



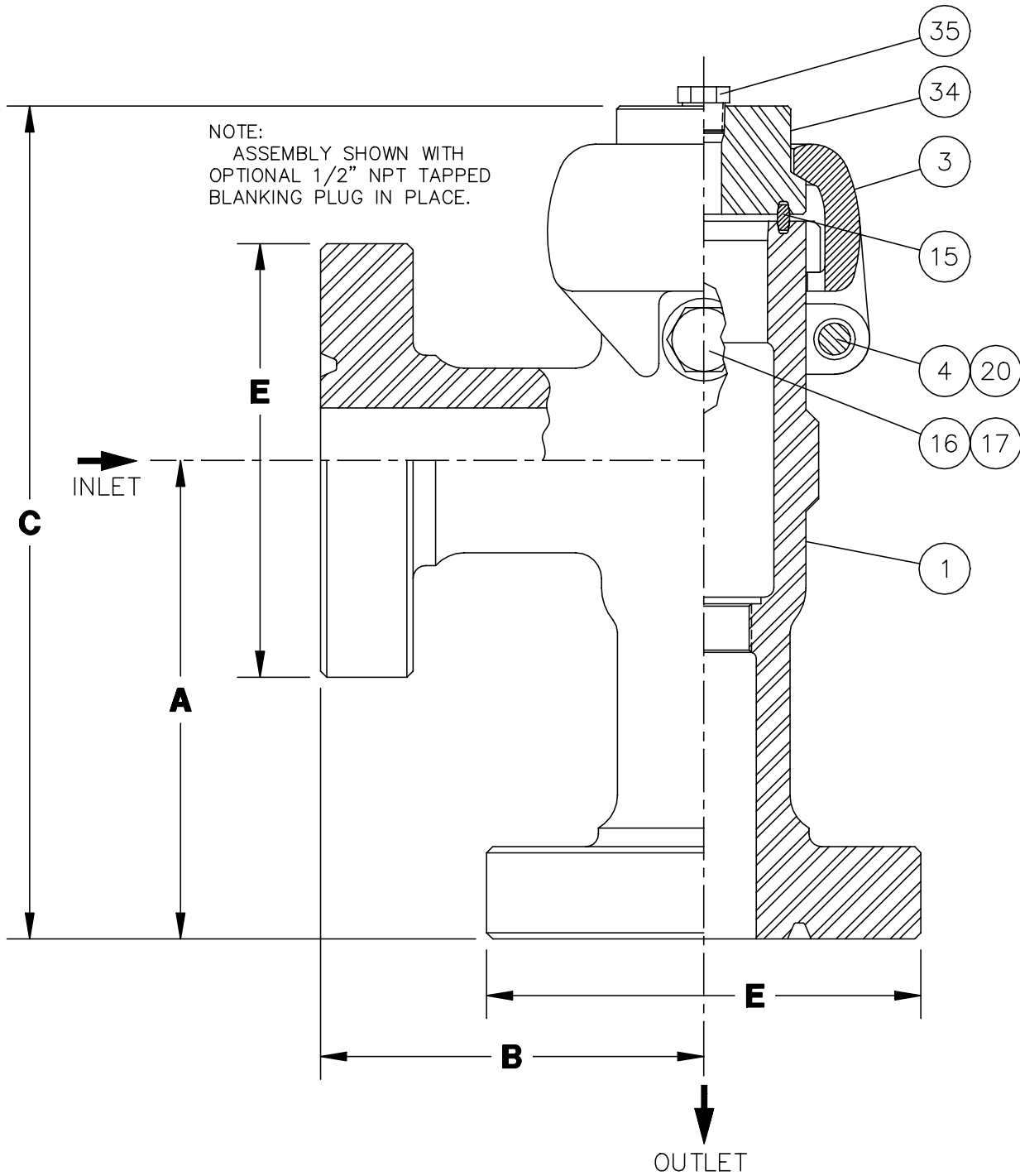
SUBMITTAL DATA SHEETS  
THORNHILL-CRAVER CHOKES

T-1  
07-16-99

POSITIVE CHOKES w/RING GROOVE SEAL

2" 3/5M UNIBOLT CHOKE - API FLANGED INLET & OUTLET .....	T-51	07-16-99
- ANSI RF FLANGED INLET & OUTLET .....	T-52	07-16-99
- ANSI RTJ FLANGED INLET & OUTLET .....	T-53	07-16-99
- FLANGED INLET & UNIBOLT OUTLET .....	T-54	07-16-99
- THREADED INLET & UNIBOLT OUTLET .....	T-55	07-16-99
- UNIBOLT INLET & OUTLET .....	T-56	07-16-99
2" 10M UNIBOLT CHOKE - API FLANGED INLET & OUTLET .....	T-57	07-16-99
- API FLANGED INLET & UNIBOLT OUTLET .....	T-58	07-16-99
- UNIBOLT INLET & OUTLET .....	T-59	07-16-99

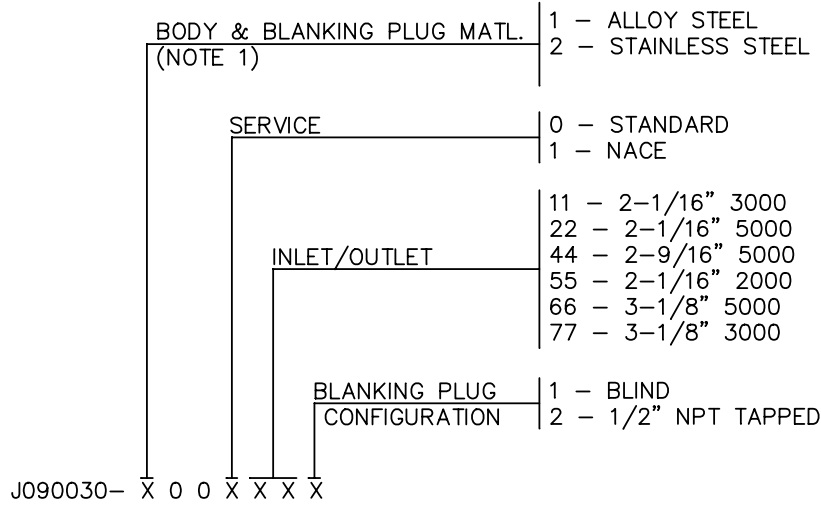
**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
API FLANGED INLET & OUTLET**



**DIMENSIONS**

FLG SIZE	2-1/16"			2-9/16"	3-1/8"	
DIMENSION	2000	3000	5000	5000	3000	5000
A - OUTLET	9.31	9.38	9.38	10.25	10.56	11.12
B - INLET	6.38	7.50	7.50	7.50	7.06	8.62
C	16.26	16.33	16.33	17.20	17.51	18.08
E - FLANGE O.D.	6.50	8.50	8.50	9.62	9.50	10.50
STUD SIZE (QTY)	.62(8)	.88(8)	.88(8)	1.00(8)	.88(8)	1.12(8)
RING NUMBER	R-23	R-24	R-24	R-27	R-31	R-35

## ASSEMBLY PART NUMBER



### PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J090030	
1	1	BODY - 2-1/16" 3000	J093286-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 2-1/16" 5000	J093088-X0X	-101 ALLOY STEEL (NACE SERVICE)
		- 2-9/16" 5000	J090002-X0X	-002 STAINLESS STEEL (STANDARD SERVICE)
		- 2-1/16" 2000	J091753-X0X	-102 STAINLESS STEEL (NACE SERVICE)
		- 3-1/8" 5000	J091745-X0X	
		- 3-1/8" 3000	J091749-X0X	
3	1	NUT MEMBER	J090006	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32068	STEEL
15	1	SEAL RING	J090044-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD.	J090017	STAINLESS STEEL
		- NACE	J090764	STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	2	NUT	2709000-07-01	STEEL
34	1	BLANKING PLUG - BLIND	J090027-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 1/2" NPT TAPPED	J090028-X0X	-101 ALLOY STEEL (NACE SERVICE)
				-002 STAINLESS STEEL (STANDARD SERVICE)
				-102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

