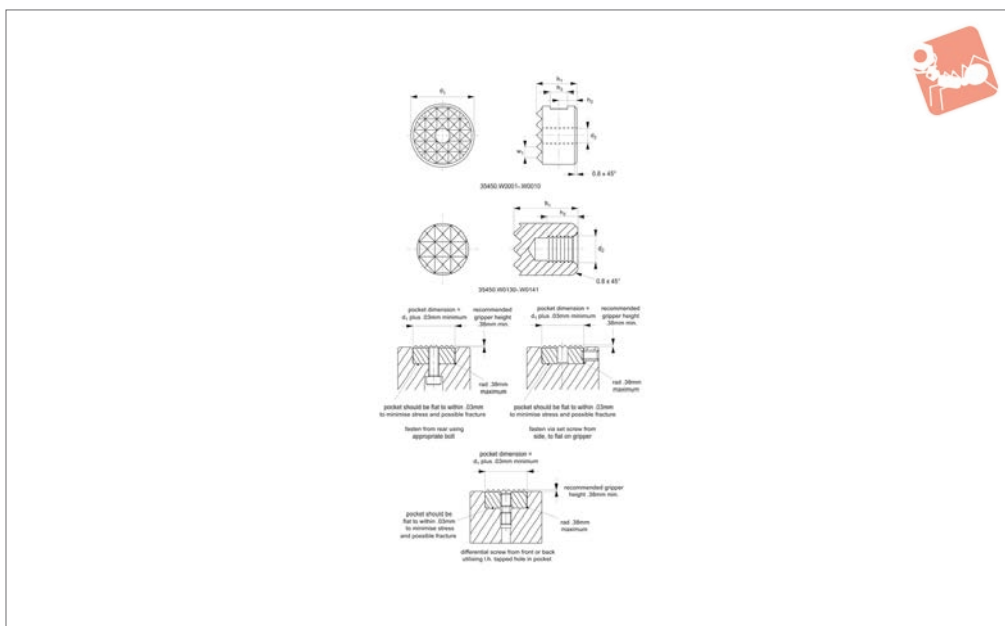




Grippers - Hard Tool Steel

round - screw fixing

Grippers & Rest Pads



35450

GRIPPERS & REST PADS

Material

M2 tungsten-molybdenum high-speed steel, hardened to HRC 60-62.

Technical Notes

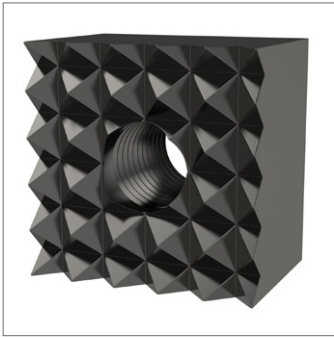
These hardened steel gripping pads press down on to the surface of the clamped

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. M3 to M4 blind hole tapped.

