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MECHANICAL PRODUCT DESIGN WORKSHOP

WORKBOOK

WHAT IS MECHANICAL PRODUCT DESIGN?

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Recommended CAD Softwares

01

02

PRODUCT DESIGN PROCESS

01

02

03

04

05

06

07

08

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WHAT IS DFM?

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DFM Key Principles

Steps to Apply DFM
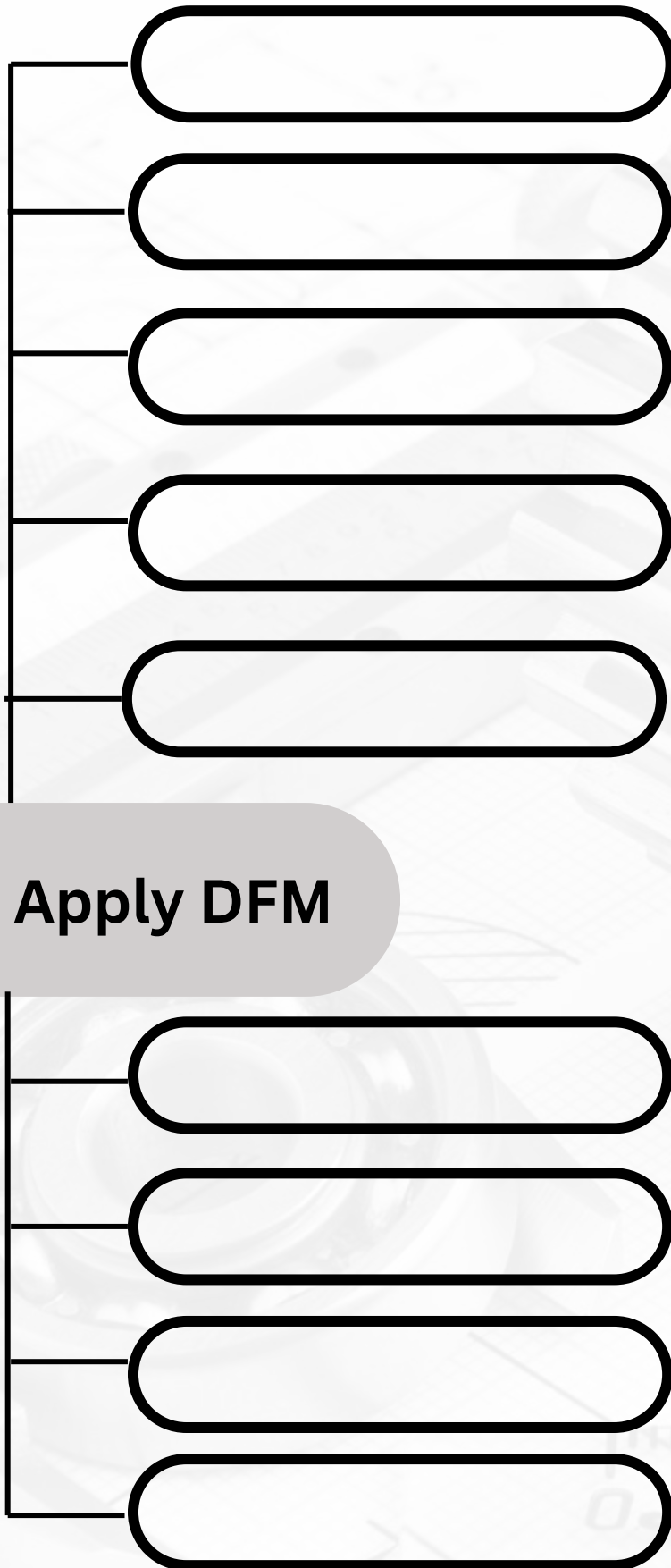
DFM KEY CALCULATIONS

WHAT IS DFA?

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DFA Key Principles

Steps to Apply DFA

Notes

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Why Tolerance Stack is Required?

