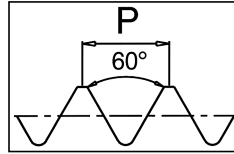
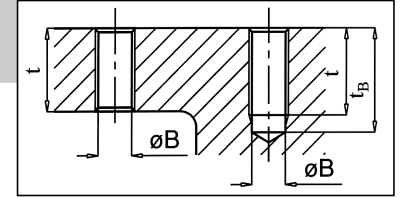


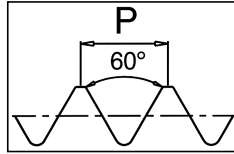
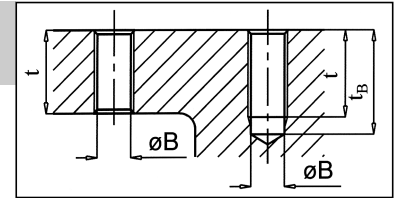
Gewinde - Kernloch-Ø und Kern-Ø Muttergewinde
Drill-Ø for Threads and Minor-Ø of Nut Threads



M Metr. ISO - Regelgewinde, 6H (5H) ¹⁾ <i>Metric ISO - Coarse Thread 6H (5H)</i>					MF Metr. ISO - Feingewinde, 6H (4H) ¹⁾ <i>Metric ISO - Fine Thread 6H (4H)</i>											
Ø	P [mm]	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø	x	P [mm]	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø	x	P [mm]	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø	
			Min.	Max.					Min.	Max.					Min.	Max.
M 1	0,25	0,75	0,729	0,785	M 2	x	0,25	1,75	1,729	1,774	M 27	x	1,5	25,50	25,376	25,676
M 1,1	0,25	0,85	0,829	0,885	M 2,2	x	0,25	1,95	1,929	1,974	M 27	x	2	25,00	24,835	25,210
M 1,2	0,25	0,95	0,929	0,985	M 2,5	x	0,35	2,15	2,121	2,221	M 28	x	1,5	26,50	26,376	26,676
M 1,4	0,3	1,10	1,075	1,142	M 3	x	0,35	2,65	2,621	2,721	M 28	x	2	26,00	25,835	26,210
M 1,6	0,35	1,25	1,221	1,321	M 3,5	x	0,35	3,15	3,121	3,221	M 30	x	1	29,00	28,917	29,153
M 1,7*	0,35	1,30	1,256	1,346	M 4	x	0,35	3,65	3,621	3,721	M 30	x	1,5	28,50	28,376	28,676
M 1,8	0,35	1,45	1,421	1,521	M 4	x	0,5	3,50	3,459	3,599	M 30	x	2	28,00	27,835	28,210
M 2	0,4	1,60	1,567	1,679	M 5	x	0,5	4,50	4,459	4,599	M 32	x	1,5	30,50	30,376	30,676
M 2,2	0,45	1,75	1,713	1,838	M 6	x	0,5	5,50	5,459	5,599	M 32	x	2	30,00	29,835	30,210
M 2,3*	0,4	1,90	1,795	1,920	M 6	x	0,75	5,20	5,188	5,378	M 33	x	1,5	31,50	31,376	31,676
M 2,5	0,45	2,05	2,013	2,138	M 7	x	0,75	6,20	6,188	6,378	M 33	x	2	31,00	30,835	31,210
M 2,6*	0,45	2,10	2,036	2,176	M 8	x	0,5	7,50	7,459	7,599	M 34	x	1,5	32,50	32,376	32,676
M 3	0,5	2,50	2,459	2,599	M 8	x	0,75	7,20	7,188	7,378	M 35	x	1,5	33,50	33,376	33,676
M 3,5	0,6	2,90	2,850	3,010	M 8	x	1	7,00	6,917	7,153	M 36	x	1,5	34,50	34,376	34,676
M 4	0,7	3,30	3,242	3,422	M 9	x	0,75	8,20	8,188	8,378	M 36	x	2	34,00	33,835	34,210
M 4,5	0,75	3,70	3,688	3,878	M 9	x	1	8,00	7,917	8,153	M 36	x	3	33,00	32,752	33,252
M 5	0,8	4,20	4,134	4,334	M 10	x	0,5	9,50	9,459	9,599	M 38	x	1,5	36,50	36,376	36,676
M 6	1	5,00	4,917	5,153	M 10	x	0,75	9,20	9,188	9,378	M 39	x	1,5	37,50	37,376	37,676
M 7	1	6,00	5,917	6,153	M 10	x	1	9,00	8,917	9,153	M 39	x	2	37,00	36,835	37,210
M 8	1,25	6,80	6,647	6,912	M 10	x	1,25	8,80	8,647	8,912	M 39	x	3	36,00	35,752	36,252
M 9	1,25	7,80	7,647	7,912	M 11	x	1	10,00	9,917	10,153	M 40	x	1,5	38,50	38,376	38,676
M 10	1,5	8,50	8,376	8,676	M 12	x	0,5	11,50	11,459	11,599	M 40	x	2	38,00	37,835	38,210
M 11	1,5	9,50	9,376	9,676	M 12	x	0,75	11,20	11,188	11,378	M 40	x	3	37,00	36,752	37,252
M 12	1,75	10,20	10,106	10,441	M 12	x	1	11,00	10,917	11,153	M 42	x	1,5	40,50	40,376	40,676
M 14	2	12,00	11,835	12,210	M 12	x	1,25	10,80	10,647	10,912	M 42	x	2	40,00	39,835	40,210
M 16	2	14,00	13,835	14,210	M 12	x	1,5	10,50	10,376	10,676	M 42	x	3	39,00	38,752	39,252
M 18	2,5	15,50	15,294	15,744	M 13	x	1	12,00	11,917	12,153	M 45	x	1,5	43,50	43,376	43,676
M 20	2,5	17,50	17,294	17,744	M 14	x	1	13,00	12,917	13,153	M 45	x	2	43,00	42,835	43,210
M 22	2,5	19,50	19,294	19,744	M 14	x	1,25	12,80	12,647	12,912	M 45	x	3	42,00	41,752	42,252
M 24	3	21,00	20,752	21,252	M 14	x	1,5	12,50	12,376	12,676	M 48	x	1,5	46,50	46,376	46,676
M 27	3	24,00	23,752	24,252	M 15	x	1	14,00	13,917	14,153	M 48	x	2	46,00	45,835	46,210
M 30	3,5	26,50	26,211	26,771	M 15	x	1,5	13,50	13,376	13,676	M 48	x	3	45,00	44,752	45,252
M 33	3,5	29,50	29,211	29,771	M 16	x	1	15,00	14,917	15,153	M 50	x	1,5	48,50	48,376	48,676
M 36	4	32,00	31,670	32,270	M 16	x	1,5	14,50	14,376	14,676	M 50	x	2	48,00	47,835	48,210
M 39	4	35,00	34,670	35,270	M 18	x	1	17,00	16,917	17,153	M 50	x	3	47,00	46,752	47,252
M 42	4,5	37,50	37,129	37,799	M 18	x	1,5	16,50	16,376	16,676	M 52	x	1,5	50,50	50,376	50,676
M 45	4,5	40,50	40,129	40,799	M 18	x	2	16,00	15,835	16,210	M 52	x	2	50,00	49,835	50,210
M 48	5	43,00	42,587	43,297	M 20	x	1	19,00	18,917	19,153	M 52	x	3	49,00	48,752	49,252
M 52	5	47,00	46,587	47,297	M 20	x	1,5	18,50	18,376	18,676	M 54	x	1,5	52,50	52,376	52,676
M 56	5,5	50,50	50,046	50,796	M 20	x	2	18,00	17,835	18,210	M 56	x	1,5	54,50	54,376	54,676
M 60	5,5	54,50	54,046	54,796	M 22	x	1	21,00	20,917	21,153	M 56	x	2	54,00	53,835	54,210
M 64	6	58,00	57,505	58,305	M 22	x	1,5	20,50	20,376	20,676	M 56	x	3	53,00	52,752	53,252
M 68	6	62,00	61,505	62,305	M 22	x	2	20,00	19,835	20,210	M 58	x	1,5	56,50	56,376	56,676
					M 24	x	1	23,00	22,917	23,153	M 60	x	1,5	58,50	58,376	58,676
					M 24	x	1,5	22,50	22,376	22,676	M 60	x	2	58,00	57,835	58,210
					M 24	x	2	22,00	21,835	22,210	M 60	x	3	57,00	56,752	57,252
					M 25	x	1	24,00	23,917	24,153	M 64	x	2	62,00	61,835	62,210
					M 25	x	1,5	23,50	23,376	23,676	M 64	x	4	60,00	59,670	60,270
					M 26	x	1,5	24,50	24,376	24,676						

