

Welding Procedure Specification (WPS)

WPS №: 311FW1.1

Parent Material Group Specification:

WPQR №.:

TAL.19.B.007

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
P235GH	P235GH
1.1	1.1
0.43	0.43
1.61	1.61
10.65	10.65

Mechanical cutting

Grinding

Tacking

Welding Process:

311

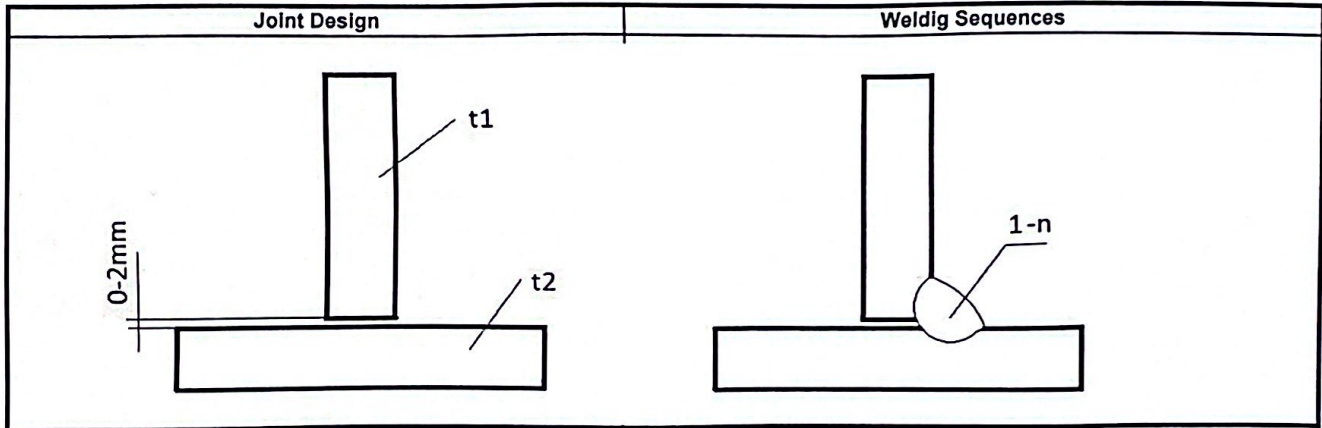
Joint Type:

FW

Weding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process		Diametr of Filler Material, mm	Current A	Voltage V	Type of Curre/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	311		2	Nozzle 3					
n	311		2	Nozzle 3					

Filler Material Classification and Trade Name :

FM1, AGA H44, DIN 8554: G-II

Any Special Drying

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

- Root Shielding: -

Gas Flow (l/min) - Weld Shielding:

90L/h

Acetylene/ Oxygen

- Root Shielding: -

Back Gouging / Backing remove:

Preheat Temperature (o C):

100 if t_Σ more then 80mm

Weawing (max width o run); mm:

Interpass Temperature (o C):

max 250

Stand of distance; mm:

Post-Weld Heat Treament / or Ageing:

Torch Agle:

Time, Temperature, Method of Heat Treatment:

Type and Diametr of Volfram Electrode:

Heating ad Cooling Rates :

Pulse welding details:

Manufacturer: Alan Belov

Date: 01/10/2024

Welding Procedure Specification (WPS)

WPS №: 311BW1.1

Parent Material Group Specification:

WPQR №.:

TAL.19.B.007

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
P235GH	P235GH
1.1	1.1
0.43	0.43
1.15	1.15
10.65	10.65

Mechanical cutting

Grinding

Tacking

Welding Process:

311

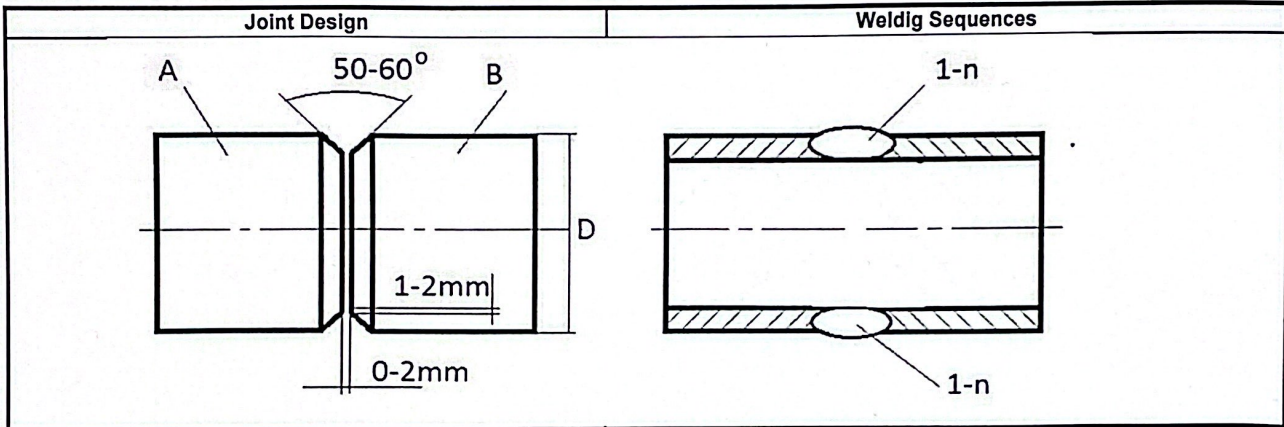
Joint Type:

BW

Welding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process		Diameter of Filler Material, mm	Current A	Voltage V	Type of Current/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	311		2	Nozzle 3					
n	311		2	Nozzle 3					

Filler Material Classification and Trade Name :

FM1, AGA H44, DIN 8554: G-II

Any Special Drying

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

- Root Shielding: -

Gas Flow - Weld Shielding:

(l/min)

90L/h

Acetylene/ Oxygen

- Root Shielding: -

Back Gouging / Backing remove:

Preheat Temperature (o C):

100 if t_Σ more then 80mm

Weaving (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treatment / or Ageing:

-

Torch Angle:

Time, Temperature, Method of Heat Treatment:

-

Type and Diameter of Wolfram Electrode:

Heating and Cooling Rates :

-

Pulse welding details:

Manufacturer: Alan Belov

Date: 01/10/2024

Welding Procedure Specification (WPS)

WPS №: 141FW8.1

Parent Material Group Specification:

WPQR №.:

P-20-122

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
8.1/1.4301	8.1/1.4301
8.1	8.1
0.43	0.43
2.5	2.5

Mechanical cutting

Grinding

Tacking

Welding Process:

141

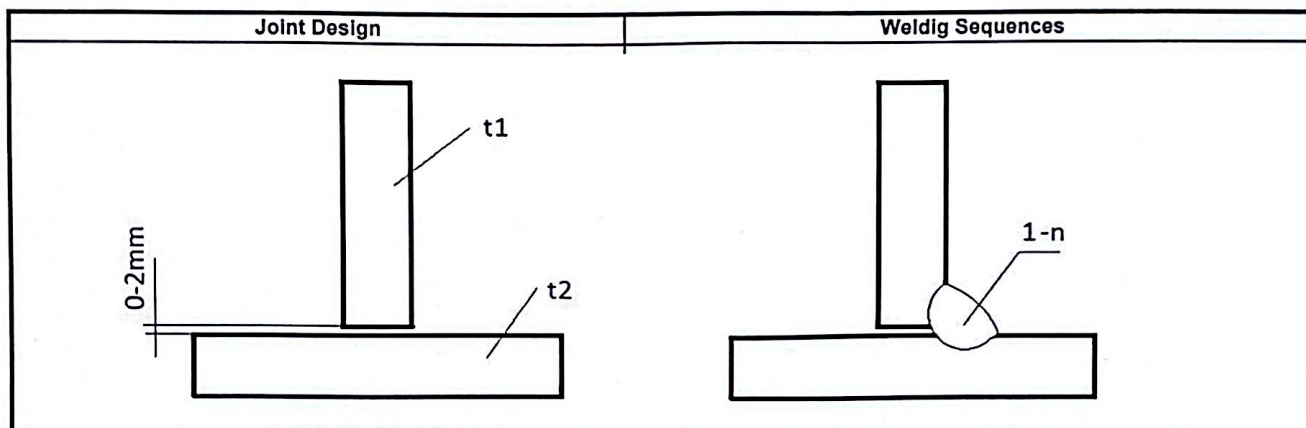
Joint Type:

FW

Welding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process		Diameter of Filler Material, mm	Current A	Voltage V	Type of Current/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	141		1,6	45-55	9-11	DC(-)		35-40	0,4-0,6
n	141		1,6	45-55	9-11	DC(-)		35-40	0,4-0,6

Filler Material Classification and Trade Name :

EN ISO 14343-A:W 19 12 3 Lsi

Any Special Drying

350-450 oC 2 hours, when pack was open

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

EN ISO 14175:11(99,9%Ar)

- Root Shielding: -

EN ISO 14175:11(99,9%Ar)

Gas Flow - Weld Shielding:

6-8L/min

(l/min)

- Root Shielding: -

2-3L/min

Back Gouging / Backing remove:

Tungsten Electrode Type: EN 26848-WT20

Preheat Temperature (o C):

100 if tΣ more then 80mm

Weaving (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treatment / or Ageing:

-

Torch Agle:

Time, Temperature, Method of

-

Type and Diameter of Wolfram Electrode:

EN 26848-WT20

Heat Treatment:

-

Heating and Cooling Rates :

-

Pulse welding details:

-

Manufacturer: Alan Belov

Date: 01/10/2024

Welding Procedure Specification (WPS)

WPS №: 141BW8.1

Parent Material Group Specification:

t1	t2
8.1/1.4301	8.1/1.4301
8.1	8.1
0.43	0.43
2.5	2.5
26.9	26.9

WPQR №.:

P-20-122

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

Mechanical cutting

Grinding

Tacking

Welding Process:

141

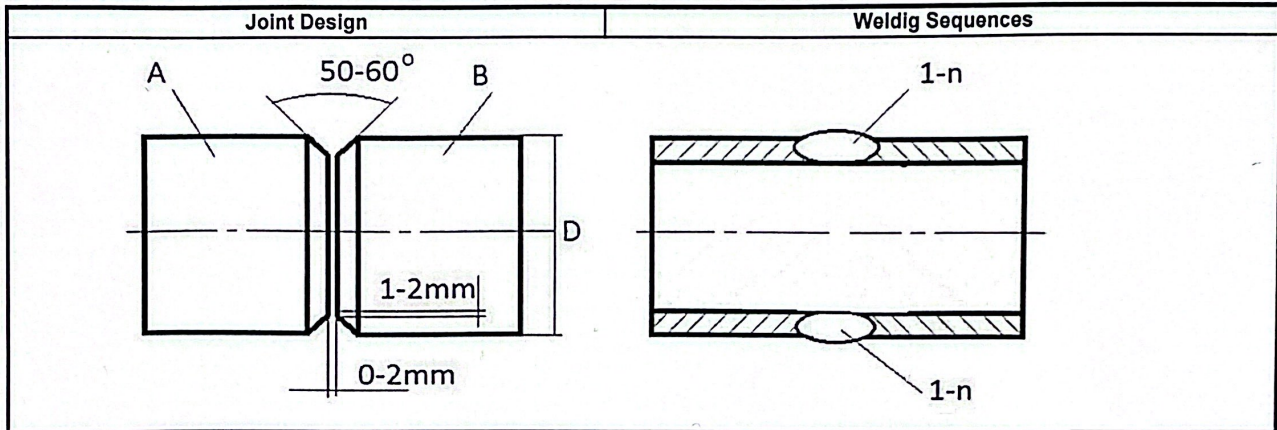
Joint Type:

BW

Welding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process	Diameter of Filler Material, mm	Current A	Voltage V	Type of Current/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	141	1,6	45-55	9-11	DC(-)		35-40	0,4-0,6
n	141	1,6	45-55	9-11	DC(-)		35-40	0,4-0,6

Filler Material Classification and Trade Name :

EN ISO 14343-A:W 19 12 3 Lsi

Any Special Drying

350-450 oC 2 hours, when pack was open

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

EN ISO 14175:11(99,9%Ar)

- Root Shielding: -

EN ISO 14175:11(99,9%Ar)

Gas Flow - Weld Shielding:

6-8L/min

(l/min)

- Root Shielding: -

2-3L/min

Back Gouging / Backing remove:

Tungsten Electrode Type: EN 26848-WT20

Preheat Temperature (o C):

100 if t Σ more then 80mm

Weaving (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treatment / or Ageing:

-

Torch Angle:

Time, Temperature, Method of Heat Treatment:

-

Type and Diameter of Wolfram Electrode:

EN 26848-WT20

Heating and Cooling Rates :

-

Pulse welding details:

-

Manufacturer: Alan Belov

Date: 01/10/2024

Welding Procedure Specification (WPS)

WPS №: 141FW1.1

Parent Material Group Specification:

WPQR №.:

P-20-122

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
S355JR	S355JR
1.1	1.1
0.43	0.43
4	4

Mechanical cutting

Grinding

Tacking

Welding Process:

141

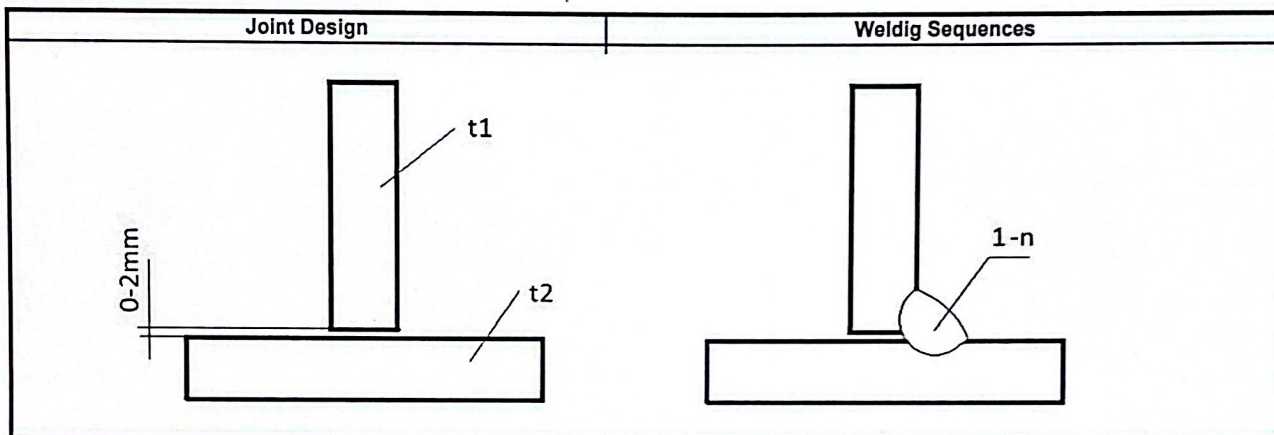
Joint Type:

FW

Welding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process		Diametr of Filler Material, mm	Current A	Voltage V	Type of Current/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	141		2	70-150	9-11	DC(-)		45-110	0,5-1,3
n	141		2	70-150	9-11	DC(-)		45-110	0,5-1,3

Filler Material Classification and Trade Name :

EN ISO 636-A: W 46 2 W3SiI

Any Special Drying

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

EN ISO 14175:11

- Root Shielding: -

EN ISO 14175:11(99,9%Ar)

Gas Flow - Weld Shielding:

(l/min)

7-10L/min

- Root Shielding: -

Back Gouging / Backing remove:

Tungsten Electrode Type: ISO 6848-WT20

Preheat Temperature (o C):

100 if t Σ more then 80mm

Weaving (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treatment /

or Ageing:

Torch Agle:

Time, Temperature, Method of

Type and Diametr of Volfram Electrode:

ISO 6848-WT20

Heat Treatment:

Heating ad Cooling Rates :

Pulse welding details:

-

Manufacturer: Alan Belov

Date: 01/10/2024

Welding Procedure Specification (WPS)

WPS No: 141BW1.1

Parent Material Group Specification:

WPQR No.:

P-20-122

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
S355JR	S355JR
1.1	1.1
0.43	0.43
4	4
24	24

Mechanical cutting

Grinding

Tacking

Welding Process:

141

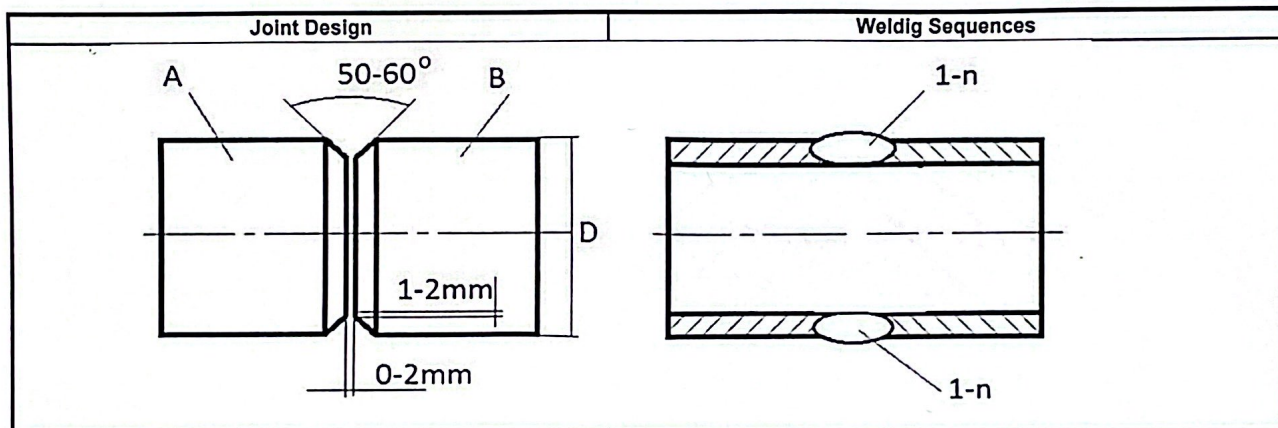
Joint Type:

BW

Weding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process	Diametr of Filler Material, mm	Current A	Voltage V	Type of Curre/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	141	2	70-150	9-11	DC(-)		45-110	0,5-1,3
n	141	2	70-150	9-11	DC(-)		45-110	0,5-1,3

Filler Material Classification and Trade Name :

EN ISO 636-A: W 46 2 W3SiI

Any Special Drying

not required

Any Special Backing:

Gas/ Flux: - Weld Shlding:

EN ISO 14175:11

- Root Shlding: -

EN ISO 14175:11(99,9%Ar)

Gas Flow - Weld Shlding:

(l/min)

7-10L/min

- Root Shlding: -

Back Gouging / Backing remove:

Tungsten Electrode Type: ISO 6848-WT20

Preheat Temperature (o C):

100 if tΣ more then 80mm

Weawing (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treament / or Ageing:

-

Torch Agle:

Time, Temperature, Method of Heat Treatment:

-

Type and Diametr of Volfram Electrode:

ISO 6848-WT20

Heating ad Cooling Rates :

-

Pulse welding details:

-

Manufacturer: Alan Belov

Date: 01/10/2024

Welding Procedure Specification (WPS)

WPS №: 111FW8.1

Parent Material Group Specification:

WPQR №.:

P-20-124

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
8.1/1.4301	8.1/1.4301
8.1	8.1
0.43	0.43
5	5
-	-

Mechanical cutting

Grinding

Tacking

3

Welding Process:

111

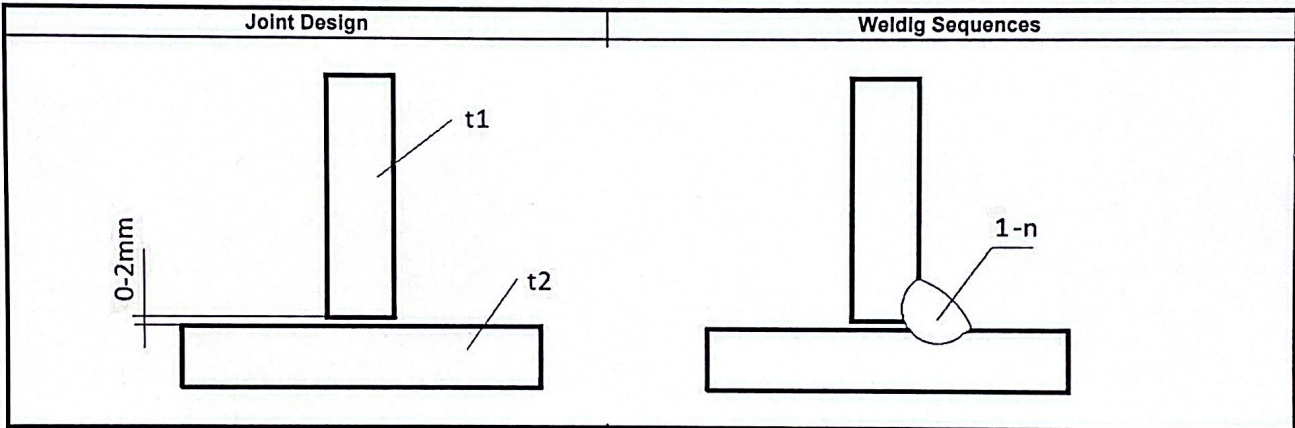
Joint Type:

FW

Welding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process		Diameter of Filler Material, mm	Current A	Voltage V	Type of Current/ Polarity	Wire Speed m/min	Travel speed	Heat Input KJ/mm
1	111		1,6	60-70	18-22	DC+		40-50mm/min	2
n	111		1,6	60-70	18-22	DC+		40-50mm/min	2

