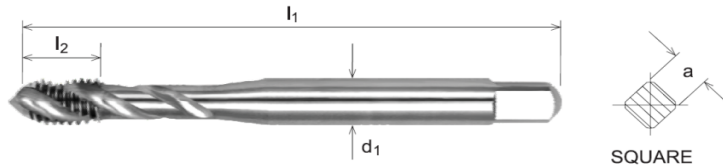


CAPITAL

CUTTING TOOLS



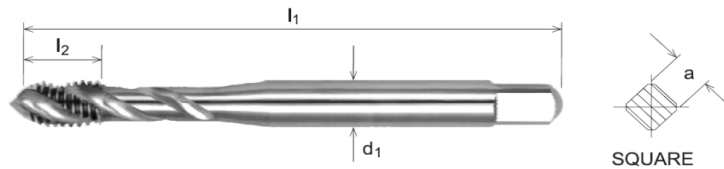
SPIRAL FLUTE TAPS - METRIC COARSE

HIGH SPEED STEEL - GROUND THREAD

Code	Size	Pitch	l_2	l_1	d_1	a	\$ ea.
T109-0251	2.5	0.45	9.5	44.5	2.8	2.24	27.89
T109-0305	3.0	0.5	11	48	3.15	2.5	18.01
T109-0356	3.5	0.6	13	50	3.55	2.8	19.33
T109-0402	4.0	0.7	13	53	4	3.15	14.01
T109-0457	4.5	0.75	13	53	4.5	3.55	27.45
T109-0508	5.0	0.8	16	58	5	4	15.65
T109-0610	6.0	1.0	19	66	6.3	5	16.21
T109-0710	7.0	1.0	19	66	7.1	5.6	18.54
T109-0812	8.0	1.25	22	72	8	6.3	17.55
T109-1015	10	1.5	24	80	10	8	24.97
T109-1217	12	1.75	29	89	9	7.1	39.12
T109-1420	14	2.0	30	95	11.2	9	50.03
T109-1620	16	2.0	32	102	12.5	10	62.41
T109-1825	18	2.5	37	112	14	11.2	84.30
T109-2025	20	2.5	37	112	14	11.2	106.20
T109-2225	22	2.5	38	118	16	12.5	115.72
T109-2430	24	3.0	45	130	18	14	134.06
T109-2730	27	3.0	45	135	20	16	157.68
T109-3035	30	3.5	48	138	20	16	189.99
T109-3335	33	3.5	51	151	22.4	18	349.63
T109-3640	36	4.0	57	162	25	20	367.05
T109-3940	39	4.0	60	170	28	22.4	390.38
T109-4245	42	4.5	60	170	28	22.4	409.42
T109-4545	45	4.5	67	187	31.5	25	418.94
T109-4850	48	5.0	67	187	31.5	25	489.38

CAPITAL

CUTTING TOOLS



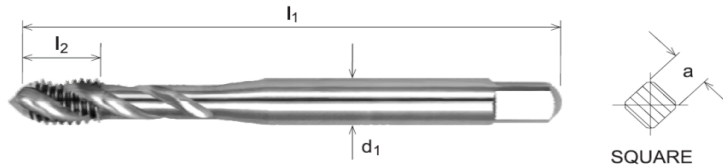
SPIRAL FLUTE TAPS - METRIC COARSE **LEFT HAND**

HIGH SPEED STEEL - GROUND THREAD

Code	Size	Pitch	l_2	l_1	d_1	a	\$ ea.
T119-0402	4.0	0.7	13	53	4	3.15	58.78
T119-0508	5.0	0.8	16	58	5	4	61.08
T119-0610	6.0	1.0	19	66	6.3	5	63.39
T119-0812	8.0	1.25	22	72	8	6.3	67.99
T119-1015	10	1.5	24	80	10	8	77.22
T119-1217	12	1.75	29	89	9	7.1	84.13
T119-1420	14	2.0	30	95	11.2	9	93.34
T119-1620	16	2.0	32	102	12.5	10	117.56
T119-1825	18	2.5	37	112	14	11.2	154.44
T119-2025	20	2.5	37	112	14	11.2	182.10
T119-2225	22	2.5	38	118	16	12.5	193.63
T119-2430	24	3.0	45	130	18	14	207.45
T119-2730	27	3.0	45	135	20	16	235.12
T119-3035	30	3.5	48	138	20	16	265.09
T119-3335	33	3.5	51	151	22.4	18	297.36
T119-3640	36	4.0	57	162	25	20	325.03

