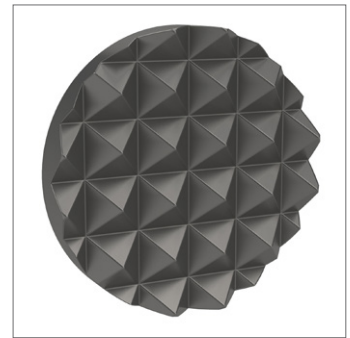
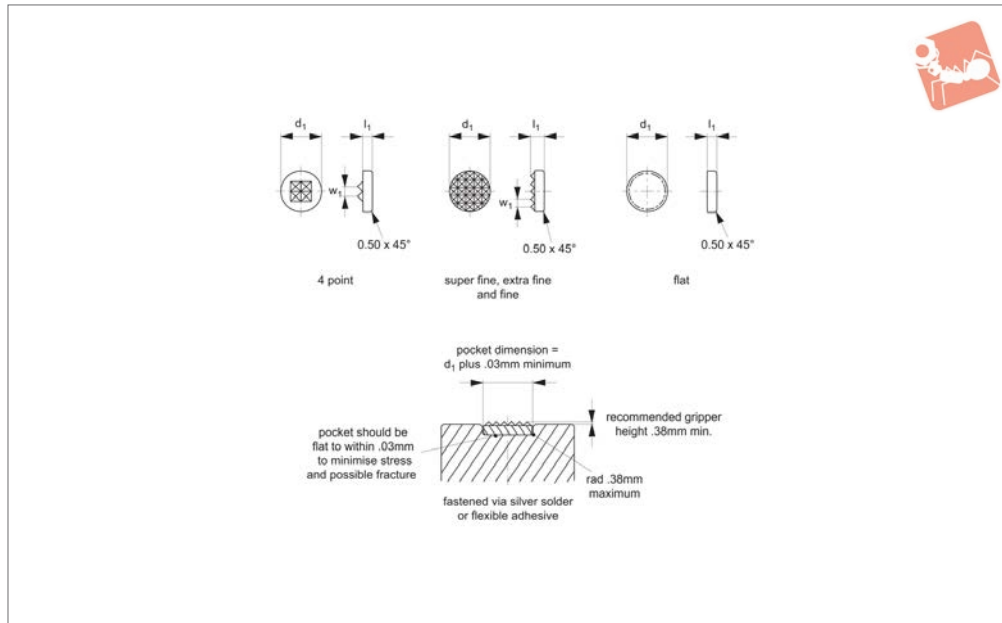




Gripper Pads - Carbide round

Grippers & Rest Pads



35300

GRIPPERS & REST PADS

Material

Solid carbide.

Technical Notes

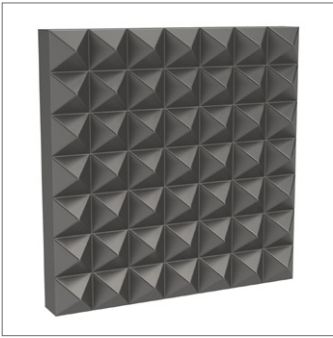
Solid carbide pads are mounted into fixtures and press down on the surface of the clamped workpiece to give safe holding

without distortion. Carbide insert pads are especially suited for clamping cast and forged parts, as well as delicate workpieces such as pipes and tubes. Carbide insert pads can be built into clamps, stops and fixtures as well as chucks and vices.

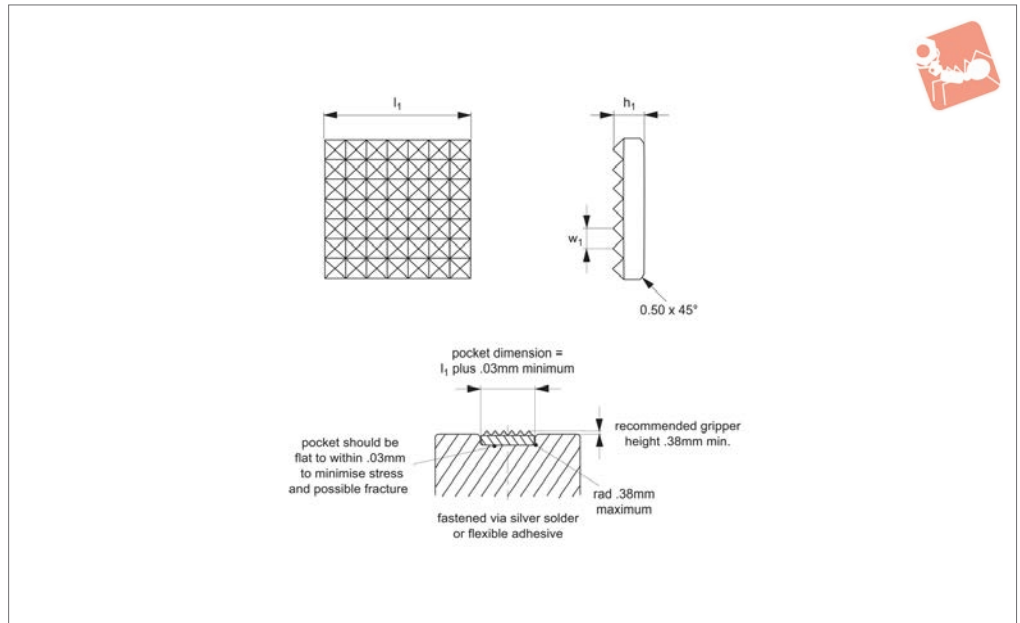
Tips

Can be fastened via silver solder or a flexible adhesive. Note installation recommendations in technical diagram.

Order No.	Tooth pattern	d_1 +0.00 -0.13	l_1 +0.13 -0.00	w_1
35300.W0004	4 Point	7.9	3.2	3,9x90°
35300.W0008	4 Point	9.5	3.2	3,9x90°
35300.W0012	4 Point	11.1	3.2	3,9x90°
35300.W0015	4 Point	12.7	4.0	3,9x90°
35300.W0025	Super Fine	6.4	3.2	1,6x90°
35300.W0026	Super Fine	7.9	3.2	1,6x90°
35300.W0001	Extra Fine	6.4	3.2	2,4x90°
35300.W0003	Extra Fine	7.9	3.2	2,4x90°
35300.W0007	Extra Fine	9.5	3.2	2,4x90°
35300.W0011	Extra Fine	11.1	3.2	2,4x90°
35300.W0014	Extra Fine	12.7	3.2	2,4x90°
35300.W0018	Extra Fine	15.9	3.2	2,4x90°
35300.W0021	Extra Fine	19.1	3.2	2,4x90°
35300.W0023	Extra Fine	25.4	4.0	2,4x90°
35300.W0006	Fine	9.5	3.2	2,2x90°
35300.W0010	Fine	11.1	3.2	2,2x90°
35300.W0013	Fine	12.7	3.2	2,2x90°
35300.W0017	Fine	15.9	3.2	2,2x90°
35300.W0020	Fine	19.1	3.2	2,2x90°
35300.W0002	Flat	6.4	3.2	-
35300.W0005	Flat	7.9	3.2	-
35300.W0009	Flat	9.5	3.2	-
35300.W0016	Flat	12.7	3.2	-
35300.W0019	Flat	15.9	3.2	-
35300.W0022	Flat	19.1	3.2	-
35300.W0024	Flat	25.4	4.0	-



35310



Material

Solid carbide.

Technical Notes

Solid carbide pads are mounted into fixtures and press down on the surface of the clamped workpiece to give safe holding

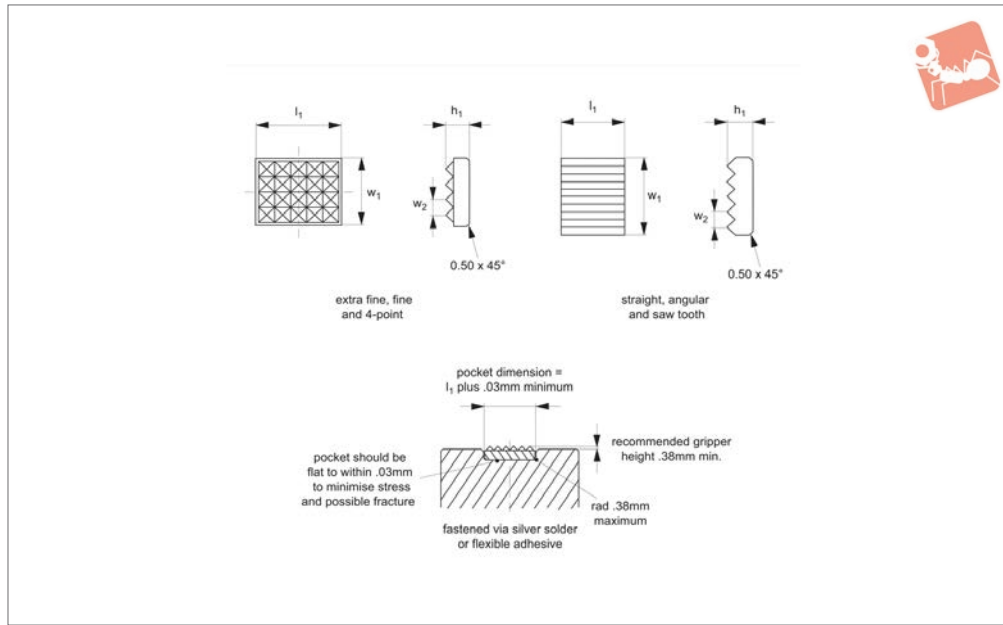
without distortion. Carbide insert pads are especially suited for clamping cast and forged parts, as well as delicate workpieces such as pipes and tubes. Carbide insert pads can be built into clamps, stops and fixtures as well as chucks and vices.

Tips

Can be fastened via silver solder or a flexible adhesive.

Note installation recommendations in technical diagram.

Order No.	Tooth pattern	l_1 +0.00 -0.13	w_1	h_1 +0.13 -0.00
35310.W0000	Fine	9.5	3,2x90°	3.2
35310.W0001	Fine	12.7	3,2x90°	3.2
35310.W0002	Extra Fine	12.7	2,4x90°	3.2
35310.W0003	Extra Fine	15.9	2,4x90°	3.2
35310.W0004	Extra Fine	19.1	2,4x90°	4.0
35310.W0005	Extra Fine	25.4	2,4x90°	4.0
35310.W0006	Extra Fine	9.5	2,4x90°	3.2



35320

GRIPPERS & REST PADS

Material

Solid carbide.

Technical Notes

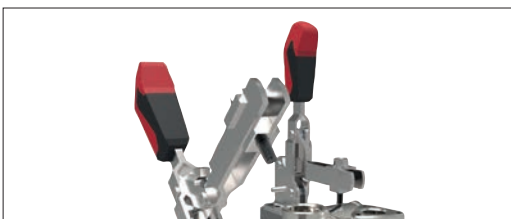
Solid carbide pads are mounted into fixtures and press down on the surface of the clamped workpiece to give safe holding

without distortion. Carbide insert pads are especially suited for clamping cast and forged parts, as well as delicate workpieces such as pipes and tubes. Carbide insert pads can be built into clamps, stops and fixtures as well as chucks and vices.

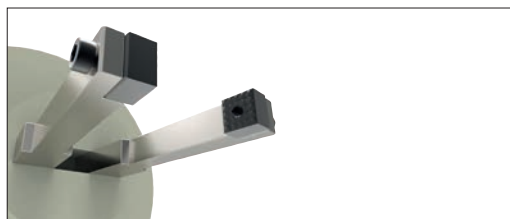
Tips

Can be fastened via silver solder or a flexible adhesive. Note installation recommendations in technical diagram.

Order No.	Tooth pattern	l_1 +0.00 -0.13	w_1 +0.00 -0.13	w_2	h_1 +0.13 -0.00
35320.W0001	Extra Fine	9.5	6.4	2,4x90°	3.2
35320.W0003	Extra Fine	12.7	10.3	2,4x90°	3.2
35320.W0008	Extra Fine	25.4	12.7	2,4x90°	4.8
35320.W0002	Fine	12.7	10.3	3,2x90°	3.2
35320.W0005	Fine	11.5	10.3	3,2x90°	3.2
35320.W0004	4 Point	11.5	10.3	3,9x90°	3.2
35320.W0006	Straight	11.5	10.3	2,9x90°	3.2
35320.W0007	Angular	11.5	10.3	2,9x90°	3.2
35320.W0009	Saw Tooth	25.4	12.7	-	4.8
35320.W0010	Saw Tooth	38.1	19.1	-	6.4



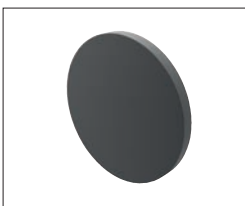
Grippers enhance workholding for multiple machining operations.



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.



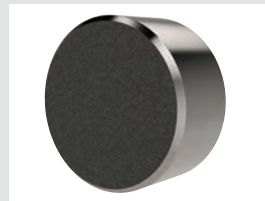
Hardened Steel
Made from 8620 steel, carburized and hardened to Rc 58/60 1.2mm with black oxide finish. Mount via tapped or counter bored hole.



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.



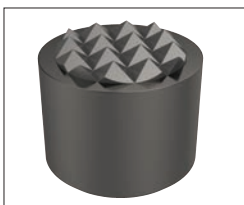
Soft Urethane Surface
Urethane surface is permanently bonded to a 300 series stainless steel pad. The urethane provides excellent protection against damage on delicate work surfaces. Tapped hole mounting.

see our website for our full range:
wixroyd.com

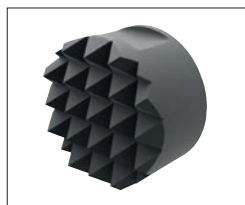
Grippers



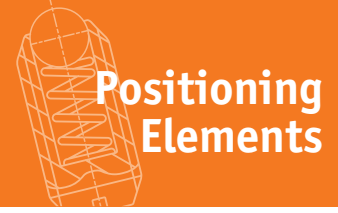
High Speed Tool Steel
Manufactured from M-2 high speed tool steel, hardened to Rc 60/62 with black oxide finish. Mount via tapped hole, counter bored hole or a flat on the outside diameter for set screw mounting.



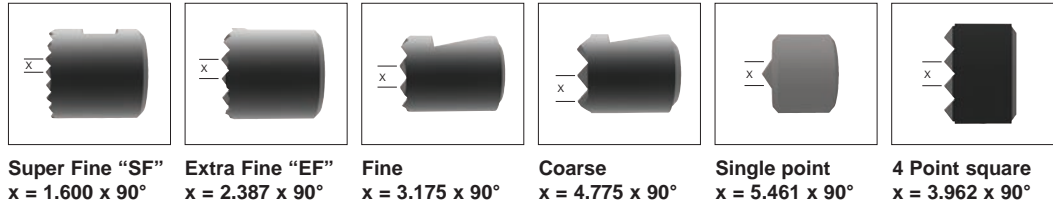
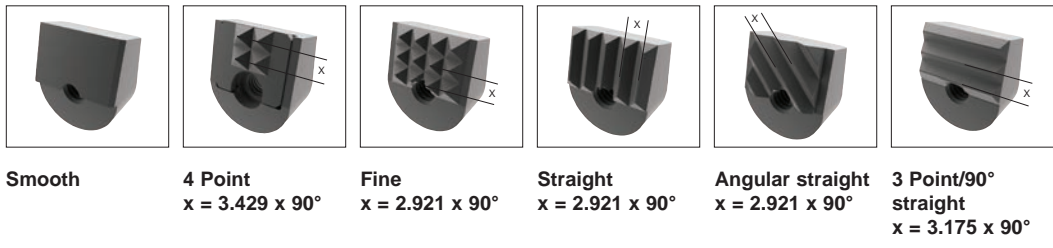
Carbide Tipped
Constructed with high impact carbide pad brazed to a heat treated alloy steel body. Mounts via tapped hole or a flat on the outside diameter for set screw mounting.



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

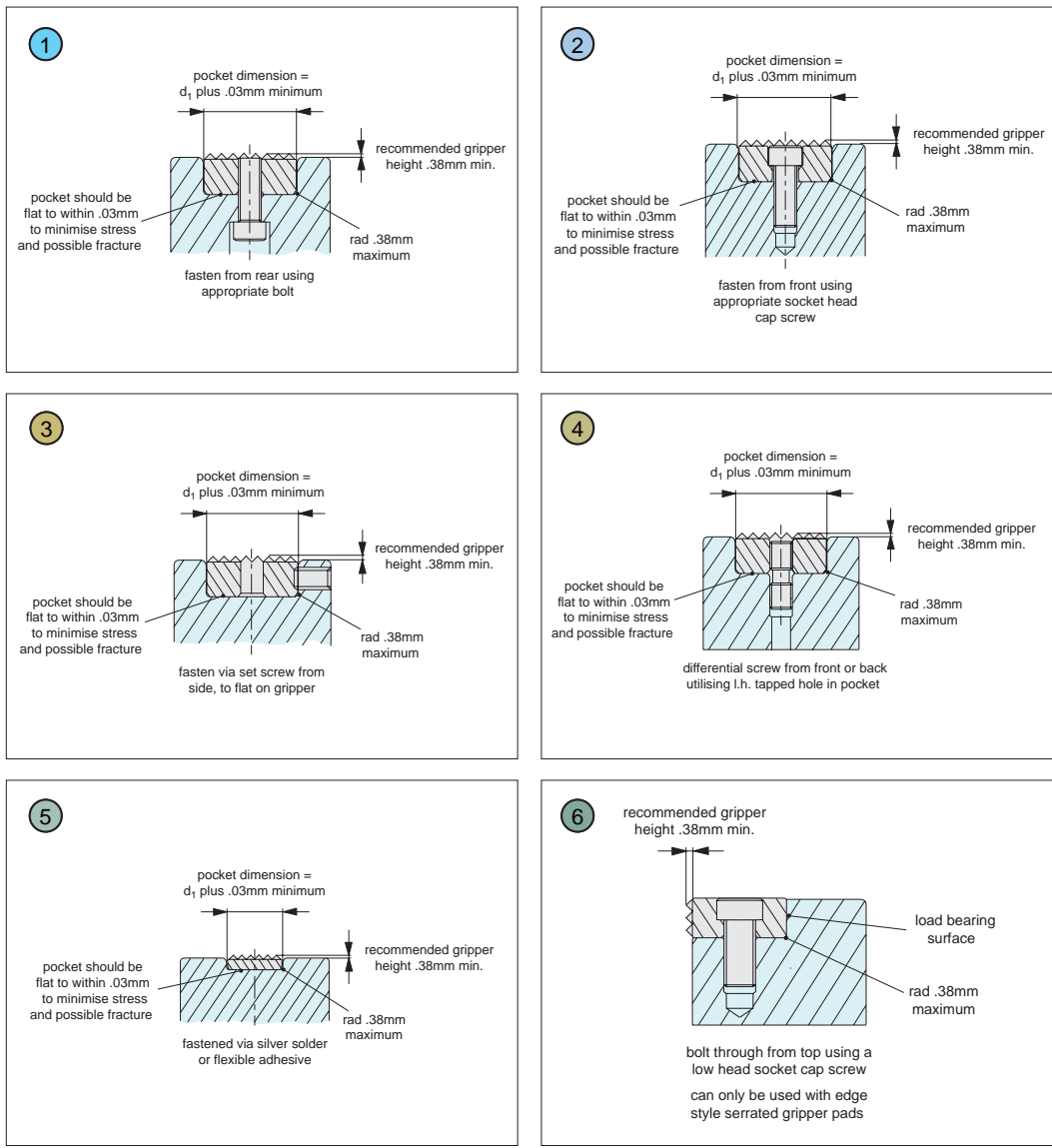


Angular Grippers

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



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.

ov-W35300-A-T-W35520-A-T-technical-information-a-rmh - Updated - 28-10-2022



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

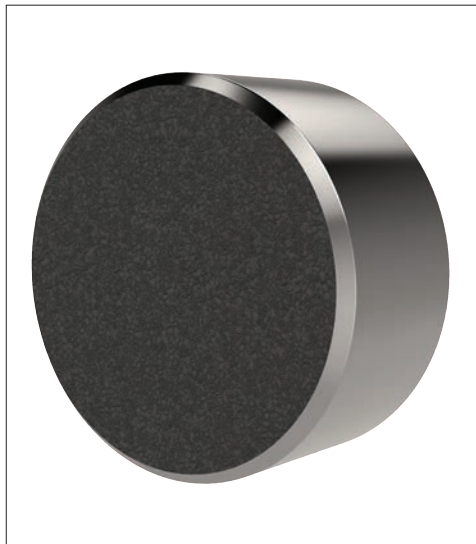


60 durometer:
Car tyre



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



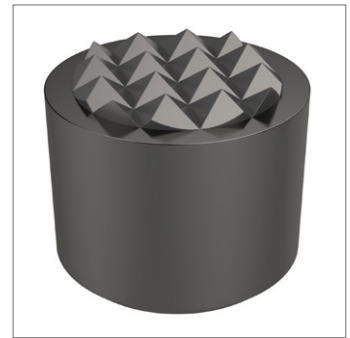
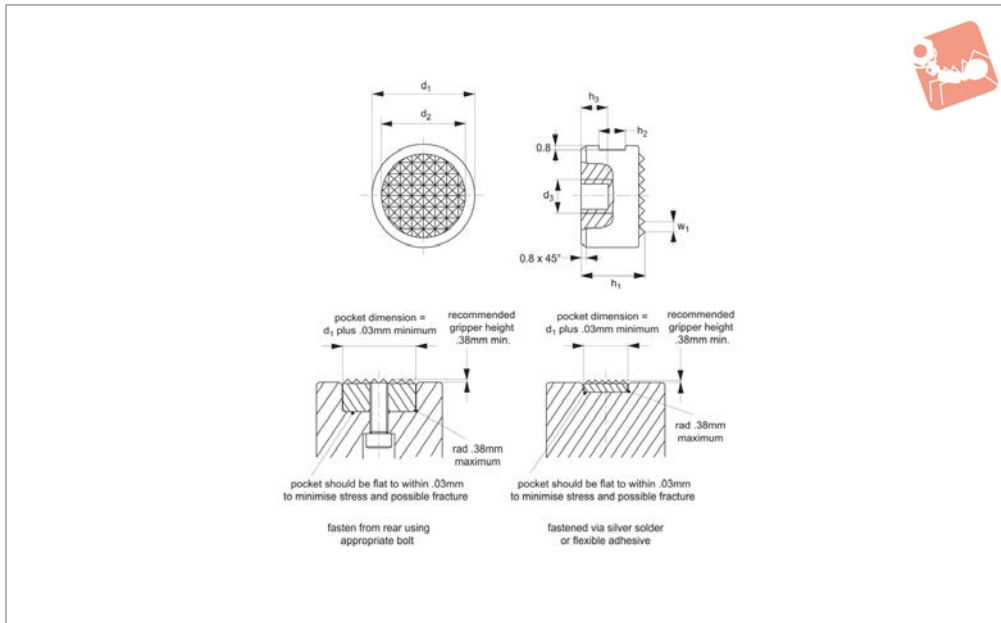
Pads of 17-4 Stainless, hardened to RC 43/46 provide solutions to applications where material selection is of greater importance; for example nuclear or food processing or pharmaceutical applications.