Filler Material Classification and Trade Name :

EN ISO 3581-A: E 19 12 3 L R 12

Any Special Drying

350-450 oC 2 hours, when pack was open

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

- Root Shielding: -

Gas Flow - Weld Shielding:

(l/min)

- Root Shielding: -

Back Gouging / Backing remove:

Other Information:

Preheat Temperature (o C):

100 if t Σ more then 80mm

Weaving (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treatment / or Ageing:

-

Torch Angle:

Time, Temperature, Method of Heat Treatment:

-

Type and Diameter of Wolfram Electrode:

-

Heating and Cooling Rates :

-

Pulse welding details:

-

Manufacturer: Alan Belov

Date: 01/10/2024



Welding Procedure Specification (WPS)

WPS №: 111BW8.1

Parent Material Group Specification:

WPQR №.:

P-20-124

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
8.1/1.4301	8.1/1.4301
8.1	8.1
0.43	0.43
5	5
32	32

Mechanical cutting

Grinding

Tacking

3

Welding Process:

111

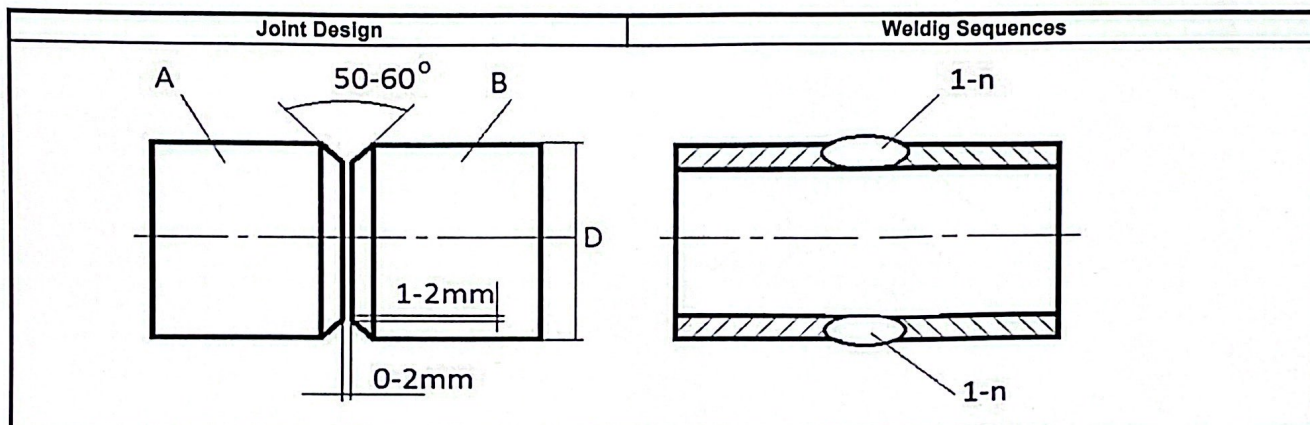
Joint Type:

BW

Weding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process		Diametr of Filler Material, MM	Current A	Voltage V	Type of Curre/ Polarity	Wire Speed m/min	Trael speed	Heat Input KJ/mm
1	111		1,6	60-70	18-22	DC+		40-50mm/min	2
n	111		1,6	60-70	18-22	DC+		40-50mm/min	2

Filler Material Classification and Trade Name :

EN ISO 3581-A: E 19 12 3 L R 12

Any Special Drying

350-450 oC 2 hours, when pack was open

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

- Root Shielding: -

Gas Flow - Weld Shielding:

(l/min)

- Root Shielding: -

Back Gouging / Backing remove:

Other Information:

Preheat Temperature (o C):

100 if tΣ more then 80mm

Weawing (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treament / or Ageing:

-

Torch Agle:

Time, Temperature, Method of Heat Treatment:

-

Type and Diametr of Volfram Electrode:

-

Heating ad Cooling Rates :

-

Pulse welding details:

-

Manufacturer: Alan Belov

Date: 01/10/2024

Welding Procedure Specification (WPS)

WPS №: 111FW1.1

Parent Material Specification:

WPQR №.:

TAL. 19.B.006

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
P235GH+N	P235GH+N
1.1	1.1
0.43	0.43
5	5
-	-

Mechanical cutting

Grinding

Tacking

3-6

Welding Process:

111

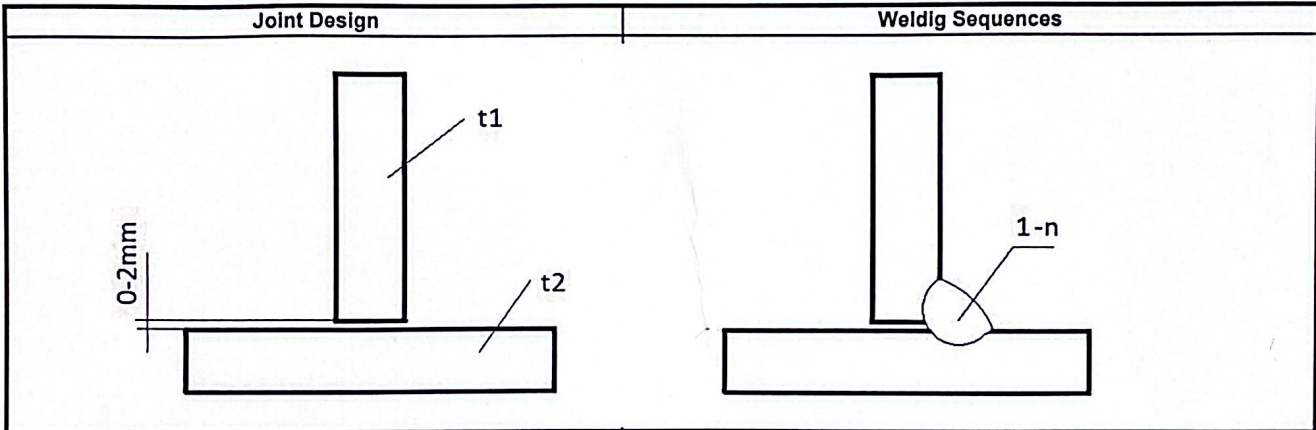
Joint Type:

FW

Welding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process		Diameter of Filler Material, mm	Current A	Voltage V	Type of Current/ Polarity	Wire Speed m/min		Heat Input KJ/mm
1	111		2	50-80	17-23	DC+			0.59-0.90
n	111		2	50-80	17-23	DC+			0.59-0.90

Filler Material Classification and Trade Name :

EN ISO 2560-A: E 42 2 B 12 H5

Any Special Drying

350-450 oC 2 hours, when pack was open

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

- Root Shielding: -

Gas Flow (l/min) - Weld Shielding:

- Root Shielding: -

Back Gouging / Backing remove:

Other Information:

Preheat Temperature (o C):

100 if t Σ more then 80mm

Weaving (max width o run); mm: -

Interpass Temperature (o C):

max 250

Stand of distance; mm: -

Post-Weld Heat Treatment /

or Ageing:

Torch Angle:

Time, Temperature, Method of

Heat Treatment:

Type and Diameter of Wolfram Electrode: -

Heating and Cooling Rates :

