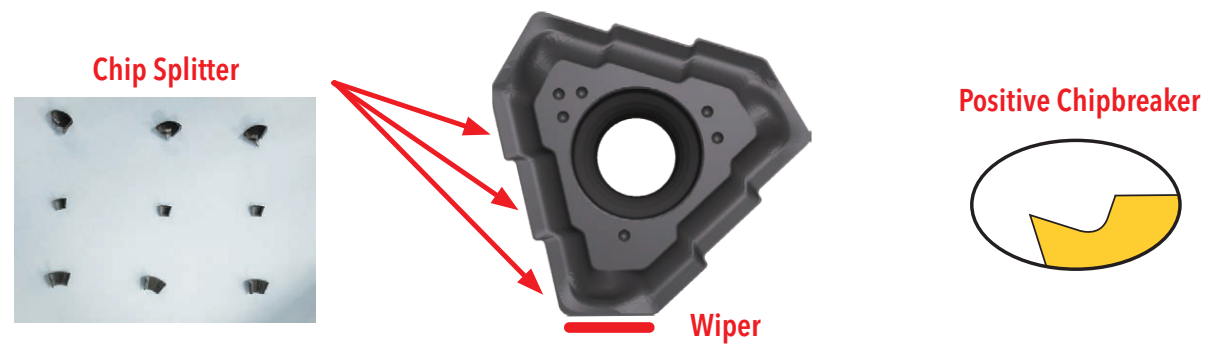
TPHT09...-DT - TPHT13...-DT



Drill Diameter - inch (mm)	Insert Number	Dims (inch)		Grade
		IC Inscribed Circle	S Thickness	IN2005
.551 - .629" (14.00mm - 15.99mm)	TPHT070304R-ML	0.302	0.090	•
.630 - .708" (16.00mm - 18.00mm)	TPHT080304R-ML	0.336	0.090	•
.709 - .787" (18.01mm - 20.00mm)	TPHT090305R-ML	0.328	0.118	•
.788 - .865" (20.01mm - 21.99mm)	TPHT100305R-ML	0.363	0.130	•
.866 - .984" (22.00mm - 25.00mm)	TPHT110405R-ML	0.409	0.150	•
.985 - 1.102" (25.01mm - 28.00mm)	TPHT120405R-ML	0.456	0.169	•
1.103 - 1.260" (28.01mm - 32.00mm)	TPHT130408R-ML	0.506	0.187	•

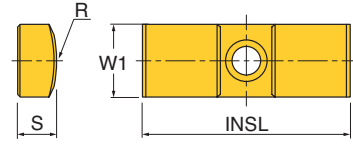
• = Stocked Items

DEEPTRIO™ TPHT INSERT FEATURES

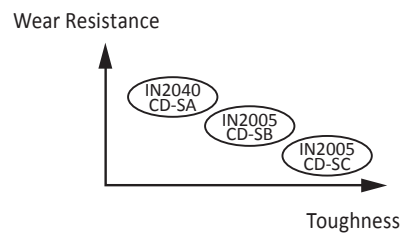




DEEPTRIO™ GUIDE PADS - MC/GD



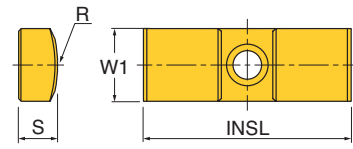
GRADE APPLICATION



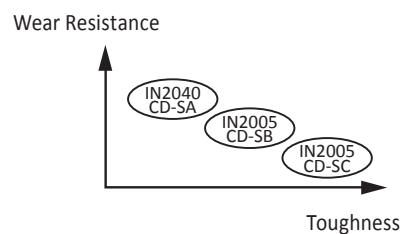
Drill Diameter - inch (mm)	Guide Pad Size	Dims (inch)				Grades		
		W1	S	INSL	R	IN2040 (CD-SA)	IN2005 (CD-SB)	IN2030 (CD-SC)
NEW .394" - .432" (10.00mm - 10.99mm)	PAD-GP04-016-045	0.157	0.071	0.63	0.177	•	•	•
NEW .434" - .472" (11.00mm - 11.99mm)	PAD-GP04-016-050	0.157	0.071	0.63	0.197	•	•	•
.472" - .550" (12.00mm - 13.99mm)	PAD-GP04-016-055	0.157	0.078	0.629	0.216	•	•	•
.551" - .708" (14.00mm - 18.00mm)	PAD-GP05-018-060	0.196	0.098	0.708	0.295	•	•	•
.709" - .826" (18.01mm - 20.99mm)	PAD-GP06-020-085	0.236	0.118	0.787	0.346	•	•	•
.827" - .865" (21.00mm - 21.99mm)	PAD-GP06-020-100	0.236	0.118	0.787	0.394	•	•	•
.866" - 1.180" (22.00mm - 29.99mm)	PAD-GP06-020-120	0.236	0.118	0.787	0.472	•	•	•
1.181" - 1.535" (30.00mm - 38.99mm)	PAD-GP07-020-120	0.276	0.138	0.787	0.472	•	•	•
1.536" - 1.575" (39.00mm - 40.00mm)	PAD-GP08-025-155	0.315	0.177	0.984	0.610	•	•	•

