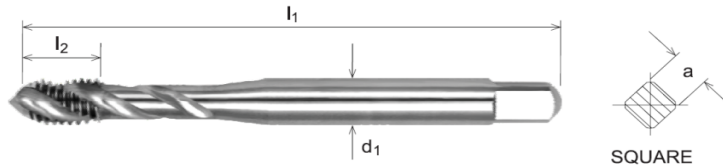


CAPITAL

CUTTING TOOLS



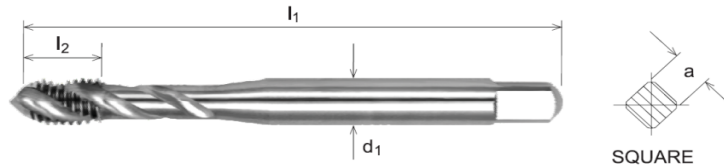
SPIRAL FLUTE TAPS - METRIC COARSE

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	30.17
T109-0305	3.0	0.5	11	48	3.15	2.5	19.48
T109-0356	3.5	0.6	13	50	3.55	2.8	20.91
T109-0402	4.0	0.7	13	53	4	3.15	15.15
T109-0457	4.5	0.75	13	53	4.5	3.55	29.69
T109-0508	5.0	0.8	16	58	5	4	16.93
T109-0610	6.0	1.0	19	66	6.3	5	17.53
T109-0710	7.0	1.0	19	66	7.1	5.6	20.05
T109-0812	8.0	1.25	22	72	8	6.3	18.98
T109-1015	10	1.5	24	80	10	8	27.01
T109-1217	12	1.75	29	89	9	7.1	42.31
T109-1420	14	2.0	30	95	11.2	9	54.12
T109-1620	16	2.0	32	102	12.5	10	67.51
T109-1825	18	2.5	37	112	14	11.2	91.18
T109-2025	20	2.5	37	112	14	11.2	114.86
T109-2225	22	2.5	38	118	16	12.5	125.16
T109-2430	24	3.0	45	130	18	14	145.00
T109-2730	27	3.0	45	135	20	16	170.54
T109-3035	30	3.5	48	138	20	16	205.50
T109-3335	33	3.5	51	151	22.4	18	378.16
T109-3640	36	4.0	57	162	25	20	397.00
T109-3940	39	4.0	60	170	28	22.4	422.23
T109-4245	42	4.5	60	170	28	22.4	442.83
T109-4545	45	4.5	67	187	31.5	25	453.12
T109-4850	48	5.0	67	187	31.5	25	529.31

CAPITAL

CUTTING TOOLS



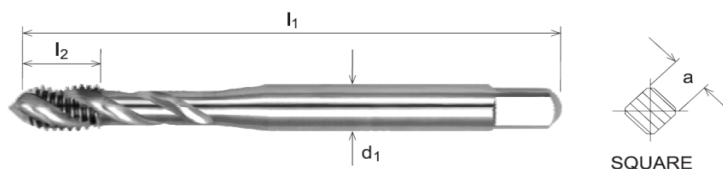
SPIRAL FLUTE TAPS - METRIC COARSE **LEFT HAND**

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	63.58
T119-0508	5.0	0.8	16	58	5	4	66.06
T119-0610	6.0	1.0	19	66	6.3	5	68.56
T119-0812	8.0	1.25	22	72	8	6.3	73.54
T119-1015	10	1.5	24	80	10	8	83.52
T119-1217	12	1.75	29	89	9	7.1	91.00
T119-1420	14	2.0	30	95	11.2	9	100.96
T119-1620	16	2.0	32	102	12.5	10	127.15
T119-1825	18	2.5	37	112	14	11.2	167.04
T119-2025	20	2.5	37	112	14	11.2	196.96
T119-2225	22	2.5	38	118	16	12.5	209.43
T119-2430	24	3.0	45	130	18	14	224.38
T119-2730	27	3.0	45	135	20	16	254.30
T119-3035	30	3.5	48	138	20	16	286.72
T119-3335	33	3.5	51	151	22.4	18	321.63
T119-3640	36	4.0	57	162	25	20	351.55

