

AccuPort 432®



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Features & Benefits

- Replaceable insert eliminates regrinding and resetting
- Absolute repeatability
- Excellent surface finish
- Eliminates the need for pre-drilling



**ALLIED MACHINE
& ENGINEERING CORP**



AccuPort 432®

Reference Page

AccuPort 432 Port Form Insert

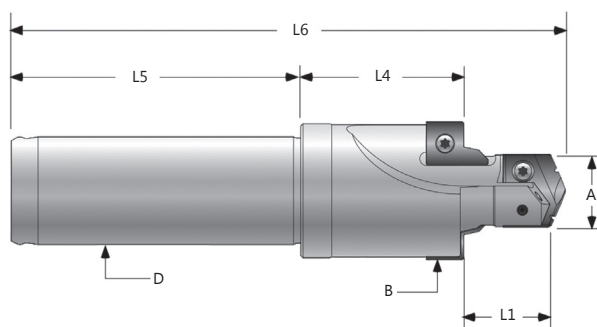
J1926	-	02	-	C5	A
↑		↑		↑	↑
Port Specification		Insert Size		Substrate	Coating
AS5202 J1926 X1926 I6149 G1731				C5 C3	A = TiAlN H = AM200®

AccuPort 432 Holder

J1926	-	04Y	-	063F
↑		↑		↑
Port Specification		Port Tube Dash Number	Corresponding T-A® Series	Shank Configuration
AS5202 J1926 X1926 I6149 G1731		04 14 05 16 06 20 08 24 10 32 12	Y 2 Z 3 0 4 1	063F 16FM 075F 20FM 100F 25FM 125F 32FM 150F 40FM

Made to order tool specifications - Priced on Request

Fax or mail a copy of the table below to Allied's Application Engineering Department (330) 364-7666 to receive pricing for a made-to-order AccuPort 432 Port Contour Cutter.



			A	L1	B	L4	D	L5	L6
Tube Dash Number	Specification	Port Thread Size	Minor Dia.	Minor Dia. Length	Spotface Dia.	Spotface to Shoulder Length	Shank Dia.	Shank Length	OAL
	☐ J1926 ☐ ISO 6149 ☐ ISO 6149 (without ridge) ☐ JDS-G173.1 ☐ AS5202								
Company Name		Contact Name				Telephone			
Distributor Name						Fax			

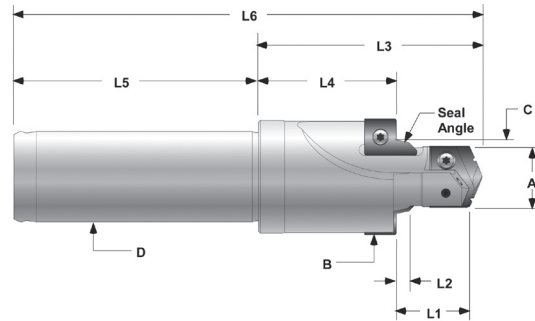
Port Standards

SAE J-1926 / ISO 11926-1 and MS-16142



Tube Dash Number	Port Contour Cutter Number	Port Thread Size	T-A® Drill Item Numbers				Port Form Insert Item Numbers			
			Super Cobalt GEN2 T-A® (AM200®)	Carbide GEN2 T-A (AM200)	Torx Plus Screw	Torx Plus Driver	C5 Carbide (TiAlN)	C3 Carbide (AM200)	Torx Plus Screw	Torx Plus Driver
-4	J1926-04Y-063F	7/16-20 UNF-2B	45YH-.386	4C1YH-.386	724-IP7-1	8IP-7	J1926-02-C5A	J1926-02-C3H	72556-IP8-1	8IP-8
-5	J1926-05Z-063F	1/2-20 UNF-2B	45ZH-11.5	4C1ZH-11.5	7247-IP7-1	8IP-7	J1926-03-C5A	J1926-03-C3H	72556-IP8-1	8IP-8
-6	J1926-060-075F	9/16-18 UNF-2B	450H-13	4C10H-13	72556-IP8-1	8IP-8	J1926-03-C5A	J1926-03-C3H	72556-IP8-1	8IP-8
-8	J1926-080-075F	3/4-16 UNF-2B	450H-0022	4C10H-0022	72567-IP8-1	8IP-8	J1926-07-C5A	J1926-07-C3H	72556-IP8-1	8IP-8
-10	J1926-101-100F	7/8-14 UNF-2B	451H-20.5	4C11H-20.5	7375-IP9-1	8IP-9	J1926-04-C5A	J1926-04-C3H	72556-IP8-1	8IP-8
-12	J1926-122-125F	1 1/16-12 UN-2B	452H-25	4C12H-25	7495-IP15-1	8IP-15	J1926-08-C5A	J1926-08-C3H	72556-IP8-1	8IP-8
-14	J1926-142-125F	1 3/16-12 UN-2B	452H-28	4C12H-28	7495-IP15-1	8IP-15	J1926-08-C5A	J1926-08-C3H	72556-IP8-1	8IP-8
-16	J1926-162-125F	1 5/16-12 UN-2B	452H-1.231	4C12H-1.231	7495-IP15-1	8IP-15	J1926-09-C5A	J1926-09-C3H	7375-IP9-1	8IP-9
-20	J1926-203-150F	1 5/8-12 UN-2B	453H-39	1C53A-39	7514-IP20-1	8IP-20	J1926-10-C5A	J1926-10-C3H	7375-IP9-1	8IP-9
-24	J1926-243-150F	1 7/8-12 UN-2B	453H-45.5	1C53A-45.5	7514-IP20-1	8IP-20	J1926-11-C5A	J1926-11-C3H	7375-IP9-1	8IP-9
-32	J1926-324-150F	2 1/2-12 UN-2B	454H-61.5	N/A	7514-IP20-1	8IP-20	J1926-12-C5A	J1926-12-C3H	7375-IP9-1	8IP-9

Inserts sold separately



Tube Dash Number	Port Contour Cutter Number	Port Thread Size	Inch or Metric	A	**L1	B	Seal Angle	C	L2	L3	L4	D	L5	L6
				Minor Dia.	Minor Dia. Length	Spotface Dia.		Seal Angle Dia.	Seal Angle Length	Total Head Length	Spotface to Shoulder Length	Shank Dia.	Shank Length	OAL
-4	J1926-04Y-063F	7/16-20 UNF-2B	mm	9,8	14,0	21,3	12°	12,5	2,7	38,8	22,8	15,9	47,6	86,4
			inch	0.386	0.551	0.840	12°	0.490	0.106	1.527	0.896	0.625	1.875	3.402
-5	J1926-05Z-063F	1/2-20 UNF-2B	mm	11,5	14,0	23,5	12°	14,1	2,7	38,8	22,5	15,9	47,6	86,4
			inch	0.453	0.551	0.926	12°	0.553	0.106	1.527	0.885	0.625	1.875	3.402
-6	J1926-060-075F	9/16-18 UNF-2B	mm	13,0	15,5	25,1	12°	15,7	2,7	47,2	29,0	19,1	50,0	97,2
			inch	0.512	0.610	0.989	12°	0.618	0.106	1.857	1.144	0.750	1.969	3.826
-8	J1926-080-075F	3/4-16 UNF-2B	mm	17,5	17,5	30,6	15°	20,7	2,7	50,3	29,2	19,1	50,0	100,4
			inch	0.689	0.689	1.206	15°	0.813	0.106	1.982	1.150	0.750	1.969	3.951
-10	J1926-101-100F	7/8-14 UNF-2B	mm	20,5	20,0	34,1	15°	24,0	2,7	54,4	30,1	25,4	57,9	112,3
			inch	0.807	0.787	1.344	15°	0.945	0.106	2.140	1.185	1.000	2.281	4.421
-12	J1926-122-125F	1 1/16-12 UN-2B	mm	25,0	23,0	42,0	15°	29,2	3,5	67,1	38,9	31,8	57,9	125,0
			inch	0.984	0.906	1.655	15°	1.150	0.138	2.640	1.530	1.250	2.281	4.921
-14	J1926-142-125F	1 3/16-12 UN-2B	mm	28,0	23,0	45,2	15°	32,4	3,5	67,1	38,2	31,8	57,9	125,0
			inch	1.102	0.906	1.781	15°	1.276	0.138	2.640	1.504	1.250	2.281	4.921
-16	J1926-162-125F	1 5/16-12 UN-2B	mm	31,2	23,0	49,1	15°	35,6	3,5	67,1	37,5	31,8	57,9	125,0
			inch	1.231	0.906	1.934	15°	1.400	0.138	2.640	1.477	1.250	2.281	4.921
-20	J1926-203-150F	1 5/8-12 UN-2B	mm	39,0	23,0	58,5	15°	43,6	3,5	77,8	46,6	38,1	68,3	146,0
			inch	1.535	0.906	2.306	15°	1.715	0.138	3.062	1.835	1.500	2.688	5.750
-24	J1926-243-150F	1 7/8-12 UN-2B	mm	45,5	23,0	65,1	15°	49,9	3,5	77,8	45,2	38,1	68,3	146,0
			inch	1.791	0.906	2.564	15°	1.965	0.138	3.062	1.778	1.500	2.688	5.750
-32	J1926-324-150F	2 1/2-12 UN-2B	mm	61,5	23,0	88,1	15°	65,8	3,5	96,8	60,8	38,1	68,3	165,1
			inch	2.421	0.906	3.470	15°	2.589	0.138	3.812	2.393	1.500	2.688	6.500

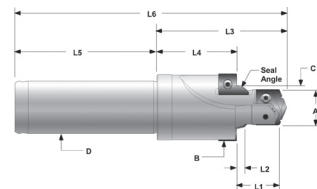
** AccuPort 432 Port Contour Cutters are available with extended pilot (L1), see page 206.
For details on tools made to your requirements, see page 204.

