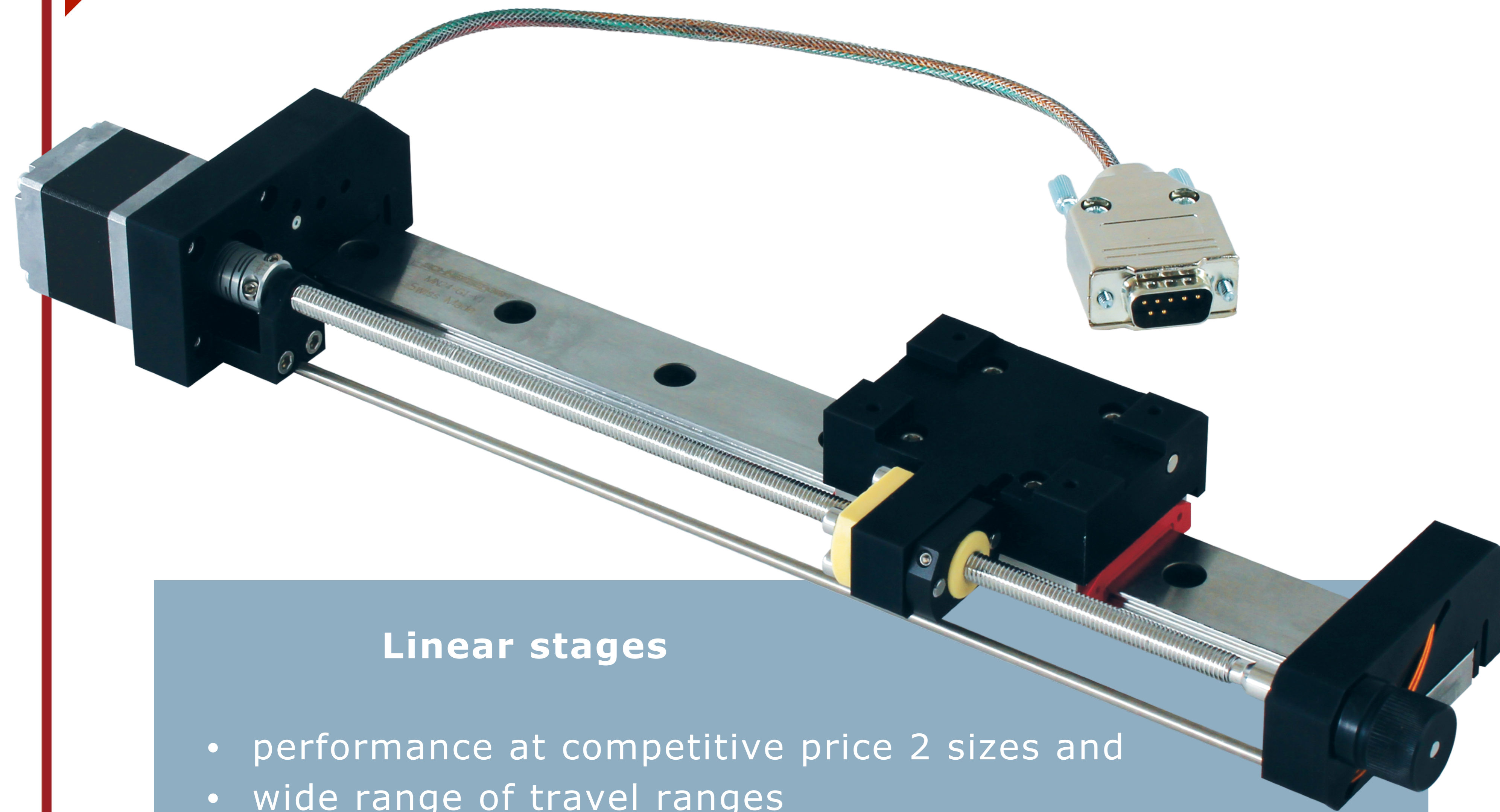


# FlatRail



## Linear stages

- performance at competitive price 2 sizes and
- wide range of travel ranges
- dry lubrication
- open and Closed loop
- available in eXtreme version for HV and UHV

