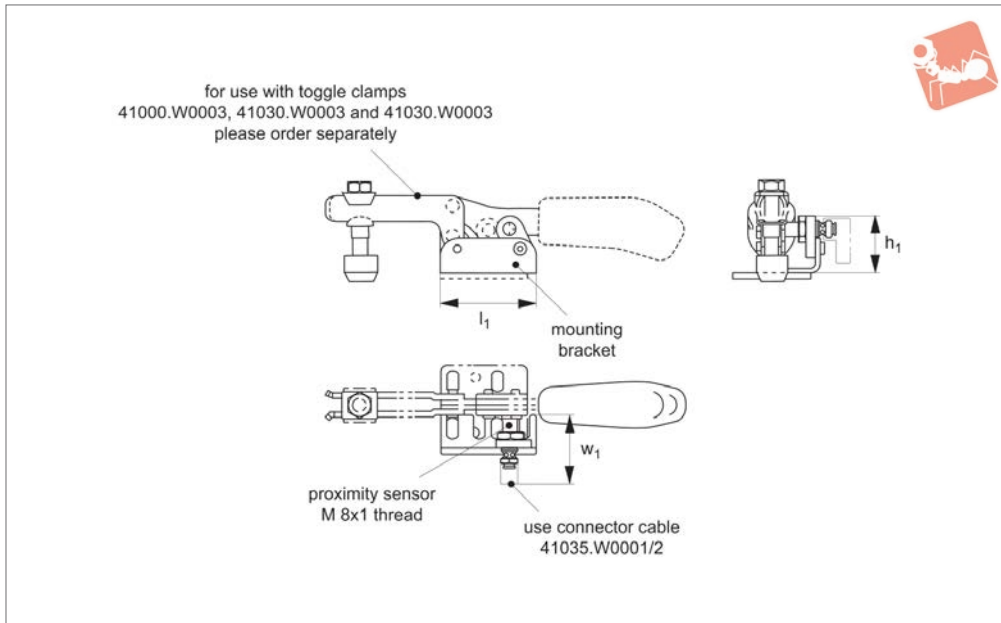




# Position Sensor for manual toggle clamps

# Toggle Clamp Accessories



## 41035.1

TOGGLE CLAMP ACCESSORIES

### Material

Sensor and mounting bracket: steel, zinc plated complete with inductive sensor M 8x1.

Cable: angled connector with cable permanently injection moulded on. Silicone-free, halogen-free, gold plated contacts. IP68 rated in accordance to IEC529.

### Technical Notes

Monitors the closed position of a toggle

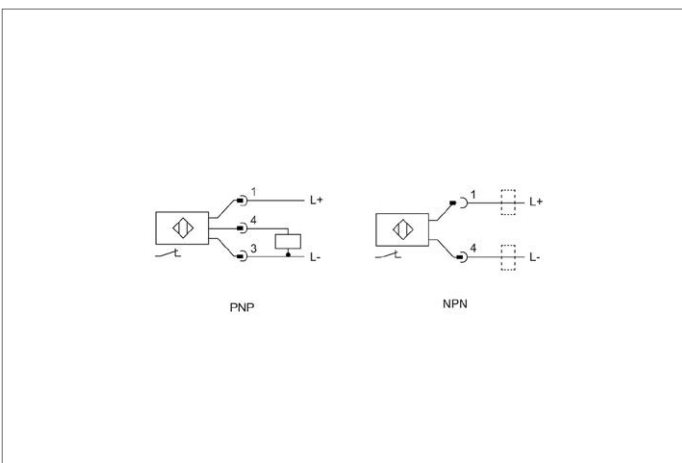
clamp and enables their integration into fixture/application monitoring systems. Sensor monitor can be used on both sides for horizontal toggle clamp nos. 41000.W0003, 41030.W0003 and 41000.W0103, and only on one side for horizontal toggle clamp with safety latch no. 41000.W0003. Temperature range: 0°C to 60°C. Sensing bracket 41035.W0103 can be integrated into your monitoring system using cables 41035.W0001 or W0002 and can be

rewired either PNP or NPN (see circuit diagram below).

### Tips

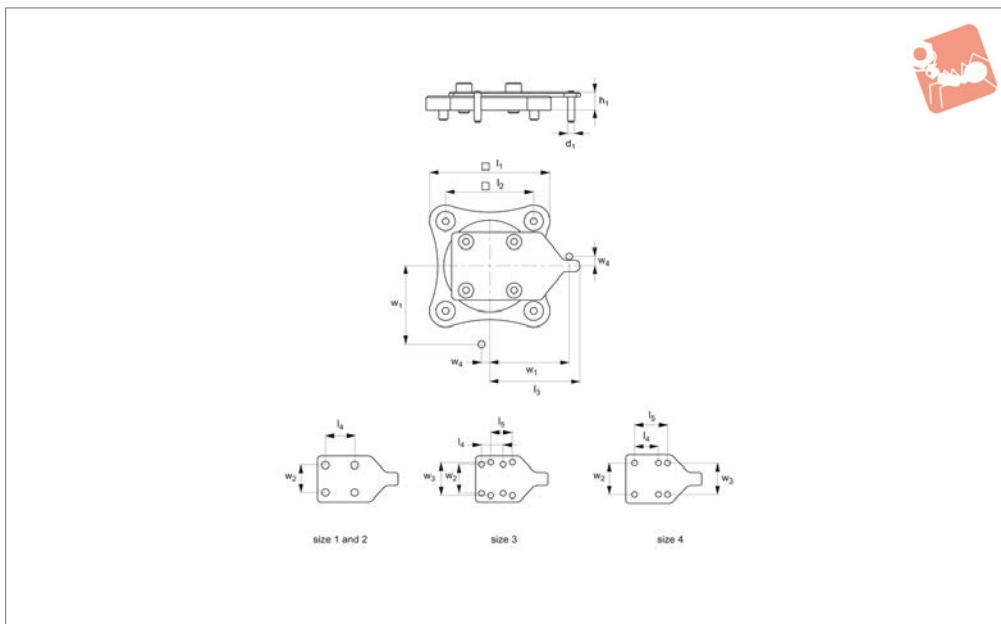
Order toggle clamp separately.

Order No.	Type	Cable length m	w <sub>1</sub>	h <sub>1</sub>	l <sub>1</sub>	Weight g
41035.W0001	Cable	2	-	-	-	75
41035.W0002	Cable	5	-	-	-	150
41035.W0103	Bracket	-	40	35	55	60





## 41035.2



### Material

Body: steel, zinc plated.

Includes stop pin for limiting the opening position of 90°.

### Technical Notes

Order 41035.W0010 for toggle clamp

41000 size 3.

Order 41035.W0012 for toggle clamp

41000 size 4.

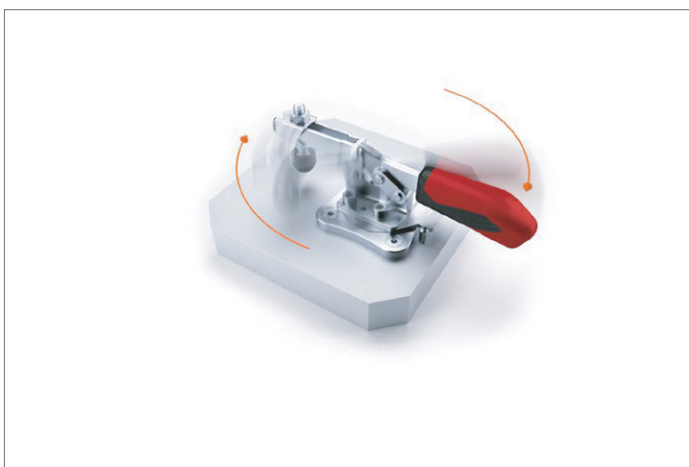
Order 41035.W0013 for toggle clamp

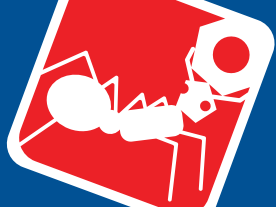
40000 sizes 2 and 3.