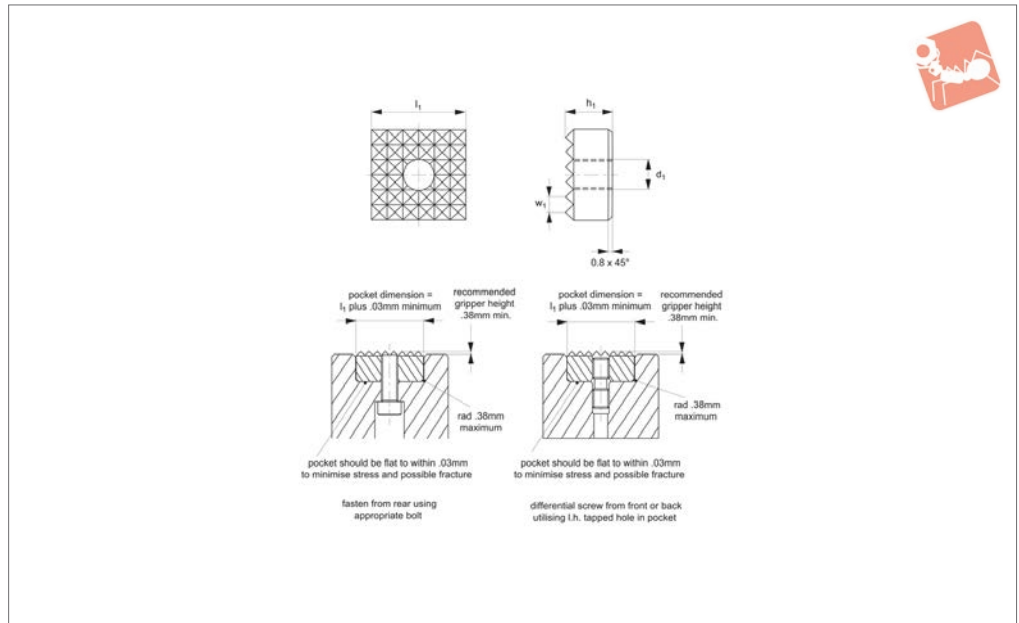
Tips

Can be fastened via use of set screw or from rear using appropriate screw (thread d_2). Note installation recommendations in technical diagram.

Order No.	Tooth pattern	d_1 +0.00/-0.13	h_1 +0.00/-0.13	h_2	d_2	h_3	w_1
35450.W0001	Extra Fine	10	10	4.5	M 5x0,8	4.8	2,4x90°
35450.W0002	Extra Fine	10	12	6.0	M 5x0,8	4.8	2,4x90°
35450.W0003	Fine	12	10	4.5	M 5x0,8	4.8	3,2x90°
35450.W0004	Fine	12	12	6.0	M 5x0,8	4.8	3,2x90°
35450.W0005	Fine	16	10	4.5	M 6x1,0	4.8	3,2x90°
35450.W0006	Fine	16	12	6.0	M 6x1,0	4.8	3,2x90°
35450.W0007	Fine	20	10	4.5	M 6x1,0	4.8	3,2x90°
35450.W0008	Fine	20	12	6.0	M 6x1,0	4.8	3,2x90°
35450.W0009	Fine	25	10	4.5	M 6x1,0	4.8	3,2x90°
35450.W0010	Fine	25	12	6.0	M 6x1,0	4.8	3,2x90°
35450.W0130	Super Fine	6	10	5.0	M 3x0,5	-	1,6x90°
35450.W0131	Super Fine	6	12	7.0	M 3x0,5	-	1,6x90°
35450.W0140	Super Fine	8	10	5.0	M 4x0,7	-	1,6x90°
35450.W0141	Super Fine	8	12	7.0	M 4x0,7	-	1,6x90°



35460



Material

M2 tungsten-molybdenum high-speed steel, hardened to HRC 60-62.

Technical Notes

These hardened 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.

Tips

Can be fastened via use of set screw or from rear using appropriate screw (thread d_2). Note installation recommendations in technical diagram.