All AccuPort Holders are stocked standard items



Port Standards

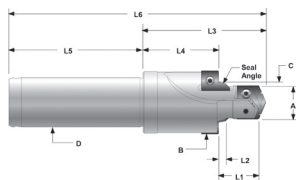
SAE J-1926 / ISO 11926-1 and MS-16142



Metric Shank

Tube Dash Number	Port Contour Cutter Number	Port Thread Size	Inch or Metric	A	L1	B	Seal Angle	C	L2	L3	L4	D	L5	L6
				Minor Dia.	Minor Dia. Length	Spotface Dia.		Seal Angle Dia.	Seal Angle Length	Total Head Length	Spotface to Shoulder Length	Shank Dia.	Shank Length	OAL
-4	J1926-04Y-16FM	7/16-20 UNF-2B	mm	9,8	14,0	21,3	12°	12,5	2,7	45,1	22,8	16,0	41,9	80,7
			inch	0.386	0.551	0.840	12°	0.490	0.106	1.777	0.896	0.630	1.650	3.18
-5	J1926-05Z-16FM	1/2-20 UNF-2B	mm	11,5	14,0	23,5	12°	14,1	2,7	45,1	22,5	16,0	41,9	80,7
			inch	0.453	0.551	0.926	12°	0.553	0.106	1.777	0.885	0.630	1.650	3.18
-6	J1926-060-20FM	9/16-18 UNF-2B	mm	13,0	15,5	25,1	12°	15,7	2,7	47,2	29,0	20,0	41,9	89,1
			inch	0.512	0.610	0.989	12°	0.618	0.106	1.857	1.144	0.787	1.650	3.51
-8	J1926-080-20FM	3/4-16 UNF-2B	mm	17,5	17,5	30,6	15°	20,7	2,7	50,3	29,2	20,0	41,9	92,3
			inch	0.689	0.689	1.206	15°	0.813	0.106	1.982	1.150	0.787	1.650	3.63
-10	J1926-101-25FM	7/8-14 UNF-2B	mm	20,5	20,0	34,1	15°	24,0	2,7	54,4	30,1	25,0	53,1	107,4
			inch	0.807	0.787	1.344	15°	0.945	0.106	2.140	1.185	0.984	2.091	4.23
-12	J1926-122-32FM	1 1/16-12 UN-2B	mm	25,0	23,0	42,0	15°	29,2	3,5	67,1	38,9	32,0	57,9	125,0
			inch	0.984	0.906	1.655	15°	1.150	0.138	2.640	1.530	1.260	2.280	4.92
-14	J1926-142-32FM	1 3/16-12 UN-2B	mm	28,0	23,0	45,2	15°	32,4	3,5	67,1	38,2	32,0	57,9	125,0
			inch	1.102	0.906	1.781	15°	1.276	0.138	2.640	1.504	1.260	2.280	4.92
-16	J1926-162-32FM	1 5/16-12 UN-2B	mm	31,2	23,0	49,1	15°	35,6	3,5	67,1	37,5	32,0	57,9	125,0
			inch	1.231	0.906	1.934	15°	1.400	0.138	2.640	1.477	1.260	2.280	4.92
-20	J1926-203-32FM*	1 5/8-12 UN-2B	mm	39,0	23,0	58,5	15°	43,6	3,5	77,8	46,6	32,0	65,5	143,3
			inch	1.535	0.906	2.306	15°	1.715	0.138	3.062	1.835	1.260	2.580	5.64
-24	J1926-243-32FM*	1 7/8-12 UN-2B	mm	45,5	23,0	65,1	15°	49,9	3,5	77,8	45,2	32,0	65,5	143,3
			inch	1.791	0.906	2.564	15°	1.965	0.138	3.062	1.778	1.260	2.580	5.64
-32	J1926-324-32FM*	2 1/2-12 UN-2B	mm	61,5	23,0	88,1	15°	65,8	3,5	96,8	60,8	32,0	65,5	162,3
			inch	2.421	0.906	3.470	15°	2.589	0.138	3.812	2.393	1.260	2.580	6.39

*NOTICE: Due to the cutting forces generated by this tool, a mechanical chuck is required. Please contact Application Engineering with any questions.



All AccuPort Holders are stocked standard items

Extended Minor Dia. Lengths (L1)

Tube Dash Number	Port Contour Cutter Number	Port Thread Size	Inch or Metric	A	L1	B	Seal Angle	C	L2	L3	L4	D	L5	L6
				Minor Dia.	Minor Dia. Length	Spotface Dia.		Seal Angle Dia.	Seal Angle Length	Total Head Length	Spotface to Shoulder Length	Shank Dia.	Shank Length	OAL
-4	X1926-04Y-063F	7/16-20 UNF-2B	mm	9,8	20,3	21,3	12°	12,5	2,7	45,1	22,8	15,9	47,6	92,8
			inch	0.386	0.801	0.840	12°	0.490	0.106	1.777	0.896	0.625	1.875	3.65
-5	X1926-05Z-063F	1/2-20 UNF-2B	mm	11,5	20,3	23,5	12°	14,1	2,7	45,1	22,5	15,9	47,6	92,8
			inch	0.453	0.801	0.926	12°	0.553	0.106	1.777	0.885	0.625	1.875	3.65
-6	X1926-060-075F	9/16-18 UNF-2B	mm	13,0	21,8	25,1	12°	15,7	2,7	53,5	29,0	19,1	50,0	103,5
			inch	0.512	0.860	0.989	12°	0.618	0.106	2.107	1.144	0.750	1.969	4.07
-8	X1926-080-075F	3/4-16 UNF-2B	mm	17,5	23,8	30,6	15°	20,7	2,7	56,7	29,2	19,1	50,0	106,7
			inch	0.689	0.939	1.206	15°	0.813	0.106	2.232	1.150	0.750	1.969	4.20
-10	X1926-101-100F	7/8-14 UNF-2B	mm	20,5	26,3	34,1	15°	24,0	2,7	60,7	30,1	25,4	57,9	118,6
			inch	0.807	1.037	1.344	15°	0.945	0.106	2.390	1.185	1.000	2.281	4.67
-12	X1926-122-125F	1 1/16-12 UN-2B	mm	25,0	29,3	42,0	15°	29,2	3,5	73,4	38,9	31,8	57,9	131,3
			inch	0.984	1.156	1.655	15°	1.150	0.138	2.890	1.530	1.250	2.280	5.17
-14	X1926-142-125F	1 3/16-12 UN-2B	mm	28,0	29,3	45,2	15°	32,4	3,5	73,4	38,2	31,8	57,9	131,3
			inch	1.102	1.156	1.781	15°	1.276	0.138	2.890	1.504	1.250	2.281	5.17
-16	X1926-162-125F	1 5/16-12 UN-2B	mm	31,2	29,3	49,1	15°	35,6	3,5	73,4	37,5	31,8	57,9	131,3
			inch	1.231	1.156	1.934	15°	1.400	0.138	2.890	1.477	1.250	2.281	5.17
-20	X1926-203-150F	1 5/8-12 UN-2B	mm	39,0	29,3	58,5	15°	43,6	3,5	84,1	46,6	38,1	68,3	152,4
			inch	1.535	1.156	2.306	15°	1.715	0.138	3.312	1.835	1.500	2.688	6.00
-24	X1926-243-150F	1 7/8-12 UN-2B	mm	45,5	29,3	65,1	15°	49,9	3,5	84,1	45,2	38,1	68,3	152,4
			inch	1.791	1.156	2.564	15°	1.965	0.138	3.312	1.778	1.500	2.688	6.00
-32	X1926-324-150F	2 1/2-12 UN-2B	mm	61,5	29,3	88,1	15°	65,8	3,5	103,2	60,8	38,1	68,3	171,4
			inch	2.421	1.156	3.470	15°	2.589	0.138	4.062	2.393	1.500	2.688	6.75

