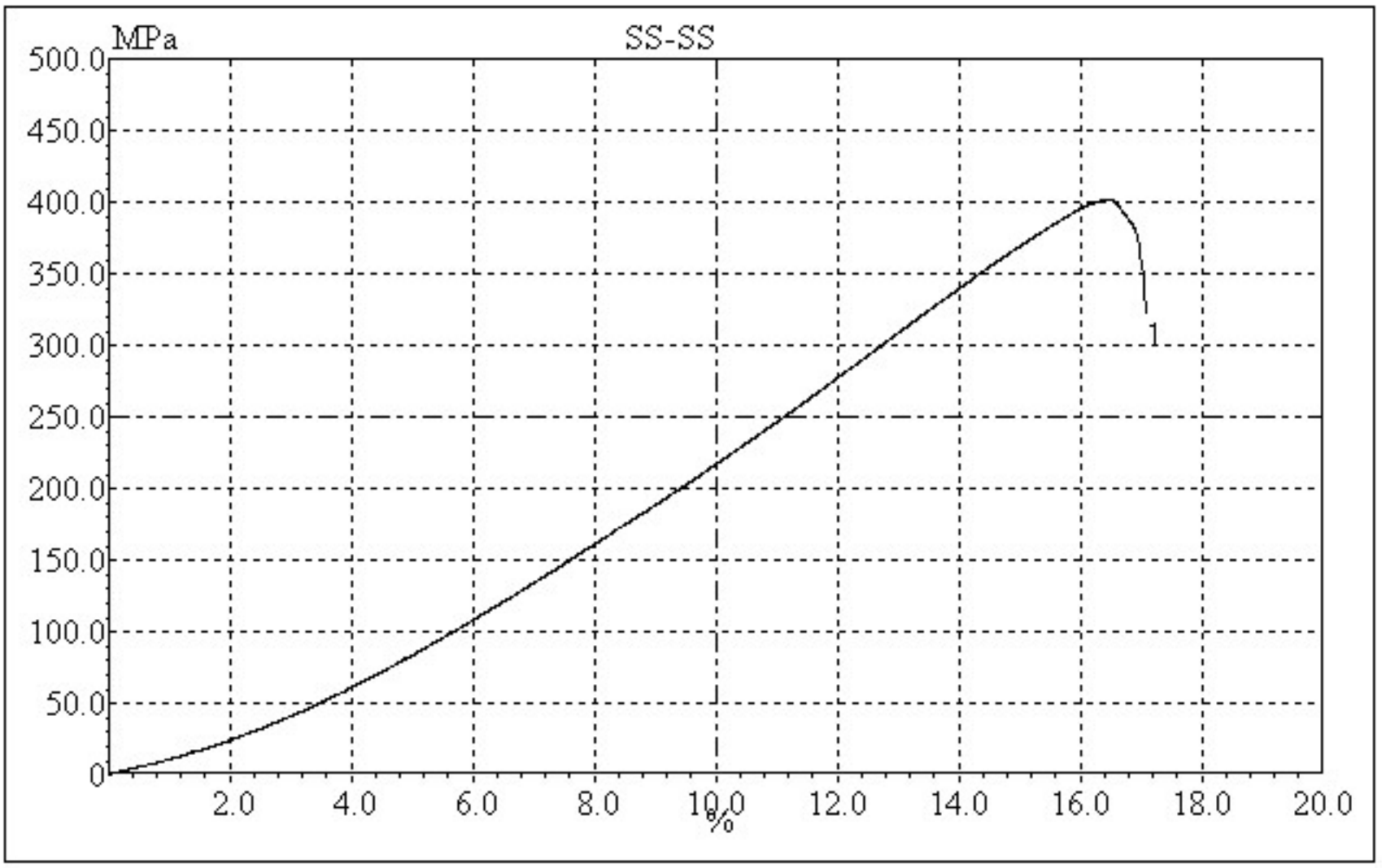
LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	141.026	30.294	56.755	45.401



Yogyakarta, 10 Mei 2017

Material Teknik

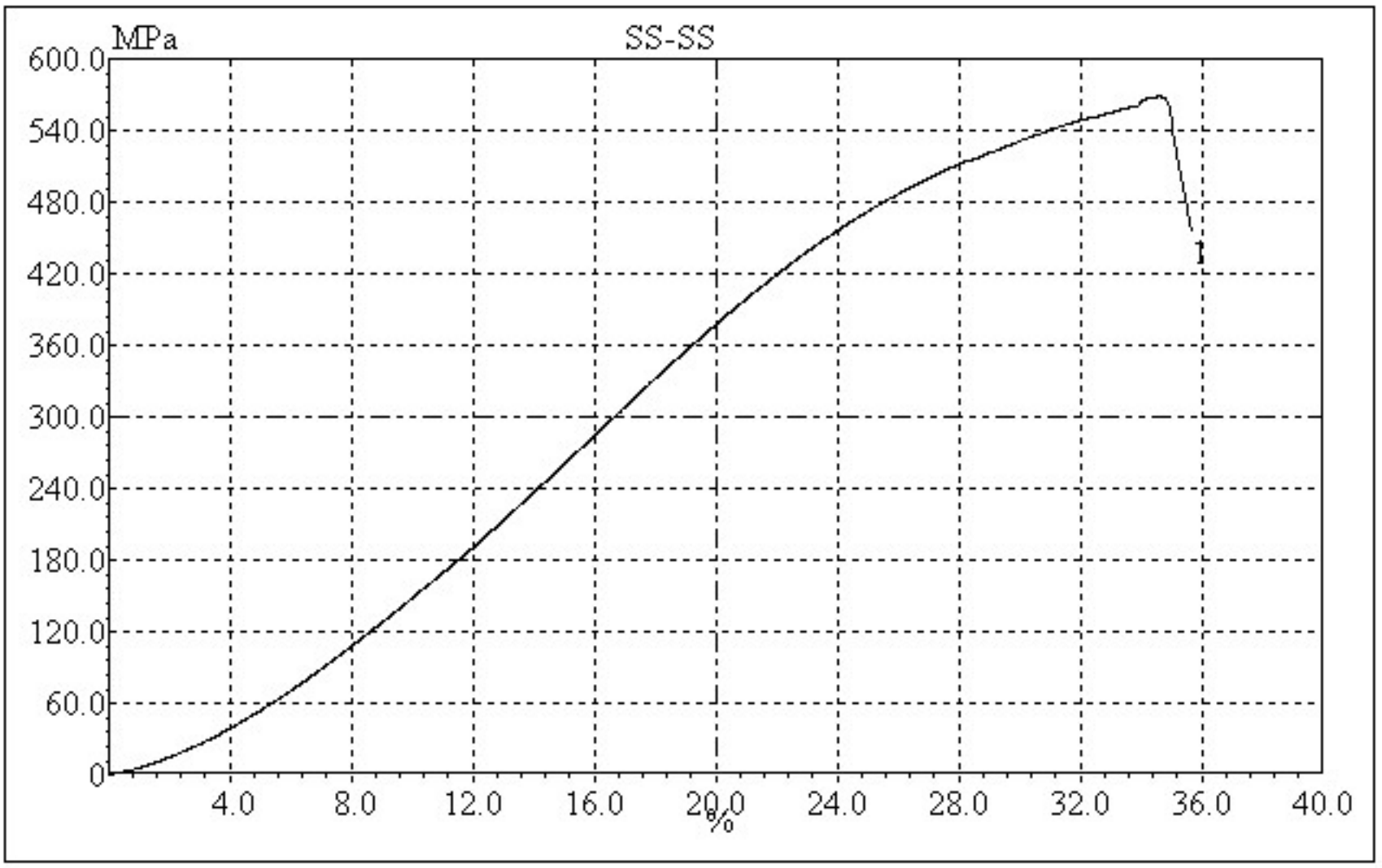
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	138.929	56.895	79.020	63.158



