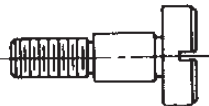
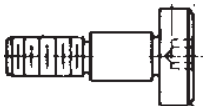
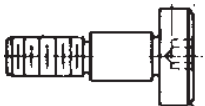
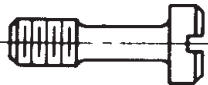




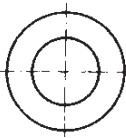


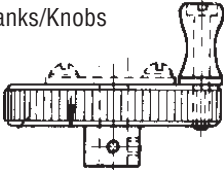

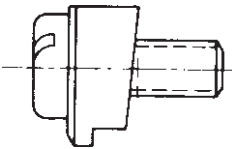
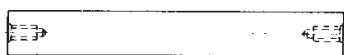
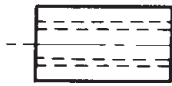
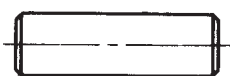

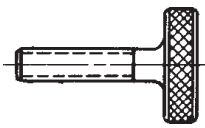
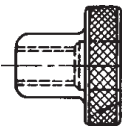
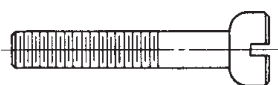

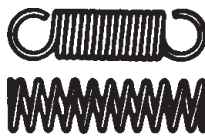
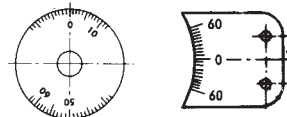


**PIC Design** offers an extensive line of precision Hardware which contains various items for fastening and/or locating of precision industrial components. The hardware is manufactured from Stainless Steel to the PIC high quality standards, in either inch or metric styles of thread, diameter and length.

The following pages have been included as a technical guide to aid the designer or engineer in selecting the appropriate screw type and size. The drill and tap data in inch for both the UNF and the UNC pieces,

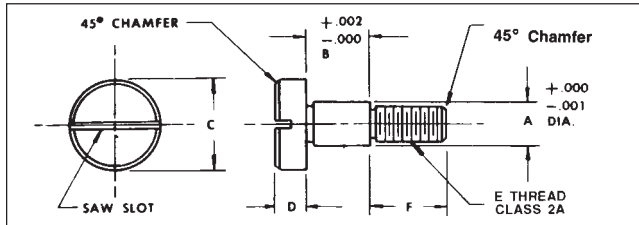
selects the correct drill to be used for the appropriate tap. For the metric ISO thread, the correct drill is recommended for the thread size and pitch.

The screw head detail data for both inch and metric heads enables the designer to select the appropriate type of head required and to allow for the clearance of the heads.

Slotted head shoulder screws. 	Socket head shoulder screws. 	Philips head shoulder screws. 	Captive Screws 
No-Mar set screws 	Silver-Grip set screws 	Cup point set screws 	Brass tip set screws 
Precision washers 	Belleville spring washers 	Curved washers 	Cranks/Knobs 
Retaining rings 	Motor mount cleats 	Spacers 	Standoffs 
Dowel pins 	Woodruff keys 	Knurled thumb screws 	Knurled thumb nuts 
Swivel studs, nuts and washers 	Handles 	Springs 	Dials and verniers 

# SLOTTED HEAD SHOULDER SCREWS

## 303 & Hardened 416 Stainless Steel



**Material:** 303 Stainless Steel — 43XX  
416 Stainless Steel — 45XX (Hardness 26-32 RC)

A	B	C	D	E	F	303 P / N	416 P / N
1/8 .1245	1/8- .1255 3/16- .1880 1/4- .2505 5/16- .3130 3/8- .3755	1/4	1/8	# 4-40	5/32	4310 4311 4312 4313 4314	4510 4511 4512 4513 4514
5/32 .1557	1/8- .1255 3/16- .1880 1/4- .2505 5/16- .3130 3/8- .3755	9/32	1/8	# 6-32	3/16	4361 4362 4363 4364 4365	4561 4562 4563 4564 4565
3/16 .1870	1/8- .1255 3/16- .1880 1/4- .2505 5/16- .3130 3/8- .3755 1/2- .5005 5/8- .6255 3/4- .7505 1 - 1.0005 1-1/4- 1.2505 1-1/2- 1.5005	5/16	5/32	# 8-32	3/16	4315 4316 4317 4318 4319 4320 4321 4322 4323 4324 4325	4515 4516 4517 4518 4519 4520 4521 4522 4523 4524 4525

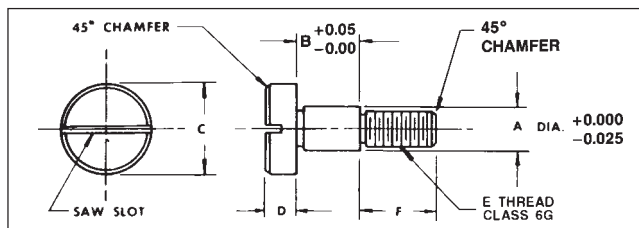
A	B	C	D	E	F	303 P / N	416 P / N
1/4 .2495	1/8- .1255 3/16- .1880 1/4- .2505 5/16- .3130 3/8- .3755 1/2- .5005 5/8- .6255 3/4- .7505 1 - 1.0005 1-1/4- 1.2505 1-1/2- 1.5005	3/8	3/16	# 10-32	1/4	4326 4327 4328 4329 4330 4331 4332 4333 4334 4335 4336	4526 4527 4528 4529 4530 4531 4532 4533 4534 4535 4536
5/16 .3120	1/4- .2505 5/16- .3130 3/8- .3755 1/2- .5005 5/8- .6255 3/4- .7505	1/2	7/32	1/4-20	7/16	4337 4338 4339 4340 4341 4342	4537 4538 4539 4540 4541 4542
3/8 .3745	5/16- .3130 3/8- .3755 1/2- .5005 5/8- .6255	1/2	7/32	1/4-20	7/16	4343 4344 4345 4346	4543 4544 4545 4546
3/8 .3745	5/16- .3130 3/8- .3755 1/2- .5005 5/8- .6255	9/16	1/4	5/16-18	1/2	4347 4348 4349 4350	4547 4548 4549 4550
1/2 .4995	1/2- .5005 5/8- .6255 3/4- .7505 1 - 1.0005	3/4	5/16	3/8-16	5/8	4351 4352 4353 4354	4551 4552 4553 4554

