Vyskocil

V-30/45-01-A

PrefacePreface

What does it take to give up a secure existence just to chance a leap in the dark - I think it takes quite a bit of passion to excuse such a behaviour pattern.

This is exactly what this little brochure wants to report on. About my feelings of ‚not being able to act different', about my passion for mechanics and about all that which arises from there.

I was strongly encuraged not to reveal too much (especially about the technical solutions).

But it is as with my own way... and I think it is right the way it is!

About me

About me

Life washed me on land on September 26th, 1964, and confronted me with a most important question 16 years later: ‚What are you going to do?'. My answer was: ‚watchmaker'.

Fate smiled and answered: ‚Ok, you're going to be toolmaker!'. Back then I could not understand this initial irritation, but meanwhile I'm very happy with this stroke of fate.

Because of this decision I now know the promise of university studies, worked independently and on my own responsibility as a draughtsman, developed machines and - along the way - could indulge to my passion: watchmaking!

5 years ago fate again knocked at my door to remind me on my former career aspiration. Fate thought that it is now time for realising a dream...

At an unknown place

At an unknown place

Draw circles of 500km radius around each of the capitols of the English, the German and the Swiss watchmaking traditions - there, where the circles nearly meet, there is the left lower Rhine, and there is also a place called ‚Nettetal'.

Apart from this - admittedly a little bit far-fetched - connection to watchmaking I do not know of a historical one. As far as I know there was no watchmaking tradition at the left lower Rhine.

But this is not important at all. Important is what I bear inside from the spirit of the old masters (whereever they lived), and what of this spirit is sensible in my current creations.

New ideas always originate from a mixture of tradition and individual deliberation. Both are important, and both have to be well balanced. Tradition alone produces plagiarisms, and the creations of people struck in the present often miss the soul.

It is this tightrope walk between the two worlds which make my creations unique. I could not do this at a place oozing with tradition - that is like with my own development. It gives me a distance necessary to step outside the tradition without completely leaving it. Something rarely found today.

The "V-30/45-01-A"

**(V: Vyskocil, 30: diameter of movement in mm,
45: height of movement in 1/10mm, 01: version, A: stage of extension)**

The character, or the essence of a watch, is significantly determined by the interaction of technique and design. An interaction which should - like a composition - follow a certain harmony in order to please the beholder.

The guiding idea when creating the V-30/45-01-A was to cope with a highly demanding feeling for harmony, a feeling that necessitated a complete redesign of a watch in her full spectrum, which for sure is unique in this depth.

The face of the V-30/45-01-A is stamped by the decentral seconds hand at 9 o'clock, by the power reserve indication at 5 o'clock and by the central hours and minutes hands.

The crown, which is not placed in line with or perpendicular to the seconds indication, leads to the conclusion that the movement configuration does not follow classical rules. More about this later.

The positioning of the crown at 4 o'clock has, beneath an aesthetic motivation, also the pratical virtue that the crown cannot press itself into the back of the wearer's hand.


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Above the 20, 10 and 0 indices of the power reserve display the letters ‚H', ‚M' and ‚S' are printed, indicating an additional function of this display. They visualize the three different functions engaged and controlled by the different positions of the crown: ‚H' - hour: separate adjustment of the hours hand (for example for changing the timezone); ‚M' - minute: lock-in-place minute hand; ‚S' - seconds: hacking seconds. If the crown is pushed in completely this display shows the power reserve. An affection of the minute by accident while changing the timezone should be avoided with this indication.

The case of the V-30/45-01-A has a diameter of 38mm at a height of 10.5mm. It is covered with sapphire crystals on both sides. The whole case is characterised by roundings. Last but not least to avoid dirt traps.

Construction of the movement

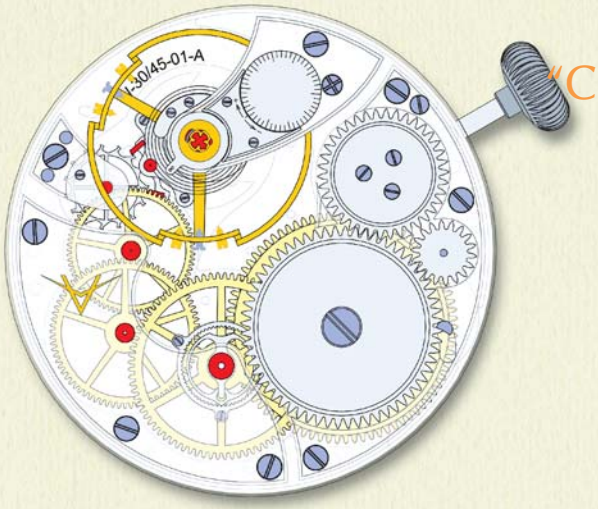
Big balance, voluminous mainspring barrel, and a decentral minute wheel

