

PACO

WORLD



Our International
Wire&Mesh Magazine
for Existing and
Prospective Customers

Nr. 2 06/2001

Wire&Mesh: There's no bounds!

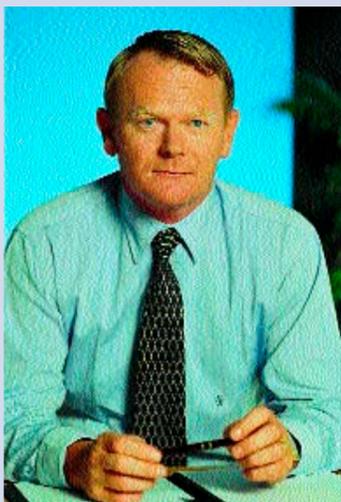
Dear Reader!

Weaving is one of the oldest trades in the world. And metal wire has accompanied the development of civilisation from primeval times. In other words, metal wire weaving is antiquated; it has nothing to do with digitalisation or E-commerce and, consequently, can easily be pigeonholed into the "old economy"! Far from it: today – in the first year of the third millennium – the demand for high quality wire mesh is higher than ever before. Interestingly, this is to a large part fuelled by the needs of a number of high-tech applications such as electronics, internet and mobile communication: from printed circuit boards through to membrane keyboards and from antenna arrays through to medical technology. We are so to speak wiring up the classical "old economy" with the high technology "new economy". And that at an advantage to both.

The most fascinating aspect about our material of wire&mesh is that its potential in both fields – old and new economy – is far from exhausted. Every day we are confronted with new requests, ideas and demands. And as we always develop the needed solutions in close co-operation with our customers, we constantly keep ourselves up to date with what wire&mesh can do. The more suggestions that we get, then more ideas that we develop and immediately put into practice, just as they are needed.

I would, therefore, like to encourage you to simply give us a call when you are looking for ways of overcoming a new challenge. Our potential and imaginative-ness when it comes to wire&mesh knows no bounds.

Best regards
Peter Ruppel
Managing Director



Export has been
the driving force
behind PACO's growth
from the start.



Worldwide Network:

PACO Exports 80% of Production!

Global demand for "Made in Steinau a.d. Straße" by PACO

When the subject of "globalisation" comes up PACO doesn't find it hard to put in a word or two. After all, exports account for a total of 80% of production, of which 58% of PACO products are directly exported and a further 21% are built into products that, in turn, are exported by our inland customers. On this basis, our claim to the title of "global player" is more than justified and needs no further comment.

Into the big wide world at an early age

Normally a company develops by first establishing itself in its home market – in its own backyard so to speak. With PACO, however, things developed completely differently: they first focussed their attention on the dynamically growing export markets. This meant that the direct export proportion during the initial growth phase of the company – around about at the end of the fifties – amounted to 90%! And this at a time that nobody was

even dreaming about a 15 state EU with a yen for Eastern growth, let alone about globalisation.

Conquest of the home market – the next logical step

From the mid sixties onward, attention was turned to the German market – largely due to the development of the filter technology division. Starting at the beginning of the seventies, PACO increased their inland presence, particularly thanks to the systematic development of an efficient sales network.