CAPITAL

CUTTING TOOLS



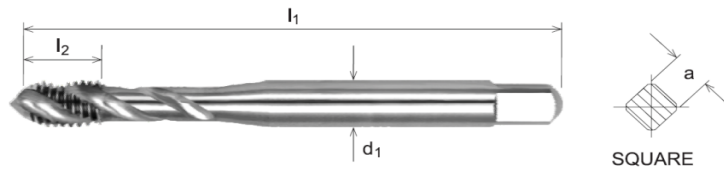
SPIRAL FLUTE TAPS - METRIC FINE

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	41.91
T129-0407	4.0	0.75	13	53	4	3.15	29.69
T129-0505	5.0	0.5	16	58	5	4	37.45
T129-0507	5.0	0.75	16	58	5	4	37.45
T129-0510	5.0	1	16	58	5	4	37.45
T129-0605	6.0	0.5	19	66	6.3	5	37.45
T129-0607	6.0	0.75	19	66	6.3	5	37.45
T129-0805	8.0	0.5	19	69	8	6.3	29.81
T129-0807	8.0	0.75	19	69	8	6.3	29.81
T129-0810	8.0	1.0	19	69	8	6.3	29.81
T129-0815	8.0	1.5	19	69	8	6.3	29.81
T129-0905	9.0	0.5	19	69	9	7.1	56.83
T129-0910	9.0	1.0	19	69	9	7.1	56.83
T129-1005	10	0.5	20	76	10	8	42.65
T129-1007	10	0.75	20	76	10	8	42.65
T129-1010	10	1.0	20	76	10	8	42.65
T129-1012	10	1.25	20	76	10	8	42.65
T129-1020	10	2	20	76	10	8	42.65
T129-1110	11	1.0	22	82	8	6.3	68.69
T129-1112	11	1.25	22	82	8	6.3	68.69
T129-1210	12	1.0	24	84	9	7.1	62.28
T129-1212	12	1.25	24	84	9	7.1	62.28
T129-1215	12	1.5	24	84	9	7.1	62.28
T129-1310	13	1.0	29	89	9	7.1	71.83
T129-1315	13	1.5	29	89	9	7.1	71.83
T129-1410	14	1.0	25	90	11.2	9	100.08
T129-1412	14	1.25	25	90	11.2	9	73.79
T129-1415	14	1.5	25	90	11.2	9	73.79
T129-1510	15	1.0	30	95	11.2	9	77.77
T129-1515	15	1.5	30	95	11.2	9	77.77
T129-1610	16	1.0	32	102	12.5	10	73.79
T129-1612	16	1.25	32	102	12.5	10	73.79