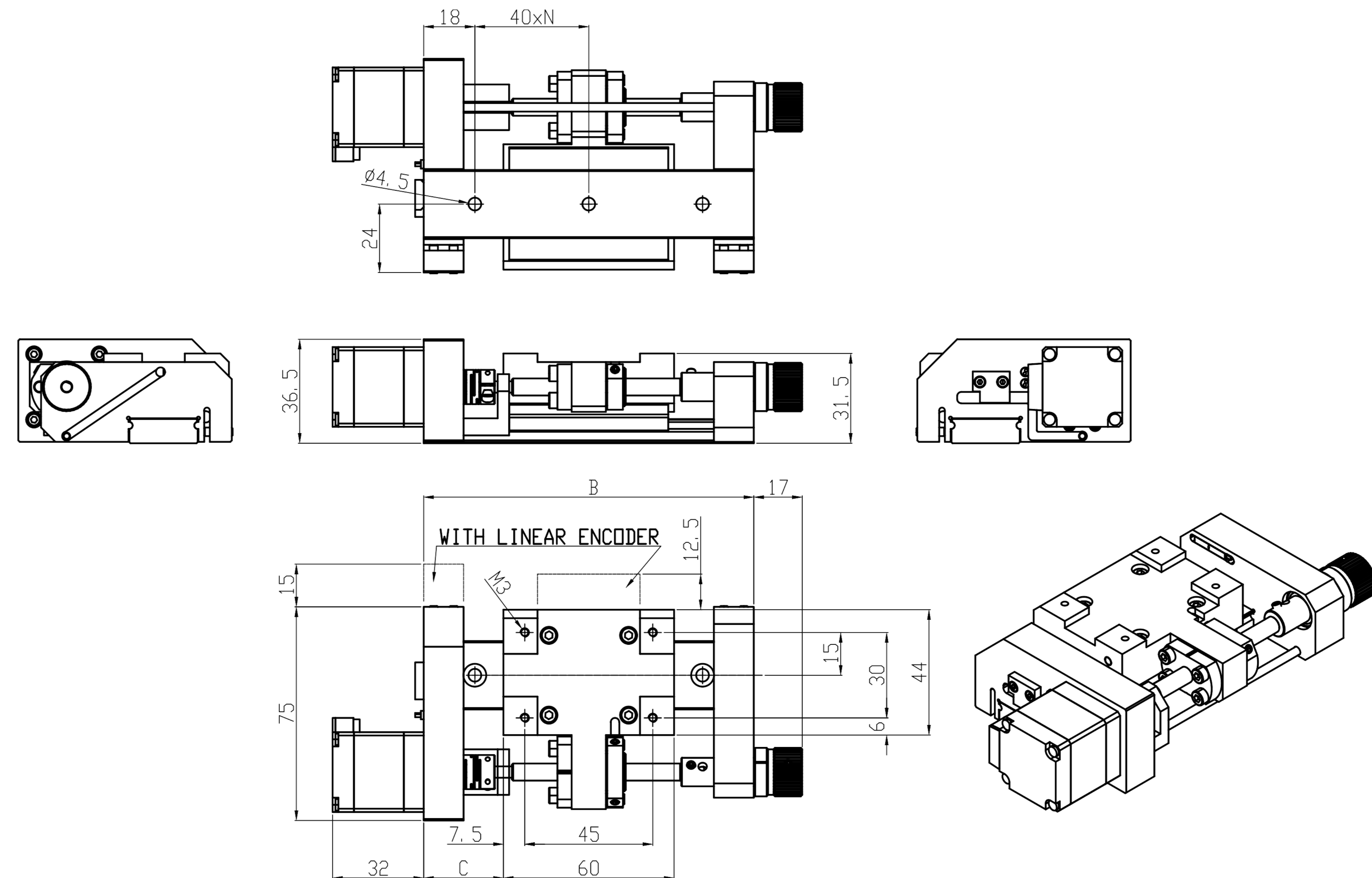
These low profile linear translation stages are designed with a stainless steel recirculating ball bearing, a preloaded lead-screw drive, a stepper motor, contactless end of run sensors and optional integrated linear measurement system for Closed loop control; this design matches load capacity, compactness and micro-positioning performances at a competitive price. Two sizes and a wide range of standard travel ranges, optional double carrier to increase stiffness and load capacity plus standard accessories for XY and XYZ mounting make Flat Rail flexible to any configuration. The lubricant free drive system makes them extremely clean and maintenance free. AntRail stages match sub micron positioning resolution and repeatability with high speed positioning and they are suitable for both laboratory and industrial environment. The dry lubrication lead screw is non reversible and keeps the position stable even when the motor is off, a knob allows to do manual adjustment which is always very useful in the system mounting operations before you connect the controller.

