

RAB Material Clean Water Distribution Rev4

Project : Mersi Biovac Proindo

Clean Water Distribution Pipe Main Building & To Black Utility

| No.                               | Description / Material                                        | Total Qty | Satuan | Note per Btg | Round Up | Satuan    |
|-----------------------------------|---------------------------------------------------------------|-----------|--------|--------------|----------|-----------|
| <b>A. Pipa</b>                    |                                                               |           |        |              |          |           |
| 1                                 | Pipa PPR PN 16 Dia. 4"                                        | 47        | mtr    | 4            | 11,75    | 12,00 pcs |
| 2                                 | Pipa PPR PN 16 Dia. 3"                                        | 20        | mtr    | 4            | 5,00     | 5,00 pcs  |
| 3                                 | Pipa PPR PN 16 Dia. 2"                                        | 192       | mtr    | 4            | 48,00    | 48,00 pcs |
| 4                                 | Pipa PPR PN 16 Dia. 2 1/2"                                    | 15        | mtr    | 4            | 3,75     | 4,00 pcs  |
| 5                                 | Pipa PPR PN 16 Dia. 1/2"                                      | 208       | mtr    | 4            | 52,00    | 52,00 pcs |
| 6                                 | Pipa PPR PN 16 Dia. 1"                                        | 90        | mtr    | 4            | 22,50    | 23,00 pcs |
| 7                                 | Pipa PPR PN 16 Dia. 3/4"                                      | 20        | mtr    | 4            | 5,00     | 5,00 pcs  |
| 8                                 | Pipa SS304 SCH 20 Dia. 1" (utk POU ke autoclave - area panas) | 10        | mtr    | 6            | 1,67     | 2,00 pcs  |
| 9                                 | Pipa Galvanis Dia. 3" SCH20                                   | 146       | mtr    | 6            | 24,33    | 25,00 pcs |
| <b>B. Fitting &amp; Aksesoris</b> |                                                               |           |        |              |          |           |
| 1                                 | Elbow Galvanis Dia. 3" Medium (sch 20) Weld                   | 7         | pcs    |              |          |           |
| 2                                 | Elbow PPR PN 16 Dia. 4"                                       | 7         | pcs    |              |          |           |
| 3                                 | Elbow PPR PN 16 Dia. 3"                                       | 2         | pcs    |              |          |           |
| 4                                 | Elbow PPR PN 16 Dia. 2"                                       | 15        | pcs    |              |          |           |
| 5                                 | Elbow PPR PN 16 Dia. 1/2"                                     | 33        | pcs    |              |          |           |
| 6                                 | Elbow PPR PN 16 Dia. 1"                                       | 5         | pcs    |              |          |           |
| 7                                 | Elbow PPR PN 16 Dia. 3/4"                                     | 3         | pcs    |              |          |           |
| 8                                 | Elbow SS304 SCH 20 Dia. 1"                                    | 3         | pcs    |              |          |           |
| 9                                 | Tee Galvanis Dia. 3" Medium (sch 20) Las                      | 1         | pcs    |              |          |           |
| 10                                | Tee Reducer PPR PN 16 Dia. 4" x 4" x 3"                       | 1         | pcs    |              |          |           |
| 11                                | Tee Reducer PPR PN 16 Dia. 4" x 4" x 2"                       | 2         | pcs    |              |          |           |
| 12                                | Tee Red PPR PN 16 Dia. 2" x 2" x 1/2"                         | 8         | pcs    |              |          |           |
| 13                                | Tee PPR PN 16 Dia. 2 1/2" x 2 1/2" x 2 1/2"                   | 1         | pcs    |              |          |           |
| 14                                | Tee Red PPR PN 16 Dia. 2" x 2" x 3/4"                         | 3         | pcs    |              |          |           |
| 15                                | Tee Red PPR PN 16 Dia. 3/4" x 3/4" x 1/2"                     | 9         | pcs    |              |          |           |
| 16                                | Tee Reducer PPR PN 16 Dia. 3" x 3" x 2"                       | 2         | pcs    |              |          |           |
| 17                                | Tee PPR PN 16 Dia. 1/2"                                       | 2         | pcs    |              |          |           |
| 18                                | Tee SS304 SCH 20 Dia. 1"                                      | 1         | pcs    |              |          |           |
| 19                                | Tee Red PPR PN 16 Dia. 2" x 2" x 1"                           | 15        | pcs    |              |          |           |
| 20                                | Tee Red PPR PN 16 Dia. 1" x 1" x 1/2"                         | 4         | pcs    |              |          |           |
| 21                                | Tee Red PPR PN 16 Dia. 1" x 1" x 3/4"                         | 1         | pcs    |              |          |           |
| 22                                | Tee PPR PN 16 Dia. 1"                                         | 2         | pcs    |              |          |           |
| 23                                | Reducer PPR PN 16 Dia. 3/4" x 1/2"                            | 5         | pcs    |              |          |           |
| 24                                | Reducer PPR PN 16 Dia. 3" x 2 1/2"                            | 1         | pcs    |              |          |           |
| 25                                | Reducer PPR PN 16 Dia. 2 1/2" x 2"                            | 1         | pcs    |              |          |           |
| 26                                | Reducer PPR PN 16 Dia. 1" x 1/2"                              | 2         | pcs    |              |          |           |
| 27                                | Flange Galvanis Dia. 3" JIS 10K Las                           | 6         | pcs    |              |          |           |
| 28                                | Flange adaptor PPR Dia. 4"                                    | 6         | pcs    |              |          |           |
| 29                                | Blind Flange PN 16 Dia. 4" Galvanis                           | 1         | pcs    |              |          |           |
| 30                                | Blind Flange PN 16 Dia. 2" Galvanis                           | 1         | pcs    |              |          |           |
| 31                                | Blind Flange PN 16 Dia. 1" Galvanis                           | 1         | pcs    |              |          |           |
| 32                                | Flange adaptor PPR Dia. 2"                                    | 2         | pcs    |              |          |           |
| 33                                | Flange PN 16 Dia. 2" Galvanis Drat                            | 2         | pcs    |              |          |           |
| 34                                | Flange adaptor PPR Dia. 2 1/2"                                | 2         | pcs    |              |          |           |
| 35                                | Flange adaptor PPR Dia. 1"                                    | 2         | pcs    |              |          |           |
| 36                                | Flange JIS 10K Dia. 1" SS Las                                 | 1         | pcs    |              |          |           |
| 37                                | Butterfly valve cast iron + motorized electric actuator 3"    | 2         | pcs    |              |          |           |
| 38                                | Butterfly valve cast iron manual Flange 3"                    | 3         | pcs    |              |          |           |
| 39                                | Butterfly valve cast iron manual Flange 4"                    | 2         | pcs    |              |          |           |

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| 40                              | Butterfly Valve Flange Dia. 2 1/2"                                                               | 1         | pcs    |              |          |          |
| 41                              | Ball Valve SS304 Drat Dia. 2"                                                                    | 4         | pcs    |              |          |          |
| 42                              | Ball Valve SS304 Drat Dia. 1/2"                                                                  | 27        | pcs    |              |          |          |
| 43                              | Ball Valve SS304 Drat Dia. 1"                                                                    | 5         | pcs    |              |          |          |
| 44                              | Gasket Flange 3" JIS 10K                                                                         | 6         | pcs    |              |          |          |
| 45                              | Gasket PN 16 Dia. 2" EPDM                                                                        | 2         | pcs    |              |          |          |
| 46                              | Gasket PN 16 Dia. 2 1/2" EPDM                                                                    | 2         | pcs    |              |          |          |
| 47                              | Gasket PN 16 Dia. 1" EPDM                                                                        | 2         | pcs    |              |          |          |
| 48                              | Gasket PN 16 Dia. 4" EPDM                                                                        | 6         | pcs    |              |          |          |
| 49                              | Besi Siku 50 x 50 x 2,5mm                                                                        | 47        | meter  | 6            | 7,83     | 8,00 pcs |
| 50                              | Swing Check Valve Flange Dia. 4"                                                                 | 1         | pcs    |              |          |          |
| 51                              | Y Strainer Dia. 4" Flange                                                                        | 1         | pcs    |              |          |          |
| 52                              | Panel Kontrol 1 Deepwell + WLC for 2 water tank FRP (New & Existing) + Cable 2 x 0,75 @300 meter | 1         | pcs    |              |          |          |
| 53                              | Water Meter Dia. 4" Flange Calibrated                                                            | 1         | pcs    |              |          |          |
| 54                              | Water Meter Dia. 2" Calibrated                                                                   | 1         | pcs    |              |          |          |
| 55                              | Baut dan Mur + Ring M14x90 Galvanis                                                              | 48        | pcs    |              |          |          |
| 56                              | Baut M16x100 mm + Mur + Ring Galvanis (2 Flange = 8 Baut)                                        | 112       | pcs    |              |          |          |
| 57                              | SDL PPR PN 16 Dia 1/2"                                                                           | 26        | pcs    |              |          |          |
| 58                              | SDL PPR PN 16 Dia 1"                                                                             | 3         | pcs    |              |          |          |
| 59                              | SDL PPR PN 16 Dia 2"                                                                             | 8         | pcs    |              |          |          |
| 60                              | Pressure Gauge 0 - 6 Bar Drat 1/2" Dia. 2,5"                                                     | 4         | pcs    |              |          |          |
| 61                              | Baut dan Mur + Ring M14x70                                                                       | 8         | pcs    |              |          |          |
| 62                              | Dynaset M12 (u/ pipa 2 1/2", 3", 4")                                                             | 42        | pcs    |              |          |          |
| 63                              | Dynaset M10 (u/ pipa 1", 1 1/2", 2")                                                             | 134       | pcs    |              |          |          |
| 64                              | As Drat / Threaded Rod M10 x 3meter Galvanis                                                     | 134       | pcs    |              |          |          |
| 65                              | As Drat / Threaded Rod M12 x 3 meter Galvanis                                                    | 42        | Pcs    |              |          |          |
| 66                              | Nut M10                                                                                          | 134       | pcs    |              |          |          |
| 67                              | Nut M12                                                                                          | 170       | pcs    |              |          |          |
| 68                              | Ring M12                                                                                         | 304       | pcs    |              |          |          |
| 69                              | Hanger Clamp Pipa 4" + rubber                                                                    | 10        | pcs    |              |          |          |
| 70                              | Hanger Clamp Pipa 3" + rubber                                                                    | 10        | pcs    |              |          |          |
| 71                              | Hanger Clamp Pipa 2 1/2" + rubber                                                                | 8         | pcs    |              |          |          |
| 72                              | Hanger Clamp Pipa 2" + rubber                                                                    | 25        | pcs    |              |          |          |
| 73                              | Hanger Clamp Pipa 1 1/2" + rubber                                                                | 15        | pcs    |              |          |          |
| 74                              | Hanger Clamp Pipa 1" + rubber                                                                    | 20        | pcs    |              |          |          |
| 75                              | Hanger Clamp Pipa 3/4" + rubber                                                                  | 10        | pcs    |              |          |          |
| 76                              | Hanger Clamp Pipa 1/2" + rubber                                                                  | 30        | pcs    |              |          |          |
| 77                              | Bracket Pipa Dinding 1 1/2" SS304                                                                | 5         | pcs    |              |          |          |
| 78                              | Bracket Pipa Dinding 1" SS304                                                                    | 5         | pcs    |              |          |          |
| 79                              | Bracket Pipa Dinding 1/2" SS304                                                                  | 20        | pcs    |              |          |          |
| <b>C. Consumable Alat Kerja</b> |                                                                                                  |           |        |              |          |          |
| 1                               | Mata Gerinda Potong 14"                                                                          | 7         | pcs    |              |          |          |
| 2                               | Mata Gerinda Batu 4"                                                                             | 5         | Kotak  |              |          |          |
| 3                               | Kawat Las Besi RD 460 3,2 mm E6013                                                               | 20        | Kg     |              |          |          |
| 4                               | Amplas 150                                                                                       | 1         | Roll   |              |          |          |
| 5                               | Mata Bor Beton 16 mm                                                                             | 4         | pcs    |              |          |          |
| 6                               | Mata Bor Beton 12 mm                                                                             | 4         | pcs    |              |          |          |
| 7                               | Mata Bor Beton 10 mm                                                                             | 3         | m2     |              |          |          |
| 8                               | Kuas                                                                                             | 5         | Pcs    |              |          |          |

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| 9   | Roll Cat               | 2         | Pcs    |              |          |        |
| 10  | Wadah Roll Cat         | 2         | Pcs    |              |          |        |
| 11  | Sealtape 1/2"          | 3         | Box    |              |          |        |

Dibuat oleh,



Diki Alamsyah  
SPV Civil & Project

Diperiksa oleh,



Bayu Seto Respati  
Engineering Manager

Disetujui oleh,



Dyah Arum M.  
Site Head