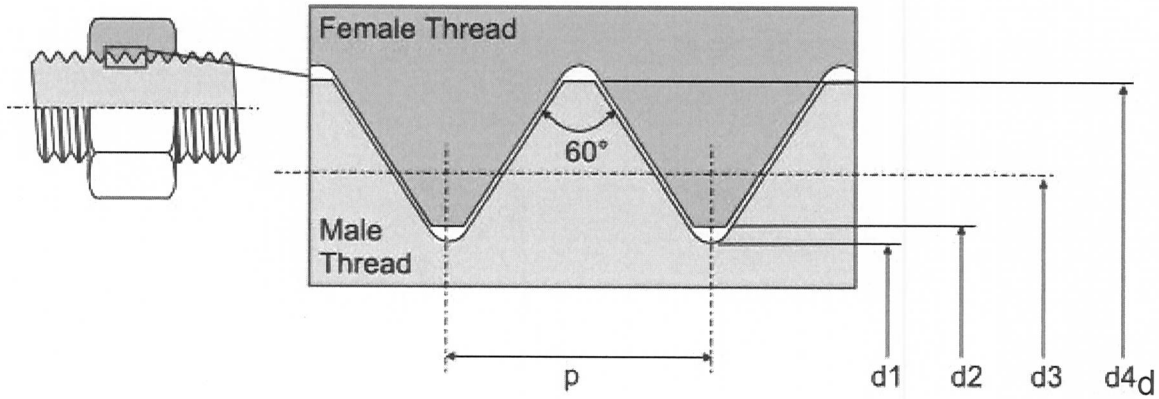
Thread Geometry - Metric Fine

According to ISO965 All Dimensions in mm unless otherwise stated

Tolerances: Male Thread 6g Female Thread: 6h



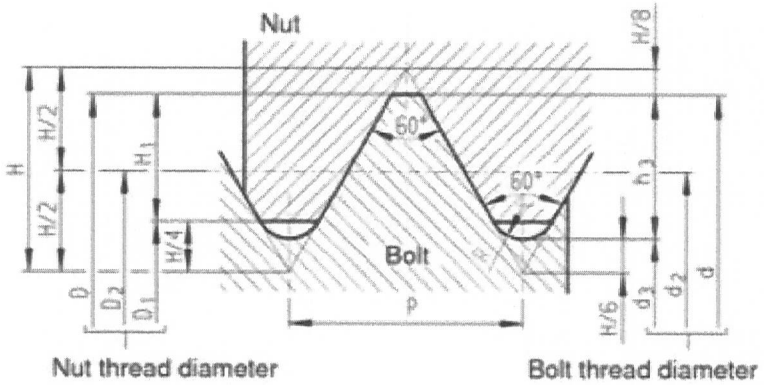
1 - Minor thread diameter male

d2 - Minor Thread diameter female

d3 - Pitch diameter

d4 - Major diameter

p – Pitch



D_1 $d = 2\,H_1$

d_2 D_2 $d = 0.64952\,P$

d_3 $d = 1.22687\,P$

H $0.86603\,P$

H_1 $0.54127\,P$

h_3 $0.61343\,P$

R $\frac{H}{6}$ $0.14434\,P$

	ISO Metric profile			External (bolt thread)									Internal (nut thread)							Basic mm
Size mm	Thread Designation	Simple Thread Designation	Pitch mm	Class	Major Dia d=D max.	Major Dia d=D min.	Pitch Dia d2=D2 max.	Pitch Dia d2=D2 min.	Minor Dia d3 max.	Minor Dia d3 min.		Class	Minor Dia D1 min.	Minor Dia D1 max.	Pitch Dia d2=D2 min.	Pitch Dia d2=D2 max.	Major Dia d=D min.	Major Dia d=D max.	Tap Drill
42	M42x4.5	M42	4.5	6g	41.94	41.44	39.01	38.78	37.066	36.006		6H	37.129	37.799	39.077	39.392	42	42.965	37.5
42	M42x4	M42x4	4	6g	41.94	41.47	39.34	39.12	37.61	36.654		6H	37.67	38.27	39.402	39.702	42	42.877	38
42	M42x3	M42x3	3	6g	41.95	41.58	40	39.8	38.704	37.955		6H	38.752	39.252	40.051	40.316	42	42.698	39
42	M42x2	M42x2	2	6g	41.96	41.68	40.66	40.49	39.797	39.261		6H	39.835	40.21	40.701	40.925	42	42.513	40
42	M42x1.5	M42x1.5	1.5	6g	41.97	41.73	40.99	40.84	40.344	39.92		6H	40.376	40.676	41.026	41.226	42	42.417	40.5
42	M42x1	M42x1	1	6g	41.97	41.79	41.32	41.2	40.891	40.583		6H	40.917	41.153	41.35	41.52	42	42.314	41

Thread x Pitch	Major Diameter	Pitch	Pitch Diameter	Minor Diameter Male Thread	Minor Diameter Female Thread
M42x2.0	42	2	40.701	39.546	39.835
M42x3.0	42	3	40.051	38.319	38.752
M42x4.0	42	4	39.402	37.093	37.67