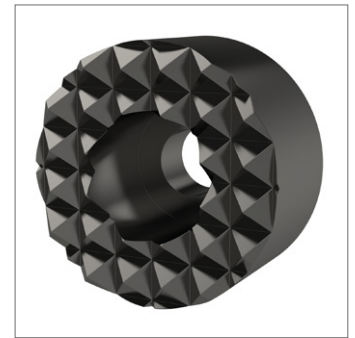
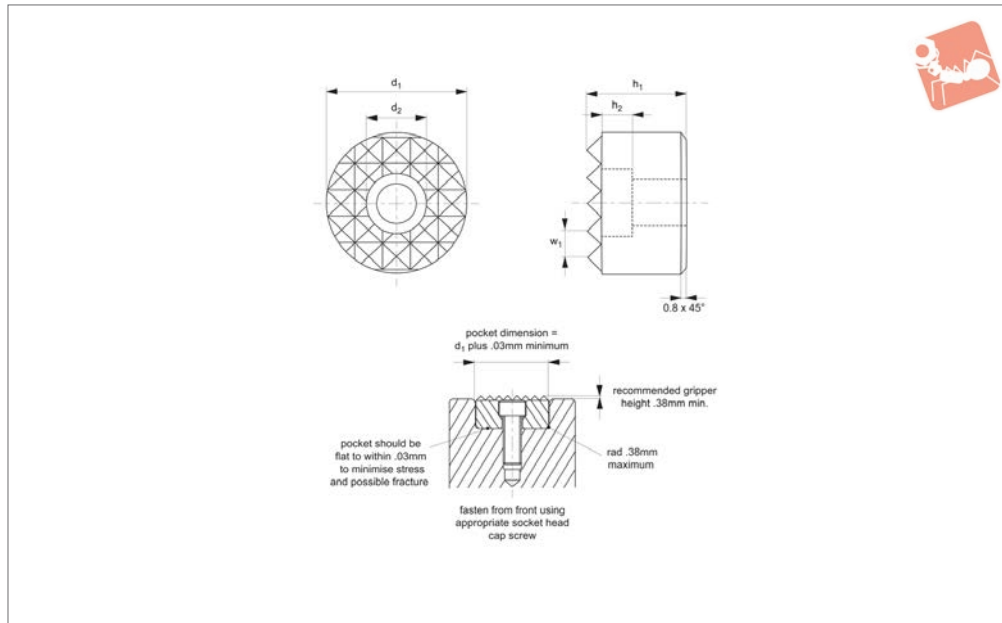
Order No.	Tooth pattern	l_1 +0.00 -0.13	d_1	h_1 +0.00 -0.13	w_1
35460.W0001	Extra Fine	10	M 5x0,8	10	2,4x90°
35460.W0002	Extra Fine	10	M 5x0,8	12	2,4x90°
35460.W0003	Fine	12	M 5x0,8	10	3,2x90°
35460.W0004	Fine	12	M 5x0,8	12	3,2x90°
35460.W0005	Fine	20	M 5x0,8	10	3,2x90°
35460.W0006	Fine	20	M 5x0,8	12	3,2x90°
35460.W0007	Fine	25	M 6x1,0	10	3,2x90°
35460.W0008	Fine	25	M 6x1,0	12	3,2x90°
35460.W0161	Fine	16	M 6x1,0	10	3,2x90°
35460.W0162	Fine	16	M 6x1,0	12	3,2x90°



Grippers - Hard Tool Steel

round - front fixing

Grippers & Rest Pads



35480

GRIPPERS & REST PADS

Material

M2 tungsten-molybdenum high-speed steel, hardened to HRC 60-62.

Technical Notes

These hardened steel gripping pads press down onto the surface of the clamped

workpiece for safe holding without distortion. They are especially suitable where a high load or clamping force is applied. They can be built into clamps, stops and fixtures as well as chucks, vices and robotic grippers for extra grip.

