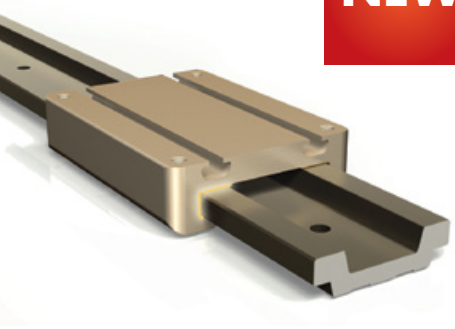
NEW



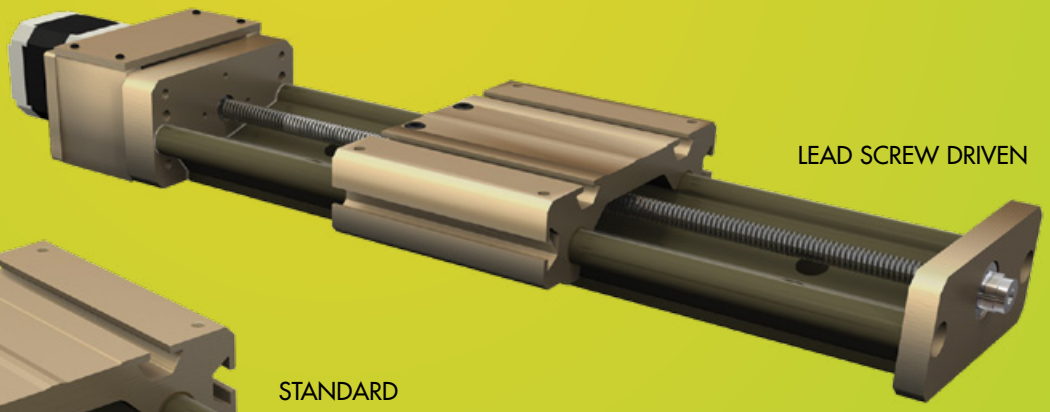
LOW PROFILE

LEAD-SCREW WITH HAND BRAKE

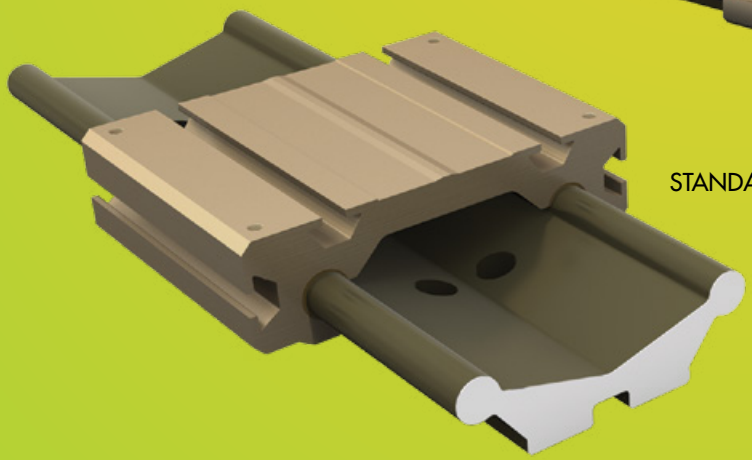
GST

Uni-guide™

PRODUCT OVERVIEW



LEAD SCREW DRIVEN



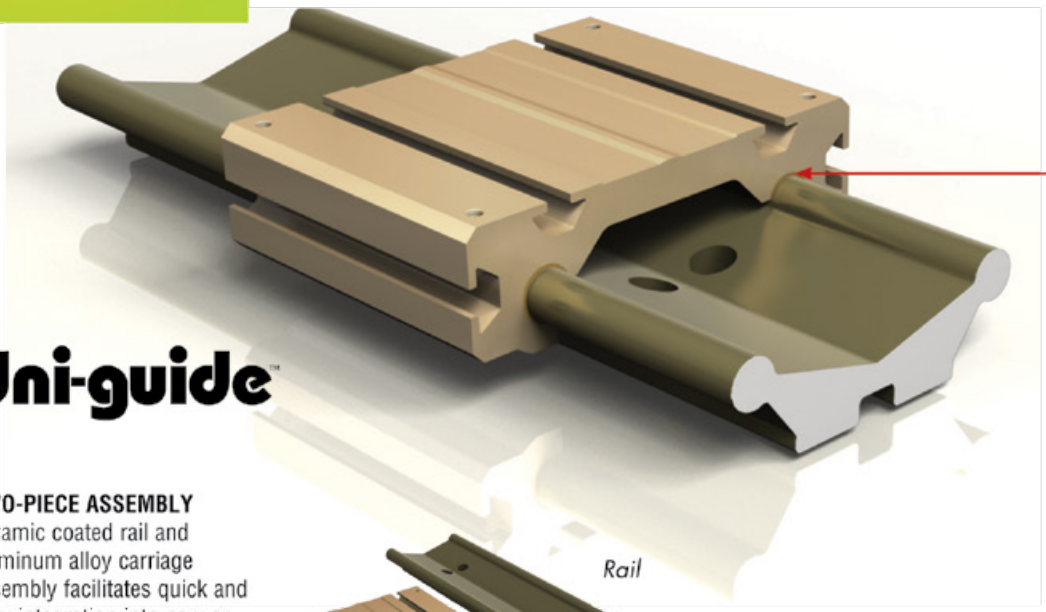
STANDARD

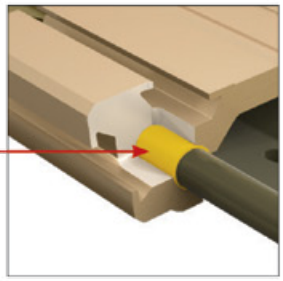
PBC LINEAR

A PACIFIC BEARING CO.

Unlimited design options & versatility.

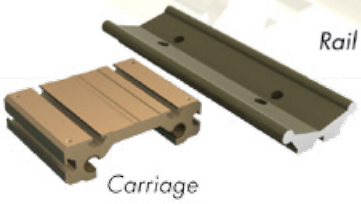
The Uni-Guide family provides the answer by reducing bulky part count, simplifying assembly and integration and facilitating smooth maintenance-free travel throughout the life of the system. Designed to thrive in the most challenging environments—caustic, dirty, extreme and clean-reliant—the Uni-Guide product family features the design advantages for best-in-class linear motion performance.

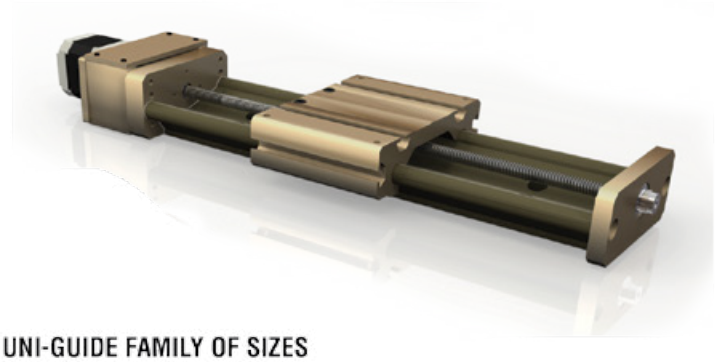




SELF-LUBRICATING LINER
Uni-Guide's Frelon® liner allows it to excel in the most demanding surroundings: temperature extremes, heavy particulates, wash-down and extreme vibration.

TWO-PIECE ASSEMBLY