* metrisches - DIN Profil / metric - DIN profile
 1) Kernloch-Ø und Muttergewinde Kern-Ø gem. DIN 336, Toleranz 5H bis M 1,4, Toleranz 4H für Feingewinde mit Steigung P = 0,25
 Drill-Ø and minor-Ø of nut thread according to DIN 336, tolerance 5H up to M 1,4, tolerance 4H for fine thread with pitch P = 0,25

Gewinde - Kernloch-Ø und Kern-Ø Muttergewinde Drill-Ø for Threads and Minor-Ø of Nut Threads



UNC Unified Grobgewinde ¹⁾ Unified Coarse Thread					UNF Unified Feingewinde ¹⁾ Unified Fine Thread					UNEF Unified Extra Feingewinde ²⁾ Unified Extra Fine Thread				
Ø" - Gg/1"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø" - Gg/1"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø" - Gg/1"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø	
			Min.	Max.				Min.	Max.				Min.	Max.
Nr. 1 - 64	1,854	1,55	1,425	1,582	Nr. 1 - 72	1,854	1,55	1,473	1,613	Nr. 12 - 32	5,486	4,75	4,627	4,816
Nr. 2 - 56	2,184	1,85	1,694	1,872	Nr. 2 - 64	2,184	1,85	1,755	1,913	1/4 - 32	6,350	5,60	5,491	5,679
Nr. 3 - 48	2,515	2,10	1,941	2,146	Nr. 3 - 56	2,515	2,15	2,024	2,197	5/16 - 32	7,938	7,20	7,078	7,267
Nr. 4 - 40	2,845	2,35	2,156	2,385	Nr. 4 - 48	2,845	2,40	2,271	2,459	3/8 - 32	9,525	8,80	8,666	8,854
Nr. 5 - 40	3,175	2,65	2,487	2,697	Nr. 5 - 44	3,175	2,70	2,550	2,741	7/16 - 28	11,113	10,25	10,130	10,344
Nr. 6 - 32	3,505	2,85	2,642	2,896	Nr. 6 - 40	3,505	2,95	2,819	3,023	1/2 - 28	12,700	11,80	11,718	11,932
Nr. 8 - 32	4,166	3,50	3,302	3,531	Nr. 8 - 36	4,166	3,50	3,404	3,607	9/16 - 24	14,288	13,30	13,142	13,389
Nr. 10 - 24	4,826	3,90	3,683	3,962	Nr. 10 - 32	4,826	4,10	3,962	4,166	5/8 - 24	15,875	14,75	14,729	14,976
Nr. 12 - 24	5,486	4,50	4,343	4,597	Nr. 12 - 28	5,486	4,60	4,496	4,724	11/16 - 24	17,463	16,50	16,317	16,564
1/4 - 20	6,350	5,10	4,976	5,268	1/4 - 28	6,350	5,50	5,367	5,580	3/4 - 20	19,050	17,75	17,675	17,967
5/16 - 18	7,938	6,60	6,411	6,734	5/16 - 24	7,938	6,90	6,792	7,038	13/16 - 20	20,638	19,50	19,263	19,555
3/8 - 16	9,525	8,00	7,805	8,164	3/8 - 24	9,525	8,50	8,379	8,626	7/8 - 20	22,225	21,00	20,850	21,142
7/16 - 14	11,112	9,40	9,149	9,550	7/16 - 20	11,112	9,90	9,738	10,030	15/16 - 20	23,813	22,50	22,438	22,730
1/2 - 13	12,700	10,80	10,584	11,013	1/2 - 20	12,700	11,50	11,326	11,618	1 - 20	25,400	24,25	24,025	24,317
9/16 - 12	14,288	12,20	11,996	12,456	9/16 - 18	14,288	12,90	12,761	13,084	1.1/16 - 18	26,988	25,75	25,460	25,781
5/8 - 11	15,875	13,50	13,376	13,868	5/8 - 18	15,875	14,50	14,348	14,671	1.1/8 - 18	28,575	27,25	27,047	27,369
3/4 - 10	19,050	16,50	16,299	16,833	3/4 - 16	19,050	17,50	17,330	17,689	1.3/16 - 18	30,163	28,75	28,635	28,956
7/8 - 9	22,225	19,50	19,169	19,748	7/8 - 14	22,225	20,40	20,262	20,663	1.1/4 - 18	31,750	30,50	30,222	30,544
1 - 8	25,400	22,25	21,963	22,598	1 - 12	25,400	23,25	23,109	23,569	1.5/16 - 18	33,338	32,00	31,810	32,131
1.1/8 - 7	28,575	25,00	24,648	25,349	1.1/8 - 12	28,575	26,50	26,284	26,744	1.3/8 - 18	34,925	33,50	33,397	33,719
1.1/4 - 7	31,750	28,00	27,823	28,524	1.1/4 - 12	31,750	29,50	29,459	29,919	1.7/16 - 18	36,513	35,20	34,985	35,306
1.3/8 - 6	34,925	30,75	30,343	31,120	1.3/8 - 12	34,925	32,75	32,634	33,094	1.1/2 - 18	38,100	36,80	36,572	36,894
1.1/2 - 6	38,100	34,00	33,518	34,295	1.1/2 - 12	38,100	36,00	35,809	36,269	1.9/16 - 18	39,688	38,40	38,160	38,481
1.3/4 - 5	44,450	39,50	38,951	39,814						1.5/8 - 18	41,275	40,00	39,747	40,069
2 - 4,5	50,800	45,00	44,689	45,598						1.11/16 - 18	42,863	41,50	41,335	41,656

1) Kernloch-Ø und Muttergewinde Kern-Ø gem. DIN 336
Drill-Ø and minor-Ø of nut thread according to DIN 336

2) Mutterkern-Ø gem. ANSI B1.1 (D_{1,min} = D₁ Nennmaß)
Minor-Ø of nut thread accord. to ANSI B1.1

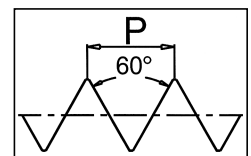
UN - 8 - Gang Gewindereihe³⁾ Unified Thread - 8 TPI

Ø" - Gg/1"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø" - Gg/1"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø" - Gg/1"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø	
			Min.	Max.				Min.	Max.				Min.	Max.
1.1/8 - 8	28,575	25,50	25,138	25,773	1.1/2 - 8	38,100	35,00	34,663	35,298	1.7/8 - 8	47,625	44,50	44,188	44,823
1.1/4 - 8	31,750	28,75	28,313	28,948	1.5/8 - 8	41,275	38,00	37,838	38,473	2 - 8	50,800	47,75	47,363	47,998
1.3/8 - 8	34,925	31,75	31,488	32,123	1.3/4 - 8	44,450	41,50	41,013	41,648					

3) Mutterkern-Ø gem. ANSI B1.1 (D_{1,min} = D₁ Nennmaß) / Minor-Ø of nut thread accord. to ANSI B1.1