CAPITAL

CUTTING TOOLS



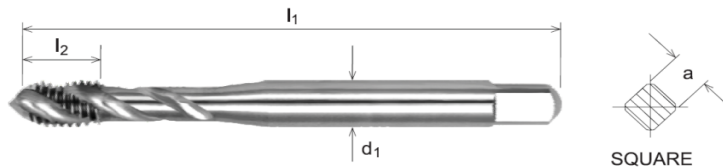
SPIRAL FLUTE TAPS - METRIC FINE

HIGH SPEED STEEL - GROUND THREAD

Code	Size	Pitch	l_2	l_1	d_1	a	\$ ea.
T129-0204	2.0	0.4	8	41	2.5	2	38.75
T129-0407	4.0	0.75	13	53	4	3.15	27.45
T129-0505	5.0	0.5	16	58	5	4	34.63
T129-0507	5.0	0.75	16	58	5	4	34.63
T129-0510	5.0	1	16	58	5	4	34.63
T129-0605	6.0	0.5	19	66	6.3	5	34.63
T129-0607	6.0	0.75	19	66	6.3	5	34.63
T129-0805	8.0	0.5	19	69	8	6.3	27.56
T129-0807	8.0	0.75	19	69	8	6.3	27.56
T129-0810	8.0	1.0	19	69	8	6.3	27.56
T129-0815	8.0	1.5	19	69	8	6.3	27.56
T129-0905	9.0	0.5	19	69	9	7.1	52.54
T129-0910	9.0	1.0	19	69	9	7.1	52.54
T129-1005	10	0.5	20	76	10	8	39.43
T129-1007	10	0.75	20	76	10	8	39.43
T129-1010	10	1.0	20	76	10	8	39.43
T129-1012	10	1.25	20	76	10	8	39.43
T129-1020	10	2	20	76	10	8	39.43
T129-1110	11	1.0	22	82	8	6.3	63.51
T129-1112	11	1.25	22	82	8	6.3	63.51
T129-1210	12	1.0	24	84	9	7.1	57.58
T129-1212	12	1.25	24	84	9	7.1	57.58
T129-1215	12	1.5	24	84	9	7.1	57.58
T129-1310	13	1.0	29	89	9	7.1	66.41
T129-1315	13	1.5	29	89	9	7.1	66.41
T129-1410	14	1.0	25	90	11.2	9	92.53
T129-1412	14	1.25	25	90	11.2	9	68.22
T129-1415	14	1.5	25	90	11.2	9	68.22
T129-1510	15	1.0	30	95	11.2	9	71.90
T129-1515	15	1.5	30	95	11.2	9	71.90
T129-1610	16	1.0	32	102	12.5	10	68.22
T129-1612	16	1.25	32	102	12.5	10	68.22

