

MANUFACTURER AND INTEGRATOR OF LINEAR MOTION COMPONENTS AND SYSTEMS



QUALITY · DELIVERY · EXPERIENCE · RELIABILITY · VERSATILITY = SERVICE HARDENED AND PRECISION GROUND LINEAR SHAFTING

	1060 STE	EL CASE H	ARDENED	AND PRECI	SION GROUI	ND LINEAR	SHAFTING	
NOMINAL DIA. (IN)	CLASS "L" DIA. (IN)	CLASS "S" DIA. (IN)	CLASS "D" DIA. (IN)	CLASS "N" DIA. (IN)	MIN. DEPTH OF 60-65 Rc (IN)	WEIGHT PER IN. (LBS/IN)	MAX LENGTH (FT)	NOMINAL DIA. (IN)
3/16	.1870/.1865	-	-	-	.027	.008	5	3/16
1/4	.2495/.2490	.2490/.2485	-	.2500/.2498	.027	.014	8	1/4
3/8	.3745/.3740	.3740/.3735	-	.3750/.3748	.027	.031	14	3/8
1/2	.4995/.4990	.4990/.4985	-	.5000/.4998	.040	.055	14	1/2
5/8	.6245/.6240	.6240/.6235	-	.6250/.6248	.040	.086	15	5/8
3/4	.7495/.7490	.7490/.7485	-	.7500/.7498	.060	.125	15 or 17*	3/4
7/8	.8745/.8740	-	-	.8750/.8748	.060	.170	15	7/8
1	.9995/.9990	.9990/.9985	1.0000/1.003	1.0000/.9998	.060	.222	15 or 17*	1
1-1/8	1.1245/1.1240	-	-	1.1250/1.1248	.080	.281	15	1-1/8
1-1/4	1.2495/1.2490	1.2490/1.2485	1.2500/1.2503	1.2500/1.2498	.080	.348	17	1-1/4
1-3/8	1.3745/1.3740	-	-	1.3750/1.3747	.080	.420	15	1-3/8
1-1/2	1.4994/1.4989	1.4989/1.4984	1.5000/1.5003	1.5000/1.4997	.080	.500	17	1-1/2
1-5/8	1.6245/1.6240	-	-	1.6250/1.6247	.080	.587	15	1-5/8
1-3/4	1.7495/1.7490	-	-	1.7500/1.7497	.100	.681	15	1-3/4
2	1.9994/1.9987	1.9987/1.9980	2.0000/2.0003	2.0000/1.9997	.100	.890	17	2
2-1/2	2.4993/2.4985	2.4985/2.4977	-	2.5000/2.4996	.100	1.391	17	2-1/2
3	2.9992/2.9983	2.9983/2.9974	-	3.0000/2.9996	.100	2.003	15 or 17*	3
3-1/2	3.4990/3.4980	-	-	-	.100	2.726	17	3-1/2
4	3.9988/3.9976	3.9976/3.9964	-	-	.100	3.560	17	4

440C STAINLES	S STEEL C	ASE HARDENED AND	PRECISION (GROUND LII	NEAR SHAF	TING
NOMINAL DIA. (IN)	CLASS "L" DIA. (IN)	CLASS "S" DIA. (IN)	MIN. DEPTH OF 50-60 Rc (IN)	WEIGHT PER IN. (LBS/IN)	MAX LENGTH (FT)	NOMINAL DIA. (IN)
1/4	.2495/.2490	.2490/.2485	.027	.014	5	1/4
3/8	.3745/.3740	.3740/.3735	.027	.031	14	3/8
1/2	.4995/.4990	.4990/.4985	.040	.055	14	1/2
5/8	.6245/.6240	.6240/.6235	.040	.086	14	5/8
3/4	.7495/.7490	.7490/.7485	.060	.125	15 or 17*	3/4
1	.9995/.9990	.9990/.9985	.080	.222	15 or 17*	1
1-1/4	1.2495/1.2490	1.2490/1.2485	.080	.348	17	1-1/4
1-1/2	1.4994/1.4989	1.4989/1.4984	.080	.500	17	1-1/2
2	1.9994/1.9987	1.9987/1.9980	.100	.890	17	2
2-1/2	2.4993/2.4985	2.4985/2.4977	.100	1.391	17	2-1/2

NOTES:

- (*) 17 FT. LENGTHS AVAILABLE IN CLASS "L" ONLY
- 303 AND 316 STAINLESS STEEL (UNHARDENED CLASS "L") AVAILABLE UPON REQUEST
- CUSTOM LINEAR SHAFTING INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 OR- skamar@sbcglobal.net

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MANUFACTURER AND INTEGRATOR OF LINEAR MOTION COMPONENTS AND SYSTEMS



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HARDENED AND PRECISION GROUND PREDRILLED AND TUBULAR LINEAR SHAFTING

	1060 STEEL CASE HARDENED AND PRECISION GROUND PREDRILLED LINEAR SHAFTING									
NOMINAL DIA. (IN)	CLASS "L" DIA. (IN)	STANDARD THREAD SIZE	X (IN)	Y (IN)	MIN. DEPTH OF 60-65 Rc (IN)	WEIGHT PER IN. (LBS/IN)	MAX LENGTH (IN)	NOMINAL DIA. (IN)		
1/2	.4995/.4990	#6-32	4	2	.040	.055	166	1/2		
5/8	.6245/.6240	#8-32	4	2	.040	.086	178	5/8		
3/4	.7495/.7490	#10-32	6	3	.060	.125	178	3/4		
1	.9995/.9990	1/4-20	6	3	.080	.222	178	1		
1-1/4	1.2495/1.2490	5/16-18	6	3	.080	.348	178	1-1/4		
1-1/2	1.4994/1.4989	3/8-16	8	4	.080	.500	178	1-1/2		
2	1.9994/1.9987	1/2-13	8	4	.100	.890	178	2		

