

Technical Data Sheet for PINSpacer NT and ACP

1. Application and Compatibility

For the purpose of a correct apron nip and invariable positioning of the fibre guiding elements in the drafting plane, the SUESSEN PINSpacer NT (Fig. 1) has been tailor-made for the SUESSEN Active Cradle.

Therefore the SUESSEN PINSpacer NT (Fig. 2) is to be used exclusively in combination with the Original SUESSEN Active Cradles to guarantee premium yarn values with at the same time invariable running properties.



CAUTION

Cradles of other manufacturers looking similar produce different apron nips and therefore wrong setting, what inevitably affects the yarn parameters negatively!

In addition, the clip connection on products other than the original SUESSEN Active Cradle is not consistently uniform, and in the worst case the position of the PINSpacer can change during operation.

Unlike the already known one-piece PINSpacers, the PINSpacer NT is made up of two components. Basis is the Spacer NT to set the apron nip, which is available with sizes from 2.25 to 5.0 mm. The correlation between Spacer NT colour and apron nip is the same as for the conventional SUESSEN cradle spacers. Every PIN NT can be combined with any Spacer NT.

Never use the Spacer NT **without** PIN NT, but use conventional SUESSEN cradle spacers in this case.

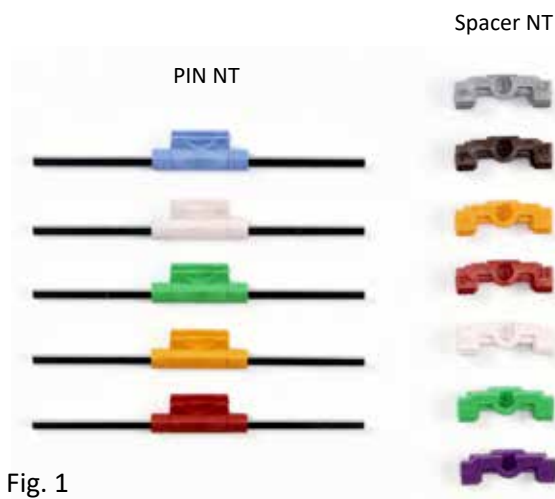


Fig. 1

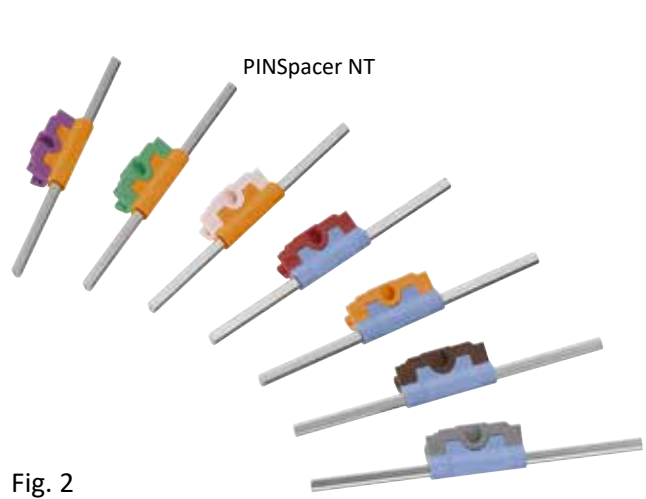


Fig. 2

Assembly on Active Cradle

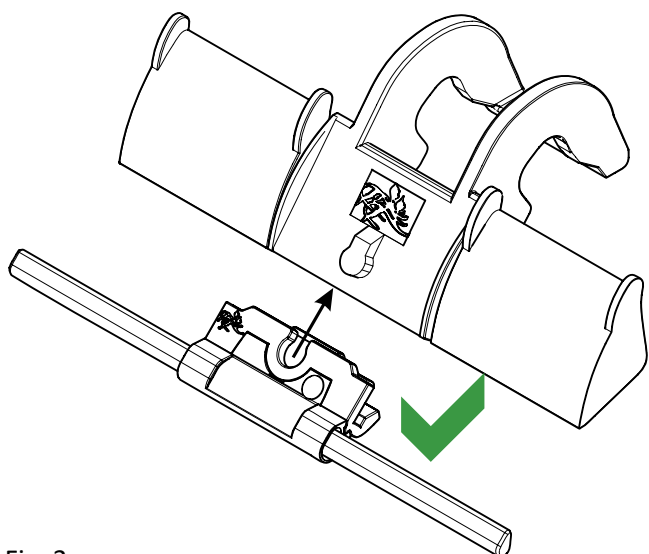


Fig. 3

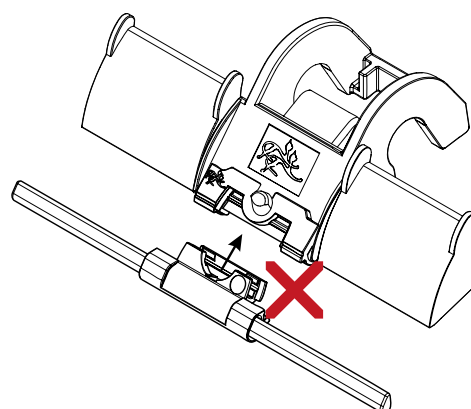
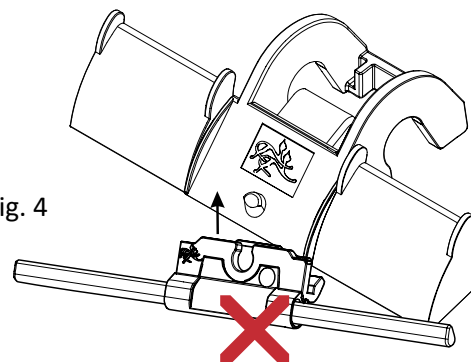


Fig. 4



Disassembly

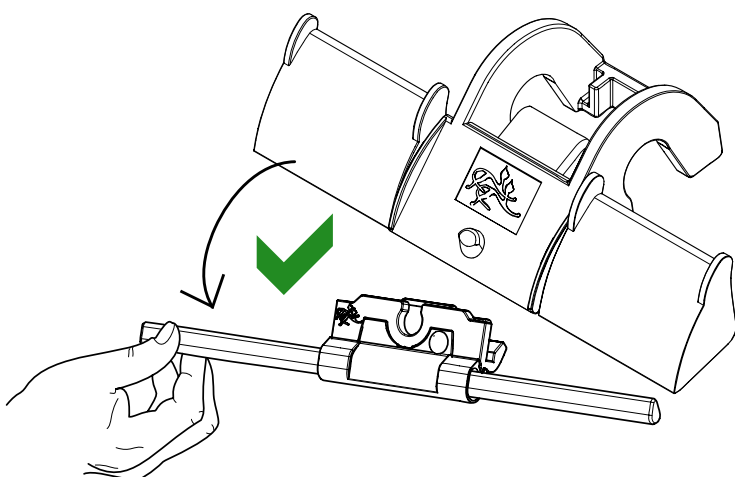


Fig. 5

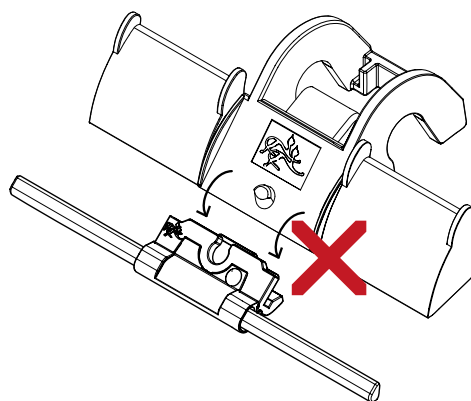
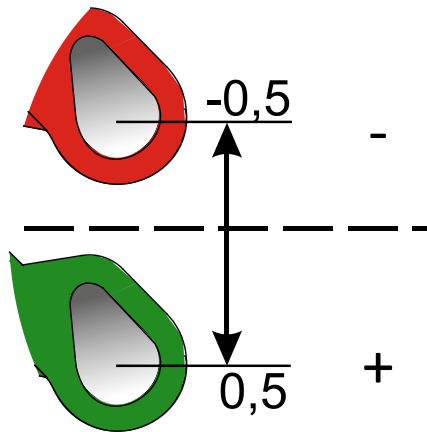


Fig. 6



The PIN NT, which is available in different sizes, is just snapped on the Spacer NT. The difference between the PIN NT variants is their immersion depth into the fibre strand for the variable deflection of the fibres (Fig. 7).