Yogyakarta, 20 Mei 2017

Material Teknik

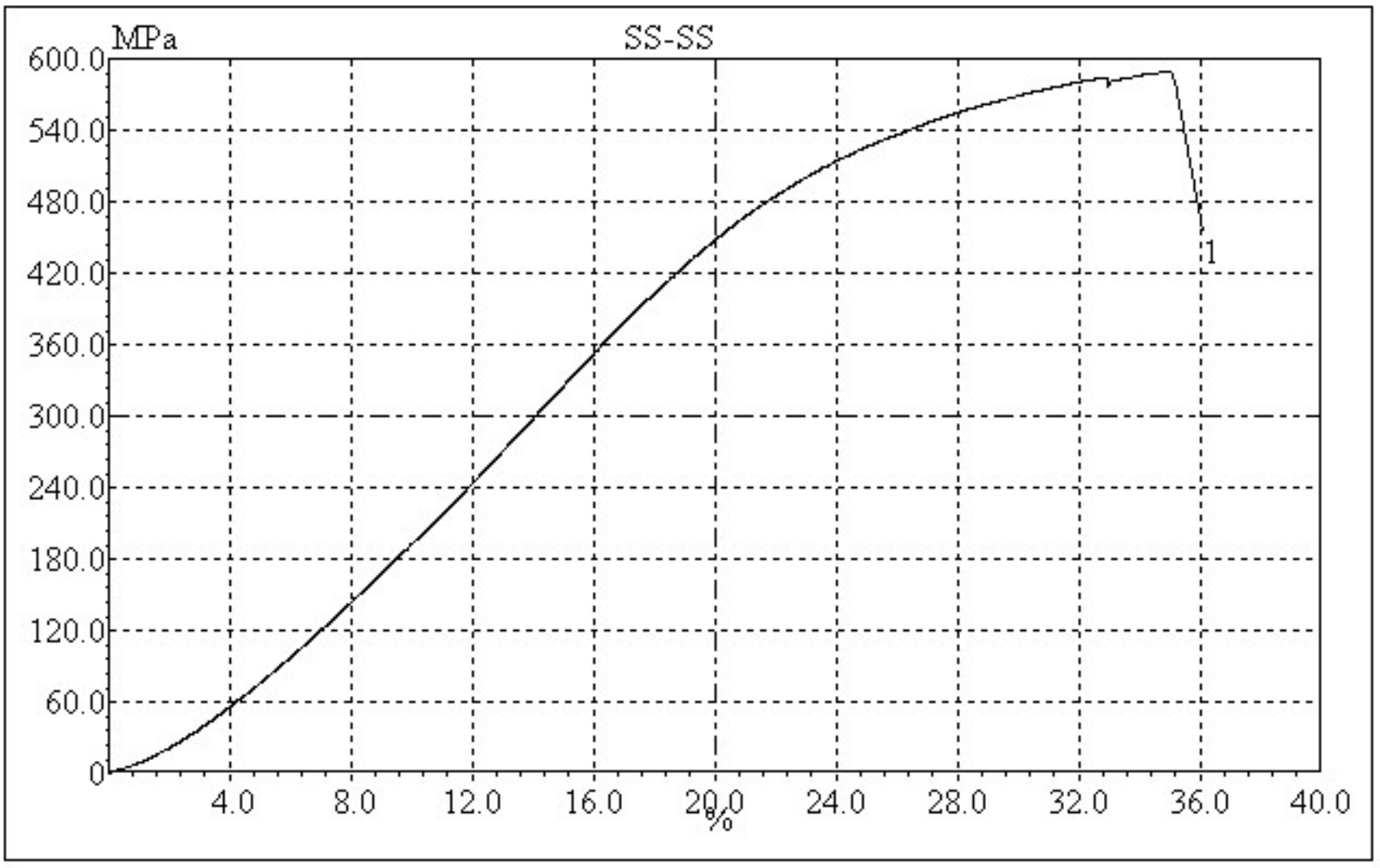
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	141.026	46.721	83.118	64.191



