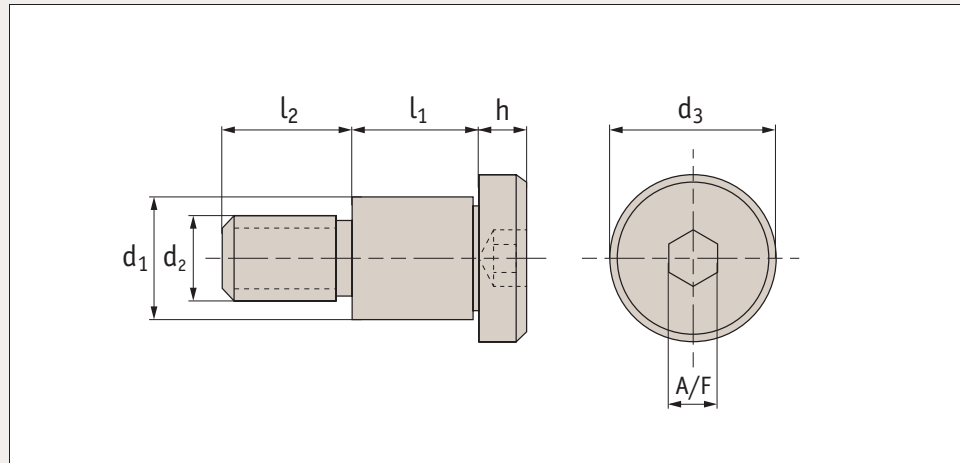




## P0130



### Material

Stainless steel (A2, AISI 303). Tensile strength 550 N/mm<sup>2</sup>.

### Technical Notes

A2 stainless steel provides good resistance to corrosion, it is soft and non-magnetic.

These A2 shoulder screws are less expensive than the 416

steel grade (see part no. P0133), which are harder but less resistant to corrosion.

For Ø16 (and above) stainless steel shoulder screws see part no. P0137.

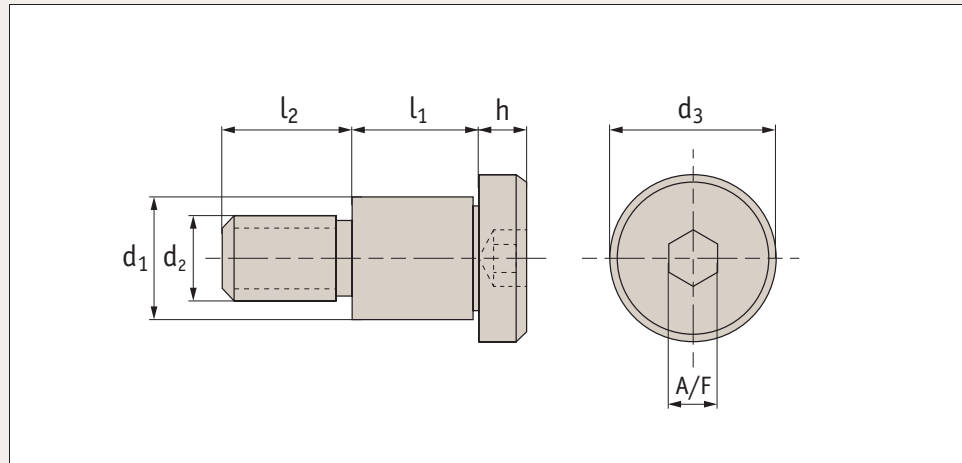
Special lengths and diameters produced to drawings.

Order No.	d <sub>1</sub> +0,-0.025	l <sub>1</sub> +0,-0.05	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h	A/F
P0130.040-004	4	4	M 3	6	4	3	2
P0130.040-005	4	5	M 3	6	4	3	2
P0130.040-006	4	6	M 3	6	4	3	2
P0130.040-008	4	8	M 3	6	4	3	2
P0130.040-010	4	10	M 3	6	4	3	2
P0130.050-004	5	4	M 4	8	5	4	2,5
P0130.050-005	5	5	M 4	8	5	4	2,5
P0130.050-006	5	6	M 4	8	5	4	2,5
P0130.050-008	5	8	M 4	8	5	4	2,5
P0130.050-010	5	10	M 4	8	5	4	2,5
P0130.050-012	5	12	M 4	8	5	4	2,5
P0130.050-014	5	14	M 4	8	5	4	2,5
P0130.050-016	5	16	M 4	8	5	4	2,5
P0130.050-020	5	20	M 4	8	5	4	2,5
P0130.050-025	5	25	M 4	8	5	4	2,5
P0130.050-030	5	30	M 4	8	5	4	2,5
P0130.060-004	6	4	M 5	10	6	5	3
P0130.060-005	6	5	M 5	10	6	5	3
P0130.060-006	6	6	M 5	10	6	5	3
P0130.060-008	6	8	M 5	10	6	5	3
P0130.060-010	6	10	M 5	10	6	5	3
P0130.060-012	6	12	M 5	10	6	5	3
P0130.060-014	6	14	M 5	10	6	5	3
P0130.060-016	6	16	M 5	10	6	5	3
P0130.060-020	6	20	M 5	10	6	5	3
P0130.060-025	6	25	M 5	10	6	5	3
P0130.060-030	6	30	M 5	10	6	5	3

Order No.	d <sub>1</sub> +0,-0.025	l <sub>1</sub> +0,-0.05	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h	A/F
P0130.080-006	8	6	M 6	12	11	6	4
P0130.080-008	8	8	M 6	12	11	6	4
P0130.080-010	8	10	M 6	12	11	6	4
P0130.080-012	8	12	M 6	12	11	6	4
P0130.080-014	8	14	M 6	12	11	6	4
P0130.080-016	8	16	M 6	12	11	6	4
P0130.080-020	8	20	M 6	12	11	6	4
P0130.080-025	8	25	M 6	12	11	6	4
P0130.080-030	8	30	M 6	12	11	6	4
P0130.100-008	10	8	M 6	12	11	6	4
P0130.100-010	10	10	M 6	12	11	6	4
P0130.100-012	10	12	M 6	12	11	6	4
P0130.100-016	10	16	M 6	12	11	6	4
P0130.101-008	10	8	M 8	14	12	7	5
P0130.101-010	10	10	M 8	14	12	7	5
P0130.101-010	10	10	M 8	14	12	7	5
P0130.101-012	10	12	M 8	14	12	7	5
P0130.101-016	10	16	M 8	14	12	7	5
P0130.101-020	10	20	M 8	14	12	7	5
P0130.101-025	10	25	M 8	14	12	7	5
P0130.101-030	10	30	M 8	14	12	7	5
P0130.120-012	12	12	M10	20	16	8	6
P0130.120-016	12	16	M10	20	16	8	6
P0130.120-020	12	20	M10	20	16	8	6
P0130.120-025	12	25	M10	20	16	8	6
P0130.120-030	12	30	M10	20	16	8	6



## P0130.i



### Material

Stainless steel (A2, AISI 303). Tensile strength 550 N/mm<sup>2</sup>.

### Technical Notes

A2 stainless steel provides good resistance to corrosion, it is soft and non-magnetic.  
All dimensions are in inches.