Grippers - Carbide Tipped

steel body - round - rear fixing

Grippers & Rest Pads



35330

GRIPPERS & REST PADS

Material

Solid carbide tipped grippers, in steel body.

to give safe holding without distortion. Especially suitable in chucks, vices and robotic grippers for extra grip.

appropriate bolt of thread d_2 . Note installation recommendations in technical diagram.

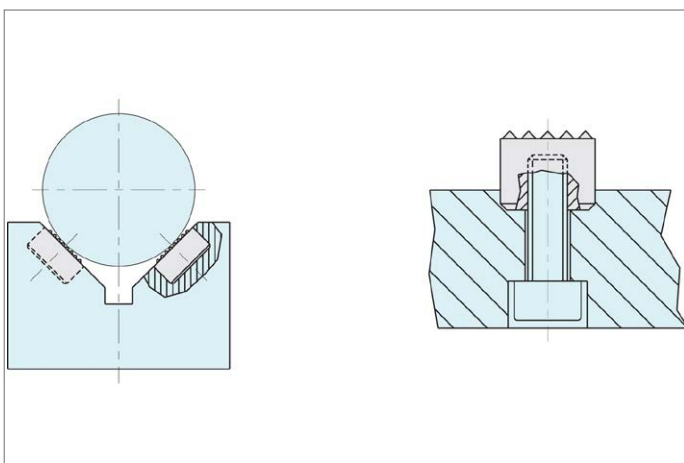
Technical Notes

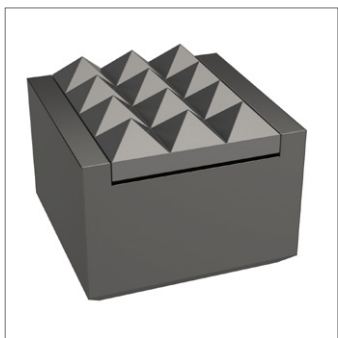
These carbide tipped gripping pads press down onto the surface of the components

Tips

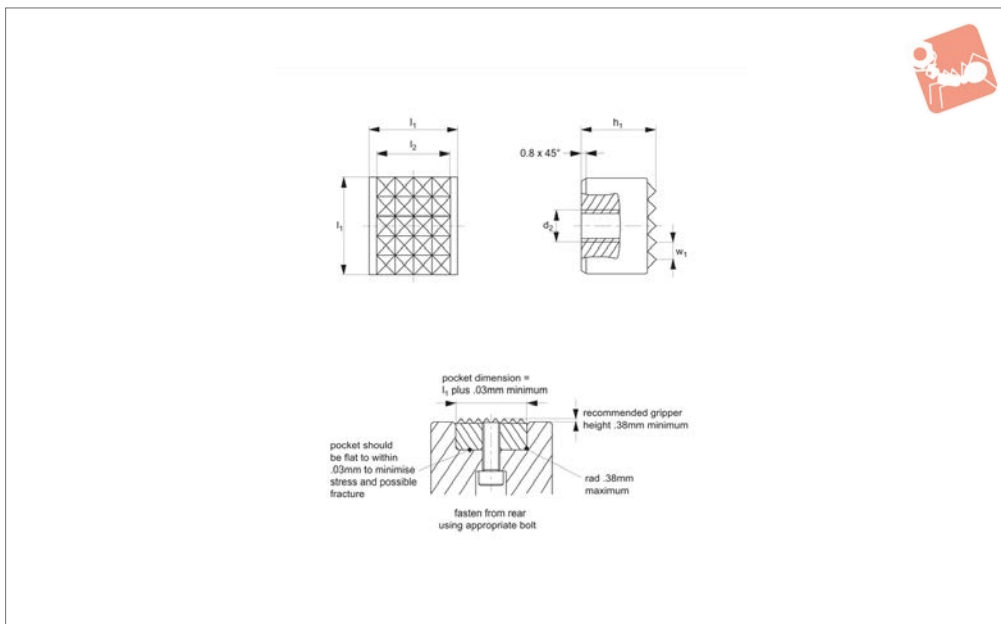
Can be fastened via use of set screw from side to flat on gripper, or from rear using

Order No.	Tooth pattern	d_1 +0.00 -0.13	h_1 +0.00 -0.13	h_2	h_3	d_2	d_3	w_1
35330.W0001	Extra Fine	10	10	4.5	4.8	7.9	M 5x0,8	2,4x90°
35330.W0002	Extra Fine	10	12	6.0	4.8	7.9	M 5x0,8	2,4x90°
35330.W0003	Fine	12	10	4.5	4.8	9.5	M 5x0,8	3,2x90°
35330.W0004	Fine	12	12	6.0	4.8	9.5	M 5x0,8	3,2x90°
35330.W0005	Fine	16	10	4.5	4.8	12.7	M 6x1,0	3,2x90°
35330.W0006	Fine	16	12	6.0	4.8	12.7	M 6x1,0	3,2x90°
35330.W0007	Fine	20	10	4.5	4.8	15.9	M 6x1,0	3,2x90°
35330.W0008	Fine	20	12	6.0	4.8	15.9	M 6x1,0	3,2x90°
35330.W0009	Fine	25	10	4.5	4.8	19.1	M 6x1,0	3,2x90°
35330.W0010	Fine	25	12	6.0	4.8	19.1	M 6x1,0	3,2x90°





35340



Material

Solid carbide tipped grippers, in steel body.

Technical Notes

These carbide tipped gripping pads press

down onto the surface of the component to give safe holding without distortion. Especially suitable in chucks, vices and robotic grippers for extra grip.

Tips

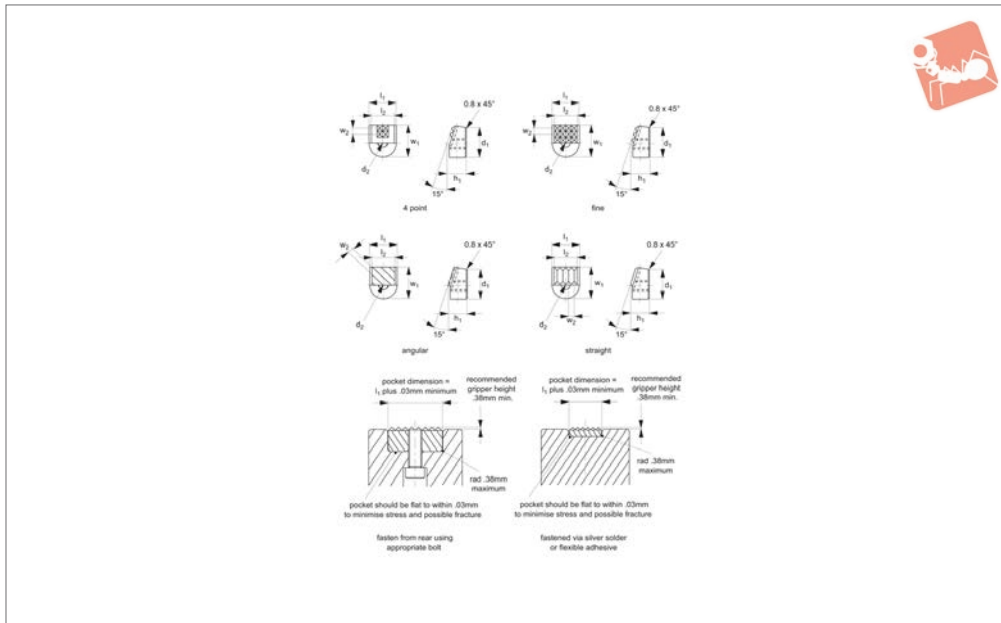
Can be fastened from rear using appropriate bolt. Note installation recommendations in technical diagram.

Order No.	Tooth pattern	l_1	l_2	h_1	d_2	w_1
35340.W0001	Fine	12.0	10.32	10.00	M 5x0,8	3,175x90°
35340.W0002	Fine	12.0	10.32	12.00	M 5x0,8	3,175x90°
35340.W0003	Ex-fine	12.7	10.32	9.53	M 6x1,0	2,387x90°



Grippers - Carbide Tipped steel body - angled - rear fixing

Grippers & Rest Pads



35350

GRIPPERS & REST PADS

Material

Steel, heat-treated with brazed on carbide pad.

Technical Notes

Also available with imperial threads on

request. These angle gripper inserts press down on the surface of the clamped work-piece to give safe holding without distortion. They can be built into clamps, stops and fixtures, as well as chucks, vices and

robotic grippers for extra grip.

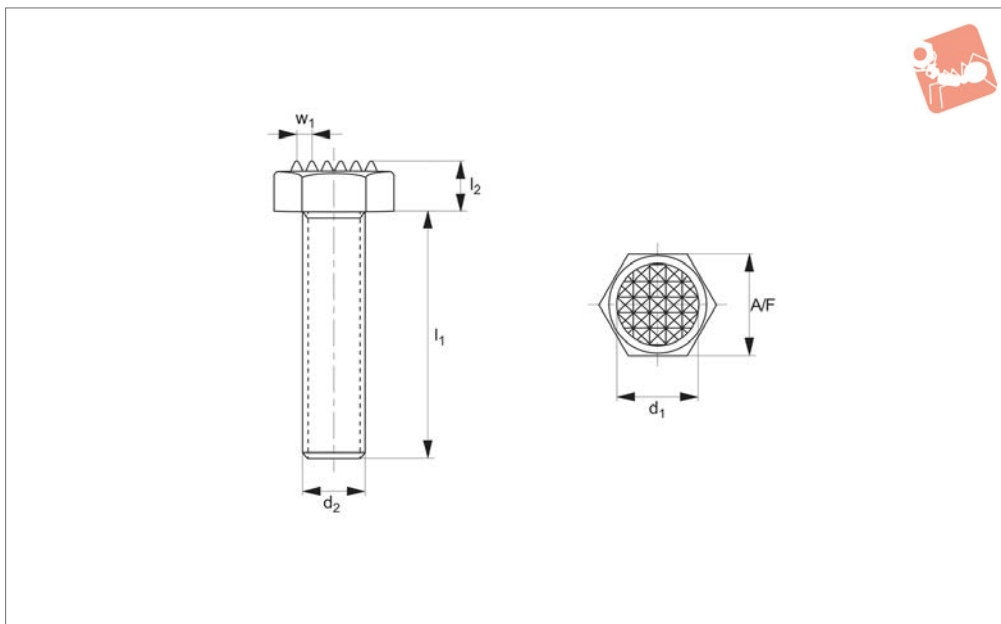
Tips

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

Order No.	Tooth pattern	d ₁	l ₁ +0.000 -0.002	l ₂	h ₁ +0.000 -0.005	d ₂	w ₁ +0.000 -0.010	w ₂
35350.W0001	4 Point	15	14.29	11.9	9.5	M 5x0,8	16.5	3,4x90°
35350.W0002	Fine	15	14.29	11.9	9.5	M 5x0,8	16.5	2,9x90°
35350.W0003	Straight	15	14.29	11.9	9.5	M 5x0,8	16.5	2,9x90°
35350.W0004	Angular	15	14.29	11.9	9.5	M 5x0,8	16.5	2,9x90°



35400



Material

Hex headed steel bolt with solid carbide tipped insert.

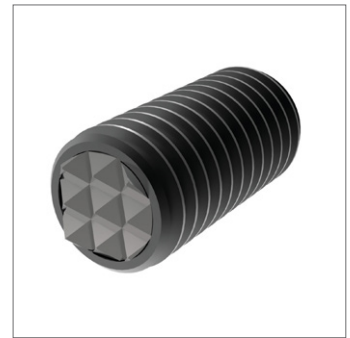
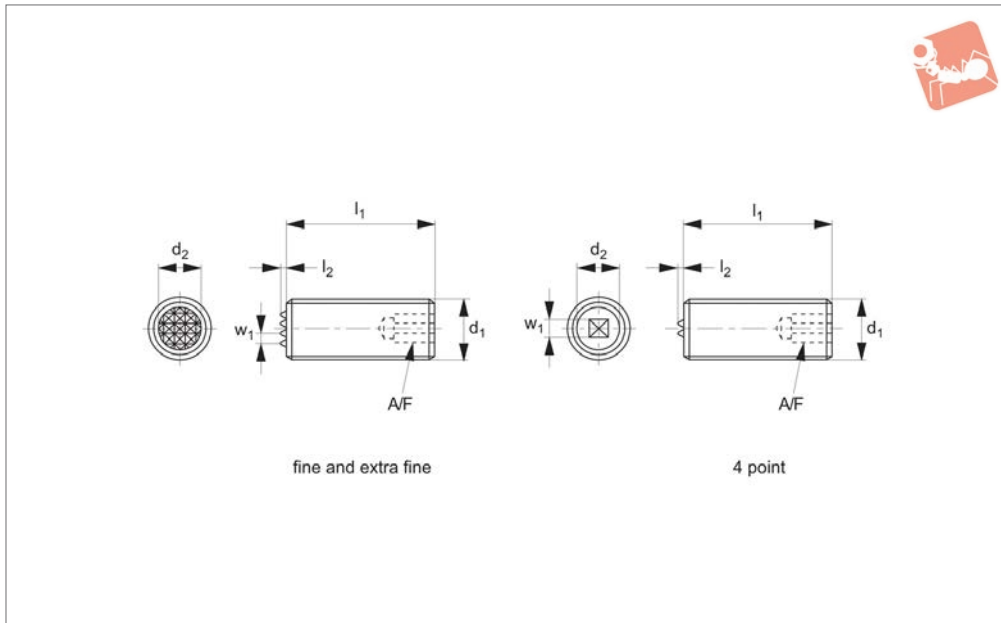
Technical Notes

Adjustable carbide tipped grippers are

used in jigs and fixtures, modular fixtures and tooling. They are especially suitable for holding castings and other components. Adjustment can be made within the thread length. Use a DIN 439B

hex. nut for adjustment and securing.

Order No.	Tooth pattern	d ₁	l ₁	l ₂	d ₂	w ₁	A/F
35400.W0001	Ex-fine	7.94	12	5.0	M 6x1,00	2,387x90°	10
35400.W0002	Ex-fine	7.94	25	5.0	M 6x1,00	2,387x90°	10
35400.W0003	Fine	9.53	12	6.4	M 8x1,25	3,175x90°	13
35400.W0004	Fine	9.53	25	6.4	M 8x1,25	3,175x90°	13
35400.W0005	Fine	9.53	35	6.4	M 8x1,25	3,175x90°	13
35400.W0006	Fine	12.70	12	7.5	M10x1,50	3,175x90°	17
35400.W0007	Fine	12.70	25	7.5	M10x1,50	3,175x90°	17
35400.W0008	Fine	12.70	40	7.5	M10x1,50	3,175x90°	17
35400.W0009	Fine	15.88	25	8.7	M12x1,75	3,175x90°	19
35400.W0010	Fine	15.88	40	8.7	M12x1,75	3,175x90°	19
35400.W0011	Fine	19.05	35	11.0	M16x2,00	3,175x90°	24
35400.W0012	Fine	19.05	50	11.0	M16x2,00	3,175x90°	24
35400.W0013	Ex-fine	25.40	40	13.7	M20x2,50	2,387x90°	30
35400.W0014	Ex-fine	25.40	60	13.7	M20x2,50	2,387x90°	30



35410

GRIPPERS & REST PADS

Material

Steel set screw with hex socket and solid carbide tipped insert.

used in jigs and fixtures, modular fixtures and tooling. They are especially suitable for holding castings and other components. Adjustment can be made by using the hex key in socket, and can be

adjusted within the thread length. Use a DIN 439B hex nut for adjustment and securing.

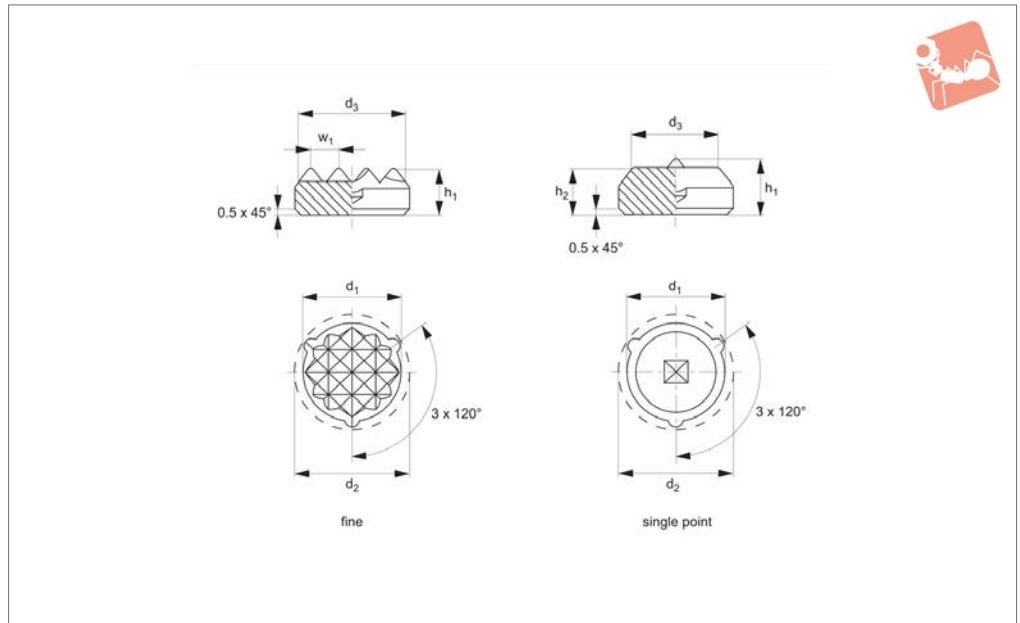
Technical Notes

Adjustable carbide tipped grippers are

Order No.	Tooth pattern	d ₁	l ₁	l ₂	d ₂	w ₁	A/F
35410.W0001	Extra Fine	M10x1,5	25	1.3	6.4	2,4x90°	5
35410.W0002	Extra Fine	M10x1,5	50	1.3	6.4	2,4x90°	5
35410.W0004	Extra Fine	M12x1,75	25	1.3	7.9	2,4x90°	6
35410.W0006	Extra Fine	M12x1,75	50	1.3	7.9	2,4x90°	6
35410.W0014	Extra Fine	M20x2,5	50	1.3	12.7	2,4x90°	10
35410.W0008	Fine	M16x2,0	25	1.3	11.1	3,2x90°	8
35410.W0010	Fine	M16x2,0	50	1.3	11.1	3,2x90°	8
35410.W0012	Fine	M20x2,5	25	1.3	12.7	3,2x90°	10
35410.W0003	4 Point	M12x1,75	25	1.3	7.9	3,9x90°	6
35410.W0005	4 Point	M12x1,75	50	1.3	7.9	3,9x90°	6
35410.W0007	4 Point	M16x2,0	25	1.3	11.1	3,9x90°	8
35410.W0009	4 Point	M16x2,0	50	1.3	11.1	3,9x90°	8
35410.W0011	4 Point	M20x2,5	25	1.3	12.7	3,9x90°	10
35410.W0013	4 Point	M20x2,5	50	1.3	12.7	3,9x90°	10



35440



Material

Hard metal ribbed, hard metal pointed, 60 HRc.

