



**SCREWWASHER**

## Includes (शामिल है):

- ✓ M3 से M64 तक सभी साइज
- ✓ Coarse & Fine Pitch (गोल और महीन धागा)
- ✓ Major Diameter (बाहरी व्यास)
- ✓ Pitch (थ्रेड की दूरी)

## Technical Details (वाकनकी जानकारी)

- ✓ Major Diameter (बाहरी व्यास):  
पोलर/मबु या पदो देड़ा बाहरी साइज
- ✓ Pitch (पिच):  
एक घाये दे दूये घाये के ब्थीलकी दूरी (mm में)
- ✓ Coarse Pitch (गोल धागा):  
मापदुय मद्धदु, नाली क्थिण के लिए
- ✓ Fine Pitch (महीन धागा):  
ज्यादा नलीक और टांडट फिण के लिए

## Application (उपयोग):

- ✓ Industrial Machines
- ✓ Construction Work
- ✓ Automobile Sector
- ✓ Fabrication & Engineering



## Size Range:

|     |     |     |     |
|-----|-----|-----|-----|
| M3  | M4  | M5  | M6  |
| M8  | M10 | M12 | M17 |
| M20 | M24 | M30 | M36 |
| M42 | M48 | M48 | M64 |

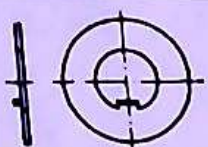


HD Catalog & Design (A4 Size)

PDF



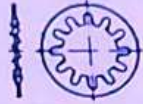
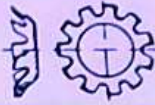
IS : 8535 - 1987  
ISO 1891 - 1979

| No.  | Figure                                                                            | Designation         |
|------|-----------------------------------------------------------------------------------|---------------------|
| 40.4 |  | Internal tab washer |

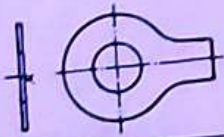
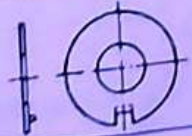
#### 41. Split Pins

|      |                                                                                   |           |
|------|-----------------------------------------------------------------------------------|-----------|
| 41.1 |  | Split pin |
|------|-----------------------------------------------------------------------------------|-----------|

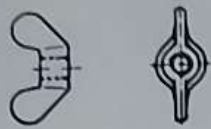
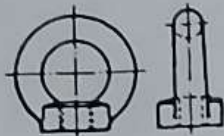
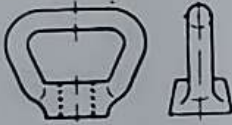
Dowel pins

| No.   | Figure                                                                              | Designation                                       |
|-------|-------------------------------------------------------------------------------------|---------------------------------------------------|
| 39.7  |    | Lock washer external teeth                        |
| 39.8  |    | Lock washer internal teeth                        |
| 39.9  |    | Countersunk external toothed lock washer          |
| 39.10 |    | Serrated lock washer external teeth               |
| 39.11 |   | Serrated lock washer internal teeth               |
| 39.12 |  | Countersunk serrated external toothed lock washer |

#### 40. Tab Washers

|      |                                                                                     |                                   |
|------|-------------------------------------------------------------------------------------|-----------------------------------|
| 40.1 |  | Tab washer with long tab          |
| 40.2 |  | Tab washer with long tab and wing |
| 40.3 |  | External tab washer               |

### 37. Other Miscellaneous Nuts

| No.  | Figure                                                                              | Designation     |
|------|-------------------------------------------------------------------------------------|-----------------|
| 37.1 |    | Wing nut        |
| 37.2 |    | Lifting eye nut |
| 37.3 |    | Turnbuckle      |
| 37.4 |  | Lifting nut     |
| 37.5 |  | Lifting nut     |

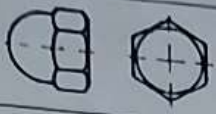
### 38. Washers

|      |                                                                                     |                             |
|------|-------------------------------------------------------------------------------------|-----------------------------|
| 38.1 |  | Plain washer                |
| 38.2 |  | Single chamfer plain washer |

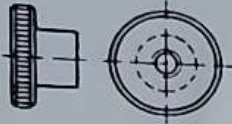
### 35. Cap Nuts

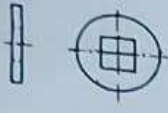
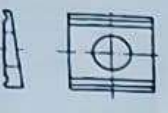
IS : 8535 - 1987

ISO 1891 - 1979

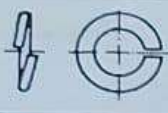
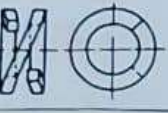
| No.  | Figure                                                                            | Designation                 |
|------|-----------------------------------------------------------------------------------|-----------------------------|
| 35.1 |  | Acorn nut ( domed cap nut ) |
| 35.2 |  | Cap nut                     |

### 36. Miscellaneous Round Nuts

|      |                                                                                     |                                          |
|------|-------------------------------------------------------------------------------------|------------------------------------------|
| 36.1 |    | Knurled nut with collar                  |
| 36.2 |   | Knurled nut                              |
| 36.3 |  | Slotted round nut                        |
| 36.4 |  | Slotted round nut for hook-spanner       |
| 36.5 |  | Round nut with set pin holes in side     |
| 36.6 |  | Round nut with drilled holes in one face |

| No.  | Figure                                                                            | Designation                                |
|------|-----------------------------------------------------------------------------------|--------------------------------------------|
| 38.3 |  | Square washer with round hole              |
| 38.4 |  | Round washer with square hole              |
| 38.5 |  | Square taper washer (for U and I sections) |

