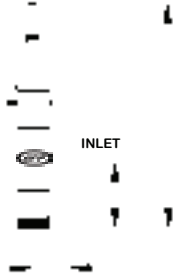




**CACTUS FLOW PRODUCTS's** Adjustable Choke assemblies and Long Nose Heater Choke assemblies are furnished with Hardened Alloy Steel Stems and Seats as Standard Trim for Regular or Standard Service. Stainless Steel or Stainless Steel with Tungsten Carbide Trim Sets for Abrasive and or Sour Gas Service are available on request. **Positive Choke** assemblies are furnished *less flow bean*. **Positive choke** assemblies may be converted to **Adjustable Choke** assemblies by replacing the blanking cap assembly and flow bean with the appropriate adjustable bonnet assembly and seat.

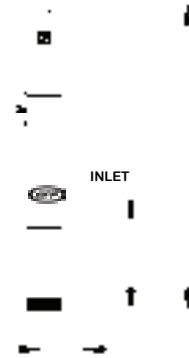


**CP-29 / CP-30**

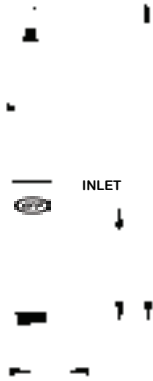
CACTUS Model	Inlet	Outlet	Working Pressure	Orifice Size	Dimensions		
					A	B	C
CP-29	2" FLP	2" MLP	2,000	3/4" & 1"	2.38"	5.31"	16.31"
CP-30	2" FLP	2" MLP	3,000	3/4" & 1"	2.50	5.43"	16.43"
CO-63	3" FLP	3" MLP	3,000	2"	4.25	7.50	25.00"

**FEATURES:**

Simple, Wide range of applications,  
Available w/ stainless steel - tungsten carbide trim,  
Field repairable, Low cost



**CO-63**

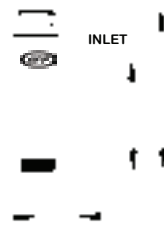


**CN-60**

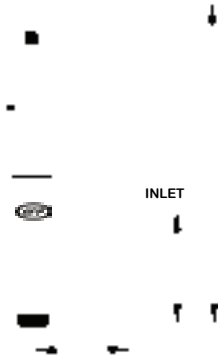
CACTUS Model	Inlet	Outlet	Working Pressure	Orifice Size	Dimensions		
					A	B	C
CN-60	2" FLP	2" MLP	5,000	3/4" & 1"	2.75"	9.00	23.50"
CFT-108	2" FLP	2" MLP	5,000	1" Max	2.75"	9.00	13.00"

**FEATURES:**

Adjustable or Positive, Choice of trim materials,  
Wing nut bonnet & cap for easy field conversion or repair,  
Available with threaded or flanged inlet, Stem lock,  
Indicator in 64ths, Choice of orifice sizes, Renewable seat,  
Available with 1" or 2" threaded ends, Available H2S service,  
Most widely used threaded choke in the industry,  
Replacement parts readily available

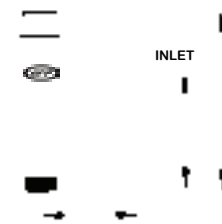


**CFT-108**



**CFT-116A**

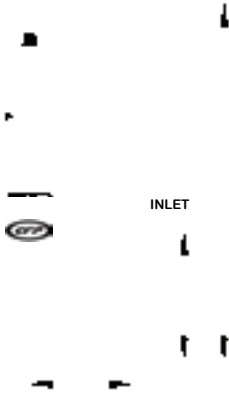
CACTUS Model	Inlet	Outlet	Working Pressure	Orifice Size	Dimensions		
					A	B	C
CFT-116A	2-1/16 5m	2" MLP	5,000	3/4" & 1"	6.63"	9.00"	23.50"
CFT-116P	2-1/16 5m	2" MLP	5,000	1" Max	6.63"	9.00"	13.50"



**CFT-116P**



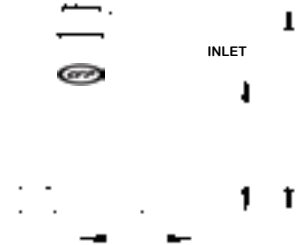
The following Flange Chokes are available in Alloy or Full Stainless Steel  
 Available for Standard Service or H2S Service  
 Standard, Stainless Steel or Stainless Steel w/ Tungsten Carbide Trim