All AccuPort Holders are stocked standard items

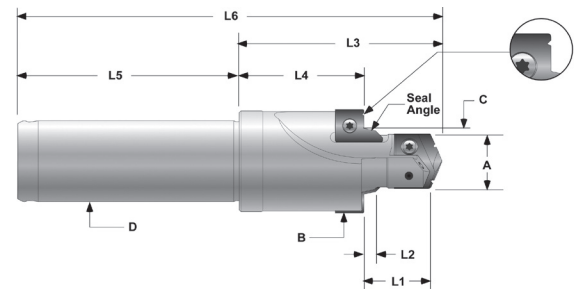
Port Standards

ISO 6149-1:2006 and SAE J-2244/1



Tube Dash Number	Port Contour Cutter Number	Port Thread Size	T-A® Drill Item Numbers				Port Form Insert Item Numbers					
			Super Cobalt GEN2 T-A (AM200)	Carbide GEN2 T-A (AM200)	Torx Plus Screw	Torx Plus Driver	C5 Carbide (TiAlN) with ID ridge	C5 Carbide (TiAlN) without ID ridge	C3 Carbide (AM200) with ID ridge	C3 Carbide (AM200) without ID ridge	Torx Plus Screw	Torx Plus Driver
-4	I6149-04RY-16FM	M12 X 1.5	45YH-10.5	4C1YH-10.5	724-IP7-1	8IP-7	I6149-04R-C5A	I6149-04-C5A	I6149-04R-C3H	I6149-04-C3H	72556-IP8-1	8IP-8
-5	I6149-05RZ-16FM	M14 X 1.5	45ZH-12.5	4C1ZH-12.5	7247-IP7-1	8IP-7	I6149-04R-C5A	I6149-04-C5A	I6149-04R-C3H	I6149-04-C3H	72556-IP8-1	8IP-8
-6	I6149-06R0-20FM	M16 X 1.5	450H-14.5	4C10H-14.5	72567-IP8-1	8IP-8	I6149-06R-C5A	I6149-06-C5A	I6149-06R-C3H	I6149-06-C3H	72556-IP8-1	8IP-8
-8	I6149-08R0-20FM	M18 X 1.5	450H-16.5	4C10H-16.5	72567-IP8-1	8IP-8	I6149-06R-C5A	I6149-06-C5A	I6149-06R-C3H	I6149-06-C3H	72556-IP8-1	8IP-8
-10	I6149-10R1-25FM	M22 X 1.5	451H-20.5	4C11H-20.5	7375-IP9-1	8IP-9	I6149-04R-C5A	I6149-04-C5A	I6149-04R-C3H	I6149-04-C3H	72556-IP8-1	8IP-8
-12	I6149-12R2-32FM	M27 X 2	452H-25	4C12H-25	7495-IP15-1	8IP-15	I6149-12R-C5A	I6149-12-C5A	I6149-12R-C3H	I6149-12-C3H	72556-IP8-1	8IP-8
-14	I6149-14R2-32FM	M30 X 2	452H-28	4C12H-28	7495-IP15-1	8IP-15	I6149-14R-C5A	I6149-14-C5A	I6149-14R-C3H	I6149-14-C3H	72556-IP8-1	8IP-8
-16	I6149-16R2-32FM	M33 X 2	452H-31	4C12H-31	7495-IP15-1	8IP-15	I6149-16R-C5A	I6149-16-C5A	I6149-16R-C3H	I6149-16-C3H	7375-IP9-1	8IP-9
-20	I6149-20R3-32FM*	M42 X 2	453H-40	1C53A-40	7514-IP20-1	8IP-20	I6149-20R-C5A	I6149-20-C5A	I6149-20R-C3H	I6149-20-C3H	7375-IP9-1	8IP-9
-24	I6149-24R3-32FM*	M48 X 2	453H-46	1C53A-46	7514-IP20-1	8IP-20	I6149-24R-C5A	I6149-24-C5A	I6149-24R-C3H	I6149-24-C3H	7375-IP9-1	8IP-9
-32	I6149-32R4-32FM*	M60 X 2	454H-58	N/A	7514-IP20-1	8IP-20	I6149-32R-C5A	I6149-32-C5A	I6149-32R-C3H	I6149-32-C3H	7375-IP9-1	8IP-9

***NOTICE:** Due to the cutting forces generated by this tool, a mechanical chuck is required. Please contact Application Engineering with any questions.



Tube Dash Number	Port Contour Cutter Number	Port Thread Size	Inch or Metric	A	L1	B	Seal Angle	C	L2	L3	L4	D	L5	L6
				Minor Dia.	Minor Dia. Length	Spotface Dia.		Seal Angle Dia.	Seal Angle Length	Total Head Length	Spotface to Shoulder Length	Shank Dia.	Shank Length	OAL
-4	I6149-04RY-16FM	M12 X 1.5	mm	10.5	14.1	24.0	15°	13.81	2.6	38.8	22.2	16.0	41.9	80.7
			inch	0.413	0.556	0.945	15°	0.544	0.102	1.527	0.876	0.630	1.650	3.18
-5	I6149-05RZ-16FM	M14 X 1.5	mm	12.5	14.1	26.0	15°	15.8	2.6	38.8	21.8	16.0	41.9	80.7
			inch	0.492	0.556	1.024	15°	0.623	0.102	1.527	0.858	0.630	1.650	3.18
-6	I6149-06R0-20FM	M16 X 1.5	mm	14.5	15.6	28.0	15°	17.8	2.6	47.2	28.3	20.0	41.9	89.1
			inch	0.571	0.615	1.102	15°	0.702	0.102	1.857	1.116	0.787	1.650	3.51
-8	I6149-08R0-20FM	M18 X 1.5	mm	16.5	17.1	30.0	15°	19.8	2.6	50.3	29.6	20.0	41.9	92.2
			inch	0.650	0.674	1.181	15°	0.781	0.102	1.982	1.164	0.787	1.650	3.63
-10	I6149-10R1-25FM	M22 X 1.5	mm	20.5	18.2	34.0	15°	23.8	2.6	54.4	31.6	25.0	53.1	107.5
			inch	0.807	0.717	1.339	15°	0.938	0.102	2.140	1.246	0.984	2.091	4.23
-12	I6149-12R2-32FM	M27 X 2	mm	25.0	22.2	40.0	15°	29.4	3.3	67.1	39.4	32.0	57.9	125.0
			inch	0.984	0.874	1.575	15°	1.159	0.130	2.640	1.552	1.260	2.280	4.92
-14	I6149-14R2-32FM	M30 X 2	mm	28.0	22.2	43.0	15°	32.4	3.3	67.1	38.8	32.0	57.9	125.0
			inch	1.102	0.874	1.693	15°	1.277	0.130	2.64	1.526	1.260	2.280	4.92
-16	I6149-16R2-32FM	M33 X 2	mm	31.0	22.2	49.0	15°	35.4	3.3	67.1	38.1	32.0	57.9	125.0
			inch	1.220	0.874	1.929	15°	1.395	0.130	2.640	1.499	1.260	2.280	4.92
-20	I6149-20R3-32FM*	M42 X 2	mm	40.0	22.7	60.0	15°	44.4	3.3	77.8	46.4	32.0	65.5	143.3
			inch	1.575	0.895	2.362	15°	1.749	0.130	3.062	1.828	1.260	2.580	5.64
-24	I6149-24R3-32FM*	M48 X 2	mm	46.0	25.2	66.1	15°	50.4	3.3	77.8	42.6	32.0	65.5	143.3
			inch	1.811	0.993	2.602	15°	1.985	0.130	3.062	1.676	1.260	2.580	5.64
-32	I6149-32R4-32FM*	M60 X 2	mm	58.0	27.7	76.0	15°	62.4	3.3	96.8	56.6	32.0	65.5	162.3
			inch	2.283	1.092	2.992	15°	2.458	0.130	3.812	2.228	1.260	2.580	6.39

***NOTICE:** Due to the cutting forces generated by this tool, a mechanical chuck is required. Please contact Application Engineering with any questions.

All AccuPort Holders are stocked standard items

AccuPort 432 Port Contour Cutters without ID ridges use same holder.
For details on tools made to your requirements, see page 204.

