

# Welding Procedure Specification (WPS)

WPS No: 311FW1.1

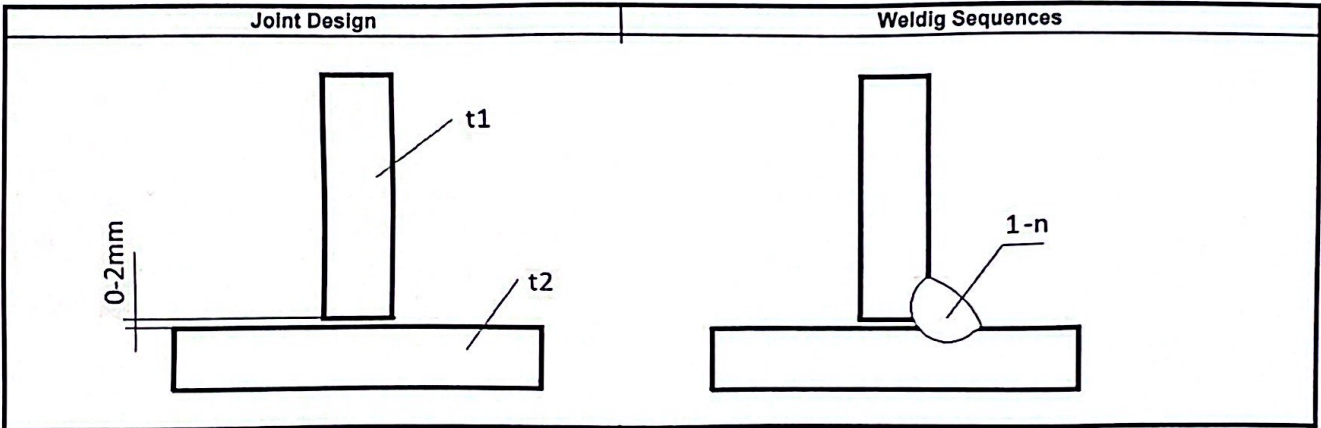
Parent Material Group Specification:

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

WPQR No.: TAL.19.B.007  
 Manufacturer: STINSENMAN OÜ  
 Welder's Name:  
 Welding Process: 311  
 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):

Mechanical cutting  
 Grinding  
 Tacking



**Welding Details**

Run No	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 $\Sigma$  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 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

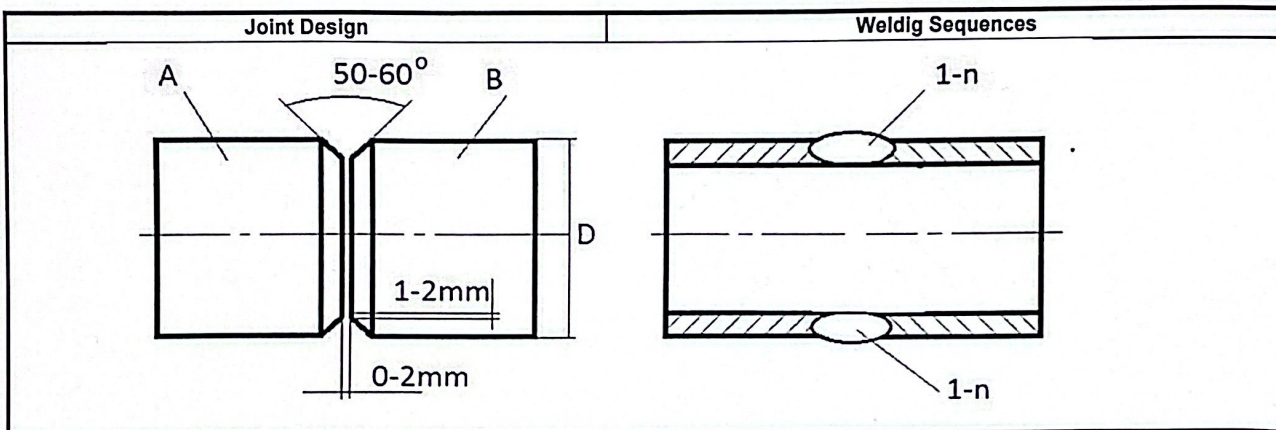
Joint Type:

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 Curret/ 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 $\Sigma$  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 Heat Treatment:

Type and Diametr of Wolfram Electrode:

Heating ad Cooling Rates :

Pulse welding details:

Manufacturer: Alan Belov

Date: 01/10/2024

## Welding Procedure Specification (WPS)

WPS №: 141FW8.1

Parent Material Group Specification:

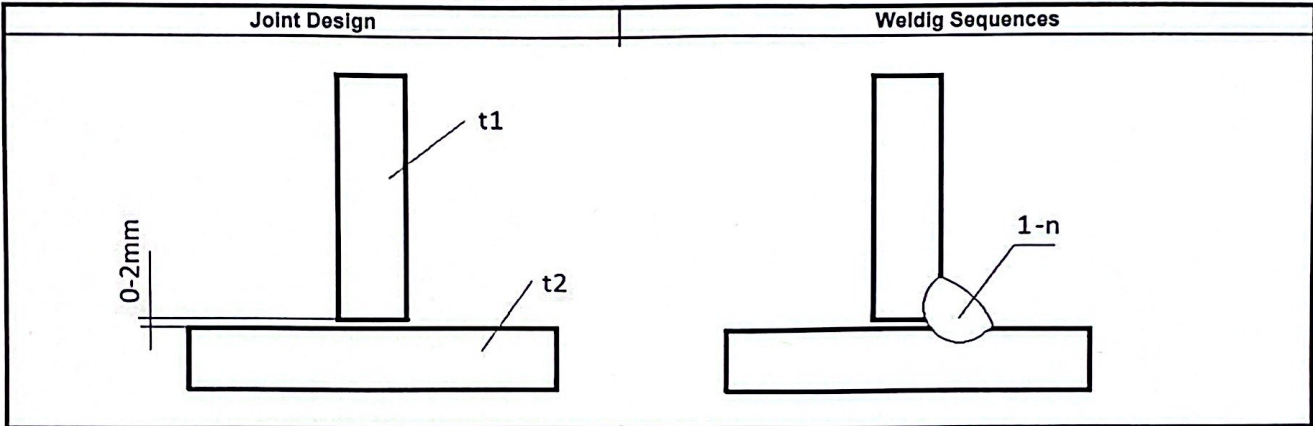
t1	t2
8.1/1.4301	8.1/1.4301
8.1	8.1
0.43	0.43
2.5	2.5

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  
 Gridding  
 Tacking

Welding Process: 141  
 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	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 Shilding:

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

- Root Shilding: -

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

Gas Flow - Weld Shilding:

6-8L/min

(l/min)

- Root Shilding: -

2-3L/min

Back Gouging / Backing remove:

Tungsten Electrode Type: EN 26848-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 Treatment / or Ageing:

Torch Agle:

Time, Temperature, Method of

Type and Diametr of Volfram Electrode: EN 26848-WT20

Heat Treatment:

Heating ad 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

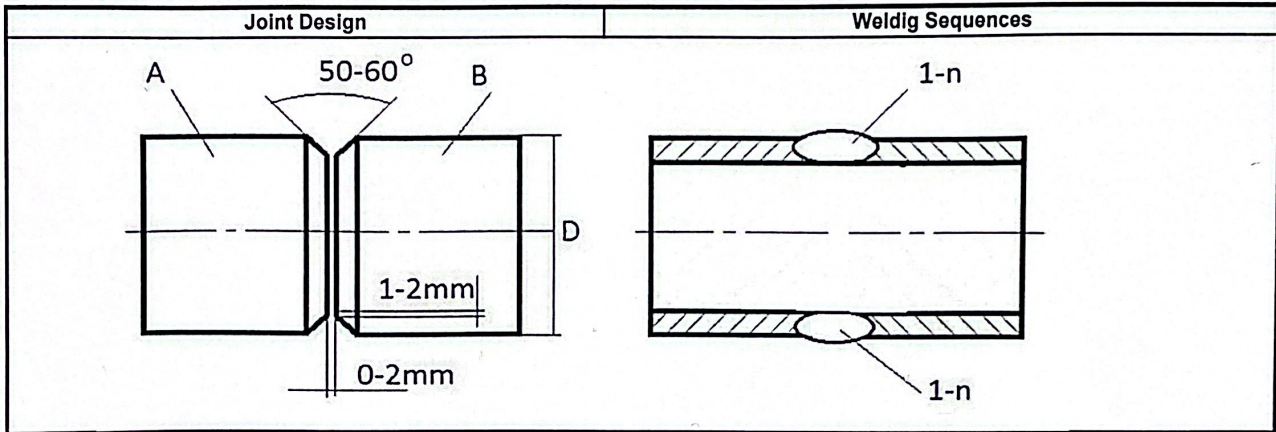
Joint Type:

BW

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 Curret/ 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 $\Sigma$  more then 80mm

Weawing (max widh 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:

EN 26848-WT20

Heating ad Cooling Rates :

-

Pulse welding details: -

Manufacturer: Alan Belov

Date: 01/10/2024

## Welding Procedure Specification (WPS)

WPS №: 141FW1.1

Parent Material Group Specification:

t1	t2
S355JR	S355JR
1.1	1.1
0.43	0.43
4	4

WPQR №.:

P-20-122

Name

Manufacturer:

STINSENMAN OÜ

Group ISO15608

Welder's Name:

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

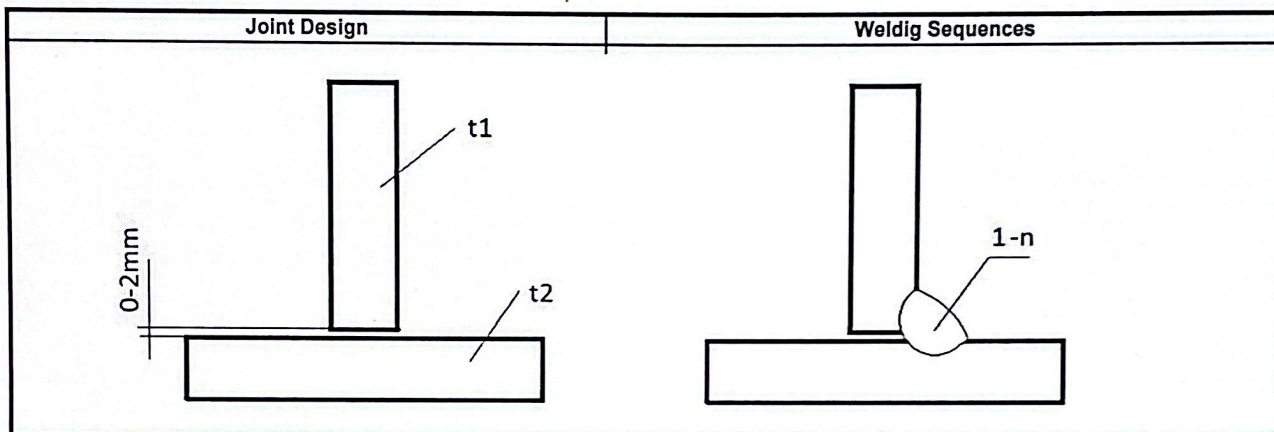
Joint Type:

FW

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 Curret/ 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 $\Sigma$  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 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 No: 141BW1.1

Parent Material Group Specification:

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

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

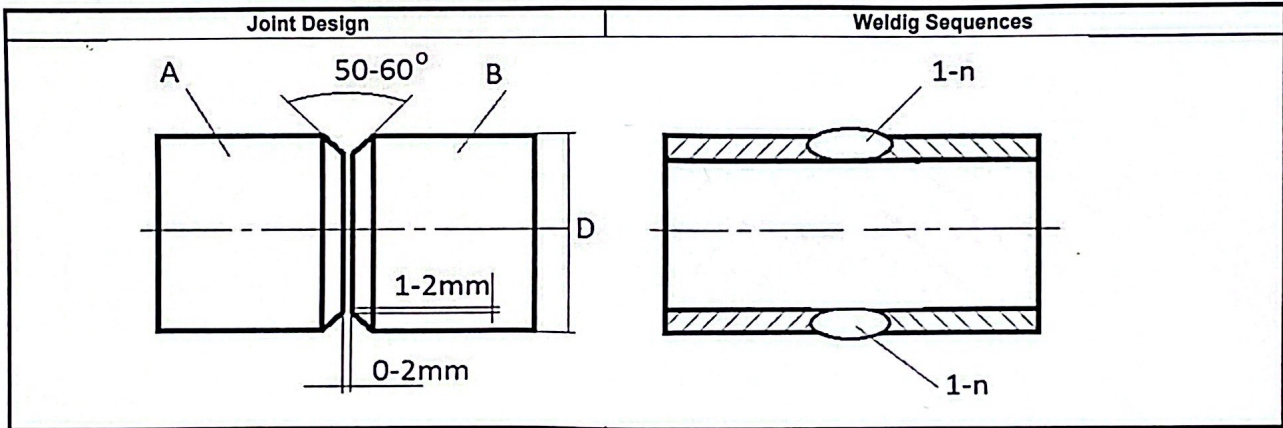
Joint Type:

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 Shilding:

EN ISO 14175:11

- Root Shilding: -

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

Gas Flow - Weld Shilding:

(l/min)

7-10L/min

- Root Shilding: -

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 Treatment / 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:

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

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):

Mechanical cutting

Grinding

Tacking

3

Welding Process:

111

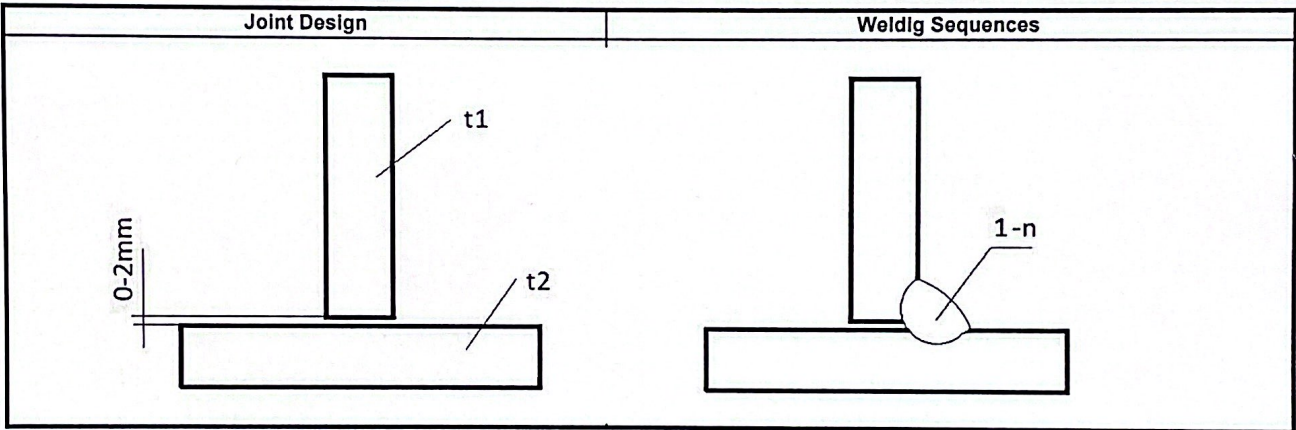
Joint Type:

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 Curret/ 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 Shilding:

- Root Shilding: -

Gas Flow - Weld Shilding:

(l/min)

- Root Shilding: -

Back Gouging / Backing remove:

Other Information:

Preheat Temperature (o C):