Pulse welding details: -

Manufacturer: Alan Belov

Date: 01/10/2024



Welding Procedure Specification (WPS)

WPS №: 111BW1.1

Parent Material Specification:

WPQR №.:

TAL.19.B.006

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
P235GH+	P235GH+
N	N
1.1	1.1
0.43	0.43
5-20	5-20
57,15	57,15

Welding Process:

111

Joint Type:

BW

Weding position:

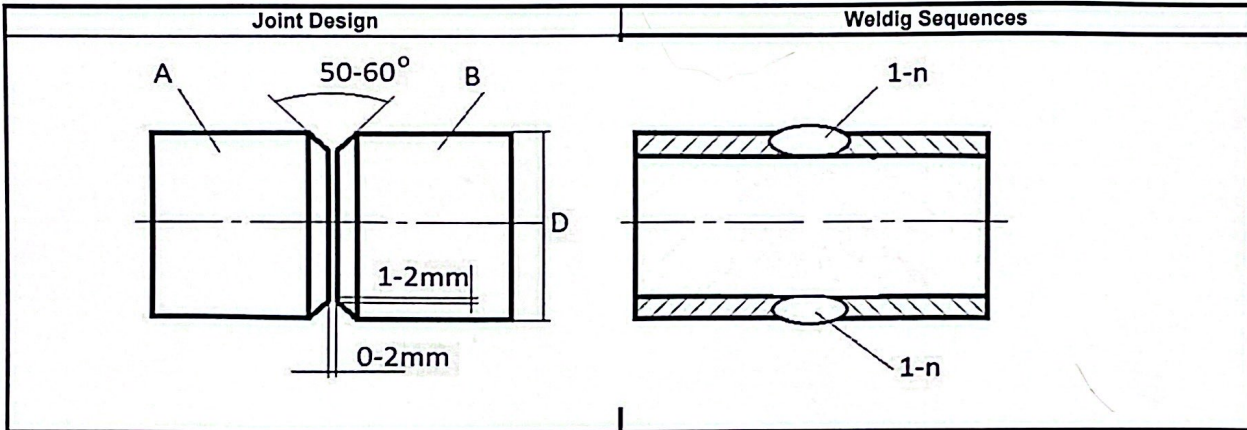
All except PG, PJ and J-L045
ml

Mechanical cutting

Grinding

Tacking

3-6



Welding Details

Run №	Welding Process		Diametr of Filler Material, mm	Current A	Voltage V	Type of Currel/ Polarity	Wire Speed m/min	Heat Input KJ/mm
1	111		2	50-80	17-23	DC+		0.59-0.90
n	111		2	50-80	17-23	DC+		0.59-0.90

Filler Material Classification and Trade Name :

EN ISO 2560-A: E 42 2 B 12 H5

Any Special Drying

350-450 oC 2 hours, when pack was open

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

- Root Shielding: -

Gas Flow - Weld Shielding:
(l/min)

- Root Shielding: -

Back Gouging / Backing remove:

Other Information:

Preheat Temperature (o C): 100 if tΣ more then 80mm

Weawing (max width o run); mm: -

Interpass Temperature (o C): max 250

Stand of distance; mm: -

Post-Weld Heat Treatment / or Ageing:

Torch Agle:

Time, Temperature, Method of Heat Treatment:

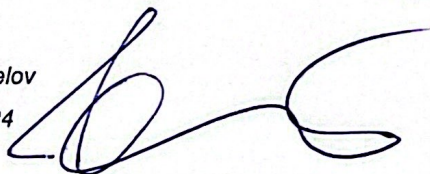
Type and Diametr of Volfram Electrode: -

Heating ad Cooling Rates :

Pulse welding details: -

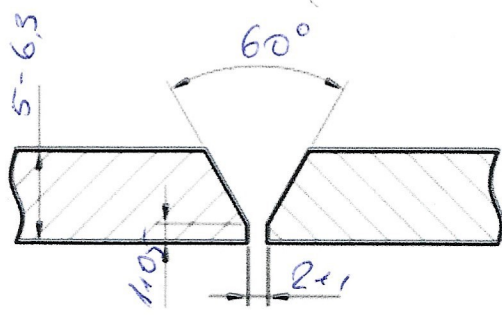
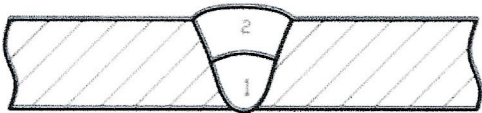
Manufacturer: Alan Belov

Date: 01/10/2024



Object No , Location address	2208 Cassiopeia Projektering	Certified Body	Buro Veritas
Manufacturer's Welding Procedure	Stinsenman Norge AS	Weld seam preparation & Cleaning – Mechanical cleaning	Meh.
Reference No WPS	111-1.1-BW-PH-114,3	Parent material grade	1.1 P235GH
WPQR No	TAL...19.B.006 ver1	Outside diameter (mm)	114,3
Welding process type	111	Parent material thickness (mm)	5-6,3
	BW		PH

Weld joint preparation

Joint design	Welding sequences
	

Welding process parameters

Run No	Process type	Filler material diam (mm)	Current A	Voltage V	Current type, polarity	Welding speed mm/sek	heat input (kJ mm)
1	111	2,6	70-80	18-19	DC(-)	0,7-1,0	0,6-0,8
2	111	2,5	85-105	19-20	DC/+	1,2-1,3	0,8-0,9

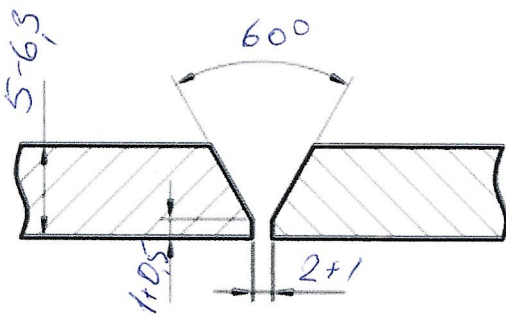
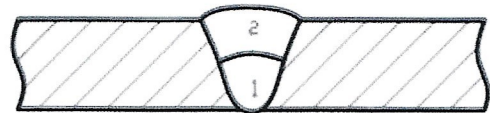
Filler material classification and type	1-LB 52U, EN ISO 2560-A-E: 42 2 B2-OK 48.00 EN ISO 2560-A-E42 4 B 42 H5	Other information*	
Any heat treatment or drying	350C, 2h	e.g	
Gas, flux weld seam area shielding	N/A	Weaving (max width of run)	NA
Gas, flux Weld root shielding	N/A	Oscillation: amplitude, frequency, dwell time:	N/A
Gas Flow Rate weld seam area shielding	N/A	Pulse welding details:	N/A
Gas Flow Rate Weld root shielding	N/A	Stand off distance:	N/A
Tungsten electrode type and size	N/A	Plasma welding details:	N/A
Weld root gauging, back plate	Ss,nb	Torch angle:	N/A
Pre-heating temperature	+5,0C		
Interpass weld temperature	max.250C		
Post Weld Heat Treatment Ageing	N/A		
Duration, temperature, method	N/A		
Heating – and cooling rates*	N/A		