Order No.	d <sub>1</sub> +0,-0.001	l <sub>1</sub> +0.002,-0.0	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h	A/F
P0130.125-012	0,125	0,1255	#4- 40	1/4	5/32	1/8	5/64
P0130.125-018	0,125	0,1880	#4- 40	1/4	5/32	1/8	5/64
P0130.125-025	0,125	0,2505	#4- 40	1/4	5/32	1/8	5/64
P0130.125-031	0,125	0,3130	#4- 40	1/4	5/32	1/8	5/64
P0130.125-037	0,125	0,3755	#4- 40	1/4	5/32	1/8	5/64
P0130.187-012	0,187	0,1255	#8- 32	5/16	3/16	5/32	3/32
P0130.187-018	0,187	0,1880	#8- 32	5/16	3/16	5/32	3/32
P0130.187-025	0,187	0,2505	#8- 32	5/16	3/16	5/32	3/32
P0130.187-031	0,187	0,3130	#8- 32	5/16	3/16	5/32	3/32
P0130.187-037	0,187	0,3755	#8- 32	5/16	3/16	5/32	3/32
P0130.187-050	0,187	0,5005	#8- 32	5/16	3/16	5/32	3/32
P0130.187-062	0,187	0,6255	#8- 32	5/16	3/16	5/32	3/32
P0130.187-075	0,187	0,7505	#8- 32	5/16	3/16	5/32	3/32
P0130.187-100	0,187	1,0005	#8- 32	5/16	3/16	5/32	3/32
P0130.187-125	0,187	1,2505	#8- 32	5/16	3/16	5/32	3/32
P0130.187-150	0,187	1,5005	#8- 32	5/16	3/16	5/32	3/32
P0130.250-012	0,250	0,1255	#10-32	3/8	1/4	3/16	1/8
P0130.250-018	0,250	0,1880	#10-32	3/8	1/4	3/16	1/8
P0130.250-025	0,250	0,2505	#10-32	3/8	1/4	3/16	1/8
P0130.250-031	0,250	0,3130	#10-32	3/8	1/4	3/16	1/8
P0130.250-037	0,250	0,3755	#10-32	3/8	1/4	3/16	1/8
P0130.250-050	0,250	0,5005	#10-32	3/8	1/4	3/16	1/8
P0130.250-062	0,250	0,6255	#10-32	3/8	1/4	3/16	1/8
P0130.250-075	0,250	0,7505	#10-32	3/8	1/4	3/16	1/8
P0130.250-100	0,250	1,0005	#10-32	3/8	1/4	3/16	1/8
P0130.250-125	0,250	1,2505	#10-32	3/8	1/4	3/16	1/8
P0130.250-150	0,250	1,5005	#10-32	3/8	1/4	3/16	1/8
P0130.312-025	0,312	0,2505	1/4-20	1/2	7/16	7/32	5/32
P0130.312-031	0,312	0,3130	1/4-20	1/2	7/16	7/32	5/32

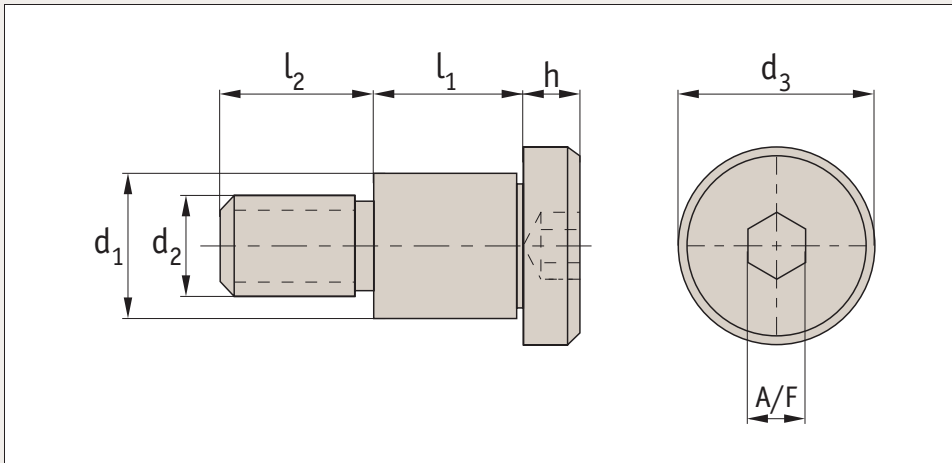
# Inch Shoulder Screws

A2 stainless



Shoulder  
Screws

Order No.	d <sub>1</sub> +0,-0.001	l <sub>1</sub> +0.002,-0.0	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h	A/F
<b>P0130.312-037</b>	0,312	0,3755	1/4-20	1/2	7/16	7/32	5/32
<b>P0130.312-050</b>	0,312	0,5005	1/4-20	1/2	7/16	7/32	5/32
<b>P0130.312-062</b>	0,312	0,6255	1/4-20	1/2	7/16	7/32	5/32
<b>P0130.312-075</b>	0,312	0,7505	1/4-20	1/2	7/16	7/32	5/32
<b>P0130.374-031</b>	0,375	0,3130	1/4-20	1/2	7/16	7/32	5/32
<b>P0130.374-037</b>	0,375	0,3755	1/4-20	1/2	7/16	7/32	5/32
<b>P0130.374-050</b>	0,375	0,5005	1/4-20	1/2	7/16	7/32	5/32
<b>P0130.374-062</b>	0,375	0,6255	1/4-20	1/2	7/16	7/32	5/32
<b>P0130.375-031</b>	0,375	0,3130	5/16-18	9/16	1/2	1/4	3/16
<b>P0130.375-037</b>	0,375	0,3755	5/16-18	9/16	1/2	1/4	3/16
<b>P0130.375-050</b>	0,375	0,5005	5/16-18	9/16	1/2	1/4	3/16
<b>P0130.375-062</b>	0,375	0,6255	5/16-18	9/16	1/2	1/4	3/16
<b>P0130.500-050</b>	0,500	0,5005	3/8-16	3/4	5/8	5/16	1/4
<b>P0130.500-062</b>	0,500	0,6255	3/8-16	3/4	5/8	5/16	1/4
<b>P0130.500-075</b>	0,500	0,7505	3/8-16	3/4	5/8	5/16	1/4
<b>P0130.500-100</b>	0,500	1,0005	3/8-16	3/4	5/8	5/16	1/4



## P0131

### Material

Stainless steel (AISI 416, DIN 1.4005). Heat treated to 26-32 HRC, tensile strength 850-950 N/mm<sup>2</sup>.

### Technical Notes

Stainless steel 416 is a harder, stronger grade of stainless steel than the 303 stainless alternatives.

They are magnetic and slightly less resistant to corrosion than the 303 alternative (see P0130 or P0132).

For corrosion resistance it is suited to dry atmosphere, fresh water and mild alkalis and acids.

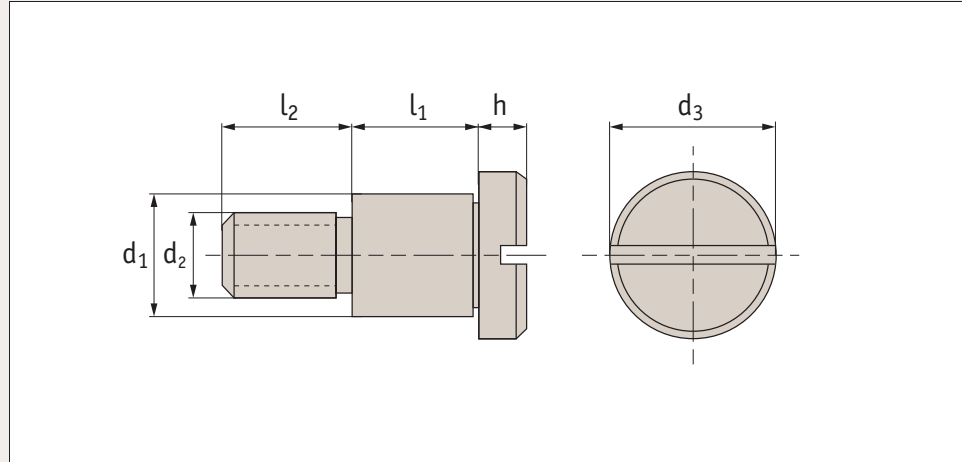
Special lengths and diameters produced to drawings.