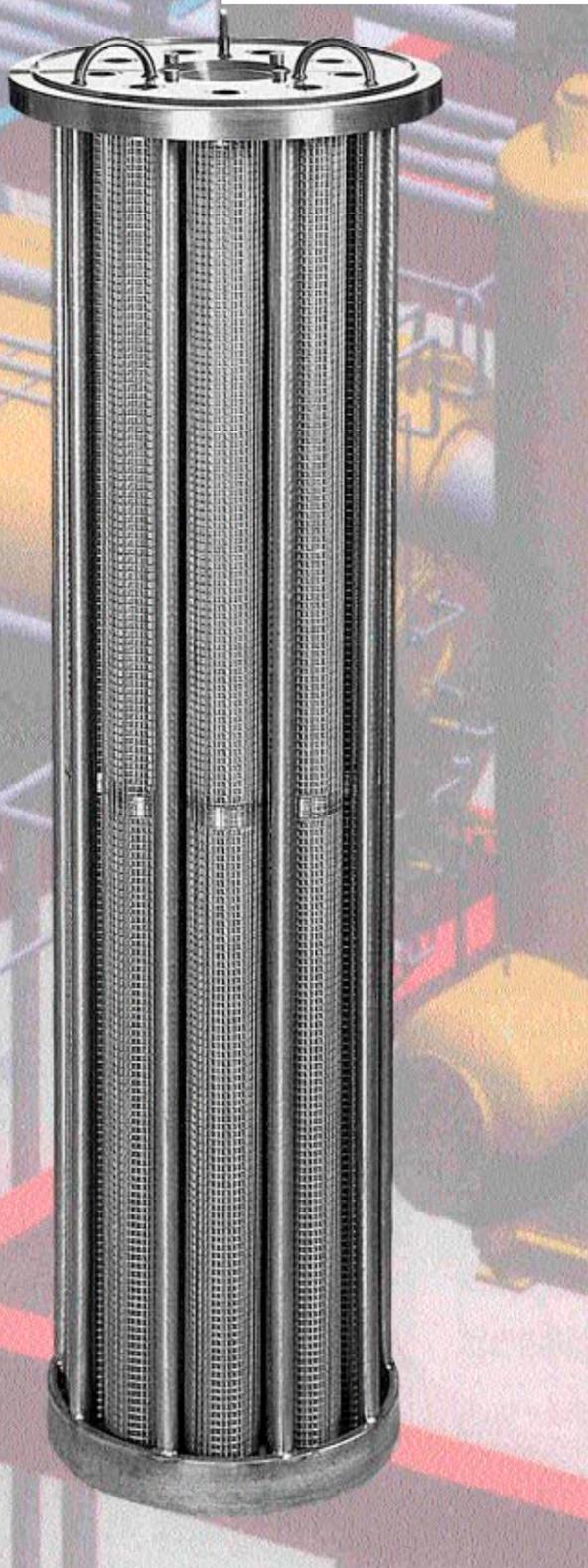
Universally present today

In 1970 PACO already serviced extensive sales networks in Italy, France, Switzerland, Holland, Great Britain, Sweden, the USA, Canada and Korea as well as in various countries in North Africa. Further foreign contacts, sales partners and agencies were added later so that PACO is now represented and present in over 60 countries around the world.





Current Export Drive: With Zimmer AG into Pakistan and Iran



PACO filter elements are proven components in textile fibre systems that Zimmer export to all parts of the World.

Zimmer AG is one of the world's leading engineering companies dedicated to the textile fibre industry. Almost all Zimmer designed plants built during the last twenty years have been equipped with PACO filter cartridges and spin pack filters.

Polyester system for the province of Punjab

On its way into Pakistan's five river country – the province of Punjab – is a polyester system for the production of staple fibres. The system has been ordered by Ibrahim Fibres Ltd., based in the district of Faisalabad. The project consists of a continuous polycondensation plant with a capacity of 140,000 tonnes of polymer per year, three staple fibre lines and all of the necessary ancillary facilities. The liquid polymer, produced from the raw materials terephthalic acid and ethylene glycol, is spun by applying the direct spinning process and processed into staple fibre. PACO is the subcontractor responsible for providing the necessary prepolymer filter cartridges for Zimmer's continuous polycondensation process as well as spin pack filters for the spinning stage. Also to be supplied by PACO are the filter rings demanded by the Zimmer BN 100 high performance ring spinning system.

Together with a Zimmer plant already commissioned during 1997, this new plant will increase Ibrahim Fibres' total capacity to more than 200,000 tonnes per year; meaning that they will become the largest producer in the country.

400,000 tonner for Bandar Imam

For Iran, PACO has also just shipped prepolymer filters for Zimmer's Bandar Imam project. This plant has a capacity of 352,500 tonnes of polyester chips per year for textile fibre production as well as a further capacity of 60,000 tonnes of chips per year for PET bottle manufacturing, making it the largest plant of its kind outside China.

Tire cord plant for Iran

At the beginning of 2001, a large shipment of PACO spin pack filters was sent to Zimmer for a polyamide 6.6 tire cord plant. This plant is to be located in Zanjan, approximately 300 km Northwest of Teheran. Zimmer AG is the single source supplier of a plant for the complete tyre cord production process; providing the technology for all processes from the raw material right through to the finished fabric.

The efficiency of the plant, that is equivalent to a complete factory, will be determined by the precise operation and high quality of PACO filter elements and filters.