Produced by:
EWE Valeri Snjatkovski  18/05/2023

Zertifikat: RUS-S-18059-1173-980430-17

Object No , Location address	2208 Cassiopeia Projektering	Certified Body	Buro Veritas
Manufacturer's Welding Procedure	Stinsenman Norge AS	Weld seam preparation & Cleaning – Mechanical cleaning	Meh.
Reference No WPS	111-1.1-BW-PH	Parent material grade	1.1 P235GH
WPQR No	TAL...19.B.006 ver1	Outside diameter (mm)	273-510
Welding process type	111	Parent material thickness (mm)	5-6,3
	BW		PH

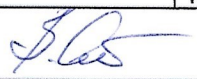
Weld joint preparation

Joint design	Welding sequences
	

Welding process parameters

Run No	Process type	Filler material diam (mm)	Current A	Voltage V	Current type, polarity	Welding speed mm/sek	heat input (kJ mm)
1	111	2,6	70-80	18-19	DC(-)	0,7-1,0	1,1-1,2
2	111	3,2	85-105	22-23	DC/+/-	1,3-1,4	1,1-1,2

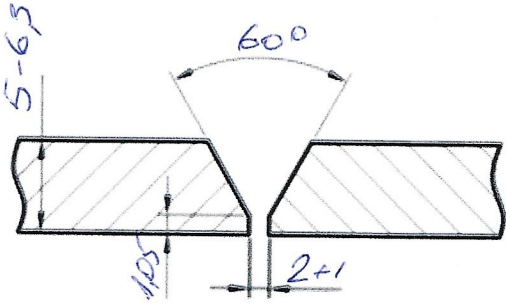
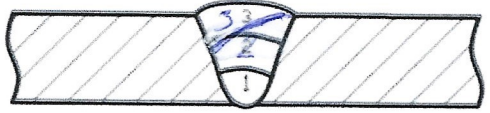
Filler material classification and type	1-LB 52U, EN ISO 2560-A-E: 42 2 B2-OK 48.00 EN ISO 2560-A-E42 4 B 42 H5	Other information*	
Any heat treatment or drying	350C, 2h	e.g	
Gas, flux weld seam area shielding	N/A	Weaving (max width of run)	NA
Gas, flux Weld root shielding	N/A	Oscillation: amplitude, frequency, dwell time:	N/A
Gas Flow Rate weld seam area shielding	N/A	Pulse welding details:	N/A
Gas Flow Rate Weld root shielding	N/A	Stand off distance:	N/A
Tungsten electrode type and size	N/A	Plasma welding details:	N/A
Weld root gauging, back plate	Ss, nb	Torch angle:	N/A
Pre-heating temperature	+5,0C		
Interpass weld temperature	max. 250C		
Post Weld Heat Treatment Ageing	N/A		
Duration, temperature, method	N/A		
Heating – and cooling rates*	N/A		

Produced by:
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Zertifikate: RUS-S-18059-1173-980430-17

Object No , Location address	2208 Cassiopeia Projektering	Certified Body	Buro Veritas
Manufacturer's Welding Procedure	Stinsenman Norge AS	Weld seam preparation & Cleaning – Mechanical cleaning	Meh.
Reference No WPS	111-1.1-BW-PC	Parent material grade	1.1 P235GH
WPQR No	TAL..19.B.006 ver1	Outside diameter (mm)	273-510
Welding process type	111	Parent material thickness (mm)	5-6,3
	BW		PC

Weld joint preparation

Joint design	Welding sequences
	

Welding process parameters

Run No	Process type	Filler material diam (mm)	Current A	Voltage V	Current type, polarity	Welding speed mm/sek	heat input (kJ mm)
1	111	2,6	70-80	18-19	DC(-)	0,7-1,0	1,1-1,2
2,3	111	3,2	85-105	22-23	DC/+	1,3-1,4	1,1-1,2

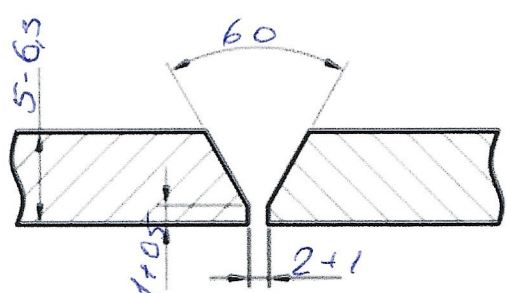
Filler material classification and type	1-LB 52U, EN ISO 2560-A-E: 42 2 B2-OK 48.00 EN ISO 2560-A-E42 4 B 42 H5	Other information*	
Any heat treatment or drying	350C, 2h	e.g	
Gas, flux weld seam area shielding	N/A	Weaving (max width of run)	NA
Gas, flux Weld root shielding	N/A	Oscillation: amplitude, frequency, dwell time:	N/A
Gas Flow Rate weld seam area shielding	N/A	Pulse welding details:	N/A
Gas Flow Rate Weld root shielding	N/A	Stand off distance:	N/A
Tungsten electrode type and size	N/A	Plasma welding details:	N/A
Weld root gauging, back plate	Ss, nb	Torch angle:	N/A
Pre-heating temperature	+5,0C		
Interpass weld temperature	max. 250C		
Post Weld Heat Treatment Ageing	N/A		
Duration, temperature, method	N/A		
Heating – and cooling rates*	N/A		

Produced by:
EWE Valeri Snjatkovski  18/05/2023

Zertifikat: RUS-S-18059-1173-980430-17

Object No , Location address	2208 Cassiopeia Projektering	Certified Body	Buro Veritas
Manufacturer's Welding Procedure	Stinsenman Norge AS	Weld seam preparation & Cleaning – Mechanical cleaning	Meh.
Reference No WPS	111-1.1-BW-PC-114,3	Parent material grade	1.1 P235GH
WPQR No	TAL..19.B.006 ver1	Outside diameter (mm)	114,3
Welding process type	111	Parent material thickness (mm)	5-6,3
	BW		PC

Weld joint preparation

Joint design	Welding sequences
	

Welding process parameters

Run No	Process type	Filler material diam (mm)	Current A	Voltage V	Current type, polarity	Welding speed mm/sek	heat input (kJ mm)
1	111	2,6	70-80	18-19	DC(-)	0,7-1,0	0,6-0,8
2,3	111	2,5	85-105	19-20	DC/+/	1,2-1,3	0,8-0,9

Filler material classification and type	1-LB 52U, EN ISO 2560-A-E: 42 2 B2-OK 48.00 EN ISO 2560-A-E42 4 B 42 H5	Other information*	
Any heat treatment or drying	350C, 2h	e.g	
Gas, flux weld seam area shielding	N/A	Weaving (max width of run)	NA
Gas, flux Weld root shielding	N/A	Oscillation: amplitude, frequency, dwell time:	N/A
Gas Flow Rate weld seam area shielding	N/A	Pulse welding details:	N/A
Gas Flow Rate Weld root shielding	N/A	Stand off distance:	N/A
Tungsten electrode type and size	N/A	Plasma welding details:	N/A
Weld root gauging, back plate	Ss, nb	Torch angle:	N/A
Pre-heating temperature	+5,0C		
Interpass weld temperature	max. 250C		
Post Weld Heat Treatment Ageing	N/A		
Duration, temperature, method	N/A		
Heating – and cooling rates*	N/A		

Produced by:
EWE Valeri Snjatkovski  18/05/2023

Zertifikate: RUS-S-18059-1173-980430-17

Welding Procedure Specification (WPS)