Flat Rail stages can be used in laboratory as well as industrial environment, Flat Rail eXtreme share the same design but are made with materials and components that make them usable in Vacuum, HV or UHV environment.

## FR-S-1

FlatRail Small size with single carrier

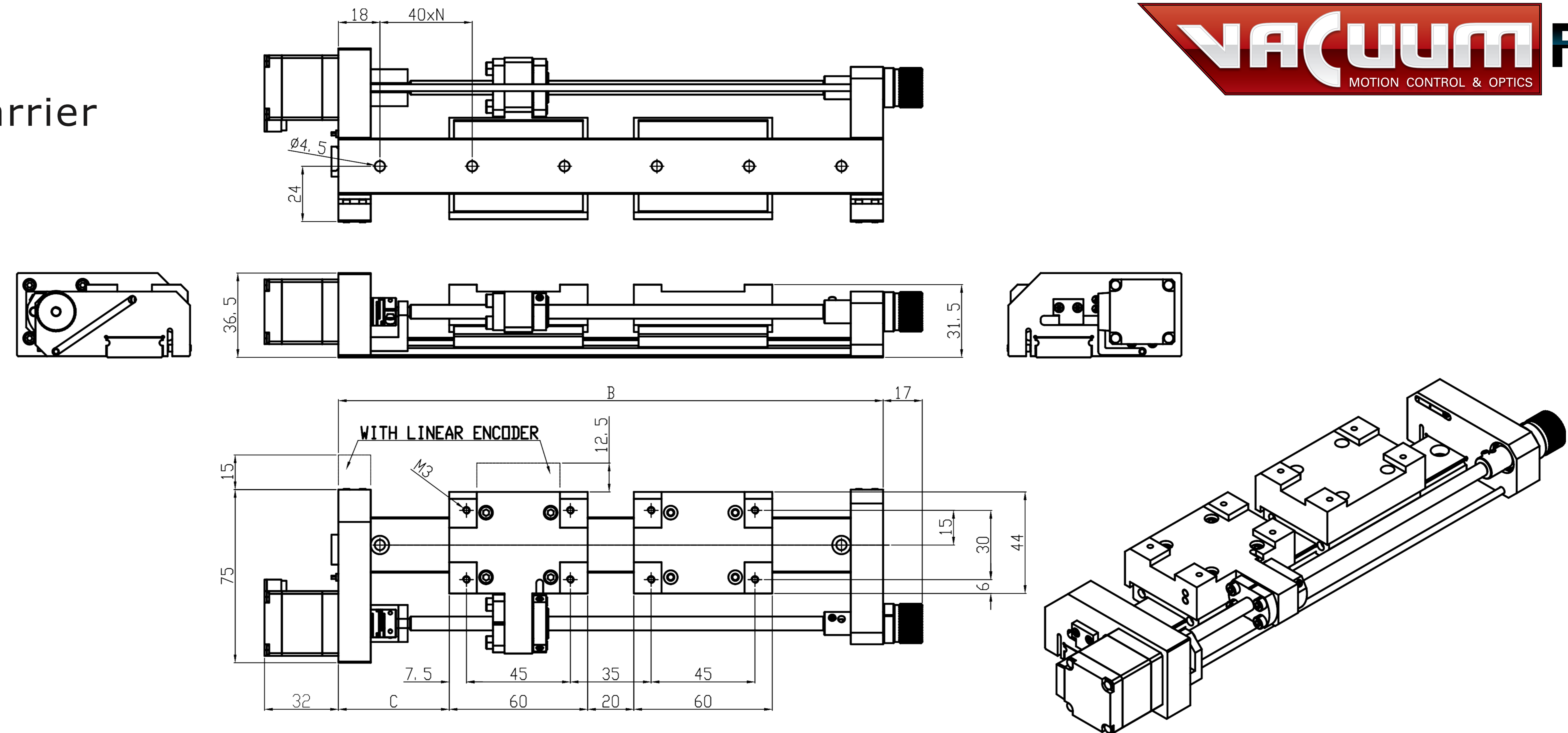
Stroke	B	C	N
25	116	28	2
65	156	48	3
105	196	68	4
145	236	88	5
185	276	108	6
225	316	128	7
265	356	148	8