Zylindrische Amerikanische Rohrgewinde Cylindrical American Pipe Threads

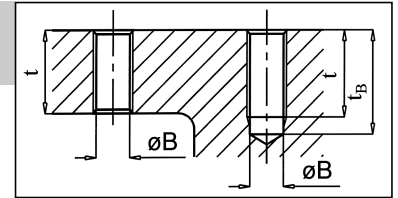
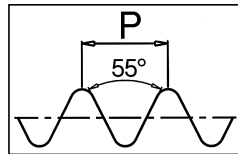
Ø"	Gg/1" TPI	Allgemeine Anwendung / general purpose				Trockendichtende Gewinde / Dryseal				
		NPSC ⁴⁾		NPSM ⁴⁾		NPSF ⁵⁾		NPS ⁵⁾		
		Kern-Ø Minor-Ø	Kernloch Drill-Ø	Kern-Ø Minor-Ø	Kernloch Drill-Ø	Kern-Ø Minor-Ø	Kernloch Drill-Ø	Kern-Ø Minor-Ø	Kernloch Drill-Ø	
1/8	27	8,687	8,80	9,093	9,246	9,10	8,651	8,70	8,710	8,75
1/4	18	11,176	11,40	11,887	12,217	12,00	11,232	11,30	11,321	11,40
3/8	18	14,656	14,80	15,316	15,545	15,50	14,671	14,70	14,760	14,85
1/2	14	18,161	18,50	18,974	19,279	19,00	18,118	18,20	18,237	18,30
3/4	14	23,495	23,80	24,333	24,638	24,50	23,465	23,50	23,579	23,70
1	11,5	29,489	29,90	30,505	30,759	30,50	29,464	29,50	29,604	29,70
1.1/4	11,5	38,252	38,60	39,268	39,497	39,40				
1.1/2	11,5	44,323	44,70	45,339	45,568	45,50				
2	11,5	56,363	56,70	57,379	57,607	57,50				



4) Mutterkern-Ø gem. ANSI B1.20.1 / Minor-Ø of nut thread accord. to ANSI B1.20.1

5) Mutterkern-Ø gem. ANSI B1.20.3 / Minor-Ø of nut thread accord. to ANSI B1.20.3

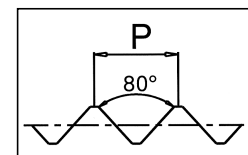
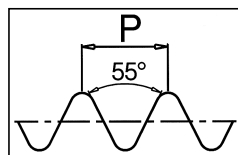
Gewinde - Kernloch-Ø und Kern-Ø Muttergewinde Drill-Ø for Threads and Minor-Ø of Nut Threads



BSW Whitworth Grobgewinde ¹⁾ Whitworth Coarse Thread					BSF Whitworth Feingewinde ¹⁾ Whitworth Fine Thread					BA British-Association ²⁾							
Ø" Gg/1"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø				
			Min.	Max.				Min.	Max.				Min.	Max.			
1/16	60	1,588	1,20	1,045	1,232	3/16	32	4,763	3,90	3,746	4,006	BA 10	0,35	1,70	1,35	1,280	1,410
3/32	48	2,381	1,90	1,704	1,911	7/32	28	5,556	4,60	4,395	4,678	BA 9	0,39	1,90	1,50	1,430	1,575
1/8	40	3,175	2,00	2,360	2,590	1/4	26	6,350	5,30	5,099	5,396	BA 8	0,43	2,20	1,80	1,680	1,840
5/32	32	3,969	3,20	2,952	3,213	9/32	26	7,144	6,10	5,893	6,190	BA 7	0,48	2,50	2,00	1,920	2,100
3/16	24	4,763	3,60	3,410	3,740	5/16	22	7,938	6,80	6,459	6,817	BA 6	0,53	2,80	2,30	2,160	2,360
1/4	20	6,350	5,10	4,720	5,160	3/8	20	9,525	8,30	7,899	8,330	BA 5	0,59	3,20	2,60	2,490	2,710
5/16	18	7,938	6,50	6,130	6,590	7/16	18	11,113	9,70	9,305	9,765	BA 4	0,66	3,60	3,00	2,810	3,060
3/8	16	9,525	7,90	7,490	7,990	1/2	16	12,700	11,10	10,667	11,162	BA 3	0,73	4,10	3,40	3,220	3,495
7/16	14	11,113	9,30	8,790	9,330	9/16	16	14,288	12,70	12,254	12,750	BA 2	0,81	4,70	4,00	3,730	4,035
1/2	12	12,700	10,50	9,990	10,590	5/8	14	15,875	14,00	13,552	14,092	BA 1	0,90	5,30	4,50	4,220	4,560
9/16	12	14,288	12,00	11,577	12,178	11/16	14	17,463	15,50	15,139	15,680	BA 0	1,00	6,00	5,10	4,800	5,175
5/8	11	15,875	13,50	12,920	13,560	3/4	12	19,050	16,75	16,339	16,940						
11/16	11	17,463	15,00	14,510	15,150	7/8	11	22,225	19,75	19,268	19,907						
3/4	10	19,050	16,50	15,800	16,480	1	10	25,400	22,75	22,147	22,833						
7/8	9	22,225	19,25	18,600	19,350	1.1/8	9	28,575	25,50	24,961	25,703						
1	8	25,400	22,00	21,340	22,150	1.1/4	9	31,750	28,75	28,136	28,878						
1.1/8	7	28,575	24,75	23,930	24,830	1.3/8	8	34,925	31,50	30,859	31,672						
1.1/4	7	31,750	27,75	27,100	28,010	1.1/2	8	38,100	34,80	34,034	34,847						
1.3/8	6	34,925	30,50	29,504	30,528												
1.1/2	6	38,100	33,50	32,680	33,700												
1.5/8	5	41,275	35,50	34,769	35,963												
1.3/4	5	44,450	39,00	37,940	39,140												
2	4.5	50,800	44,50	43,570	44,880												

1) Mutterkern-Ø gem. BS 84
Minor-Ø of nut accord. to BS 84

2) Mutterkern-Ø gem. BS 93
Minor-Ø of nut accord. to BS 93

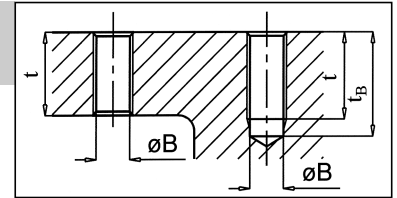
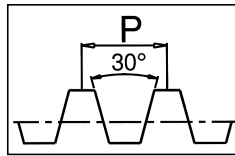
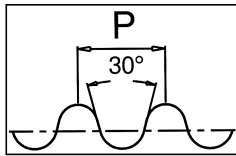


