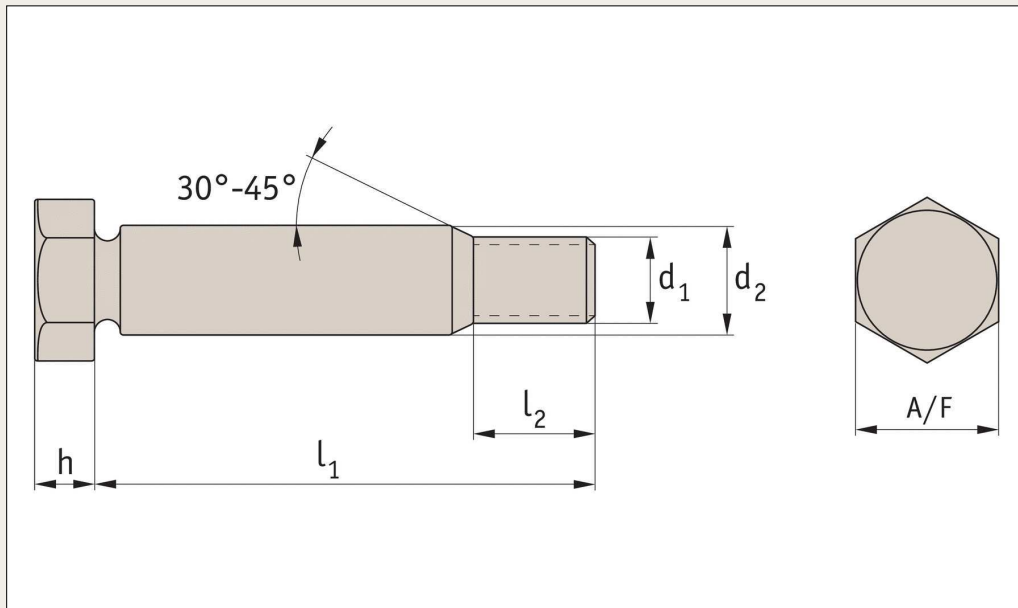


# Steel Shoulder Bolts - Hex. Head

std thread, steel 10.9

## Shoulder Screws



### P0139

#### Material

Black alloy steel, strength 10.9.  
Hardness 38 HRC, tensile strength  
830 N/mm<sup>2</sup>.

To DIN 609.

For strength 8.8 see part P0138.SC

#### Tips

Do not tighten to standard strength  
class 10,9 torque; as the tightening

torque is limited,  
by the presence of the reduced  
diameter undercut under the head  
and at the shoulder/thread area.  
Drill hole to H7 tolerance.

#### Technical notes

Order No.	d <sub>1</sub>	d <sub>2</sub> k6	l <sub>1</sub>	l <sub>2</sub>	h	A/F
P0139.080-025-SC	M 8	9	25	14,5	5,3	13
P0139.080-028-SC	M 8	9	28	14,5	5,3	13
P0139.080-035-SC	M 8	9	35	14,5	5,3	13
P0139.080-038-SC	M 8	9	38	14,5	5,3	13
P0139.080-040-SC	M 8	9	40	14,5	5,3	13
P0139.080-048-SC	M 8	9	48	14,5	5,3	13
P0139.080-060-SC	M 8	9	60	16,5	5,3	13
P0139.080-080-SC	M 8	9	80	16,5	5,3	13
P0139.100-030-SC	M10	11	30	17,5	6,4	17
P0139.100-032-SC	M10	11	32	17,5	6,4	17
P0139.100-035-SC	M10	11	35	17,5	6,4	17
P0139.100-038-SC	M10	11	38	17,5	6,4	17
P0139.100-040-SC	M10	11	40	17,5	6,4	17
P0139.100-042-SC	M10	11	42	17,5	6,4	17
P0139.100-045-SC	M10	11	45	17,5	6,4	17
P0139.100-048-SC	M10	11	48	17,5	6,4	17
P0139.100-050-SC	M10	11	50	17,5	6,4	17
P0139.100-055-SC	M10	11	55	19,5	6,4	17
P0139.100-060-SC	M10	11	60	19,5	6,4	17
P0139.100-065-SC	M10	11	65	19,5	6,4	17
P0139.100-070-SC	M10	11	70	19,5	6,4	17
P0139.100-075-SC	M10	11	75	19,5	6,4	17
P0139.100-080-SC	M10	11	80	19,5	6,4	17
P0139.120-030-SC	M12	13	30	20,5	7,5	19
P0139.120-032-SC	M12	13	32	20,5	7,5	19
P0139.120-035-SC	M12	13	35	20,5	7,5	19
P0139.120-038-SC	M12	13	38	20,5	7,5	19
P0139.120-040-SC	M12	13	40	20,5	7,5	19
P0139.120-045-SC	M12	13	45	20,5	7,5	19

