

# FIN TUBE HF SOLID FIN

EXPERIENCE, QUALITY, AND CONSISTENCY FROM THE HEAT RECOVERY EXPERTS



## Manufacture

SOLIDFIN HF IS A PLAIN TYPE FIN MADE BY HELICALLY WINDING THE FIN STRIP ON EDGE AROUND THE TUBE. THE FIN IS SIMULTANEOUSLY WELDED TO THE TUBE IN A PERPENDICULAR POSITION. AS THE FIN IS FORMED AROUND THE TUBE, THE OUTER EDGE IS STRETCHED AND THE INNER EDGE IS COMPRESSED RESULTING IN THINNING AT THE TIP OF THE FIN AND THICKENING OR SLIGHT CORRUGATION AT THE BASE OF THE FIN. A SLIGHTLY THICKER TUBE WALL IS USUALLY REQUIRED WITH SOLIDFIN THAN WITH TURB-X TO RESIST DEFORMATION OF THE TUBE FROM THE INCREASED PRESSURE APPLIED IN FORMING THE FIN AROUND THE TUBE.

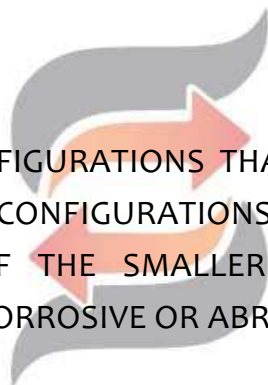
## The Weld

THE FIN IS CONTINUOUSLY WELDED TO THE TUBE BY A HIGH FREQUENCY ELECTRICAL RESISTANCE WELDING PROCESS WHICH LEAVES THE TUBE ESSENTIALLY UNCHANGED METALLURGICALLY. HENCE, HEAT TREATING AFTER FINNING IS UNNECESSARY. THE WIDTH OF THE WELD IS ALWAYS GREATER THAN 90 PERCENT OF THE THICKNESS OF THE FIN, ASSURING A STRONG BOND BETWEEN THE FIN AND THE TUBE FOR EFFICIENT HEAT TRANSFER AND LONG LIFE.

**CERTIFIED TO ISO  
STANDARDS**

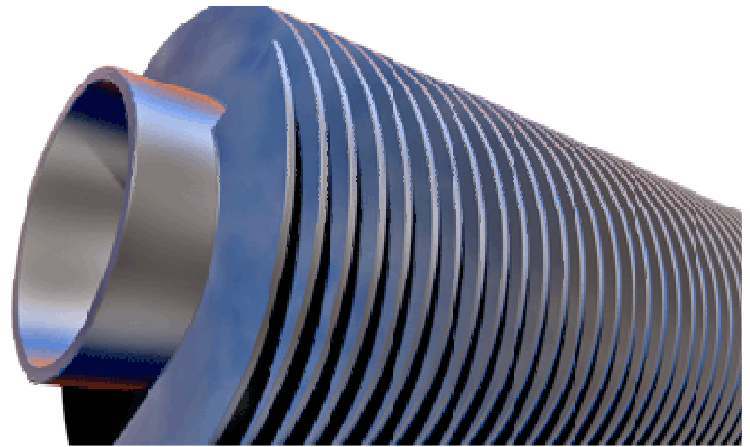
## Greater Surface

THERE ARE CERTAIN SOLIDFIN CONFIGURATIONS THAT HAVE GREATER TOTAL OUTSIDE SURFACE AREA THAN COMPARABLE TURB-X CONFIGURATIONS. IN ADDITION, SOLIDFIN CAN BE SUPPLIED WITH THICKER FINNINGS IN SOME OF THE SMALLER FIN HEIGHTS WHICH IS AN IMPORTANT CONSIDERATION FOR EXTREMELY CORROSIVE OR ABRASIVE SERVICES.



## BETTER FOR HIGH FOULING APPLICATIONS

INDEPENDENT RESEARCH AND FIELD PERFORMANCE CLEARLY DEMONSTRATE THE SUPERIOR HEAT TRANSFER OF THE SEGMENTED FIN OVER THE PLAIN FIN. HOWEVER SOLID FINNS ARE PREFERRED IN FOULING APPLICATIONS. EVEN HIGHLY PARTICULATE LADEN APPLICATIONS CAN BENEFIT FROM PROPERLY DESIGNED SOLID FINNED HEAT TRANSFER SURFACES.



### TAKING A STAND FOR EXCELLENCE

#### Cleanability

YEARS OF OPERATING EXPERIENCE ON ALL TYPES OF FUELS HAVE DEMONSTRATED THE EASE OF CLEANING OF SOLIDFIN. IN MOST CASES, SEGMENTED TYPE FINNS ARE PREFERRED OVER PLAIN FINNS BECAUSE THE SEGMENTS PERMIT LATERAL FLOW OF THE GAS DURING OPERATION AND THIS, ALONG WITH THE INCREASED TURBULENCE, SLOWS THE BUILDUP OF FOULING DEPOSITS. HOWEVER SOLIDFIN IS PREFERRED IF FOULING IS FIBROUS OR STICKY

#### Strength

THE FINISHED FINNED TUBE IS EXCEEDINGLY STRONG MECHANICALLY AND HAS GREATER RESISTANCE TO BURSTING PRESSURE THAN THE BARE TUBE DUE TO THE REINFORCING EFFECT OF THE FIN. BECAUSE OF ITS EXCELLENT STRENGTH AND RESISTANCE TO DEFORMATION, SOLIDFIN HF IS WELL SUITED FOR APPLICATIONS WHERE SEVERE ABUSE IS EXPECTED IN SERVICE.



# FINTUBE

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