Ceramic coated rail and aluminum alloy carriage assembly facilitates quick and easy integration into new or existing systems.





FEATURES

- Driven or non-driven system
- Slide sizes (75mm, 100mm, 125mm)
- Standard length or cut-to-length rails and carriage assemblies
- Continous lengths up to 10 feet
- Ease of mounting - carriage t-slots and pre-drilled mounting holes
- Easy drop-in unit - no alignment needed
- Drive options - lead or ball screw driven

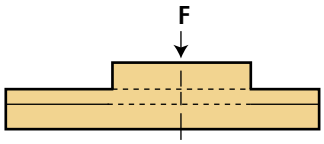
ACCESSORIES

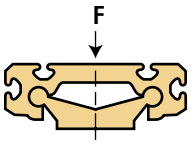
- NEMA Standard Motor
- Hand brake or crank
- Motor mount attachments

UNI-GUIDE FAMILY OF SIZES

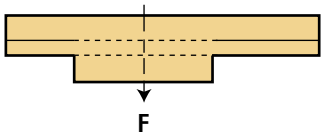
Static Loads - Standard Uni-Guide & Low Profile Uni-Guide

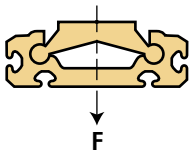
The numbers below are for guides only in a static condition. The drive mechanism selected (lead screw, ball screw, cylinder, etc.) becomes the limiting factor when calculating maximum load and speed capacities. The user is responsible for determining the maximum capacity for the complete system based on the manufacturer's data for their drive configuration.