4400	C STAINLESS S	STEEL CASE HA	RDENE	ED AND	PRECISION	GROUND PF	REDRILLED	LINEAR SHAFTING
NOMINAL DIA. (IN)	CLASS "L" DIA. (IN)	STANDARD THREAD SIZE	X (IN)	Y (IN)	MIN. DEPTH OF 50-60 Rc (IN)	WEIGHT PER IN. (LBS/IN)	MAX LENGTH (IN)	NOMINAL DIA. (IN)
1/2	.4995/.4990	#6-32	4	2	.040	.055	166	1/2
5/8	.6245/.6240	#8-32	4	2	.040	.086	178	5/8
3/4	.7495/.7490	#10-32	6	3	.060	.125	178	3/4
1	.9995/.9990	1/4-20	6	3	.080	.222	178	1
1-1/4	1.2495/1.2490	5/16-18	6	3	.080	.348	178	1-1/4
1-1/2	1.4994/1.4989	3/8-16	8	4	.080	.500	178	1-1/2
2	1.9994/1.9987	1/2-13	8	4	.100	.890	178	2

	52100 STEEL CASE HARDENED AND PRECISION GROUND TUBULAR LINEAR SHAFTING									
NOMINAL DIA. (IN)	NOMINAL I.D. (IN)	CLASS "L" DIA. (IN)	CLASS "S" DIA. (IN)	MIN. DEPTH OF 58 Rc (IN)	WEIGHT PER IN. (LBS/IN)	MAX LENGTH (FT)	NOMINAL DIA. (IN)			
3/4	.438 ± 5%	.7495/.7490	.7490/.7485	.060	.075	15	3/4			
1	.599 ± 5%	.9995/.9990	.9990/.9985	.060	.158	15	1			
1-1/2	.890 ± 5%	1.4994/1.4989	1.4989/1.4984	.080	.328	15	1-1/2			
2	1.250 ± 5%	1.9994/1.9987	1.9987/1.9980	.100	.542	15	2			
2-1/2	1.750 ± 5%	2.4993/2.4985	2.4985/2.4977	.100	.749	15	2-1/2			
3	2.000 ± 10%	2.9992/2.9983	2.9983/2.9974	.100	1.112	15	3			
4	3.000 ± 10%	3.9988/3.9976	3.9976/3.9964	.100	1.558	15	4			

NOTES:

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[•] CUSTOM PREDRILLED OR TUBULAR LINEAR SHAFTING INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 - OR-skamar@sbcglobal.net



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HARDENED AND PRECISION GROUND METRIC LINEAR SHAFTING

1060 S	TEEL CASE HARD	DENED AND PREC	ISION GROUND ME	TRIC LINEAR SHA	FTING
NOMINAL DIA. (MM)	TOLERANCES CLASS "M" (h6) (IN)	MIN. DEPTH OF 60-65 Rc (MM)	WEIGHT PER IN. (LBS/IN)	MAX LENGTH (MM)	NOMINAL DIA. (MM)
5	.1969/.1965	0.4	.008	3600	5
6	.2362/.2359	0.4	.012	4000	6
8	.3150/.3146	0.4	.022	4000	8
10	.3937/.3933	0.4	.034	4000	10
12	.4724/.4720	0.6	.050	6000	12
14	.5512/.5507	0.6	.068	6000	14
15	.5906/.5901	0.6	.076	6000	15
16	.6299/.6295	0.6	.088	6000	16
18	.7087/.7082	0.6	.111	6000	18
20	.7874/.7869	0.9	.137	6000	20
24	.9449/.9444	0.9	.198	6000	24
25	.9843/.9838	0.9	.214	6000	25
30	1.1811/1.1806	0.9	.308	6000	30
35	1.3780/1.3773	1.5	.419	6000	32
40	1.5748/1.5743	1.5	.548	6000	40
50	1.9685/1.9679	1.5	.855	6000	50
60	2.3622/2.3615	2.2	1.23	6000	60
80	3.1496/3.1489	2.2	2.19	6000	80

	440C STAINLESS STEEL CASE HARDENED AND PRECISION GROUND METRIC LINEAR SHAFTING										
NOMINAL DIA. (MM)	TOLERANCES CLASS "M" (h6) (IN)	MIN. DEPTH OF 50-60 Rc (MM)	WEIGHT PER IN. (LBS/IN)	MAX LENGTH (MM)	NOMINAL DIA. (MM)						
5	.1969/.1965	0.4	.008	3600	5						
8	.3150/.3146	0.4	.022	4000	8						
10	.3937/.3933	0.4	.034	4000	10						
12	.4724/.4720	0.6	.050	6000	12						
16	.6299/.6295	0.6	.088	6000	16						
20	.7874/.7869	0.9	.137	6000	20						
25	.9843/.9838	0.9	.214	6000	25						
30	1.1811/1.1806	0.9	.308	6000	30						
40	1.5748/1.5743	1.5	.548	6000	40						
50	1.9685/1.9679	1.5	.855	6000	50						
60	2.3622/2.3615	2.2	1.23	6000	60						

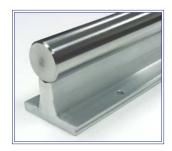
NOTES:

- PREDRILLED AND ASSEMBLED METRIC LINEAR SHAFTING AVAILABLE UPON REQUEST
- CUSTOM METRIC LINEAR SHAFTING INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 OR- skamar@sbcglobal.net

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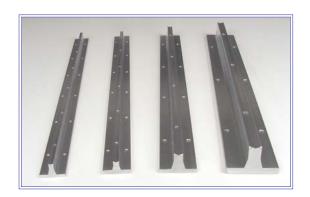
MANUFACTURER AND INTEGRATOR OF LINEAR MOTION COMPONENTS AND SYSTEMS



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SHAFT SUPPORT ASSEMBLIES AND RAILS

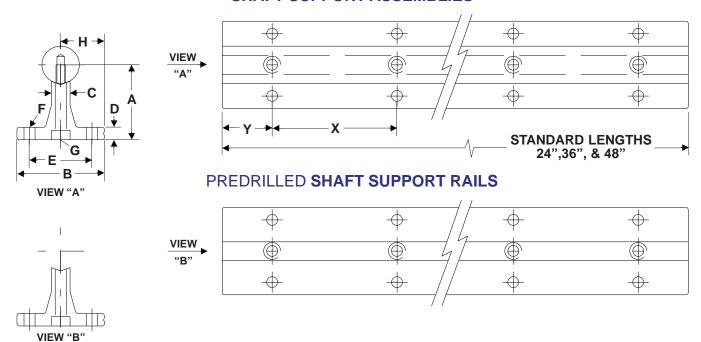




Product Features and Benefits:

Shaft support assemblies and rails provide an economical means of mounting hardened and precision ground shafting. These shaft supports conform to standard industry specifications and can be used for continuous or intermittent support. The design of the shaft support includes a machined reference edge on one side for easy mounting and installation. Standard shaft support rails are ready to ship from stock for your immediate requirements. These shaft supports would normally be used in conjunction with open pillow blocks incorporating either linear ball bearings or self-lubricating bearings depending on the type of application. Skamar Machine Company also provides complete in-house machining capabilities offering total solutions in this product range for your linear motion requirements. Most importantly, we provide you consistently with the best delivery in the industry on standard and engineered shaft supports.

