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1-Introduction

1-Golden opportunity to gain new knowledge and skills

2-Increase your understanding of some engineering and non-engineering systems as well as expose yourself to daily work environment

3-See practical applications of some of the engineering courses you took in the college

4-See how your specialty is related to other engineering sectors .

5-Interaction between different engineering and non-engineering discipline

6-Exposed to the concern everybody has on environmental issue and sustainability. Learn the impact of a process or a production line on environment

7-Learn practical value of time

8-Unerstand different types of maintenance (periodic, planned, emergency, …)

9-Safety of human and required personal protected equipment

10-Engineering is life-long learning process. College courses are just the start

2-College Document about COOP program

You need to read this document and follow the instructions and guidelines

XXX 400-COOP TRAINING

COURSE GUIDELINES

FACULTY OF ENGINEERING
KING ABDULAZIZ UNIVERSITY
JEDDAH, KINGDOM OF SAUDI ARABIA

3-COOP Grading

Table 1: Marks Distribution XXX 400

Sr. No	Description	Marks
1	Three Progress reports	5+5+5 = 15
2	Progress filled during advisor visit to company	5
3	Final Progress report	30
4	Final presentation	25
5	Marks from industry supervisor (based on 3 evaluation report sent after each 6 weeks and final report at the end of training)	25
	Total Marks	100

4-Proposed technical report layout

Table of contents

List of figures

List of tables

List of symbols

1. Introduction

    1.1 Background

    1.2 About the Company

    1.3 Basic Production/Engineering Processes

    1.4 Main Departments (or sections)

2.Training activities

    2.1 Training schedule

    2.2 Departments and tasks

        2.1 First Department

        2.2 Second Department

        2.3 Third Department

4-Proposed technical report layout

3. Experienced gained

4-Course work in the college related to training activities

5. Difficulties encountered and solutions

6. Conclusions & Recommendations

7. List of references

Appendix A Additional Figures related to task 1 or Department A
Appendix B More measurements data
Appendix C Pages from Pump compressor manual
Appendix D Technical Specifications for …..
Appendix E Additional pictures and images

Each Appendix must start with a separate page with list of all figures and tables in that appendix. All figures, tables and pages must start with appendix symbol such as Figure A.1, Table A.1, ……. and page numbering A.1, A.2, A.3 and so on, for Appendix A for example.

4-Proposed technical report layout

- Submit two versions of your report WORD and PDF formats
- You can always add or remove chapters that suit your training activities

5-Remraks & Common mistakes

➢ Figures must be clear, and readable. Axes with units should be shown

➢ Every figure and table must have a number and a caption.

➢ Every table or figure must be referred to in the body of the text (Fully explained and discussed)

➢ Legend on figure should be clear

➢ Column heading in tables should be clear with units

➢ Use proper font size in figures and tables **(See guidelines for preparing ME499 report**)

➢ Position the curves in the middle of the figure space

➢ Discussion must be clearly given for each figure and explaining the behavior with reasoning

➢ As a rule write one paragraph for each figure

5-Remarks & Common mistakes

➢ It is a good idea to number each chapter separately. For Ch.3 for example start the page number 3.1, 3.2, 3.3, and on. This will make it easy for you to add or remove pages without affecting the page numbering on other chapters.

➢ Number the page for each appendix starting with the letter of the appendix. For Appendix A the page numbers are A-1, A-2, A-3, and the same for the figure and tables in that appendix

➢ Prepare a single sheet at the beginning of each appendix to till the reader what the appendix contains

➢ Check the spelling and grammar for the whole document

➢ The internet is full of information, data, figures and videos on all subjects. You can use the internet, but you have to 1) refer to the source and 2) not to copy as is. This applies also to any source of information you used

➢ A copy of your report will be given to the company. Therefore, prepare a good section about the company. Generally, the internet is very useful source where ample information is available about the company.

5-Remarks & Common mistakes

➢ It is a good idea to let somebody to review the final report before handling the report to your advisor and a copy to the company.

➢ Sometimes you need to draw a sketch for a process or an equipment, you should be able to use software such as SOLDWORKS, AutoCAD, SketchUp Paint.net, or at least Microsoft Word to draw figures. Hand sketching is not acceptable in engineering reports. If a figure taken from the company is not clear, redraw it.

➢ Free sketch and drawing software are available on the net without out charge. As engineer you must develop a skill to draw simple sketches using one of these software's. I encourage you to download and install Paint.net. You can learn how to use this software in matter of hours. YouTube provides simple tutorials on using such software.

