

Kerk® Rapid Guide Screw Linear Slides

The **Kerk® RGS® Rapid Guide Screw** is a screw-driven slide that offers exceptional linear speed, accurate positioning, and long life in a compact, value-priced assembly. The length and speed of the RGS is not limited by critical screw speed, allowing high RPM and linear speeds, even over long spans.

Standard leads include .100-in, .200-in, .500-in and 1.00-in (2.54, 5.08, 12.7 and 25.4 mm) travel per revolution. Many optional leads, both inch and metric based, offer everything from high efficiency to non-backdriving leads for vertical applications, eliminating the need for brakes. With HaydonKerk Motion Solutions™ wide range of available leads, speeds of more than 60 inches per second (1.5 meters per second) are possible, rivaling belts and cables while offering superior positioning accuracy, repeatability and axial stiffness.

The Kerk RGS slide includes a precision aluminum guide and carriage and is driven by a precision rolled stainless steel lead screw. The moving surfaces include Kerkite® high performance polymers running on Kerkote® TFE coating.

The RGS slide has a unique, compact profile that provides exceptional torsional stiffness and stability for its size and weight. The integral mounting base allows support over the entire length if desired. Lengths up to 8 feet (2.4 meters) can readily be built, and longer lengths are possible on a special order basis.

RGS slides come standard with a wear-compensating, anti-backlash driven carriage. Additional driven or passive carriages can be added, along with application specific customization. Linear guides, without the drive screw, are also available.

RGS® GUIDE SCREWS
AND SLIDES

Standard
Kerk RGS



Haydon™ MotoRGS™ linear slide
integrated with Size 17 stepper motor
linear actuator.



Identifying the part number codes when ordering Rapid Guide Screw Slides

RGS® GUIDE SCREWS AND SLIDES

RG	W	06	K	R	M	43	0100	12	XXX
Prefix: RG = Rapid Guide Screw	Frame Style S = Standard W = Wide sensor mount capability M = Wide motor mount capability	Frame Size: Load 04 = 15 lbs (not available with W Frame Style) 06 = 35 lbs 08 = 50 lbs 10 = 100 lbs	Coating K = Kerkote® X = Special (ex: Kerkote with grease)	Thread R = Right hand L = Left hand N = No screw B = Right hand/left hand assembly X = Custom (Refer to availability)	Drive/Mounting A = None B = No motor, in-line motor mount C = No motor, foldover mount M = Motorized S = Motor + Integrated Drive (Moto Drive™) X = Custom	Motor Frame 00 = No motor 43 = Size 17 Stepper Motor XX = Custom	Nominal Thread Lead Code (inches) Code numbers in Part Number Selector Chart	Stroke (in inches rounded up) 07 = 7-in 08 = 8-in 12 = 12-in (up to 40-in max.)	Unique Identifier Number assigned by HaydonKerk Motion Solutions (for added features such as custom configurations, etc.)

EXAMPLE:

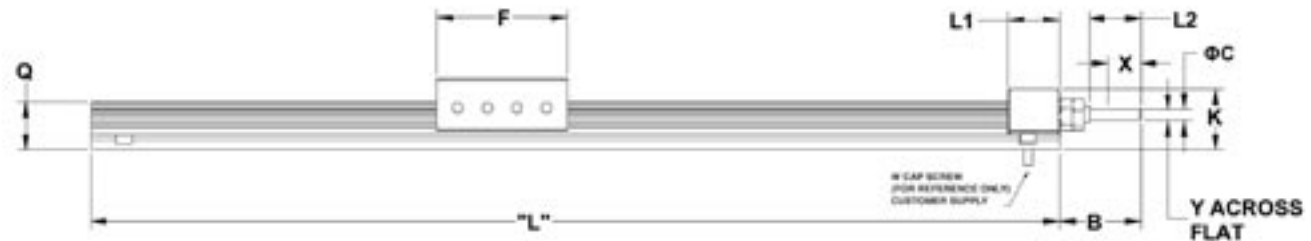
RGW06KR-M43-0100-12-xxx = RGS®, wide frame style for sensor mounting, for 35 lb load, leadscrew with Kerkote® TFE coating, right hand thread, motorized with Size 17 stepper motor, 0.1-in (2.54 mm) leadscrew diam., 12-in over all length with no added features.

For assistance or order entry, call the HaydonKerk Motion Solutions™ Rapid Guide Screw technical advisors at 603.465.7227. Other systems and styles may be available. Visit www.HaydonKerk.com for recent updates.

