

# **ELECTRIC ACTUATORS**







# ELECTRIC LINEAR MOTION PRODUCTS

# **RODLESS SCREW DRIVE ACTUATORS**



- APPLICATIONS: Guidance of light to moderate loads and
- moments • Side or impact loads

# FEATURES:

- Load-bearing carrier design with large, flexible mounting pattern for load stability
- Self-lubricating, trapezoidal bearing design for smooth operation and long life

**SPECIFICATIONS** 

• Floating mount to compensate for non-parallelism with external guides

# APPLICATIONS:

- Stable and precision quidance for moderate to
- Unquided or overhung loads

- technology for long life and smooth operation
- Low carrier height with large mounting pattern for high load stability

# In-line or reverse-parallel

Stainless steel dust band

• Choose from 5 solid or 3 ba

Auxiliary carrier for highe

Fz (load) and bending

Inch or metric mounting

MAX. in 31 134 133 131 178

T# Free Fax 87 378 624 9 122

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moment capacity

Anodized aluminum design

Flush mount reed or solid state position sensors

- high loads and moments

- Load-bearing carrier design with integral recirculating ball bearings
  - Hardened steel Gothic arch rail guides for high performance and repeatable accuracy Stainless-steel sealing band

Moderate to heavy load carrying for slow

to moderate speed applications

Long stroke lengths of unguided or

overhung loads

**B3S** re-circulating ball bearing

 Anodized aluminum design with integral mounting system

- Solid or hall nut assemblies in multiple
- Reed or solid state position sensors

# SPECIFICATIONS

B3S or	M3S	10	15	20
MAX.	in	136	133	179
STROKE	mm	3454	3378	4547
MAX.	bf	170	800	2700
THRUST	N	756	3559	12010
*MAX.	b	591	1454	2008
LOAD	N	2629	6468	8932
MAX.	in	60	60	60
SPEED PET SEC	mm	1524	1524	1524

# TKS LINEAR RAIL BEARING



# APPLICATIONS:

- Single and multi axis tables with high requirements for flatness, straightness and accuracy
- Moderate load carrying for slow to moderate speed applications

- Load-bearing linear table design with ground profile linear guides and four ball bearings blocks
- Precision ball screw for repeatable and accurate positioning
- Anodized aluminum design with integral mounting holes and sensors

# **OPTIONS:**

- Auxiliary carrier Dual 180° carrier
- Inline or reverse-parallel motor mount contaminants in harsh environments
  - Inline or reverse-parallel motor mount
- Inch or metric mounting

IIVI	IVA	OI LUII			
	TKS		20	15	
	in	MAX.	179	133	
2	mm	STROKE	4547	3378	
	lbf	MAX.	2700	800	
1	N	THRUST	12010	3559	
	b	*MAX.	2008	1454	
	N	LOAD	8932	6468	
	in	MAX.	60	60	
	mm	SPEED Der sec	1524	1524	

\*Dual 180° carrier substantially increases load capacities listed above and increases Mx and Mz bending moment Auxiliary carrier doubles load capacities listed above & increases My and Mz bending moment capacity



# FEATURES: High speed

Low plate height

SPECIFICATIONS:

- Multiple screw leads Auxiliary carrier
- Bellows for protection against
- - Reed or solid state position sensors

# SPECIFICATIONS

	TKS	10	25	50	75				
MAX.	in	96	96	96	96				
ROKE	mm	2438	2438	2438	2438				
MAX.	bf	230	1590	2830	3260				
RUST	ı	1023	7073	12589	14501				
MAX.	b	100	250	500	750				
.OAD	N	445	1112	2224	3336				
MAX.	in	30	30	60	40				
<b>PEED</b> oer sec	mm	762	762	1524	1016				
ion	oorri	or doublo	r land an	nacitiae I	ictad aha				

\*Auxiliary carrier doubles load capacities listed above and increases My and Mz bending moment capacity

