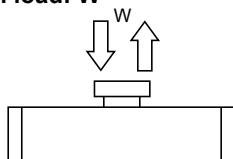


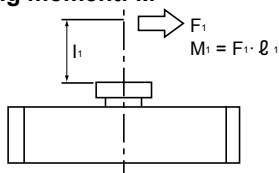
Cylinder (NSR) used for X-axis

Load capacity and moment load

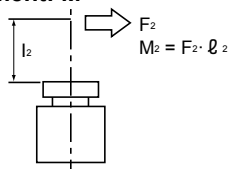
● Vertical load: W



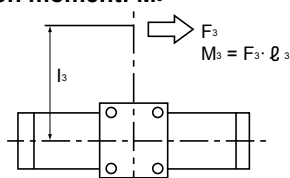
● Bending moment: M₁



● Radial moment: M₂



● Torsion moment: M₃



- Use the load capacity and moment within the range of the following graph. Specifications exceeding the graph may cause damage. Check if total of moment is 1.0 or less with the following formula.

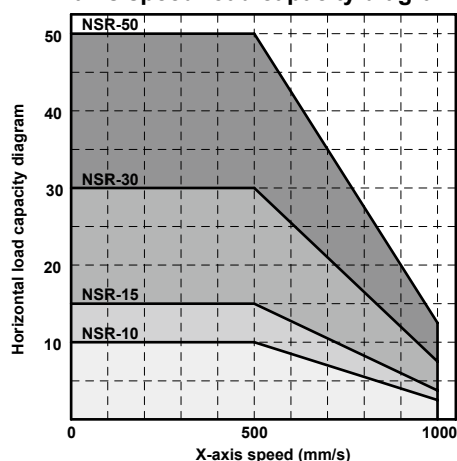
● Formula

$$\frac{M1}{M1max} + \frac{M2}{M2max} + \frac{M3}{M3max} \leq 1.0$$

● Load allowable

Model No.	Bending moment M1max	Radial moment M2max	Torsion moment M3max
NSR-10	36.4 N·m	30.6 N·m	34.2 N·m
NSR-15	36.4 N·m	30.6 N·m	34.2 N·m
NSR-30	85.9 N·m	82.9 N·m	85.9 N·m
NSR-50	156.2 N·m	150.7 N·m	156.2 N·m

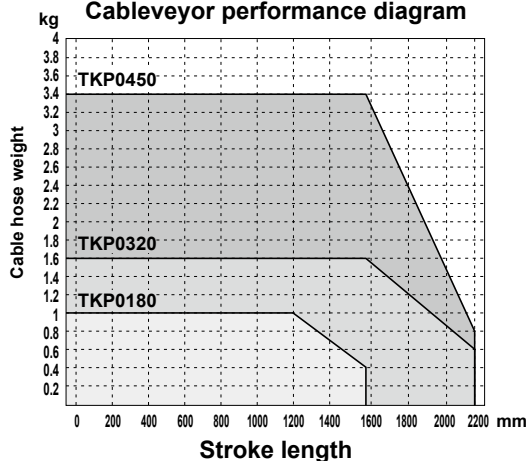
X-axis speed-load capacity diagram



Cableveyor hose weight

- Use the cableveyor hose weight at the weight that is equal to or less than the weight indicated in the following graph. Volume ratio is to be 50% or less. If capacity is not satisfied, contact CKD.

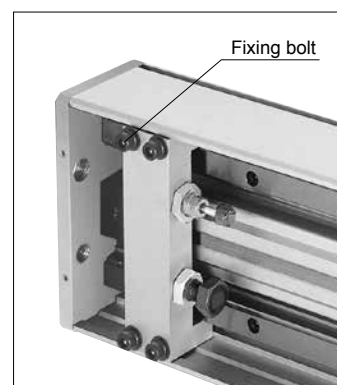
Cableveyor performance diagram



Adjustable stroke block

- Adjustable stroke block can be moved by loosening fixing bolt.
- Tighten adjustable stroke block at required position with torque on following table after movement. If tightened with torque other than above, adjustable stroke block may be shifted.

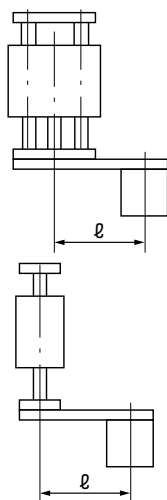
Model No.	Tightening torque
NSR-10,15	520 to 560 N.cm
NSR-30	980 to 1200 N.cm
NSR-50	2800 to 2950 N.cm