**NOTE:**

1. Body material determines Seal Ring & Pipe Plug material.

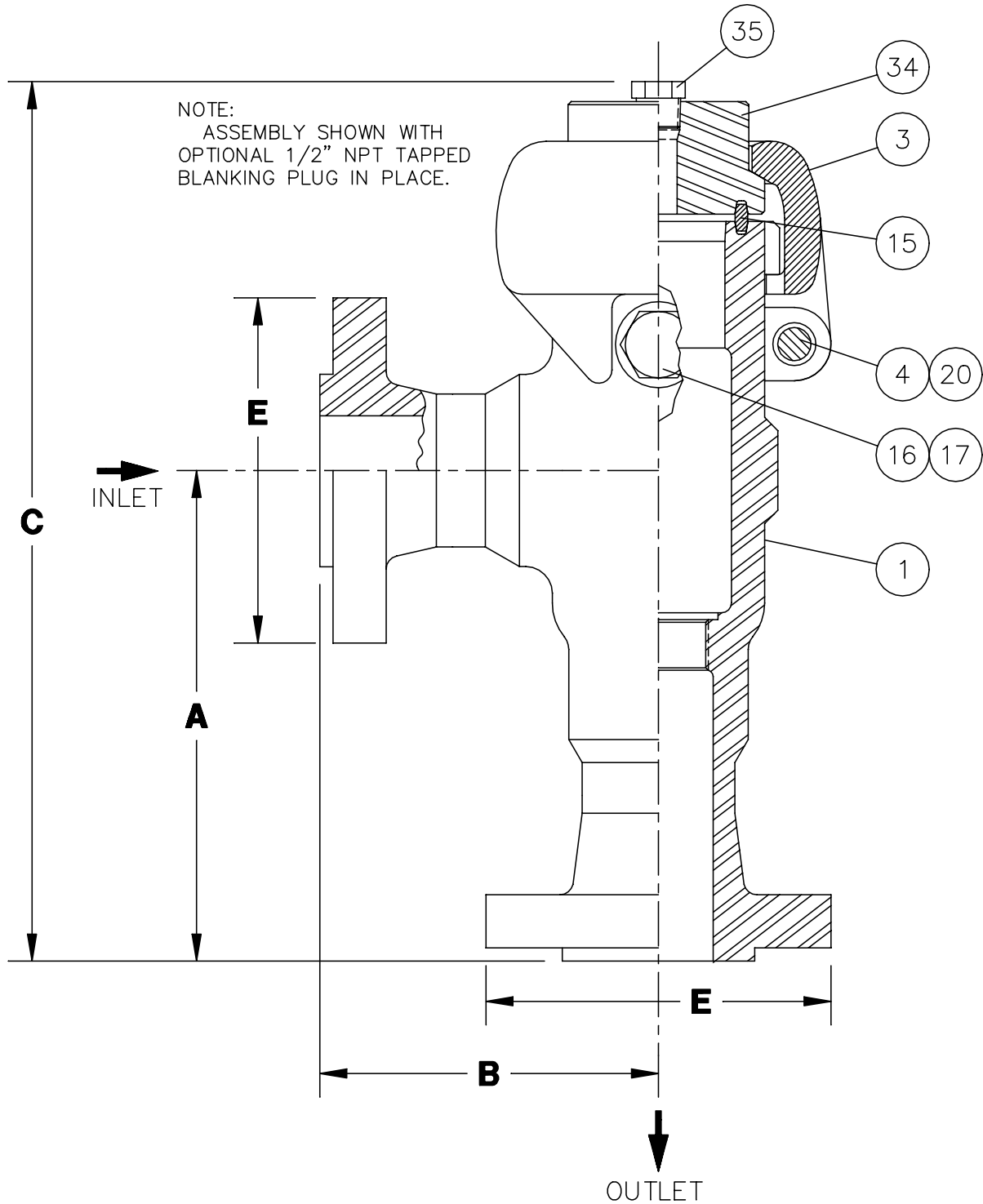
### FLOW BEANS

(Ordered separately)

Nominal bore diameter in 1/64 of an inch  
(Example: J0XXXXX-007 = 7/64" bore)

FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL w/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL

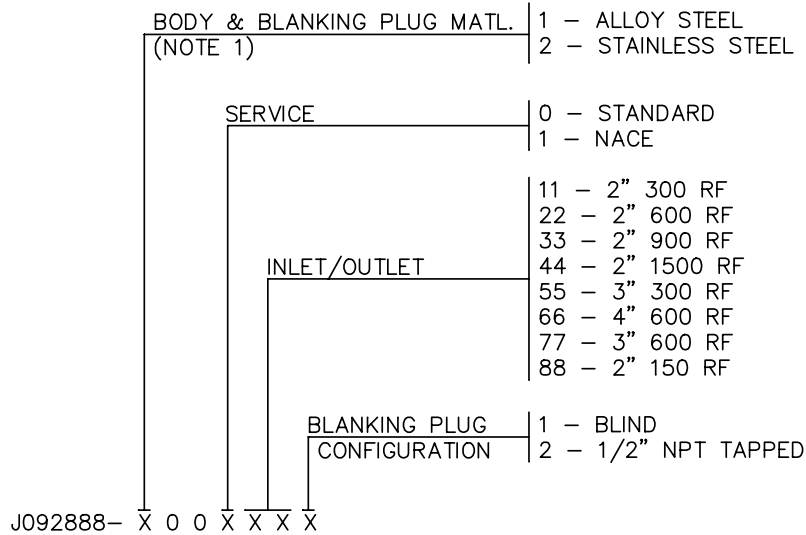
**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
ANSI RF FLANGED INLET & OUTLET**



**DIMENSIONS**

FLG SIZE	2"					3"		4"
DIMENSION	150	300	600	900	1500	300	600	600
A - OUTLET	8.62	8.88	9.32	9.38	9.38	9.25	9.75	10.44
B - INLET	5.88	6.62	6.38	7.50	7.50	7.25	7.56	8.44
C	15.50	15.75	16.19	16.25	16.25	16.13	16.63	17.31
E - FLANGE O.D.	6.00	6.50	6.50	8.50	8.50	8.25	8.25	10.75
STUD SIZE (QTY)	.62(4)	.62(8)	.62(8)	.88(8)	.88(8)	.75(8)	.75(8)	.88(8)

# ASSEMBLY PART NUMBER



## PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J092888	
1	1	BODY - 2" 300 RF	J091740-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 2" 600 RF	J091733-X0X	-101 ALLOY STEEL (NACE SERVICE)
		- 2" 900 RF	J091754-X0X	-002 STAINLESS STEEL (STANDARD SERVICE)
		- 2" 1500 RF	J093314-X0X	-102 STAINLESS STEEL (NACE SERVICE)
		- 3" 300 RF	J091738-X0X	
		- 4" 600 RF	J091748-X0X	
		- 3" 600 RF	J091732-X0X	
		- 2" 150 RF	J091752-X0X	
3	1	NUT MEMBER	J090006	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32068	STEEL
15	1	SEAL RING	J090044-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD.	J090017	STAINLESS STEEL
		- NACE	J090764	STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	2	NUT	2709000-07-01	STEEL
34	1	BLANKING PLUG - BLIND	J090027-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 1/2" NPT TAPPED	J090028-X0X	-101 ALLOY STEEL (NACE SERVICE)
				-002 STAINLESS STEEL (STANDARD SERVICE)
				-102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