_____

_____
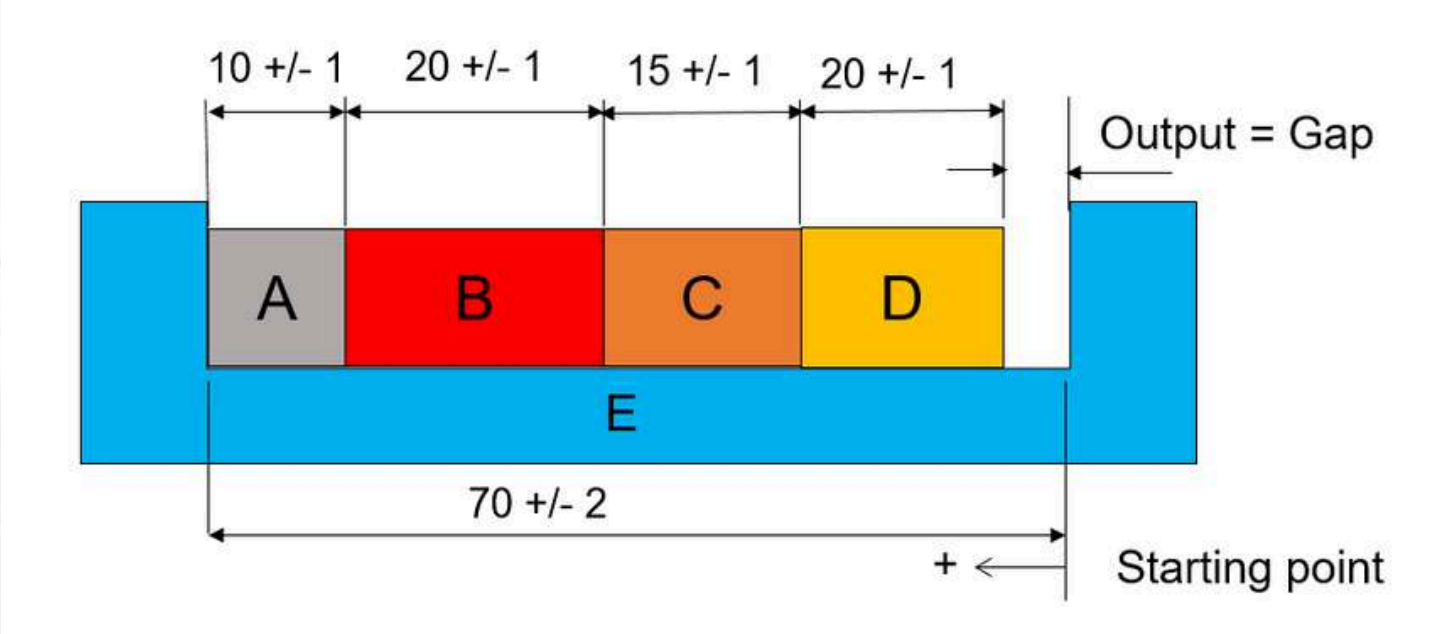
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Which are various methods of Tolerance Stack?