### 39. Spring Washers *1) Square spring washers 2) Flat spring washers*

|      |                                                                                     |                                                 |
|------|-------------------------------------------------------------------------------------|-------------------------------------------------|
| 39.1 |   | Single coil spring lock washer with square ends |
| 39.2 |  | Single coil spring lock washer with tang ends   |
| 39.3 |  | Double coil spring lock washer                  |
| 39.4 |  | Curved spring washer                            |
| 39.5 |  | Wave spring washer                              |
| 39.6 |  | Conical spring washer                           |

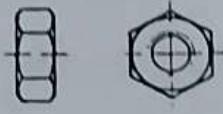
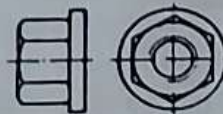
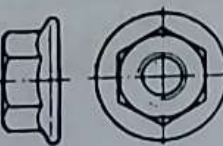
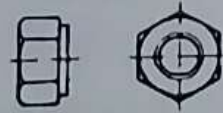
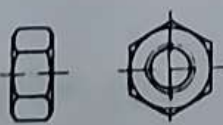
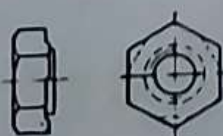
IS : 8535 - 1987

ISO 1891 - 1979

### 27. Thread Forming Screws (Thread Formed by Deformation)

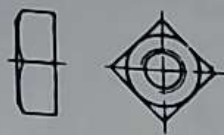
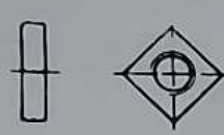
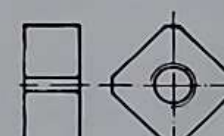
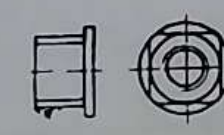
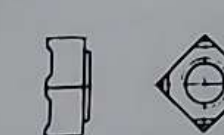
| No.  | Figure                                                                            | Designation                                                      |
|------|-----------------------------------------------------------------------------------|------------------------------------------------------------------|
| 27.1 |  | Hexagon head thread forming screw (thread formed by deformation) |

### 28. Hexagon Nuts

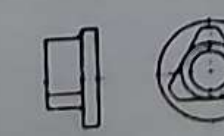
|      |                                                                                     |                          |
|------|-------------------------------------------------------------------------------------|--------------------------|
| 28.1 |    | Hexagon nut              |
| 28.2 |   | Hexagon thin nut         |
| 28.3 |  | Hexagon nut with collar  |
| 28.4 |  | Hexagon nut with flange  |
| 28.5 |  | Washer faced hexagon nut |
| 28.6 |  | Heavy series hexagon nut |
|      |  | Hexagon weld nut         |

## 29. Square Nuts

IS : 8535 - 1987  
ISO 1891 - 1979

| No.  | Figure                                                                              | Designation                              |
|------|-------------------------------------------------------------------------------------|------------------------------------------|
| 29.1 |    | Square nut                               |
| 29.2 |    | Square nut without chamfer (pressed nut) |
| 29.3 |  | Foundation nut                           |
| 29.4 |  | Square nut with collar                   |
| 29.5 |  | Square weld nut                          |

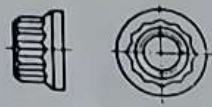
## 30. Triangle Nuts

|      |                                                                                     |                          |
|------|-------------------------------------------------------------------------------------|--------------------------|
| 30.1 |  | Triangle nut with collar |
|------|-------------------------------------------------------------------------------------|--------------------------|

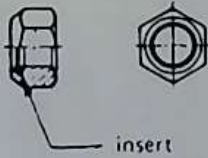
### 31. Octagon and Pentagon Nuts

| No.  | Figure                                                                            | Designation  |
|------|-----------------------------------------------------------------------------------|--------------|
| 31.1 |  | Octagon nut  |
| 31.2 |  | Pentagon nut |

### 32. 12 Point Nuts (Bihexagonal Nuts)

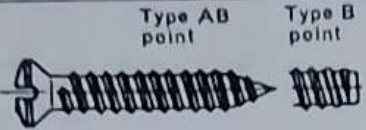
|      |                                                                                   |                     |
|------|-----------------------------------------------------------------------------------|---------------------|
| 32.1 |  | 12 point flange nut |
|------|-----------------------------------------------------------------------------------|---------------------|

### 33. Prevailing Torque Nuts

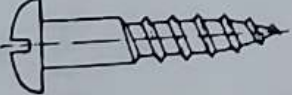
|      |                                                                                     |                                                      |
|------|-------------------------------------------------------------------------------------|------------------------------------------------------|
| 33.1 |   | Prevailing torque type all metal hexagon nut         |
| 33.2 |  | Prevailing torque type hexagon nut with nylon insert |

