



MTG

No limits innovation



INS.3.3.4

PROMET UX Wing Shroud

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:



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
SMAW	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
GMAW	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
SMAW	E307-X ACCORDING TO A5.4
	ER307T-X ACCORDING TO A5.22
GMAW	ER307 ACCORDING TO A5.9
	307-X ACCORDING TO A5.22

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

3. IMPORTANT

Read the full document prior to start any operation since there may be some steps which may require previous verifications/operations.

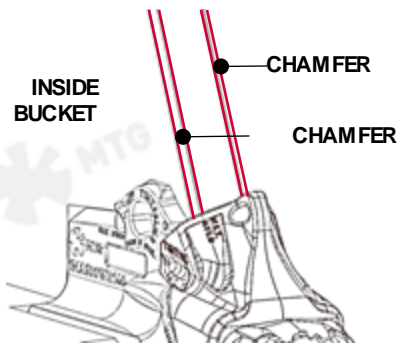


4. PREPARATION

Prior to the installation of the shrouds, it is necessary to perform a chamfer to break the sharp edges of the cheek plate by means of grinding.

The recommended dimensions of those chamfers are according to the following table and its length shall be enough to cover the total length of all the shrouds installed on that cheek.

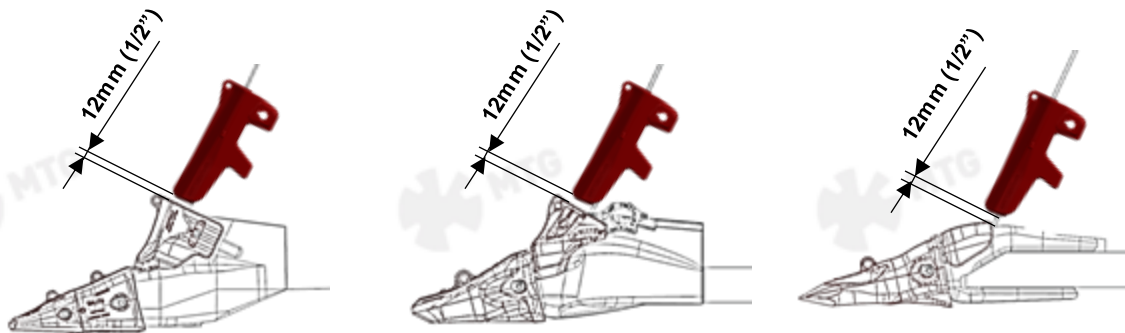
CHEEK DIMENSIONS



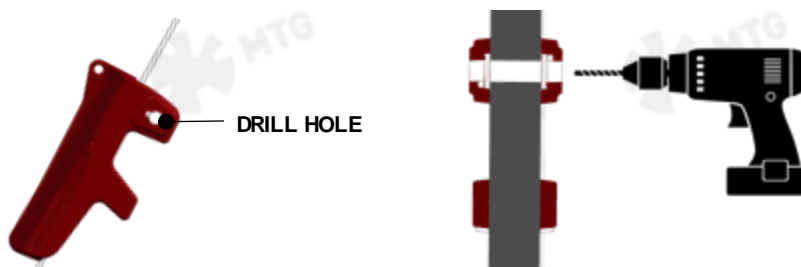
SIZE	CHEEK THICKNESS		HOLE DIAMETER		CHAMFER SIZE	
	[MM]	[INCHES]	[MM]	[INCHES]	[MM]	[INCHES]
60	60	2 3/8	45 ±1	1 3/4 ± 1/16	5x5	1/4 X 1/4
65	65	2 9/16	45 ±1	1 3/4 ± 1/16	8x8	5/16 X 5/16
70	70	2 3/4	45 ±1	1 3/4 ± 1/16	8x8	5/16 X 5/16
75	75	2 15/16	45 ±1	1 3/4 ± 1/16	8x8	5/16 X 5/16
80	80	3 1/8	45 ±1	1 3/4 ± 1/16	8x8	5/16 X 5/16
90	90	3 9/16	50 ±1	2 ± 1/16	12x12	1/2 X 1/2
120	120	4 3/4	50 ±1	2 ± 1/16	12x12	1/2 X 1/2
140	140	5 1/2	50 ±1	2 ± 1/16	12x12	1/2 X 1/2