1

2

3

Perform Tolerance Stack for below block example

3-2-1 Principle

3 Pins Restricts :

2 Pins Restricts :

1 Pins Restricts :

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Extra Notes

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IMPORTANT POINTS : HOW TO CREATE MANUFACTURING DRAWINGS
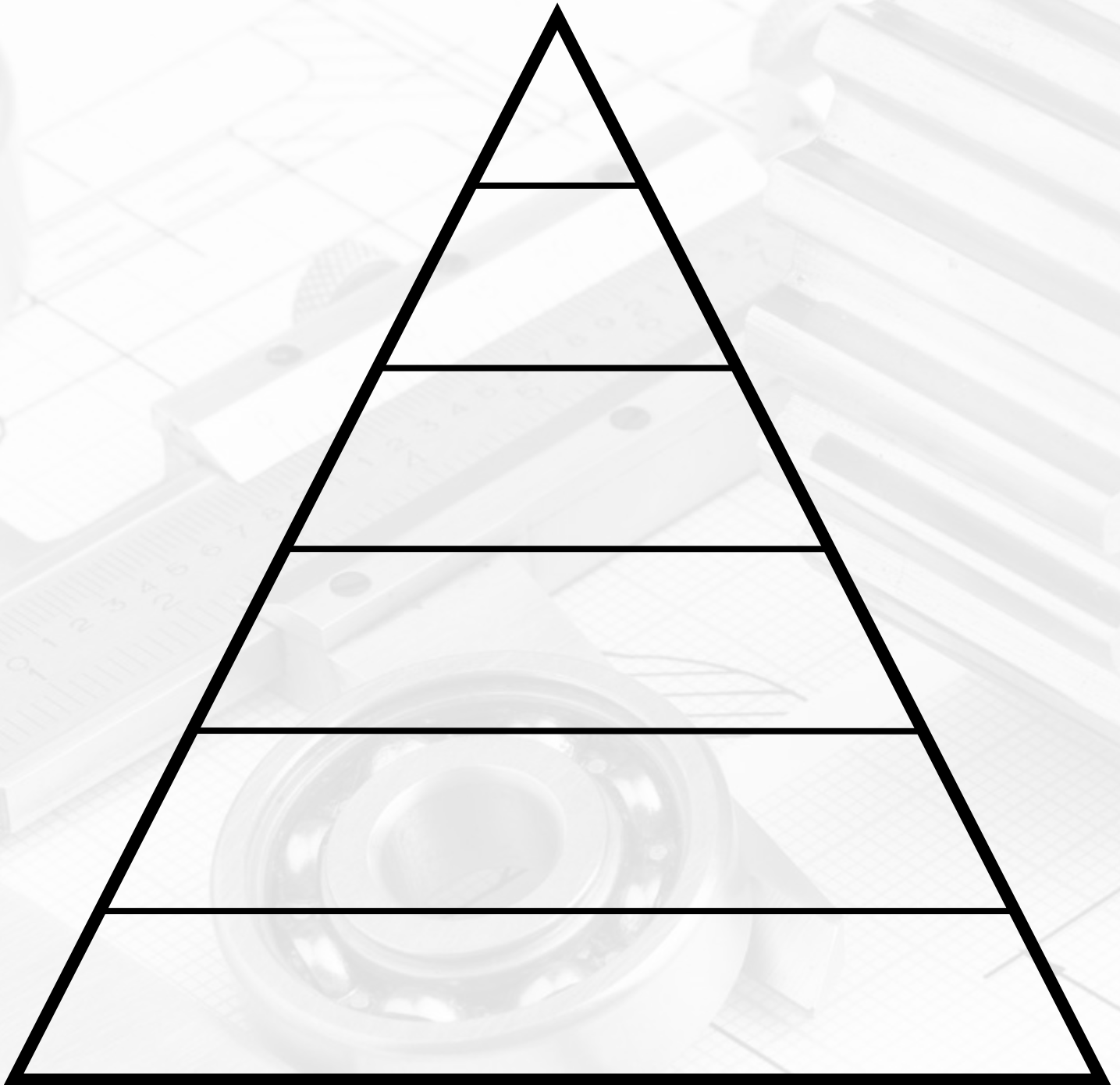
TWO REASONS FOR NOT GETTING JOB

WHAT IS
A$AP RULE?

_____

_____

FILL BELOW PYRAMID

THIS IS _____ PYRAMID

STAGES TO ENTER INTO HIDDEN JOB MARKET

1.

2.

3.

4.

5.

6.

FRAMEWORK FOR NEXT
3 MONTHS

1.

2.

3.

4.

5.

FRAMEWORK FOR NEXT 3 MONTHS

2 Months

1 Month

WHAT ARE IMPORTANT LEARNINGS OUT OF THIS WORKSHOP ?

_____

_____

_____

_____

_____

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TWO OPTIONS TO PROCEED FURTHER AS DESIGN ENGINEER CAREER

(choose any one option)

OPTION -1

_____

_____

_____

OPTION -2

_____

_____

_____

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EXTRA NOTES

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EXTRA NOTES

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EXTRA NOTES

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Next GD & T Section you need to fill by Watching "Introduction to GD & T" video in Free Bonuses

When GD & T Started ?
& By Whom?