SHAFT SUPPORT ASSEMBLIES



SHAFT DIA.	SHAFT SUPPORT ASSEMBLY	PREDRILLED SHAFT SUPPORT RAIL	*PLAIN SHAFT SUPPORT RAIL	A +/001	В	С	D	E +/005
1/2	SMRA-8	SMR-8-PD	SMR-8	1.125	1-1/2	1/4	3/16	1.000
5/8	SMRA-10	SMR-10-PD	SMR-10	1.125	1-5/8	5/16	1/4	1.125
3/4	SMRA-12	SMR-12-PD	SMR-12	1.500	1-3/4	3/8	1/4	1.250
1	SMRA-16	SMR-16-PD	SMR-16	1.750	2-1/8	1/2	1/4	1.500
1-1/4	SMRA-20	SMR-20-PD	SMR-20	2.125	2-1/2	9/16	5/16	1.875
1-1/2	SMRA-24	SMR-24-PD	SMR-24	2.500	3	11/16	3/8	2.250
2	SMRA-32	SMR-32-PD	SMR-32	3.250	3-3/4	7/8	1/2	2.750

SHAFT DIA.	F BOLT	F HOLE	G SCREW	G HOLE	H +/001	Х	Y	WT/FT LBS
1/2	6	.169	6-32 x 7/8	.169	.750	4	2	.6
5/8	8	.193	8-32 x 7/8	.193	.812	4	2	.8
3/4	10	.221	10-32 x 1-1/4	.221	.875	6	3	1.0
1	1/4	.281	1/4-20 x 1-1/2	.281	1.062	6	3	1.4
1-1/4	5/16	.343	5/16-18 x 1-3/4	.343	1.250	6	3	2.1
1-1/2	5/16	.343	3/8-16 x 2	.406	1.500	8	4**	2.6
2	3/8	.406	1/2-13 x 2-1/2	.531	1.875	8	4**	4.2

NOTES:

- (*) DOES NOT INCLUDE ANY HOLES IN SHAFT SUPPORT
- (**) SMR-24-PD-36" & SMR-32-PD-36" (Y=2")
- MANUFACTURED FROM EXTRUDED 6061-T6 ALUMINUM FOR ENGINEERED PERFORMANCE
- CUSTOM SHAFT SUPPORT AND ASSEMBLY INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 OR skamar@sbcglobal.net



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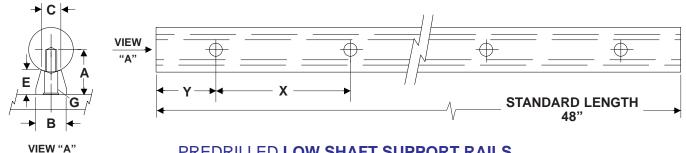
LOW SHAFT SUPPORT ASSEMBLIES AND RAILS



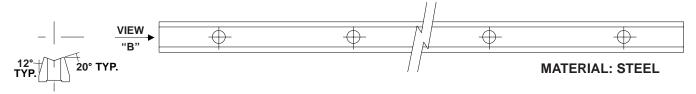
Product Features and Benefits:

Low shaft support assemblies and rails are suited for low clearance linear motion applications. These low shaft supports conform to standard industry specifications and can be used for continuous or intermittent support. Standard low shaft support rails are ready to ship from stock for your immediate requirements. These low shaft supports would normally be used in conjunction with open pillow blocks incorporating either linear ball bearings or self-lubricating bearings depending on the type of application. Skamar Machine Company also provides complete in-house machining capabilities offering total solutions in this product range for your linear motion requirements. Most importantly, we provide you consistently with the best delivery in the industry on standard and engineered shaft supports.

LOW SHAFT SUPPORT ASSEMBLIES



PREDRILLED LOW SHAFT SUPPORT RAILS



VIEW "B"

SHAFT DIA.	SHAFT SUPPORT ASSEMBLY	PREDRILLED SHAFT SUPPORT RAIL	*PLAIN SHAFT SUPPORT RAIL	A +/001	В	С
1/2	LSRA-8	LSR-8-PD	LSR-8	.562	.370	1/4
5/8	LSRA-10	LSR-10-PD	LSR-10	.687	.450	5/16
3/4	LSRA-12	LSR-12-PD	LSR-12	.750	.510	3/8
1	LSRA-16	LSR-16-PD	LSR-16	1.000	.690	1/2
1-1/4	LSRA-20	LSR-20-PD	LSR-20	1.187	.780	9/16
1-1/2	LSRA-24	LSR-24-PD	LSR-24	1.375	.930	11/16
2	LSRA-32	LSR-32-PD	LSR-32	1.750	1.180	7/8

SHAFT DIA.	E (REF.)	G SCREW	G HOLE	х	Y	WT/FT LBS
1/2	.341	6-32	.169	4	2	.32
5/8	.412	8-32	.193	4	2	.49
3/4	.420	10-32	.221	6	3	.59
1	.560	1/4-20	.281	6	3	1.01
1-1/4	.626	5/16-18	.343	6	3	1.27
1-1/2	.703	3/8-16	.406	8	4	1.68
2	.845	1/2-13	.531	8	4	2.59

NOTES:

- (*) DOES NOT INCLUDE ANY HOLES IN SHAFT SUPPORT
- CUSTOM SHAFT SUPPORT AND ASSEMBLY INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 OR skamar@sbcglobal.net