Order 41035.W0014 for toggle clamp

40000 size 4.

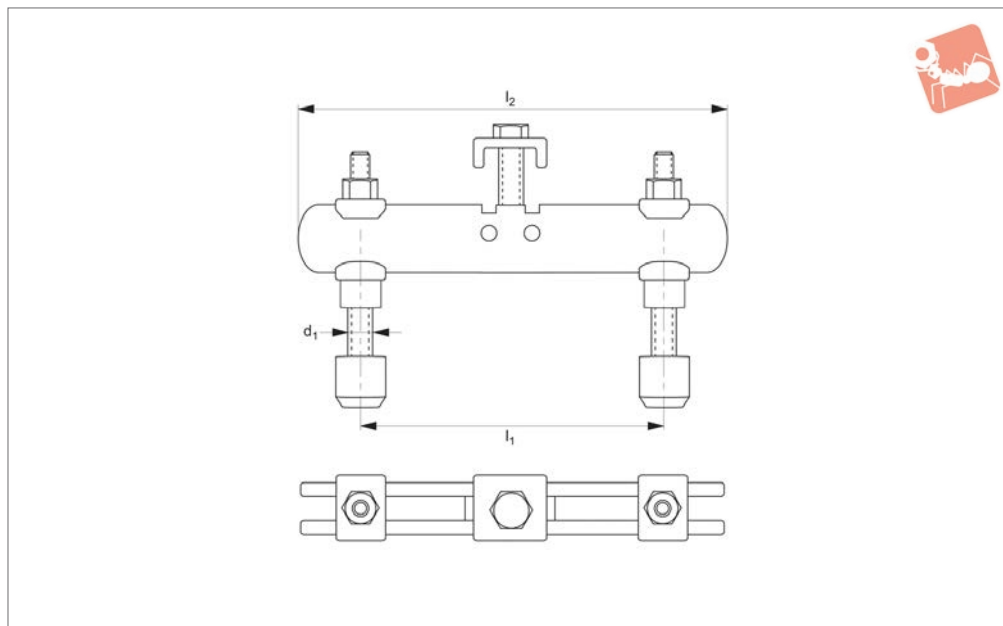
Order No.	Size	d <sub>1</sub>	w <sub>1</sub>	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	w <sub>2</sub>	w <sub>3</sub>	w <sub>4</sub>	Weight g
41035.W0010	1	6	41	11.4	76	54	47.0	26.0	-	26.0	-	9.0	430
41035.W0012	2	6	68	13.4	104	76	77.0	41.5	-	41.5	-	9.0	915
41035.W0013	3	6	41	11.4	76	54	45.0	20.0	20	27.0	32.5	9.0	430
41035.W0014	4	6	59	13.4	104	76	69.2	32.0	45	45.0	45.0	10.5	922





# Supporting Arms for toggle clamps

# Toggle Clamp Accessories



**45000**

TOGGLE CLAMP ACCESSORIES

### Material

Steel, zinc plated. Complete with two clamping screws no. 45060 and hexagon screw.

### Technical Notes

With this supporting arm there is the option of clamping either two small workpieces or one large workpiece at two

points. See table below for suitable toggle clamps.

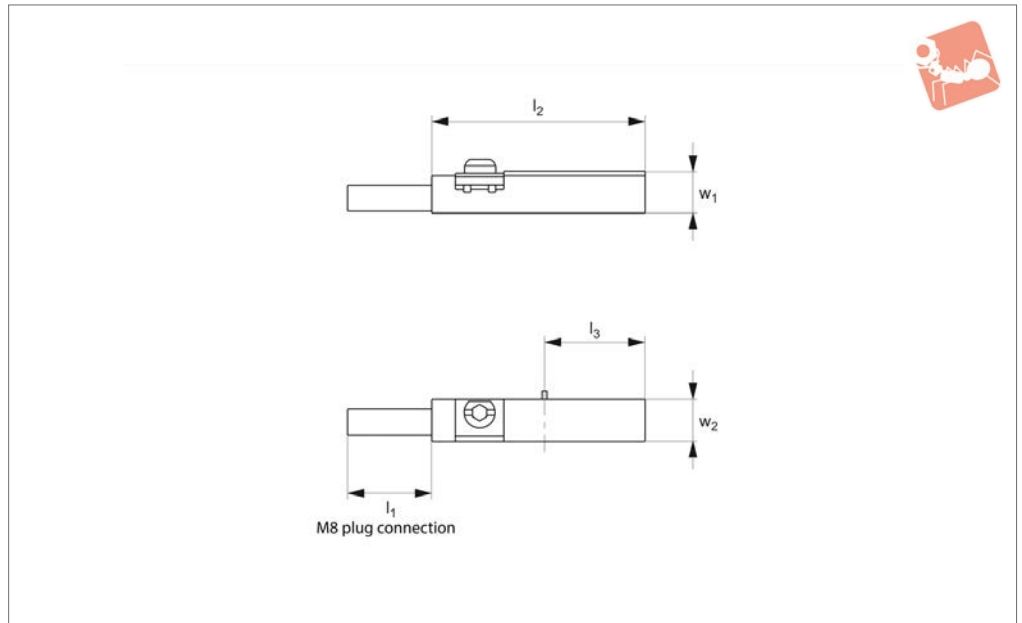
Temperature range -10°C to +80°C.

Order No.	Size	Clamping screw $d_1$	Distance between screws $l_1$ min.   max.	$l_2$	Weight g
45000.W0000	0	M 4x25	18-60	70	40
45000.W0001	1	M 5x30	22-72	85	65
45000.W0002	2	M 6x35	28-85	100	90
45000.W0003	3	M 8x45	34-100	120	200
45000.W0004	4	M 8x65	40-125	150	370
45000.W0005	5	M 8x65	40-125	150	370
45000.W0006	6	M12x80	54-200	240	985





**45001**



**Technical Notes**

PUR cable 0.3m with M8 plug connection and rotating knurled nuts.

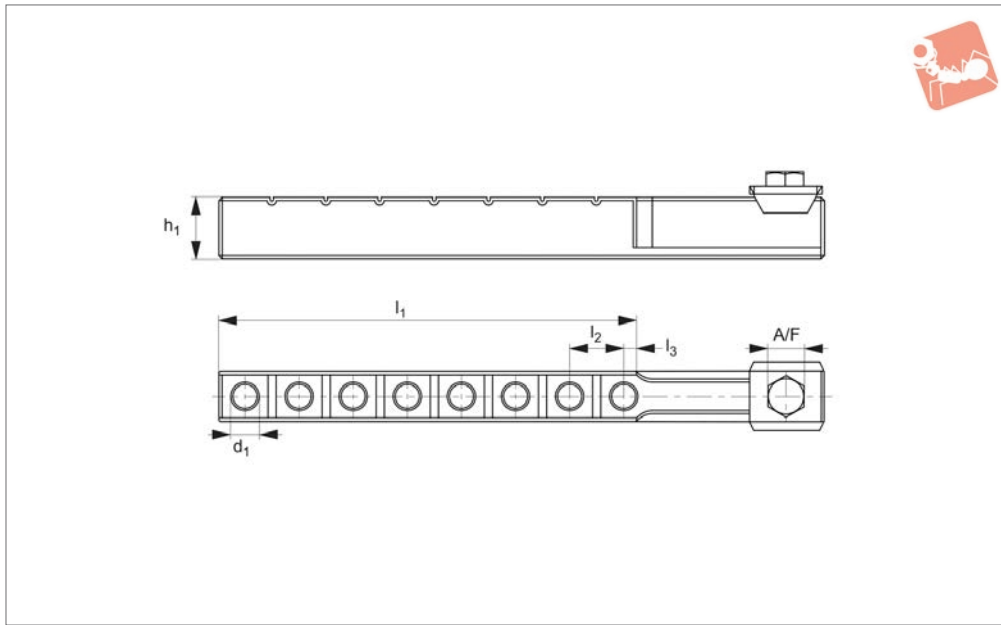
Switching function: NOC. Output: PNP.

