Pipe-to-Hose Adaptors	PTH, PTHC, FF, FFC, PTH-S, PTHC-S, PTHD
Thru-Hull Connections	HTH, HTH-S, HTHC-S, TH-CS, TH-W, TH-S, THXL
Special Purpose Fittings	FTH, PN, PNC, STH, HSTH, HSTHXL, TH, TH-S
Special Purpose Thru-Hull Pieces	THT-530, TD, TD-S
Special Purpose Tail Pieces	TP, TPC
Drain Manifold	DM
Raw Water Manifolds	RWM

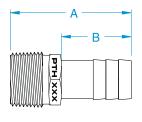


## **STAINLESS STEEL AND BRONZE FITTINGS**

### PTH, STRAIGHT STANDARD FLOW BRONZE



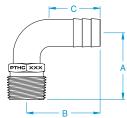




			DIMENSIONS	IN INCHES	WEIGHT	
MODEL NO.	NPT PIPE	HOSE ID	Α	В	(LBS.)	PKG
PTH-500	1/2"	1/2"	2.39	1.38	.17	10
PTH-5062	1/2"	1/2" or 5/8"	2.70	1.80	.18	10
PTH-750	3/4"	3/4"	2.39	1.38	.20	10
PTH-1000	1"	1"	2.48	1.38	.26	10
PTH-1125	1-1/4"	1-1/8"	2.48	1.38	.58	10
PTH-1250	1-1/4"	1-1/4"	2.65	1.55	.60	10
PTH-1500	1-1/2"	1-1/2"	3.00	1.90	.75	10
PTH-2000	2"	2"	3.00	1.90	1.05	1
PTH-2500	2-1/2"	2-1/2"	4.00	2.00	1.75	1
PTH-3000	3"	3"	4.00	2.00	2.58	1
PTH-3000-L	3"	3"	5.00	3.00	2.95	1
PTH-4000	4"	4"	4.25	2.00	3.50	1
PTH-5000	5"	5"	4.25	2.00	5.10	1

### PTHC, 90° STANDARD FLOW BRONZE



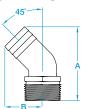


			DIMENS	II NI SNOIZ	NCHES	WEIGHT	
MODEL NO.	NPT PIPE	HOSE ID	Α	В	c	(LBS.)	PKG
PTHC-5062	1/2"	1/2" or 5/8"	1.90	2.00	1.56	.22	10
PTHC-750	3/4"	3/4"	1.86	2.05	1.43	.29	10
PTHC-1000	1"	1"	2.34	2.40	1.63	.54	10
PTHC-1125	1-1/4"	1-1/8"	2.37	2.44	1.75	.78	5
PTHC-1250	1-1/4"	1-1/4"	2.44	2.53	1.38	.80	5
PTHC-1500	1-1/2"	1-1/2"	2.50	2.50	2.25	1.12	5
PTHC-2000	2"	2"	2.88	3.10	2.25	1.58	1
PTHC-2500	2-1/2"	2-1/2"	3.83	3.35	2.10	2.40	1
PTHC-3000	3"	3"	4.20	3.55	2.00	3.85	1
PTHC-4000	4"	4"	5.05	5.25	2.85	5.90	1
PTHC-5000	5″	5″	5.5	6.20	3.30	9.70	1

PTHD, 45° STANDARD FLOW BRONZE





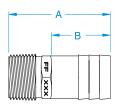


MODEL NO.	NPT PIPE	HOSE ID	DIMENSIONS A	S IN INCHES B	WEIGHT (LBS.)	PKG
PTHD-750	3/4"	3/4"	2.98	1.58	.25	10
PTHD-1000	1"	1"	3.15	1.63	.36	10
PTHD-1250	1-1/4"	1-1/4"	3.34	1.68	.56	10
PTHD-1500	1-1/2"	1-1/2"	3.73	1.99	.82	5
PTHD-2000	2″	2″	4.12	2.36	1.15	5
PTHD-2500	2-1/2"	2-1/2"	5.68	2.66	1.96	1
PTHD-3000	3″	3″	6.03	3.06	2.61	1

