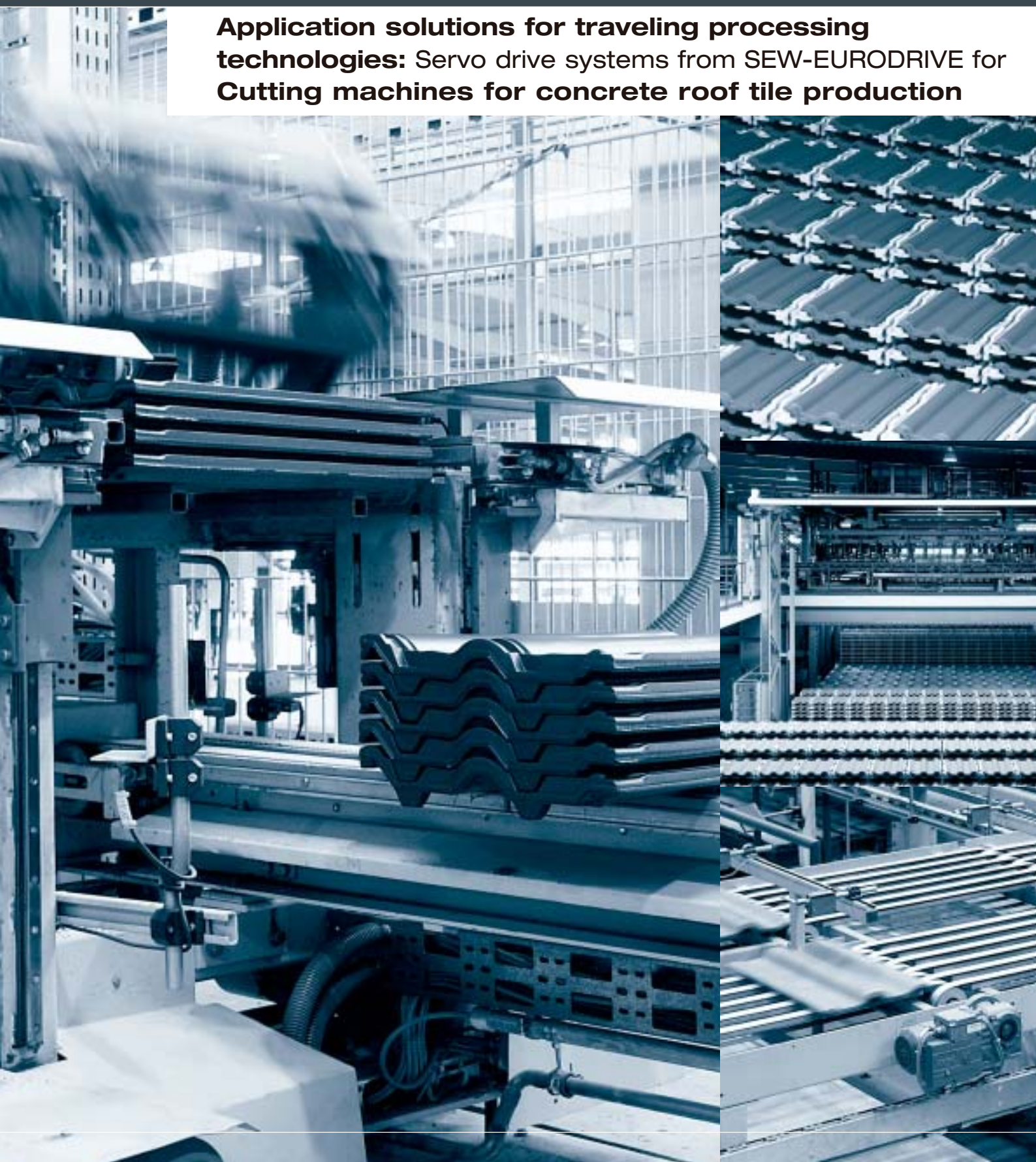


Application solutions for traveling processing technologies: Servo drive systems from SEW-EURODRIVE for Cutting machines for concrete roof tile production



2.5 roof tiles per second



Concrete roof tiles are the first choice worldwide when it comes to materials for roof covering. Time and operational readiness play an important role in the industrial production of concrete roof tiles. Only a continuous production flow ensures quality and availability. Innovative solutions with trailing separation devices are at the core of any system.

Application description

Up to 180 concrete tiles per minute should be cut during continuous material transport at a speed of 1 m/s.