Technical Notes

d_1 - for use when press-fitting into softer

metals such as aluminium. The three protrusions ensure centering of insert. d_2 - for use when gluing or soldering in place.

Tips

Can be integrated into fixtures, clamping jaws etc., to provide an abrasion-proof transmission of high holding forces on cast or forged workpieces.

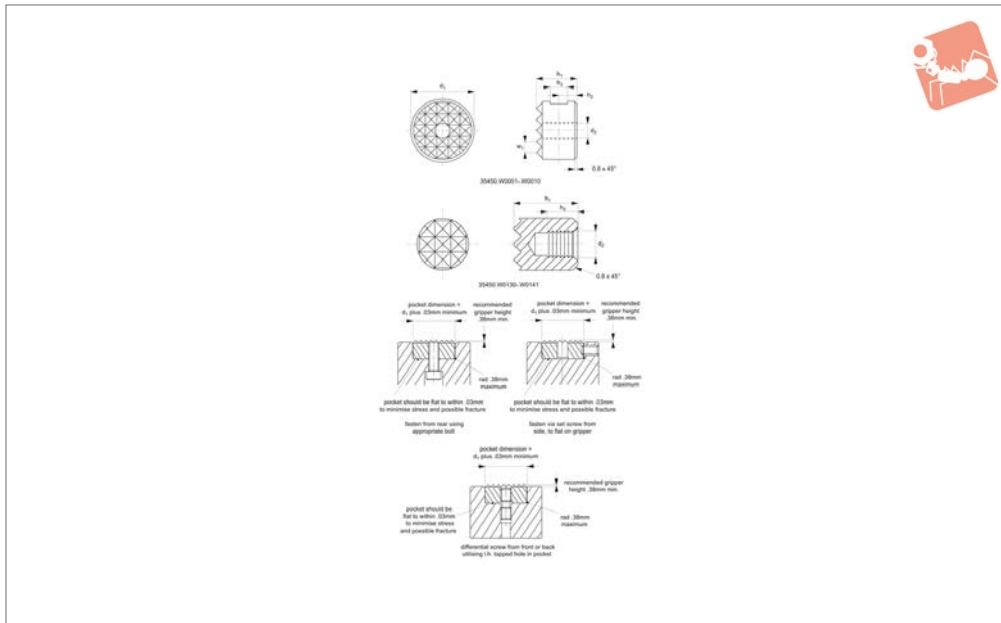
Order No.	Tooth pattern	d_1 ± 0.1	h_1	h_2	d_2 ± 0.2	d_3 \approx	w_1	Weight g
35440.W0608	Fine	8.3	5.0	-	9.1	7.7	2	3
35440.W0611	Fine	11.3	5.0	-	12.1	10.6	2	6
35440.W0613	Fine	12.6	5.0	-	13.4	11.9	3	7
35440.W0615	Fine	16,6 ^{± 1.5}	5.0	-	17.4	16.0	3	12
35440.W0617	Fine	21,6 ^{± 1.5}	5.0	-	22.4	21.0	3	20
35440.W0628	Single Point	8.3	5.8	5	9.1	6.3	-	3
35440.W0631	Single Point	11.3	5.8	5	12.1	9.3	-	7
35440.W0633	Single Point	12.6	5.8	5	13.4	10.0	-	8



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

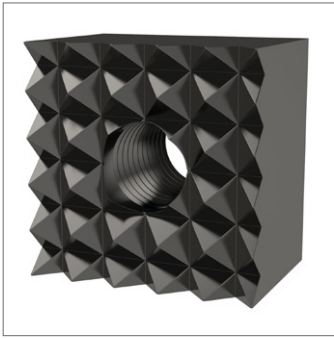
These hardened steel gripping pads press down on to the surface of the clamped

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.

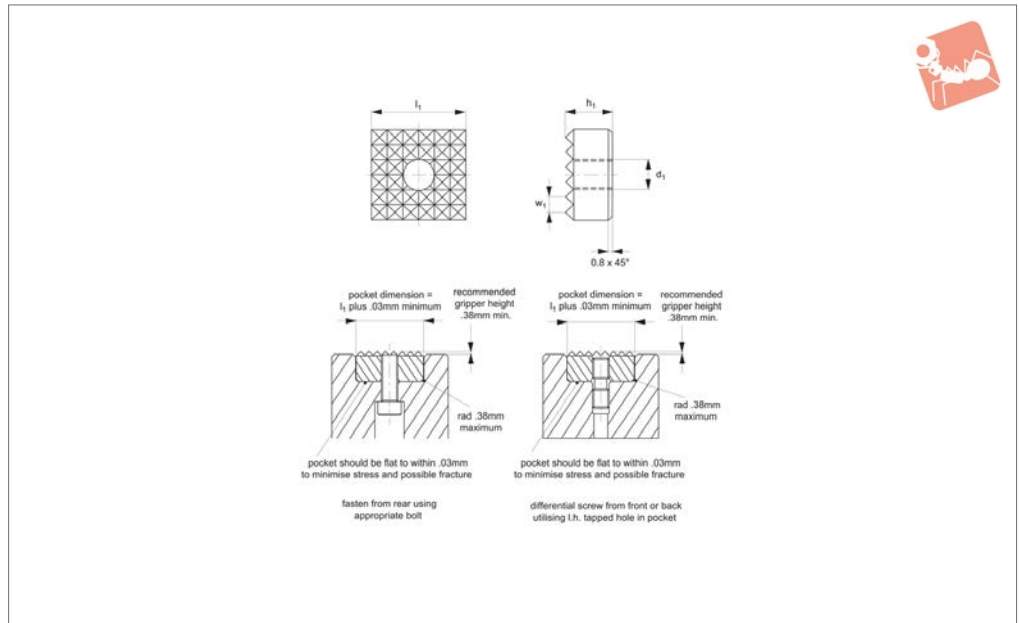
Tips

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.

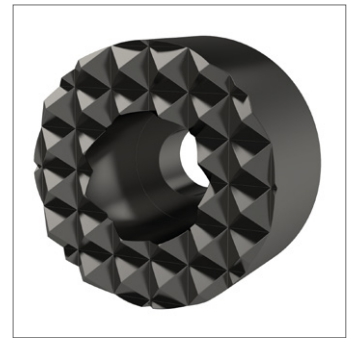
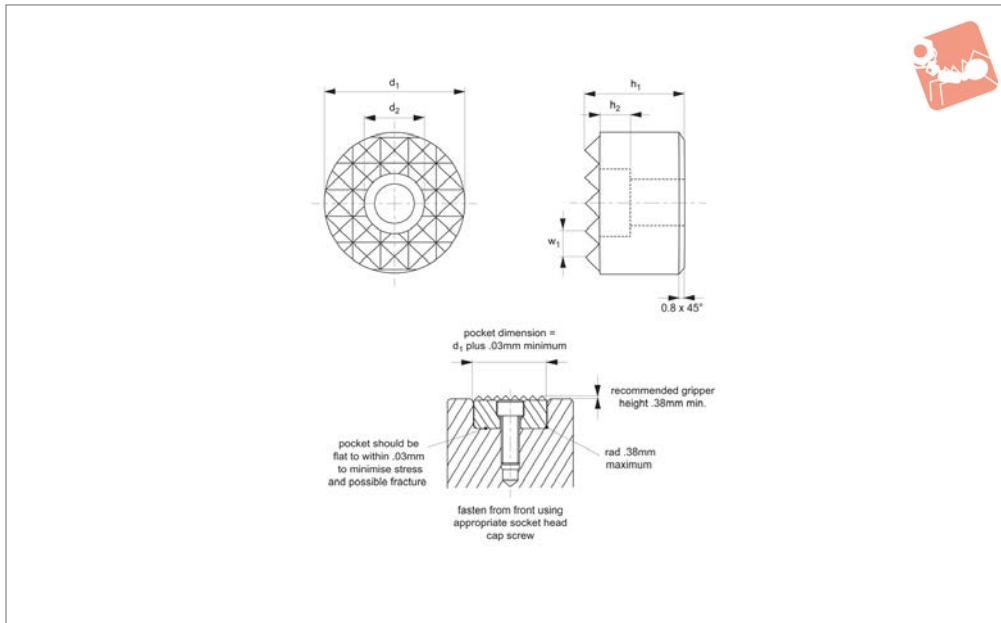
Order No.	Tooth pattern	l_1 +0.00 -0.13	d_1	h_1 +0.00 -0.13	w_1
35460.W0001	Extra Fine	10	M 5x0,8	10	2,4x90°
35460.W0002	Extra Fine	10	M 5x0,8	12	2,4x90°
35460.W0003	Fine	12	M 5x0,8	10	3,2x90°
35460.W0004	Fine	12	M 5x0,8	12	3,2x90°
35460.W0005	Fine	20	M 5x0,8	10	3,2x90°
35460.W0006	Fine	20	M 5x0,8	12	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.

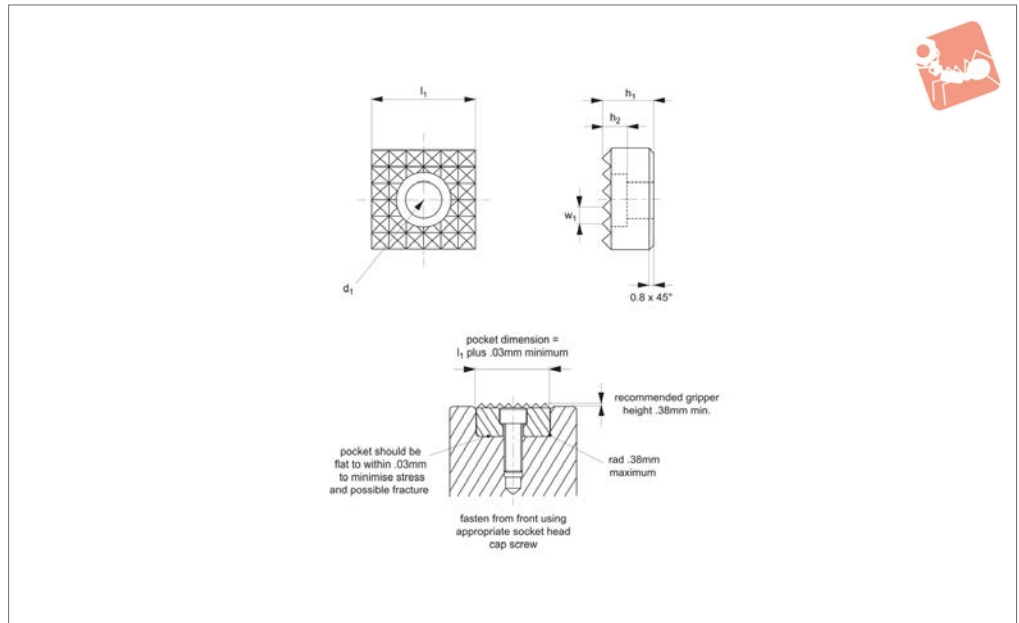
Tips

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

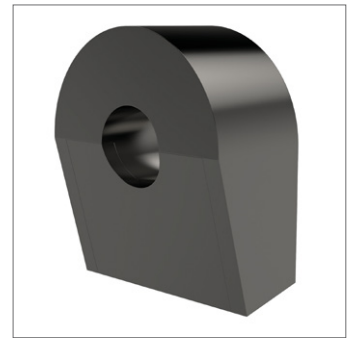
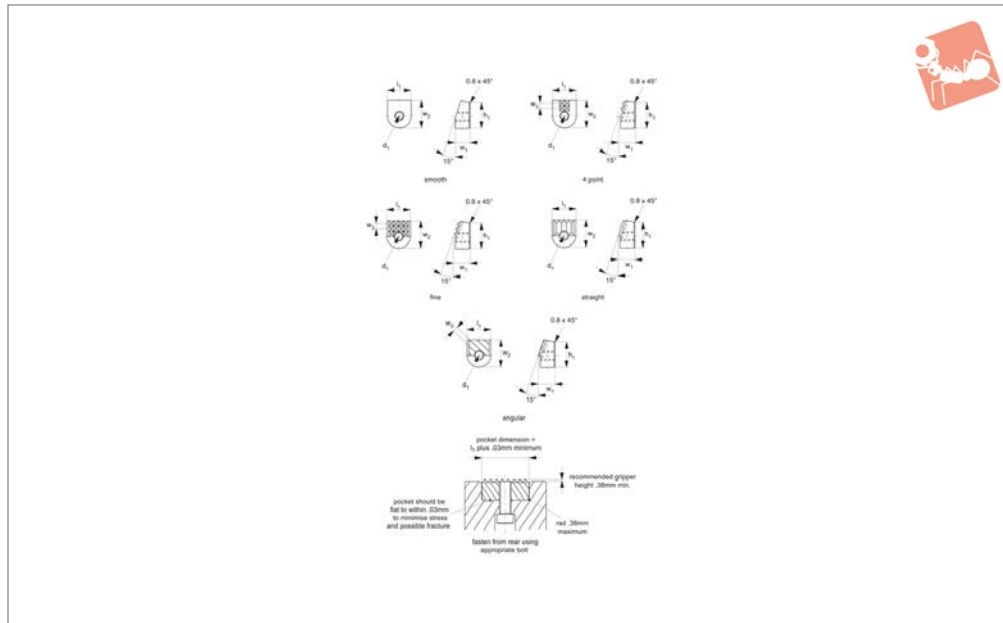
workpiece for safe holding without distortion. They are especially suitable where a high load or clamping force is applied. They can be built into clamps, stops and fixtures as well as chucks, vices and robotic grippers for extra grip.

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°



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.

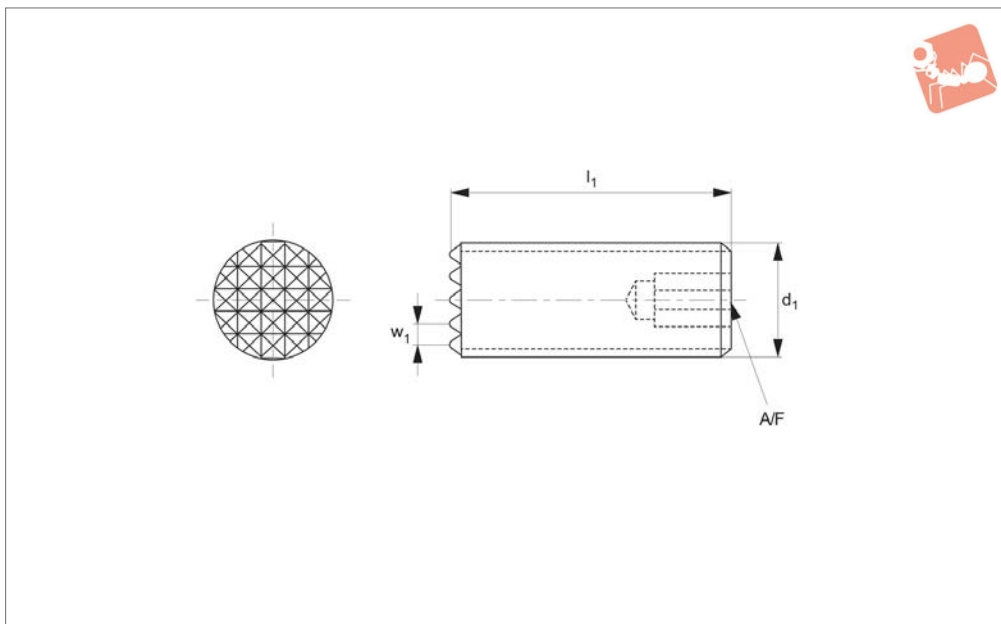
Tips

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.

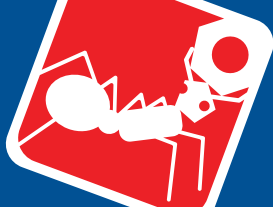
Technical Notes

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.

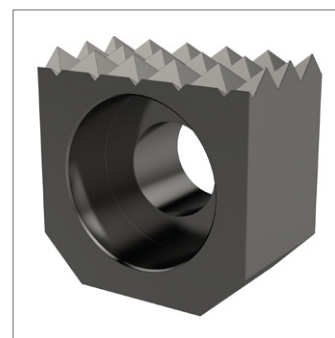
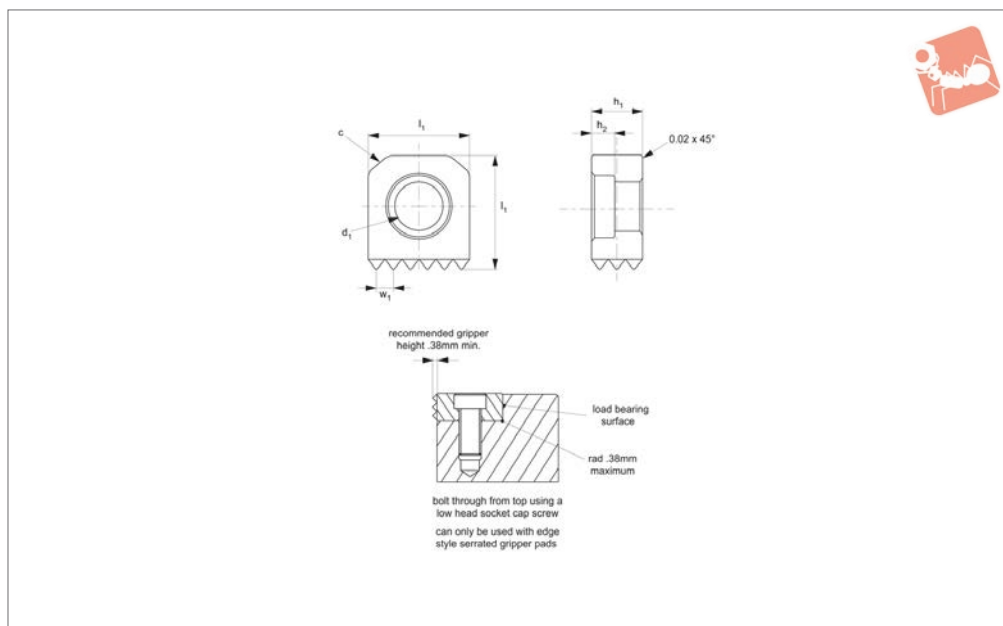
Order No.	Tooth pattern	l_1	d_1	w_1	A/F
35510.W0001	Extra Fine	40	M10x1,50	2,4x90°	3
35510.W0002	Fine	25	M12x1,75	3,2x90°	5
35510.W0003	Fine	40	M12x1,75	3,2x90°	5
35510.W0004	Fine	40	M16x2,00	3,2x90°	6
35510.W0005	Fine	40	M20x2,50	3,2x90°	8



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

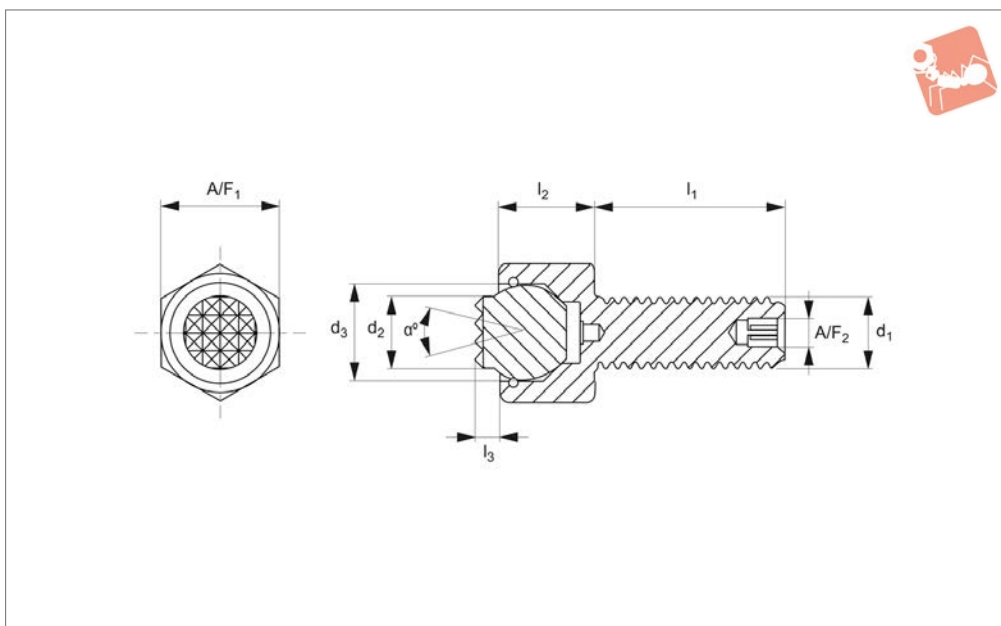
Square edge grippers have serrations on

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°



35530.1



Material

Body: steel, hardened to HRc 43/46, black oxide finish.