CAPITAL

CUTTING TOOLS



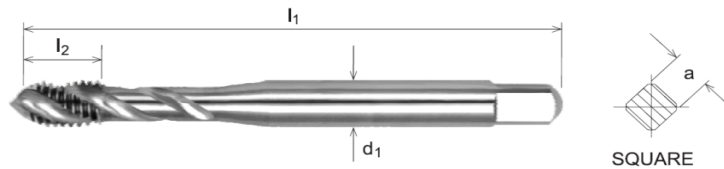
SPIRAL FLUTE TAPS - METRIC FINE

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	73.79
T129-1810	18	1.0	37	112	14	11.2	115.03
T129-1812	18	1.25	37	112	14	11.2	115.03
T129-1815	18	1.5	37	112	14	11.2	115.03
T129-1820	18	2.0	37	112	14	11.2	115.03
T129-1915	19	1.5	37	112	14	11.2	115.03
T129-2010	20	1.0	37	112	14	11.2	144.69
T129-2012	20	1.25	37	112	14	11.2	144.69
T129-2015	20	1.5	37	112	14	11.2	144.69
T129-2020	20	2.0	37	112	14	11.2	144.69
T129-2210	22	1.0	38	118	16	12.5	149.44
T129-2212	22	1.25	38	118	16	12.5	149.44
T129-2215	22	1.5	38	118	16	12.5	149.44
T129-2220	22	2.0	38	118	16	12.5	149.44
T129-2410	24	1.0	45	130	18	14	211.24
T129-2412	24	1.25	45	130	18	14	211.24
T129-2415	24	1.5	45	130	18	14	211.24
T129-2420	24	2.0	45	130	18	14	211.24
T129-2510	25	1.0	45	130	18	14	273.70
T129-2515	25	1.5	45	130	18	14	273.70
T129-2520	25	2.0	45	130	18	14	273.70
T129-2610	26	1.0	48	138	20	16	276.00
T129-2615	26	1.5	48	138	20	16	276.00
T129-2710	27	1.0	48	138	20	16	276.00
T129-2715	27	1.5	48	138	20	16	276.00
T129-2720	27	2.0	48	138	20	16	276.00
T129-2810	28	1.0	48	138	20	16	292.46
T129-2815	28	1.5	48	138	20	16	292.46
T129-2820	28	2.0	48	138	20	16	292.46
T129-3010	30	1.0	48	138	20	16	296.59
T129-3015	30	1.5	48	138	20	16	296.59
T129-3020	30	2.0	48	138	20	16	296.59

CAPITAL

CUTTING TOOLS



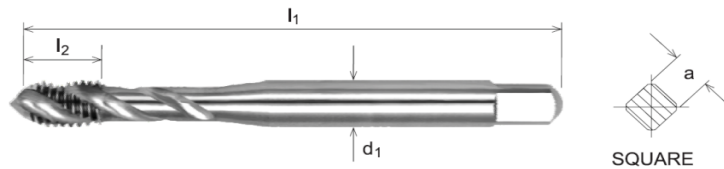
SPIRAL FLUTE TAPS - METRIC FINE

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	296.59
T129-3210	32	1.0	51	151	22.4	18	336.12
T129-3215	32	1.5	51	151	22.4	18	336.12
T129-3220	32	2.0	51	151	22.4	18	336.12
T129-3310	33	1.0	51	151	22.4	18	375.32
T129-3315	33	1.5	51	151	22.4	18	375.32
T129-3320	33	2.0	51	151	22.4	18	375.32
T129-3330	33	3.0	51	151	22.4	18	375.32
T129-3410	34	1.0	57	162	25	20	398.99
T129-3415	34	1.5	57	162	25	20	398.99
T129-3610	36	1.0	57	162	25	20	358.38
T129-3615	36	1.5	57	162	25	20	358.38
T129-3620	36	2.0	57	162	25	20	358.38
T129-3630	36	3.0	57	162	25	20	358.38
T129-3910	39	1.0	60	170	28	22.4	385.14
T129-3915	39	1.5	60	170	28	22.4	385.14
T129-3920	39	2.0	60	170	28	22.4	385.14
T129-3930	39	3.0	60	170	28	22.4	385.14
T129-4010	40	1.0	60	170	28	22.4	405.75
T129-4015	40	1.5	60	170	28	22.4	405.75
T129-4020	40	2.0	60	170	28	22.4	405.75
T129-4210	42	1.0	60	170	28	22.4	416.05
T129-4215	42	1.5	60	170	28	22.4	416.05
T129-4220	42	2.0	60	170	28	22.4	416.05
T129-4230	42	3.0	60	170	28	22.4	416.05
T129-4510	45	1.0	67	187	31.5	25	426.34
T129-4515	45	1.5	67	187	31.5	25	426.34
T129-4520	45	2.0	67	187	31.5	25	426.34
T129-4530	45	3.0	67	187	31.5	25	426.34
T129-4810	48	1.0	67	187	31.5	25	438.71
T129-4815	48	1.5	67	187	31.5	25	438.71
T129-4820	48	2.0	67	187	31.5	25	438.71
T129-4830	48	3.0	67	187	31.5	25	438.71
T129-5015	50	1.5	70	200	35.5	28	471.66