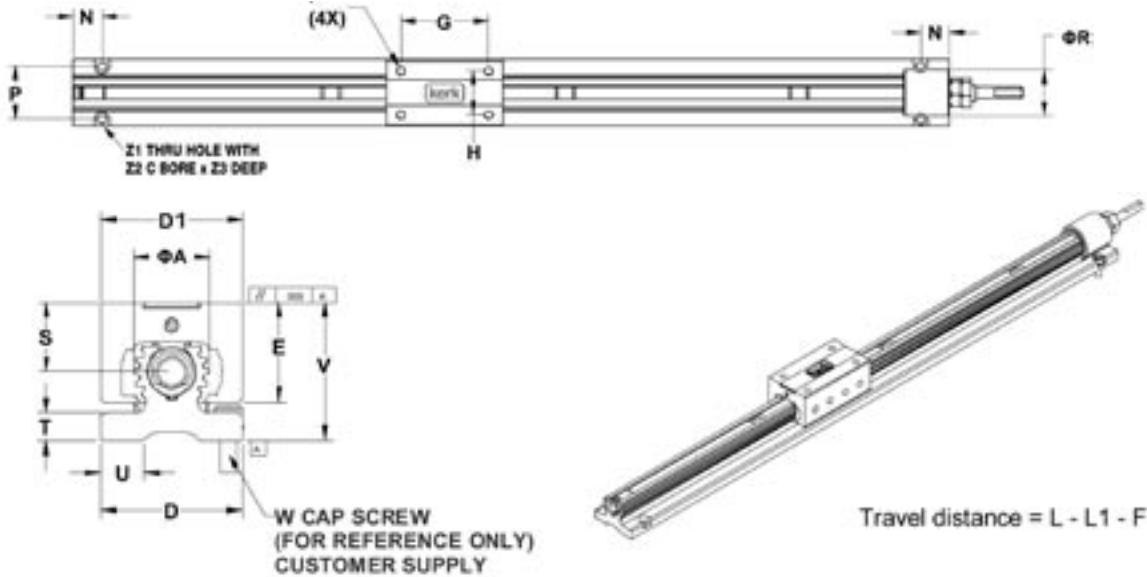
RGS Linear Slide: Standard Series

Rapid Guide Screw	A inch (mm)	B inch (mm)	C inch (mm)	D inch (mm)	D1 inch (mm)	E inch (mm)	F inch (mm)	G inch (mm)	H inch (mm)	I	K inch (mm)	L1 inch (mm)	L2 inch (mm)	N inch (mm)
RGS 04	.40 (10.2)	.83 (21.1)	.1250 (3.175)	.75 (19.1)	.750 (19.1)	.53 (13.5)	1.4 (36)	1.000 (25.40)	.500 (12.7)	4-40 UNC	.6 (15)	.53 (13.5)	.47 (11.9)	.375 (9.53)
RGS 06	.60 (15.2)	1.25 (31.8)	.1875 (4.762)	1.13 (28.6)	1.125 (28.6)	.79 (20.1)	2.0 (51)	1.500 (38.10)	.750 (19.1)	6-32 UNC	.9 (23)	.80 (20.3)	.80 (20.3)	.500 (12.70)
RGS 08	.80 (20.3)	1.50 (38.1)	.2500 (6.350)	1.60 (40.6)	1.60 (40.6)	1.06 (26.9)	2.7 (69)	1.750 (44.45)	1.000 (25.4)	10-24 UNC	1.3 (33)	1.09 (27.7)	.77 (19.6)	.625 (15.88)
RGS 10	1.00 (25.4)	1.75 (44.5)	.3125 (7.938)	2.00 (50.8)	2.000 (50.8)	1.32 (33.5)	3.3 (83)	2.250 (57.15)	1.250 (31.8)	1/4-20 UNC	1.6 (41)	1.30 (33.0)	1.30 (33.0)	.750 (19.05)

