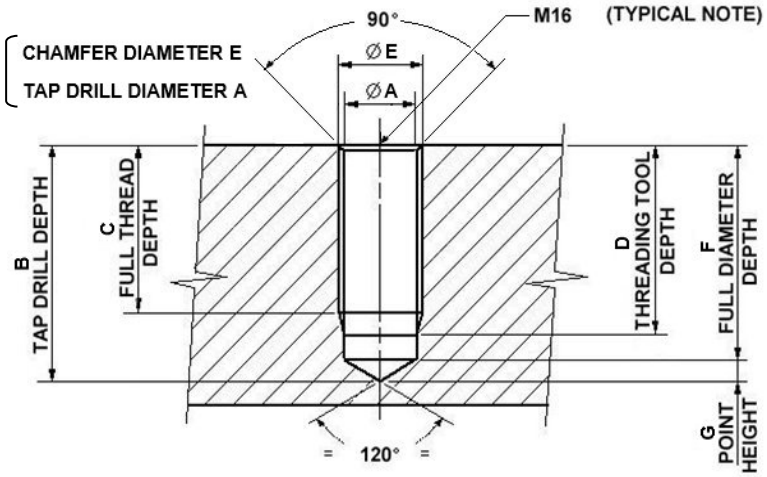
Type 1 - General Purpose Metric Tapped Holes

Standard Thread Length (2 x Nom Dia)

Coarse Pitch - Classes 6H & 6H8G



	THREAD	PITCH	TAP DRILL A								B	TAPPING C	TAPPING D	CHAMFER E		FOR REF. F		FOR REF. G	
			Tolerance Class 6H (See 3)				Tolerance Class 6H8G (See 3)				± 0.2	(See 4)	(See 4)	Dia. (See 5)		6H	6H8G	6H	6H8G
			Cut Tap			Roll Form	Cut Tap			Roll Form									
		Nom.	Nom.	Max.	Min.	Nom. ±0.05	Nom.	Max.	Min.	Nom. ±0.05	Nom.	Nom.	Nom.	Nom.	Tol.	Nom.	Nom.	Nom.	Nom.
	M3	0.5	2.5	2.599	2.459	2.75	2.6	2.639	2.459	2.8	9.5	6.0	7.5	3.25	±0.1	8.778	8.749	0.722	0.751
1	**M4**	0.7	3.3	3.422	3.242	3.64	3.4	3.466	3.242	3.71	12.5	8.0	10.1	4.35	±0.14	11.547	11.519	0.953	0.981
	M5	0.8	4.2	4.334	4.134	4.59	4.4	4.473	4.158	4.67	16.0	10.0	12.4	5.4	±0.16	14.788	14.730	1.212	1.270
	M6	1.0	5.0	5.153	4.917	5.49	5.3	5.318	4.943	5.59	18.5	12.0	15.0	6.5	±0.2	17.057	16.970	1.443	1.530
	M8	1.25	6.75	6.912	6.647	7.36	7.035	7.1	6.675	7.49	24.0	16.0	19.75	8.625	±0.25	22.051	21.969	1.949	2.031
	M10	1.5	8.5	8.676	8.376	9.24	8.8	8.883	8.408	9.39	30.0	20.0	24.5	10.75	±0.3	27.546	27.460	2.454	2.540
	M12	1.75	10.25	10.441	10.106	11.11	10.6	10.67	10.14	11.29	35.0	24.0	29.25	12.875	±0.35	32.041	31.940	2.959	3.060
	M16	2.0	14.0	14.21	13.835	14.98	14.29	14.473	13.873	15.18	45.0	32.0	38.0	17.0	±0.4	40.959	40.875	4.041	4.125
2	**M20**	2.5	17.5	17.744	17.294	18.73	18.0	18.046	17.336	18.98	56.0	40.0	47.5	21.25	±0.5	50.948	50.804	5.052	5.196
	M24	3.0	21.0	21.252	20.752	22.47	21.5	21.601	20.801	22.78	67.0	48.0	57.0	25.5	±0.6	60.938	60.793	6.062	6.207
	M30	3.5	26.5	26.771	26.211	28.22	27.0	27.164	26.264	28.57	83.0	60.0	70.5	31.75	±0.7	75.350	75.206	7.650	7.794
	M36	4.0	32.0	32.27	31.67	33.96	32.5	32.68	31.73	34.37	98.0	72.0	84.0	38.0	±0.8	88.762	88.618	9.238	9.382
	M42	4.5	37.5	37.799	37.129	39.71	38.1	38.252	37.192	40.16	114.0	84.0	97.5	44.25	±0.9	103.175	103.001	10.825	10.999
	M48	5.0	43.0	43.297	42.587	45.45	43.6	43.778	42.658	45.96	130.0	96.0	111.0	50.5	±1.0	117.587	117.414	12.413	12.586
	M56	5.5	50.5	50.796	50.046	53.2	51.0	51.301	50.121	53.76	150.0	112.0	128.5	58.75	±1.1	135.422	135.278	14.578	14.722