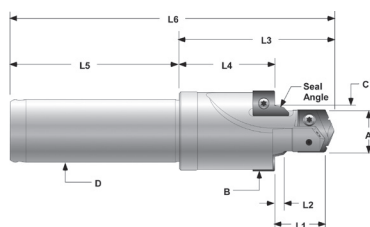


Port Standards

JDS-G173.1

Tube Dash Number	Port Contour Cutter Number	Port Thread Size	T-A® Drill Item Numbers				Port Form Insert Item Numbers		
			Super Cobalt GEN2 T-A® (AM200®)	Carbide GEN2 T-A (AM200)	Torx Plus Screw	Torx Plus Driver	C3 Carbide (AM200)	Torx Plus Screw	Torx Plus Driver
-4	G1731-04Y-16FM	M12x1.5	45YH-10.5	4C2YH-10.5	724-IP7-1	8IP-7	G1731-01-C3H	72556-IP8-1	8IP-8
-5	G1731-05Z-16FM	M14x1.5	45ZH-12.5	4C2ZH-12.5	7247-IP7-1	8IP-7	G1731-01-C3H	72556-IP8-1	8IP-8
-6	G1731-060-20FM	M16x1.5	450H-14.5	4C20H-14.5	72567-IP8-1	8IP-8	G1731-02-C3H	72556-IP8-1	8IP-8
-8	G1731-080-20FM	M18x1.5	450H-16.5	4C20H-16.5	72567-IP8-1	8IP-8	G1731-02-C3H	72556-IP8-1	8IP-8
-10	G1731-101-25FM	M22x1.5	451H-20.5	4C21H-20.5	739-IP9-1	8IP-9	G1731-02-C3H	72556-IP8-1	8IP-8
-12	G1731-122-32FM	M27x2	452H-25	4C22H-25	7495-IP15-1	8IP-15	G1731-03-C3H	72556-IP8-1	8IP-8
-14	G1731-142-32FM	M30x2	452H-28	4C22H-28	7495-IP15-1	8IP-15	G1731-03-C3H	72556-IP8-1	8IP-8
-16	G1731-162-32FM	M33x2	452H-31	4C22H-31	7495-IP15-1	8IP-15	G1731-04-C3H	7375-IP9-1	8IP-9
-18	G1731-183-32FM*	M38x2	453H-36	-	7514-IP20-1	8IP-20	G1731-04-C3H	7375-IP9-1	8IP-9
-20	G1731-203-32FM*	M42x2	453H-40	-	7514-IP20-1	8IP-20	G1731-05-C3H	7375-IP9-1	8IP-9
-24	G1731-243-32FM*	M48x2	453H-46	-	7514-IP20-1	8IP-20	G1731-05-C3H	7375-IP9-1	8IP-9
-32	G1731-324-32FM*	M60x2	454H-58	-	7514-IP20-1	8IP-20	G1731-06-C3H	7375-IP9-1	8IP-9
Cartridge Cavity	G1731-CV1-25FM	M20x1.5	451H-18.5	4C21H-18.5	739-IP9-1	8IP-9	G1731-02-C3H	72556-IP8-1	8IP-8

***NOTICE:** Due to the cutting forces generated by this tool, a mechanical chuck is required. Please contact Application Engineering with any questions.



Inserts sold separately

Tube Dash Number	Port Contour Cutter Number	Port Thread Size	Inch or Metric	A	L1	B	Seal Angle	C	L2	L3	L4	D	L5	L6
				Drill Dia.	Pilot Length	Spotface Dia.		Seal Angle Dia.	Seal Length	Body Length	Spotface to Shoulder Length	Shank Dia.	Shank Length	OAL
-4	G1731-04Y-16FM	M12x1.5	mm	10.5	18.0	24.0	15°	13.9	2.65	40.1	22.2	16.0	41.9	84.5
			inch	0.413	0.709	0.945	15°	0.547	0.104	1.58	0.875	0.630	1.650	3.32
-5	G1731-05Z-16FM	M14x1.5	mm	12.5	18.0	26.0	15°	15.9	2.65	40.1	21.8	16.0	41.9	84.5
			inch	0.492	0.709	1.024	15°	0.626	0.104	1.58	0.858	0.630	1.650	3.32
-6	G1731-060-20FM	M16x1.5	mm	14.5	19.0	29.0	15°	17.9	2.65	47.6	28.4	20.0	41.9	92.2
			inch	0.571	0.748	1.142	15°	0.705	0.104	1.87	1.117	0.787	1.650	3.63
-8	G1731-080-20FM	M18x1.5	mm	16.5	21.0	31.0	15°	19.9	2.65	51.2	29.5	20.0	41.9	95.8
			inch	0.650	0.827	1.220	15°	0.783	0.104	2.02	1.161	0.787	1.650	3.77
-10	G1731-101-25FM	M22x1.5	mm	20.5	22.0	35.0	15°	23.9	2.65	54.4	31.6	25.0	53.1	111.0
			inch	0.807	0.866	1.378	15°	0.941	0.104	2.14	1.246	0.984	2.090	4.37
-12	G1731-122-32FM	M27x2	mm	25.0	27.0	41.0	15°	29.5	3.35	68.1	39.4	32.0	57.9	129.6
			inch	0.984	1.063	1.614	15°	1.161	0.132	2.68	1.553	1.260	2.280	5.10
-14	G1731-142-32FM	M30x2	mm	28.0	27.0	44.0	15°	32.5	3.35	68.1	39.7	32.0	57.9	129.6
			inch	1.102	1.063	1.732	15°	1.280	0.132	2.68	1.526	1.260	2.280	5.10
-16	G1731-162-32FM	M33x2	mm	31.0	27.0	50.0	15°	35.5	3.35	68.1	38.1	32.0	57.9	129.6
			inch	1.221	1.063	1.969	15°	1.398	0.132	2.68	1.500	1.260	2.280	5.10
-18	G1731-183-32FM*	M38x2	mm	36.0	27.0	55.0	15°	40.5	3.35	76.6	46.8	32.0	65.5	146.8
			inch	1.417	1.063	2.165	15°	1.594	0.132	3.02	1.844	1.260	2.580	5.78
-20	G1731-203-32FM*	M42x2	mm	40.0	27.0	61.0	15°	44.5	3.35	76.6	45.9	32.0	65.5	146.8
			inch	1.575	1.063	2.402	15°	1.752	0.132	3.02	1.809	1.260	2.580	5.78
-24	G1731-243-32FM*	M48x2	mm	46.0	29.0	67.0	15°	50.5	3.35	76.6	42.8	32.0	65.5	146.8
			inch	1.811	1.142	2.638	15°	1.988	0.132	3.02	1.687	1.260	2.580	5.78
-32	G1731-324-32FM*	M60x2	mm	58.0	32.0	77.0	15°	62.5	3.35	96.1	58.4	32.0	65.5	166.4
			inch	2.284	1.260	3.031	15°	2.461	0.132	3.78	2.300	1.260	2.580	6.55
Cartridge Cavity	G1731-CV1-25FM	M20x1.5	mm	18.5	18.0	33.0	15°	21.9	2.65	50.8	32.5	25.0	53.1	107.4
			inch	0.728	0.709	1.299	15°	0.862	0.104	2.00	1.281	0.984	2.090	4.23

***NOTICE:** Due to the cutting forces generated by this tool, a mechanical chuck is required. Please contact Application Engineering with any questions.



Port Standards

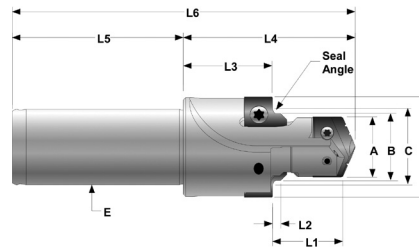
SAE AS5202 (Formerly MilSpec MS-33649)

Also conforms to AND10050 Using Alternate Tap Drill Dia. (shown in red)



Tube Dash Number	Port Contour Cutter Number	Port Thread Size	T-A® Drill Item Numbers				Port Form Insert Item Numbers		
			Super Cobalt GEN2 T-A® (AM200®)	Carbide GEN2 T-A (AM200)	Torx Plus Screw	Torx Plus Driver	C5 Carbide (TiAlN)	Torx Plus Screw	Torx Plus Driver
-4	AS5202-04Y-063F	7/16-20 UNJF-3B	45YH-.390	4C1YH-.390	724-IP7-1	8IP-7	AS5202-04-C5A	72556-IP8-1	8IP-8
		7/16-20 UNF-3B	45YH-.386	4C1YH-.386					
-5	AS5202-05Z-063F	1/2-20 UNJF-3B	45ZH-11.5	4C1ZH-11.5	7247-IP7-1	8IP-7	AS5202-05-C5A	72556-IP8-1	8IP-8
		1/2-20 UNF-3B	45ZH-.451	4C1ZH-.451					
-6	AS5202-06Z-075F	9/16-18 UNJF-3B	45ZH-.510	4C1ZH-.510	7247-IP7-1	8IP-7	AS5202-06-C5A	72556-IP8-1	8IP-8
		9/16-18 UNF-3B	45ZH-.506	4C1ZH-.506					
-8	AS5202-080-075F	3/4-16 UNJF-3B	450H-17.5	4C10H-17.5	72567-IP8-1	8IP-8	AS5202-08-C5A	72556-IP8-1	8IP-8
		3/4-16 UNF-3B	450H-0022	4C10H-0022					
-10	AS5202-101-100F	7/8-14 UNJF-3B	451H-20.5	4C11H-20.5	7375-IP9-1	8IP-9	AS5202-10-C5A	7495-IP15-1	8IP-15
		7/8-14 UNF-3B	451H-.801	4C11H-.801					
-12	AS5202-122-125F	1 1/16-12 UNJ-3B	452H-25	4C12H-25	7495-IP15-1	8IP-15	AS5202-12-C5A	7495-IP15-1	8IP-15
		1 1/16-12 UN-3B	452H-.976	4C12H-.976					
-14	AS5202-142-125F	1 3/16-12 UNJ-3B	452H-1.109	4C12H-1.109	7495-IP15-1	8IP-15	AS5202-14-C5A	7495-IP15-1	8IP-15
		1 3/16-12 UN-3B	452H-.28	4C12H-.28					
-16	AS5202-162-125F	1 5/16-12 UNJ-3B	452H-1.234	4C12H-1.234	7495-IP15-1	8IP-15	AS5202-16-C5A	7495-IP15-1	8IP-15
		1 5/16-12 UN-3B	452H-1.226	4C12H-1.226					
-20	AS5202-203-150F	1 5/8-12 UNJ-3B	453H-1.547	1C53A-1.547	7514-IP20-1	8IP-20	AS5202-20-C5A	7495-IP15-1	8IP-15
		1 5/8-12 UN-3B	453H-.39	1C53A-.39					
-24	AS5202-243-150F	1 7/8-12 UNJ-3B	453H-1.797	1C53A-1.797	7514-IP20-1	8IP-20	AS5202-24-C5A	7495-IP15-1	8IP-15
		1 7/8-12 UN-3B	453H-45.5	1C53A-45.5					
-32	AS5202-324-150F	2 1/2-12 UNJ-3B	454H-2.421	N/A	7514-IP20-1	8IP-20	AS5202-32-C5A	7495-IP15-1	8IP-15
		2 1/2-12 UN-3B	454H-2.413	N/A					

