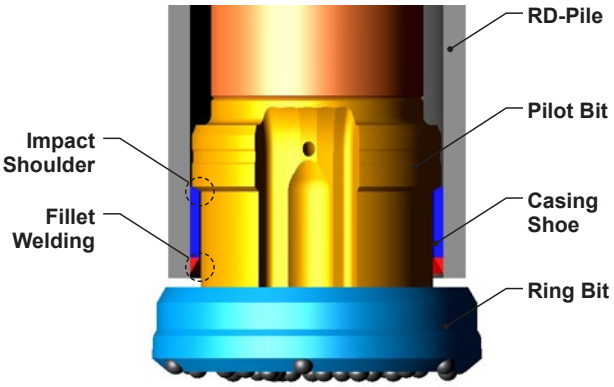
WELDING INSTRUCTION FOR ULTRA MAXBIT ECO-LINE VERSION

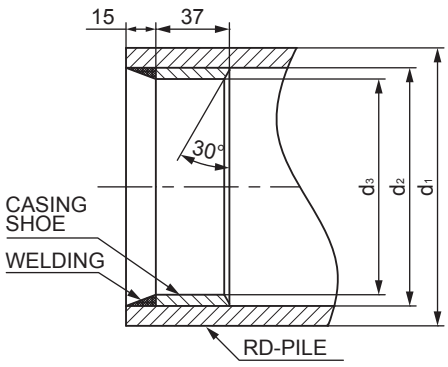
ECO-LINE ULTRA MAXBIT SYSTEM

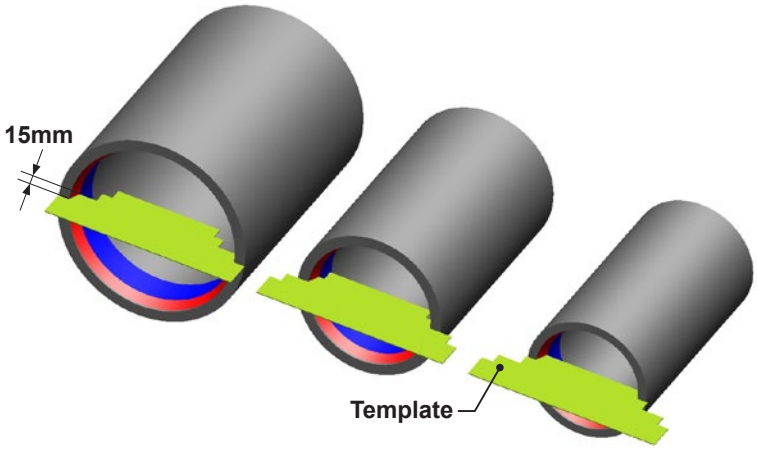
ECO-LINE ULTRA MAXBIT SYSTEM has no connection between ring bit and the casing shoe. Casing shoe is welded inside of casing pipe. Casing shoe pulls down the RD-PILE by the impact from hammer through impact shoulder of the pilot bit. Therefore, correct welding is very important.



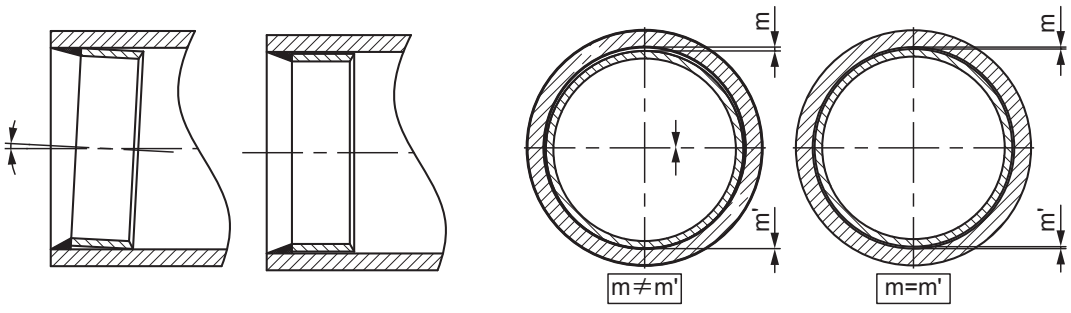
1.Casing shoes

Casing shoe has a simple ring shape. However, the angle of each side is different.
One side is 90 degree, while the other side is 60 degree. When welding it to the RD-PILE, put 90 degree side in front and weld this side to RD-PILE.
Be careful that casing shoe must be welded to correct position of the casing pipe. The flat surface of casing shoe must be located at 15mm from the end of RD-PILE. If the welded position is not correct, the ring bit may not be connected to the pilot bit. It is easy to realize the correct position by using templates.