This process must be precise, wear-free and therefore must run smoothly. Existing solutions with gearmotor and mechanical cam and pneumatic cylinder cannot meet these requirements permanently.

Criteria

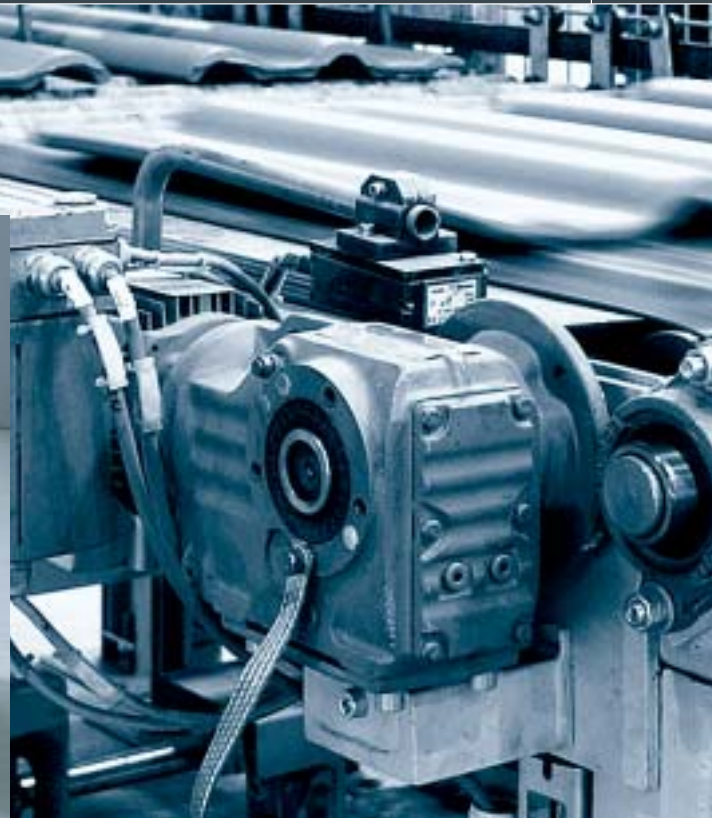
- Maximum availability
- Continuous cutting process
- Protection of the mechanical components
- Dusty environment
- Vibration excitation of the machine through edging stroke

Objective

A knife feed must be synchronized to the material transportation speed in less than 70 ms. If feed and material run at the same speed, a knife plunges from top down into the material and cuts the roof tiles to a defined length. During this process, accelerations between 2 and 3 g occur. The feed typically travels a total distance of 3 km in one hour. The machine is controlled independently without a PLC using a keypad.

Technological requirements

- Traveling cutting device
- Air-cooled linear motors
- Entry of cutting length, cutting depth and speed of the machine via operating panel
- Low wear mechanical components (accelerations up to 3 g, total distance traveled per hour more than 3 km)
- Constant accuracy



✓ New dimensions in machine designs: The highly dynamic servo drive technology from SEW-EURODRIVE enables the machine to run more smoothly thereby minimizing wear and malfunctions. When the servo technology combined with the programmable inverters and an Drive operator panel, the result is an independent machine module.

✓ SEW-EURODRIVE solution

These highly dynamic movements are made possible through SL2-P-50S-010 and SL2-P100S-030 synchronous linear motors in conjunction with MOVIDRIVE® drive inverters and the integrated IPOSplus® positioning and sequence control. The technology functions “Internal synchronous operation” and “Electronic cam” are used in this case.

Operation and visualization of the system are realized using a DOP11A-20 drive operator panel. The drive operator panel ensures the system is easy to operate without any lengthy training.

✓ Success features

- Air-cooled SL2 synchronous linear motors reduce wear and increase the availability of the system
- MOVIDRIVE® drive inverters with integrated IPOSplus® positioning and sequence control, customized programming
- Jolt-free, synchronized movement profile through synchronous operation and electronic cam
- Drive operator panel type DOP11A-20

How we're driving the world

With people who think fast and develop the future with you.

With a worldwide service network that is always close at hand.

With drives and controls that automatically improve your productivity.

With comprehensive knowledge in virtually every branch of industry today.

With uncompromising quality that reduces the cost and complexity of daily operations.



SEW-EURODRIVE
Driving the world

With a global presence that offers responsive and reliable solutions. Anywhere.

With innovative technology that solves tomorrow's problems today.

With online information and software updates, via the Internet, available around the clock.