**NOTE:**

1. Body material determines Seal Ring & Pipe Plug material.

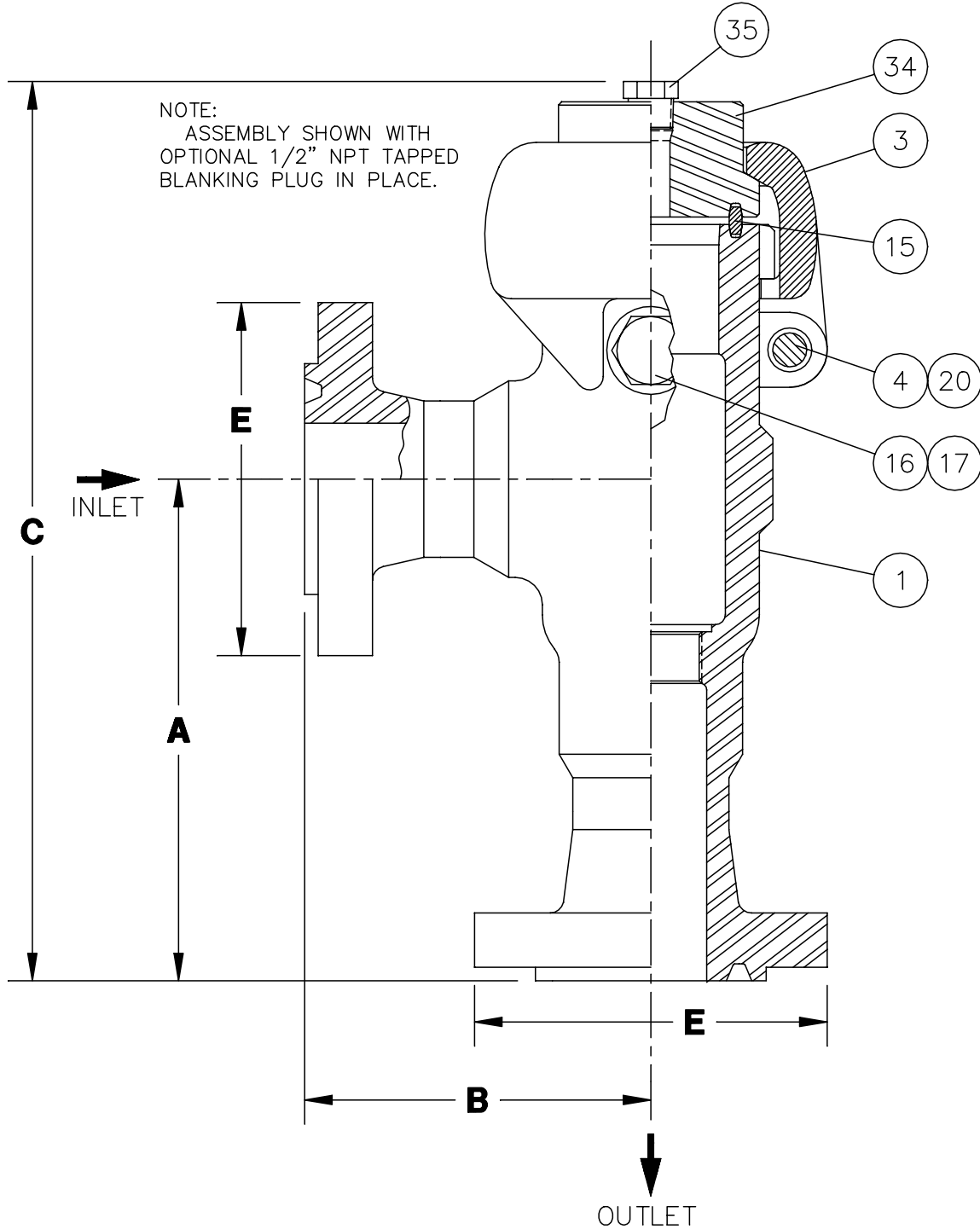
### FLOW BEANS

(Ordered separately)

Nominal bore diameter in 1/64 of an inch  
(Example: J0XXXXX-007 = 7/64" bore)

FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL W/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL

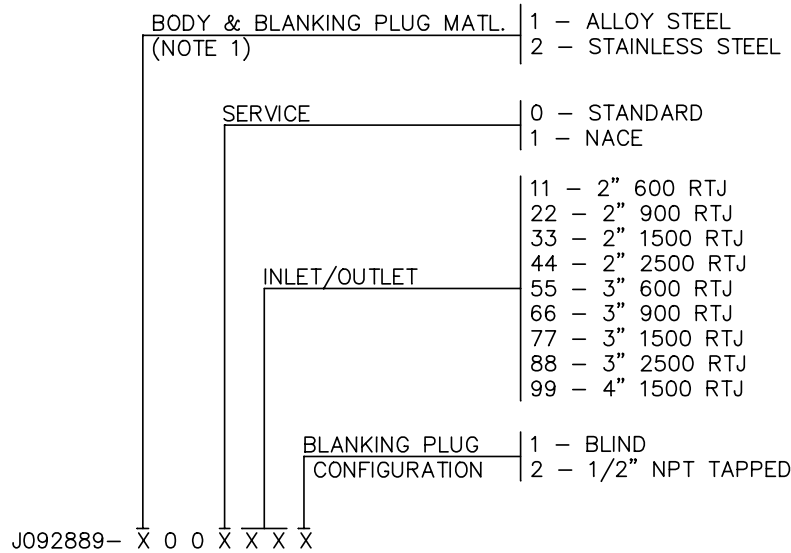
**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
ANSI RTJ FLANGED INLET & OUTLET**



**DIMENSIONS**

DIMENSION \ FLG SIZE	2"				3"				4"
	600	900	1500	2500	600	900	1500	2500	1500
A - OUTLET	9.31	9.38	9.38	10.00	9.75	10.50	11.12	13.12	11.12
B - INLET	6.38	7.50	7.50	7.38	7.50	8.00	8.62	11.00	9.00
C	16.25	16.31	16.31	16.94	16.69	17.50	18.06	20.06	18.06
E - FLANGE O.D.	6.50	8.50	8.50	9.25	8.25	9.50	10.50	12.00	12.25
STUD SIZE (QTY)	.62(8)	.88(8)	.88(8)	1.00(8)	.75(8)	.88(8)	1.12(8)	1.25(8)	1.25(8)
RING NUMBER	R-23	R-24	R-24	R-26	R-31	R-31	R-35	R-32	R-39

# ASSEMBLY PART NUMBER



### PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J092889	
1	1	BODY - 2" 600 RTJ	J091731-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 2" 900 RTJ	J091734-X0X	-101 ALLOY STEEL (NACE SERVICE)
		- 2" 1500 RTJ	J091735-X0X	-002 STAINLESS STEEL (STANDARD SERVICE)
		- 2" 2500 RTJ	J091729-X0X	-102 STAINLESS STEEL (NACE SERVICE)
		- 3" 600 RTJ	J091743-X0X	
		- 3" 900 RTJ	J091751-X0X	
		- 3" 1500 RTJ	J091737-X0X	
		- 3" 2500 RTJ	J091739-X0X	
		- 4" 1500 RTJ	J093294-X0X	
3	1	NUT MEMBER	J090006	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32068	STEEL
15	1	SEAL RING	J090044-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD.	J090017	STAINLESS STEEL
		- NACE	J090764	STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	2	NUT	2709000-07-01	STEEL
34	1	BLANKING PLUG - BLIND	J090027-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 1/2" NPT TAPPED	J090028-X0X	-101 ALLOY STEEL (NACE SERVICE)
				-002 STAINLESS STEEL (STANDARD SERVICE)
				-102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

**NOTE:**

1. Body material determines Seal Ring & Pipe Plug material.

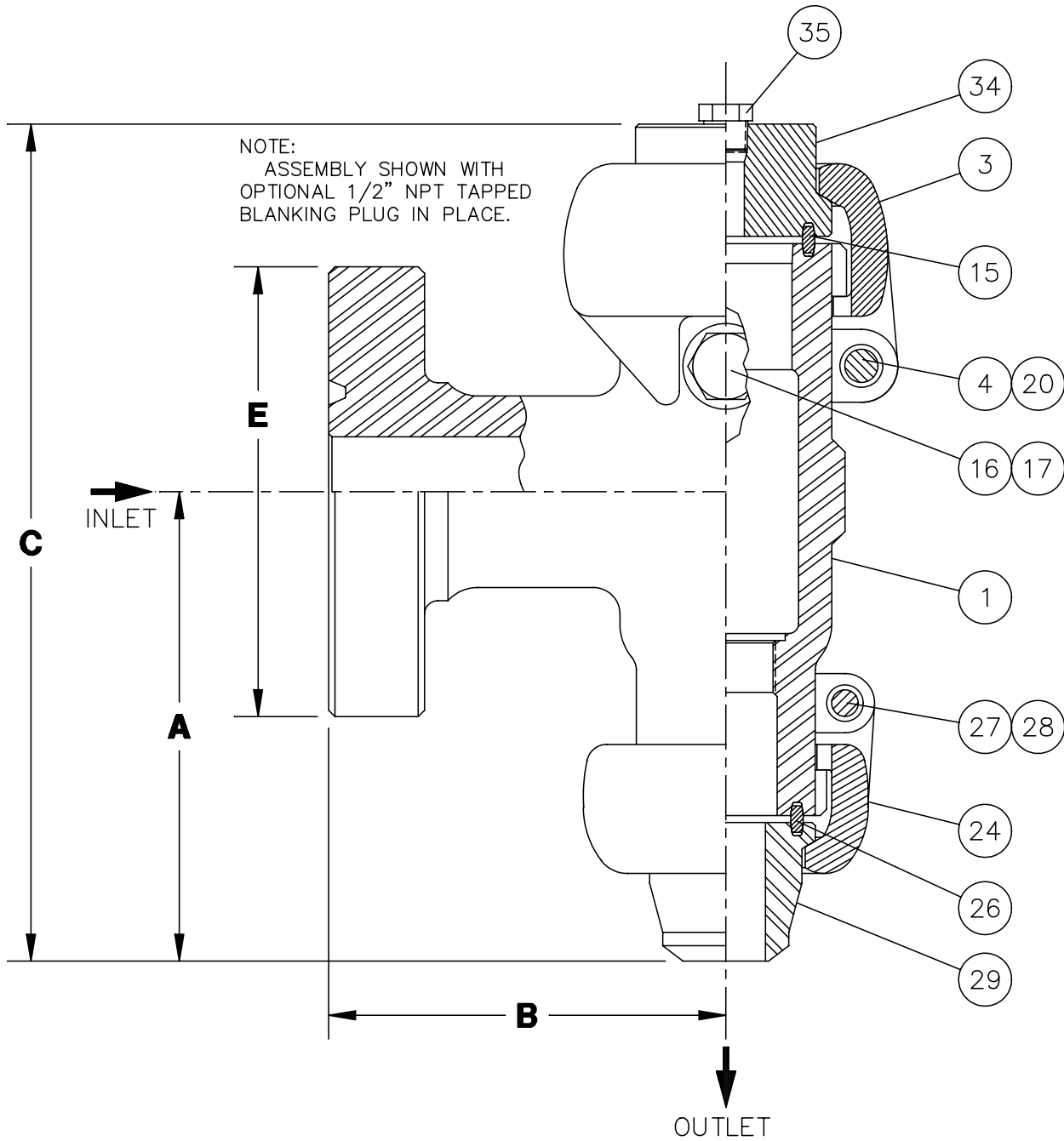
### FLOW BEANS

(Ordered separately)