Notes:

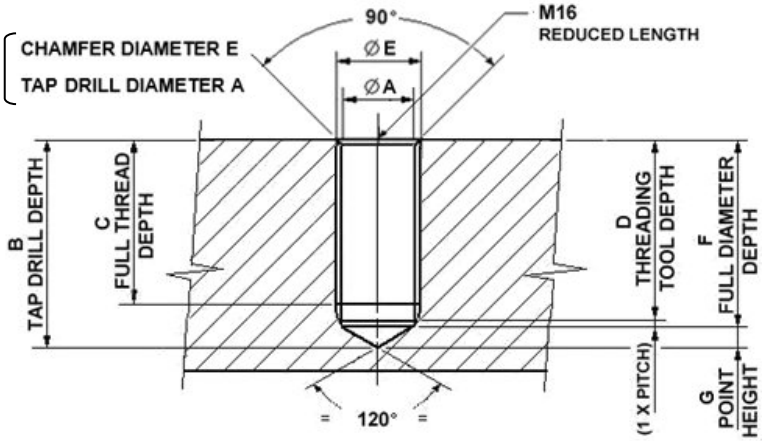
1) Not recommended
2) Not for use on edge of plates or for lifting hole
3) 6H is the preferred tolerance class at Husky. Class 6H8G is only permissible on tool and alloy steels
4) Tolerance: +0.75 x pitch, -0
5) Chamfer Ø = Tap drill Ø + (N x pitch)
   With N_{nom}=1.5, N_{min}=1.3, N_{max}=1.7
   Given values apply to cut tap 6H holes

- All dimensions in mm
- ISO261 & ISO965 metric screw threads
- ISO metric screw threads are designated M10 X 1.0-6H
- Typical general tapped hole indication at Husky: M10
- Absence of pitch indication means coarse thread is specified
- Absence of thread tolerance class means 6H is specified. Exception: 6H8G is permissible as a minimum fit on tool and alloy steels (material yield strength>1000 MPa and hardness>25RC)
- Tap thread lead = 3x pitch
- The drill tip angle may vary from 120˚ to 180˚ due to tooling requirements
- Any deviations from this standard must be reviewed, approved and documented at a design review

Type 2 - Special Purpose Metric Tapped Holes

Reduced Thread Length (1.5 x Nom Dia)

Coarse Pitch - Classes 6H & 6H8G



	THREAD	PITCH	TAP DRILL A Tolerance Class 6H (See 3) Cut Tap Nom.	Cut Tap Nom.	Cut Tap Max.	Cut Tap Min.	Roll Form Nom. ±0.05	TAP DRILL A Tolerance Class 6H8G (See 3) Cut Tap Nom.	Cut Tap Max.	Cut Tap Min.	Roll Form Nom. ±0.05	B ± 0.2	TAPPING C (See 4)	TAPPING D (See 4)	CHAMFER E Dia. (See 5)	CHAMFER E Tol.	FOR REF. F 6H	F 6H8G	G 6H	G 6H8G
		Nom.	Nom.	Max.	Min.		Nom.	Max.	Min.		Nom.	Nom.	Nom.	Nom.		Nom.	Nom.	Nom.	Nom.
	M3	0.5	2.5	2.599	2.459	2.75	2.6	2.639	2.459	2.8	7.25	4.50	6.00	3.25	±0.1	6.529	6.5	0.722	0.751
1	**M4**	0.7	3.3	3.422	3.242	3.64	3.4	3.466	3.242	3.71	9.78	6.00	8.10	4.35	±0.14	8.828	8.8	0.953	0.981
	M5	0.8	4.2	4.334	4.134	4.59	4.4	4.473	4.158	4.67	11.97	7.50	9.90	5.4	±0.16	10.758	10.7	1.212	1.270
	M6	1.0	5.0	5.153	4.917	5.49	5.3	5.318	4.943	5.59	15.53	9.00	12.00	6.5	±0.2	14.087	14.0	1.443	1.530
	M8	1.25	6.75	6.912	6.647	7.36	7.035	7.1	6.675	7.49	19.03	12.00	15.75	8.625	±0.25	17.082	17.0	1.949	2.031
	M10	1.5	8.5	8.676	8.376	9.24	8.8	8.883	8.408	9.39	23.54	15.00	19.50	10.75	±0.3	21.086	21.0	2.454	2.540
	M12	1.75	10.25	10.441	10.106	11.11	10.6	10.67	10.14	11.29	28.06	18.00	23.25	12.875	±0.35	25.101	25.0	2.959	3.060
	M16	2.0	14.0	14.21	13.835	14.98	14.29	14.473	13.873	15.18	36.13	24.00	30.00	17.0	±0.4	32.084	32.0	4.041	4.125
2	**M20**	2.5	17.5	17.744	17.294	18.73	18.0	18.046	17.336	18.98	45.20	30.00	37.50	21.25	±0.5	40.144	40.0	5.052	5.196
	M24	3.0	21.0	21.252	20.752	22.47	21.5	21.601	20.801	22.78	54.21	36.00	45.00	25.5	±0.6	48.145	48.0	6.062	6.207
	M30	3.5	26.5	26.771	26.211	28.22	27.0	27.164	26.264	28.57	66.79	45.00	55.50	31.75	±0.7	59.144	59.0	7.650	7.794
	M36	4.0	32.0	32.27	31.67	33.96	32.5	32.68	31.73	34.37	79.38	54.00	66.00	38.0	±0.8	70.144	70.0	9.238	9.382
	M42	4.5	37.5	37.799	37.129	39.71	38.1	38.252	37.192	40.16	92.00	63.00	76.50	44.25	±0.9	81.174	81.0	10.825	10.999
	M48	5.0	43.0	43.297	42.587	45.45	43.6	43.778	42.658	45.96	104.59	72.00	87.00	50.5	±1.0	92.173	92.0	12.413	12.586
	M56	5.5	50.5	50.796	50.046	53.2	51.0	51.301	50.121	53.76	120.72	84.00	100.50	58.75	±1.1	106.144	106.0	14.578	14.722