Ball: M2 high speed steel, hardened to HRc 60/62.

Viton o-ring holds ball in place and prevents ingress of other material.

Technical Notes

These adjustable self-aligning pads serve

as stops, supports and thrust elements in jigs and fixtures. They can also be fitted to existing workholding elements.

Use low-profile hexagon nut (DIN 439B) for adjustment and securing if required.

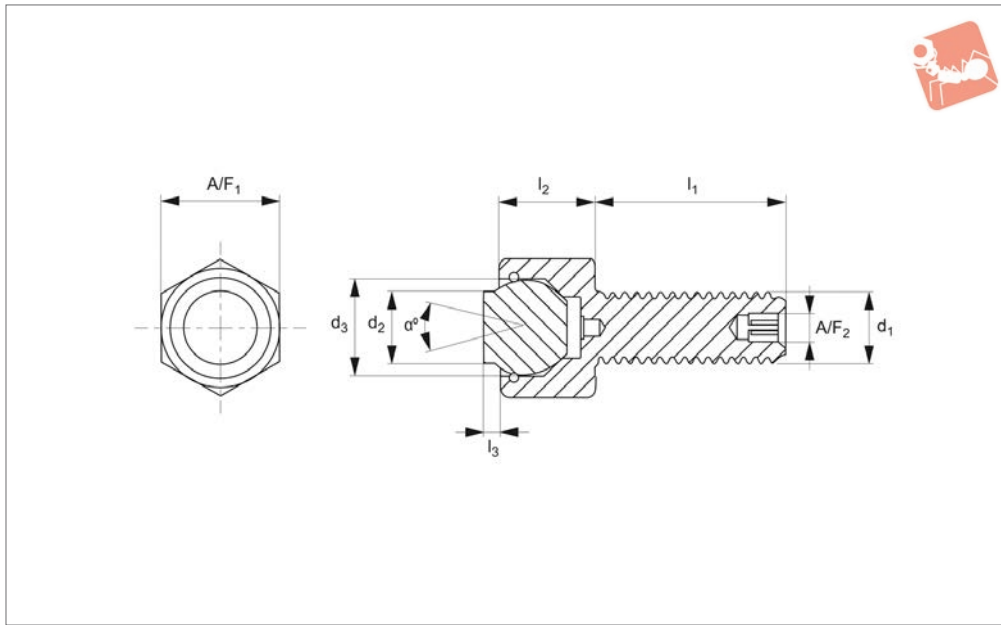
Order No.	Tooth pattern	d ₁	d ₂	d ₃	l ₁	l ₂ ±0.05	l ₃	Swivel angle α	Load rating kg	A/F ₁	A/F ₂
35530.W0001	Super Fine	M6X1,0	6.0	7	12	8.0	1.5	28	935	10	-
35530.W0002	Super Fine	M6X1,0	6.0	7	12	8.0	3.0	28	935	10	-
35530.W0003	Super Fine	M6X1,0	6.0	7	25	8.0	1.5	28	935	10	-
35530.W0004	Super Fine	M6X1,0	6.0	7	25	8.0	3.0	28	935	10	-
35530.W0005	Super Fine	M6X1,0	6.0	7	40	8.0	1.5	28	935	10	-
35530.W0006	Super Fine	M6X1,0	6.0	7	40	8.0	3.0	28	935	10	-
35530.W0007	Extra Fine	M8X1,25	8.5	10	12	11.5	1.5	24	1565	13	-
35530.W0008	Extra Fine	M8X1,25	8.5	10	12	11.5	3.0	24	1565	13	-
35530.W0009	Extra Fine	M8X1,25	8.5	10	25	11.5	1.5	24	1565	13	-
35530.W0010	Extra Fine	M8X1,25	8.5	10	25	11.5	3.0	24	1565	13	-
35530.W0011	Extra Fine	M8X1,25	8.5	10	40	11.5	1.5	24	1565	13	-
35530.W0012	Extra Fine	M8X1,25	8.5	10	40	11.5	3.0	24	1565	13	-
35530.W0013	Extra Fine	M10X1,5	10.0	13	15	13.0	4.0	42	1902	17	3
35530.W0014	Extra Fine	M10X1,5	10.0	13	15	13.0	6.0	42	1902	17	3
35530.W0015	Extra Fine	M10X1,5	10.0	13	30	13.0	4.0	42	1902	17	3
35530.W0016	Extra Fine	M10X1,5	10.0	13	30	13.0	6.0	42	1902	17	3
35530.W0017	Extra Fine	M10X1,5	10.0	13	50	13.0	4.0	42	1902	17	3
35530.W0018	Extra Fine	M10X1,5	10.0	13	50	13.0	6.0	42	1902	17	3
35530.W0019	Fine	M12X1,75	12.0	15	20	15.0	4.0	45	3006	19	5
35530.W0020	Fine	M12X1,75	12.0	15	20	15.0	6.0	45	3006	19	5
35530.W0021	Fine	M12X1,75	12.0	15	40	15.0	4.0	45	3006	19	5
35530.W0022	Fine	M12X1,75	12.0	15	40	15.0	6.0	45	3006	19	5
35530.W0023	Fine	M12X1,75	12.0	15	60	15.0	4.0	45	3006	19	5
35530.W0024	Fine	M12X1,75	12.0	15	60	15.0	6.0	45	3006	19	5
35530.W0025	Fine	M16X2,0	16.0	20	25	19.0	4.0	40	5073	24	6
35530.W0027	Fine	M16X2,0	16.0	20	50	19.0	4.0	40	5073	24	6
35530.W0028	Fine	M16X2,0	16.0	20	50	19.0	6.0	40	5073	24	6
35530.W0029	Fine	M16X2,0	16.0	20	80	19.0	4.0	40	5073	24	6
35530.W0030	Fine	M16X2,0	16.0	20	80	19.0	6.0	40	5073	24	6



Grippers - Self Aligning - HTS

flat - threaded bolt

Grippers & Rest Pads



35530.2

GRIPPERS & REST PADS

Material

Body: steel, hardened to HRC 43/46, black oxide finish.

Ball: M2 high speed steel, hardened to HRC 60/62.

Viton o-ring holds ball in place and prevents ingress of other material.

Technical Notes

These adjustable self-aligning pads serve

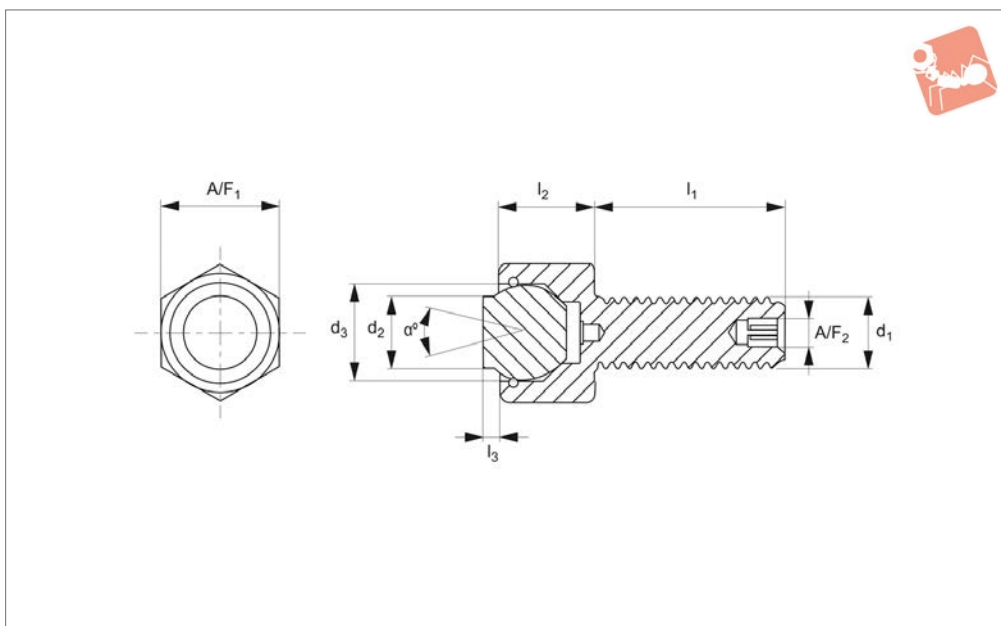
as stops, supports and thrust elements in jigs and fixtures. They can also be fitted to existing workholding elements.

Use low-profile hexagon nut (DIN 439B) for adjustment and securing if required.

Order No.	d ₁	d ₂	d ₃	l ₁	l ₂ ±0.05	l ₃	Swivel angle a °	Load rating kg	A/F ₁	A/F ₂
35530.W0101	M6X1,0	6.0	7	12	8.0	1.5	28	935	10	-
35530.W0102	M6X1,0	6.0	7	12	8.0	3.0	28	935	10	-
35530.W0103	M6X1,0	6.0	7	25	8.0	1.5	28	935	10	-
35530.W0104	M6X1,0	6.0	7	25	8.0	3.0	28	935	10	-
35530.W0105	M6X1,0	6.0	7	40	8.0	1.5	28	935	10	-
35530.W0106	M6X1,0	6.0	7	40	8.0	3.0	28	935	10	-
35530.W0107	M8X1,25	8.5	10	12	11.5	1.5	24	1565	13	-
35530.W0108	M8X1,25	8.5	10	12	11.5	3.0	24	1565	13	-
35530.W0109	M8X1,25	8.5	10	25	11.5	1.5	24	1565	13	-
35530.W0110	M8X1,25	8.5	10	25	11.5	3.0	24	1565	13	-
35530.W0111	M8X1,25	8.5	10	40	11.5	1.5	24	1565	13	-
35530.W0112	M8X1,25	8.5	10	40	11.5	3.0	24	1565	13	-
35530.W0113	M10X1,5	10.0	13	15	13.0	4.0	42	1902	17	3
35530.W0114	M10X1,5	10.0	13	15	13.0	6.0	42	1902	17	3
35530.W0115	M10X1,5	10.0	13	30	13.0	4.0	42	1902	17	3
35530.W0116	M10X1,5	10.0	13	30	13.0	6.0	42	1902	17	3
35530.W0117	M10X1,5	10.0	13	50	13.0	4.0	42	1902	17	3
35530.W0118	M10X1,5	10.0	13	50	13.0	6.0	42	1902	17	3
35530.W0119	M12X1,75	12.0	15	20	15.0	4.0	45	3006	19	5
35530.W0120	M12X1,75	12.0	15	20	15.0	6.0	45	3006	19	5
35530.W0121	M12X1,75	12.0	15	40	15.0	4.0	45	3006	19	5
35530.W0122	M12X1,75	12.0	15	40	15.0	6.0	45	3006	19	5
35530.W0123	M12X1,75	12.0	15	60	15.0	4.0	45	3006	19	5
35530.W0124	M12X1,75	12.0	15	60	15.0	6.0	45	3006	19	5
35530.W0125	M16X2,0	16.0	20	25	19.0	4.0	40	5073	24	6
35530.W0127	M16X2,0	16.0	20	50	19.0	4.0	40	5073	24	6
35530.W0129	M16X2,0	16.0	20	80	19.0	4.0	40	5073	24	6



35530.3



Material

Body: steel, hardened to HRc 43/46, black oxide finish.

Ball: thermoplastic, white.

Viton o-ring holds ball in place and

prevents ingress of other material.

Technical Notes

These adjustable self-aligning pads serve as stops, supports and thrust elements in

jigs and fixtures. They can also be fitted to existing workholding elements.

Use low-profile hexagon nut (DIN 439B) for adjustment and securing if required.

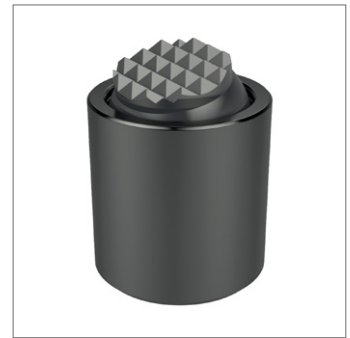
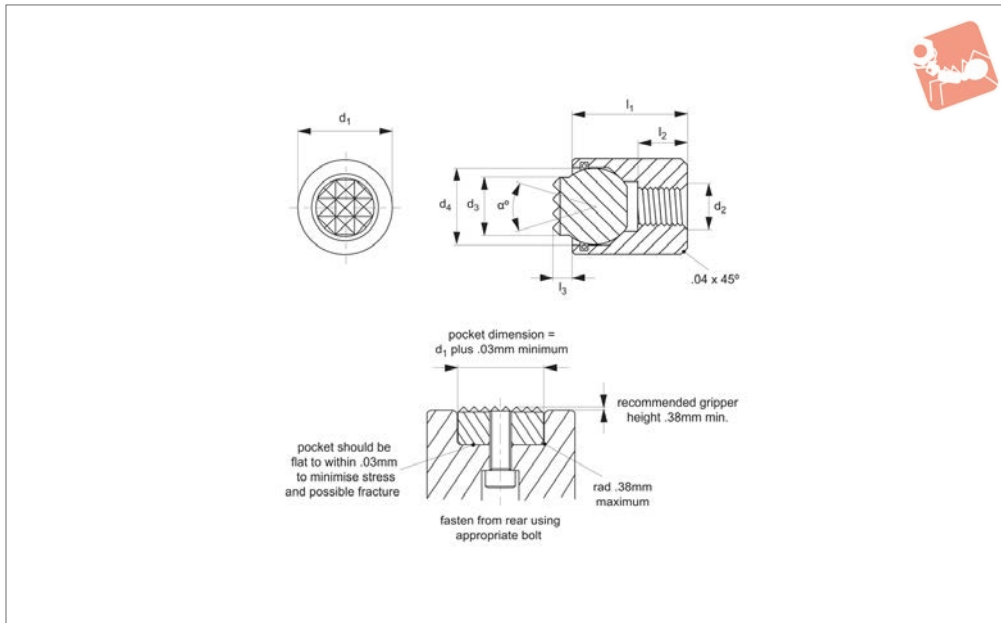
Order No.	d ₁	d ₂	d ₃	l ₁	l ₂ ±0.05	l ₃	Swivel angle α	A/F ₁	A/F ₂
35530.W0201	M 6X1,0	6.0	7	12	8.0	1.5	28	10	-
35530.W0202	M 6X1,0	6.0	7	12	8.0	3.0	28	10	-
35530.W0203	M 6X1,0	6.0	7	25	8.0	1.5	28	10	-
35530.W0204	M 6X1,0	6.0	7	25	8.0	3.0	28	10	-
35530.W0205	M 6X1,0	6.0	7	40	8.0	1.5	28	10	-
35530.W0206	M 6X1,0	6.0	7	40	8.0	3.0	28	10	-
35530.W0207	M 8X1,25	8.5	10	12	11.5	1.5	24	13	-
35530.W0208	M 8X1,25	8.5	10	12	11.5	3.0	24	13	-
35530.W0209	M 8X1,25	8.5	10	25	11.5	1.5	24	13	-
35530.W0210	M 8X1,25	8.5	10	25	11.5	3.0	24	13	-
35530.W0211	M 8X1,25	8.5	10	40	11.5	1.5	24	13	-
35530.W0212	M 8X1,25	8.5	10	40	11.5	3.0	24	13	-
35530.W0213	M10X1,5	10.0	13	15	13.0	4.0	42	17	3
35530.W0214	M10X1,5	10.0	13	15	13.0	6.0	42	17	3
35530.W0215	M10X1,5	10.0	13	30	13.0	4.0	42	17	3
35530.W0216	M10X1,5	10.0	13	30	13.0	6.0	42	17	3
35530.W0217	M10X1,5	10.0	13	50	13.0	4.0	42	17	3
35530.W0218	M10X1,5	10.0	13	50	13.0	6.0	42	17	3
35530.W0219	M12X1,75	12.0	15	20	15.0	4.0	45	19	5
35530.W0220	M12X1,75	12.0	15	20	15.0	6.0	45	19	5
35530.W0221	M12X1,75	12.0	15	40	15.0	4.0	45	19	5
35530.W0222	M12X1,75	12.0	15	40	15.0	6.0	45	19	5
35530.W0223	M12X1,75	12.0	15	60	15.0	4.0	45	19	5
35530.W0224	M12X1,75	12.0	15	60	15.0	6.0	45	19	5
35530.W0225	M16X2,0	16.0	20	25	19.0	4.0	40	24	6
35530.W0227	M16X2,0	16.0	20	50	19.0	4.0	40	24	6
35530.W0229	M16X2,0	16.0	20	80	19.0	4.0	40	24	6



Grippers - Self Aligning - HTS

serrated - female threaded housing

Grippers & Rest Pads



35540.1

GRIPPERS & REST PADS

Material

Body: steel, hardened to HRC 43/46, black oxide finish.

Ball: M2 high speed steel, hardened to HRC 60/62.

Viton o-ring holds ball in place and prevents ingress of other material.

Technical Notes

These adjustable self-aligning pads serve

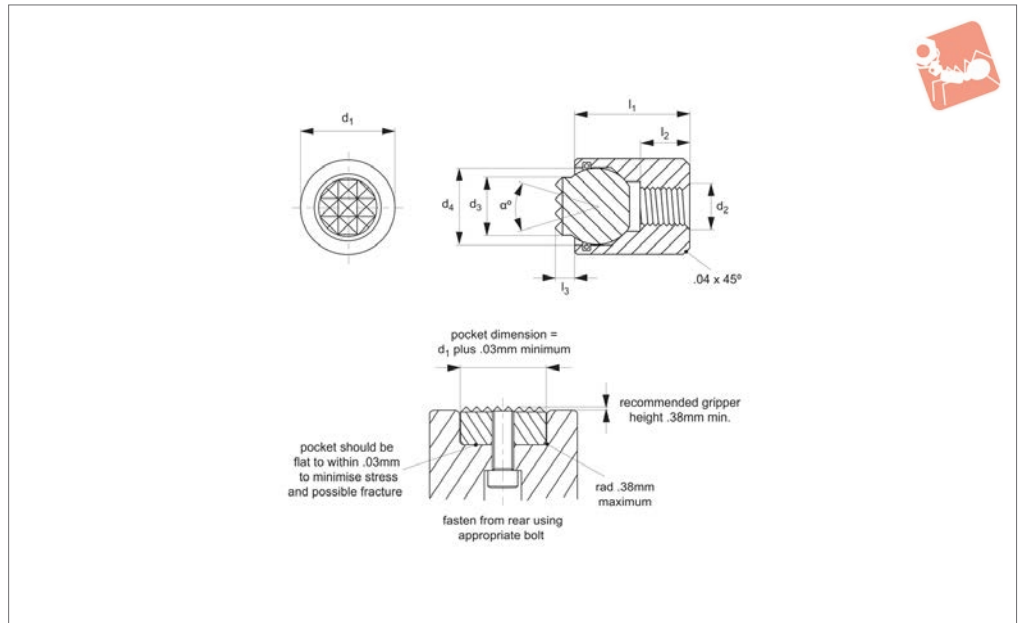
as stops, supports and thrust elements in jigs and fixtures. They can also be fitted to existing workholding elements.