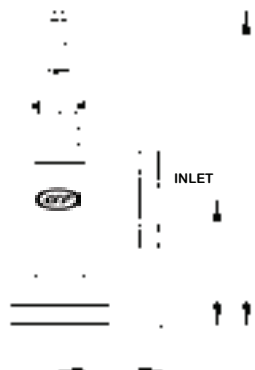
CN-62

CACTUS Model	Flange Size Inlet & Outlet	Working Pressure	Orifice Size	Dimensions		
				A	B	C
CN-62 CT-1	2-1/16" 2m 2-1/16" 2m	2,000 2,000	3/4" & 1" 1" Max	7.50" 7.50"	9.38" 9.38"	24.38" 14.50"
CN-62 CT-1	2-1/16" 5m 2-1/16" 5m	5,000 5,000	3/4" & 1" 1" Max	7.50" 7.50"	9.38" 9.38"	24.38" 13.88"
CN-62 CT-1	150 ANSI RF 150 ANSI RF	275 275	3/4" & 1" 1" Max	7.50" 7.50"	9.38" 9.38"	24.38" 14.13"
CN-62 CT-1	300 ANSI RF 300 ANSI RF	720 720	3/4" & 1" 1" Max	7.50" 7.50"	9.38" 9.38"	24.38" 14.13"
CN-62 CT-1	600 ANSI RF 600 ANSI RF	1,440 1,440	3/4" & 1" 1" Max	7.50" 7.50"	9.38" 9.38"	24.38" 14.13"

ANSI R.T.J. available on request

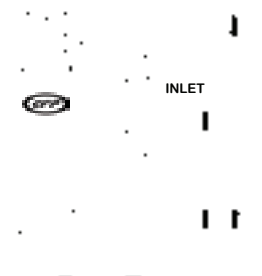


CT-1

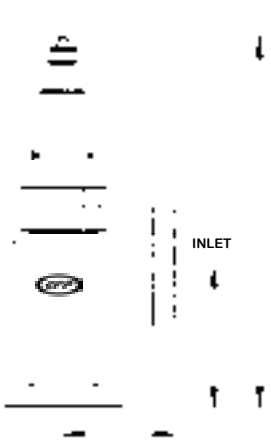


CJWA

CACTUS Model	Flange Size Inlet & Outlet	Working Pressure	Orifice Size	Dimensions		
				A	B	C
CJWA CPC	2-1/16" 5m 2-1/16" 5m	5,000 5,000	3/4" & 1" 1" Max	7.50" 7.50"	9.38" 9.38"	20.81" 14.13"
CJWA CPC	1-13/16" 10m 1-13/16" 10m	10,000 10,000	3/4" & 1" 1" Max	7.50" 7.50"	9.19" 9.19"	21.06" 14.13"
CJWA CPC	2-1/16" 10m 2-1/16" 10m	10,000 10,000	3/4" & 1" 1" Max	7.50" 7.50"	9.38" 9.38"	21.38" 16.31"
CJWA CPC	1-13/16" 15m 1-13/16" 15m	15,000 15,000	3/4" & 1" 1" Max	7.38" 7.38"	10.13" 10.13"	26.06" 18.88"
CJWA CPC	2-1/16" 15m 2-1/16" 15m	15,000 15,000	3/4" & 1" 1" Max	7.38" 7.38"	10.13" 10.13"	26.06" 18.88"



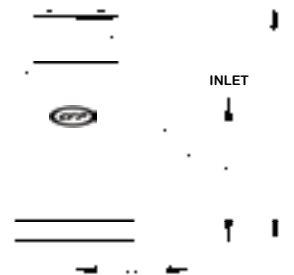
CPC



CH-22A

CACTUS Model	Flange Size Inlet & Outlet	Working Pressure	Orifice Size	Dimensions		
				A	B	C
CH-22A CH-22P	3-1/8" 3m 3-1/8" 3m	3,000 3,000	1", 1-3/4" & 2" 2" Max	8.88" 8.88"	11.38" 11.38"	30.00" 18.50"
CH-22A CH-22P	2-1/16" 5m 2-1/16" 5m	5,000 5,000	1", 1-3/4" & 2" 2" Max	7.50" 7.50"	9.38" 9.38"	30.00" 18.50"
CH-22A CH-22P	2-9/16" 5m 2-9/16" 5m	5,000 5,000	1", 1-3/4" & 2" 2" Max	8.88" 8.88"	11.38" 11.38"	30.00" 18.50"
CH-22A CH-22P	3-1/8" 5m 3-1/8" 5m	5,000 5,000	1", 1-3/4" & 2" 2" Max	8.88" 8.88"	11.38" 11.38"	30.00" 18.50"
CH-22A CH-22P	2-9/16" 10m 2-9/16" 10m	10,000 10,000	1", 1-3/4" & 2" 2" Max	10.38" 10.38"	11.75" 11.75"	30.25" 18.75"
CH-22A CH-22P	3-1/16" 10m 3-1/16" 10m	10,000 10,000	1", 1-3/4" & 2" 2" Max	10.38" 10.38"	11.75" 11.75"	30.25" 18.25"

CH-21 1"Max Style Chokes are available in 2000 - 15000 working pressure.  
 2" Max orifice chokes are also available with 3" ANSI 150 - ANSI 2500 R.F. or R.T.J.