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STANDARD, EXTRA RIGID, AND CUSTOM SHAFT END SUPPORTS

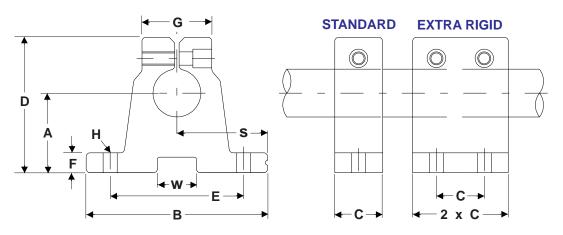




Product Features and Benefits:

Shaft end supports are useful in applications where load and deflection between supports are not significant to the functionality of the application. These support blocks can either be used for end or intermittent support. For greater design flexibility, they are offered in standard and extra rigid configurations depending on the requirements of their use. The design of the end support includes a machined reference edge on one side for ease of mounting and installation. These end supports would normally be used in conjunction with closed pillow blocks incorporating either linear ball bearings or self-lubricating bearings depending on the type of application. Skamar Machine Company also provides complete in-house machining capabilities offering total solutions in this product range for your linear motion requirements. Most importantly, we provide you consistently with the best delivery in the industry on standard and engineered shaft end supports.

STANDARD AND EXTRA RIGID SHAFT END SUPPORTS



SHAFT DIA.	STANDARD SHAFT END SUPPORT	EXTRA RIGID SHAFT END SUPPORT	A +/001	В	С	D	E +/005
1/4	SSB-4	RSB-4	.750	1-5/8	9/16	1-3/16	1.250
3/8	SSB-6	RSB-6	.750	1-5/8	9/16	1-3/16	1.250
1/2	SSB-8	RSB-8	1.000	2	5/8	1-5/8	1.500
5/8	SSB-10	RSB-10	1.000	2-1/2	11/16	1-3/4	1.875
3/4	SSB-12	RSB-12	1.250	2-3/4	3/4	2-1/8	2.000
1	SSB-16	RSB-16	1.500	3-1/4	1	2-9/16	2.500
1-1/4	SSB-20	RSB-20	1.750	4	1-1/8	3	3.000
1-1/2	SSB-24	RSB-24	2.000	4-3/4	1-1/4	3-1/2	3.500
2	SSB-32	RSB-32	2.500	6	1-1/2	4-1/2	4.500

SHAFT DIA.	F	G	H BOLT	H HOLE	S +/001	*W +.00/01	Т
1/4	1/4	11/16	6	5/32	.812	1/4	1/8
3/8	1/4	11/16	6	5/32	.812	1/4	1/8
1/2	1/4	3/4	8	3/16	1.000	1/2	3/16
5/8	5/16	7/8	10	7/32	1.250	1/2	3/16
3/4	5/16	1	10	7/32	1.375	5/8	1/4
1	3/8	1-3/8	1/4	9/32	1.625	5/8	1/4
1-1/4	7/16	1-3/4	5/16	11/32	2.000	5/8	1/4
1-1/2	1/2	2	5/16	11/32	2.375	3/4	5/16
2	5/8	2-5/8	3/8	13/32	3.000	1	3/8

NOTES:

- (*) THE DIMENSION "W" IS NOT MACHINED (PROVISION CAN BE MADE FOR THIS DIMENSION TO BE MACHINED)
- MANUFACTURED FROM EXTRUDED 6061-T6 ALUMINUM FOR ENGINEERED PERFORMANCE
- CUSTOM SHAFT END SUPPORTS INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 OR- skamar@sbcglobal.net ©2004 Skamar Machine Company All Rights Reserved

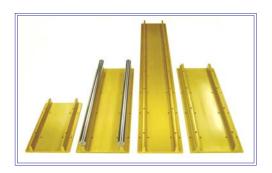


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DUAL SHAFT ASSEMBLIES AND SUPPORTS

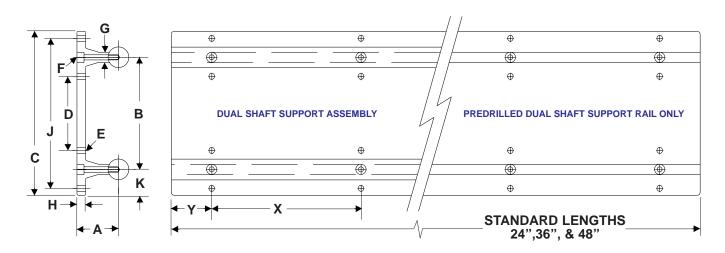




Product Features and Benefits:

Dual shaft support assemblies and rails offer a broad range of design versatility in linear motion applications. They provide an economical means of mounting two hardened and precision ground shafts that are parallel, mounted, and aligned to a single aluminum extrusion base. Two key features of this design include a machined reference edge on one side of the dual shaft support for easy mounting and an extruded T-slot that facilitates the mounting of limit switches that are adjustable along the entire length of the support. The "SMPRA" dual shaft support assemblies are the foundation for the single and multi-axis SureSlide(TM) systems. The "SSCA" and "TSCA" carriage assemblies are prealigned to match the dual shaft support assemblies and incorporate either linear ball bearings or self-lubricating bearings depending on the type of application. These assemblies are a quick and efficient solution that will enable you to achieve a linear system configuration suited to your particular needs. Skamar Machine Company also provides complete in-house machining capabilities offering total solutions in this product range for your linear motion requirements. Most importantly, we provide you consistently with the best delivery in the industry on standard and engineered dual shaft supports.