Use low-profile hexagon nut (DIN 439B) for adjustment and securing if required.

Order No.	Tooth pattern	Type	d_1 +0.00 -0.13	d_2	d_3	d_4	l_1 ±0.05	l_2 ±0.25	l_3	Swivel angle α	Load rating kg
35540.W0001	Super Fine	Serrated	10	M 4x0,7	6.0	7	10.5	3.5	1.5	28	1173
35540.W0002	Super Fine	Serrated	10	M 4x0,7	6.0	7	10.5	3.5	3.0	28	1173
35540.W0003	Super Fine	Serrated	10	M 4x0,7	6.0	7	23.5	9.0	1.5	28	1173
35540.W0004	Super Fine	Serrated	10	M 4x0,7	6.0	7	23.5	9.0	3.0	28	1173
35540.W0005	Extra Fine	Serrated	13	M 5x0,8	8.5	10	14.5	6.5	1.5	24	2019
35540.W0006	Extra Fine	Serrated	13	M 5x0,8	8.5	10	14.5	6.5	3.0	24	2019
35540.W0007	Extra Fine	Serrated	13	M 5x0,8	8.5	10	23.5	9.0	1.5	24	2019
35540.W0008	Extra Fine	Serrated	13	M 5x0,8	8.5	10	23.5	9.0	3.0	24	2019
35540.W0009	Extra Fine	Serrated	17	M 6x1,0	10.0	13	18.0	7.5	4.0	42	2799
35540.W0010	Extra Fine	Serrated	17	M 6x1,0	10.0	13	18.0	7.5	6.0	42	2799
35540.W0011	Fine	Serrated	19	M 8x1,25	12.0	15	20.0	8.5	4.0	45	3941
35540.W0012	Fine	Serrated	19	M 8x1,25	12.0	15	20.0	8.5	6.0	45	3941
35540.W0013	Fine	Serrated	24	M10x1,5	16.0	20	24.0	9.0	4.0	40	5950
35540.W0014	Fine	Serrated	24	M10x1,5	16.0	20	24.0	9.0	6.0	40	5950



35540.2



Material

Body: steel, hardened to HRc 43/46, black oxide finish.

Ball: M2 high speed steel, hardened to HRc 60/62.

Viton o-ring holds ball in place and prevents ingress of other material.

Technical Notes

These adjustable self-aligning pads serve

as stops, supports and thrust elements in jigs and fixtures. They can also be fitted to existing workholding elements.

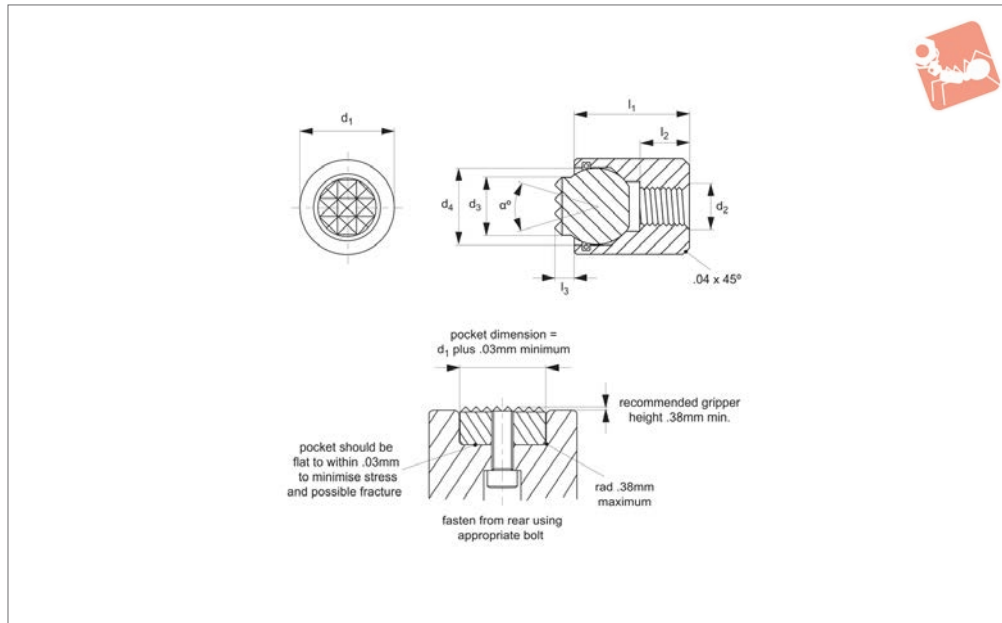
Use low-profile hexagon nut (DIN 439B) for adjustment and securing if required.

Order No.	Type	d ₁	d ₂	d ₃	d ₄	l ₁ ±0.05	l ₂ ±0.25	l ₃	Swivel angle α	Load rating kg
35540.W0101	Flat, Steel	10	M 4 x 0,7	6.0	7	10.5	3.5	1.5	28	1173
35540.W0102	Flat, Steel	10	M 4 x 0,7	6.0	7	10.5	3.5	3.0	28	1173
35540.W0103	Flat, Steel	10	M 4 x 0,7	6.0	7	23.5	9.0	1.5	28	1173
35540.W0104	Flat, Steel	10	M 4 x 0,7	6.0	7	23.5	9.0	3.0	28	1173
35540.W0105	Flat, Steel	13	M 5 x 0,8	8.5	10	14.5	6.5	1.5	24	2019
35540.W0106	Flat, Steel	13	M 5 x 0,8	8.5	10	14.5	6.5	3.0	24	2019
35540.W0107	Flat, Steel	13	M 5 x 0,8	8.5	10	23.5	9.0	1.5	24	2019
35540.W0108	Flat, Steel	13	M 5 x 0,8	8.5	10	23.5	9.0	3.0	24	2019
35540.W0109	Flat, Steel	17	M 6 x 1,0	10.0	13	18.0	7.5	4.0	42	2799
35540.W0110	Flat, Steel	17	M 6 x 1,0	10.0	13	18.0	7.5	6.0	42	2799
35540.W0111	Flat, Steel	19	M 8 x 1,25	12.0	15	20.0	8.5	4.0	45	3941
35540.W0112	Flat, Steel	19	M 8 x 1,25	12.0	15	20.0	8.5	6.0	45	3941
35540.W0113	Flat, Steel	24	M10 x 1,5	16.0	20	24.0	9.0	4.0	40	5950
35540.W0114	Flat, Steel	24	M10 x 1,5	16.0	20	24.0	9.0	6.0	40	5950



Grippers - Self Aligning - Plastic flat - female threaded housing

Grippers & Rest Pads



35540.3

GRIPPERS & REST PADS

Material

Body: steel, hardened to HRC 43/46, black oxide finish.

Ball: thermoplastic, white.

Viton o-ring holds ball in place and

prevents ingress of other material.

Technical Notes

These adjustable self-aligning pads serve as stops, supports and thrust elements in

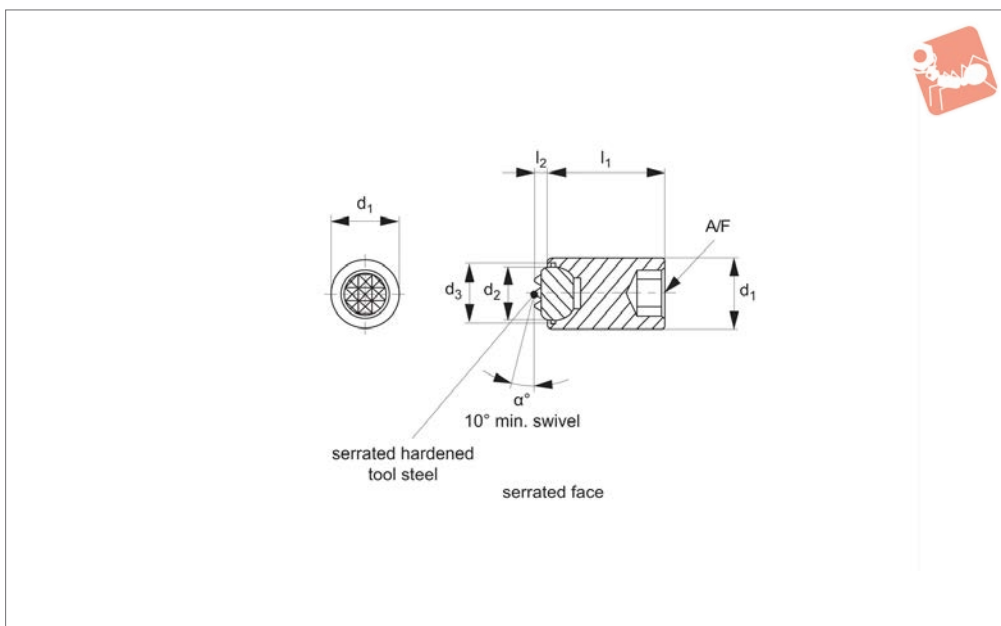
jigs and fixtures. They can also be fitted to existing workholding elements.

Use low-profile hexagon nut (DIN 439B) for adjustment and securing if required.

Order No.	Type	d_1	d_2	d_3	d_4	l_1 ± 0.05	l_2 ± 0.25	l_3	Swivel angle α
35540.W0201	Flat, Plastic	10	M 4 x 0,7	6.0	7.0	10.5	3.5	1.5	28
35540.W0202	Flat, Plastic	10	M 4 x 0,7	6.0	7.0	10.5	3.5	3.0	28
35540.W0203	Flat, Plastic	10	M 4 x 0,7	6.0	7.0	23.5	9.0	1.5	28
35540.W0204	Flat, Plastic	10	M 4 x 0,7	6.0	7.0	23.5	9.0	3.0	28
35540.W0205	Flat, Plastic	13	M 5 x 0,8	8.5	10.0	14.5	6.5	1.5	24
35540.W0206	Flat, Plastic	13	M 5 x 0,8	8.5	10.0	14.5	6.5	3.0	24
35540.W0207	Flat, Plastic	13	M 5 x 0,8	8.5	10.0	23.5	9.0	1.5	24
35540.W0208	Flat, Plastic	13	M 5 x 0,8	8.5	10.0	23.5	9.0	3.0	24
35540.W0209	Flat, Plastic	17	M 6 x 1,0	10.0	13.0	18.0	7.5	4.0	42
35540.W0210	Flat, Plastic	17	M 6 x 1,0	10.0	13.0	18.0	7.5	6.0	42
35540.W0211	Flat, Plastic	19	M 8 x 1,25	12.0	15.0	20.0	8.5	4.0	45
35540.W0212	Flat, Plastic	19	M 8 x 1,25	12.0	15.0	20.0	8.5	6.0	45
35540.W0213	Flat, Plastic	24	M10 x 1,5	16.0	20.0	24.0	9.0	4.0	40
35540.W0214	Flat, Plastic	24	M10 x 1,5	16.0	20.0	24.0	9.0	6.0	40



35550.1



Material

Body: steel set screw with hardened tool steel or thermoplastic inserts.

Technical Notes

These adjustable ball end gripping screws also serve as stops, supports elements.

They can be inserted into jigs, fixtures and other workholding elements.

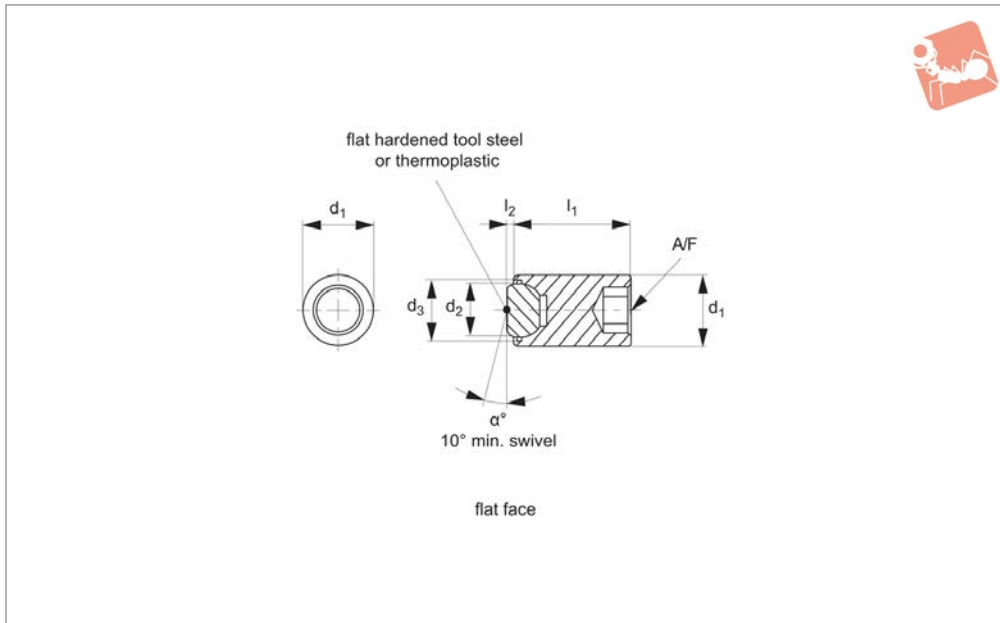
Order No.	Tooth pattern	d_1 +0.00 -0.13	d_2	d_3	l_1	l_2	Swivel angle α °	Load rating kg	A/F
35550.W0001	Super Fine	4	M10x1,5	5	25	1.5	30	-	5
35550.W0002	Super Fine	4	M10x1,5	5	35	1.5	30	-	5
35550.W0003	Super Fine	4	M10x1,5	5	50	1.5	30	-	5
35550.W0004	Super Fine	6	M12x1,75	7	25	1.5	28	1560	6
35550.W0005	Super Fine	6	M12x1,75	7	25	3.0	28	1560	6
35550.W0006	Super Fine	6	M12x1,75	7	35	1.5	28	1560	6
35550.W0007	Super Fine	6	M12x1,75	7	35	3.0	28	1560	6
35550.W0008	Super Fine	6	M12x1,75	7	50	1.5	28	1560	6
35550.W0009	Super Fine	6	M12x1,75	7	50	3.0	28	1560	6
35550.W0010	Extra Fine	8.5	M16x2,0	10	25	1.5	24	2354	8
35550.W0011	Extra Fine	8.5	M16x2,0	10	25	3.0	24	2354	8
35550.W0012	Extra Fine	8.5	M16x2,0	10	35	1.5	24	2354	8
35550.W0013	Extra Fine	8.5	M16x2,0	10	35	3.0	24	2354	8
35550.W0014	Extra Fine	8.5	M16x2,0	10	50	1.5	24	2354	8
35550.W0015	Extra Fine	8.5	M16x2,0	10	50	3.0	24	2354	8
35550.W0016	Extra Fine	10	M20x2,5	13	30	4.0	42	3800	10
35550.W0017	Extra Fine	10	M20x2,5	13	30	6.0	42	3800	10
35550.W0018	Extra Fine	10	M20x2,5	13	50	4.0	42	3800	10
35550.W0019	Extra Fine	10	M20x2,5	13	50	6.0	42	3800	10
35550.W0020	Extra Fine	10	M20x2,5	13	70	4.0	42	3800	10
35550.W0021	Extra Fine	10	M20x2,5	13	70	6.0	42	3800	10
35550.W0022	Fine	12	M24x3,0	15	40	4.0	45	5549	10
35550.W0023	Fine	12	M24x3,0	15	40	6.0	45	5549	10
35550.W0024	Fine	12	M24x3,0	15	80	4.0	45	5549	10
35550.W0025	Fine	12	M24x3,0	15	80	6.0	45	5549	10



Grippers - Self Aligning - HTS

flat - set screw

Grippers & Rest Pads



35550.2

GRIPPERS & REST PADS

Material

Body: steel set screw with hardened tool steel or thermoplastic inserts.

Technical Notes

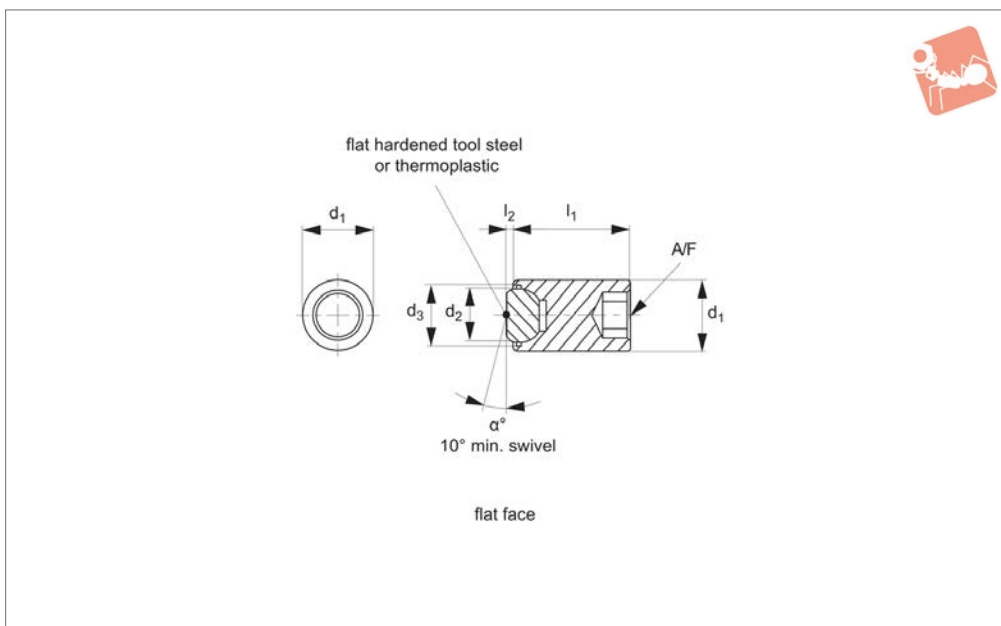
These adjustable ball end gripping screws also serve as stops, supports elements.

They can be inserted into jigs, fixtures and other workholding elements.

Order No.	d_1 +0.00 -0.13	d_2	d_3	l_1	l_2	Swivel angle α	Load rating kg	A/F
35550.W0101	6.0	M12x1,75	7	25	1.5	28	1560	6
35550.W0102	6.0	M12x1,75	7	25	3.0	28	1560	6
35550.W0103	6.0	M12x1,75	7	35	1.5	28	1560	6
35550.W0104	6.0	M12x1,75	7	35	3.0	28	1560	6
35550.W0105	6.0	M12x1,75	7	50	1.5	28	1560	6
35550.W0106	6.0	M12x1,75	7	50	3.0	28	1560	6
35550.W0107	8.5	M16x2,0	10	25	1.5	24	2354	8
35550.W0108	8.5	M16x2,0	10	25	3.0	24	2354	8
35550.W0109	8.5	M16x2,0	10	35	1.5	24	2354	8
35550.W0110	8.5	M16x2,0	10	35	3.0	24	2354	8
35550.W0111	8.5	M16x2,0	10	50	1.5	24	2354	8
35550.W0112	8.5	M16x2,0	10	50	3.0	24	2354	8
35550.W0113	10.0	M20x2,5	13	30	4.0	42	3800	10
35550.W0114	10.0	M20x2,5	13	30	6.0	42	3800	10
35550.W0115	10.0	M20x2,5	13	50	4.0	42	3800	10
35550.W0116	10.0	M20x2,5	13	50	6.0	42	3800	10
35550.W0117	10.0	M20x2,5	13	70	4.0	42	3800	10
35550.W0118	10.0	M20x2,5	13	70	6.0	42	3800	10
35550.W0119	12.0	M24x3,0	15	40	4.0	45	5549	10
35550.W0120	12.0	M24x3,0	15	40	6.0	45	5549	10
35550.W0121	12.0	M24x3,0	15	80	4.0	45	5549	10
35550.W0122	12.0	M24x3,0	15	80	6.0	45	5549	10



35550.3



Material

Body: steel set screw with hardened tool steel or thermoplastic inserts.

Technical Notes

These adjustable ball end gripping screws also serve as stops, supports elements.

They can be inserted into jigs, fixtures and other workholding elements.