Since the required intensity of fibre deflection by the PIN NT strongly depends on the roving to be spun, the fibre length, fibre material, roving twist and other factors, the spinning mill can adjust the PIN NT precisely to the material to be spun, irrespective of the necessary cradle spacer.

Fig. 7

PINSpacer NT								
Spacer NT	Part No. for Original SUESSEN Spacer NT	Apron nip mm	combinable with	Immersion depth mm	PIN NT 70/75 mm Spindle Gauge	Part No. for Original SUESSEN PIN NT	PIN NT 82.5 mm Spindle Gauge	Part No. for Original SUESSEN PIN NT
lilac	10713219	2.25		-0.5	red	10713145	yellow	10743433
green	10713232	2.5		-0.25	orange	10713144	beige	10743439
pink	10713214	2.75		0	green	10705707	lilac	10743440
red	10713211	3.0		+0.25	pink	10713080	brown	10743462
orange	10713208	3.25		+0.5	light blue	10713116	grey	10743455
brown	10713130	3.5		-	-	-	-	-
black	11150671	3.75		-	-	-	-	-
grey	10713129	4.0		-	-	-	-	-
beige	10713128	4.50		-	-	-	-	-
yellow	10702674	5.00		-	-	-	-	-

Tab. 1

So it is possible – in contrast with a one-piece PINSpacer – to optimize yarn quality values and spinning stability independently of each other.

In contrast to the one-piece PINSpacer, the PIN NT profile has been changed to ensure that the fibres are forced to run under the PIN and not – by mistake – over the same. This improves the operational reliability drastically.

The five PIN NT variants differentiate by their pin position which is higher or lower by steps of 0.25 mm. A pin height of 0.00 corresponds to the position of the one-piece PINSpacer. (Tab. 1)

The correlation between Spacer NT colour and apron nip is the same as for the standard cradle spacers.

2. Determination of Apron Nip and PIN Immersion Depth

Since the PIN NT represents an additional deflection point for the fibres in the yarn path through the drafting system, the drafting process tends to be hampered, unlike using standard cradle spacers. We therefore suggest that you choose a Spacer NT with an apron nip which is usually one step bigger than the standard cradle spacer and to combine them initially with the PIN NT (0.00). You may determine the optimum effect of the PIN NT on yarn quality values and running properties by spinning trials with the various PINs NT or by possibly existing empirical data.

Table 2 is such that it gives priority to stable running behaviour and simultaneous improvement of the yarn parameters. Therefore, it only provides an orientation, which – depending on the conditions in the spinning mills (for instance climate, roving twist, main draft, design of the bottom apron nose bar etc.) – in individual cases may not necessarily represent the optimum with regard to yarn quality values and ends-down rate.

Apron nip mm	Yarn Count Ne >												
	10	15	20	30	40	50	60	70	80	90	100	110	120
2.25										✓	✓	✓→	
2.50								✓	✓→				
2.75							✓→						
3.00						✓→							
3.25				✓	✓→								
3.50				✓→									
3.75			✓→										
4.00			✓→										
4.50		✓→											
5.00	✓→												

Tab. 2

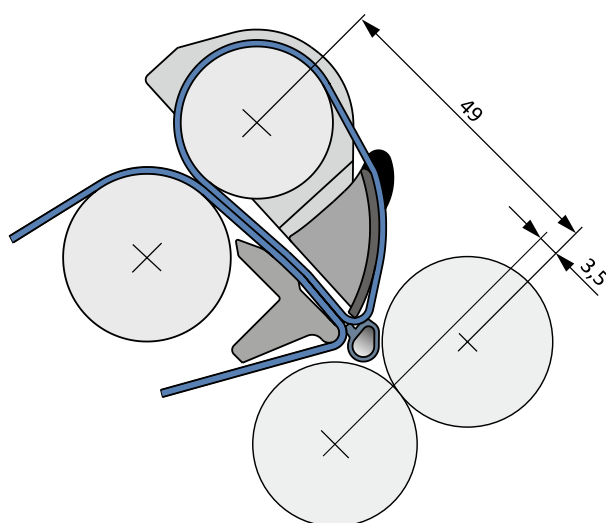


Fig. 8

3. Drafting System Setting

3.1 Setting for conventional application with HP-GX-AC, HP-AC or PK-AC

Usually, these top weighting arm types have a 3.5 mm forehang of the front top roller. Based on this forehang, the distance between the front top roller axle and the cradle top roller axle must be set at 49 mm (Fig. 8)