_____

_____
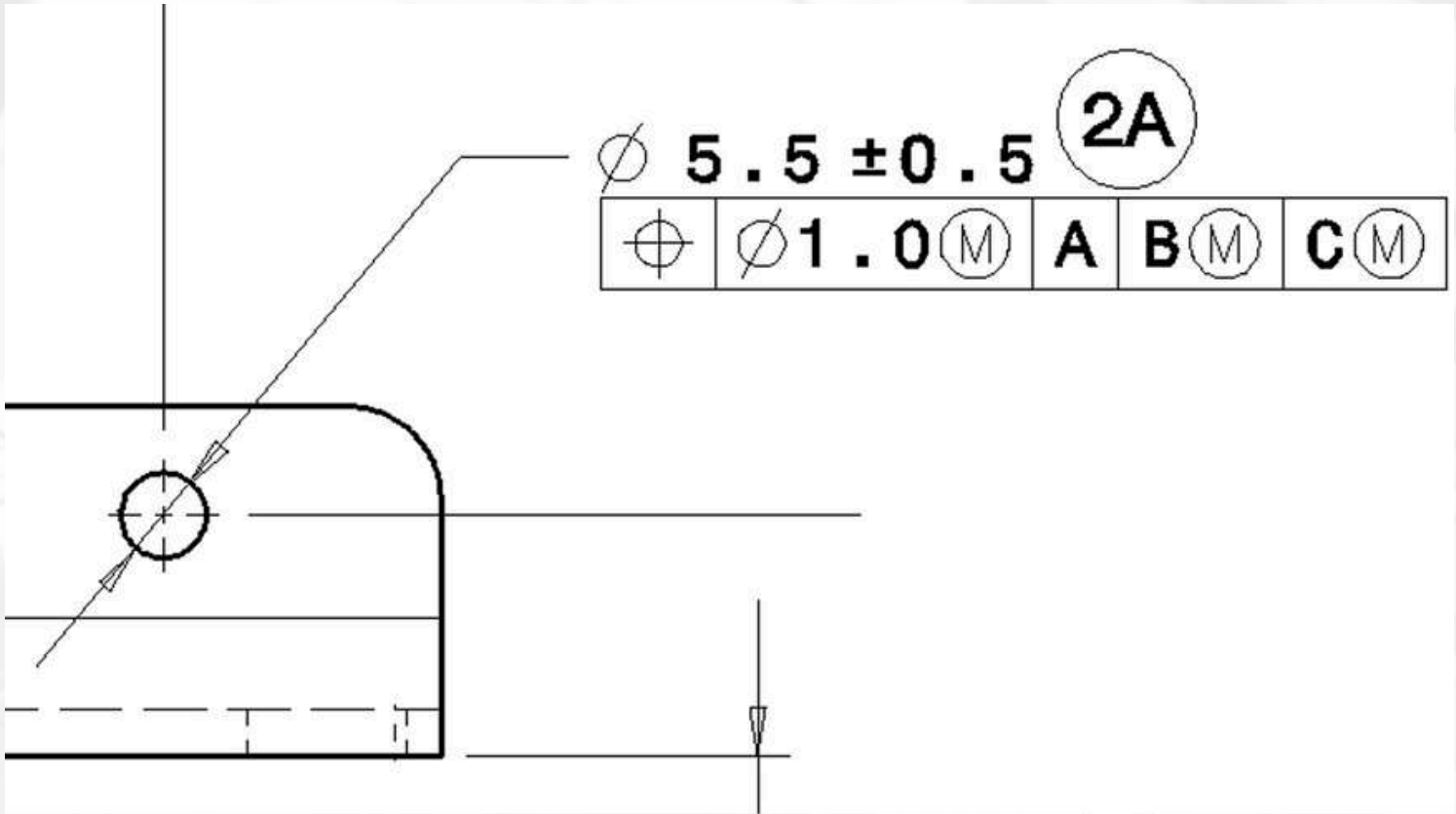
_____

Right down MMC & LMC values

↓

Hole

Ø 5.5 ±0.5 (2A)