Nominal bore diameter in 1/64 of an inch  
(Example: J0XXXXX-007 = 7/64" bore)

FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL w/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL

**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
FLANGED INLET & UNIBOLT OUTLET**

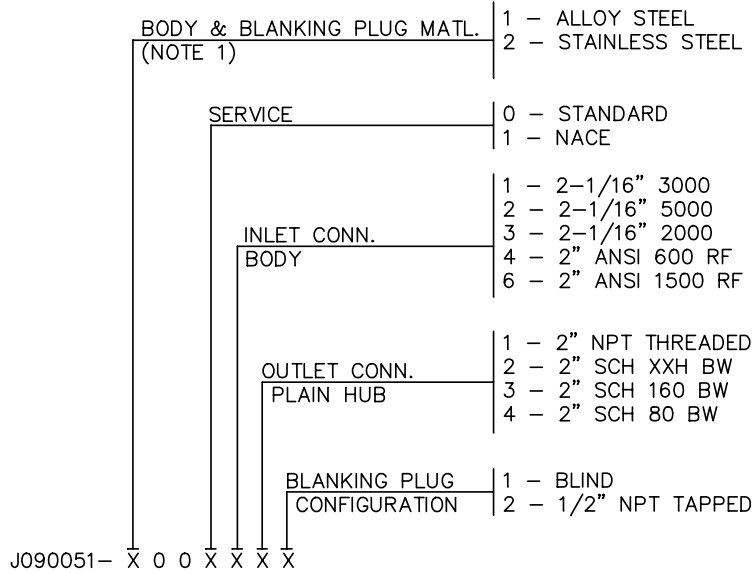


**DIMENSIONS**

FLG SIZE	2-1/16"			2"	
	2000	3000	5000	600	1500
A - THREADED	8.62	8.62	8.62	8.62	8.62
WELD END	8.88	8.88	8.88	8.88	8.88
B - INLET	6.38	7.50	7.50	6.38	7.50
C - THREADED	15.56	15.56	15.56	15.56	15.56
WELD END	15.81	15.81	15.81	15.81	15.81
E - FLANGE O.D.	6.50	8.50	8.50	6.50	8.50
STUD SIZE (QTY)	.62(8)	.88(8)	.88(8)	.62(8)	.88(8)
RING NUMBER	R-23	R-24	R-24	N/A	N/A



## ASSEMBLY PART NUMBER



### PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J090051	
1	1	BODY - 2-1/16" 3000 INLET	J093325-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 2-1/16" 5000 INLET	J090054-X0X	-101 ALLOY STEEL (NACE SERVICE)
		- 2-1/16" 2000 INLET	J090035-X0X	-002 STAINLESS STEEL (STANDARD SERVICE)
		- 2" 600 RF INLET	J091742-X0X	-102 STAINLESS STEEL (NACE SERVICE)
		- 2" 1500 RF INLET	J091755-X0X	
3	1	NUT MEMBER	J090006	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32068	STEEL
15	1	SEAL RING	J090044-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD.	J090017	STAINLESS STEEL
		- NACE	J090764	STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	1	NUT	2709000-07-01	STEEL
24	1	NUT MEMBER - OUTLET	J090037	ALLOY STEEL
26	1	SEAL RING - OUTLET	J090043-00X	-001 BRONZE, -002 STAINLESS STEEL
27	1	T-HEAD BOLT - OUTLET	J090064-28060	STEEL
28	1	NUT - OUTLET	2709000-05-01	STEEL
29	1	PLAIN HUB - OUTLET - 2" NPT	J090039-X0X	-001 STEEL, -002 STAINLESS STEEL
		- 2" SCH XXH BW	J090049-001	STEEL
		- 2" SCH 160 BW	J090048-001	
		- 2" SCH 80 BW	J090047-001	
34	1	BLANKING PLUG - BLIND	J090027-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 1/2" NPT TAPPED	J090028-X0X	-101 ALLOY STEEL (NACE SERVICE)
				-002 STAINLESS STEEL (STANDARD SERVICE)
				-102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

**NOTE:**

1. Body material determines Seal Ring & Pipe Plug material.

### FLOW BEANS

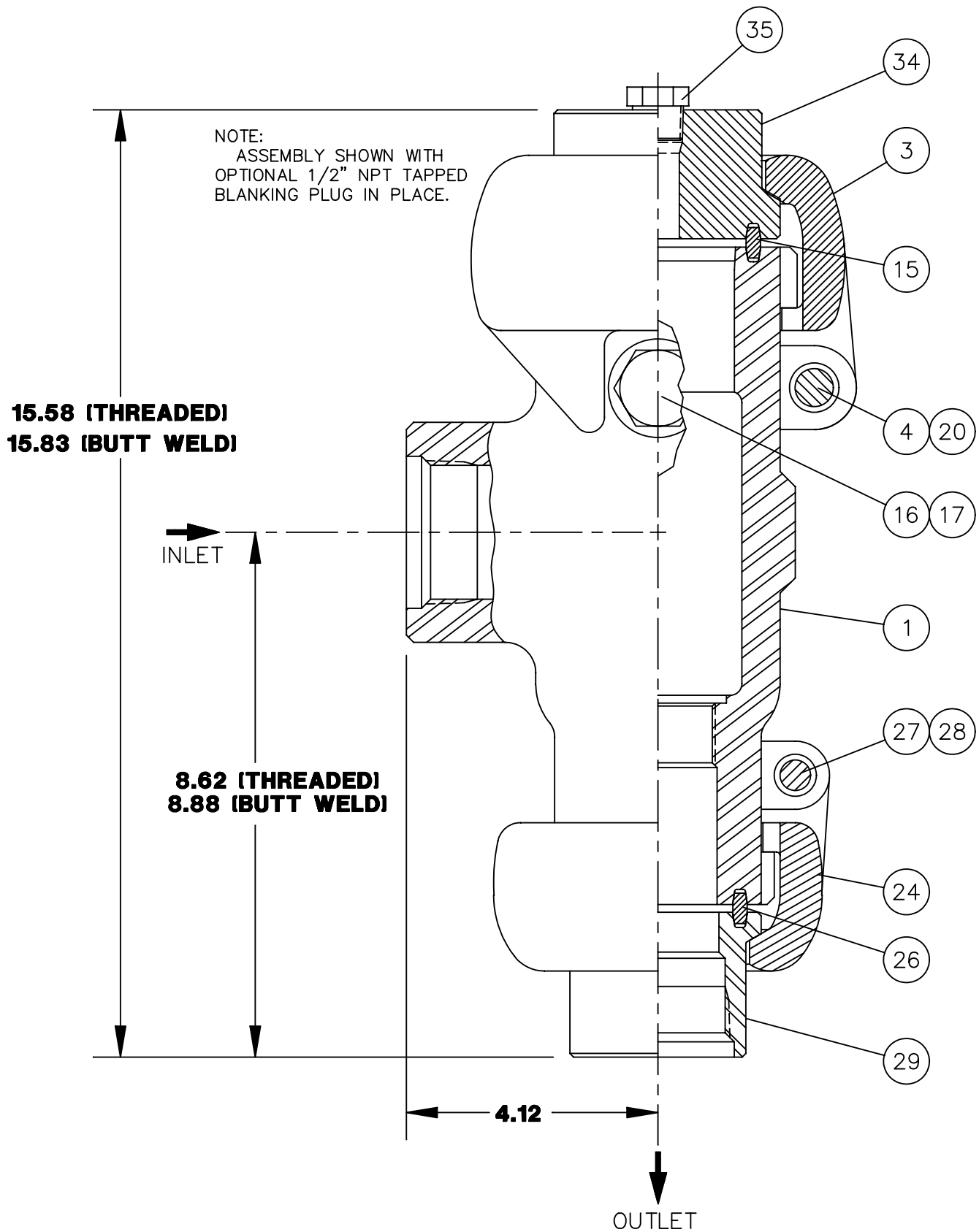
(Ordered separately)

