HSB Global Standards

Welding Procedure Approval Test Certificate

Manufacturer's Welding Procedure: P8-3400
Reference N°.: PQR-No.: P8-3400

Inspection Authority: HSB International GmbH
Test N°.: US.PEN.1340.00-J 13-001
Specimen N°.:

Manufacturer: Penflex Corporation

Address: 105B Industrial Drive,
Gilbertsville, PA 19525,
USA

Code / Testing Standard: ASME Sec. IX / PED 97/23/EC*
Date of Welding: October 10th, 2012

		Actual Welding Data	Range of Approval
Welding Process:		GTAW (Automatic)	GTAW
Joint Type:		Plate- Groove joint	All
Base Metals:		ASTM A240-316L	
		P-No.: 8	P-No.: 8
		Gr.-No.: 1	Gr.-No.: N/A
	[in.]	T: 0.006	T: 0.006 – 0.012
		OD: N/A	All pipe and plate
Filler Metals:		No filler metals	Without filler metal only
	[in.]	t: 0.006	t: max. 0.012
	[in.]	t_{pass}: 0.006	t_{pass}: N/A
Position:		1G	N/A
Preheat Temp.:		50°F	min 45°F
Interpass Temp.:		N/A	N/A
Technique:		Single pass	N/A
Shielding gas:		100% Argon	100% Argon
Backing gas:		100% Argon	N/A
Electrical Characteristics:		Current: DC/EN	N/A
Post Weld Heat Treatment:		Without PWHT	Without PWHT only

We certify that the test welds were prepared, welded and tested satisfactory in accordance with the requirements of above-mentioned Code / testing standard.
* Scope of tests as required by the applicable European Welding Standard have been performed to meet the requirements of the PED 97/23/EC.
*The welding procedure is qualified to perform permanent weld joinings for pressure equipment in categories I, II, III and IV of PED 97/23/EC.

Location, Date of issue: Rheine, February 07th, 2013

Signature and Name:

0871

Adam Gajewski
European Welding Engineer

HSB Int'l

Hartford Steam Boiler International GmbH ▪ Landersumer Weg 40, D-48431 Rheine, Germany ▪ Telephone: (+49)5971 91436 0 Fax: (+49)5971 91436 29 ▪
e-mail: office@hsbct.com ▪ Notified Body acc PED 97/23/EC ID: 0871

HSB Global Standards

Welding Procedure Approval Test Certificate

Manufacturer's Welding Procedure: P8-3397
Reference N°.: PQR-No.: P8-3397

Inspection Authority: HSB International GmbH
Test N°.: US.PEN.1340.00-J 13-002
Specimen N°.:

Manufacturer: Penflex Corporation

Address: 105B Industrial Drive,
Gilbertsville, PA 19525,
USA

Code / Testing Standard: ASME Sec. IX / PED 97/23/EC*
Date of Welding: October 10th, 2012

	Actual Welding Data	Range of Approval
Welding Process:	GTAW (Automatic)	GTAW
Joint Type:	Plate- Groove joint	All
Base Metals:	ASTM A240-316L	
	P-No.: 8	P-No.: 8
	Gr.-No.: 1	Gr.-No.: N/A
[in.]	T: 0.015	T: 0.015 – 0.030
	OD: N/A	All pipe and plate
Filler Metals:	No filler metals	Without filler metal only
[in.]	t: 0.015	t: max. 0.030
[in.]	t_{pass}: 0.015	t_{pass}: N/A
Position:	1G	N/A
Preheat Temp.:	50°F	min 45°F
Interpass Temp.:	N/A	N/A
Technique:	Single pass	N/A
Shielding gas:	100% Argon	100% Argon
Backing gas:	100% Argon	N/A
Electrical Characteristics:	Current: DC/EN	N/A
Post Weld Heat Treatment:	Without PWHT	Without PWHT only

We certify that the test welds were prepared, welded and tested satisfactory in accordance with the requirements of above-mentioned Code / testing standard.
* Scope of tests as required by the applicable European Welding Standard have been performed to meet the requirements of the PED 97/23/EC.
*The welding procedure is qualified to perform permanent weld joinings for pressure equipment in categories I, II, III and IV of PED 97/23/EC.