# FR-S-2

FlatRail Small size with double carrier

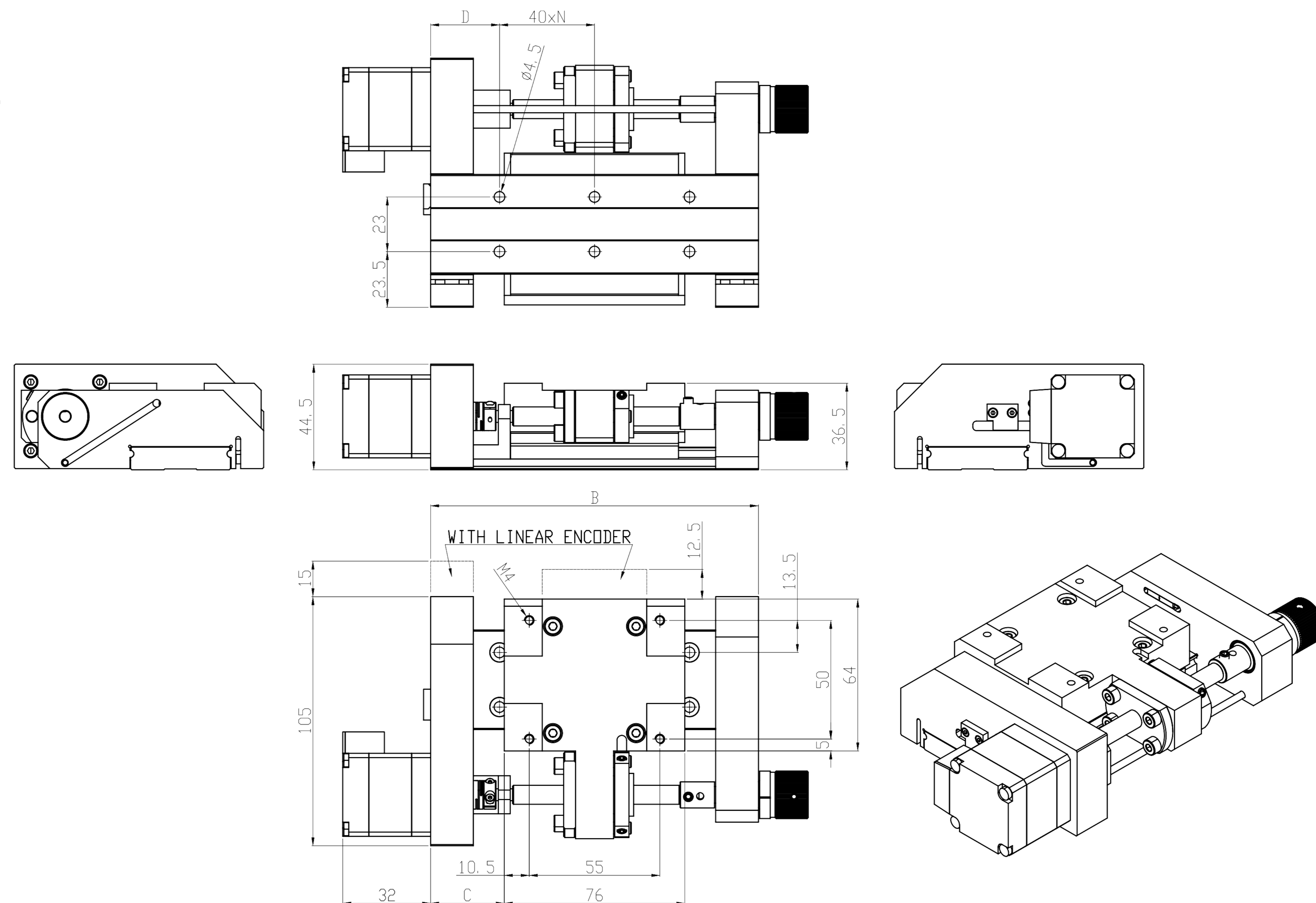
Stroke	B	C	N
65	236	48	6
105	276	68	6
145	316	88	7
185	356	108	8