A1 = AND10050 Specifications (shown in red)
A2 = SAE AS5202 Specifications



Tube Dash Number	Port Contour Cutter Number	Port Thread Size	Inch or Metric	A1	A2	L1	B	L2	Seal Angle	C	D	L3	L4	E	L5	L6
				Dia.	Dia.	Minor Dia. Length	Pilot Dia.	Pilot Length		Seal Angle Dia.	Spotface Dia.	Spotface to Shoulder Length	Total Head Length	Shank Dia.	Shank Length	OAL
-4	AS5202-04Y-063F	7/16-20 UNJF-3B	mm	9,8	9,9	16,79	11,53	2,11	60°	14,34	22,23	22,76	41,58	15,88	47,63	89,20
			inch	0.386	0.390	0.661	0.454	0.083	60°	0.564	0.875	0.896	1.637	0.625	1.875	3.51
-5	AS5202-05Z-063F	1/2-20 UNJF-3B	mm	11,45	11,5	16,79	13,13	2,11	60°	15,88	23,27	22,39	41,58	15,88	47,63	89,20
			inch	0.451	0.453	0.661	0.517	0.083	60°	0.625	0.916	0.882	1.637	0.625	1.875	3.51
-6	AS5202-06Z-075F	9/16-18 UNJF-3B	mm	12,85	12,95	18,14	14,73	2,11	60°	17,46	24,87	28,43	49,28	19,05	50,01	99,29
			inch	0.506	0.51	0.714	0.580	0.083	60°	0.688	0.979	1.119	1.940	0.750	1.969	3.91
-8	AS5202-080-075F	3/4-16 UNJF-3B	mm	17,46	17,5	21,31	19,53	2,39	60°	22,23	30,43	28,57	53,52	19,05	50,01	103,53
			inch	0.688	0.689	0.839	0.769	0.094	60°	0.875	1.198	1.125	2.107	0.75	1.969	4.08
-10	AS5202-101-100F	7/8-14 UNJF-3B	mm	20,35	20,5	23,75	22,76	2,72	60°	25,46	34,39	30,19	58,17	25,40	57,94	116,10
			inch	0.801	0.807	0.935	0.896	0.107	60°	1.002	1.354	1.189	2.29	1.000	2.281	4.57
-12	AS5202-122-125F	1 1/16-12 UNJ-3B	mm	24,8	25,0	27,15	27,58	3,18	60°	31,42	41,53	37,94	70,23	31,75	57,94	128,17
			inch	0.976	0.984	1.069	1.086	0.125	60°	1.237	1.635	1.494	2.765	1.250	2.281	5.05
-14	AS5202-142-125F*	1 3/16-12 UNJ-3B	mm	28,0	28,17	27,15	30,76	3,18	60°	34,61	45,09	37,22	70,23	31,75	57,94	128,17
			inch	1.102	1.109	1.069	1.211	0.125	60°	1.363	1.775	1.465	2.765	1.250	2.281	5.05
-16	AS5202-162-125F	1 5/16-12 UNJ-3B	mm	31,15	31,34	27,15	33,93	3,18	60°	37,77	48,77	36,51	70,23	31,75	57,94	128,17
			inch	1.226	1.234	1.069	1.336	0.125	60°	1.487	1.920	1.437	2.765	1.250	2.281	5.05
-20	AS5202-203-150F	1 5/8-12 UNJ-3B	mm	39,0	39,29	28,47	41,86	3,18	60°	45,69	57,91	44,32	80,95	38,10	68,28	149,23
			inch	1.535	1.547	1.121	1.648	0.125	60°	1.799	2.280	1.745	3.187	1.500	2.688	5.88
-24	AS5202-243-150F*	1 7/8-12 UNJ-3B	mm	45,5	45,64	28,75	48,21	3,18	60°	52,07	65,28	42,58	80,95	38,10	68,28	149,23
			inch	1.791	1.797	1.132	1.898	0.125	60°	2.050	2.570	1.676	3.187	1.500	2.688	5.88
-32	AS5202-324-150F*	2 1/2-12 UNJ-3B	mm	61,3	61,49	34,87	64,11	3,18	60°	67,97	88,65	45,78	93,65	38,10	68,28	161,93
			inch	2.413	2.421	1.373	2.524	0.125	60°	2.676	3.490	1.802	3.687	1.500	2.688	6.38

* Non-Stocked Item

For details on tools made to your requirements, see page 204.

Allied Machine & Engineering Corp. patent information can be found at www.alliedmachine.com/patents

Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

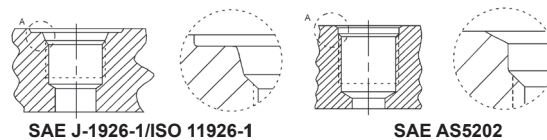
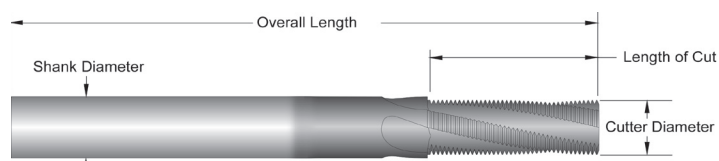
AccuPort 432

ASC 320

Special Tooling



AccuPort 432® Kits

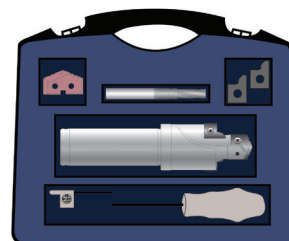


Accuport Specific - International Unified Series (UN) manufactured specifically for use with AccuPort 432 hydraulic port forms. The length of cut allows full thread with one pass. Conforms with J1926 and SAE AS5202 port form spec.

AccuPort 432 Specific Thread Mills (for use with AccuPort Port Contour Cutter)

Port Size	Pitch	Item Number	Flutes	Cutter Dia.	Shank Dia.	Length of Cut	OAL	*AM210®
-4 to -5	20	TMAK0438-20	4	0.335	0.375	0.600	3.5	○
-6	18	TMAK0563-18	4	0.370	0.375	0.666	3.5	○
-8	16	TMAK0750-16	4	0.495	0.500	0.750	3.5	○
-10	14	TMAK0875-14	4	0.495	0.500	0.857	3.5	○
-12 to -32	12	TMAK1063-12	4	0.495	0.500	0.917	3.5	○

* All other coatings are non-stocked standards with 10 to 15 day delivery



AccuPort 432 AccuThread 856® Ferrous Material Kit

Tube Dash Number	Port Contour Cutter Number	Port Thread Size	QTY	T-A® Drill Item Numbers		Port Form Insert Item Numbers		AccuThread 856 Item Numbers		Kit Item Number
				Super Cobalt (AM200®)	QTY	C5 Carbide (TiAlN)	QTY	Solid Carbide *(AM210)	QTY	
-4	J1926-04Y-063F	7/16-20 UNF-2B	1	45YH-.386	2	J1926-02-C5A	2	TMAK0438-20	1	ATK-K-04
-5	J1926-05Z-063F	1/2-20 UNF-2B	1	45ZH-11.5	2	J1926-02-C5A	2	TMAK0438-20	1	ATK-K-05
-6	J1926-060-075F	9/16-18 UNF-2B	1	450H-13	2	J1926-02-C5A	2	TMAK0563-18	1	ATK-K-06
-8	J1926-080-075F	3/4-16 UNF-2B	1	450H-0022	2	J1926-07-C5A	2	TMAK0750-16	1	ATK-K-08
-10	J1926-101-100F	7/8-14 UNF-2B	1	451H-20.5	2	J1926-07-C5A	2	TMAK0875-14	1	ATK-K-10
-12	J1926-122-125F	1 1/16-12 UN-2B	1	452H-25	2	J1926-08-C5A	2	TMAK1063-12	1	ATK-K-12
-14	J1926-142-125F	1 3/16-12 UN-2B	1	452H-28	2	J1926-08-C5A	2	TMAK1063-12	1	ATK-K-14
-16	J1926-162-125F	1 5/16-12 UN-2B	1	452H-1.231	2	J1926-08-C5A	2	TMAK1063-12	1	ATK-K-16
-20	J1926-203-150F	1 5/8-12 UN-2B	1	453H-39	1	J1926-10-C5A	2	TMAK1063-12	1	ATK-K-20
-24	J1926-243-150F	1 7/8-12 UN-2B	1	453H-45.5	1	J1926-10-C5A	2	TMAK1063-12	1	ATK-K-24
-32	J1926-324-150F	2 1/2-12 UN-2B	1	454H-61.5	1	J1926-12-C5A	2	TMAK1063-12	1	ATK-K-32