CAPITAL

CUTTING TOOLS



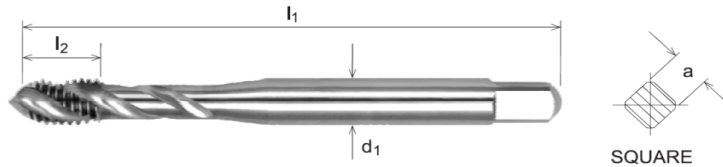
SPIRAL FLUTE TAPS - METRIC OVERSIZE

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	40.10
TS146-0812.4	8	1.25 + .4	22	72	8	6.3	42.96
TS146-1015.4	10	1.5 + .4	24	80	10	8	50.48
TS146-1217.4	12	1.75 + .4	29	89	9	7.1	61.29
TS146-1420.4	14	2.0 + .4	30	95	11.2	9	69.25
TS146-1620.4	16	2.0 + .4	32	102	12.5	10	75.80
TS146-2025.4	20	2.5 + .4	37	112	14	11.2	108.14
TS146-2430.4	24	3.0 + .4	45	130	18	14	149.74
TS146-2430.45	24	3.0 + .45	45	130	18	14	149.74
TS146-3035.4	30	3.5 + .4	48	138	20	16	248.81

CAPITAL

CUTTING TOOLS



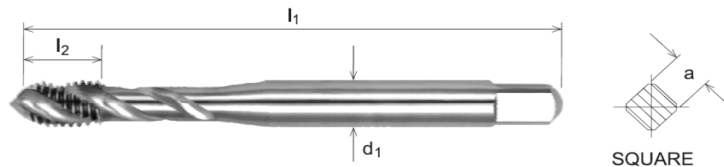
SPIRAL FLUTE TAPS - UNC

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	22.09
T209-0540	5	40	11	48	3.15	2.5	22.09
T209-0632	6	32	13	50	3.55	2.8	17.83
T209-0832	8	32	13	53	4.5	3.55	17.83
T209-1024	10	24	16	58	5	4	17.83
T209-1224	12	24	17	62	5.6	4.5	17.83
T209-2820	1/4	20	19	66	6.3	5	17.53
T209-3018	5/16	18	22	72	8	6.3	19.16
T209-3216	3/8	16	24	80	10	8	26.32
T209-3414	7/16	14	25	85	8	6.3	37.21
T209-3613	1/2	13	29	89	9	7.1	42.69
T209-3812	9/16	12	30	95	11.2	9	67.77
T209-4011	5/8	11	32	102	12.5	10	67.51
T209-4410	3/4	10	37	112	14	11.2	91.18
T209-4809	7/8	9	38	118	16	12.5	125.16
T209-5208	1"	8	45	130	18	14	145.11
T209-5407	1.1/8	7	48	138	20	16	271.89
T209-5607	1.1/4	7	51	151	22.4	18	284.22
T209-5806	1.3/8	6	57	162	25	20	354.26
T209-6006	1.1/2	6	60	170	28	22.4	374.86
T209-6404	1.3/4	5	67	187	31.5	25	405.75
T209-6804	2"	4.1/2	70	200	35.5	28	508.74