➢ Include some pictures of yourself while doing a task or a job at the company (if the company allows that). This will be a good evidence that you have experience training on the job.

6-Be proactive: Learn to draw a sketch (Paint.NET as an example)

- Be proactive and every day learn something new
- Always search the net in your related topics. Let your supervisors and co-workers be amazed from the knowledge or information you have
- The skills and ability to draw a nice acceptable sketch is a must for engineers.
- One sketch or image better than dozen pages
- During your study you have learned SOLIDWORKS or AutoCAD.
- Sometimes you need to able to draw a sketch very quick Therefore, it is recommended to learn simple program such SketchUp or Paint.NET or similar program
- Exact copy from others work **(plagiarism)** is prohibited.

6-Learn to draw a sketch (Paint.NET as an example

https://www.getpaint.net/download.html

Paint.NET features

❖ Free & Simple to use
❖ Create different layers
❖ Support different image format
❖ Open & edit multiple images
❖ Create and manipulate layers
❖ Unlimited History
❖ Automatic update
❖ There are several plugins to the program to enhance its capabilities
❖ The native paint.net image type (*.PDN) preserves the layer structure of a composite image

Paint.NET features

Support for many popular file formats

Format	Extension(s)
paint.net	*.pdn
PNG	*.png
JPEG	*.jpg, *.jpeg, *.jpe, *.jfif, *.exif
JPEG XR	*.jxr, *.wdp, *.wmp
Bitmap	*.bmp, *.dib, *.rle
GIF	*.gif
TGA	*.tga
Direct Draw Surface	*.dds
TIFF	*.tif, *.tiff
HEIC	*.heic
WebP	*.webp
AV1	*.avif