Rapid Guide Screw	P inch (mm)	Q inch (mm)	R inch (mm)	S inch (mm)	T inch (mm)	U inch (mm)	V inch (mm)	W inch (mm)	X inch (mm)	Y inch (mm)	Z1 inch (mm)	Z2 inch (mm)	Z3 inch (mm)
RGS 04	.40 (10.2)	.83 (21.1)	.1250 (3.175)	.75 (19.1)	.750 (19.1)	.53 (13.5)	1.4 (36)	1.000 (25.40)	.500 (12.7)	4-40 UNC	.6 (15)	.53 (13.5)	.47 (11.9)
RGS 06	.60 (15.2)	1.25 (31.8)	.1875 (4.762)	1.13 (28.6)	1.125 (28.6)	.79 (20.1)	2.0 (51)	1.500 (38.10)	.750 (19.1)	6-32 UNC	.9 (23)	.80 (20.3)	.80 (20.3)
RGS 08	.80 (20.3)	1.50 (38.1)	.2500 (6.350)	1.60 (40.6)	1.60 (40.6)	1.06 (26.9)	2.7 (69)	1.750 (44.45)	1.000 (25.4)	10-24 UNC	1.3 (33)	1.09 (27.7)	.77 (19.6)
RGS 10	1.00 (25.4)	1.75 (44.5)	.3125 (7.938)	2.00 (50.8)	2.000 (50.8)	1.32 (33.5)	3.3 (83)	2.250 (57.15)	1.250 (31.8)	1/4-20 UNC	1.6 (41)	1.30 (33.0)	1.30 (33.0)



RGS Linear Slide: Standard Series



Rapid Guide Screw	Inch Lead	Thread Lead Code	Nominal Rail Diam.	Nominal Screw Diam.	Typical Drag Torque	Life @ 1/4 Design Load	Torque-to-Move Lead	Design Load	Screw Inertia
	inch (mm)								
RGS 04	.100 (2.54)	0100	0.4 (10.2)	1/4" (6.4)	3.0 (.02)	100,000,000 (254,000,000)	1.0 (.016)	15 (7)	.3 x 10 ⁻⁵ (6.5 x 10 ⁻⁶)
RGS 04	.200 (5.08)	0200	0.4 (10.2)	1/4" (6.4)	4.0 (.03)	100,000,000 (254,000,000)	1.5 (.023)	15 (7)	.3 x 10 ⁻⁵ (6.5 x 10 ⁻⁶)
RGS 04	.500 (12.70)	0500	0.4 (10.2)	1/4" (6.4)	5.0 (.04)	100,000,000 (254,000,000)	2.5 (.039)	15 (7)	.3 x 10 ⁻⁵ (6.5 x 10 ⁻⁶)
RGS 04	1.000 (25.40)	1000	0.4 (10.2)	1/4" (6.4)	6.0 (.04)	100,000,000 (254,000,000)	4.5 (.070)	15 (7)	.3 x 10 ⁻⁵ (6.5 x 10 ⁻⁶)
RGS 06	.100 (2.54)	0100	0.6 (15.2)	3/8" (9.5)	4.0 (.03)	100,000,000 (254,000,000)	1.0 (.016)	35 (16)	1.5 x 10 ⁻⁵ (4.2 x 10 ⁻⁶)
RGS 06	.200 (5.08)	0200	0.6 (15.2)	3/8" (9.5)	5.0 (.04)	100,000,000 (254,000,000)	1.5 (.023)	35 (16)	1.5 x 10 ⁻⁵ (4.2 x 10 ⁻⁶)
RGS 06	.500 (12.70)	0500	0.6 (15.2)	3/8" (9.5)	6.0 (.04)	100,000,000 (254,000,000)	2.5 (.039)	35 (16)	1.5 x 10 ⁻⁵ (4.2 x 10 ⁻⁶)
RGS 06	1.000 (25.40)	1000	0.6 (15.2)	3/8" (9.5)	7.0 (.05)	100,000,000 (254,000,000)	4.5 (.070)	35 (16)	1.5 x 10 ⁻⁵ (4.2 x 10 ⁻⁶)
RGS 08	.100 (.254)	0100	0.8 (20.3)	1/2" (12.7)	5.0 (.04)	100,000,000 (254,000,000)	1.1 (.018)	50 (22)	5.2 x 10 ⁻⁵ (20.0 x 10 ⁻⁶)
RGS 08	.200 (5.08)	0200	0.8 (20.3)	1/2" (12.7)	6.0 (.04)	100,000,000 (254,000,000)	1.7 (.027)	50 (22)	5.2 x 10 ⁻⁵ (20.0 x 10 ⁻⁶)
RGS 08	.500 (12.70)	0500	0.8 (20.3)	1/2" (12.7)	7.0 (.05)	100,000,000 (254,000,000)	3.0 (.047)	50 (22)	5.2 x 10 ⁻⁵ (20.0 x 10 ⁻⁶)
RGS 08	1.000 (25.40)	1000	0.8 (20.3)	1/2" (12.7)	8.0 (.06)	100,000,000 (254,000,000)	6.0 (.096)	50 (22)	5.2 x 10 ⁻⁵ (20.0 x 10 ⁻⁶)
RGS 10	.100 (2.54)	0100	1.0 (25.4)	5/8" (15.9)	5.0 (.04)	100,000,000 (254,000,000)	1.3 (.020)	100 (46)	14.2 x 10 ⁻⁵ (3.9 x 10 ⁻⁵)
RGS 10	.200 (5.08)	0200	1.0 (25.4)	5/8" (15.9)	6.5 (.05)	100,000,000 (254,000,000)	2.0 (.031)	100 (46)	14.2 x 10 ⁻⁵ (3.9 x 10 ⁻⁵)
RGS 10	.500 (12.70)	0500	1.0 (25.4)	5/8" (15.9)	7.0 (.05)	100,000,000 (254,000,000)	3.0 (.047)	100 (46)	14.2 x 10 ⁻⁵ (3.9 x 10 ⁻⁵)
RGS 10	1.000 (25.40)	1000	1.0 (25.4)	5/8" (15.9)	8.5 (.06)	100,000,000 (254,000,000)	6.5 (.101)	100 (46)	14.2 x 10 ⁻⁵ (3.9 x 10 ⁻⁵)