### 34. Slotted Castle Nuts

|      |                                                                                     |                           |
|------|-------------------------------------------------------------------------------------|---------------------------|
| 34.1 |  | Hexagon slotted nut       |
| 34.2 |  | Hexagon castle nut        |
| 34.3 |  | Hexagonal thin castle nut |

| No.  | Figure                                                                            | Designation                                                 |
|------|-----------------------------------------------------------------------------------|-------------------------------------------------------------|
| 24.4 |  | Slotted raised countersunk (oval) head tapping screw        |
| 24.5 |  | Cross recessed countersunk (flat) head tapping screw        |
| 24.6 |  | Cross recessed raised countersunk (oval) head tapping screw |

## 25. Wood Screws

|      |                                                                                     |                                                   |
|------|-------------------------------------------------------------------------------------|---------------------------------------------------|
| 25.1 |   | Hexagon head wood screw                           |
| 25.2 |  | Square head wood screw                            |
| 25.3 |  | Slotted round head wood screw                     |
| 25.4 |  | Slotted raised countersunk (oval) head wood screw |
| 25.5 |  | Slotted countersunk (flat) head wood screw        |
|      |  | Cross recessed pan head wood screw                |

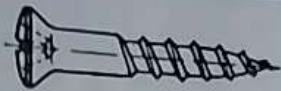
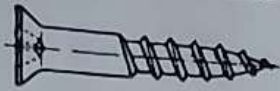
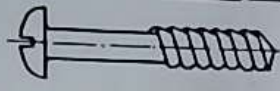
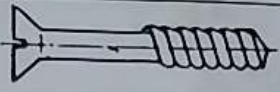
### 23. Slotted and Hexagon Socket Set Screw

IS : 8535 - 1987  
ISO 1891 - 1979

| No.  | Figure                                                                              | Designation                                  |
|------|-------------------------------------------------------------------------------------|----------------------------------------------|
| 23.1 |    | Slotted set screw with flat point            |
| 23.2 |    | Slotted set screw with full dog point        |
| 23.3 |    | Slotted set screw with cup point             |
| 23.4 |    | Slotted set screw with cone point            |
| 23.5 |    | Hexagon socket set screw with flat point     |
| 23.6 |   | Hexagon socket set screw with full dog point |
| 23.7 |  | Hexagon socket set screw with cup point      |
| 23.8 |  | Hexagon socket set screw with cone point     |

### 24. Self-Tapping Screws

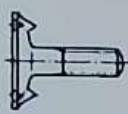
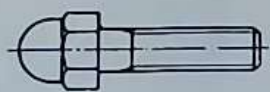
|      | Type AB point                                                                       | Type B point                                                                        |                                               |
|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------|
| 24.1 |  |  | Hexagon head tapping screw                    |
| 24.2 |  |  | Slotted pan head tapping screw                |
| 24.3 |  |  | Slotted countersunk (flat) head tapping screw |

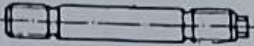
| No.   | Figure                                                                            | Designation                                              |
|-------|-----------------------------------------------------------------------------------|----------------------------------------------------------|
| 25.7  |  | Cross recessed raised countersunk (oval head) wood screw |
| 25.8  |  | Cross recessed countersunk (flat) head wood screw        |
| 25.9  |  | Slotted round head drive screw                           |
| 25.10 |  | Slotted countersunk (flat) head drive screw              |

## 26. Thread Cutting (Metallic Drive) Screws

|      |                                                                                     |                                                                    |
|------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 26.1 |   | Hexagon head thread cutting screw                                  |
| 26.2 |  | Slotted cheese head thread cutting screw                           |
| 26.3 |  | Slotted countersunk (flat) head thread cutting screw               |
| 26.4 |  | Slotted raised countersunk head thread cutting screw               |
| 26.5 |  | Cross recessed pan head thread cutting screw                       |
| 26.6 |  | Cross recessed countersunk (flat) head thread cutting screw        |
| 26.7 |  | Cross recessed raised countersunk (oval) head thread cutting screw |

IS : 8535 - 1987  
ISO 1891 - 1979

| No.   | Figure                                                                              | Designation                  |
|-------|-------------------------------------------------------------------------------------|------------------------------|
| 19.12 |    | Flat head anchor bolt        |
| 19.13 |    | Belting bolt (elevator bolt) |
| 19.14 |   | Clip bolt                    |
| 19.15 |  | Acorn hexagon head bolt      |
| 19.16 |  | Tommy screw                  |
| 19.17 |  | Spring bolt                  |
| 19.18 |  | T-slot screw                 |
| 19.19 |  | Cover screw                  |

| No.  | Figure                                                                            | Designation                                          |
|------|-----------------------------------------------------------------------------------|------------------------------------------------------|
| 21.3 |  | Waisted stud                                         |
| 21.4 |  | Double end stud with full shank                      |
| 21.5 |  | Double end stud with reduced shank<br>(waisted stud) |
| 21.6 |  | Stud bolt                                            |

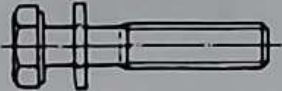
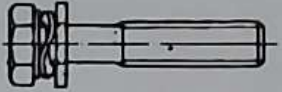
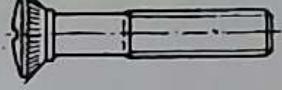
**22. Headless Screw**

|      |                                                                                     |                                                       |
|------|-------------------------------------------------------------------------------------|-------------------------------------------------------|
| 22.1 |  | Slotted headless screw with flat chamfered end        |
| 22.2 |  | Hexagon socket headless screw with flat chamfered end |
| 22.3 |  | Hexagon socket headless screw with cone point         |
| 22.4 |  | Hexagon socket headless screw with full dog point     |
| 22.5 |  | Hexagon socket headless screw with cup point          |