* All other coatings are non-stocked standards with 10 to 15 day delivery

AccuPort 432 AccuThread 856 Non-ferrous Material Kit

Tube Dash Number	Port Contour Cutter Number	Port Thread Size	QTY	T-A Drill Item Numbers		Port Form Insert Item Numbers		AccuThread 856 Item Numbers		Kit Item Number
				Super Cobalt (TiN)	QTY	C5 Carbide (TiAlN)	QTY	Solid Carbide (Uncoated)	QTY	
-4	J1926-04Y-063F	7/16-20 UNF-2B	1	15YT-.386	2	J1926-02-C5A	2	TMAU0438-20	1	ATK-U-04
-5	J1926-05Z-063F	1/2-20 UNF-2B	1	15ZT-11.5	2	J1926-02-C5A	2	TMAU0438-20	1	ATK-U-05
-6	J1926-060-075F	9/16-18 UNF-2B	1	150T-13	2	J1926-02-C5A	2	TMAU0563-18	1	ATK-U-06
-8	J1926-080-075F	3/4-16 UNF-2B	1	150T-0022	2	J1926-07-C5A	2	TMAU0750-16	1	ATK-U-08
-10	J1926-101-100F	7/8-14 UNF-2B	1	151T-20.5	2	J1926-07-C5A	2	TMAU0875-14	1	ATK-U-10
-12	J1926-122-125F	1 1/16-12 UN-2B	1	152T-25	2	J1926-08-C5A	2	TMAU1063-12	1	ATK-U-12
-14	J1926-142-125F	1 3/16-12 UN-2B	1	152T-28	2	J1926-08-C5A	2	TMAU1063-12	1	ATK-U-14
-16	J1926-162-125F	1 5/16-12 UN-2B	1	152T-1.231	2	J1926-08-C5A	2	TMAU1063-12	1	ATK-U-16
-20	J1926-203-150F	1 5/8-12 UN-2B	1	453T-39	1	J1926-10-C5A	2	TMAU1063-12	1	ATK-U-20
-24	J1926-243-150F	1 7/8-12 UN-2B	1	453T-45.5	1	J1926-10-C5A	2	TMAU1063-12	1	ATK-U-24
-32	J1926-324-150F	2 1/2-12 UN-2B	1	454T-61.5	1	J1926-12-C5A	2	TMAU1063-12	1	ATK-U-32

AccuPort 432®

Recommended Speeds and Feeds - Inch



IMPORTANT: The speeds and feeds listed below are a general starting point for all applications. Refer to the Coolant Recommendation charts for coolant requirements to run at the recommended speeds and feeds. Factory technical assistance is also available through our Application Engineering Team. Due to potential chip formation issues, contact our Application Engineering Team for assistance machining materials marked with a ♦.

Material	Hardness (BHN)	Grade	SPEED				FEED (IPR) - HSS						Grade	SPEED			FEED (IPR) - Carbide				
			TiN SFM	TiAlN SFM	TiCN SFM	AM200 SFM	Tube # 4-5	Tube # 6-8	Tube # 10	Tube # 12-16	Tube # 20-24	Tube # 32		TiN SFM	TiAlN SFM	AM200 SFM	Tube # 4-5	Tube # 6-8	Tube # 10	Tube # 12-16	Tube # 20-24
							Series Y-Z	Series 0	Series 1	Series 2	Series 3	Series 4					Series Y-Z	Series 0	Series 1	Series 2	Series 3
Free Machining Steel 1118, 1215, 12L14, etc.	100-150	HSS	200	280	260	325	0.007	0.010	0.013	0.016	0.020	0.023	C1,C5	320	420	480	0.008	0.012	0.015	0.018	0.021
	150-200	HSS	180	260	235	300	0.007	0.010	0.013	0.016	0.020	0.023	C1,C5	280	360	415	0.007	0.011	0.014	0.016	0.019
	200-250	HSS	160	240	210	280	0.006	0.010	0.013	0.016	0.020	0.023	C1,C5	260	340	390	0.006	0.010	0.013	0.015	0.017
Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	85-125	HSS	170	250	220	290	0.006	0.009	0.012	0.015	0.019	0.023	C1,C5	300	390	450	0.008	0.010	0.013	0.017	0.019
	125-175	HSS	160	240	210	275	0.006	0.009	0.012	0.015	0.019	0.023	C1,C5	260	340	390	0.007	0.010	0.013	0.016	0.018
	175-225	HSS	150	225	195	260	0.005	0.008	0.010	0.014	0.018	0.021	C1,C5	240	310	355	0.006	0.009	0.012	0.015	0.017
Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	225-275	HSS	140	210	180	240	0.005	0.008	0.010	0.014	0.018	0.021	C1,C5	210	270	310	0.005	0.009	0.012	0.015	0.017
	125-175	HSS	160	240	210	275	0.006	0.009	0.012	0.015	0.019	0.023	C1,C5	260	340	390	0.007	0.010	0.013	0.016	0.018
	175-225	HSS	150	225	195	260	0.005	0.008	0.010	0.014	0.018	0.021	C1,C5	240	310	355	0.006	0.009	0.012	0.015	0.017
	225-275	HSS	140	210	180	240	0.005	0.008	0.010	0.014	0.018	0.021	C1,C5	210	270	310	0.006	0.009	0.012	0.015	0.017
	275-325	SC	130	195	170	225	0.004	0.007	0.009	0.012	0.016	0.019	C1,C5	180	230	265	0.005	0.008	0.011	0.014	0.016
Alloy Steel 4140, 5140, 8640, etc.	125-175	HSS	150	210	195	240	0.006	0.008	0.010	0.014	0.017	0.019	C1,C5	250	325	375	0.007	0.010	0.013	0.016	0.018
	175-225	HSS	140	195	180	225	0.005	0.008	0.010	0.014	0.017	0.019	C1,C5	230	300	345	0.006	0.009	0.012	0.015	0.017
	225-275	HSS	130	180	170	210	0.005	0.007	0.010	0.014	0.017	0.019	C1,C5	210	270	310	0.006	0.009	0.012	0.015	0.017
	275-325	SC	120	170	155	195	0.004	0.006	0.009	0.012	0.015	0.017	C1,C5	200	250	285	0.005	0.008	0.011	0.014	0.016
	325-375	SC	110	155	145	180	0.003	0.006	0.009	0.012	0.015	0.017	C1,C5	170	220	255	0.004	0.007	0.010	0.013	0.015
High Strength Alloy 4340, 4330V, 300M, etc.	225-300	SC	80	110	100	125	0.005	0.007	0.009	0.010	0.014	0.017	C1,C5	160	200	230	0.006	0.009	0.010	0.012	0.015
	300-350	SC	60	85	80	100	0.004	0.007	0.009	0.010	0.014	0.017	C1,C5	140	180	205	0.005	0.008	0.009	0.011	0.014
	350-400	SC	50	70	65	80	0.003	0.006	0.008	0.009	0.012	0.015	C1,C5	120	160	185	0.004	0.007	0.008	0.010	0.012
Structural Steel A36, A285, A516, etc.	100-150	HSS	140	200	180	235	0.006	0.010	0.012	0.014	0.018	0.021	C1,C5	240	310	355	0.008	0.011	0.014	0.016	0.018
	150-250	HSS	120	170	155	190	0.005	0.009	0.010	0.012	0.016	0.019	C1,C5	200	250	285	0.006	0.010	0.012	0.014	0.016
	250-350	SC	100	140	130	160	0.004	0.009	0.009	0.010	0.014	0.017	C1,C5	180	230	265	0.005	0.009	0.011	0.012	0.014
Tool Steel H-13, H-21, A-4, O-2, S-3, etc.	150-200	SC	80	110	105	125	0.004	0.006	0.008	0.010	0.014	0.015	C1,C5	160	220	255	0.004	0.007	0.009	0.011	0.013
	200-250	SC	60	90	85	105	0.004	0.006	0.008	0.010	0.012	0.015	C1,C5	120	170	195	0.004	0.007	0.009	0.011	0.013
High Temp. Alloy Hastelloy B, Inconel 600, etc.	140-220	SC	30	40	35	45	0.003	0.007	0.008	0.010	0.012	0.015	C2	80	105	120	0.004	0.007	0.009	0.011	0.013
	220-310	SC	25	35	30	40	0.003	0.006	0.007	0.008	0.010	0.012	C2	60	85	95	0.004	0.006	0.008	0.010	0.012
Stainless Steel 416, 420, 303, etc.	185-275	SC	75	105	95	110	0.006	0.008	0.009	0.011	0.012	0.016	C2	160	210	240	0.007	0.009	0.012	0.014	0.016
	275-350	SC	60	90	80	100	0.005	0.007	0.008	0.010	0.012	0.014	C2	120	160	185	0.006	0.008	0.011	0.012	0.014
Nodular, Grey, Ductile Cast Iron	120-150	HSS	170	250	220	290	0.007	0.012	0.016	0.020	0.024	0.027	C2, C3	320	460	500	0.008	0.012	0.015	0.019	0.023
	150-200	HSS	150	225	195	260	0.006	0.011	0.014	0.018	0.022	0.025	C2, C3	270	400	480	0.007	0.011	0.013	0.017	0.021
	200-220	HSS	130	195	170	225	0.006	0.009	0.012	0.016	0.018	0.021	C2, C3	240	360	430	0.006	0.009	0.012	0.015	0.018
	220-260	SC	110	165	145	190	0.005	0.007	0.009	0.012	0.014	0.017	C2, C3	210	310	370	0.005	0.008	0.011	0.013	0.015
	260-320	SC	90	135	120	155	0.004	0.006	0.007	0.009	0.012	0.014	C2, C3	180	270	335	0.005	0.007	0.010	0.011	0.013
Aluminum	30	HSS	600	850	750	-	0.008	0.013	0.016	0.020	0.022	0.025	C2	1200	1500	-	0.010	0.015	0.018	0.020	0.022
	180	HSS	300	450	400	-	0.008	0.013	0.016	0.018	0.022	0.025	C2	800	1000	-	0.009	0.013	0.016	0.018	0.020