Further information
Under www.Paco-online.com

Allrounders

PACO products are part and parcel of everyday life

Whoever uses a PACO product knows exactly why. Nevertheless, very few users are fully aware of the wide variety of things being done elsewhere with PACO products. This is a shame, because looking over the fence into other application fields can be extremely interesting – and is often the inspiration for the best ideas. To help you know where to look, here is a list of the main applications that we are aware of. We know, however, that such a list will never be comprehensive. Therefore, please get in touch with the PACO WORLD editorial staff if you know of any other applications.

The main applications of PACO products:

Motor and aerospace industries

- Sealing materials
- Die-cast metal components
- Fuel filters
- Kerosene filters
- Carburettor filters
- Hydraulic filters
- Air filters
- Car seat backrests
- Silencers
- Coolers
- Injection systems

Appliance and machine manufacturing

- Cleaning equipment
- Capacitors Condensers
- Spraying equipment
- Compensators
- Sand blasting equipment
- Hydraulic units
- Smoothing machine
- Pneumatic units
- Refrigeration units
- Pumps
- Valves
- Filter presses
- Photocopiers
- Compressors
- Extruders
- Straining machines
- Agitating machines

Medicine and Dentistry

- Rectifier for inhalers and inhaled air measuring devices

Electronic industry

- Printed circuit boards
- Loudspeakers
- Microphones
- Electrical motors
- Radio and TV devices
- Telephones, cell phones
- Light bulbs
- Fire detectors
- Batteries
- Radiant heaters
- Antenna arrays

Heating, air conditioning and sanitary engineering

- Oil heaters
- Bathroom / kitchen fittings
- Water treatment equipment
- Radiators
- Ventilation and extraction systems
- Air conditioning systems
- Flow heaters

Chemical and pharmaceutical industry

- Washing agents
- Granulates
- Tablets
- Foils
- Synthetic fibres
- Rubber and tyres
- Paints and lacquers
- Fertilisers
- Active carbon
- Graphite dust
- Cellulose
- Tanning agents
- Borax
- Gelatine
- Phenolic resins
- Black powder
- Sulphur
- Adhesives
- Soaps
- Powders
- Salts
- Mineral oil processing

Food and drink industry

- Modifiers
- Edible oils
- Chocolates
- Sugar (powder)
- Cocoa
- Margarine
- Honey
- Fruit juices

- Malt
- Milk powder
- Cheese
- Cereal flour
- Baking agents
- Infant foods
- Spices
- Salt
- Pastas
- Sugar solutions
- Syrup

Silk screen printing

- Printed circuit boards
- Hollow glassware
- Ceramics
- Tiles
- Gold printing

Agriculture and forestry

- Seed processing
- Silos
- Grain drying equipment
- Fodder preparation and storage
- Insecticide spray pumps
- Harvesters
- Hop picking equipment
- Greenhouses
- Apiaries
- Bulk feed scales
- Small animal breeding
- Vineyards
- Young forest plantations

Household appliances

- Coffee and tea filters
- Strainers
- Convection ovens
- Grease filters
- Deep fryer baskets
- Hair dryers
- Alarm clocks
- Lights

Building industry

- Prefabricated houses
- Sand processing
- Mortar production
- (Cellar) windows
- Doors
- Ventilation and extraction ducts
- Fastening elements
- Deep well drilling
- Well sinking

Sifting Industries

- Stones
- Soil
- (Silica) sand
- Small coals
- Ceramic
- Asbestos
- Cement
- Mica
- Graphite
- Potash
- Chalk
- Iron chips
- Glass balls
- Rubber
- Metal powder

Abrasive product processing

- Corundum
- Silicon carbide
- Diamonds

Environmental protection

- Sewage treatment plants
- Refuse incineration plants
- Exhaust filters
- Dust filters

Further applications

- Hardboard
- Nozzles
- Gas masks
- Bullet-proof vests
- Tents
- Trailers
- Textile weaving
- Aluminium smelting