⊕ | Ø1.0 Ⓜ | A | B Ⓜ | C Ⓜ

MMC _____

LMC _____

Shaft

∅ 6.35 +0.10

| ⊕ | ∅2.0 Ⓜ | A | B Ⓜ | C Ⓜ |

MMC _____

LMC _____

SLOT

SLOT 12.0±0.2 X 14.0±0.2

| ⊕ | 0.5 Ⓜ | A | B Ⓜ | C Ⓜ |

9

E
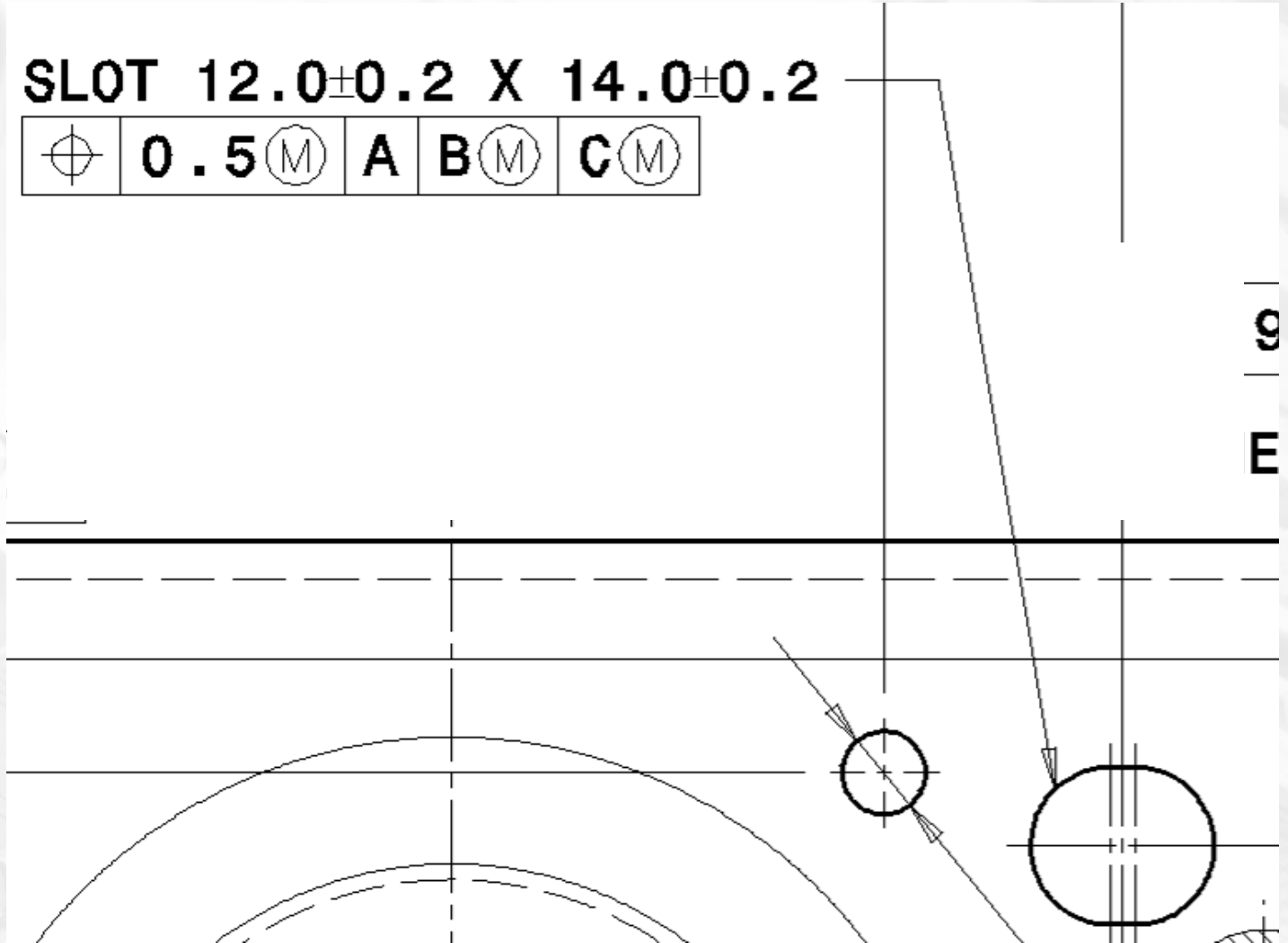
