

The INVALCO Series 550 Choke is used typically in indirect heaters, but can be used in any application requiring a long nose choke design. Long Nose Chokes are primarily used to expand high-pressure gas inside the flow coil of indirect heaters. The "long nose" name is derived from the fact the outlet section of the angle-type body is extended permitting the choke orifice area to be immersed within the indirect heater bath. The heat generated in this manner minimizes the formation of hydrates, which occurs as high pressure gas expands.

Three orifice sizes are available and each is adjustable from full-open to full-closed in 1/64<sup>th</sup> graduations. This is accomplished via the precision micrometer orifice adjustment incorporated into the handwheel assembly. A thumb-screw/lockshoe device is provided to lock the stem position in place preventing accidental movement.

To provide safety to maintenance personnel, the body employs a safety bleed vent.

## Features/Benefits

- **Long Nose Design** - Reduces the chance of freeze-ups.
- **Nace Adaptable** - Can be modified to meet requirements of NACE MR-0175-2003

## General Specifications

### Body Material

Forged Steel A-216 Grade WCB

### End Connections

2" XXH Socket Weld

### Body Cover

Carbon Steel

### Packing

Non-lubricated Buna-N

### Maximum Working Pressure

7800 PSI

### Plug and Seat

See Schedule on back



**Series 550 Socket Weld Long Nose Choke**

## Ordering Information

### 2" Socket Weld

Model Number	Max. Working Pressure	Trim Size	Tapered Trim Part Number		Weight (lbs.)
			HA*	Carbide	
WKLNSWA-278-550	7800 psi	1/2"	C/F	C/F	90
		3/4"	C/F	C/F	
		1"	P523169	P523458	

\* HA is Hardened Alloy

To order specify model number and part number.

## Gas Capacity in MMSCF/day Operated at Critical Flow

Upstream Pressure	Orifice Size		
	1/2"	3/4"	1"*
1000 psi	6	14	15
2000 psi	12	29	32
3000 psi	19	44	47
4000 psi	25	58	58
Cg**	151	315	500
Cv	5	12	20

\*Capacity limited by erosion of body.

\*\*For non-critical flow, see chart, Bulletin SSIV025  
1. Cv and Cg values are for fully open inner valve.

## Parts Information

---

### Trim Chart

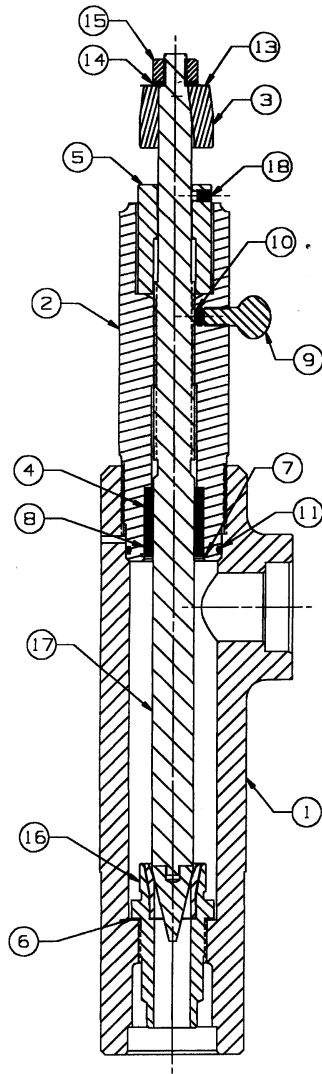
Orifice Size	Material	Part Number		
		Indicator Dial*	Stem/Plug	Seat
1/2"	Hardened Alloy	C/F	C/F	C/F
3/4"		C/F	C/F	C/F
1"		P517926	P522179	P522189
1/2"	Carbide	C/F	C/F	C/F
3/4"		C/F	C/F	C/F
1"		P517926	P523455	P523456

\*Indicator dial size must coincide with stem and seat size.

### 2" Long Nose Choke Sub-Assemblies

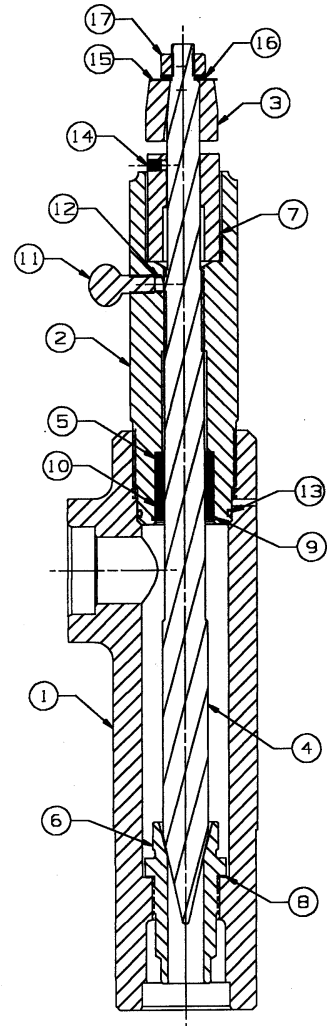
Description	Trim Size	Part Numbers	
		HA	Carbide
Handwheel assembly, Includes Handwheel, Hex Nut, Stem, Packing Seals, Indicator Dial, Body Cover, Screws, and Washers	1/2"	C/F	C/F
	3/4"	C/F	C/F
	1"	C/F	C/F
Body, 2" XXH Socket Weld	1/2"	P521629	P521629
	3/4"	P521629	P521629
	1"	P521629	P521629

## Parts



CARBIDE

Item	Part Number	Description	Qty.
1	P521629	BODY	1
2	P521672	BODY COVER	1
3	P521628	HANDLE	1
4	P522484	PACKING	1
5	P517926	INDICATOR	1
6	45005536	SEAT GASKET	1
7	79005516	RETAINING RING	1
8	45005506	PACKING FOLLOWER	1
9	45005515	THUMBSCREW	1
10	45005518	LOCK SHOE	1
11	A90-229	O-RING 229 BUNA-N	1
12	45314070	SERIAL TAG (NOT SHOWN)	1
13	45012811	CAUTION TAG	1
14	65005461	WASHER 5/8	1
15	65002136	HEX NUT 5/8	1
16	P523456	SEAT ASSEMBLY	1
17	P523455	STEM ASSEMBLY	1



HARDENED ALLOY

Item	Part Number	Description	Qty.
1	P521629	BODY	1
2	P521672	BODY COVER	1
3	P521628	HANDLE	1
4	P522179	STEM	1
5	P522484	PACKING	1
6	P522189	SEAT	1
7	P517926	INDICATOR	1
8	45005536	SEAT GASKET	1
9	79005516	RETAINING RING	1
10	45005506	PACKING FOLLOWER	1
11	45005515	THUMBSCREW	1
12	45005518	LOCK SHOE	1
13	A90-229	O-RING 229 BUNA-N	1
14	65005610	SET SCREW 5/16	1
15	45012811	CAUTION TAG	1
16	65005461	WASHER 5/8	1
17	65002136	HEX NUT 5/8	1
18	45314070	SERIAL TAG (NOT SHOWN)	1

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacture that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

USA Operation  
1602 Wagner Avenue  
Erie, Pennsylvania 16510 USA  
P: +1 814.898.5000

Germany Operation  
Smith Meter GmbH  
Regentstrasse 1  
25474 Ellerbek, Germany  
P: +49 4101 304.0