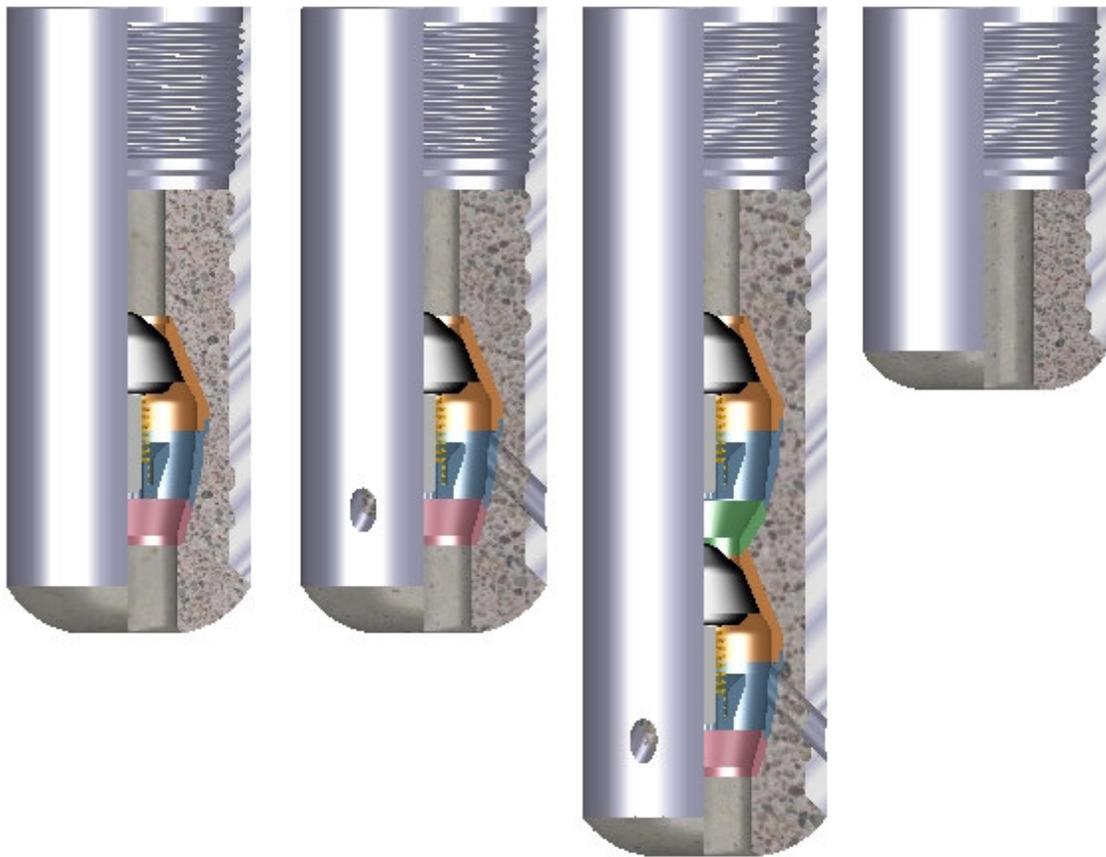




## Davis Manual-Fill Float Shoes

Davis manual-fill float shoes and float collars are simple in design and operation. They have been engineered and manufactured to withstand the high temperatures encountered and the high pressures created by differences in fluid columns when floating, landing, and cementing strings of casing. Davis' standard design manual-fill float shoes and float collars are manufactured with the Davis PVTS valve. This valve is a spring-actuated, plunger-type, one-way check valve. It is designed to withstand high temperatures and large volumes of fluids pumped at high flow rates. It also provides an effective seal under both high and low pressure conditions when casing is run and cemented in either the vertical or horizontal position. The valve housing and closure element are made with a phenolic material. High strength concrete is the compound that molds the valve in the machined housing to form a strong singular unit. Despite the high compressive strength of the concrete, and the shear strength of the valve, Davis float shoes and collars are easily drilled with conventional or PDC bits. Because of its proven performance qualities, the PVTS valve is used in all manual-fill Davis float equipment including double-valve shoes and collars, and all inner-string cementing equipment including the tag-in, screw-in, and latch-in designs. Since Davis float shoes and float collars are usually manufactured from steel that has a greater wall thickness than the pipe body of the casing string they are run in, they normally have burst and collapse resistance greater than the casing string.



**Type 500-PVTS**

**Type 501-PVTS**

**Type 501 DV-PVTS**

**Type 600**

### **Float Shoe Type 500-PVTS**

This shoe features a strong, rounded concrete nose that aids in guiding the casing string to bottom and incorporates the PVTS back-pressure valve assembly. These features make this Davis shoe highly preferred for conventional cementing jobs.

### **Down-Jet Float Shoe Type 501-PVTS**

Along with all the features incorporated into the Type 500-PVTS float shoe, the popular Type 501-PVTS model features properly drilled and angled down-jet ports. The even distribution of fluid through these raised ports delivers to the user several advantages, including the added assurance that circulation can be established when casing becomes plugged during running or is landed on bottom. The angle of the ports assists if casing has to be washed to bottom, and the spacing of the ports assists in breaking up or preventing cement channeling.