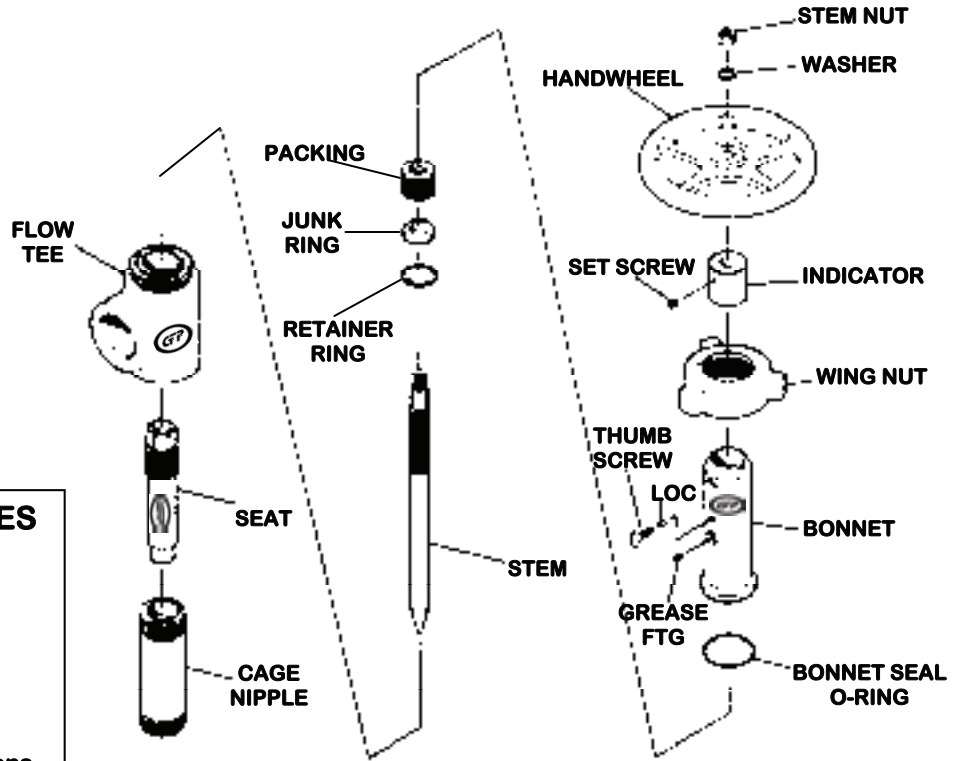


CH-22P



TYPICAL PARTS ORDERING INFORMATION

ADJUSTABLE CHOKES



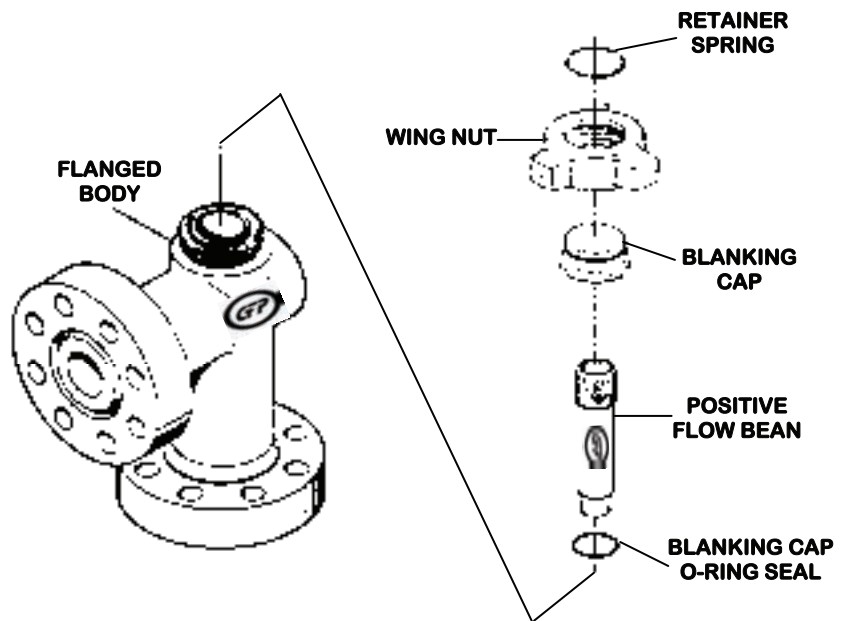
Typical Threaded Adjustable Choke

TIPS TO ORDER CHOKES

1. Type of Choke - "Positive or Adjustable"
2. Specify Working Pressure.
3. Type of Inlet & Outlet Connections, Size and Pressure Rating.
4. Specify Trim Size (Orifice Required)
5. Trim Material - "Alloy Steel, Stainless Steel, Stainless Steel / Tungsten Carbide"
6. Specify Heater Choke if applicable.

Positive Choke assemblies are furnished *less* Flow Bean.

