

EXTRACTION EQUIPMENT APPROVALS **INFORMATIONAL BULLETIN 2015-001-8**

In accordance with 2016 Denver Fire Code 5003.3.2.3 extraction equipment using hazardous materials shall be *Listed* or *Approved*. Where no equipment listing criteria exist, equipment manufactures' can submit a Master Engineering Report for approval of their equipment. This approval method has typically only included liquidified petroleum gas (LPG) and CO2 equipment; listings have been available for flammable liquid extraction equipment. The engineering report is required by Denver Fire Code 104.7.2 and shall be signed and sealed by the responsible CO licensed Professional Engineer. A site specific letter signed and sealed by the engineer responsible for the master engineering report is required prior to final approval of equipment for use. The letter shall identify that the equipment onsite meets the approved master engineering report and additionally include the location address, make and model number, serial number, and any other pertinent information specific to that equipment such as optional equipment features.

All equipment shall be operated strictly in accordance with the manufacturer's instructions. Any modification of equipment from the approved engineering report / listing (i.e. repiping the system, addition of pumps, replacing components, using unapproved gasses, etc) voids the approval of the extraction equipment.

Below is extraction equipment that has an approved master engineering report. Note that this list does not grant approval for use without additional required safety requirements such as exhaust systems, gas detection, operational permits, building occupancy, etc. These approvals also do not include filling equipment supply tanks. Please consult the manufacturer for the site specific letter; note that the State of Colorado Marijuana Enforcement Division requires an equipment approval letter to be maintained on site, the site specific letter is in addition to this state requirement.

Due to changing Fire Code requirements in 2016 for LPG extraction rooms to be classified as Class I Division I locations, electrified LPG recovery pumps (i.e. CareSaver) will no longer be permitted for use in LPG extraction systems after Oct 2016. Equipment can be operated passively or manufacturers with approved Haskel pumps are noted below.

NOTE to other authorities having jurisdictions using this list for approvals. Approved engineering reports may be modified during the approval process and manufacturers may have features that are not approved for use in the City of Denver but sold for use in jurisdictions outside of the City and County of Denver. Please use this list with caution as it may not be a blanket approval for all equipment features offered by the manufacturer.

	MANUFACTURER	MODEL #	Solvent
1	Emotek Labs	Obe (Haskel)	Butane
2	APEKS Supercritical	1500-1L, 1500-5L, 1500-20L, 5000-5L, 5000-20L	CO2
3	Waters Corporation	SFE 2X5	CO2
4	Extraction Tek Solutions	1300 LHBES 1300/C (Haskel)	Butane or Propane
5	Isolate Extraction Systems	ISO-CDM5, ISO-CDM10, ISO-CDM20, ISO-CDM2500, ISO-CD5000, ISO-CD5000h, ISO-CD10000, ISO-CD10000h	CO2
6	MC Machinery	The Incredible Extractor	Butane
7	APEKS Supercritical	1500-20LE & 1500-5LE	CO2
8	Eden Labs	5L-2000, 20L-2000, 5L-5000, 20L-5000, Vegas 1, Vegas 5000	CO2
9	Isolate Extraction Systems	LP1000 & LP 250	Butane or Propane
10	Delta 9	B1000 (Haskel)	Butane
11	PIC Solutions	PICLAB 400	CO2
12	Universal Grow Controls	Kelvinator	Butane
13	5 th Dimension	710.005	Butane
14	Sweet Leaf Technologies	Approval Revoked 10/27/2016	
15	Edipure EPM LLC	EA-H	CO2
16	Precision Extraction Solutions	PX1 & V2016 PX1 (Haskel)	Butane or 50/50% butane/propane mix
17	Colorado Extractions LTD	071-KJ (Haskel)	Butane or Propane
18	Extraction Tek Solutions	MeP-HCU/C & mMEP (Haskel)	Butane or Propane
19	Strainz	SCE-1100-A	CO2
20	Newport Scientific	46-19365-X	CO2
21	SeparCO – Distributed by HighTech Extracts LLC	SCFN-P5, SCFN-P10, & SCFN-P20	CO2
22	Vitalis Extraction Technology	Q45 & Q90	CO2
23	Anion	Trifecta & Minifecta (Dewax versions include crystallization process approval)	Butane or Propane

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