Erstwhile, watchmakers tend to use heavy and big balances. That big and heavy that the mainspring energy available was just about sufficient to ensure a satisfactory amplitude.That means that the mainspring barrel (energy storage) has to be in due proportion to the balance, and, additionally, both have to fit into a movement of a given diameter.

A preferably big and heavy balance (= maximal radius of gyration) was chosen because this ensemble is more resistant to external parasitic drag than a smaller and lighter balance which oszillates at the same frequency.

In the 1950 years of the past century the watchmakers broke new and better ground with the development of high-beat escapements. They provided the same stabilising effect on the rate as the previously described greater radius of gyration. Since fast-beating balances are much lighter than their slow-beating, heavy cousins the oszillating system is much less susceptible to positional errors. Pivots of smaller diameter can be used, which in turn results in better performance in horizontal or vertical positions.

The not unimportant question is: Is the technically superior solution always the most beautiful? For the VA I chose the classic way: that means a big balance and a voluminous mainspring barrel. At the risk of being not absolutely up to date.



“Construction of the movement”

V-35/40-01-A

If you take a look at the movement you will notice the remarkable arrangement of the movement's wheels (as known from Zenith's Cal. 135 and certain shaped movements). This is a consequence of my attempt to implement a balance and a mainspring barrel of maximal diameter. Moreover, with this layout "big" wheels can be used, which supports my own mechanical skills.

Just few words about the balance itself: It is a hommage to the great masters Abraham Louis Breguet and George Daniels. I bow deeply in the view of their sense for function and aesthetics.

The precision adjustment

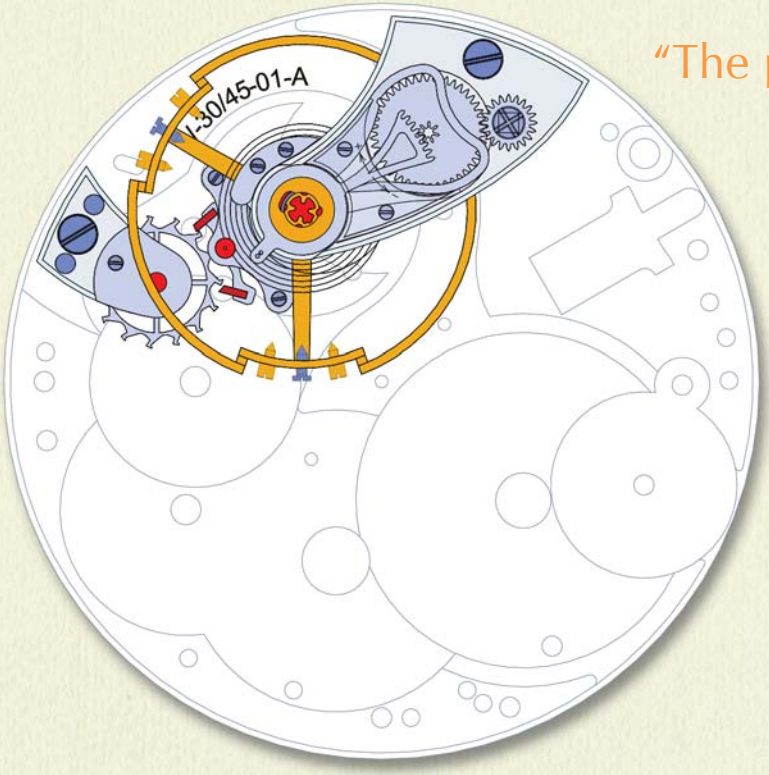
The precision adjustment

A leftover from long gone times

Before timing machines were developed the timing of a watch needed several days or even weeks. The measure was a reference clock. The second was the unit that had to be kept within limits. To achieve a reasonable conclusion about the rate, the reference clock and the movement to be timed had to be compared each 12 or 24 hours. If a correction was needed it was either done by adjusting the regulator or by adjusting the regulation screws on the balance.

