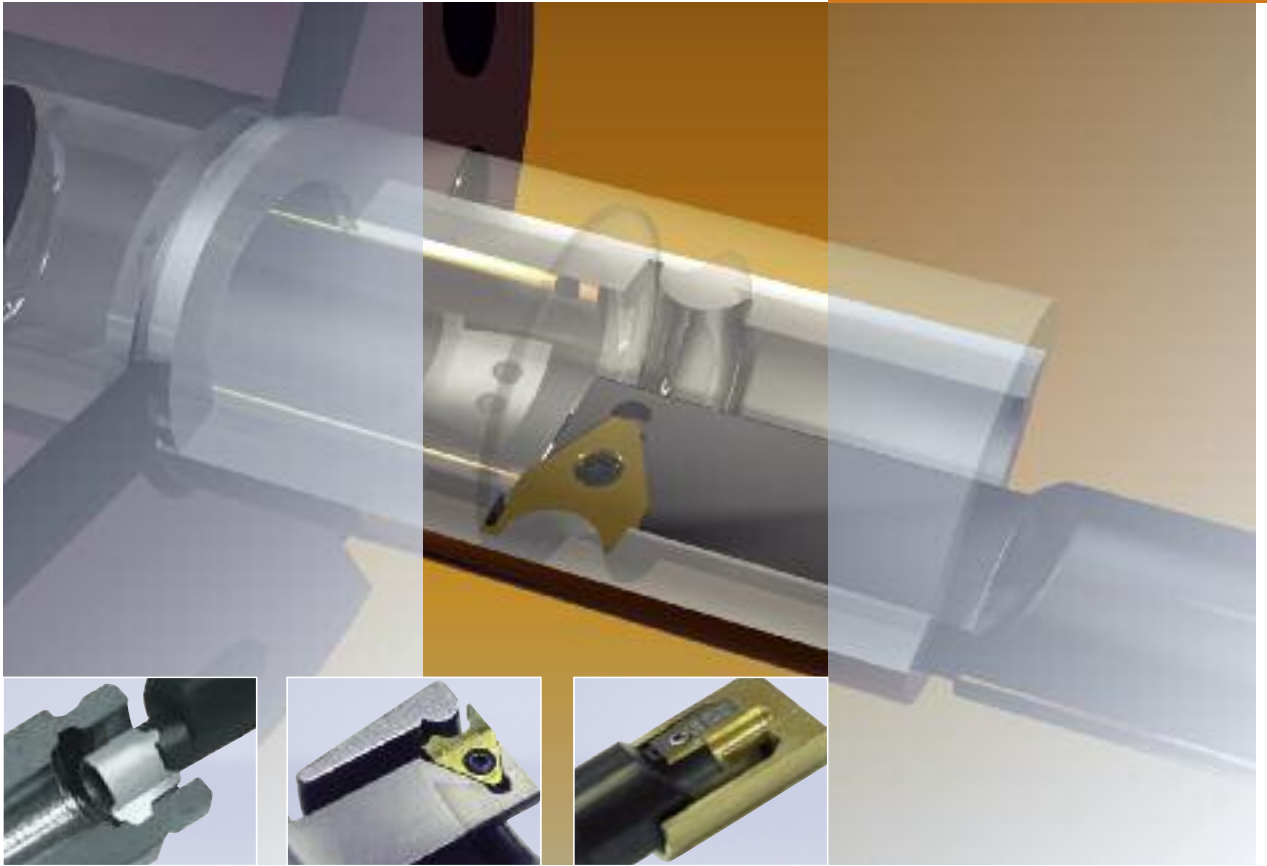


# Project Report



WPI-System

PWP-System

G-System

## ID Plunging

Plunge cutting vs. single-point turning:

## Schwanog unlocks new potential for cost reductions!

**Plunge cutting vs. single-point turning is the solution for noticeable lowering production cost on both, OD and ID applications.**

Especially in the automotive and medical fields, as well as other broad areas, Schwanog-Technology frequently unlocks the key cost advantage to uphold profits. Instead of tracing the contours using the time-consuming single-pointing process, the geometries are achieved with one plunge, resulting in superior surface finishes and a productivity increase by up to 80%, while lowering unit costs by up to 40%. Internal plunge cutting is accomplished using three systems, depending on the required profile depth and application:

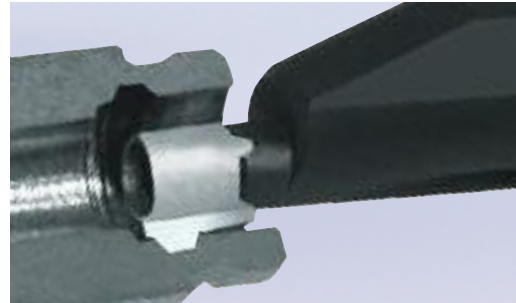
- WPI-System
- PWP-System
- G-System

### **Material:**

Schwanog insertable inserts are made from carbide for all systems. The base holders are available in steel and in heavy metal for greater rigidity and optimum vibration-dampening. The fastest path to lowering costs is making direct contact with Schwanog.