CAPITAL

CUTTING TOOLS



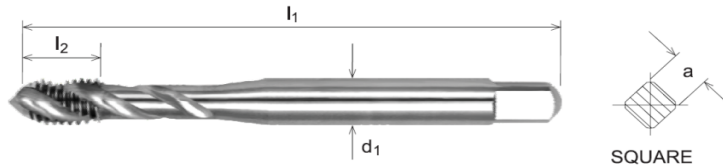
SPIRAL FLUTE TAPS - METRIC FINE

HIGH SPEED STEEL - GROUND THREAD

Code	Size	Pitch	l_2	l_1	d_1	a	\$ ea.
T129-1615	16	1.5	32	102	12.5	10	68.22
T129-1810	18	1.0	37	112	14	11.2	106.35
T129-1812	18	1.25	37	112	14	11.2	106.35
T129-1815	18	1.5	37	112	14	11.2	106.35
T129-1820	18	2.0	37	112	14	11.2	106.35
T129-1915	19	1.5	37	112	14	11.2	106.35
T129-2010	20	1.0	37	112	14	11.2	133.77
T129-2012	20	1.25	37	112	14	11.2	133.77
T129-2015	20	1.5	37	112	14	11.2	133.77
T129-2020	20	2.0	37	112	14	11.2	133.77
T129-2210	22	1.0	38	118	16	12.5	138.17
T129-2212	22	1.25	38	118	16	12.5	138.17
T129-2215	22	1.5	38	118	16	12.5	138.17
T129-2220	22	2.0	38	118	16	12.5	138.17
T129-2410	24	1.0	45	130	18	14	195.30
T129-2412	24	1.25	45	130	18	14	195.30
T129-2415	24	1.5	45	130	18	14	195.30
T129-2420	24	2.0	45	130	18	14	195.30
T129-2510	25	1.0	45	130	18	14	253.05
T129-2515	25	1.5	45	130	18	14	253.05
T129-2520	25	2.0	45	130	18	14	253.05
T129-2610	26	1.0	48	138	20	16	255.18
T129-2615	26	1.5	48	138	20	16	255.18
T129-2710	27	1.0	48	138	20	16	255.18
T129-2715	27	1.5	48	138	20	16	255.18
T129-2720	27	2.0	48	138	20	16	255.18
T129-2810	28	1.0	48	138	20	16	270.40
T129-2815	28	1.5	48	138	20	16	270.40
T129-2820	28	2.0	48	138	20	16	270.40
T129-3010	30	1.0	48	138	20	16	274.22
T129-3015	30	1.5	48	138	20	16	274.22
T129-3020	30	2.0	48	138	20	16	274.22

CAPITAL

CUTTING TOOLS



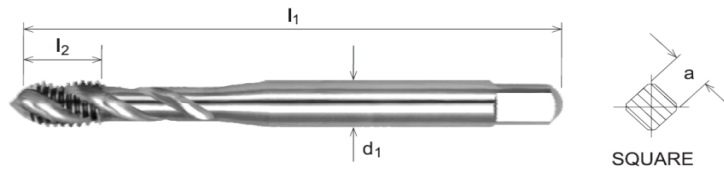
SPIRAL FLUTE TAPS - METRIC FINE

HIGH SPEED STEEL - GROUND THREAD

Code	Size	Pitch	l_2	l_1	d_1	a	\$ ea.
T129-3030	30	3.0	48	138	20	16	274.22
T129-3210	32	1.0	51	151	22.4	18	310.76
T129-3215	32	1.5	51	151	22.4	18	310.76
T129-3220	32	2.0	51	151	22.4	18	310.76
T129-3310	33	1.0	51	151	22.4	18	347.00
T129-3315	33	1.5	51	151	22.4	18	347.00
T129-3320	33	2.0	51	151	22.4	18	347.00
T129-3330	33	3.0	51	151	22.4	18	347.00
T129-3410	34	1.0	57	162	25	20	368.89
T129-3415	34	1.5	57	162	25	20	368.89
T129-3610	36	1.0	57	162	25	20	331.34
T129-3615	36	1.5	57	162	25	20	331.34
T129-3620	36	2.0	57	162	25	20	331.34
T129-3630	36	3.0	57	162	25	20	331.34
T129-3910	39	1.0	60	170	28	22.4	356.08
T129-3915	39	1.5	60	170	28	22.4	356.08
T129-3920	39	2.0	60	170	28	22.4	356.08
T129-3930	39	3.0	60	170	28	22.4	356.08
T129-4010	40	1.0	60	170	28	22.4	375.14
T129-4015	40	1.5	60	170	28	22.4	375.14
T129-4020	40	2.0	60	170	28	22.4	375.14
T129-4210	42	1.0	60	170	28	22.4	384.66
T129-4215	42	1.5	60	170	28	22.4	384.66
T129-4220	42	2.0	60	170	28	22.4	384.66
T129-4230	42	3.0	60	170	28	22.4	384.66
T129-4510	45	1.0	67	187	31.5	25	394.18
T129-4515	45	1.5	67	187	31.5	25	394.18
T129-4520	45	2.0	67	187	31.5	25	394.18
T129-4530	45	3.0	67	187	31.5	25	394.18
T129-4810	48	1.0	67	187	31.5	25	405.61
T129-4815	48	1.5	67	187	31.5	25	405.61
T129-4820	48	2.0	67	187	31.5	25	405.61
T129-4830	48	3.0	67	187	31.5	25	405.61
T129-5015	50	1.5	70	200	35.5	28	436.08