Order No.	Cable length $l_1$	$w_1$	$l_2$	$l_3$	$w_2$	Weight g
45001.W0000	300	5.1	25.3	12	5	15



# Clamping arm extension for manual toggle clamps

## Toggle Clamp Accessories



### 45002

TOGGLE CLAMP ACCESSORIES

#### Material

Aluminium.

Complete with fastening bolt, without

clamping screw.

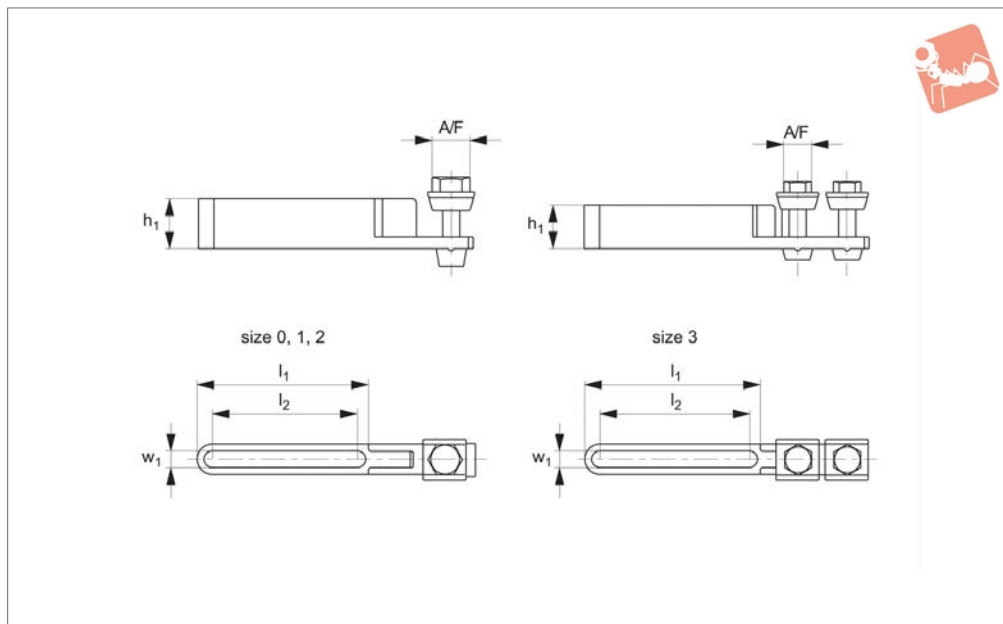
#### Tips

Can be shortened to required length.

Order No.	Size	d <sub>1</sub>	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	A/F	Weight g
45002.W0000	1	5xM 5	11	61	12	6	7	24
45002.W0001	2	6xM 6	14	90	15	8	8	47
45002.W0002	3	8xM 8	17	115	15	3	10	92



### 45010



#### Material

Steel, blued.  
Complete with fastening screw, without clamping screw

#### Technical Notes

For clamping screws see part 45020.  
Temperature range -10°C to +80°C.

#### Tips

Can be shortened to required length.

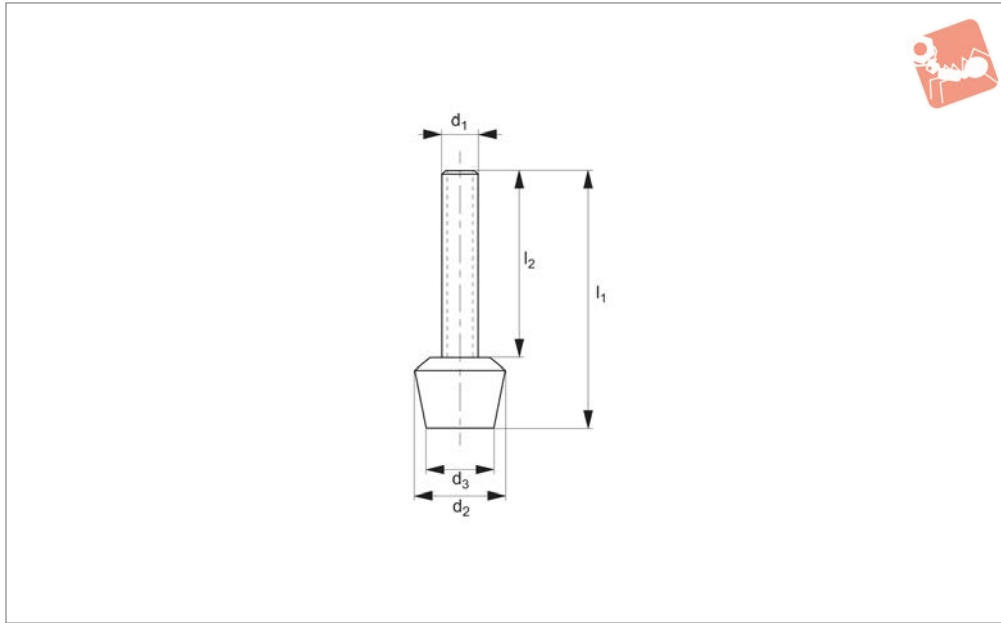
Order No.	Size	w <sub>1</sub>	h <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	To suit clamping screw	A/F	Weight g
45010.W0000	0	4.2	10	32.5	25	M 4	7	15
45010.W0001	1	5.2	12	55.0	45	M 5	8	25
45010.W0002	2	6.2	14	73.5	65	M 6	10	40
45010.W0003	3	8.2	20	82.0	70	M 8	13	80



# Clamping Screws for Toggle Clamps

bonded pressure pad

## Toggle Clamp Accessories



**45016**

TOGGLE CLAMP ACCESSORIES

**Material**

Screw: steel, zinc plated and tempered, strength class 8.8.

Pad: oil-resistant neoprene, hardness 85

shore A, silicone free.

**Technical Notes**

The bonded pressure pad is used to prevent

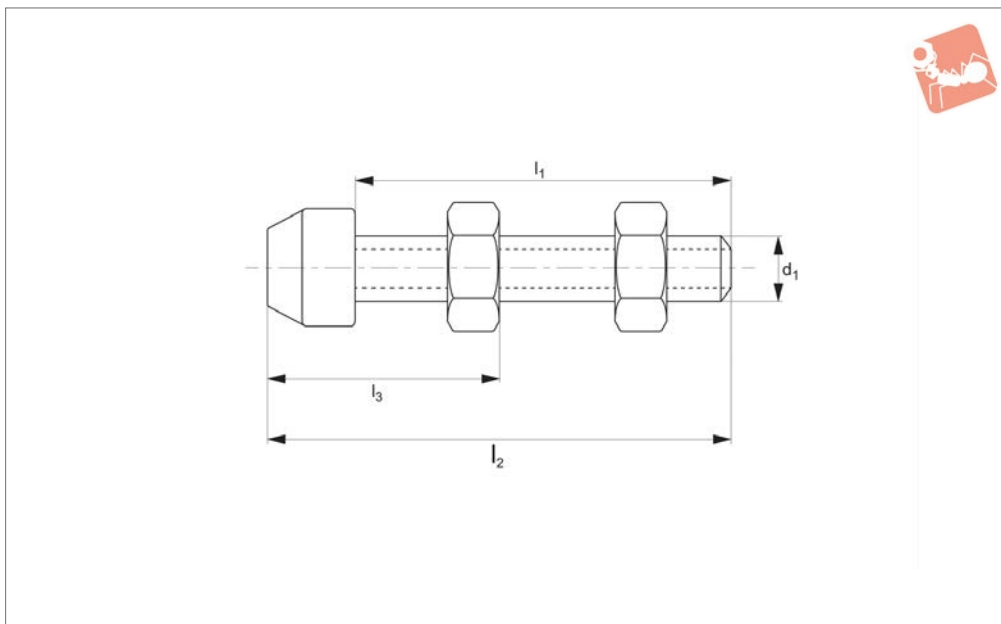
damage to delicate workpieces.