WPS №: 141BW8.1 2

Parent Material Group Specification:

WPQR №.:

Manufacturer:

Welder's Name:

Welding Process:

Joint Type:

Welding position:

P-20-122
STINSENMAN OÜ

141
BW
All except PG, PJ and J-L045
ml

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

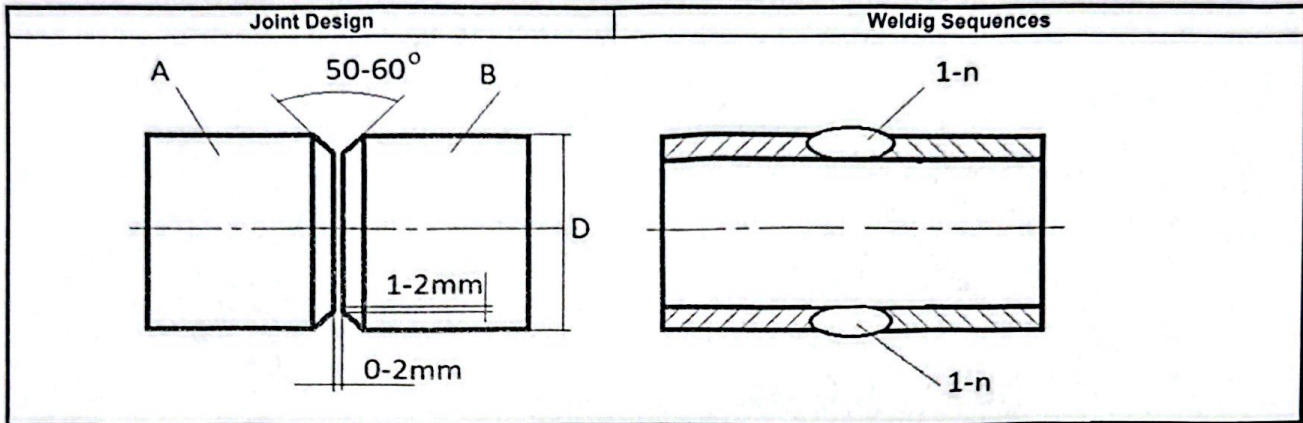
Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
8.1/1.4301	8.1/1.4301
8.1	8.1
0.43	0.43
2-4	2-4
50	50

Mechanical cutting
Grinding
Tacking



Welding Details

Run №	Welding Process	Diameter of Filler Material, mm	Current A	Voltage V	Type of Current/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	141	1,6	45-55	9-11	DC(-)		35-40	0,4-0,6
n	141	1,6	45-55	9-11	DC(-)		35-40	0,4-0,6

Filler Material Classification and Trade Name :

Any Special Drying

Any Special Backing:

Gas/ Flux: - Weld Shielding:

- Root Shielding: -

Gas Flow (l/min) - Weld Shielding:

- Root Shielding: -

Back Gouging / Backing remove:

Preheat Temperature (o C): 100 if t_Σ more then 80mm

Interpass Temperature (o C): max 250

Post-Weld Heat Treatment / or Ageing:

Time, Temperature, Method of Heat Treatment:

Heating and Cooling Rates :

EN ISO 14343-A:W 19 12 3 Lsi

350-450 oC 2 hours, when pack was open not required

EN ISO 14175:11(99,9%Ar)

EN ISO 14175:11(99,9%Ar)

6-8L/min

2-3L/min

Tungsten Electrode Type: EN 26848-WT20

Weaving (max width o run); mm: -

Stand of distance; mm: -

Torch Angle:

Type and Diameter of Volfram Electrode: EN 26848-WT20

Pulse welding details: -

Manufacturer: Alan Belov

Date: 03/01/2025

Welding Procedure Specification (WPS)

WPS №: 141FW8.1 2

Parent Material Group Specification:

WPQR №.: P-20-122

Manufacturer: STINSENMAN OÜ

Welder's Name:

Welding Process: 141

Joint Type: FW

Welding position: All except PG, PJ and J-L045 ml

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

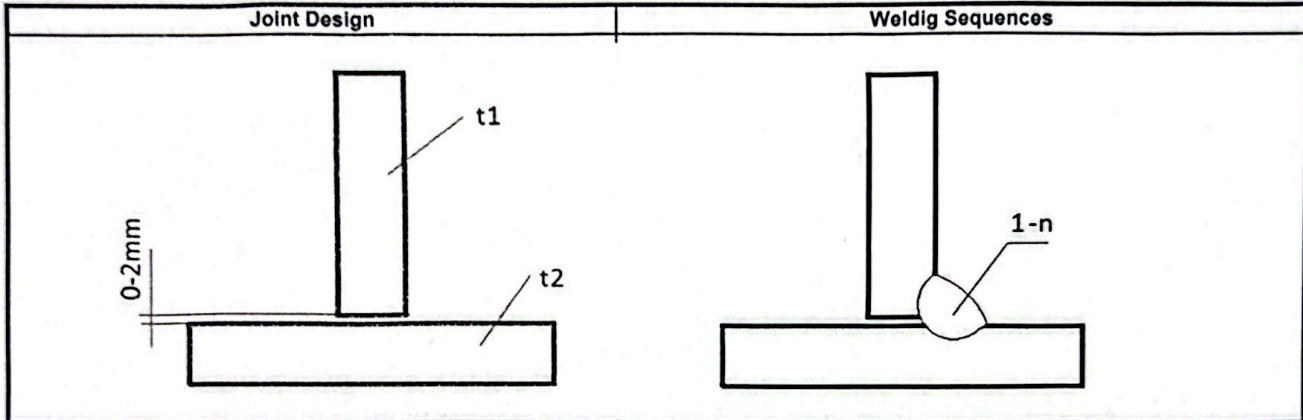
Weld dimension a (mm):

t1	t2
8.1/1.4301	8.1/1.4301
8.1	8.1
0.43	0.43
2-4	2-4

Mechanical cutting

Grinding

Tacking



Welding Details

Run №	Welding Process	Diametr of Filler Material, mm	Current A	Voltage V	Type of Currel/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	141	1,6	45-55	9-11	DC(-)		35-40	0,4-0,6
n	141	1,6	45-55	9-11	DC(-)		35-40	0,4-0,6

Filler Material Classification and Trade Name :

EN ISO 14343-A:W 19 12 3 Lsi

Any Special Drying

350-450 oC 2 hours, when pack was open not required

Any Special Backing:

Gas/ Flux: - Weld Shielding:

EN ISO 14175:11(99,9%Ar)

- Root Shielding: -

EN ISO 14175:11(99,9%Ar)

Gas Flow - Weld Shielding: (l/min)

6-8L/min

- Root Shielding: -

2-3L/min

Back Gouging / Backing remove:

Tungsten Electrode Type: EN 26848-WT20

Preheat Temperature (o C): 100 if t Σ more than 80mm

Weawling (max width o run); mm: -

Interpass Temperature (o C): max 250

Stand of distance; mm: -

Post-Weld Heat Treament / or Ageing:

Torch Agle:

Time, Temperature, Method of Heat Treatment:

Type and Diametr of Volfram Electrode: EN 26848-WT20

Heating ad Cooling Rates :

Pulse welding details: -

Manufacturer: Alan Belov

Date: 03/01/2024

Welding Procedure Specification (WPS)

