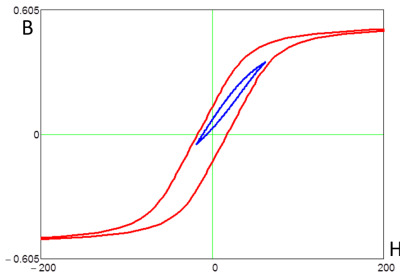
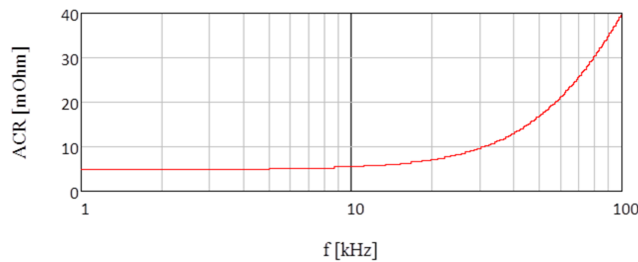


MAGMATH optimization software designs cost-optimized MAGMENT inductors by a proprietary advanced calculation based on the following algorithms:

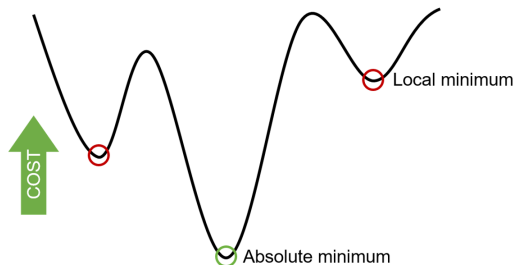
### 1. Hysteresis



### 2. HF winding resistance



### 3. Cost optimization



# MAGMENT

MAGMENT focuses on development, design and fabless manufacture of magnetizable concretes used for innovative, competitive and customer oriented electromagnetic solutions, such as inductive components and wireless power transmission.

As the inventors and sole company worldwide, MAGMENT offers both the concrete material as well as finished components and modules.



## THE MAGMENT MATERIAL

Concrete never had magnetic properties until now. By just replacing gravel and sand for coarse and fine magnetic fillers from **recycled** ferrites, MAGMENT merges the worlds of concrete and magnetism in this competitive flowable material.

Leonhardsweg 4  
D-82008 Unterhaching (Munich)  
Germany



[info@magment.de](mailto:info@magment.de)



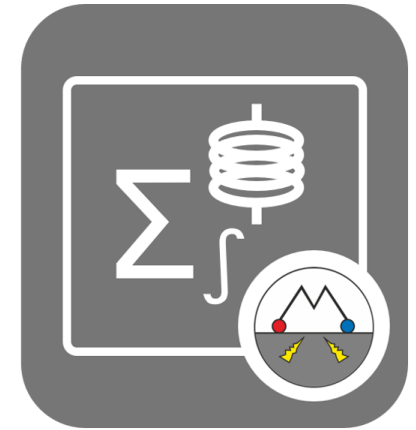
[/magment.de](https://www.facebook.com/magment.de)



[/magment\\_ug](https://www.youtube.com/magment_ug)



[/magnetic\\_cement](https://www.twitter.com/magnetic_cement)



# MAGMATH

Free online design software  
for custom magnetics

[magmath.magment.de](http://magmath.magment.de)



[www.magment.de](http://www.magment.de)

[www.powerinductors.net](http://www.powerinductors.net)



## ALGORITHMS

1.

Dynamic hysteresis modeling to accurately describe inductance and core loss under DC-bias. The major loop is taken as a differential equation's particular solution to predict any minor loop.

2.

Calculation of the overall AC resistance of multi-wire conductors considering skin and proximity effects between single strands and bundles.

3.

By using the **mystic** optimization package, developed by researchers at Caltech, MAGMATH minimizes a multivariable cost function. This approach allows to freely tailor the component according to the user's needs.