*RGS® assemblies with lengths over 3 feet and/or leads higher than .5-in will likely have higher drag torque than listed values.

Kerk® RGW Linear Slide Series and RGM Motor Mount – wider style with mounting slots and brackets

The RGW Series configurations of the Rapid Guide Screw Linear Slide simplify motor and limit switch sensor mounting. Both versions include slots for sensor brackets and mounting provisions for a flag on the carriage, while the RGM Motor Mount series also includes a bracket for motor mounting. The motor, coupling and sensors are not provided, but a sensor mounting kit for a common optical sensor is available from HaydonKerk Motion Solutions (see Sensor Mount Kit).

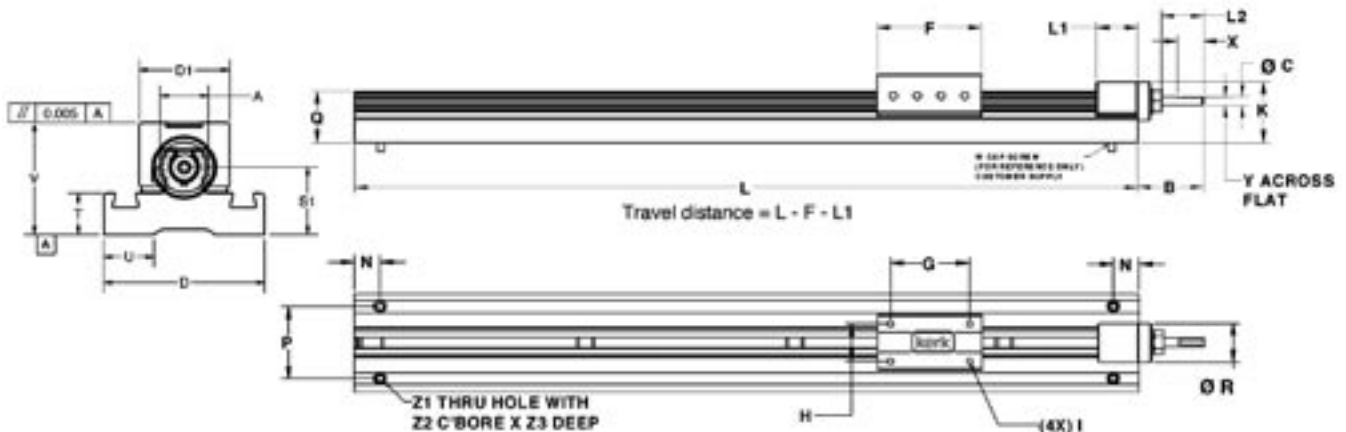
RGS® GUIDE SCREWS AND SLIDES



RGW Series

Wide Rapid Guide Screw	A inch (mm)	B inch (mm)	C inch (mm)	D inch (mm)	D1 inch (mm)	F inch (mm)	G inch (mm)	H inch (mm)	I (UNC)	K inch (mm)	L1 inch (mm)	L2 inch (mm)	N inch (mm)
RGW 06	.60 (15.2)	1.25 (31.8)	.1875 (4.762)	2.00 (50.8)	1.13 (28.6)	2.0 (51)	1.500 (38.10)	.750 (19.05)	6-32 (UNC)	1.2 (30)	.80 (20.3)	.80 (20.3)	.500 (12.70)
