

【Consultation】



This time, we received an order for a work drawing indicating a "25 W 14" thread in the screw symbol. Can you

【Answer】

Your drawing is showing a screw thread called a Whitworth fine thread series. Your thread will have a nominal diameter of 25mm and the number of threads are 14 in a 25.4mm length. The threads included angle is 55 degrees. The thread pitch is $25.4 \text{ mm} \div 14 = 1.814 \text{ mm}$

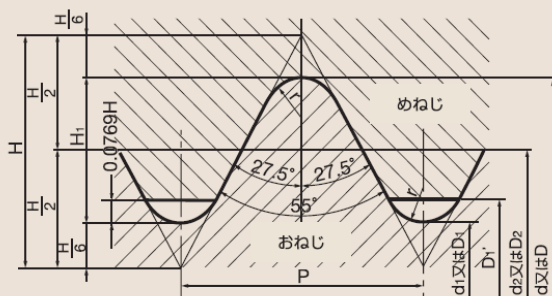


【Description】

At present, the standard for a Whitworth fine thread series screw (JIS B 0208 - 1965) is obsolete. The building industry still uses the Whitworth fine thread series as does other industries for repair parts. For the Whitworth fine thread series, the nominal diameter is expressed in millimeters, and the pitch is expressed by the number of threads in a 25.4 length.

*Number of threads = number of threads within 25.4 mm.

Whitworth fine thread series standard thread form



$$\begin{aligned} H &= 0.9605P & D &= d & r &= 0.1373P \\ H_1 &= 0.6403P & D_2 &= d_2 & P &= 25.4/n \\ d_2 &= d - H_1 & D_1 &= d_1 & n &= \text{山数} \\ d_1 &= d - 2H_1 & D_1' &= d_1 + 2 \times 0.0769H \end{aligned}$$

Please use the table below for the standard thread deminsions for Whitworth fine series threads and their number of threads, pitch diameter and minor diameter D1'.



Witworth Fine Screw No. 1					Witworth Fine Screw No. 2			
Screw Size	Nominal Diameter D	Number of Threads	Pitch P	Minor Diameter D1' reference	Screw Size	Nominal diameter D	Number of Threads	Pitch P
W10 X 20	10	20	1.270	8.562	W10 X 24	10	24	1.058
W11 X 18	11	18	1.411	9.400	W11 X 20	11	20	1.270
W12 X 18	12	18	1.411	10.400	W12 X 20	12	20	1.270
W13 X 16	13	16	1.588	11.203	W13 X 20	13	20	1.270
W14 X 16	14	16	1.588	12.203	W14 X 18	14	18	1.411
W15 X 16	15	16	1.588	13.203	W15 X 18	15	18	1.411
W16 X 14	16	14	1.814	13.944	W16 X 18	16	18	1.411
W18 X 14	18	14	1.814	15.944	W18 X 16	18	16	1.588
W20 X 12	20	12	2.117	17.603	W20 X 16	20	16	1.588
W22 X 12	22	12	2.117	19.603	W22 X 14	22	14	1.814
W25 X 10	25	10	2.540	22.123	W25 X 14	25	14	1.814

*The numerical values of the minor diameter D1' is a reference and indicates the dimensions of the thread form D1'. This figure is the minor diameter Min value of a Whitworth "Second grade internal thread" "Third grade internal thread" or "Fourth grade internal thread".