POSITIVE CHOKES

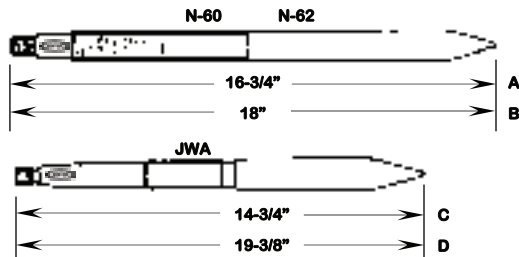


Typical Flanged End Positive Choke

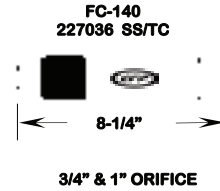


**CACTUS FLOW PRODUCTS** offers *Stems, Seats and Trim Sets* in the following:  
**HARDENED ALLOY STEEL — STAINLESS STEEL — STAINLESS STEEL w/ TUNGSTEN CARBIDE**

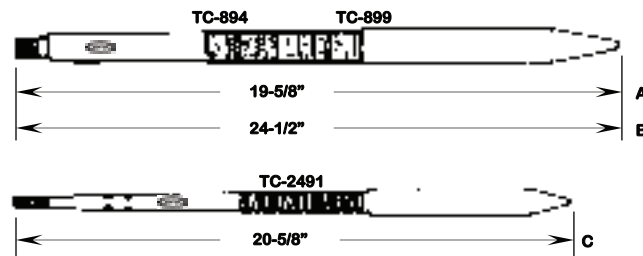
**OIL CENTER TOOL**



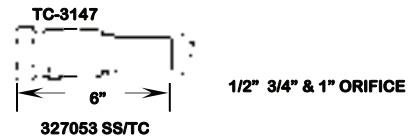
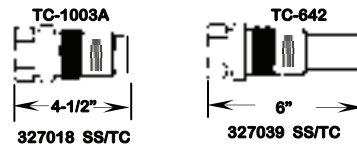
- A— 16-3/4" 0-60 / N-60 / FT-116A 226336 SS/TC
- B— 18" N-62 226436 SS/TC
- C— 14-3/4" JWA 5m / 10m 226546 SS/TC
- D— 19-3/8" JWA 15m 226646 SS/TC



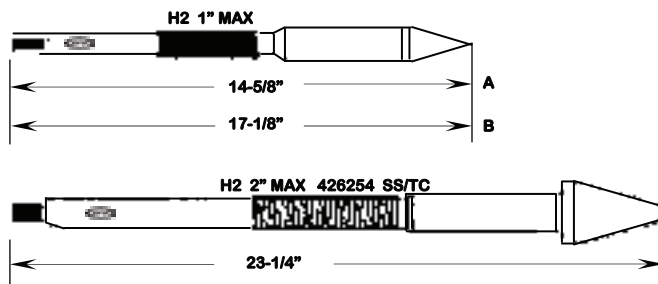
**THORNHILL-CRAVER**



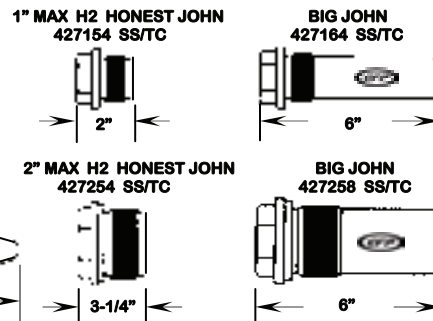
- A— 19-5/8" TC-894 3m / 5m / 10m 326012 SS/TC
- B— 24-1/2" TC-899 3m / 5m / 10m HEATER 326032 SS/TC
- C— 20-5/8" TC-2491 15m HEATER 326042 SS/TC



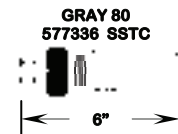
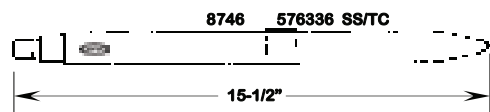
**CAMERON IRON WORKS**



- A— 14-5/8" H2 1" MAX 3m / 5m / 10m 426154 SS/TC
- B— 17-1/8" H2 1" MAX 15m 426164 SS/TC



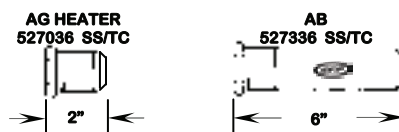
**GRAY TOOL COMPANY**



**GULFCO**



- A— 14" AB-75 & AB-100 526336 SS/TC
- B— 21" AG-75 & AG-100 HEATER 526346 SS/TC



**STEMS, SEATS & OTHER TRIM SETS FOR O.E.M.'s ARE AVAILABLE ON REQUEST**

ALL DIMENSIONS ARE APPROXIMATE

CFP's PART # ARE FOR 3/4" SS/TC TRIM UNLESS NOTED



**CACTUS FLOW PRODUCTS** offers *Positive Flow Beans* with the following liners:

<b>CERAMIC</b>	6" insert	Orifice sizes 4/64" — 48/64"
<b>TUNGSTEN CARBIDE</b>	1" insert	Orifice sizes 4/64" — 128/64"
<b>TUNGSTEN CARBIDE</b>	6" insert	Orifice sizes 4/64" — 128/64"

