



**MTG**

No limits innovation



# INS.2.3.2 TWINMET Weld-on Nose WN

Installation procedure

## DISCLAIMER

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## 1. SAFETY

The practices described in this manual can be taken as guidelines for operating safely in many conditions and in addition to the safety standards that are current and enforceable in your area or region.

Your safety and the safety of third parties is the result of putting into practice your knowledge of the correct operational procedures.

Attention, when performing the work described in these instructions, always work safely and use the personal protection elements required to minimize or avoid injury. Always wear:



**HARD  
HAT**



**SAFETY  
GLASSES**



**EAR  
PROTECTION**



**STEEL TOED  
BOOTS**



**PROTECTION  
GLOVES**

To avoid eye injury, always wear safety goggles or a protective mask when using any equipment, hammer or similar tool. When equipment is under pressure or when objects are struck, chips or other debris can be thrown out. Make sure no one gets hurt by the debris that is fired before applying pressure or hitting an object. Wear eye protection that complies with ANSI Z87.1 and OSHA standards. Also wear hearing protection and gloves.

Lifting a heavy object can cause serious or fatal injury. DO NOT exceed the maximum rated capacity of lifting and positioning devices: Stay away from the area under a suspended load.



**LIFTING  
LUG**

Make sure that the chain is not damaged and that the load is always balanced.

## 2. WELDING

Following is a quick reference on consumables that can be used to weld MTG products. For a complete reference on welding procedures, refer to the document entitled "General welding recommendations".

### WELDING UNALLOYED FILLER CONSUMABLES

PROCESS	EN CLASS	AWS CLASS
<b>SMAW</b>	EN ISO 2560-S E42X	E70X ACCORDING TO A5.1 OR EQUIVALENT UNDER A5.5
	EN ISO 14341-A G42X	E70C-X ACCORDING TO A5.18 OR EQUIVALENT UNDER A5.28
<b>GMAW</b>	EN ISO 14341-A G46X	E70S-X ACCORDING TO A5.18 OR EQUIVALENT UNDER A5.28
	EN ISO 16834-A T42X	E7XT-X ACCORDING TO A5.20 OR EQUIVALENT UNDER A5.29

### WELDING AUSTENITIC STAINLESS FILLER CONSUMABLES

PROCESS	AWS CLASS
<b>SMAW</b>	E307-X ACCORDING TO A5.4
	ER307T-X ACCORDING TO A5.22
<b>GMAW</b>	ER307 ACCORDING TO A5.9
	307-X ACCORDING TO A5.22

NOTE: "X" MAY STAND FOR ONE OR SEVERAL CHARACTERS

### 3. INITIAL CONSIDERATIONS

**NOTE:** Read the full document prior to start any operation.



#### 3.1 PREVIOUS INFORMATION

**3.1.1** The recommended processes and consumables are GMAW-ER70S-6; FCAW E71T-1 low hydrogen content as described in the document entitled "General welding recommendations"

Recommended welding type: Welding beads with high resistance and minimum distortion. Weaving is not recommendable. Avoid arc interruptions.

As a prevention of having unknown material as a base for the welding of the weld-on nose, it is highly recommendable to perform a buttering layer on the adapter base prior to weld the weld-on nose.

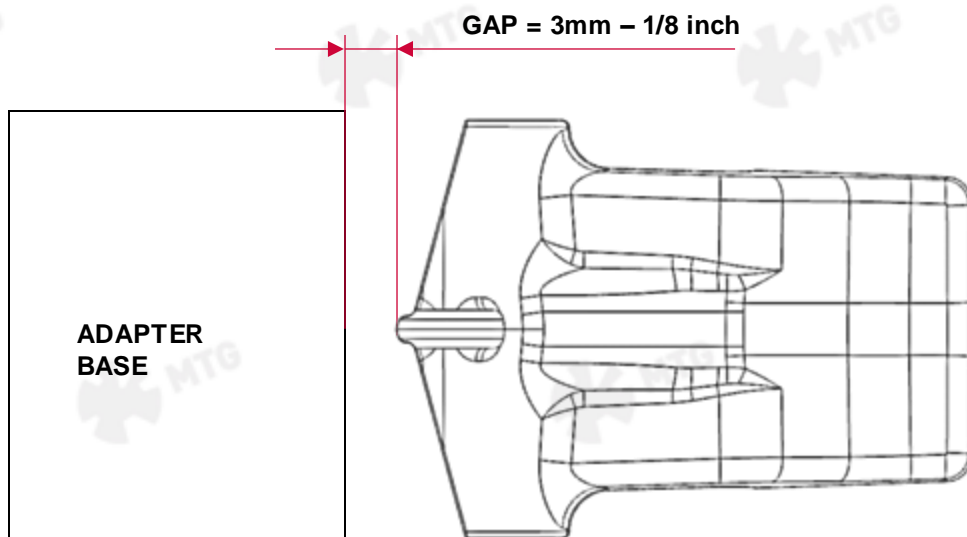
### 4. INSTALLATION PROCEDURE

**4.1** Cut the worn nose by means of torch cut or air arc. The appropriate angle and distance will be determined during this process.

