

# WELDING PROCEDURE QUALIFICATION RECORD

Ref: ROT 2024.27870

According to rule/standard/code:

AWS D3.6M:2017

Manufacturer:

Qceas

Manufacturer address:

Rijsbosch 13, 4112 MB, Beusichem

Place welded:

Enkhuizen

Remarks/additional requirements: All weld metal test according to AWS D3.6M:2017 has been performed. For results see attachment. Also shear test on single and multi-layer has been performed. Chemical analyses on base material has been performed.

## General information

WPS No./Rev No:	SMAW-3FD-ML Rev.0	Date of test weld:	10-12-2024
Welding process(es)	SMAW	Single/double side welding	Single side welded
Welding position:	3F/Down	Preheating temp:	18 °C
		Backing (e.g. gas):	-

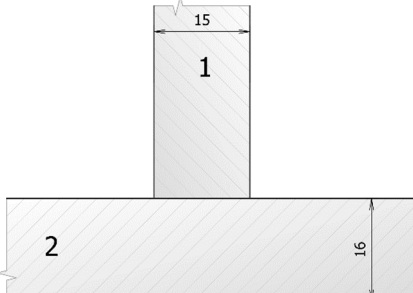
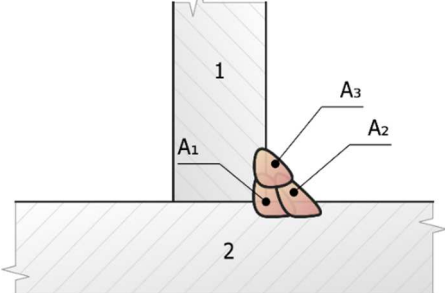
## Material specification

Base material 1:	S460ML	Base material 2:	S355J2+N
Delivery condition:	Thermomechanically rolled	Delivery condition:	Normalizing rolling
Heat No:	827474	Heat No:	F30943
Material thickness:	16,0 mm	Material thickness:	15,0 mm
Outside diameter:	-	Outside diameter:	-
Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,03% C <sub>eq</sub> = 0,36%	Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,17% C <sub>eq</sub> = 0,40

## Welding consumables

Filler metal			Gas	Flux		DNV grade
No.	Manufacturer	Brand name/ Designation		Manufacturer	Brand name/ Designation	
1	Ceweld	AquaForce MG AWS A5.1: E 6013				

## Joint preparation (sketch) and welding details

Joint design	Welding sequences
State rolling direction, if applicable	For multiple welding process qualification, the deposited weld metal thickness shall be recorded for each filler metal and process used.
	

# WELDING PROCEDURE QUALIFICATION RECORD

Ref: ROT 2023.27795

According to rule/standard/code:

AWS D3.6M:2017

Manufacturer:

Qceas

Manufacturer address:

Rijsbosch 13, 4112 MB Beusichem

Place welded:

Enkhuizen

Remarks/additional requirements: All weld metal and shear test on single and multi-layer according to AWS D3.6M:2017 has been performed (see WPQR ROT 2023.27727). Chemical analyses on both base materials have been performed.

## General information

WPS No./Rev No:	SMAW-2F-SL Rev.0	Date of test weld:	31-10-2023
Welding process(es)	SMAW	Single/double side welding	Single side welded
Welding position:	2F	Preheating temp:	18 °C
		Backing (e.g. gas):	-

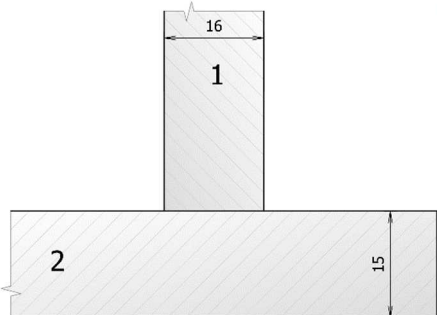
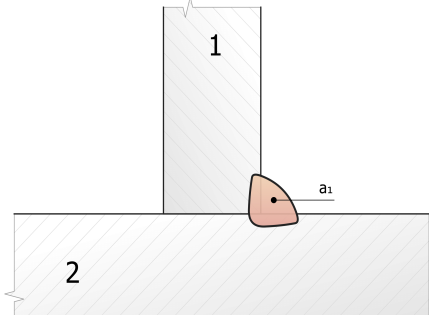
## Material specification

Base material 1:	S460ML	Base material 2:	S355J2+N
Delivery condition:	Thermomechanically rolled	Delivery condition:	Normalized
Heat No:	827474	Heat No:	F30943
Material thickness:	16 mm	Material thickness:	15 mm
Outside diameter:	-	Outside diameter:	-
Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,03% C <sub>eq</sub> = 0,36	Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,17% C <sub>eq</sub> = 0,40

## Welding consumables

Filler metal			Gas	Flux		DNV grade
No.	Manufacturer	Brand name/ Designation		Manufacturer	Brand name/ Designation	
1	Ceweld	Aquaforce MG AWS A5.1: E 6013				

## Joint preparation (sketch) and welding details

Joint design	Welding sequences
State rolling direction, if applicable	For multiple welding process qualification, the deposited weld metal thickness shall be recorded for each filler metal and process used.
	