Order No.	$d_1$ +0, -0.025	$l_1$ +0.05, -0.0	$d_2$	$d_3$	$l_2$	$h$	A/F
P0131.040-004	4	4	M 3	6	4	3	2
P0131.040-005	4	5	M 3	6	4	3	2
P0131.040-006	4	6	M 3	6	4	3	2
P0131.040-008	4	8	M 3	6	4	3	2
P0131.040-010	4	10	M 3	6	4	3	2
P0131.050-004	5	4	M 4	8	5	4	2,5
P0131.050-005	5	5	M 4	8	5	4	2,5
P0131.050-006	5	6	M 4	8	5	4	2,5
P0131.050-008	5	8	M 4	8	5	4	2,5
P0131.050-010	5	10	M 4	8	5	4	2,5
P0131.050-012	5	12	M 4	8	5	4	2,5
P0131.050-014	5	14	M 4	8	5	4	2,5
P0131.050-016	5	16	M 4	8	5	4	2,5
P0131.050-020	5	20	M 4	8	5	4	2,5
P0131.050-025	5	25	M 4	8	5	4	2,5
P0131.050-030	5	30	M 4	8	5	4	2,5
P0131.060-004	6	4	M 5	10	6	5	3
P0131.060-005	6	5	M 5	10	6	5	3
P0131.060-006	6	6	M 5	10	6	5	3
P0131.060-008	6	8	M 5	10	6	5	3
P0131.060-010	6	10	M 5	10	6	5	3
P0131.060-012	6	12	M 5	10	6	5	3
P0131.060-014	6	14	M 5	10	6	5	3
P0131.060-016	6	16	M 5	10	6	5	3
P0131.060-020	6	20	M 5	10	6	5	3
P0131.060-025	6	25	M 5	10	6	5	3

Order No.	$d_1$ +0, -0.025	$l_1$ +0.05, -0.0	$d_2$	$d_3$	$l_2$	$h$	A/F
P0131.060-030	6	30	M 5	10	6	5	3
P0131.080-006	8	6	M 6	12	11	6	4
P0131.080-008	8	8	M 6	12	11	6	4
P0131.080-010	8	10	M 6	12	11	6	4
P0131.080-012	8	12	M 6	12	11	6	4
P0131.080-014	8	14	M 6	12	11	6	4
P0131.080-016	8	16	M 6	12	11	6	4
P0131.080-020	8	20	M 6	12	11	6	4
P0131.080-025	8	25	M 6	12	11	6	4
P0131.080-030	8	30	M 6	12	11	6	4
P0131.100-008	10	8	M 6	12	11	6	4
P0131.100-010	10	10	M 6	12	11	6	4
P0131.100-012	10	12	M 6	12	11	6	4
P0131.100-016	10	16	M 6	12	11	6	4
P0131.101-008	10	8	M 8	14	12	7	5
P0131.101-010	10	10	M 8	14	12	7	5
P0131.101-012	10	12	M 8	14	12	7	5
P0131.101-016	10	16	M 8	14	12	7	5
P0131.120-012	12	12	M10	20	16	8	6
P0131.120-016	12	16	M10	20	16	8	6
P0131.120-020	12	20	M10	20	16	8	6
P0131.120-025	12	25	M10	20	16	8	6
P0131.120-030	12	30	M10	20	16	8	6



## P0132



### Material

Stainless steel (A2, AISI 303). Tensile strength 550 N/mm<sup>2</sup>.

### Technical Notes

A2 stainless steel provides good resistance to corrosion, it is soft and non-magnetic.

These A2 shoulder screws are less expensive than the 416

steel grade (see part no. P0133), which are harder but less resistant to corrosion.

For Ø16 (and above) stainless steel shoulder screws see part no. P0137.

Special lengths and diameters produced to drawings.

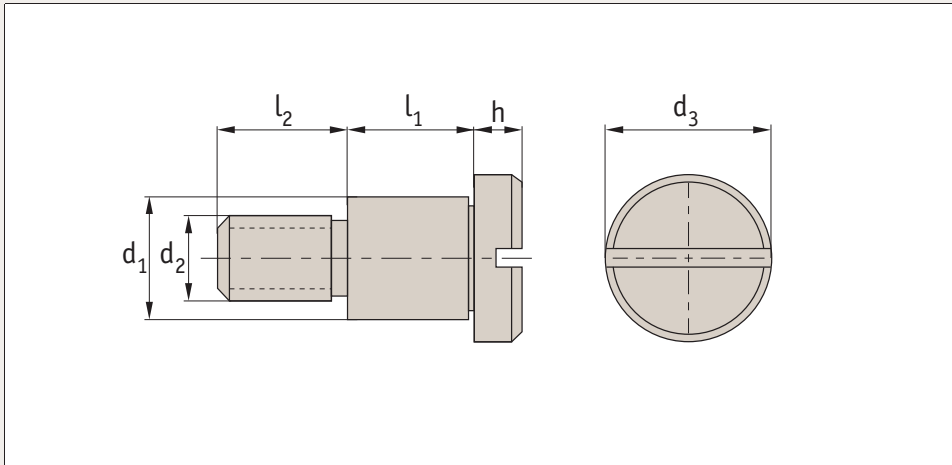
Order No.	d <sub>1</sub> +0,-0.025	l <sub>1</sub> +0,-0.05	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h
P0132.040-004	4	4	M 3	6	4	3
P0132.040-005	4	5	M 3	6	4	3
P0132.040-006	4	6	M 3	6	4	3
P0132.040-008	4	8	M 3	6	4	3
P0132.040-010	4	10	M 3	6	4	3
P0132.050-004	5	4	M 4	8	5	4
P0132.050-005	5	5	M 4	8	5	4
P0132.050-006	5	6	M 4	8	5	4
P0132.050-008	5	8	M 4	8	5	4
P0132.050-010	5	10	M 4	8	5	4
P0132.050-012	5	12	M 4	8	5	4
P0132.050-014	5	14	M 4	8	5	4
P0132.050-016	5	16	M 4	8	5	4
P0132.050-020	5	20	M 4	8	5	4
P0132.050-025	5	25	M 4	8	5	4
P0132.050-030	5	30	M 4	8	5	4
P0132.060-004	6	4	M 5	10	6	5
P0132.060-005	6	5	M 5	10	6	5
P0132.060-006	6	6	M 5	10	6	5
P0132.060-008	6	8	M 5	10	6	5
P0132.060-010	6	10	M 5	10	6	5

Order No.	d <sub>1</sub> +0,-0.025	l <sub>1</sub> +0,-0.05	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h
P0132.060-012	6	12	M 5	10	6	5
P0132.060-014	6	14	M 5	10	6	5
P0132.060-016	6	16	M 5	10	6	5
P0132.060-020	6	20	M 5	10	6	5
P0132.060-025	6	25	M 5	10	6	5
P0132.060-030	6	30	M 5	10	6	5
P0132.080-006	8	6	M 6	12	11	6
P0132.080-008	8	8	M 6	12	11	6
P0132.080-010	8	10	M 6	12	11	6
P0132.080-012	8	12	M 6	12	11	6
P0132.080-016	8	16	M 6	12	11	6
P0132.100-008	10	8	M 6	12	11	6
P0132.100-012	10	12	M 6	12	11	6
P0132.101-008	10	8	M 8	14	12	7
P0132.101-012	10	12	M 8	14	12	7
P0132.101-016	10	16	M 8	14	12	7
P0132.120-012	12	12	M10	20	16	8
P0132.120-025	12	25	M10	20	16	8

# Inch Shoulder Screws - Slot Head

A2 stainless

Shoulder  
Screws



**P0132.i**

## Material

Stainless steel (A2, AISI 303). Tensile strength 550 N/mm<sup>2</sup>.

## Technical Notes

A2 stainless steel provides good resistance to corrosion, it is soft and

non-magnetic.