Notes:

1) Not recommended
2) Not for use on edge of plates or for lifting hole
3) 6H is the preferred tolerance class at Husky. Class 6H8G is only permissible on tool and alloy steels
4) Tolerance: +0.75 x pitch, -0
5) Chamfer Ø = Tap drill Ø + (N x pitch)
   With N_{nom}=1.5, N_{min}=1.3, N_{max}=1.7
   Given values apply to cut tap 6H holes

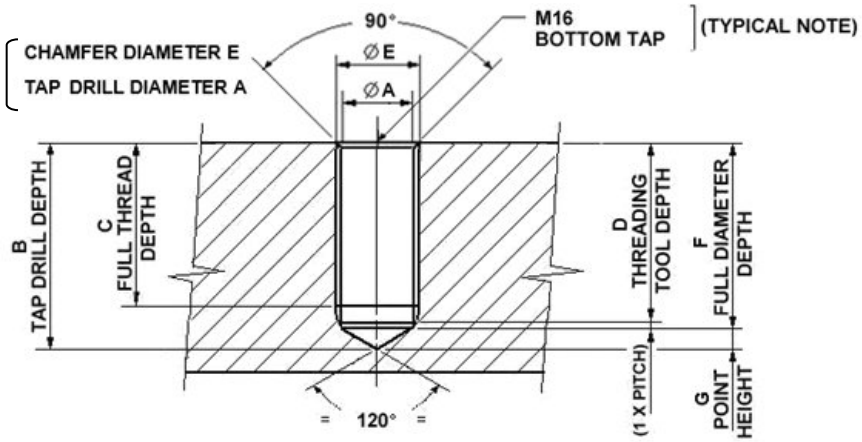
- All dimensions in mm
- ISO261 & ISO965 metric screw threads
- ISO metric screw threads are designated M10 X 1.0-6H
- Type 2 tap hole indication at Husky: M10 REDUCED LENGTH
- Absence of pitch indication means coarse thread is specified
- Absence of thread tolerance class means 6H is specified. Exception: 6H8G is permissible as a minimum fit on tool and alloy steels (material yield strength>1000 MPa and hardness>25RC)
- Tap thread lead = 3x pitch
- The drill tip angle may vary from 120˚ to 180˚ due to tooling requirements
- Any deviations from this standard must be reviewed, approved and documented at a design review