WPS №: 141BW1.1 2

Parent Material Group Specification:

WPQR №.:

P-20-122

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

t1	t2
S355JR	S355JR
1.1	1.1
0.43	0.43
3-7	3-7
25	25

Mechanical cutting

Grinding

Tacking

Welding Process:

141

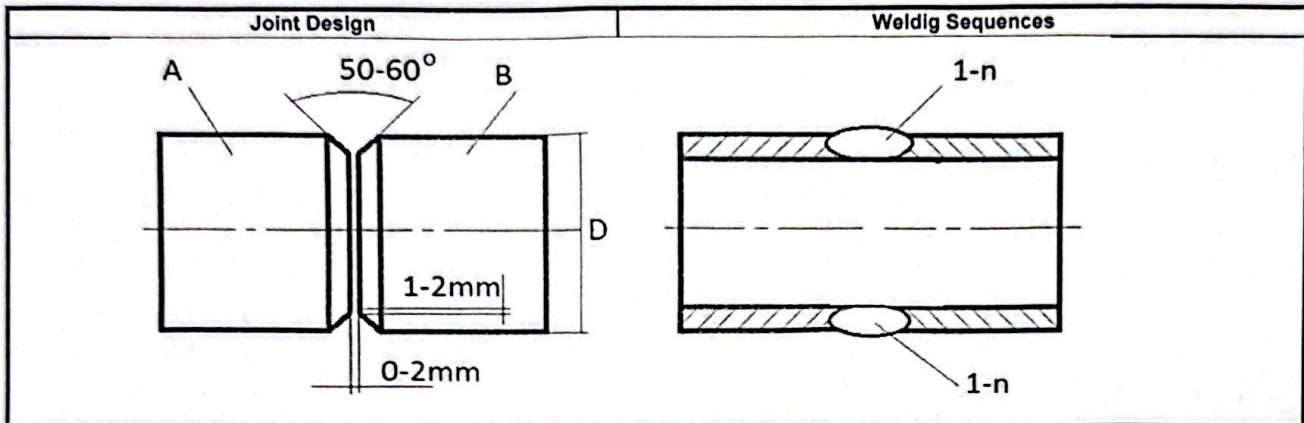
Joint Type:

BW

Weding position:

All except PG, PJ and J-L045

ml



Welding Details

Run №	Welding Process		Diametr of Filler Material, mm	Current A	Voltage V	Type of Curren/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	141		2	70-150	9-11	DC(-)		45-110	0,5-1,3
n	141		2	70-150	9-11	DC(-)		45-110	0,5-1,3

Filler Material Classification and Trade Name :

EN ISO 636-A: W 46 2 W3SiI

Any Special Drying

not required

Any Special Backing:

Gas/ Flux: - Weld Shielding:

EN ISO 14175:11

- Root Shielding: -

EN ISO 14175:11(99,9%Ar)

Gas Flow - Weld Shielding:

(l/min)

7-10L/min

- Root Shielding: -

Back Gouging / Backing remove:

Tungsten Electrode Type: ISO 6848-WT20

Preheat Temperature (o C):

100 if t Σ more then 80mm

Weawing (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treament /

or Ageing:

Torch Agle:

Time, Temperature, Method of

Type and Diametr of Volfram Electrode:

ISO 6848-WT20

Heat Treatment:

Heating ad Cooling Rates :

Pulse welding details:

-

Manufacturer: Alan Belov

Date: 03/01/2025

Welding Procedure Specification (WPS)

WPS No: 141FW1.1 2

Parent Material Group Specification:

t1	t2
S355JR	S355JR
1.1	1.1
0.43	0.43
3-7	3-7

WPQR No.:

P-20-122

Manufacturer:

STINSENMAN OÜ

Welder's Name:

Name

Group ISO15608

max CEV

Material thickness (mm):

Outside Diamet (mm):

Edge Preparation:

Edge Cleaning:

Edge Fixation:

Weld dimension a (mm):

Mechanical cutting

Grinding

Tacking

Welding Process:

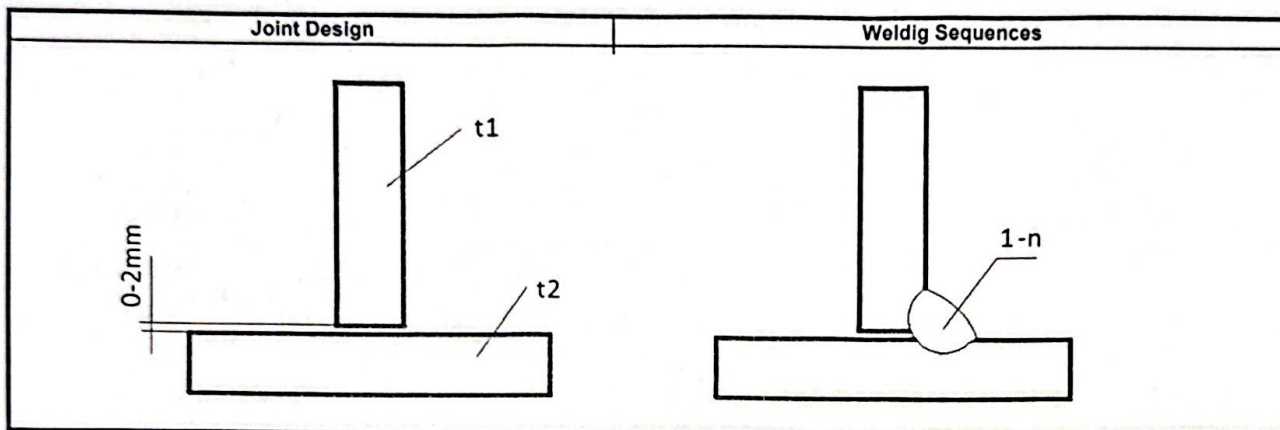
141

Joint Type:

FW

Welding position:

All except PG, PJ and J-L045
ml



Welding Details

Run No	Welding Process		Diameter of Filler Material, mm	Current A	Voltage V	Type of Current/ Polarity	Wire Speed m/min	Welding speed mm/min	Heat Input KJ/mm
1	141		2	70-150	9-11	DC(-)		45-110	0,5-1,3
n	141		2	70-150	9-11	DC(-)		45-110	0,5-1,3

Filler Material Classification and Trade Name :

EN ISO 636-A: W 46 2 W3SiI

Any Special Drying

Any Special Backing:

not required

Gas/ Flux: - Weld Shielding:

EN ISO 14175:11

- Root Shielding: -

EN ISO 14175:11(99,9%Ar)

Gas Flow - Weld Shielding:
(l/min)

7-10L/min

- Root Shielding: -

Back Gouging / Backing remove:

Tungsten Electrode Type: ISO 6848-WT20

Preheat Temperature (o C):

100 if t Σ more than 80mm

Weaving (max width o run); mm:

-

Interpass Temperature (o C):

max 250

Stand of distance; mm:

-

Post-Weld Heat Treatment / or Ageing:

-

Torch Angle:

Time, Temperature, Method of Heat Treatment:

-

Type and Diameter of Wolfram Electrode:

ISO 6848-WT20

Heating and Cooling Rates :

-

Pulse welding details:

-

Manufacturer: Alan Belov

Date: 03/01/2025