Nominal bore diameter in 1/64 of an inch

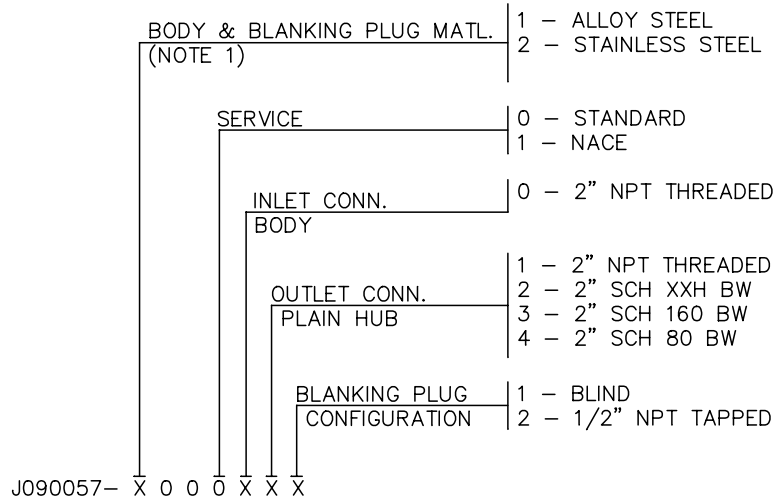
(Example: J0XXXXX-007 = 7/64" bore)

FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL W/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL

**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
2" NPT INLET & UNIBOLT OUTLET  
5000 CWP MAX.**



## ASSEMBLY PART NUMBER



### PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J090057	
1	1	BODY - 2" NPT THREADED INLET	J090004-X0X	-001 ALLOY STEEL (STANDARD SERVICE) -101 ALLOY STEEL (NACE SERVICE) -002 STAINLESS STEEL (STANDARD SERVICE) -102 STAINLESS STEEL (NACE SERVICE)
3	1	NUT MEMBER	J090006	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32068	STEEL
15	1	SEAL RING	J090044-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD. - NACE	J090017	STAINLESS STEEL
			J090764	STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	1	NUT	2709000-07-01	STEEL
24	1	NUT MEMBER - OUTLET	J090037	ALLOY STEEL
26	1	SEAL RING - OUTLET	J090043-00X	-001 BRONZE, -002 STAINLESS STEEL
27	1	T-HEAD BOLT - OUTLET	J090064-28060	STEEL
28	1	NUT - OUTLET	2709000-05-01	STEEL
29	1	PLAIN HUB - OUTLET - 2" NPT - 2" SCH XXH BW - 2" SCH 160 BW - 2" SCH 80 BW	J090039-X0X	-001 STEEL, -002 STAINLESS STEEL
			J090049-001	STEEL
			J090048-001	
			J090047-001	
34	1	BLANKING PLUG - BLIND - 1/2" NPT TAPPED	J090027-X0X	-001 ALLOY STEEL (STANDARD SERVICE) -101 ALLOY STEEL (NACE SERVICE)
			J090028-X0X	-002 STAINLESS STEEL (STANDARD SERVICE) -102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

**NOTE:**

1. Body material determines Seal Ring & Pipe Plug material.

### FLOW BEANS

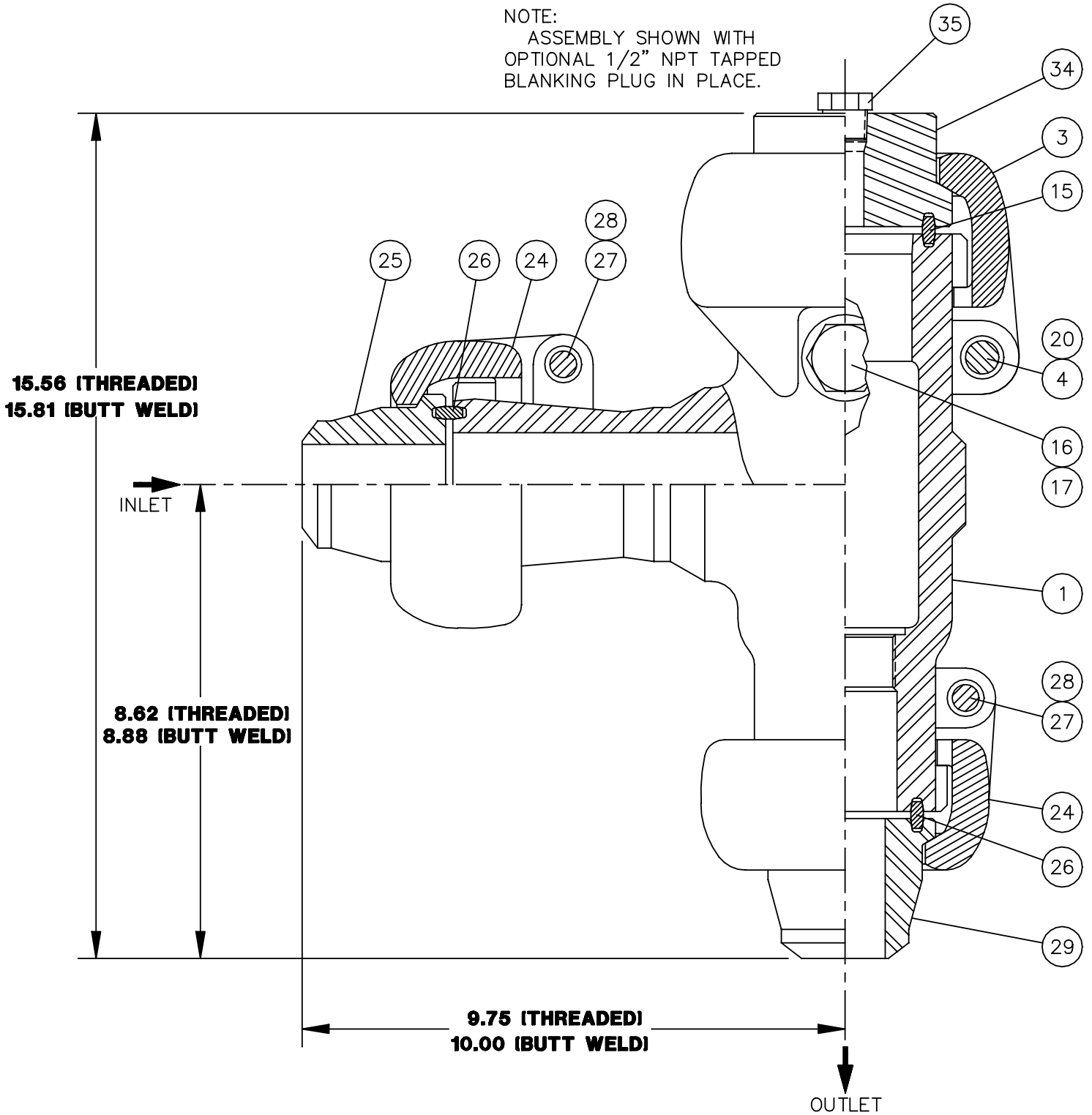
(Ordered separately)

Nominal bore diameter in 1/64 of an inch  
(Example: J0XXXXX-007 = 7/64" bore)

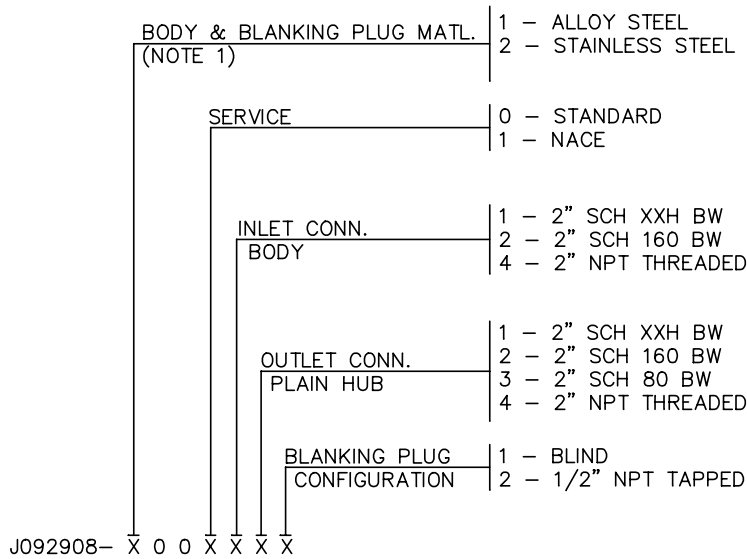
FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL w/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL

**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
UNIBOLT INLET & UNIBOLT OUTLET  
5000 CWP MAX.**

NOTE:  
ASSEMBLY SHOWN WITH  
OPTIONAL 1/2" NPT TAPPED  
BLANKING PLUG IN PLACE.