Type 3 - True Bottom Metric Tapped Holes

1.5x and 2x Nom Dia Thread Lengths

Coarse Pitch - Classes 6H & 6H8G

HAND TAPPING - FOR REFERENCE ONLY - NOT RECOMMENDED FOR USE
INSTALLATIONS TO BE FULLY DIMENSIONED ON DRAWINGS



	THREAD	PITCH	TAP DRILL								TAPPING				CHAMFER		FOR REF.					
			A						B		C		D		E		F				G	
			Tolerance Class 6H (See 3)			Tolerance Class 6H8G (See 3)			1.5xDia ±0.2	2.0xDia ±0.2	1.5xDia ±0.2	2.0xDia ±0.2	1.5xDia ±0.2	2.0xDia ±0.2	Dia. (See 4)		1.5xDia		2.0xDia		6H	6H8G
		Nom.	Nom.	Max.	Min.	Nom.	Max.	Min.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Nom.	Tol.	6H	6H8G	6H	6H8G	Nom.	Nom.
	M3	0.5	2.5	2.599	2.459	2.6	2.639	2.459	7.00	8.50	4.50	6.00	5.25	6.75	3.25	±0.1	6.278	6.2	7.778	7.7	0.722	0.751
1	M4	0.7	3.3	3.422	3.242	3.4	3.466	3.242	9.00	11.00	6.00	8.00	7.05	9.05	4.35	±0.14	8.047	8.0	10.047	10.0	0.953	0.981
	M5	0.8	4.2	4.334	4.134	4.4	4.473	4.158	11.00	13.50	7.50	10.00	8.70	11.20	5.4	±0.16	9.788	9.7	12.288	12.2	1.212	1.270
	M6	1.0	5.0	5.153	4.917	5.3	5.318	4.943	13.00	16.00	9.00	12.00	10.50	13.50	6.5	±0.2	11.557	11.5	14.557	14.5	1.443	1.530
	M8	1.25	6.75	6.912	6.647	7.035	7.1	6.675	17.00	21.00	12.00	16.00	13.90	17.90	8.625	±0.25	15.051	15.0	19.051	19.0	1.949	2.031
	M10	1.5	8.5	8.676	8.376	8.8	8.883	8.408	21.00	26.00	15.00	20.00	17.25	22.25	10.75	±0.3	18.546	18.5	23.546	23.5	2.454	2.540
	M12	1.75	10.25	10.441	10.106	10.6	10.67	10.14	25.00	31.00	18.00	24.00	20.63	26.63	12.875	±0.35	22.041	21.9	28.041	27.9	2.959	3.060
	M16	2.0	14.0	14.21	13.835	14.29	14.473	13.873	32.00	40.00	24.00	32.00	27.00	35.00	17.0	±0.4	27.959	27.9	35.959	35.9	4.041	4.125
2	M20	2.5	17.5	17.744	17.294	18.0	18.046	17.336	40.00	50.00	30.00	40.00	33.75	43.75	21.25	±0.5	34.948	34.8	44.948	44.8	5.052	5.196
	M24	3.0	21.0	21.252	20.752	21.5	21.601	20.801	48.00	60.00	36.00	48.00	40.50	52.50	25.5	±0.6	41.938	41.8	53.938	53.8	6.062	6.207
	M30	3.5	26.5	26.771	26.211	27.0	27.164	26.264	59.00	74.00	45.00	60.00	50.25	65.25	31.75	±0.7	51.350	51.2	66.350	66.2	7.650	7.794
	M36	4.0	32.0	32.27	31.67	32.5	32.68	31.73	72.00	90.00	54.00	72.00	60.00	78.00	38.0	±0.8	62.762	62.6	80.762	80.6	9.238	9.382
	M42	4.5	37.5	37.799	37.129	38.1	38.252	37.192	82.00	103.00	63.00	84.00	69.75	90.75	44.25	±0.9	71.175	71.0	92.175	92.0	10.825	10.999
	M48	5.0	43.0	43.297	42.587	43.6	43.778	42.658	93.00	117.00	72.00	96.00	79.50	103.50	50.5	±1.0	80.587	80.4	104.587	104.4	12.413	12.586

Notes:

1) Not recommended
2) Not for use on edge of plates or for lifting hole
3) 6H is the preferred tolerance class at Husky. Class 6H8G is only permissible on tool and alloy steels
4) Chamfer Ø = Tap drill Ø + (N x pitch)
   With N_{nom}=1.5, N_{min}=1.3, N_{max}=1.7
   Given values apply to cut tap 6H holes

- All dimensions in mm
- ISO261 & ISO965 metric screw threads
- ISO metric screw threads are designated M10 X 1.0-6H
- Type 3 tap hole indication at Husky: M10 BOTTOM TAP
- Absence of pitch indication means coarse thread is specified
- Absence of thread tolerance class means 6H is specified. Exception: 6H8G is permissible as a minimum fit on tool and alloy steels (material yield strength>1000 MPa and hardness>25RC)
- The drill tip angle may vary from 120˚ to 180˚ due to tooling requirements
- Any deviations from this standard must be reviewed, approved and documented at a design review

Revision Log

Rev	Revision Description
0	Original issue
1	Clerical change
2	Added roll form - SR 17090
3	Tolerance value for thread depth D updated
4	New chamfer specifications added to type 1, 2 and 3 tapped holes (See diameter E)