

# Crown CX-20

Shielded Metal Arc Welding  
(SMAW) Stick Electrode

Tool Steel

AC/DCEP  
All Position



## Superior Electrode for Cast Iron Stamping & Forming Dies

### Typical Applications

**Crown CX-20** is primarily used to build-up the wearing surfaces on all types of iron draw dies including gray, nodular, ductile, meehanite and special alloy cast irons. It is used most often for welding flame hardenable, automotive cast iron stamping and forming dies. Deposits are long wearing and develop a high polish while in service. **Crown CX-20** is also used for joining cast iron to steel where high strength is required such as when die inserts are installed. It is also used as a build-up alloy prior to surfacing with a harder alloy. **Crown CX-20** can also be used to weld cracked high alloy tool steel dies made from D-2, D-6, D-7 and other high carbon alloy steels. **Crown CX-20's** unique formulation assures positive arc stability with instant restrike for delicate applications.

### Specifications

Alloy Type: Iron-Nickel-Chrome

Identifying Color:  
Light Green End

- Hardness 34-36 (Rockwell C) as welded.  
37-40 (Rockwell C) after work hardening.
- Preheat 400°F can be very helpful, however, it is not always necessary.
- Tensile Strength Up to 154,000 psi
- Elongation Up to 35%
- Machinability Good
- Heat Treatment Non-heat treatable

### Procedure

Prepare area to be welded by grinding out cracks to form a "U" shape so that the weld metal bonds in the root. Remove all foreign material, fatigued metal and any sharp radii. Remove all oxides and other contaminants. Preheat according to chart above. Short stringer beads are recommended approximately 4" long, with rapid peening between beads. When building-up large surfaces such as on automotive draw dies, deposit 4" square patches randomly over the entire area in order to minimize localized heat input and avoid as many stresses as possible.

Welding current can be DC reverse polarity (DCEP) or AC. However, DCEP ensures the best weldability & penetration.	
Electrode Diameter (inches)	Welding Current (amperage)
3/32	65 – 110
1/8	90 – 135
5/32	120 – 190

### Sizes and Part Numbers

Electrode Diameter	Part Numbers	
	1# Package	5# Package
3/32	TECX/EN-BP	TECX/EN
1/8	TECX/EO-BP	TECX/EO
5/32	TECX/EP-BP	TECX/EP



**!!!! WARNING !!!!**



**WELDING FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.**

**BEFORE USING THIS PRODUCT THE WELDER (END-USER) MUST READ AND UNDERSTAND THE COMPLETE PRODUCT WARNING LABEL AND THE NEW 16 SECTION SAFETY DATA SHEET (SDS).**

**THE SAFETY DATA SHEET (SDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE SDS PORTION OF THIS WEBSITE. IT IS ALSO AVAILABLE FROM YOUR EMPLOYER AND WELDING SUPPLY DISTRIBUTOR.**

**DO NOT PROCEED WITH USE OF THIS PRODUCT UNTIL YOU READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) AND PRODUCT WARNING STATEMENT.**

**BE SURE TO CONSULT THE LATEST VERSION OF THE SDS.**

**SEE THE PRODUCT WARNING LABEL AND SDS FOR COMPLETE WARNING INFORMATION.**