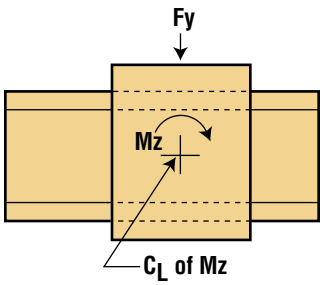


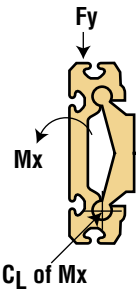
	SIZE	Fz MAX LOAD (lbs.)	Fz MAX LOAD (N)
Standard	D075	500	2,224
Standard	D100	750	3,336
Standard	D125	1,000	4,448
Low Profile	UGA040C-0x1xxx	1,843	8,200
Low Profile	UGA040C-1x1xxx	1,483	6,600
Low Profile	UGA040C-2x1xxx	1,101	4,900

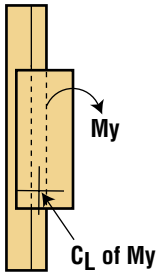


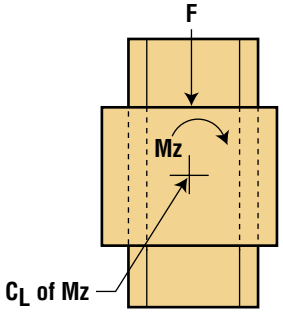


	SIZE	Fz (Inverted) MAX LOAD (lbs.)	Fz (Inverted) MAX LOAD (N)
Standard	D075	125	556
Standard	D100	190	845
Standard	D125	250	1,112
Low Profile	UGA040C-0x1xxx	607	2,700
Low Profile	UGA040C-1x1xxx	607	2,700
Low Profile	UGA040C-2x1xxx	607	2,700









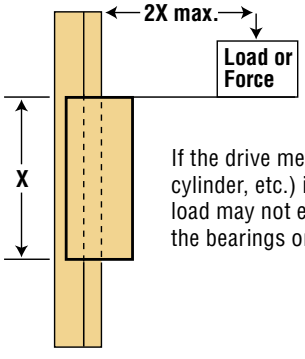
	SIZE	Fy (lbs.)	Mx (in./lbs.)	Mz (in./lbs.)	Fy (N)	Mx (Nm)	Mz (Nm)
Standard	D075	250	340	350	1,112	38	40
Standard	D100	375	650	730	1,668	73	82
Standard	D125	500	1,200	1,225	2,224	136	138
Low Profile	UGA040C-0x1xxx	1,101	1,062	1,505	4,900	120	170
Low Profile	UGA040C-1x1xxx	1,281	1,062	2,567	5,700	120	290
Low Profile	UGA040C-2x1xxx	1,371	1,062	2,567	6,100	120	290

	SIZE	My (in./lbs.)	Mz (in./lbs.)	My (Nm)	Mz (Nm)
Standard	D075	340	350	38	40
Standard	D100	650	730	73	82
Standard	D125	1,200	1,225	136	138
Low Profile	UGA040C-0x1xxx	1,505	1,505	170	170
Low Profile	UGA040C-1x1xxx	2,567	2,567	290	290
Low Profile	UGA040C-2x1xxx	2,567	2,567	290	290

Designs must also operate within the following dynamic parameters:

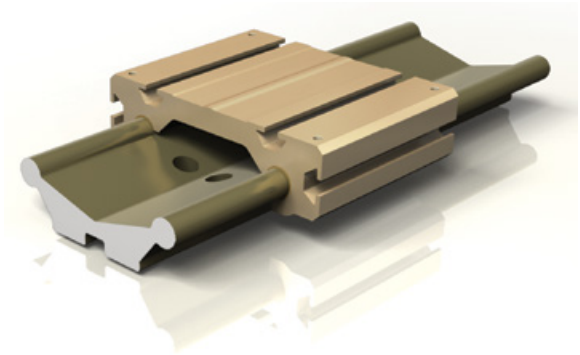
- Maximum Loads (P) = from charts above
- Maximum Speed Dry (V) = 300 ft./min. (1.524 m/s)
- Maximum PV (pressure x velocity) = 20,000 (0.70 N/mm2 x m/s)
- PV Example: Load = 85 psi
  Speed = 180 ft./min.
  PV = 85 x 180 = 15,300 PV

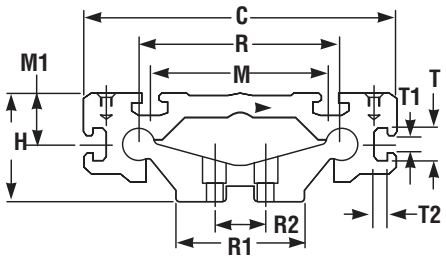
Note: Frelon GOLD® bearing material coefficient of friction is 0.125.