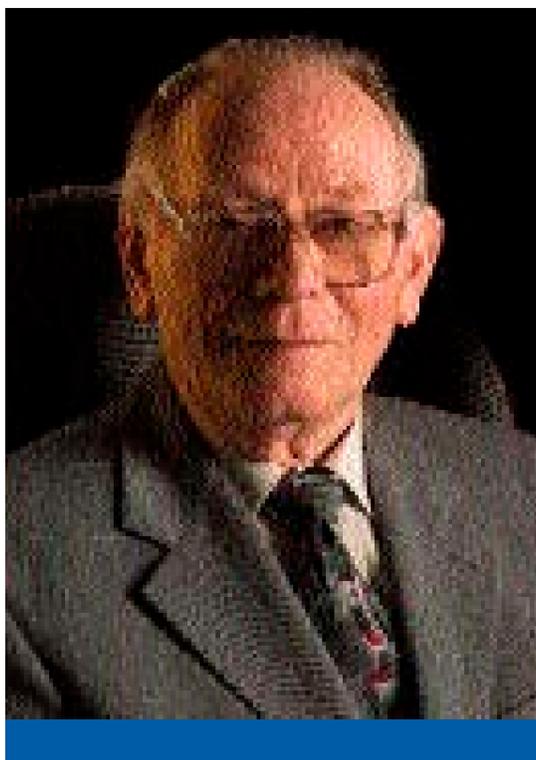
Work Keeps You Young!

PACO's President celebrates his 60th working anniversary!

Wilhelm Ruppel, the co-founder and President of PACO won't hear of retirement even at 75. The man known in the business as the "wire mesh pope" founded his business back in 1953 – together with his partners Seyfert, Arnold and Paul, under whose name PACO have been trading down to this day.

Lets go back to 1st April 1941.

The fifteen year old Wilhelm Ruppel started his working life as a clerical apprentice at Ratazzi & May – in their day the number one among the manufacturers of fine metal wire cloths. The apprentice became a clerk. The clerk climbed his way up the career ladder within the company. But a career within a company was not enough for him. Consequently, after about ten years of gaining working experience in the service of his former employer, he said to himself "What they can do, I can do as well!" and found others that thought the same way, among them some who were prepared to invest their own money in a new business. The plan to go into business with his own factory for metal mesh was quickly drawn up: the economic miracle in post-war Germany was at that time in full swing and busily producing entrepreneurs.



Wilhelm Ruppel proudly looks back on his long working life and even after 60 years is still regularly to be found sitting behind his desk at PACO. He enjoys his work – and it obviously keeps him young.

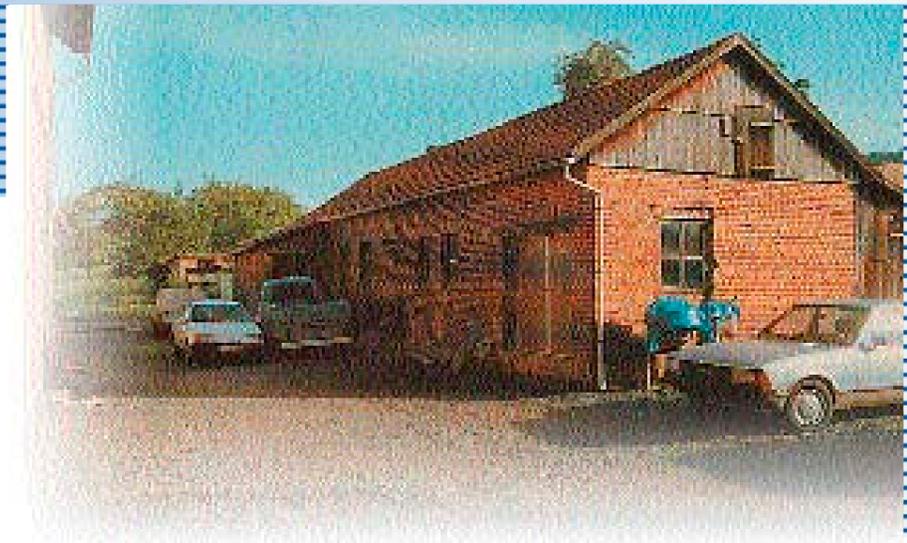
"Start-up" 1953

This is how the clerk Wilhelm Ruppel became a company founder: today we would talk of him launching his start-up. His partner Hans Paul was responsible for the technical side of the business. The further partners Seyfert and Arnold silently provided capital to the young company: to the metal wire weaver PAUL GmbH & Co – known as PACO.

Production was started in 1953 in a converted pigpen. For this, three metal weaving looms were installed – carefully pieced together from the component parts of weaving looms. The business got off to such a good start that only three years later the company could afford to move to the industrial park in Steinau a.d. Straße, the site that has been the headquarters of the internationally active medium-sized business right down to this day.