5. HOLE AND WELD-ON BASE INSTALLATION PROCEDURE

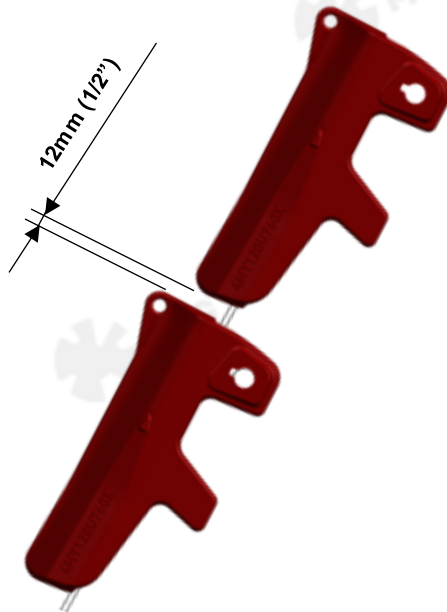
- 5.1** Place the wing shroud on the side wall in the desired position, close to the adapter top area (ensuring that the adapter or wear cap can be removed) and contacting the front of the bucket sidewall wing.



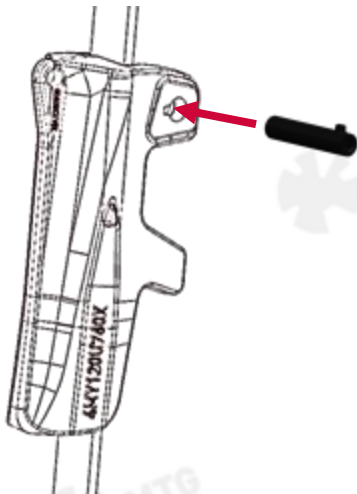
- 5.2** Using the wing shroud as a reference and centered to the wing shroud hole, drill the holes on the side wall to the specified diameter indicated in the previous table.



NOTE: If there shall be installed further shrouds on the same wing plate, the space between them should be at least 12mm (1/2") in order to allow the removal of each individually.



