



**Consolidated Rig Works**  
6000 E. Berry St., Fort Worth, TX 76119  
PH: 817-446-5272 ~ FX: 817-446-4947  
E-mail: [crwlp@sbcglobal.net](mailto:crwlp@sbcglobal.net)  
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# COILED TUBING UNITS

**CRW can provide both Single Trailer Coiled Tubing Units or Twin Trailer Coiled Tubing Units**

**A Single Trailer Coiled Tubing Unit** consists of single trailer with control cabin, wet kit tractor, tubing reel, transport skid, and spreader bar assembly.



The **Twin Trailer Coiled Tubing Unit** consists of a reel trailer comprising an upper deck mounted cabin/control console/power pack, a tubing reel assembly and hose reel assemblies and a crane trailer with crane, injector and BOP trailer.

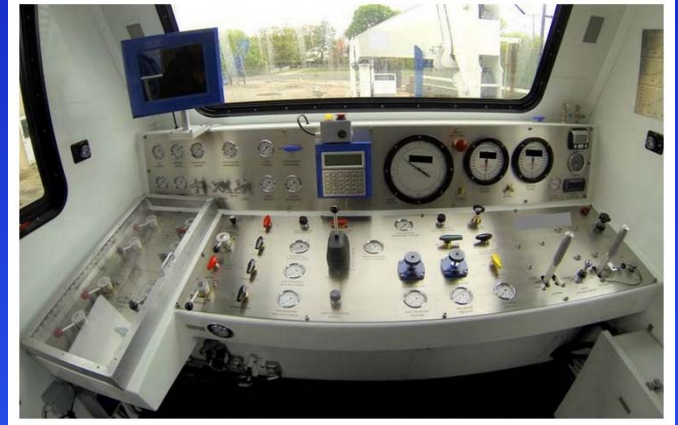


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# COILED TUBING UNITS

## Control Cabin – Standard

1. Prepped, primed and painted a single color of customer choice.
2. Skid fitted with 4-point lift and crash frame
3. Maximum dimensions: 196" long x 98" wide x 102" high
4. Interior space approx. 113" long x 75" tall x 77" wide
5. Elevates via four hydraulic cylinders
6. Access provided via platform that folds out beyond protective frame with stairway and handrail
7. Cabin fully enclosed and insulated
8. Front safety glass window angled for glare reduction and equipped with an air-driven windshield wiper system
9. Sliding windows in side panels for ventilation
10. Rear window mounted in hinged hatch for emergency exit
11. Interior and exterior lighting
12. Full-width bench seat with vinyl cover, fold-down desktop, and office chair
13. Eye wash bottle and first aid kit mounted near doorway
14. Air horn operated from panel
15. Hydraulically powered air conditioning system
16. Heater system utilizing engine jacket water for heat, located inside booth seat
17. Control console, of the "L" shape design
18. Hose reels and hoses



## Control Cabin – Alternative

CRW also offers a smaller (60"x 60"x72") aluminum cabin insulated with foam sheeting. Cabin is mounted to a steel skid with lift cylinders for improved operator vision, and ISO corner locking blocks for ease of transport. Wrapping posts are provided at the front of the control cab skid for the tubing reel and power pack hoses. The two multi-port hose reel assemblies for BOP and injector are also mounted to this skid, pinned for ease of removal. The unit is provided with a hydraulically driven A/C-heater assembly. AC voltage, plug for power to cabin provided (pigtail end for splicing mating cord). Complete console assembly inclusive of all valving, gauges and connections to operate and run the coiled tubing and pump components.



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# COILED TUBING UNITS

## Power Pack

1. Prepped, primed and painted a single color of customer choice.
2. Fitted with 4-point lift and a crash frame. Shackles are of the bolt, nut and locking pin design. Slings are furnished.
3. Standard dimensions: 158" long x 98" wide x 98" high
4. Industrial water-cooled diesel engine, muffler of spark arresting type, oil drain hose and shutoff valve with a plug and stainless steel exhausts
5. Engine monitoring system, equipped with pneumatically operated emergency engine air shut-off
6. Pneumatically operated emergency engine air shut-off
7. Engine control panel
8. Diesel-lubricated air starter with air reservoir tank
9. Air system with a chemically activated air dryer to handle ambient humidity
10. External air supply line for charging air start system
11. Open loop injector drive system
12. BOP accumulators
13. Air-to-hydraulic oil heat exchanger
14. Diesel fuel tank with drainage, sediment trap and isolation valves
15. Stainless steel hydraulic oil reservoir
16. Check valves installed between tanks or reservoirs and filters
17. Fixed access ladder to top of hydraulic and fuel reservoirs for maintenance
18. Protective roof



## Wet Kit

1. Tractor with splitter installed by dealer
2. Wet kit to bolt to tractor frame
3. Mounted dual output gearbox to drive bidirectional axial piston pump for injector drive and pressure compensated pumps for all other functions, two-stage pump for crane supply or hydraulic flow divider for crane operation, if required; and auxiliary pump dedicated to closed loop flushing
4. Hydraulic reservoir with sight gauge
5. Hydraulic powered air to oil heat exchange
6. All necessary hydraulic valves, gauges, hoses, filters, and piping
7. Controls for engine connected to control cabin via control cable
8. Low level indicator with air horn in hydraulic tank
9. Hydraulic accumulators for BOP system



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# COILED TUBING UNITS



## 20K Injector Head

The CRW 20K Injector Head assembly is set up to run capillary and steel coiled tubing sizes ranging from 1/2" through 2". The chain is of one piece construction with "non-replaceable" grippers. The head is fit with a 36" gooseneck assembly and manual hold-down boxes. The customer has the choice of a single acting hydraulic load cell, or a dual acting electronic. A QD bulkhead for quick make up and standard rated sling is provided. Unit is capable of pulling 25,000# at 3,800 psi hydraulic pressure.

### Standard Specifications:

1. variable displacement piston motor drive
2. right angle planetary – direct drive with spring applied brake
3. three independent traction circuits
4. mechanical chain down tensioning with visual indicators
5. hydraulic or electronic weight indicator
6. fall pole with optional winch
7. removable stripper adapter plate
8. 36" gooseneck with flared lead-in
9. forklift pockets in base
10. height (less gooseneck): 63.25"
11. length: 38"
12. width: 48.50"

## Transport Skid

1. Prepped, primed and painted a single color of customer choice
2. Fitted with a welded 4-point lift and a crash frame. Shackles of bolt, nut and locking pin design. Standard slings furnished.
3. Approximate dimensions: 168" long x 98" wide x 144" high
4. Forklift channels 6" x 14" rectangular tubing spaced on 84" centers, with I.S.O. locks
5. No protrusions outside the skid frame
6. Both ends swing open for access to components



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# COILED TUBING UNITS



## CRW Tubing Reel (20,000 feet of 2-inch)

1. Specs:
  - a. Chain drive
  - b. 175 in. long x 102 in. wide x 135 in. high
  - c. 20,000 ft. of 2-in. tubing
2. Base skid: full-length drip pan; drain tubes in each corner; 6-in. x 14-in. forklift pockets at 84-in. centers; hold down rings on each corner.
3. Drum: tubular steel spoke design with through shaft structure; 80-in. diameter core x 76-1/2-in. between flanges x 162-in. diameter outer flanges; two lift lugs at shaft; flanges have expanded metal panels; tubing guide arch for tubing connection at the core.
4. Reel drive: planetary gearbox, chain and sprocket arrangement with spring set, hydraulic release integral brake.
5. Levelwind: the levelwind is a hydraulically driven and controlled double helix leadscrew with adjustable clutch system; the travel direction is operated by a hydraulic motor mounted to a double beam crossbar; arms raise hydraulically to a working position and held in place by counterbalance valves.
6. Motor case drain and brake are protected by pop-off relief valves.
7. All chains have removable protection guards.
8. Drain plugs: expandable neoprene plugs fully recessed in skid secured with lanyards.
9. CRW tubing counter for sizes of 1.5-in. through 2.88-in. with slide to compensate for tubing pay-off angle. Counter will measure and read in either feet or meters.
10. Internal plumbing is FMC, SPM or MSI 2x2 valves for standard service: non-H2S integral 1502 type fittings rated at 15,000 psi; dual tees for ball launching and wireline adaptation; one (1) each 2 x 2 shutoff valve between swivel and drum core.
11. External plumbing FMC, SPM or MSI 2x2 valves for standard service: non-H2S integral 1502 fittings rated at 15,000 psi; dual inlet connections and 2 x 2 shutoff valves between swivel and inlets; one (1) each flange mounted 4:1 deboster to monitor circulating pressure; one (1) each cross for mounting a transducer or introducing inhibitor.
12. Bulkhead connections: quick disconnect fittings of customer choice with plastic caps.
13. Spray wand lubrication system with 30-gallon lubrication reservoir; fill cap; level gauge; 140 psi relief valve; air regulator; air pressure drain valve; lube drain valve.
14. All hydraulic hoses and grease lines are standard climate rated.
15. A two point lift system, spreader bar type of arrangement for lifting the entire loaded reel assembly or drum only is provided; solid link design; spreader bar stows against rear frame members and is stamped with SWL.
16. Provisions are included for data acquisition, sensor cable, tubing integrity monitors, wireline adaptation or encoder mounts.
17. The reel drum is locked into position for transport by means of a ratchet and strap system on one reel flange.
18. An FMC 20,000 psi 2-in. bore swivel is mounted with compression face seal; protected by removable steel plate; components exposed to circulating fluids are replaceable.
19. Unit will be sandblasted, zined, primed and painted per customer specifications.
20. Complete unit assembled and tested for customer acceptance at CRW's Fort Worth, Texas, USA facility.
21. Operation and service manual supplied with each unit.



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# COILED TUBING UNITS



## CRW Tubing Reel (20,000 feet of 1-inch)

- Specs:
  - Chain drive
  - 134 in. long x 98 in. wide x 104 in. high
  - 20,000 ft. of 1-in. tubing
- Base skid: full-length drip pan; drain tubes in each corner; 6-in. x 14-in. forklift pockets at 84-in. centers; hold down rings on each corner.
- Drum: tubular steel spoke design with through shaft structure; 40-in. diameter core x 52-in. between flanges x 90-in. diameter outer flanges; two lift lugs at shaft; flanges have expanded metal panels; tubing guide arch for tubing connection at the core.
- Reel drive: planetary gearbox, chain and sprocket arrangement with spring set, hydraulic release integral brake.
- Levelwind: the levelwind is a hydraulically driven and controlled double helix leadscrew with adjustable clutch system; the travel direction is operated by a hydraulic motor mounted to a double beam crossbar; arms raise hydraulically to a working position and held in place by counterbalance valves.
- Motor case drain and brake are protected by pop-off relief valves.
- All chains have removable protection guards.
- Drain plugs: expandable neoprene plugs fully recessed in skid secured with lanyards.
- Outer protection frame: removable four point lift protection frame with two ladders at opposite sides providing access to top of frame. Frame is attached to skid by pins.
- CRW tubing counter for sizes of 1.5-in. through 2.88-in. with slide to compensate for tubing pay-off angle. Counter will measure and read in either feet or meters.
- Internal plumbing is FMC, SPM or MSI 2x2 valves for standard service: non-H2S integral 1502 type fittings rated at 15,000 psi; dual tees for ball launching and wireline adaptation; one (1) each 2 x 2 shutoff valve between swivel and drum core.
- External plumbing FMC, SPM or MSI 2x2 valves for standard service: non-H2S integral 1502 fittings rated at 15,000 psi; dual inlet connections and 2 x 2 shutoff valves between swivel and inlets; one (1) each flange mounted 4:1 deboster to monitor circulating pressure; one (1) each cross for mounting a transducer or introducing inhibitor.
- Bulkhead connections: quick disconnect fittings of customer choice with plastic caps.
- Spray wand lubrication system with 30-gallon lubrication reservoir; fill cap; level gauge; 140 psi relief valve; air regulator; air pressure drain valve; lube drain valve.
- All hydraulic hoses and grease lines are standard climate rated.
- A two point lift system, spreader bar type of arrangement for lifting the entire loaded reel assembly or drum only is provided; solid link design; spreader bar stows against rear frame members and is stamped with SWL.
- Four point non-lifting frame; non-DNV; screw pin anchor shackles; tagged with safe working load.
- Provisions are included for data acquisition, sensor cable, tubing integrity monitors, wireline adaptation or encoder mounts.
- The reel drum is locked into position for transport by means of a ratchet and strap system on one reel flange.
- An FMC 20,000 psi 2-in. bore swivel is mounted with compression face seal; protected by removable steel plate; components exposed to circulating fluids are replaceable.
- Unit will be sandblasted, zined, primed and painted per customer specifications.
- Complete unit assembled and tested for customer acceptance at CRW's Fort Worth, Texas, USA facility.
- Operation and service manual supplied with each unit.