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INS.2.3.4

VEEMET Weld-on Nose

Installation procedure

DISCLAIMER

Liability: To ensure the correct use and handling of the MTG products without risk, please carefully read the corresponding service instructions set out on the MTG website. MTG will not be held liable for damages, loss, injury, or death arising from incorrect use or failure to heed the provisions of this guide. Similarly, MTG will not be held liable for damages caused due to the faulty installation or handling of its products. MTG likewise declines all liability for recommendations related to the use or handling of MTG products set out in documents not expressly authorized by MTG.

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.

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

LIFTING LUG

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

WELDING AUSTENITIC STAINLESS FILLER CONSUMABLES

PROCESS	AWS CLASS
SMAW	E307-X ACCORDING TO A5.4
GMAW	ER307T-X ACCORDING TO A5.22
	ER307 ACCORDING TO A5.9
FCAW	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

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.

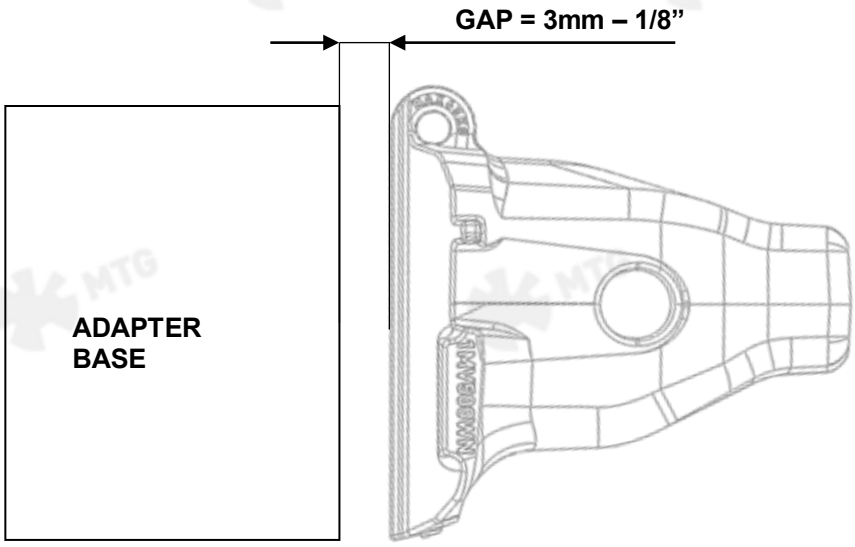
4. INSTALLATION PROCEDURE FOR NOSE SIZES 30, 50 AND 130

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.

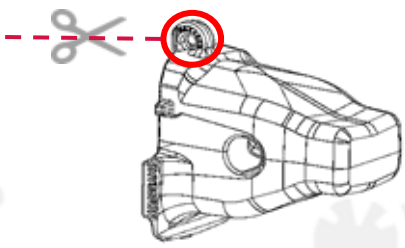
4.2 Clean (grind) the cut surface by removing hydrocarbon debris and smoothing the weld surface.

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.

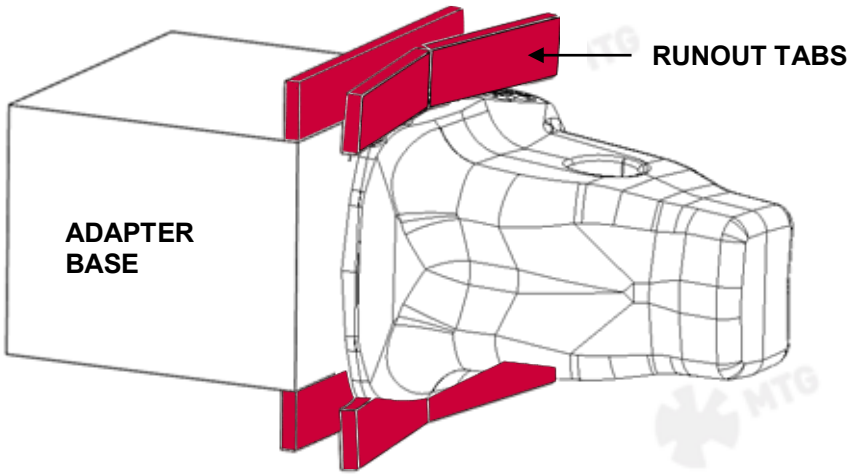
4.4 Place the weld-on nose at the required angle and distance. Leave 3mm - 1/8 in. of gap between the welding nose and the adapter. Apply spot welding between the weldable nose and the adapter base.