7-Visit ME400 COOP site

https://orabghi.kau.edu.sa/Pages-COOP.aspx

● عمر محمدعلي شتيان الرابغي

الجامعة > عمر محمدعلي شتيان الرابغي > المواد الدراسية

ME400

ME400

.COOP Training Info
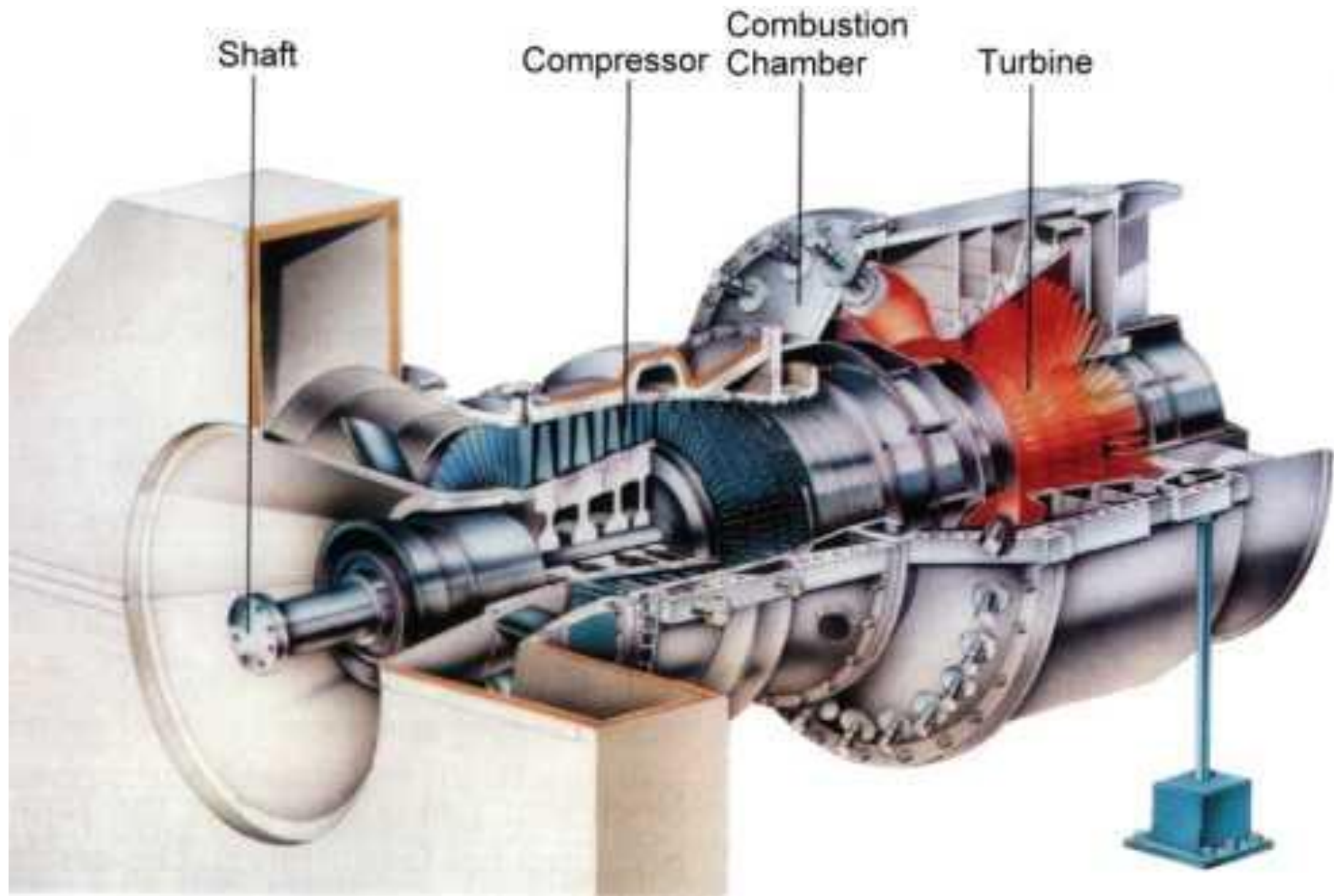
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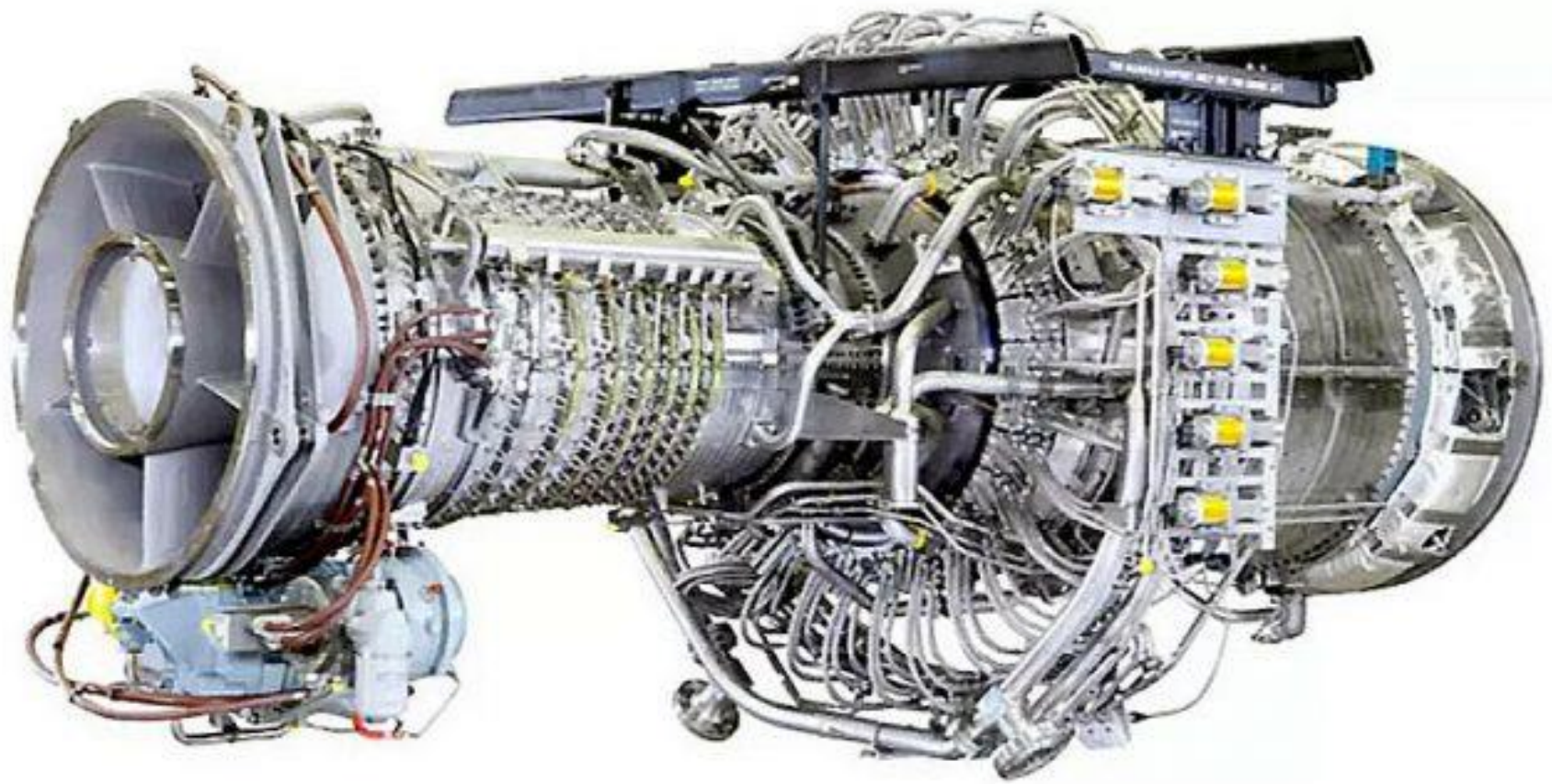
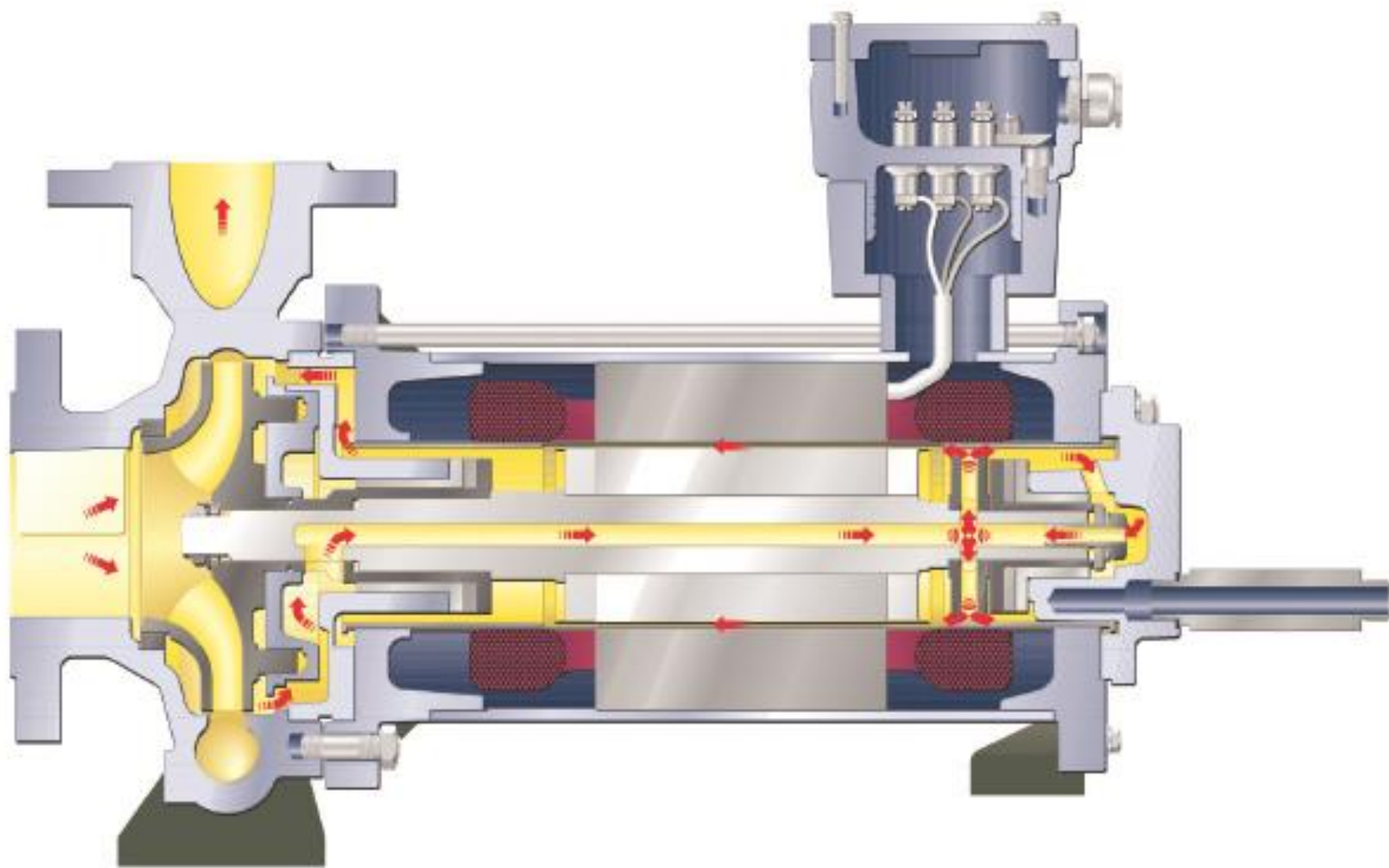Remarks on preparing technical reports-2

Technical Report Layout Proposal-3

MEX99 Preparation Guidelines-4

.Additional info-5

Examples on using Paint.NET

Shaft   Compressor   Combustion Chamber   Turbine

C-CNF-00-12
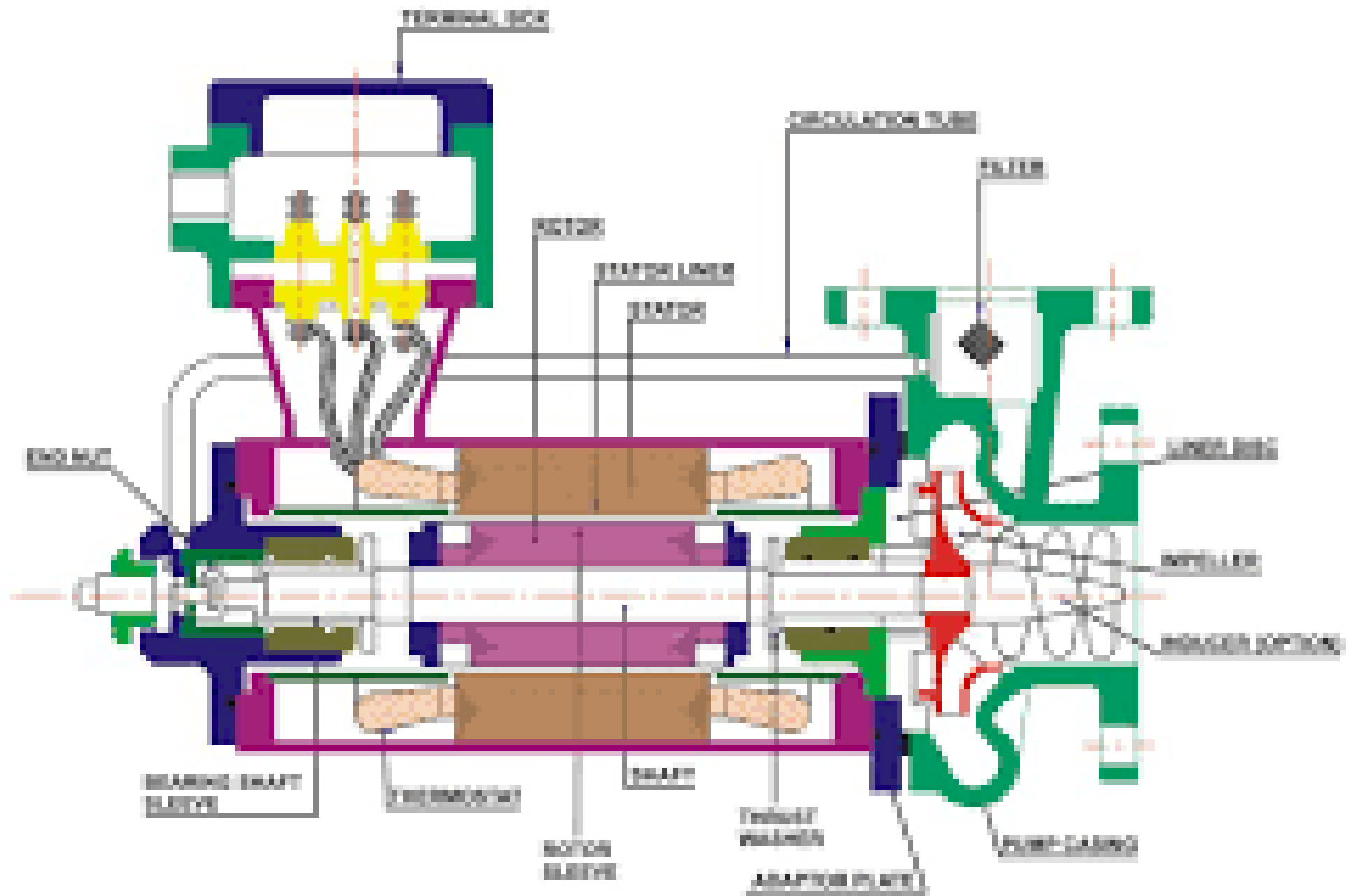
Gas Turbine Working and Types .