# WELDING PROCEDURE QUALIFICATION RECORD

Ref: ROT 2023.27796

According to rule/standard/code:

AWS D3.6M:2017

Manufacturer:

Qceas

Manufacturer address:

Rijsbosch 13, 4112 MB Beusichem

Place welded:

Enkhuizen

Remarks/additional requirements: : All weld metal and shear test on single and multi-layer according to AWS D3.6M:2017 has been performed (see WPQR ROT 2023.27727). Chemical analyses on both base materials have been performed.

## General information

WPS No./Rev No:	SMAW-2F-ML Rev.0	Date of test weld:	31-10-2023
Welding process(es)	SMAW	Single/double side welding	Single side welded
Welding position:	2F	Preheating temp:	18 °C
		Backing (e.g. gas):	-

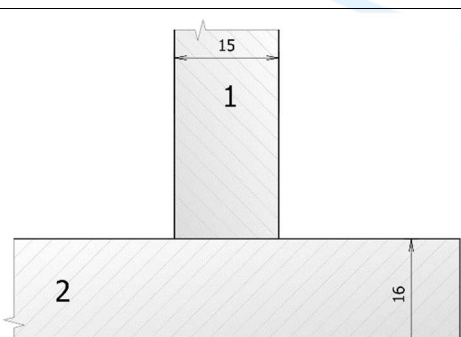
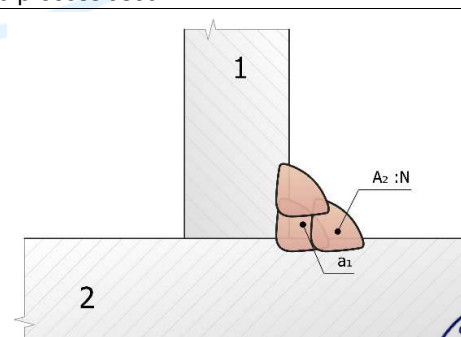
## Material specification

Base material 1:	S355J2+N	Base material 2:	S460ML
Delivery condition:	Normalized	Delivery condition:	Thermomechanically rolled
Heat No:	F30943	Heat No:	827474
Material thickness:	15 mm	Material thickness:	16 mm
Outside diameter:	-	Outside diameter:	-
Additional information: (e.g. C%, Ceq, Pcm)	C= 0,17% Ceq= 0,40	Additional information: (e.g. C%, Ceq, Pcm)	C= 0,03% Ceq= 0,36

## Welding consumables

Filler metal			Gas	Flux		DNV grade
No.	Manufacturer	Brand name/ Designation		Manufacturer	Brand name/ Designation	
1	Ceweld	Aquaforce MG AWS A5.1: E 6013				

## Joint preparation (sketch) and welding details

Joint design	Welding sequences
State rolling direction, if applicable	For multiple welding process qualification, the deposited weld metal thickness shall be recorded for each filler metal and process used.
	



# WELDING PROCEDURE QUALIFICATION RECORD

Ref: ROT 2023.27797

According to rule/standard/code:

AWS D3.6M:2017

Manufacturer:

Qceas

Manufacturer address:

Rijsbosch 13, 4112 MB Beusichem

Place welded:

Enkhuizen

Remarks/additional requirements: All weld metal and shear test on single and multi-layer according to AWS D3.6M:2017 has been performed (see WPQR ROT 2023.27727). Chemical analyses on both base materials have been performed.

## General information

WPS No./Rev No:	SMAW-3FD-SL Rev.0	Date of test weld:	31-10-2023
Welding process(es)	SMAW	Single/double side welding	Single side welded
Welding position:	3Fd	Preheating temp:	18 °C
		Backing (e.g. gas):	-

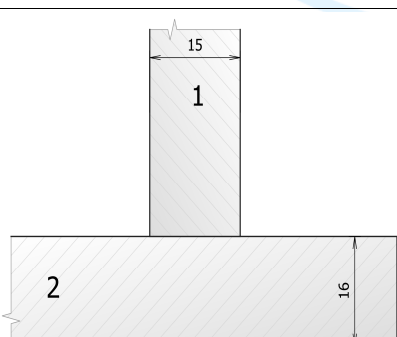
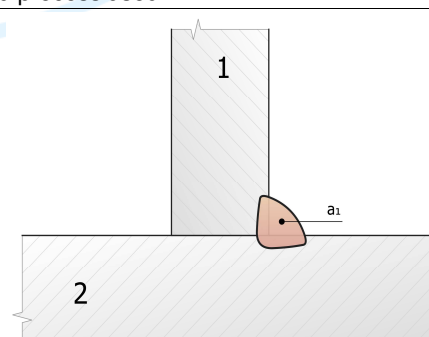
## Material specification

Base material 1:	S355J2	Base material 2:	S460ML
Delivery condition:	Normalized	Delivery condition:	Thermomechanically rolled
Heat No:	F30943	Heat No:	827474
Material thickness:	15 mm	Material thickness:	16 mm
Outside diameter:	-	Outside diameter:	-
Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,17% C <sub>eq</sub> = 0,40	Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,03% C <sub>eq</sub> = 0,36

## Welding consumables

Filler metal			Gas	Flux		DNV grade
No.	Manufacturer	Brand name/ Designation		Manufacturer	Brand name/ Designation	
1	Ceweld	Aquaforce MG AWS 5.1: E 6013				

## Joint preparation (sketch) and welding details

Joint design	Welding sequences
State rolling direction, if applicable	For multiple welding process qualification, the deposited weld metal thickness shall be recorded for each filler metal and process used.
	