### **Double-Valve Down-Jet Float Shoe Type 501 DV-PVTS**

For additional protection, choose this shoe which combines the maximum security of a unitized double check valve along with all the benefits inherent in the Type 501-PVTS.

### **Guide Shoes Types 600 and 601**

The rounded design of the concrete noses of these Davis shoes assists in guiding the casing string into the hole and safely to the bottom. Both have flat-finished concrete tops to provide strong surfaces for landing cement plugs. The Type 600 (shown) has a single fluid outlet through the nose while the Type 601 (not shown) has down-jets which deliver the efficient washing action, cement slurry distribution and other benefits of the Type 501-PVTS.



**Type "S"  
Set Shoe**



**Ribbed Down Jet  
Float Shoe**



**Needle Nose  
Float Shoe**

### **Down-Jet Set Shoe with Lug Nose Type "S"**

This Davis shoe comes with a special drillable lug nose for use when casing is run as a liner, lowered on drill pipe and set on bottom. When bottom is contacted, the nose piece will prevent the casing from rotating when the drill pipe is released from the liner. This lug nose design can also be incorporated into self-filling shoes.

**Ribbed Down-Jet Float Shoe**

The externally raised ribs of this shoe aid in centering the casing at bottom and promote more even distribution of cement to reduce the risk of channeling. Ribbed float collars are also available.

**Needle Nose Float Shoe**

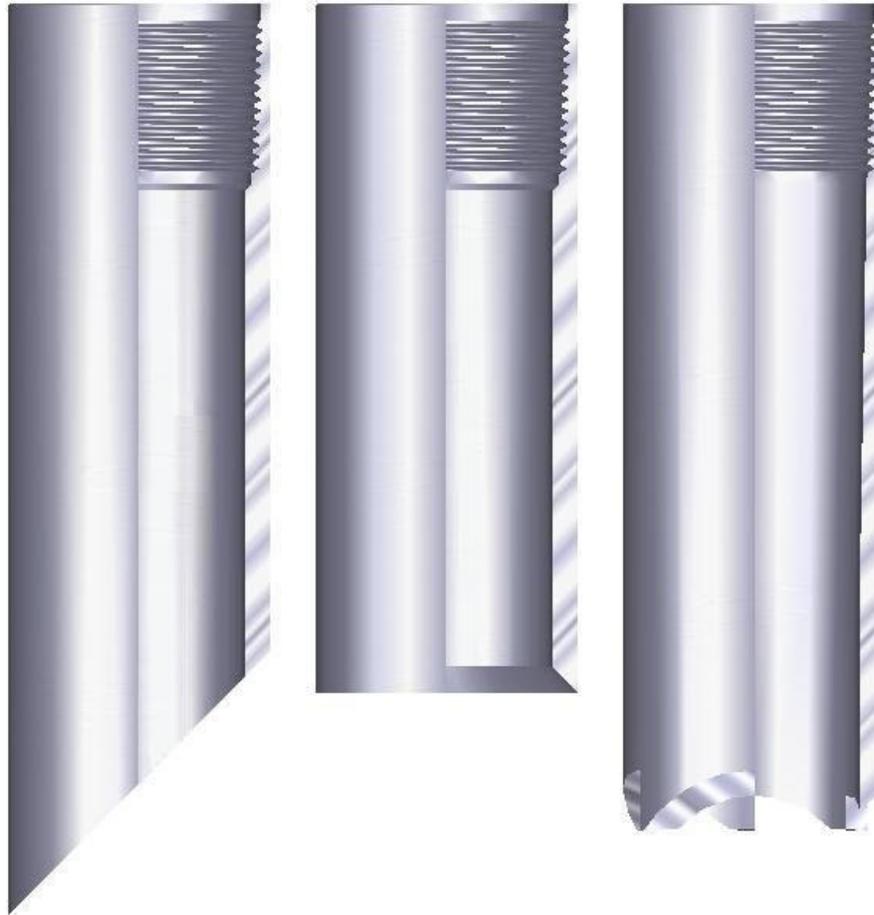
Field-proved for over 20 years, the Davis Needle Nose Float Shoe has provided operators with an aid to run casing in adverse conditions. With its tapered aluminum nose, it has been extremely effective for running casing through tight spots, different geometric sections in the wellbore, and previous casing strings that have been damaged. It incorporates down-jet ports that create turbulent flow at the shoe for washing, conditioning, or cementing. The Needle Nose Shoe can be equipped with the Davis Type PVTs valve, which has been proven to meet or exceed API RP 10 F category III C., or with a self-filling type valve.

**Mule Shoe Type 610**

The Davis Mule Shoe is used when the running of casing is hindered by hole conditions. When the shoe encounters a ledge in the wellbore, for example, it is rotated so that the fluid under pump pressure washes the ledge off. The shoe can also be used to facilitate getting over or by obstacles in the hole.

**Texas Pattern Casing Shoes Types 800 and 800ST**

These types of casing shoes are popular for use in reinforcing the end of the casing on shallow strings. They help the casing to run past bridges, and they provide maximum circulation through the casing. They are available with smooth-surface or saw-tooth bottoms.



**Mule Shoe  
Type 610**

**Casing Shoe  
Type 800**

**Casing Shoe  
Type 800 ST**