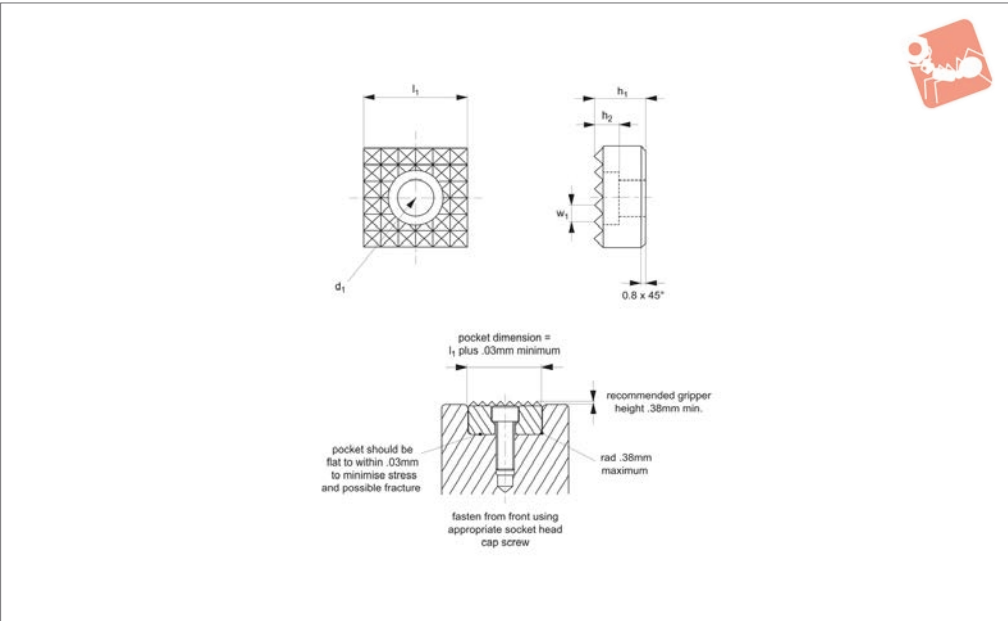
Tips

Can be fastened from the front using a socket head cap screw. Note installation recommendations in technical diagram.

Order No.	Tooth pattern	d_1 +0.00 -0.13	h_1 +0.00 -0.13	h_2	d_2 to fit DIN 912	w_1
35480.W0001	Fine	12	10	5.6	M 4	3,2x90°
35480.W0002	Fine	12	12	5.6	M 4	3,2x90°
35480.W0003	Fine	16	10	5.6	M 4	3,2x90°
35480.W0004	Fine	16	12	5.6	M 4	3,2x90°
35480.W0005	Fine	20	10	6.6	M 5	3,2x90°
35480.W0006	Fine	20	12	6.6	M 5	3,2x90°
35480.W0007	Fine	25	10	7.6	M 6	3,2x90°
35480.W0008	Fine	25	12	7.6	M 6	3,2x90°



35490



Material

M2 tungsten-molybdenum high-speed steel, hardened to HRC 60-62.

Technical Notes

These hardened steel gripping pads press down onto the surface of the clamped

workpiece for safe holding without distortion. They are especially suitable where a high load or clamping force is applied. They can be built into clamps, stops and fixtures as well as chucks, vices and robotic grippers for extra grip.

Tips

Can be fastened from the front using a socket head cap screw.

Note installation recommendations in technical diagram.

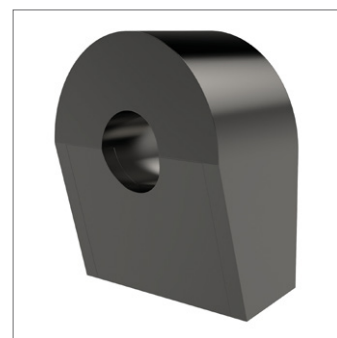
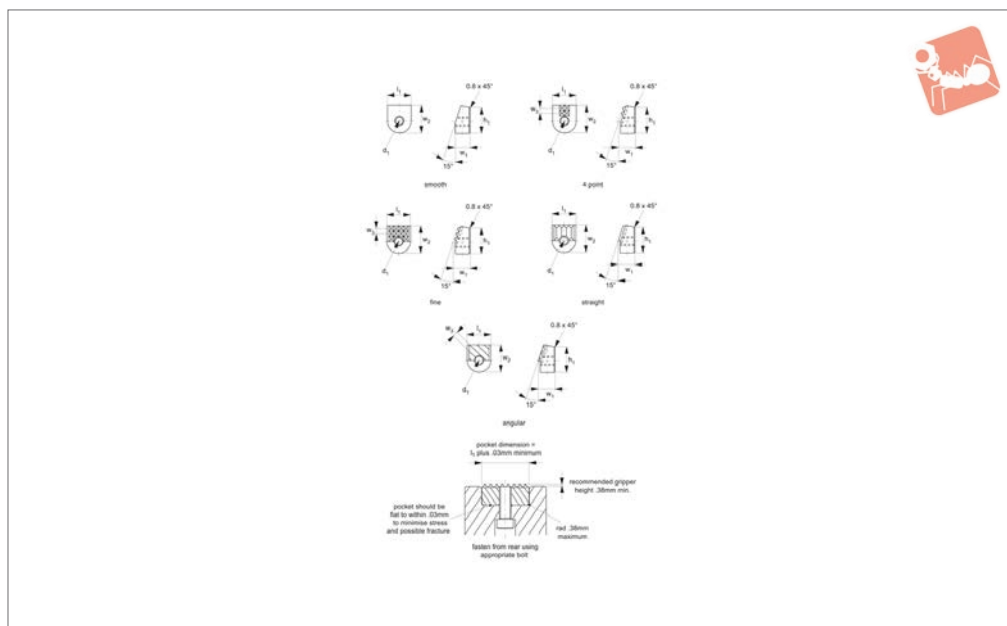
Order No.	Tooth pattern	l_1 +0.00 -0.13	d_1 to fit DIN 912	h_1 +0.00 -0.13	h_2	w_1
35490.W0001	Fine	12	M 4	10	5.6	3,2x90°
35490.W0002	Fine	12	M 4	12	5.6	3,2x90°
35490.W0003	Fine	20	M 5	10	6.6	3,2x90°
35490.W0004	Fine	20	M 5	12	6.6	3,2x90°
35490.W0005	Fine	25	M 6	10	7.6	3,2x90°
35490.W0006	Fine	25	M 6	12	7.6	3,2x90°
35490.W0161	Fine	16	M 4	10	5.6	3,2x90°
35490.W0162	Fine	16	M 4	12	5.6	3,2x90°



