

HABEGGER GUIDE BUSH SERVICE INSTRUCTIONS

40. Types Of Guide Bushes

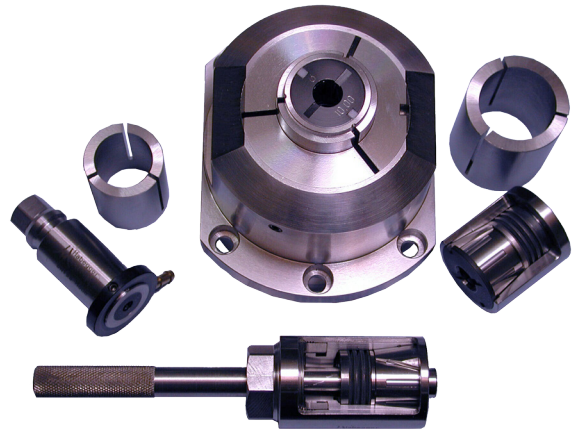
Our manufacturing program includes several types of guide bush with the aim to adapt them to different makes of cam and CNC sliding head machines. The basic principle is, however, identical for each of these types.

- Type C (see special documentation)
- Type oscillating / 3 positions (see special documentation)
- Type D
- Type LD
- Type EXT
- Type CNC
- Type EN

41. General Remarks

41.1 The bar stock is guided by tungsten carbide rollers driven by the bar's rotation. This is a similar function in principle, to a needle bearing, where the inside casing would be the bar stock (direct contact). The Habegger guide bush system can be used on either right or left hand turning machines

41.3 Recent COSH regulations regarding the use of chlorine free neat cutting oils have led to frequent bushing problems, like seizing up, when using conventional guide bushes, especially when machining stainless steel. In such a case, the Habegger guide bushes are ideally suited to overcome these machining problems.



42. Assembly

42.1.1 The guide bush can only be used for bars of the diameter that corresponds to the size indicated on the front cap (no 21) of the bush.

42.1.2 Assembly on the machine is simple. The Habegger bush is used in a fixed guide bush holder like a standard guide bush. We offer a wide choice of bush-holders and reduction sleeves.

43. Adjustments and Use

43.1 The adjustment of the bar clearance is identical to that of a conventional guide bush, i.e. by adjustment of the nut no 29 at the back of the bush.

43.2 It is possible to adjust the material bar clearance within the Habegger guide bush (clearance is increased). Tightening that nut permits to close the guide bush (clearance becomes decreased). The final adjustment must be effected by tightening the nut no 29.

43.3 If the material bar returns when the collet gets opened and when the work pieces become too short, this means that the material bar is too tight. The weight of the push-rod is not sufficient to advance the bar.

43.4 Avoid polishing the material bar by a guide bush that is too tight.

43.5 The guide bushes' accuracy will be at the maximum after a few days run, once the rolling path gets stabilized. If some variations occur in the diameter of the work pieces, after a certain time, reverse the rollers.

43.6 It is advised to change the radial position of the guide bush from time to time, in order to balance the wear in a uniform manner over the whole rolling path of the rollers. Change its position within the bush-holder. For this purpose, index the guide bush by 120°.



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44. Lubrication

- 44.1 The lubrication system with filter prevents swarf from entering into the interior of the guide bushing causing premature wear of the carbide rollers.
- 44.2 Habegger guide bushes, which are used without filtered lubrication, will not be subject to the manufacturer's guarantee.

45. Exchange Kits

The Habegger guide bushes are divided in 8 different families that can be identified according to the outside diameter of the sleeve no 25. For each of these families, it is possible to suit a maximum of diameter ranges, by exchanging the inside parts. Kits are foreseen for this purpose.

46. Spare Parts

- 46.1 When ordering spare parts, please mention:
 - a) Type of guide bush
 - b) Dia. of bar
 - c) No and name of wanted part.

Example: for guide bush D18 / material bar \varnothing 4.5 / double cone union no 22

- 46.2 The guide bushes of the new generation have a slit double cone union with 3 slots. Take into account the specific instructions supplied along with the guide-bush.