G Whitworth Rohrgewinde ³⁾ Whitworth Pipe Thread					Rp Whitworth Rohrgewinde ³⁾ Whitworth Pipe Thread					PG Stahlpanzerrohr-Gewinde ⁴⁾ Steel Conduit Thread							
Ø"	Gg/1"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø"	Ø	Kernloch Drill-Ø	Muttergewinde Kern-Ø Nut Thread Minor-Ø			
				Min.	Max.				Min.	Max.				Min.	Max.		
G 1/16	28	7,723	6,80	6,516	6,843	Rp 1/16	28	7,723	6,55	6,490	6,632	Pg 7	20	12,50	11,35	11,28	11,43
G 1/8	28	9,728	8,80	8,566	8,848	Rp 1/8	28	9,728	8,60	8,495	8,637	Pg 9	18	15,20	13,95	13,86	14,01
G 1/4	19	13,157	11,80	11,445	11,890	Rp 1/4	19	13,157	11,50	11,341	11,549	Pg 11	18	18,60	17,35	17,26	17,41
G 3/8	19	16,662	15,25	14,950	15,395	Rp 3/8	19	16,662	15,00	14,846	15,054	Pg 13,5	18	20,40	19,15	19,06	19,21
G 1/2	14	20,955	19,00	18,631	19,172	Rp 1/2	14	20,955	18,50	18,489	18,773	Pg 16	18	22,50	21,25	21,16	21,31
G 5/8	14	22,911	21,00	20,587	21,128							Pg 21	16	28,30	26,90	26,78	27,03
G 3/4	14	26,441	24,50	24,117	24,658	Rp 3/4	14	26,441	24,00	23,975	24,259	Pg 29	16	37,00	35,60	35,48	35,73
G 7/8	14	30,201	28,25	27,877	28,418							Pg 36	16	47,00	45,60	45,48	45,73
G 1	11	33,249	30,75	30,291	30,931	Rp 1	11	33,249	30,25	30,111	30,471	Pg 42	16	54,00	52,60	52,48	52,73
G 1.1/8	11	37,897	35,50	34,939	35,579							Pg 48	16	59,30	57,90	57,78	58,03
G 1.1/4	11	41,910	39,50	38,952	39,592	Rp 1.1/4	11	41,910	39,00	38,772	39,132						
G 1.3/8	11	44,320	42,00	41,365	42,005												
G 1.1/2	11	47,803	45,25	44,845	45,485	Rp 1.1/2	11	47,803	45,00	44,665	45,025						
G 1.3/4	11	53,746	51,10	50,788	51,428												
G 2	11	59,614	57,00	56,656	57,296	Rp 2	11	59,614	56,50	56,476	56,836						
G 2.1/4	11	65,710	63,10	62,752	63,392												
G 2.1/2	11	75,184	73,00	72,226	72,866	Rp 2.1/2	11	75,184	72,25	72,083	72,443						
G 2.3/4	11	81,534	79,00	78,576	79,216												
G 3	11	87,884	85,50	84,926	85,566	Rp 3	11	87,884	85,00	84,783	85,143						
G 3.1/2	11	100,330	98,00	97,372	98,012												
G 4	11	113,030	110,50	110,072	110,712	Rp 4	11	113,030	110,00	109,860	110,289						

3) Kernloch-Ø und Muttergewinde Kern-Ø gem. DIN 336
Drill-Ø and minor-Ø of nut thread according to DIN 336

4) Mutterkern-Ø gem. DIN 40430
Minor-Ø of nut thread accord. to DIN 40430

Gewinde - Kernloch-Ø und Kern-Ø Muttergewinde Drill-Ø for Threads and Minor-Ø of Nut Threads