Yogyakarta, 10 Mei 2017

Material Teknik

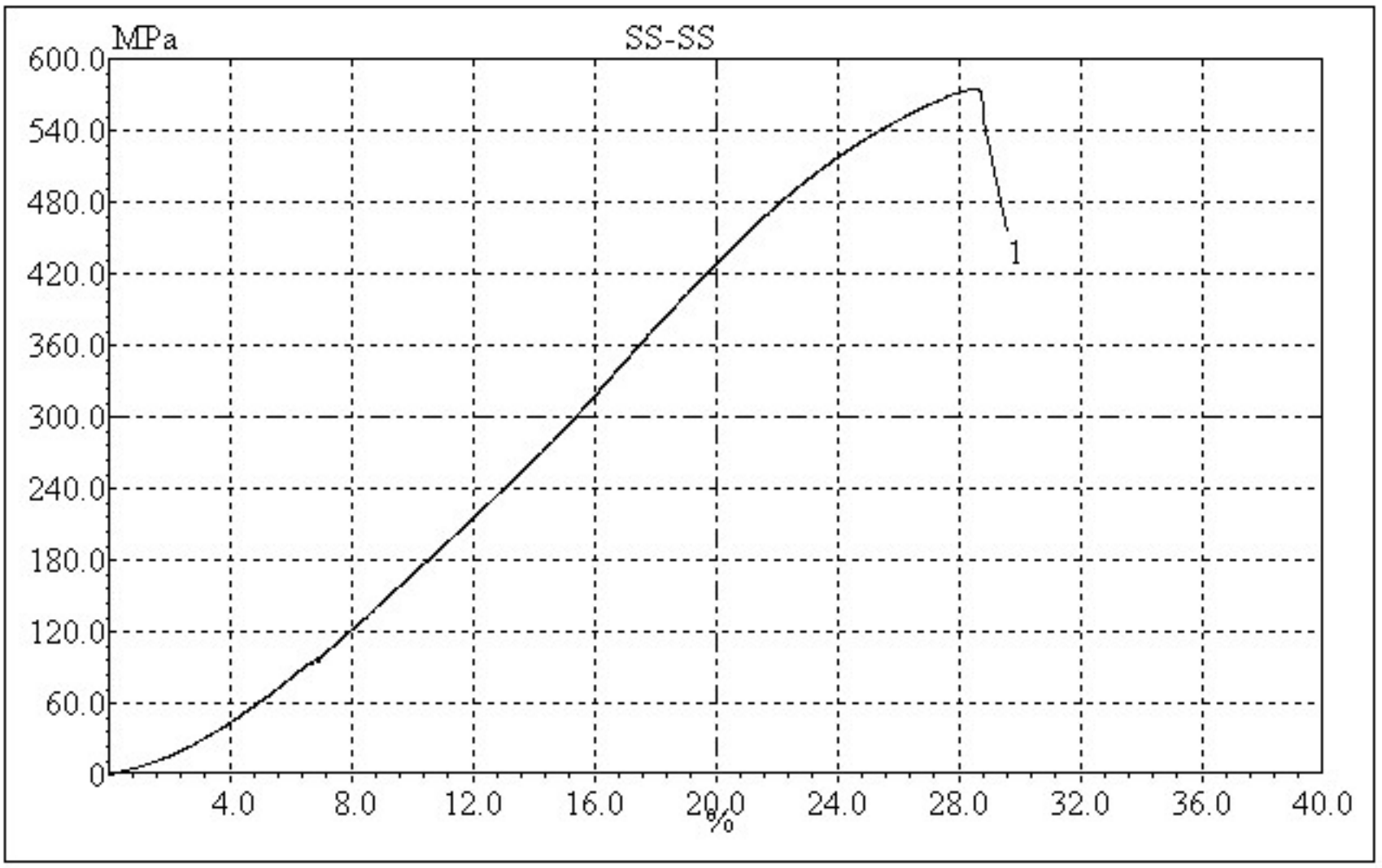
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	141.026	56.728	81.098	64.062



Yogyakarta, 20 Mei 2017

Material Teknik

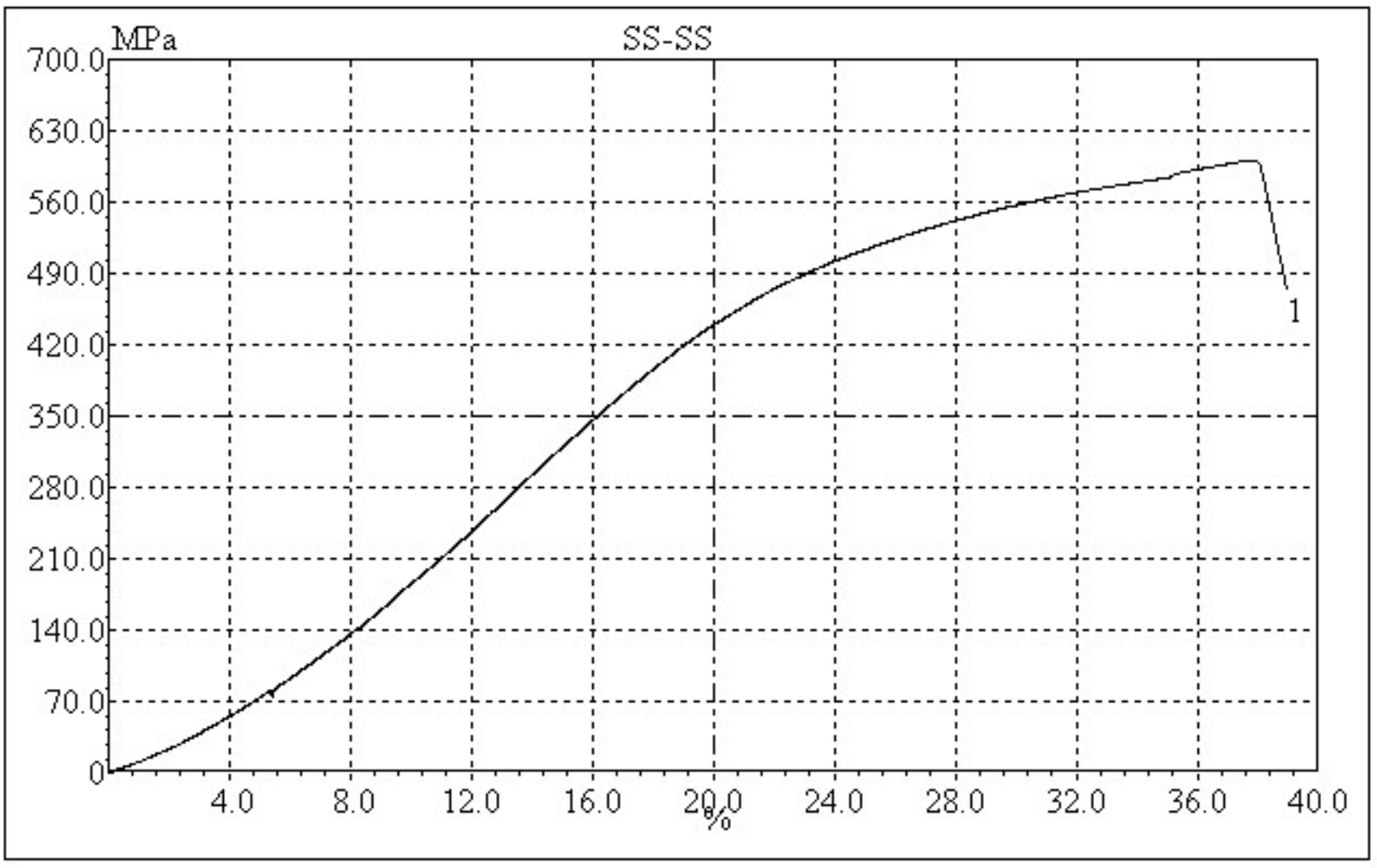
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01	141.026	56.518	84.824	66.682