DUAL SHAFT SUPPORT ASSEMBLIES AND PREDRILLED DUAL SHAFT SUPPORT RAILS



SHAFT DIA.	DUAL SHAFT SUPPORT ASSEMBLY	PREDRILLED DUAL SHAFT SUPPORT RAIL	A +/001	B +/001	С	D	E BOLT	E HOLE
3/4	SMPRA-12	SMPR-12-PD	1.500	4.500	6.250	3.250	10	.221
1	SMPRA-16	SMPR-16-PD	1.750	5.250	7.375	3.750	1/4	.281
1-1/2	SMPRA-24	SMPR-24-PD	2.500	6.625	9.625	4.375	5/16	.343

SHAFT DIA.	F SCREW	F HOLE	G	Н	J	K +/001	х	Y	WT/FT LBS **
3/4	10-32 x 1-1/4	.221	3/8	.275	5.750	0.875	6	3	6.99
1	1/4-20 x 1-1/2	.281	1/2	.295	6.750	1.062	6	3	10.35
1-1/2	3/8-16 x 2	.406	11/16	.415	8.875	1.500	8	4*	21.68

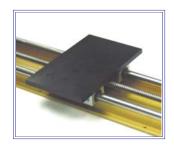
NOTES:

- (*) SMPR-24-PD-36" (Y=2")
- (**) WT/FT INCLUDES DUAL SHAFT SUPPORT RAIL ASSEMBLED WITH TWO (2) SHAFTS
- CUT TO LENGTH SECTIONS (AVAILABLE UPON REQUEST, MAX. INDIVIDUAL LENGTH = 72 IN.)
- MATERIAL SPECIFICATIONS: 1060 HARDENED AND PRECISION GROUND SHAFTING, CLASS "L"
- 303, 316, 440C STAINLESS STEEL HARDENED AND PRECISION GROUND SHAFT (AVAILABLE UPON REQUEST)
- STANDARD SHAFT FINISH: NONE, OPTIONAL SHAFT FINISH: CHROME, BLACK OXIDE, ***ARMOLOY®
- STANDARD SUPPORT FINISH: GOLD ANODIZED, OPTIONAL SUPPORT FINISH: UNPLATED. CLEAR, BLUE, OR BLACK ANODIZED
- INDUSTRY STANDARD HOLE SPACING FOR SHAFTING AND DUAL SHAFT SUPPORT SYSTEM
- 6061-T6 ALUMINUM DUAL SHAFT SUPPORT
- CUSTOM DUAL SHAFT SUPPORT AND ASSEMBLY INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674-ORskamar@sbcglobal.net
- (***) ARMOLOY IS A REGISTERED TRADEMARK OF THE ARMOLOY CORPORATION

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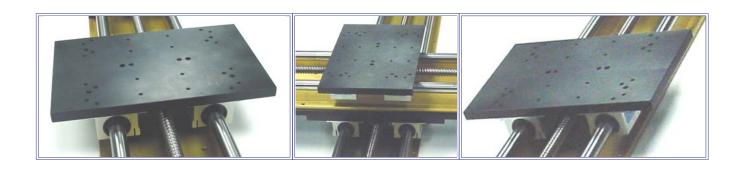


MANUFACTURER AND INTEGRATOR OF LINEAR MOTION COMPONENTS AND SYSTEMS



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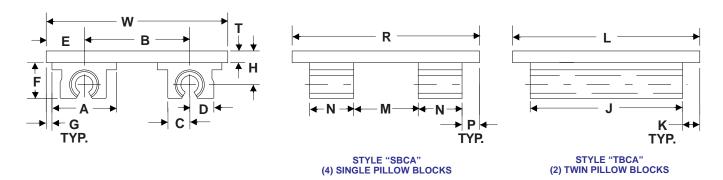
CARRIAGE ASSEMBLIES INCORPORATING LINEAR BALL BEARINGS



Product Features and Benefits:

These precision machined carriage assemblies are offered in two standard styles incorporating linear ball bearings in single or twin pillow block configuration. The open pillow block bearing design provides self-alignment capabilities in all directions along with high load, long life, and low friction qualities for these engineered components. Open pillow blocks have two seals and an adjustment screw that can easily eliminate clearance between the shaft and bearing or to provide an adjustable preload. Carriage plate assemblies can be furnished with premachined mounting holes to simplify installation. The "SBCA" and "TBCA" carriage assemblies are prealigned to match the "SMPRA" dual shaft support assemblies or the "SMRA" single shaft support assemblies. Skamar Machine Company also provides complete in-house machining capabilities offering total solutions in this product range for your linear motion requirements. Most importantly, we provide you consistently with the best delivery in the industry on standard and engineered carriage assemblies.

CARRIAGE ASSEMBLIES INCORPORATING LINEAR BALL BEARINGS FOR DUAL SHAFT SUPPORT OR SINGLE (SMRA-) TYPE SUPPORT ASSEMBLY



SHAFT DIA.	SINGLE CARRIAGE ASSEMBLY	TWIN CARRIAGE ASSEMBLY	А	В	С	D	E	F	G	Н	J
1/2	SBCA-8	TBCA-8	2.00	3.000	.69	.90	1.25	1.10	.25	1.062	3.50
5/8	SBCA-10	TBCA-10	2.50	3.750	.88	1.10	1.50	1.38	.25	1.250	4.00
3/4	SBCA-12	TBCA-12	2.75	4.500	.94	1.16	1.62	1.54	.25	1.437	4.50
1	SBCA-16	TBCA-16	3.25	5.250	1.19	1.46	1.88	1.98	.25	1.687	6.00
1-1/4	SBCA-20	TBCA-20	4.00	6.000	1.50	1.83	2.25	2.48	.25	2.250	7.50
1-1/2	SBCA-24	TBCA-24	4.75	6.625	1.75	2.09	2.69	2.91	.31	2.750	9.00
2	SBCA-32	TBCA-32	6.00	7.250	2.25	2.64	3.38	3.66	.38	3.375	10.00

SHAFT DIA.	к	М	N	Р	Т	W	R	L	SBCA LOAD (LBS)	SBCA WEIGHT (LBS)	TBCA LOAD (LBS)	TBCA WEIGHT (LBS)
1/2	1.25	8.50	1.50	.25	.375	5.50	12.00	6.00	720	3.29	740	2.01
5/8	1.00	8.00	1.75	.25	.375	6.75	12.00	6.00	1280	4.60	1280	3.08
3/4	.75	7.75	1.88	.25	.500	7.75	12.00	6.00	1880	6.61	1500	4.27
1	.00	6.25	2.62	.25	.500	9.00	12.00	6.00	3120	9.95	2720	6.63
1-1/4	.25	4.75	3.38	.25	.750	10.50	12.00	8.00	4680	18.73	3940	14.54
1-1/2	1.50	10.00	3.75	.25	1.000	12.00	18.00	12.00	6240	35.34	4740	27.44
2	1.00	8.00	4.75	.25	1.250	14.00	18.00	12.00	9400	58.07	4320	48.04

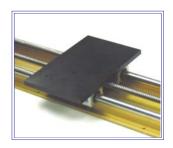
NOTES:

- ALL LOAD RATINGS BASED ON APPLICATION POINT APPLIED AT CENTER OF CARRIAGE PLATE.
- MATERIAL SPECIFICATIONS (CARRIAGE PLATE): 6061-T6 ALUMINUM, STAINLESS STEEL
- STANDARD CARRIAGE PLATE FINISH: BLACK ANODIZED, OPTIONAL CARRIAGE PLATE FINISH: UNPLATED, CLEAR, BLUE, OR GOLD ANODIZED ALUMINUM
- CUSTOM CARRIAGE PLATE ASSEMBLY INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674-OR-skamar@sbcglobal.net

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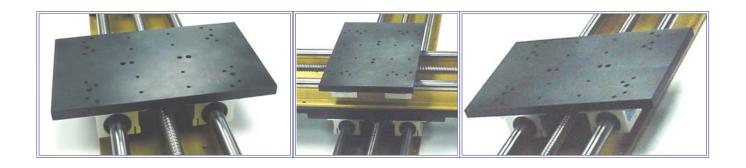


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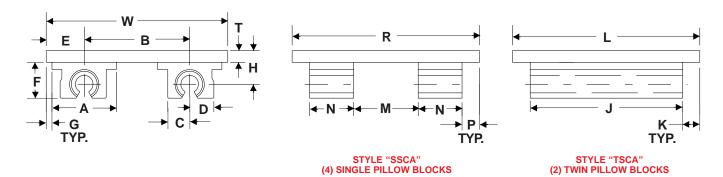
CARRIAGE ASSEMBLIES INCORPORATING LINEAR SELF-LUBRICATING BEARINGS



Product Features and Benefits:

These precision machined carriage assemblies are offered in two standard styles incorporating self-lubricating bearings in single or twin pillow block configuration. The open pillow block bearing design provides self-alignment capabilities in all directions along with higher load capacities compared to linear ball bearings. Self-lubricating bearings offer consistent friction characteristics that do not increase over life and maintain close fits resulting in shaft wiping which eliminates the need for seals. The self-lubricating bearings can also embed hard particulate matter preventing galling and shaft damage. Carriage plate assemblies can be furnished with premachined mounting holes to simplify installation. The "SSCA" and "TSCA" carriage assemblies are prealigned to match the "SMPRA" dual shaft support assemblies or the "SMRA" single shaft support assemblies. Skamar Machine Company also provides complete in-house machining capabilities offering total solutions in this product range for your linear motion requirements. Most importantly, we provide you consistently with the best delivery in the industry on standard and engineered carriage assemblies.

CARRIAGE ASSEMBLIES INCORPORATING LINEAR SELF-LUBRICATING BEARINGS FOR DUAL SHAFT SUPPORT OR SINGLE (SMRA-) TYPE SUPPORT ASSEMBLY



SHAFT DIA.	SINGLE CARRIAGE ASSEMBLY	TWIN CARRIAGE ASSEMBLY	A	В	С	D	E	F	G	Н	J
1/2	SSCA-8	TSCA-8	2.00	3.000	.69	.90	1.25	1.10	.25	1.062	3.50
5/8	SSCA-10	TSCA-10	2.50	3.750	.88	1.10	1.50	1.38	.25	1.250	4.00
3/4	SSCA-12	TSCA-12	2.75	4.500	.94	1.16	1.62	1.54	.25	1.437	4.50
1	SSCA-16	TSCA-16	3.25	5.250	1.19	1.46	1.88	1.98	.25	1.687	6.00
1-1/4	SSCA-20	TSCA-20	4.00	6.000	1.50	1.83	2.25	2.48	.25	2.250	7.50
1-1/2	SSCA-24	TSCA-24	4.75	6.625	1.75	2.09	2.69	2.91	.31	2.750	9.00
2	SSCA-32	TSCA-32	6.00	7.250	2.25	2.64	3.38	3.66	.38	3.375	10.00

SHAFT DIA.	К	М	N	Р	Т	W	R	L	SSCA LOAD (LBS)	SSCA WEIGHT (LBS)	TSCA LOAD (LBS)	TSCA WEIGHT (LBS)
1/2	1.25	8.50	1.50	.25	.375	5.50	12.00	6.00	3900	3.29	3900	2.01
5/8	1.00	8.00	1.75	.25	.375	6.75	12.00	6.00	5880	4.60	5880	3.08
3/4	.75	7.75	1.88	.25	.500	7.75	12.00	6.00	7620	6.61	7620	4.27
1	.00	6.25	2.62	.25	.500	9.00	12.00	6.00	14100	9.95	14100	6.63
1-1/4	.25	4.75	3.38	.25	.750	10.50	12.00	8.00	20580	18.73	20580	14.54
1-1/2	1.50	10.00	3.75	.25	1.000	12.00	18.00	12.00	28200	35.34	28200	27.44
2	1.00	8.00	4.75	.25	1.250	14.00	18.00	12.00	50100	58.07	50100	48.04

NOTES:

- ALL LOAD RATINGS BASED ON APPLICATION POINT APPLIED AT CENTER OF CARRIAGE PLATE.
- MATERIAL SPECIFICATIONS (CARRIAGE PLATE): 6061-T6 ALUMINUM, STAINLESS STEEL
- STANDARD CARRIAGE PLATE FINISH: BLACK ANODIZED, OPTIONAL CARRIAGE PLATE FINISH: UNPLATED, CLEAR, BLUE, OR GOLD ANODIZED ALUMINUM
- CUSTOM CARRIAGE PLATE ASSEMBLY INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674-OR-skamar@sbcglobal.net

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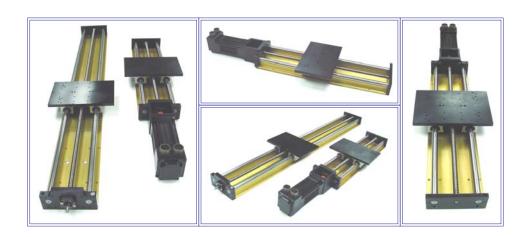