MMC _____

LMC _____

Fill below tables for possible tolerance Variation

Hole

Ø 7.00 ±0.05 ⬡A ②

| ⊕ | Ø0.16Ⓜ | A | BⓂ | CⓂ | ⬡A |
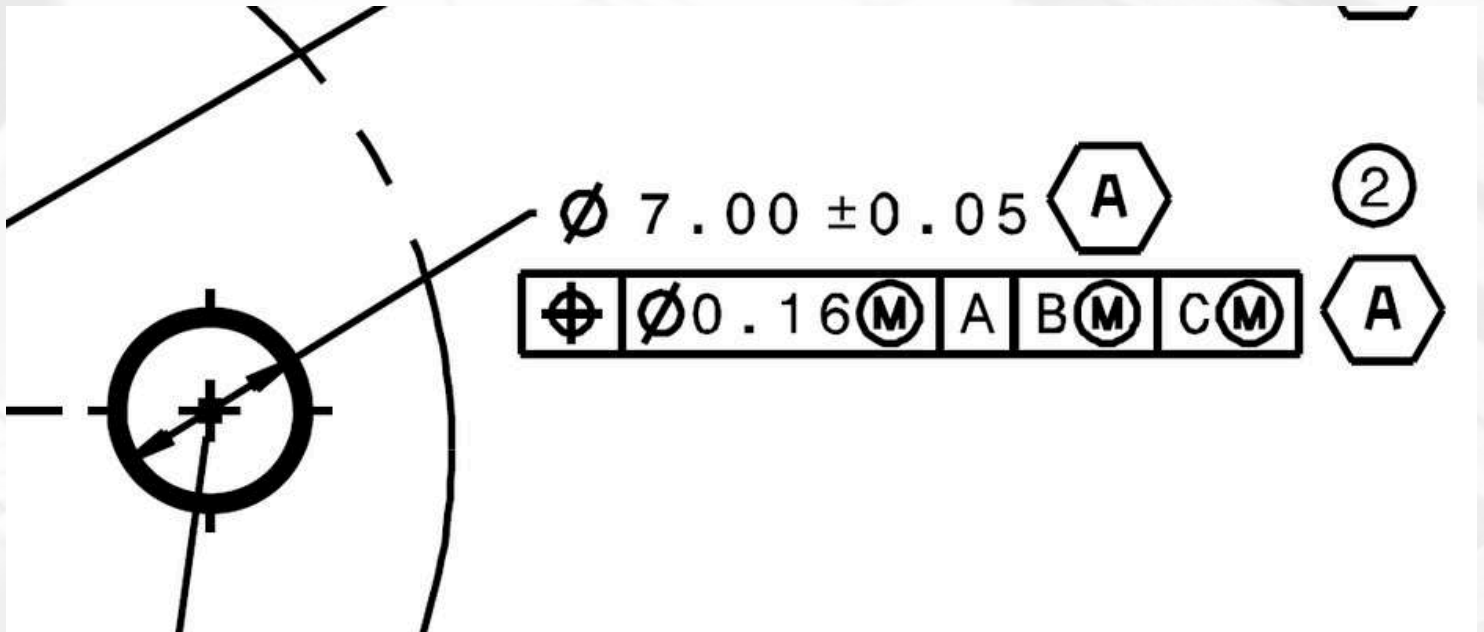
Size Variation	Allowable Positional Tolerance
6.95	
6.97	
7.00	
7.04	

