



Actuator LA31

Data sheet

LA31 HOMELINE®

The LA31 actuator is a very quiet and powerful actuator designed for a variety of applications such as furniture, care or hospital beds. The standard LA31 actuator is available for both the HOMELINE®, CARELINE®, TECHLINE® and DESKLINE® product range.

The HOMELINE® actuator is specially made for domestic applications. E.g. the actuator is ideal for self-lifting recliners and other aids for the elderly. A special feature here is the flexible back fixture, which can adapt misalignments in e.g. a recliner application.



Features:

- 24V DC permanent magnet motor
- Thrust up to 6000 N in push and up to 4000 N in pull
- Stroke length 100-300 mm in steps of 50 mm
- Electric chromated steel piston rod eye (with slot)
- High strength plastic housing protects motor and gears
- Elegant and compact design with small installation dimensions
- Standard protection class: IP51
- Colour: black
- 2.25 m straight cable
- Built-in limit switches (not adjustable)
- Scratch and wear-resistant stainless steel inner tube
- Flexible back fixture (standard for LA31 "L2 version")
- Noise level 48dB (A); measuring method DS/EN ISO 3746, actuator not loaded.

Options:

- Brake
- Reed switch (8 pulses per spindle revolution) for positioning of memory control and compatibility with CB9P
- Hall sensor enabling parallel drive with CBH Advanced
- Mechanical splines (the actuator can only push)
- Different cable lengths available
- Colour: grey
- Safety nut for push applications
- Can be mounted together with CB7 or CB9 (without cable).

Usage:

- Duty cycle: Max 10% or 2 minutes continuous use followed by 18 minutes not in use
- Ambient temperature: +5° to + 40°C

Technical specifications:

Spindle type	Spindle pitch (mm)	Max. load		Typical Amp. (N)	Typical speed		Self-lock Max.	
		Push (N)	Pull (N)		Unloaded	Full load	Push (N)	Pull (N)
Standard 24 V motor								
31.1	3	6000	4000	4.0	6.2	3.2	6000	4000
31.2	5	4000	4000	3.1	11.2	5.4	2000	2000
31.2 With brake	5	4000	4000	3.3	11.2	5.6	4000	4000
31.3 With brake	9	1500	1500	2.5	19.4	10.5	1500	1500
31.4 With brake	4	6000	4000	4.1	8.2	5.4	6000	4000
31.6 With brake	12	1000	1000	2.4	26.6	14.5	1000	1000
31.7 With brake	6	2500	2500	2.5	13.2	6.8	2500	2500

Comments to table:

The above measurements are made in connection with CB9 control boxes.

* LINAK control boxes are designed so that they will short-circuit the motor terminals (poles) of the actuator(s), when the actuator(s) are not running.

This solution gives the actuator(s) a higher self-locking ability. If the actuator(s) are not connected to a LINAK control box, the terminals of the motor must be short-circuited

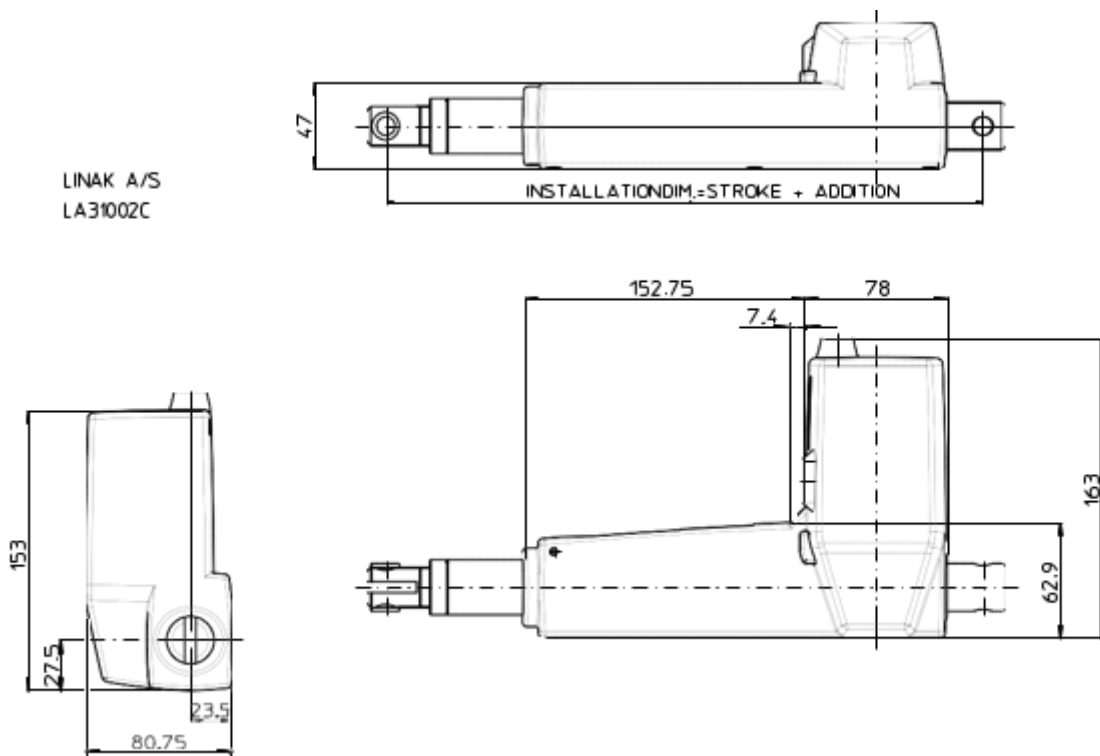
to achieve the self-locking ability of the actuator.

