

No : PF001873  
Tanggal : 31 Agustus 2026  
Dari : Engineering

**SURAT PERMINTAAN BARANG**

| No | Kode Barang | Nama Barang, Tipe, Spesifikasi                         | Lokasi / User       | Riwayat Pembelian |        |        |          | Jumlah<br>Permintaan | Satuan | Target<br>Date | Kategori      |          | Keterangan                                                                                                                                                         |
|----|-------------|--------------------------------------------------------|---------------------|-------------------|--------|--------|----------|----------------------|--------|----------------|---------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |             |                                                        |                     | Tanggal           | Jumlah | No SPB | Supplier |                      |        |                |               |          |                                                                                                                                                                    |
| 1  | PMSN00077   | Water Pressure Tank Vertical 100L Waterplus PRSTK 100V | Utility Engineering | -                 | -      | -      | -        | 1                    | Pcs    | 19-10-26       | 1. Inventaris |          | Permintaan Tahap 1 Untuk Instalasi Jalur Pipa (Transfer Line) Project Aktivasi Sistem JUFU (Reverse Osmosis Industrial).<br>No Inventaris JUFU : 1102-25-1-01321-2 |
| 2  | IMO16234    | Pressure Switch Saginomiya SNS-C110X                   | Utility Engineering | -                 | -      | -      | -        | 1                    | Pcs    | 19-10-26       | 2. Spareparts |          |                                                                                                                                                                    |
| 3  | PMSN00075   | Gate Valve Flange 4" Kitz                              | Utility Engineering | -                 | -      | -      | -        | 2                    | Pcs    | 19-10-26       | 3. Consumable |          |                                                                                                                                                                    |
| 4  | PMSN00075   | Gate Valve Flange 2" Kitz                              | Utility Engineering | -                 | -      | -      | -        | 1                    | Pcs    | 19-10-26       | 4. Jasa       |          |                                                                                                                                                                    |
| 5  | PMSN00075   | Butterfly Valve Aluminium Lever Handle 3" Kitz         | Utility Engineering | -                 | -      | -      | -        | 2                    | Pcs    | 19-10-26       | 5. Project    | <b>V</b> |                                                                                                                                                                    |
| 6  | IMO02116    | Ball Valve Drat Kuningan Class 400 1" Kitz             | Utility Engineering | -                 | -      | -      | -        | 1                    | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 7  | IMO02116    | Ball Valve Drat Kuningan Class 400 1/2" Kitz           | Utility Engineering | -                 | -      | -      | -        | 2                    | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 8  | PMSN00124   | Strainer Y Flange 3"                                   | Utility Engineering | -                 | -      | -      | -        | 2                    | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 9  | IMO16007    | Pressure Gauge SS 4" 0-10 bar Drat 1/2" NPT Wika       | Utility Engineering | -                 | -      | -      | -        | 2                    | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 10 | IMO16464    | Pipa PPR Rucika 4"                                     | Utility Engineering | -                 | -      | -      | -        | 28                   | Batang | 19-10-26       |               |          |                                                                                                                                                                    |
| 11 | IMO16060    | Pipa PPR Rucika 2"                                     | Utility Engineering | -                 | -      | -      | -        | 8                    | Batang | 19-10-26       |               |          |                                                                                                                                                                    |
| 12 | IMO20352    | Tee PPR Rucika 4"                                      | Utility Engineering | -                 | -      | -      | -        | 2                    | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 13 | IMO18188    | Reducer PPR Rucika 4" x 2"                             | Utility Engineering | -                 | -      | -      | -        | 4                    | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 14 | IMO05011    | Elbow PPR Rucika 4"                                    | Utility Engineering | -                 | -      | -      | -        | 11                   | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 15 | IMO05011    | Elbow PPR Rucika 2"                                    | Utility Engineering | -                 | -      | -      | -        | 4                    | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 16 | IMO19172    | Sock Coupler PPR Rucika 4"                             | Utility Engineering | -                 | -      | -      | -        | 20                   | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 17 | IMO19172    | Sock Coupler PPR Rucika 2"                             | Utility Engineering | -                 | -      | -      | -        | 10                   | Pcs    | 19-10-26       |               |          |                                                                                                                                                                    |
| 18 | IMO06074    | Flange Stub End PPR + Back Ring Besi Set 4"            | Utility Engineering | -                 | -      | -      | -        | 2                    | Set    | 19-10-26       |               |          |                                                                                                                                                                    |
| 19 | IMO06074    | Flange Stub End PPR + Back Ring Besi Set 2"            | Utility Engineering | -                 | -      | -      | -        | 1                    | Set    | 19-10-26       |               |          |                                                                                                                                                                    |