Shaft

Ø 8.00 ±0.05

| ⊕ | Ø0.2 Ⓜ | A | B |

Size Variation	Allowable Positional Tolerance
8.05	
8.03	
7.98	
7.95	

⌀25
A2

19.5 ± 0.1

| ⊕ | 0.5 | | A | B Ⓜ | C Ⓜ |
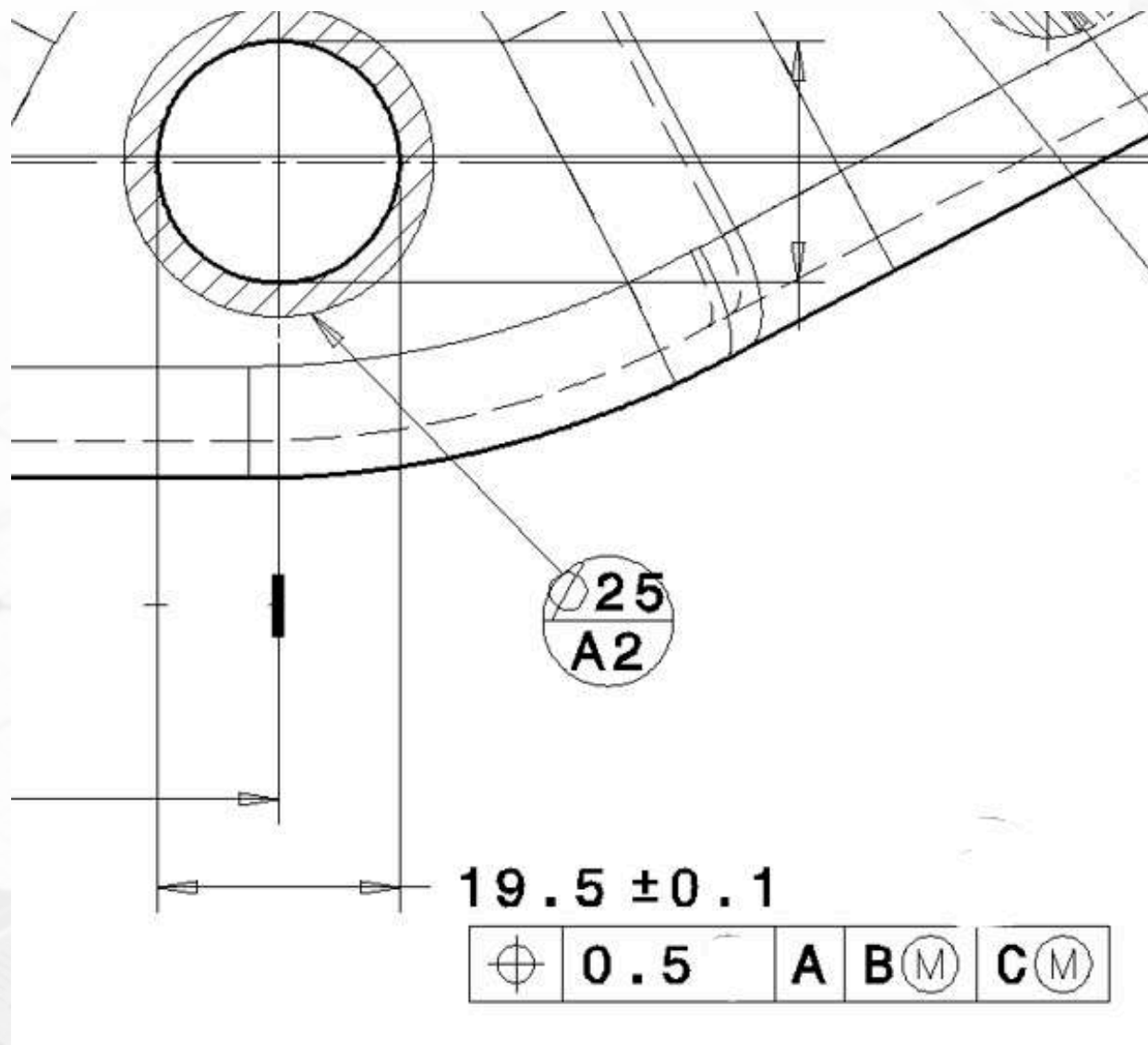
Size Variation	Allowable Positional Tolerance
19.6	
19.5	
19.45	
19.4	

Extra Notes

Please ,Follow these Important Instructions

- I'll be starting the workshop at the specified time. Please join in before 15 minutes for the session and be ready with this workbook.

- If you miss out on the golden nuggets that I'm going to share with you at the beginning of the workshop, I'm not responsible for it, so please don't be late

- Make sure that you are not getting disturbed by anyone during the entire Workshop.

- Make sure that you have downloaded zoom software's & joining through the laptop for the best experience.

- Please, sit in a quiet room and have a pen and notepad handy to take notes.

- Please keep notifications on for Whatsapp community group , you will get all information & reminders in group

- If you have any questions during the workshop, write them down in your notepad. At the end, I'll do Q&A Session and I'll answer every single question

- Zoom link already got shared with you, check your emails, incase if you have not received it, stay tuned in Whatsapp group

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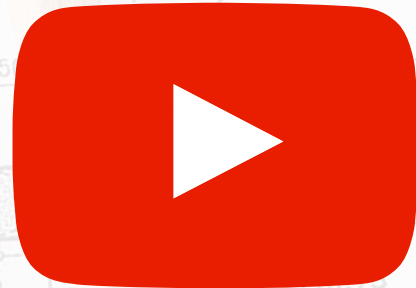# FOLLOW US ON SOCIAL MEDIA PLATFORMS TO GET UPDATES ABOUT LATEST TRENDS

CLICK ON ICON DIRECTLY

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