Location, Date of issue: Rheine, February 07th, 2013

Signature and Name:

0871

Adam Gajewski
European Welding Engineer

HSB Int'l

Hartford Steam Boiler International GmbH ▪ Landersumer Weg 40, D-48431 Rheine, Germany ▪ Telephone: (+49)5971 91436 0 Fax: (+49)5971 91436 29 ▪
e-mail: office@hsbct.com ▪ Notified Body acc PED 97/23/EC ID: 0871

HSB Global Standards

Welding Procedure Approval Test Certificate

Manufacturer's Welding Procedure: P42-3398
Reference N°.: PQR-No.: P42-3398

Inspection Authority: HSB International GmbH
Test N°.: US.PEN.1340.00-J 13-003
Specimen N°.:

Manufacturer: Penflex Corporation

Address: 105B Industrial Drive,
Gilbertsville, PA 19525,
USA

Code / Testing Standard: ASME Sec. IX / PED 97/23/EC*
Date of Welding: October 10th, 2012

	Actual Welding Data	Range of Approval
Welding Process:	GTAW (Automatic)	GTAW
Joint Type:	Plate- Groove joint	All
Base Metals:	ASTM B-127	
	P-No.: 42	P-No.: 42
	Gr.-No.: -	Gr.-No.: N/A
[in.]	T: 0.010	T: 0.010 – 0.020
	OD: N/A	All pipe and plate
Filler Metals:	No filler metals	Without filler metal only
[in.]	t: 0.010	t: max. 0.020
[in.]	t_{pass}: 0.010	t_{pass}: N/A
Position:	1G	N/A
Preheat Temp.:	50°F	min 45°F
Interpass Temp.:	N/A	N/A
Technique:	Single pass	N/A
Shielding gas:	100% Argon	100% Argon
Backing gas:	100% Argon	N/A
Electrical Characteristics:	Current: DC/EN	N/A
Post Weld Heat Treatment:	Without PWHT	Without PWHT only

We certify that the test welds were prepared, welded and tested satisfactory in accordance with the requirements of above-mentioned Code / testing standard.
* Scope of tests as required by the applicable European Welding Standard have been performed to meet the requirements of the PED 97/23/EC.
*The welding procedure is qualified to perform permanent weld joinings for pressure equipment in categories I, II, III and IV of PED 97/23/EC.

Location, Date of issue: Rheine, February 08th, 2013

Signature and Name:

0871

Adam Gajewski
European Welding Engineer

HSB Int'l

Hartford Steam Boiler International GmbH ▪ Landersumer Weg 40, D-48431 Rheine, Germany ▪ Telephone: (+49)5971 91436 0 Fax: (+49)5971 91436 29 ▪
e-mail: office@hsbct.com ▪ Notified Body acc PED 97/23/EC ID: 0871

HSB Global Standards

Welding Procedure Approval Test Certificate

Manufacturer's Welding Procedure: P43-3399
Reference Nº.: PQR-No.: P43-3399

Inspection Authority: HSB International GmbH
Test Nº.: US.PEN.1340.00-J 13-004
Specimen Nº.:

Manufacturer: Penflex Corporation

Address: 105B Industrial Drive,
Gilbertsville, PA 19525,
USA

Code / Testing Standard: ASME Sec. IX / PED 97/23/EC*
Date of Welding: October 10th, 2012

		Actual Welding Data	Range of Approval
Welding Process:		GTAW (Automatic)	GTAW
Joint Type:		Plate- Groove joint	All
Base Metals:		ASTM B-575	
		P-No.: 43	P-No.: 43
		Gr.-No.: -	Gr.-No.: N/A
	[in.]	T: 0.010	T: 0.010 – 0.020
		OD: N/A	All pipe and plate
Filler Metals:		No filler metals	Without filler metal only
	[in.]	t: 0.010	t: max. 0.020
	[in.]	t_{pass}: 0.010	t_{pass}: N/A
Position:		1G	N/A
Preheat Temp.:		50°F	min 45°F
Interpass Temp.:		N/A	N/A
Technique:		Single pass	N/A
Shielding gas:		100% Argon	100% Argon
Backing gas:		100% Argon	N/A
Electrical Characteristics:		Current: DC/EN	N/A
Post Weld Heat Treatment:		Without PWHT	Without PWHT only

We certify that the test welds were prepared, welded and tested satisfactory in accordance with the requirements of above-mentioned Code / testing standard.
* Scope of tests as required by the applicable European Welding Standard have been performed to meet the requirements of the PED 97/23/EC.
*The welding procedure is qualified to perform permanent weld joinings for pressure equipment in categories I, II, III and IV of PED 97/23/EC.

Location, Date of issue: Rheine, February 08th, 2013

Signature and Name:

0871

Adam Gajewski
European Welding Engineer

HSB Int'l

Hartford Steam Boiler International GmbH ▪ Landersumer Weg 40, D-48431 Rheine, Germany ▪ Telephone: (+49)5971 91436 0 Fax: (+49)5971 91436 29 ▪
e-mail: office@hsbct.com ▪ Notified Body acc PED 97/23/EC ID: 0871