

DUNHAM-BUSH AMERICAS

Date: January 25, 2013

Ref: WCFX-E Sound attenuation options

The WCFX-E Series 60Hz employs our Dunham-Bush unique high efficiency, advanced technology, vertical screw compressor to provide excellent performance & stability. The multiple compressor units provide redundancy and favorable part load efficiency. We have found that the WCFX-E has a far more superior full load efficiency than any other screw chiller on the market and in most cases it will beat the full load efficiency of a centrifugal chiller. In addition, the part load NPLV efficiencies range from 0.39 to 0.44 which allows us to compete with the Turbocore compressor.

Another feature to point out is the sound rating of the chiller, the standard WCFX-E chiller ranges 78-84 dB (A) @ 3'. For sound critical projects we offer a compressor sound compartment which dampens the sound levels below what our competition can provide.

For example, if we look at 300TR chiller @ standard AHRI conditions (54/44°F, 85/95°F); the Dunham-Bush model number is WCFX41TAR-M3R-8BR. The unit operates with 0.572 full loads KW/TR and 0.404 NPLV part load efficiency. The standard unit sound spectrum is below:

Unit Sound Pressure Level (Lp) @ 1.00 m (free field)

Octave Band (Hz)	63	125	250	500	1K	2K	4K	8K	TOTAL
Pressure Level (Lp) dB(A)	72	60	65	72	79	76	72	58	83

For sound critical projects we can offer further sound attenuation which comprises of a compressor sound compartment. This feature will reduce the sound and still offers the ability to service the compressors as it is supplied with removable panels. The panels are constructed of 1" thick GI powder coat painted panels with fiberglass insulation. Below is the unit sound spectrum with the compressor sound compartment:

Unit Sound Pressure Level (Lp) @ 1.00 m (free field)

Octave Band (Hz)	63	125	250	500	1K	2K	4K	8K	TOTAL
Pressure Level (Lp) dB(A)	66	53	50	53	66	64	57	38	70



Products that perform. By people who care.