# RODLESS BELT DRIVE ACTUATORS

**B3W** RE-CIRCULATING BALL BEARING

Moderate to heavy load carrying

• Long stroke lengths of unquided or

overhung loads with high moments

Load-bearing carrier design with integral

Hardened steel Gothic arch rail guides for

high performance and repeatable accuracy

Anodized aluminum design with integral

recirculating ball bearings

Stainless-steel sealing band

mounting system

Steel reinforced belts

for moderate to high speed applications

# **APPLICATIONS**

• I oads that are and supported

External bumpers

In-line or reverse-parallel motor

Mounting plates and tube clamps

Inch or metric mounting

Anodized aluminum design

- High power polyurethane HTD tooth profile belt with steel tensile members
- Open slot permits easy access to bel tensioning screw. No disassembly

200 200 200 160

209 250

16U 16P 25U 25P 32U 32P 40U 40P 50U 50P 63U

MAX. in 200 150 200 150 200 150 200 150 200 150 200 150

per sec. mm 5080 3810 5080 3810 5080 3810 5080 3810 5080 3810 5080 3810

\*MAX. 6 NA 217 NA 449 NA 569 NA 736 NA 1014 NA 1292

LOAD N NA 966 NA 1996 NA 2531 NA 3274 NA 4510 NA 5745

\*Auxiliary carrier doubles load capacities listed above and increases My and Mz bending moment capacity

 Auxiliary carrier for higher Fz (load) and bending moment capacity

Stable and precision

quidance for moderate to

high loads and moments

Unquided or overhung loads

Recirculating ball bearing

smooth operation

high load stability

Low carrier height with

large mounting pattern for

technology for long life and

FEATURES:

 Flush mount reed or solid state position sensors

# CDECIFICATIONS

B3W or l	W3W	10	15	20
MAX.	'n	207	204	108
STROKE	mm	5258	5182	2743
MAX.	bf	150	250	325
THRUST	11	667	1112	1446
*MAX.	b	591	1454	2008
LOAD	11	2629	6468	8932
MAX.	'n	157	200	200
SPEED - per sec	mm	3988	5080	5080

Auxiliary carrier doubles load capacities listed above. & increases My and Mz bending moment capacity

# TKB LINEAR RAIL BEARING



# **APPLICATIONS**

- Single and multi axis tables with high requirements for flatness, straightness and accuracy
- Moderate load carrying for moderate to high speed applications

- Load-bearing linear table design with ground profile linear guides
- High thrust belt material capable of demanding acceleration rates
- Anodized aluminum design with integral mounting holes and sensors

- Direct inline or reduction drive motor mount
- Auxiliary carrier Dual 180° carrier • Reed or solid state position sensors
- Inch or metric mounting

15	20			TKB	10	25	50	
204	108		MAX.	'n	96	96	96	
5182	2743		STROKE	mm	2438	2438	2438	
250	325		MAX.	lbf	75	120	195	
1112	1446		THRUST	N	334	534	867	
1454	2008		*MAX.	b	100	250	500	
6468	8932		LOAD	N	445	1112	2224	
200	200		MAX.	'n	100	100	100	
5080	5080		SPEED of sec	mm	2540	2540	2540	
reases lo	ad capacities		*Auxiliary o	arrie	r double:	s load car	nacities lis	stec



• I ow to medium thrust forces for

externally guided and supported loads

• Pneumatic and hydraulic cylinder style

• Stainless steel main tube & thrust tube

• Compatible with many commercially

available metric rod end accessories

• Trunnion, foot or front flange mounts

• IP67 & IP69K ingress protection, stain-

less steel with protective motor enclosure

Load guidance, tooling plate and anti-

Reed, solid state PNP or NPN switches

ERD | 06 | 10 | 15 | 20 | 25 | 30

MAX. in 8 10 24 24 39.4 39.4

MAY lbf 20 100 200 500 3300 4500

MAX, in 40 40 40 20 58 58

per sec mm 1016 1016 1016 508 1473 1473

THRUST N 89 445 890 2224 14679 20017

STROKE mm 203 254 609 609 1000 1000

• Solid or ball nut assemblies

• Patent pending

**SPECIFICATIONS** 

- NFMA or metric motor mount Rugged nose and main bearings
- Steel reinforced helts

- Bellows for protection against contaminants in harsh environments
- Auxiliary carrier
- Direct inline or reduction drive motor mount Reed or solid state position sensors