Temperature range -10°C to +80°C.

Order No.	d <sub>1</sub> x l <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	Weight g
45016.W0001	M 4x32	11	8	24	4
45016.W0002	M 5x38	13	10	28	8
45016.W0003	M 6x35	16	12	23	11
45016.W0004	M 6x45	16	12	33	13
45016.W0005	M 6x60	16	12	48	16
45016.W0006	M 8x48	21	16	32	25
45016.W0007	M 8x58	21	16	42	29
45016.W0008	M 8x63	21	16	47	31
45016.W0009	M 8x78	21	16	62	37
45016.W0010	M10x66	26	20	46	53
45016.W0011	M10x76	26	20	56	59
45016.W0012	M10x116	26	20	96	84
45016.W0013	M12x70	31	24	46	78
45016.W0014	M12x100	31	24	76	105
45016.W0015	M12x130	31	24	106	131



**45018**



**Material**

Body: steel, zinc plated and tempered, tensile strength class 8.8.  
Supplied complete with two nuts and

removable protection pad.

Temperature range -10°C to +80°C.

**Technical Notes**

For toggle clamps.

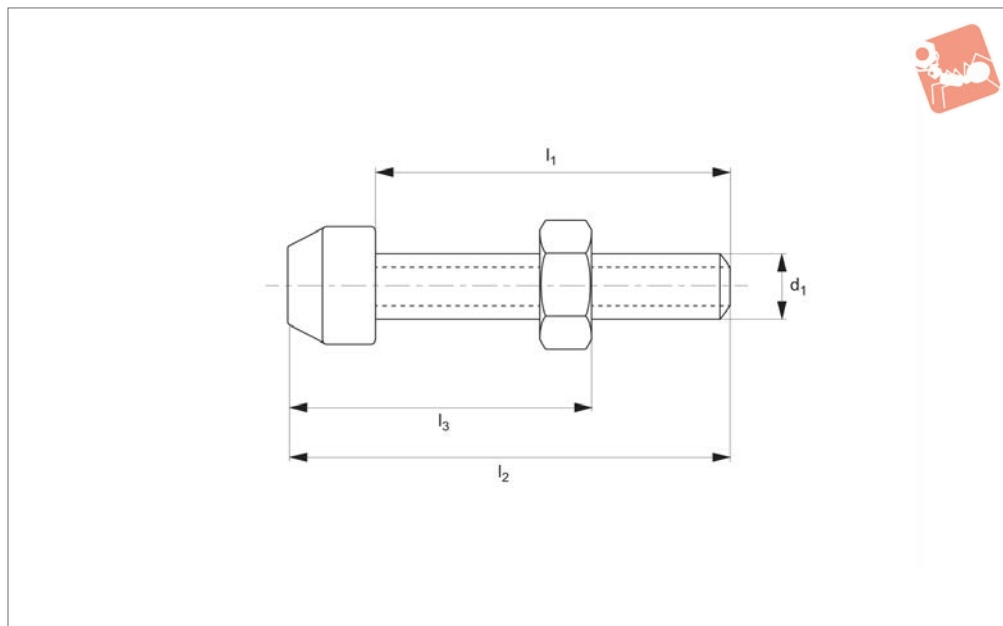
Order No.	Size	$d_1 \times l_1$	$l_2$	$l_3$	Weight g
45018.W0001	1	M 5x30	38	14-25	10
45018.W0002	2	M 6x35	45	17-25	20
45018.W0003	3	M 8x45	58	22-32	35
45018.W0004	4	M 8x65	78	22-52	40
45018.W0005	5	M12x80	98	30-60	130
45018.W0006	6	M12x110	128	30-88	160
45018.W0008	8	M16x120	130	25-84	280





# Clamping Screws for push-pull toggle clamps

## Toggle Clamp Accessories



**45020.1**

TOGGLE CLAMP ACCESSORIES

### Material

Steel: zinc plated and tempered, tensile strength class 8.8.

Stainless: stainless steel (AISI 304,

1.4301). With nut and removable rubber protection pad.

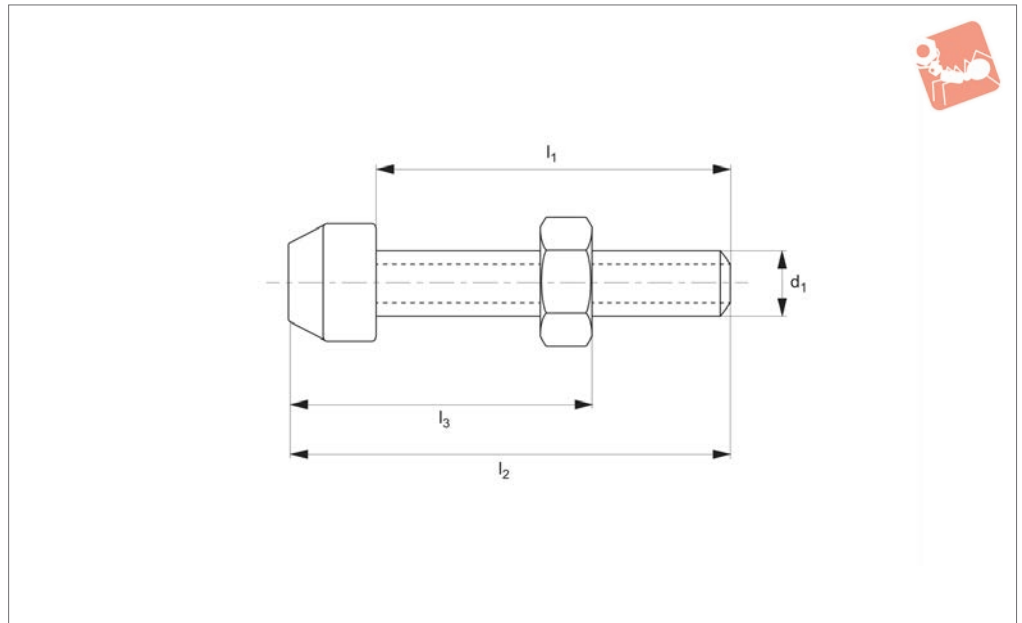
### Technical Notes

Protection pad is made of oil-resistant neoprene to prevent damage to delicate workpiece surfaces, hardness 70 shore A,

Order No.	Type	Size	$d_1 \times l_1$	$l_2$	$l_3$	Weight g
45020.W0001	Steel	0+1	M 4x20	27	12-20	4
45020.W0002	Steel	2	M 6x25	35	17-25	15
45020.W0003	Steel	3	M 8x35	48	22-35	26
45020.W0005	Steel	5	M10x50	66	30-52	57
45020.W0007	Steel	7	M12x50	68	30-50	82
45020.W0008	Steel	8	M16x80	90	25-70	220
45020.W0501	Stainless	0+1	M 4x20	27	12-20	4
45020.W0502	Stainless	2	M 6x25	35	18-27	15
45020.W0503	Stainless	3	M 8x35	48	22-35	26
45020.W0507	Stainless	7	M12x50	68	30-50	82



**45020.2**



### Material

Steel matt black, tensile strength class 8.8. With nut and bonded pressure pad.