• = Stocked Items

DEEPTRIO™ GUIDE PADS - BTA



GRADE APPLICATION

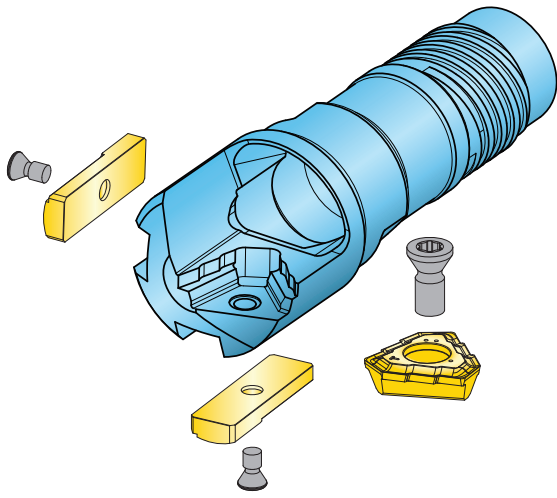


Drill Diameter - inch (mm)	Guide Pad Size	Dims (inch)				Grades		
		W1	S	INSL	R	IN2040 (CD-SA)	IN2005 (CD-SB)	IN2030 (CD-SC)
630 - 709" (16.00mm - 18.00mm)	PAD-GP06-020-075	0.236	0.118	0.787	0.295	•	•	•
.710" - .858" (18.01mm - 21.79mm)	PAD-GP06-020-085	0.236	0.118	0.787	0.346	•	•	•
.859" - 1.039" (21.80mm - 26.39mm)	PAD-GP06-020-100	0.236	0.118	0.787	0.394	•	•	•
1.040" - 1.180" (26.40mm - 29.99mm)	PAD-GP06-020-120	0.236	0.118	0.787	0.472	•	•	•
1.181" - 1.260" (30.00mm - 32.00mm)	PAD-GP07-020-120	0.276	0.138	0.787	0.472	•	•	•

