

## Hole Preparation

- Use the catalogue sheet for the product you are installing to determine the correct counterbored hole (**D2**) and drilled hole (**D3**) size and tolerance.
- Hole roundness must be held to within 0.05mm.
- Bore roughness must be between  $R_z$  (RMS) 10 - 30  $\mu\text{m}$  especially for hard materials.
- Avoid spiral or longitudinal grooves as these may affect plug performance.
- Be sure each bore is clean and free from any and all cutting oils, chips, etc.

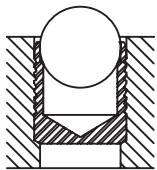


FIG. 1

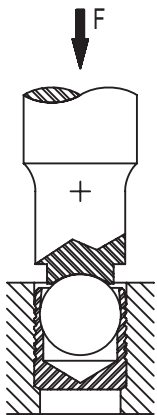


FIG. 2

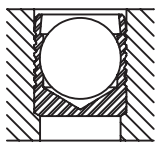


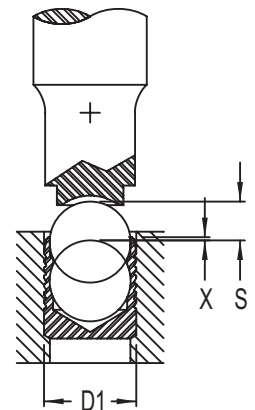
FIG. 3

## Installation Procedure

- Insert the EIS plug into the counterbored hole with the ball facing out, seated against the counterbore shoulder.
- It is important that the correct drill and counterbore size are selected so that the plug is properly supported during installation and a good seal is obtained.
- Press the ball into the sleeve so that the top of the ball is slightly below the top of the sleeve (see FIG. 2 and 3). Approximate values for **S** (stroke) and **X** are listed in the table below.
- Be sure to purchase the correct installation tool for each plug size selected.
- **EIS-11, EIS-31 & EIS-33 Series** plugs can be installed using a hammer and the correct hand installation tool. An arbor or an air hammer with the correct air hammer installation tool can also be used.
- The installation of the **EIS-11, EIS-31 & EIS-33 Series** plugs can also be automated. Feel free to contact EIS to assist you with your application. Our technical staff would be pleased to help you design and build a custom semi or fully automated installation system.

## Installation Chart

		EIS-11, EIS-31 and EIS-33 Series													
D1 (mm)		3	4	5	6	7	8	9	10	12	14	16	18	20	22
<b>S</b> (mm)	Stroke	1.2	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.5	6.35	7.0	8.0	9.0	10.0
<b>X</b> (mm)	Position of top of ball relative to top of sleeve +/- .2	0.4	0.2	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.6	0.6	0.8	0.8



**Engineered Inserts & Systems, Inc.**

Certified ISO/TS 16949-2002

RoHS Compliant

Phone: 203-301-3334

Fax: 203-301-3335

Web: [eisinserts.com](http://eisinserts.com)