

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 12476 (1988): Hexagon drive extensions (adaptors) for hexagon insert bits for power socket wrenches [PGD 5: Assembly Hand Tools]



“ज्ञान से एक नये भारत का निर्माण”

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“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Indian Standard

SPECIFICATION FOR HEXAGON DRIVE EXTENSIONS ( ADAPTORS )  
FOR HEXAGON INSERT BITS FOR POWER SOCKET WRENCHES

1. **Scope** — Covers the dimensions and other requirements for hexagon drive extensions for hexagon insert bits, used in power socket wrenches. These are also commonly known as adaptors.

2. **Types**

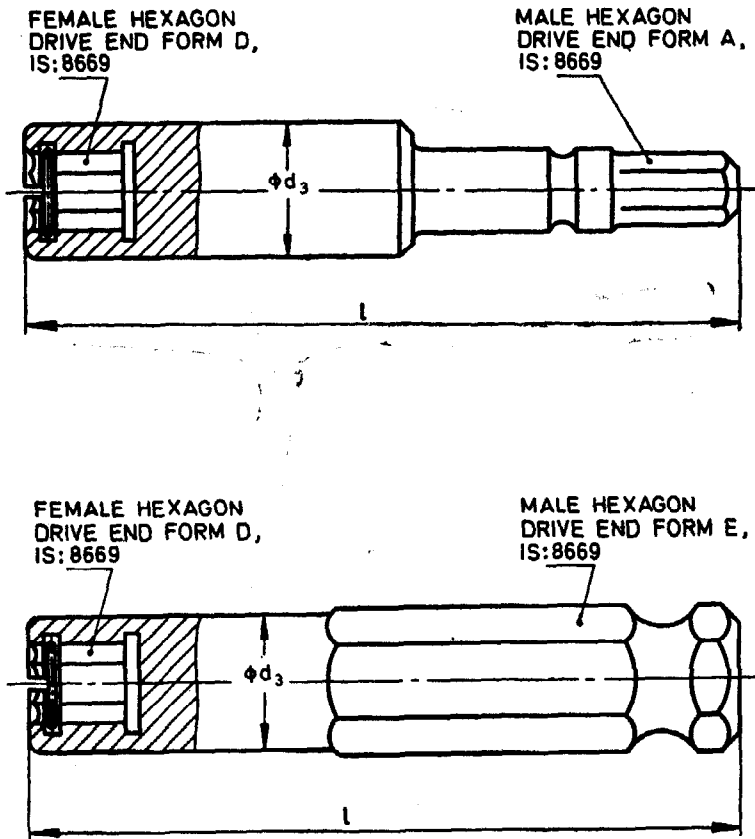
- a) *Type I* — Hexagon drive extension for hexagon insert bits, and
- b) *Type II* — Hexagon drive extension for hexagon insert bits with or without magnet core.

3. **Dimensions**

3.1 Dimensions for hexagon drive extension for hexagon insert bits of Type I shall be as given in Table 1.

TABLE 1 DIMENSIONS FOR HEXAGON DRIVE EXTENSIONS FOR HEXAGON INSERT BITS — TYPE I

All dimensions in millimetres



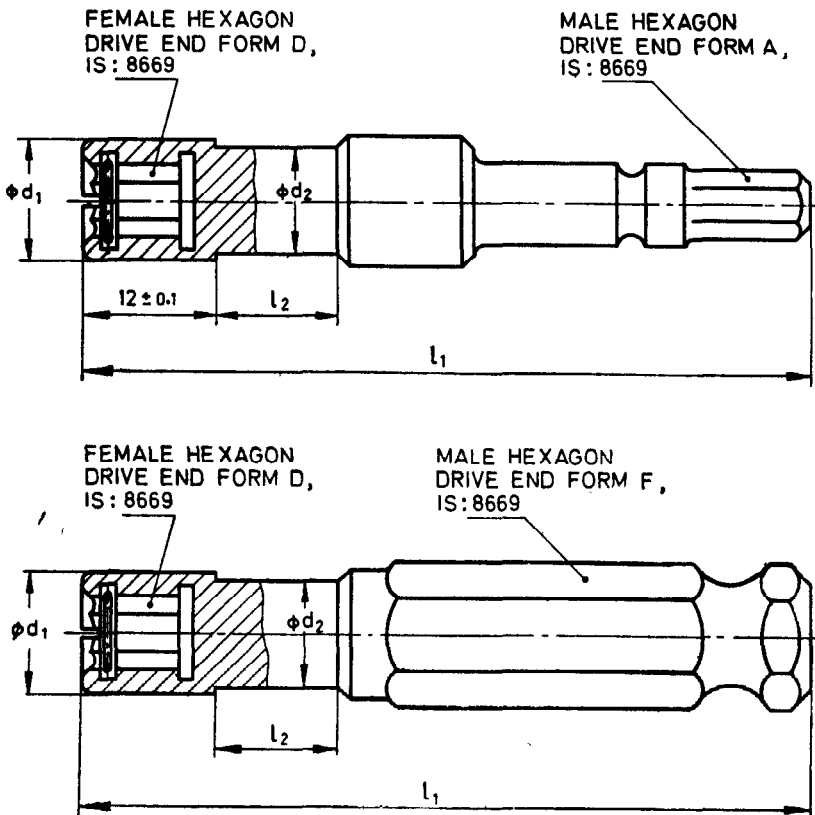
Female Hexagon*		Male Hexagon		d <sub>3</sub> Max	l Min
Form	Nominal Size	Form	Nominal Size		
D	4	A	3	7	40
		A	5.5		
D	6.3	A	5.5	12	40
		E	6.3		
		E	11.2		
D	8	E	11.2	15	48
		E	16	15	60