• = Stocked Items



DEEPTRIO™ PARTS LIST - BTA

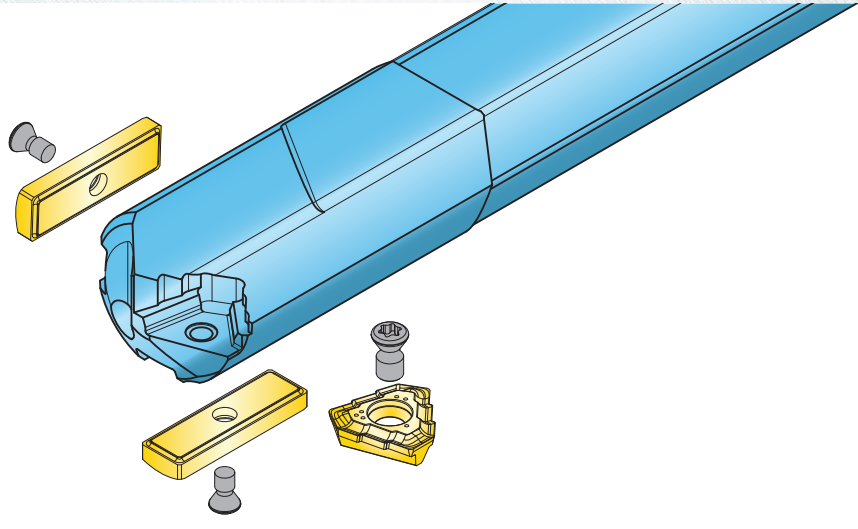


Components		Drill Diameter (inch)				
		.630 - .697	.698 - .709	.710 - .787	.788 - 858	.859 - 1.039
Insert	Part No.	TPHT080305R	TPHT090305R	TPHT090305R	TPHT100305R	TPHT110405R
	Screw	CSTB2.5S	CSTB2.5S	CSTB2.5S	CSTB3S	CSTB3.5H
	Wrench	T-8F	T-8F	T-8F	T-9F	T-15F
Guide Pads	Part No.	PAD-GP06-020-075	PAD-GP06-020-075	PAD-GP06-020-085	PAD-GP06-020-085	PAD-GP06-020-100
	Screw	CSTB2.2S	CSTB2.2S	CSTB2.2S	CSTB2.2S	CSTB2.2S
	Wrench	T-7F	T-7F	T-7F	T-7F	T-7F

Components		Drill Diameter (inch)				
		1.040 - 1.102	1.103 - 1.180	1.181 - 1.260	1.261 - 1.535	1.536 - 1.575
Insert	Part No.	TPHT120405R	TPHT130408R	TPHT130408R	TPHT140510R	TPHT140510R
	Screw	CSTB-4S	SR16-212/L10	SR16-212/L10	SR16-212/L10	SR16-212/L10
	Wrench	T-15F	T-20/5	T-20/5	T-20/5	T-20/5
Guide Pads	Part No.	PAD-GP06-020-120	PAD-GP06-020-120	PAD-GP07-020-120	PAD-GP07-020-120	PAD-GP08-025-155
	Screw	CSTB2.2S	CSTB2.2S	CSTB3S	CSTB-3S	CSTB-3S
	Wrench	T-7F	T-7F	T-9F	T-9F	T-9F



DEEPTRIO™ PARTS LIST - MC/GD



Components		Drill Diameter (inch)				
		.394 - .432	.432 - .464	.465 - .471	.472 - .550	.551 - .629

Insert	Part No.	ZPHT060204R	ZPHT060204R	LPHT060204R	LPHT060204R	TPHT070304R
	Screw	SR-M2.5X0.35L3.8	SR-M2.5X0.35L3.8	SR10503833L040	SR10503833L040	SR14-560/S
	Wrench	T-7F	T-7F	T-7F	T-7F	T-8F
Guide Pads	Part No.	PAD-GP04-016-045	PAD-GP04-016-050	PAD-GP04-016-050	PAD-GP04-016-055	PAD-GP05-018-060
	Screw	CSTB-2	CSTB-2	CSTB-2	CSPB-2L043	SR34-508
	Wrench	T-6F-S	T-6F-S	T-6F-S	IP-6F	T-7F

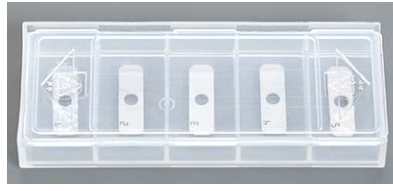
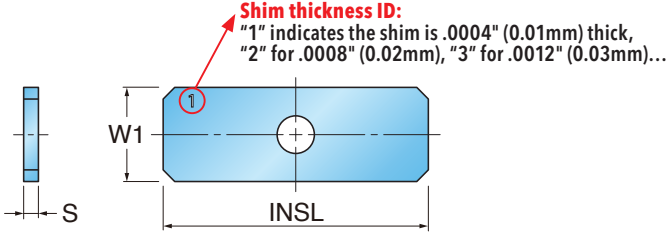
Components		Drill Diameter (inch)				
		.630 - .708	.709 - .787	.788 - .826	.827 - .865	.866 - .984

Insert	Part No.	TPHT080305R	TPHT090305R	TPHT100305R	TPHT100305R	TPHT110405R
	Screw	SR14-560/S	SR14-560/S	SR34-506	SR34-506	SR14-571/S
	Wrench	T-8F	T-8F	T-9F	T-9F	T-15F
Guide Pads	Part No.	PAD-GP05-018-060	PAD-GP06-020-085	PAD-GP06-020-085	PAD-GP06-020-100	PAD-GP06-020-120
	Screw	SR34-508	SR34-508	SR34-508	SR34-508	SR34-508
	Wrench	T-7F	T-7F	T-7F	T-7F	T-7F

