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利用设备综合效率（OEE）法分析清洁水分配器的有效性

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摘　要：清洁水分配器对于当地饮用水公司向客户提供清洁水是非常重要的。对水的需求持续增加，所以需要分析确定生产过程中发动机泵性能下降的原因，进行维护活动以保持机器的可靠性，使其能够正常运行。因此，需要一个好的策略来保持生产过程的连续性。本研究的目的是测量与清洁水生产水平低下有关的配水泵机器/设备的性能，以确定该公司遭受的损失。2019 年 11 月，Lapi I 在进行维修前的设备综合效率（OEE）值为 69.38%，Lapi II 为 69.75%，而 2019 年 12 月 Lapi I 为 74.02%，Lapi II 为 73.65%，仍然低于 JIPM 标准，即≥85%。从六大损失的结果来看，清洁水分配泵机整体仍需要评估，以便提高有效性和生产率，特别是在降速损失的问题上，提出改进清洁水分配器的建议。2020 年 1 月维修后，Lapi I 为 87.90%，Lapi II 为 87.26%，而 2020 年 2 月 Lapi I 为 90.34%，Lapi II 为 85.81%。
关键词：维护；设备综合效率（OEE）；六大损失

Analysis of the effectiveness of clean water distributi on machine using overall equipment effectiveness (O EE) method

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Abstract: Clean water distribution machines are very important for local drinking water companies to be able to supply clean water to customers. The need for water continues to increase, so an analysis is needed to determine the decline in engine pump performance in the production process. Maintenance activities need to be carried out to maintain the reliability of the machine so that it can operate properly. Therefore, a good strategy is needed to maintain the continuity of the production process. The purpose of this research is to measure the performance of the water distribution pump machine/equipment associated with the low level of clean water production, to identify the losses experienced by the company. The Overall Equipment Effectiveness (OEE) value obtained before repairs were carried out in November 2019 for Lapi I was 69.38% and Lapi II was 69. 75% while in December 2019 for Lapi I it was 74.02% and Lapi II was 73.65% still below the JIPM standard, namely ≥85%. From the results of the six big losses, the clean water distribution pump machine as a whole still needs evaluation to make improvements in increasing effectiveness and productivity, especially in the problem of reduced speed losses so that suggestions can be made to improve the clean water distribution machine. After repairs in January 2020 for Lapi I was 87.90% and Lapi II was 87.26% while in February 2020 for Lapi I it was 90.34% and Lapi II was 85.81%.
Keywords: maintenance; overall equipment effectiveness (OEE); six big losses

一、引言

[2]

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[1] / [3] /

OEE

[4]

OEE

/ OEE / /

[5] OEE

[6]

二、研究方法

kec. Manggala

Jl. Lasuloro Raya PDAM IPA III Antang

2020 1 3

Lapi I Lapi II Lapi I

Lapi II Lapi I Lapi

II Lapi 1 Lapi II

OEE 1

2 3

4 OEE

5 OEE

三、结果和讨论

OEE

OEE

2019 11-12 Lapi I Lapi II

1 OEE

JIPM

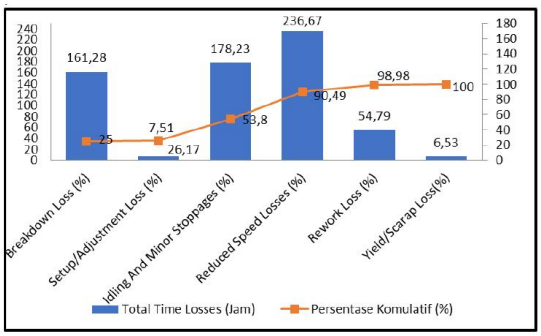
OEE=85.%

OEE

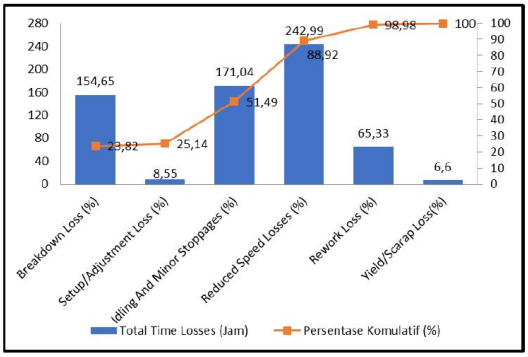
JIPM

	Availability (%)	Performance Efficiency (%)	Rate Of Quality Product (%)	OEE (%)
November LAPI I	87,75	83,23	95	69,38
NovemberLAPI II	88,04	84,23	94,06	69,75
Desember LAPI I	88,97	87,57	95	74,02
Desember LAPI II	89,45	87,47	94,13	73,65

1.2019 11 -12 Lapi I Lapi II OEE



2.2019 11 -12 Lapi I

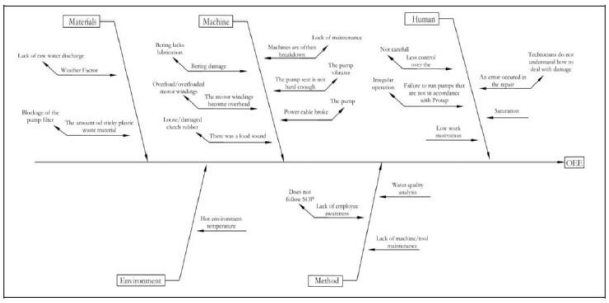


3.2019 11 -12 Lapi II

2019 11-12

OEE

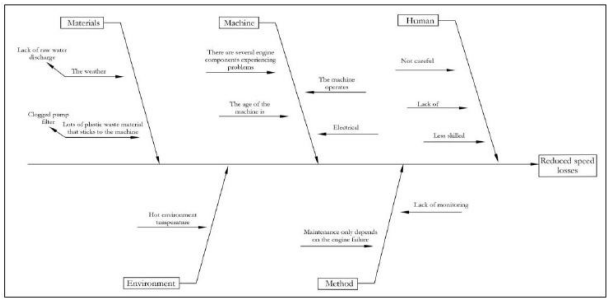
Lapi I 236.67% Lapi II 242.99%



4.OEE

OEE

5



5.

1.

No.		
1	1 2	- 1
2	1 2 3 4	1 2 1 1 2 1 2
3	1	1
	2 3	1 1 2
4	1	-
5	1 2	1 2

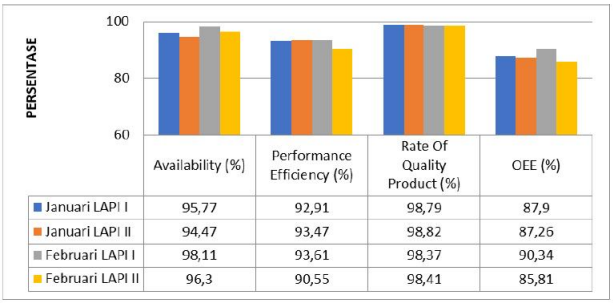
OEE 2020

1 2

JIPM OEE=85%

OEE

OEE



6.2020 1-2 OEE

2020 1 Lapi I

OEE 87.90% Lapi II 87.26% 2020

2 Lapi I 90.34% Lapi II

85.81%

OEE

2.OEE

No.			OEE %
1	11	Lapi I Lapi II	69.38 69.75
2	12	Lapi I Lapi II	74.02 76.65
3	1	Lapi I Lapi II	87.90 87.26
4	2	Lapi I Lapi II	90.34 85.81

四、结论和建议

2019 11 Lapi I JIPM OEE 69.38% Lapi II 69.75% 2019 12 Lapi I 74.02% Lapi II 73.65%
2019 11 12 Lapi I 236.67% Lapi II 242.99% 2020 1 Lapi I 87.90% Lapi II 87.26% 2020 2 Lapi I 90.34% Lapi II 85.81%

1.

2.

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