

ShockWave Powered Hops Extraction

With the proliferation of craft breweries the demand for hops and prices have increased. When The ShockWave Power™ cavitation technology is applied to the different brewing processes, combined with expertise in hop utilization, it allows brewers to produce beers with less hops and the same great flavors. The ShockWave technology harnesses the normally destructive power of cavitation and controls it so its pressure fluctuations can be used for increased hop flavor extraction.

The ShockWave Power technology is an easy retrofit for any brewery and can be applied to more efficiently use bittering hops or aroma hops. The cavitation allows for greater extraction of the flavors without heavy shear that can destroy proteins or create fines that are difficult to separate. Using less hops also

allows brewers to produce more beer by throwing away less product in the form of beer soaked hops. Hopping speed can also be increased, especially in dry hopping. Brewers can also use the ShockWave Technology to impart other flavors including fruits, coffee and chocolate. ShockWave Power can also provide similar advantages in liquor, wine and other products.

The ShockWave Power Reactor cavitation technology is developed and manufactured by Hydro Dynamics, Inc. of Rome, Georgia. The SPR™ equipment uses the physical phenomenon of cavitation, normally known as destructive force, and harnesses it to solve critical industrial mixing, extraction and heating problems. The SPR can now be found on four continents in applications ranging from biodiesel production to hops extraction for beer. Learn more at: www.hydrodynamics.com.



50%-90% less bittering hops

50%-75% less dry hopping

Impart other flavors

Increased hopping speed

Minimized protein damage

Sell more finished beer with less beer soaked hop waste

Extracting More Oil



The SPR exposes the material to shockwaves, which help to push the water or other solvents deeper into the particles opening pits, pores and other structures.

