

LBAR08

Basic model

Motor-less Single Axis Actuator

Rod type



Ordering method

LBAR08

Model	Lead	Shape	Motor specification	Stroke
	20: 20 mm 10: 10 mm 5: 5 mm	S: Straight A: Bending	Y: Y specification (see below) P: P specification (see below) K: K specification (see below) A: A specification (see below) N: N specification (see below)	50 to 800 (50 mm pitch)

[Caution]

This system is provided as mechanical actuator unit and not including any adopters or electric components. Motor, driver and other components required for installation are the user's responsibility. Refer to user's manual for installation details. Refer to your motor manual for tuning or adjustment. Vibration or resonance from actuator will affect service life of actuator. The product performance may not be satisfied depending on the compatible motor. For special parts for motor installation, install and adjust on your side.

Specifications

Applicable motor		200 W		
Repeatability ^{Note 1}		+/-0.01 mm		
Deceleration mechanism		Shifting position ball screw φ 16 (C7 class)		
Stroke		50 mm to 800 mm (50 mm pitch)		
Maximum speed ^{Note 2 Note 3}		1200 mm/sec	600 mm/sec	300 mm/sec
Ball screw lead		20 mm	10 mm	5 mm
Maximum payload ^{Note 3}	Horizontal	30 kg	60 kg	80 kg
	Vertical	8 kg	20 kg	30 kg
Max. pressing force ^{Note 3}		201 N	402 N	804 N
Rotating backlash		+/-0 °		
Maximum dimensions of cross section of main unit		W 82 mm × H 73.5 mm		
Overall length	Straight	ST + 326 mm		
	Bending	ST + 312.5 mm		
Using ambient temperature and humidity		0 to 40 °C, 35 to 80 %RH (non-condensing)		

Note 1. Positioning repeatability in one direction.

Note 2. When a moving distance is short and depending on an operation condition, it may not reach the maximum speed. If the effective stroke exceeds 400 mm, the ball screw may resonate. (Critical speed)

At this time, make the adjustment to decrease the speed while referring to the maximum speed shown in the table.

Note 3. The described specifications may not be satisfied depending on the installed motor.

Note. See P.138 for acceleration/deceleration and inertia moment.

Applicable motor

Applicable servo motor

Specification	Flange size	Wattage
		☐ 60 200 W
Motor specification	Manufacturer	Model
Y	Yaskawa Electric Corp.	SGMJV-02
		SGM7J-02
	Keyence Corp.	SV- ☐ 020
		SV2- ☐ 020
	Mitsubishi Electric Corp.	HF-KP23
		HG-KR23
	Sanyo Denki	HK-KT23
		R2 ☐ A06020
	Tamagawa Seiki	TSM3202
	Delta Electronics	ECMA-C10602
P	Siemens	1FL6032-2AF
		BCH2LD023
	Schneider	R88M-K20030
		R88M-1M20030
		MSMD02
K	Panasonic Corp.	MSMF02
		MHMF02
		KSMA02LI
	Kingservo	KSMA02LG

Applicable stepping motor

Specification	Flange size	
		☐ 60 ☐ 56 (NEMA)
Motor specification	Manufacturer	Model
A	Oriental Motor	AZM66
		AZM69
		ARM66
		ARM69
		RKS56
N	NEMA standard	NEMA23

Note. Be aware that the dimensions of the NEMA standard motor may vary depending on the manufacturer.

Note. For the motor specifications A and N, the parts dedicated for bending cannot be used.

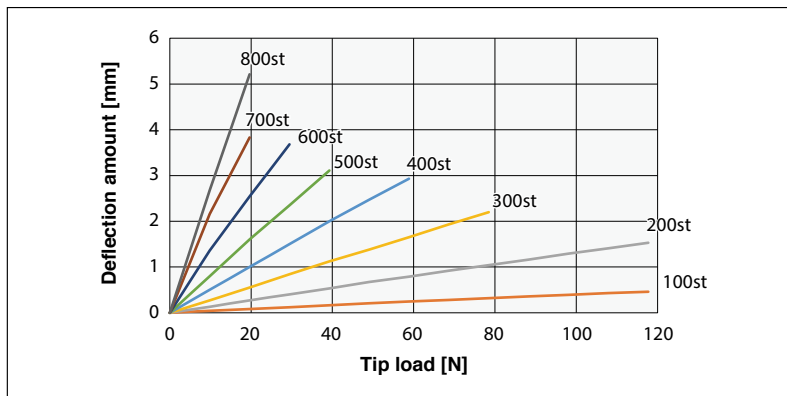
Access the website below.