## ASSEMBLY PART NUMBER



### PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J092908	
1	1	BODY - LUG HUB INLET/OUTLET	J091730-X0X	-001 ALLOY STEEL (STANDARD SERVICE) -101 ALLOY STEEL (NACE SERVICE) -002 STAINLESS STEEL (STANDARD SERVICE) -102 STAINLESS STEEL (NACE SERVICE)
3	1	NUT MEMBER	J090006	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32068	STEEL
15	1	SEAL RING	J090044-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD. - NACE	J090017	STAINLESS STEEL
			J090764	STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	1	NUT	2709000-07-01	STEEL
24	2	NUT MEMBER - INLET/OUTLET	J090037	ALLOY STEEL
25	1	PLAIN HUB - INTLET - 2" SCH XXH BW - 2" SCH 160 BW - 2" NPT THRDD.	J090049-001	STEEL
			J090048-001	
			J090039-00X	-001 STEEL, -002 STAINLESS STEEL
26	2	SEAL RING - INLET/OUTLET	J090043-00X	-001 BRONZE, -002 STAINLESS STEEL
27	2	T-HEAD BOLT - INLET/OUTLET	J090064-28060	STEEL
28	2	NUT - INLET/OUTLET	2709000-05-01	STEEL
29	1	PLAIN HUB - OUTLET - 2" SCH XXH BW - 2" SCH 160 BW - 2" SCH 80 BW - 2" NPT THRDD.	J090049-001	STEEL
			J090048-001	
			J090047-001	
			J090039-00X	-001 STEEL, -002 STAINLESS STEEL
34	1	BLANKING PLUG - BLIND - 1/2" NPT TAPPED	J090027-X0X	-001 ALLOY STEEL (STANDARD SERVICE) -101 ALLOY STEEL (NACE SERVICE)
			J090028-X0X	-002 STAINLESS STEEL (STANDARD SERVICE) -102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

**NOTE:**

1. Body material determines Seal Ring & Pipe Plug material.

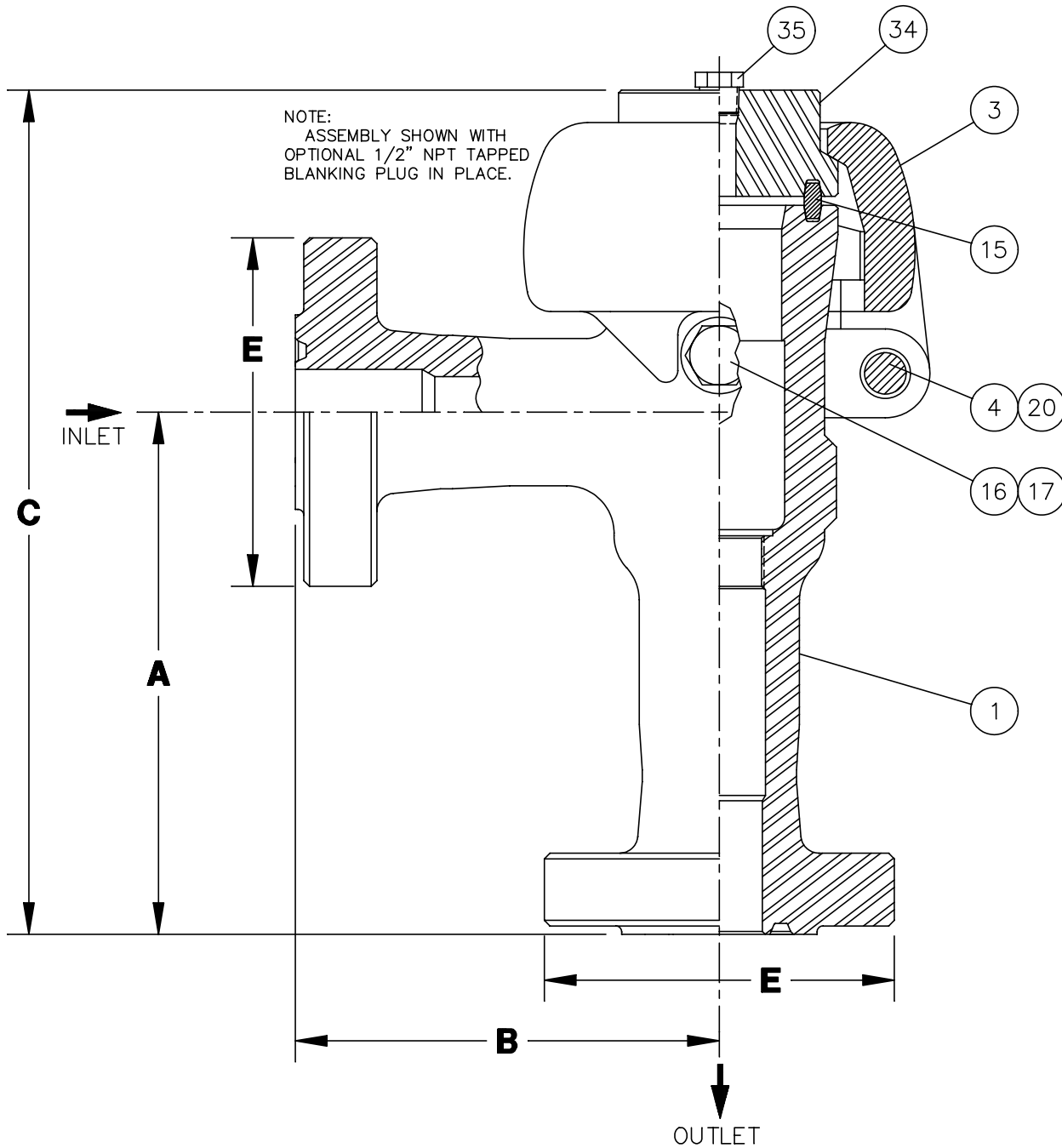
### FLOW BEANS

(Ordered separately)

Nominal bore diameter in 1/64 of an inch  
(Example: J0XXXXX-007 = 7/64" bore)

FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL W/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL

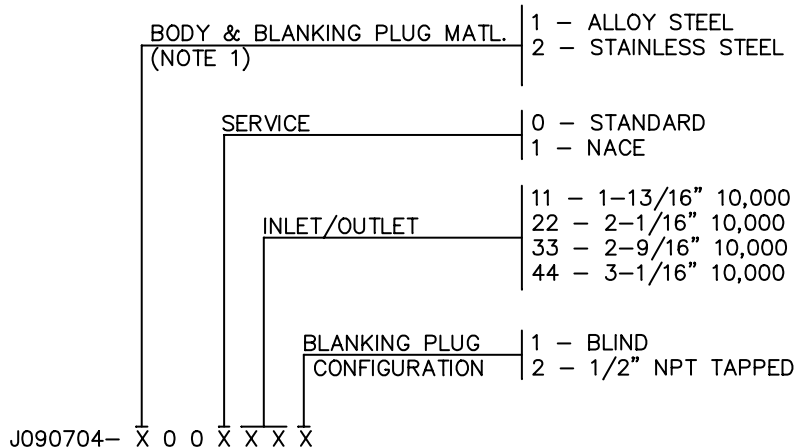
**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
10,000 WP API FLANGED INLET & OUTLET**



**DIMENSIONS**

FLG SIZE	1-13/16"	2-1/16"	2-9/16"	3-1/16"
DIMENSION				
A - OUTLET	11.12	11.12	11.12	12.62
B - INLET	9.00	9.00	9.00	9.62
C	17.94	17.94	17.94	19.44
E - FLANGE O.D.	7.38	7.88	9.12	10.62
STUD SIZE (QTY)	.75 (8)	.75 (8)	.88 (8)	1.00 (8)
RING NUMBER	BX-151	BX-152	BX-153	BX-154

## ASSEMBLY PART NUMBER



### PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J090704	
1	1	BODY - 1-13/16" 10,000	J090252-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 2-1/16" 10,000	J090253-X0X	-101 ALLOY STEEL (NACE SERVICE)
		- 2-9/16" 10,000	J090261-X0X	-002 STAINLESS STEEL (STANDARD SERVICE)
		- 3-1/16" 10,000	J090744-X0X	-102 STAINLESS STEEL (NACE SERVICE)
3	1	NUT MEMBER	J090125	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32096	STEEL
15	1	SEAL RING	J090131-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD.	J090017	STAINLESS STEEL
		- NACE	J090764	STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	2	NUT	2709000-09-01	STEEL
34	1	BLANKING PLUG - BLIND	J090706-X0X	-001 ALLOY STEEL (STANDARD SERVICE)
		- 1/2" NPT TAPPED	J090705-X0X	-101 ALLOY STEEL (NACE SERVICE)
				-002 STAINLESS STEEL (STANDARD SERVICE)
				-102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