Grippers - Hard Tool Steel

angled - rear fixing

Grippers & Rest Pads



35500

GRIPPERS & REST PADS

Material

High-speed steel (M2), hardened to HRC 60-62.

Technical Notes

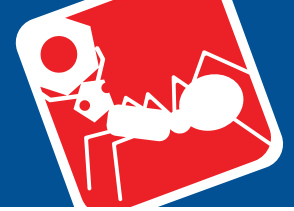
These angle gripper inserts press down onto the surface of the clamped workpiece

for safe holding without distortion. Especially suitable where a high load or clamping force is applied. They can be built into clamps, stops and fixtures as well as chucks, vices and robotic grippers for extra grip.

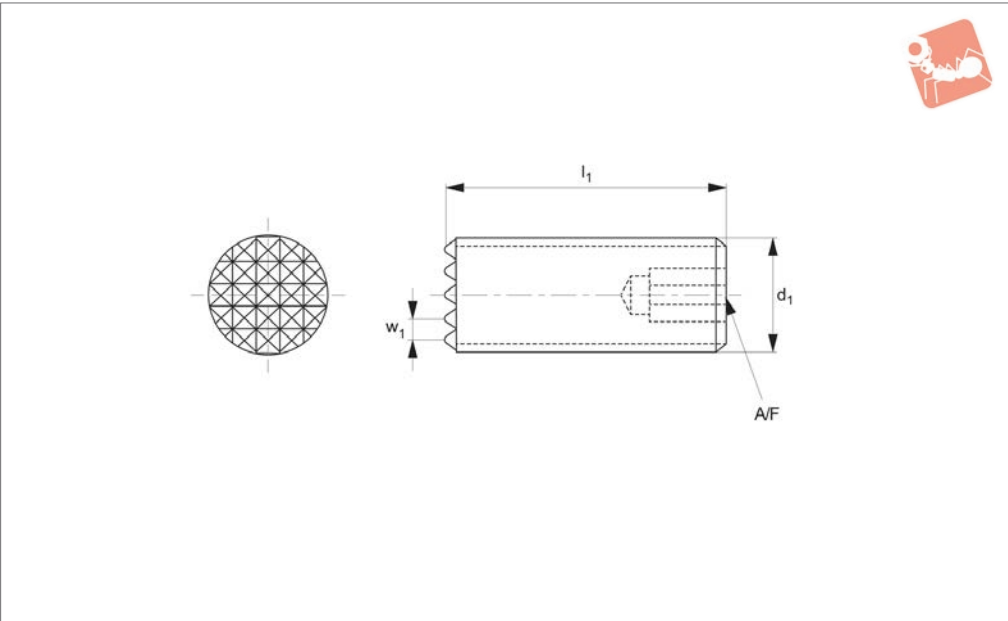
Tips

Can be fastened from rear using appropriate bolt. Note installation recommendations in technical diagram.