** When the load in push is above 4000N (max.6000N), the max. stroke length is 250mm.



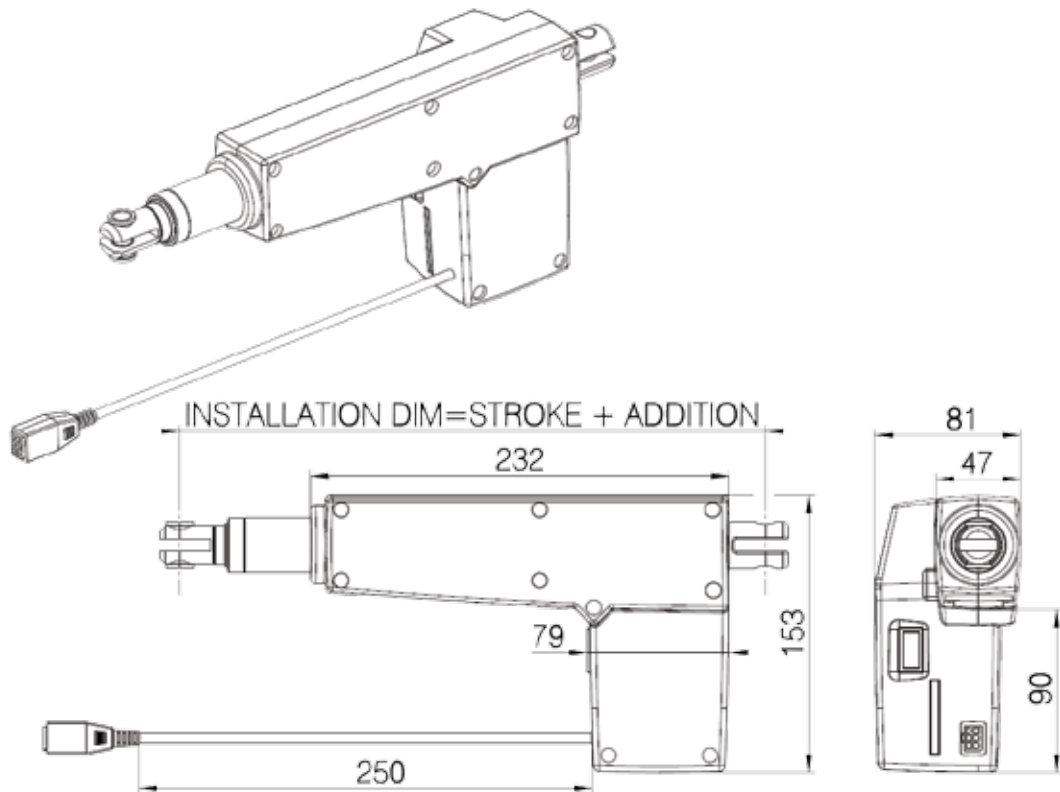
All the above data is based on brakes 1 and 2 of the ordering example.

Dimension LA31



Dimension LA31 cable for CBH

The cable is always with forward outlet and only in one cable length.