**NOTE:**

1. Body material determines Seal Ring & Pipe Plug material.

### FLOW BEANS

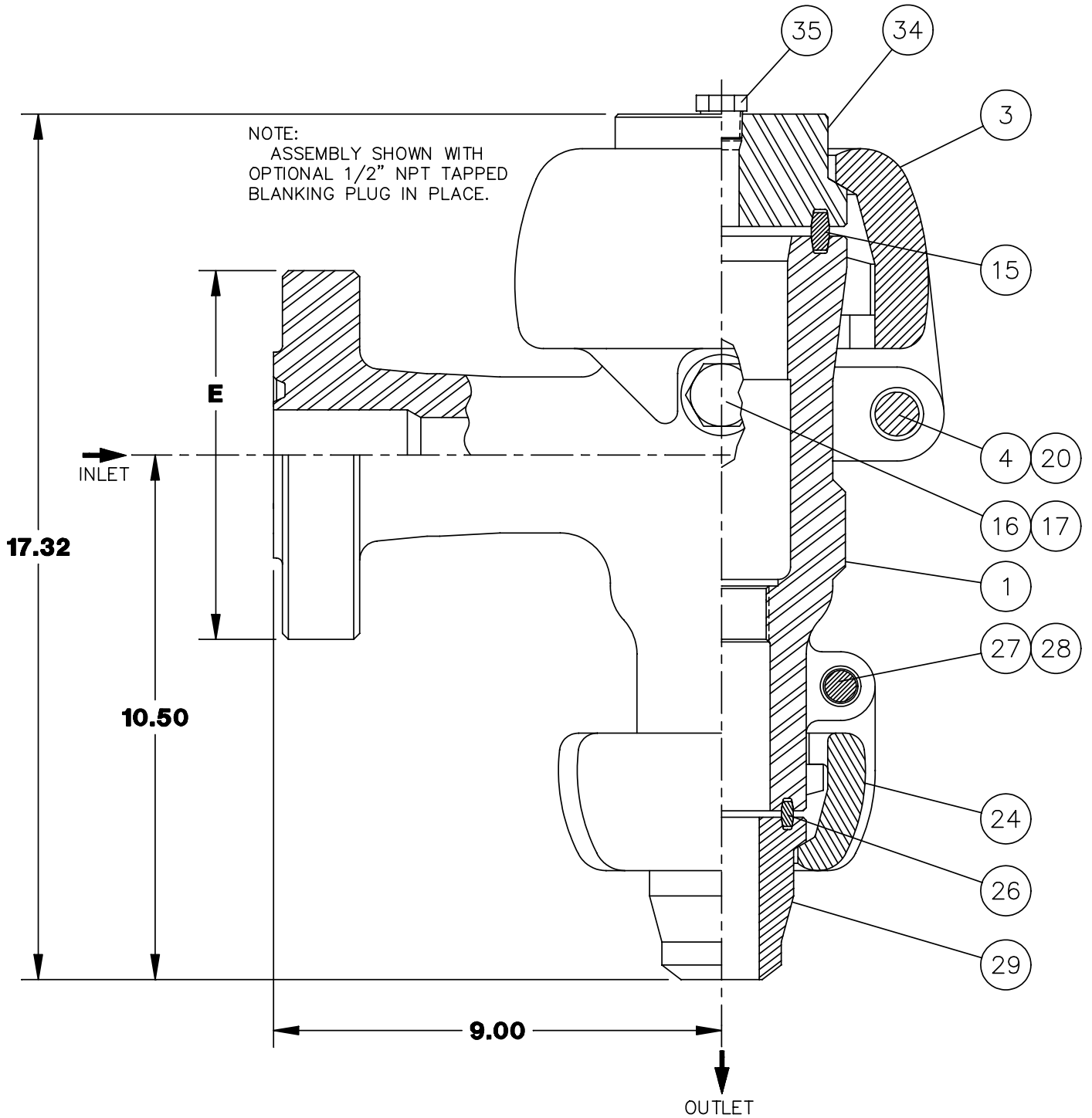
(Ordered separately)

Nominal bore diameter in 1/64 of an inch

(Example: J0XXXXX-007 = 7/64" bore)

FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL w/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL

**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
10,000 WP API FLANGED INLET & UNIBOLT OUTLET**

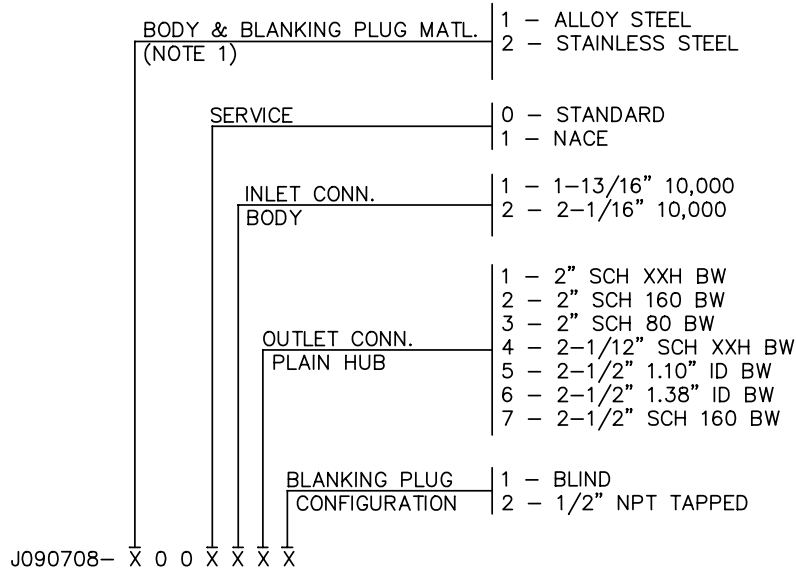


**DIMENSIONS**

FLG SIZE	1-13/16"	2-1/16"
DIMENSION		
E - FLANGE O.D.	7.38	7.88
STUD SIZE (QTY)	.75 (8)	.75 (8)
RING NUMBER	BX-151	BX-152



# ASSEMBLY PART NUMBER



### PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J090708	
1	1	BODY - 1-13/16" 10,000 - 2-1/16" 10,000	J090266-X0X J090267-X0X	-001 ALLOY STEEL (STANDARD SERVICE) -101 ALLOY STEEL (NACE SERVICE) -002 STAINLESS STEEL (STANDARD SERVICE) -102 STAINLESS STEEL (NACE SERVICE)
3	1	NUT MEMBER	J090125	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32096	STEEL
15	1	SEAL RING	J090131-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD. - NACE	J090017 J090764	STAINLESS STEEL STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	1	NUT	2709000-09-01	STEEL
24	1	NUT MEMBER - OUTLET	J090123	ALLOY STEEL
26	1	SEAL RING - OUTLET	J090129-00X	-001 BRONZE, -002 STAINLESS STEEL
27	1	T-HEAD BOLT - OUTLET	J090064-32068	STEEL
28	1	NUT - OUTLET	2709000-07-01	STEEL
29	1	PLAIN HUB - OUTLET - 2" SCH XXH BW - 2" SCH 160 BW - 2" SCH 80 BW - 2-1/2" SCH XXH BW - 2-1/2" 1.10" ID BW - 2-1/2" 1.38" ID BW - 2-1/2" SCH 160 BW	J090149-001 J090150-001 J090151-001 J090152-001 J090153-001 J090154-001 J090155-001	STEEL
34	1	BLANKING PLUG - BLIND - 1/2" NPT TAPPED	J090706-X0X J090705-X0X	-001 ALLOY STEEL (STANDARD SERVICE) -101 ALLOY STEEL (NACE SERVICE) -002 STAINLESS STEEL (STANDARD SERVICE) -102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