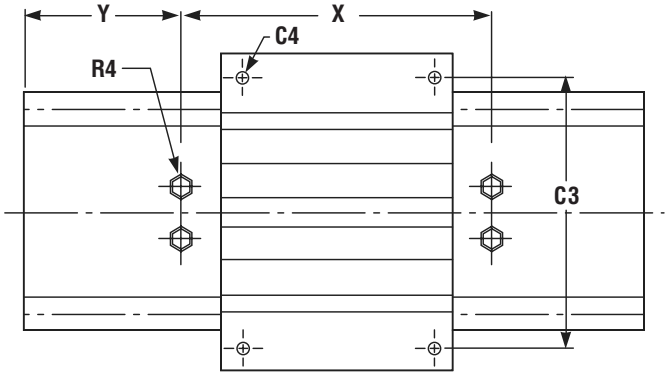


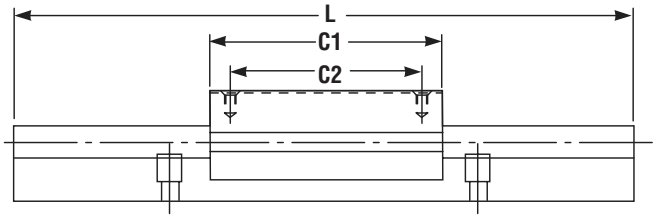
If the drive mechanism (lead screw, ball screw, cylinder, etc.) is centered on the carriage, the load may not exceed a 2:1 ratio to the length of the bearings or binding will occur.

Standard No Drive Mechanism









STANDARD INCH SERIES WITH NO DRIVE MECHANISM (inches)

PART NUMBER	R	R1	R2	X	R4 BOLT SIZE	Y	H	C	C1 STANDARD	C2 STANDARD	C1 EXTENDED	C2 EXTENDED	C3	C4 BOLT SIZE	M	M1	L MAX-FEET
D075-xxx	2.95	2	0.75	4	1/4	2	1.625	4.6	3.5	3	4.5	4	4	10-32	2.6	.819	
D100-xxx	3.94	2.6	1	6	5/16	3	2.125	6.1	4.5	3.75	6	5.25	5.25	1/4-20	3.5	1.02	12
D125-xxx	4.92	3.3	1.25		3/8	3	2.625	7.6	6	5.25	7.5	6.75	6.75	5/16-18	4.33	1.30	

CARRIAGE TYPES

PART NO.	DRILL	DEPTH	TAP	DEPTH
D075-xxx	.159	.534	10-32	.440
D100-xxx	.201	.750	1/4-20	.500
D125-xxx	.257		5/16-18	.625

T-SLOT INFORMATION (inches)

PART NO.	T	T1	T2
D075-xxx	.590	.256	.236
D100-xxx	.661	.319	.268
D125-xxx			

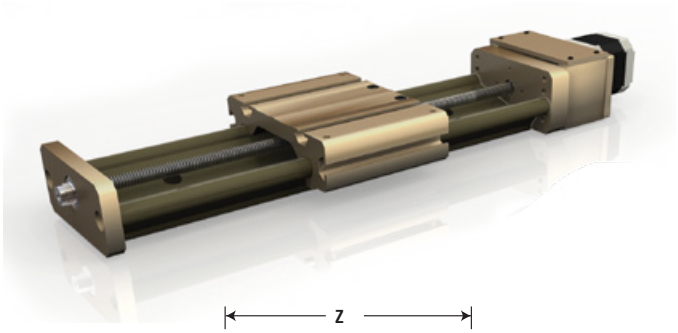
STANDARD LENGTHS CHART (inches)