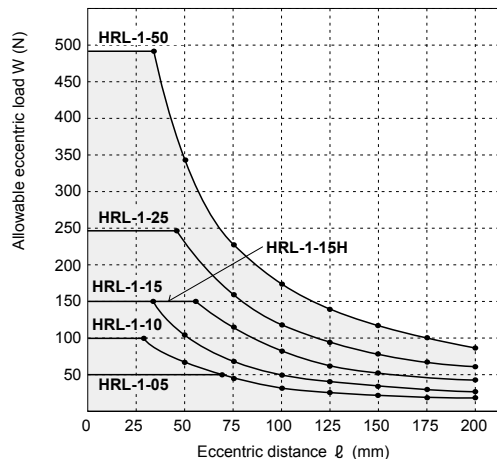
Cylinder used for Z-axis

A HRL type allowable load

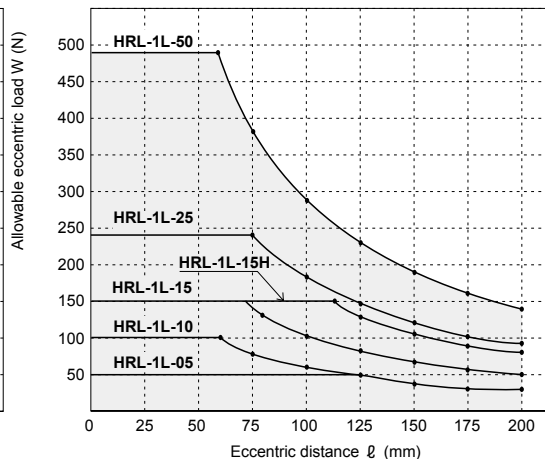
- Use HRL with the following allowable eccentric load or less.
HRL-1□-05/10/15/15H/25/50



● HRL-1 (basic)

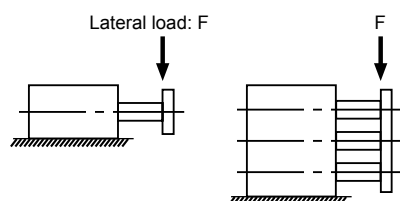


● HRL-1L (long body)



B STL type allowable lateral load/allowable torque/non-rotating accuracy

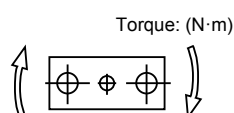
● Allowable lateral load



Unit: N

Bore size	mm	Model No.	Stroke length (mm)						
			50	75	100	125	150	175	200
ø16		STL-B-16	34	25	19	16	13	11	10
ø25		STL-B-25	68	50	39	32	27	23	20
ø32		STL-B-32	100	76	62	51	44	38	34
ø50		STL-B-50	161	126	103	87	75	66	58

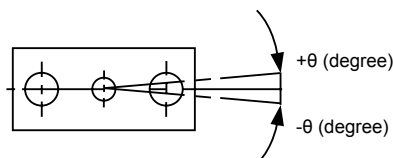
● Allowable torque



Unit: N·m

Bore size	mm	Model No.	Stroke length (mm)						
			50	75	100	125	150	175	200
ø16		STL-B-16	0.39	0.29	0.22	0.18	0.15	0.13	0.12
ø25		STL-B-25	1.07	0.79	0.61	0.50	0.43	0.36	0.32
ø32		STL-B-32	2.03	1.54	1.26	1.03	0.89	0.77	0.69
ø50		STL-B-50	4.43	3.47	2.83	2.39	2.06	1.82	1.60

● Non-rotating accuracy

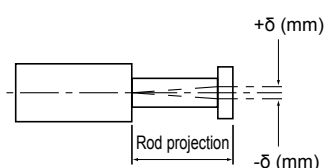


Bore size	mm	Non-rotating accuracy θ (degrees)
ø16		±0.06
ø25		±0.08
ø32		±0.04
ø50		±0.03

(Default at PULL) Note: Excluding sag of guide rod

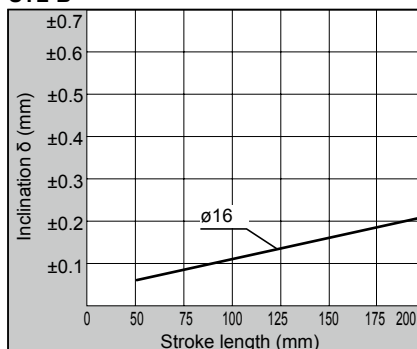
● Deflection

(Excluding sag of guide rod)