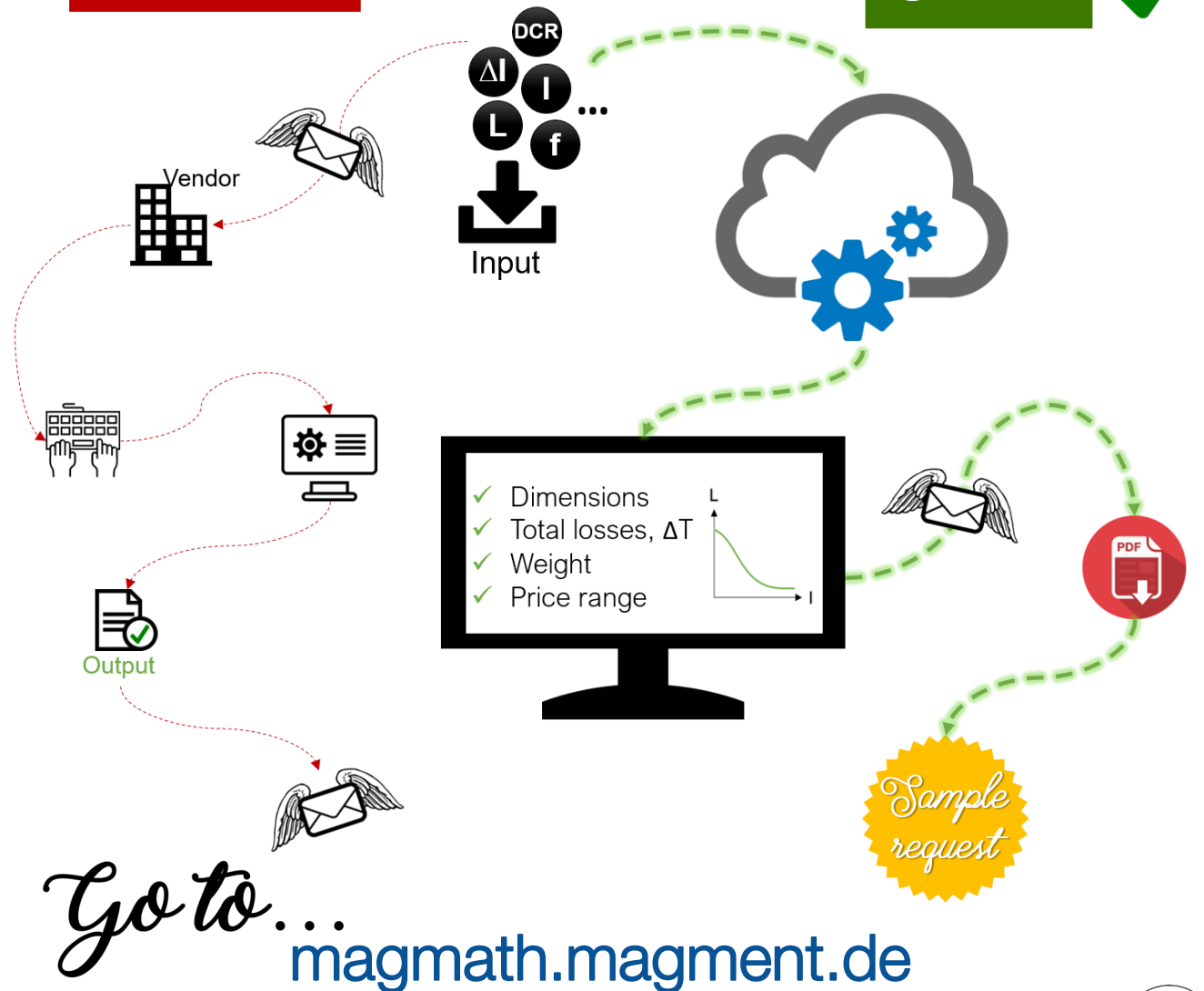
CONVENTIONAL DESIGN vs.



MAGMATH

1 + week

3min ✓



Go to... [magmath.magment.de](http://magmath.magment.de)