A HARD START:

The first PACO production facilities in 1953 – a building that was formerly used as a "pigpen". The workforce – including the working partners – totalled three persons. The hourly pay was DM 1.05 (less than 50 US cents). Work was carried out in two shifts and the working week totalled approx. 55 hours. Today the PACO group employs a total workforce of 380 persons – of course, at far better conditions!



Successful with a strategy of quality and exports

PACO's start-up didn't go off as smoothly the current success would make us believe. The "top dog" in the market – Ratazzi & May – didn't want to sit back and let a competitor grow out of their ranks. With dumping prices, they did their level best to stop their up and coming competitor Ruppel and his partner Paul from getting a foot in their customers' doors.

In this situation, the well-versed clerk proved himself as a businessman with an intuition for strategic trading: as his former employer had put a spoke in the wheels of his inland market chances, Wilhelm Ruppel concentrated his efforts for PACO's success in the neighbouring

foreign markets. And as far as the technical side of the coin was concerned, his partner Paul wisely chose to employ a strategy of uncompromising quality from the outset, a policy that has remained as one of the pillars of PACO's success.

Congratulations!

To cut a long story short: on April 1st 2001 Wilhelm Ruppel celebrated his 60th working anniversary. And on July 21st 2001 its the turn of his 75th birthday. For both celebrations he can be sure of getting the best wishes of his staff, his customers and the branch as a whole. He has provided a great service to the market, the quality and the acceptance of metal wire cloths and filters around the world.

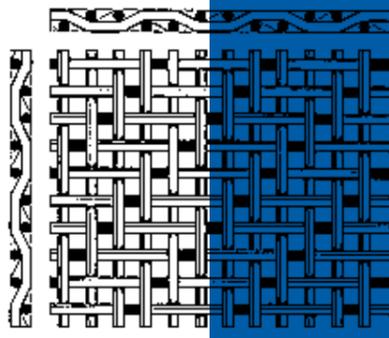
PACO's Short Guide to Weaving

2. Twill Weave

There are innumerable ways of interweaving crosswise and lengthwise running threads – even when the threads are made of metal. In the first part of PACO's Short Guide to Weaving we looked at the simplest method of weaving that can be used to create a woven fabric – the plain weave. This time, with the twill weave, things start to get a bit more complicated – particularly as there are a large number of versions of this weave.

The twill weave is one of the three basic kinds of weave. It is characterised by the fact that the filling thread does not pass over and then under successive warp threads, but rather that the filling threads are alternately woven over one warp thread and then under two or more warp threads, thereby producing a diagonal pattern. This – in conjunction with PACO's precision weaving technology – ensures good weave stability even if there is an unfavourable relationship between the wire diameter and mesh size. The advantage: e.g. stronger inking with silk screen printing and safer control of even extreme tensile forces.

Twilled weave:
The lengthwise thread crosses two, three or more crosswise threads. This allows a higher weave stability to be attained.





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PACO Mosaik



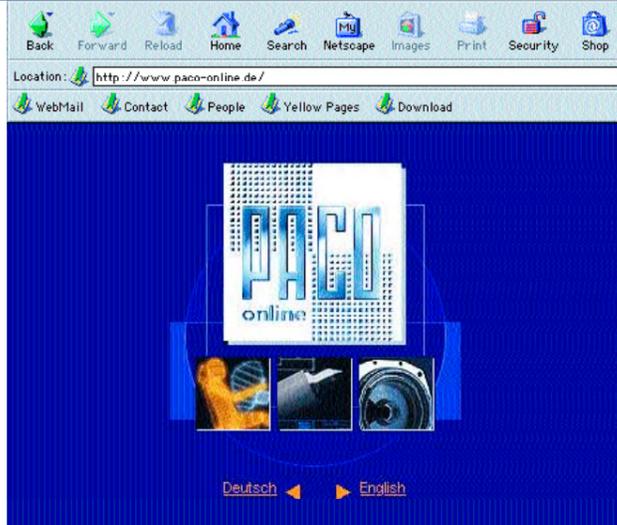
The harmony between glass and metal wire mesh is a joy to the eyes!



Design Cultivates Enjoyment!

Once again the unique optical qualities and aesthetic appeal of PACO metal wire meshes have fired the imagination of internationally renowned designers. Featured this time around is a combination of glass and wire fabric that serves as an innovative "shell" for coffee or tea. Or would you dare to call this perfectly shaped creation a "pot"?

The design originates from Tassilo von Grolman.



