Narrow Fabric Loom

NG3

for medium-heavy tapes and belts

NG3

Convincing concept

The NG3 range of Müller narrow-fabric looms constitutes a quantum leap in engineering and technological development.

Their heald frame motion and the technology of the heald frame traction, as well as the heald frames and healds, are designed for high speeds up to 2,750 min^{-1}.

The weft feeding, compensation and monitoring of the weft thread guarantee high fabric quality and reduced down-times.

Productivity has been enhanced by the state-of-the-art machine drive with frequency converter, while expenditures for maintenance are minimized by central lubrication.

General view of NG3 28G

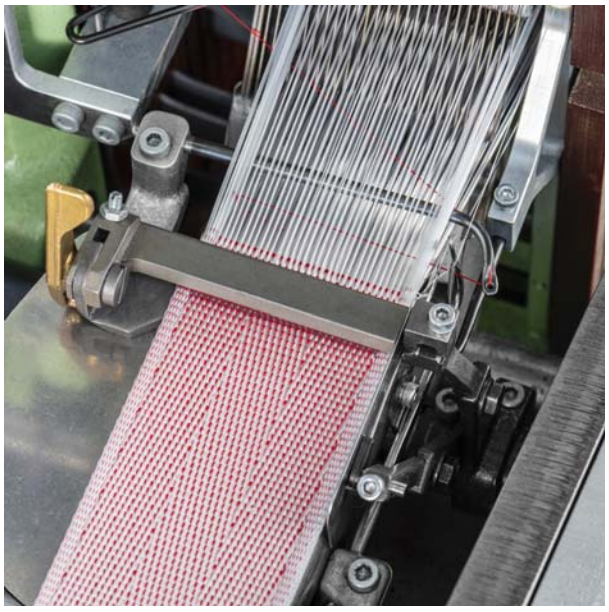
NG3S with sound absorbing enclosure

The NG3 range includes the following models:

– NG3 28G Model 28 cm wide for medium-weight belts and tapes
– NG3S 28G Sound absorbing enclosure "Silent" for reducing noise emission by up to 10db(A)

Advantages at a glance

– High production with speeds up to 2,750 min^{-1}
– Speed may be altered while the machine is running
– High and repeatable tape and belt qualities
– Clear and straightforward operation and supervision
– Superstructure-less design affords good accessibility
– Low wear – minimum expenditures for maintenance
– Low noise level operation – "Silent" version available on request
– High levels of safety for man and machine



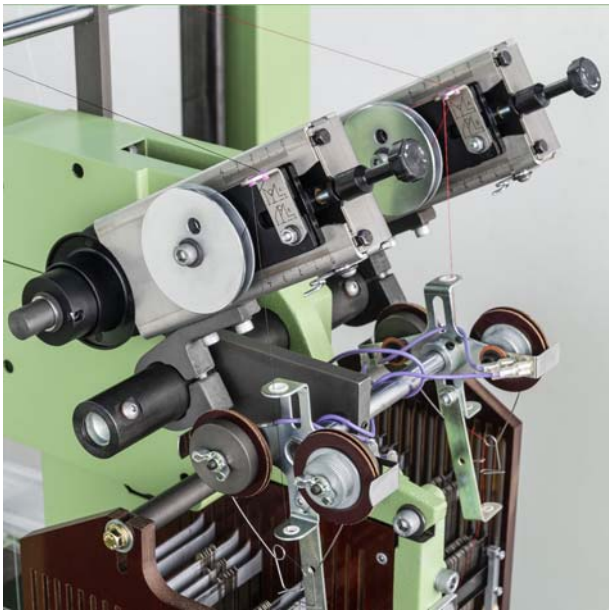
Weaving place with system V and patented compound needle

Many patented technological and engineering innovations have been embodied in the design:

Heald frame motion/heald frame traction
Placing the shedding device at the side provides unimpeded access to the heald frame motion, with force transmission acting centrally on the heald frame rod (Müller patent).
The patented air-suspended heald frame traction with electronic pressure control allows very high speeds with little wear. The healds and heald frames have minimal sliding capacity, ensuring low-noise operation and high wear resistance.

Weft feed and monitoring
The pressure rolls can be lifted off the transporting rolls to permit easy insertion of the weft thread. Slip-free transport is ensured when the pressure rolls are in position. The weft thread tension can be initially set using a central approximate adjustment mechanism and a fine adjustment is then made for each single space while the machine is operating.
The patented pneumatic weft compensation enables weaving with minimal weft tension. Tension peaks and loose threads are avoided. By regulation of the airflow, the thread tension can be set very precisely and be maintained absolutely constant throughout the whole weaving process. Absolutely regular selvedges and minimum wear on weft and knitting needles are the logical result.
The opto-electronic weft stop motion responds instantaneously to loose or missing threads.

Patented shedding motion with air-suspended heald frame motion


Weft feed with option “Wire spring compensation”

Knitted fabric selvedge
Further patented details yield higher efficiency and reduced needle breakages. The stable needle position setting and the short stroke of the compound needle enable accurate thread insertion with low tension.

Warp let-off with EKAST or EBRT
The electronic warp let-off control EKAST assures a constant warp tension throughout from full to empty beam.
On machines with EKAST the motor speed for the beam drive is regulated by a spring-loaded jockey roller.
When weaving from cone creel, the electronic brake drum EBRT guarantees constant and controlled warp tension.

NG3

Control

Machines of the "Silent" type and provided with “On-line” data acquisition are equipped with MÜCONTROL. This control system comprises a central unit with data acquisition including 6-shift counter, membrane keyboard and control section.

Options

– Weft thread compensation with leg springs instead of pneumatics
– Monofilament weft transport for coarser weft yarns in place of standard weft transport (MÜTRANS3)
– Weft transport with steel variator discs in place of plastic variator discs for increased durability at higher speeds
– Weaving shafts: Execution NGV3 in place of NG resulting in increased durability of healds and weaving shafts
– Fabric transport for laying tapes into boxes

MÜCONTROL System

Technical data

Machine type	NG3 28G + NG3S 28G
Number of spaces/ weaving head type	2/66
Max. reed width mm	56
Weaving system	1, 2, 3, 5, Z5/S5 (GR2)
Pick density/cm	Standard 5,8 – 28, other ranges within 0,55 – 55,9
Number of heald frames	8, 12, 16
Shedding device	– Cam 1:8 – Pattern chain 1 : 8, 24 – 48
Power requirements	2,8 – 3,3 kW depending on additional equipment
Mains connection	3 x 400 V – 50/60 Hz
Compressed air	6 bar, consumption 2 – 5 Nm^3/h with pneumatic weft thread compensation 0,1Nm^3/h with leg spring compensation
Model designation	Basic model + number of spaces/weaving head type, Example NG3 28G 2/66

Fascination of Ribbons and Narrow Fabrics
Innovation in Machinery

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