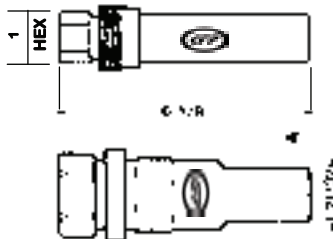
Available in ALLOY STEEL or STAINLESS STEEL jackets



**OIL CENTER TOOL**

**"FC-140"**

CFP #2530xx AS/CER



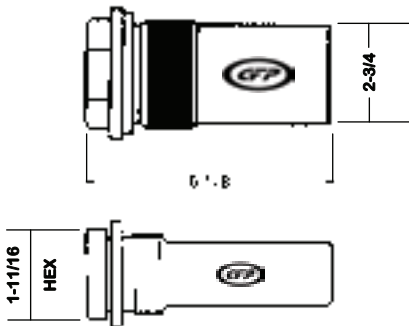
**THORNHILL-CRAVER**

**"TC-1017"**

CFP # 3539xx AS/CER

**"TC-1003 P"**

CFP #3530xx AS/CER



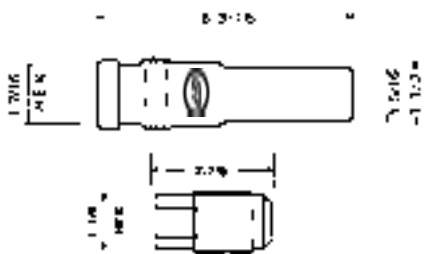
**CAMERON IRON WORKS**

**"BIG JOHN 2" MAX**

CFP #453xxx AS/CER

**"BIG JOHN 1" MAX**

CFP #4531xx AS/CER



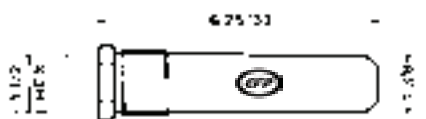
**GRAY TOOL COMPANY**

**"GRAY 80"**

CFP #5530xx AS/CER

**"GRAY 40"**

CFP #5534xx AS/CER



**GULFCO**

**"RB"**

CFP #5630xx AS/CER



**NATIONAL SUPPLY**

CFP #5730xx AS/CER



**Mc EVOY & HUGH ATLAS**

**"R"**

CFP #4630xx AS/CER

ALL DIMENSIONS ARE APPROXIMATE



**FLOW BEANS**

**OIL CENTER TOOL**

**FC-142 P**  
CFP #2505xx  
20/64" MAX

**THORNHILL-CRAVER**

**TC-575 "X"**  
CFP #3505xx  
14/64" MAX

**CAMERON IRON WORKS**

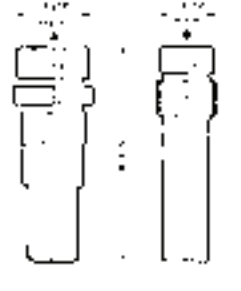
**HONEST JOHN**  
CFP #4505xx  
40/64" MAX

ALLOY STEEL



**MASTER BEANS**

ALLOY STEEL



**FC-141**  
CFP #250141

**TC-574**  
CFP #350574

**TC-573**  
CFP #350573

**BIG JOHN 1" MAX**  
CFP #350101

**CAMERON IRON WORKS**

**FLOW BEAN ADAPTERS**

ALLOY STEEL  
STAINLESS STEEL

BJ 2" MAX x BJ 1" MAX  
CFP #450102



BJ 2" MAX x OCT FC-140  
CFP #450140



**FLOW BEAN WRENCHES**

**OCT FC-140**  
CFP #239012

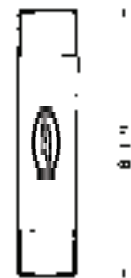
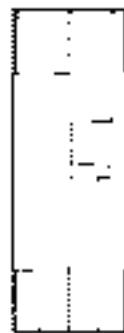
**OCT FC-143**  
CFP #239015

OTHER WRENCHES ALSO AVAILABLE

**CAGE NIPPLES**

**CHOKE NIPPLES**

ALLOY STEEL



OCT  
"FC140"  
CFP #229011

THORNHILL  
CRAVER  
"TC-1018"  
CFP #329018

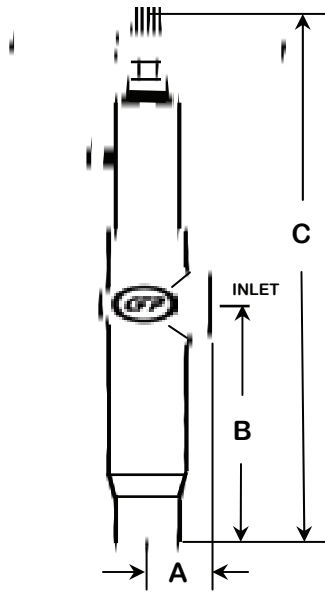
Mc EVOY  
"R"  
CFP #459017

CHOKE NIPPLES  
1" x 4" 1" x 6"  
2" x 6"