The latter ones have the advantage that they can be adjusted in defined and exact doses. The turning of te screws is easily controlled, which results in a precisely defineable change of rate (as if one regulates a pendulum clock by operating the pendulum screw). The only danger is that the poise of the balance is disturbed easily.

The regulation of a movement by using the regulator is trouble-free in this respect. But there is another problem: the precision of the regulator is not the best: You move it for 1/100 of a mm, and the rate of the watch is changed for several seconds/day. 1/100 of a mm is not adjustable by hand, at least not without long training. Here the precision adjustment enters the scene. Only such a device makes the adjustment of a regulator for 1/100mm - feasible, but it means much more technical complexity.



"The precision adjustment"

V-35/40-01-A

This was the past, but nowadays we have timing machines, which allow to ascertain the actual rate of a watch within seconds. Even the ‚too slow' or ‚too fast' of a movement is easily detected and and corrected via the regulator (what an achievement compared to the 24h time frame of the formerly described old method!). A precision adjustment seems to have become obsolet...

Even worse: the regulator's curb pins are not ideal to maintain a precise rate of the watch in the long run. It is not without reason that today many watches are constructed without regulator. Considering this one is tempted to ask why the "VA" features a precision regulator.

The answer to this question cannot be found at a rational, time-measuring-related level. Rather at a sphere where one tries to attribute life into an artifact. A precision regulator sheds a little bit of soul into a watch. It is a tie to the past.

The power reserve

The power reserve

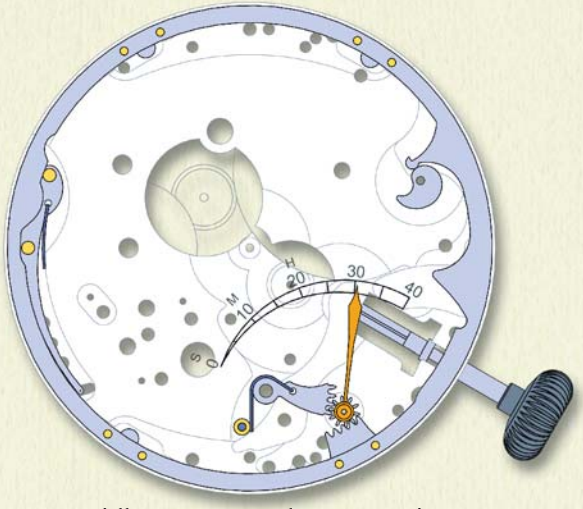
A true power reserve indication without setting

Power reserve indicators were found in most of the high-grade timepieces. One reason for this was that one should wind them preferably at the same of the day, daily. This ensured that they most likely run under the same conditions. Day after day, week after week, month after month. If one forgot to wind it one could read it on the power reserve display. It was not necessary to wind it just to be on the safe side. This namely would have a negative impact on the rate of the watch.

All of this ‚oldtimers' had one feature in common: There was a defined ‚fully wound status', but also a defined ‚run out state'. Be it the fusee in the Chronometers or the setting in mainspring watches.

But today's watches don't feature this - for good reason: a setting only bears risks; and even stops the watch if it does not work properly.

The absence of a defined zero-point in modern watches makes it difficult to construct a power reserve indication. A friction coupling is an often used solution which masks this drawback.



“The power reserve”

V-35/40-01-A

With the VA it is quite different. Here no friction coupling is necessary because we have a defined zero point. But not achieved by a setting, but up to date by a second's stop, which engages precisely after 40 hours. You can study the function by looking at the picture above. The cam disc at the right figure part turns for 240° once in 40 hours. During this a lever of the switching ring is gauging the position of the cam disc and transports this information via a gear segment and a pinion to the power reserve indication. After the 40 hours have past the switching ring additionally operates a lever that stops the seconds hand (left part of the figure).

This mechanism is unique. It combines the virtues of the ancients with the needs of today.