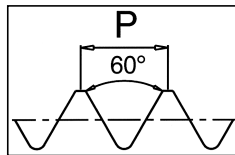


Rd Rundgewinde ¹⁾ Round Thread					Tr Metrisches ISO-Trapezgewinde ²⁾ Metric ISO Trapezoidal Thread							
Ø	Gg/1" TPI	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø x P [mm]	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø x P [mm]	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø	
			Min.	Max.			Min.	Max.			Min.	Max.
Rd 8 x 1/10	8,254	6,00	5,714	6,274	Tr 8 x 1,5	6,60	6,500	6,690	Tr 20 x 2	18,20	18,000	18,236
Rd 9 x 1/10	9,254	7,00	6,714	7,274	Tr 8 x 2	6,20	6,000	6,236	Tr 20 x 4	16,25	16,000	16,375
Rd 10 x 1/10	10,254	8,00	7,714	8,274	Tr 9 x 1,5	7,60	7,500	7,690	Tr 22 x 3	19,25	19,000	19,315
Rd 11 x 1/10	11,254	9,00	8,714	9,274	Tr 9 x 2	7,20	7,000	7,236	Tr 22 x 5	17,25	17,000	17,450
Rd 12 x 1/10	12,254	10,00	9,714	10,274	Tr 10 x 1,5	8,60	8,500	8,690	Tr 24 x 3	21,25	21,000	21,315
Rd 14 x 1/8	14,318	11,50	11,142	11,812	Tr 10 x 2	8,20	8,000	8,236	Tr 24 x 5	19,25	19,000	19,450
Rd 16 x 1/8	16,318	13,50	13,142	13,812	Tr 10 x 3 ³⁾	7,50			Tr 26 x 3	23,25	23,000	23,315
Rd 18 x 1/8	18,318	15,50	15,142	15,812	Tr 11 x 2	9,20	9,000	9,236	Tr 26 x 5	21,25	21,000	21,450
Rd 20 x 1/8	20,318	17,50	17,142	17,812	Tr 11 x 3	8,25	8,000	8,315	Tr 28 x 3	25,25	25,000	25,315
Rd 22 x 1/8	22,318	19,50	19,142	19,812	Tr 12 x 2	10,20	10,000	10,236	Tr 28 x 5	23,25	23,000	23,450
Rd 24 x 1/8	24,318	21,50	21,142	21,812	Tr 12 x 3	9,25	9,000	9,315	Tr 30 x 3	27,25	27,000	27,315
Rd 26 x 1/8	26,318	23,50	23,142	23,812	Tr 14 x 2	12,20	12,000	12,236	Tr 30 x 6	24,25	24,000	24,500
Rd 28 x 1/8	28,317	25,50	25,142	25,812	Tr 14 x 3	11,25	11,000	11,315	Tr 32 x 6	26,25	26,000	26,500
Rd 30 x 1/8	30,318	27,50	27,142	27,812	Tr 14 x 4 ³⁾	10,50			Tr 36 x 6	30,25	30,000	30,500
Rd 32 x 1/8	32,318	29,50	29,142	29,812	Tr 16 x 2	14,20	14,000	14,236	Tr 40 x 7	33,50	33,000	33,560
					Tr 16 x 4	12,25	12,000	12,375	Tr 42 x 7	35,50	35,000	35,560
					Tr 18 x 2	16,20	16,000	16,236	Tr 44 x 7	37,50	37,000	37,560
					Tr 18 x 4	14,25	14,000	14,375				

1) Mutterkern-Ø gem. DIN 405
Minor-Ø of nut thread accord. to DIN 405

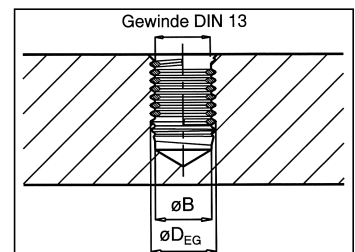
2) Mutterkern-Ø gem. DIN 103 / Minor-Ø of nut thread accord. to DIN 103

3) Tr 10 x 3 und Tr 14 x 4 in DIN 103 nicht mehr enthalten und sollten für Neukonstruktionen nicht mehr verwendet werden. / Tr 10 x 3 and Tr 14 x 4 not included in DIN 103, should not be used for new design.



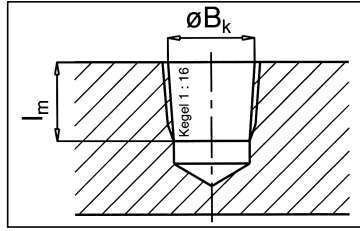
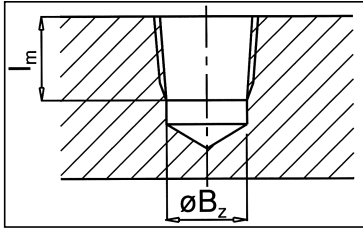
EGM Metrisches Einsatz-Gewinde - für Gewindeeinsätze aus Draht ⁴⁾ Metric Insert Thread - for Wire Inserts															
Ø	P [mm]	Außen-Ø Out-side-Ø Min.	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø x P [mm]	Außen-Ø Out-side-Ø Min.	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø		Ø x P [mm]	Außen-Ø Out-side-Ø Min.	Kernloch Drill-Ø ØB	Muttergewinde Kern-Ø Nut Thread Minor-Ø	
