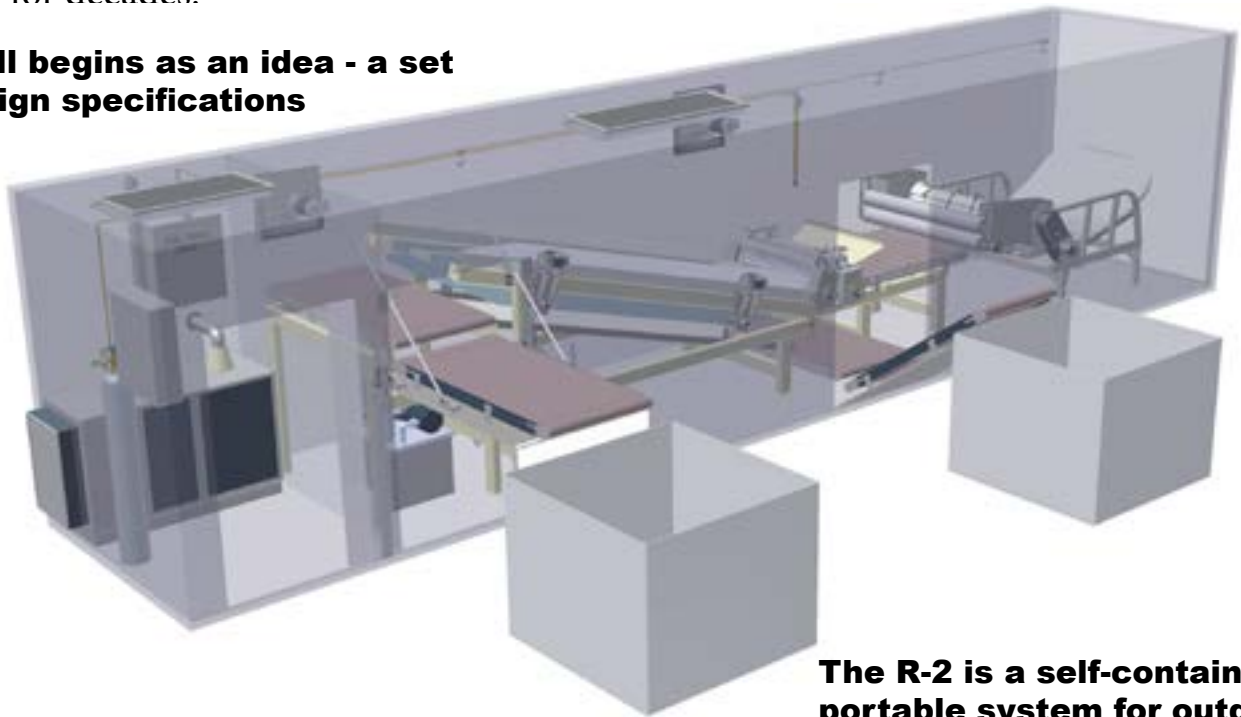


System Build #1

The R-2 Hemp Stalk Processing System™ has been designed and built for long-term farm use. All work is done on location at our machine shop / fabricator of choice, ICI. For over 20 years ICI has been located near Windsor - right across the border from Detroit.

Top-level projects involving chrome steel alloys and close tolerance engineering are standard operations for ICI. They are located on a farm property and have worked in the sector for decades.

This all begins as an idea - a set of design specifications



The R-2 is a self-contained, portable system for outdoor use.

CannaSystems has designed and built the R-2 Hemp Stalk Processing System into an industry-standard hi-cube shipping container. This allows the unit to be delivered anywhere via standard transport. The unit can be mounted on a 40' trailer to be moved farm to farm as required. Fibre and core hurd raw materials are produced and sent in different directions to the industrial manufacturing facilities.



R-2 CONTAINER 40' x 8' x 9.6"



ACCESS DOORS



SKYLIGHTS

This is a machine built to last. Here are the reasons why:

Hemp is one of the strongest and most durable of all-natural textile fibres. The R-2 Hemp Stalk Processing System has been designed and engineered with this in mind. Each component has been selected and built to last.