46. Table of Measurements

TYPE D	TYPE LD
TYPE EXT	TYPE CNC / EN

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All the following dimensions are given in millimetres.

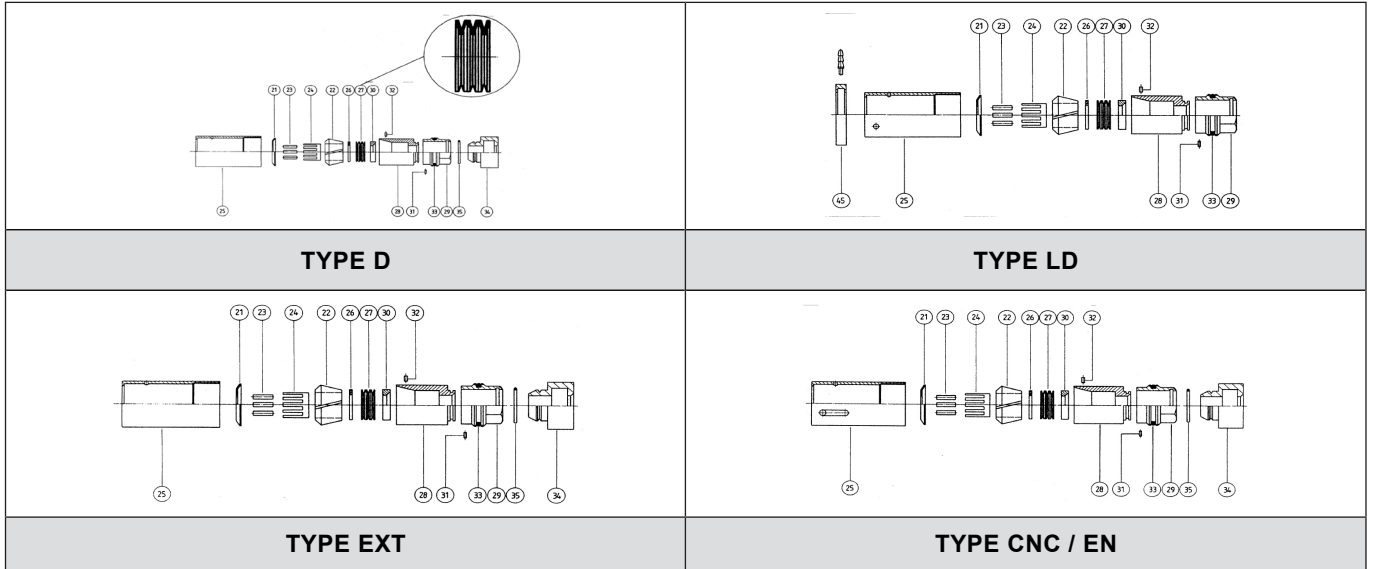
TYPES		ØA	ØD	L1	L2	L3
D15	1.59 - 3.37	15	35	59	71	10
LD15				--	59	
EXT15				81	93	
CNC/EN15				59	71	
D18	3.38 - 4.76	18	35	59	71	12
LD18				--	59	
EXT18				80	92	
CNC/EN18				59	71	
D22	4.77 - 5.67	22	40	59	72.5	14
LD22				--	59	
EXT22				81	93	
CNC/EN22				59	72.5	
D25	5.68 - 7.36	25	45	59	72.5	17
LD25				--	59	
EXT25				84	97.5	
CNC/EN25				59	72.5	
D30	7.37 - 10.45	30	50	62	75.5	22
LD30				--	62	
EXT30				82	95.5	
CNC/EN30				62	75.6	
D35	10.46 - 18.10	35	55	67	80.5	25
LD35				--	67	
EXT35				83	96.5	
CNC/EN35				67	80.5	
D40	18.11 - 22.00	40	60	72	85.5	30
LD40				--	72	
CNC/EN40				72	85.5	
D50	22.01 - 26.00	50	65	79	92.5	36
LD50				--	79	
CNC/EN50				79	92.5	

»»» Ø 26.01 - 32.00 on request



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■ **48. Guide Bushes: Spare Parts** When ordering spares please specify bush type size & item numbers required



■ **49. Guide Bush Filtered Oil Feed Configuration**

