



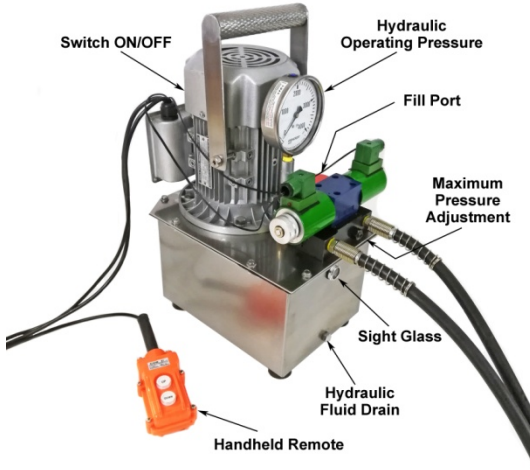
Hydraulic Iron Fist

Scientific 710, LLC

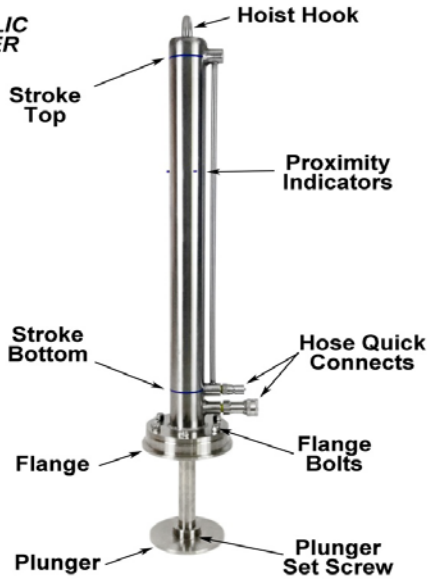
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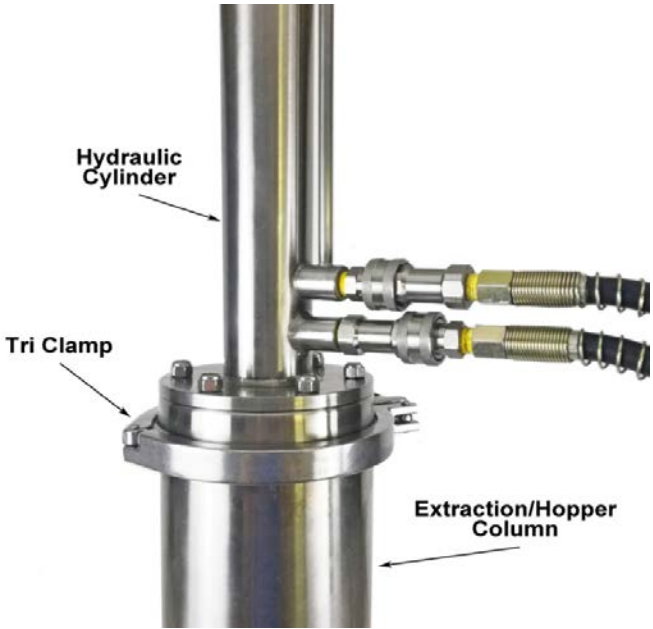
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HYDRAULIC POWER UNIT



HYDRAULIC CYLINDER





HORIZONTAL STAND



VERTICAL STAND



Product Features

- Effortlessly pack columns with 20-100% more material (depending on column size), increasing yields and reducing overall solvent consumption.
- Evenly distributes packing pressure promoting uniform solvent distribution, reducing solvent channeling.
- Effortlessly unpack columns in seconds.
- Unloaded material remains compacted minimizing biomass waste volume.
- Latent solvent stays trapped in material when unloading, reducing fire danger.
- Encases column when in use reducing airborne particles in accordance with occupational safety and health standards.
- Removes wax, lipids, oils, etc. from column walls with each use.
- Double acting cylinder extends and retracts using handheld remote for easy operation.
- Can be used in any orientation.
- Easily adaptable to different column sizes with additional plunger and flange set (sold separately).
- USP grade NSF 3H, H1 registered and complies with FDA CFR 172.878 3H hydraulic fluid.
- Food grade stainless steel construction, user manual, 1 year parts and labor warranty, Made in the USA.