NOTE: On the noses of size 130, once the nose has been tack-welded to the base adapter, cut the lifting ring located on the top part of the nose.



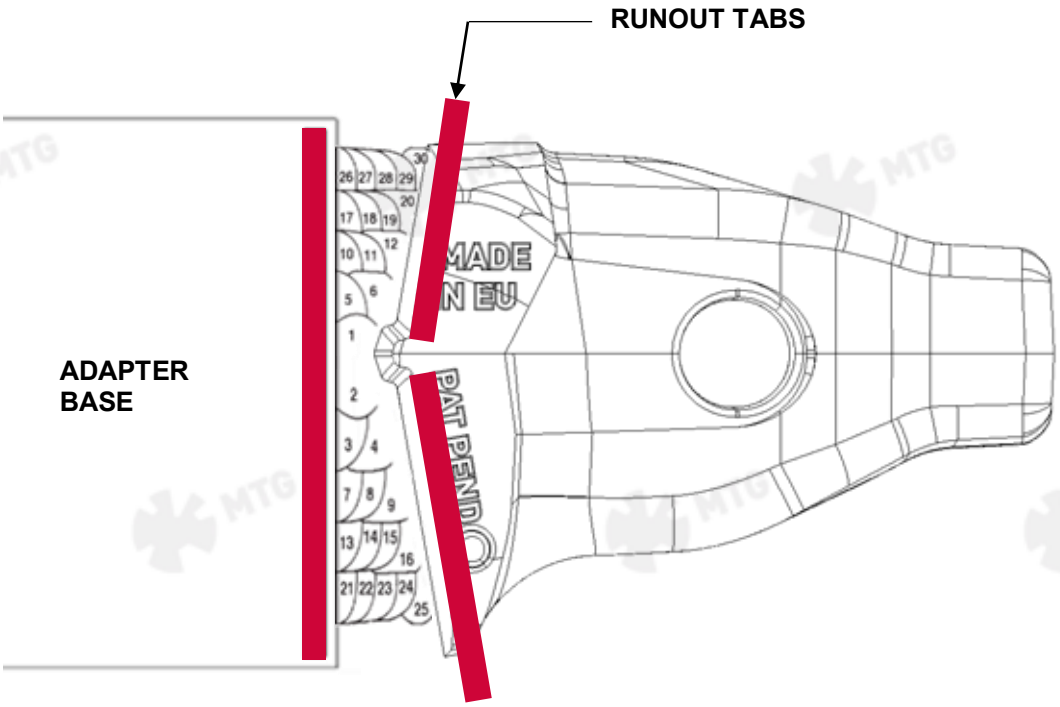
4.5 Place start and end welding runout tabs on the upper and lower sides of the weld joint as shown in the figure.



4.6 Weld a base welding bead in the joint area. Grind the opposite side of the weld pass to ensure proper weld penetration throughout the joint area. Apply a new weld bead on the opposite side. Check the correct alignment and positioning of the nose.

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 variations in the sequence shown above.