CAPITAL

CUTTING TOOLS



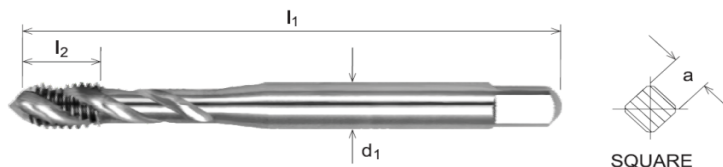
SPIRAL FLUTE TAPS - UNF

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	22.09
T229-0544	5	44	11	48	3.15	2.5	22.09
T229-0640	6	40	13	50	3.55	2.8	22.09
T229-0836	8	36	13	53	4.5	3.55	22.09
T229-1032	10	32	16	58	5	4	18.08
T229-1228	12	28	17	62	5.6	4.5	18.08
T229-2828	1/4	28	19	66	6.3	5	17.53
T229-3024	5/16	24	22	72	8	6.3	19.16
T229-3224	3/8	24	24	80	10	8	26.32
T229-3420	7/16	20	25	85	8	6.3	37.21
T229-3620	1/2	20	29	89	9	7.1	42.69
T229-3818	9/16	18	30	95	11.2	9	70.81
T229-4018	5/8	18	32	102	12.5	10	67.51
T229-4416	3/4	16	37	112	14	11.2	91.18
T229-4814	7/8	14	38	118	16	12.5	139.85
T229-5212	1"	12	45	130	18	14	176.05
T229-5214	1" UNS	14	45	130	18	14	227.92
T229-5312	1.1/16	12	48	138	20	16	251.69
T229-5412	1.1/8	12	48	138	20	16	271.89
T229-5512	1.3/16	12	48	138	20	16	276.16
T229-5612	1.1/4	12	51	151	22.4	18	284.22
T229-5712	1.5/16	12	51	151	22.4	18	315.11
T229-5812	1.3/8	12	57	162	25	20	354.26
T229-5912	1.7/16	12	57	162	25	20	364.54
T229-6012	1.1/2	12	60	170	28	22.4	374.86
T229-6112	1.9/16	12	60	170	28	22.4	371.44
T229-6212	1.5/8	12	60	170	28	22.4	380.10
T229-6412	1.3/4	12	67	187	31.5	25	406.55
T229-6612	1.7/8	12	67	187	31.5	25	426.94
T229-6812	2"	12	70	200	35.5	28	448.42

CAPITAL

CUTTING TOOLS

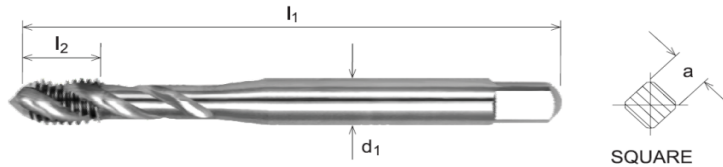


SPIRAL FLUTE TAPS - UNEF HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T249-2832	1/4	32	19	66	6.3	5	43.06
T249-3032	5/16	32	22	72	8	6.3	46.30
T249-3232	3/8	32	24	80	10	8	52.14
T249-3428	7/16	28	25	85	8	6.3	55.68
T249-3628	1/2	28	29	89	9	7.1	65.47
T249-3824	9/16	24	30	95	11.2	9	80.38
T249-4024	5/8	24	32	102	12.5	10	85.30
T249-4224	11/16	24	37	112	14	11.2	122.90
T249-4420	3/4	20	37	112	14	11.2	97.64
T249-4620	13/16	20	38	118	16	12.5	147.42
T249-4820	7/8	20	38	118	16	12.5	157.80
T249-5020	15/16	20	45	130	18	14	168.62
T249-5220	1"	20	45	130	18	14	190.41
T249-5318	1.1/16	18	48	138	20	16	236.90
T249-5418	1.1/8	18	48	138	20	16	254.35
T249-5518	1.3/16	18	48	138	20	16	254.35
T249-5618	1.1/4	18	51	151	22.4	18	287.74
T249-5718	1.5/16	18	51	151	22.4	18	321.10
T249-5818	1.3/8	18	57	162	25	20	355.28
T249-5918	1.7/16	18	57	162	25	20	373.15
T249-6018	1.1/2	18	60	170	28	22.4	390.50

CAPITAL

CUTTING TOOLS



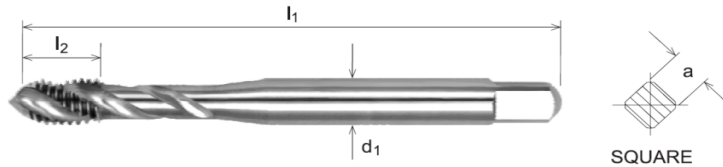
SPIRAL FLUTE TAPS - 8 UN SERIES

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	274.86
T269-5608	1.1/4	8	51	151	22.4	18	295.46
T269-5808	1.3/8	8	57	162	25	20	361.02
T269-6008	1.1/2	8	60	170	28	22.4	390.17
T269-6208	1.5/8	8	60	170	28	22.4	422.51
T269-6408	1.3/4	8	67	187	31.5	25	460.56
T269-6608	1.7/8	8	67	187	31.5	25	532.18
T269-6808	2"	8	70	200	35.5	28	569.83
T269-7208	2.1/4	8	70	200	35.5	28	619.44
T269-7608	2.1/2	8	70	200	35.5	28	677.14
T269-8008	2.3/4	8	70	200	35.5	28	722.97
T269-8408	3"	8	70	200	35.5	28	761.81