Yogyakarta, 22 Mei 2017

Material Teknik

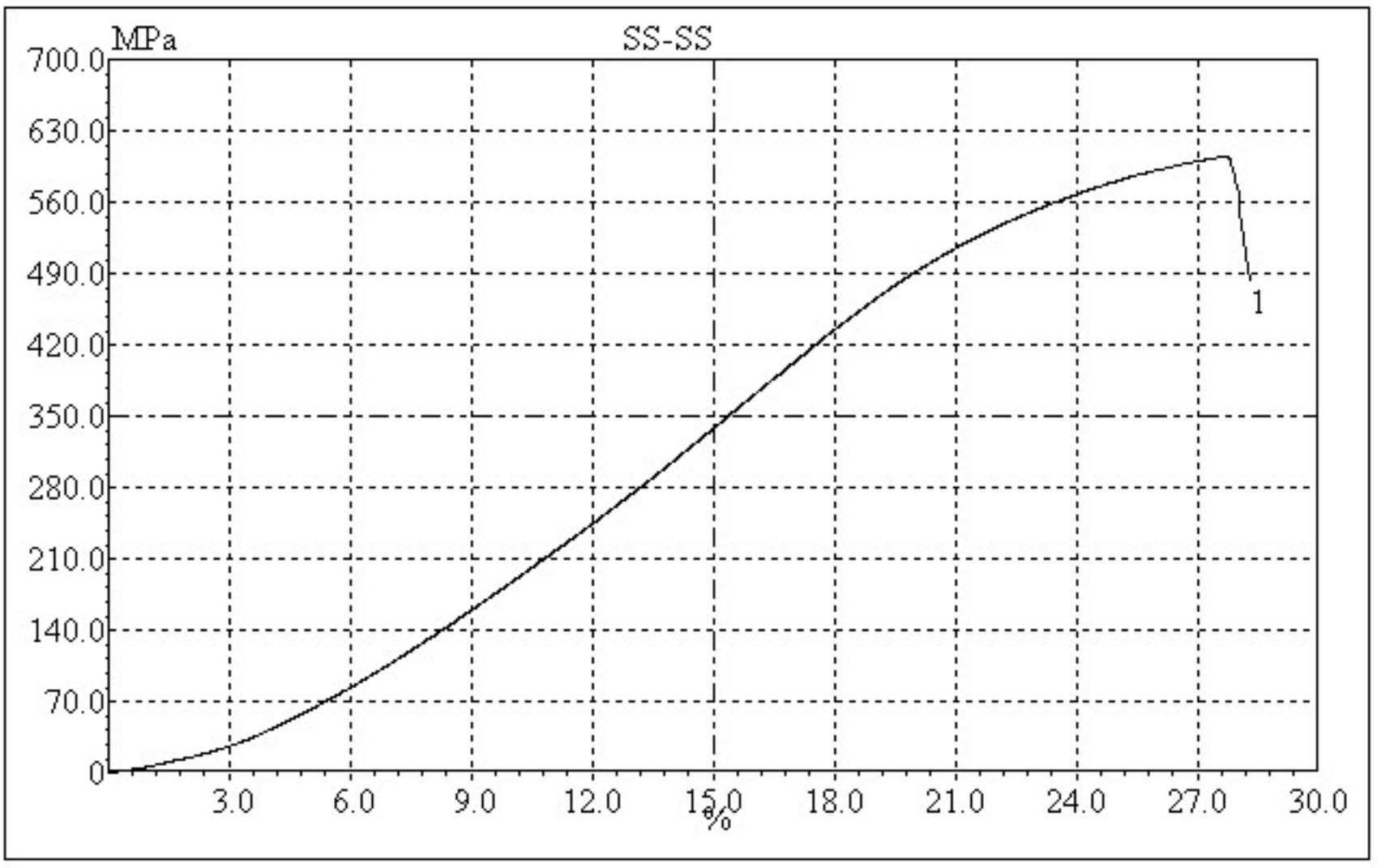
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	145.267	56.602	87.855	70.010