4.10 Continue the welding sequence until the joint is 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.

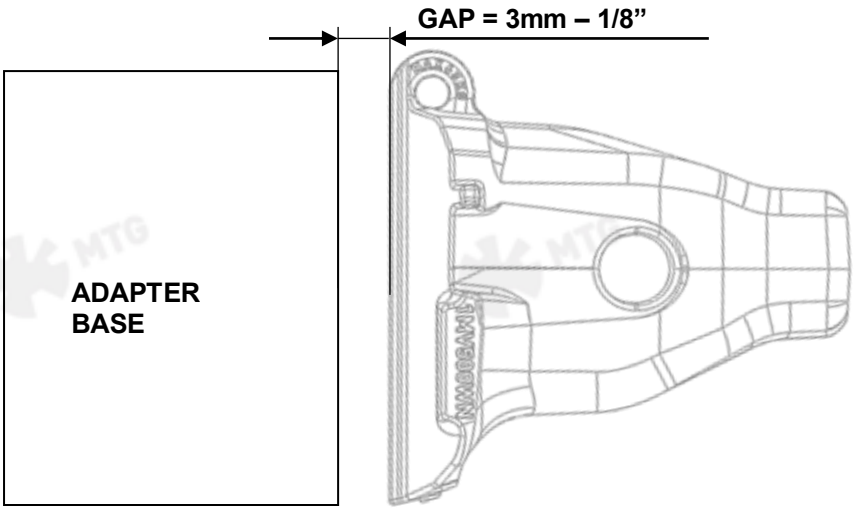
5. INSTALLATION PROCEDURE FOR NOSE SIZES 190, 250 AND 500

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

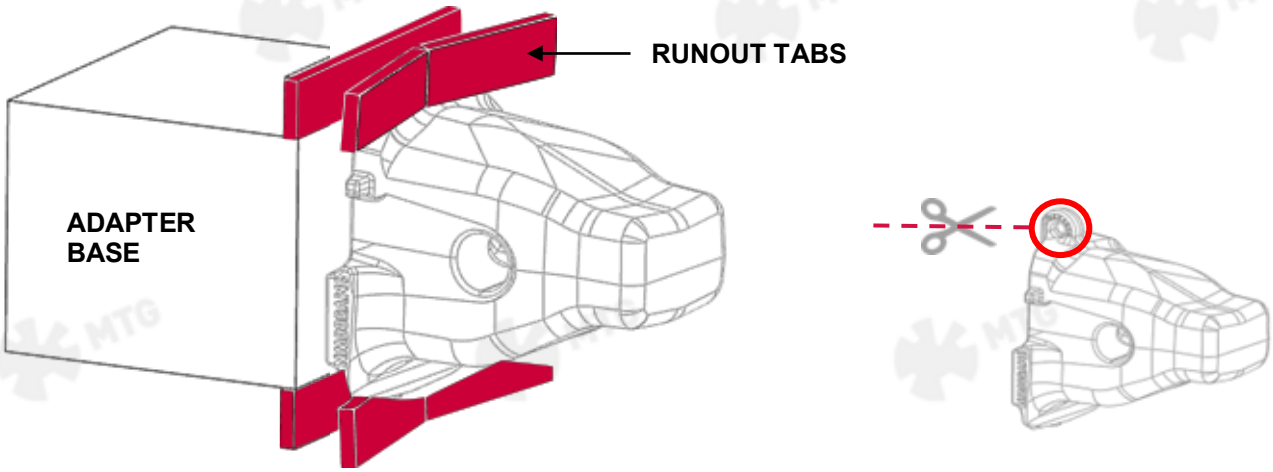
5.2 Clean (grind) the cut surface by removing hydrocarbon debris and smoothing the weld surface.

5.3 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.

5.4 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. Apply spot welding between the weldable nose and the adapter base.