### Technical Notes

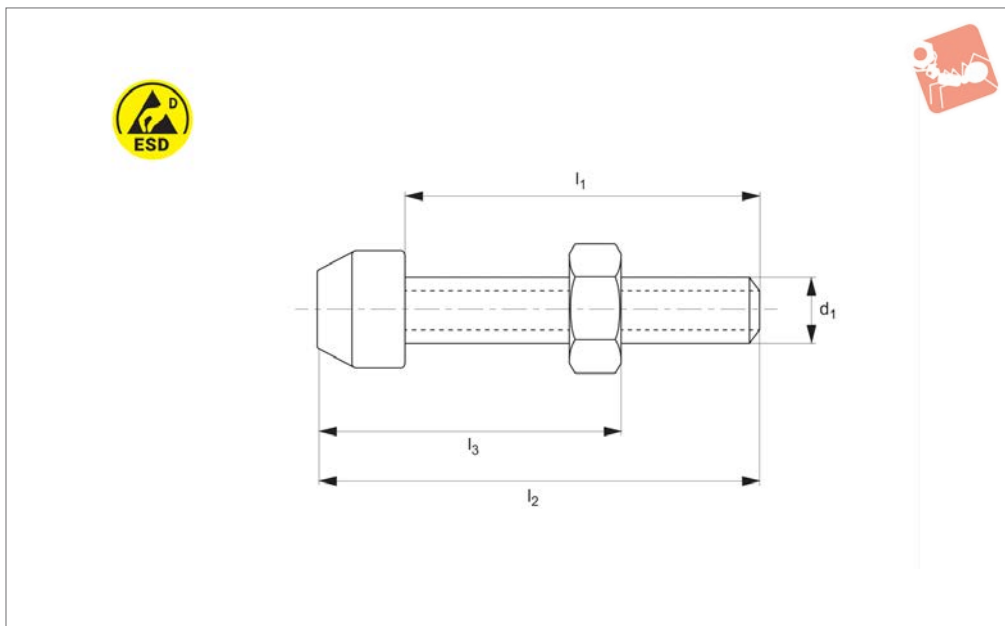
For optical analysis applications.

Order No.	Size	$d_1 \times l_1$	$l_2$	$l_3$	Weight g
45020.W0100	1	M 4x20	23	10-17	4
45020.W0101	2	M 6x25	35	17-25	15
45020.W0102	3	M 8x44	44	26-33	26



# ESD Clamping Screws for push-pull toggle clamps

## Toggle Clamp Accessories



### 45020.3

TOGGLE CLAMP ACCESSORIES

#### Material

Steel, zinc plated and tempered. Tensile strength class 8.8. With nut and removable rubber pad.

#### Technical Notes

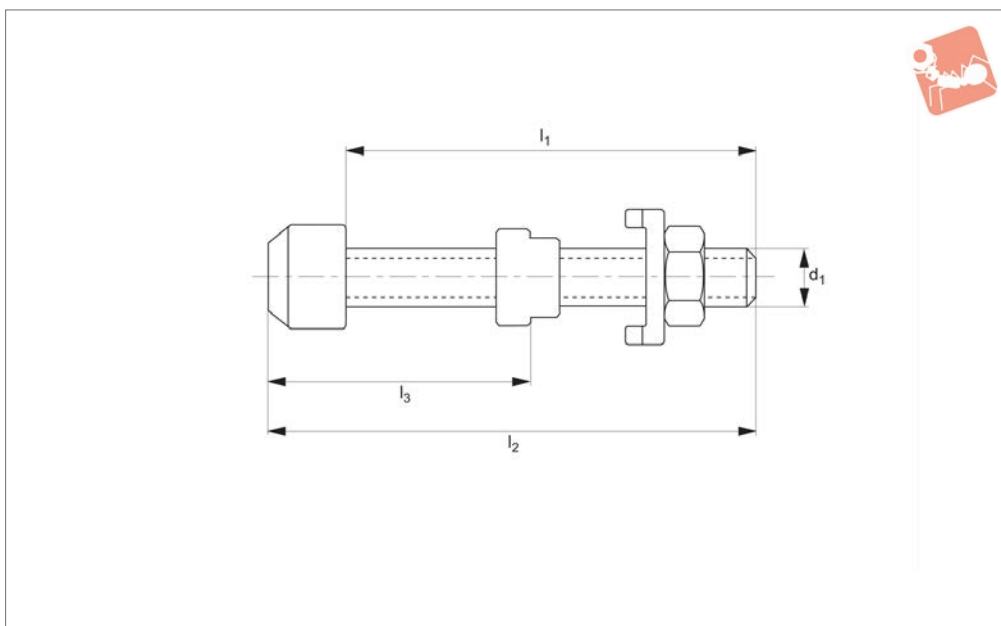
**The ESD (electrostatically sensitive devices) clamping screw is non-insulating. It must not be used in areas**

where open voltages are used.

Order No.	Size	$d_1 \times l_1$ DIN 933	$l_2$	$l_3$	Weight g
45020.W0301	0+1	M 4x20	27	12-20	4
45020.W0302	2	M 6x25	35	17-25	15
45020.W0303	3	M 8x35	48	22-35	26



## 45060.1



### Material

Steel, zinc plated and tempered, tensile strength class 8.8 or stainless steel (AISI 304, 1.4301).

Removable protective cap made of oil-

resistant neoprene to prevent damage to delicate workpiece surfaces, hardness 70 shore A, silicone-free.

### Technical Notes

Sizes 0-3, 6 supplied with washer/nut element.

Sizes 4-7 supplied with nut for T-slot.

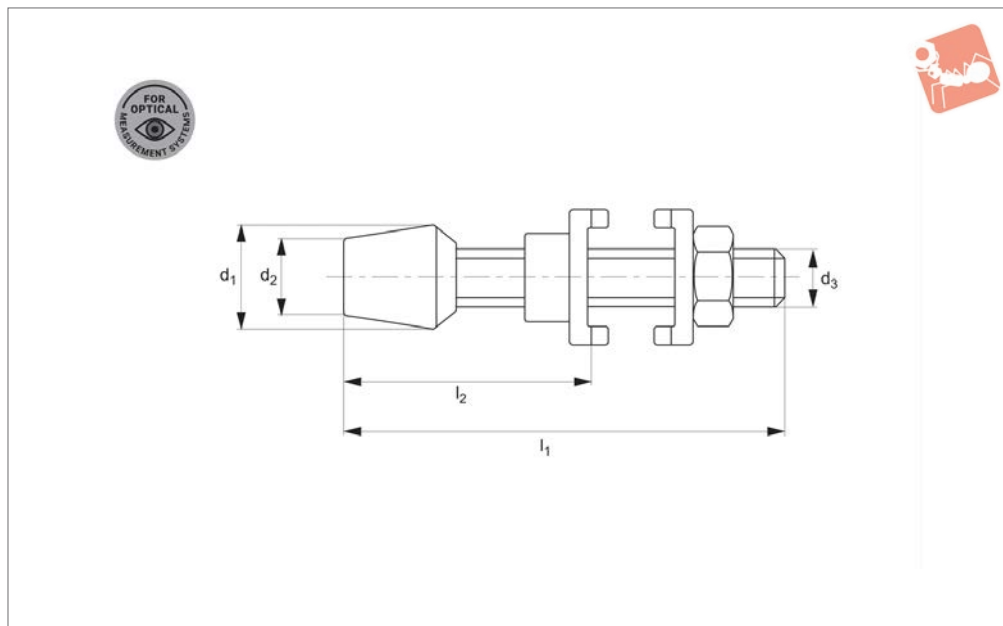
Order No.	Type	Size	$d_1 \times l_1$	$l_2$	$l_3$	T-nut DIN 508	U-washer size	Weight g
45060.W0000	Steel	0	M 4x25	32	13-20	-	0	5
45060.W0001	Steel	1	M 5x30	38	17-24	-	1	10
45060.W0002	Steel	2	M 6x35	45	19-28	-	2	22
45060.W0012	Steel	2	M 6x50	60	19-43	-	2	30
45060.W0003	Steel	3	M 8x45	58	22-34	-	3	40
45060.W0004	Steel	4	M 8x65	78	21-50	M 8x10	4	62
45060.W0005	Steel	5	M 8x65	78	21-45	M 8x10	5	62
45060.W0016	Steel	6*	M10x116	116	28-78	-	6	122
45060.W0006	Steel	6	M12x80	97	28-58	M12x14	6	160
45060.W0007	Steel	7	M12x110	127	28-88	M12x14	6	180
45060.W0500	Stainless Steel	0	M 4x25	32	13-20	-	0	5
45060.W0501	Stainless Steel	1	M 5x30	38	17-24	-	1	10
45060.W0502	Stainless Steel	2	M 6x35	45	19-28	-	2	22
45060.W0503	Stainless Steel	3	M 8x45	58	22-34	-	3	40
45060.W0504	Stainless Steel	4	M 8x65	78	21-50	-	3	60



# Clamping Screw - Black

for open clamping arms

## Toggle Clamp Accessories



**45060.2**

TOGGLE CLAMP ACCESSORIES

### Material

Steel matt black, galvanized, tensile strength class 8.8. Complete with washer, nut and screw. With bonded pressure pad

made of oil-resistant neoprene to prevent damage to delicate workpieces. Hardness 85 Shore A, silicone-free.