# FR-M-1

FlatRail Medium size with single carrier

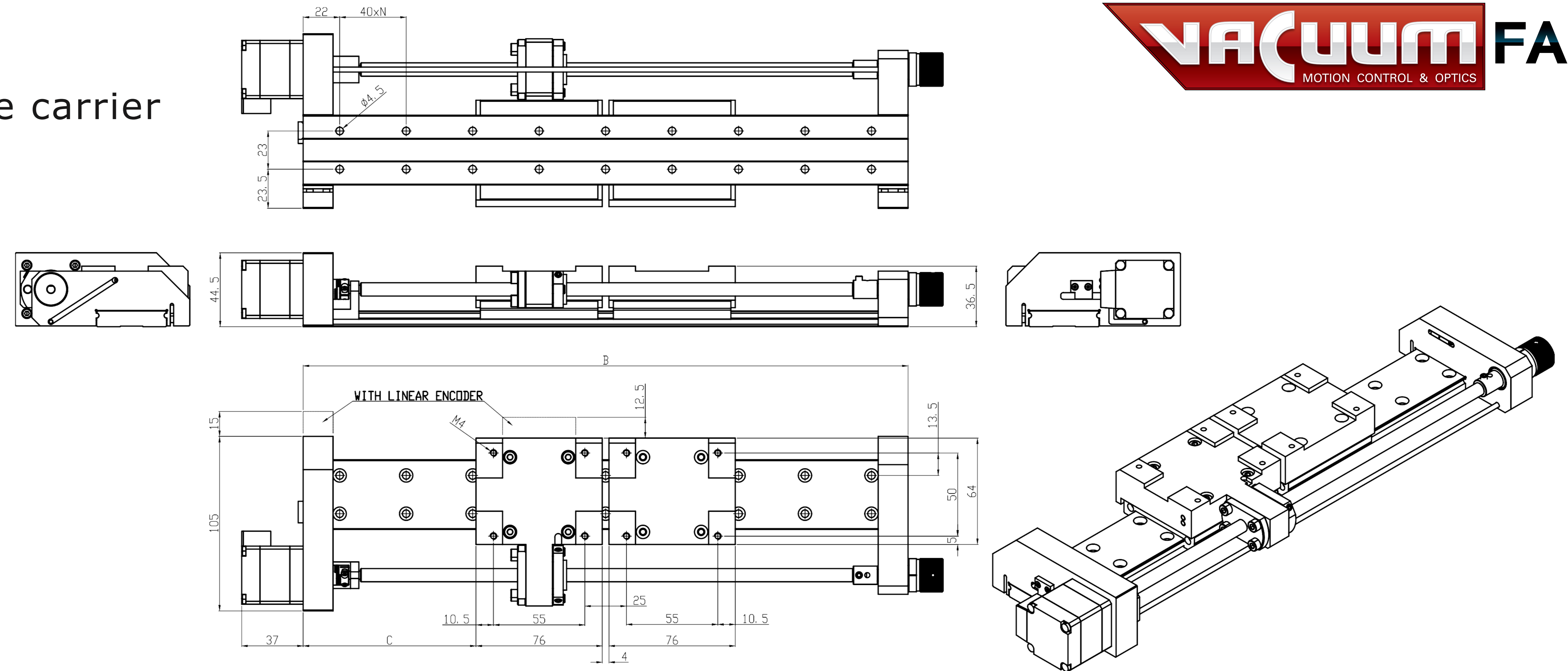
Stroke	B	C	D	N
25	138	31	29	2
50	164	44	22	3
90	204	64	22	4
130	244	84	22	5
170	284	104	22	6
210	324	124	22	7
250	364	144	22	8
290	404	164	22	9
330	444	184	22	10
370	484	204	22	11
410	524	224	22	12



# FR-M-2

FlatRail Medium size with double carrier

Stroke	B	C	N
170	364	104	8
210	404	124	9
250	444	144	10
290	484	164	11
330	524	184	12