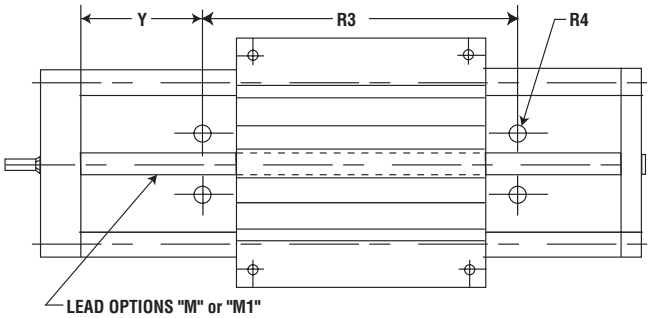
PART NO.	8"	12"	16"	18"	20"	24"	28"	30"	32"	36"	40"	42"	48"
D075-xxx	X		X		X		X		X		X		
D100-xxx		X		X		X		X		X		X	X
D125-xxx													

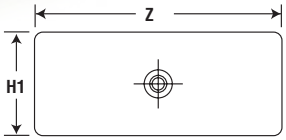
WEIGHTS

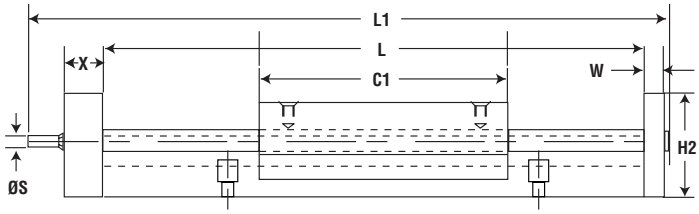
PART NO.	RAIL PER INCH (lbs.)	STANDARD CARRIAGE (lbs.)	EXTENDED CARRIAGE (lbs.)
D075-xxx	0.19	0.98	1.26
D100-xxx	0.32	2.12	2.82
D125-xxx	0.48	4.56	5.7

Driven









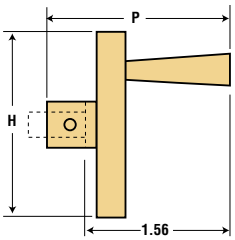
DIMENSIONAL DATA

PART NO.	STROKE (L-C1)	L	L1	C1	NOMINAL SCREW DIA.	M STANDARD LEAD	M1 OPTIONAL LEAD	S	Y	R3	R4	W	X	Z	H1	H2
DO75xx-12	8.5	12	13.93	3.5	10 mm	6 mm	12 mm	0.187	2	4	1/4	0.375	0.625	3.42	1.75	1.625
DO75xx-16	12.5	16	17.93													
DO75xx-20	16.5	20	21.93													
DO75xx-24	20.5	24	25.93													
D100xx-12	7.5	12	14.61	4.5	12 mm	6 mm	12 mm	0.314	3	6	5/16	0.5	1	4.56	2.5	2.500
D100xx-18	13.5	18	20.61													
D100xx-24	19.5	24	26.61													
D100xx-30	25.5	30	32.61													
D100xx-48	43.5	48	50.61													
D125xx-12	6	12	14.85	6	16 mm	5 mm	12 mm	0.314	3	6	3/8	0.5	1	5.78	3.5	2.500
D125xx-18	12	18	20.85													
D125xx-24	18	24	26.85													
D125xx-30	24	30	32.85													
D125xx-36	30	36	38.85													
D125xx-48	42	48	50.85													
D125xx-60	54	60	62.85													

NOTE: Optional leads may be available - consult factory.