				Min.	Max.				Min.	Max.				Min.	Max.
EG M 2	0,4	2,520	2,10	2,087	2,177	EG M 8 x 1	9,300	8,30	8,217	8,407	EG M 30 x 2	32,598	30,50	30,433	30,733
EG M 2,5	0,45	3,084	2,65	2,597	2,697	EG M 9 x 1	10,300	9,30	9,217	9,407	EG M 30 x 3	33,897	31,00	30,649	31,049
EG M 3	0,5	3,650	3,15	3,108	3,220	EG M 10 x 1	11,300	10,30	10,217	10,407	EG M 33 x 2	35,598	33,50	33,433	33,733
EG M 3,5	0,6	4,280	3,70	3,630	3,755	EG M 10 x 1,25	11,624	10,40	10,271	10,483	EG M 33 x 3	36,897	34,00	33,649	34,049
EG M 4	0,7	4,910	4,20	4,152	4,292	EG M 11 x 1	12,300	11,30	11,217	11,407	EG M 36 x 2	38,598	36,50	36,433	36,733
EG M 5	0,8	6,040	5,25	5,174	5,334	EG M 12 x 1	13,300	12,30	12,217	12,407	EG M 36 x 3	39,897	37,00	36,649	37,049
EG M 6	1	7,300	6,30	6,217	6,407	EG M 12 x 1,25	13,624	12,40	12,271	12,483	EG M 39 x 2	41,598	39,50	39,433	39,733
EG M 7	1	8,300	7,30	7,217	7,407	EG M 12 x 1,5	13,948	12,50	12,324	12,560	EG M 39 x 3	42,897	40,00	39,649	40,049
EG M 8	1,25	9,624	8,40	8,271	8,483	EG M 14 x 1	15,300	14,30	14,217	14,407	EG M 42 x 2	44,598	42,50	42,433	42,733
EG M 10	1,5	11,948	10,50	10,324	10,560	EG M 14 x 1,25	15,624	14,40	14,271	14,483	EG M 42 x 3	45,897	43,00	42,649	43,049
EG M 12	1,75	14,274	12,50	12,379	12,644	EG M 14 x 1,5	15,948	14,50	14,324	14,560	EG M 42 x 4	47,196	43,00	42,866	43,341
EG M 14	2	16,598	14,50	14,433	14,733	EG M 15 x 1,5	16,948	15,50	15,324	15,560	EG M 45 x 2	47,598	45,50	45,433	45,733
EG M 16	2	18,598	16,50	16,433	16,733	EG M 16 x 1,5	17,948	16,50	16,324	16,560	EG M 45 x 3	48,897	46,00	45,649	46,049
EG M 18	2,5	21,248	18,75	18,541	18,896	EG M 18 x 1,5	19,948	18,50	18,324	18,560	EG M 48 x 2	50,598	48,50	48,433	48,733
EG M 20	2,5	23,248	20,75	20,541	20,896	EG M 18 x 2	20,598	18,50	18,433	18,733	EG M 48 x 3	51,897	49,00	48,649	49,049
EG M 22	2,5	25,248	22,75	22,541	22,896	EG M 20 x 1,5	21,948	20,50	20,234	20,560					
EG M 24	3	27,897	24,75	24,649	25,049	EG M 20 x 2	22,598	20,50	20,433	20,733					
EG M 27	3	30,897	27,75	27,649	28,049	EG M 22 x 1,5	23,948	22,50	22,234	22,560					
EG M 30	3,5	34,546	31,00	30,757	31,207	EG M 22 x 2	24,598	22,50	22,433	22,733					
EG M 33	3,5	37,546	34,00	33,757	34,207	EG M 24 x 1,5	25,948	24,50	24,324	24,560					
EG M 36	4	41,196	37,00	36,866	37,341	EG M 24 x 2	26,598	24,50	24,433	24,733					
EG M 39	4	44,196	40,00	39,866	40,431	EG M 26 x 1,5	27,948	26,50	26,324	26,560					
EG M 42	4,5	47,846	43,25	42,975	43,505	EG M 27 x 1,5	28,948	27,50	27,324	27,560					
EG M 45	4,5	50,846	46,25	45,975	46,505	EG M 27 x 2	29,598	27,50	27,433	27,733					
EG M 48	5	54,495	49,50	49,082	49,642	EG M 28 x 1,5	29,948	28,50	28,324	28,560					
EG M 52	5	58,495	53,50	53,082	53,642	EG M 30 x 1,5	31,948	30,50	30,324	30,560					

