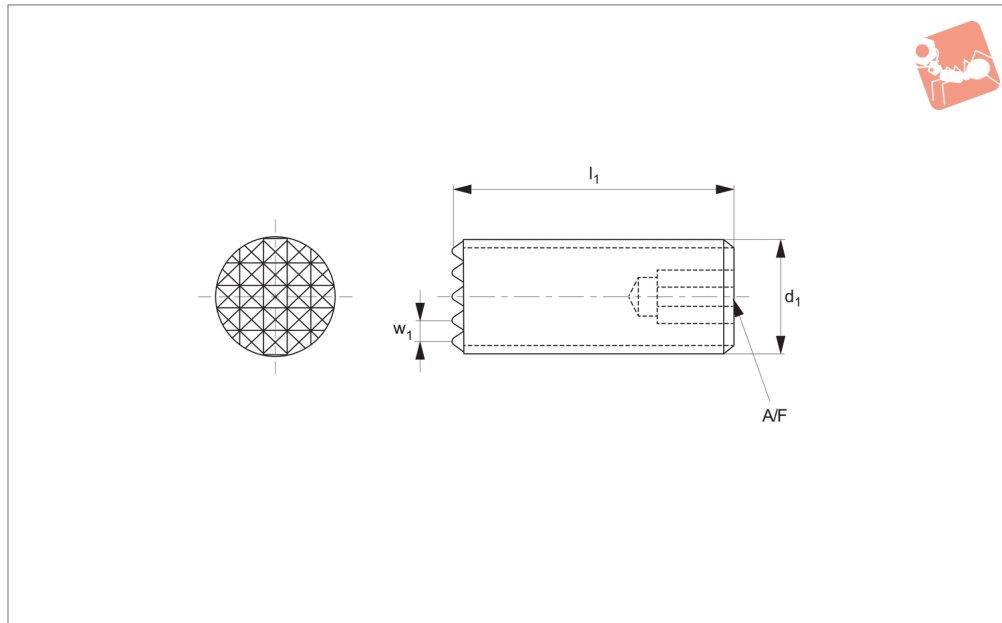




# Grippers - Hard Tool Steel

set screw

## Grippers & Rest Pads



**35510**

GRIPPERS & REST PADS

### Material

Hardened tool steel to HRc 55-58, black oxide finish.

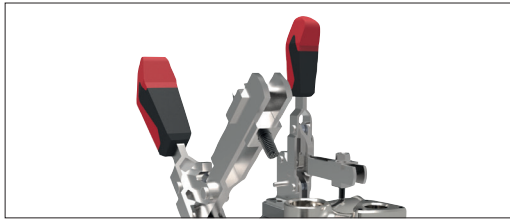
### Technical Notes

These hardened tool steel gripping pads

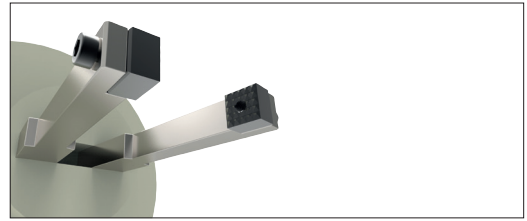
press down on to the surface of the clamped workpiece for safe holding without distortion. They are especially suitable where high load or clamping force is applied. Can be built into clamps, stops

and fixtures as well as chucks, vices and robotic grippers for extra grip. Use a DIN 439B hex. nut for adjustment and securing.

Order No.	Tooth pattern	$l_1$	$d_1$	$w_1$	A/F
35510.W0001	Extra Fine	40	M10x1,50	2,4x90°	3
35510.W0002	Fine	25	M12x1,75	3,2x90°	5
35510.W0003	Fine	40	M12x1,75	3,2x90°	5
35510.W0004	Fine	40	M16x2,00	3,2x90°	6
35510.W0005	Fine	40	M20x2,50	3,2x90°	8



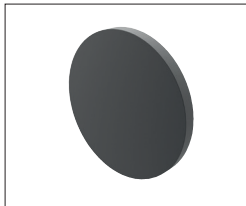
Grippers enhance workholding for multiple machining operations.



Grippers increase handling capability.

## Pads and Gripper Options

### Pads



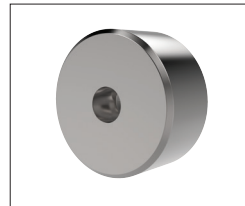
#### Solid Carbide

High impact carbide pads, can be brazed or bonded into place.