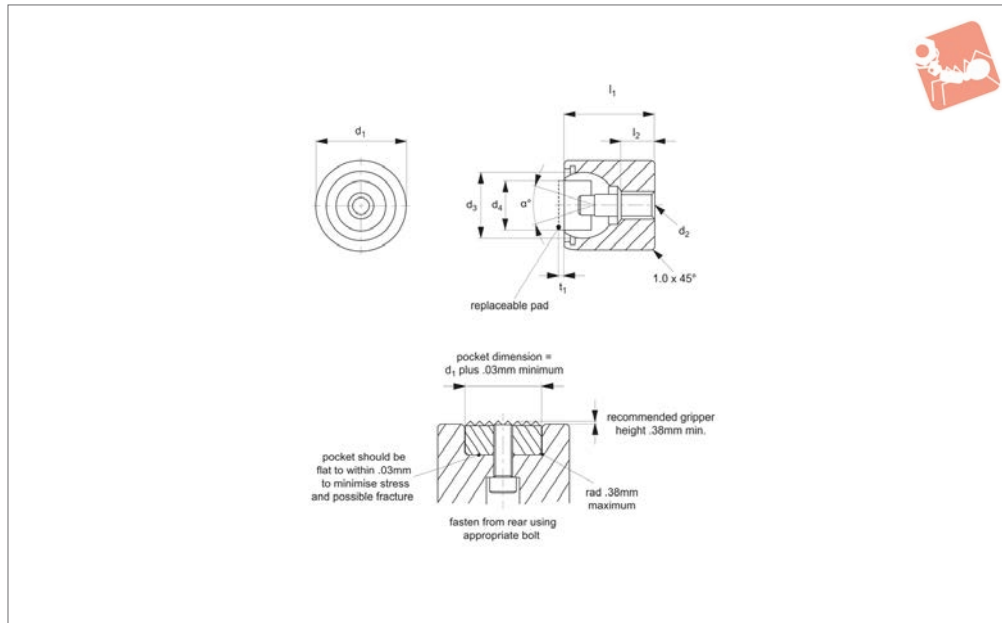
Order No.	d_1 +0.00 -0.13	d_2	d_3	l_1	l_2	Swivel angle α	Load rating kg	A/F
35550.W0201	6.0	M12x1,75	7	25	1.5	28	1560	6
35550.W0202	6.0	M12x1,75	7	25	3.0	28	1560	6
35550.W0203	6.0	M12x1,75	7	35	1.5	28	1560	6
35550.W0204	6.0	M12x1,75	7	35	3.0	28	1560	6
35550.W0205	6.0	M12x1,75	7	50	1.5	28	1560	6
35550.W0206	6.0	M12x1,75	7	50	3.0	28	1560	6
35550.W0207	8.5	M16x2,0	10	25	1.5	24	2354	8
35550.W0208	8.5	M16x2,0	10	25	3.0	24	2354	8
35550.W0209	8.5	M16x2,0	10	35	1.5	24	2354	8
35550.W0210	8.5	M16x2,0	10	35	3.0	24	2354	8
35550.W0211	8.5	M16x2,0	10	50	1.5	24	2354	8
35550.W0212	8.5	M16x2,0	10	50	3.0	24	2354	8
35550.W0213	10.0	M20x2,5	13	30	4.0	42	3800	10
35550.W0214	10.0	M20x2,5	13	30	6.0	42	3800	10
35550.W0215	10.0	M20x2,5	13	50	4.0	42	3800	10
35550.W0216	10.0	M20x2,5	13	50	6.0	42	3800	10
35550.W0217	10.0	M20x2,5	13	70	4.0	42	3800	10
35550.W0218	10.0	M20x2,5	13	70	6.0	42	3800	10
35550.W0219	12.0	M24x3,0	15	40	4.0	45	5549	10
35550.W0220	12.0	M24x3,0	15	40	6.0	45	5549	10
35550.W0221	12.0	M24x3,0	15	80	4.0	45	5549	10
35550.W0222	12.0	M24x3,0	15	80	6.0	45	5549	10



Grippers - Self Aligning - Housing

female threaded housing only

Grippers & Rest Pads



35580

GRIPPERS & REST PADS

Material

Body: steel, heat treated to HRC 43/46, back oxide finish.

Ball: stainless steel (440C), hardened to HRC58/60.

Technical Notes

These adjustable self-aligning ball units

accept inserts:

- no. 35330 carbide tipped grippers.
- no. 35450 hardened tool steel grippers.
- no. 35980 steel/thermoplastic rest pads.

These must be ordered separately.

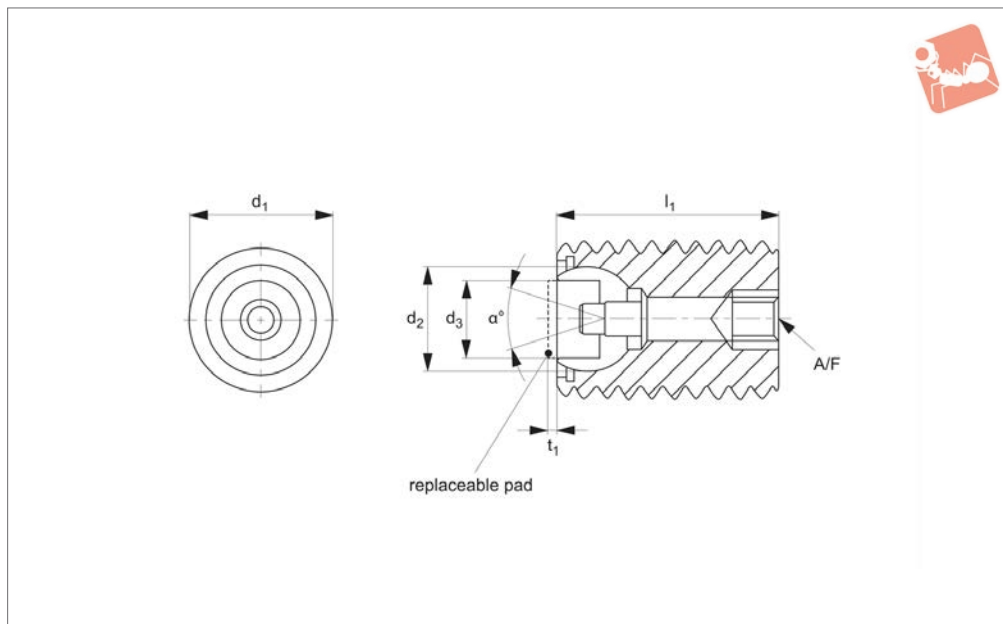
These parts can serve as stops, supports and thrust elements in jigs and fixtures.

They can also be fitted to existing workholding elements.

Order No.	Ball dia. d_3	d_1 +0.00 -0.13	d_2	Replaceable pad dia. d_4	l_1 ± 0.05	l_2 ± 0.25	t_1	α $^\circ$	Load kg max.
35580.W0001	13	17	M 6x1,0	10	18	7.5	4	20	2799
35580.W0004	15	19	M 8x1,25	12	20	8.5	4	20	3941
35580.W0007	20	24	M10x1,5	16	24	9.0	4	20	5952
35580.W0010	23	30	M12x1,75	20	26	8.5	4	20	9683
35580.W0013	28	36	M12x1,75	25	32	12.0	4	20	13861



35590



Material

Body: steel, heat treated to HRc 43/46, back oxide finish.

Ball: stainless steel (440C), hardened to HRc 58/60.

Technical Notes

These adjustable self-aligning ball units

accept inserts:

- no. 35330 carbide tipped grippers.
- no. 35450 hardened tool steel grippers.
- no. 35980 steel/thermoplastic rest pads.

These must be ordered separately.

These parts can serve as stops, supports and thrust elements in jigs and fixtures.

They can also be fitted to existing workholding elements.

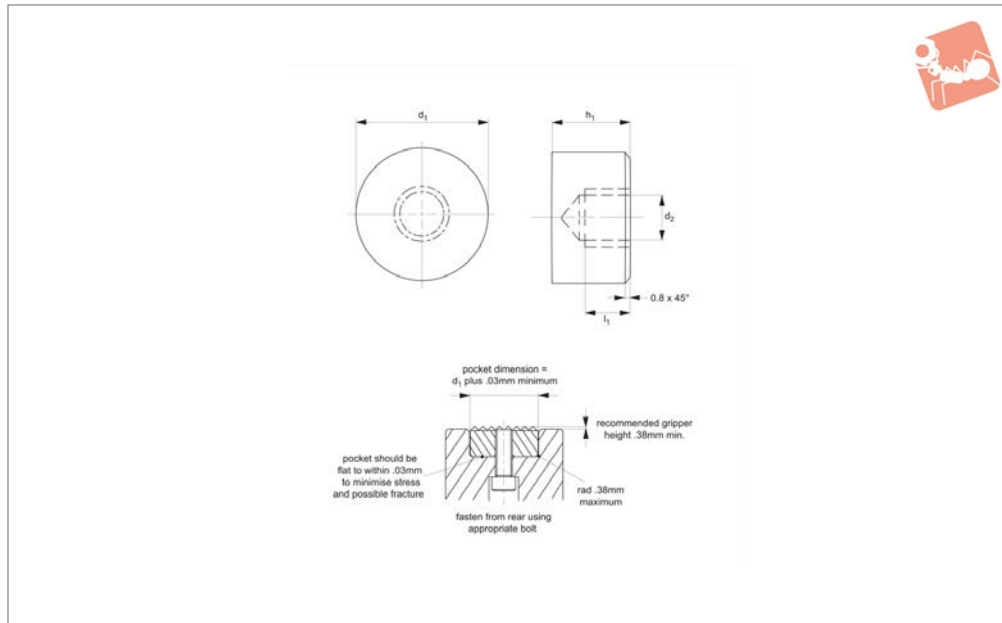
Order No.	Ball dia. d_2	d_1	Replaceable pad dia. d_3	l_1	t_1	Swivel angle α	Load kg max.	A/F
35590.W0001	13	M20x2,5	10	30	6	20	3801	10
35590.W0004	13	M20x2,5	10	50	6	20	3801	10
35590.W0007	13	M20x2,5	10	70	6	20	3801	10
35590.W0010	15	M24x3,0	12	40	6	20	5549	10
35590.W0013	15	M24x3,0	12	80	6	20	5549	10



Rest Pads - Steel and Thermoplastic

round - rear fixing

Grippers & Rest Pads



35980

GRIPPERS & REST PADS

Material

Steel (AISI 8620), hardened to HRc 58-60, black oxide finish.
Thermoplastic, white.

etc in jigs and fixtures.

$h_1 = \text{tol. of steel } \pm 0,03, \text{ tol., for thermo-plastic } +0,00 -0,13.$

differential screw. Note installation recommendations in technical diagram.

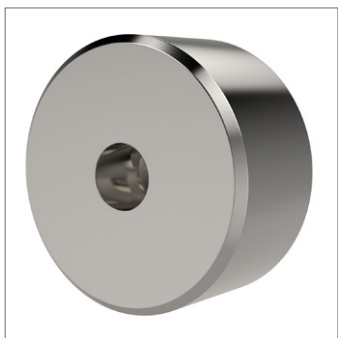
Technical Notes

Can be used as rest pads, stops, supports

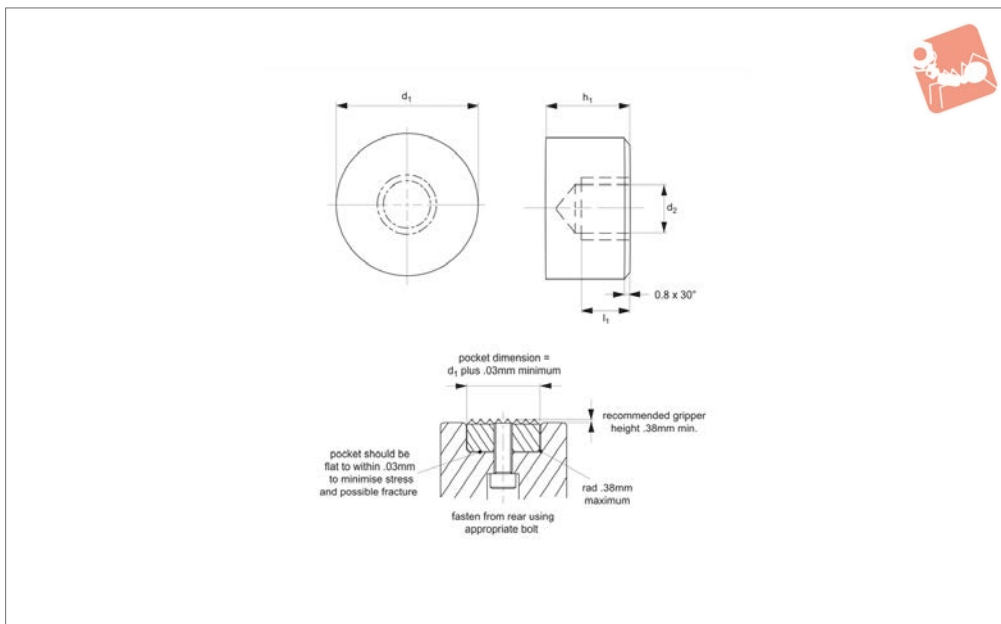
Tips

Can be fastened from rear using appropriate bolt or alternatively via use of a

Order No.	Material	d_1 +0.00 -0.13	d_2	h_1	l_1
35980.W0011	Steel	8	M 4x0,7	10	5.0
35980.W0012	Steel	8	M 4x0,7	12	6.4
35980.W0001	Steel	10	M 5x0,8	10	5.0
35980.W0002	Steel	10	M 5x0,8	12	6.4
35980.W0003	Steel	12	M 5x0,8	10	5.0
35980.W0004	Steel	12	M 5x0,8	12	6.4
35980.W0005	Steel	16	M 6x1,0	10	5.0
35980.W0006	Steel	16	M 6x1,0	12	6.4
35980.W0007	Steel	20	M 6x1,0	10	5.0
35980.W0008	Steel	20	M 6x1,0	12	6.4
35980.W0009	Steel	25	M 6x1,0	10	5.0
35980.W0010	Steel	25	M 6x1,0	12	6.4
35980.W0211	Plastic	8	M 4x0,7	10	5.0
35980.W0212	Plastic	8	M 4x0,7	12	6.4
35980.W0201	Plastic	10	M 5x0,8	10	5.0
35980.W0202	Plastic	10	M 5x0,8	12	6.4
35980.W0203	Plastic	12	M 5x0,8	10	5.0
35980.W0204	Plastic	12	M 5x0,8	12	6.4
35980.W0205	Plastic	16	M 6x1,0	10	5.0
35980.W0206	Plastic	16	M 6x1,0	12	6.4
35980.W0207	Plastic	20	M 6x1,0	10	5.0
35980.W0208	Plastic	20	M 6x1,0	12	6.4
35980.W0209	Plastic	25	M 6x1,0	10	5.0
35980.W0210	Plastic	25	M 6x1,0	12	6.4



35982



Material

Stainless steel (AISI 630), hardened to HRC 43-46.

Technical Notes

Can be used as rest pads, stops, supports

etc in jigs and fixtures.

Tips

Can be fastened from rear using appropriate bolt, or alternatively via use of a differential screw. Note installation recom-

mendations in technical diagram.

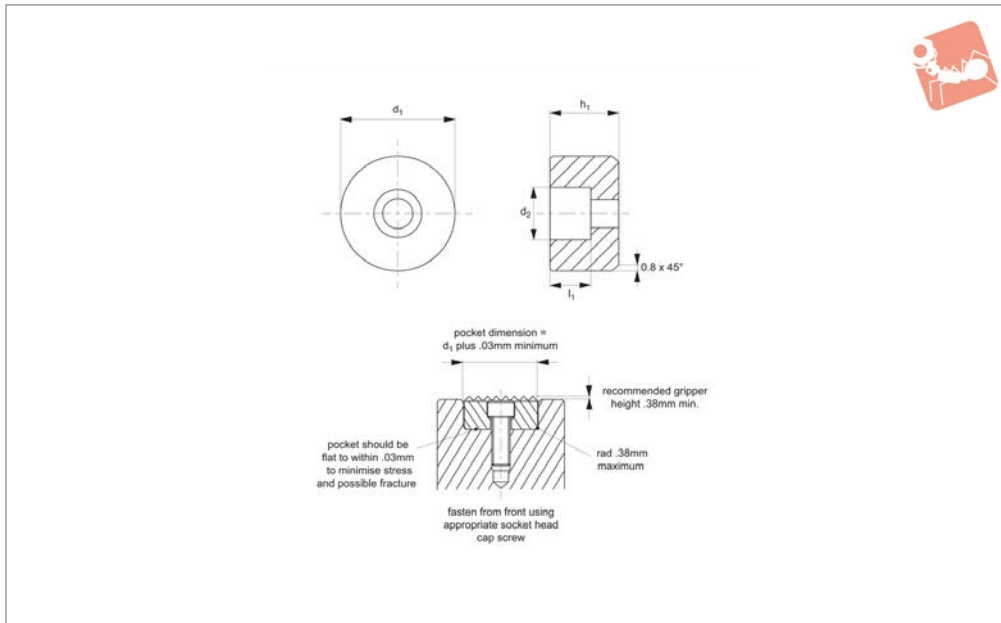
Order No.	d_1 +0.00 -0.13	d_2	h_1 ± 0.03	l_1
35982.W0080	8	M 4x0,7	10	5.0
35982.W0082	8	M 4x0,7	12	6.4
35982.W0100	10	M 5x0,8	10	5.0
35982.W0102	10	M 5x0,8	12	6.4
35982.W0120	12	M 5x0,8	10	5.0
35982.W0122	12	M 5x0,8	12	6.4
35982.W0160	16	M 6x1,0	10	5.0
35982.W0162	16	M 6x1,0	12	6.4
35982.W0200	20	M 6x1,0	10	5.0
35982.W0202	20	M 6x1,0	12	6.4
35982.W0250	25	M 6x1,0	10	5.0
35982.W0252	25	M 6x1,0	12	6.4



Rest Pads - Steel and Thermoplastic

round - front fixing

Grippers & Rest Pads



35984

GRIPPERS & REST PADS

Material

Steel (AISI 8620), hardened to HRc 58-60.
Black oxide finish.
Thermoplastic, white.

etc in jigs and fixtures.

$h_1 = \text{tol. of steel } \pm 0,03, \text{ tol. of thermoplastic } +0,00 -0,13.$

recommendations in technical diagram.

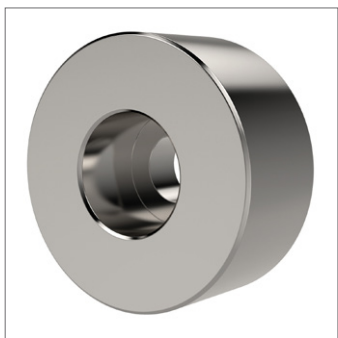
Technical Notes

Can be used as rest pads, stops, supports

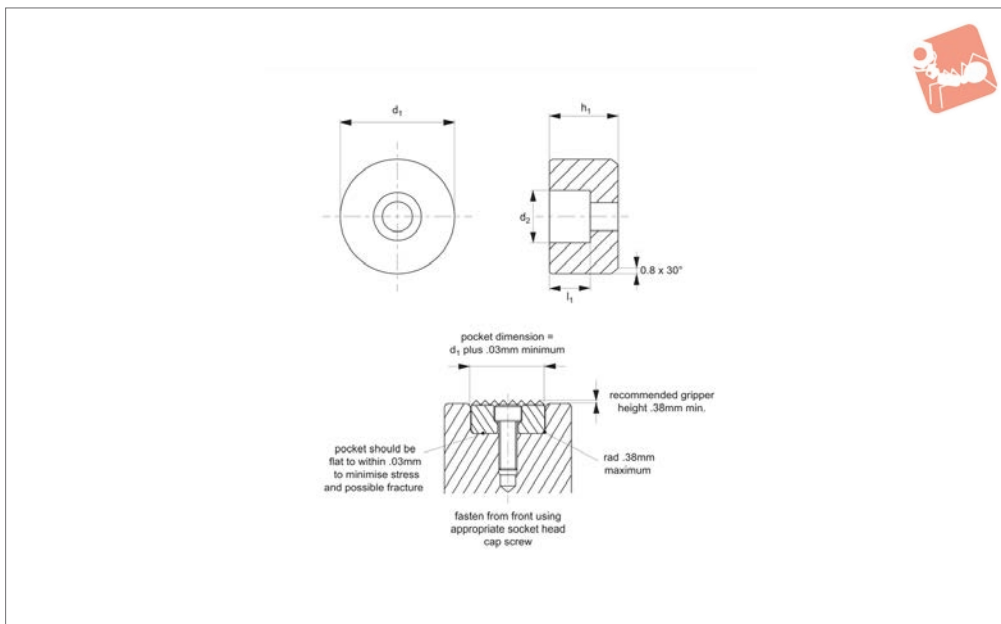
Tips

Fasten from front using appropriate socket head cap screw. Note installation recom-

Order No.	Material	d_1 +0.00 -0.13	d_2 to fit DIN 912	h_1	l_1
35984.W0100	Steel	10	M 3	10	5.0
35984.W0102	Steel	10	M 3	12	5.0
35984.W0120	Steel	12	M 4	10	5.6
35984.W0122	Steel	12	M 4	12	5.6
35984.W0160	Steel	16	M 5	10	6.6
35984.W0162	Steel	16	M 5	12	6.6
35984.W0200	Steel	20	M 6	10	7.6
35984.W0202	Steel	20	M 6	12	7.6
35984.W0250	Steel	25	M 6	10	7.6
35984.W0252	Steel	25	M 6	12	7.6
35984.W1100	Plastic	10	M 3	10	5.0
35984.W1102	Plastic	10	M 3	12	5.0
35984.W1120	Plastic	12	M 4	10	5.6
35984.W1122	Plastic	12	M 4	12	5.6
35984.W1160	Plastic	16	M 5	10	6.6
35984.W1162	Plastic	16	M 5	12	6.6
35984.W1200	Plastic	20	M 6	10	7.6
35984.W1202	Plastic	20	M 6	12	7.6
35984.W1250	Plastic	25	M 6	10	7.6
35984.W1252	Plastic	25	M 6	12	7.6



35986



Material

Stainless steel (AISI 630), hardened to RHC 43-46.

well as protection against chemical and environmental corrosion.

recommendations in technical diagram.