SEW-EURODRIVE is right there for you:

Argentina
Phone +54 3327 4572-84
Fax +54 3327 4572-21
sewar@sew-eurodrive.com.ar

Australia
Phone +61 3 9933-1000
Fax +61 3 9933-1003
enquires@sew-eurodrive.com.au

Austria
Phone +43 1 617 55 00-0
Fax +43 1 617 55 00-30
sew@sew-eurodrive.at

Belgium
Phone +32 10 231-311
Fax +32 10 231-336
info@sew-eurodrive.be

Brazil
Phone +55 11 6489-9133
Fax +55 11 6480-3328
sew@sew.com.br

Canada
Phone +1 905 791-1553
Fax +1 905 791-2999
l.reynolds@sew-eurodrive.ca

Chile
Phone +56 2 75770-00
Fax +56 2 75770-01
ventas@sew-eurodrive.cl

China
Phone +86 22 25322612
Fax +86 22 25322611
gm-tianjin@sew-eurodrive.cn

Colombia
Phone +57 1 54750-50
Fax +57 1 54750-44
sewcol@andinet.com

Czech Republic
Phone +420 220121236
Fax +420 220121237
sew@sew-eurodrive.cz

Denmark
Phone +45 43 9585-00
Fax +45 43 9585-09
sew@sew-eurodrive.dk

Finland
Phone +358 201 589 300
Fax +358 3 7806-211
sew@sew.fi

France
Phone +33 3 88 73 67 00
Fax +33 3 88 73 66 00
sew@usocome.com

Great Britain
Phone +44 1924 893-855
Fax +44 1924 893-702
info@sew-eurodrive.co.uk

Hong Kong
Phone +852 2 7960477
Fax +852 2 7959129
sew@sewhk.com

Hungary
Phone +36 1 437 06-58
Fax +36 1 437 06-50
office@sew-eurodrive.hu

India
Phone +91 265 2831086
Fax +91 265 2831087
mdoffice@seweurodriveindia.com

Italy
Phone +39 02 96 9801
Fax +39 02 96 799781
sewit@sew-eurodrive.it

Japan
Phone +81 538 373811
Fax +81 538 373814
sewjapan@sew-eurodrive.co.jp

Malaysia
Phone +60 7 3549409
Fax +60 7 3541404
kchtan@pd.jaring.my

Mexico
Phone +52 442 1030-300
Fax +52 442 1030-301
scmexico@seweurodrive.com.mx

Netherlands
Phone +31 10 4463-700
Fax +31 10 4155-552
info@vector.nu

New Zealand
Phone +64 9 2745627
Fax +64 9 2740165
sales@sew-eurodrive.co.nz

Norway
Phone +47 69 241-020
Fax +47 69 241-040
sew@sew-eurodrive.no

Peru
Phone +51 1 3495280
Fax +51 1 3493002
sewperu@sew-eurodrive.com.pe

Poland
Phone +48 42 67710-90
Fax +48 42 67710-99
sew@sew-eurodrive.pl

Portugal
Phone +351 231 20 9670
Fax +351 231 20 3685
infosew@sew-eurodrive.pt

Russia
Phone +7 812 5350430
Fax +7 812 5352287
sew@sew-eurodrive.ru

Singapore
Phone +65 68621701
Fax +65 68612827
sewsingapore@sew-eurodrive.com

South Africa
Phone +27 11 248-7000
Fax +27 11 494-3104
dross@sew.co.za

South Korea
Phone +82 31 492-8051
Fax +82 31 492-8056
master@sew-korea.co.kr

Spain
Phone +34 9 4431 84-70
Fax +34 9 4431 84-71
sew.spain@sew-eurodrive.es

Sweden
Phone +46 36 3442-00
Fax +46 36 3442-80
info@sew-eurodrive.se

Switzerland
Phone +41 61 41717-17
Fax +41 61 41717-00
info@imhof-sew.ch

Thailand
Phone +66 38 454281
Fax +66 38 454288
sewthailand@sew-eurodrive.co.th

Turkey
Phone +90 216 4419163
Fax +90 216 3055867
sew@sew-eurodrive.com.tr

USA
Phone +1 864 439-7537
Fax +1 864 439-0566
cslyman@seweurodrive.com

Venezuela
Phone +58 241 832-9804
Fax +58 241 838-6275
sewventas@cantv.net

**SEW
EURODRIVE**

SEW-EURODRIVE GmbH & Co KG
P.O.Box 30 23 · D-76642 Bruchsal/Germany
Phone +49 7251 75-0 · Fax +49 7251 75-1970
sew@sew-eurodrive.com

→ www.sew-eurodrive.com