IS : 8535 - 1987

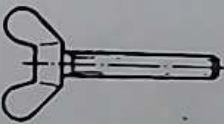
ISO 1891 - 1979

### 18. Screws with Captive Components

| No.  | Figure                                                                              | Designation                                                                 |
|------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 18.1 |    | Hexagon screw with captive plain washer                                     |
| 18.2 |    | Hexagon screw with captive spring and plain washer                          |
| 18.3 |    | Raised cheese head screw with captive spring washer                         |
| 18.4 |  | Raised countersunk head screw with captive countersunk serrated lock washer |

Note — The figures given are examples for captive components only.

### 19. Miscellaneous Bolts and Screws

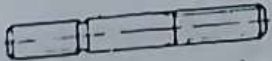
|      |                                                                                     |                  |
|------|-------------------------------------------------------------------------------------|------------------|
| 19.1 |  | Wing screw       |
| 19.2 |  | Eye bolt         |
| 19.3 |  | Lifting eye bolt |

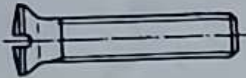
## 20. Screw Plugs

IS : 8535 - 1987  
ISO 1891 - 1979

| No.  | Figure                                                                              | Designation               |
|------|-------------------------------------------------------------------------------------|---------------------------|
| 20.1 |    | Hexagon head screw plug   |
| 20.2 |    | Hexagon socket screw plug |
| 20.3 |    | Hexagon socket pipe plug  |
| 20.4 |   | Hexagon head pipe plug    |
| 20.5 |  | Square socket screw plug  |
| 20.6 |  | Square head screw plug    |

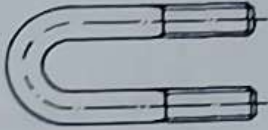
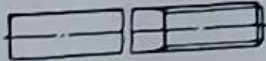
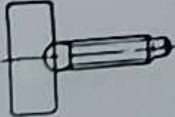
## 21. Stud

|      |                                                                                     |                             |
|------|-------------------------------------------------------------------------------------|-----------------------------|
| 21.1 |  | Stud                        |
| 21.2 |  | Stud with undercut (groove) |

| No.   | Figure                                                                             | Designation                                               |
|-------|------------------------------------------------------------------------------------|-----------------------------------------------------------|
| 16.12 |   | Slotted round head screw                                  |
| 16.13 |   | Slotted raised cheese (fillister) head screw              |
| 16.14 |   | Slotted shallow countersunk (flat trim) head screw        |
| 16.15 |  | Slotted shallow raised countersunk (oval trim) head screw |

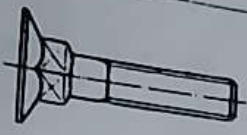
### 17. Cross Recessed Head Screws

|      |                                                                                     |                                                     |
|------|-------------------------------------------------------------------------------------|-----------------------------------------------------|
| 17.1 |  | Cross recessed raised cheese (fillister) head screw |
| 17.2 |  | Cross recessed pan head screw                       |
| 17.3 |  | Cross recessed countersunk flat head screw          |
| 17.4 |  | Cross recessed raised countersunk (oval) head screw |

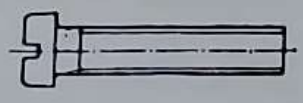
| No.   | Figure                                                                              | Designation                 |
|-------|-------------------------------------------------------------------------------------|-----------------------------|
| 19.4  |    | Knurled thumb screw         |
| 19.5  |    | Masonry bolt                |
| 19.6  |    | Foundation bolt             |
| 19.7  |   | Stirrup bolt (U-bolt)       |
| 19.8  |  | Eyelet bolt                 |
| 19.9  |  | Weld stud (single end stud) |
| 19.10 |  | Flat leaf screw             |
| 19.11 |  | Mushroom head anchor bolt   |

## 15. Countersunk Flat Bolts

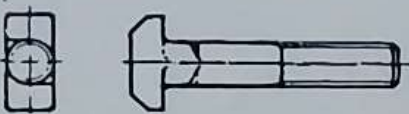
IS : 8535 - 1987  
ISO 1891 - 1979

| No.  | Figure                                                                              | Designation                             |
|------|-------------------------------------------------------------------------------------|-----------------------------------------|
| 15.1 |    | Flat countersunk square neck bolt       |
| 15.2 |    | Flat countersunk nib bolt               |
| 15.3 |    | Deep flat countersunk bolt              |
| 15.4 |   | Flat square countersunk bolt            |
| 15.5 |  | Countersunk head screw with forged slot |

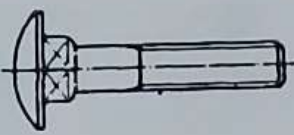
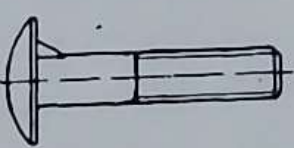
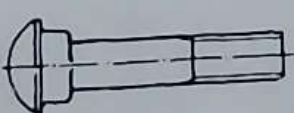
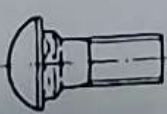
## 16. Slotted Head Screws