Standard installation dimensions with different combinations of Piston Rod eyes and Back Fixtures to LA31

		LA31 Standard		LA31 Splines	
		Stroke length > 115 mm	Stroke length < 115 mm	Stroke length > 100 mm	Stroke length > 100 mm
Back Fixture	Piston rod eye	0, 1, 2 and 3	0, 1, 2 and 3	0, 1, 2 and 3	0, 1, 2 and 3
	1/2, 5/6 and 7/8	S + 173 mm	288 mm	S + 189 mm	289 mm
A/B		S + 176 mm	291 mm	S + 192 mm	292 mm

Interpretation of installation dimensions table

S = Stroke length.

Minimum installation dimension is 288 mm

Minimum installation dimension with splines is 289 mm

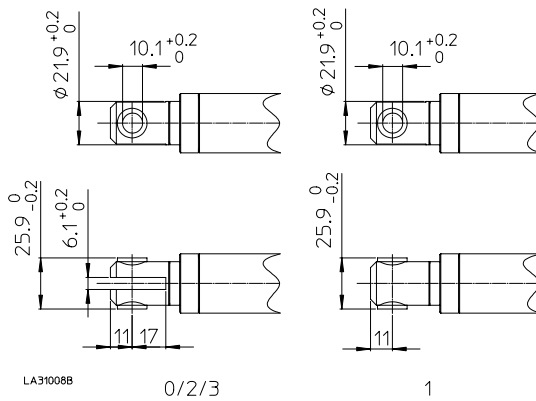
LA31 Standard:

With the standard LA31 and a stroke length greater than 115 mm, the installation dimension is = Stroke length + 173 mm (+ 176 mm with an A / B type back fixture). With a stroke length length of 115 mm or less the inst. dim. will be 288 mm (291 mm with A / B type back fixture).

LA31 Splines:

With LA31 Splines and a stroke length greater than 100 mm, the installation dimension is = Stroke length + 189 mm (+ 192 mm with A / B type back fixture). With a stroke length of 100 mm or less the inst. dim. will be 289 mm (292 mm with A / B type back fixture).

Piston Rod Eyes:



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Ordering example:

31 1 1 0 0 - 0 0 100 0 0 0

Cables: (Cable tolerance +/- 2%)
x = Other cable/length

Jack cables

- 0 = Straight 2.25 m
- 6 = Straight 1.50 m
- 1 = Straight 1.00 m
- 7 = Straight 0.75 m
- 8 = Straight 0.50 m
- 2 = Coiled 0.40 m
- 3 = Coiled 0.20 m

DIN-Cables

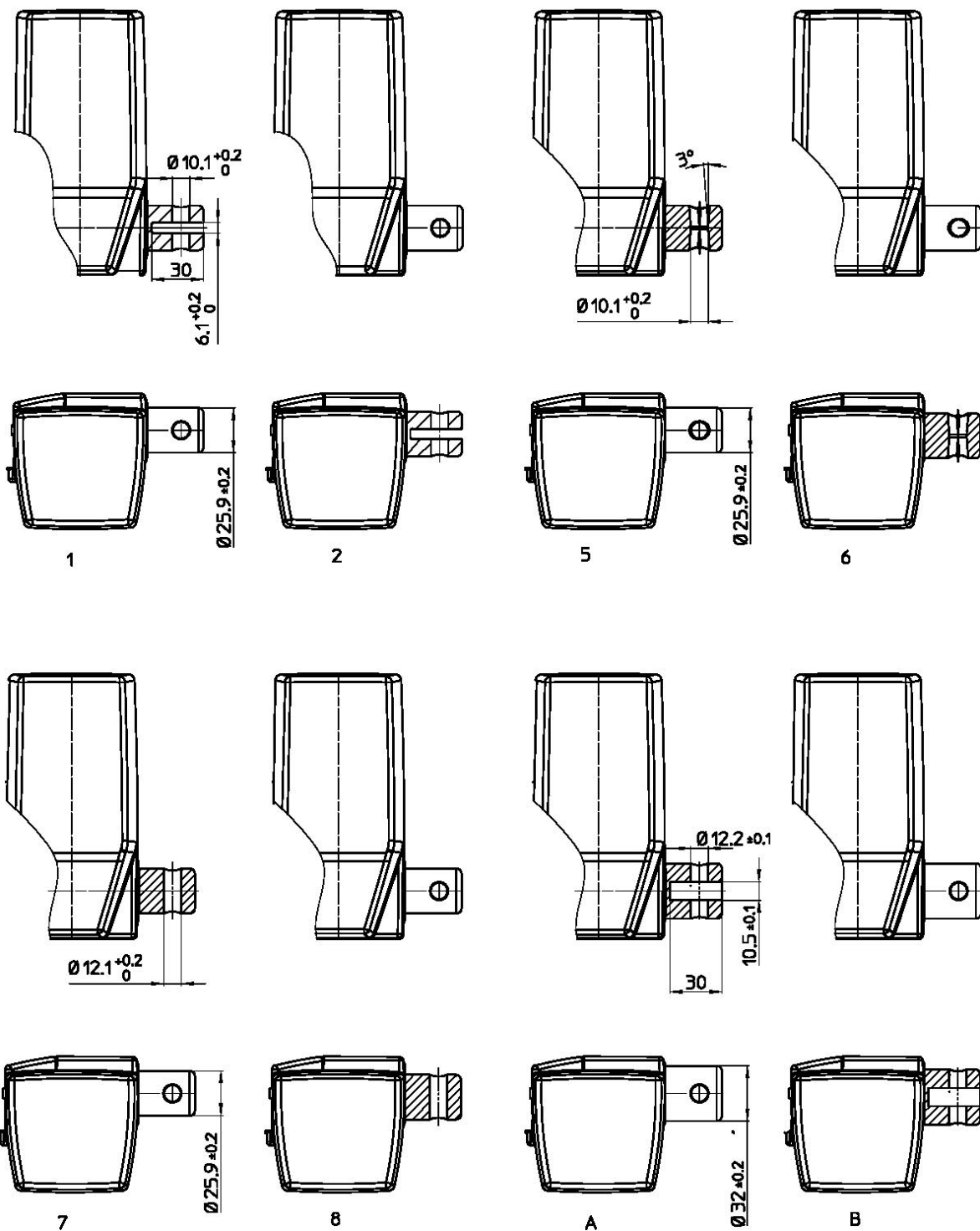
- A = Straight 2.25 m
- F = Straight 1.50 m
- B = Straight 1.00 m
- G = Straight 0.75 m
- H = Straight 0.50 m
- E = Straight 0.25 m
- C = Coiled 0.40 m
- D = Coiled 0.20 m