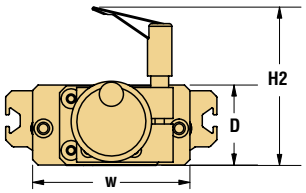
HAND CRANK

PART NO.	P	H
75H	2.31	1.75
100H	2.31	2.25
125H	2.31	3.25



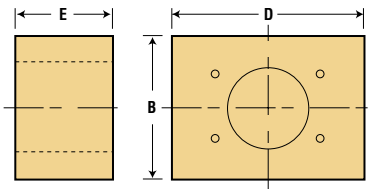
HAND BRAKE

PART NO.	W	D	H2
DO075AHB	3.42	1.74	3.4
DO100AHB	4.57	2.50	4.3
DO125AHB	5.79	3.47	4.7

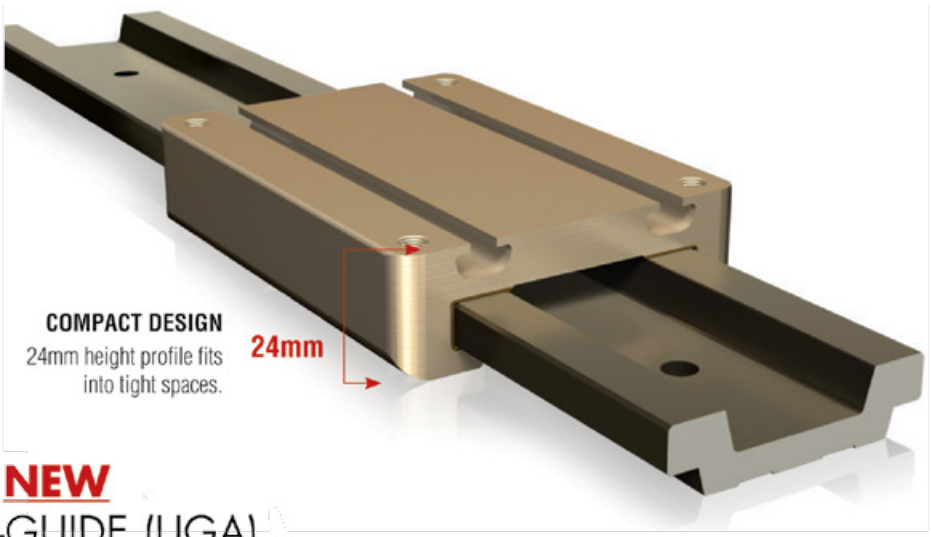


MOTOR MOUNT ATTACHMENT

PART NO.	NEMA MOTOR	B	E	D
75N	NEMA 17	2	1.81	3.25
100N	NEMA 23	2.5	1.81	3.25
125N	NEMA 34	3.5	2.3	4.25



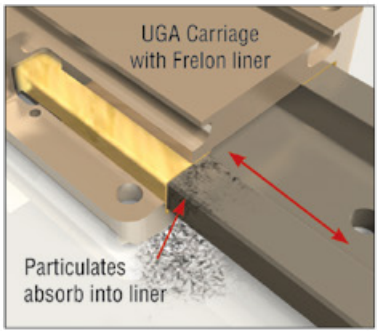
New.
Simple.
Compact.



INTRODUCING THE **NEW** **LOW PROFILE** UNI-GUIDE (UGA)

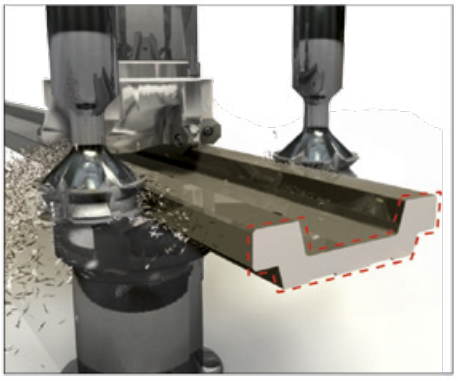
A new solution that maintains the proven advantages of the standard Uni-Guide in a simple, compact assembly.

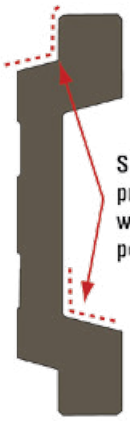
Uni-guide LOW PROFILE



The proprietary self-lubricating Frelon liner offers the ability to self-heal around particulates and provides an inherent wiping action to eliminate rail damage. The Frelon liner also provides maintenance-free travel without external lubrication.

SIMO



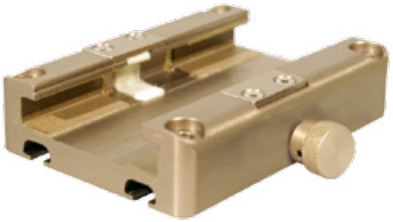


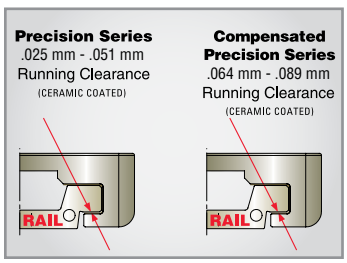
FEATURES

- **Performance Advantage**
  Frelon® self-lubricating liner provides low wear, high load capacities and maintenance-free operation. Available in three liner options.
- **SIMO® Process**
  PBC Linear's patent pending milling operation creates a precision machined rail and carriage surface – tight tolerances and alignment accuracy.
- **Simple Two-Piece Assembly**
  Ceramic coated rail and aluminum alloy carriage assembly facilitates quick and easy integration into new or existing systems.
- **Washdown Optimized**
  Angled rail design ensures optimum washdown and prevents buildup of particulates and chemicals.
- **Splatter Proof**
  Hard anodized aluminum prevents contaminants from sticking.