Components		Drill Diameter (inch)		
		.985 - 1.102	1.103 - 1.180	1.181 - 1.260

Insert	Part No.	TPHT120405R	TPHT130408R	TPHT130408R
	Screw	SR14-506	SR16-212/L10	SR16-212/L10
	Wrench	T-15F	T-20/5	T-20/5
Guide Pads	Part No.	PAD-GP06-020-120	PAD-GP06-020-120	PAD-GP07-020-120
	Screw	SR34-508	SR34-508	CSTB-3L065
	Wrench	T-7F	T-7F	T-9F

DEEPTRIO™ DIAMETER ADJUSTING SHIMS

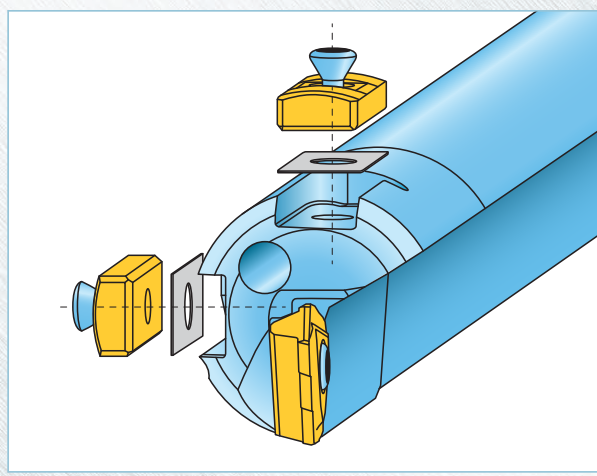


0.01mm / 0.02mm / 0.03mm / 0.04mm / 0.05mm
.0004" / .0008" / .0012" / .0016" / .0020"

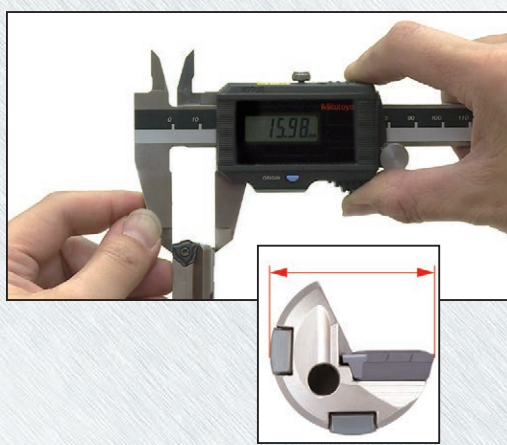
Part Number	W1 Width inch (mm)	INSL Length inch (mm)	S Thickness inch (mm)	Application Guide Pad Size
SHIMSET-GP04	.157 (4)	.626 (15.9)	.0004 - .0020 (0.01 - 0.05)	PAD-G004
SHIMSET-GP05	.197 (5)	.709 (18)	.0004 - .0020 (0.01 - 0.05)	PAD-G005
SHIMSET-GP06	.236 (6)	.787 (20)	.0004 - .0020 (0.01 - 0.05)	PAD-G006

- A shim set contains 5 shims in thicknesses of .0004" (0.01mm), .0008" (0.02mm), .0012" (0.03mm), .0016" (0.04mm) and .0020" (0.05mm), respectively.
- **Adjusting shims are sold by set only, not to be sold separately.**

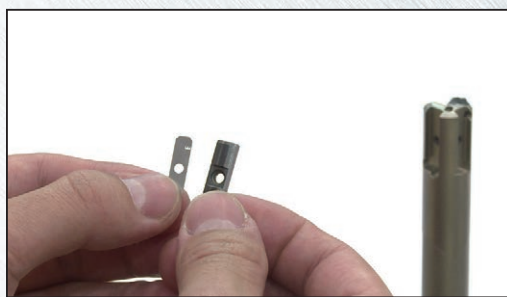
Diameter Adjustments inch (mm)	Shim(s) for measuring guide pad inch (mm)	Shim(s) for supporting guide pad inch (mm)	Number of shim sets needed
+0.0004 (+0.01)	.0004 (0.01)	-	1
+0.0008 (+0.02)	.0008 (0.02)	.0004 (0.01)	1
+0.0012 (+0.03)	.0012 (0.03)	.0004 + .0008 (0.01 + 0.02)	1
+0.0016 (+0.04)	.0016 (0.04)	.0004 + .0012 (0.01 + 0.03)	1
+0.0020 (+0.05)	.0020 (0.05)	.0008 + .0012 (0.02 + 0.03)	1
+0.0024 (+0.06)	.0004 + .0020 (0.01 + 0.05)	.0008 + .0016 (0.02 + 0.04)	1
+0.0028 (+0.07)	.0008 + .0020 (0.02 + 0.05)	.0012 + .0016 (0.03 + 0.04)	1
+0.0031 (+0.08)	.0012 + .0020 (0.03 + 0.05)	.0016 + .0016 (0.04 + 0.04)	2
+0.0035 (+0.09)	.0016 + .0020 (0.04 + 0.05)	.0016 + .0020 (0.04 + 0.05)	2
+0.0039 (+0.10)	.0020 + .0020 (0.05 + 0.05)	.0016 + .0016 + .0008 (0.04 + 0.04 + 0.02)	2