Fig. 9

Please take care that the PIN NT and the Spacer NT do not touch the bottom apron or the front bottom roller. Ideally, the pin is positioned in the centre of the triangle between bottom apron, bottom roller and front top roller (Fig. 9).

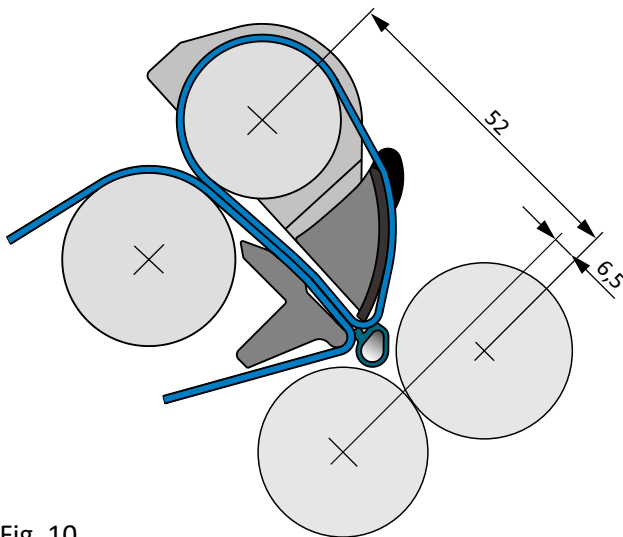


Fig. 10

3.2 Setting for conventional application with cradle P3-1-AC

The P3-1 top weighting arm usually has a forehang of 6.5 mm of the front top roller with pin setting A1/B1. Based on this forehang, the distance between front top roller axle and cradle top roller axle must be set at 52 mm (Fig. 10).

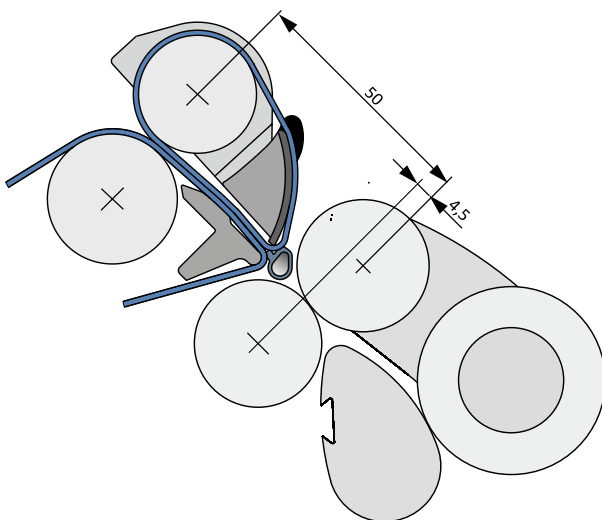


Fig. 11

3.3 Setting for any EliTe® Application with Original SUESSEN AC Cradle

The EliTe® Setting specifies a forehang of 4.5 mm of the front top roller. A 50 mm distance between the axles of the front top roller and the cradle top roller automatically ensures the correct pin position in the drafting system (Fig. 11).

3.4 Top Apron Dimensions

The dimensions of the top aprons depend on the type of the top weighting arm and cradle top roller diameter which are as follows:

SUESSEN Active Cradle for	Top roller Ø 25 mm	Top roller Ø 27 mm
HP-GX 3010	37 x 30 x 1 mm	-
HP-GX 3010 ^{RPT}	37.5 x 30 x 1 mm	39.2 x 30 x 1 mm
P3-1	37.5 x 30 x 1 mm	39.2 x 30 x 1 mm
Texparts PK Series (short staple)	37 x 30 x 1 mm	-

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Technical modifications reserved

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Teknik deęişimlerin hakkı bizde saklıdır
Con riserva di modifichettecniche



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