CAPITAL

CUTTING TOOLS



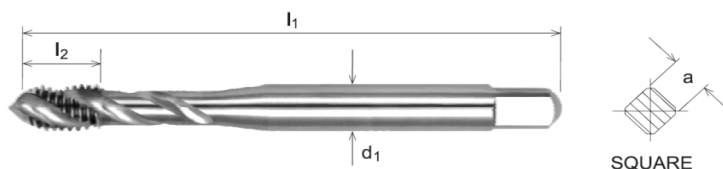
SPIRAL FLUTE TAPS - METRIC OVERSIZE

HIGH SPEED STEEL - GROUND THREAD

Code	Size	Pitch	l_2	l_1	d_1	a	\$ ea.
TS146-0610.6	6	1.0 + .4	19	66	6.3	5	37.08
TS146-0812.4	8	1.25 + .4	22	72	8	6.3	39.72
TS146-1015.4	10	1.5 + .4	24	80	10	8	46.67
TS146-1217.4	12	1.75 + .4	29	89	9	7.1	56.67
TS146-1420.4	14	2.0 + .4	30	95	11.2	9	64.03
TS146-1620.4	16	2.0 + .4	32	102	12.5	10	70.08
TS146-2025.4	20	2.5 + .4	37	112	14	11.2	99.98
TS146-2430.4	24	3.0 + .4	45	130	18	14	138.44
TS146-2430.45	24	3.0 + .45	45	130	18	14	138.44
TS146-3035.4	30	3.5 + .4	48	138	20	16	230.04

CAPITAL

CUTTING TOOLS



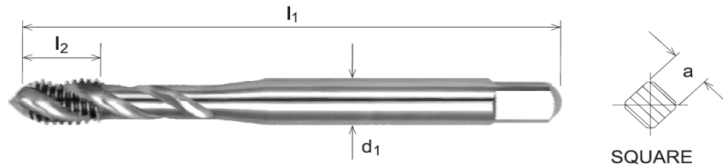
SPIRAL FLUTE TAPS - UNC

HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T209-0440	4	40	11	48	3.15	2.5	20.42
T209-0540	5	40	11	48	3.15	2.5	20.42
T209-0632	6	32	13	50	3.55	2.8	16.49
T209-0832	8	32	13	53	4.5	3.55	16.49
T209-1024	10	24	16	58	5	4	16.49
T209-1224	12	24	17	62	5.6	4.5	16.49
T209-2820	1/4	20	19	66	6.3	5	16.21
T209-3018	5/16	18	22	72	8	6.3	17.72
T209-3216	3/8	16	24	80	10	8	24.33
T209-3414	7/16	14	25	85	8	6.3	34.40
T209-3613	1/2	13	29	89	9	7.1	39.46
T209-3812	9/16	12	30	95	11.2	9	62.66
T209-4011	5/8	11	32	102	12.5	10	62.41
T209-4410	3/4	10	37	112	14	11.2	84.30
T209-4809	7/8	9	38	118	16	12.5	115.72
T209-5208	1"	8	45	130	18	14	134.17
T209-5407	1.1/8	7	48	138	20	16	251.37
T209-5607	1.1/4	7	51	151	22.4	18	262.78
T209-5806	1.3/8	6	57	162	25	20	327.54
T209-6006	1.1/2	6	60	170	28	22.4	346.58
T209-6404	1.3/4	5	67	187	31.5	25	375.14
T209-6804	2"	4.1/2	70	200	35.5	28	470.36