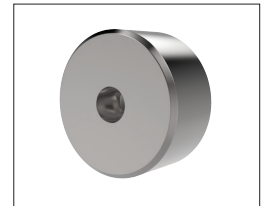
#### Carbide Tipped

Constructed with high impact carbide pad brazed to a heat treated alloy steel body. Mount via tapped hole or a flat on the outside diameter for set screw mounting.



#### Hardened Steel

Made from 8620 steel, carburized and hardened to Rc 58/60 1.2mm with black oxide finish. Mount via tapped or counter bored hole.



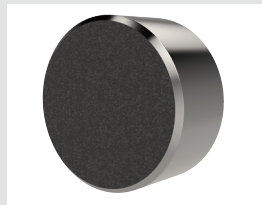
#### Non-marking Thermoplast

Made from white thermoplast. Mount via tapped or counter bored hole.



#### Stainless Steel

Pad from 17-4 stainless steel, hardened to Rc 43/46. Mount via tapped or counter bored hole.



#### Abrasive Diamond Surface

Abrasive surface permanently fused to a 17-4 stainless steel pad, hardened to Rc 43/46. The surface texture is comparable to a 100 grit abrasive. Mount via tapped or counter bored hole.



#### Soft Urethane Surface

Urethane surface is permanently bonded to a 300 series stainless steel pad. The urethane provides excellent protection against damage on delicate work surfaces. Tapped hole mounting.

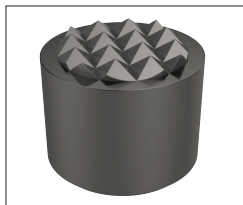
see our website for our full range:  
**wixroyd.com**

### Grippers



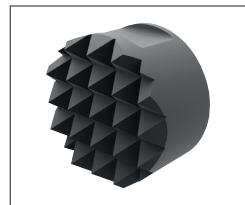
#### High Speed Tool Steel

Manufactured from M-2 high speed tool steel, hardened to Rc 60/62 with black oxide finish. Mount via tapped hole, counter bored hole or a flat on the outside diameter for set screw mounting.



#### Carbide Tipped

Constructed with high impact carbide pad brazed to a heat treated alloy steel body. Mounts via tapped hole or a flat on the outside diameter for set screw mounting.



#### Solid Carbide

Manufactured from high impact carbide in a solid gripper pad or as a solid gripper body with a threaded brazed-in steel insert. Mount via tapped hole or a flat on the outside diameter for set screw mounting.



### Tooth Pattern Specifications

<b>Smooth</b>	<b>4 Point</b> $x = 3.429 \times 90^\circ$	<b>Fine</b> $x = 2.921 \times 90^\circ$	<b>Straight</b> $x = 2.921 \times 90^\circ$	<b>Angular straight</b> $x = 2.921 \times 90^\circ$	<b>3 Point/90° straight</b> $x = 3.175 \times 90^\circ$

<b>Super Fine "SF"</b> $x = 1.600 \times 90^\circ$	<b>Extra Fine "EF"</b> $x = 2.387 \times 90^\circ$	<b>Fine</b> $x = 3.175 \times 90^\circ$	<b>Coarse</b> $x = 4.775 \times 90^\circ$	<b>Single point</b> $x = 5.461 \times 90^\circ$	<b>4 Point square</b> $x = 3.962 \times 90^\circ$

### Angular Grippers

Our carbide and hardened steel grippers are available with a variety of tooth patterns, as specified on the product data tables.

### Round/Square Grippers

### Mounting options

①

pocket dimension =  $d_1$  plus .03mm minimum

recommended gripper height .38mm min.

pocket should be flat to within .03mm to minimise stress and possible fracture

fasten from rear using appropriate bolt

rad .38mm maximum

②

pocket dimension =  $d_1$  plus .03mm minimum

recommended gripper height .38mm min.

pocket should be flat to within .03mm to minimise stress and possible fracture

fasten from front using appropriate socket head cap screw

rad .38mm maximum

③

pocket dimension =  $d_1$  plus .03mm minimum

recommended gripper height .38mm min.