FF, STRAIGHT FULL FLOW BRONZE



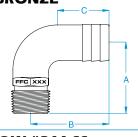




			DIMENSIONS	IN INCHES	WEIGHT	
MODEL NO.	NPT PIPE	HOSE ID	Α	В	(LBS.)	PKG
FF-500	1/2"	3/4"	2.28	1.38	.20	10
FF-750	3/4"	1"	2.39	1.38	.25	10
FF-1000	1"	1-1/4"	2.48	1.38	.32	10
FF-1125	1 "	1-1/8"	2.48	1.38	.34	10
FF-1250	1-1/4"	1-1/2"	2.65	1.55	.64	10
FF-1500	1-1/2"	1-3/4"	3.00	1.90	.70	10
FF-2000	2"	2-1/4"	2.89	1.75	.96	10
FF-2500	2-1/2"	2-3/4"	3.47	2.00	1.45	1
FF-3000	3"	3-1/2"	3.61	2.00	2.60	1

### FFC, 90° FULL FLOW BRONZE

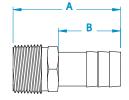




			DIMENS	ONS IN IN	CHES	WEIGHT	
MODEL NO.	NPT PIPE	HOSE ID	Α	В	c	(LBS.)	PKG
FFC-500	1/2"	3/4"	2.06	2.25	1.38	.32	10
FFC-750	3/4"	1"	2.00	2.20	1.45	.46	10
FFC-1000	1"	1-1/4"	2.70	3.00	1.63	.72	5
FFC-1125	1"	1-1/8"	2.38	2.44	1.75	.90	5
FFC-1250	1-1/4"	1-1/2"	3.60	3.43	1.38	1.18	5
FFC-1500	1-1/2"	1-3/4"	4.25	4.40	1.78	1.45	5
FFC-2000	2"	2-1/4"	5.40	5.15	1.85	2.30	1
FFC-2500	2-1/2"	2-3/4"	6.55	6.00	2.00	4.30	1
FFC-3000	3"	3-1/2"	8.25	6.93	2.10	8.20	1
		-					

### PTH-S, STANDARD FLOW #316 SS

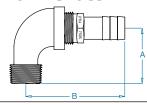




MODEL NO.	NPT PIPE	HOSE ID	A	B S IN INCHES	(LBS.)	PKG
PTH-750-S	3/4"	3/4"	2.56	1.50	.26	1
PTH-1000-S	1"	1″	2.95	1.70	.41	1
PTH-1250-S	1-1/4"	1-1/4"	3.35	2.10	.57	1
PTH-1500-S	1-1/2"	1-1/2"	3.54	2.20	.77	1
PTH-2000-S	2"	2"	3.94	2.60	1.29	1
PTH-2500-S	2-1/2"	2-1/2"	4.73	2.80	2.30	1
PTH-3000-S	3"	3″	5.12	3.20	3.12	1

### PTHC-S, STANDARD FLOW #316 SS



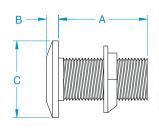


			DIMENSION	S IN INCHES	WEIGHT		
MODEL NO.	NPT PIPE	HOSE ID	Α	В	(LBS.)	PKG	
PTHC-750-S	3/4"	3/4"	1.31	2.97	.51	1	
PTHC-1000-S	1 "	1"	1.50	3.40	.79	1	
PTHC-1250-S	1-1/4"	1-1/4"	1.75	4.00	1.20	1	
PTHC-1500-S	1-1/2"	1-1/2"	1.93	4.40	1.62	1	
PTHC-2000-S	2"	2"	2.25	5.00	2.61	1	
PTHC-2500-S	2-1/2"	2-1/2"	2.68	6.25	4.69	1	
PTHC-3000-S	3"	3″	3.06	7.00	6.50	1	

## STAINLESS STEEL AND BRONZE THRU-HULL FITTINGS

### TH, STANDARD LENGTH THRU-HULLS BRONZE AND SS

			DIMENSI	ONS IN	INCHES	WEIGHT	PKG
BRONZE	#316 SS	NPS PIPE	Α	В	c	W/NUT	
TH-500-W	TH-500-WS	1/2"	2.20	.30	1.70	.40	10
TH-750-W	TH-750-WS	3/4"	2.20	.30	1.90	.42	10
TH-1000-W	TH-1000-WS	1"	2.85	.30	2.32	.72	10
TH-1250-W	TH-1250-WS	1-1/4"	2.90	.30	2.62	1.30	12
TH-1500-W	TH-1500-WS	1-1/2"	3.15	.30	2.89	1.64	12
TH-2000-W	TH-2000-WS	2"	3.90	.30	3.33	2.30	1
TH-2500-W	TH-2500-WS	2-1/2"	3.56	.42	4.40	3.75	1
TH-3000-W	TH-3000-WS	3"	4.00	.42	5.50	6.00	1
TH-4000-W	-	4"	5.31	.56	7.00	13.20	1
TH-5000-W	-	5"	5.34	.57	8.18	18.50	1



