

Unified Coarse Thread: UNC

Nominal Thread	TPI	Internal Thread			Bore Dia.		
		Toolholder	Insert				
			Partial Profile	Full Profile			
2-56 UNC • • • 10-24 UNC	56 24	No Tools Available	—	—	1.69 • • • 3.68		
1/4-20 UNC	20				—	HPTR04504-60 / VNTR045-11	4.98
5/16-18 UNC	18				—	HPTR06005-60 / VNTR060-11	6.41
3/8-16 UNC	16				—	HPTR07507-60-005	7.81
7/16-14 UNC	14	No Tools Available			9.15		
1/2-13 UNC	13				10.58		
9/16-12 UNC	12				12.00		
5/8-11 UNC	11				13.38		
3/4-10 UNC	10				16.30		
7/8- 9 UNC • • •	9	* 3/8-16 UNC and over cannot be machined, because no inserts are available for the TPI.			19.17		

Unified Fine Thread: UNF

Nominal Thread	TPI	Internal Thread						
		Toolholder	Insert		Bore Dia.			
			Partial Profile	Full Profile				
0-80 UNF • • • 10-32 UNF	80 32	No Tools Available	—	—	1.18 • • • 3.97			
1/4-28 UNF	28				—	HPTR04504-60 / VNTR045-11	5.37	
5/16-24 UNF	24				—	HPTR06005-60 / VNTR060-11		6.79
					SINR0612S-06E	06IR60005	—	
3/8-24 UNF	24	—	HPTR06005-60 / VNTR060-11		8.38			
		SINR0612S-06E	06IR60005	—				
7/16-20 UNF	20	SINR0816S-08E	08IR60007	—	9.74			
1/2-20 UNF	20				11.33			
9/16-18 UNF	18	SINR1216S-11E	11IRA60	—	12.76			
5/8-18 UNF	18		11IR60005		14.35			
3/4-16 UNF	16	SINR1516S-11	11IRA60 11IR60005	—	17.33			
7/8-14 UNF	14	SINR2016S-16	16IRAG60 16IRG60 16IR6001(-TS)	16IR14UN(-TF)	20.26			
1 -12 UNF	12	SINR2016S-16		16IR12UN(-TF)	23.10			
1 1/8-12 UNF	12	SINR2420S-16			26.28			
1 1/4-12 UNF	12				29.46			
1 3/8-12 UNF	12				32.63			
1 1/2-12 UNF	12	CINR3025S-16			36.81			

Whitworth Coarse Thread: W

Nominal Thread	TPI	Internal Thread			
		Toolholder	Insert		Bore Dia.
			Partial Profile	Full Profile	
W 1/4	20	No Tools Available	—	—	4.91
W 5/16	18				6.34
W 3/8	16	No Tools Available			7.73
W 7/16	14				9.06
W 1/2	12				10.30
W 9/16	12				11.89
W 5/8	11				13.26
W 3/4	10				16.17
W 7/8	9				19.03
W 1	8				21.80
W 1 1/8	7				24.47
W 1 1/4	7				27.64
W 1 3/8	6				30.13
W 1 1/2	6				33.30
W 1 5/8	5				35.52
W 1 3/4	5				38.69
•		* Because the toolholder does not fit to the pre-drilled hole or the insert does not match to the TPI, machining is not possible.			
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Whitworth Fine Thread: W

Nominal Thread	TPI	Internal Thread			Bore Dia.
		Toolholder	Insert		
			Partial Profile	Full Profile	
W9.5 TPI 24 W10 TPI 24 W10.5 TPI 24	24	SINR0816S-08E —	08IR5501 HPTR06005-55	—	8.30 8.80 9.30
W9.5 TPI 20 W10 TPI 20 W10.5 TPI 20 W11 TPI 20 W11.5 TPI 20 W12 TPI 20 W12.5 TPI 20 W13 TPI 20 W13.5 TPI 20	20	SINR0816S-08E —	08IR5501 HPTR06005-55 HPTR08007-55	—	8.06 8.56 9.06 9.56 10.06 10.56 11.06 11.56
	20	SINR1216S-11E	11IR55005	—	12.06
W11 TPI 18 W11.5 TPI 18 W12 TPI 18 W12.5 TPI 18 W14 TPI 18 W14.5 TPI 18 W15 TPI 18 W16 TPI 18	18	—	HPTR08007-55-010		9.40 9.90 10.40 10.90
	18	SINR1216S-11E	11IRA55 11IR55005	—	12.40 12.90 13.40 14.40
W13 TPI 16 W13.5 TPI 16 W14 TPI 16 W14.5 TPI 16 W15 TPI 16 W17 TPI 16 W18 TPI 16 W19 TPI 16 W20 TPI 16	16	No Tools Available			11.20 11.70
	16	SINR1216S-11E	11IRA55 11IR55005	—	12.20 12.70 13.20 15.20 16.20 17.20 18.20
W16 TPI 14 W17 TPI 14 W18 TPI 14 W21 TPI 14 W22 TPI 14 W23 TPI 14 W24 TPI 14 W25 TPI 14 W26 TPI 14	14	SINR1216S-11E	11IR55005	—	13.94 14.94
	14	SINR1516S-11	11IR55005		15.94 18.94 19.94
	14	SINR2016S-16	16IRAG55 16IRG55 16IR5501 16IR5502	(16IR14W-TF) (16IR14W-TS) (16IR14W)	20.94 21.94 22.94 23.94
W19 TPI 12 W20 TPI 12 W21 TPI 12 W22 TPI 12 W28 TPI 12 W30 TPI 12 W32 TPI 12 W34 TPI 12 W35 TPI 12 W36 TPI 12 W38 TPI 12 W40 TPI 12 W42 TPI 12 W44 TPI 12 W45 TPI 12 W46 TPI 12 W48 TPI 12 W50 TPI 12 ⋮ ⋮ ⋮	12	No Tools Available			16.60 17.60 18.60 19.60
	12	SINR2016S-16	16IRAG55 16IRG55 16IR5501 16IR5502	—	25.60 27.60 29.60
	12	CINR3025S-16		—	31.60 32.60 33.60 35.60
	12	CINR3732S-16		—	37.60 39.60 41.60 42.60 43.60 45.60 47.60
* Hereafter, 12 TPI Whitworth Fine Thread can be machined by the same tool as above.					⋮ ⋮ ⋮
W23 TPI 10 W24 TPI 10 W25 TPI 10 W26 TPI 10	10	SINR2016S-16	16IRAG55 16IRG55 16IR5501 16IR5502	—	20.12 21.12 22.12 23.12
W28 TPI 9 W30 TPI 9 W32 TPI 9	9	SINR2420S-16		—	24.80 26.80 28.80
W34 TPI 8 W35 TPI 8 W36 TPI 8 W38 TPI 8 W40 TPI 8 W42 TPI 8	8	CINR3025S-16		—	30.40 31.40 32.40 34.40 36.40 38.40
W44 TPI 7 W45 TPI 7 W46 TPI 7 W48 TPI 7 W50 TPI 7 W52 TPI 7	7	No Tools Available			39.89 40.89 41.89 43.89 45.89 47.89
W55 TPI 6 W58 TPI 6 W60 TPI 6 W62 TPI 6 ⋮ ⋮ ⋮	6				50.20 53.20 55.20 57.20
* For 10 and more TPI Whitworth Fine Thread cannot be machined because the insert does not match to the TPI.					⋮ ⋮ ⋮

• Above shows the usage example of applicable Toolholder / Insert.