Formulas: $IPM = (RPM) (IPR)$

$SFM = RPM \bullet 0.262 \bullet DIA$

$RPM = SFM \bullet 3.82 / DIA$



AccuPort 432®

Recommended Speeds and Feeds - Metric

IMPORTANT: The speeds and feeds listed below are a general starting point for all applications. Refer to the Coolant Recommendation charts for coolant requirements to run at the recommended speeds and feeds. Factory technical assistance is also available through our Application Engineering Team. Due to potential chip formation issues, contact our Application Engineering Team for assistance machining materials marked with a ♦.

Material	Hardness (BHN)	Grade	SPEED				FEED (mm/rev) - HSS						Grade	SPEED			FEED (mm/rev) - Carbide				
			TiN M/min	TiAlN M/min	TiCN M/min	AM200 M/min	Tube # 4-5	Tube # 6-8	Tube # 10	Tube # 12-16	Tube # 20-24	Tube # 32		TiN M/min	TiAlN M/min	AM200 M/min	Tube # 4-5	Tube # 6-8	Tube # 10	Tube # 12-16	Tube # 20-24
							Series Y-Z	Series 0	Series 1	Series 2	Series 3	Series 4					Series Y-Z	Series 0	Series 1	Series 2	Series 3
Free Machining Steel 1118, 1215, 12L14, etc.	100-150	HSS	61	85	79	92	0,18	0,25	0,33	0,41	0,51	0,58	K35, P40	98	128	146	0,020	0,30	0,38	0,46	0,53
	150-200	HSS	55	79	72	87	0,18	0,25	0,33	0,41	0,51	0,58	K35, P40	85	110	126	0,18	0,28	0,36	0,41	0,48
	200-250	HSS	49	73	64	81	0,15	0,25	0,33	0,41	0,51	0,58	K35, P40	79	104	119	0,15	0,25	0,33	0,38	0,44
Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	85-125	HSS	52	76	67	84	0,15 ♦	0,23	0,30	0,38	0,48	0,58	K35, P40	91	119	137	0,20 ♦	0,25	0,33	0,43	0,48
	125-175	HSS	49	73	64	81	0,15 ♦	0,23	0,30	0,38	0,48	0,58	K35, P40	79	104	119	0,18 ♦	0,25	0,33	0,41	0,46
	175-225	HSS	46	69	59	76	0,13 ♦	0,20	0,25	0,36	0,46	0,53	K35, P40	73	94	108	0,15 ♦	0,23	0,30	0,38	0,43
	225-275	HSS	43	64	55	70	0,13 ♦	0,20	0,25	0,36	0,46	0,53	K35, P40	64	82	94	0,13 ♦	0,23	0,30	0,38	0,43
Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	125-175	HSS	49	73	64	79	0,15	0,23	0,30	0,38	0,48	0,58	K35, P40	79	104	119	0,18	0,25	0,33	0,41	0,46
	175-225	HSS	46	69	59	75	0,13	0,20	0,25	0,36	0,46	0,53	K35, P40	73	94	108	0,15	0,23	0,30	0,38	0,43
	225-275	HSS	43	64	55	70	0,13	0,20	0,25	0,36	0,46	0,53	K35, P40	64	82	94	0,15	0,23	0,30	0,38	0,43
	275-325	SC	40	59	52	66	0,10	0,18	0,23	0,30	0,41	0,48	K35, P40	55	70	81	0,13	0,20	0,28	0,36	0,41
Alloy Steel 4140, 5140, 8640, etc.	125-175	HSS	46	64	59	69	0,15	0,20	0,25	0,36	0,43	0,48	K35, P40	76	99	114	0,18	0,25	0,33	0,41	0,46
	175-225	HSS	43	59	55	66	0,13	0,20	0,25	0,36	0,43	0,48	K35, P40	70	91	105	0,15	0,23	0,30	0,38	0,43
	225-275	HSS	40	55	52	60	0,13	0,18	0,25	0,36	0,43	0,48	K35, P40	64	82	94	0,15	0,23	0,30	0,38	0,43
	275-325	SC	37	52	47	56	0,10	0,15	0,23	0,30	0,38	0,43	K35, P40	61	76	87	0,13	0,20	0,28	0,36	0,41
	325-375	SC	34	47	44	55	0,08	0,15	0,23	0,30	0,38	0,43	K35, P40	52	67	78	0,10	0,18	0,25	0,33	0,38
High Strength Alloy 4340, 4330V, 300M, etc.	225-300	SC	24	34	30	37	0,13 ♦	0,18	0,23	0,25	0,36	0,43	K35, P40	49	61	73	0,15 ♦	0,23	0,25	0,30	0,38
	300-350	SC	18	26	24	27	0,10 ♦	0,18	0,23	0,25	0,36	0,43	K35, P40	43	55	62	0,13 ♦	0,20	0,23	0,28	0,36
	350-400	SC	15	21	20	23	0,08 ♦	0,15	0,20	0,23	0,30	0,38	K35, P40	37	49	56	0,10 ♦	0,18	0,20	0,25	0,30
Structural Steel A36, A285, A516, etc.	100-150	HSS	43	61	55	67	0,15 ♦	0,25	0,30	0,36	0,46	0,53	K35, P40	73	94	108	0,20 ♦	0,28	0,36	0,41	0,46
	150-250	HSS	37	52	47	56	0,13 ♦	0,23	0,25	0,30	0,41	0,48	K35, P40	61	76	87	0,15 ♦	0,25	0,30	0,36	0,41
	250-350	SC	30	43	40	47	0,10 ♦	0,20	0,23	0,25	0,36	0,43	K35, P40	55	70	81	0,13 ♦	0,23	0,28	0,30	0,36
Tool Steel H-13, H-21, A-4, O-2, S-3, etc.	150-200	SC	24	34	32	37	0,10	0,15	0,20	0,25	0,30	0,38	K35, P40	49	67	78	0,10 ♦	0,18	0,23	0,28	0,33
	200-250	SC	18	27	26	31	0,10	0,15	0,20	0,25	0,30	0,38	K35, P40	37	52	59	0,10 ♦	0,18	0,23	0,28	0,33
High Temp. Alloy Hastelloy B, Inconel 600, etc.	140-220	SC	9	12	11	14	0,08 ♦	0,18	0,20	0,25	0,30	0,38	K20	24	32	36	0,10 ♦	0,18	0,23	0,28	0,33
	220-310	SC	8	11	9	12	0,08 ♦	0,15	0,18	0,20	0,25	0,30	K20	18	26	29	0,10 ♦	0,15	0,20	0,25	0,30
Stainless Steel 416, 420, 303, etc.	185-275	SC	23	32	29	33	0,15 ♦	0,20	0,23	0,28	0,36	0,41	K20	49	64	73	0,18 ♦	0,23	0,30	0,36	0,41
	275-350	SC	18	27	24	29	0,13 ♦	0,18	0,20	0,25	0,30	0,36	K20	37	49	46	0,15 ♦	0,20	0,28	0,30	0,36
Nodular, Grey, Ductile Cast Iron	120-150	HSS	52	76	67	82	0,18	0,30	0,41	0,51	0,61	0,69	K20, K10	98	140	152	0,20	0,30	0,38	0,48	0,58
	150-200	HSS	46	69	59	75	0,15	0,28	0,36	0,46	0,56	0,64	K20, K10	82	122	146	0,18	0,28	0,33	0,43	0,53
	200-220	HSS	40	59	52	66	0,15	0,23	0,30	0,41	0,46	0,53	K20, K10	73	110	131	0,15	0,23	0,30	0,38	0,46
	220-260	SC	34	50	44	55	0,13	0,18	0,23	0,30	0,36	0,43	K20, K10	64	94	113	0,13	0,20	0,28	0,33	0,38
	260-320	SC	27	41	37	44	0,10	0,15	0,18	0,23	0,30	0,36	K20, K10	55	82	102	0,13	0,18	0,25	0,28	0,33
Aluminum	30	HSS	183	259	229	-	0,20	0,33	0,41	0,51	0,56	0,64	K20	366	457	-	0,25	0,38	0,46	0,51	0,56
	180	HSS	91	137	122	-	0,20	0,33	0,41	0,46	0,56	0,64	K20	244	305	-	0,23	0,33	0,41	0,46	0,51

Formulas: IPM = (RPM) (mm/rev)

M/min = RPM • 0.003 • DIA

RPM = M/min • 318.47 / DIA

AccuPort 432®

Coolant Recommendations - Inch



IMPORTANT: The coolant pressure and flow rate recommendation below represents a good approximation to obtain optimum tool life and chip evacuation at Allied recommended speeds and feeds. If lower coolant capabilities exist in a drilling application, the AccuPort 432 Port Contour Cutter will still function at reduced penetration rates. Contact our Application Engineering Department for a more specific recommendation of coolant requirements and/or speeds and feeds.