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|----|-------------|-------------------------------------------|---------------------|-------------------|--------|--------|----------|----------------------|--------|----------------|----------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |             |                                           |                     | Tanggal           | Jumlah | No SPB | Supplier |                      |        |                |          |  |                                                                                                                                                                    |
| 20 | IMO19194    | Sok Drat Dalam Female PPR 2" Rucika Kelen | Utility Engineering | -                 | -      | -      | -        | 4                    | Pcs    | 19-10-26       |          |  | Permintaan Tahap 1 Untuk Instalasi Jalur Pipa (Transfer Line) Project Aktivasi Sistem JUFU (Reverse Osmosis Industrial).<br>No Inventaris JUFU : 1102-25-1-01321-2 |
| 21 | IMO19194    | Sok Drat Dalam Female PPR 1" Rucika Kelen | Utility Engineering | -                 | -      | -      | -        | 2                    | Pcs    | 19-10-26       |          |  |                                                                                                                                                                    |

#### PERMINTAAN MATERIAL TAHAP 1 UNTUK INSTALASI JALUR PIPA (TRANSFER LINE) PROJECT AKTIVASI SISTEM JUFU

##### Situasi :

Saat ini sedang berlangsung proyek aktivasi sistem JUFU (Reverse Osmosis Industrial) yang dirancang untuk menghasilkan air produk dengan spesifikasi kualitas yang jauh lebih tinggi dan konstan dibandingkan tap water. Pengalihan sumber air baku ke air produk JUFU bertujuan untuk meningkatkan efisiensi pemurnian, memperpanjang umur pakai membran RO dan EDI pada PW Generator. Meskipun proses aktivasi JUFU sedang berjalan, saat ini belum tersedia jalur pipa (transfer line) yang menghubungkan titik keluaran air produk JUFU menuju raw water tank PW Generator. Tanpa adanya instalasi perpipaan distribusi ini, air produk JUFU tidak dapat dialirkan untuk menggantikan penggunaan tap water.

##### Target :

- Penyediaan Jalur Distribusi Air Produk JUFU: Menginstalasi jalur perpipaan distribusi khusus dari outlet produk JUFU menuju ke raw water tank PW Generator secara terintegrasi dan rapi.
- Transisi Sumber Air Baku PW Generator: Memungkinkan proses switch-over pasokan air baku PW Generator dari tap water ke air produk JUFU secara mulus (smooth transition) tanpa mengganggu kontinuitas operasional unit PW yang sedang berjalan.
- Menjaga Kualitas Air & Efisiensi Sistem PW: Memastikan material pipa yang digunakan tidak mengontaminasi air produk JUFU, sehingga beban kerja sistem pemurnian PW Generator berkurang dan efisiensi operasional meningkat.

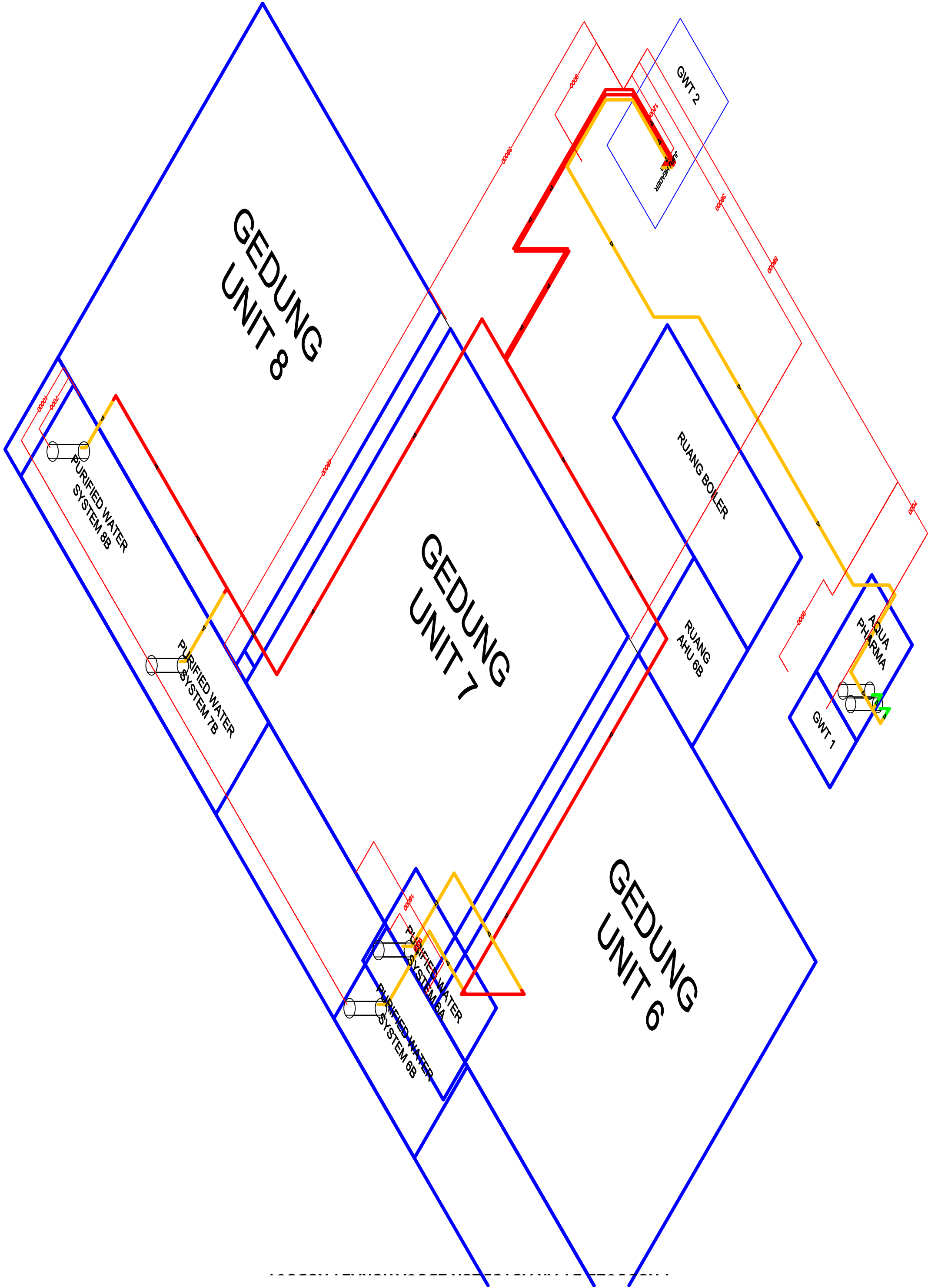
##### Proposal :

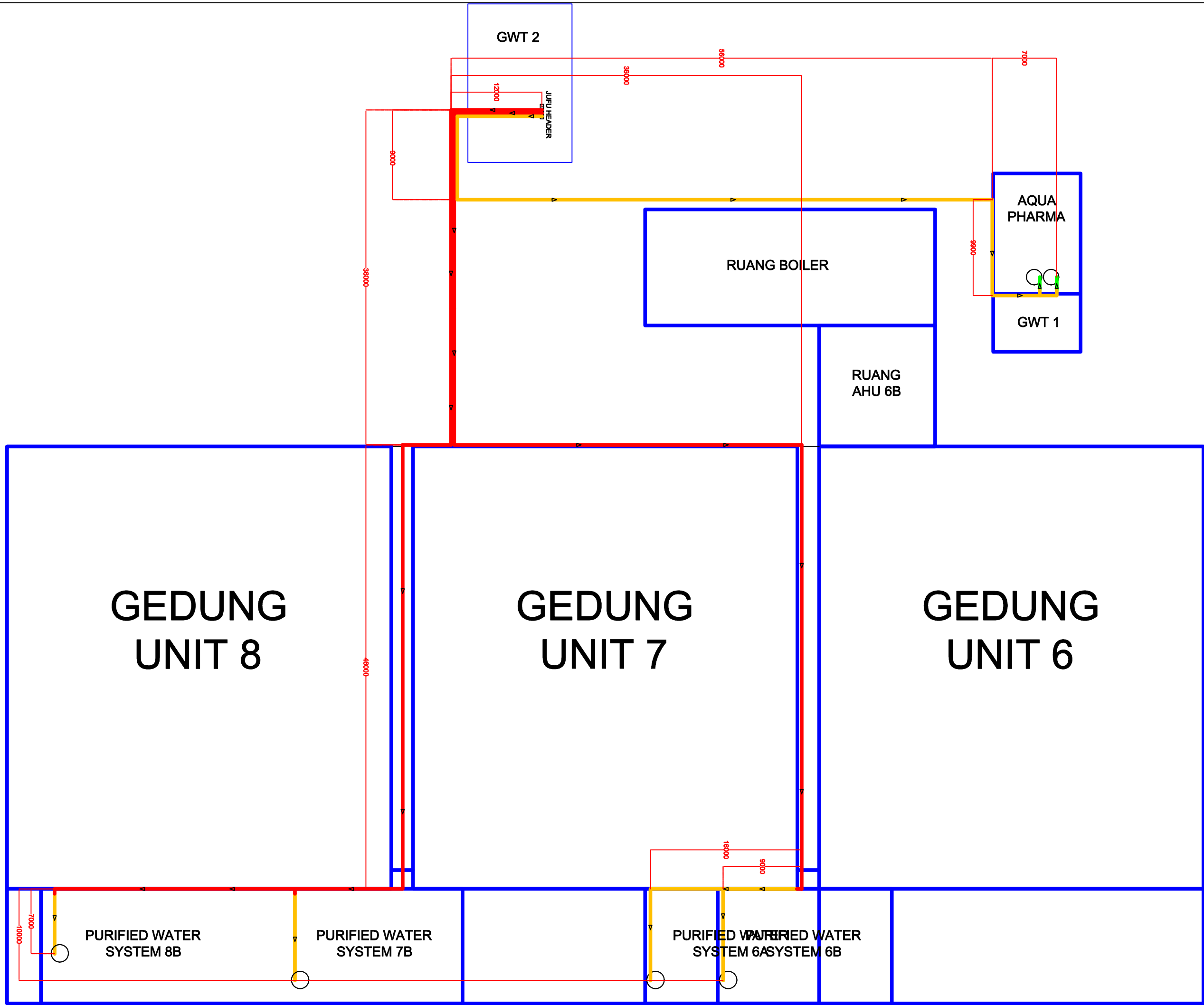
Pengadaan material piping distribusi air produk JUFU dengan rincian kebutuhan material terlampir pada RAB.

|                                                                                                   |  |                                                                                                            |  |                                                                                                                 |  |
|---------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|--|
| Tanda tangan Pemohon (nama jelas)                                                                 |  | Tanda Tangan Mengetahui (nama jelas)                                                                       |  | Tanda Tangan Menyetujui (nama jelas)                                                                            |  |
| <br>Ajeng Ayu D |  | <br>Firman Ardi Busono |  | <br>Hermawan Widyaprasetya |  |
| M. Ardhany Rafi                                                                                   |  |                                                                                                            |  |                                                                                                                 |  |

## RAB Piping Distribution JUJU

| NO    | NAMA BARANG                                            | QTY | SATUAN | HARGA       | TOTAL        |
|-------|--------------------------------------------------------|-----|--------|-------------|--------------|
| 1     | Water Pressure Tank Vertical 100L Waterplus PRSTK 100V | 1   | Pcs    | Rp3,500,000 | Rp3,500,000  |
| 2     | Pressure Switch Saginomiya SNS-C110X                   | 1   | Pcs    | Rp250,000   | Rp250,000    |
| 3     | Gate Valve Flange 4" Kitz                              | 2   | Pcs    | Rp4,200,000 | Rp8,400,000  |
| 4     | Gate Valve Flange 2" Kitz                              | 1   | Pcs    | Rp2,275,000 | Rp2,275,000  |
| 5     | Butterfly Valve Aluminium Lever Handle 3" Kitz         | 2   | Pcs    | Rp1,385,000 | Rp2,770,000  |
| 6     | Ball Valve Drat Kuningan Class 400 1" Kitz             | 1   | Pcs    | Rp365,000   | Rp365,000    |
| 7     | Ball Valve Drat Kuningan Class 400 1/2" Kitz           | 2   | Pcs    | Rp210,000   | Rp420,000    |
| 8     | Strainer Y Flange 3"                                   | 2   | Pcs    | Rp1,300,000 | Rp2,600,000  |
| 9     | Pressure Gauge SS 4" 0-10 bar Drat 1/2" NPT Wika       | 2   | Pcs    | Rp750,000   | Rp1,500,000  |
| 10    | Pipa PPR Rucika 4"                                     | 28  | Batang | Rp1,250,000 | Rp35,000,000 |
| 11    | Pipa PPR Rucika 2"                                     | 8   | Batang | Rp290,000   | Rp2,320,000  |
| 12    | Tee PPR Rucika 4"                                      | 2   | Pcs    | Rp350,000   | Rp700,000    |
| 13    | Reducer PPR Rucika 4" x 2"                             | 4   | Pcs    | Rp173,000   | Rp692,000    |
| 14    | Elbow PPR Rucika 4"                                    | 11  | Pcs    | Rp245,000   | Rp2,695,000  |
| 15    | Elbow PPR Rucika 2"                                    | 4   | Pcs    | Rp55,000    | Rp220,000    |
| 16    | Sock Coupler PPR Rucika 4"                             | 20  | Pcs    | Rp157,000   | Rp3,140,000  |
| 17    | Sock Coupler PPR Rucika 2"                             | 10  | Pcs    | Rp37,000    | Rp370,000    |
| 18    | Flange Stub End PPR + Back Ring Besi Set 4"            | 2   | Set    | Rp275,000   | Rp550,000    |
| 19    | Flange Stub End PPR + Back Ring Besi Set 2"            | 1   | Set    | Rp190,000   | Rp190,000    |
| 20    | Sok Drat Dalam Female PPR 2" Rucika Kelen              | 4   | Pcs    | Rp385,000   | Rp1,540,000  |
| 21    | Sok Drat Dalam Female PPR 1" Rucika Kelen              | 2   | Pcs    | Rp78,000    | Rp156,000    |
| 22    | Pipa PVC AW 6" x 4m Rucika                             | 2   | Pcs    | Rp865,000   | Rp1,730,000  |
| 23    | Pipa PVC AW 3" x 4m Rucika                             | 2   | Pcs    | Rp865,000   | Rp1,730,000  |
| 24    | Tee Reducer PVC AW 6" x 3" Rucika                      | 3   | Pcs    | Rp280,000   | Rp840,000    |
| 25    | Dop PVC AW 6" Rucika                                   | 2   | Pcs    | Rp100,000   | Rp200,000    |
| 26    | Sok PVC AW 6" Rucika                                   | 1   | Pcs    | Rp165,000   | Rp165,000    |
| 27    | Sok PVC AW 3" Rucika                                   | 3   | Pcs    | Rp40,000    | Rp120,000    |
| 28    | Elbow PVC AW 3" Rucika                                 | 3   | Pcs    | Rp52,000    | Rp156,000    |
| 29    | Flange PVC AW 3" Rucika                                | 3   | Pcs    | Rp60,000    | Rp180,000    |
| 30    | Blind Flange Besi JIS10K 6"                            | 1   | Pcs    | Rp235,000   | Rp235,000    |
| 31    | Flange Besi JIS10K 4"                                  | 2   | Pcs    | Rp85,000    | Rp170,000    |
| 32    | Flange Besi JIS10K 3"                                  | 4   | Pcs    | Rp80,000    | Rp320,000    |
| 33    | Flange Besi JIS10K 2"                                  | 2   | Pcs    | Rp50,000    | Rp100,000    |
| 34    | Pipa Galvanis Medium 1"                                | 1   | Batang | Rp445,000   | Rp445,000    |
| 35    | Incian Drat Pipa Besi 4" x 15 cm                       | 2   | Pcs    | Rp275,000   | Rp550,000    |
| 36    | Incian Drat Pipa Besi 3" x 15 cm                       | 2   | Pcs    | Rp155,000   | Rp310,000    |
| 37    | Incian Drat Pipa Galvanis 2" x 15 cm                   | 2   | Pcs    | Rp80,000    | Rp160,000    |
| 38    | Incian Drat Pipa Galvanis 1" x 15 cm                   | 2   | Pcs    | Rp30,000    | Rp60,000     |
| 39    | Incian Drat Pipa Galvanis 1/2" x 15 cm                 | 4   | Pcs    | Rp25,000    | Rp100,000    |
| 40    | Sok Drat Luar Galvanis 1/2"                            | 3   | Pcs    | Rp10,000    | Rp30,000     |
| 41    | Watermur Galvanis 1"                                   | 2   | Pcs    | Rp38,000    | Rp76,000     |
| 42    | Elbow 90deg Plain Drat Galvanis 1"                     | 5   | Pcs    | Rp18,000    | Rp90,000     |
| 43    | Elbow 90deg Plain Drat Galvanis 1/2"                   | 4   | Pcs    | Rp10,000    | Rp40,000     |
| 44    | Tee Drat Galvanis 1"                                   | 2   | Pcs    | Rp25,000    | Rp50,000     |
| 45    | Tee Drat Galvanis 1/2"                                 | 2   | Pcs    | Rp20,000    | Rp40,000     |
| 46    | Reducer Concentric Drat Galvanis 1" x 1/2"             | 2   | Pcs    | Rp20,000    | Rp40,000     |
| 47    | Vlok Sok Reducer Kuningan Male 1/2" x Female 1/4"      | 2   | Pcs    | Rp18,000    | Rp36,000     |
| 48    | Reducer Sanitary Concentric Las SS304 2,5" x 2"        | 4   | Pcs    | Rp150,000   | Rp600,000    |
| 49    | Ferrule Sanitary Las SS304 2,5"                        | 6   | Pcs    | Rp65,000    | Rp390,000    |
| 50    | Ferrule Sanitary Las SS304 2"                          | 6   | Pcs    | Rp60,000    | Rp360,000    |
| 51    | Ferrule Sanitary Drat Luar Male SS304 2"               | 6   | Pcs    | Rp350,000   | Rp2,100,000  |
| 52    | Clamp Ferrule Sanitary SS304 2,5"                      | 8   | Pcs    | Rp100,000   | Rp800,000    |
| 53    | Clamp Ferrule Sanitary SS304 2"                        | 8   | Pcs    | Rp80,000    | Rp640,000    |
| 54    | Seal Silicone Tri Clamp Sanitary 2,5"                  | 10  | Pcs    | Rp20,000    | Rp200,000    |
| 55    | Seal Silicone Tri Clamp Sanitary 2"                    | 10  | Pcs    | Rp18,500    | Rp185,000    |
| 56    | Packing Karet Flange 4" inch                           | 8   | Pcs    | Rp23,000    | Rp184,000    |
| 57    | Packing Karet Flange 3" inch                           | 10  | Pcs    | Rp21,000    | Rp210,000    |
| 58    | Packing Karet Flange 2" inch                           | 6   | Pcs    | Rp13,000    | Rp78,000     |
| 59    | Seal Tape                                              | 35  | Pcs    | Rp6,000     | Rp210,000    |
| 60    | Lem Pipa PVC Kaleng 400g Isarplas                      | 2   | Pcs    | Rp70,000    | Rp140,000    |
| 61    | Baut + Mur Galvanis M16 x 100                          | 50  | Pcs    | Rp12,500    | Rp625,000    |
| 62    | Baut + Mur Galvanis M16 x 60                           | 100 | Pcs    | Rp5,000     | Rp500,000    |
| 63    | Ring Plat M16                                          | 250 | Pcs    | Rp200       | Rp50,000     |
| 64    | Ring Peer M16                                          | 250 | Pcs    | Rp200       | Rp50,000     |
| TOTAL |                                                        |     |        |             | Rp84,948,000 |





JUFU LINE FROM GWT TO RAW WATER TANK ALL PW

SKALA : 1:100