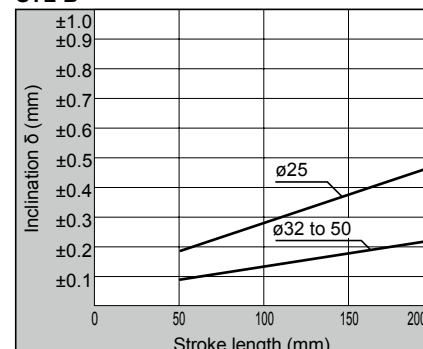
● ø16 ball bearing

STL-B



● ø25, ø32 to ø50 ball bearing

STL-B

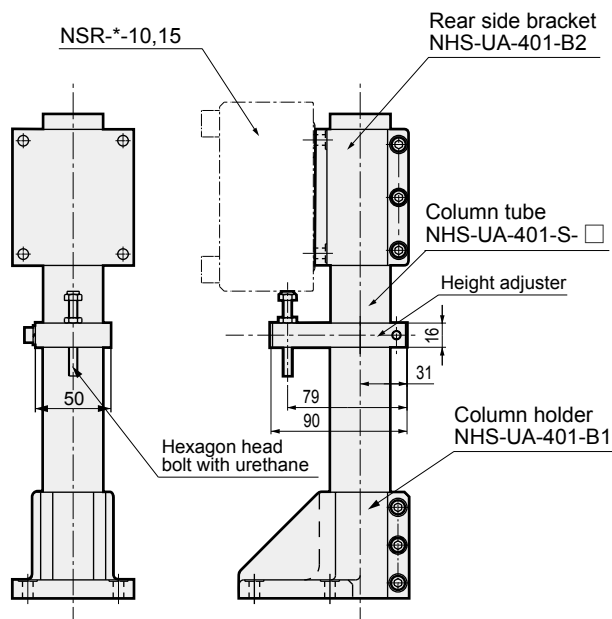


Accessory frame combination dimensions NHS-*-10**, 15** dedicated

● NHS-UA-401-length

300/400/500/600

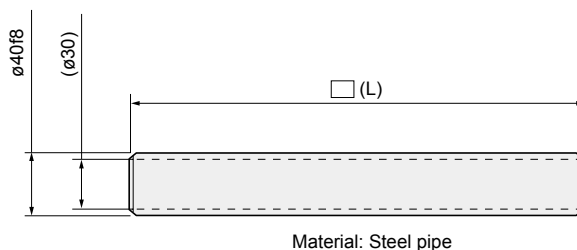
- With height adjuster
- Included product
 - NHS mounting bolt set
 - mounting bolt M6 x 20 4 pcs.
 - spring washer nominal 6 4 pcs.
 - flat washer nominal 6 4 pcs.
- Provided with 1 pc./1 set for combined model No.



Column tube

● NHS-UA-401-S-length

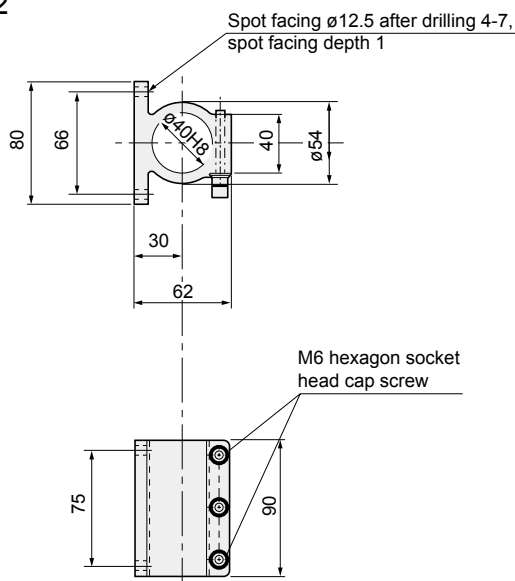
300/400/500/600



Material: Steel pipe

Rear side bracket

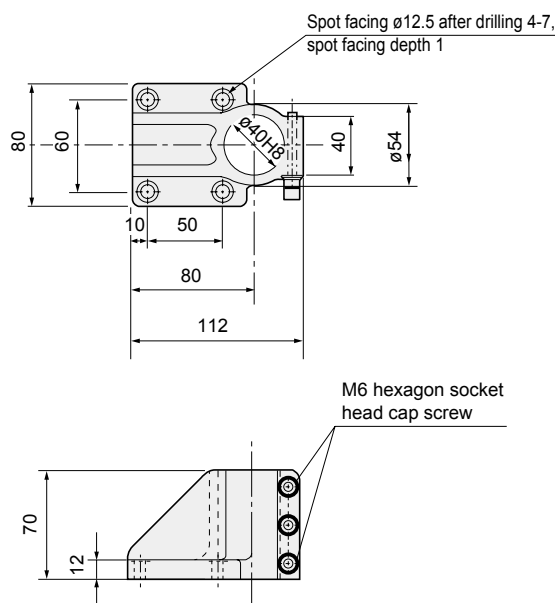
● NHS-UA-401-B2



- Included product
 - NHS mounting bolt set
 - mounting bolt M6 x 20 4 pcs.
 - spring washer nominal 6 4 pcs.
 - flat washer nominal 6 4 pcs.
- Material: Aluminum alloy casting

Column holder

● NHS-UA-401-B1



Material: Cast iron