# SPECIFICATIONS:

	TKB	10	25	50	75
MAX.	'n	96	96	96	96
STROKE	mm	2438	2438	2438	2438
MAX.	bf	75	120	195	245
THRUST	N	334	534	867	1090
*MAX.	b	100	250	500	750
LOAD	N	445	1112	2224	3336
MAX.	in	100	100	100	100
SPEED per sec	mm	2540	2540	2540	2540
'Auxiliary (	arrie	r double:	s load car	nacities li	sted abo

and increases My and Mz bending moment capacity

# **ROD STYLE SCREW DRIVE ACTUATORS**



• I ow to medium thrust forces for externally guided and supported loads Pneumatic and hydraulic cylinder style

Internally threaded rod end

Anodized aluminum design

operation

- All-in-one controller/drive/motor in a compact rod-style actuator
- Programmable, multi-position capabilit
  - - NFPA and ISO mounting standards

- Ball nut assemblies with 2 or 5 TPI Ball, roller or solid nut assemblies
- Trunnion, clevis, eve. flance or foot • Trunnion, clevis, eve, flange or foot
- Clevis, eve. threaded rod or coupler rod • Clevis, eve, threaded rod or coupler
  - Inline or reverse-parallel motor mount Reed or solid state position sensors

MAX in 18 18 24 36 48 6

MAY ltf 130 471 1700 3300 4109 7350

per sec mm 3124 3124 737 1270 1270 1473

Inch or metric mounting

SPECIFICATIONS:

# SPECIFICATIONS:

• Inline or reverse-parallel motor mount

Flush mount reed or solid state position

sensors

MAX.	in	24	24
STROKE	mm	609	609
MAX.	lbf	400	720
THRUST	N	1779	3202
MAX.	in	24	24
SPEED per sec	mm	609	609

ICR20 LMI RP

# RSA ROD SCREW ACTUATOR



# APPLICATIONS:

 Medium to high thrust forces for externally quided and supported loads • Pneumatic and hydraulic cylinder style

- Non-rotating, salt bath nitride treated thrust tube
- Internally threaded rod end
- Anodized aluminum design

- Solid or ball nut assemblies
- Composite or linear ball bearings

Standard, oversized or stainless-steel

Anodized aluminum design

Medium to high thrust forces for loads

requiring guidance and support

Pneumatic and hydraulic cylinder

Hardened and ground steel guide rod

• Four bearing surfaces for smooth

• Wide tooling plate for end effecter

style operation

**FEATURES:** 

- quide rods Inline or reverse-parallel motor mount
- Reed or solid state position sensors
- Inch or metric mounting

# **SPECIFICATIONS** GSA or GSM 12 16 24

AX.	in	18	24	30	36
OKE	mm	457	609	762	914
AX.	bf	130	471	850	2670
UST	II	578	2095	3781	11877
AX.	lb	400	500	1000	1200
)AD	II	1779	2224	4448	5338
AX.	in	123	123	29	50
1 SBC -	mm	3124	3124	737	1270

# **IMA** INTEGRATED MOTOR ACTUATOR



# APPLICATIONS:

- High thrust forces for externally guided and supported loads
- Pneumatic and hydraulic cylinder style operation in a compact design

- Integral hollow rotor servo motor
- Integral high resolution feedback device Salt bath nitride treated thrust tube
- Grease port (patented) for internal lubrication without disassembly

- Roller or hall nut assemblies
- Trunnion, clevis, eye, front flange or plate mounts

SPECIFICATIONS:

- Clevis, eve. or external thread rod mounts Integral holding brake
- Choose from popular motor
- feedback devices

IMA		ш	UU			v		
	IIIIA		Ball	Ball	Roller	Ball	Roller	Ball
	WAX.	in	12	18	18	18	18	18
	STROKE	mm	305	457	457	457	457	457
-	WAX.	bf	325	1,000	1,700	2,000	3,300	3,000
	THRUST		4 110	1.110	7.500	0.000	44.070	40.050

manufacturers' connectors and

MAX. in 28 48 24 52.5 23 31.4 15.7

persec mm 711 1,219 610 1,334 584 787 39