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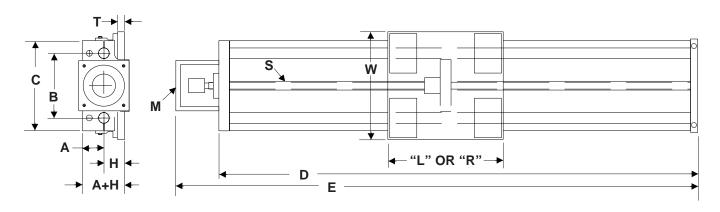
SINGLE AXIS LINEAR SURESLIDE(TM) SYSTEMS



Product Features and Benefits:

Single axis SureSlide(TM) systems deliver an integrated linear motion package. These slides are based on the "SMPRA" dual shaft support assemblies and are offered with options that can be tailored to your specific requirements. Key standard features include: prealigned carriage assemblies, machined acme or ball screw assemblies, drive and support end bearing plates, and extruded motor mounting plates. Optional features based on application type include: stepper or servo motor, preloaded nut assembly for drive screw, encoders, limit switches, and waycovers. Skamar Machine Company also provides complete in-house machining capabilities offering total solutions in this product range for your linear motion requirements. Most importantly, we provide you consistently with the best delivery in the industry on standard and engineered single axis slides.

SINGLE AXIS LINEAR SURESLIDE(TM) SYSTEMS



SHAFT DIA.	SINGLE AXIS SURESLIDE(TM) SYSTEM	A +/001	B +/001	С	D	E	Н
3/4	SALS-12	1.500	4.500	6.250	PER APPLICATION	PER APPLICATION	1.437
1	SALS-16	1.750	5.250	7.375	PER APPLICATION	PER APPLICATION	1.687
1-1/2	SALS-24	2.500	6.625	9.625	PER APPLICATION	PER APPLICATION	2.750

SHAFT DIA.	A + H	L (4) SINGLE PILLOW BLOCK BEARINGS	R (2) TWIN PILLOW BLOCK BEARINGS	M NEMA FRAME	S DRIVE SCREW	Т	w
3/4	2.937	6.00	12.00	23, 34, 42	BALL OR ACME	.500	7.75
1	3.438	6.00	12.00	23, 34, 42	BALL OR ACME	.500	9.00
1-1/2	5.250	12.00	18.00	23, 34, 42	BALL OR ACME	1.000	12.00

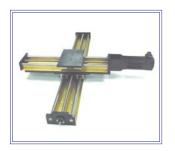
NOTES:

- ALL SYSTEM DIMENSIONS AND SPECIFICATIONS ARE FOUND ON "DUAL SHAFT ASSEMBLIES AND SUPPORTS" AND "CARRIAGE ASSEMBLIES" DATA SHEETS FOUND ON PAGES 10 thru 15 OF THIS CATALOG.
- THESE SINGLE AXIS SURESLIDES CAN BE COMBINED TO ACHIEVE MULTI-AXIS POSITIONING SYSTEMS.
- CUSTOM SINGLE AXIS SURESLIDE SYSTEM INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 OR skamar@sbcglobal.net

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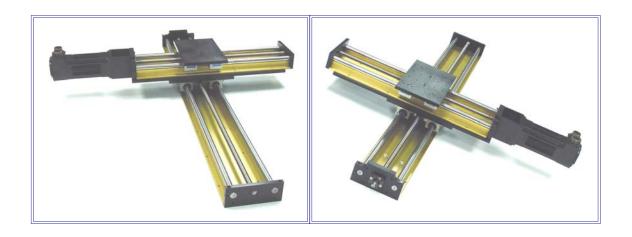


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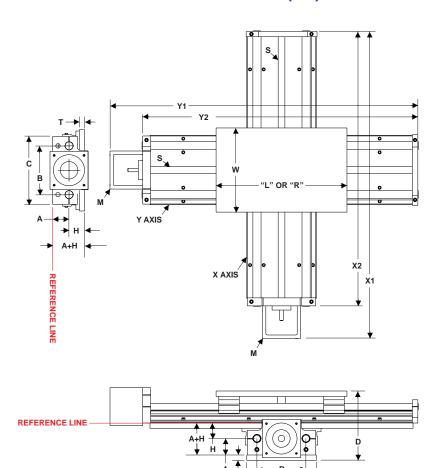
MULTI-AXIS LINEAR SURESLIDE(TM) SYSTEMS



Product Features and Benefits:

Multi-axis SureSlide(TM) systems deliver an advanced linear motion package. These slides are based on the single axis SureSlide systems and are offered with options that can be tailored to your specific requirements. These systems can also integrate a third axis when required. Key standard features include: prealigned carriage assemblies, machined acme or ball screw assemblies, drive and support end bearing plates, and extruded motor mounting plates. Optional features based on application type include: stepper or servo motor, preloaded nut assembly for drive screw, encoders, limit switches, and waycovers. Skamar Machine Company also provides complete in-house machining capabilities offering total solutions in this product range for your linear motion requirements. Most importantly, we provide you consistently with the best delivery in the industry on standard and engineered multi-axis slides.

MULTI-AXIS LINEAR SURESLIDE(TM) SYSTEMS



SHAFT DIA.	MULTI-AXIS SURESLIDE(TM) SYSTEM	A +/001	B +/001	С	*D	Н	A + H
3/4	MALS-12	1.500	4.500	6.250	5.875	1.437	2.937
1	MALS-16	1.750	5.250	7.375	6.875	1.687	3.438
1-1/2	MALS-24	2.500	6.625	9.625	10.500	2.750	5.250

SHAFT DIA.	X1, X2, Y1, & Y2	L (4) SINGLE PILLOW BLOCK BEARINGS	R (2) TWIN PILLOW BLOCK BEARINGS	M NEMA FRAME	S DRIVE SCREW	Т	w
3/4	PER APPLICATION	6.00	12.00	23, 34, 42	BALL OR ACME	.500	7.75
1	PER APPLICATION	6.00	12.00	23, 34, 42	BALL OR ACME	.500	9.00
1-1/2	PER APPLICATION	12.00	18.00	23, 34, 42	BALL OR ACME	1.000	12.00

NOTES:

- (*) THE "D" DIMENSION IS BASED ON BOTH THE "X" AND "Y" AXIS HAVING THE SAME SHAFT DIAMETER DUAL SUPPORT
 ALL SYSTEM DIMENSIONS AND SPECIFICATIONS ARE FOUND ON "DUAL SHAFT ASSEMBLIES AND SUPPORTS" AND "CARRIAGE ASSEMBLIES" DATA SHEETS FOUND ON PAGES 10 thru 15 OF THIS CATALOG.
- CUSTOM MULTI-AXIS SURESLIDE SYSTEM INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 OR skamar@sbcglobal.net

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INA LINEAR GUIDANCE RAIL SYSTEMS

DESCRIPTION	INA PART NUMBER
20mm Four Row Guideway	TKVD 20 G3HY/1980
20mm Carriage	KWVE 20 G3V1
20mm Carriage	KWVE S 20 G3V1
25mm Four Row Guideway	TKVD 25 G3HJ/1980
25mm Carriage	KWVE 25 G3V1
25mm Carriage	KWVE S 25 G3V1
25mm Carriage	KWVE SN 25 G3V1
25mm Four Row Guideway	TKVD U 25 G3HJ/1980
30mm Four Row Guideway	TKVD 30 G3HJ/2000
30mm Carriage	KWVE 30 G3V1
30mm Carriage	KWVE S 30 G3V1

NOTES:

• CUSTOM LINEAR GUIDANCE RAIL INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 - OR- skamar@sbcglobal.net



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INA BALL SCREW ASSEMBLIES

DESCRIPTION	INA PART NUMBER
16mm x 5mm BALL SCREW	KGS1605-50/5600
16 X 5 FLANGED BALL NUT	KGF D 1605 - EE
16 X 5 CYLINDRICAL BALL NUT	KGM D 1605 - EE
16mm x 10mm BALL SCREW	KGS1610-50/5600
16 x 10 FLANGED BALL NUT	KGF D 1610 - EE
16 X 10 CYLINDRICAL	KGM D 1610 - EE
20mm x 5mm BALL SCREW	KGS2005-50/5600
20 x 5 FLANGED BALL NUT	KGF N 2005 - EE
20 X 5 CYLINDRICAL BALL NUT	KGM N 2005 - EE
20mm x 20mm BALL SCREW	KGS2020-50/5600
20 x 20 FLANGED BALL NUT	KGF N 2020 - EE
20 x 20 CYLINDRICAL BALL NUT	KGM N 2020 - EE
20mm x 50mm BALL SCREW	KGS2050-50/5600
20 x 50 FLANGED BALL NUT	KGF N 2050 - EE
20 x 50 CYLINDRICAL BALL NUT	KGM N 2050 - EE
25mm x 5mm BALL SCREW	KGS2505-50/5600
25 x 5 FLANGED BALL NUT	KGF D 2505 - EE
25 x 5 CYLINDRICAL BALL NUT	KGM D 2505 - EE
25mm x 10mm BALL SCREW	KGS2510-50/5600
25 x 10 FLANGED BALL NUT	KGF D 2510 - EE
25 x 10 CYLINDRICAL BALL NUT	KGM D 2510 - EE
25mm x 20mm BALL SCREW	KGS2520-50/5600
25 x 20 FLANGED BALL NUT	KGF D 2520 - EE
25 x 20 CYLINDRICAL BALL NUT	KGM D 2520 - EE
25mm x 25mm BALL SCREW	KGS2525-50/5600
25 x 25 FLANGED BALL NUT	KGF D 2525 - EE
25 x 25 CYLINDRICAL BALL NUT	KGM D 2525 - EE
25mm x 50mm BALL SCREW	KGS2550-50/5600
25 x 50 FLANGED BALL NUT	KGF D 2550 - EE
25 x 50 CYLINDRICAL BALL NUT	KGM D 2550 - EE
32mm x 5mm BALL SCREW	KGS3205-50/5600
32 x 5 FLANGED BALL NUT	KGF N 3205 - EE
32 x 5 CYLINDRICAL BALL NUT	KGM N 3205 - EE
32mm x 10mm BALL SCREW	KGS3210-50/5600
32 x 10 FLANGED BALL NUT	KGF N 3210 - EE
32 x 10 CYLINDRICAL BALL NUT	KGM N 3210 - EE
32mm x 20mm BALL SCREW	KGS3220-50/5600
32 x 20 FLANGED BALL NUT	KGF D 3220 - EE
32 x 20 CYLINDRICAL BALL NUT	KGM N 3220 - EE
32mm x 40mm BALL SCREW	KGS3240-50/5600
32 x 40 FLANGED BALL NUT	KGF N 3240 - EE
32 x 40 CYLINDRICAL BALL NUT	KGM N 3240 - EE

NOTES:

- STANDARD MACHINED ENDS AVAILABLE UPON REQUEST
- CUSTOM BALL SCREW ASSEMBLY INQUIRES CAN BE FAXED OR EMAILED TO: (216)249-8674 OR- skamar@sbcglobal.net ©2004 Skamar Machine Company All Rights Reserved

INDFX

	INDEX	
///////	HARDENED AND PRECISION GROUND LINEAR SHAFTING	Page 1
	HARDENED AND PRECISION GROUND PREDRILLED AND TUBULAR LINEAR SHAFTING	Page 2
//////	HARDENED AND PRECISION GROUND METRIC LINEAR SHAFTING	Page 3
	SHAFT SUPPORT ASSEMBLIES AND RAILS	Page 4-5
	LOW SHAFT SUPPORT ASSEMBLIES AND RAILS	——— Page 6-7
	STANDARD, EXTRA RIGID, AND CUSTOM SHAFT END SUPPORTS	——— Page 8-9
	DUAL SHAFT ASSEMBLIES AND SUPPORTS	——— Page 10-11
	CARRIAGE ASSEMBLIES INCORPORATING LINEAR BALL BEARINGS	——— Page 12-13
	CARRIAGE ASSEMBLIES INCORPORATING LINEAR SELF-LUBRICATING BEARINGS	——— Page 14-15
	SINGLE AXIS LINEAR SURESLIDE(TM) SYSTEMS	Page 16-17
	MULTI-AXIS LINEAR SURESLIDE(TM) SYSTEMS	Page 18-19
STOCKED AND READY	INA LINEAR GUIDANCE RAIL SYSTEMS	——— Page 20
TO SHIP COMPONENTS	INA BALL SCREW ASSEMBLIES —	——— Page 21

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