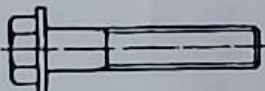
|      |                                                                                     |                                       |
|------|-------------------------------------------------------------------------------------|---------------------------------------|
| 16.1 |  | Slotted cheese head screw             |
| 16.2 |  | Slotted pan head screw                |
| 16.3 |  | Slotted countersunk (flat) head screw |

13. T-Head Bolts

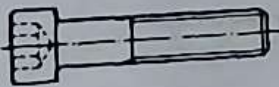
| No.  | Figure                                                                            | Designation                    |
|------|-----------------------------------------------------------------------------------|--------------------------------|
| 13.1 |  | T-head bolt (hammer head bolt) |
| 13.2 |  | T-head bolt with square neck   |
| 13.3 |  | T-head bolt with double nib    |

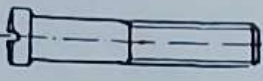
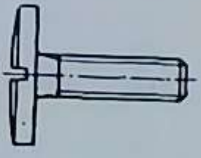
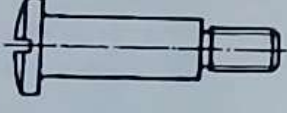
14. Round Head Bolts

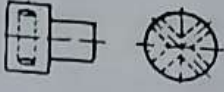
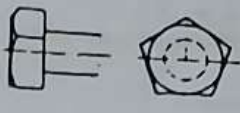
|      |                                                                                     |                                                                                    |
|------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 14.1 |   | Mushroom head square neck bolt (cup square neck bolt; cup square bolt; coach bolt) |
| 14.2 |  | Cup head nib bolt (cup nib bolt)                                                   |
| 14.3 |  | Mushroom head nib bolt (cup nib bolt; coach bolt)                                  |
| 14.4 |  | Cup oval neck bolt (fish bolt)                                                     |
| 14.5 |  | Cup square neck bolt (bolt for railway ties)                                       |

| No.  | Figure                                                                              | Designation                                               |
|------|-------------------------------------------------------------------------------------|-----------------------------------------------------------|
| 7.6  |    | Hexagon set screw with half dog point and flat cone point |
| 7.7  |    | Hexagon bolt with large head (heavy series)               |
| 7.8  |    | Hexagon bolt with waisted shank (reduced shank)           |
| 7.9  |   | Hexagon bolt with collar                                  |
| 7.10 |  | Hexagon bolt with flange                                  |

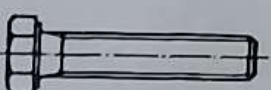
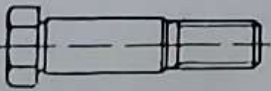
### 8. Hexagon Socket Head Cap Screws

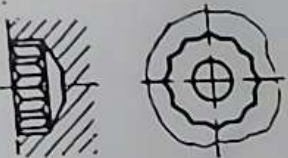
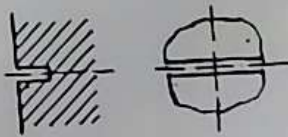
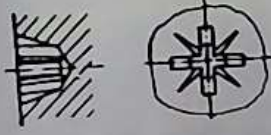
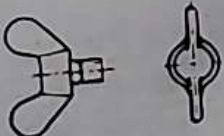
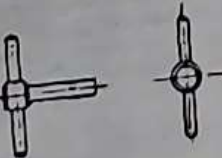
|     |                                                                                     |                                                  |
|-----|-------------------------------------------------------------------------------------|--------------------------------------------------|
| 8.1 |  | Hexagon socket head cap screw                    |
| 8.2 |  | Hexagon socket countersunk (flat) head cap screw |
| 8.3 |  | Hexagon socket head cap screw with centre        |

| No.   | Figure                                                                              | Designation                                                |
|-------|-------------------------------------------------------------------------------------|------------------------------------------------------------|
| 16.4  |    | Slotted raised countersunk (oval) head                     |
| 16.5  |    | Slotted capstan screw                                      |
| 16.6  |    | Slotted small raised cheese head screw                     |
| 16.7  |    | Slotted large raised cheese head screw                     |
| 16.8  |  | Slotted small raised cheese head screw with full dog point |
| 16.9  |  | Slotted raised cheese head fit screw (shoulder screw)      |
| 16.10 |  | Slotted raised countersunk head screw with full dog point  |
| 16.11 |  | Slotted countersunk head screw with full dog point         |

| No.  | Figure                                                                            | Designation                        |
|------|-----------------------------------------------------------------------------------|------------------------------------|
| 6.17 |  | Diamond knurl                      |
| 6.18 |  | Cross hole (set pin holes in side) |
| 6.19 |  | Pentagon                           |

## 7. Hexagon Bolts and Screws

|     |                                                                                     |                                                                       |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 7.1 |  | Hexagon bolt                                                          |
| 7.2 |  | Hexagon screw                                                         |
| 7.3 |  | Hexagon bolt with hexagon nut                                         |
| 7.4 |  | Hexagon fit bolt (and undercut adjacent to head)                      |
| 7.5 |  | Hexagon set screw with full dog point (and undercut adjacent to head) |

| No.  | Figure                                                                              | Designation                        |
|------|-------------------------------------------------------------------------------------|------------------------------------|
| 6.10 |    | 12 point socket (bihexagon socket) |
| 6.11 |    | Slot                               |
| 6.12 |   | Cross recess (Phillips)            |
| 6.13 |  | Cross recess (Pozidriv)            |
| 6.14 |  | Wing                               |
| 6.15 |  | Tommy                              |
| 6.16 |  | Straight knurl                     |

| No. | Figure                                                                            | Designation                        |
|-----|-----------------------------------------------------------------------------------|------------------------------------|
| 8.4 |  | Hexagon socket head shoulder screw |