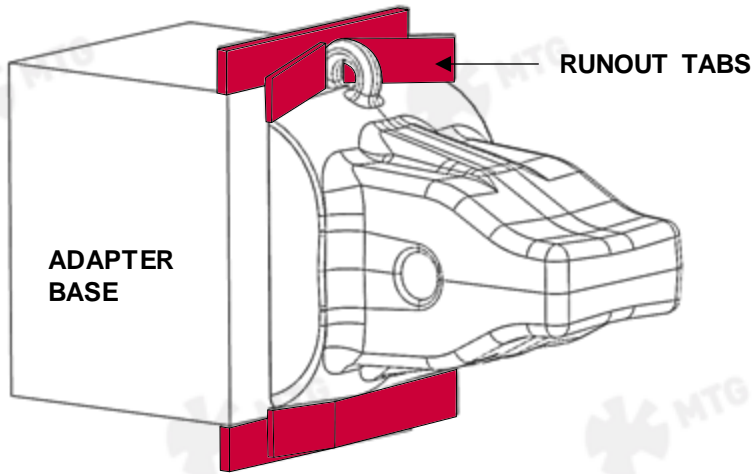
**4.2** Clean (grind) the cut surface by removing hydrocarbon debris and smoothing the weld surface.

**4.3** Preheat according what is described in the document entitled "General welding recommendations". Maintain the temperature during the welding process. Localized preheating can be used to tack weld.

**4.4** Place the weld-on nose at the required angle and distance. Leave 3mm - 1/8 in. of gap between the welding nose and the adapter.



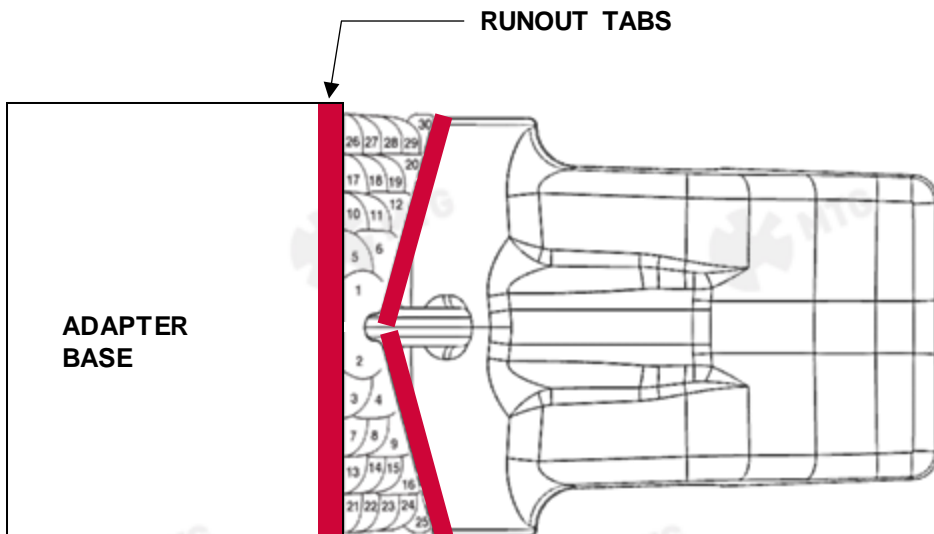
**4.5** Use weld runout tabs at the top and bottom of the weld joint as shown in the figure.



**4.6** Weld a base welding bead in the joint area. Back gouge and grind the opposite side ensuring the penetration of the weld. Apply a bead on the opposite side. Check the alignment of the nose while maintaining the correct position.

**4.7** Alternate the welding beads on both sides keeping the position of the nose.

**4.8** Below is the welding sequence:



- 4.9** To keep the correct positioning of the nose there may be slight alterations of the sequence shown above.
- 4.10** Continue the welding sequence until the joint has been completely covered.
- 4.11** Ensure that the welding technique accomplish with what is exposed in the document entitled "General welding recommendations".
- 4.12** Pay special attention to the post-weld cooling speeds, use thermal blankets, if necessary, as indicated in the document entitled "General welding recommendations".
- 4.13** Once the welding has cooled down, remove the runout tabs. Irregular surfaces must be grinded.
- 4.14** Proceed to the welding visual inspection as well as by penetrating liquids or magnetic particles.



## Service Instructions

The latest welding recommendations and assembly / disassembly instructions can be found online:

[www.mtgcorp.com/manuals](http://www.mtgcorp.com/manuals)

Please contact Technical Services in case of questions:

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