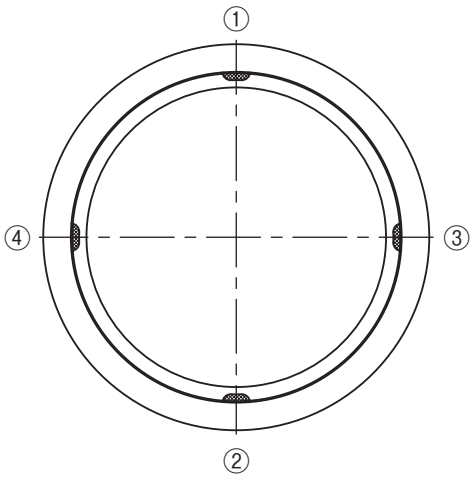




It is ideal that there is no gap between inside surface of casing pipe and outside surface of casing shoe. If there is gap, put a shim into the gap and align the center line and locate the casing shoe parallel to casing pipe.



2. Casing shoe attachment



1) Be sure that all surfaces to be welded are clean and free from any dirt, contamination including moisture.

2) Pre-heat the end of the casing shoe and RD-Pile to 100 degrees (Celsius).

3) Temporary tack-weld the casing to centralize. Tack welding should be done diagonally.

The casing shoe and RD-Pile are different materials, caution must be taken welding these items so that weld cracks are not generated.

Metal components of casing shoe:

GRADE	C%	Mn%	P%	S%	Si%
DIN : S355	0.23max	1.60max	0.05max	0.05max	0.05max
ASTM :A572Gr50	0.23max	1.35max	0.04max	0.05max	0.40max

Select a low-hydrogen solvent for casing shoe welding.

Recommended weld solvent:

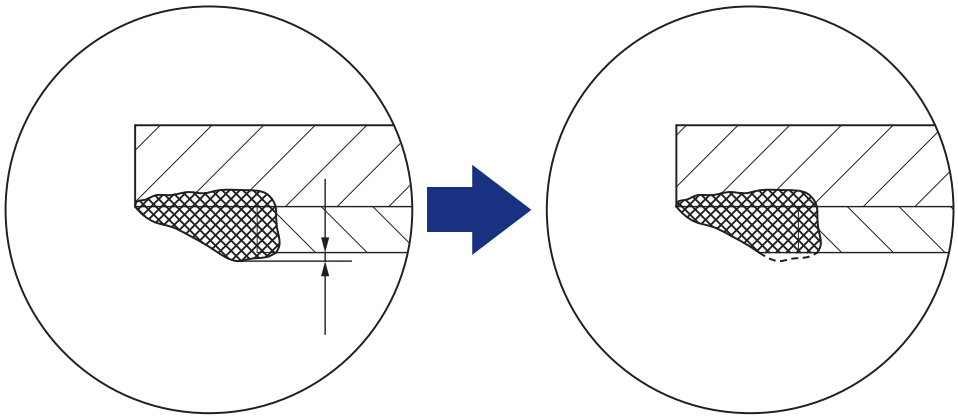
BRAND	C%	Mn%	P%	S%	Si%
OK48.00	Min:0.02 Max:0.10	Min:0.90 Max:0.10	0.020max	0.015max	Min:0.30 Max:0.70

Classifications electrode:

EN 499	E 42 4 B 42 H5
SFA/AWS A5.1	E7018
ISO 2560	E51 5B 120 20H

4) Welding on the circumference. Take sufficient time to weld the casing using the correct welding rod.

5) After welding, use a grinder etc to remove excess welding metal inside casing shoe. If excess weld is not removed, pilot bit may not be inserted to casing shoe.



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