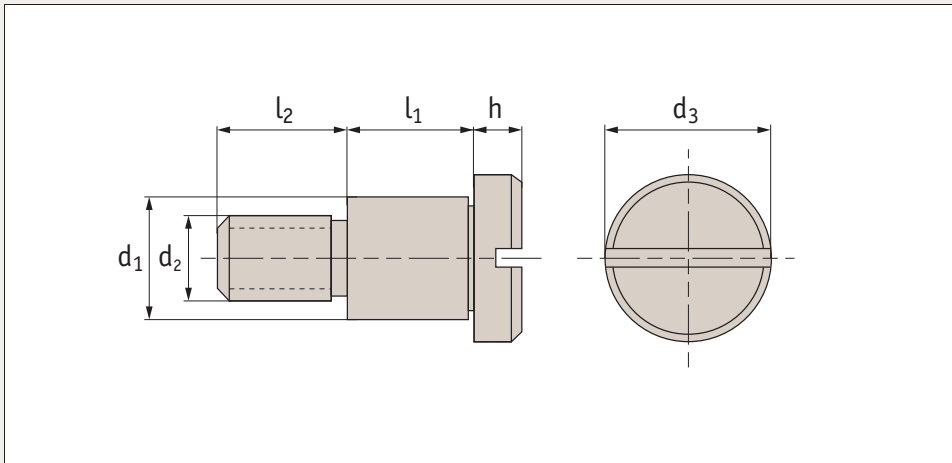
Order No.	d <sub>1</sub> " +0, -0.001	l <sub>1</sub> " +0.002, -0.000	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h
<b>P0132.125-012</b>	(1/8") 0,1245	(1/8") 0,1255	#4- 40 UNC	6,3500	3,9688	3,1750
<b>P0132.125-018</b>	(1/8") 0,1245	(3/16") 0,1880	#4- 40 UNC	6,3500	3,9688	3,1750
<b>P0132.125-025</b>	(1/8") 0,1245	(1/4") 0,2505	#4- 40 UNC	6,3500	3,9688	3,1750
<b>P0132.125-031</b>	(1/8") 0,1245	(5/16") 0,3130	#4- 40 UNC	6,3500	3,9688	3,1750
<b>P0132.125-037</b>	(1/8") 0,1245	(3/8") 0,3755	#4- 40 UNC	6,3500	3,9688	3,1750
<b>P0132.187-012</b>	(3/16") 0,1870	(1/8") 0,1255	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-018</b>	(3/16") 0,1870	(3/16") 0,1880	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-025</b>	(3/16") 0,1870	(1/4") 0,2505	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-031</b>	(3/16") 0,1870	(5/16") 0,3130	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-037</b>	(3/16") 0,1870	(3/8") 0,3755	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-050</b>	(3/16") 0,1870	(1/2") 0,5005	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-062</b>	(3/16") 0,1870	(5/8") 0,6255	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-075</b>	(3/16") 0,1870	(3/4") 0,7505	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-100</b>	(3/16") 0,1870	(1") 1,0005	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-125</b>	(3/16") 0,1870	(1 1/4") 1,2505	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.187-150</b>	(3/16") 0,1870	(1 1/2") 1,5005	#8- 32 UNC	7,9375	4,7625	3,9688
<b>P0132.250-012</b>	(1/4") 0,2495	(1/8") 0,1255	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-018</b>	(1/4") 0,2495	(3/16") 0,1880	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-025</b>	(1/4") 0,2495	(1/4") 0,2505	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-031</b>	(1/4") 0,2495	(5/16") 0,3130	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-037</b>	(1/4") 0,2495	(3/8") 0,3755	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-050</b>	(1/4") 0,2495	(1/2") 0,5005	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-062</b>	(1/4") 0,2495	(5/8") 0,6255	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-075</b>	(1/4") 0,2495	(3/4") 0,7505	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-100</b>	(1/4") 0,2495	(1") 1,0005	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-125</b>	(1/4") 0,2495	(1 1/4") 1,2505	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.250-150</b>	(1/4") 0,2495	(1 1/2") 1,5005	#10-32 UNF	9,5250	6,3500	4,7625
<b>P0132.312-025</b>	(5/16") 0,3120	(1/4") 0,2505	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.312-031</b>	(5/16") 0,3120	(5/16") 0,3130	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.312-037</b>	(5/16") 0,3120	(3/8") 0,3755	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.312-050</b>	(5/16") 0,3120	(1/2") 0,5005	1/4-20 UNC	12,7000	11,1125	5,5563

Order No.	d <sub>1</sub> " +0,-0.001	l <sub>1</sub> " +0.002,-0.000	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h
<b>P0132.312-062</b>	(5/16") 0,3120	(5/8") 0,6255	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.312-075</b>	(5/16") 0,3120	(3/4") 0,7505	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.374-031</b>	(3/8") 0,3745	(5/16") 0,3130	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.374-037</b>	(3/8") 0,3745	(3/8") 0,3755	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.374-050</b>	(3/8") 0,3745	(1/2") 0,5005	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.374-062</b>	(3/8") 0,3745	(5/8") 0,6255	1/4-20 UNC	12,7000	11,1125	5,5563
<b>P0132.375-031</b>	(3/8") 0,3745	(5/16") 0,3130	5/16-18 UNC	14,2875	12,7000	6,3500
<b>P0132.375-037</b>	(3/8") 0,3745	(3/8") 0,3755	5/16-18 UNC	14,2875	12,7000	6,3500
<b>P0132.375-050</b>	(3/8") 0,3745	(1/2") 0,5005	5/16-18 UNC	14,2875	12,7000	6,3500
<b>P0132.375-062</b>	(3/8") 0,3745	(5/8") 0,6255	5/16-18 UNC	14,2875	12,7000	6,3500
<b>P0132.500-050</b>	(1/2") 0,4995	(1/2") 0,5005	3/8-16 UNC	19,0500	15,8750	7,9375
<b>P0132.500-062</b>	(1/2") 0,4995	(5/8") 0,6255	3/8-16 UNC	19,0500	15,8750	7,9375
<b>P0132.500-075</b>	(1/2") 0,4995	(3/4") 0,7505	3/8-16 UNC	19,0500	15,8750	7,9375
<b>P0132.500-100</b>	(1/2") 0,4995	(1") 1,0005	3/8-16 UNC	19,0500	15,8750	7,9375

# Shoulder Screws - Slot Head

stainless 416

## Shoulder Screws



### P0133

#### Material

Stainless steel (AISI 416, DIN 1.4005). Heat treated to 26-32 HRC, tensile strength 850-950 N/mm<sup>2</sup>.

#### Technical Notes

Stainless steel 416 is a harder, stronger grade of stainless steel than the 303 stainless alternatives. They are magnetic

and slightly less resistant to corrosion than the 303 alternative (see P0130 or P0132).

For corrosion resistance it is suited to dry atmosphere, fresh water and mild alkalis and acids.

Special lengths and diameters produced to drawings.

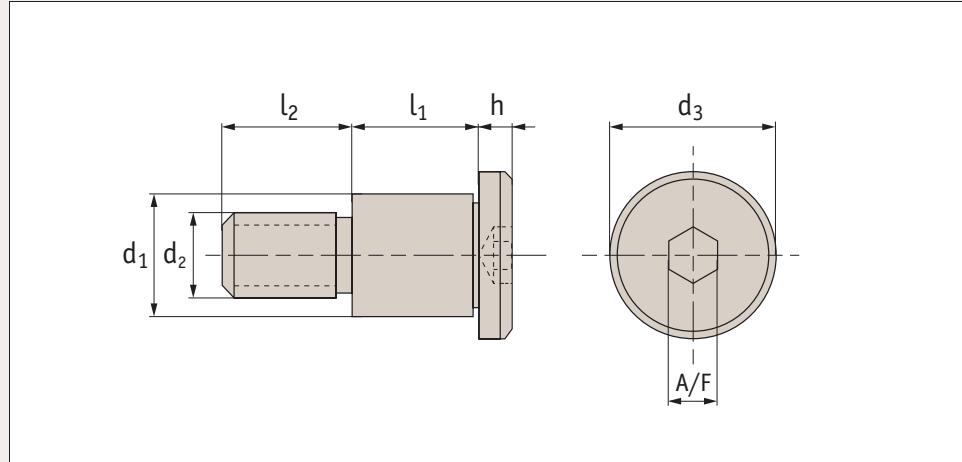
Order No.	d <sub>1</sub> +0,-0.025	l <sub>1</sub> +0,-0.05	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h
P0133.040-004	4	4	M 3	6	4	3
P0133.040-005	4	5	M 3	6	4	3
P0133.040-006	4	6	M 3	6	4	3
P0133.040-008	4	8	M 3	6	4	3
P0133.040-010	4	10	M 3	6	4	3
P0133.050-004	5	4	M 4	8	5	4
P0133.050-005	5	5	M 4	8	5	4
P0133.050-006	5	6	M 4	8	5	4
P0133.050-008	5	8	M 4	8	5	4
P0133.050-010	5	10	M 4	8	5	4
P0133.050-012	5	12	M 4	8	5	4
P0133.050-014	5	14	M 4	8	5	4
P0133.050-016	5	16	M 4	8	5	4
P0133.050-020	5	20	M 4	8	5	4
P0133.050-030	5	30	M 4	8	5	4
P0133.060-004	6	4	M 5	10	6	5
P0133.060-005	6	5	M 5	10	6	5
P0133.060-006	6	6	M 5	10	6	5
P0133.060-008	6	8	M 5	10	6	5
P0133.060-010	6	10	M 5	10	6	5
P0133.060-014	6	14	M 5	10	6	5