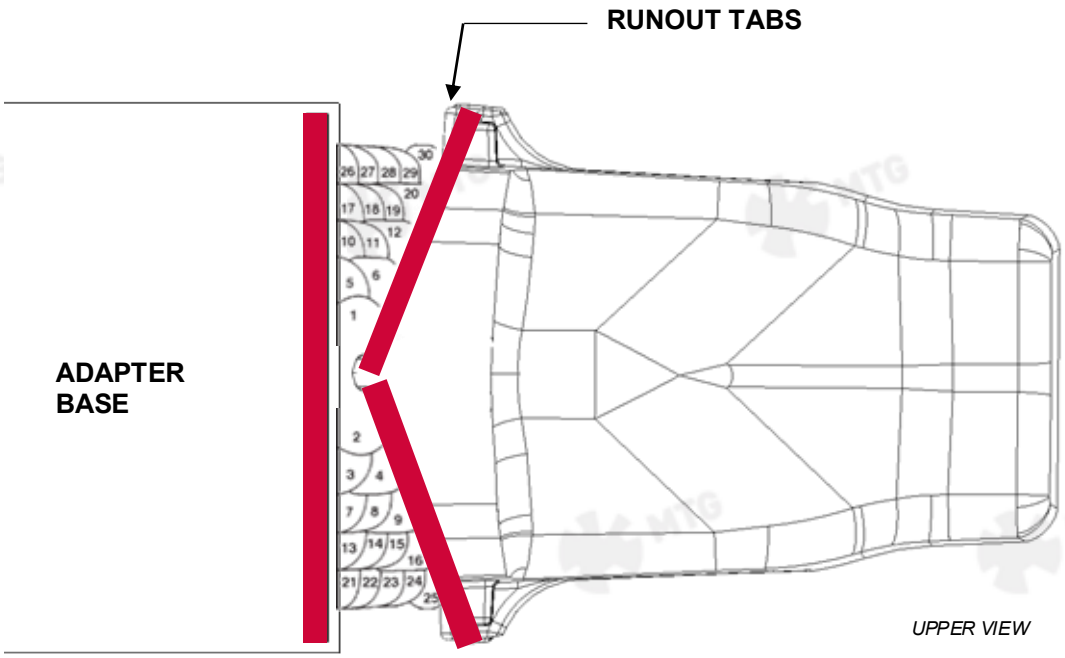
5.5 Once the nose has been tack-welded to the base adapter, cut the lifting eye located at the top of the nose.
Use weld runout tabs at the top and bottom of the weld joint as shown in the figure.



5.6 Weld a base welding bead in the joint area. Grind the opposite side of the weld pass to ensure proper weld penetration throughout the joint area. Apply a new weld bead on the opposite side. Check the correct alignment and positioning of the nose.

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

5.8 Below is the welding sequence:



5.9 To keep the correct positioning of the nose, there may be slight variations in the sequence shown above.

5.10 Continue the welding sequence with continuous beads until they are flush with the wear cap guide, as shown in “Image 1.” From that point, the beads must be interrupted to leave the guide area free (see “SECTION A-A”). To correctly perform the welding, place two runout tabs—one on the upper part and one on the lower part of the guide—while maintaining continuity at all times between the upper appendage and the lower guide with the base adapter (see “Image 2”). The welding sequence shall continue in this manner until the joint is fully covered.