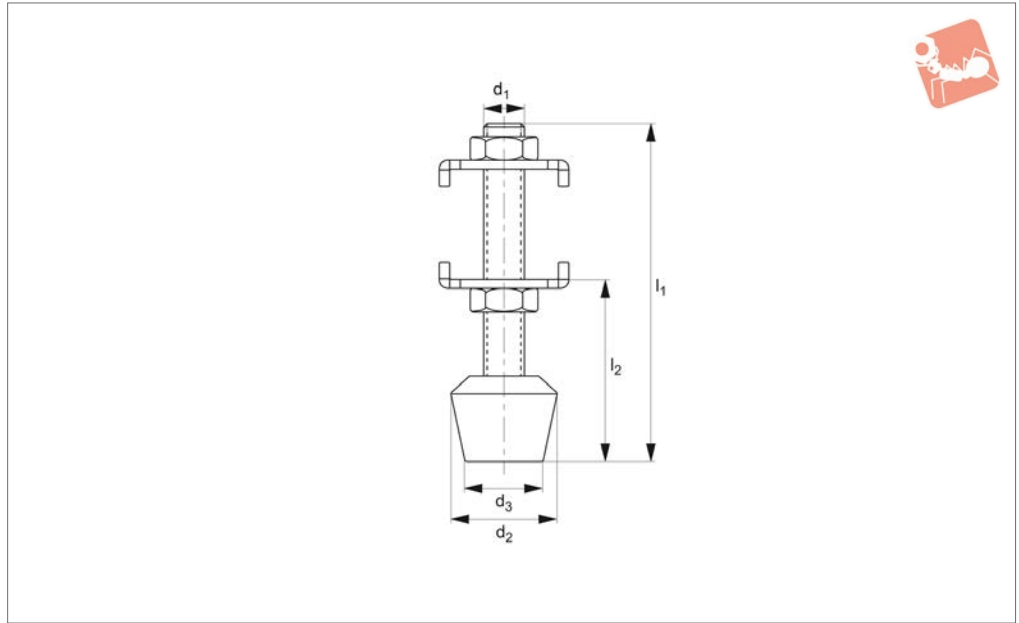
### Technical Notes

For optical analysis applications.

Order No.	Size	d <sub>1</sub>	l <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	Weight g
45060.W0100	0	M 4	34.5	10	-	11,5-22	6
45060.W0101	1	M 5	38.0	13	10	17,0-24	11
45060.W0102	2	M 6	46.0	16	10	20,0-27	17
45060.W0103	2	M 6	60.0	16	10	20,0-40	22
45060.W0104	2	M 6	110.0	16	10	20,0-90	60
45060.W0105	3	M 8	63.0	18	13	27,0-37	39



## 45062.1



### Material

Steel. Strength class 8.8.

Pad: oil resistant neoprene, hardness 85

shore A silicone-free.

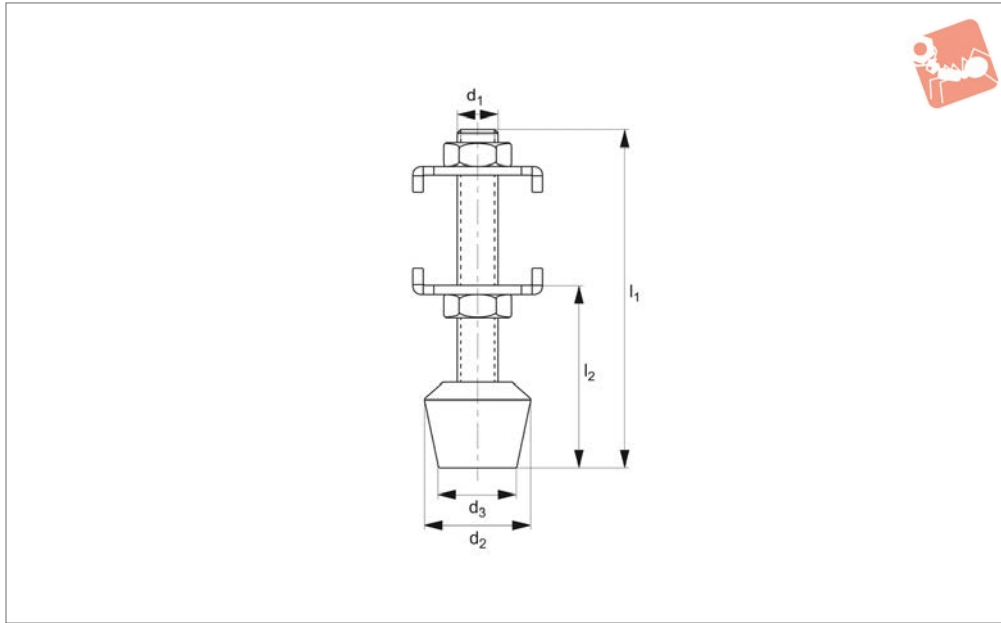
Complete with U-washers, hex nuts and screw with bonded pad.

Order No.	Size	$d_1 \times l_1$	$d_2$	$d_3$	$l_2$	Weight g
45062.W0001	1	M 5 x 35	11	10	9-18	15
45062.W0002	2	M 6 x 50	16	12	17-29	20
45062.W0003	3	M 8 x 58	21	16	21-34	36
45062.W0004	4	M 10 x 76	26	20	28-44	95



# Stainless Clamping Screws for horizontal acting toggle clamp

## Toggle Clamp Accessories



**45062.2**

TOGGLE CLAMP ACCESSORIES

**Material**

Stainless steel, strength class 8.8.

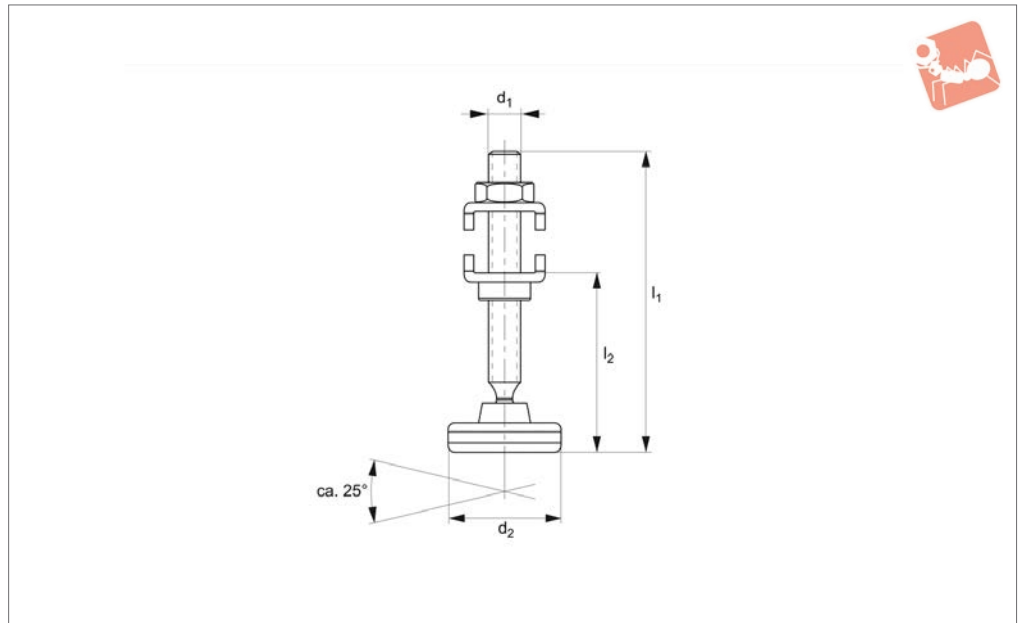
Pad: oil resistant neoprene, hardness 85

shore A silicone-free.