Order No.	Tooth pattern	l_1 +0.000 -0.002	d_1	h_1	w_1 +0.000 -0.005	w_2 +0.000 -0.005	w_3
35500.W0002	4 Point	14.3	M 5x0,8	15.2	9.5	16.5	3,4x90°
35500.W0009	4 Point	10.0	M 5x0,8	15.2	9.5	16.5	3,4x90°
35500.W0003	Fine	14.3	M 5x0,8	15.2	9.5	16.5	2,9x90°
35500.W0006	Straight	14.3	M 5x0,8	15.2	9.5	16.5	2,9x90°
35500.W0010	Straight	10.0	M 5x0,8	15.2	9.5	16.5	2,9x90°
35500.W0008	Smooth	10.0	M 5x0,8	15.2	9.5	16.5	-
35500.W0007	Angular	14.3	M 5x0,8	15.2	9.5	16.5	2,9x90°
35500.W0011	Angular	10.0	M 5x0,8	15.2	9.5	16.5	2,9x90°



35510



Material

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

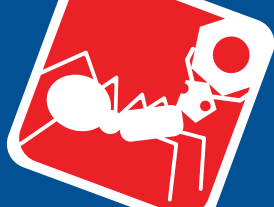
Technical Notes

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.

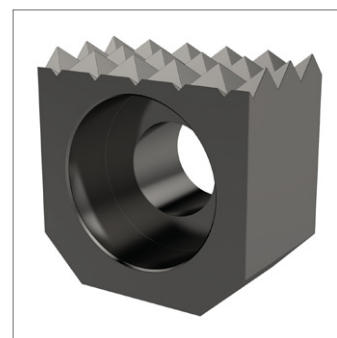
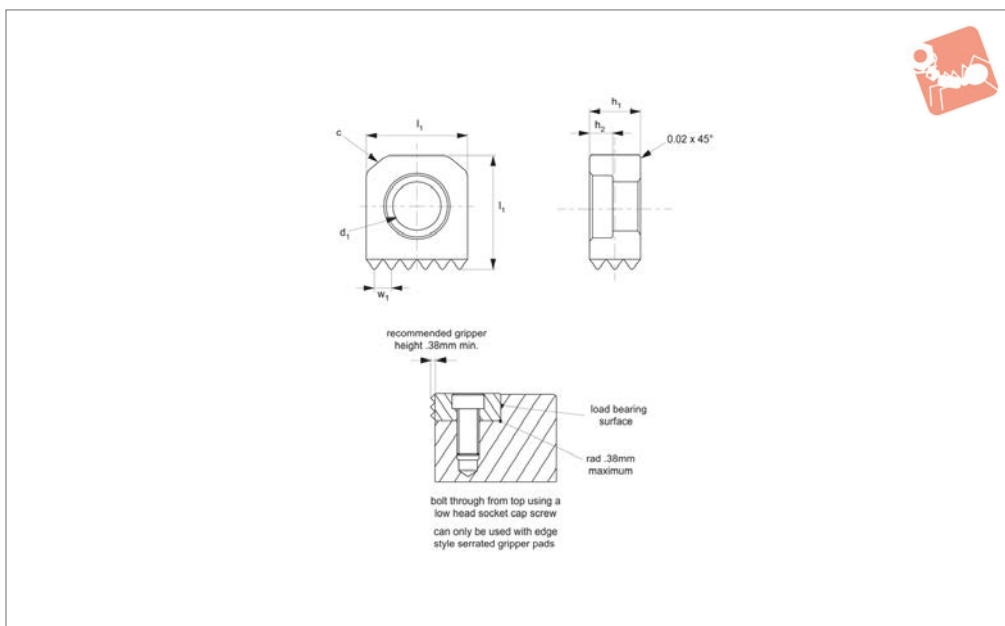
Order No.	Tooth pattern	l_1	d_1	w_1	A/F
35510.W0001	Extra Fine	40	M10x1,50	2,4x90°	3
35510.W0002	Fine	25	M12x1,75	3,2x90°	5
35510.W0003	Fine	40	M12x1,75	3,2x90°	5
35510.W0004	Fine	40	M16x2,00	3,2x90°	6
35510.W0005	Fine	40	M20x2,50	3,2x90°	8