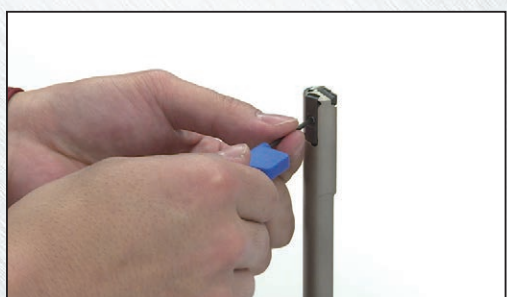
DEEPTRIO™ HOW TO INSTALL ADJUSTING SHIMS



STEP 1:
 Measure the Deep•Trio drill diameter between the measuring guide pad and the insert cutting edge. If a presetter is not available, use a micrometer or caliper. For a precise drill diameter measurement, it is recommended to test-drill a hole and measure the hole diameter.



STEP 2:
 Select the shim combinations according to the chart on Page 15 to obtain the required hole diameter. Take into consideration that the actual diameter of the drilled hole tends to be slightly larger (usually +.0008" to +.0012") than the drill's nominal diameter – i.e. add .0008"-.0012" to the measured drill diameter in Step 1 above before the final drill diameter.



STEP 3:
 Remove the guide pads.



STEP 5:
 Measure the drill diameter again to confirm the required diameter is obtained on the Deep•Trio.

STEP 6:
 Test drill a hole to confirm that the required hole diameter is achieved.

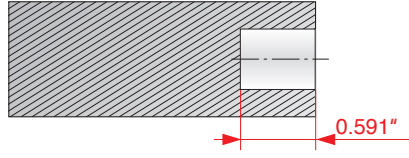


DEEPTRIO™ TRH HEAD

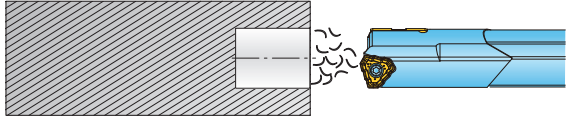
Now Available! The TRH brazed head of the Deep Trio tools are now available as a separate item which allows customers to repair their Deep Trio tools by brazing a new head onto the body after removing the old one.