► The cycle time simulation can be performed easily from our member site. For details, see P.16.

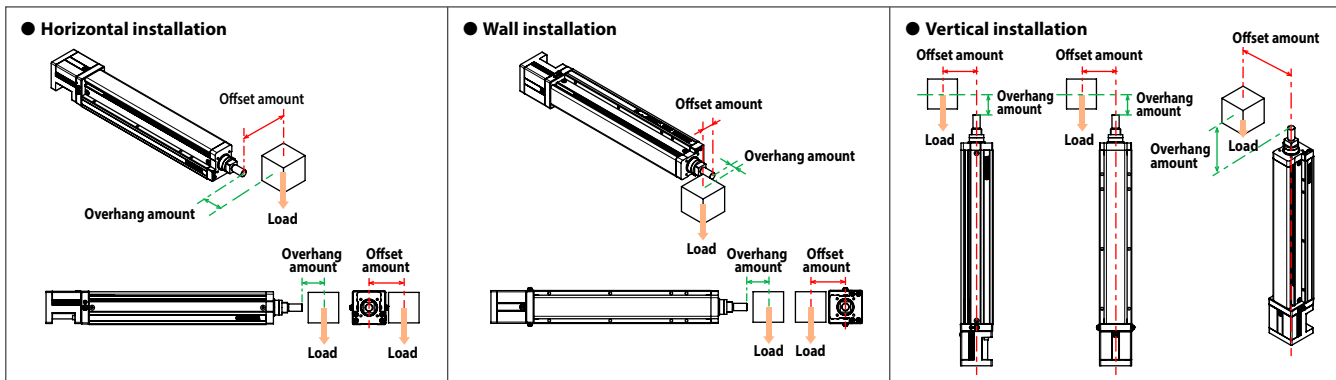
Rod deflection amount (reference value)

For the deflection amount per stroke, see the graph below.