The core steel stock for the R-2's Helical decorticator heads is AISI 4140, a chromium-molybdenum alloy steel. It was selected for its superior toughness, good ductility, and good wear resistance.

Other major sections of the R-2 feature OEM components like bale unwinders from Hustler Equipment™, John Deere™ straw-walkers, and HMI - PLC interfaces from Allen Bradley™. These and other off the shelf, farm-ready components, are assembled to build the R-2 Hemp Stalk Processing System.



R-2 HELICAL DECORTICATOR HEADS



BALE UNWINDER



MODIFIED



REVISION #3

The Hustler Equipment bale unwinder was re-designed three times to handle the hemp stalk. Fortunately, the same people that contract manufacture on behalf of Hustler are just up the highway here in Southern Ontario. We added the stalk stripper and modified comb to ensure that bales would be handled properly. Feeding the helical decorticator heads at a steady, controlled rate is critical to system operation.



STALK STRIPPER



MODIFIED COMB



FEED TABLE



R-2 DUAL-HEAD HELICAL DECORTICATOR

Rotary Shaft: The material is 4140 6”diameter and 36.250 long.

AISI 4140 is a chromium-molybdenum alloy steel. The chromium content provides good hardness penetration, and the molybdenum content ensures uniform hardness and high strength. AISI 4140 chrome-molybdenum steel was hardened to a relatively high level of hardness. The desirable properties of the AISI 4140 include superior toughness, good ductility and good wear resistance in the quenched and tempered condition.



STRAW WALKER FRAME



STRAW WALKER PARTS



WALKER ASSEMBLY

Back-end straw walkers are John Deere parts, chosen for their industry standard availability and performance. We upgraded the bearings and rotor shafts for long-term high-output operation. The R-2 Hemp Stalk Processing System includes VFD motors and an assembly underneath the straw walkers to move core hurd removed from the fibre back to the core hurd conveyor output.



VFD WALKER MOTORS



FIBRE CONVEYOR



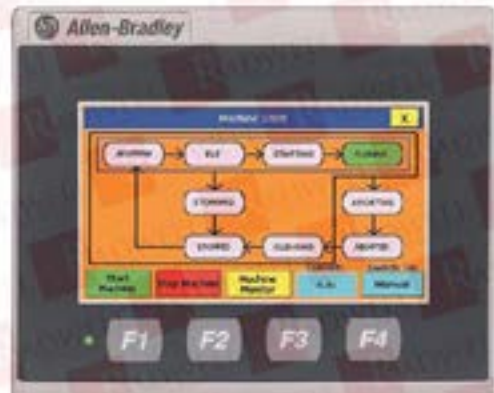
HURD CONVEYOR



SYSTEM CONTROLS ver 1.1



CONTROL SYSTEM ver 1.1



HMI - PLC INTERFACE ver 2.0

We have completed development of the initial full-scale unit. The R-2 Hemp Stalk Processor Alliance program, which covers the first ten units, has been designed to fine tune the design and manufacturing of the R-2, and identify prospective Dealers for our machines. Ideally, after completion of the Alliance program, sufficient Alliance members decide they want to become dealers for CannaSystems. At that point we will be able to ramp up production as required.

CannaSystems has connected with a number of farm equipment manufacturers, mostly in Southern Ontario, who expressed interest in contract manufacturing on our behalf as we ramp up sales after completion of the Alliance program. To-date, we have at least eight potential companies who could become our manufacturing and service partners. These companies range in capacity from five units per month to over 100 machines per month, and over 1,500 service locations in North America.



BALES OF HEMP STALK



SHIPPING HEMP STALK

The R-2 Hemp Stalk Processing System handles full bales - cut and dried like hay. Field retting is neither recommended nor required. A full bale is loaded into the front end and fed at a controlled rate through the helical heads to the straw walkers at the back end for first-mill single-pass decortication.



SIGNS



SHIPPING THE R-2 SYSTEM