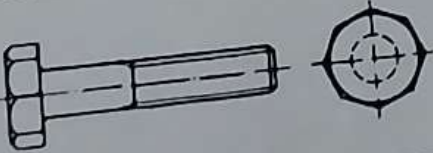
### 9. Square Head Bolts

|     |                                                                                     |                                                 |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------|
| 9.1 |    | Square head bolt                                |
| 9.2 |    | Square head bolt with collar                    |
| 9.3 |  | Square head bolt with collar and half dog point |

### 10. Triangle Head Bolts

|      |                                                                                     |                                |
|------|-------------------------------------------------------------------------------------|--------------------------------|
| 10.1 |  | Triangle head bolt with collar |
|------|-------------------------------------------------------------------------------------|--------------------------------|

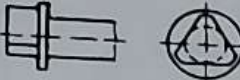
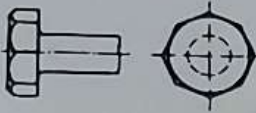
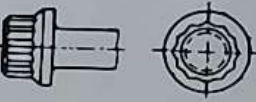
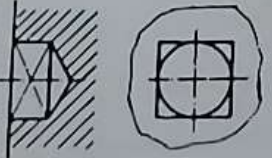
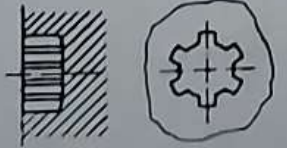
### 11. Octagonal Head Bolts

|      |                                                                                     |              |
|------|-------------------------------------------------------------------------------------|--------------|
| 11.1 |  | Octagon bolt |
|------|-------------------------------------------------------------------------------------|--------------|

### 12. 12 Point Screws

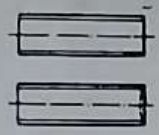
|      |                                                                                     |                                                |
|------|-------------------------------------------------------------------------------------|------------------------------------------------|
| 12.1 |  | 12 Point flange screw (bihexagonal head screw) |
|------|-------------------------------------------------------------------------------------|------------------------------------------------|

IS : 8535 - 1987  
ISO 1891 - 1979

| No. | Figure                                                                              | Designation           |
|-----|-------------------------------------------------------------------------------------|-----------------------|
| 6.2 |    | Square                |
| 6.3 |    | Triangle              |
| 6.4 |    | Octagon               |
| 6.5 |  | 12 point (bi-hexagon) |
| 6.6 |  | Hexagon socket        |
| 6.7 |  | Triangle              |
| 6.8 |  | Square socket         |
| 6.9 |  | Six-spline socket     |

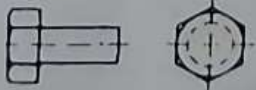
| No. | Figure                                                                            | Designation |
|-----|-----------------------------------------------------------------------------------|-------------|
| 4.6 |  | Square neck |

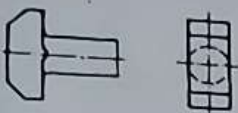
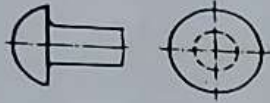
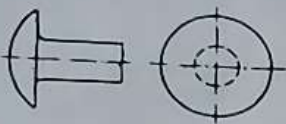
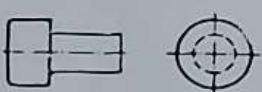
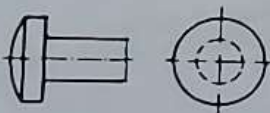
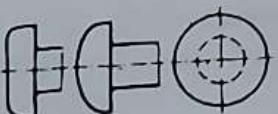
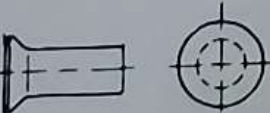
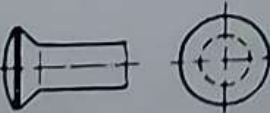
### 5. Screw and Bolt Ends

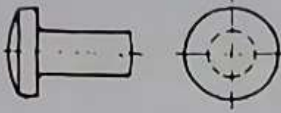
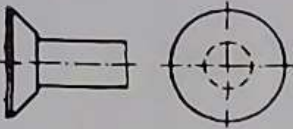
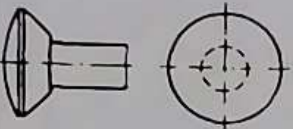
|     |                                                                                                                                                                         |                                                             |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
|     | Ends for general use (5.1 to 5.3)                                                                                                                                       |                                                             |
| 5.1 |                                                                                        | As-rolled end                                               |
| 5.2 |                                                                                      | Rounded end                                                 |
| 5.3 |                                                                                      | Chamfered end                                               |
|     | Ends for special purposes (5.4 to 5.10)                                                                                                                                 |                                                             |
| 5.4 |                                                                                      | Cone point                                                  |
| 5.5 |                                                                                      | Truncated cone point                                        |
| 5.6 |   | <p>Normal cup point</p> <p>W cup point</p> <p>Cup point</p> |

| No.  | Figure                                                                              | Designation                                                 |
|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------|
| 5.7  |    | Short dog point                                             |
| 5.8  |    | Long dog point                                              |
| 5.9  |    | Short dog point with rounded end                            |
| 5.10 |    | Short dog point with truncated cone end                     |
| 5.11 |  | Scrape point                                                |
| 5.12 |  | End for self-tapping screw (tapping screw type AB point)    |
| 5.13 |  | End for self-tapping screw (tapping screw type B point)     |
| 5.14 |  | End for thread rolling screw (thread formed by deformation) |

