

Installation plans

K 24 | DELTA

Cutter Knife System



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1. Explanations

1.1 Basic principles

1.1.1 Fast setting installation

Clockwise installation

Feature

The material is not as long kept in the cutting area. The cutting process is slower, but more gentle and even.

Advantages: low energy consumption
 gentle to material

Disadvantages: slow emulsification

Use

Whenever a low energy consumption during the cutting process is required.

1.1.2 Slow setting installation

Anti-clockwise installation

Feature

With a slow setting installation the material is kept in the cutting area longer and therefore cut more faster and intensively.

Advantages: high cutting performance
 fast emulsification

Disadvantages: higher energy consumption

Use

All products that are mainly calling for a high cutting performance, combined with an emulsifying effect, slow setting installation is used. E.g. all boiled and cooked sausage types. Slow setting is also possible in dry sausage production for reducing the cutting time.

Conditions for dry sausage production

- the axial knife distance must be appr. 40 mm for dry sausage production
- the cutting speed should not be higher than max. 75 m/s, that means appr. 2000 1/min at bowl cutter size 500 l

1. Explanations

1.1.3 Infeed level

Knife 1 and Knife 2 each on one spacer (DELTA-system: drive disc)

Advantages: good pulling in of frozen meat and material with low viscosity (e.g. liver sausage)

Disadvantages: not possible with extremely high-speed machines as there would be imbalance (e.g. 160 m/s and faster) that means at bowl cutter size:

500 l (knife radius 362)	4200 1/min
500 l (knife radius 380)	4000 1/min
600 l (knife radius 413)	3700 1/min
750 l (knife radius 440)	3400 1/min

1.2 Final observation

All knife configurations have an effect on:

1. Cutting performance
2. Emulsification performance
3. Energy consumption
4. Cutting time
5. Temperature rise
6. Noise pollution

In the event of a changed knife configuration, these effects are variously influenced. It must be left to you as a user to weight the various criteria according to their specific products and their operation situation.

As it is a question of making certain tendencies visible, we have only addressed the most important knife configurations.

These explanations should encourage you to test yourself in order to find the optimal knife configuration for your special use.

2. Installation plans

2.1 Installation plan no. 3.1

- slow setting
- infeed level



3 knives on 3 cutting levels

3	2	1	Number of cutting levels Letter in window
J	S	A	



2.2 Installation plan no. 3.2

- fast setting
- infeed level



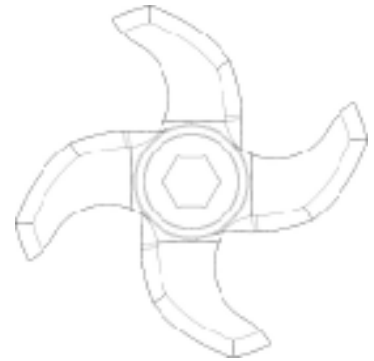
3 knives on 3 cutting levels

3	2	1	Number of cutting levels Letter in window
S	J	A	



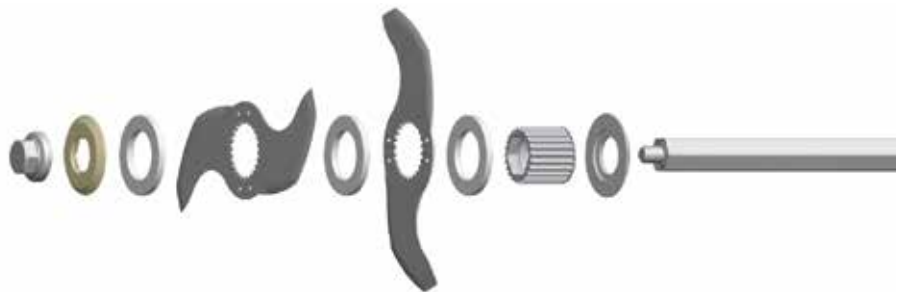
2. Installation plans

2.3 Installation plan no. 4.1



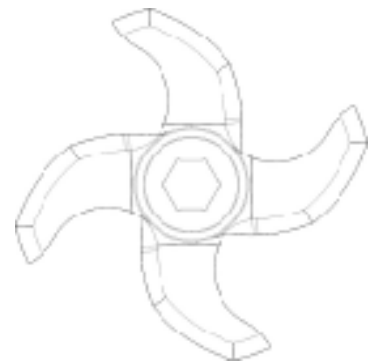
4 knives on 2 cutting levels

2	2	1	1	Number of cutting levels Letter in window
U	G	A	N	



2.4 Installation plan no. 4.2

- slow setting
- infeed level



4 knives on 3 cutting levels

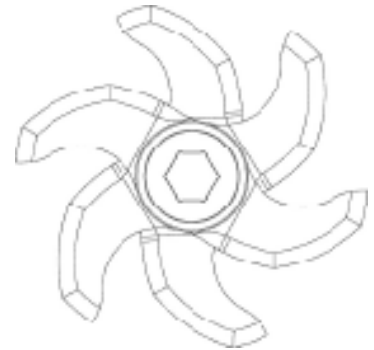
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U	G	N	A	