Order No.	Size	$d_1 \times l_1$	$d_2$	$d_3$	$l_2$	Weight g
<b>45062.W0101</b>	1	M 5 x 35	11	10	10-22	15
<b>45062.W0102</b>	2	M 6 x 50	16	12	17-29	20
<b>45062.W0103</b>	3	M 8 x 58	21	16	22-31	45
<b>45062.W0104</b>	4	M 10 x 76	26	20	28-44	95



**45070**



TOGGLE CLAMP ACCESSORIES

### Material

Steel, zinc plated.

### Technical Notes

For use with auto adjust toggle clamps.

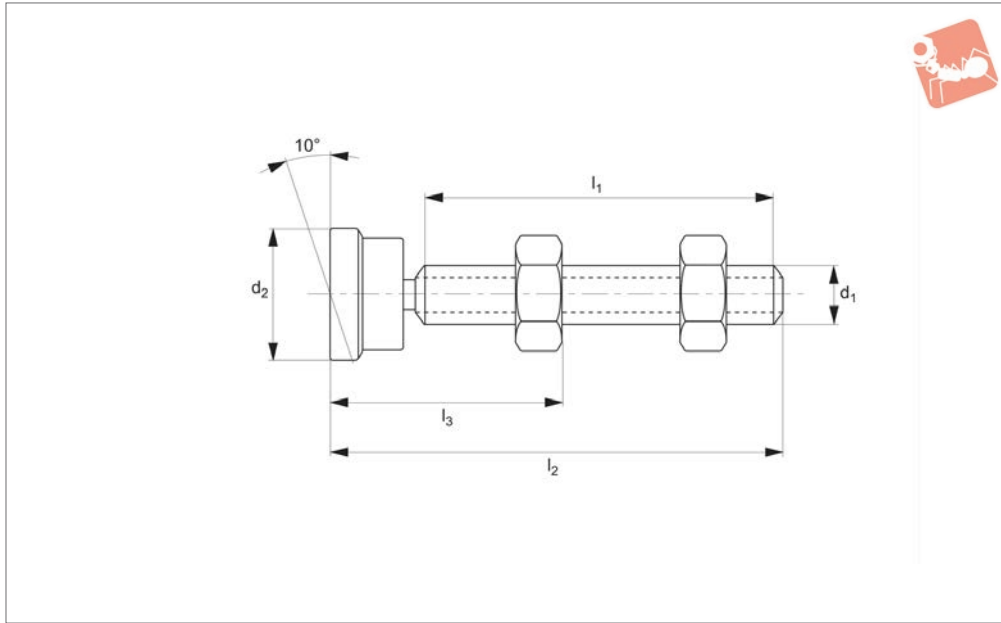
Order No.	Size	$d_1 \times l_1$	$d_2$	$l_2$	Weight g
45070.W0001	1	M 6x49	19	16-34	23
45070.W0002	2	M 8x50	27	21-31	51
45070.W0003	3	M 8x66	27	21-47	55





# Self Aligning Clamping Screws for solid and closed twin-arm toggle clamps

## Toggle Clamp Accessories



**45078**

TOGGLE CLAMP ACCESSORIES

### Material

Steel, tempered, galvanised and passivated.

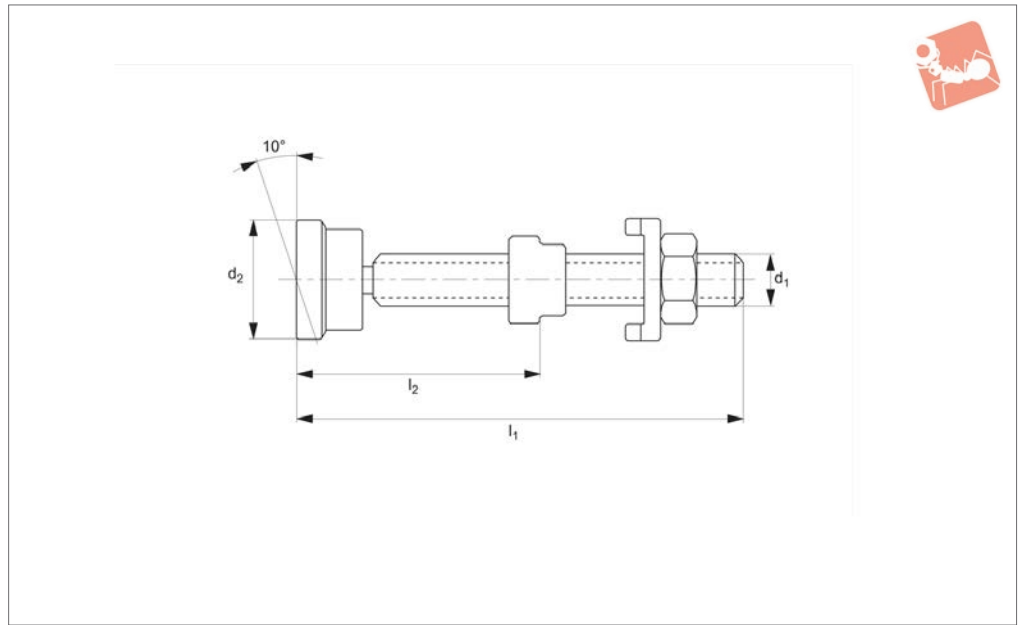
### Tips

For use with toggle clamps.

Order No.	Size	Screw $d_1 \times l_1$	$d_2$	$l_2$	$l_3$	Weight g
45078.W0001	1	M 5x35	12	37	8-23	9
45078.W0004	4	M 8x75	16	78	16-52	42
45078.W0005	6	M12x100	25	105	30-61	138



**45080**



**Material**

Steel, zinc plated and tempered.

Sizes 4-6 with T-nut.

**Technical Notes**

Sizes 1-3 with washer/nut element.

**Tips**

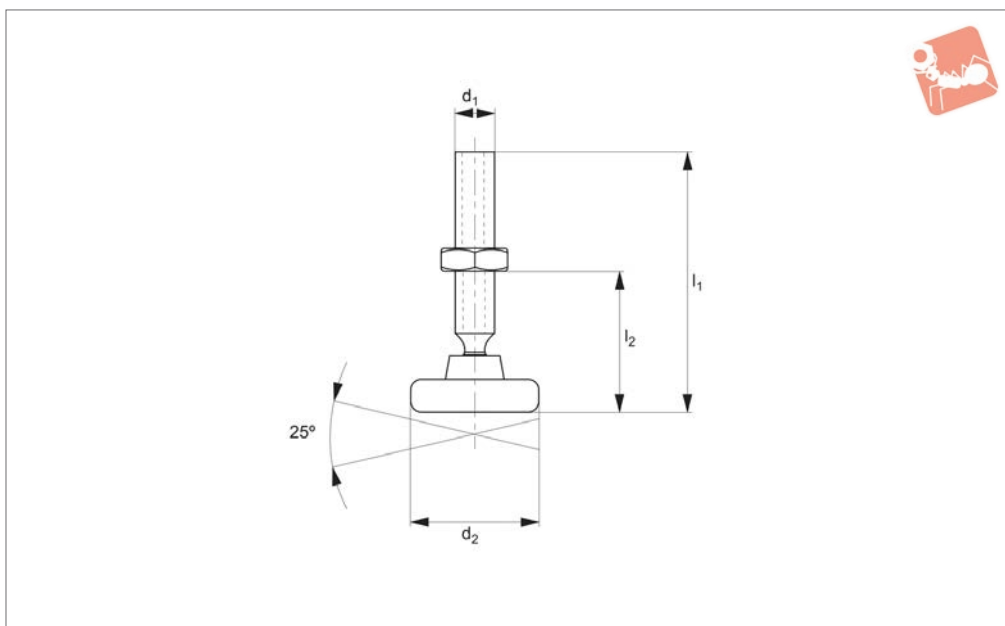
For use with toggle clamps.