4) Maße des Muttergewindes gem. DIN 8140 Teil 2 / Sizes of nut thread accord. to DIN 8140 part 2

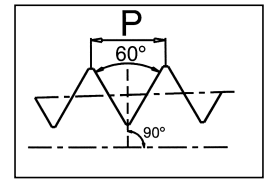


Gewinde - Kernloch-Ø für konische Rohrgewinde

Drill-Ø for Taper Pipe Threads

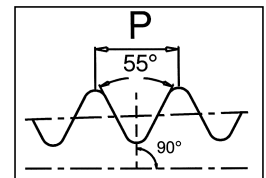


NPT amerikanisches kegeliges Rohrgewinde ¹⁾ <i>American Taper Pipe Thread</i>						NPTF amerikanisches kegeliges Rohrgewinde <i>American Taper Pipe Thread</i>					
Ø"	Gg/1" TPI	Ø	lm ²⁾	Kernloch Drill-Ø		Ø"	Gg/1" TPI	Ø	lm ²⁾	Kernloch Drill-Ø	
				zyl. Bz cyl. Bz	kon. Bk taper Bk					zyl. Bz cyl. Bz	kon. Bk taper Bk
NPT 1/16	27	7,84	9,20	6,20	6,39	NPTF 1/16	27	7,84	9,20	6,20	6,42
NPT 1/8	27	10,18	9,30	8,50	8,74	NPTF 1/8	27	10,18	9,30	8,50	8,76
NPT 1/4	18	13,54	13,50	11,10	11,36	NPTF 1/4	18	13,54	13,50	11,00	11,40
NPT 3/8	18	16,98	13,90	14,55	14,80	NPTF 3/8	18	16,98	13,90	14,50	14,84
NPT 1/2	14	21,14	18,10	18,00	18,32	NPTF 1/2	14	21,14	18,10	17,80	18,33
NPT 3/4	14	26,49	18,60	23,25	23,67	NPTF 3/4	14	26,49	18,60	23,10	23,68
NPT 1	11,5	33,14	22,30	29,20	29,69	NPTF 1	11,5	33,14	22,30	29,10	29,72
NPT 1.1/4	11,5	41,90	22,80	37,95	38,45	NPTF 1.1/4	11,5	41,90	22,80	37,80	38,48
NPT 1.1/2	11,5	47,97	22,80	44,00	44,52	NPTF 1.1/2	11,5	47,97	22,80	43,90	44,55
NPT 2	11,5	60,00	22,80	56,00	56,56	NPTF 2	11,5	60,00	22,80	55,90	56,59



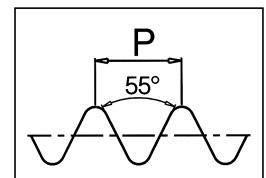
- 1) Für Serienfertigung empfehlen wir die Kernlöcher konisch vorzuarbeiten (B_k)
For mass production preparation of a taper core hole is recommended.
- 2) Die **Messlänge** L_m von HAHNREITER Standard Gewindebohrern umfasst die Einschraubängen L₁ (Verschraubung von Hand) und L₃ (Kraftverschraubung) nach ANSI B1.20.1 und ANSI B1.20.3 sowie eine Anschnittlänge von 2-3 Gewindegängen. Bei Sacklöchern muss zur Sicherheit min. 1-2 Gewindegänge tiefer gebohrt werden.
Gauge length L_m of HAHNREITER standard taps covers L₁ (screwing by hand) and L₃ (screwing by means of wrenching tools) accord. to ANSI B1.20.1 and ANSI B1.20.3 and chamfer length of 2-3 threads. Blind holes have to machined 1-2 threads deeper for safety.