Technical Notes

Stainless steel provides high strength as

Tips

Counterbored hole for front mounting with a socket head cap screw. Note installation

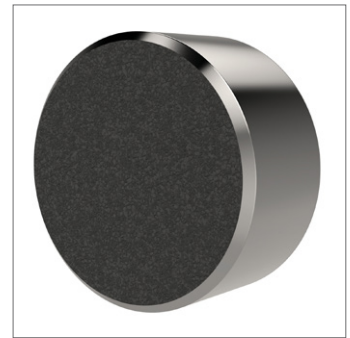
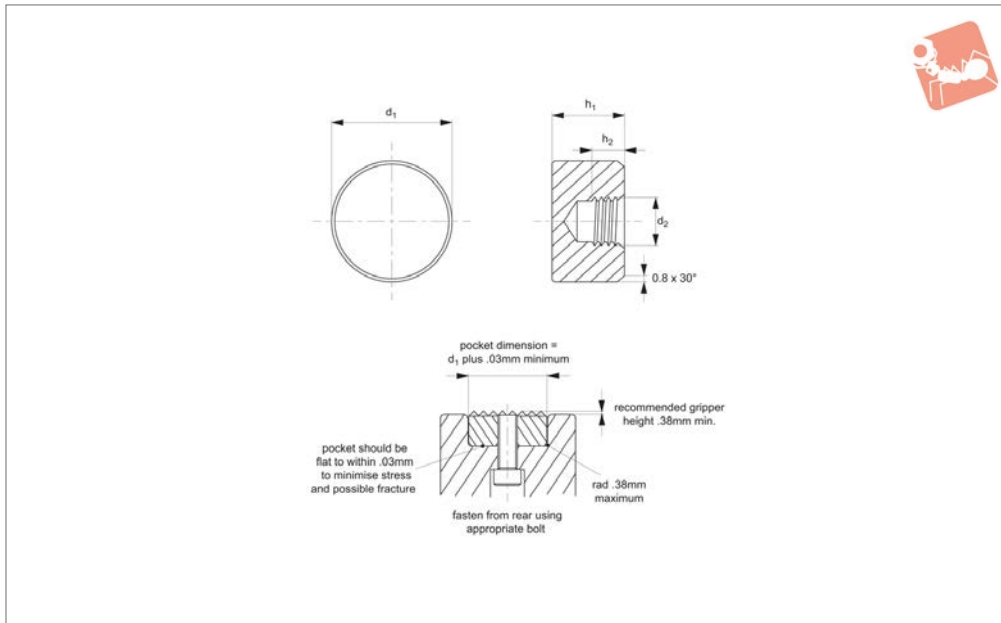
Order No.	d_1 +0.00 -0.13	d_2 to fit DIN 912	h_1 ± 0.03	l_1
35986.W0100	10	M 3	10	5.0
35986.W0102	10	M 3	12	5.0
35986.W0120	12	M 4	10	5.6
35986.W0122	12	M 4	12	5.6
35986.W0160	16	M 5	10	6.6
35986.W0162	16	M 5	12	6.6
35986.W0200	20	M 6	10	7.6
35986.W0202	20	M 6	12	7.6
35986.W0250	25	M 6	10	7.6
35986.W0252	25	M 6	12	7.6



Gripping Pads - Diamond Coated

stainless - round - rear fixing

Grippers & Rest Pads



35630

GRIPPERS & REST PADS

Material

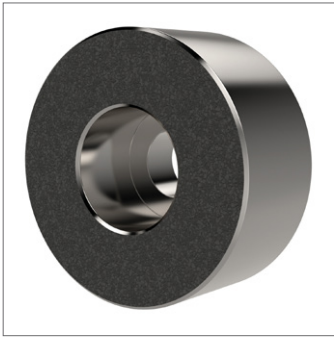
Stainless steel (AISI 630, precipitation-hardened), heat treated to HRC 43-46.

Technical Notes

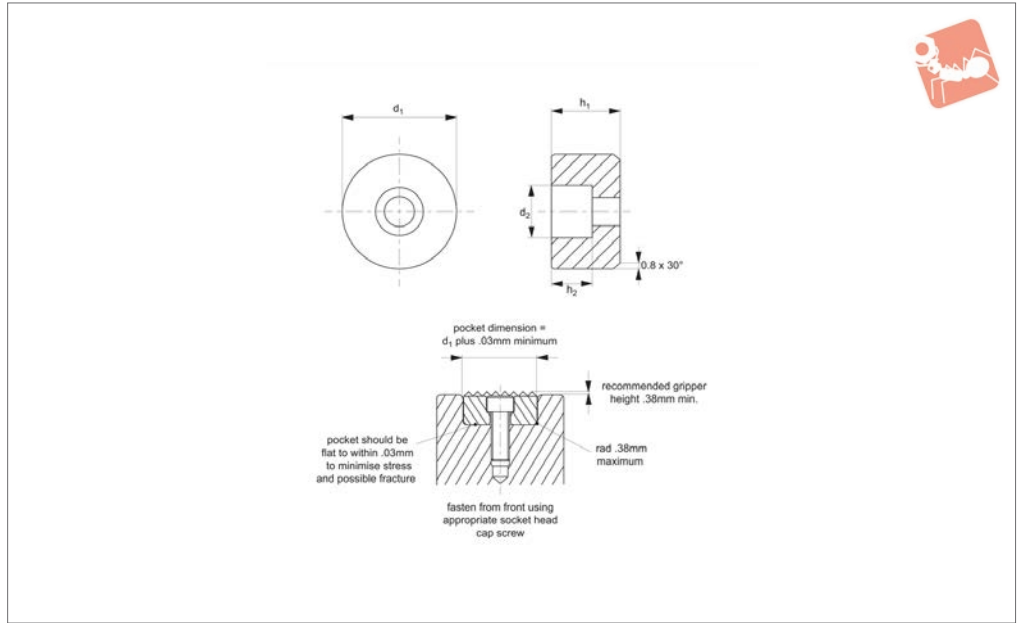
Permanently fused diamond powder

creates an abrasive surface comparable to 100 grit abrasive value. Ideal for holding smooth or slippery components with a minimum of clamping pressure, and minimal surface marking. Excellent wear resistance.

Order No.	d_1 +0.00 -0.13	d_2	h_1 +0.00 -0.13	h_2
35630.W0841	8	M 4x0,7	10	5.0
35630.W0842	8	M 4x0,7	12	6.4
35630.W1051	10	M 5x0,8	10	5.0
35630.W1052	10	M 5x0,8	12	6.4
35630.W1251	12	M 5x0,8	10	5.0
35630.W1252	12	M 5x0,8	12	6.4
35630.W1661	16	M 6x1,0	10	5.0
35630.W1662	16	M 6x1,0	12	6.4
35630.W2061	20	M 6x1,0	10	5.0
35630.W2062	20	M 6x1,0	12	6.4
35630.W2561	25	M 6x1,0	10	5.0
35630.W2562	25	M 6x1,0	12	6.4



35632



Material

Stainless steel (AISI 630, precipitation-hardened), heat treated to HRc 43-46.

Technical Notes

Permanently fused diamond powder

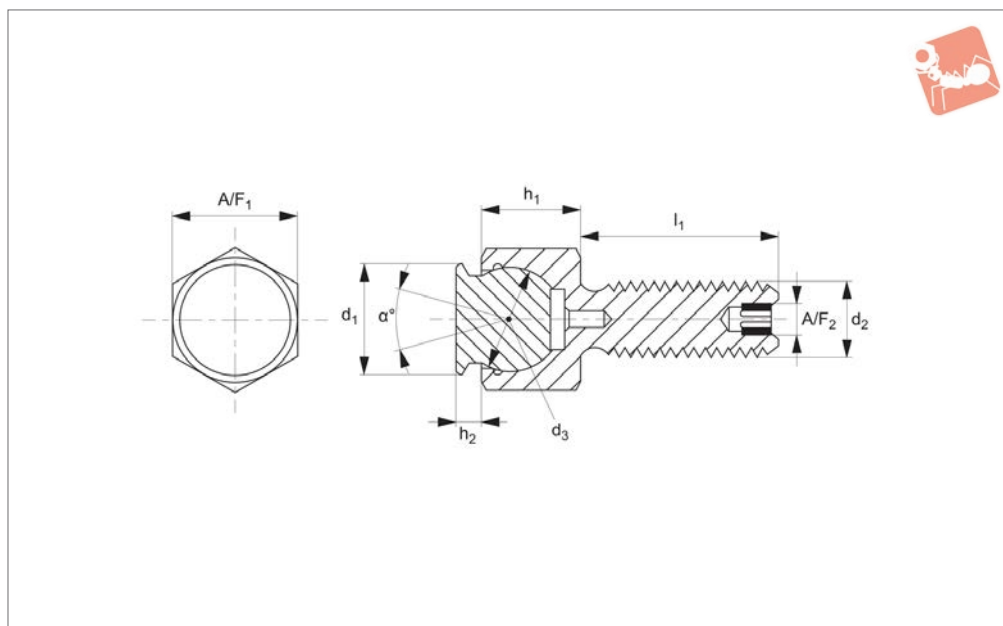
creates an abrasive surface comparable to 100 grit abrasive value. Ideal for holding smooth or slippery components with a minimum of clamping pressure, and minimal surface marking. Excellent wear resistance.

Order No.	d_1 +0.00 -0.13	d_2 to fit DIN 912	h_1 +0.00 -0.13	h_2
35632.W1051	10	M 3	10	5.0
35632.W1052	10	M 3	12	5.0
35632.W1251	12	M 4	10	5.6
35632.W1252	12	M 4	12	5.6
35632.W1661	16	M 5	10	6.6
35632.W1662	16	M 5	12	6.6
35632.W2061	20	M 6	10	7.6
35632.W2062	20	M 6	12	7.6
35632.W2561	25	M 6	10	7.6
35632.W2562	25	M 6	12	7.6



Grippers - Self Aligning diamond coated - threaded bolt

Grippers & Rest Pads



35640

GRIPPERS & REST PADS

Material

Housing body: alloy steel, heat treated to HRC 43-46, black oxide finish.

Pad: diamond powder bonded to AISI 300 series stainless steel ball.

creates an abrasive surface comparable to 100 grit abrasive value. Ideal for holding smooth or slippery components with a minimum of clamping pressure, and minimal surface marking. Excellent wear resistance.

Tips

Re-seating: expel air by using 0.3 monofilament line between ball and housing, remove line when seated correctly.

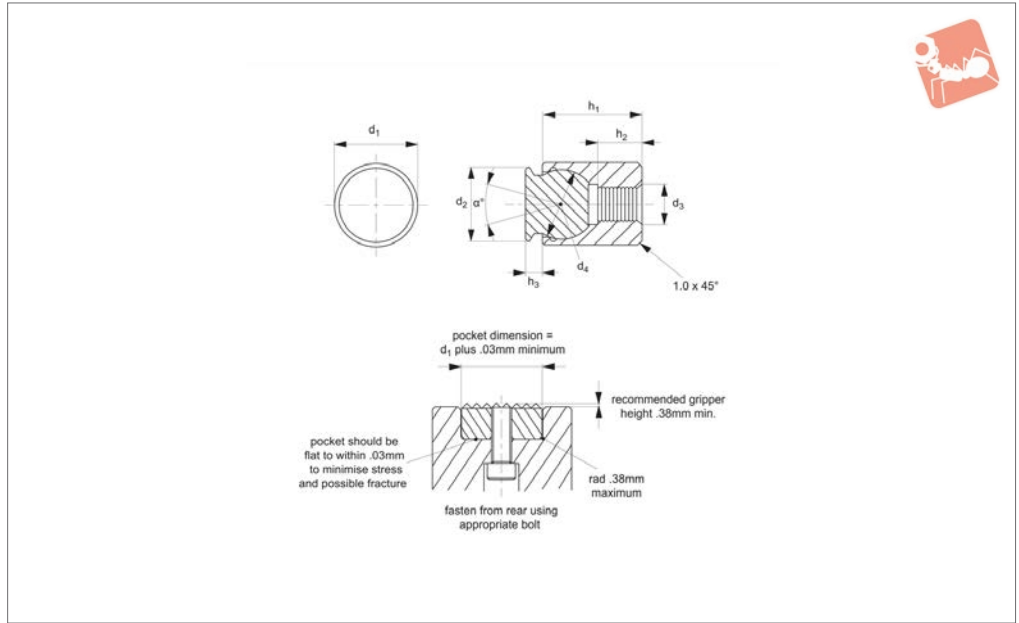
Technical Notes

Permanently fused diamond powder

Order No.	d ₁	d ₂	d ₃	h ₁ ±0.05	h ₂	l ₁	A/F ₁	A/F ₂	Swivel angle a	Load kg max.
35640.W0861	8	M 6x1,0	7	8.0	2	12	10	-	28	935
35640.W0862	8	M 6x1,0	7	8.0	2	25	10	-	28	935
35640.W0863	8	M 6x1,0	7	8.0	2	40	10	-	28	935
35640.W1181	11	M 8x1,25	10	11.5	3	12	13	-	28	1565
35640.W1182	11	M 8x1,25	10	11.5	3	25	13	-	28	1565
35640.W1183	11	M 8x1,25	10	11.5	3	40	13	-	28	1565
35640.W1410	14	M10x1,5	13	13.0	3	15	17	3	28	1902
35640.W1412	14	M10x1,5	13	13.0	3	30	17	3	28	1902
35640.W1413	14	M10x1,5	13	13.0	3	50	17	3	28	1902
35640.W1912	19	M12x1,75	15	15.0	4	20	19	5	24	3006
35640.W1913	19	M12x1,75	15	15.0	4	40	19	5	24	3006
35640.W1914	19	M12x1,75	15	15.0	4	60	19	5	24	3006
35640.W2116	21	M16x2,0	20	19.0	4	25	24	6	24	5073
35640.W2117	21	M16x2,0	20	19.0	4	50	24	6	24	5073
35640.W2118	21	M16x2,0	20	19.0	4	80	24	6	24	5073



35642



Material

Housing: alloy steel, heat treated to HRC 43-46 with black oxide finish.
 Pad: diamond powder bonded to AISI 300 series stainless steel ball.

creates an abrasive surface comparable to 100 grit abrasive value. Ideal for holding smooth or slippery components with a minimum of clamping pressure, and minimal surface marking. Excellent wear resistance.

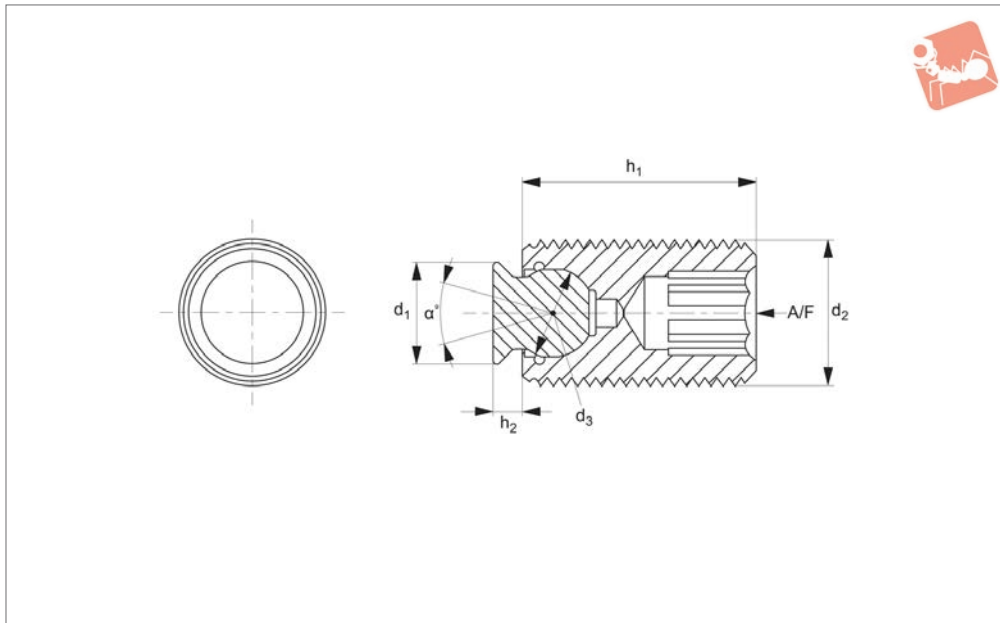
Tips

Re-seating: expel air by using 0,3 monofilament line between ball and housing, remove line when seated correctly.

Technical Notes

Permanently fused diamond powder

Order No.	d_1 +0.00 -0.13	d_2 +0.00 -0.13	d_3	d_4	h_1 ± 0.05	h_2 ± 0.25	h_3	Swivel angle α	Load kg max.
35642.W0841	10	8	M 4x0,7	7	10.5	3.5	2	28	1.2
35642.W0842	10	8	M 4x0,7	7	23.5	9.0	2	28	1.2
35642.W1151	13	11	M 5x0,8	10	14.5	6.5	3	28	2.0
35642.W1152	13	11	M 5x0,8	10	23.5	9.0	3	28	2.0
35642.W1461	17	14	M 6x1,0	13	18.0	7.5	3	28	2.8
35642.W1981	19	19	M 8x1,25	15	20.0	8.5	4	24	3.9
35642.W2110	24	21	M10x1,5	20	24.0	9.0	4	24	6.0



35644

GRIPPERS & REST PADS

Material

Housing: alloy steel, heat treated to HRC 43-46 with black oxide finish.
Pad: diamond powder bonded to AISI 300 series stainless steel ball.

creates an abrasive surface comparable to 100 grit abrasive value. Ideal for holding smooth or slippery components with a minimum of clamping pressure, and minimal surface marking. Excellent wear resistance.

Tips

Re-seating: expel air by using 0,3 monofilament line between ball and housing, remove line when seated correctly.