Yogyakarta, 20 Mei 2017

Material Teknik

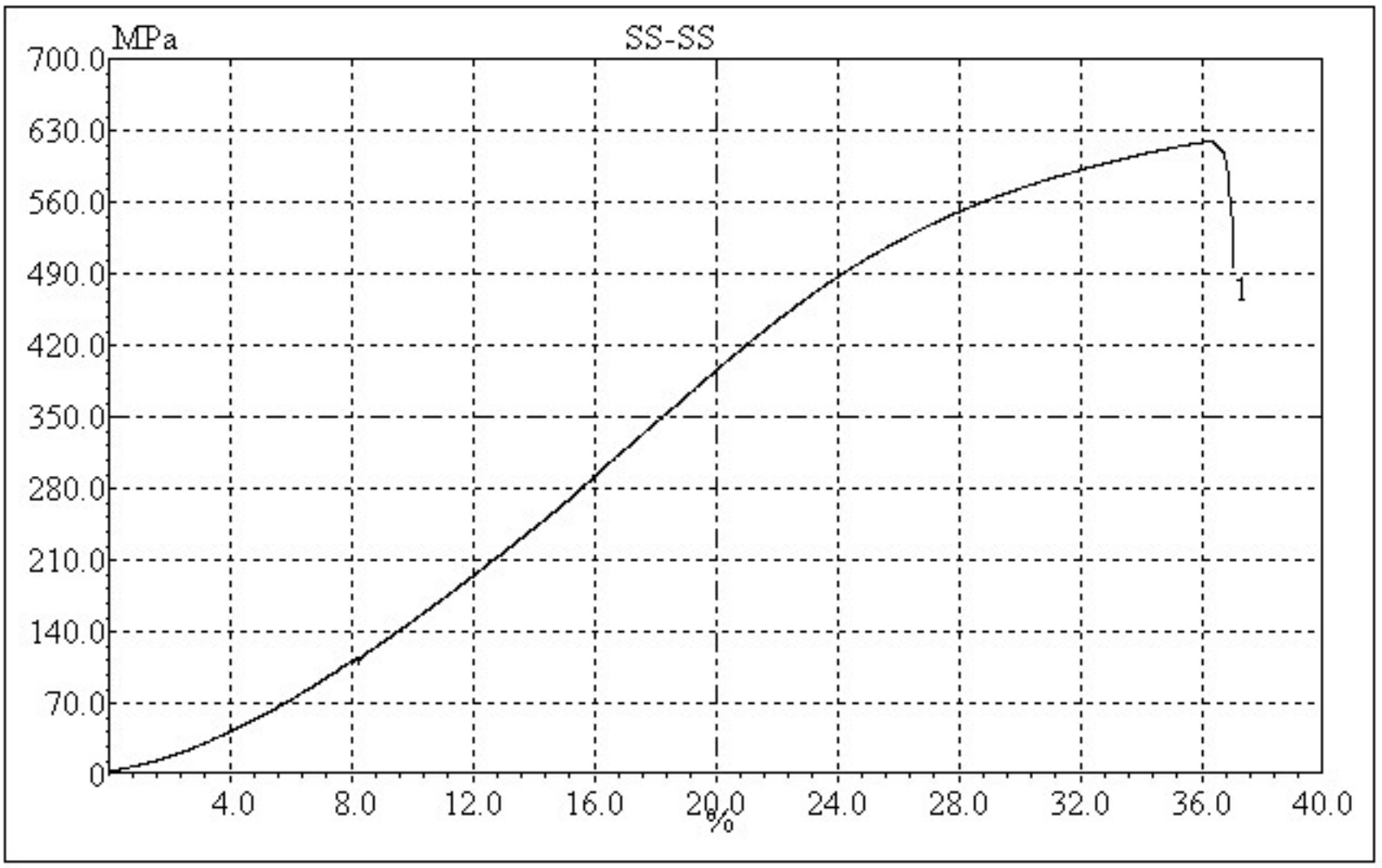
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	138.929	57.147	86.024	68.784



Yogyakarta, 20 Mei 2017

Material Teknik

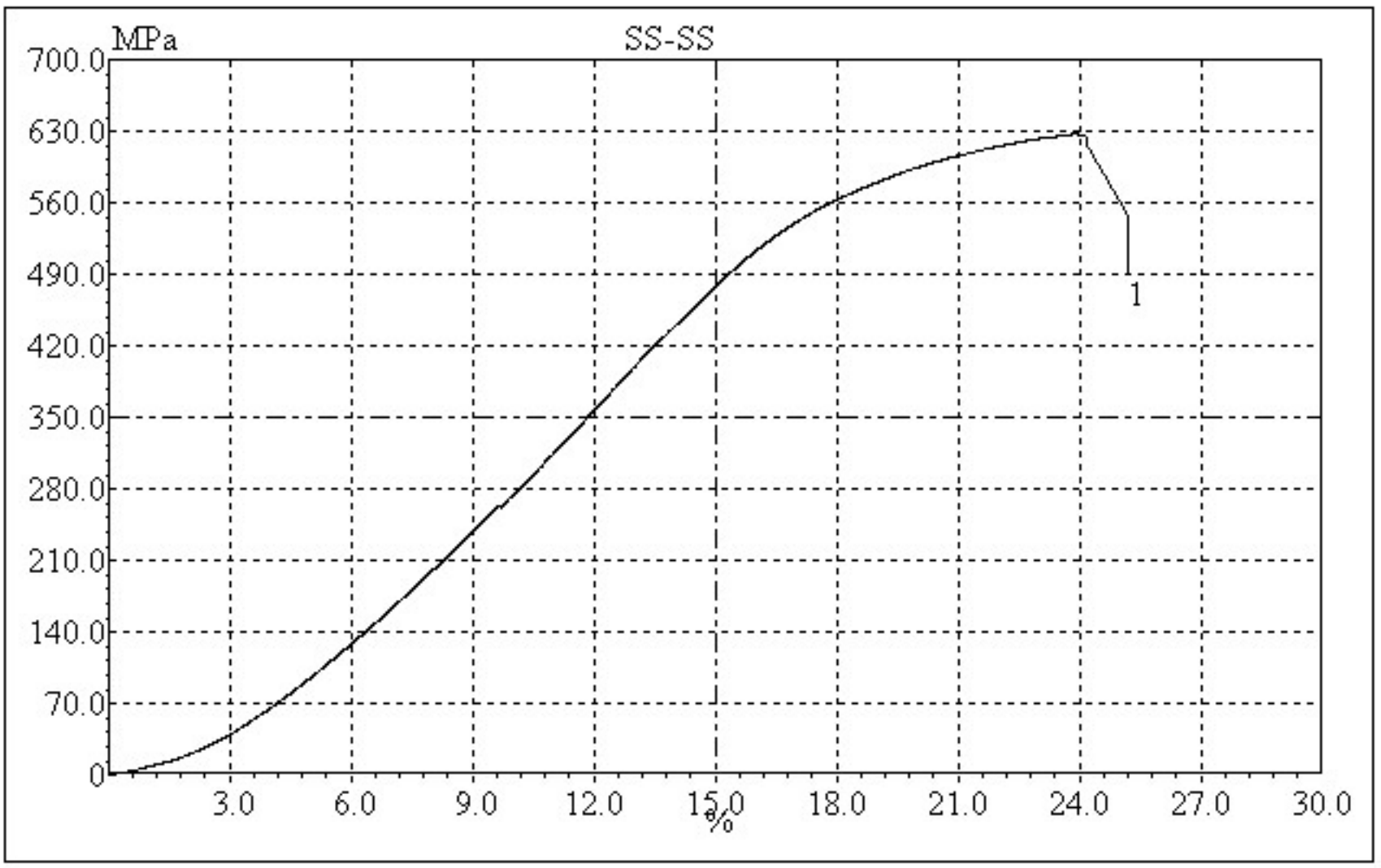
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	128.680	55.315	80.739	63.080