When mounting CB

- Y = For CB7 / IP51
- Z = For CB9 / IP51
- X = Write X and above article number in the spec of the cable
- 6-pole minifit plug for CBH
- CBH A: 15B31-S2B2X10
- CBH B: 15C31-S0B2010

- IP degree:** 0 = Standard
- Motor type:** 0 = 24 V DC Standard
- Stroke length 100-300:** = 100 - 300 mm
- Brake:**
 - 1 = Brake Push
 - 2 = Brake Pull
- Spindle:**
 - 0 = Standard (none)
 - 1 = Safety nut
 - 2 = Splines
 - 3 = Splines with safety nut
- Colour:**
 - = Black
 - + = Grey
- Position:**
 - 0 = Standard
 - R = Reed
 - H = Hall
- Piston rod eye:**
 - 0 = Standard with slot
 - 1 = Standard solid
 - 2 = Standard painted
- Back fixture:**
 - 1 - 2 = Standard with 6.1 mm slot, ø 10.1 mm hole
 - 5 - 6 = Flexible, ø 10.1 mm hole
 - 7 - 8 = Solid, ø 12.1 mm hole
 - A - B = Standard with 10.5 mm slot, 12.2 mm hole
- Spindle type:**
 - 1 = 3 mm
 - 2 = 5 mm
 - 3 = 9 mm
 - 4 = 4 mm
 - 6 = 12 mm
 - 7 = 7 mm
- Actuator type:** LA31

Back fixtures:



