replacement p/n per stephany	function	female thread material	p/n	desc		qty per bsc isi	holokrome 95 kpsi tensile	cost ea	A286 mcmaster 140 kpsi tensile	cost ea	17-4 ph mcmaster 140 kpsi tensile 1/2 cost of a286	cost ea	bumax mcmaster 116 kpsi tensile 1/4 cost of ocean state	cost ea	ocean state	delivery	cost ea	Fastening products	delivery	cost ea	comments
MSC_82272881			MCMASTER_92196A106	SHCS, #4-40x.25"	AISI 304	24	78010	2.04	92423a430	1.84					286sh0404	stk	0.91		3-4 wk	advise	
MSC_05664073			MCMASTER_92196A113	SCREW, SHCS 4-40 X .75 LG.	18-8 SSTL	48			92423a442	1.83					286sh0412	stk	3.81		3-4 wk	advise	
MSC_05667043			McMASTER_92196A192	SCREW SHCS, 8-32 X 3/8 LG	18-8 SSTL	12	78026	2.52	92423a480	2.12					286sh0806	stk	1.12		3-4 wk	7.25	
MSC_05667076			McMASTER_92196A197	SCREW SHCS, 8-32 X 3/4 LG	18-8 SSTL	60	78032	3.54	92423a489	2.16					286sh0812	stk	1.40		3-4 wk	7.50	
MSC_05678065			McMaster_92196A271	Screw 10-32 x .62 lg.	18-8 SSTL	24	79022		92423a508	2.26					286sh1110	stk	1.65		3-4 wk	7.00	
MSC_04214292	stg 0-1 actuator		McMaster_92196A291	Screw SHCS, 10-32 x 1.375 lg.	18-8 SSTL	24									286sh1122	stk	2.70		3-4 wk	7.60	
MSC_05680350			McMASTER_92196A556	SCREW SHCS, 1/4"-20 x 3.50L THD LG 1"-3"	18-8 SS	6									286sh2556	?	?		3-4 wk	12.00	
	attach lg actuators to stage	nitronic 60 helicoils	McMaster_92196A584	Screw, SHCS, 5/16-18 x 1 1/8 lg.	18-8 SSTL	24							92488A267	1.98	286sh3118	stk	7.80		3-4 wk	9.00	can change to screw 1/8 longer bumax 88 p/n with .133 in clearance remaining
	stage lockers	2024-t351 al tapped holes	McMASTER_92196A627	SCREW SHCS, 3/8-16 X 1.38 LG.	18-8 SSTL	24							92488A295	3.23	286sh3722	stk	10.40		3-4 wk	8.50	can change to screw 1/8 shorter bumax 88 with .718 in of engagement
MSC_05682224	stg 0-1 hor stg actuator	6061-t6 al tapped hole	MCMASTER_92196A633	SHCS, 3/8"-16x2.25"	18-8 SS	6							92488A302	4.10	286sh3736	stk	19.50		3-4 wk	9.75	can change to screw .25 shorter bumax 88 with .650 in engement
MSC_05682273	stage lockers replace with hex hd 2.5 lg	nitronic 60 helicoil holes	MCMASTER_92196A635	SHCS, 3/8"-16x2.75"	18-8 SS	24									286sh3744	11 wks	15.60		3-4 wk	10.00	can replace with hex head x 2.50 lg with .875 in engagement. Socket size for this is .870 dia and it is < the washer size. Lised below line 24
MSC_05682307	stg 1, lockers, tooling standoff	6061 al tapped holes	MCMASTER_92196A636	SHCS, 3/8"-16x3.0"	18-8 SS	30									286sh3748	stk	13.00		3-4 wk	10.00	
MSC_74051681	stage 1 trim masses		McMASTER_92196A637	SHCS, 3/8"-16 X 3.25" (PARTIAL THREAD 1.25"-3")	18-8 SSTL	12									286sh3752	11 wks			3-4 wk	11.00	
MSC_05682406	stg 1 trim masses , L4C vert		MCMASTER_92196A639	SHCS, 3/8"-16x3.75"	18-8 SS	15									286sh3760	11 wks			3-4 wk	12.60	
MSC_05684220	trillium, flex rod bracketry	6061 al tapped hole	McMaster_92196A721	Screw 1/2-13 x 2.25 lg. SHCS	18-8 SS	6									174sh5036	8 wks	7.28		3-4 wk	11.90	can replace with hex head 1/2-13 x 2.5 lg, head in shorter x .27 in c-bore two small at 1.062" need 1.120 for socket, add 1-2 additional washers so screw does not bottom out
MSC_05684253	blade spring safety restaint		MCMASTER_92196A722	SHCS, 1/2"-13x2.5"	18-8 SSTL	12									174sh2040	8 wks	7.39		3-4 wk	10.50	can swap with hex head same length might not be as easy to remove
MSC_05684303	stage 0 bolts. Flex rod bracket	6061 al tapped hole	McMASTER_92196A724	SCREW SHSC, 1/2-13 x 3" SHCS 1 1/2"- FULL THD	18-8 SS	142							92488A334	8.50	174sh5048	8 wks	7.64		3-4 wk	10.00	
	Flex rod bracket	6061 al tapped hole	McMASTER_92196A725	SCREW SHCS 1/2-13 X 3.5 LG, 1.5" MIN TO FULLY THREADED	18-8 SSTL	12									174sh5056	8 wks	8.12		3-4 wk	12.15	can change to 1/2-13 x 3" lg and modify the blocc by increasing the depth of c'bore x 1/2"
MSC_05684402	flex rod bracket	6061 al tapped hole	McMASTER_92196A728	SCREW SHCS 1/2-13 X 4" LG 1.5"-FULL THD	18-8 SSTL	6									174sh5064	8 wks	8.34		3-4 wk	12.60	may not need to replace this one
MSC_04736195	stage alignment pin, L4C	6061 al tapped hole	McMaster_92196A736	Screw SCHS 1/2-13 x 6" Lg, 1.5" threaded	18-8 SSTL	3									174sh5096	8 wks	9.82		3-4 wk	18.00	keep or change c'bore 3" deeper and change to a 3" lg bolt
MSC_68049444	spring post blade base	nitronic 60 helicoil	MCMASTER_92196A804	SHCS, 5/8"-11x2.5"	18-8 SS	12										8 wks			3-4 wk	12.60	
MSC_67336925	Position sensor assy		McMASTER_92240A632	SCREW HEX HEAD 3/8-16 X 2"LG	18-8 SSTL	12			98253A459	14.56	96870A262	7.56			174hh3732	8 wks	8.14		3-4 wk	14.00	
MSC_67337089	stg 1-2 actuatos, actuator post	6061 al tapped hole	McMASTER_92240A722	SCREW HEX HEAD, 1/2-13 X 2.5 FULL THD	18-8 SSTL	24			98253A492	20.58	96870A292	9.96			174hh5040ft	8 wks	6.83		3-4 wk	10.15	
MSC_67337204	lower and uper outer walls		MCMASTER_92240A728	HHCS, 1/2"-13x4.0"	18-8 SS	18									174hh5064	8 wks	7.58		3-4 wk	17.55	
	blade spring	barrel nut nitronic 60		shcs 1/2-13 x 3.75		15									174sh5060	8 wks	8.23		3-4 wk	12.60	
	blade spring	barrel nut nitronic 60		shcs 1/2-13 x 5.5		12									174sh5088	8 wks	9.38		3-4 wk	14.40	

critical application