	Type	Tool Dia(mm)	Tool Dia(in)	Part Number		
	1 insert type (metric)	12.70	0.500	TRH-12.70MKT		
		14.00	0.551	TRH-14.00 MKT		
		14.50	0.571	TRH-14.50 MKT		
		15.00	0.591	TRH-15.00 MKT		
		16.00	0.630	TRH-16.00 MKT		
		16.50	0.650	TRH-16.50 MKT		
		17.00	0.669	TRH-17.00 MKT		
		17.50	0.689	TRH-17.50 MKT		
		18.00	0.709	TRH-18.00 MKT		
		18.50	0.728	TRH-18.50 MKT		
		19.00	0.748	TRH-19.00 MKT		
		19.50	0.768	TRH-19.50 MKT		
		20.00	0.787	TRH-20.00 MKT		
		21.00	0.827	TRH-21.00 MKT		
		22.00	0.866	TRH-22.00 MKT		
		22.50	0.886	TRH-22.50 MKT		
		23.00	0.906	TRH-23.00 MKT		
		23.50	0.925	TRH-23.50 MKT		
		24.00	0.945	TRH-24.00 MKT		
		25.00	0.984	TRH-25.00 MKT		
		26.00	1.024	TRH-26.00 MKT		
		27.00	1.063	TRH-27.00 MKT		
		28.00	1.102	TRH-28.00 MKT		
			1 insert type (inch)	12.70	0.500	TRH-12.70 MKT
				14.30	0.563	TRH-14.30 MKT
				15.90	0.626	TRH-15.90 MKT
				17.50	0.689	TRH-17.50 MKT
				19.10	0.752	TRH-19.10 MKT
20.60	0.811			TRH-20.60 MKT		
22.20	0.874			TRH-22.20 MKT		
23.80	0.937			TRH-23.80 MKT		
25.40	1.000			TRH-25.40 MKT		
28.60	1.126			TRH-28.60 MKT		
31.80	1.252	TRH-31.80 MKT				
	Cross hole type	14.00	0.551	TRH-14.00CH MKT		
		15.00	0.591	TRH-15.00CH MKT		
		16.00	0.630	TRH-16.00CH MKT		
		17.00	0.669	TRH-17.00CH MKT		
		18.00	0.709	TRH-18.00CH MKT		
		19.00	0.748	TRH-19.00CH MKT		
		20.00	0.787	TRH-20.00CH MKT		
		21.00	0.827	TRH-21.00CH MKT		
		22.00	0.866	TRH-22.00CH MKT		
		23.00	0.906	TRH-23.00CH MKT		
		24.00	0.945	TRH-24.00CH MKT		
		25.00	0.984	TRH-25.00CH MKT		
26.00	1.024	TRH-26.00CH MKT				
27.00	1.063	TRH-27.00CH MKT				
28.00	1.102	TRH-28.00CH MKT				

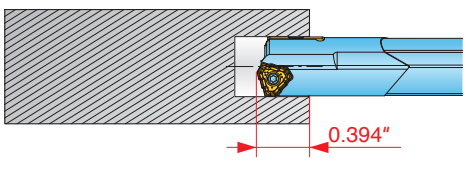
DEEPTRIO™ DRILLING PROCESS (STARTING)



1. Pilot Hole
Drill Diameter +0.0039" ~ +0.0012"
Depth = 0.591"

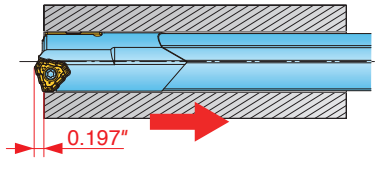


2. Approach - Rapid, Coolant On
Vc = 16 ~ 32 SFM
f = 0.02" ~ 0.039"/rev
Depth = 0.394"



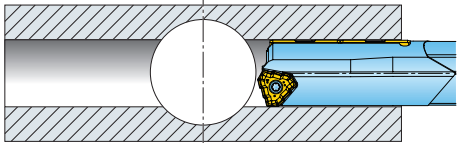
3. Enter Pilot Hole, Begin Drilling
0.394" ~ 0.984"
Vc: 100 %
f: 80 %

4. Drill Feed After 1.00"
Vc: 100 %
f: 100 %

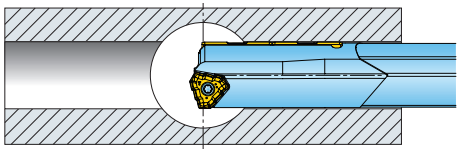


5. Retract. Stop rotation and coolant before moving the drill back to starting position.

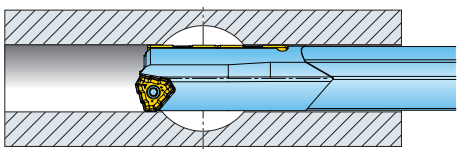
DEEPTRIO™ DRILLING PROCESS (CROSS-HOLES)



1. 1 - 2 mm before cross-hole
Reduce feed by 30 - 50%
Maintain same RPM



2. Cross through hole
Maintain same RPM



3. 1 - 2 mm after cross-hole.
Resume original feed rate and RPM

***NOTE:**
Possible risks: To prevent injuries, do NOT operate any deep hole drill, which uses pre-drilled pilot hole, at full speed before entering the pilot hole. The deep hole drill may fracture due to vibration and cause injuries.
Counter measures: Do NOT operate the deep hole drill at full speed before engaging the pilot hole. Enter the pilot hole slowly at a speed of 50 - 100 RPM.



