



# **Rotors: Stress Analysis and Design (Mechanical Engineering Series)**

*Vincenzo Vullo, Francesco Vivio*

[Download now](#)

[Click here](#) if your download doesn't start automatically

# Rotors: Stress Analysis and Design (Mechanical Engineering Series)

*Vincenzo Vullo, Francesco Vivio*

**Rotors: Stress Analysis and Design (Mechanical Engineering Series)** Vincenzo Vullo, Francesco Vivio  
Stress and strain analysis of rotors subjected to surface and body loads, as well as to thermal loads deriving from temperature variation along the radius, constitutes a classic subject of machine design. Nevertheless attention is limited to rotor profiles for which governing equations are solvable in closed form. Furthermore very few actual engineering issues may relate to structures for which stress and strain analysis in the linear elastic field and, even more, under non-linear conditions (i.e. plastic or viscoelastic conditions) produces equations to be solved in closed form. Moreover, when a product is still in its design stage, an analytical formulation with closed-form solution is of course simpler and more versatile than numerical methods, and it allows to quickly define a general configuration, which may then be fine-tuned using such numerical methods.

In this view, all subjects are based on analytical-methodological approach, and some new solutions in closed form are presented. The analytical formulation of problems is always carried out considering actual engineering applications. Moreover, in order to make the use of analytical models even more friendly at the product design stage, a function is introduced whereby it is possible to define a fourfold infinity of disk profiles, solid or annular, concave or convex, converging or diverging. Such subjects, even derived from scientific authors' contributions, are always aimed at designing rotors at the concept stage, i.e. in what precedes detailed design.

Among the many contributions, a special mention is due for the following: linear elastic analysis of conical disks and disks with variable profile along its radius according to a power of a linear function, also subjected to thermal load and with variable density; analysis of a variable-profile disk subjected to centrifugal load beyond the material's yield point, introducing the completely general law expressed by a an n-grade polynomial; linear elastic analysis of hyperbolic disk, subjected to thermal load along its radius; linear elastic analysis of a variable-thickness disk according to a power of a linear function, subjected to angular acceleration; etc.

 [Download Rotors: Stress Analysis and Design \(Mechanical Engineer ...pdf](#)

 [Read Online Rotors: Stress Analysis and Design \(Mechanical Engine ...pdf](#)

**Download and Read Free Online Rotors: Stress Analysis and Design (Mechanical Engineering Series)**  
**Vincenzo Vullo, Francesco Vivio**

---

## **Download and Read Free Online Rotors: Stress Analysis and Design (Mechanical Engineering Series)** **Vincenzo Vullo, Francesco Vivio**

---

### **From reader reviews:**

#### **Wendy Brame:**

The book Rotors: Stress Analysis and Design (Mechanical Engineering Series) gives you the sense of being enjoy for your spare time. You can use to make your capable more increase. Book can being your best friend when you getting tension or having big problem using your subject. If you can make reading a book Rotors: Stress Analysis and Design (Mechanical Engineering Series) to become your habit, you can get much more advantages, like add your current capable, increase your knowledge about many or all subjects. You are able to know everything if you like start and read a book Rotors: Stress Analysis and Design (Mechanical Engineering Series). Kinds of book are several. It means that, science guide or encyclopedia or other folks. So , how do you think about this publication?

#### **Brian Wilson:**

What do you concerning book? It is not important to you? Or just adding material when you really need something to explain what yours problem? How about your free time? Or are you busy particular person? If you don't have spare time to do others business, it is gives you the sense of being bored faster. And you have spare time? What did you do? Every individual has many questions above. The doctor has to answer that question since just their can do in which. It said that about book. Book is familiar on every person. Yes, it is correct. Because start from on pre-school until university need this particular Rotors: Stress Analysis and Design (Mechanical Engineering Series) to read.

#### **Marie Brenneman:**

Typically the book Rotors: Stress Analysis and Design (Mechanical Engineering Series) has a lot associated with on it. So when you read this book you can get a lot of advantage. The book was authored by the very famous author. Tom makes some research just before write this book. That book very easy to read you can find the point easily after reading this article book.

#### **Brandon Francis:**

Rotors: Stress Analysis and Design (Mechanical Engineering Series) can be one of your beginner books that are good idea. All of us recommend that straight away because this publication has good vocabulary that may increase your knowledge in language, easy to understand, bit entertaining but still delivering the information. The author giving his/her effort to place every word into delight arrangement in writing Rotors: Stress Analysis and Design (Mechanical Engineering Series) however doesn't forget the main place, giving the reader the hottest and also based confirm resource information that maybe you can be certainly one of it. This great information could drawn you into completely new stage of crucial pondering.

**Download and Read Online Rotors: Stress Analysis and Design  
(Mechanical Engineering Series) Vincenzo Vullo, Francesco Vivio  
#UGQNO8D4RHB**

## **Read Rotors: Stress Analysis and Design (Mechanical Engineering Series) by Vincenzo Vullo, Francesco Vivio for online ebook**

Rotors: Stress Analysis and Design (Mechanical Engineering Series) by Vincenzo Vullo, Francesco Vivio  
Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Rotors: Stress Analysis and Design (Mechanical Engineering Series) by Vincenzo Vullo, Francesco Vivio books to read online.

## **Online Rotors: Stress Analysis and Design (Mechanical Engineering Series) by Vincenzo Vullo, Francesco Vivio ebook PDF download**

**Rotors: Stress Analysis and Design (Mechanical Engineering Series) by Vincenzo Vullo, Francesco Vivio Doc**

**Rotors: Stress Analysis and Design (Mechanical Engineering Series) by Vincenzo Vullo, Francesco Vivio Mobipocket**

**Rotors: Stress Analysis and Design (Mechanical Engineering Series) by Vincenzo Vullo, Francesco Vivio EPub**