RGW 10	1.00 (25.4)	1.75 (44.5)	.3125 (7.938)	3.38 (85.7)	2.00 (50.8)	3.3 (83)	2.250 (57.15)	1.250 (31.75)	1/4-20 (UNC)	1.9 (48)	1.30 (33.0)	1.30 (33.0)	.750 (19.05)

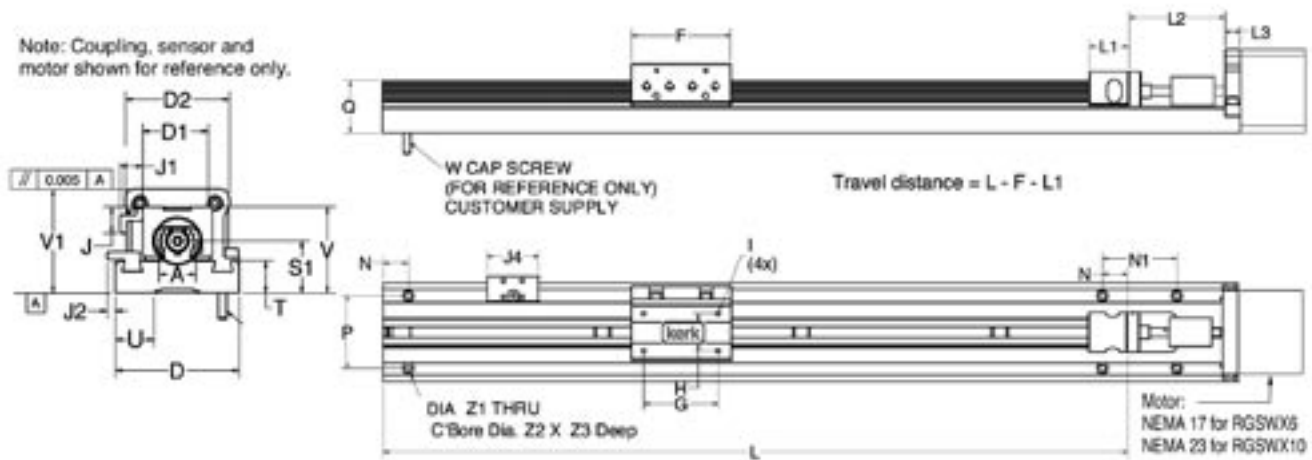
	P inch (mm)	Q inch (mm)	S1 inch (mm)	T inch (mm)	U inch (mm)	V inch (mm)	W SHCS	X inch (mm)	Y inch (mm)	Z1 inch (mm)	Z2 inch (mm)	Z3 inch (mm)
RGW 06	1.460 (37.08)	1.04 (26.4)	.83 (21.2)	.51 (13.0)	.63 (16.0)	1.39 (35.3)	6-32 SHCS	.50 (12.7)	.170 (4.32)	.14 (3.7)	.25 (6.4)	.14 (3.6)
RGW 10	2.600 (66.04)	1.56 (39.6)	1.22 (31.0)	.69 (17.5)	1.33 (33.8)	2.15 (54.6)	1/4-20 SHCS	.88 (22.4)	.280 (7.11)	.26 (6.6)	.40 (10.2)	.43 (10.9)



RGM Motor Mount Series

Wide, Motor Mount Rapid Guide Screw	A inch (mm)	D inch (mm)	D1 inch (mm)	D2 inch (mm)	F inch (mm)	G inch (mm)	H inch (mm)	I	J inch (mm)	J1 inch (mm)	J2 inch (mm)	J4 inch (mm)	L1 inch (mm)	L2 inch (mm)
RGM 06	.60 (15.2)	2.00 (50.8)	1.13 (28.6)	1.67 (42.2)	2.0 (51)	1.500 (38.10)	.750 (19.05)	6-32 UNC	.43 (10.9)	.36 (9.2)	.14 (3.5)	1.1 (28)	.80 (20.3)	1.93 (48.9)
RGM 10	1.00 (25.4)	3.38 (85.7)	2.00 (50.8)	2.22 (56.4)	3.3 (83)	2.250 (57.15)	1.250 (31.75)	1/4-20 UNC	.63 (16.0)	.36 (9.2)	NA	1.1 (28)	1.30 (33.0)	2.16 (54.9)