### **Application:**

In addition to the vast economic benefit there is another big application advantage to point out. Due to the Schwanog-System-Technology, contours are achieved, which cannot be manufactured at all while single-pointing. This represents another, significant advantage for the automotive and medical industries, as precision parts become increasingly more complex and delicate.



### **WPI-System: Radial plunging**

The new WPI-System facilitates radial ID plunging for diameter ranges of  $\varnothing$  8 - 15 mm.



### **PWP-System: Radial and axial plunging**

The PWP-System is designed for radial and axial ID plunging of diameter ranges of  $\varnothing$  15 - 33mm.



### **G-System: Axial face plunging**

The G-System is designed for plunging widths of 4 - 8 mm with variable turning diameters.

### **Benefits:**

- **Significant reduction of production costs**
- **Up to 80% increase in productivity**
- **Up to 40% reduction in unit costs**

# Machining process



Axial feeding



Plunging



Start of plunging



Retraction in X and Z direction

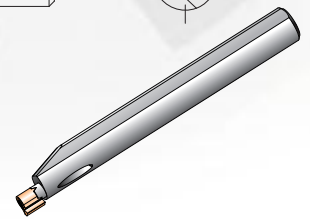
## WPI-System: $\varnothing 8 - 15$ mm

Holder available in left and right-hand version

Right-hand version is shown

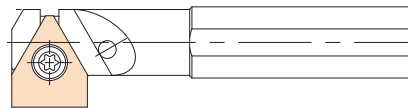
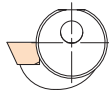


For dimensions, see section 3, ID Plunging in latest catalog.

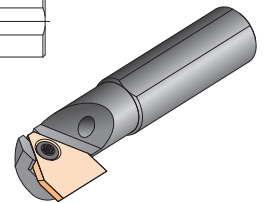


## PWP-System: $\varnothing 15 - 33$ mm

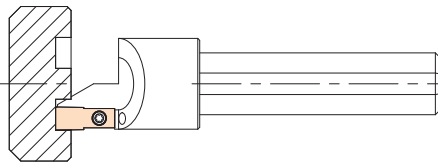
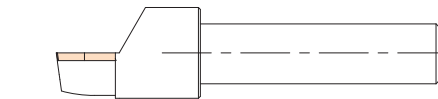
Right-hand version is shown



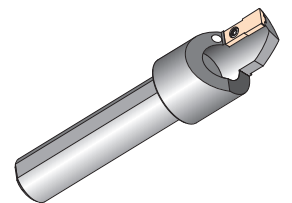
For dimensions, see section 3, ID Plunging in latest catalog.



## G-System:



For dimensions, see section 3, ID Plunging in latest catalog.



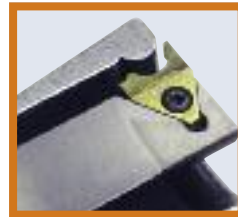
You can find the 3D application film on the WPI system at [www.schwanog.com](http://www.schwanog.com)

Take advantage of the opportunity to lower your production costs.  
And call us today!

**ID Plunging is one of eight application areas for which Schwanog offers first class, highly efficient product solutions.**



OD plunging



ID plunging



Thread whirling



Polygon turning



Rotary transfer machines



Shave tools



Serration  
(Broaching)



Form drilling



Selector system

**www.schwanog.com**



**Schwanog  
Siegfried Güntert GmbH**

Niedereschacher Str. 36 · D-78052 VS-Oberschach  
Telephone (0 77 21) 94 89-0 · Telefax (0 77 21) 94 89-99  
www.schwanog.com · info@schwanog.com

**Schwanog LLC**

1630 Todd Farm Drive – Elgin, IL 60123  
Toll Free: 888-870-1055 · Phone: 847-289-1055  
Facsimile: 847-289-1056  
www.schwanog.com · info.usa@schwanog.com