ALL DIMENSIONS ARE APPROXIMATE



**LONG NOSE HEATER CHOKES**



**ECONOMY LONG NOSE HEATER CHOKE**

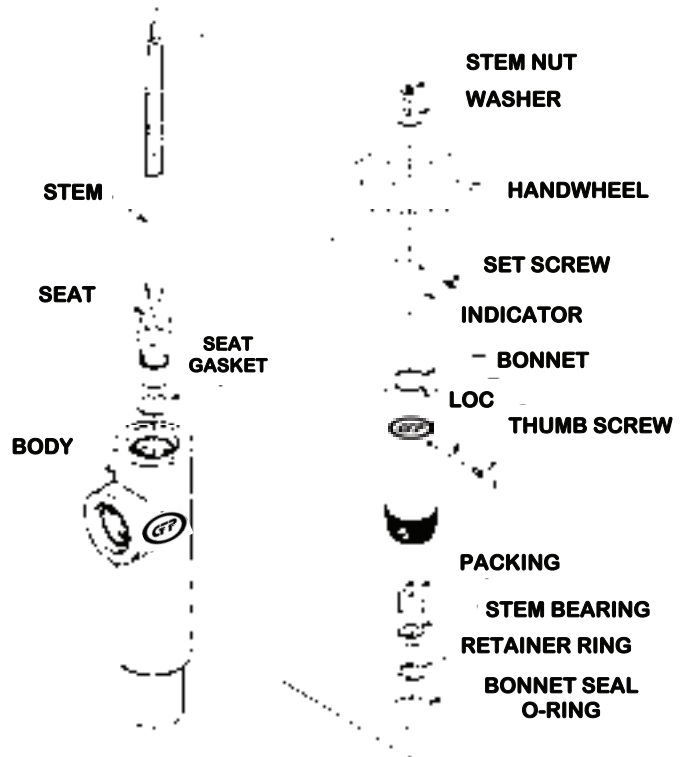
CACTUS Model	Inlet	Outlet	Working Pressure	Orifice Size	Dimensions		
					A	B	C
C65-LHC C65-SHC	2" FLP 2" SW	2" FLP 2" SW	6,500 6,500	1/2", 3/4" & 1" 1/2", 3/4" & 1"	3.25" 3.25"	12.25" 12.25"	28.50" 28.50"
C78-LHC C78-SHC	2" FLP 2" SW	2" FLP 2" SW	7,800 7,800	1/2", 3/4" & 1" 1/2", 3/4" & 1"	3.25" 3.25"	12.25" 12.25"	28.50" 28.50"

**FEATURES:**

- High Quality at very Competitive Price
- Available for NACE service
- Threaded bonnet w/ o-ring seal, Safety pressure relief vent in body
- Grease fitting provided in bonnet for stem lubrication
- Available for Diaphragm Actuator configuration
- Standard, Stainless Steel or Stainless steel w/ Tungsten Carbide trim
- Butt - Weld inlet and outlet available on request
- 100% Compatible with "Thornhill - Craver" Economy Heater Chokes
- Proven trouble-free design in countless installations
- Standard 4" Body Barrel