Grippers - Hard Tool Steel

edge gripper - front fixing

Grippers & Rest Pads



35520

GRIPPERS & REST PADS

Material

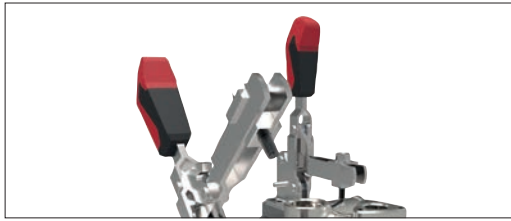
Tool steel, hardened to HRC 60-62.

Technical Notes

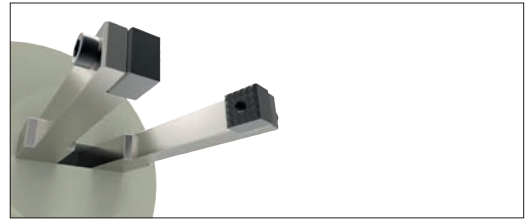
Square edge grippers have serrations on

one side. Counterbored hole for front mounting with a socket head or low head cap screw (SHCS - socket head cap screw, LHCS- low head cap screw).

Order No.	Tooth pattern	Serration type	l_1 +0.00 -0.13	d_1	h_1 +0.00 -0.13	h_2	Chamfer c	w_1
35520.W0201	Extra Fine	Diamond	10	M 3 SHCS	6	3.8	1,6x45°	2,4x90°
35520.W0202	Extra Fine	Diamond	10	M 3 SHCS	10	3.8	1,6x45°	2,4x90°
35520.W0203	Fine	Diamond	12	M 4 SHCS	6	4.1	2,3x45°	3,2x90°
35520.W0204	Fine	Diamond	12	M 4 SHCS	10	4.1	2,3x45°	3,2x90°
35520.W0205	Fine	Diamond	12	M 4 SHCS	12	4.1	2,3x45°	3,2x90°
35520.W0206	Fine	Diamond	16	M 6 LHCS	6	4.2	3,2x45°	3,2x90°
35520.W0207	Fine	Diamond	16	M 6 LHCS	10	4.2	3,2x45°	3,2x90°
35520.W0208	Fine	Diamond	16	M 6 LHCS	12	5.1	3,2x45°	3,2x90°
35520.W0209	Fine	Diamond	20	M 8 LHCS	6	5.1	3,2x45°	3,2x90°
35520.W0210	Fine	Diamond	20	M 8 LHCS	10	5.1	3,2x45°	3,2x90°
35520.W0211	Fine	Diamond	20	M 8 LHCS	12	5.1	3,2x45°	3,2x90°
35520.W0212	Fine	Diamond	25	M10 LHCS	10	6.6	3,2x45°	3,2x90°
35520.W0213	Fine	Diamond	25	M10 LHCS	12	6.6	3,2x45°	3,2x90°
35520.W0301	Extra Fine	Straight	10	M 3 SHCS	6	3.8	1,6x45°	2,4x90°
35520.W0302	Extra Fine	Straight	10	M 3 SHCS	10	3.8	1,6x45°	2,4x90°
35520.W0303	Fine	Straight	12	M 4 SHCS	6	4.1	2,3x45°	3,2x90°
35520.W0304	Fine	Straight	12	M 4 SHCS	10	4.1	2,3x45°	3,2x90°
35520.W0305	Fine	Straight	12	M 4 SHCS	12	4.1	2,3x45°	3,2x90°
35520.W0306	Fine	Straight	16	M 6 LHCS	6	4.2	3,2x45°	3,2x90°
35520.W0307	Fine	Straight	16	M 6 LHCS	10	4.2	3,2x45°	3,2x90°
35520.W0308	Fine	Straight	16	M 6 LHCS	12	4.2	3,2x45°	3,2x90°
35520.W0309	Fine	Straight	20	M 8 LHCS	6	5.1	3,2x45°	3,2x90°
35520.W0310	Fine	Straight	20	M 8 LHCS	10	5.1	3,2x45°	3,2x90°
35520.W0311	Fine	Straight	20	M 8 LHCS	12	5.1	3,2x45°	3,2x90°
35520.W0312	Fine	Straight	25	M10 LHCS	10	6.6	3,2x45°	3,2x90°
35520.W0313	Fine	Straight	25	M10 LHCS	12	6.6	3,2x45°	3,2x90°