Wide, Motor Mount Rapid Guide Screw	L3 inch (mm)	N inch (mm)	N1 inch (mm)	P inch (mm)	Q inch (mm)	S1 inch (mm)	T inch (mm)	U inch (mm)	V inch (mm)	V1 inch (mm)	Z1 inch (mm)	Z2 inch (mm)	Z3 inch (mm)
RGM 06	.31 (7.9)	.500 (12.70)	1.50 (38.1)	1.460 (37.08)	1.04 (26.4)	.83 (21.2)	.51 (13.0)	.63 (16.0)	1.39 (35.3)	1.67 (42.4)	.14 (3.6)	.25 (6.4)	.14 (3.6)
RGM 10	.50 (12.7)	.750 (19.05)	1.50 (38.1)	2.600 (66.04)	1.56 (39.6)	1.22 (31.0)	.69 (17.5)	1.33 (33.8)	2.15 (54.6)	2.34 (59.3)	.26 (6.6)	.40 (10.2)	.43 (10.9)



Sensor Mounting Kit

Sensor mounting kits, based on a U-channel optical sensor, are available for the RGSW and RGSWX series. Each kit includes one flag, three sensor mounts, and all mounting hardware. Sensors are not included in the kit and must be ordered separately from sensor manufacturer. One recommended sensor is Sunx part number PM-L24.

Part Numbers: **RGSW06SK** Sensor kit for RGSW6000 or RGSWX6000
RGSW10SK Sensor kit for RGSW10000 or RGSWX10000



Flag
Mounts to side of carriage



RGSW6 Sensor Mount
Mounts in slot on RGS base



RGSW10 Sensor Mount
Mounts in slot on RGS base

Kerk® RGS® Linear Guide Series

Kerk RGS Linear Guides provide a strong, stable platform for a variety of linear motion applications. The RGS Linear Guide is designed to easily mount to any flat surface, or bridge free spans, with a convenient, easy-access carriage. The splined aluminum profile, with Kerkote® TFE coating, combines low friction linear guidance with torsional stability. The Linear Guides can be configured in lengths up to 8 feet without special tooling, with one or more carriages, in standard or custom configurations. The wide linear guide series features a wider base for even greater stability. Kerk® RGS Linear Guides are constructed of high strength, extruded aluminum and Kerkite® composite polymer with Kerkote TFE on all critical surfaces. This proven combination of materials assures exceptionally long life without the need for adjustment, lubrication or maintenance. The simplicity of the RGS Linear Guide makes it both easy to use and a great value. Similar to other HaydonKerk Motion Solutions products, it can be easily modified to custom configurations to suit most applications. The Kerk® RGS Linear Guides are perfect companions to the Kerk® RGS series of screw-driven linear slides. All Kerk® RGS Series products share the same rail and carriage geometry and simplify equipment design and reduce part counts, and are equally suitable for use with Kerk® leadscrews or any other type of drive or actuator.



Identifying the part number codes when ordering RGS Linear Guides

RG	S	06	K	N	A	00	0000	12	XXX
Prefix: RG = RG Compatible Linear Guide	Frame Style S = Standard W = Wide sensor mount capability M = Wide motor mount capability	Carriage Guide Width 04 = 0.4-in (10.2) 06 = 0.6-in (15.2) 10 = 1.0-in (25.4)	Coating K = Kerkote® X = Custom	Thread N = No screw	Drive/ Mounting A = None X = Custom	Motor Frame 00 = No motor XX = Custom	Screw 0000 = No screw	Stroke (in inches rounded up) 07 = 7-in 08 = 8-in 12 = 12-in (up to 40-in max.)	Unique Identifier Number assigned by Hay- donKerk Motion Solutions (for added features such as custom configura- tions, etc.)