The hour

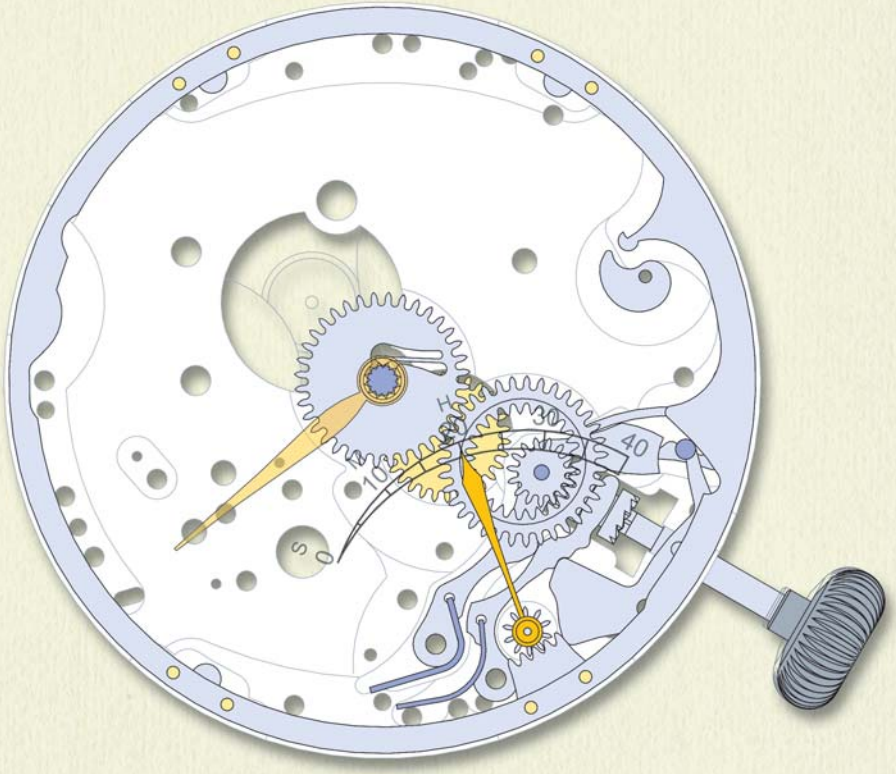
A must for a contemporary watch?

Today the change from winter time to daylight-sayings time and back is regulated by law. A network of time zones spans the globe, cut in hours units.

What suggests itself more than to be able to separately set the hours hand? Namely by using the crown and not an additional pusher.

A task that is easy to write down but not easy to realise. The available place around the winding mechanism is limited. The way to pull the crown out of the case short and the human intellect often trapped with traditions. It took me quite a while to come up with a solution, a solution that is substancial.

A solution that comprised one additional lever and one double gearwheel. Nothing more! The gearing layout really appeals to me and is in my opinion that elaborate (if not ingenious) that I christend it the "hours adjustment after Vyskocil". I am anxious if this device will evolve into a common property for quality watches.



"The hour"