5.3 After drilling the hole, place the wing shroud in the side wall and insert the pin until it stops.

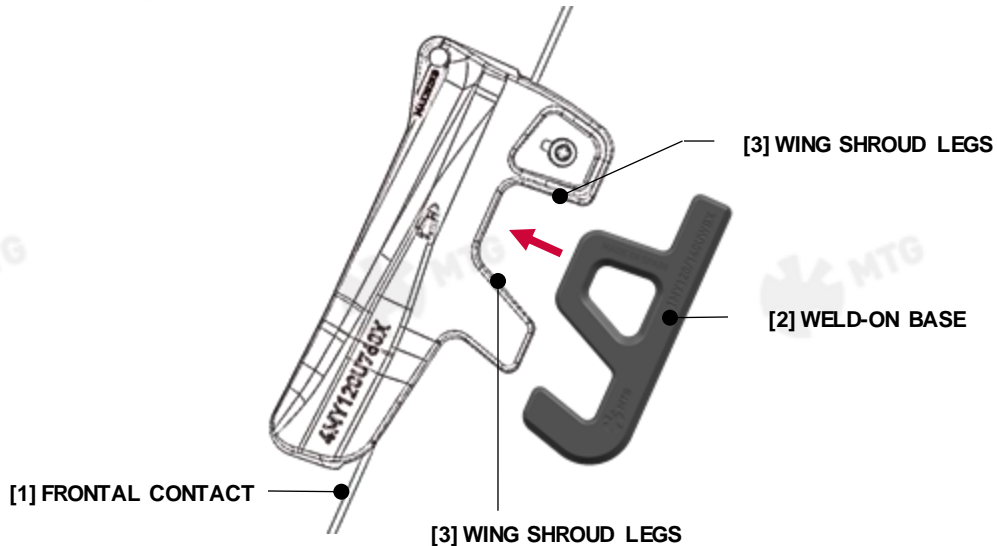


5.4 Turn the pins clockwise using the removal tool



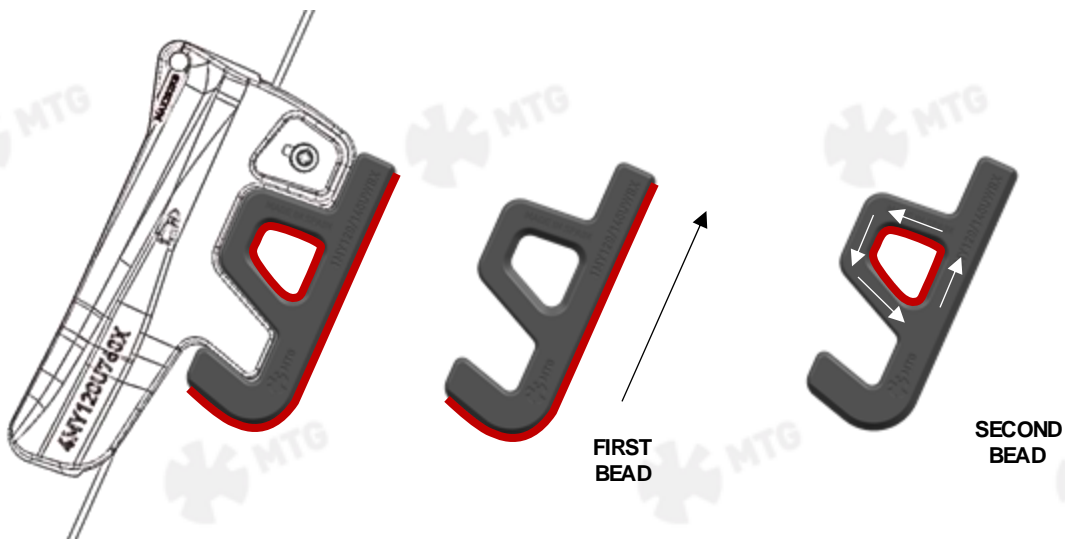
5.5 Keeping the frontal contact all the time (1), push both (inner and outer) weld-on bases (2), until they encounter the legs of the wing shroud (3).

After placement has been confirmed, pre-heat the base material to the recommended temperatures. Ensure that the fit conditions comply with the requirements of General Welding recommendations. Re-heat, if necessary, Weld on bases and side wall. Make several tack welds on the back of each base



5.6 Proceed with the welding of each wing shroud weld-on base on the designated welding area. The size of the fillet must be flush and less than 3.2mm (1/8") above the edge of the cast weld groove. The external weld beads shall be flush with the weld base surface:

Be sure that the entire bottom of the weld-on base maintains contact with the wing during the entire weld process and all welding process is according to the welding specifications in the document entitled "General welding recommendations".



- 5.7** Once the welding process had been successfully finished (internal and external weld-on bases) proceed with the shroud disassembly, by means of the removal tool. Turn 90° anticlockwise and extract it. Once the shroud has been removed proceed with the welding inspection according to what is exposed in the document entitled "General Welding Recommendations".



- 5.8** Repeat the STEPs 5.1 to 5.7 for the installation of the other shrouds (if applicable).

6. WING SHROUD INSTALLATION PROCEDURE

- 6.1** Place the retainer on its housing inside each wing shroud. Note that the softer area shall be facing the internal part of the shroud, as shown on image below.

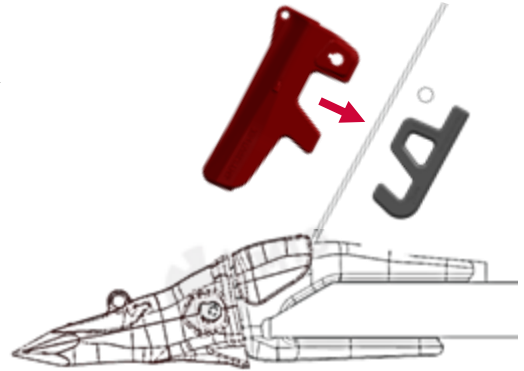
HARDER PART



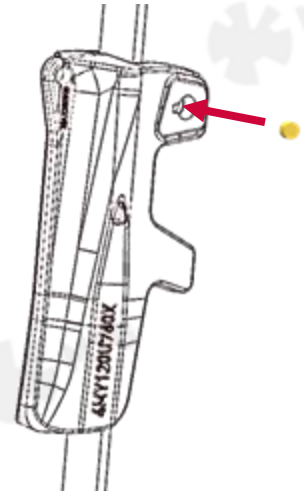
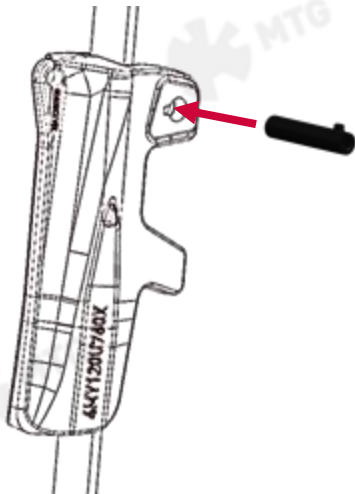
SOFTER PART



