LAMPIRAN
# HASIL PENGUJIAN KEKERASAN

No. 045 / P.Kkr / BT.DTM / 2018

**Spesimen Friction Welding Stainless Steel 304, Variasi Tekanan.**

<table>
<thead>
<tr>
<th>No</th>
<th>Kode</th>
<th>Jarak dr sambungan</th>
<th>$d_1$ (μm)</th>
<th>$d_2$ (μm)</th>
<th>$d_{rata-rata}$ (μm)</th>
<th>Kekerasan (VHN)</th>
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<tbody>
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<td>45.0</td>
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<th>No</th>
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<th>$d_1$ (μm)</th>
<th>$d_2$ (μm)</th>
<th>$d_{rata-rata}$ (μm)</th>
<th>Kekerasan (VHN)</th>
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**Keterangan:**
1. Menggunakan metode uji Vickers dengan pembebanan 200 gf, 5 detik
2. Satuan pengukuran diagonal jejak indenter dalam μm
3. Pengujian dilakukan pada tanggal 17 dan 25 April 2018

Kampus : Jl. Grafika 2A Yogyakarta 55281 Telpon : (0274) 747632, 548637, 6492269. Fax. (0274) 546400
E-mail: lab.bahanteknik@yahoo.co.id
LABORATORIUM BAHAN TEKNIK  
DEPARTEMENTEN TEKNIK MESIN SEKOLAH VOKASI  
UNIVERSITAS GADJAH MADA  

HASIL PENGUJIAN KEKERASAN  
No. 045 / P.Kkr / BT.DTM / 2018  

Spesimen Friction Welding Stainless Steel 304, Variasi Tekanan.  

<table>
<thead>
<tr>
<th>No</th>
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<th>Jarak dr sambungan</th>
<th>( d_1 ) (( \mu m ))</th>
<th>( d_2 ) (( \mu m ))</th>
<th>( d_{rata-rata} ) (( \mu m ))</th>
<th>Kekerasan (VHN)</th>
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Keterangan:  
1. Menggunakan metode uji Vickers dengan pemberatan 200 gf, 5 detik  
2. Satuan pengukuran diagonal jejak indentor dalam \( \mu m \)  
3. Pengujuan dilakukan pada tanggal 17 dan 25 April 2018  

Yogyakarta, 25 April 2018  
Ka Sub Laboratorium Bahan Teknik  

[signature]

Pengujian & Analisa Material  

Lilik Dwi Suyanto, ST., M.T.  
NIP. 197703311992121002  

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LABORATORIUM JURUSAN TEKNIK MESIN
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

<table>
<thead>
<tr>
<th>Test date</th>
<th>Area mm²</th>
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Yogyakarta, 12 April 2018
Co-Antrop Praktikan
Material Teknik

(Melani Sukiwi Dewi)
LABORATORIUM JURUSAN TEKNIK MESIN
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

Tekanan Gesek 30 MPa
SS 304 (A2)

<table>
<thead>
<tr>
<th>Test date</th>
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<th>Yield point MPa</th>
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Yogyakarta, 12 April 2018
Co-Asisten Praktikum
Material Teknik

(Melati Sukma Dewi)
LABORATORIUM JURUSAN TEKNIK MESIN
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

<table>
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<tr>
<th>Tekanan Gesek 30 MPa</th>
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Yogyakarta, 12 April 2018
Co-Astutsen Praktikum
Material Teknik

(Melati Sukma Dewi)
Yogyakarta, 12 April 2018
Co-Astien Praktiskum
Material Teknik

(Melai Sukma Dewi)
LABORATORIUM JURUSAN TEKNIK MESIN
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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<tr>
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Yogyakarta, 12 April 2018
Co-Asisten Praktikum
Material Teknik

(Melati Sukma Dewi)
Nama: Aditya Reizandy
NIM: 20140130051
Instansi: UMY

LABORATORIUM JURUSAN TEKNIK MESIN
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

Tekanan Gesek 32.5 MPa
SS 304 (B3)

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Yogyakarta, 12 April 2018
Co-Assisten Praktikum
Material Teknik

(Melati Siska Dewi)
Nama : Aditya Rezandy
NIM : 20140130031
Instansi : UMY

LABORATORIUM JURUSAN TEKNIK MESIN
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

Tekanan Gesek 35 MPa SS 304 (C1)

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Yogyakarta, 12 April 2018
Co-Assisten Praktikum
Material Teknik

(Melati Sukma Dewi)
Tekanan Gesek 35 MPa
SS 304 (C2)

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Yogyakarta, 12 April 2018
Co-Asisten Praktikum
Material Teknik

(Melati Sukma Dewi)
Tekanan Gesek 32.5
Pipa Stainless Steel 304

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Yogyakarta, 05 juni 2013
Co-Asisten Praktikum
Material Teknik

(Hengki Pranata)
Stainless Steel 304 (F.A.W.)
SS 304 (1)

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Yogyakarta, 12 April 2018
Co-Assisten Praktikum
Material Teknik

(Melas Sukma Dewi)
Nama : Aditya Reisandy
NIM : 20140130051
Instansi : UMY

LABORATORIUM JURUSAN TEKNIK MESIN
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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Yogyakarta, 12 April 2018
Co-Asisten Praktikum
Material Teknik

(Melati Sukma Dewi)
LABORATORIUM JURUSAN TEKNIK MESIN
UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

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Yogyakarta, 12 April 2018
Co-Asisten Praktikum
Material Teknik

(Melati Sukma Dewi)