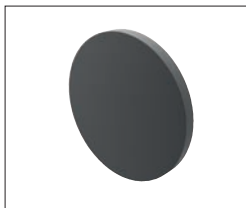
Grippers enhance workholding for multiple machining operations.



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.



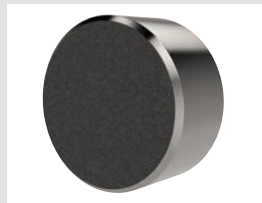
Non-marking Thermoplast

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.

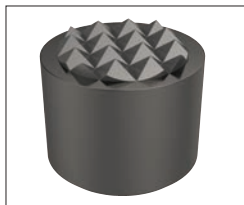
see our website for our full range:
wixroyd.com

Grippers



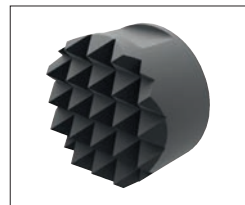
High Speed Tool Steel

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

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

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

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

rad .38mm maximum

fasten from rear using appropriate bolt

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

rad .38mm maximum

fasten from front using appropriate socket head cap screw

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

rad .38mm maximum

fasten via set screw from side, to flat on gripper

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

rad .38mm maximum

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

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

rad .38mm maximum

fastened via silver solder or flexible adhesive

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

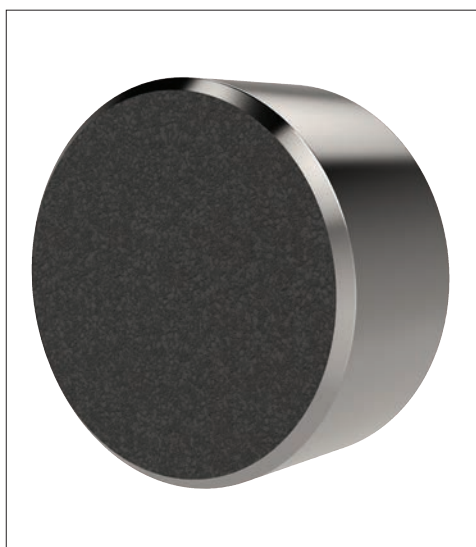


60 durometer:
Car tyre



80 durometer:
Skateboard wheel

Abrasive Diamond Coated



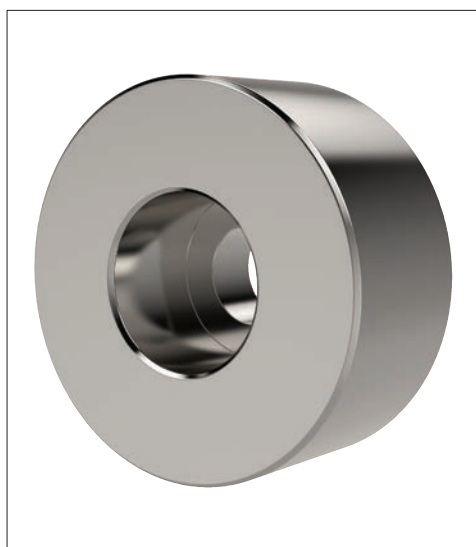
To improve handling of smooth or slippery components, with a minimum of clamping pressure, our abrasive diamond coated pads provide an excellent solution.

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.