LA31007B

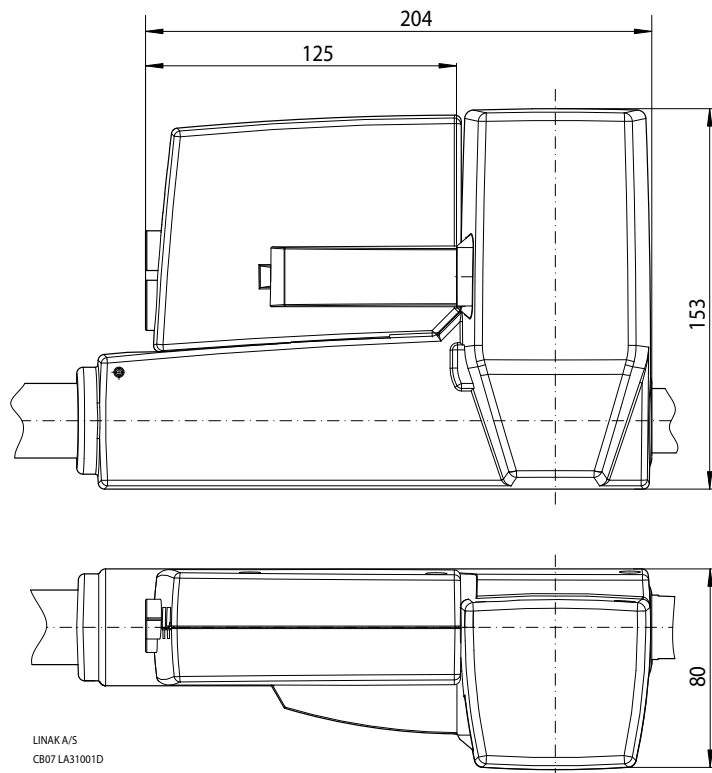


The LA31 actuator must not be exposed to more than 4000 N in pull. In applications where misalignments may occur the normal back fixture can take max. 1500 N in pull whereas the flexible back fixture can take up to 4000 N in pull.

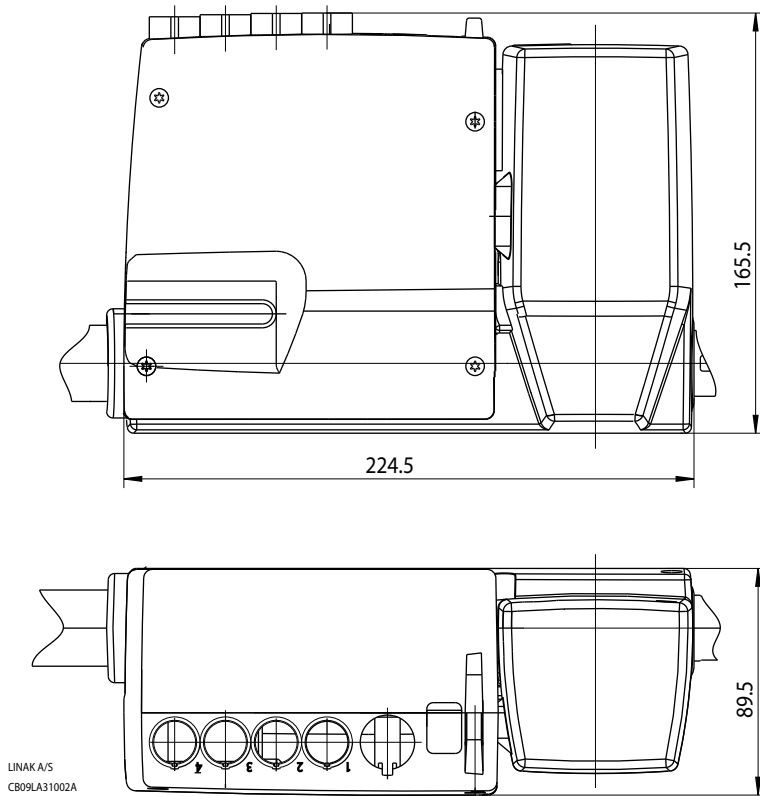


If an LA31 is used in an application where there are repeated dynamic pulling movements in the area 2000 - 4000 N, then it is necessary to contact the Technical Support department in order to make a correct specification of the actuator.