Setup

1. Remove all items from their packaging.
2. The *Hydraulic Cylinder* comes pre-filled with hydraulic fluid; however, the *Hydraulic Power Unit* does not. You will need to fill the reservoir with approximately 1.9 gallons of FMO-46 Food Grade Hydraulic Fluid. Unscrew the orange breather cap from the *Fill Port*. Fill the *Hydraulic Power Unit* to the sight glass with fluid. Replace the breather cap.
3. If the hoses are not connected, connect them using the appropriate wrench. Connect the *Hydraulic Power Unit's* hoses to the *Hydraulic Cylinder* using the *Quick Connectors*.
4. Connect the *Hydraulic Power Unit* to a reliable 110V power source capable of providing at least 12 amps. A dedicated 15 amp circuit is recommended. Do not operate the power unit continuously in environments over 100F.

Loading

1. If you purchased our *Vertical Stand*, connect the *Extraction Column* to the *Vertical Stand* using a *Tri Clamp*. If your *Extraction Column* is mounted to a rack, you can add an end cap to the base of the *Extraction Column* before loading if needed. If ceiling height is an issue an end cap can also be used to load *Extraction Columns* horizontally using the *Horizontal Stand* if you have free standing columns.
2. Fill the *Extraction Column* with material / biomass.
3. Attach the *Hydraulic Cylinder* to the *Extraction Column* using a *Tri Clamp*. We recommend using hinged clamps for ease and speed. No gasket is required.
4. Turn the *Hydraulic Power Unit* to the ON position.

5. Using the *Hand Held Remote*, press the “Down” button to compress the material the desired amount. The blue *Proximity Indicators* show the *Plunger’s* position in the *Extraction Column* and the *Hydraulic Operating Pressure* indicates the force applied to the material in the *Extraction Column*. Release the button on the *Handheld Remote* when the desired amount of force has been applied. If more force is needed please consult with Scientific 710.
 6. Press the “Up” button on the *handheld remote* to retract the *Hydraulic Cylinder*. Remove the *hydraulic cylinder* from the *Extraction Column*.
- *Extraction Column/s* can be loaded in one step by attaching an additional *Hopper Column* between the *Hydraulic Cylinder* and the *Extraction Column*. Fill the columns then compress the material from the *Hopper Column* into the *Extraction Column*.

Unloading

1. Attach the *Hydraulic Cylinder* to the *Extraction Column* using a *Tri Clamp*.
2. Turn the *Hydraulic Power Unit* to the ON position.
3. Using the *Hand Held Remote*, extend the *Hydraulic Cylinder* forcing the material out of the *Extraction Column* and into a container/tote.
4. Once the material has been removed from the *Extraction Column*, retract the *Hydraulic Cylinder* and remove from the *Extraction Column*.

Maintenance

Hydraulic Power Unit – It's recommended to replace the *Food Grade Hydraulic Fluid* approximately once a year if used on a daily basis. FMO-46 is recommended.

Hydraulic Cylinder – It may be necessary to occasionally remove plant resin build up from the *Plunger* and clean. Limonene or ISO can be applied to dissolve plant resins.

Specifications

Product Specifications	
Model:	IF-600 (fits 6" tri-clamp columns)
Type:	Hydraulic IRON FIST
Dimensions:	Cylinder: Stroke + 6"
	Hydraulic Power Unit: 9.4" Wide X 15.7" Tall X 11.8" Deep
Weight:	Cylinder: 8 Lbs / foot
	Hydraulic Power Unit: 55 Lbs
Stroke Length:	Any
Cylinder Bore	Any
Construction:	Stainless Steel
Application:	Pack and Unpack Material Columns
Voltage:	110 Volts / 60 Hz
Watts:	900 Watts Max
Amperage:	11.5 Amps Max
Motor:	Sparkless Inductive
Hydraulic Pump:	Dual Stage
Hydraulic Flow	1.3 GPM
Tank Capacity:	1.9 Gallons
Pressure:	3,000 psi
Working Fluid:	Direct Food Contact White Oil, ISO 22
Fluid Type:	USP Grade NSF 3H, H1 Registered Oil. Complies with FDA CFR 172.878 3H
Installation:	Freestanding
Valving	Double Acting Solenoid with Handheld Remote
Display Type:	Analog Pressure Gauge
Warranty:	1 Year Parts and Labor

About Us

Scientific 710 designs, tests, and manufactures innovative solutions for the cannabis industry specializing in essential oil extraction technology and equipment.

Scientific 710 manufacture's its products in Hillsboro, Oregon.

Please email any questions you may have to:

info@scientific710.com

or use our '[Contact Us](#)' page online at :

www.scientific710.com

Thank you,

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