Yogyakarta, 22 Mei 2017

Material Teknik

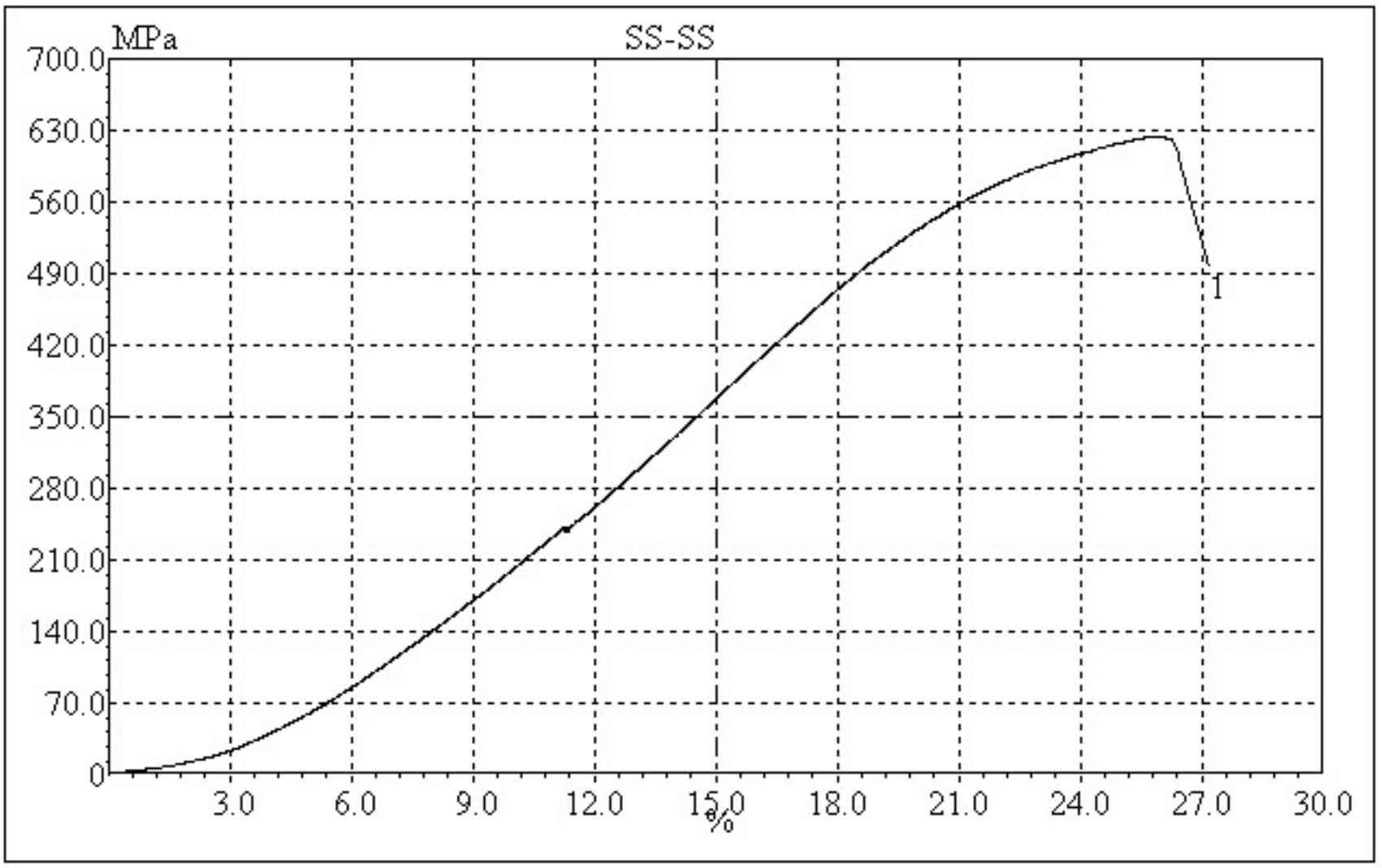
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	132.732	65.521	82.964	65.931



Yogyakarta, 22 Mei 2017

Material Teknik

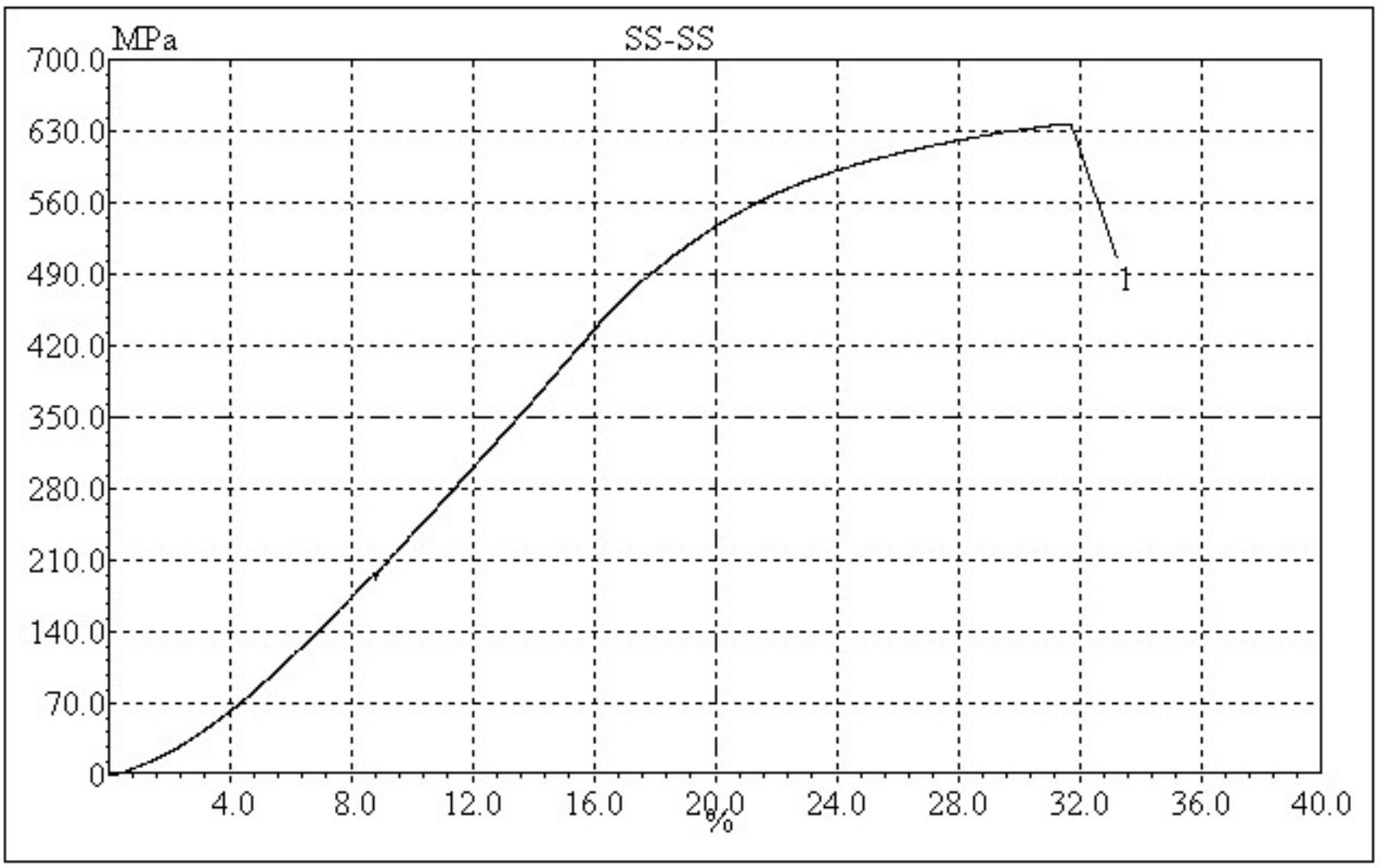
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	136.848	56.651	87.147	69.247