Shoulder Screw Kits	Qty.	303 P / N	416 P / N
Shoulder Screws — Stainless Steel — Slotted and Socket Head. Assorted Lengths for shoulder dia. of 1/8" and thread of # 4-40	50	Y34K	Y37K
Shoulder Screws — Stainless Steel — Slotted and Socket Head. Assorted Lengths for shoulder dia. of 3/16" and thread of # 8-32	50	Y35K	Y38K
Shoulder Screws — Stainless Steel — Slotted and Socket Head. Assorted Lengths for shoulder dia. of 1/4" and thread of # 10-32	50	Y36K	Y39K

# METRIC SLOTTED HEAD SHOULDER SCREWS

## 303 & Hardened 416 Stainless Steel

## All Dimensions in Millimeters



**Material:** 303 Stainless Steel — MSB1-XX  
416 Stainless Steel — MSB3-XX (Hardness 26-32 RC)

A	B	C	D	E	F	303 P / N	416 P / N
3.987 (4)	4.013 (4) 5.013 (5) 6.013 (6) 8.013 (8) 10.013 (10)	6	3	M3 x 0.5	4	MSB1-1 MSB1-2 MSB1-3 MSB1-4 MSB1-5	MSB3-1 MSB3-2 MSB3-3 MSB3-4 MSB3-5
4.987 (5)	4.013 (4) 5.013 (5) 6.013 (6) 8.013 (8) 10.013 (10) 12.013 (12) 14.013 (14) 16.013 (16) 20.013 (20) 25.013 (25) 30.013 (30)	8	4	M4 x 0.7	5	MSB1-6 MSB1-7 MSB1-8 MSB1-9 MSB1-10 MSB1-11 MSB1-12 MSB1-13 MSB1-14 MSB1-15 MSB1-16	MSB3-6 MSB3-7 MSB3-8 MSB3-9 MSB3-10 MSB3-11 MSB3-12 MSB3-13 MSB3-14 MSB3-15 MSB3-16
5.987 (6)	4.013 (4) 5.013 (5) 6.013 (6) 8.013 (8)	10	5	M5 x 0.8	6	MSB1-17 MSB1-18 MSB1-19 MSB1-20	MSB3-17 MSB3-18 MSB3-19 MSB3-20

A	B	C	D	E	F	303 P / N	416 P / N
5.987 (6)	10.013 (10) 12.013 (12) 14.013 (14) 16.013 (16) 20.013 (20) 25.013 (25) 30.013 (30)	10	5	M5 x 0.8	6	MSB1-21 MSB1-22 MSB1-23 MSB1-24 MSB1-25 MSB1-26 MSB1-27	MSB3-21 MSB3-22 MSB3-23 MSB3-24 MSB3-25 MSB3-26 MSB3-27
7.987 (8)	6.013 (6) 8.013 (8) 10.013 (10) 12.013 (12) 16.013 (16) 20.013 (20)	12	6	M6 x 1	11	MSB1-28 MSB1-29 MSB1-30 MSB1-31 MSB1-32 MSB1-33	MSB3-28 MSB3-29 MSB3-30 MSB3-31 MSB3-32 MSB3-33
9.987 (10)	8.013 (8) 10.013 (10) 12.013 (12) 16.013 (16)	12	6	M6 x 1	11	MSB1-34 MSB1-35 MSB1-36 MSB1-37	MSB3-34 MSB3-35 MSB3-36 MSB3-37
9.987 (10)	8.013 (8) 10.013 (10) 12.013 (12) 16.013 (16)	14	7	M8 x 1.25	12	MSB1-38 MSB1-39 MSB1-40 MSB1-41	MSB3-38 MSB3-39 MSB3-40 MSB3-41
11.987 (12)	12.013 (12) 16.013 (16) 20.013 (20) 25.013 (25)	20	8	M10 x 1.5	16	MSB1-42 MSB1-43 MSB1-44 MSB1-45	MSB3-42 MSB3-43 MSB3-44 MSB3-45

Shoulder Screw Kits	Qty.	303 P / N	416 P / N
Shoulder Screws — Stainless Steel — Slotted and Socket Head. Assorted Lengths for shoulder dia. of 4mm and thread of M3 x 0.5	50	MAK19	MAK22
Shoulder Screws — Stainless Steel — Slotted and Socket Head. Assorted Lengths for shoulder dia. of 5mm and thread of M4 x 0.7	50	MAK20	MAK23
Shoulder Screws — Stainless Steel — Slotted and Socket Head. Assorted Lengths for shoulder dia. of 6mm and thread of M5 x 0.8	50	MAK21	MAK24

(continued)