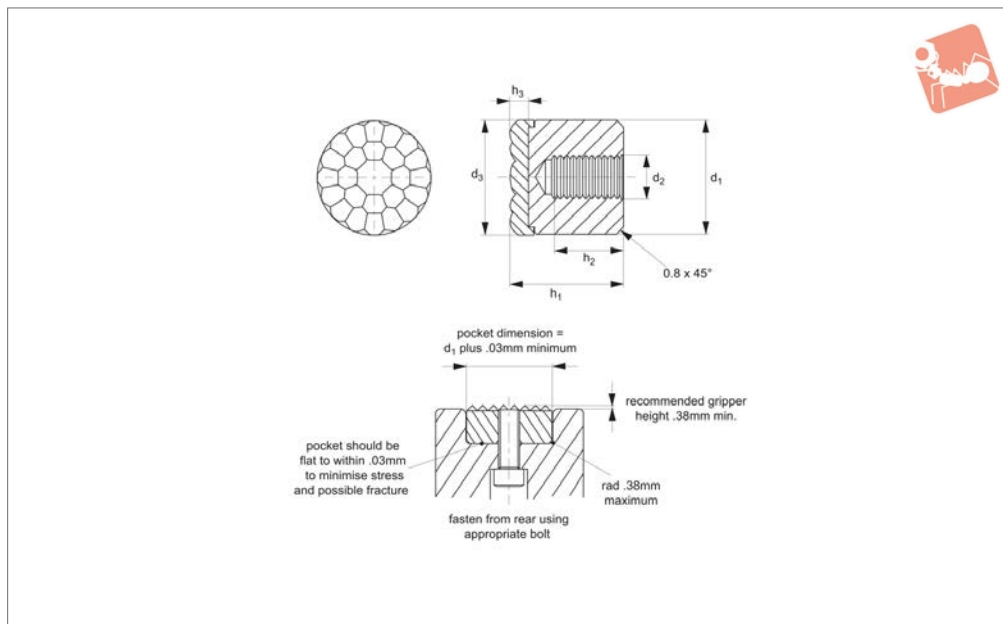
Technical Notes

Permanently fused diamond powder

Order No.	d ₁	d ₂	d ₃	h ₁	h ₂	A/F	Swivel angle a	Load kg max.
35644.W0610	6	M10x1,5	5	25	1.5	5	28	-
35644.W0611	6	M10x1,5	5	35	1.5	5	28	-
35644.W0612	6	M10x1,5	5	50	1.5	5	28	-
35644.W0812	8	M12x1,75	7	25	2.0	6	28	1.6
35644.W0813	8	M12x1,75	7	35	2.0	6	28	1.6
35644.W0814	8	M12x1,75	7	50	2.0	6	28	1.6
35644.W1116	11	M16x2,0	10	25	3.0	8	28	2.4
35644.W1117	11	M16x2,0	10	35	3.0	8	28	2.4
35644.W1118	11	M16x2,0	10	50	3.0	8	28	2.4
35644.W1420	14	M20x2,5	13	30	3.0	10	28	3.8
35644.W1421	14	M20x2,5	13	50	3.0	10	28	3.8
35644.W1422	14	M20x2,5	13	70	3.0	10	28	3.8
35644.W1924	19	M24x3,0	15	40	4.0	10	24	5.6
35644.W1925	19	M24x3,0	15	80	4.0	10	24	5.6



35610



Material

Body: AISI 300 series stainless steel.

Pad: urethane; non-marking, non-staining

Technical Notes

Non-marking, non-staining urethane pad is permanently bonded to the stainless

steel body. Available in three different durometers: 35, 60 & 80 (see table).

Bubbled texture of urethane pad allows air to escape so avoiding any suction action.

Important Notes

Load compression ratings based on load

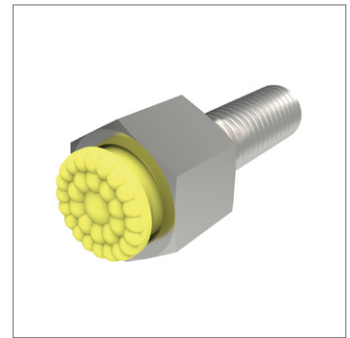
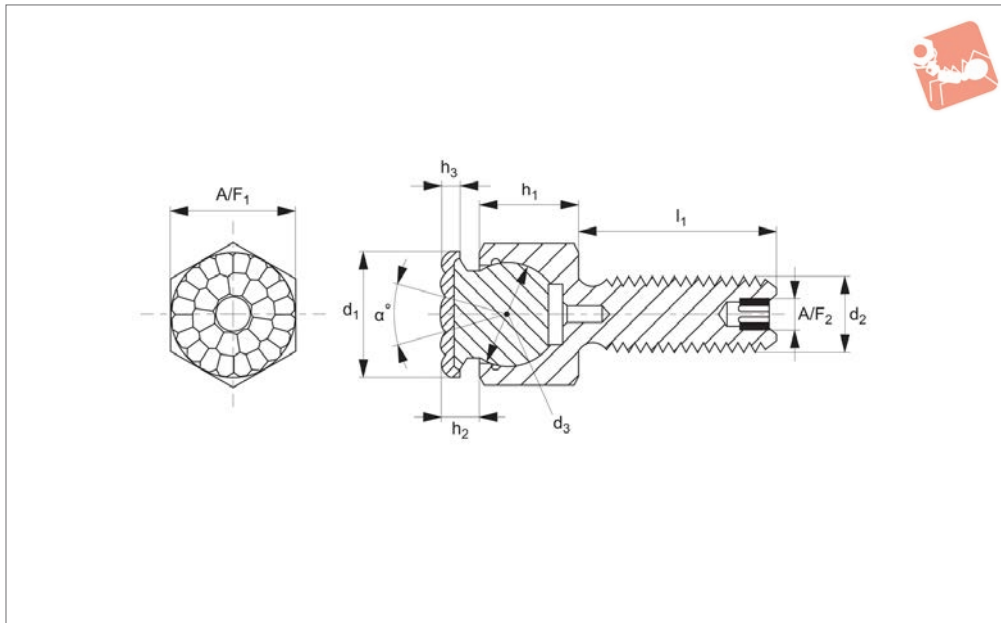
required to compress urethane surface 0,812mm for 2mm thick pad. Compression ratings vary greatly depending upon temperature and other application-specific factors.

Order No.	d_1 +0.00 -0.13	d_2	d_3	h_1	h_2	Urethane thickness h_3	Durometer	Load compression kg
35610.W0083	8	M 4x0,7	8	12	6	2	35	4
35610.W0086	8	M 4x0,7	8	12	6	2	60	13
35610.W0088	8	M 4x0,7	8	12	6	2	80	20
35610.W0103	10	M 5x0,8	10	12	6	2	35	5
35610.W0106	10	M 5x0,8	10	12	6	2	60	15
35610.W0108	10	M 5x0,8	10	12	6	2	80	40
35610.W0123	12	M 5x0,8	13	12	6	2	35	18
35610.W0126	12	M 5x0,8	13	12	6	2	60	34
35610.W0128	12	M 5x0,8	13	12	6	2	80	86
35610.W0163	16	M 6x1,0	16	12	6	2	35	36
35610.W0166	16	M 6x1,0	16	12	6	2	60	72
35610.W0168	16	M 6x1,0	16	12	6	2	80	117
35610.W0203	20	M 6x1,0	21	12	6	3	35	38
35610.W0206	20	M 6x1,0	21	12	6	3	60	104
35610.W0208	20	M 6x1,0	21	12	6	3	80	165
35610.W0253	25	M 6x1,0	27	12	6	3	35	65
35610.W0256	25	M 6x1,0	27	12	6	3	60	136
35610.W0258	25	M 6x1,0	27	12	6	3	80	272



Grippers - Self Aligning urethane coated - threaded bolt

Grippers & Rest Pads



35620

GRIPPERS & REST PADS

Material

Housing body: alloy steel, heat treated to HRC 43-46, black oxide finish.
Pad: urethane, bonded to AISI 300 series stainless steel ball.

Technical Notes

Non-marking, non-staining urethane pad is permanently bonded to the stainless

steel body. Available in three different durometers: 35, 60 & 80 (see table).
Bubbled texture of urethane pad allows air to escape so avoiding any suction action.

Tips

Re-seating: expel air by using 0,3 monofilament line between ball and housing, remove line when seated correctly.

Important Notes

Load compression ratings based on load required to compress urethane surface 0,812mm for 2mm thick pad. Compression ratings vary greatly depending upon temperature and other application-specific factors.

Order No.	d ₁	d ₂	l ₁	d ₃	h ₁ ±0.05	h ₂	A/F ₁	A/F ₂	Urethane thickness h ₃	Durometer	Swivel angle α	Load compression kg
35620.W3062	10	M 6x1,0	25	7	8.0	4	10	-	2	35	28	3
35620.W3063	10	M 6x1,0	40	7	8.0	4	10	-	2	35	28	3
35620.W3121	21	M12x1,75	20	15	15.0	6	19	5	2	35	24	68
35620.W6061	10	M 6x1,0	12	7	8.0	4	10	-	2	60	28	11
35620.W6062	10	M 6x1,0	25	7	8.0	4	10	-	2	60	28	11
35620.W6063	10	M 6x1,0	40	7	8.0	4	10	-	2	60	28	11
35620.W6081	13	M 8x1,25	12	10	11.5	5	13	-	2	60	28	34
35620.W6082	13	M 8x1,25	25	10	11.5	5	13	-	2	60	28	34
35620.W6083	13	M 8x1,25	40	10	11.5	5	13	-	2	60	28	34
35620.W6101	16	M10x1,5	15	13	13.0	5	17	3	2	60	28	65
35620.W6102	16	M10x1,5	30	13	13.0	5	17	3	2	60	28	65
35620.W6103	16	M10x1,5	50	13	13.0	5	17	3	2	60	28	65
35620.W6121	21	M12x1,75	20	15	15.0	6	19	5	2	60	24	154
35620.W6122	21	M12x1,75	40	15	15.0	6	19	5	2	60	24	154
35620.W6123	21	M12x1,75	60	15	15.0	6	19	5	2	60	24	154
35620.W6161	23	M16x2,0	25	20	19.0	6	24	6	2	60	24	181
35620.W6162	23	M16x2,0	50	20	19.0	6	24	6	2	60	24	181
35620.W6163	23	M16x2,0	80	20	19.0	6	24	6	2	60	24	181
35620.W8061	10	M 6x1,0	12	7	8.0	4	10	-	2	80	28	29
35620.W8062	10	M 6x1,0	25	7	8.0	4	10	-	2	80	28	29
35620.W8063	10	M 6x1,0	40	7	8.0	4	10	-	2	80	28	29
35620.W8081	13	M 8x1,25	12	10	11.5	5	13	-	2	80	28	68
35620.W8082	13	M 8x1,25	25	10	11.5	5	13	-	2	80	28	68
35620.W8083	13	M 8x1,25	40	10	11.5	5	13	-	2	80	28	68
35620.W8101	16	M10x1,5	15	13	13.0	5	17	3	2	80	28	97
35620.W8102	16	M10x1,5	30	13	13.0	5	17	3	2	80	28	97
35620.W8103	16	M10x1,5	50	13	13.0	5	17	3	2	80	28	97
35620.W8121	21	M12x1,75	20	15	15.0	6	19	5	2	80	24	238
35620.W8122	21	M12x1,75	40	15	15.0	6	19	5	2	80	24	238

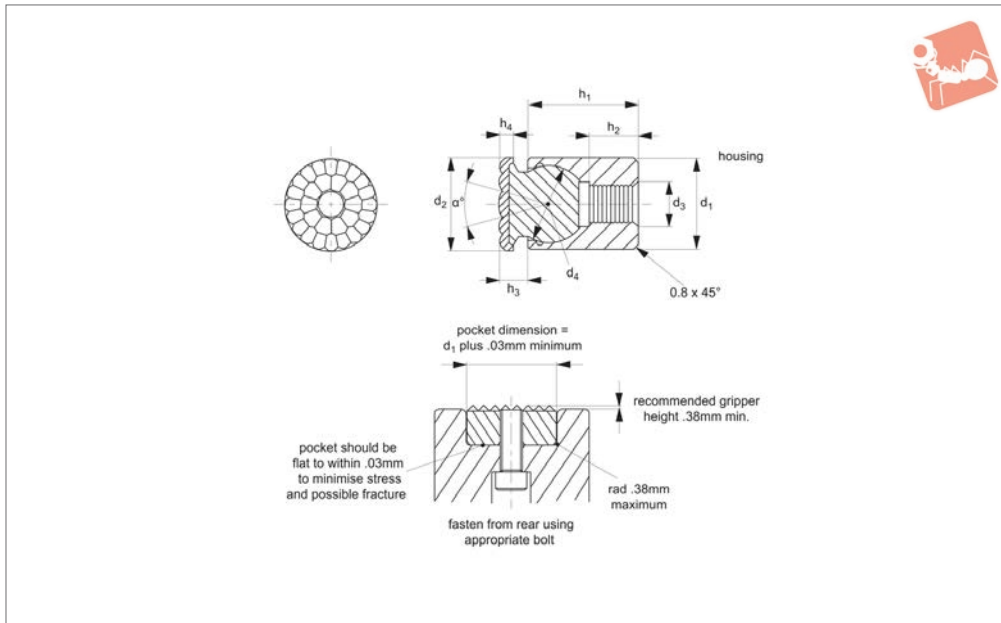


Order No.	d ₁	d ₂	l ₁	d ₃	h ₁ ±0.05	h ₂	A/F ₁	A/F ₂	Urethane thickness h ₃	Durometer	Swivel angle a °	Load compression kg
35620.W8123	21	M12x1,75	60	15	15.0	6	19	5	2	80	24	238
35620.W8161	23	M16x2,0	25	20	19.0	6	24	6	2	80	24	272
35620.W8162	23	M16x2,0	0	20	19.0	6	24	6	2	80	24	272
35620.W8163	23	M16x2,0	80	20	19.0	6	24	6	2	80	24	272



Grippers - Self Aligning urethane coated - female threaded housing

Grippers & Rest Pads



35622

GRIPPERS & REST PADS

Material

Housing body: alloy steel, heat treated to HRC 43-46, black oxide finish.
Pad: urethane, bonded to AISI 300 series stainless steel ball.

Technical Notes

Non-marking, non-staining urethane pad is permanently bonded to the stainless

steel body. Available in three different durometers: 35, 60 & 80 (see table).
Bubbled texture of urethane pad allows air to escape so avoiding any suction action.

Tips

Re-seating: expel air by using 0,3 monofilament line between ball and housing, remove line when seated correctly.

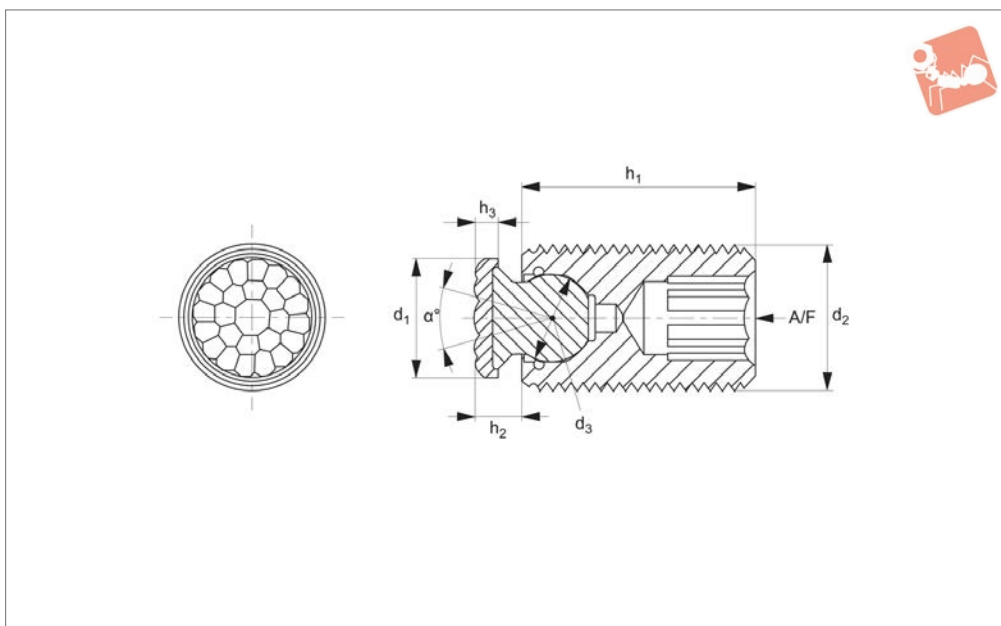
Important Notes

Load compression ratings based on load required to compress urethane surface 0,812mm for 2mm thick pad. Compression ratings vary greatly depending upon temperature and other application-specific factors.

Order No.	d_1 +0.00 -0.13	d_2	d_3	d_4	h_1 ± 0.05	h_2 ± 0.25	h_3	Urethane thickness h_4	Durometer	Swivel angle α	Load compression kg
35622.W3041	10	10	M 4x0,7	7	10.5	3.5	4	2	35	28	3
35622.W3042	10	10	M 4x0,7	7	23.5	9.0	4	2	35	28	3
35622.W3051	13	13	M 5x0,8	10	14.5	6.5	5	2	35	28	18
35622.W3052	13	13	M 5x0,8	10	23.5	9.0	5	2	35	28	18
35622.W3061	17	16	M 6x1,0	13	18.0	7.5	5	2	35	28	24
35622.W3081	19	21	M 8x1,25	15	20.0	8.5	6	2	35	24	68
35622.W3101	24	23	M10x1,5	20	24.0	9.0	6	2	35	24	102
35622.W6041	10	10	M 4x0,7	7	10.5	3.5	4	2	60	28	11
35622.W6042	10	10	M 4x0,7	7	23.5	9.0	4	2	60	28	11
35622.W6051	13	13	M 5x0,8	10	14.5	6.5	5	2	60	28	34
35622.W6052	13	13	M 5x0,8	10	23.5	9.0	5	2	60	28	34
35622.W6061	17	16	M 6x1,0	13	18.0	7.5	5	2	60	28	63
35622.W6081	19	21	M 8x1,25	15	20.0	8.5	6	2	60	24	154
35622.W6101	24	23	M10x1,5	20	24.0	9.0	6	2	60	24	181
35622.W8041	10	10	M 4x0,7	7	10.5	3.5	4	2	80	28	29
35622.W8042	10	10	M 4x0,7	7	23.5	9.0	4	2	80	28	29
35622.W8051	13	13	M 5x0,8	10	14.5	6.5	5	2	80	28	68
35622.W8052	13	13	M 5x0,8	10	23.5	9.0	5	2	80	28	68
35622.W8061	17	16	M 6x1,0	13	18.0	7.5	5	2	80	28	97
35622.W8081	19	21	M 8x1,25	15	20.0	8.5	6	2	80	24	238
35622.W8101	24	23	M10x1,5	20	24.0	9.0	6	2	80	24	272



35624



Material

Housing body: alloy steel, heat treated to HRc 43-46, black oxide finish.

Pad: urethane, bonded to AISI 300 series stainless steel ball.

Technical Notes

Available in three different durometers:

35, 60 & 80 (see table).

Bubbled texture of urethane pad allows air to escape so avoiding any suction action.

Tips

Re-seating: expel air by using 0,3 monofilament line between ball and housing, remove line when seated correctly.

Important Notes

Load compression ratings based on load required to compress urethane surface 0,812mm for 2mm thick pad. Compression ratings vary greatly depending upon temperature and other application-specific factors.

Order No.	d ₁	d ₂	d ₃	h ₁	h ₂	h ₃	A/F	Durometer	Swivel angle a	Load compression kg
35624.W6101	8	M10x1,5	5	25	3.5	2	5	60	28	9
35624.W6102	8	M10x1,5	5	35	3.5	2	5	60	28	9
35624.W6103	8	M10x1,5	5	50	3.5	2	5	60	28	9
35624.W6121	10	M12x1,75	7	25	4.0	2	6	60	28	11
35624.W6122	10	M12x1,75	7	35	4.0	2	6	60	28	11
35624.W6123	10	M12x1,75	7	50	4.0	2	6	60	28	11
35624.W6161	13	M16x2,0	10	25	5.0	2	8	60	28	34
35624.W6162	13	M16x2,0	10	35	5.0	2	8	60	28	34
35624.W6163	13	M16x2,0	10	50	5.0	2	8	60	28	34
35624.W6201	16	M20x2,5	13	30	5.0	2	10	60	28	63
35624.W6202	16	M20x2,5	13	50	5.0	2	10	60	28	63
35624.W6203	16	M20x2,5	13	70	5.0	2	10	60	28	63
35624.W6241	21	M24x3,0	15	40	6.0	2	10	60	24	154
35624.W6242	21	M24x3,0	15	80	6.0	2	10	60	24	154
35624.W8101	8	M10x1,5	5	25	3.5	2	5	80	28	18
35624.W8102	8	M10x1,5	5	35	3.5	2	5	80	28	18
35624.W8103	8	M10x1,5	5	50	3.5	2	5	80	28	18
35624.W8121	10	M12x1,75	7	25	4.0	2	6	80	28	29
35624.W8122	10	M12x1,75	7	35	4.0	2	6	80	28	29
35624.W8123	10	M12x1,75	7	50	4.0	2	6	80	28	29
35624.W8161	13	M16x2,0	10	25	5.0	2	8	80	28	68
35624.W8162	13	M16x2,0	10	35	5.0	2	8	80	28	68
35624.W8163	13	M16x2,0	10	50	5.0	2	8	80	28	68
35624.W8201	16	M20x2,5	13	30	5.0	2	10	80	28	97
35624.W8202	16	M20x2,5	13	50	5.0	2	10	80	28	97
35624.W8203	16	M20x2,5	13	70	5.0	2	10	80	28	97
35624.W8241	21	M24x3,0	15	40	6.0	2	10	80	24	238
35624.W8242	21	M24x3,0	15	80	6.0	2	10	80	24	238