2. Installation plans

2.5 Installation plan no. 6.1

- fast setting



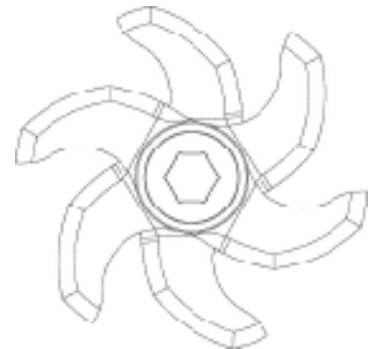
6 knives on 3 cutting levels

3	3	2	2	1	1	Number of cutting levels Letter in window
J	W	E	S	A	N	



2.6 Installation plan no. 6.2

- slow setting



6 knives on 3 cutting levels

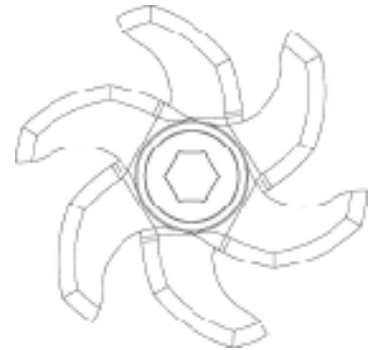
3	3	2	2	1	1	Number of cutting levels Letter in window
E	S	J	W	A	N	



2. Installation plans

2.7 Installation plan no. 6.3

- fast setting
- infeed level



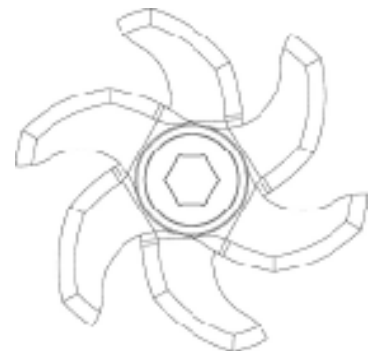
6 knives on 4 cutting levels

4	4	3	3	2	1	Number of cutting levels Letter in window
J	W	E	S	N	A	



2.8 Installation plan no. 6.4

- slow setting
- infeed level



6 knives on 4 cutting levels

4	4	3	3	2	1	Number of cutting levels Letter in window
E	S	J	W	N	A	



2. Installation plans

2.9 Installation plan no. 8.17

- fast setting



8 knives on 4 cutting levels

4 4	3 3	2 2	1 1	Number of cutting levels Letter in window
K X	U G	D R	A N	



2.10 Installation plan no. 8.18

- slow setting



8 knives on 4 cutting levels

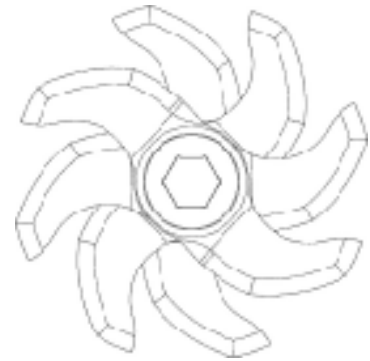
4 4	3 3	2 2	1 1	Number of cutting levels Letter in window
D R	U G	K X	A N	



2. Installation plans

2.11 Installation plan no. 8.19

- fast setting
- infeed level



8 knives on 5 cutting levels

5	5	4	4	3	3	2	1	Number of cutting levels Letter in window
K	X	U	G	D	R	N	A	



2.12 Installation plan no. 8.20

- slow setting
- infeed level



8 knives on 5 cutting levels

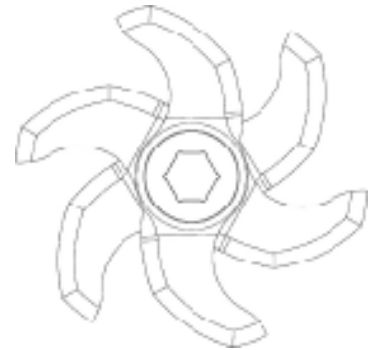
5	5	4	4	3	3	2	1	Number of cutting levels Letter in window
D	R	U	G	K	X	N	A	



2. Installation plans

2.13 Installation plan no. 8.33

- fast setting
- infeed level



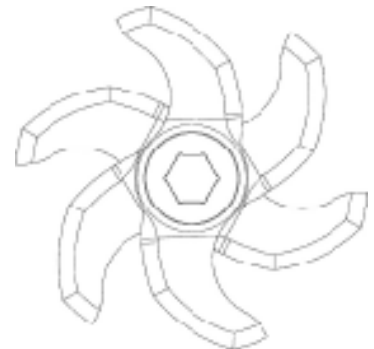
8 knives on 5 cutting levels

5	5	4	4	3	3	2	1	Number of cutting levels Letter in window
A	N	J	W	E	S	N	A	



2.14 Installation plan no. 8.34

- slow setting
- infeed level



8 knives on 5 cutting levels

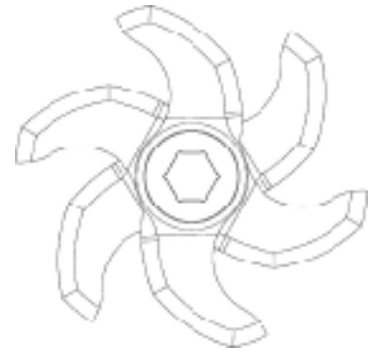
5	5	4	4	3	3	2	1	Number of cutting levels Letter in window
A	N	E	S	J	W	N	A	



2. Installation plans

2.15 Installation plan no. 8.35

- fast setting



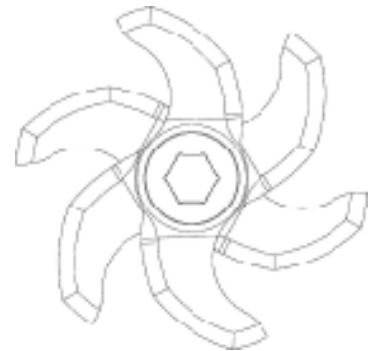
8 knives on 4 cutting levels

5 5	4 4	3 3	2 1	Number of cutting levels Letter in window
A N	J W	E S	N A	



2.16 Installation plan no. 8.36

- slow setting



8 knives on 4 cutting levels

5 5	4 4	3 3	2 1	Number of cutting levels Letter in window
A N	E S	J W	N A	



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