Rc kegeliges Whitworth-Rohrgewinde Kegel 1:16, gem. ISO 7/1 und BS 21 <i>taper Whitworth Pipe-Thread, Taper 1:16, accord. to ISO 7/1 and BS 21</i>					
	Gg/1" TPI	Ø-Nominal	Messebene Gewindebohrer Gauge plane of tap L _m	Kernloch / Drill-Ø	
			zylindrisch cylindrical Bz	konisch taper ³⁾ Bk	
Rc 1/8	28	9,728	10,10	8,2	8,57
Rc 1/4	19	13,157	15,00	11,0	11,45
Rc 3/8	19	16,662	15,40	14,5	14,95
Rc 1/2	14	20,955	20,40	18,0	18,63
Rc 3/4	14	26,441	21,70	23,4	24,12
Rc 1	11	33,249	26,00	29,5	30,29
Rc 1.1/4	11	41,910	28,30	38,0	38,95
Rc 1.1/2	11	47,803	28,30	43,9	44,85
Rc 2	11	59,614	32,60	55,5	56,66
Rc 2.1/2	11	75,184	37,10	70,9	72,23
Rc 3	11	87,884	40,20	83,4	84,93
Rc 4	11	113,030	46,20	108,2	110,07

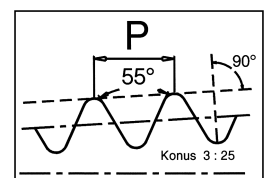


- 3) Für Serienfertigung empfehlen wir die Kernlöcher konisch vorzuarbeiten (B_k)
For mass production preparation of a taper core hole is recommended.

W zylindrisches Whitworth Gewinde DIN 477 / <i>Cylindrical Whitworth Thread according to DIN 477</i>				
	P Gg/1" / TPI	Kern-Ø / Core-Ø Min. ⁴⁾	Mutter / Nut Thread Minor-Ø Max.	Kernloch / Drill-Ø ØB
W 21,8 x 1/14	14	19,496	20,066	19,75
W 24,32 x 1/14	14	22,016	22,586	22,25
W 1 x 1/8	8	21,339	22,152	22,00

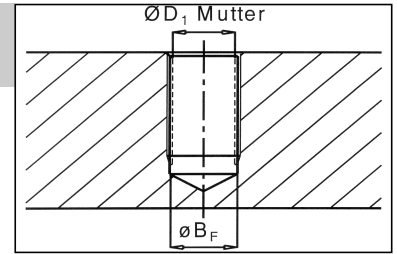
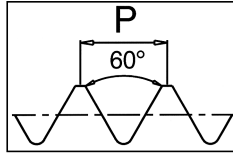


W konisches Whitworth Gewinde DIN 477 / <i>Taper Whitworth Thread according to DIN 477</i>				
	P Gg/1" / TPI	Messebene Gewindebohrer Gauge plane of tap L _m	Kernloch / Drill-Ø zylindrisch cylindrical Max.	konisch taper ⁵⁾ ØB
W 19,8 x 1/14 keg.	14	24,2	14,7	16,8
W 28,8 x 1/14 keg.	14	29,2	22,7	25,4
W 31,3 x 1/14 keg.	14	29,2	25,2	27,9



- 4) Mutterkern-Ø gem. DIN 477 Teil 1 / *Minor-Ø of nut thread accord. to DIN 477 part 1*
- 5) Für Serienfertigung empfehlen wir die Kernlöcher konisch vorzuarbeiten (B_k)
For mass production preparation of a taper core hole is recommended.

Gewinde - Kernloch-Ø für Gewindefurcher
Drill-Ø for Cold Forming Taps



M Metrisches ISO - Regelgewinde, 6H Metric ISO - Coarse Thread 6H									
Ø	P [mm]	Vorbohr-Ø Drill-Ø BF	Muttergewinde Kern-Ø ¹⁾ Nut Thread Minor - Ø ¹⁾ 7H		Ø	P [mm]	Vorbohr-Ø Drill-Ø BF	Muttergewinde Kern-Ø ¹⁾ Nut Thread Minor - Ø ¹⁾ 7H	
			Min.	Max.				Min.	Max.
M 2	0,4	1,80	1,567	1,679	M 6	1	5,50	4,917	5,217
M 2,5	0,45	2,30	2,013	2,138	M 8	1,25	7,40	6,647	6,982
M 3	0,5	2,75	2,459	2,639	M 10	1,5	9,30	8,376	8,751
M 3,5	0,6	3,20	2,850	3,050	M 12	1,75	11,20	10,106	10,531
M 4	0,7	3,65	3,242	3,466	M 14	2	13,00	11,835	12,310
M 5	0,8	4,60	4,134	4,384	M 16	2	15,00	13,835	14,310

1) Ab M 3 - empfohlene Toleranzfeldkombination für gefurchte Gewinde 6H 7H (D₂, D₁) vgl. DIN 13 Teil 50
 Over M 3 - recommended combination of tolerances for threads being produced by cold forming taps 6H / 7H see DIN 13 Teil 50