100 if t $\Sigma$  more then 80mm

Weawing (max widh 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

## Welding Procedure Specification (WPS)

WPS №: 111BW8.1

Parent Material Group Specification:

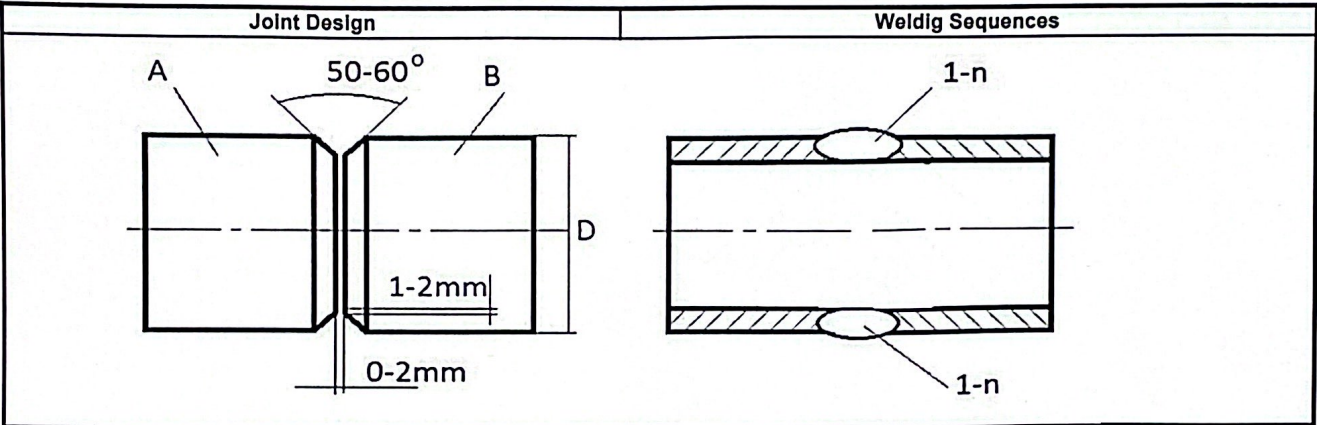
t1	t2
8.1/1.4301	8.1/1.4301
8.1	8.1
0.43	0.43
5	5
32	32

WPQR №.: P-20-124  
 Manufacturer: STINSENMAN OÜ  
 Welder's Name:

Name  
 Group ISO15608  
 max CEV  
 Material thickness (mm):  
 Outside Diameter (mm):  
 Edge Preparation:  
 Edge Cleaning:  
 Edge Fixation:  
 Weld dimension a (mm):

Mechanical cutting  
 Grinding  
 Tacking  
 3

Welding Process: 111  
 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	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 not required

Any Special Backing:

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 $\Sigma$  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 Agle:

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 №: 111FW1.1

Parent Material Specification:

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

WPQR №.:

TAL.19.B.006

Name

Manufacturer:

STINSENMAN OÜ

Group ISO15608

Welder's Name:

max CEV

Welding Process:

111

Material thickness (mm):

Joint Type:

FW

Outside Diamet (mm):

Weding position:

All except PG, PJ and J-L045

Edge Preparation:

Edge Cleaning:

Edge Fixation:

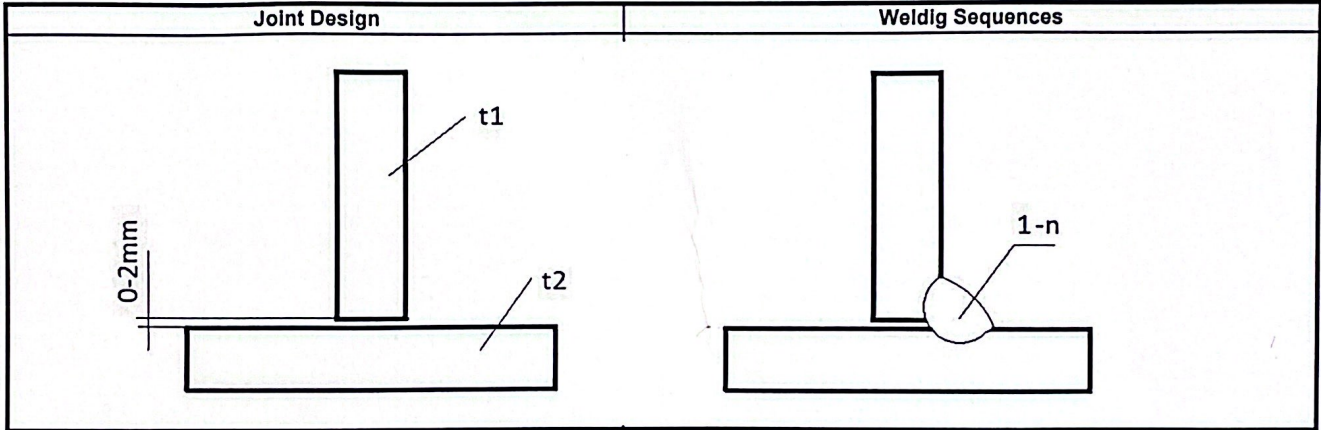
Weld dimension a (mm):

Mechanical cutting

Grinding

Tacking

3-6



### Welding Details

Run №	Welding Process	Diametr of Filler Material, mm	Current A	Voltage V	Type of Curret/ 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 Shelding: -

Gas Flow (l/min) - Weld Shielding:

- Root Shelding: -

Back Gouging / Backing remove:

Other Information:

Preheat Temperature (o C):

100 if tΣ more then 80mm

Weawing (max with 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 №: 111BW1.1

Parent Material Specification:

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

WPQR №.:

TAL.19.B.006

Name

Manufacturer:

STINSENMAN OÜ

Group ISO15608

Welder's Name:

max CEV

Welding Process:

111

Material thickness (mm):

Joint Type:

BW

Outside Diamet (mm):

Welding position:

All except PG, PJ and J-L045

Edge Preparation:

Edge Cleaning:

Edge Fixation:

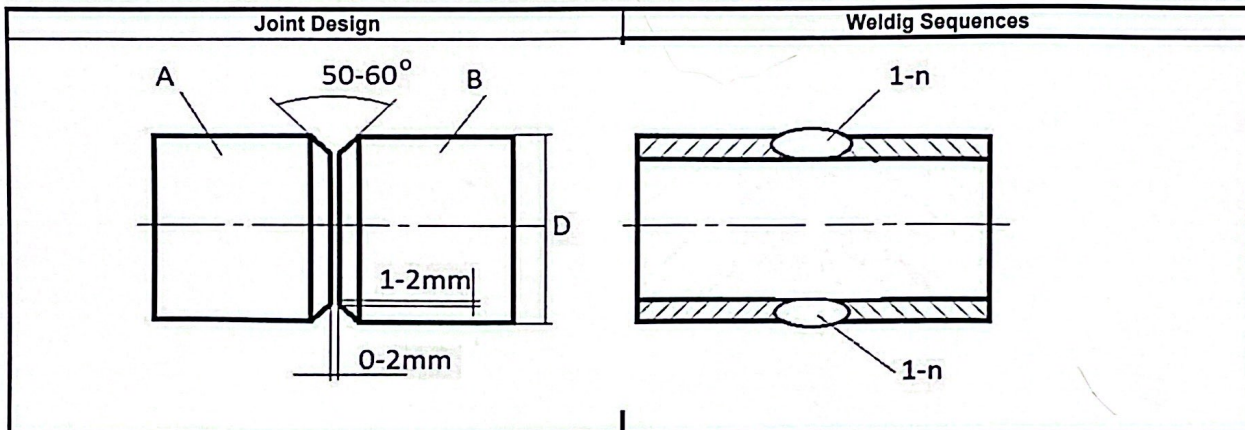
Weld dimension a (mm):

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 t $\Sigma$  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