ACCESSORIES

- Hand Brake
- Felt Wick Lubrication



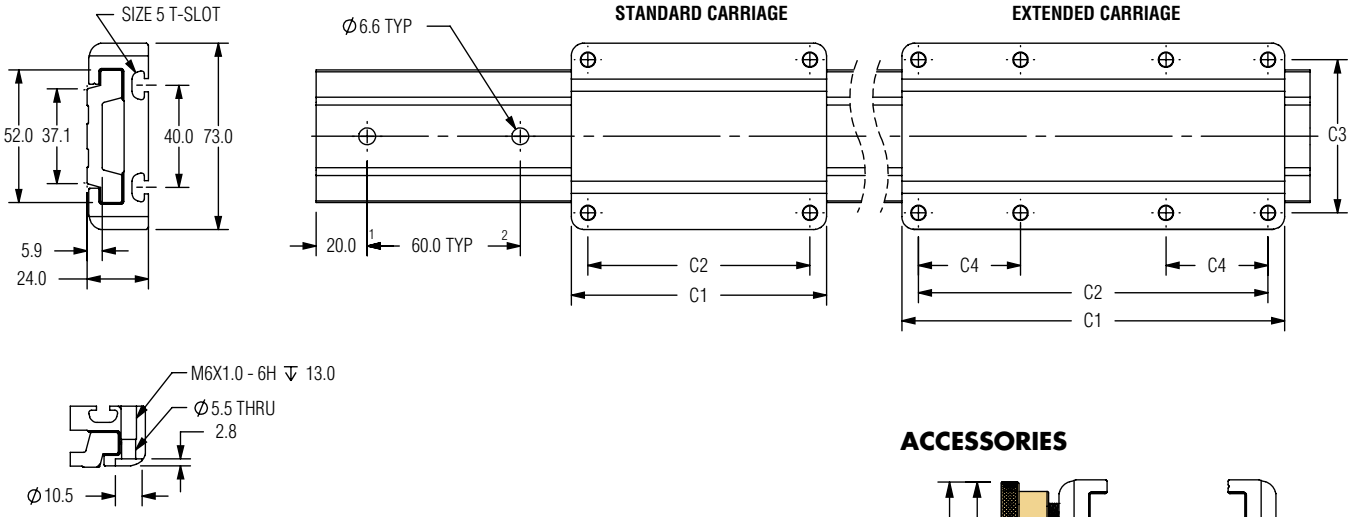


Notes: Applies to UGA – Low Profile Uniguide only (does not apply to the Standard Uniguide)

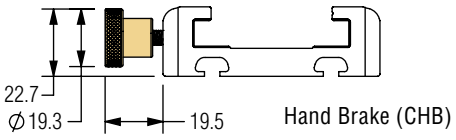
Plain bearings should comply with the 2:1 ratio rule.

Link to 2:1 ratio whitepaper

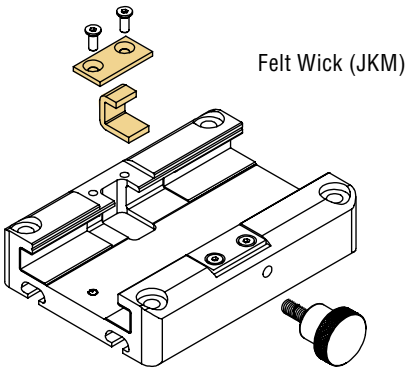
Low Profile Uni-Guide - No Drive Mechanism



ACCESSORIES



Hand Brake (CHB)

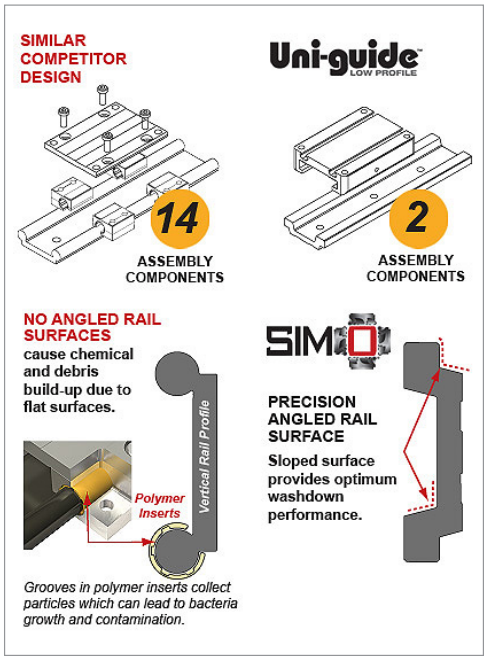


Felt Wick (JKM)