\*Male as well as female hexagon driving ends shall conform to IS : 8669-1977 Dimensions for hexagon drive ends for power tools.

3.2 Dimensions for hexagon drive extensions for hexagon insert bits of Type II shall be as given in Table 2.

TABLE 2 DIMENSIONS FOR HEXAGON DRIVE EXTENSIONS FOR HEXAGON INSERT BITS — TYPE II

All dimensions in millimetres



Female Hexagon*		Male Hexagon*		$d_1$ h9	$d_1$ Max	Without Magnet		With Magnet	
Form	Nominal Size	Form	Nominal Size			$l_1$ Min	$l_2$ Min	$l_1$ Min	$l_2$ Min
D	4	A	3	6.3	5.8	57	5	72	5
D	6.3	A	5.5	11.1	10.5	57	11	72	11
		E	6.3						
		E	11.2			65		80	
D	8	E	11.2	14.3	13.5	65	11	80	11

\*Male as well as female hexagon driving ends shall conform to IS : 8669-1977 'Dimensions for hexagon drive ends for power tools'.

4. Material

4.1 Type I adaptors and Type II adaptors without magnet core shall be made of suitable alloy steels, meeting the requirements laid down in 5.

Suitable Example

Alloy steel designation T50 Cr4 V2 of IS : 3749-1979 'Specification for tool and die steel for cold work ( first revision )'

4.2 Type II adaptors with magnet core shall be made of suitable wrought copper alloy, meeting the requirements given in 5.

5. Hardness

- a) 52 HRC, Min for Type I and Type II without magnet core adaptors; and
- b) 42 HRC, Min for Type II adaptors with magnet core.

**6. Designation** — Adaptor Type I with female hexagon form D 6·3 and male hexagon drive end form E 5·5, shall be designated as:

Adaptor I-D 6·3 × E 5·5 IS : 12476

Adaptor Type II with female hexagon form D 6·3 and male hexagon drive end form E 11·2 shall be designated as:

Adaptor II-D 6·3 × E 11·2 IS : 12476

## 7. Workmanship and Finish

**7.1** Adaptors shall be free from burrs, scales, cracks and other manufacturing surface defects. Edges shall be chamfered.

**7.2** The adaptors may be blank, burnished or electroplated. The surface finish shall be as agreed between the manufacturer and the purchaser.

## 8. Sampling

**8.1 Lot** — All hexagonal insert bits of same dimensions and manufactured from the same material under similar conditions of production shall be grouped together to constitute a lot.

**8.2** In order to ascertain the conformity of the lot, the procedure for sampling inspection as given in IS : 2500 ( Part 1 )-1973 'Sampling inspection tables : Part 1 Inspection by attributes and by count of defects ( *first revision* )' shall be followed. For various characteristics, the sampling procedures as given in 8.2.1 and 8.2.2 shall be followed.

**8.2.1** For dimensions and workmanship and finish, the single sampling plan with Inspection level IV and Acceptable Quality Level ( AQL ) 2·5 percent as given in Table 1 and 2 of IS : 2500 ( Part 1 )-1973 shall be followed.

**8.2.2** For hardness and torque tests, the single sampling plan with Inspection Level II and Acceptable Quality Level ( AQL ) 2·5 percent as given in Table 1 and 2 of IS : 2500 ( Part 1 )-1973 shall be followed.

**9. Marking** — Adaptors shall be marked with nominal sizes of the female hexagon as well as the male hexagon near respective ends and manufacturer's name, initials or registered trade-mark.

**9.1 Standard Mark** — Details available with the Bureau of Indian Standards.

## EXPLANATORY NOTE

While preparing this standard, assistance has been taken from DIN 7427-1982 'Square drive socket and hexagon drive extensions for hexagon insert bits', issued by the Deutsches Institut für Normung.