Order No.	d <sub>1</sub> +0,-0.025	l <sub>1</sub> +0,-0.05	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h
P0133.060-016	6	16	M 5	10	6	5
P0133.060-020	6	20	M 5	10	6	5
P0133.060-025	6	25	M 5	10	6	5
P0133.060-030	6	30	M 5	10	6	5
P0133.080-006	8	6	M 6	12	11	6
P0133.080-008	8	8	M 6	12	11	6
P0133.080-010	8	10	M 6	12	11	6
P0133.080-012	8	12	M 6	12	11	6
P0133.080-016	8	16	M 6	12	11	6
P0133.100-008	10	8	M 6	12	11	6
P0133.100-012	10	12	M 6	12	11	6
P0133.100-016	10	16	M 6	12	11	6
P0133.101-008	10	8	M 8	14	12	7
P0133.101-012	10	12	M 8	14	12	7
P0133.101-016	10	16	M 8	14	12	7
P0133.120-012	12	12	M10	20	16	8
P0133.120-016	12	16	M10	20	16	8
P0133.120-025	12	26	M10	20	16	8





## P0134



### Material

Stainless steel (A2, AISI 303 and A4, AISI 316).

### Technical Notes

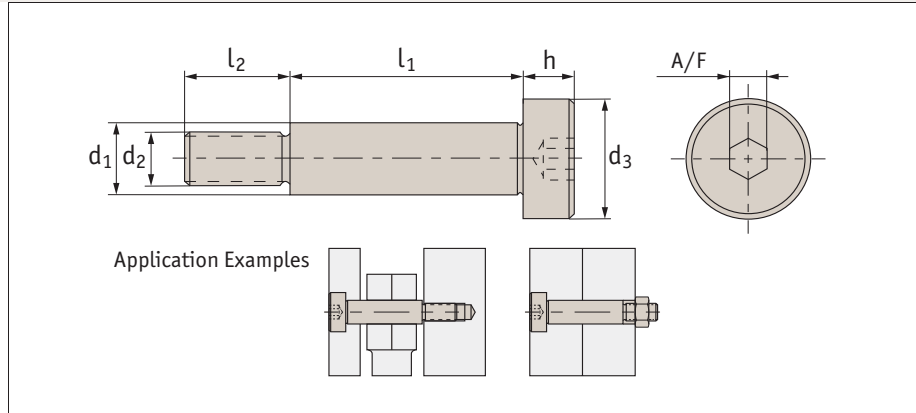
These very low profile socket shoulder screws have a head height approximately 1/3 that of normal shoulder screws.

Order No.	d <sub>1</sub> +0, -0.025	l <sub>1</sub> +0.05, -0.0	d <sub>2</sub>	l <sub>2</sub>	d <sub>3</sub>	h	A/F	Material
<b>P0134.040-004-A2</b>	4	4	M3	4	6	1,3	2	A2 s/s
<b>P0134.040-005-A2</b>	4	5	M3	4	6	1,3	2	A2 s/s
<b>P0134.040-006-A2</b>	4	6	M3	4	6	1,3	2	A2 s/s
<b>P0134.040-008-A2</b>	4	8	M3	4	6	1,3	2	A2 s/s
<b>P0134.040-010-A2</b>	4	10	M3	4	6	1,3	2	A2 s/s
<b>P0134.050-004-A2</b>	5	4	M4	5	9	1,3	2,5	A2 s/s
<b>P0134.050-005-A2</b>	5	5	M4	5	9	1,3	2,5	A2 s/s
<b>P0134.050-006-A2</b>	5	6	M4	5	9	1,3	2,5	A2 s/s
<b>P0134.050-008-A2</b>	5	8	M4	5	9	1,3	2,5	A2 s/s
<b>P0134.050-010-A2</b>	5	10	M4	5	9	1,3	2,5	A2 s/s
<b>P0134.050-012-A2</b>	5	12	M4	5	9	1,3	2,5	A2 s/s
<b>P0134.050-016-A2</b>	5	16	M4	5	9	1,3	2,5	A2 s/s
<b>P0134.050-020-A2</b>	5	20	M4	5	9	1,3	2,5	A2 s/s
<b>P0134.060-004-A2</b>	6	4	M5	6	10	1,7	3	A2 s/s
<b>P0134.060-005-A2</b>	6	5	M5	6	10	1,7	3	A2 s/s
<b>P0134.060-006-A2</b>	6	6	M5	6	10	1,7	3	A2 s/s
<b>P0134.060-008-A2</b>	6	8	M5	6	10	1,7	3	A2 s/s
<b>P0134.060-010-A2</b>	6	10	M5	6	10	1,7	3	A2 s/s
<b>P0134.060-012-A2</b>	6	12	M5	6	10	1,7	3	A2 s/s
<b>P0134.060-016-A2</b>	6	16	M5	6	10	1,7	3	A2 s/s
<b>P0134.060-020-A2</b>	6	20	M5	6	10	1,7	3	A2 s/s
<b>P0134.080-006-A2</b>	8	6	M6	11	13	2,0	4	A2 s/s
<b>P0134.080-008-A2</b>	8	8	M6	11	13	2,0	4	A2 s/s
<b>P0134.080-010-A2</b>	8	10	M6	11	13	2,0	4	A2 s/s
<b>P0134.080-012-A2</b>	8	12	M6	11	13	2,0	4	A2 s/s
<b>P0134.080-016-A2</b>	8	16	M6	11	13	2,0	4	A2 s/s
<b>P0134.080-020-A2</b>	8	20	M6	11	13	2,0	4	A2 s/s