Order No.	Size	Screw	d <sub>1</sub>	l <sub>1</sub>	l <sub>2</sub>	T-nut DIN 508	Washer size	Weight g
45080.W0001	1	M 5x35	12	37	12-22	-	1	12
45080.W0002	2	M 6x50	12	52	14-33	-	2	20
45080.W0003	3	M 8x75	16	78	18-52	-	3	47
45080.W0004	4	M 8x75	16	78	15-50	M 8x10	4	62
45080.W0006	6	M12x100	25	105	25-62	M12x14	6	183



# Clamping Screws for auto adjust toggle clamps

## Toggle Clamp Accessories



**45084**

TOGGLE CLAMP ACCESSORIES

### Material

Steel, galvanised.

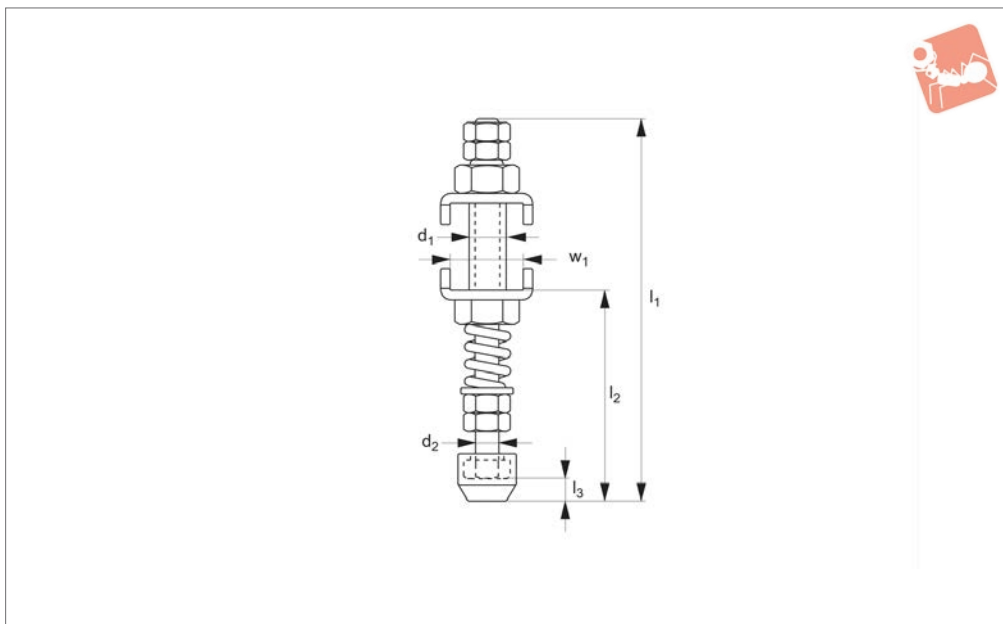
### Tips

For auto adjust toggle clamps.

Order No.	Size	$d_1 \times l_1$	$d_2$	$l_2$	Weight g
45086.W0001	1	M 6x37	19	13-25	16
45086.W0002	2	M 8x50	19	16-35	41



## 45100



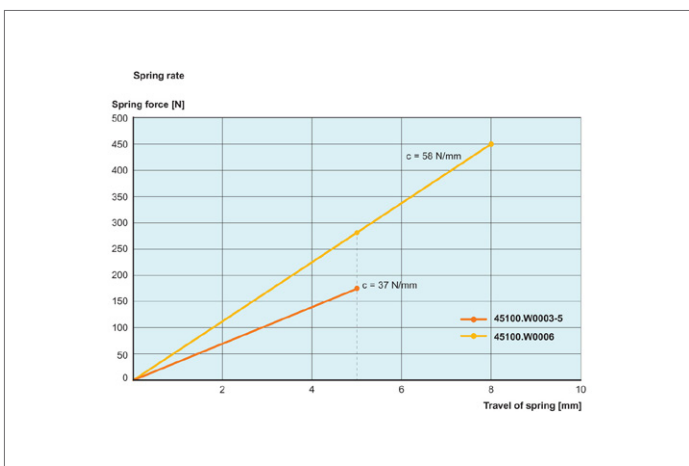
### Material

Steel, zinc plated and tempered.  
Rubber pad.

### Tips

For toggle clamps with open ended arms.

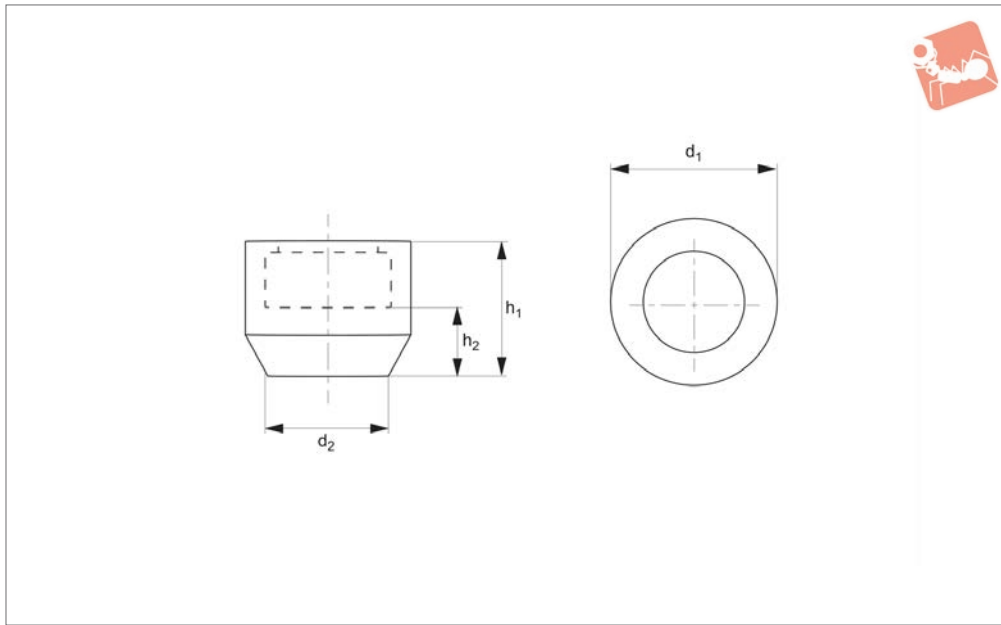
Order No.	Size	d <sub>1</sub>	w <sub>1</sub>	l <sub>1</sub>	d <sub>2</sub>	l <sub>2</sub>	l <sub>3</sub>	Rubber pad 45120	Weight g
45100.W0003	3	M 8	14.5	90	M 5	39-52	5	.W0001	55
45100.W0004	4	M 8	18.5	90	M 5	40-53	5	.W0001	63
45100.W0005	5	M 8	20.5	90	M 5	40-48	5	.W0001	64
45100.W0006	6	M12	24.0	123	M 8	60-68	7	.W0003	182





# Rubber Caps for clamping screws

# Toggle Clamp Accessories



## 45120

TOGGLE CLAMP ACCESSORIES

### Material

Oil-resistant neoprene, hardness 70 Shore A.

### Technical Notes

Prevents damage to delicate components. Suitable for clamping screws nos. 45018,

45020.W0001- .W0008, 45060.W0000- .W0007 and 45100.

Order No.	Size	d <sub>1</sub>	h <sub>1</sub>	d <sub>2</sub>	h <sub>2</sub>	Weight g
45120.W0000	M 4	11.0	8.5	7	4.2	1
45120.W0001	M 5	12.5	10.0	8	5.0	1
45120.W0002	M 6	15.0	12.0	10	6.0	2
45120.W0003	M 8	19.0	15.0	13	7.5	4
45120.W0005	M10	22.0	17.5	15	8.5	5
45120.W0006	M12	25.0	20.0	19	9.5	8
45120.W0007	M12	26.0	20.0	18	9.5	9
45120.W0009	M16	33.0	27.0	24	14.0	19