## FlatRail series Ordering Information

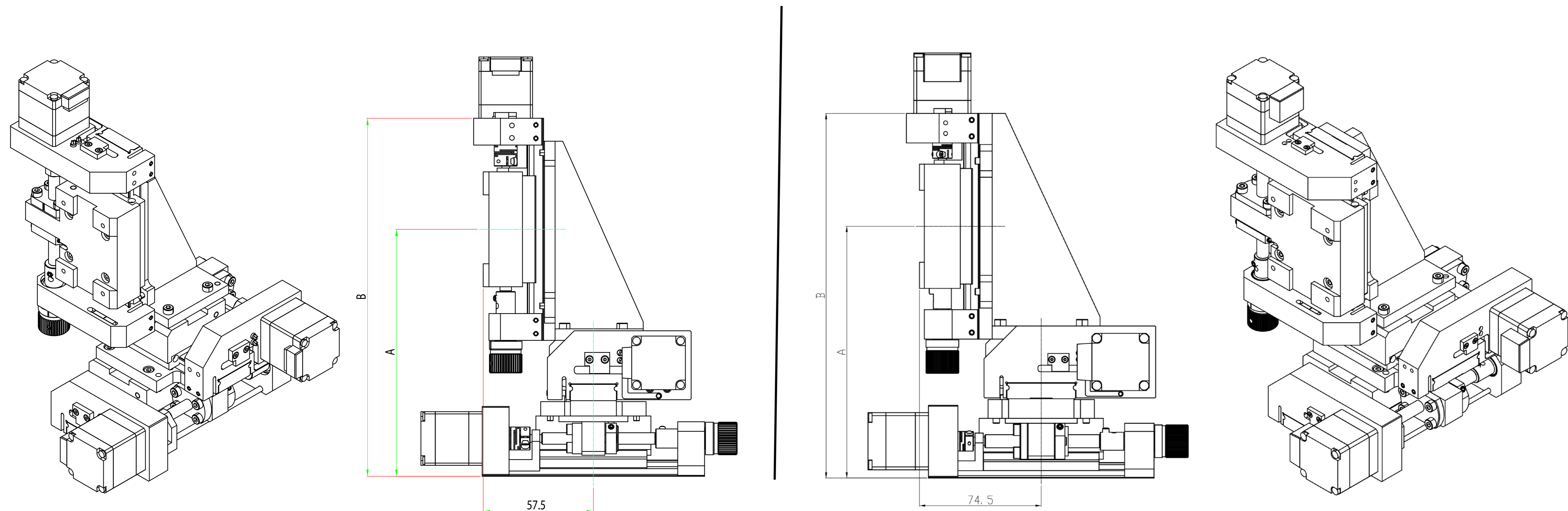
Flat Rail	Size	Carriers	Stroke
FR	S	1	25/65/105/145/185/225/265
		2	65/105/145/185
	M	1	25/50/90/130/170/210/250/290/330/370/410
		2	170/210/250/290/330

e.g.:  
**FR-S-2-145-HV** = Flat Rail Small size, double carrier, 145mm stroke with HV motor;  
**FR-M-1-50-UHV-XYZ** = Flat rail Medium size, single carrier, 50mm stroke, UHV motor, XYZ configuration

# FR-S-xyz

FlatRail Small size  
xyz configuration

Stroke	A	B
25	129	187
65	149	227
105	169	267
145	189	307
185	209	347
225	229	387
265	249	427



# FR-M-xyz

FlatRail Medium size  
xyz configuration

Stroke	A	B
25	154	223
50	167	249
90	187	289
130	207	329
170	227	369
210	247	409
250	267	449
290	287	489
330	307	529
370	327	569
410	347	609



# Questionnaire

Fill in this questionnaire and mail it to [ufficiovendite@vacuumfab.it](mailto:ufficiovendite@vacuumfab.it) to get our consultancy for the positioning system design, free of charges:

## CUSTOMER'S REFERENCE

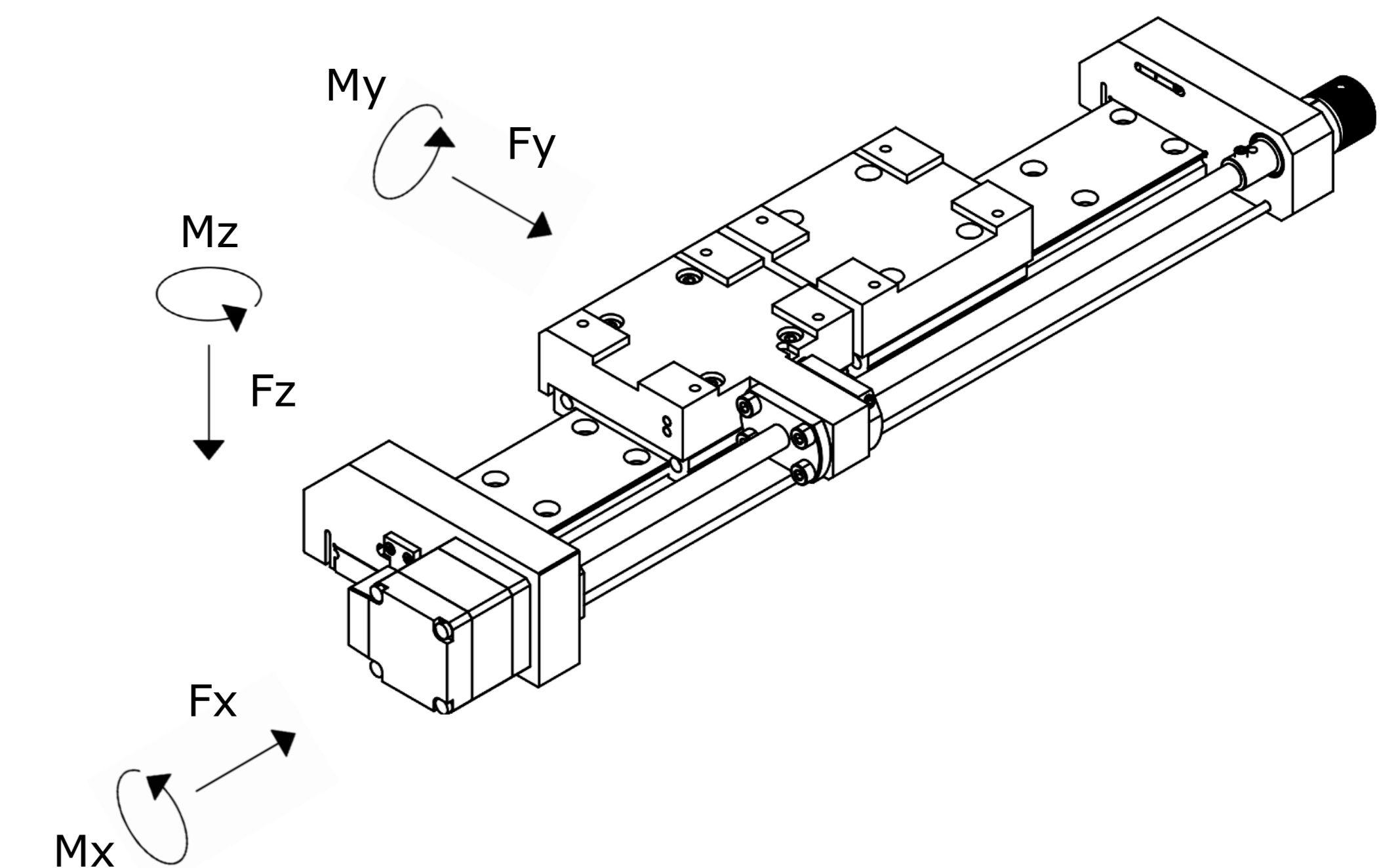
Name, surname:  
Phone Number:

Institute/company:  
Email:

## WEIGHT/SPECIMEN INFORMATION

Dimensions (mm):  
Shape: (description or better attach drawing)  
Weight (g):  
Center of gravity coordinates from the center of the carrier (mm):  
Notes:

length	width	height
X	Y	Z



## POSITIONING REQUIREMENT

Travel range required (mm):  
Positioning resolution required ( $\mu\text{m}$ ):  
Repeatability required ( $\mu\text{m}$ ):  
Applied force (N):  
Applied Moment (Nm):  
Speed required (mm/s):  
Acceleration required ( $\text{mm/s}^2$ ):  
Duty Cycle:  
Other degrees of freedom required: please specify and possibly add a sketch and a description of the application

<input type="checkbox"/> uni-directional	<input type="checkbox"/> bi-directional
Fx	Fy
Mx	My

Fz  
Mz

## WIRING REQUIREMENT

Cable length in air from the mechanics to the controller (m):

## CONTROLLER REQUIREMENT

Motion control type:  
Positioning application type:  
Computer connection port:  
Software compatibility:

<input type="checkbox"/> point to point	<input type="checkbox"/> linear interpolation	<input type="checkbox"/> contouring
<input type="checkbox"/> high resolution	<input type="checkbox"/> high repeatability	
<input type="checkbox"/> Ethernet	<input type="checkbox"/> USB	<input type="checkbox"/> other (specify)
<input type="checkbox"/> DLL	<input type="checkbox"/> LabVIEW	<input type="checkbox"/> EPICS
		<input type="checkbox"/> TANGO

Notes:

Date and signature: