

LAMPIRAN 1

Tabel Specified mechanical properties

Specified Mechanical Properties

| Type | Grade | UNS No | Tensile Strength (MPa) min | Yield Strength (MPa) min | Elongation (% in 50mm) min | Hardness max | |
|-----------------|-------------|--------|----------------------------|--------------------------|----------------------------|-----------------|--------------|
| | | | | | | Rockwell (HR B) | Brinell (HB) |
| Austenitic | 201 | S20100 | 515 | 260 | 40 | 95 | 217 |
| | 202 | S20200 | 620 | 260 | 40 | - | 241 |
| | 301 | S30100 | 515 | 205 | 40 | 95 | 217 |
| | 302HQ | S30430 | (450) | (205) | (70) | - | - |
| | 303 | S30300 | - | - | - | - | 262 |
| | 304 | S30400 | 515 | 205 | 40 | 92 | 201 |
| | 304L | S30403 | 485 | 170 | 40 | 92 | 201 |
| | 304H | S30409 | 515 | 205 | 40 | 92 | 201 |
| | 304N | S30451 | 550 | 240 | 30 | 95 | 217 |
| | 309S | S30908 | 515 | 205 | 40 | 95 | 217 |
| | 310H | S31009 | 515 | 205 | 40 | 95 | 217 |
| | 310S | S31008 | 515 | 205 | 40 | 95 | 217 |
| | 316 | S31600 | 515 | 205 | 40 | 95 | 217 |
| | 316L | S31603 | 485 | 170 | 40 | 95 | 217 |
| | 316H | S31609 | 515 | 205 | 40 | 95 | 217 |
| | 316N | S31651 | 550 | 240 | 35 | 95 | 217 |
| | 316Ti | S31635 | 515 | 205 | 40 | 95 | 217 |
| | 317L | S31703 | 515 | 205 | 40 | 95 | 217 |
| | 321 | S32100 | 515 | 205 | 40 | 95 | 217 |
| | 347 | S34700 | 515 | 205 | 40 | 92 | 201 |
| | 904L | N08904 | 490 | 220 | 35 | 90 | - |
| | 253MA | S30815 | 600 | 310 | 40 | 95 | 217 |
| 4565S | S34565 | 795 | 415 | 35 | 100 | 241 | |
| Ferritic | 409 | S40900 | 380 | 207 | 20 | 95 | 207 |
| | AtlasCR12 | S41003 | 455 | 275 | 18 | 20HRC | 223 |
| | AtlasCR12Ti | - | 460 | 300 | 18 | - | 220 |
| | 430 | S43000 | 450 | 205 | 22 | 89 | 180 |
| | 430F | S43020 | (552) | (380) | (25) | - | 262 |
| | Atlas F20S | - | (510) | (360) | (29) | (78) | - |
| | 444 | S44400 | 415 | 275 | 20 | 96 | 217 |
| | 446 | S44600 | 450 | 276 | 20 | - | 219 |
| Duplex | 2101 | S32101 | 680 | 480 | 30 | - | 290 |
| | 2304 | S32304 | 600 | 400 | 25 | 32HRC | 290 |
| | 2205 | S32205 | 620 | 450 | 25 | 31HRC | 293 |
| | 329 | S32900 | 620 | 485 | 15 | 28HRC | 269 |
| | 2507 | S32750 | 795 | 550 | 15 | 32HRC | 310 |
| | 2507Cu | S32520 | 770 | 550 | 25 | - | 310 |
| | Zeron100 | S32760 | 750 | 550 | 25 | - | 270 |
| P.H Martensitic | 410 | S41000 | 480 | 275 | 16 | - | - |
| | 416 | S41600 | (517) | (276) | (30) | - | 262 |
| | 420 | S42000 | (655) | (345) | (25) | - | 241 |
| | 431 (H&T) | S43100 | 850-1000 | 635 | 11 | - | 248-302 |
| | 440C | S44004 | (758) | (448) | (14) | - | 269 |
| P.H | 630 (H900) | S17400 | 1310 | 1170 | 10 | 40HRC min | 388 min |
| | 631 (CH900) | S17700 | 1585 | - | - | - | - |

LAMPIRAN 2

Tabel 2.1 *Density of liquid water*

A.2-3 Density of Liquid Water

| Temperature | | Density | | Temperature | | Density | |
|-------------|----|-------------------|-------------------|-------------|-----|-------------------|-------------------|
| K | °C | g/cm ³ | kg/m ³ | K | °C | g/cm ³ | kg/m ³ |
| 273.15 | 0 | 0.99987 | 999.87 | 323.15 | 50 | 0.98807 | 988.07 |
| 277.15 | 4 | 1.00000 | 1000.00 | 333.15 | 60 | 0.98324 | 983.24 |
| 283.15 | 10 | 0.99973 | 999.73 | 343.15 | 70 | 0.97781 | 977.81 |
| 293.15 | 20 | 0.99823 | 998.23 | 353.15 | 80 | 0.97183 | 971.83 |
| 298.15 | 25 | 0.99708 | 997.08 | 363.15 | 90 | 0.96534 | 965.34 |
| 303.15 | 30 | 0.99568 | 995.68 | 373.15 | 100 | 0.95838 | 958.38 |
| 313.15 | 40 | 0.99225 | 992.25 | | | | |

Source: R. H. Perry and C. H. Chilton, *Chemical Engineers' Handbook*, 5th ed. New York: McGraw-Hill Book Company, 1973. With permission.

Tabel 2.2 *Viscosity of liquid water*

A.2-4 Viscosity of Liquid Water

| Temperature | | Viscosity [[Pa · s] 10 ³ , (kg/m · s) 10 ³ , or cp] | Temperature | | Viscosity [[Pa · s] 10 ³ , (kg/m · s) 10 ³ , or cp] |
|-------------|------|--|-------------|----|--|
| K | °C | | K | °C | |
| 273.15 | 0 | 1.7921 | 323.15 | 50 | 0.5494 |
| 275.15 | 2 | 1.6728 | 325.15 | 52 | 0.5315 |
| 277.15 | 4 | 1.5674 | 327.15 | 54 | 0.5146 |
| 279.15 | 6 | 1.4728 | 329.15 | 56 | 0.4985 |
| 281.15 | 8 | 1.3860 | 331.15 | 58 | 0.4832 |
| 283.15 | 10 | 1.3077 | 333.15 | 60 | 0.4688 |
| 285.15 | 12 | 1.2363 | 335.15 | 62 | 0.4550 |
| 287.15 | 14 | 1.1709 | 337.15 | 64 | 0.4418 |
| 289.15 | 16 | 1.1111 | 339.15 | 66 | 0.4293 |
| 291.15 | 18 | 1.0559 | 341.15 | 68 | 0.4174 |
| 293.15 | 20 | 1.0050 | 343.15 | 70 | 0.4061 |
| 293.35 | 20.2 | 1.0000 | 345.15 | 72 | 0.3952 |
| 295.15 | 22 | 0.9579 | 347.15 | 74 | 0.3849 |
| 297.15 | 24 | 0.9142 | 349.15 | 76 | 0.3750 |
| 298.15 | 25 | 0.8937 | 351.15 | 78 | 0.3655 |

LAMPIRAN 3
BIODATA PENULIS



A. DATA PRIBADI

Nama lengkap : Asif Suryaman
Tempat, tanggal lahir : Tasikmalaya, 05 Mei 2001
Jenis kelamin : Laki-Laki
Alamat : Kp. Jatiwangi Rt. 003 Rw. 002 Kelurahan
Mugarsari Kecamatan Tamansari Kota
Tasikmalaya
Agama : Islam
No. HP : 085223290717
E-mail : asifsuryaman6@gmail.com
Motto : Jangan takut salah karena takut salah itu salah

B. DATA PENDIDIKAN

2007 - 2008 RA Al-Hikmah
2008 - 2014 Min Sumelap
2014 - 2017 Mts Negeri 4 Kota Tasikmalaya
2017 - 2020 SMK Negeri 2 Tasikmalaya
2020 - 2023 Politeknik Negeri Cilacap

LAMPIRAN 4

Tabel Bill of material

| No | Part Name | Qty | Specification/ Dimension | Harga satuan | Total |
|--------------|------------------------------------|-----|-----------------------------|-----------------|--------------------|
| 1 | Batu Apung | 1 | | Rp 10,000 | Rp 10,000 |
| 2 | Plat <i>Stainless</i> | 1 | 1.2 x 1 | Rp 80,000 | Rp 180,000 |
| 3 | Pipa <i>Galvanis</i> | 2 | 2 1/2 inch | Rp 50,000 | Rp 100,000 |
| 4 | Pipa <i>Stainless</i> | 2 | 1 inch | Rp 10,000 | Rp 20,000 |
| 5 | Pompa Air | 1 | GP 125 daya 125 watt | Rp 302,000 | Rp 302,000 |
| 6 | Pipa Plastik | 1 | Cvc aw/ 1 inch | Rp 13,500 | Rp 13,500 |
| 7 | Pipa Plastik | 1 | Cvc aw/ 1/2 inch | Rp 7,000 | Rp 7,000 |
| 8 | Selang Air | 5 | 5/8 inch | Rp 11,000 | Rp 55,000 |
| 9 | <i>Clamp</i> Selang | 3 | 1 inch | Rp 5,000 | Rp 15,000 |
| 10 | Sambungan Pipa | 1 | 1 inch | Rp 4,500 | Rp 4,500 |
| 11 | Sambungan pipa | 1 | 1 x 1/2 inch | Rp 3,500 | Rp 3,500 |
| 12 | <i>Seal Tape</i> | 1 | | Rp 5,000 | Rp 5,000 |
| 13 | kabel | 2 | 2 x 0,75 mm | Rp 16,000 | Rp 32,000 |
| 14 | <i>Lbow</i> | 1 | 1 inch | Rp 5,500 | Rp 5,500 |
| 15 | Isolasi Listrik | 1 | | Rp 9,000 | Rp 9,000 |
| 16 | Patri | 5 | 50 x 50 cm | Rp 60,000 | Rp 300,000 |
| 17 | Karet | 1 | 3 mm | Rp 25,000 | Rp 25,000 |
| 18 | Baja Pejal | 1 | Ø25 mm x 100 mm | Rp 30,000 | Rp 30,000 |
| 19 | <i>Flange Stainless</i> | 4 | Ø210 mm x 3 mm | Rp 50,000 | Rp 200,000 |
| 20 | <i>Flange Stainless</i> | 2 | Ø80 mm x 3 mm | Rp 25,000 | Rp 50,000 |
| 21 | Isaplas | 1 | | Rp 10,000 | Rp 10,000 |
| 22 | Sambungan Pipa | 1 | 1/2 inch | Rp 4,000 | Rp 4,000 |
| 23 | Semprotan Air (<i>Nozzel</i>) | 1 | 1/2 inch x 9 cm | Rp 12,000 | Rp 12,000 |
| 24 | Kepala Keran | 1 | 1/2 inch x 9 cm | Rp 8,000 | Rp 8,000 |
| 25 | Mur | 1 | M20 x 1,5 | Rp 4,000 | Rp 4,000 |
| 26 | Ring | 20 | M6 | Rp 800 | Rp 16,000 |
| 27 | Baut | 20 | M6 x 20 mm x 10 mm | Rp 1,700 | Rp 34,000 |
| 28 | Mur | 20 | M6 x 20 mm x 10 mm | Rp 1,000 | Rp 20,000 |
| 29 | Dana lain-lain | 1 | | Rp1.000,000 | Rp1.000,000 |
| Total | | | | | Rp2.475,000 |

LAMPIRAN 5
STUDI LAPANGAN
HASIL WAWANCARA

| No | Pertanyaan | Jawaban |
|-----------|---|---|
| 1 | Apakah sampah menjadi permasalahan dikampung sepih kebon manis ? | Ya, disini pembuangan sampah belum teratur, ada yang dibakar dan ada juga yang di kumpulkan diangkut ke truk sampah. |
| 2 | Mengapa ada yang dibakar dan ada yang diangkut ke truk sampah ? | Kalau untuk truk sampah karena punya biaya untuk membayar, kalau untuk yang dibakar seperti saya contohnya ya, karena menurut saya di bakar itu menghemat biaya tidak mengeluarkan uang sepeserpun dibandingkan dengan kalau kita ke truk sampah harus bayar tiap bulannya. |
| 3 | Karena bapak biasa membakar sampah, apakah tidak mencemari lingkungan ? | Ya kalau dipikir-pikir, mencemari udara. karena menimbulkan asap. Dari asap tersebut juga dapat menyebabkan sesak napas selain itu juga mengganggu pandangan pengendara motor. Ketika bakar sampahnya di pinggir jalan. |
| 4 | Bagaimana kalau saya membuat alat untuk menyaring asap agar dapat mengurangi pencemaran udara akibat pembakaran sampah tersebut ? | Iya mas bagus itu, semoga saja dapat mengurangi pencemaran udara akibat pembakaran sampah. |

LAMPIRAN 6

HASIL PENGUJIAN *VENTURI SCRUBBER*

SiCa-230
102202000522

Natural gas

| | | |
|------------|-------|-----|
| O2 | 18.45 | % |
| CO | 914 | ppm |
| NO | 10 | ppm |
| NOx | 10 | ppm |
| SO2 | 0 | ppm |
| CxHy | 0 | ppm |
| CO2 | 1.4 | % |
| Eff. (eta) | --- | % |
| T flue | --- | °C |
| T air | 40.6 | °C |
| deltaT | --- | °C |
| Draft | -2 | Pa |
| X Air | --- | % |
| Smoke | 2 | % |

Notes :
Venturi Scrubber

SiCa-230
102202000522

Natural gas

| | | |
|------------|-------|-----|
| O2 | 20.80 | % |
| CO | 14 | ppm |
| NO | 0 | ppm |
| NOx | 0 | ppm |
| SO2 | 8 | ppm |
| CxHy | 0 | ppm |
| CO2 | 0.1 | % |
| Eff. (eta) | --- | % |
| T flue | --- | °C |
| T air | 31.5 | °C |
| deltaT | --- | °C |
| Draft | -2 | Pa |
| X Air | --- | % |
| Smoke | 2 | % |

Notes :
Udara Bersih

SiCa-230
102202000522

Natural gas

| | | |
|------------|-------|-----|
| O2 | 20.90 | % |
| CO | 0 | ppm |
| NO | 0 | ppm |
| NOx | 0 | ppm |
| SO2 | 0 | ppm |
| CxHy | 0 | ppm |
| CO2 | 0.1 | % |
| Eff. (eta) | --- | % |
| T flue | --- | °C |
| T air | 27.1 | °C |
| deltaT | --- | °C |
| Draft | -3 | Pa |
| X Air | --- | % |
| Smoke | 2 | % |

Notes :
Venturi Scrubber

SiCa-230
102202000522

Natural gas

| | | |
|------------|-------|-----|
| O2 | 20.90 | % |
| CO | 0 | ppm |
| NO | 0 | ppm |
| NOx | 0 | ppm |
| SO2 | 0 | ppm |
| CxHy | 0 | ppm |
| CO2 | 0.1 | % |
| Eff. (eta) | --- | % |
| T flue | --- | °C |
| T air | 26.9 | °C |
| deltaT | --- | °C |
| Draft | -3 | Pa |
| X Air | --- | % |
| Smoke | 2 | % |

Notes :
Venturi Scrubber

SiCa-230
102202000522

Natural gas

| | | |
|------------|-------|-----|
| O2 | 20.81 | % |
| CO | 200 | ppm |
| NO | 0 | ppm |
| NOx | 0 | ppm |
| SO2 | 0 | ppm |
| CxHy | 0 | ppm |
| CO2 | 0.1 | % |
| Eff. (eta) | --- | % |
| T flue | --- | °C |
| T air | 27.3 | °C |
| deltaT | --- | °C |
| Draft | -3 | Pa |
| X Air | --- | % |
| Smoke | 2 | % |

Notes :
Venturi Scrubber

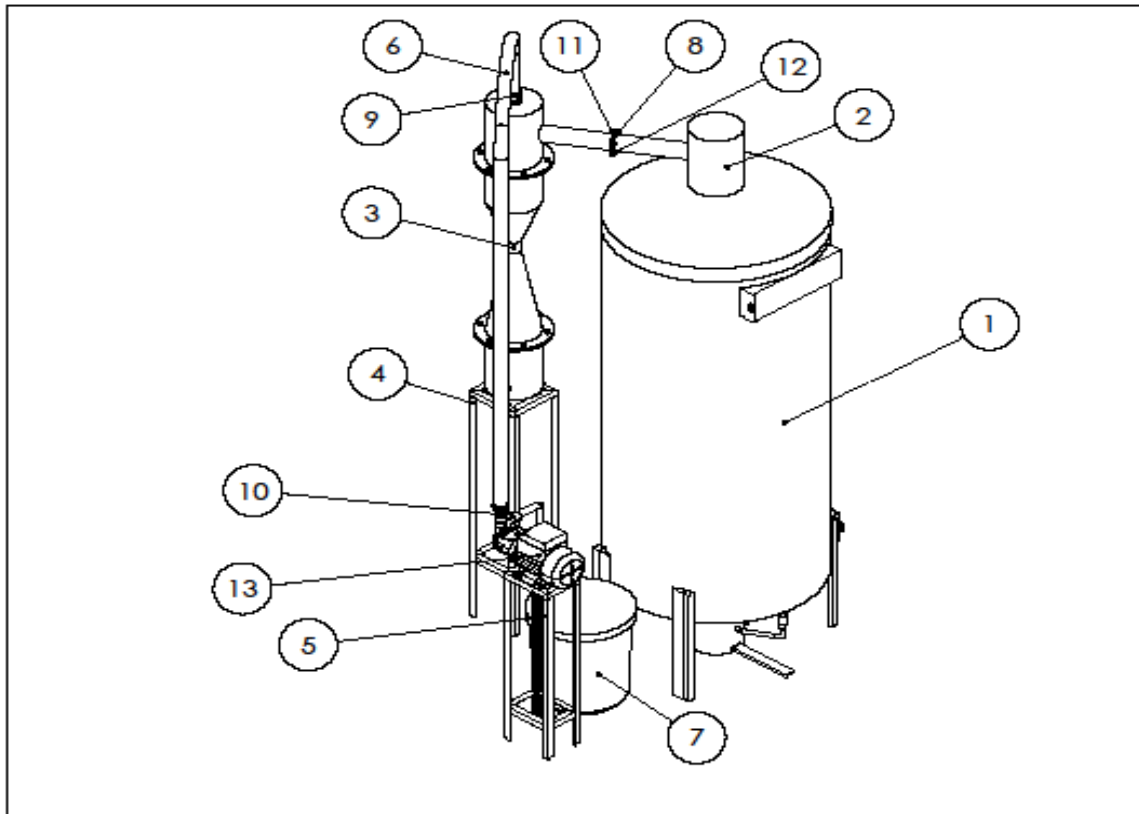
SiCa-230
102202000522

Natural gas

| | | |
|------------|-------|-----|
| O2 | 20.75 | % |
| CO | 104 | ppm |
| NO | 3 | ppm |
| NOx | 3 | ppm |
| SO2 | 3 | ppm |
| CxHy | 0 | ppm |
| CO2 | 0.1 | % |
| Eff. (eta) | --- | % |
| T flue | --- | °C |
| T air | 27.0 | °C |
| deltaT | --- | °C |
| Draft | -4 | Pa |
| X Air | --- | % |
| Smoke | 2 | % |

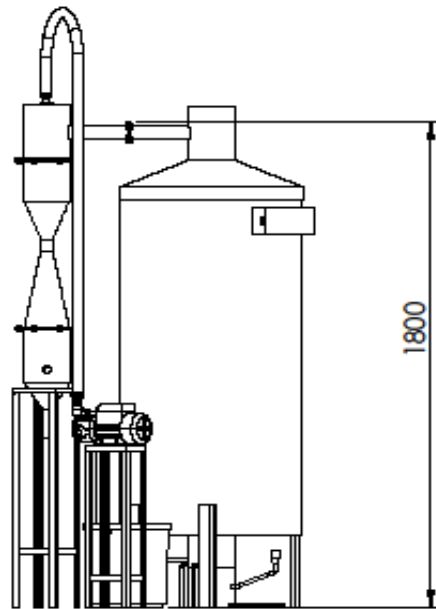
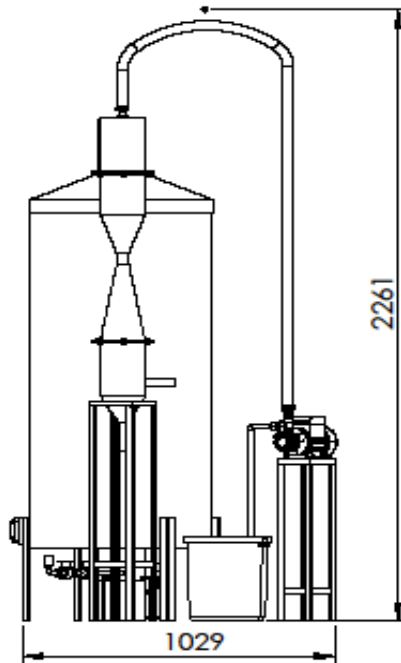
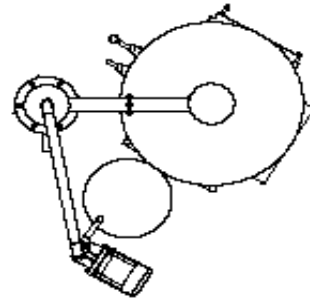
Notes :
Venturi Scrubber


LAMPIRAN 7
DESAIN VENTURI SCRUBBER

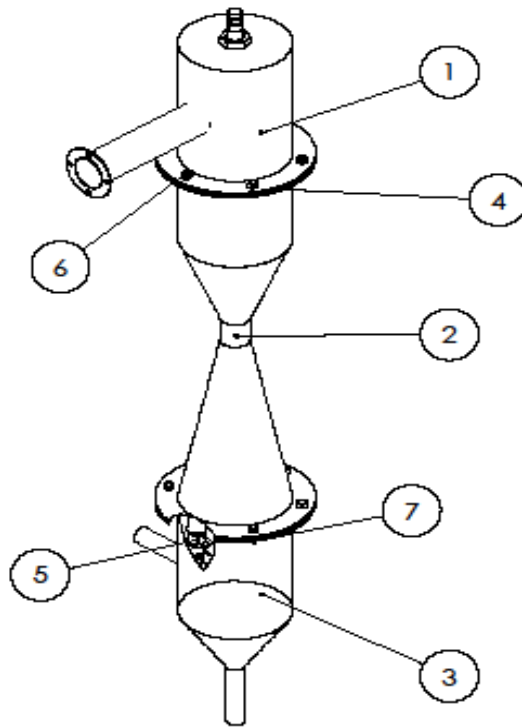


| | | | | | | | |
|---|----------------------------|----|---------|---------------|--|--|----|
| 1 | POMPA | 13 | STD | | | | |
| 6 | MUR | 12 | STD | M12 | | | |
| 6 | BAUT | 11 | STD | M12 | | | |
| 1 | HEAD SELANG | 10 | STD | | | | |
| 2 | CLAMP HOUSE | 9 | STD | 1 INCH | | | |
| 1 | KARET HOOPER | 8 | RUBBER | | | | |
| 1 | EMBER | 7 | PLASTIK | KAPASITAS 30L | | | |
| 1 | SELANG | 6 | PVC | 5 METER | | | |
| 1 | KAKI-KAKI POMPA | 5 | SS400 | | | | A5 |
| 1 | KAKI-KAKI VENTURI SCRUBBER | 4 | SS400 | | | | A4 |
| 1 | ASS VENTURI SCRUBBER | 3 | SS304 | | | | A3 |
| 1 | ASS HOOPER | 2 | SS400 | | | | A2 |
| 1 | INCINERATOR | 1 | | | | | A1 |

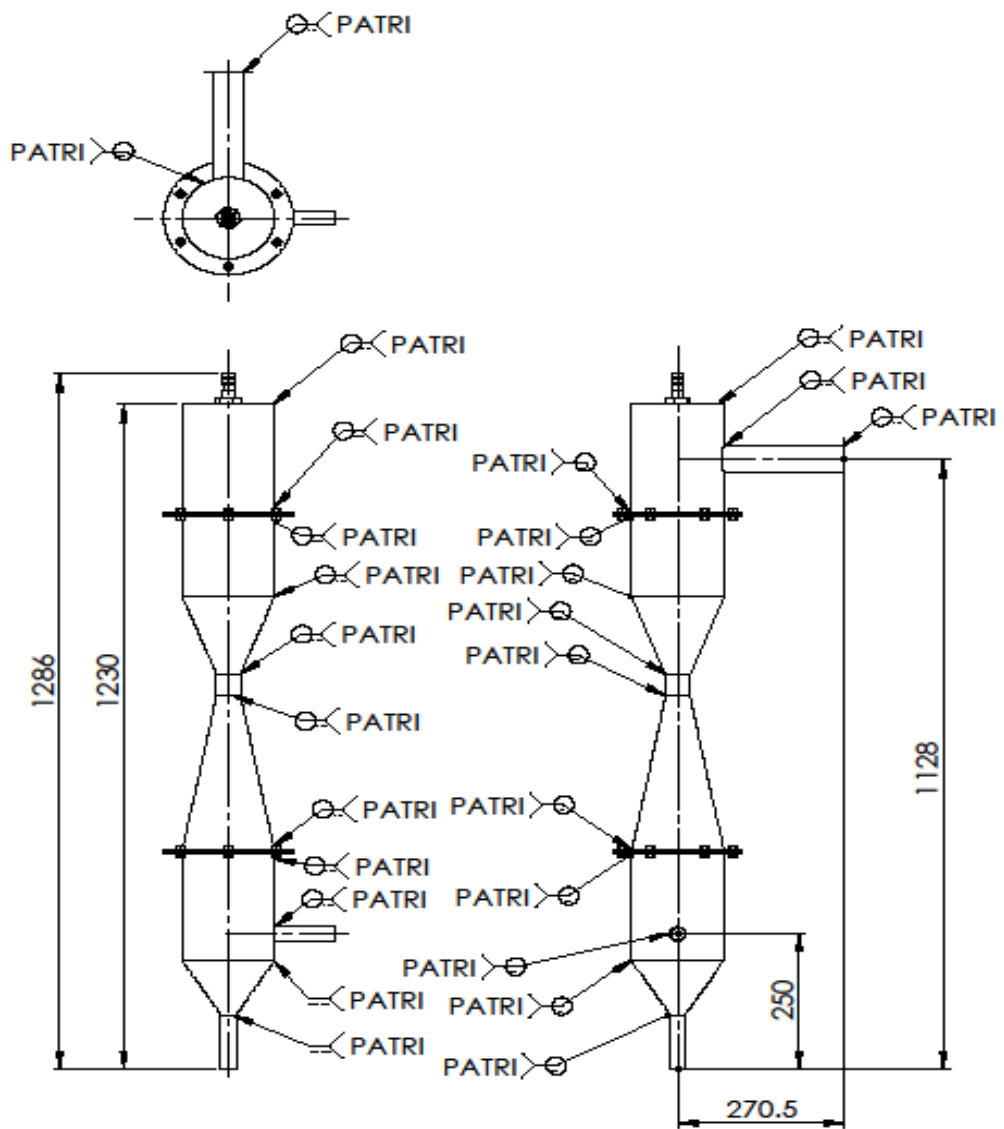
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------------|--------------|-----------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | | PROYEKSI | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| ASSEMBLY TOTAL SISTEM | | | | | | | | 1:16 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-00 | | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | A4 | | | |



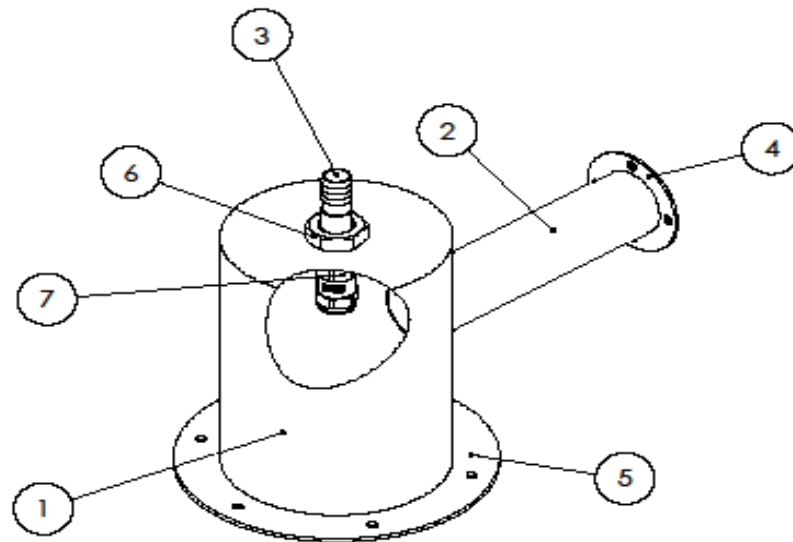
| JML | NAMA BAGIAN | | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------|-------------|--------------|-----------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | | NO ORDER | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| NAMA | | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| <h1>ASSEMBLY TOTAL SISTEM</h1> | | | | | | | | | 1:20 | DIPERIKSA | | |
| | | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-00 | | | | | | | | | FORMAT | | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | | A4 | | | |




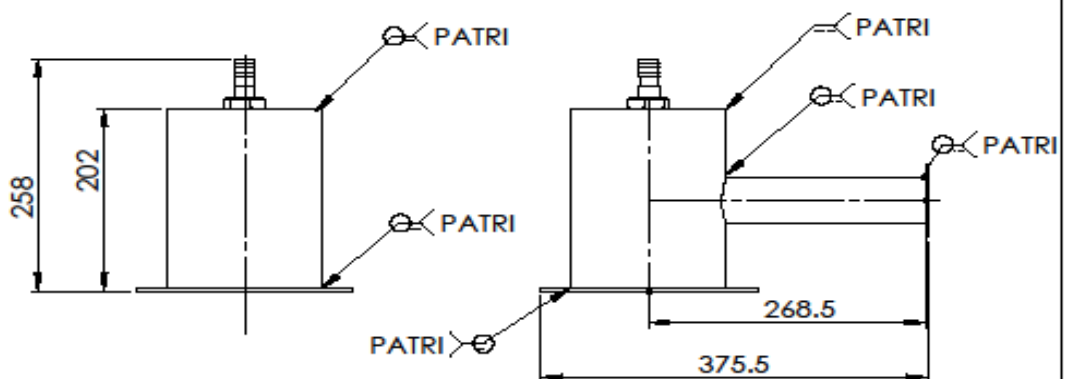
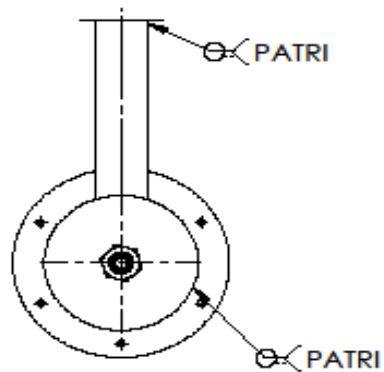
| | | | | | | | | | | |
|---|--------------------|-------|--------|-------------|--------------|--------|------------------|-----------|-----------|--------|
| 12 | MUR | 7 | STD | MB | | | | | | |
| 12 | BAUT | 6 | STD | MB | | | | | | |
| 21 | BATU APUNG | 5 | | | | | | | | |
| 2 | KARET | 4 | RUBBER | | | | B4 | | | |
| 1 | ASS TABUNG HILIR | 3 | S5304 | | | | B3 | | | |
| 1 | ASS TABUNG VENTURI | 2 | S5304 | | | | B2 | | | |
| 1 | ASS TABUNG HULU | 1 | S5304 | | | | B1 | | | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO, ID | F | | | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | NO ORDER | PROYEKSI | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | |
| NAMA | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| VENTURI SCRUBBER | | | | | | | 1:8 | DIPERIKSA | | |
| | | | | | | | | DISAHKAN | | |
| | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03 | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : tmpnc@politeknikcilacap.ac.id | | | | | | | A4 | | | |




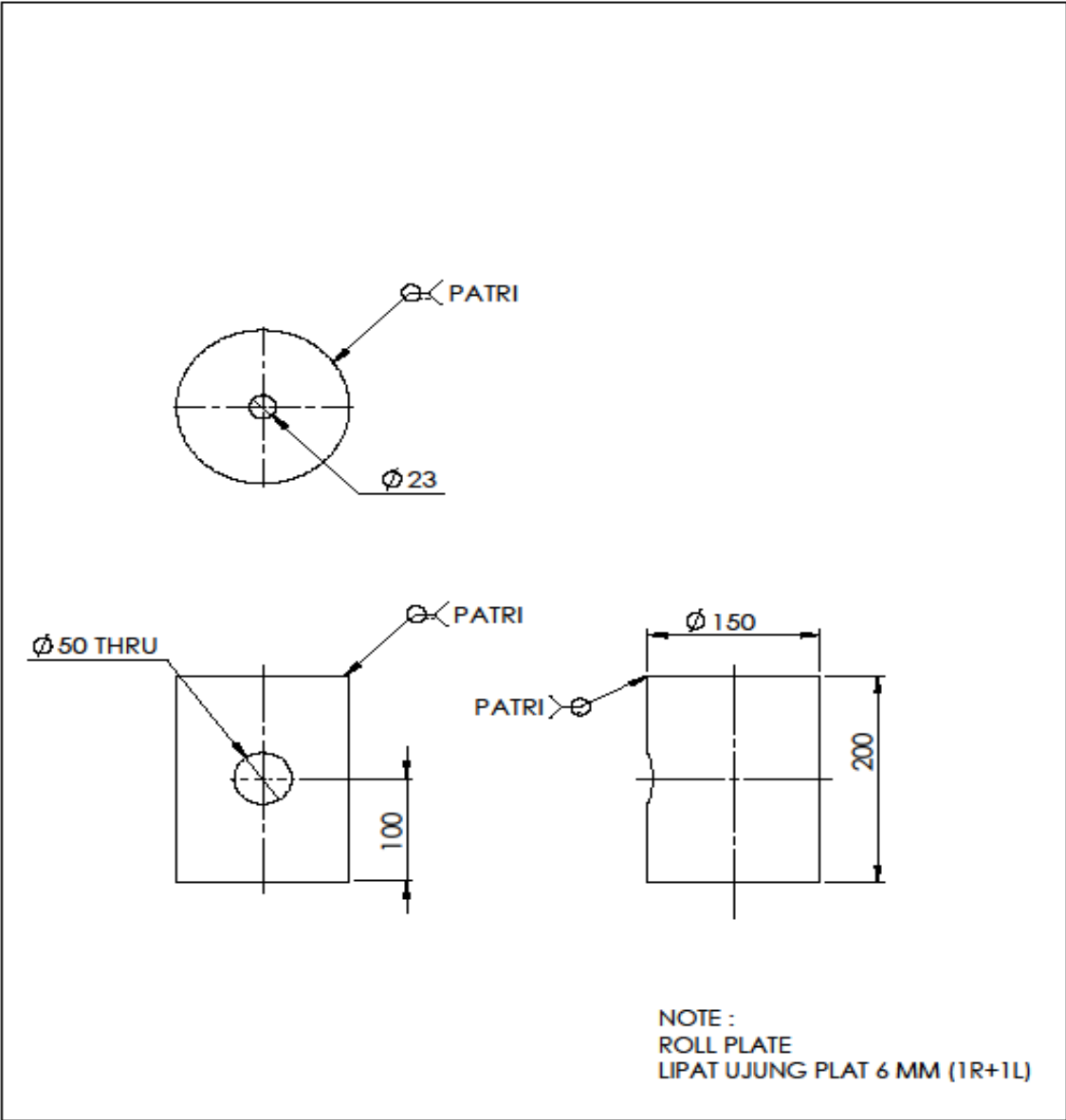
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------------|--------------|-----------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| VENTURI SCRUBBER | | | | | | | | 1:10 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| | | | | | | | | | | | |
| NO. ASSY : PNC-00-03 | | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | A4 | | | |



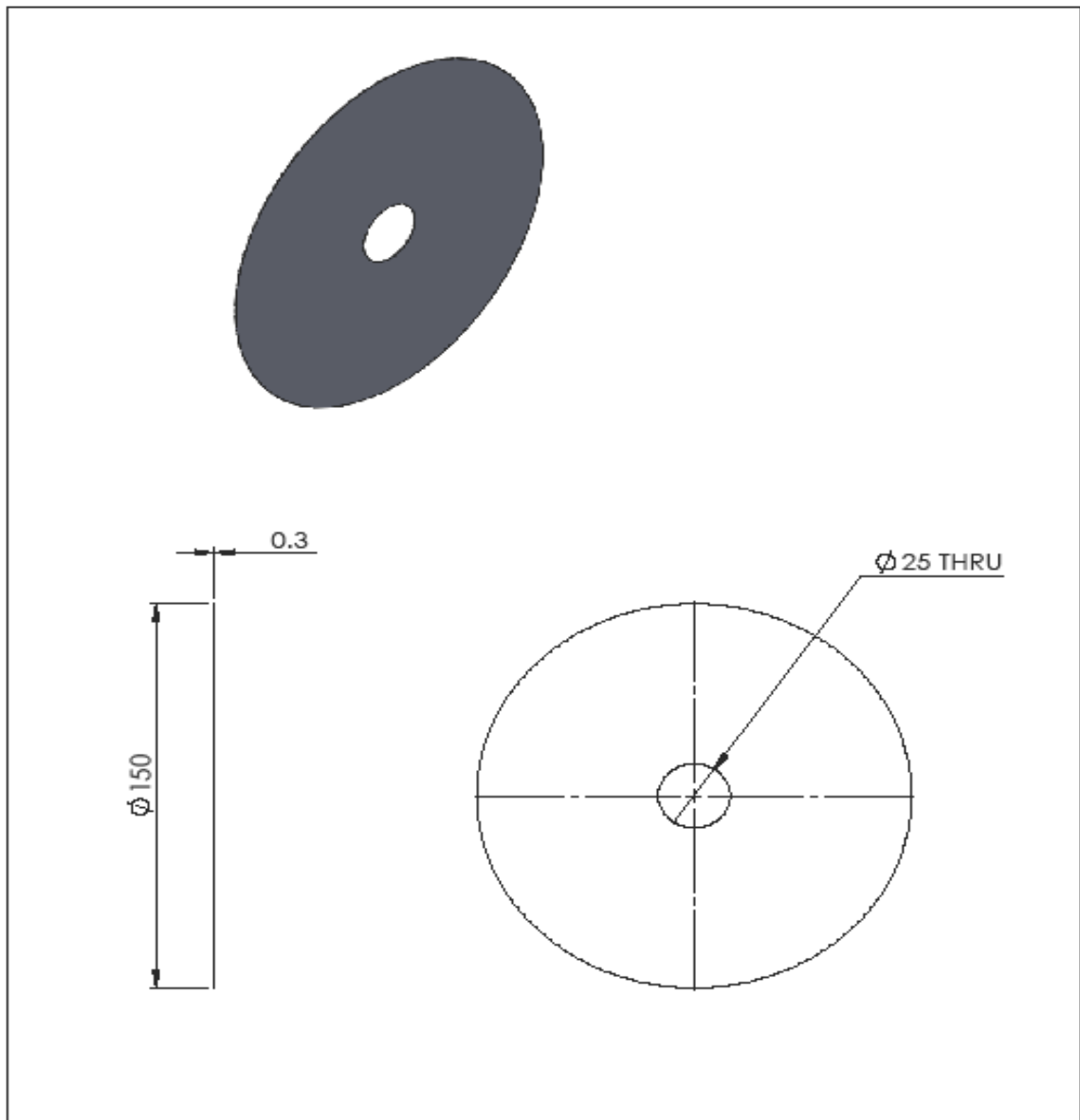
| | | | | | | | |
|--|----------------------|-------|-------|---------------|--------------|-----------|------------------|
| 1 | NOZZEL | 7 | BRASS | 85 mm X 14 mm | | | |
| 2 | MUR | 6 | STD | M20 | | | |
| 1 | PLANGE TABUNG | 5 | SS400 | | | C5 | |
| 1 | PLANGE PIPA KELUARAN | 4 | SS400 | | | C4 | |
| 1 | NEPEL | 3 | SS400 | | | C3 | |
| 1 | PIPA MASUK GAS | 2 | SS304 | | | C2 | |
| 1 | TABUNG HULU | 1 | SS304 | | | C1 | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO, ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | |
| NAMA | | | | | SKALA | DIGAMBAR | 8/22/2023 |
| ASSEMBLY TABUNG HULU | | | | | 1:4 | DIPERIKSA | ASIF S |
| | | | | | | DISAHKAN | |
| | | | | | | DINILAI | |
| | | | | | | FORMAT | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | A4 | | |



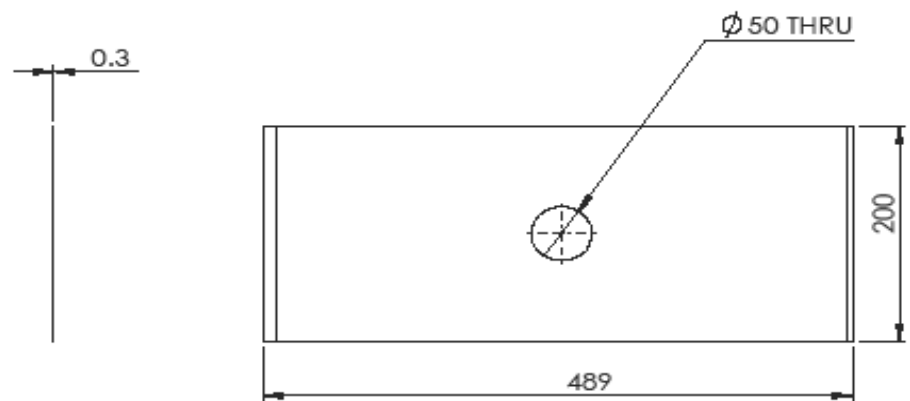
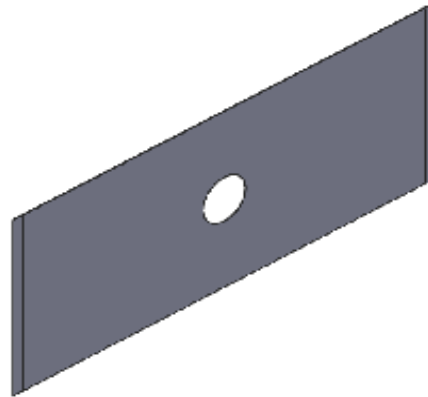
| JML | NAMA BAGIAN | | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------|-------------|--------------|-----------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| NAMA | | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| ASSEMBLY TABUNG HULU | | | | | | | | | 1:6 | DIPERIKSA | | |
| | | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | | DINILAI | | |
| | | | | | | | | | | | | |
| NO. ASSY : PNC-00-03-01-00 | | | | | | | | | FORMAT | | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | | A4 | | | |



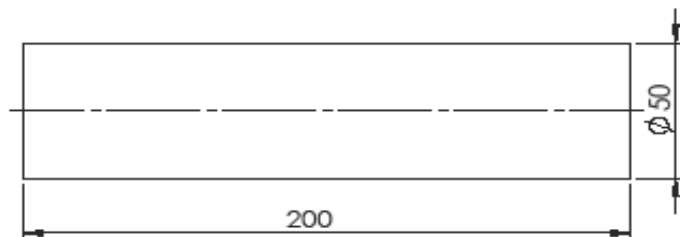
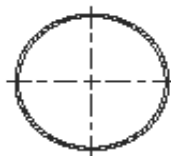
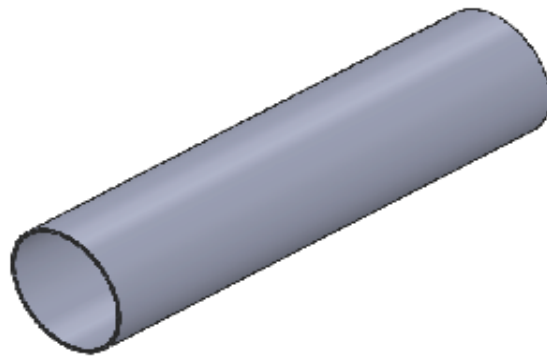
| | | | | | | | | | | | | |
|--|--------------|-------|-------|-------|-------|-------|------------------|-------------------|-------------------|-----------|--------|--|
| 1 | TABUNG HILIR | | | | | 1 | SS304 | ∅ 150 mm X 200 mm | ∅ 150 mm X 220 mm | C1 | | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S | |
| <h2 style="text-align: center;">TABUNG HULU HILIR</h2> | | | | | | | | 1:5 | DIPERIKSA | | | |
| | | | | | | | | | DISAHKAN | | | |
| | | | | | | | | | DINILAI | | | |
| NO. ASSY : PNC-00-03-01-01 | | | | | | | | FORMAT | | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | A4 | | | | |



| | | | | | | | |
|---|-----------------------|-------|-------|-------------|--------------|-----------|------------------|
| 1 | PLATE STAINLESS STEEL | 1 | SS304 | Ø 150 mm | Ø 160 mm | C1-1 | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | |
| NAMA | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| TABUNG HULU HILIR | | | | 1:2 | DIPERIKSA | | |
| | | | | | DISAHKAN | | |
| | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-01-01 | | | | FORMAT | | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CLACAP, 53212 TELP. 0282-533329, E-mail : fmpnc@politeknikcilacap.ac.id | | | | A4 | | | |

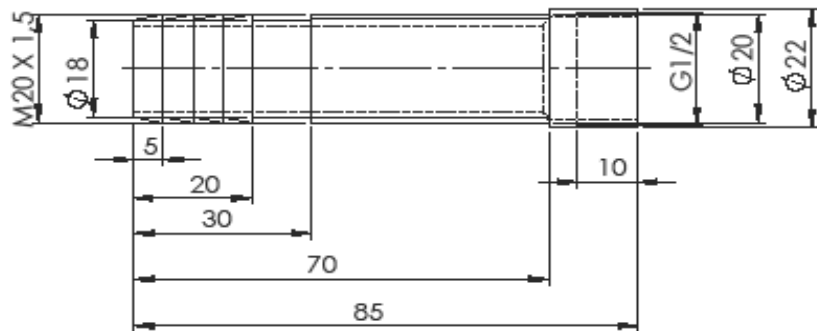
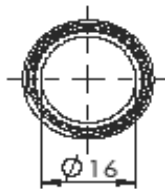
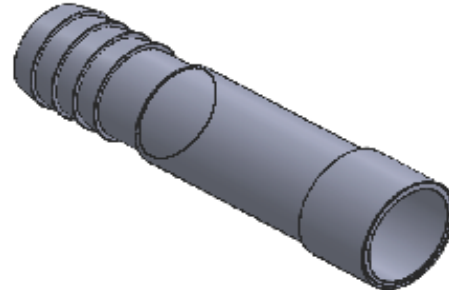


| | | | | | | | | | | | | |
|---|----------------------|-------|-------|--------------------------|--------------------------|-------|------------------|-------------|--------------|-----------|-----------|--------|
| 1 | PLAT STAINLESS STEEL | 2 | SS304 | 489 mm x 200 mm x 0,3 mm | 490 mm x 205 mm x 0,3 mm | C1-2 | | | | | | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| NAMA | | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| <h2>TABUNG HULU HILIR</h2> <p>NO. ASSY : PNC-00-03-01-01</p> | | | | | | | | | 1:5 | DIPERIKSA | | |
| | | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | | DINILAI | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | | FORMAT | | | |
| | | | | | | | | | A4 | | | |

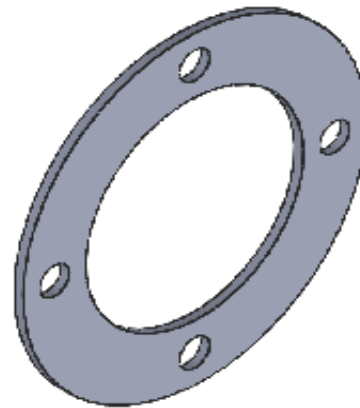


| | | | | | | | | |
|---|---------------|-------|-------|------------------------|--------------------------|-----------|------------------|--------|
| 1 | PIPA KELUARAN | 2 | SS400 | Ø50 mm x 200 mm x 2 mm | Ø50,8 mm x 205 mm x 2 mm | C2 | | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | |
| NAMA | | | | SKALA | | DIGAMBAR | 8/22/2023 | ASIF S |
| PIPA MASUK GAS | | | | 1:2 | | DIPERIKSA | | |
| | | | | | | DISAHKAN | | |
| | | | | | | DINILAI | | |
| | | | | | | | | |
| NO. ASSY : PNC-00-03-01-02 | | | | FORMAT | | | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | A4 | | | | |



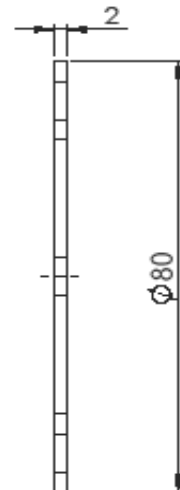
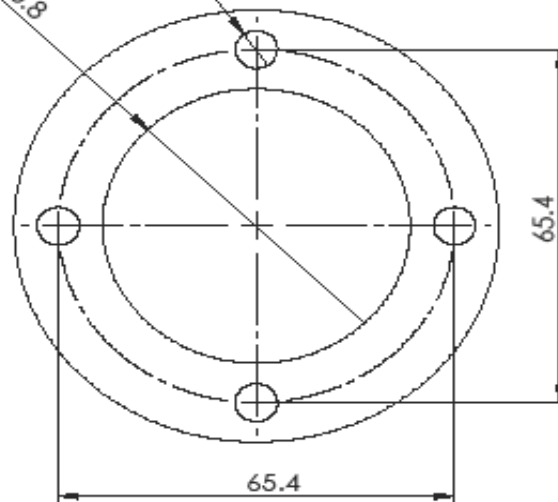


| | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|------------------|-----------------|-------------------|-----------|-----------|--------|
| 1 | NEPEL | | | | | 3 | SS400 | ∅ 22 mm x 80 mm | ∅ 25,4 mm x 85 mm | C3 | | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO, ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| NAMA | | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| <h1>NEPEL</h1> | | | | | | | | | 1:1 | DIPERIKSA | | |
| | | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-01-03 | | | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | | A4 | | | |

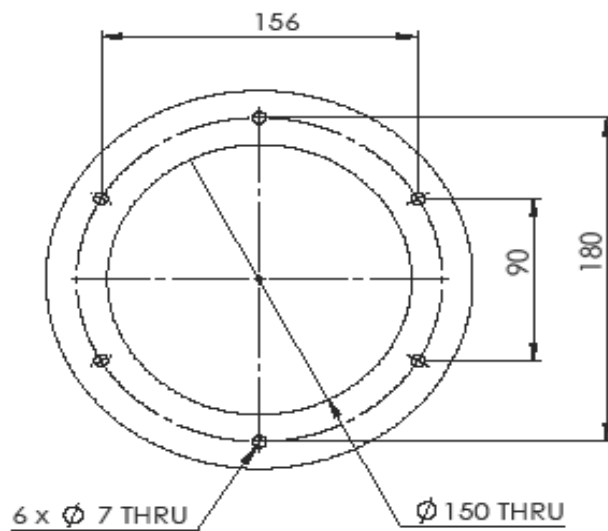
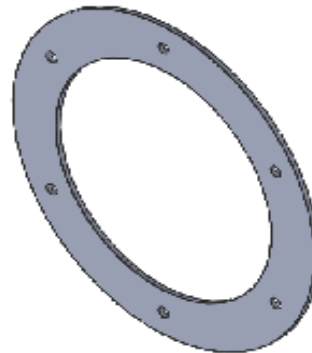



4 x ϕ 7.00 THRU

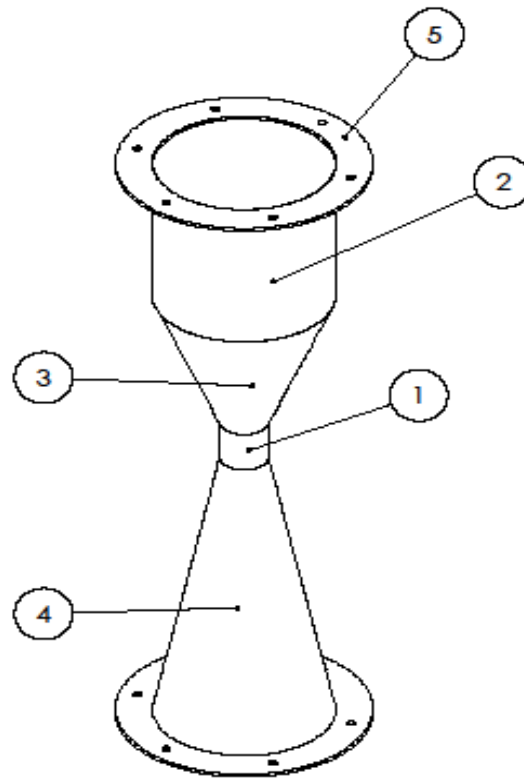
ϕ 50.8



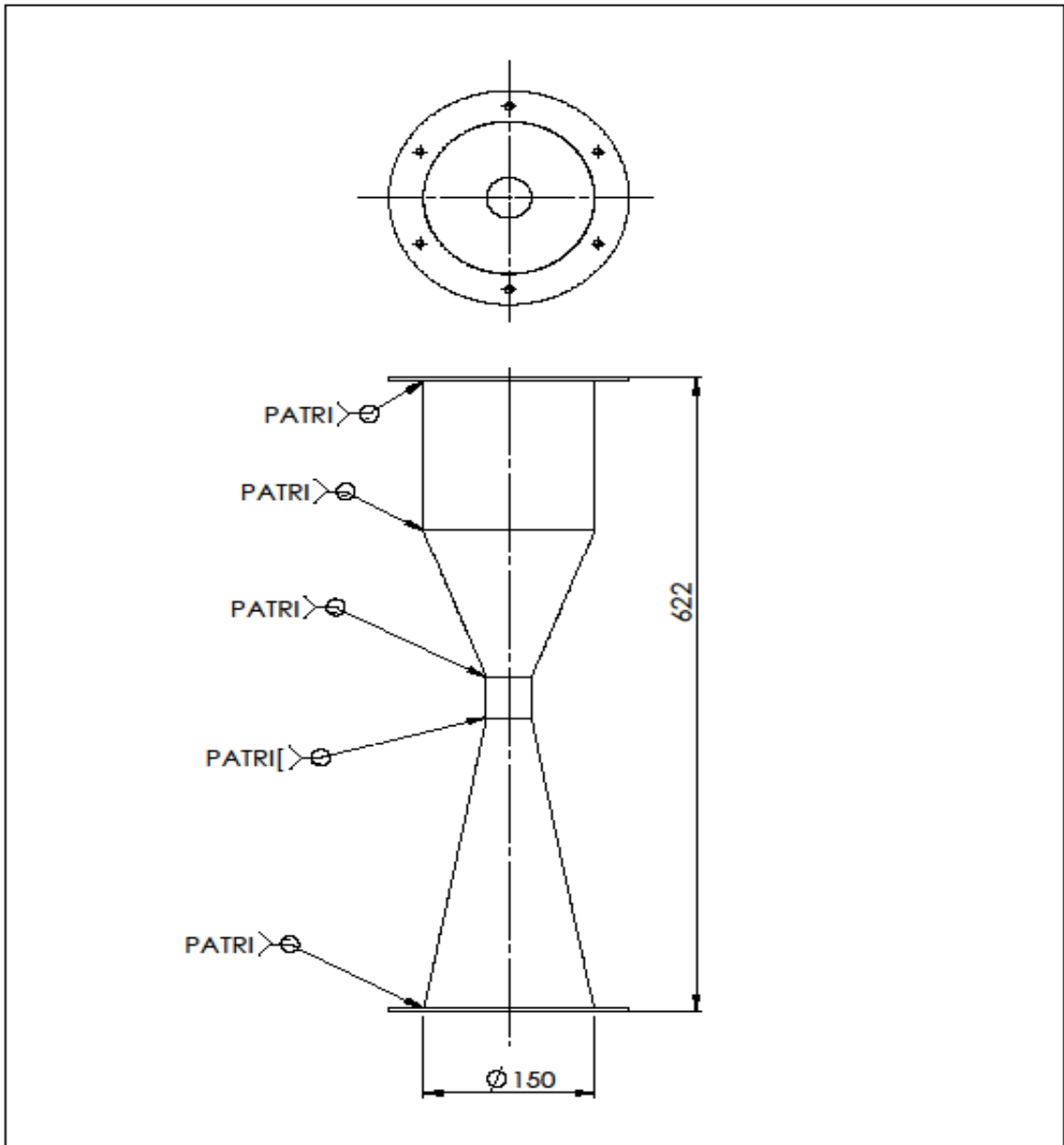
| | | | | | | | | |
|--|----------------------|-----------|-----------|---------------------|---------------------|-----------|------------------|--------|
| 1 | PLANGE PIPA KELUARAN | 4 | SS400 | ϕ 80 mm X 2 mm | ϕ 85 mm X 2 mm | C4 | | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO, ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | |
| TOL | $\pm 0,1$ | $\pm 0,2$ | $\pm 0,3$ | $\pm 0,5$ | $\pm 0,8$ | $\pm 1,2$ | | |
| NAMA | | | | SKALA | | PROYEKSI | | |
| <p style="text-align: center;">PLANGE PIPA KELUARAN</p> <p>NO. ASSY : PNC-00-03-01-04</p> | | | | 1:1 | | DIGAMBAR | 8/22/2023 | ASIF S |
| | | | | | | DIPERIKSA | | |
| | | | | | | DISAHKAN | | |
| | | | | | | DINILAI | | |
|  <p>POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id</p> | | | | FORMAT | | | | |
| | | | | A4 | | | | |

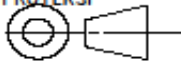



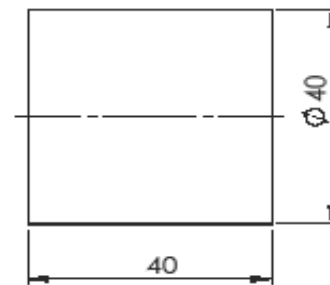
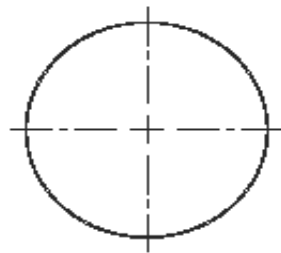
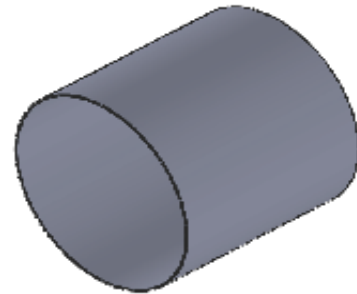
| | | | | | | | |
|---|-------------|-------|-------|-----------------|-----------------|-----------|------------------|
| 1 | PLANGE | 5 | SS400 | Ø 210 mm X 3 mm | Ø 215 mm X 3 mm | C5 | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO, ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | NO ORDER |
| NAMA | | | | SKALA | | PROYEKSI | |
| PLANGE TABUNG HULU | | | | 1:3 | | 8/22/2023 | |
| | | | | | | ASIF S | |
| | | | | | | DIGAMBAR | |
| | | | | | | DIPERIKSA | |
| NO. ASSY : PNC-00-03-01-05 | | | | FORMAT | | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | A4 | | | |



| | | | | | | | | | | | |
|-------------------------|-----------------------|-------|--|-------|-------|-------|------------------|-------------|--------------|-----------|--------|
| 2 | PLANGE | | | | | 5 | SS400 | | | C5 | |
| 1 | KONVERGEN VENTURI 2 | | | | | 4 | SS304 | | | C4 | |
| 1 | KONVERGEN VENTURI 1 | | | | | 3 | SS304 | | | C3 | |
| 1 | TABUNG VENTURI HULU | | | | | 2 | SS304 | | | C2 | |
| 1 | TABUNG VENTURI THROAT | | | | | 1 | SS304 | | | C1 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| <h2>TABUNG VENTURI</h2> | | | | | | | | 1:5 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| | | | | | | | | | FORMAT | | |
| A4 | | | | | | | | | | | |
| | | | POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : tnpnc@politeknikcilacap.ac.id | | | | | | | | |

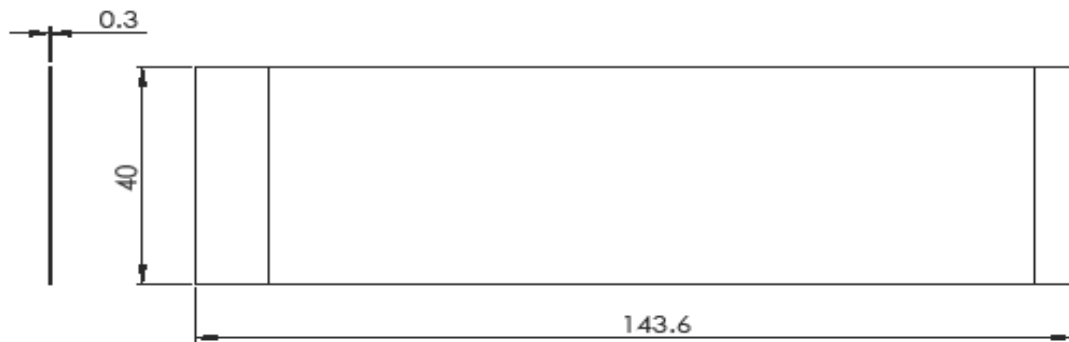
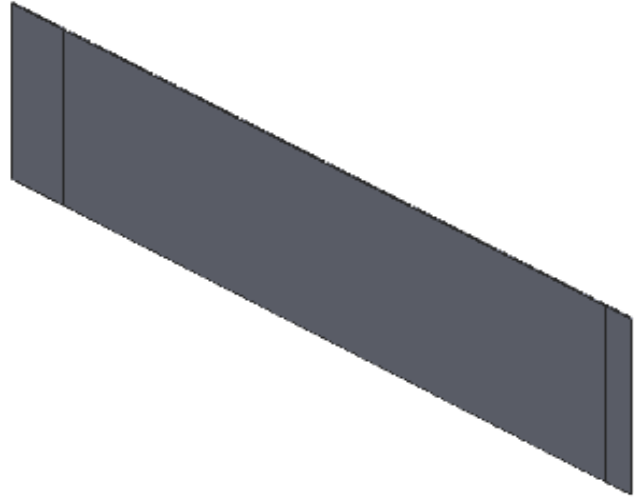


| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------------|---|-----------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI  | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/23/2023 | ASIF S |
| TABUNG VENTURI | | | | | | | | 1:5 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-02-00 | | | | | | | | FORMAT | | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : tnpnc@politeknikcilacap.ac.id | | | | | | | | A4 | | | |

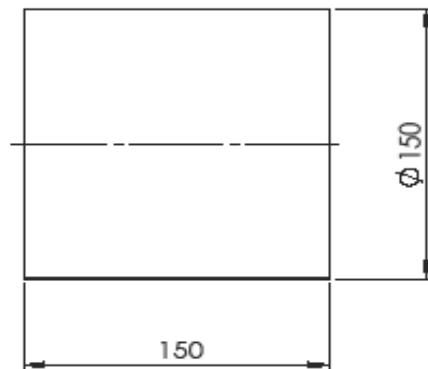
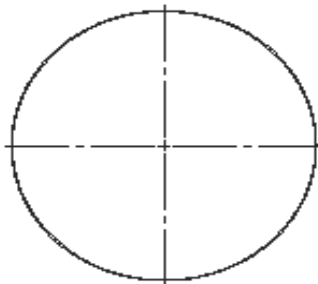
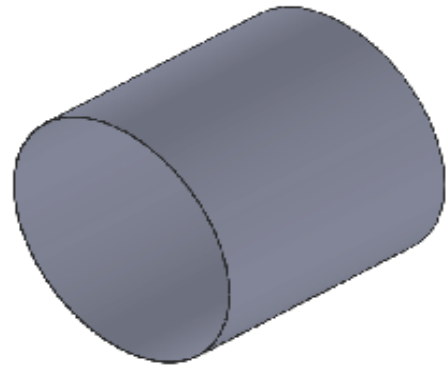


NOTE :
 ROLL PLATE
 LIPAT UJUNG PLAT 6 mm (1R+1L)

| | | | | | | | | |
|---|-----------------------|-------|-------|--------------------------|--------------------------|-----------|---|--------|
| 1 | TABUNG VENTURI THROAT | 1 | SS304 | Ø 40 mm x 40 mm x 0,3 mm | Ø 40 mm x 30 mm x 0,3 mm | C1 | | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT NO ORDER PROYEKSI  | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | |
| NAMA | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| TABUNG VENTURI THROAT NO. ASSY : PNC-00-03-02-01 | | | | | 1:1 | DIPERIKSA | | |
| | | | | | | DISAHKAN | | |
| | | | | | | DINILAI | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | FORMAT | | | |
| | | | | | A4 | | | |

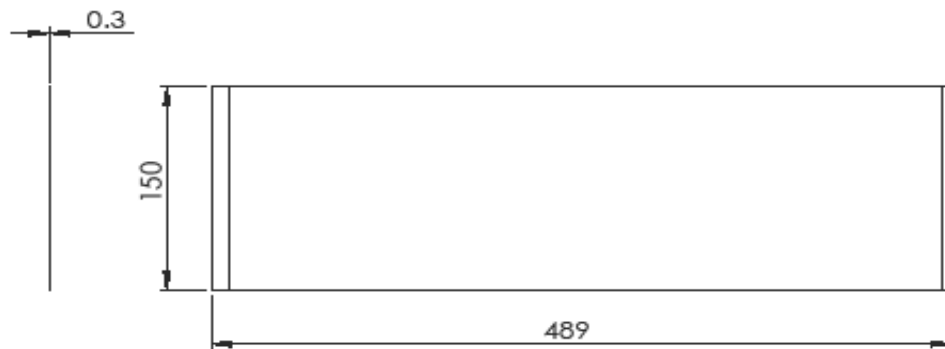
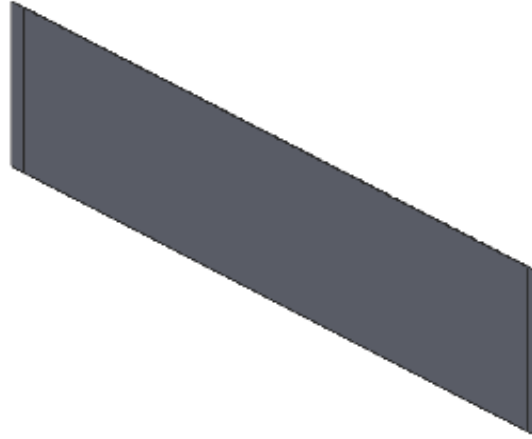


| | | | | | | | | | | | | |
|--|--------------------|-------|-------|-------|-------|-------|------------------|---------------------------|-------------------------|-----------|-----------|--------|
| 1 | PLAT TABUNG THROAT | | | | | 1 | SS304 | 143.4 mm x 40 mm x 0.3 mm | 145 mm x 42 mm x 0.3 mm | C1-1 | | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| NAMA | | | | | | | | | SKALA | DIGAMBAR | 8/23/2023 | ASIF S |
| TABUNG VENTURI THROAT | | | | | | | | | 1:1 | DIPERIKSA | | |
| | | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-02-01 | | | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CLACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | | A4 | | | |

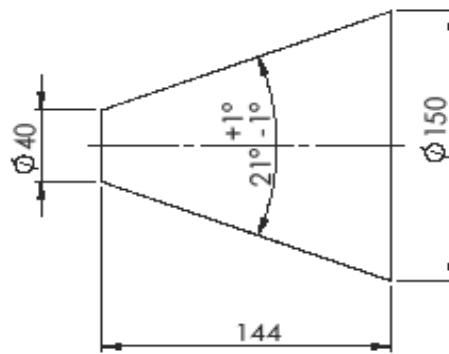
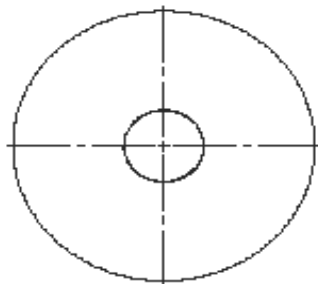
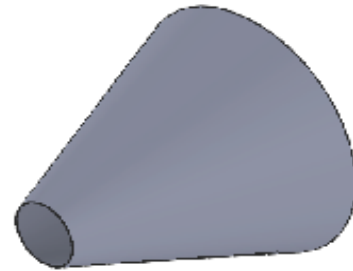


NOTE :
 ROLL PLATE
 LIPAT UJUNG PLAT 6 MM (1R+1L)

| | | | | | | | | | | | |
|---|---------------------|-------|-------|-------|-------|-------|------------------|----------------------------|----------------------------|-----------|--------|
| 1 | TABUNG VENTURI HULU | | | | | 2 | SS304 | Ø 150 mm x 150 mm x 0.3 mm | Ø 150 mm x 150 mm x 0.3 mm | C2 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| TABUNG VENTURI HULU NO. ASSY : PNC-00-03-02-02 | | | | | | | | 1:3 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | FORMAT | | | |
| | | | | | | | | A4 | | | |

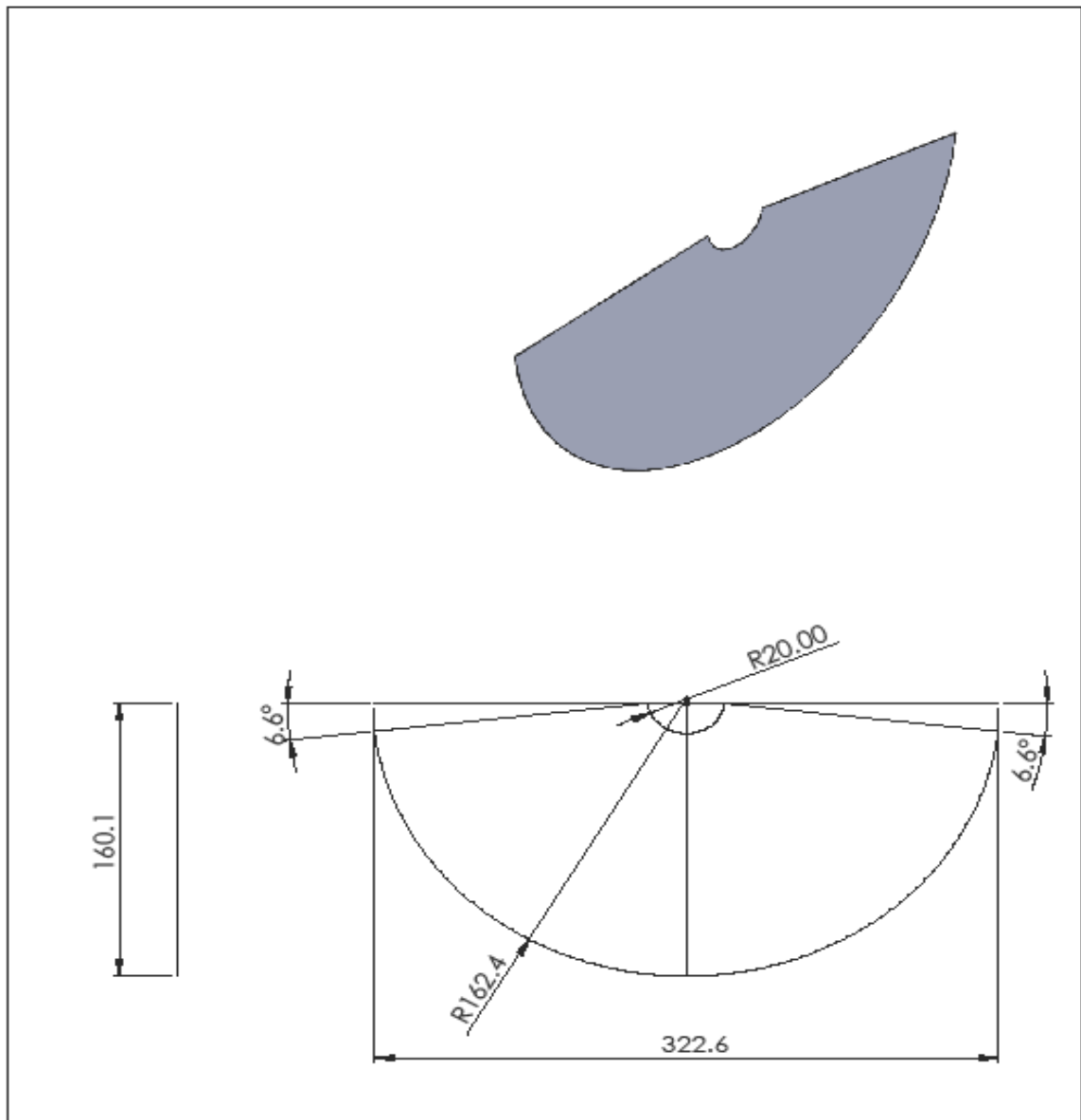


| | | | | | | | | |
|---|---------------------------|-------|-------|--------------------------|--------------------------|-----------|--|--------|
| 1 | PLATE TABUNG VENTURI HULU | 1 | S5304 | 489 mm x 150 mm x 0,3 mm | 490 mm x 155 mm x 0,3 mm | C2-1 | | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT NO ORDER PROYEKSI | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | |
| NAMA | | | | | SKALA | DIGAMBAR | 8/23/2023 | ASIF S |
| TABUNG VENTURI HULU | | | | | 1:4 | DIPERIKSA | | |
| | | | | | | DISAHKAN | | |
| | | | | | | DINILAI | | |
| | | | | | | FORMAT | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | A4 | | | |

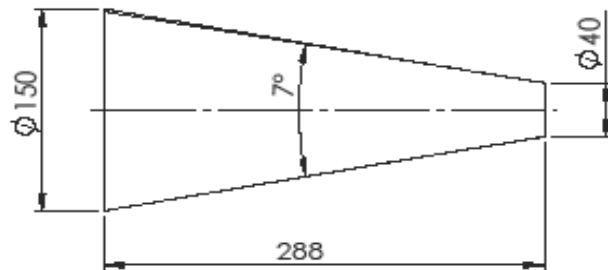
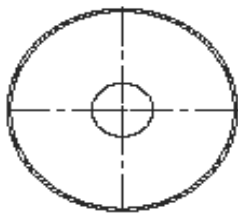
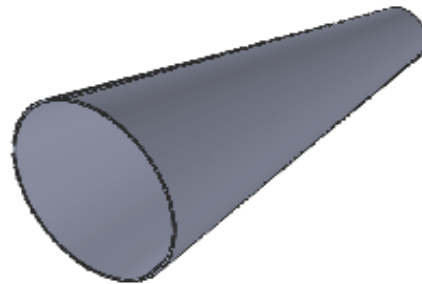


NOTE :
ROLL PLATE
LIPAT UJUNG PLAT 6 MM (1R+1L)

| | | | | | | | | | | | |
|---|-------------|-----------|-----------|-----------|-----------|-----------|------------------|---|---|-----------|--------|
| 1 | KONVERGEN | | | | | 3 | SS304 | $\phi 40 \text{ mm} \times \phi 150 \text{ mm} \times 144 \text{ mm} \times 0,3 \text{ mm}$ | $\phi 40 \text{ mm} \times \phi 150 \text{ mm} \times 144 \text{ mm} \times 0,3 \text{ mm}$ | C3 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | $\pm 0,1$ | $\pm 0,2$ | $\pm 0,3$ | $\pm 0,5$ | $\pm 0,8$ | $\pm 1,2$ | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| <p style="text-align: center;">KONVERGEN</p> | | | | | | | | 1:3 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| NO. ASSY : PNC-00-03-02-03 | | | | | | | | FORMAT | | | |
| | | | | | | | | A4 | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | | | | |

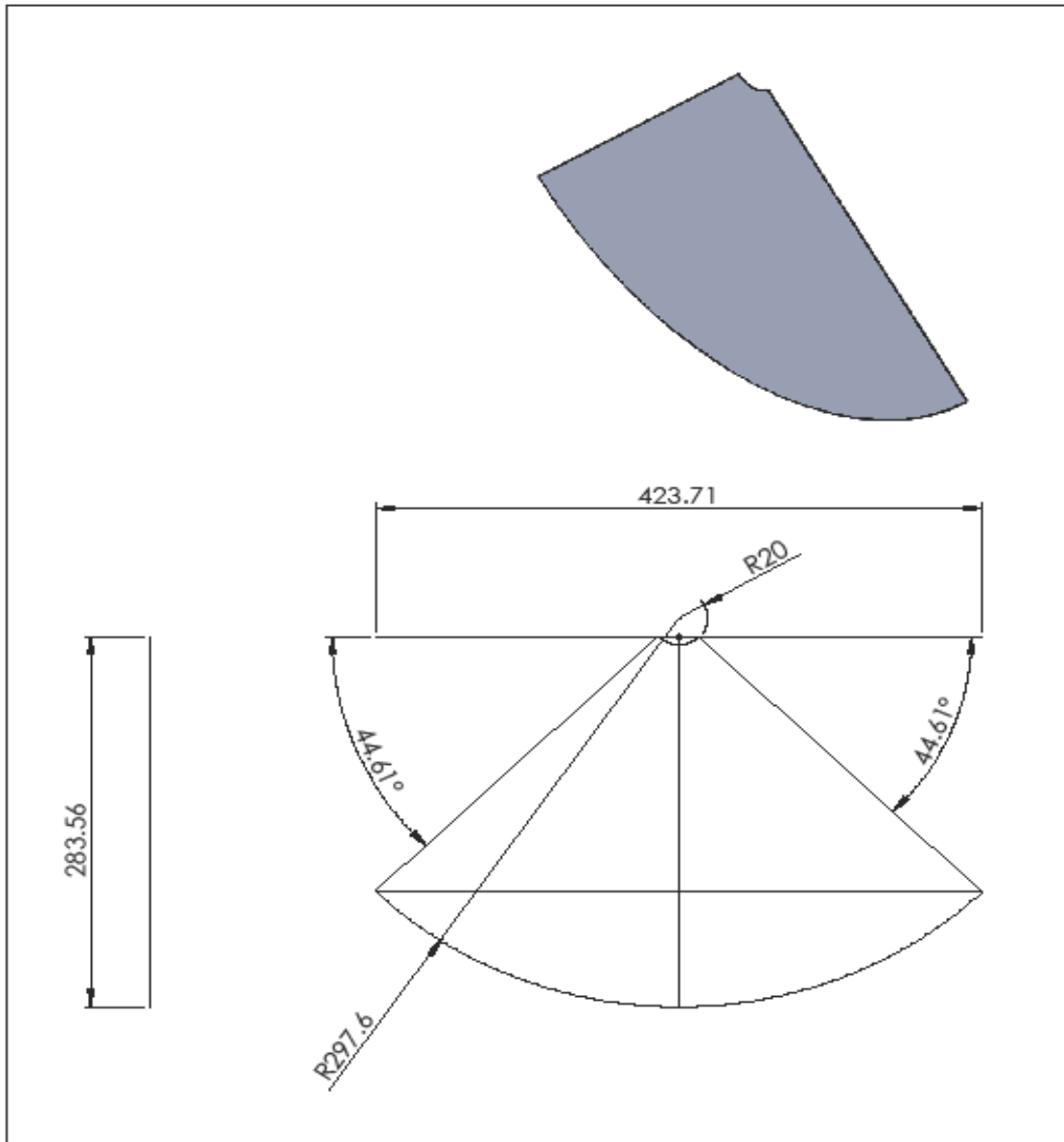


| | | | | | | | | | | | |
|---|-----------------|-------|-------|-------|-------|-------|------------------|------------------------------|------------------------------|-----------|--------|
| 1 | PLATE KONVERGEN | | | | | 1 | SS304 | 322.6 mm x 160.1 mm x 0.3 mm | 322.6 mm x 160.1 mm x 0.3 mm | C3-1 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| KONVERGEN | | | | | | | | 1:3 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-02-03 | | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | A4 | | | |

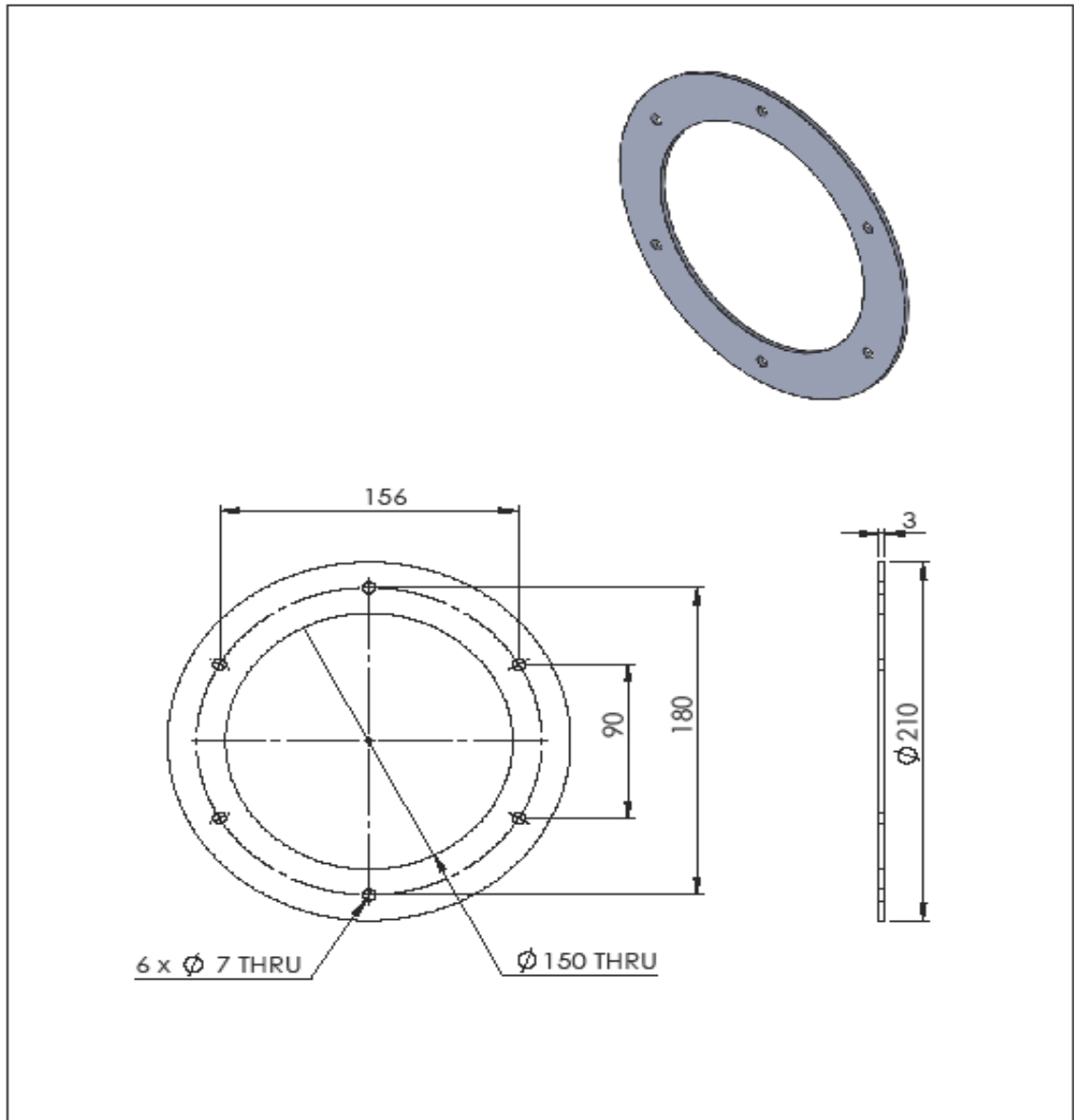


NOTE :
ROLL PLATE
LIPAT UJUNG PLAT 6 MM (1R+1L)

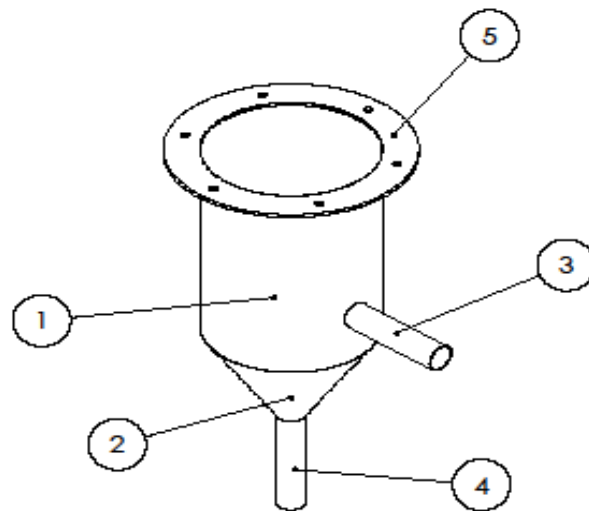
| | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|------------------|-----------------------------------|-----------------------------------|-----------|-----------|--------|
| 1 | DIVERGENT | | | | | 4 | SS304 | Ø40 mm X 150 mm X 288 mm X 0,3 mm | Ø40 mm X 150 mm X 288 mm X 0,3 mm | C4 | | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| NAMA | | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| <h1>DIVERGENT</h1> | | | | | | | | | 1:4 | DIPERIKSA | | |
| | | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-02-04 | | | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CLACAP, 53212 TELP. 0282-533329, E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | | A4 | | | |



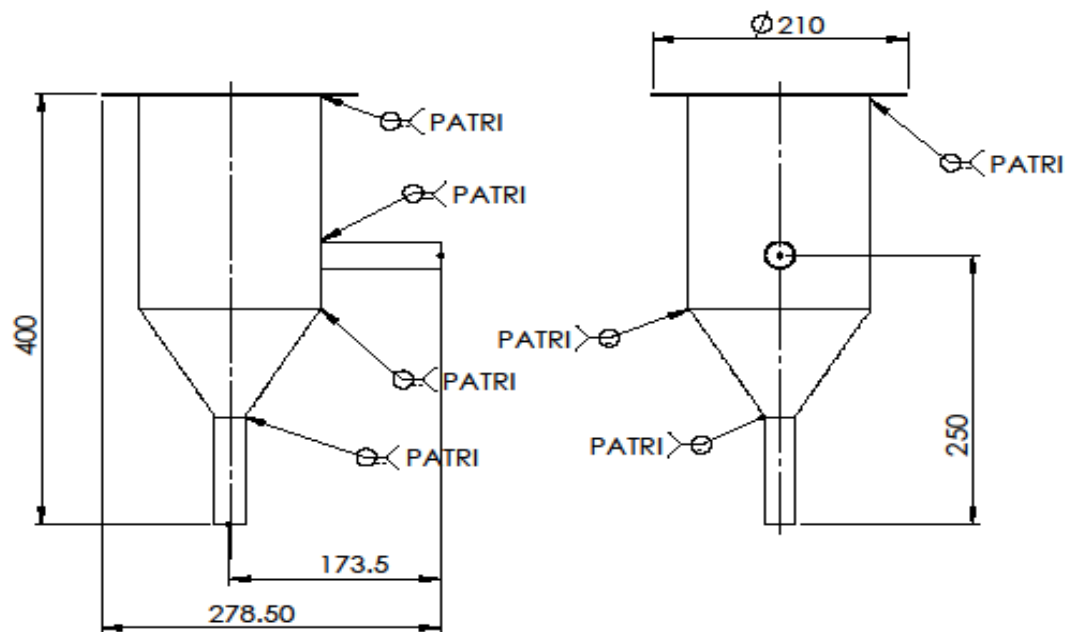
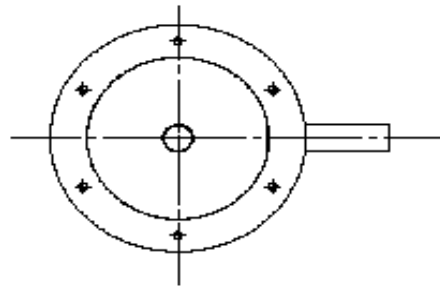
| | | | | | | | | |
|---|-----------------|-------|-------|------------------------------|--------------------------|-----------|------------------|--------|
| 1 | PLATE DIVERGENT | 1 | SS304 | 423.7 mm x 283.5 mm x 0.3 mm | 424 mm x 284 mm x 0.3 mm | C4-1 | | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | |
| NAMA | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| DIVERGENT | | | | | 1:4 | DIPERIKSA | | |
| | | | | | | DISAHKAN | | |
| | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-02-04 | | | | | FORMAT | | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | A4 | | | |





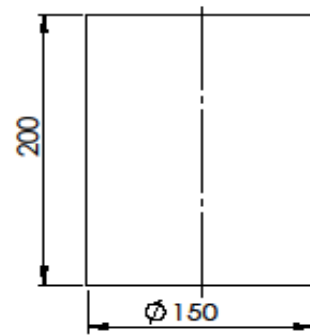
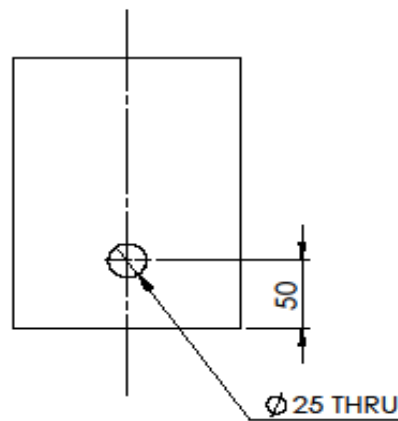
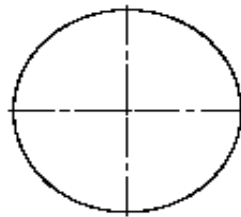
| | | | | | | | | | | | |
|---|-------------|---|-------|-------|-------|-------|------------------|-----------------|-----------------|-----------|--------|
| 2 | PLANGE | | | | | 5 | SS400 | ø 210 mm X 3 mm | ø 215 mm X 3 mm | C5 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| PLANGE TABUNG HULU NO. ASSY : PNC-00-03-02-05 | | | | | | | | 1:3 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| | | POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | FORMAT | | | |
| | | | | | | | | A4 | | | |



| | | | | | | | | | | | |
|---|-------------------|-------|-------|-------|-------|-------|------------------|-------------|--------------|-----------|--------|
| 1 | PLANGE | | | | | 5 | SS400 | | | C5 | |
| 1 | PIPA KELUARAN AIR | | | | | 4 | SS304 | | | C4 | |
| 1 | PIPA KELUARAN GAS | | | | | 3 | SS304 | | | C3 | |
| 1 | KERUCUT HILIR | | | | | 2 | SS304 | | | C2 | |
| 1 | TABUNG HILIR | | | | | 1 | SS304 | | | C1 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| <h2>ASSEMBLY TABUNG HILIR</h2> | | | | | | | | 1:5 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-03-00 | | | | | | | | FORMAT | | | |
| | | | | | | | | A4 | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : tnpnc@politeknikcilacap.ac.id | | | | | | | | | | | |

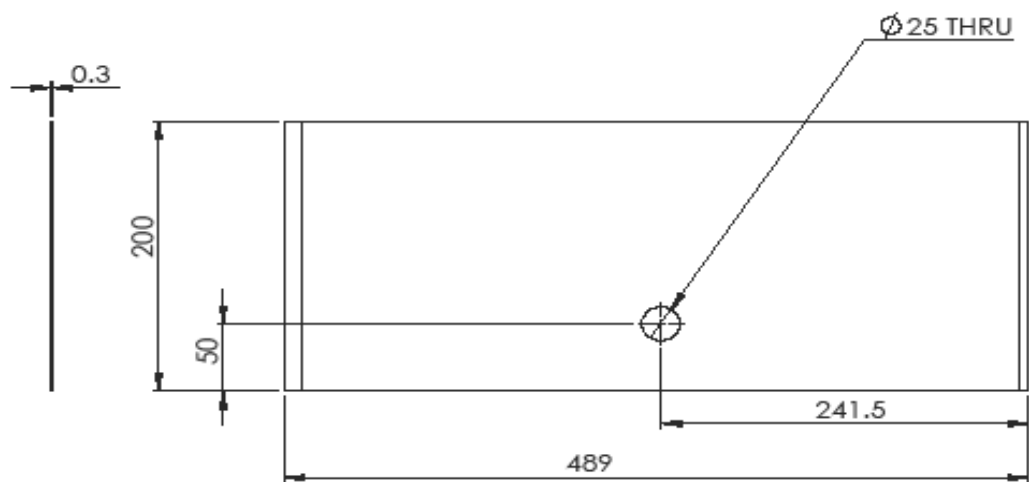
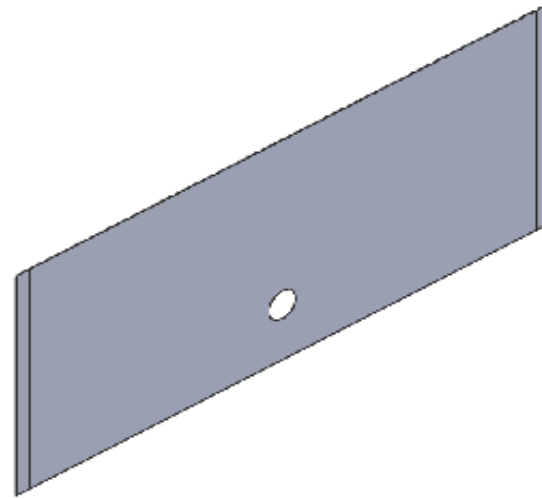


| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
|---|-------------|-------|-------|-------|-------|-------|------------------|-------------|---|-----------|--------|
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI  | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| ASSEMBLY TABUNG HILIR | | | | | | | | 1:5 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-03-00 | | | | | | | | FORMAT | | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN Jl. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | A4 | | | |

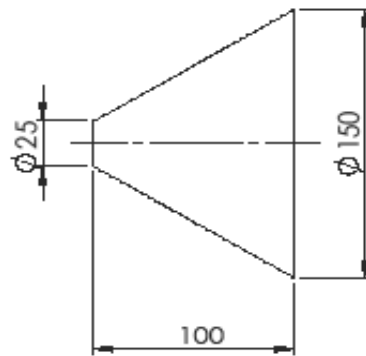
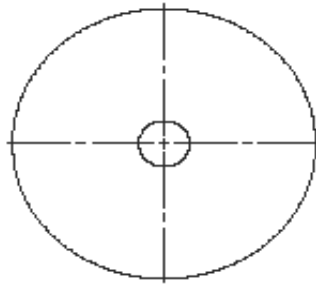
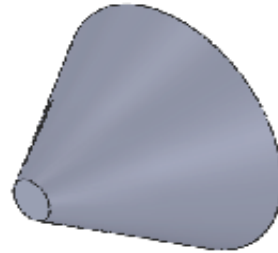


NOTE :
ROOL PLATE
LIPAT UJUNG PLATE 6 mm (1R +1L)

| | | | | | | | | | | | |
|--|--------------|-------|-------|-------|-------|-------|------------------|----------------------------|----------------------------|-----------|--------|
| 1 | TABUNG HILIR | | | | | 1 | SS304 | Ø 150 mm x 200 mm x 0.3 mm | Ø 150 mm x 210 mm x 0.3 mm | C1 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/23/2023 | ASIF S |
| <p style="text-align: center;">TABUNG HILIR</p> <p>NO. ASSY : PNC-00-03-03-01</p> | | | | | | | | 1:4 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| <p>POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id</p> | | | | | | | | FORMAT | | | |
| | | | | | | | | A4 | | | |

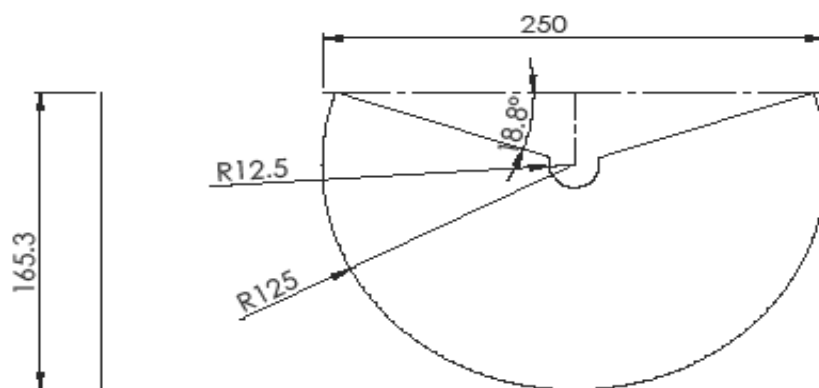
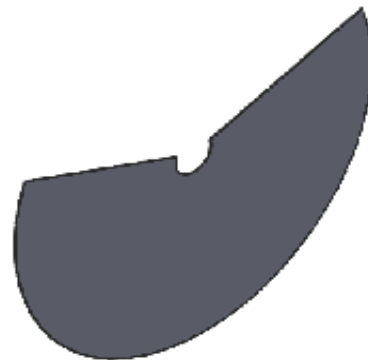


| | | | | | | | | | | | |
|---|-------------------|-------|-------|-------|-------|-------|------------------|-------------------------|-------------------------|-----------|--------|
| 1 | PLATE TABUNG HULU | | | | | 1 | SS304 | 489 mm x 200mm x 0,3 mm | 489 mm x 200mm x 0,3 mm | C1-1 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/23/2023 | ASIF S |
| <h1>TABUNG HILIR</h1> | | | | | | | | 1:4 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-03-01 | | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN Jl. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329, E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | A4 | | | |

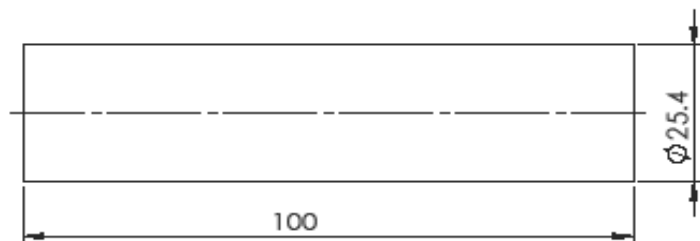
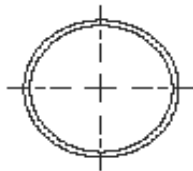
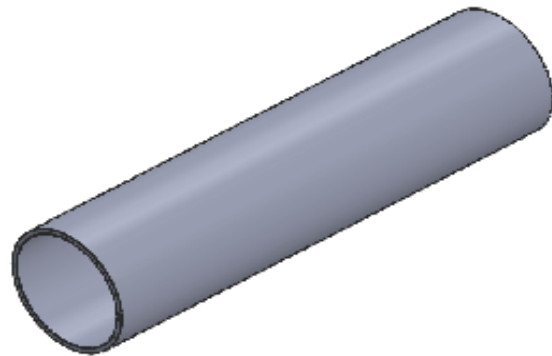


NOTE :
 ROLL PLATE
 LIPAT UJUNG PLAT 6 MM (1R+1L)

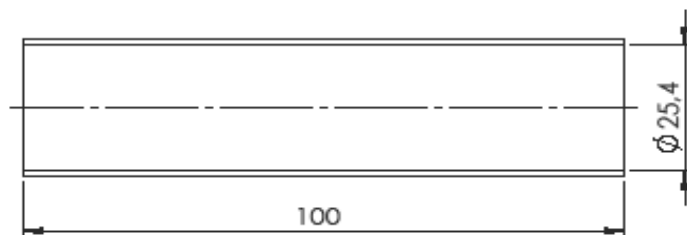
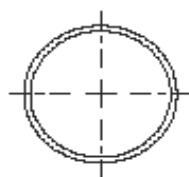
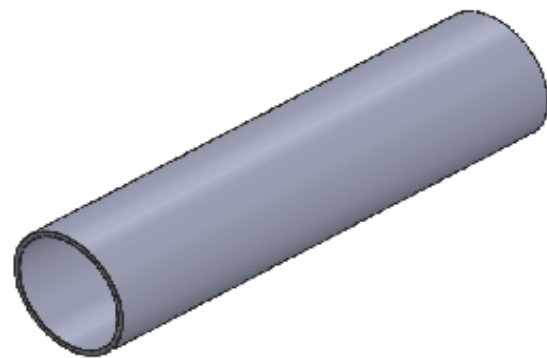
| | | | | | | | | | | | |
|---|-------------|-----------|-----------|-----------|-----------|-----------|------------------|---|---|-----------|--------|
| 1 | KERUCUT | | | | | 2 | SS304 | $\phi 25 \text{ mm} \times \phi 150 \text{ mm} \times 100 \text{ mm} \times 0,3 \text{ mm}$ | $\phi 25 \text{ mm} \times \phi 150 \text{ mm} \times 100 \text{ mm} \times 0,3 \text{ mm}$ | C2 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | $\pm 0,1$ | $\pm 0,2$ | $\pm 0,3$ | $\pm 0,5$ | $\pm 0,8$ | $\pm 1,2$ | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| KERUCUT | | | | | | | | 1:3 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-03-02 | | | | | | | | FORMAT | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | | | A4 | | | |



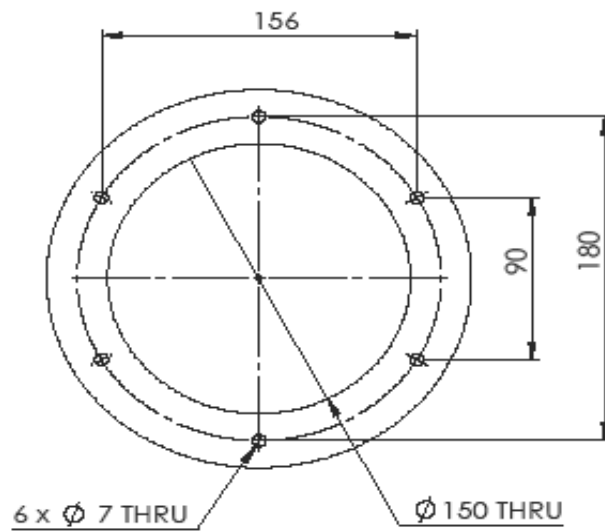
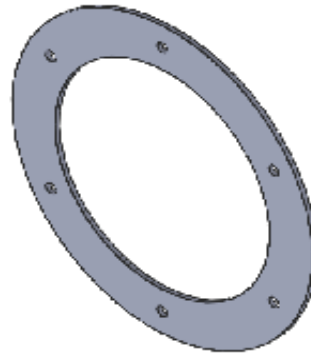
| | | | | | | | | | | | | |
|----------------|---------------|-------|---|-------|-------|-------|------------------|----------------------------|--------------------------|----------------------------|-----------|--------|
| 1 | PLATE KERUCUT | | | | | 1 | SS304 | 250 mm x 165.3 mm x 0.3 mm | 255 mm x 167 mm x 0.3 mm | C2-1 | | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | | |
| NAMA | | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| KERUCUT | | | | | | | | | 1:3 | DIPERIKSA | | |
| | | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | | DINILAI | | |
| | | | | | | | | | | NO. ASSY : PNC-00-03-03-02 | | |
| | | | POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | FORMAT | A4 | | | | |



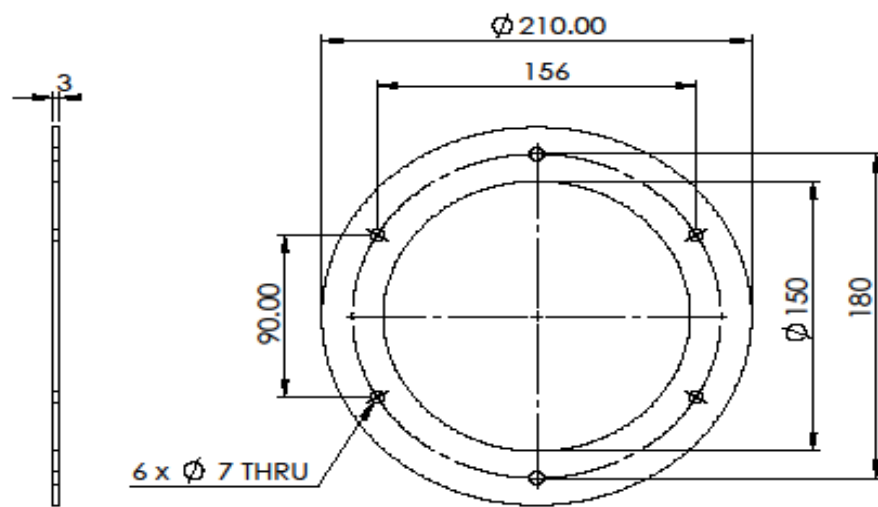
| | | | | | | | | |
|---|-------------------|-------|-------|---------------------------|---------------------------|-----------|---|--------|
| 1 | PIPA KELUARAN GAS | 3 | SS304 | ∅ 25,4 mm X 100 mm X 1 mm | ∅ 25,4 mm X 110 mm X 1 mm | C3 | | |
| JML | NAMA BAGIAN | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F | |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT NO ORDER PROYEKSI  | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | |
| NAMA | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| PIPA KELUARAN GAS NO. ASSY : PNC-00-03-03-03 | | | | | 1:1 | DIPERIKSA | | |
| | | | | | | DISAHKAN | | |
| | | | | | | DINILAI | | |
| | | | | | | FORMAT | | |
|  POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | A4 | | | |



| | | | | | | | | | | | |
|----------------------------|-------------------|---|-------|-------|-------|-------|------------------|--------------------------|--------------------------|-----------|--------|
| 1 | PIPA KELUARAN AIR | | | | | 4 | SS304 | ∅25,4 mm X 100 mm X 1 mm | ∅25,4 mm X 110 mm X 1 mm | C4 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO, ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| PIPA KELUARAN AIR | | | | | | | | 1:1 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| NO. ASSY : PNC-00-03-03-04 | | | | | | | | DINILAI | | | |
| | | POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : fmpnc@politeknikcilacap.ac.id | | | | | | FORMAT | | | |
| | | | | | | | | A4 | | | |



| | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|------------------|-----------------|-----------------|-----------|--------|
| 1 | PLANGE | | | | | 5 | SS400 | Ø 210 mm X 3 mm | Ø 215 mm X 3 mm | C5 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO, ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | | NO ORDER | PROYEKSI | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/22/2023 | ASIF S |
| PLANGE TABUNG HULU NO. ASSY : PNC-00-03-03-05 | | | | | | | | 1:3 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| | | | | | | | | | | | |
| POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 TELP. 0282-533329.E-mail : tmpnc@politeknikcilacap.ac.id | | | | | | | | FORMAT | | | |
| | | | | | | | | A4 | | | |



| | | | | | | | | | | | |
|-------------------------|-------------|--|-------|-------|-------|-------|------------------|-----------------|-----------------|----------|--------|
| 2 | KARET | | | | | 4 | RUBBER | Ø 210 mm X 3 mm | Ø 220 mm X 3 mm | B4 | |
| JML | NAMA BAGIAN | | | | | POS | BAHAN | UKURAN JADI | UKURAN KASAR | NO. ID | F |
| > | 0 | 6 | 30 | 120 | 400 | 1000 | PEKERJAAN LANJUT | NO ORDER | PROYEKSI | | |
| < | 6 | 30 | 120 | 400 | 1000 | 2000 | | | | | |
| TOL | ± 0,1 | ± 0,2 | ± 0,3 | ± 0,5 | ± 0,8 | ± 1,2 | | | | | |
| NAMA | | | | | | | | SKALA | DIGAMBAR | 8/5/2023 | ASIF S |
| KARET | | | | | | | | 1:3 | DIPERIKSA | | |
| | | | | | | | | | DISAHKAN | | |
| | | | | | | | | | DINILAI | | |
| NO. ASSY : PNC-00-03-04 | | | | | | | | FORMAT | | | |
| | | POLITEKNIK NEGERI CILACAP, JURUSAN TEKNIK MESIN | | | | | | FORMAT | | | |
| | | JL. dr. SOETOMO, NO : 01, SIDAKAYA, CILACAP, 53212 | | | | | | A4 | | | |
| | | TELP. 0282-533329.E-mail : tnpnc@politeknikcilacap.ac.id | | | | | | | | | |