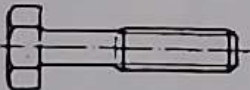
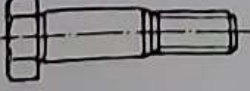
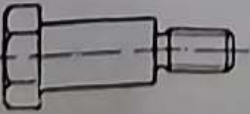
## 6. Driving Features

|     |                                                                                     |         |
|-----|-------------------------------------------------------------------------------------|---------|
| 6.1 |  | Hexagon |
|-----|-------------------------------------------------------------------------------------|---------|

| No.  | Figure                                                                              | Designation                         |
|------|-------------------------------------------------------------------------------------|-------------------------------------|
| 3.10 |    | T-head (hammer head)                |
| 3.11 |    | Round head                          |
| 3.12 |    | Mushroom head (truss head)          |
| 3.13 |  | Cheese head                         |
| 3.14 |  | Raised cheese head (fillister head) |
| 3.15 |  | Pan head                            |
| 3.16 |  | Countersunk head (flat head)        |
| 3.17 |  | Raised countersunk head (oval head) |

| No.  | Figure                                                                            | Designation                                              |
|------|-----------------------------------------------------------------------------------|----------------------------------------------------------|
| 3.18 |  | Blind head                                               |
| 3.19 |  | Undercut countersunk head<br>(undercut flat head)        |
| 3.20 |  | Undercut raised countersunk head<br>(undercut oval head) |

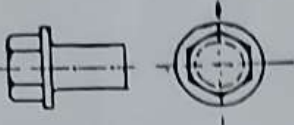
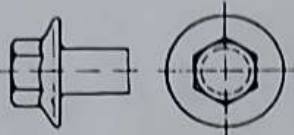
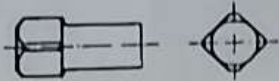
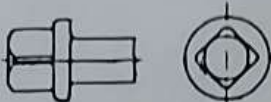
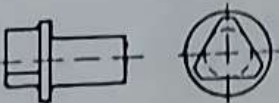
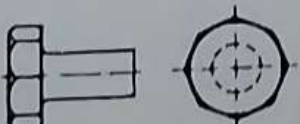
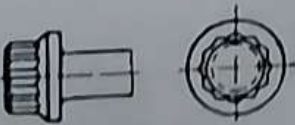
#### 4. Forms of Shank

|     |                                                                                     |                                                                         |
|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 4.1 |  | Normal shank (nominal shank diameter =<br>nominal thread diameter)      |
| 4.2 |  | Reduced shank<br>(Shank diameter $\approx$ effective pitch<br>diameter) |
| 4.3 |  | Waisted shank<br>(shank diameter $<$ minor diameter)                    |
| 4.4 |  | Increased shank<br>(shank diameter $>$ thread diameter)                 |
| 4.5 |  | Shoulder                                                                |

IS : 8535 - 1987

ISO 1891 - 1979

### 3. Shapes of Heads

| No. | Figure                                                                              | Designation                             |
|-----|-------------------------------------------------------------------------------------|-----------------------------------------|
| 3.1 |    | Hexagon head                            |
| 3.2 |    | Hexagon head with washer face           |
| 3.3 |    | Hexagon head with collar                |
| 3.4 |   | Hexagon head with flange                |
| 3.5 |  | Square head                             |
| 3.6 |  | Square head with collar                 |
| 3.7 |  | Triangle head with collar               |
| 3.8 |  | Octagonal head                          |
| 3.9 |  | 12 point flange head (bihexagonal head) |



## 7. Coating / Plating

*Industrial buyers के लिए बहुत important*

- Zinc Plating
- Hot Dip Galvanized (HDG)
- Black
- Nickel
- Phosphate
- Silver
- Brass

