

HIGH STRENGTH CHAIN CUTTING MACHINES TYPE ALAN

Use and description:

High strength chain cutting machines type **ALAN** (hereinafter only cutting machines) are used for cutting the chains with strength max. 1 100 MPa. and max. \varnothing of the chain to be cut 30 - 38 mm depending on the machine type.

ALAN 30.11

ALAN 30.21 The first two types are possible to be fed from the hydraulic emulsion medium source, e.g. in working faces, entry openings etc. The inside pressure intensifier is used for generation of the cutting force and one working cylinder. They cut the chains with \varnothing up to 30 mm.

ALAN 30.11 consists of the intensifier cylinder, cutting head with working cylinder, fixed edge and movable one, controller, safety valve, cover, grip and accessories.

ALAN 30.21 the intensified part is separated from the cutting head with working cylinder, e.g. the cutting operation is possible to do at any "position" of the cutting head (e.g. below the scraper conveyor etc.). The intensifier "Multiplikator MH 1N" (a) or hand operated hydraulic aggregate – pump with operation pressure 75 MPa are recommended as the source of pressure medium.



ALAN 30.11



ALAN 34.2

ALAN 34.2 Cutting machine **ALAN 34.2** can be also fed directly from a oil or emulsion hydraulic aggregate, which controls the working cylinder with two supplementary cylinders. These together with working piston generate the necessary cutting force. With this machine the chains with \varnothing up to 38 mm are cut.

ALAN 34.2 consist of a yoke, working piston, two supplementary cylinders, controller, fixed edge and movable one, safety valve, cover and hydraulic distribution system.

ALAN 34.21 „The more simple" version **ALAN 34.21** has only one working and one supplementary cylinder. The controller serves during the work. Using this cutting machine, the chain with \varnothing up to 34 is possible to cut.

ALAN 34.23 has only one working cylinder without the supplementary one. The hand operated hydraulic aggregate is a source of pressure medium. This machine is used for cutting the chains wit \varnothing up to 38 mm.

ALAN 34.23 consists of the body with rectilinear hydraulic motor, fixed edge and movable one, hand operated hydraulic aggregate and accessories.



ALAN 34.23

ALAN 34.3 consists of two parts:

part a – cutting head with rectilinear hydraulic motor, safety valve, cover on carrier

part b – intensifier with a control valve and controller, or hand operated hydraulic aggregate

These two parts are connected with two high pressure hoses. It cuts chains wit with \varnothing up to 38 mm. The intensifier "Multiplikator MH 1N" or two stage pump operated by hand or by pedal with operation pressure min. 75 MPa are recommended as the source of pressure medium.

Characteristics:

| Type | | ALAN 30.11 | ALAN 30.21 | ALAN 34.23 | ALAN 34.3 | ALAN 34.2 | ALAN 34.21 |
|---|-----|--|----------------------------------|---------------------|------------------|--|-------------|
| Max. working pressure in cylinder | MPa | 75 | 75 | 75 | 75 | 32 | 32 |
| Max. cutting force | kN | 700 | 700 | 920 | 920 | 1 000 | 700 |
| Max. \varnothing of the chain to be cut | mm | 30 | 30 | 38 | 38 | 38 | 34 |
| Max. chain strength | MPa | 1 100 | 1 100 | 1 100 | 1 100 | 1 100 | 1 100 |
| Working medium | | emulsion HFA with min. 3-5% concentration or hydraulic liquid having a viscosity of $46 \text{ mm}^2 \cdot \text{s}^{-1}$ at 40°C | | | | emulsion HFA with min. 3-5% concentration | |
| Medium input pressure | MPa | 20 - 32 | 20 - 32 | hand pump 75 MPa | 32 | 32 | 32 |
| Dimensions (l x w x h) | mm | 495x183x270 | c) 280x207x248 d) 252x200x232 | 380x287.5x250 | 385x270x250 | 596x340x278 | 512x340x278 |
| Weight | kg | 31.0 | 39.0 | 41 + 10 (pump) | a)44.5 b)10.5 | 64.8 | 58.0 |

Type marking: **ALAN 30.11, 30.21, 34.23, 34.3, 34.2, 34.21**

ALAN product designation
30,34 max. \varnothing of the chain to be cut in mm
11,21,23,3,2,21 type marking

The product has been designed and constructed as the equipment group I (mine), category M2 according to the Directive 94/9/EC of the European Parliament and of the Council and meets the requirements for using in areas "dangerous atmospheric conditions 2" according to EN 1127-2+A1 on condition that all national regulations of the employer are fulfilled.

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