ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

Revise

ISO RECOMMENDATION

R 50

STEEL SOCKETS
SCREWED IN ACCORDANCE WITH ISO RECOMMENDATION R 7

MINIMUM LENGTHS

1st EDITION

July 1957

BRIEF HISTORY

The ISO Recommendation R 50, *Steel Sockets, Screwed in accordance with ISO Recommendation R 7 - Minimum Lengths*, was prepared by Technical Committee ISO/TC 5, *Pipes and Fittings*, the Secretariat of which is held by the Association Suisse de Normalisation (SNV).

At its second plenary meeting held in Milan, in April 1952, the Technical Committee assigned the study of steel sockets to its Sub-Committee ISO/TC 5/SC 5, *Fittings (other than Cast Iron)*. At the meeting of the Sub-Committee in London, in September 1952, consideration was given to the standardization of the minimum lengths of corresponding steel sockets and malleable cast iron sockets in conformity with the formula:

$$a = 2L + np$$

where $L =$ length of useful thread on $n =$ number of turns
                pipe end in accordance with   of thread
                ISO Recommendation R 7 $p =$ pitch of thread

As however the views were very divergent, the Sub-Committee decided in Paris, in September 1953, to deal separately with steel sockets and malleable cast iron sockets.

The whole question was re-examined in Brussels, in May 1954, at the request of the French Member Body, which proposed a value of n (number of turns of thread) $= 2$. This proposal was adopted by a working group of the Sub-Committee which met in Zurich, in July 1954, and was thereafter confirmed by correspondence by all the members of the Sub-Committee. Following a final review of the previous work done by the Sub-Committee in Zurich, in January 1955, the Secretariat prepared a first draft proposal which the Technical Committee adopted as a Draft ISO Recommendation at its plenary meeting in Stockholm, in June 1955.

On 31 December 1955, the Draft ISO Recommendation was sent to all the ISO Member Bodies and was approved, subject to some amendments, by the following 28 Member Bodies (out of a total of 37):

*Austria	France	Japan	Sweden
Belgium	Germany	Mexico	Switzerland
Bulgaria	*Greece	Netherlands	Turkey
Chile	Hungary	Poland	Union of South Africa
Czechoslovakia	Ireland	Portugal	United Kingdom
Denmark	Israel	Romania	U.S.S.R.
Finland	Italy	Spain	Yugoslavia

No Member Body opposed the approval of the Draft.

At its meeting in July 1957, the ISO Council decided to accept the Draft ISO Recommendation as an ISO RECOMMENDATION.

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*These Member Bodies stated that they had no objection to the Draft being approved.

ISO Recommendation	R 50	July 1957

STEEL SOCKETS
# SCREWED IN ACCORDANCE WITH ISO RECOMMENDATION R 7

MINIMUM LENGTHS

The minimum lengths of steel sockets screwed with parallel or taper threads are determined from the formula:

$$a = 2L + 2p$$

where
a = minimum length of socket,

L = length of useful thread on pipe end, in accordance with column 16 of ISO Recommendation R 7,

p = pitch of thread.

Thus, the dimensions adopted will enable the sockets to be assembled with tubes screwed in accordance with ISO Recommendation R 7, *Pipe Threads for Gas List Tubes and Screwed Fittings where Pressure-Tight Joints are made on the Threads (1/8 inch to 6 inches)*.
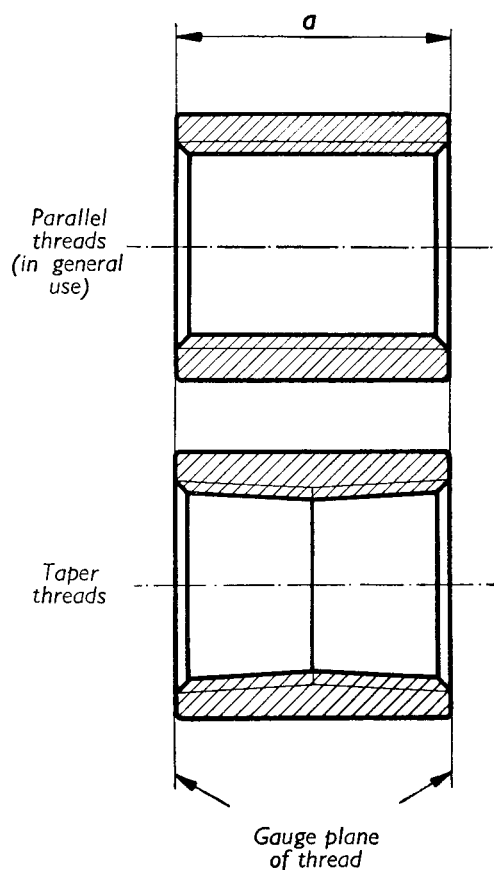
1	2	3
Nominal sizes of sockets	Minimum length a	
	Corresponding values	
in	mm	in
$1/8$	17	$21/32$
$1/4$	25	1
$3/8$	26	1
$1/2$	34	$1\,11/32$
$3/4$	36	$1\,7/16$
1	43	$1\,11/16$
$1\,1/4$	48	$1\,7/8$
$1\,1/2$	48	$1\,7/8$
2	56	$2\,7/32$
$2\,1/2$	65	$2\,9/16$
3	71	$2\,13/16$
$3\,1/2$	75	$2\,15/16$
4	83	$3\,9/32$
5	92	$3\,5/8$
6	92	$3\,5/8$

Parallel threads (in general use)

Taper threads

Gauge plane of thread