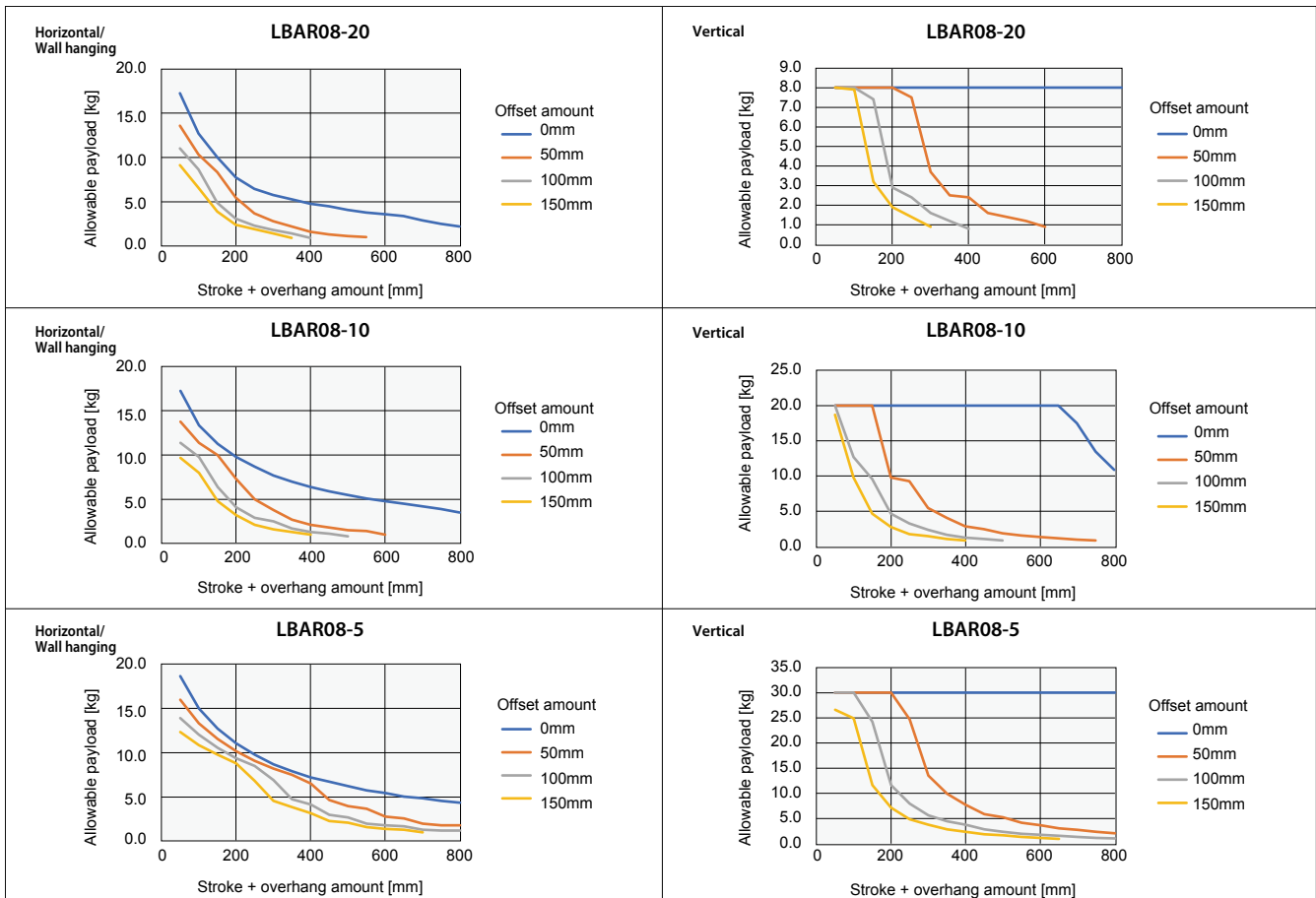


Allowable payload

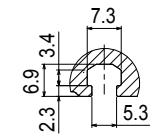
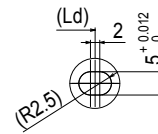
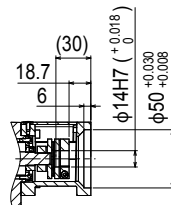
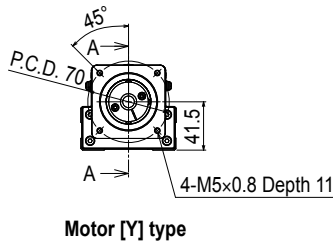
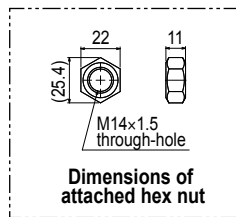
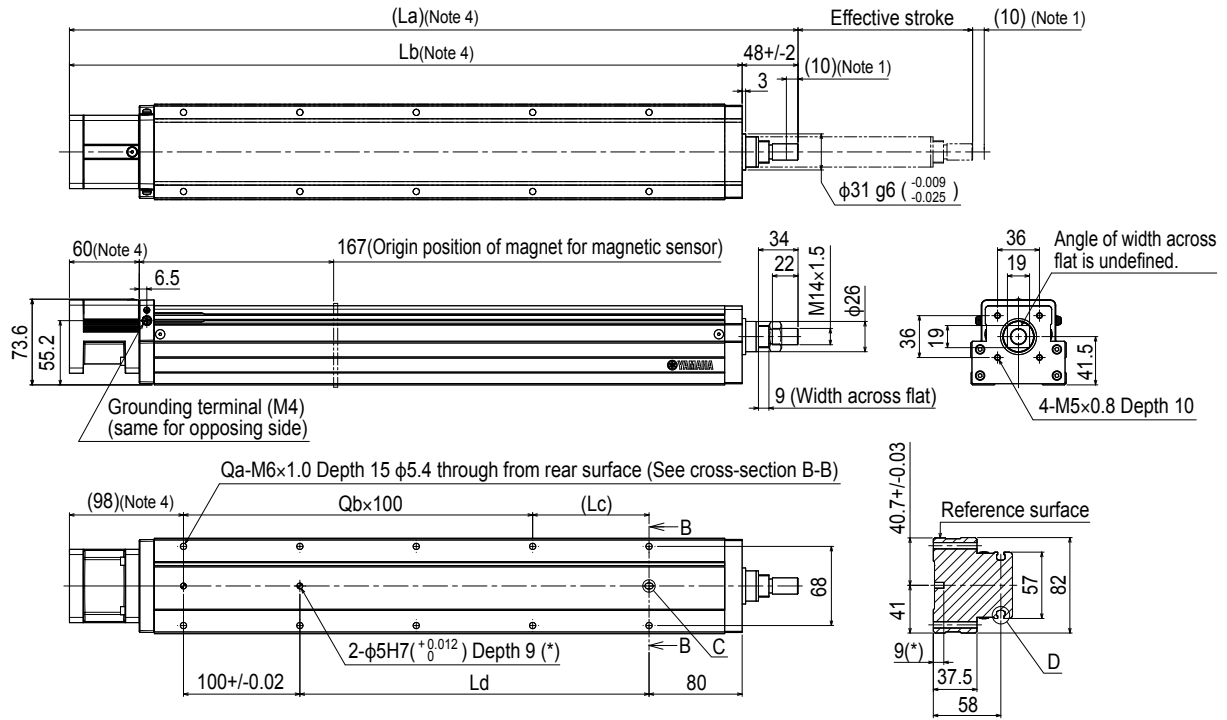
For the allowable payload per offset amount, see the graph below.