Order No.	d <sub>1</sub> +0, -0.025	l <sub>1</sub> +0.05, -0.0	d <sub>2</sub>	l <sub>2</sub>	d <sub>3</sub>	h	A/F	Material
<b>P0134.040-004-A4</b>	4	4	M3	4	6	1,3	2	A4 s/s
<b>P0134.040-005-A4</b>	4	5	M3	4	6	1,3	2	A4 s/s
<b>P0134.040-006-A4</b>	4	6	M3	4	6	1,3	2	A4 s/s
<b>P0134.040-008-A4</b>	4	8	M3	4	6	1,3	2	A4 s/s
<b>P0134.040-010-A4</b>	4	10	M3	4	6	1,3	2	A4 s/s
<b>P0134.050-004-A4</b>	5	4	M4	5	9	1,3	2,5	A4 s/s
<b>P0134.050-005-A4</b>	5	5	M4	5	9	1,3	2,5	A4 s/s
<b>P0134.050-006-A4</b>	5	6	M4	5	9	1,3	2,5	A4 s/s
<b>P0134.050-008-A4</b>	5	8	M4	5	9	1,3	2,5	A4 s/s
<b>P0134.050-010-A4</b>	5	10	M4	5	9	1,3	2,5	A4 s/s
<b>P0134.050-012-A4</b>	5	12	M4	5	9	1,3	2,5	A4 s/s
<b>P0134.050-016-A4</b>	5	16	M4	5	9	1,3	2,5	A4 s/s
<b>P0134.050-020-A4</b>	5	20	M4	5	9	1,3	2,5	A4 s/s
<b>P0134.060-004-A4</b>	6	4	M5	6	10	1,7	3	A4 s/s
<b>P0134.060-005-A4</b>	6	5	M5	6	10	1,7	3	A4 s/s
<b>P0134.060-006-A4</b>	6	6	M5	6	10	1,7	3	A4 s/s
<b>P0134.060-008-A4</b>	6	8	M5	6	10	1,7	3	A4 s/s
<b>P0134.060-010-A4</b>	6	10	M5	6	10	1,7	3	A4 s/s
<b>P0134.060-012-A4</b>	6	12	M5	6	10	1,7	3	A4 s/s
<b>P0134.060-016-A4</b>	6	16	M5	6	10	1,7	3	A4 s/s
<b>P0134.060-020-A4</b>	6	20	M5	6	10	1,7	3	A4 s/s
<b>P0134.080-006-A4</b>	8	6	M6	11	13	2,0	4	A4 s/s
<b>P0134.080-008-A4</b>	8	8	M6	11	13	2,0	4	A4 s/s
<b>P0134.080-010-A4</b>	8	10	M6	11	13	2,0	4	A4 s/s
<b>P0134.080-012-A4</b>	8	12	M6	11	13	2,0	4	A4 s/s
<b>P0134.080-016-A4</b>	8	16	M6	11	13	2,0	4	A4 s/s
<b>P0134.080-020-A4</b>	8	20	M6	11	13	2,0	4	A4 s/s



## P0137



### Material

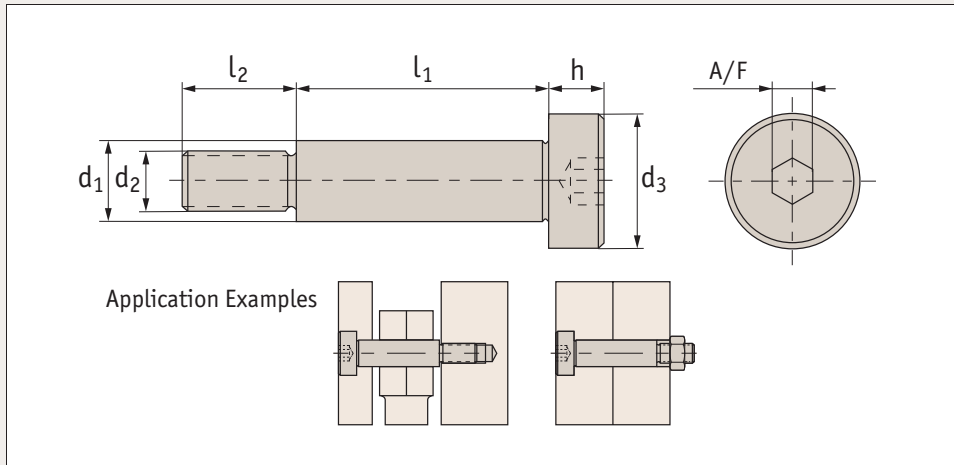
Stainless steel (A2, AISI 303).  
Tensile strength 580 N/mm<sup>2</sup>, yield strength 200 N/mm<sup>2</sup>.

### Technical Notes

To ISO 7379. These are generally larger sizes than the other stainless shoulder screws (P0130 and P0132).  
Mildly magnetic.

Order No.	d <sub>1</sub> f9	l <sub>1</sub> +0,25	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h	A/F
P0137.060-008	6	8	M 5	10	9,5	4,5	3
P0137.060-010	6	10	M 5	10	9,5	4,5	3
P0137.060-012	6	12	M 5	10	9,5	4,5	3
P0137.060-016	6	16	M 5	10	9,5	4,5	3
P0137.060-020	6	20	M 5	10	9,5	4,5	3
P0137.060-025	6	25	M 5	10	9,5	4,5	3
P0137.060-030	6	30	M 5	10	9,5	4,5	3
P0137.060-040	6	40	M 5	10	9,5	4,5	3
P0137.060-050	6	50	M 5	10	9,5	4,5	3
P0137.060-060	6	60	M 5	10	9,5	4,5	3
P0137.060-070	6	70	M 5	10	9,5	4,5	3
P0137.060-080	6	80	M 5	10	9,5	4,5	3
P0137.060-090	6	90	M 5	10	9,5	4,5	3
P0137.060-100	6	100	M 5	10	9,5	4,5	3
P0137.080-008	8	8	M 6	13	11	5,5	4
P0137.080-010	8	10	M 6	13	11	5,5	4
P0137.080-012	8	12	M 6	13	11	5,5	4
P0137.080-016	8	16	M 6	13	11	5,5	4
P0137.080-020	8	20	M 6	13	11	5,5	4
P0137.080-025	8	25	M 6	13	11	5,5	4
P0137.080-030	8	30	M 6	13	11	5,5	4
P0137.080-040	8	40	M 6	13	11	5,5	4
P0137.080-050	8	50	M 6	13	11	5,5	4
P0137.080-060	8	60	M 6	13	11	5,5	4
P0137.080-070	8	70	M 6	13	11	5,5	4
P0137.080-080	8	80	M 6	13	11	5,5	4
P0137.080-090	8	90	M 6	13	11	5,5	4
P0137.080-100	8	100	M 6	13	11	5,5	4
P0137.100-010	10	10	M 8	16	13	7	5
P0137.100-012	10	12	M 8	16	13	7	5
P0137.100-016	10	16	M 8	16	13	7	5
P0137.100-020	10	20	M 8	16	13	7	5
P0137.100-025	10	25	M 8	16	13	7	5

Order No.	d <sub>1</sub> f9	l <sub>1</sub> +0,25	d <sub>2</sub>	d <sub>3</sub>	l <sub>2</sub>	h	A/F
P0137.100-030	10	30	M 8	16	13	7	5
P0137.100-040	10	40	M 8	16	13	7	5
P0137.100-050	10	50	M 8	16	13	7	5
P0137.100-060	10	60	M 8	16	13	7	5
P0137.100-070	10	70	M 8	16	13	7	5
P0137.100-080	10	80	M 8	16	13	7	5
P0137.100-090	10	90	M 8	16	13	7	5
P0137.100-100	10	100	M 8	16	13	7	5
P0137.120-016	12	16	M10	18	16	9	6
P0137.120-020	12	20	M10	18	16	9	6
P0137.120-025	12	25	M10	18	16	9	6
P0137.120-030	12	30	M10	18	16	9	6
P0137.120-040	12	40	M10	18	16	9	6
P0137.120-050	12	50	M10	18	16	9	6
P0137.120-060	12	60	M10	18	16	9	6
P0137.120-070	12	70	M10	18	16	9	6
P0137.120-080	12	80	M10	18	16	9	6
P0137.120-090	12	90	M10	18	16	9	6
P0137.120-100	12	100	M10	18	16	9	6
P0137.160-025	16	25	M12	24	18	11	8
P0137.160-030	16	30	M12	24	18	11	8
P0137.160-040	16	40	M12	24	18	11	8
P0137.160-050	16	50	M12	24	18	11	8
P0137.160-060	16	60	M12	24	18	11	8
P0137.160-070	16	70	M12	24	18	11	8
P0137.160-080	16	80	M12	24	18	11	8
P0137.160-090	16	90	M12	24	18	11	8
P0137.160-100	16	100	M12	24	18	11	8
P0137.200-030	20	30	M16	30	22	14	10
P0137.200-040	20	40	M16	30	22	14	10
P0137.200-050	20	50	M16	30	22	14	10
P0137.200-060	20	60	M16	30	22	14	10



## P0143.A4

### Material

Stainless steel (A4, AISI 316).  
Tensile strength 480 N/mm<sup>2</sup>, yield strength 175 N/mm<sup>2</sup>,  
hardness 80 HRB.