DEEPTRIO^{BTA}™ DRILL HEAD OPERATING PARAMETERS - DT

ISO	M'tl	Condition	Speed (SFM) .394" - .471"	Speed (SFM) .472" - .550"	Speed (SFM) .551" - 1.102"	DT Chip Breaker												
						Feed (in/rev)			Drill Diameter (in)									
						.394" - .465"	.466" - .471"	.472" - .550"	.551" - .708"	.709" - 1.260"	1.261" - 1.575"							
P	1	Low carbon steels (C < 0.3)	197 - 328	262 - 459	262 - 394	.002 - .006	.003 - .006	.002 - .004	.003 - .004	.003 - .004	.004 - .008							
	2																	
	3																	
	4	Carbon steels (C > 0.3)				.002 - .006	.003 - .006	.002 - .004	.003 - .004	.003 - .004	.003 - .004	.003 - .004	.004 - .008					
	5																	
	6	Low alloy steels				.002 - .003	.002 - .008	.002 - .004	.003 - .004	.003 - .004	.003 - .004	.004 - .008						
	7																	
	8																	
	9																	
	10	Alloy steels				.002 - .006	.003 - .006	.002 - .006	.003 - .006	.003 - .006	.003 - .008	.004 - .008						
	11																	
M	12	Stainless steels (Ferritic)	197 - 328	197 - 328	197 - 328	.002 - .006	.008 - .006	.002 - .004	.003 - .004	.003 - .004	.004 - .006							
	13	Stainless steels (Martensitic)																
	14	Stainless steels (Austenitic)										.002 - .003	.002 - .005					
K	15	Grey Cast Iron	197 - 328	262 - 459	197 - 459	.002 - .006	.003 - .010	.002 - .010	.003 - .010	.003 - .012	.004 - .012							
	16																	
	17	Nodular Cast Iron																
	18	Malleable cast iron																
	19																	
20																		
N	21	Aluminum Alloy Forging	197 - 328	328 - 656	328 - 656	.002 - .006	.003 - .008	.002 - .008	.003 - .008	.003 - .008	.004 - .010							
	22																	
	23																	
	24	Aluminum Alloy Casting																
	25																	
	26	Copper Alloy																
	27																	
	28																	
	29	Non-Metallic																
	30																	
S	31	High Temp Alloy, Inconel 718, etc.	66 - 164	66 - 164	66 - 164	.002 - .003	.003 - .006	.002 - .003	.002 - .003	.002 - .004	.002 - .005							
	32																	
	33																	
	34																	
	35	Titanium Alloy, Ti-Al-4V etc...										98 - 197	98 - 197	.002 - .005	.003 - .005	.003 - .006	.003 - .006	.004 - .007
	36																	
	37																	
H	38	Hardened steel >40HRC	66 - 164	164 - 328	131 - 328	.002 - .003	.002 - .003	.002 - .003	.002 - .003	.002 - .004	.002 - .005							
	39																	
	40	Chilled Cast Iron Cast Iron Hardened																
	41																	



DEEPTRIO^{BTA}™ DRILL HEAD OPERATING PARAMETERS - ML

ISO	Material	Condition	Speed (SFM)	ML Chip Breaker	
				Feed (in/rev) Drill Diameter (in)	
				.551" - .708"	.709" - 1.260"
P	1	Low carbon steels (C <0.3)	164 - 328	.001 - .004	.001 - .004
	2				
	3				
	4	Carbon steels (C >0.3)			.001 - .005
	5				
	6				
	7	Low alloy steels			.001 - .004
	8				
	9				
	10	Alloy steels			.001 - .005
	11				
M	12	Stainless steels (Ferritic)	164 - 328	.001 - .002	.001 - .002
	13	Stainless steels (Martensitic)			
	14	Stainless steels (Austenitic)			
K	15	Grey Cast Iron	164 - 328	.001 - .006	.001 - .007
	16				
	17				
	18	Nodular Cast Iron			
	19	Malleable cast iron			
20					
N	21	Aluminum Alloy Forging	262 - 525	.001 - .006	.001 - .006
	22				
	23	Aluminum Alloy Casting			
	24				
	25				
	26	Copper Alloy			
	27				
	28	Non-Metallic			
	29				
	30				
S	31	High Temp Alloy, Inconel 718, etc.	66 - 164	.001 - .002	.001 - .003
	32				
	33				
	34				
	35				
	36	Titanium Alloy, Ti-Al-4V etc...			
	37				
H	38	Hardened steel >40HRC	131 - 328	.001 - .003	.001 - .004
	39				
	40	Chilled Cast Iron Cast Iron _ Hardened			
	41				