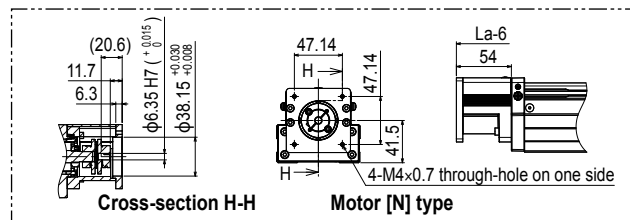
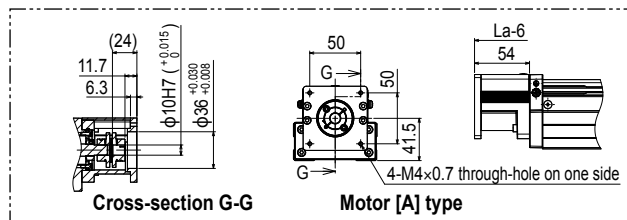
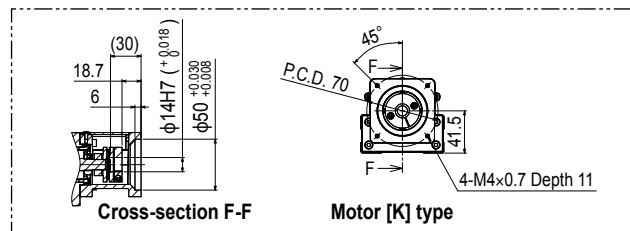
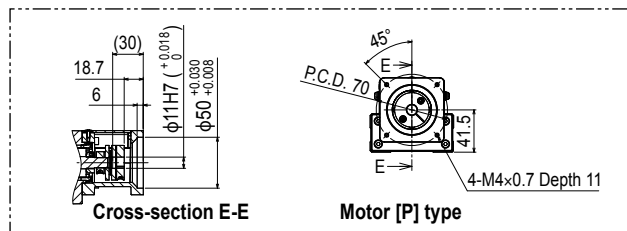
Note 1. When transferring an object with a weight exceeding the following, use an external support guide.
Install the support guide flexibly so that no unnecessary load is applied to the rod.
Note 2. The values are when the service life of the guide is 5000 km.



LBAR08 Straight type (S)