# Steel Shoulder Bolts - Hex. Head

std thread, steel 10.9

## Shoulder Screws

Order No.	d <sub>1</sub>	d <sub>2</sub> k6	l <sub>1</sub>	l <sub>2</sub>	h	A/F
P0139.120-048-SC	M12	13	48	20,5	7,5	19
P0139.120-050-SC	M12	13	50	20,5	7,5	19
P0139.120-055-SC	M12	13	55	22,5	7,5	19
P0139.120-060-SC	M12	13	60	22,5	7,5	19
P0139.120-065-SC	M12	13	65	22,5	7,5	19
P0139.120-070-SC	M12	13	70	22,5	7,5	19
P0139.120-075-SC	M12	13	75	22,5	7,5	19
P0139.120-090-SC	M12	13	90	22,5	7,5	19
P0139.120-110-SC	M12	13	110	22,5	7,5	19
P0139.140-035-SC	M14	15	35	22,0	8,8	22
P0139.140-040-SC	M14	15	40	22,0	8,8	22
P0139.140-042-SC	M14	15	42	22,0	8,8	22
P0139.140-045-SC	M14	15	45	22,0	8,8	22
P0139.140-050-SC	M14	15	50	22,0	8,8	22
P0139.140-055-SC	M14	15	55	24,0	8,8	22
P0139.140-060-SC	M14	15	60	24,0	8,8	22
P0139.140-080-SC	M14	15	80	24,0	8,8	22
P0139.160-040-SC	M16	17	40	25,0	10	24
P0139.160-042-SC	M16	17	42	25,0	10	24
P0139.160-045-SC	M16	17	45	25,0	10	24
P0139.160-048-SC	M16	17	48	25,0	10	24
P0139.160-050-SC	M16	17	50	25,0	10	24
P0139.160-055-SC	M16	17	55	27,0	10	24
P0139.160-060-SC	M16	17	60	27,0	10	24
P0139.160-065-SC	M16	17	65	27,0	10	24
P0139.160-070-SC	M16	17	70	27,0	10	24
P0139.160-075-SC	M16	17	75	27,0	10	24
P0139.160-080-SC	M16	17	80	27,0	10	24
P0139.160-085-SC	M16	17	85	27,0	10	24
P0139.160-090-SC	M16	17	90	27,0	10	24
P0139.160-100-SC	M16	17	100	27,0	10	24
P0139.160-110-SC	M16	17	110	27,0	10	24
P0139.160-120-SC	M16	17	120	27,0	10	24
P0139.160-150-SC	M16	17	150	27,0	10	24
P0139.200-045-SC	M20	21	45	28,5	12,5	30
P0139.200-050-SC	M20	21	50	28,5	12,5	30
P0139.200-055-SC	M20	21	55	30,5	12,5	30
P0139.200-060-SC	M20	21	60	30,5	12,5	30
P0139.200-065-SC	M20	21	65	30,5	12,5	30
P0139.200-070-SC	M20	21	70	30,5	12,5	30
P0139.200-075-SC	M20	21	75	30,5	12,5	30
P0139.200-080-SC	M20	21	80	30,5	12,5	30
P0139.200-085-SC	M20	21	85	30,5	12,5	30
P0139.200-090-SC	M20	21	90	30,5	12,5	30
P0139.200-100-SC	M20	21	100	30,5	12,5	30
P0139.200-105-SC	M20	21	105	30,5	12,5	30
P0139.200-110-SC	M20	21	110	30,5	12,5	30
P0139.200-120-SC	M20	21	120	30,5	12,5	30
P0139.200-130-SC	M20	21	130	30,5	12,5	30
P0139.200-140-SC	M20	21	140	30,5	12,5	30
P0139.200-150-SC	M20	21	150	30,5	12,5	30
P0139.200-160-SC	M20	21	160	35,5	12,5	30
P0139.240-055-SC	M24	25	55	36,5	15,0	36
P0139.240-060-SC	M24	25	60	36,5	15,0	36
P0139.240-065-SC	M24	25	65	36,5	15,0	36
P0139.240-070-SC	M24	25	70	36,5	15,0	36
P0139.240-075-SC	M24	25	75	36,5	15,0	36
P0139.240-080-SC	M24	25	80	36,5	15,0	36

# Steel Shoulder Bolts - Hex. Head

std thread, steel 10.9

## Shoulder Screws

Order No.	d <sub>1</sub>	d <sub>2</sub> k6	l <sub>1</sub>	l <sub>2</sub>	h	A/F
P0139.240-085-SC	M24	25	85	36,5	15,0	36
P0139.240-090-SC	M24	25	90	36,5	15,0	36
P0139.240-100-SC	M24	25	100	36,5	15,0	36
P0139.240-105-SC	M24	25	105	36,5	15,0	36
P0139.240-110-SC	M24	25	110	36,5	15,0	36
P0139.240-120-SC	M24	25	120	36,5	15,0	36
P0139.240-125-SC	M24	25	125	36,5	15,0	36
P0139.240-130-SC	M24	25	130	36,5	15,0	36
P0139.240-140-SC	M24	25	140	36,5	15,0	36
P0139.240-150-SC	M24	25	150	36,5	15,0	36
P0139.240-160-SC	M24	25	160	41,5	15,0	36
P0139.240-170-SC	M24	25	170	41,5	15,0	36
P0139.240-180-SC	M24	25	180	41,5	15,0	36
P0139.300-080-SC	M30	32	80	43,0	19,0	46
P0139.300-090-SC	M30	32	90	43,0	19,0	46
P0139.300-100-SC	M30	32	100	43,0	19,0	46
P0139.300-105-SC	M30	32	105	43,0	19,0	46
P0139.300-110-SC	M30	32	110	43,0	19,0	46
P0139.300-120-SC	M30	32	120	43,0	19,0	46
P0139.300-130-SC	M30	32	130	43,0	19,0	46
P0139.300-140-SC	M30	32	140	43,0	19,0	46
P0139.360-120-SC	M36	38	120	49,0	22,0	55
P0139.360-130-SC	M36	38	130	49,0	22,0	55
P0139.360-200-SC	M36	38	200	54,0	22,0	55

### Steel shoulder screws

These are our least expensive option. They are produced to ISO 7379 standards. Thread sizes from Ø4 M3 to Ø24 M20. We manufacture special shoulder screws to customer drawings with a minimum batch size.



### Stainless steel shoulder screws

We have three different grades of stainless steel shoulder screws:

**A2 series** – these are our standard grade of stainless. They are strong and resistant to corrosion but not to very harsh environments such as salt water.

For standard sizes Ø6 M5 up to Ø16 M12, see our part no P0137. For miniature sizes down to Ø4 M3 see parts numbers P0130 and P0132.

**416 series** – these are made from harder stainless steel with improved shear strengths but the parts are more prone to corrosion (see part no. P0131 and P0133).

**A4 series** – these shoulder screws (P0143) are very resistant to corrosion but are considerably more expensive than other stainless versions.



### Shoulder bolts

Our range of precision shoulder bolts with hexagonal heads come in both steel (grades 8.8 and 10.9) and stainless steel (grade A2). These bolts are manufactured to DIN 609 and DIN 610. We also have shoulder bolts for construction, manufactured to DIN 7968.

	DIN 609 standard length thread	DIN 610 short length thread	DIN 7968 construction
<b>Grade 8.8 steel</b> 	P0138.SC	P0140.SC	P0142
<b>Grade 10.9 steel</b> 	P0139	P0141	-
<b>A2 stainless steel</b> 	P0138.A2	P0140.A2	-

ov-shoulder\_screws\_product\_overview\_1 - Updated - 31-08-2017

# Product Overview

## Shoulder Screws & Shoulder Bolts

## Shoulder Screws

Part No.		Material	Head	Corrosion resistance	Strength	Ø/thread	DIN/ISO
P0130		Stainless A2	Hex socket	✓✓	✓	Min: Ø4/M3 Max: Ø12/M10	-
P0131		Stainless 416	Hex socket	✓	✓✓	Min: Ø4/M3 Max: Ø12/M10	-
P0132		Stainless A2	Slotted	✓✓	✓	Min: Ø4/M3 Max: Ø12/M10	-
P0133		Stainless 416	Slotted	✓	✓✓	Min: Ø4/M3 Max: Ø12/M10	-
P0134		Stainless A2	Hex socket	✓✓	✓	Min: Ø4/M3 Max: Ø8/M6	-
P0135		Stainless A2	Hex head	✓✓	✓	Min: Ø4/M3 Max: Ø12/M10	-
P0136		Steel 12,9	Hex socket	✗	✓✓	Min: Ø4/M3 Max: Ø24/M20	ISO 7379
P0137		Stainless A2	Hex socket	✓✓	✓	Min: Ø6/M5 Max: Ø20/M16	ISO 7379
P0138		Steel 8,8	Hex head (long thread)	✗	✓	Min: Ø9/M8 Max: Ø44/M42	DIN 610
P0139		Steel 10,9	Hex head (long thread)	✗	✓✓	Min: Ø9/M8 Max: Ø38/M36	DIN 610
P0140		Steel 8,8	Hex socket (short thread)	✗	✓✓	Min: Ø9/M8 Max: Ø44/M42	DIN 609
P0141		Steel 10,9	Hex socket (short thread)	✗	✓✓	Min: Ø9/M8 Max: Ø38/M36	DIN 609
P0142		Steel 8,8	Hex head	✗	✓✓	Min: Ø12/M12 Max: Ø27/M27	DIN 7968
P0143		Stainless A4	Hex socket	✓✓✓	✓	Min: Ø4/M3 Max: Ø12/M10	ISO 7379
P0144		Stainless A2	Pan head	✓✓	✓✓	Min: Ø4/M3 Max: Ø10/M8	DIN 923

Shoulder Screw from Automation Components

ov-shoulder\_screws\_product\_overview\_2 - Updated - 31-08-2017