SOFTER PART



- 6.2** Insert the pin from the external part of the bucket and turn it 90° clockwise by using the removal tool. Then insert the fines plug into the pin's square hole.

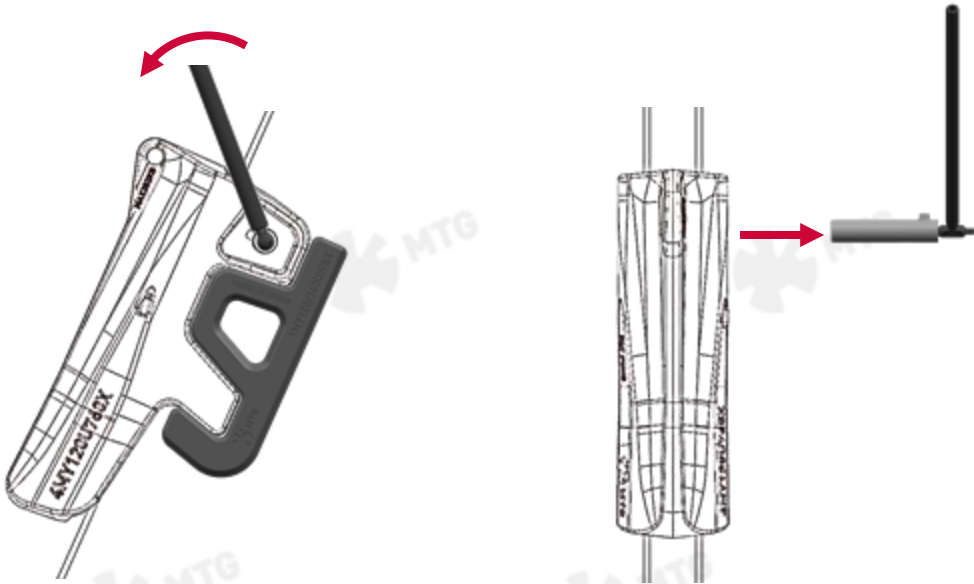


- 6.3** Repeat steps 6.1 & 6.2 for the remaining shrouds.

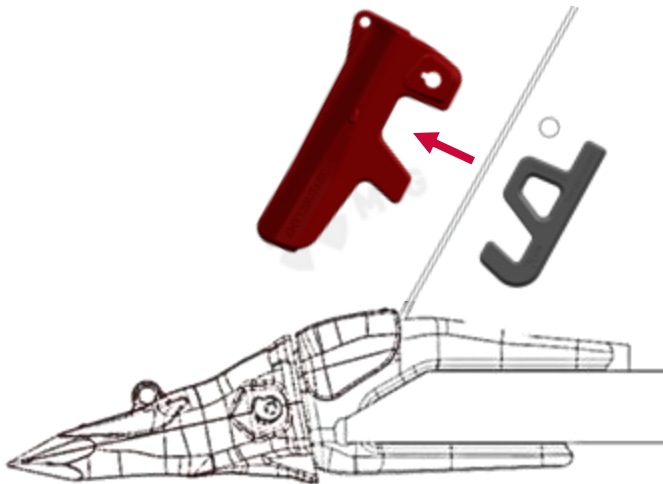
7. WING SHROUD REMOVAL PROCEDURE

7.1 Clean out all the fines stuck on the pin's square hole and turn the pin anticlockwise using the removal tool.

When the pin is unlocked, extract it by slightly hitting its opposite end.



7.2 Remove the shroud by pulling it out.



7.3 Proceed with the same operation with the rest of shrouds.



Service Instructions

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

www.mtgcorp.com/manuals

Please contact Technical Services in case of questions:

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