Visit our web site!
www.paco-online.de

PACO at the Ceramikteck 2001: Successful Presentation in Istanbul

The "crème-de-la-crème" of the Turkish ceramic and porcelain industry came together between the 18th and 22nd of April 2001 at the Ceramikteck 2001 in Istanbul. This is the third time that PACO has taken part in this show, at the booth of their Turkish sales partner Senko, who apart from PACO also represent other such reputable manufacturers as Heraeus, Nabaltherm, Novokeram, Riethammer and Sefar. During the four days of the show, representatives from all Turkish ceramic and porcelain manufacturers visited the joint booth. PACO was once again able to provide convincing evidence that they set down the standards for the quality of meshes for silk-screening and other technical applications. Despite the present economic difficulties in Turkey, the overall climate among the visitors was positive. It seems that the demand for enamelled and gold printed Turkish coffee cups and glasses will never die down.

At the SENKO booth in Istanbul PACO successfully presented their range of products for the ceramic and porcelain industry.



Steinau Castle: Where Sleeping Beauty was Kissed Awake!

Anybody that admires Grimm's fairytales will have definitely found a place for themselves in Steinau an der Straße. It was here that Jacob and Wilhelm Grimm, the famous fairytale collectors, poets and Germanists, spent a large part of their childhood. And their fairytales live on in an old castle.



When you visit Steinau Castle, which was built around 1520, you can easily imagine how the Brothers Grimm, even as young children, became impressed by fairytale stories: Rapunzel could have been a prisoner in the tower, the Frog King could have lived in the castle well and Sleeping Beauty could have pricked herself on one of the rosebushes. If this is not enough, Steinau Castle also houses a memorial for the Brothers Grimm and is home to the puppets and sets of the Steinau Puppet Theatre. This attracts thousands of visitors every year, who are particularly drawn by its repertoire of plays based on well-known Grimms' fairy tales – from Mother Holle to Sleeping Beauty. The Steinau Puppet Theatre, now into its second generation and currently run by the husband and wife puppeteers Lieselotte and Karl Erich Magersuppe, has achieved international acclaim; their puppets being appreciated as works of art in their own right.

Anybody that likes to get out of the rat race and savour some magic moments is sure to find that Steinau an der Straße is well worth a visit.

Steinau Castle opening times

Steinau Castle
10 – 13 Uhr, 14 – 17 Uhr
Tue – Sun from March 1 – October 31

Steinau Puppet Theatre shows
Saturdays and Sundays 3 p.m.
and by arrangement

Bits and Pieces

Der Termin (The Deadline)

Ein Mensch, der sich,
weil's weit noch hin
Festlegen ließ
auf den Termin
Sieht jetzt, indes
die Wochen schmelzen
Die schwere Last
sich näher wälzen.
Er sucht nach Gründen,
abzusagen,
Er träumt, noch in den
letzten Tagen,
Wie einst als Schulbub,
zu entweichen:
Ein schwerer Unfall
käm' dazwischen ...
Umsonst –
es bleibt ein leerer Wahn:
Der schicksalsvolle Tag
bricht an! –
Und geht dann doch
vorüber, gnädig.
Der Mensch ist froh,
der Sorgen ledig.
Er schwört,
der hab' daraus gelernt –
Doch wie sich Tag um Tag
entfernt,
Hat Angst und Qualen
er vergessen –
Und lässt sich
unversehens pressen
Zu noch viel scheußlichem Termin –
Denn es ist weit und weit noch hin.

A man who, because it's a long way off,
pinned himself down to a deadline
Now sees, as the weeks fly by, the heavy
burden bearing down on him.
He looks for reasons to postpone,
He dreams, in those last few days,
of slipping away like he did as a boy:
A nasty mishap might interfere ... To no
avail – it is just an empty delusion:
That fateful day dawns! And then simply
just passes, graciously.
The man is joyful, rid of his troubles.
He swears, the lesson's been learnt –
But as the days go past, the fear and
agony he has forgotten –
And suddenly lets himself be pressed ...
to a far more awful deadline –
Because it's still a long, long way off.

Eugen Roth

Eugen Roth (1895 – 1976) attained popularity through his poems that observed human weaknesses with a laughing and a crying eye.

His "trademark" of starting his poems with the words "Ein Mensch" ("A man" in the sense of a human being) had already earned him fame as far back as 1935. The poem "Der Termin" ("The deadline") appeared in 1964. Any similarity with living persons or companies committed to Just-in-Time deliveries is unintentional and purely coincidental.

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