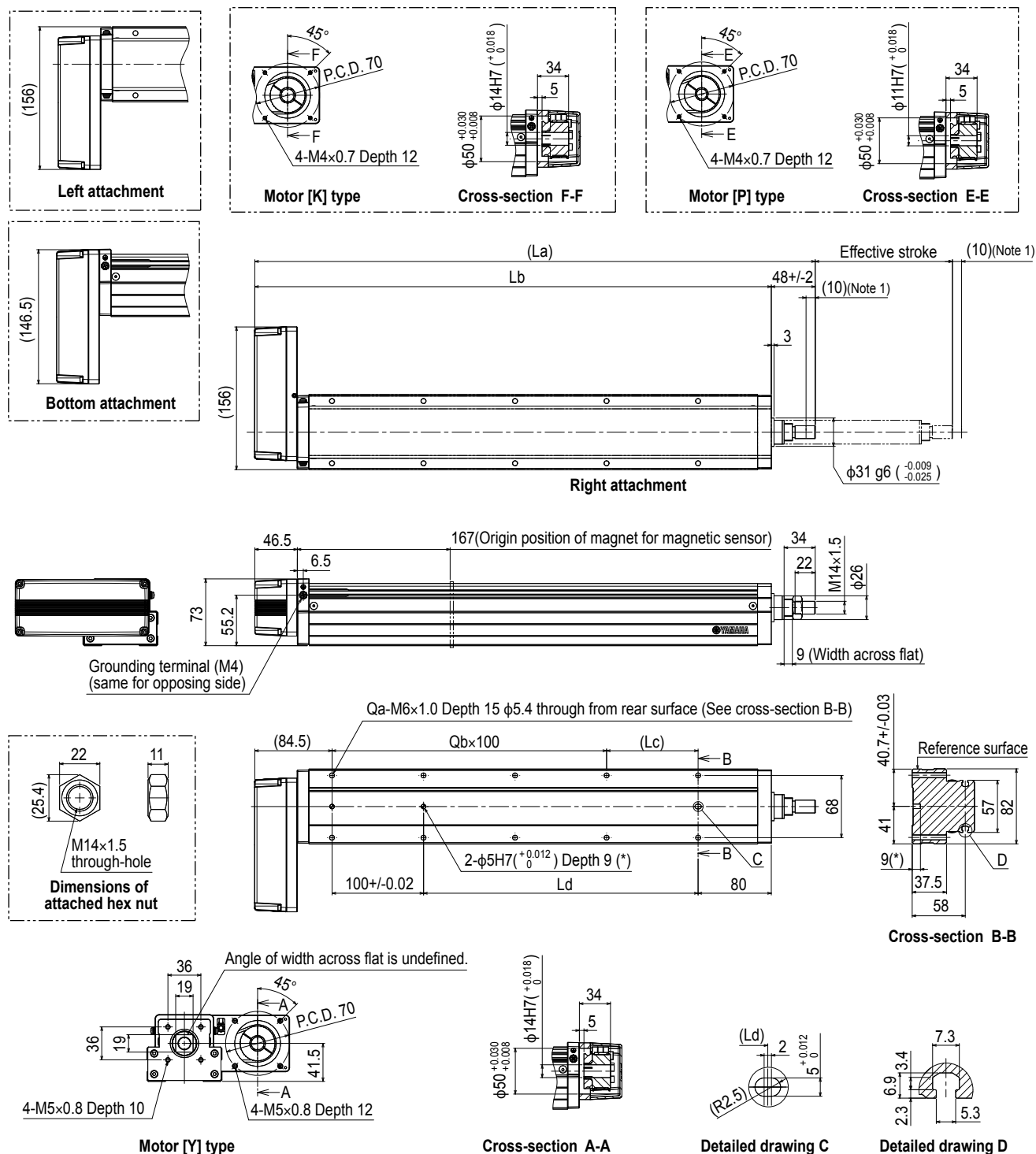
Cross-section B-B



- Note 1. Stop positions are determined by the mechanical stoppers at both ends.
- Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.
- Note 3. For the installation through hole, the length under head <<45 mm or more>> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head <<thickness of stand +15 mm or less>> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.
- Note 4. For the motor specifications A and N the dimensions are that those stated in the table <<6 mm>>.
- Note 5. Grease gun nozzle (recommended) (see P.143 for detail)
- Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	376	426	476	526	576	626	676	726	776	826	876	926	976	1026	1076	1126
Lb	328	378	428	478	528	578	628	678	728	778	828	878	928	978	1028	1078
Lc	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
Ld	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg)	3.9	4.3	4.7	5	5.3	5.7	6	6.3	6.6	7	7.4	7.7	8.1	8.4	8.6	8.9
Maximum speed (mm/sec)	Lead 20	1200							900	720	600	480	420	360	300	240
	Lead 10	600							450	360	300	240	210	180	150	120
	Lead 5	300							225	180	150	120	105	90	75	60
	Speed setting	-							75%	60%	50%	40%	35%	30%	25%	20%

LBAR08 Bending type (A)



Note 1. Stop positions are determined by the mechanical stoppers at both ends.

Note 2. Please perform installation and adjustment on the special parts for motor installation by the customer. For detail, refer to the manual.

Note 3. For the installation through hole, the length under head << 45 mm or more >> is recommended for the hex socket head bolts <M5 × 0.8>. In the installation tap hole, the length under head << thickness of stand + 15 mm or less >> is recommended for the hex socket head bolts <M6 × 1.0> used to install the main unit.

Note 4. Grease gun nozzle (recommended) (see P.143 for detail)

Part number: KFU-M3861-00

Effective stroke	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
La	362.5	412.5	462.5	512.5	562.5	612.5	662.5	712.5	762.5	812.5	862.5	912.5	962.5	1012.5	1062.5	1112.5
Lb	314.5	364.5	414.5	464.5	514.5	564.5	614.5	664.5	714.5	764.5	814.5	864.5	914.5	964.5	1014.5	1064.5
Lc	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
Ld	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
Qa	6	6	8	8	10	10	12	12	14	14	16	16	18	18	20	20
Qb	1	1	2	2	3	3	4	4	5	5	6	6	7	7	8	8
Weight (kg)	4.3	4.7	5.1	5.4	5.7	6.1	6.4	6.7	7	7.4	7.8	8.1	8.5	8.8	9	9.3
Maximum speed (mm/sec)	Lead 20	1200								900	720	600	480	420	360	240
	Lead 10	600								450	360	300	240	210	180	120
	Lead 5	300								225	180	150	120	105	90	60
	Speed setting	-								75%	60%	50%	40%	35%	30%	20%