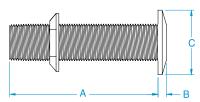


(آل) LISTED 647B TH-W

has nut

### For installations where hull thickness dictates the use of a longer fitting.

_	DIMEN	SIONS IN I	NCHES	WEIGHT		
MODEL	Α	В	c	W/NUT	PKG	
THXL-750-W	5.33	0.30	1.90	0.75	4	
THXL-1000-W	5.33	0.30	2.32	1.00	4	
THXL-1250-W	5.45	0.30	2.62	1.75	6	
THXL-1500-W	5.45	0.30	2.89	2.12	6	
THXL-2000-W	5.58	0.30	3.34	2.52	4	

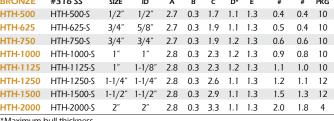


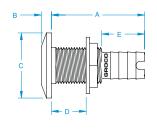


### HTH, HOSE THRU-HULLS BRONZE AND SS

THXL, EXTRA-LENGTH THRU-HULLS BRONZE

		NPS	HOSE	DIMENSIONS IN INCHES				IES	BRONZE	SS	
BRONZE	#316 SS	SIZE	ID	Α	В	c	D*	E	#	#	PKG
HTH-500	HTH-500-S	1/2"	1/2"	2.7	0.3	1.7	1.1	1.3	0.4	0.4	10
HTH-625	HTH-625-S	3/4"	5/8"	2.7	0.3	1.9	1.1	1.3	0.5	0.4	10
HTH-750	HTH-750-S	3/4"	3/4"	2.7	0.3	1.9	1.2	1.3	0.6	0.6	10
HTH-1000	HTH-1000-S	1″	1"	2.8	0.3	2.3	1.2	1.3	0.9	8.0	10
HTH-1125	HTH-1125-S	1″	1-1/8"	2.8	0.3	2.3	1.2	1.3	1.1	1.0	10
HTH-1250	HTH-1250-S	1-1/4"	1-1/4"	2.8	0.3	2.6	1.1	1.3	1.2	1.1	12
HTH-1500	HTH-1500-S	1-1/2"	1-1/2"	2.8	0.3	2.9	1.1	1.3	1.5	1.3	12
HTH-2000	HTH-2000-S	2″	2″	2.8	0.3	3.3	1.1	1.3	2.0	1.8	4







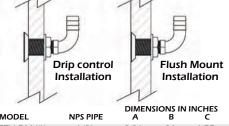


\*Maximum hull thickness.

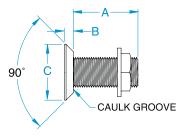
### FTH, FLUSH THRU-HULLS BRONZE

The concept is simple! Water doesn't run up hill!

In above waterline drain applications, choose between a drip control installation and a flush mount installation. In the drip control installation, fluid falls cleanly from the tapered edge of the fitting, preventing unsightly stains. The flush installation reduces drag.



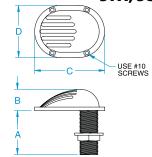
MODEL	NPS PIPE	DIMEN:	SIONS IN B	INCHES C	WEIGHT W/NUT	PKG
FTH-500-W	1/2"	2.31	.30	1.75	.38	10
FTH-750-W	3/4"	2.31	.30	2.00	.50	10
FTH-1000-W	1"	2.56	.30	2.32	.88	10
FTH-1250-W	1-1/4"	3.31	.30	2.93	1.38	12
FTH-1500-W	1-1/2"	3.50	.30	3.20	2.00	12
FTH-2000-W	2"	3.56	.35	3.90	2.75	1
FTH-2500-W	2-1/2"	3.56	.42	4.40	3.75	1
FTH-3000-W	3"	5.00	.42	5.50	6.00	1
FTH-4000-W	4"	5.31	.56	7.00	13.20	1
FTH-5000-W	5"	5.34	.57	8.18	18.50	1
Order FTH-L if r	nut is not requ	uired.				