CAPITAL

CUTTING TOOLS



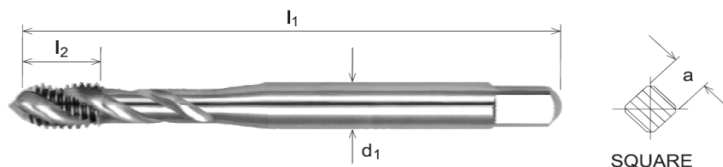
SPIRAL FLUTE TAPS - UNF

HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T229-0448	4	48	11	48	3.15	2.5	20.42
T229-0544	5	44	11	48	3.15	2.5	20.42
T229-0640	6	40	13	50	3.55	2.8	20.42
T229-0836	8	36	13	53	4.5	3.55	20.42
T229-1032	10	32	16	58	5	4	16.71
T229-1228	12	28	17	62	5.6	4.5	16.71
T229-2828	1/4	28	19	66	6.3	5	16.21
T229-3024	5/16	24	22	72	8	6.3	17.72
T229-3224	3/8	24	24	80	10	8	24.33
T229-3420	7/16	20	25	85	8	6.3	34.40
T229-3620	1/2	20	29	89	9	7.1	39.46
T229-3818	9/16	18	30	95	11.2	9	65.47
T229-4018	5/8	18	32	102	12.5	10	62.41
T229-4416	3/4	16	37	112	14	11.2	84.30
T229-4814	7/8	14	38	118	16	12.5	129.30
T229-5212	1"	12	45	130	18	14	162.77
T229-5214	1" UNS	14	45	130	18	14	210.72
T229-5312	1.1/16	12	48	138	20	16	232.70
T229-5412	1.1/8	12	48	138	20	16	251.37
T229-5512	1.3/16	12	48	138	20	16	255.33
T229-5612	1.1/4	12	51	151	22.4	18	262.78
T229-5712	1.5/16	12	51	151	22.4	18	291.34
T229-5812	1.3/8	12	57	162	25	20	327.54
T229-5912	1.7/16	12	57	162	25	20	337.04
T229-6012	1.1/2	12	60	170	28	22.4	346.58
T229-6112	1.9/16	12	60	170	28	22.4	343.41
T229-6212	1.5/8	12	60	170	28	22.4	351.42
T229-6412	1.3/4	12	67	187	31.5	25	375.88
T229-6612	1.7/8	12	67	187	31.5	25	394.73
T229-6812	2"	12	70	200	35.5	28	414.59

CAPITAL

CUTTING TOOLS

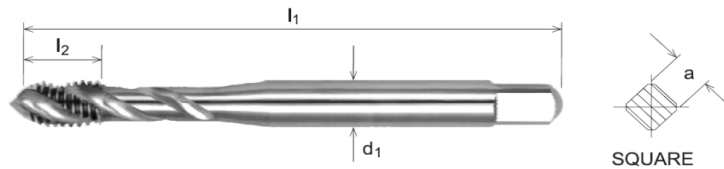


SPIRAL FLUTE TAPS - UNEF HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T249-2832	1/4	32	19	66	6.3	5	39.81
T249-3032	5/16	32	22	72	8	6.3	42.81
T249-3232	3/8	32	24	80	10	8	48.21
T249-3428	7/16	28	25	85	8	6.3	51.48
T249-3628	1/2	28	29	89	9	7.1	60.53
T249-3824	9/16	24	30	95	11.2	9	74.32
T249-4024	5/8	24	32	102	12.5	10	78.87
T249-4224	11/16	24	37	112	14	11.2	113.63
T249-4420	3/4	20	37	112	14	11.2	90.28
T249-4620	13/16	20	38	118	16	12.5	136.29
T249-4820	7/8	20	38	118	16	12.5	145.89
T249-5020	15/16	20	45	130	18	14	155.90
T249-5220	1"	20	45	130	18	14	176.04
T249-5318	1.1/16	18	48	138	20	16	219.03
T249-5418	1.1/8	18	48	138	20	16	235.16
T249-5518	1.3/16	18	48	138	20	16	235.16
T249-5618	1.1/4	18	51	151	22.4	18	266.03
T249-5718	1.5/16	18	51	151	22.4	18	296.88
T249-5818	1.3/8	18	57	162	25	20	328.48
T249-5918	1.7/16	18	57	162	25	20	345.00
T249-6018	1.1/2	18	60	170	28	22.4	361.04

CAPITAL

CUTTING TOOLS



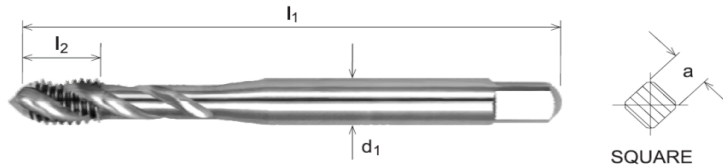
SPIRAL FLUTE TAPS - 8 UN SERIES

HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T269-5408	1.1/8	8	48	138	20	16	254.13
T269-5608	1.1/4	8	51	151	22.4	18	273.17
T269-5808	1.3/8	8	57	162	25	20	333.79
T269-6008	1.1/2	8	60	170	28	22.4	360.74
T269-6208	1.5/8	8	60	170	28	22.4	390.63
T269-6408	1.3/4	8	67	187	31.5	25	425.81
T269-6608	1.7/8	8	67	187	31.5	25	492.03
T269-6808	2"	8	70	200	35.5	28	526.84
T269-7208	2.1/4	8	70	200	35.5	28	572.71
T269-7608	2.1/2	8	70	200	35.5	28	626.06
T269-8008	2.3/4	8	70	200	35.5	28	668.43
T269-8408	3"	8	70	200	35.5	28	704.33