**TYPICAL PARTS ORDERING INFORMATION**

**LONG NOSE HEATER CHOKE**

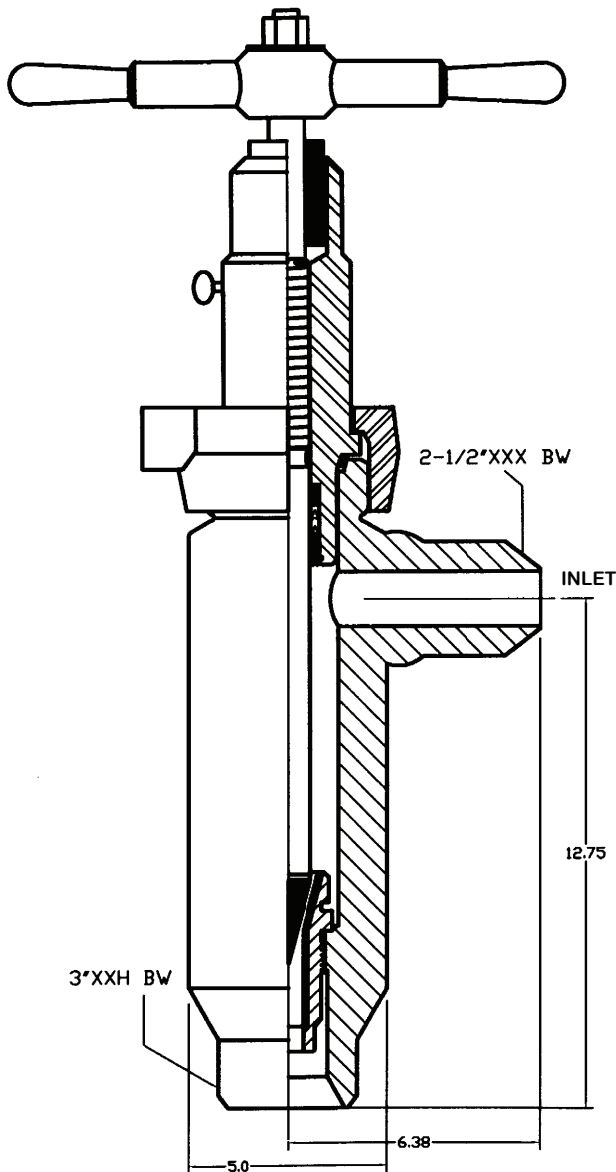


Typical Threaded Long Nose Heater Choke



**CACTUS FLOW PRODUCTS's "Long Nose Heater Choke"** uses the principle of the additional length of the choke body when installed on an indirect fired heater. The outlet of the choke is attached directly to the tubing coils inside of the heater, allowing the choke seat area to be immersed into the heated water bath of the heater. The heat generated by the water bath minimizes the severe refrigerating action when high pressure natural gas is metered through a small orifice.

### CACTUS 10,000 CWP LONG NOSE HEATER CHOKE



#### WORKING PRESSURE

10,000 NSCWP

#### END CONNECTIONS

2-1/2" XXX BW INLET x 3"XX BW OUTLET

#### ORIFICE SIZE

1/2" 3/4" 1"

#### TRIM MATERIAL

STAINLESS STEEL w/ TUNGSTEN CARBIDE

#### FEATURES:

- Metal Bonnet to Body Seal
- Available for NACE service
- Flanged end connections on request
- High Quality at very Competitive Price
- Lubrication fitting in bonnet for stem maintenance
- Available for Diaphragm Actuator configuration
- Stainless Steel w/ Tungsten Carbide Trim
- All internal parts compatible with "Thornhill - Craver"
- Standard 5" diameter Body Barrel

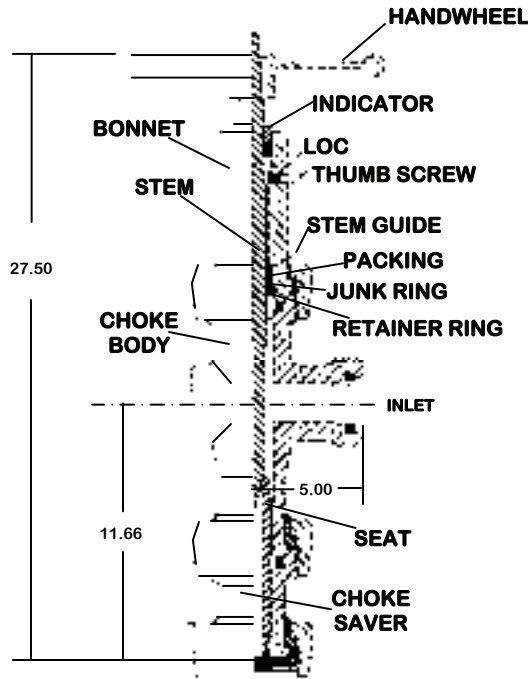
CACTUS ALSO OFFERS A 15,000 CWP LONG NOSE HEATER





CACTUS FLOW PRODUCTS offers our "TARGET" Adjustable Choke with the following:

**TARGET  
ADJUSTABLE  
CHOKE  
w/ 2" 1502  
HAMMER UNION  
CONNECTIONS**



**WORKING PRESSURE**

10,000 & 15,000 NSCWP

**END CONNECTIONS**

2" Fig 1502 HAMMER UNION

**ORIFICE SIZE**

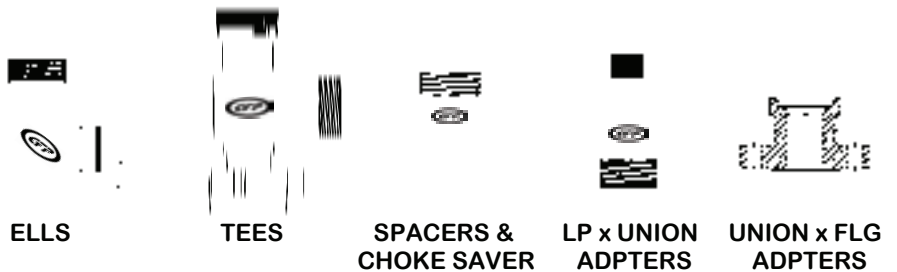
3/4" STD - 1" MAX

**TRIM MATERIAL**

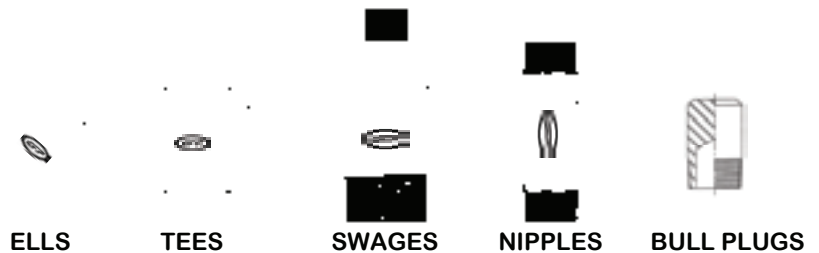
STAINLESS STEEL w/  
TUNGSTEN CARBIDE  
(SEAT IS FULL LINED)

TARGET Adjustable Choke assembly may be converted to a TARGET Positive Choke assembly by replacing the bonnet assembly and seat with the appropriate blanking cap assembly and flow bean.