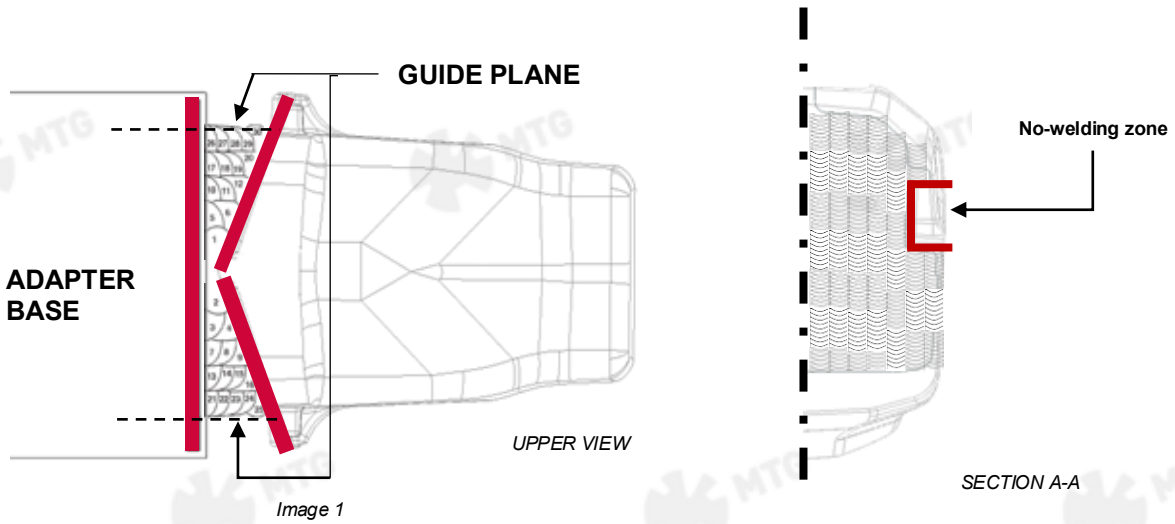


Image 1

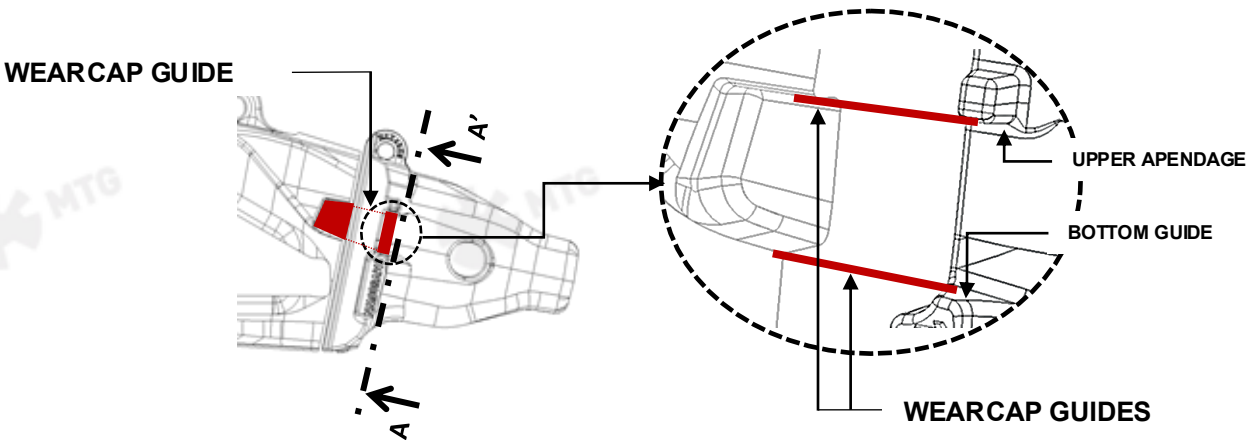
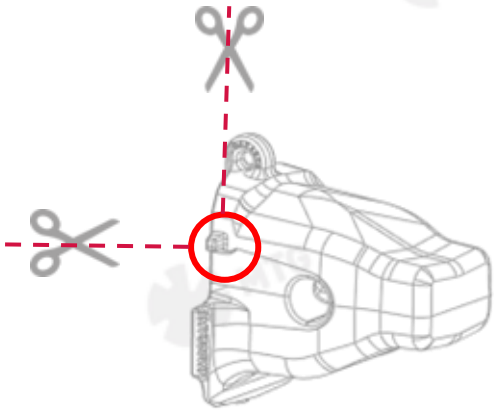


Image 2

NOTE: The wear cap guide plane must maintain continuity between the weld-on nose and the remaining section on the base adapter. If this is not the case, the necessary finishing operations must be performed to correct it..

NOTE: In the case of replacing the nose in an application where a wear cap is not used, step 5.10 may be omitted, this means that, the weld beads must not be interrupted, the gap must be completely filled.

In the case of replacing the nose of a <u>corner adapter</u>, it will be necessary to remove, by cutting, the indicator appendage for the wear cap guide on both sides once the welding process has been completed.



5.13 Ensure that the welding technique accomplish with what is exposed in the document entitled "General welding recommendations".

5.14 Pay special attention to the post-weld cooling speeds, use thermal blankets, if necessary, as indicated in the document entitled "General welding recommendations".

5.15 Once the welding has cooled down, remove the runout tabs. Irregular surfaces must be grinded.

5.16 Proceed to the welding visual inspection as well as by penetrating liquids or magnetic particles.

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Service Instructions

The latest welding recommendations and assembly / disassembly instructions can be found online:
www.mtgcorp.com/manuals

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