CAPITAL

CUTTING TOOLS

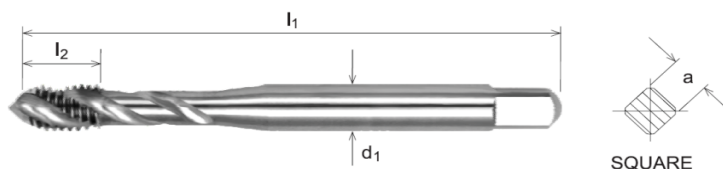


SPIRAL FLUTE TAPS - BSW HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T309-2440	1/8	40	11	48	3.15	2.5	19.89
T309-2532	5/32	32	13	53	4	3.15	20.61
T309-2624	3/16	24	16	58	5	4	20.61
T309-2724	7/32	24	18	64	6	4	16.91
T309-2820	1/4	20	19	66	6.3	5	18.51
T309-3018	5/16	18	22	72	8	6.3	25.40
T309-3216	3/8	16	24	80	10	8	25.40
T309-3414	7/16	14	25	85	8	6.3	35.97
T309-3612	1/2	12	29	89	9	7.1	41.21
T309-3812	9/16	12	30	95	11.2	9	68.51
T309-4011	5/8	11	32	102	12.5	10	65.24
T309-4211	11/16	11	35	107	14	11.2	81.23
T309-4410	3/4	10	37	112	14	11.2	81.23
T309-4610	13/16	10	38	118	16	12.5	115.72
T309-4809	7/8	9	38	118	16	12.5	115.72
T309-5008	15/16	9	42	126	18	14	134.17
T309-5208	1"	8	45	130	18	14	134.17
T309-5407	1.1/8	7	48	138	20	16	251.37
T309-5607	1.1/4	7	51	151	22.4	18	262.78
T309-5806	1.3/8	6	57	162	25	20	327.54
T309-6006	1.1/2	6	60	170	28	22.4	346.58
T309-6205	1.5/8	5	60	170	28	22.4	594.54

CAPITAL

CUTTING TOOLS



SPIRAL FLUTE TAPS - BSF

HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T329-2632	3/16	32	16	58	5	4	21.81
T329-2826	1/4	26	19	66	6.3	5	22.10
T329-3022	5/16	22	22	72	8	6.3	26.23
T329-3220	3/8	20	24	80	10	8	37.09
T329-3418	7/16	18	25	85	8	6.3	48.18
T329-3616	1/2	16	29	89	9	7.1	56.53
T329-3816	9/16	16	30	95	11.2	9	77.04
T329-4014	5/8	14	32	102	12.5	10	77.04
T329-4412	3/4	12	37	112	14	11.2	112.75
T329-4811	7/8	11	42	124	18	14	138.03
T329-5210	1"	10	45	130	18	14	177.27
T329-5409	1.1/8	9	48	138	20	16	251.37
T329-5609	1.1/4	9	51	151	22.4	18	262.78
T329-5808	1.3/8	8	57	162	25	20	327.54
T329-6008	1.1/2	8	60	170	28	22.4	346.58

SPIRAL FLUTE TAPS - "G" BSP

HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T429-2428	1/8	28	15	59	8	6.3	40.50
T429-2819	1/4	19	19	67	10	8	40.50
T429-3219	3/8	19	21	75	12.5	10	65.46
T429-3614	1/2	14	26	87	16	12.5	86.00
T429-4014	5/8	14	26	91	18	14	110.26
T429-4414	3/4	14	28	96	20	16	111.29
T429-4814	7/8	14	29	102	22.4	18	311.35
T429-5211	1"	11	33	109	25	20	358.00
T429-5611	1.1/4	11	36	119	31.5	25	418.94
T429-6011	1.1/2	11	37	125	35.5	28	470.36