Material	Pressure or Flow Rate	HSS						Carbide				
		Tube # 4-5	Tube # 6-8	Tube # 10	Tube # 12-16	Tube # 20-24	Tube # 32	Tube # 4-5	Tube # 6-8	Tube # 10	Tube # 12-16	Tube # 20-24
		Series Y-Z	Series 0	Series 1	Series 2	Series 3	Series 4	Series Y-Z	Series 0	Series 1	Series 2	Series 3
Free Machining Steel 1118, 1215, 12L14, etc.	PSI	175-185	100-120	105-140	80-115	75-100	40-50	195	140	160	140	155
	GPM	2.5-2.6	2.8-3.0	4.4-5.2	7-8	12-14	30-33	2.6	3.3	5.5	9	18
Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	PSI	165-170	75-90	75-95	60-80	55-75	30-40	180	105	105	110	115
	GPM	2.4-2.5	2.4-2.6	3.7-4.2	6-7	11-12	26-30	2.5	2.9	4.4	8	15
Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	PSI	160-165	70-85	70-90	55-75	50-70	30-40	175	100	90	100	75
	GPM	2.3-2.4	2.3-2.6	3.7-4.2	5-6	10-12	26-30	2.5	2.8	4.1	7	13
Alloy Steel 4140, 5140, 8640, etc.	PSI	160-165	65-75	65-80	50-70	45-60	30-35	165	85	100	75	70
	GPM	2.3-2.4	2.2-2.4	3.5-3.9	5-6	10-11	26-28	2.4	2.6	4.3	6	12
High Strength Alloy 4340, 4330V, 300M, etc.	PSI	150-155	55-60	45-50	25-30	25-30	20-25	160	65	55	40	35
	GPM	2.3-2.4	2.1-2.2	2.9-3.1	4-5	7-8	21-23	2.4	2.3	3.2	5	8
Structural Steel A36, A285, A516, etc.	PSI	160-165	75-85	65-80	40-55	40-50	25-30	175	115	105	75	70
	GPM	2.3-2.4	2.4-2.6	3.5-3.9	5-6	9-10	23-26	2.5	3	4.4	6	12
Tool Steel H-13, H-21, A-4, O-2, S-3, etc.	PSI	150-155	55-60	45-50	25-30	25-30	20-25	155	60	55	40	35
	GPM	2.3-2.4	2.1-2.2	2.9-3.1	4-5	7-8	21-23	2.4	2.2	3.2	5	8
High Temp. Alloy Hastelloy B, Inconel 600, etc.	PSI	150-155	60-65	50-55	30-35	25-30	25-30	239	165	180	159	130
	GPM	2.3-2.4	2.2-2.3	3.1-3.2	4-5	7-8	23-26	3	4	6	9	16
Stainless Steel 416, 420, 303, etc.	PSI	171	86	75	55	51	29	329	239	260	250	190
	GPM	3	3	4	6	10	26	3	4	7	12	20
Nodular, Grey, Ductile Cast Iron	PSI	160	65	61	41	35	29	225	104	90	90	80
	GPM	2	2	3	5	9	26	3	3	4	7	13
Aluminum	PSI	210	180	230	159	125	51	350	319	315	284	200
	GPM	3	4	6	9	16	33	4	5	8	12	20

Revolution & Opening

APX

GEN3SYS & GEN3SYS XT

Original T-A & GEN2 T-A

AccuPort 432

ASC 320

Special Tooling



AccuPort 432® Port Contour Cutters

Coolant Recommendations - Metric

IMPORTANT: The coolant pressure and flow rate recommendation below represents a good approximation to obtain optimum tool life and chip evacuation at Allied recommended speeds and feeds. If lower coolant capabilities exist in a drilling application, the AccuPort 432 Port Contour Cutter will still function at reduced penetration rates. Contact our Application Engineering Department for a more specific recommendation of coolant requirements and/or speeds and feeds.

Material	Pressure or Flow Rate	HSS						Carbide				
		Tube # 4-5	Tube # 6-8	Tube # 10	Tube # 12-16	Tube # 20-24	Tube # 32	Tube # 4-5	Tube # 6-8	Tube # 10	Tube # 12-16	Tube # 20-24
		Series Y-Z	Series 0	Series 1	Series 2	Series 3	Series 4	Series Y-Z	Series 0	Series 1	Series 2	Series 3
Free Machining Steel 1118, 1215, 12L14, etc.	BAR	12-13	7-8	7-10	6-8	6-7	3-4	20	16	17	15	12
	LPM	9,5-9,8	10,6-11,4	16,7-19,7	26,5-30,3	45,4-53,0	114-125	12,2	16,3	25,3	41,5	71,9
Low Carbon Steel 1010, 1020, 1025, 1522, 1144, etc.	BAR	11-12	5-6	5-7	4-6	4-5	2-3	18	11	11	12	9
	LPM	9,1-9,5	9,1-9,8	14,0-15,9	22,7-26,5	41,6-45,4	98-114	11,4	13,3	20,6	36,5	62
Medium Carbon Steel 1030, 1040, 1050, 1527, 1140, 1151, etc.	BAR	11	5-6	5-6	4-5	3-5	2-3	17	10	10	10	8
	LPM	8,7-9,1	8,7-9,8	13,6-15,5	18,9-22,7	37,9-45,4	98-114	11,3	12,5	20	33,8	57
Alloy Steel 4140, 5140, 8640, etc.	BAR	11	5-6	5	3-5	3-4	2	17	9	10	8	7
	LPM	8,7-9,1	13,2-14,8	8,3-9,1	18,9-22,7	34,1-37,9	87-98	11,1	12,3	19,3	30	55,8
High Strength Alloy 4340, 4330V, 300M, etc.	BAR	10-11	4-5	3-4	2	2	2	15	5	4	3	3
	LPM	8,7-9,1	7,9-8,3	11,0-11,7	15,1-18,9	26,5-30,3	79-87	10,4	9,1	12,6	18,8	33,6
Structural Steel A36, A285, A516, etc.	BAR	11	5-6	5-6	3-4	3	2	16	9	8	7	5
	LPM	8,7-9,1	9,1-9,8	13,2-14,8	18,9-22,7	34,1-37,9	87-98	10,8	12	17,5	27,8	47,1
Tool Steel H-13, H-21, A-4, O-2, S-3, etc.	BAR	4	10-11	3	2	2	1-2	15	5	5	3	3
	LPM	7,9-8,3	8,7-9,1	11,0-11,7	15,1-18,9	26,5-30,3	79-87	10,4	9,1	13,6	19,7	36,5
High Temp. Alloy Hastelloy B, Inconel 600, etc.	BAR	10-11	4-5	3-4	2	2	2	17	11,4	12,4	11	9
	LPM	8,7-9,1	8,3-8,7	11,7-12,1	15,1-18,9	26,5-30,3	87-98	11,1	13,5	21,9	35,4	62
Stainless Steel 400 Series 416, 420, 303, etc.	BAR	11,4 - 11,7	4,8 - 5,8	4,5 - 5,2	2,7 - 3,8	2,7 - 3,4	1,7 - 2	22,7	16,5	17,9	17,2	13,1
	LPM	9,1 - 9,5	8,7 - 9,8	13,2 - 14	18,9 - 22,7	34,1 - 37,9	87 - 98	13	16,3	26,3	44,2	75
Nodular, Grey, Ductile Cast Iron	BAR	10,7 - 11,0	4,1 - 4,5	3,4 - 4,1	2 - 2,7	2 - 2,4	1,7 - 2	15,5	7,2	6,2	6,2	5,5
	LPM	8,7 - 9,1	8,3 - 8,7	11,7 - 12,5	15,1 - 18,9	30,3 - 34,1	87 - 98	10,7	10,8	15,4	26,5	48,7
Aluminum	BAR	13,1 - 14,5	9,6 - 12,4	10,3 - 15,8	7,9 - 11	6,2 - 8,6	2,7 - 3,4	24,1	22	21,7	19,6	13,8
	LPM	9,8 - 10,2	12,5 - 14	20,1 - 23,1	30,3 - 34,1	53 - 60,6	114 - 125	13,4	18,8	29	47,2	77