CAPITAL

CUTTING TOOLS

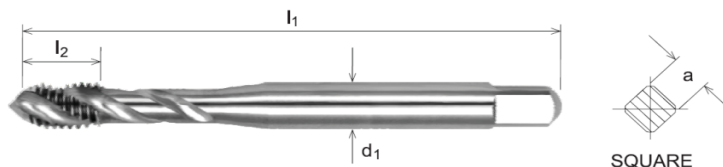


SPIRAL FLUTE TAPS - BSW HIGH SPEED STEEL - GROUND THREAD

Code	Size	TPI	l_2	l_1	d_1	a	\$ ea.
T309-2440	1/8	40	11	48	3.15	2.5	21.52
T309-2532	5/32	32	13	53	4	3.15	22.29
T309-2624	3/16	24	16	58	5	4	22.29
T309-2724	7/32	24	18	64	6	4	18.29
T309-2820	1/4	20	19	66	6.3	5	20.02
T309-3018	5/16	18	22	72	8	6.3	27.47
T309-3216	3/8	16	24	80	10	8	27.47
T309-3414	7/16	14	25	85	8	6.3	38.90
T309-3612	1/2	12	29	89	9	7.1	44.58
T309-3812	9/16	12	30	95	11.2	9	74.10
T309-4011	5/8	11	32	102	12.5	10	70.57
T309-4211	11/16	11	35	107	14	11.2	87.85
T309-4410	3/4	10	37	112	14	11.2	87.85
T309-4610	13/16	10	38	118	16	12.5	125.16
T309-4809	7/8	9	38	118	16	12.5	125.16
T309-5008	15/16	9	42	126	18	14	145.11
T309-5208	1"	8	45	130	18	14	145.11
T309-5407	1.1/8	7	48	138	20	16	271.89
T309-5607	1.1/4	7	51	151	22.4	18	284.22
T309-5806	1.3/8	6	57	162	25	20	354.26
T309-6006	1.1/2	6	60	170	28	22.4	374.86
T309-6205	1.5/8	5	60	170	28	22.4	643.06

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	23.59
T329-2826	1/4	26	19	66	6.3	5	23.90
T329-3022	5/16	22	22	72	8	6.3	28.37
T329-3220	3/8	20	24	80	10	8	40.12
T329-3418	7/16	18	25	85	8	6.3	52.11
T329-3616	1/2	16	29	89	9	7.1	61.14
T329-3816	9/16	16	30	95	11.2	9	83.33
T329-4014	5/8	14	32	102	12.5	10	83.33
T329-4412	3/4	12	37	112	14	11.2	121.95
T329-4811	7/8	11	42	124	18	14	149.29
T329-5210	1"	10	45	130	18	14	191.73
T329-5409	1.1/8	9	48	138	20	16	271.89
T329-5609	1.1/4	9	51	151	22.4	18	284.22
T329-5808	1.3/8	8	57	162	25	20	354.26
T329-6008	1.1/2	8	60	170	28	22.4	374.86

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	43.80
T429-2819	1/4	19	19	67	10	8	43.80
T429-3219	3/8	19	21	75	12.5	10	70.80
T429-3614	1/2	14	26	87	16	12.5	93.02
T429-4014	5/8	14	26	91	18	14	119.26
T429-4414	3/4	14	28	96	20	16	120.37
T429-4814	7/8	14	29	102	22.4	18	336.76
T429-5211	1"	11	33	109	25	20	387.21
T429-5611	1.1/4	11	36	119	31.5	25	453.12
T429-6011	1.1/2	11	37	125	35.5	28	508.74