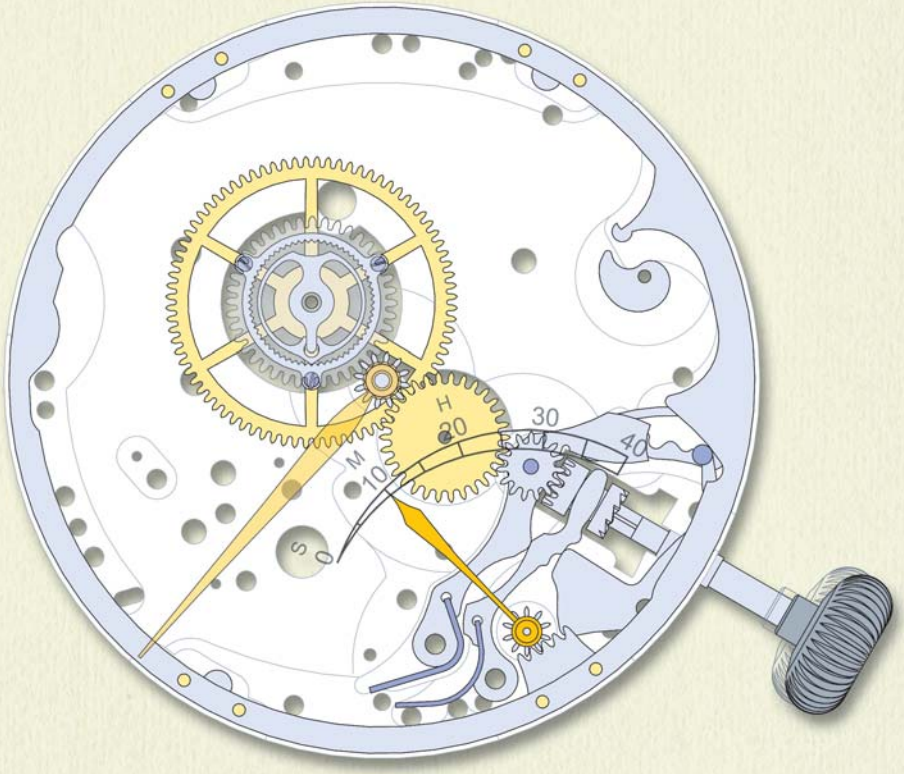
V-35/40-01-A

The minute

The resting minute hand

Everyone should know how to set the watch's hands. One pulls the crown to the position, “setting of time”, and can set the hands by turning of the very one. If you want to make it perfect you take care that the minute hands rests between the indices if the seconds hand shows 30 seconds.

Its very different with the "VA". The procession also begins with the pulling of the crown and is terminated with turning of the very one, but the minutes hand automatically rests in the correct position with respect to the seconds hand.



"The minute"

V-35/40-01-A

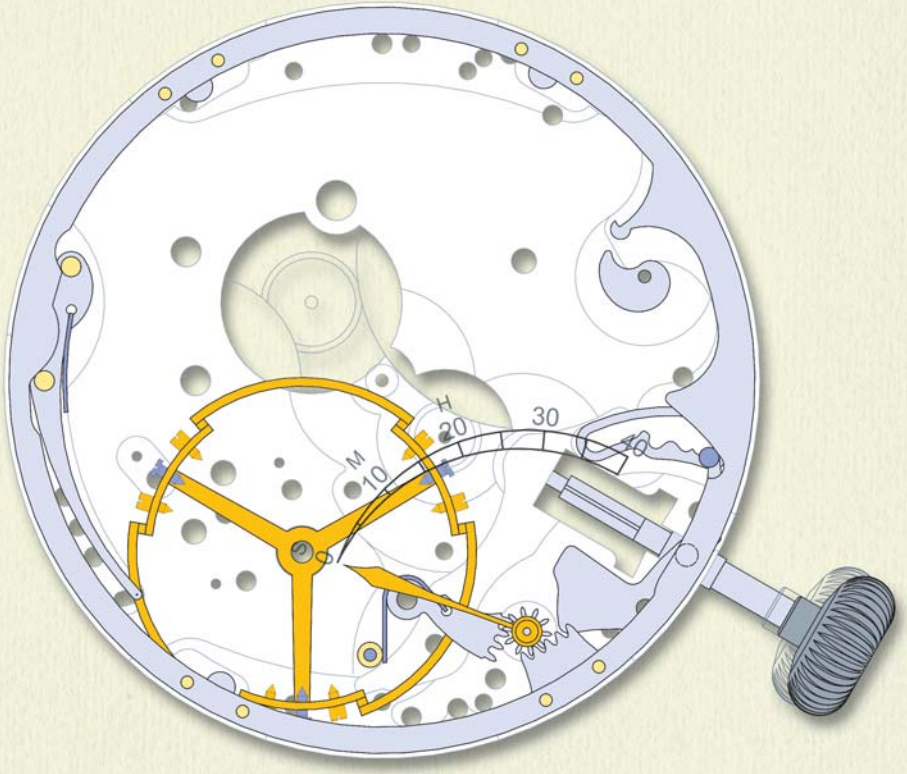
The second

Seconds stop at call

Many watches spot a seconds stop which engages if one pulls the crown to the position ‚setting of time'. A shady affair, if you ask me. Especially if the crown also takes care to set the date.

The seconds stop of the "VA" only engages if the crown is pulled ot the outermost position.

This mechanism enables that minutes and seconds can be adjusted completely independend from each other. While you can concentrate on the seconds if you want to time your watch with the official time signal, you can neglect the minutes. After the seconds are perfect you can take care of the minutes or even the hours.