**NOTE:**

1. Body material determines Seal Ring & Pipe Plug material.

### FLOW BEANS

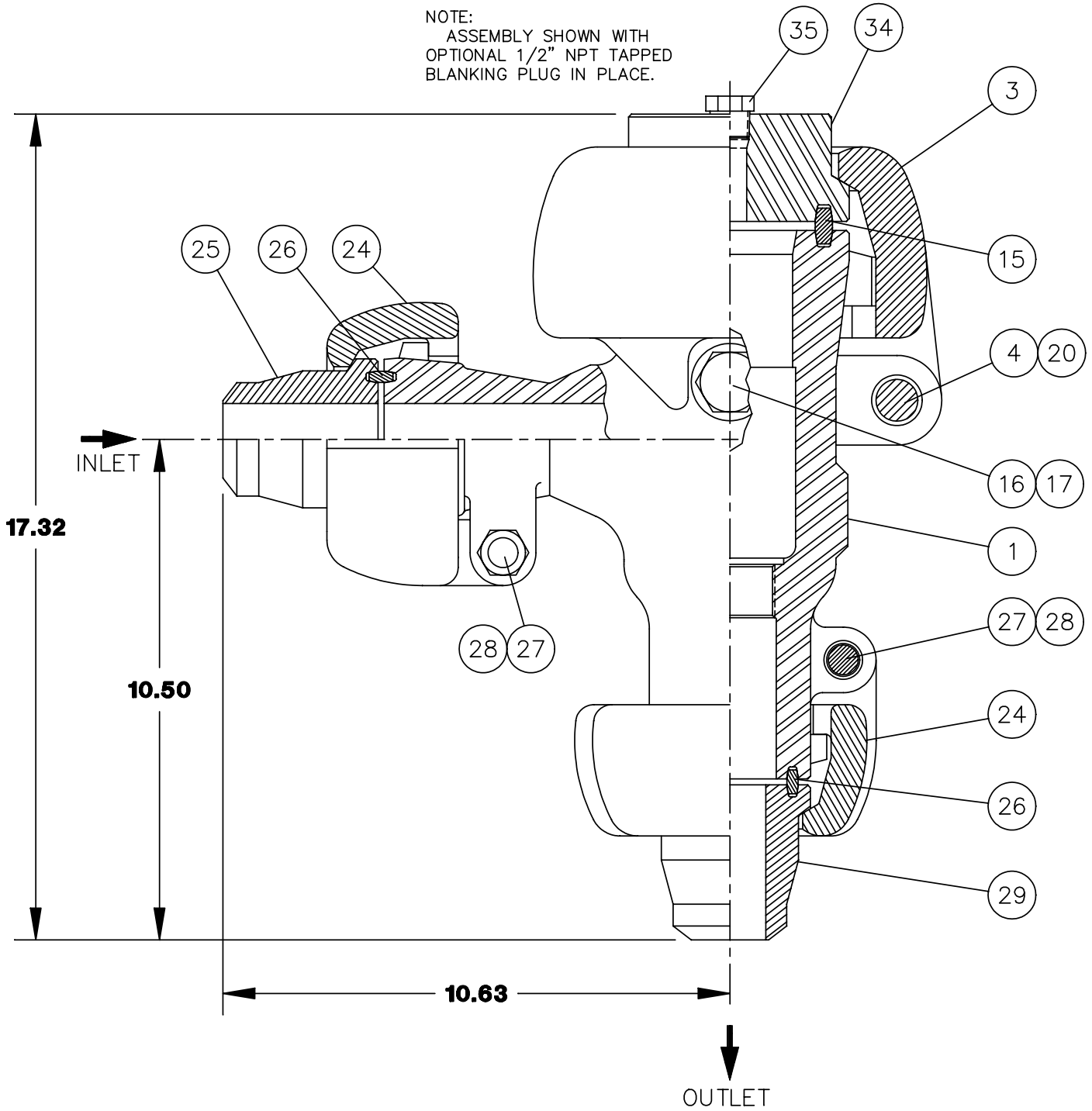
(Ordered separately)

Nominal bore diameter in 1/64 of an inch  
(Example: J0XXXXX-007 = 7/64" bore)

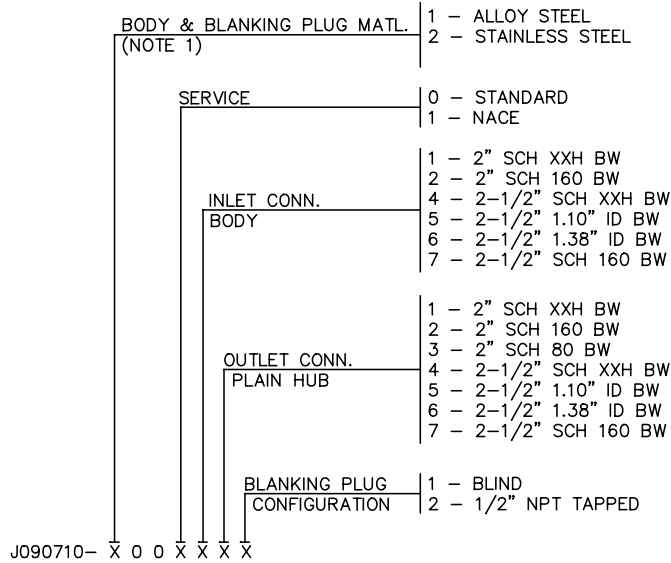
FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL W/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL

**THORNHILL CRAVER  
2" UNIBOLT POSITIVE CHOKE  
API UNIBOLT INLET & OUTLET  
10,000 CWP MAX.**

NOTE:  
ASSEMBLY SHOWN WITH  
OPTIONAL 1/2" NPT TAPPED  
BLANKING PLUG IN PLACE.



ASSEMBLY PART NUMBER



PARTS LIST

INDEX	REQD	DESCRIPTION	PART NO.	MATERIAL
		ASSEMBLY BASE NUMBER	J090710	
1	1	BODY - LUG HUB INLET/OUTLET	J090269-X0X	-001 ALLOY STEEL (STANDARD SERVICE) -101 ALLOY STEEL (NACE SERVICE) -002 STAINLESS STEEL (STANDARD SERVICE) -102 STAINLESS STEEL (NACE SERVICE)
3	1	NUT MEMBER	J090125	ALLOY STEEL
4	1	T-HEAD BOLT	J090064-32096	STEEL
15	1	SEAL RING	J090131-00X	-001 BRONZE, -002 STAINLESS STEEL
16	1	BLEEDER PLUG - STD. - NACE	J090017 J090764	STAINLESS STEEL STAINLESS STEEL
17	1	GASKET - BLEEDER PLUG	J090018	MONEL
20	1	NUT	2709000-09-01	STEEL
24	2	NUT MEMBER - INLET/OUTLET	J090123	ALLOY STEEL
25	1	PLAIN HUB - INLET - 2" SCH XXH BW - 2" SCH 160 BW - 2-1/2" SCH XXH BW - 2-1/2" 1.10" ID BW - 2-1/2" 1.38" ID BW - 2-1/2" SCH 160 BW	J090149-001 J090150-001 J090152-001 J090153-001 J090154-001 J090155-001	STEEL
26	2	SEAL RING - INLET/OUTLET	J090129-00X	-001 BRONZE, -002 STAINLESS STEEL
27	2	T-HEAD BOLT - INLET/OUTLET	J090064-32068	STEEL
28	2	NUT - T-HEAD BOLT - INLET/OUTLET	2709000-07-01	STEEL
29	1	PLAIN HUB - OUTLET - 2" SCH XXH BW - 2" SCH 160 BW - 2" SCH 80 BW - 2-1/2" SCH XXH BW - 2-1/2" 1.10" ID BW - 2-1/2" 1.38" ID BW - 2-1/2" SCH 160 BW	J090149-001 J090150-001 J090151-001 J090152-001 J090153-001 J090154-001 J090155-001	STEEL
34	1	BLANKING PLUG - BLIND - 1/2" NPT TAPPED	J090706-X0X J090705-X0X	-001 ALLOY STEEL (STANDARD SERVICE) -101 ALLOY STEEL (NACE SERVICE) -002 STAINLESS STEEL (STANDARD SERVICE) -102 STAINLESS STEEL (NACE SERVICE)
35	1	PIPE PLUG - TAPPED BLANKING PLUG	J052231-04X	-042 STEEL, -043 STAINLESS STEEL

NOTE:

1. Body material determines Seal Ring & Pipe Plug material.

**FLOW BEANS**

(Ordered separately)

Nominal bore diameter in 1/64 of an inch  
(Example: J0XXXXX-007 = 7/64" bore)

FLOW BEAN SIZE	PART NO.	MATERIAL
1" MAX. BORE	J090031-0XX	STEEL
	J090032-0XX	STAINLESS STEEL
	J092332-0XX	STAINLESS STEEL w/TUNGSTEN CARBIDE LINER
3/4" MAX. BORE	J090586-0XX	STEEL w/CERAMIC LINER
	J090587-0XX	STAINLESS STEEL w/CERAMIC LINER
MASTER BEAN f/"X" BEAN INSERT	J090568-00X	-001 STEEL, -002 STAINLESS STEEL