DIMENSIONAL DATA

CARRIAGE PART#	STANDARD CARRIAGE (mm)				
	C1	C2	C3	C4	lbs. (kg)
UGA040C-0x1xxx	100	87	60	N/A	.504 (0.23)
UGA040C-1x1xxx	EXTENDED CARRIAGE				
	150	137	60	40	.750 (0.34)
UGA040C-2x1xxx	200	187	60	60	1.014 (0.46)

1 N=0.2248 lbf 1 N-m = 0.7376 ft.-lbs.



APPLICATION EXAMPLES

Food Packaging Transfer - The new Low Profile Uni-Guide (UGA) is being utilized for smooth, reliable and oil-free transfer on a food packaging production line. An ideal choice due to its wash-down friendly design and maintenance-free advantage.

Power Vice - Specially designed for powered material feeding of extended length products in the woodworking/ metalworking industries, the Uni-Guide vice can be quickly adjusted for multiple beam configurations.

Ordering

STANDARD OR DRIVEN UNI-GUIDE

Uni-guide™

D	X	XXX	X	CHB	–	XX	X	X	–	X
										# of Carriages

Series
D - Standard Uni-Guide

Carriage Options
No Entry - Standard Carriage
L - Extended Length Carriage

Nominal Size
075mm, 100mm, 125mm
Based on mm from shaft center-to-center

Drive Options
No Entry - No Drive Mechanism
M - Right Hand Lead Screw with Standard Pitch
M1 - Right Hand Lead Screw with Optional Pitch
Notes: Screw options require attaching collar.
Call the factory for other optional drive mechanisms.

Drive Mounting Options
No Entry - No Drive Mounting Options
H - Hand Crank
N - NEMA Standard Motor Mount
HB - Handbrake (requires handcrank and screw)
CHB - Carriage Handbrake (not offered with screw driven options)

Overall Rail Length
"D" Series - enter length of rail in inches **xxx.xxx** (EX: 6" = 006.000)

Power and Control Options
No Entry - No Power Options
P - Standard Motor with Motor Mount, Programmable Drive, Cables and Software (must have "N" in Drive Mounting Option)
Note: Kits available for NEMA motor

Data Entry Option
No Entry - No Options
M - Optional MMI Keypad (Man-to-Machine Interface)

LOW PROFILE UNI-GUIDE

Uni-guide™ LOW PROFILE

UG	A	040	R	-	XXXX	-	X	X	X

UNI-GUIDE	SERIES	INT/EXT SIZE	IDENTIFIER	RAIL LENGTH	ANODIZING[3]	HOLE PATTERN	VERSION
	A Standard	**040** 40 mm	**R** Rail	0000-2750 mm	**0** = Standard	**0** = Standard (60 mm)	**0** Standard

Ex: UGA040R-0300-000
UGA040C-0P1G00

UG	A	040	C	-	X	X	X	X	X	X

UNI-GUIDE	SERIES	INT/EXT SIZE	IDENTIFIER	CARRIAGE LENGTH	RUNNING CLEARANCE	CARRIAGE HEIGHT	FRELON® TYPE[3]	CARRIAGE OPTIONS	VERSION
	A Standard	**040** 40 mm	**C** Carriage	**0** = 100 mm **1** = 150 mm **2** = 200 mm	**P** Precision **C** Compensated	**1** = Tall w/t-slots	**G** = Frelon Gold **E** = Frelon J **W** = Frelon W	**0** = None[4] **1** = CHB (hand brake) **2** = JKM (lube option) **3** = Both	**0** Standard

Notes: [1]Default end to first hole is 20 mm
[2]60 mm hole spacing provided for higher moment capacity. For low moment applications, every other hole may be used.
[3]Frelon® GOLD must be paired with standard anodized rail.
[4]"None" carriage option is ready to accept both CHB and JKM options for after market addition.

Product information and 2D/3D CAD drawings available for download at www.pbclinear.com
For technical information or to order call 1-800-962-8979

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