"The second"

V-35/40-01-A

In table form

In table form

Case

Diameter:	38 mm
Height:	10,5 mm
Dial side:	domed sapphire crystal
Movement side:	flat sapphire crystal
Materials:	yellow, rose and white gold; platinum

Movement

Designation:	V-35/40-01-A
Power reserve:	40h, manually wound
Diameter:	30 mm
Height:	4,5 mm
Alternation:	19800 A/h = 2.75 Hz
Escapement:	Swiss pallet escapement
Diameter of mainspring barrel:	13,9 mm
Diameter of balance:	13,85 mm

Crown functions

Position 0:	Winding
Position I:	Setting of hours (locking at full hours)
Position II:	Setting of hours and minutes, minute locking to align with seconds hand
Position III:	hacking seconds

Dial

Colour:	Black

Indications

Central hours and minutes
Small seconds at 9 o'clock
Power reserve at 5 o'clock
Display of crown position

Band

Leather 20/18

Acknowledgement

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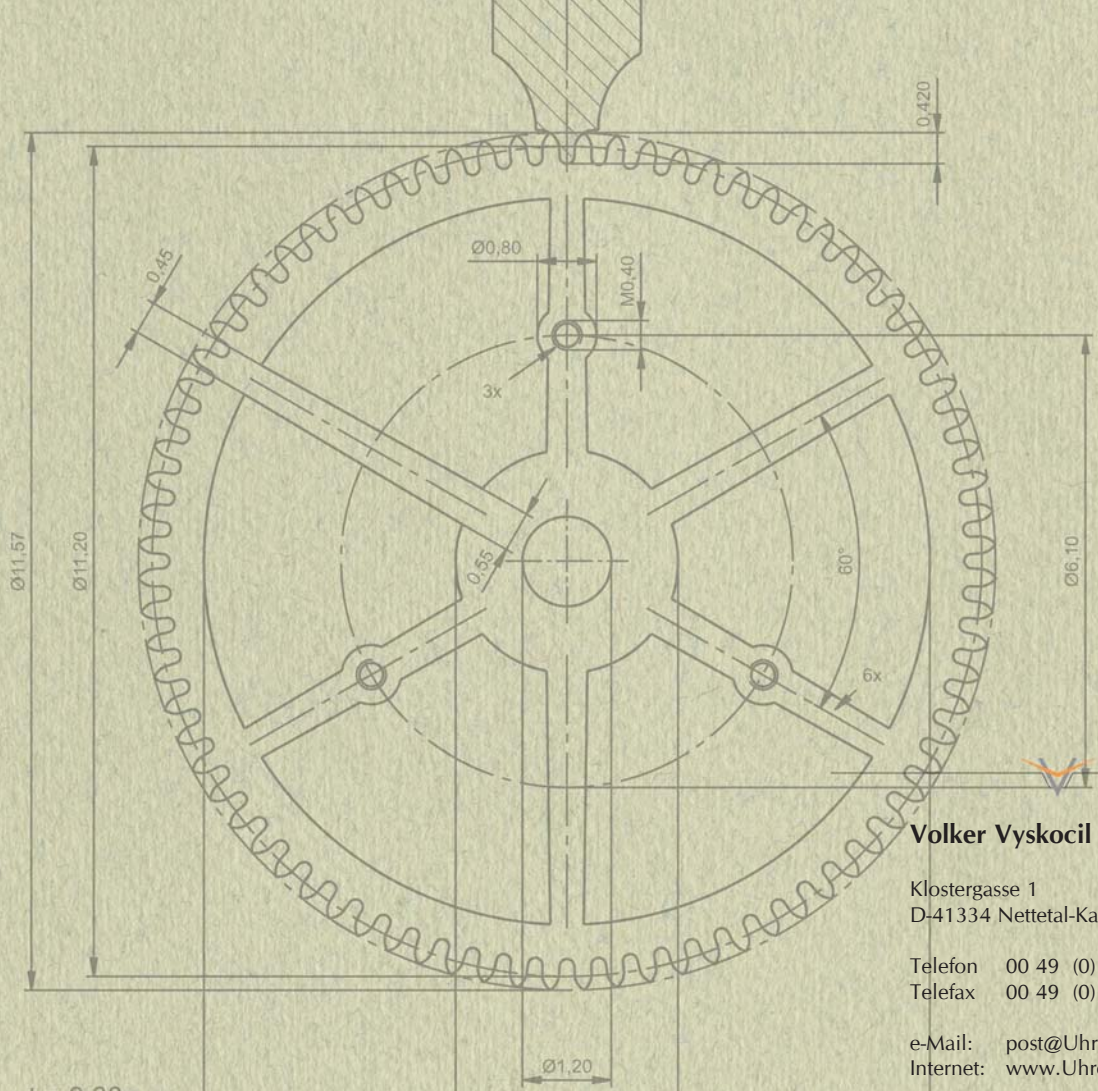

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