**HAMMER UNION  
FITTINGS & ADAPTERS**



**THREADED  
FITTINGS & ADAPTERS**



CACTUS FLOW PRODUCTS Offers Mud Nipples & Nozzles with the following 1" liners:  
CERAMIC & TUNGSTEN CARBIDE  
Stock 1/4", 3/8", 1/2", 5/8", & 3/4"

**MUD GUN  
NOZZLES**

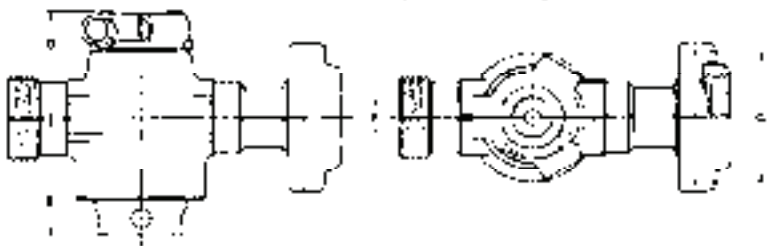
ALLOY  
STAINLESS STEEL





**TARGET PLUG VALVE**

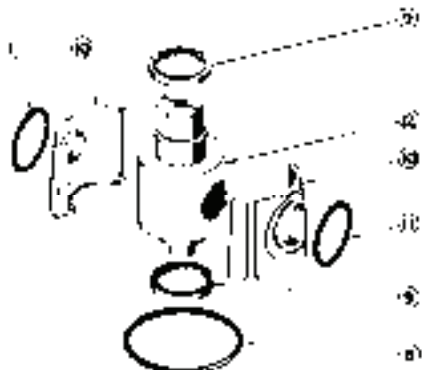
**FEATURES:**  
 Proven Design for  
 Manifolding and Controlling High Pressure  
 Fracturing, Acidizing, and Cementing  
 Flowback and Well-Testing  
 Low Torque - 1/4 Turn for open or close  
 Available Union, Threaded, or Flange Ends  
 Parts Interchange with other like OEM's  
 Pneumatic or Hydraulic Actuators are available  
 Available for H2S (NACE) Service  
 In-Line Maintenance or Repair



TARGET VALVE SPECIFICATIONS

VALVE SIZE	END CONNECTIONS	WORKING PRESSURE	SERVICE	Wt LBS	A	D	E	F	G
1"	1" 1502 FxM	15,000	STANDARD	42	10.56	4.69	4.56	1.00	5.38
1"	2" 1502 FxM	15,000	STANDARD	52	10.56	4.69	4.56	1.00	5.38
2"	2" 1502 FxM	15,000	STANDARD	97	13.88	5.34	5.50	2.06	7.00
2"	2"LP FEMALE	10,000	STANDARD	75	8.50	5.34	5.50	2.06	7.00

AVAILABLE FOR H2S SERVICE



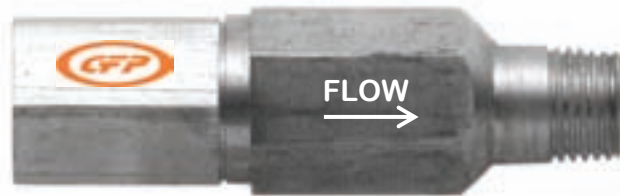
TARGET VALVE Replacement Parts List

No.	Description	Qty	Std Service	H2S Service
8	Adj Nut O-Ring	1	Buna N	Nitrile
9	Plug Stem Seal	2	Buna N	Nitrile
10	Inserts (2 per set)	1	Ductile Iron	Ni Alum Brz
11	Insert O-Ring	2	Buna N	Nitrile
12	Plug	1	17-4 PH	17-4 PH
	Seal Kit 8,9,11	1		
	Repair Kit 8-12	1		



**CACTUS FLOW PRODUCTS** offers our In-Line Check Valves that are suitable for air, gas, vapor, and liquid. Applications include Flow Lines and or Injection Lines such as Chemical or Lubrication. Body material choices of Brass or Stainless Steel. Ball and Spring are Stainless Steel as standard.

**IN - LINE CHECK VALVES**



Inlet	Outlet	Body Material	Working Pressure
1/8" FNPT	1/8" MNPT	BRASS	3,000 PSI MAX
1/8" FNPT	1/8" MNPT	STAINLESS STEEL	6,000 PSI MAX
1/4" FNPT	1/4" MNPT	BRASS	3,000 PSI MAX
1/4" FNPT	1/4" MNPT	STAINLESS STEEL	6,000 PSI MAX

Buna O-Ring Seal is standard, Viton O-Ring Seal is available on request.  
 Stainless Steel Ball and Spring are standard.  
 Other sizes are available on request.  
 Available in Female x Female Ends

**Typical In-Line Check Valve**

