



**IDENTIFIKASI KETIDAKSESUAIAN PROSES PENGISIAN AIR MINUM  
DALAM KEMASAN DENGAN METODE DMAIC (*DEFINE, MEASURE,  
ANALYZE, IMPROVE, CONTROL*) DI PT TIRTA INVESTAMA WONOSOBO,  
JAWA TENGAH (MAGANG)**

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**RINGKASAN**

Pelaksanaan magang dilakukan pada 06 Januari 2020 – 27 Maret 2020 di PT Tirta Investama Wonosobo yang berlokasi di Jalan Mangli, Desa Kejiwan, Kecamatan Wonosobo, Kabupaten Wonosobo, Jawa Tengah 56311. PT Tirta Investama Wonosobo merupakan industri yang memproduksi Air Minum Dalam Kemasan (AMDK) yaitu Aqua. PT Tirta Investama Wonosobo terdiri dari 3 *line* produksi Aqua galon yaitu mesin PMT, B1200, dan B2400 serta 2 *line* produksi Aqua *cup* 220 ml yaitu mesin APM dan Hayashi. Penulis selama magang ditempatkan di bagian *Quality Control* (QC) yang bertugas membantu pengecekan kualitas air dan bahan baku kemasan maupun kualitas produk jadi. Selain itu, di PT Tirta Investama Wonosobo pengendalian kualitas juga dilakukan ketika proses produksi sedang berlangsung. Terdapat permasalahan di *line* produksi Aqua Galon 19 l berupa *reject* produk dengan frekuensi terbanyak pada *reject* volume air kurang. Penulis melakukan analisa permasalahan menggunakan metode DMAIC yang terdiri dari *Define, Measure, Analyze, Improve, dan Control*. Hasil analisa menggunakan metode DMAIC yaitu pada tahap *define* merupakan penjelasan proses produksi Aqua dalam diagram SIPOC untuk mendeteksi terjadinya cacat produk. Tahap selanjutnya yaitu *measure* diketahui bahwa cacat produk terbanyak terdapat pada *line* 4 dengan angka mencapai 69,37% atau sebanyak 1196 dari total cacat produk 1724 botol Aqua galon. Setelah dilakukan analisa diperoleh berbagai saran rekomendasi, yang paling efektif untuk mengurangi cacat produk akibat volume air kurang yaitu melakukan *refresh* Instruksi Kerja (IK) oleh teknisi mesin maupun kepala bagian untuk menyamakan metode yang digunakan oleh operator.

Kata Kunci: Air Minum Dalam Kemasan, Kualitas, DMAIC



**IDENTIFICATION OF INCONSISTENCY OF MINERAL WATER FILLING PROCESS  
WITH DMAIC METHOD IN PT TIRTA INVESTAMA, WONOSOBO, CENTRAL JAVA  
(INTERNSHIP)**

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**SUMMARY**

*The internship was conducted on January 6, 2020 - March 27, 2020 at PT Tirta Investama Wonosobo, located on Jalan Mangli, Kejiwan Village, Wonosobo District, Wonosobo Regency, Central Java 56311. PT Tirta Investama Wonosobo is an industry that produces Bottled Drinking Water (AMDK), known as Aqua. PT Tirta Investama Wonosobo consists of 3 Aqua gallon production lines, there is PMT, B1200 and B2400 machines and 2 Aqua cup 220 ml production lines, there is APM and Hayashi machines. The author during the internship was placed in the Quality Control (QC) department whose job was to help check water quality and packaging raw materials and also finished product quality. In addition, at PT Tirta Investama Wonosobo quality control is also carried out while the production process is in progress. There is a problem in the Aqua Gallon 19 l production line in the form of reject products with the highest frequency is reject volume lacking. The author analyzes the problem using the DMAIC method which consists of Define, Measure, Analyze, Improve, and Control. The results of the analysis using the DMAIC method that is at the define stage is an explanation of the Aqua production process in the SIPOC diagram to detect product defects. The next step is the measure known that the most product defects are on line 4 with a figure reaching 69.37% or as many as 1196 of the total product defects of 1724 Aqua gallon bottles. After we analyze, we get various recommendation action, the most effective way to reduce product defects due to lack of volume is to refresh the Work Instruction (WI) by the machine technician and the head of the department to match the method used by the operator.*

*Keywords: Bottled Water, Quality, DMAIC*