EXAMPLE:

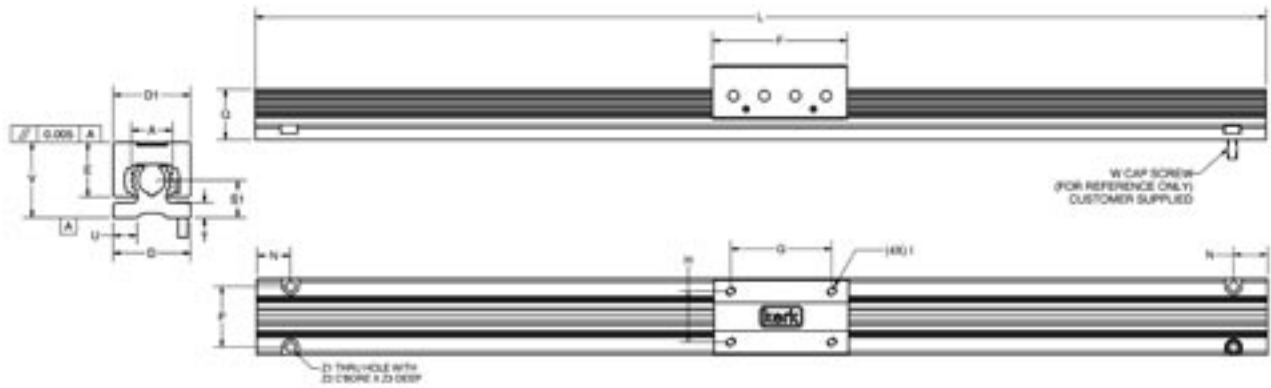
RGS06KN-A00-0000-12-xxx = Linear Guide, standard frame width, rail guide width 0.6-in, Kerkote® TFE coated surface areas, 12-in over all length with no added features.

For assistance or order entry, call the HaydonKerk Motion Solutions Linear Guide technical advisors at 603.465.7227. Other systems and styles may be available. Visit www.HaydonKerk.com for recent updates.

RGS® Linear Guide

RGS Linear Guide: Standard Series

Linear Guide	A	D	D1	E	F	G	H	I	N	P	Q	S	T	U	V	W	Z1	Z2	Z3
	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)		inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)		inch (mm)	inch (mm)	inch (mm)
RGS 04	.40 (10.2)	.75 (19.1)	.75 (19.1)	.53 (13.5)	1.4 (36)	1.000 (25.40)	.500 (12.70)	4-40 UNC	.375 (9.53)	.600 (15.24)	.50 (12.7)	.37 (9.4)	.15 (3.8)	.23 (5.8)	.73 (18.5)	4.40 SHCS	.11 (2.8)	.20 (5.1)	.09 (2.3)
RGS 06	.60 (15.2)	1.13 (28.6)	1.13 (28.6)	.79 (20.1)	2.0 (51)	1.500 (38.10)	.750 (19.05)	6-32 UNC	.500 (12.70)	.900 (22.86)	.74 (18.8)	.55 (14.0)	.22 (5.6)	.35 (8.9)	1.10 (27.9)	6-32 SHCS	.14 (3.6)	.25 (6.4)	.13 (3.3)
RGS 10	1.00 (25.4)	2.00 (50.8)	2.00 (50.8)	1.32 (33.5)	3.3 (83)	2.250 (57.15)	1.250 (31.75)	1/4-20 UNC	.750 (19.05)	1.500 (38.10)	1.25 (31.8)	.92 (23.4)	.375 (9.5)	.64 (16.3)	1.83 (46.5)	1/4-20 SHCS	.26 (6.6)	.50 (12.7)	.22 (5.6)



RGS® GUIDE SCREWS AND SLIDES

RGW Linear Guide: Wide Series

Linear Guide	A	D	D1	F	G	H	I	N	P	Q	S1	T	U	V	W	Z1	Z2	Z3
	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)		inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)	inch (mm)		inch (mm)	inch (mm)	inch (mm)
RGW 06	.60 (15.2)	2.00 (50.8)	1.13 (28.6)	2.0 (51)	1.500 (38.10)	.750 (19.05)	6-32 UNC	.500 (12.70)	1.460 (37.08)	1.04 (26.4)	.83 (21.2)	.51 (13.0)	.63 (16.0)	1.39 (35.3)	6-32 SHCS	.14 (3.6)	.25 (6.4)	.14 (3.6)
RGW 10	1.00 (25.4)	3.38 (85.7)	2.00 (50.8)	3.3 (83)	2.250 (57.15)	1.250 (31.75)	1/4-20 UNC	.750 (19.05)	2.600 (66.04)	1.56 (39.6)	1.22 (31)	.69 (17.5)	1.33 (33.8)	2.15 (54.6)	1/4-20 SHCS	.26 (6.6)	.40 (10.2)	.43 (10.9)