### Technical Notes

Highly resistant to corrosion (including from salt water).  
These A4 stainless steel shoulder bolts are considerably

more expensive than our standard A2 grade stainless  
shoulder bolts (P0137). Mildly magnetic.  
Shim washers can be used to reduce shoulder length if  
required.

Can also be manufactured (for a batch size) in:  
Aluminium (6061-T6), Monel (grade 405), Titanium (grade  
2).

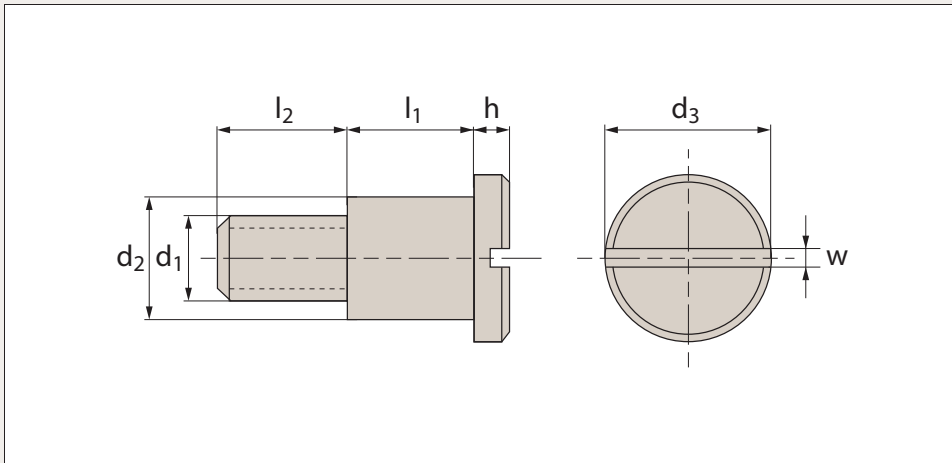
Order No.	d <sub>1</sub> +0,- 0.025	l <sub>1</sub> +0, -0.05	d <sub>2</sub>	l <sub>2</sub>	d <sub>3</sub>	h	A/F
<b>P0143.030-004</b>	3	4	M 2	4	5	2	2
<b>P0143.030-005</b>	3	5	M 2	4	5	2	2
<b>P0143.030-006</b>	3	6	M 2	4	5	2	2
<b>P0143.030-008</b>	3	8	M 2	4	5	2	2
<b>P0143.030-010</b>	3	10	M 2	4	5	2	2
<b>P0143.040-004</b>	4	4	M 3	4,8	6	3	2
<b>P0143.040-005</b>	4	5	M 3	4,8	6	3	2
<b>P0143.040-006</b>	4	6	M 3	4,8	6	3	2
<b>P0143.040-008</b>	4	8	M 3	4,8	6	3	2
<b>P0143.040-010</b>	4	10	M 3	4,8	6	3	2
<b>P0143.050-010</b>	5	10	M 4	8,5	9	4	2,5
<b>P0143.050-012</b>	5	12	M 4	8,5	9	4	2,5
<b>P0143.050-016</b>	5	16	M 4	8,5	9	4	2,5
<b>P0143.050-020</b>	5	20	M 4	8,5	9	4	2,5
<b>P0143.050-025</b>	5	25	M 4	8,5	9	4	2,5
<b>P0143.050-030</b>	5	30	M 4	8,5	9	4	2,5
<b>P0143.060-010</b>	6	10	M 5	9,5	10	4,5	3
<b>P0143.060-012</b>	6	12	M 5	9,5	10	4,5	3
<b>P0143.060-016</b>	6	16	M 5	9,5	10	4,5	3
<b>P0143.060-020</b>	6	20	M 5	9,5	10	4,5	3
<b>P0143.060-025</b>	6	25	M 5	9,5	10	4,5	3
<b>P0143.060-030</b>	6	30	M 5	9,5	10	4,5	3
<b>P0143.060-040</b>	6	40	M 5	9,5	10	4,5	3
<b>P0143.060-050</b>	6	50	M 5	9,5	10	4,5	3

Order No.	d <sub>1</sub> +0,- 0.025	l <sub>1</sub> +0, -0.05	d <sub>2</sub>	l <sub>2</sub>	d <sub>3</sub>	h	A/F
<b>P0143.080-012</b>	8	12	M 6	11	13	5,5	4
<b>P0143.080-016</b>	8	16	M 6	11	13	5,5	4
<b>P0143.080-020</b>	8	20	M 6	11	13	5,5	4
<b>P0143.080-025</b>	8	25	M 6	11	13	5,5	4
<b>P0143.080-030</b>	8	30	M 6	11	13	5,5	4
<b>P0143.080-040</b>	8	40	M 6	11	13	5,5	4
<b>P0143.080-050</b>	8	50	M 6	11	13	5,5	4
<b>P0143.100-016</b>	10	16	M 8	13	16	7	5
<b>P0143.100-020</b>	10	20	M 8	13	16	7	5
<b>P0143.100-025</b>	10	25	M 8	13	16	7	5
<b>P0143.100-030</b>	10	30	M 8	13	16	7	5
<b>P0143.100-040</b>	10	40	M 8	13	16	7	5
<b>P0143.100-050</b>	10	50	M 8	13	16	7	5
<b>P0143.100-060</b>	10	60	M 8	13	16	7	5
<b>P0143.100-070</b>	10	70	M 8	13	16	7	5
<b>P0143.120-016</b>	12	16	M10	16	18	9	6
<b>P0143.120-020</b>	12	20	M10	16	18	9	6
<b>P0143.120-025</b>	12	25	M10	16	18	9	6
<b>P0143.120-030</b>	12	30	M10	16	18	9	6
<b>P0143.120-040</b>	12	40	M10	16	18	9	6
<b>P0143.120-050</b>	12	50	M10	16	18	9	6
<b>P0143.120-060</b>	12	60	M10	16	18	9	6
<b>P0143.120-070</b>	12	70	M10	16	18	9	6

# Pan Head Shoulder Screws

A2 stainless

Shoulder  
Screws



**P0144.A2**

## Material

Stainless steel (A2, AISI 303).

## Technical Notes

DIN 923. Mildly magnetic.

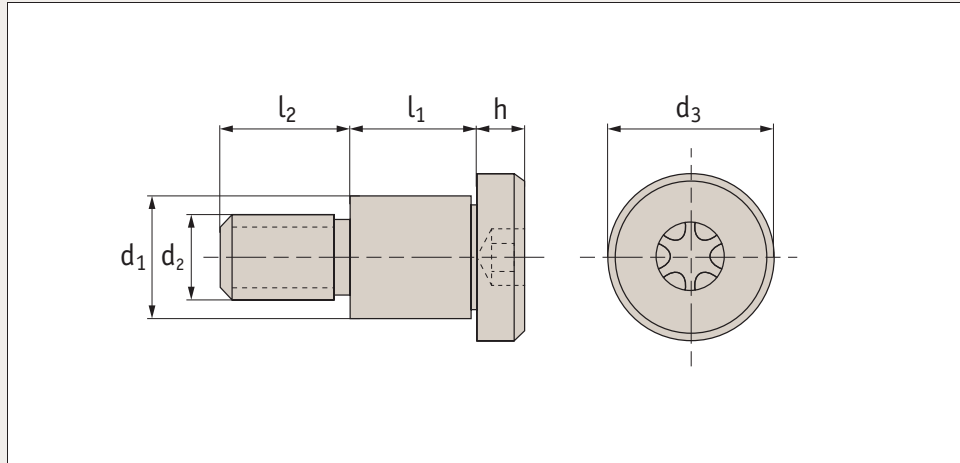
Available on request in A4 stainless steel.

Order No.	$d_1$	$d_2$ h9	$l_1$	$d_3$	$l_2$	h	w
<b>P0144.030-003-A2</b>	M3	4,0	3	7,0	4,5	1,8	0,8
<b>P0144.030-004-A2</b>	M3	4,0	4	7,0	4,5	1,8	0,8
<b>P0144.030-005-A2</b>	M3	4,0	5	7,0	4,5	1,8	0,8
<b>P0144.030-006-A2</b>	M3	4,0	6	7,0	4,5	1,8	0,8
<b>P0144.030-008-A2</b>	M3	4,0	8	7,0	4,5	1,8	0,8
<b>P0144.030-010-A2</b>	M3	4,0	10	7,0	4,5	1,8	0,8
<b>P0144.030-012-A2</b>	M3	4,0	12	7,0	4,5	1,8	0,8
<b>P0144.040-003-A2</b>	M4	5,5	3	8,5	6,0	2,4	1,0
<b>P0144.040-004-A2</b>	M4	5,5	4	8,5	6,0	2,4	1,0
<b>P0144.040-005-A2</b>	M4	5,5	5	8,5	6,0	2,4	1,0
<b>P0144.040-006-A2</b>	M4	5,5	6	8,5	6,0	2,4	1,0
<b>P0144.040-008-A2</b>	M4	5,5	8	8,5	6,0	2,4	1,0
<b>P0144.040-010-A2</b>	M4	5,5	10	8,5	6,0	2,4	1,0
<b>P0144.040-012-A2</b>	M4	5,5	12	8,5	6,0	2,4	1,0
<b>P0144.040-016-A2</b>	M4	5,5	16	8,5	6,0	2,4	1,0
<b>P0144.040-020-A2</b>	M4	5,5	20	8,5	6,0	2,4	1,0
<b>P0144.050-003-A2</b>	M5	7,0	3	11,0	7,0	2,7	1,2
<b>P0144.050-004-A2</b>	M5	7,0	4	11,0	7,0	2,7	1,2
<b>P0144.050-005-A2</b>	M5	7,0	5	11,0	7,0	2,7	1,2
<b>P0144.050-006-A2</b>	M5	7,0	6	11,0	7,0	2,7	1,2
<b>P0144.050-008-A2</b>	M5	7,0	8	11,0	7,0	2,7	1,2

Order No.	$d_1$	$d_2$ h9	$l_1$	$d_3$	$l_2$	h	w
<b>P0144.050-010-A2</b>	M5	7,0	10	11,0	7,0	2,7	1,2
<b>P0144.050-012-A2</b>	M5	7,0	12	11,0	7,0	2,7	1,2
<b>P0144.050-016-A2</b>	M5	7,0	16	11,0	7,0	2,7	1,2
<b>P0144.050-020-A2</b>	M5	7,0	20	11,0	7,0	2,7	1,2
<b>P0144.060-003-A2</b>	M6	8,0	3	13,0	9,0	3,1	1,6
<b>P0144.060-004-A2</b>	M6	8,0	4	13,0	9,0	3,1	1,6
<b>P0144.060-005-A2</b>	M6	8,0	5	13,0	9,0	3,1	1,6
<b>P0144.060-006-A2</b>	M6	8,0	6	13,0	9,0	3,1	1,6
<b>P0144.060-008-A2</b>	M6	8,0	8	13,0	9,0	3,1	1,6
<b>P0144.060-010-A2</b>	M6	8,0	10	13,0	9,0	3,1	1,6
<b>P0144.060-012-A2</b>	M6	8,0	12	13,0	9,0	3,1	1,6
<b>P0144.060-016-A2</b>	M6	8,0	16	13,0	9,0	3,1	1,6
<b>P0144.060-020-A2</b>	M6	8,0	20	13,0	9,0	3,1	1,6
<b>P0144.080-006-A2</b>	M8	10,0	6	16,0	11,0	3,8	2,0
<b>P0144.080-008-A2</b>	M8	10,0	8	16,0	11,0	3,8	2,0
<b>P0144.080-010-A2</b>	M8	10,0	10	16,0	11,0	3,8	2,0
<b>P0144.080-012-A2</b>	M8	10,0	12	16,0	11,0	3,8	2,0
<b>P0144.080-016-A2</b>	M8	10,0	16	16,0	11,0	3,8	2,0
<b>P0144.080-020-A2</b>	M8	10,0	20	16,0	11,0	3,8	2,0



## P0145



### Material

Stainless steel (A2, AISI 303). Tensile strength 550 N/mm<sup>2</sup>.

### Technical Notes

A2 stainless steel provides good resistance to corrosion, it is soft and non-magnetic.  
Special lengths and diameters produced to drawings.

Order No.	d <sub>1</sub> k6	l <sub>1</sub> +0.25, -0.00	d <sub>2</sub>	l <sub>2</sub>	d <sub>3</sub>	h	Drive
P0145.040-004	4	4	M 3	4,8	6	3	TX-8
P0145.040-005	4	5	M 3	4,8	6	3	TX-8
P0145.040-006	4	6	M 3	4,8	6	3	TX-8
P0145.040-008	4	8	M 3	4,8	6	3	TX-8
P0145.040-010	4	10	M 3	4,8	6	3	TX-8
P0145.050-010	5	10	M 4	8,5	9	4	TX-10
P0145.050-012	5	12	M 4	8,5	9	4	TX-10
P0145.050-016	5	16	M 4	8,5	9	4	TX-10
P0145.050-020	5	20	M 4	8,5	9	4	TX-10
P0145.050-025	5	25	M 4	8,5	9	4	TX-10
P0145.050-030	5	30	M 4	8,5	9	4	TX-10
P0145.060-010	6	10	M 5	9,5	10	4,5	TX-20
P0145.060-012	6	12	M 5	9,5	10	4,5	TX-20
P0145.060-016	6	16	M 5	9,5	10	4,5	TX-20
P0145.060-020	6	20	M 5	9,5	10	4,5	TX-20
P0145.060-025	6	25	M 5	9,5	10	4,5	TX-20
P0145.060-030	6	30	M 5	9,5	10	4,5	TX-20
P0145.060-040	6	40	M 5	9,5	10	4,5	TX-20
P0145.060-050	6	50	M 5	9,5	10	4,5	TX-20
P0145.080-012	8	12	M 6	11	13	5,5	TX-25
P0145.080-016	8	16	M 6	11	13	5,5	TX-25

Order No.	d <sub>1</sub> k6	l <sub>1</sub> +0.25, -0.00	d <sub>2</sub>	l <sub>2</sub>	d <sub>3</sub>	h	Drive
P0145.080-020	8	20	M 6	11	13	5,5	TX-25
P0145.080-025	8	25	M 6	11	13	5,5	TX-25
P0145.080-030	8	30	M 6	11	13	5,5	TX-25
P0145.080-040	8	40	M 6	11	13	5,5	TX-25
P0145.080-050	8	50	M 6	11	13	5,5	TX-25
P0145.100-016	10	16	M 8	13	16	7	TX-30
P0145.100-020	10	20	M 8	13	16	7	TX-30
P0145.100-025	10	25	M 8	13	16	7	TX-30
P0145.100-030	10	30	M 8	13	16	7	TX-30
P0145.100-040	10	40	M 8	13	16	7	TX-30
P0145.100-050	10	50	M 8	13	16	7	TX-30
P0145.100-060	10	60	M 8	13	16	7	TX-30
P0145.100-070	10	70	M 8	13	16	7	TX-30
P0145.120-016	12	16	M10	16	18	9	TX-40
P0145.120-020	12	20	M10	16	18	9	TX-40
P0145.120-025	12	25	M10	16	18	9	TX-40
P0145.120-030	12	30	M10	16	18	9	TX-40
P0145.120-040	12	40	M10	16	18	9	TX-40
P0145.120-050	12	50	M10	16	18	9	TX-40
P0145.120-060	12	60	M10	16	18	9	TX-40
P0145.120-070	12	70	M10	16	18	9	TX-40