Dimensions LA31 with CB7

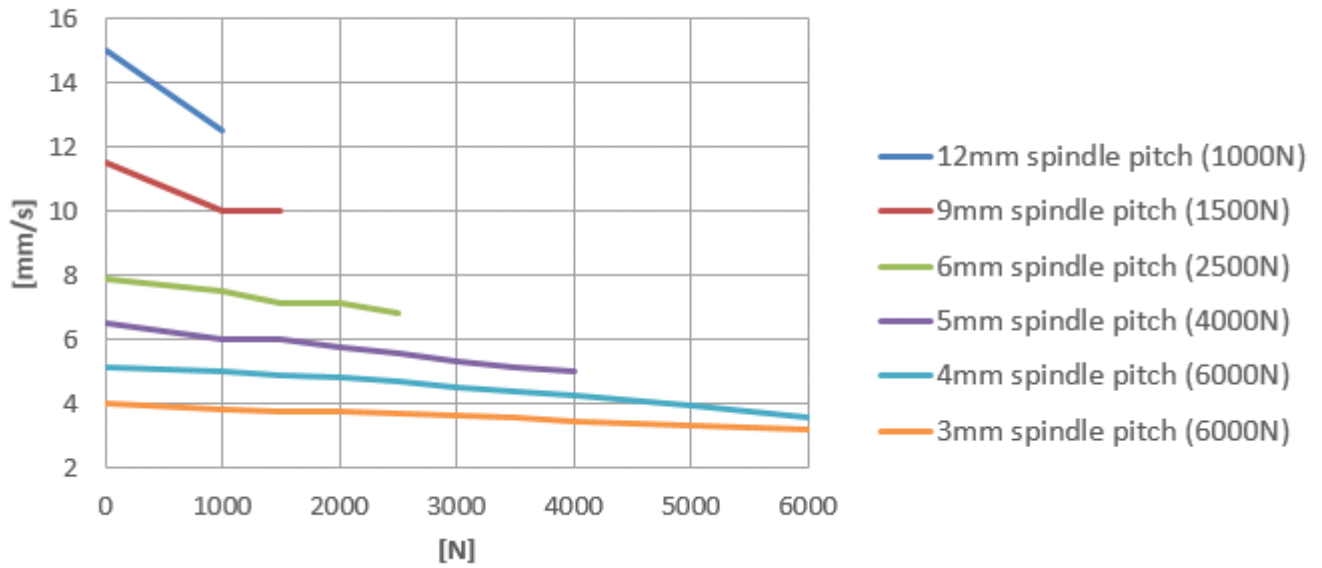


Dimensions LA31 with CB9

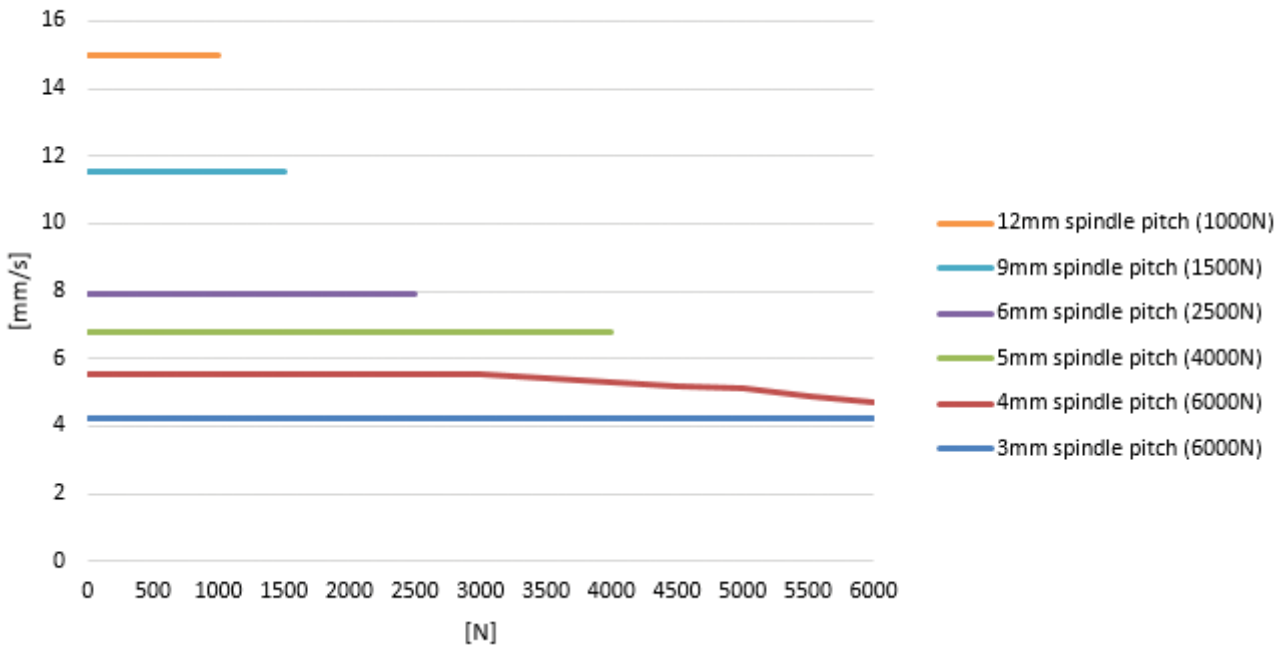


Average speed curves

LA31 with CBH Basic and SMPS001/002



LA31 with CBH Advanced and SMPS006



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