pocket should be flat to within .03mm to minimise stress and possible fracture

fasten via set screw from side, to flat on gripper

rad .38mm maximum

④

pocket dimension =  $d_1$  plus .03mm minimum

recommended gripper height .38mm min.

pocket should be flat to within .03mm to minimise stress and possible fracture

differential screw from front or back utilising l.h. tapped hole in pocket

rad .38mm maximum

⑤

pocket dimension =  $d_1$  plus .03mm minimum

recommended gripper height .38mm min.

pocket should be flat to within .03mm to minimise stress and possible fracture

fastened via silver solder or flexible adhesive

rad .38mm maximum

⑥

recommended gripper height .38mm min.

load bearing surface

rad .38mm maximum

bolt through from top using a low head socket cap screw can only be used with edge style serrated gripper pads

### Mounting Options for Carbide and Hardened Steel Grippers and Inserts.

Our carbide grippers and inserts can be installed in a number of different ways, the most suitable mounting method depends upon the specific insert – please refer to the product data table for specific information.

- ① Round or square grippers and rest pads with tapped blind-hole or through hole tap.
- ② Round or square grippers and rest pads with counter-bored hole.
- ③ Round grippers with flat on the O.D. for set screw mounting. Also square gripper mounting.
- ④ Round or square grippers with through tapped hole.
- ⑤ Round or square carbide pads.
- ⑥ Counter-bored edge grippers.



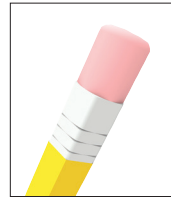
## A Range of Specialist Gripping Pads to Suit Your Application

### Urethane Coated



Unique urethane coat prevents marking of delicate components during machining or manipulation by robots. The urethane pad is permanently bonded to the stainless steel body of the gripping pad. With a bubbled texture, air is able to escape and hence avoid any suction action - enabling easy releasing of parts.

These are available in three different urethane durometers.



35 durometer:  
Pencil rubber top

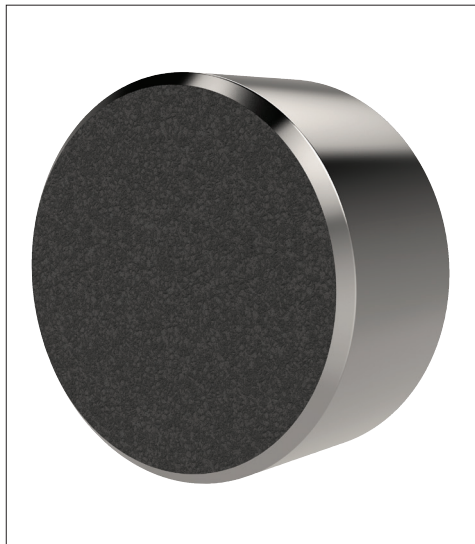


60 durometer:  
Car tyre



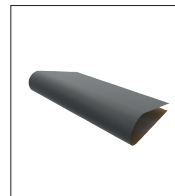
80 durometer:  
Skateboard wheel

### Abrasive Diamond Coated



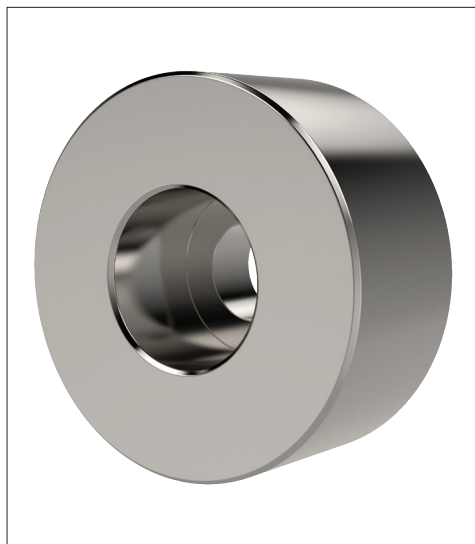
To improve handling of smooth or slippery components, with a minimum of clamping pressure, our abrasive diamond coated pads provide an excellent solution.

Diamond powders are permanently fused to a 17-4 stainless pad, to provide an abrasive surface comparable to 100 grit value.



Sandpaper of 100  
grit texture

### Stainless Pads



Pads of 17-4 Stainless, hardened to RC 43/46 provide solutions to applications where material selection is of greater importance; for example nuclear or food processing or pharmaceutical applications.