Yogyakarta, 22 Mei 2017

Material Teknik

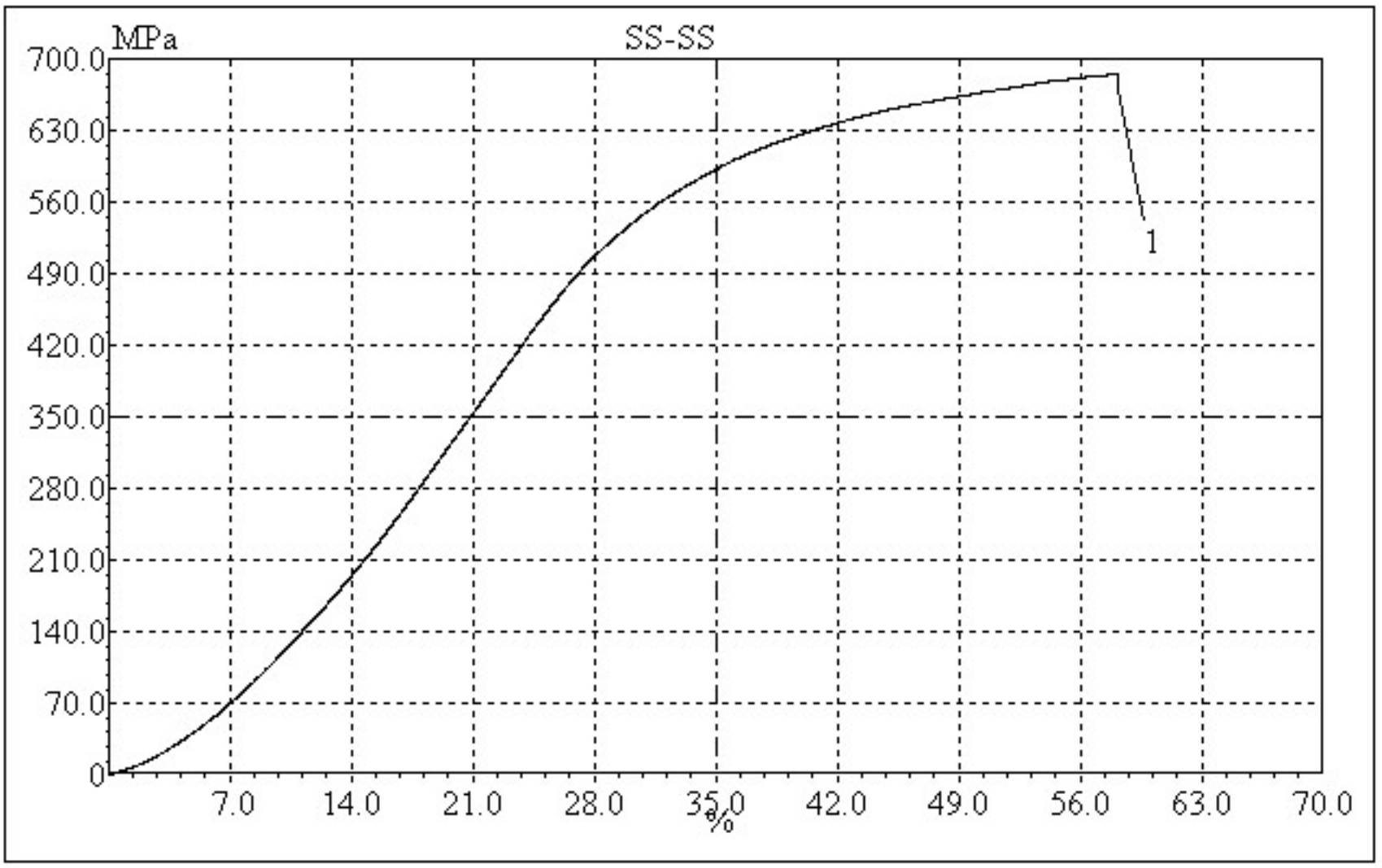
Operator

LABORATORIUM JURUSAN TEKNIK MESIN

UNIVERSITAS MUHAMMADIYAH YOGYAKARTA

SS-SS

Test date	Area mm^2	Yield point kN	Max. Load kN	Break kN
2007-01-	143.139	56.442	98.086	77.537



Yogyakarta, 10 Mei 2017

Material Teknik

Operator

LABORATORIUM BAHAN TEKNIK

DEPARTEMEN TEKNIK MESIN SEKOLAH VOKASI

UNIVERSITAS GADJAH MADA

HASIL PENGUJIAN KEKERASAN

No. 097 / P.Kkr / BT.DTM / 2017

Spesimen *Friction Welding* (*Stainless steel-Stainless steel*)

Tekanan Gesek 120 Mpa

No	Kode	Jarak dr sambungan			d_1 (µm)	d_2 (µm)	$d_{rata-rata}$ (µm)	Kekerasan (VHN)
1	SS - SS . 120Mpa	Stainless steel	15.0	mm	38.0	38.0	38.00	256.8
			9.5	mm	38.0	38.0	38.00	256.8
			7.5	mm	39.0	39.0	39.00	243.8
			5.5	mm	39.0	39.0	39.00	243.8
			3.5	mm	40.0	39.0	39.50	237.7
			1.5	mm	41.0	41.0	41.00	220.6
			0.5	mm	41.0	40.0	40.50	226.1
		Las	0.0	mm	40.0	40.0	40.00	231.8
			0.5	mm	41.0	40.0	40.50	226.1
			1.5	mm	41.0	40.0	40.50	226.1
		Stainless steel	3.5	mm	40.0	40.0	40.00	231.8
			5.5	mm	40.0	38.0	39.00	243.8
			7.5	mm	40.0	39.0	39.50	237.7
			9.5	mm	39.0	40.0	39.50	237.7
			15.0	mm	39.0	38.0	38.50	250.2

Keterangan :

1. Menggunakan metode uji Vikers dengan pembebanan 200 gf, 5 detik
2. Satuan pengukuran diagonal jejak indentor dalam µm
3. Pengujian dilakukan pada tanggal 20 Juli 2017

Yogyakarta, 20 Juli 2017
Staf Laboratorium Bahan Teknik

Pengujian & Analisa Material
Lab. Bahan Teknik
Departemen Teknik Mesin
Sekolah Vokasi UGM

Puji Priyana, SST.
NIP. 196704101999031002

Lembar asli, tidak untuk digandakan

Kampus : Jl. Grafika 2A Yogyakarta 55281 Telpon : (0274) 747632, 548637, 6492269. Fax. (0274) 546400
E-mail: lab.bahanteknik@yahoo.co.id

LABORATORIUM BAHAN TEKNIK
DEPARTEMEN TEKNIK MESIN SEKOLAH VOKASI
UNIVERSITAS GADJAH MADA

HASIL PENGUJIAN KEKERASAN
No. 197 / P.Kkr / BT.DTM /2018

Spesimen *Friction Welding* (*Stainless steel-Stainless steel*)

Tekanan Gesek 20 Mpa

No	Kode	Jarak dr sambungan			d_1 (µm)	d_2 (µm)	$d_{rata-rata}$ (µm)	Kekerasan (VHN)
1	SS - SS . 20Mpa	Stainless steel	15.0	mm	39.0	38.0	38.50	250.2
			9.5	mm	40.0	38.0	39.00	243.8
			7.5	mm	40.0	40.0	40.00	231.8
			5.5	mm	40.0	40.0	40.00	231.8
			3.5	mm	41.0	40.0	40.50	226.1
			1.5	mm	42.0	40.0	41.00	220.6
			0.5	mm	40.0	40.0	40.00	231.8
		Las	0.0	mm	40.0	39.0	39.50	237.7
			0.5	mm	40.0	40.0	40.00	231.8
			1.5	mm	42.0	40.0	41.00	220.6
		Stainless steel	3.5	mm	40.0	40.0	40.00	231.8
			5.5	mm	40.0	40.0	40.00	231.8
			7.5	mm	39.0	39.0	39.00	243.8
			9.5	mm	38.0	40.0	39.00	243.8
			15.0	mm	39.0	38.0	38.50	250.2

Keterangan :

1. Menggunakan metode uji Vikers dengan pembebanan 200 gf, 5 detik
2. Satuan pengukuran diagonal jejak indentor dalam µm
3. Pengujian dilakukan pada tanggal 17 Januari 2018

Yogyakarta, 17 Januari 2018
Staf Laboratorium Bahan Teknik

Pengujian & Analisa Material
Lab. Bahan Teknik
Departemen Teknik Mesin
Sekolah Vokasi UGM

Puji Priyana, SST.
NIP. 196704101999031002

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