## 8. Industries We Serve

*(Suggestions to complete your list)*

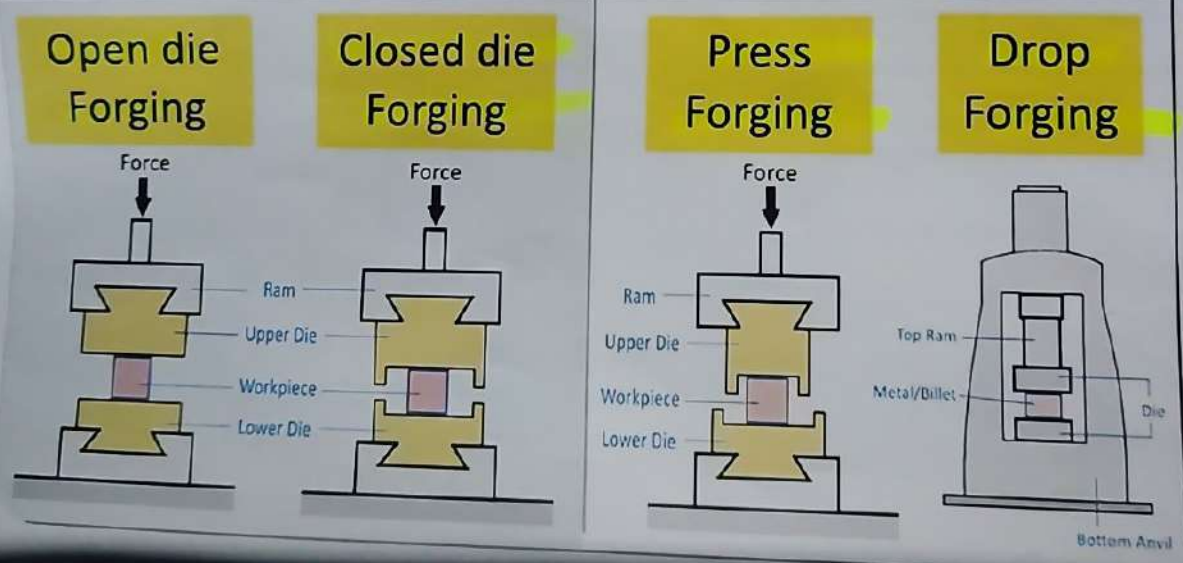
- Automotive
- Construction & Infrastructure
- Oil & Gas
- Power Plants
- Heavy Machinery
- Aerospace

Would you like me to generate the HTML code for this list to your website?

HOT FORGING

YouTube/Ifinfotect.

# Forging Operations



## 1. Scope and Field of Application

IS : 8535 - 1987

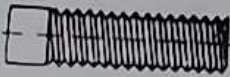
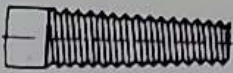
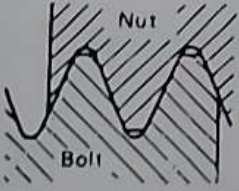
ISO 1891 - 1979

This International Standard lays down the terminology and nomenclature of bolts, screws, nuts and accessories in English, French, Russian, German, Italian and Spanish, recommended for use unless otherwise specified in the appropriate product standard.

At present, not all of the fasteners and accessories listed are covered by ISO publications. For the main part, the items have been selected from existing national standards. Also included are obsolescent types (those being used up from stock) in order that their terminology may be standardized at the same time.

The drawings are essentially diagrammatic, in particular those showing bolts and screws having special characteristics dealt with, for example, in clauses 18 and 19. However, it is recommended that these drawings be used as a base whenever possible.

## 2. Screw Threads

| No. | Figure                                                                              | Designation                          |
|-----|-------------------------------------------------------------------------------------|--------------------------------------|
| 2.1 |   | Screw thread                         |
| 2.2 |  | Taper screw thread                   |
| 2.3 |  | Tapping screw thread (spaced thread) |
| 2.4 |  | Wood screw thread                    |
| 2.5 |  | Metric thread (SI)                   |
|     |                                                                                     | ISO metric thread                    |
|     |                                                                                     | Metric fine pitch thread             |
|     |                                                                                     | ISO metric fine pitch thread         |
|     |                                                                                     | Inch thread                          |
|     |                                                                                     | Unified screw thread (ISO inch)      |
|     |                                                                                     | Whitworth thread                     |
|     |                                                                                     | Pipe thread                          |
|     |                                                                                     | Whitworth pipe thread                |

### MT – Metric Thread (ISO)

| Size | Coarse Pitch (mm) | Fine Pitch (mm) |
|------|-------------------|-----------------|
| M2   | 0.40              | 0.25            |
| M2.5 | 0.45              | 0.35            |
| M3   | 0.50              | 0.35            |
| M4   | 0.70              | 0.50            |
| M5   | 0.80              | 0.50            |
| M6   | 1.00              | 0.75            |
| M8   | 1.25              | 1.00            |
| M10  | 1.50              | 1.25            |
| M12  | 1.75              | 1.50            |

### BA – British Association Thread

| BA Size | Pitch (mm) |
|---------|------------|
| 0 BA    | 1.00       |
| 2 BA    | 0.81       |
| 4 BA    | 0.65       |
| 6 BA    | 0.53       |
| 8 BA    | 0.43       |
| 10 BA   | 0.35       |

### BSW – British Standard Whitworth

| Size (inch) | TPI |
|-------------|-----|
| 1/8"        | 40  |
| 1/4"        | 20  |
| 3/8"        | 16  |
| 1/2"        | 12  |
| 3/4"        | 10  |

### UNF – Unified National Fine

| Size (inch) | TPI |
|-------------|-----|
| 1/4"        | 28  |
| 5/16"       | 24  |
| 3/8"        | 24  |
| 1/2"        | 20  |
| 3/4"        | 16  |

## 6. Materials & Grades

### Carbon Steel

- Grades: 8.8, 10.9, 12.9

### Stainless Steel

- SS304
- SS316

### Alloy Steel

- EN19, EN24
- ASTM B7

### Non-Ferrous Metals

- Aluminium
- Brass
- Copper

## 7. Coating / Plating