# WELDING PROCEDURE QUALIFICATION RECORD

Ref: ROT 2023.27798

According to rule/standard/code:

AWS D3.6M:2017

Manufacturer:

Qceas

Manufacturer address:

Rijsbosch 13, 4112 MB Beusichem

Place welded:

Enkhuizen

Remarks/additional requirements: All weld metal and shear test on single and multi-layer according to AWS D3.6M:2017 has been performed (see WPQR ROT 2023.27727). Chemical analyses on both base materials have been performed.

## General information

WPS No./Rev No:	SMAW-4F-SL Rev.0	Date of test weld:	31-10-2023
Welding process(es)	SMAW	Single/double side welding	Single side welded
Welding position:	4F	Preheating temp:	18 °C
		Backing (e.g. gas):	-

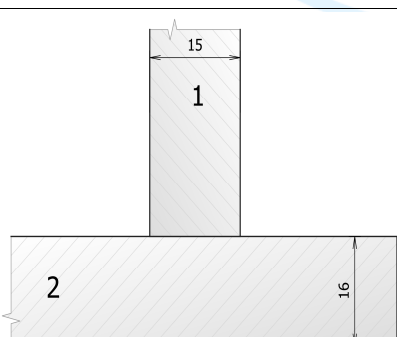
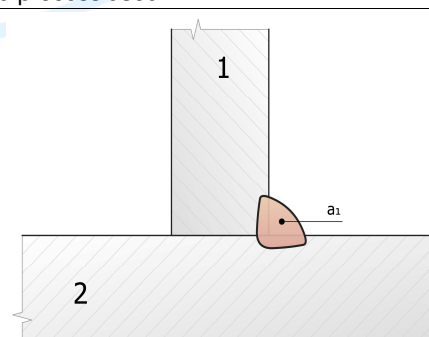
## Material specification

Base material 1:	S355J2	Base material 2:	S460ML
Delivery condition:	Normalized	Delivery condition:	Thermomechanically rolled
Heat No:	F30943	Heat No:	827474
Material thickness:	15 mm	Material thickness:	16 mm
Outside diameter:	-	Outside diameter:	-
Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,17% C <sub>eq</sub> = 0,40	Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,03% C <sub>eq</sub> = 0,36

## Welding consumables

Filler metal			Gas	Flux		DNV grade
No.	Manufacturer	Brand name/ Designation		Manufacturer	Brand name/ Designation	
1	Ceweld	Aquaforce MG AWS 5.1: E 6013				

## Joint preparation (sketch) and welding details

Joint design	Welding sequences
State rolling direction, if applicable	For multiple welding process qualification, the deposited weld metal thickness shall be recorded for each filler metal and process used.
	





# WELDING PROCEDURE QUALIFICATION RECORD

Ref: ROT 2023.27799

According to rule/standard/code:

AWS D3.6M:2017

Manufacturer:

Qceas

Manufacturer address:

Rijsbosch 13, 4112 MB Beusichem

Place welded:

Enkhuizen

Remarks/additional requirements: : All weld metal and shear test on single and multi-layer according to AWS D3.6M:2017 has been performed (see WPQR ROT 2023.27727). Chemical analyses on both base materials have been performed.

## General information

WPS No./Rev No:	SMAW-4F-ML Rev.0	Date of test weld:	31-10-2023
Welding process(es)	SMAW	Single/double side welding	Single side welded
Welding position:	4F	Preheating temp:	18 °C
		Backing (e.g. gas):	-

## Material specification

Base material 1:	S460ML	Base material 2:	S355J2+N
Delivery condition:	Thermomechanically rolled	Delivery condition:	Normalized
Heat No:	F30943	Heat No:	827474
Material thickness:	16 mm	Material thickness:	15 mm
Outside diameter:	-	Outside diameter:	-
Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,03% C <sub>eq</sub> = 0,36	Additional information: (e.g. C%, C <sub>eq</sub> , P <sub>cm</sub> )	C= 0,17 C <sub>eq</sub> = 0,40

## Welding consumables

Filler metal			Gas	Flux		DNV grade
No.	Manufacturer	Brand name/ Designation		Manufacturer	Brand name/ Designation	
1	Ceweld	Aquaforce MG AWS 5.1: E 6013				

## Joint preparation (sketch) and welding details

Joint design	Welding sequences
State rolling direction, if applicable	For multiple welding process qualification, the deposited weld metal thickness shall be recorded for each filler metal and process used.
