


FC MnCr DC+
BUILD-UP

DESCRIPTION

High chromium open arc build-up wire. Selectarc FC MnCr is a high alloy, work-hardening austenitic manganese steel flux-cored, open-arc hardfacing alloy. It can be used equally well for joining and build-up/surfacing of carbon, low alloy and manganese steels. Weld deposits made with Selectarc FC MnCr are a modified chromium-manganese chemistry providing an excellent combination of weld metal strength and ductility. **A gas cover can be use with small diameters.**

Work-hardens rapidly under repeated impact. The yield strength is higher than ordinary manganese alloys providing greater resistance to mushrooming when subjected to compressive loads and repeated impact. Ideal as a cushioning or buffer layer on manganese steel parts that will be repeatedly rebuilt. Since it will not embrittle until 1000°F (538°C), it will act as an insulator to the manganese base metal in helping it keep below 500°F (260°C) during the welding operation. **Deposit cannot be flame cut.**

TOTAL ALLOY CONTENT: 31 % (Carbon, Silicon, Manganese, Chromium, Molybdenum)

TYPICAL APPLICATIONS

Fabricating manganese steels, manganese to mild or low alloy steels, other dissimilar combinations. Build-up and overlay of railroad crossovers and frogs. Gyrotory crusher mantles, crusher rolls and jaws, cone and roll shells, hammer mill hammers, pulverizing hammers, dragline and power shovel bucket lips and teeth, sizing screens, grizzly bars, steel mill wobblers.

PROCEDURE

Weld with a minimum heat input (low current, short beads) in order to respect an interpass temperature of 500°F (260°C) maximum. Do not preheat the piece to weld! If a gas cover is desirable, use 100% CO₂ at 40-45 cfh. This will cause amperages to go up by about 10%. The stick-out should be shortened. When welding out-of-position, use the lower ranges of voltages and amperages. If a gas cover is desirable, use 100% CO₂ at 40-45 cfh. This will cause amperages to go up by about 10%. The stick-out should be shortened. When welding out-of-position, use the lower ranges of voltages and amperages.

MECHANICAL PROPERTIES

Tensile strength:	120 000 psi (827 MPa)		
Hardness (as-welded):	20 HRC	Work hardening:	50 - 55 HRC
Deposit thickness:	Unlimited		

WELDING PARAMETERS

Diameter:	1/16" (1.6 mm)	.045" (1.2 mm)
Voltage:	26 - 29 V	24 - 28 V
Amperage:	150 - 250 A	100 - 175 A
Stick out:	1" - 1 1/2"	1"
Packaging:	Spool of 11,4 kg	

Other diameters available on request.

Electrodes also available: **Selectarc HB MnCr**

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