### STH, SCOOP THRU-HULL BRONZE

NPS		DIME	NSIONS	IN INC	HES		
MODEL	PIPE SIZE	Α	В	c	D	WEIGHT	PKG
STH-500-W	1/2"	2.20	1.05	3.28	2.55	.70	12
STH-750-W	3/4"	2.20	1.05	4.00	3.05	.95	12
STH-1000-W	1"	2.85	1.05	4.00	3.05	1.25	12
STH-1250-W	1-1/4"	2.90	1.20	4.30	3.35	1.75	9
STH-1500-W	1-1/2"	3.15	1.30	4.83	3.50	2.25	9
STH-2000-W	2"	3.60	1.50	5.75	4.00	3.50	4
Order STH-L if r	nut is not requi	red.					





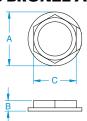
### HSTH, HIGH SPEED EXTRA LENGTH AND STANDARD LENGTH THRU-HULL BRONZE



HSTH MODELS	NPS SIZE	Α	В	c	PKG
HSTH-750-W	3/4"	2.20	0.30	1.90	10
HSTH-1000-W	1"	2.85	0.30	2.32	10
HSTH-1250-W	1-1/4"	2.90	0.30	2.62	12
HSTH-1500-W	1-1/2"	3.15	0.30	2.89	12
HSTH-2000-W	2"	3.60	0.30	3.33	1
HSTH-2500-W	2-1/2"	3.56	0.42	4.40	1
HSTH-3000-W	3"	5.00	0.42	5.50	1
<b>HSTHXL MODELS</b>	NPS SIZE	Α	В	c	PKG
HSTHXL-750-W	3/4"	5.33	0.30	1.90	1
HSTHXL-1000-W	1"	5.33	0.30	2.32	1
HSTHXL-1250-W	1-1/4"	5.45	0.30	2.62	1
HSTHXL-1500-W	1-1/2"	5.45	0.30	2.89	1
HSTHXL-2000-W	2"	5.58	0.30	3.33	1
Order HSTH-L if nut is	not required.				

### TH, THRU-HULL LOCK NUTS BRONZE AND #316 SS





BRONZE         #316 SS         NPS PIPE         A         B         C         WEIGHT (LBS.)         BULK (LBS.)         WEIGHT BULK (LBS.)         BULK (LBS.)         WEIGHT BULK (LBS.)         BULK (LBS.)         WEIGHT BULK (LBS.)         WEIGHT BULK (LBS.)         BULK (LBS.)         BULK (LBS.)         BULK (LBS.)         C         25         32         25         32         25         32         33         1.55         11         25         32         25         11         25         32         25         32         25         32         25         32         25         34         10         32         25         34         10         34         34         10         34         34         10         34         34         34         34         34         34	7	22								
TH-501         TH-501-S         1/2"         1.50         .33         1.13         .05         25           TH-751         TH-751-S         3/4"         1.65         .33         1.30         .04         25           TH-1001         TH-1001-S         1"         2.08         .33         1.55         .11         25           TH-1251         TH-1251-S         1-1/4"         2.50         .45         1.95         .21         25           TH-1501         TH-1501-S         1-1/2"         2.90         .45         2.28         .32         25           TH-2001         TH-2001-S         2"         3.50         .45         2.75         .54         10           TH-2501         TH-2501-S         2-1/2"         4.72         .70         3.46         1.00         10           TH-3001         TH-3001-S         3"         5.45         .70         4.13         1.45         10           TH-4001         4"         7.13         .70         6.00         3.61         1	•				DIMENS	IONS IN	INCHES	WEIGHT	BULK	
TH-751         TH-751-S         3/4"         1.65         .33         1.30         .04         25           TH-1001         TH-1001-S         1"         2.08         .33         1.55         .11         25           TH-1251         TH-1251-S         1-1/4"         2.50         .45         1.95         .21         25           TH-1501         TH-1501-S         1-1/2"         2.90         .45         2.28         .32         25           TH-2001         TH-2001-S         2"         3.50         .45         2.75         .54         10           TH-2501         TH-2501-S         2-1/2"         4.72         .70         3.46         1.00         10           TH-3001         TH-3001-S         3"         5.45         .70         4.13         1.45         10           TH-4001         4"         7.13         .70         6.00         3.61         1		BRONZE	#316 SS	NPS PIPE	Α	В	C	(LBS.)	PKG	
TH-1001         TH-1001-S         1"         2.08         .33         1.55         .11         25           TH-1251         TH-1251-S         1-1/4"         2.50         .45         1.95         .21         25           TH-1501         TH-1501-S         1-1/2"         2.90         .45         2.28         .32         25           TH-2001         TH-2001-S         2"         3.50         .45         2.75         .54         10           TH-2501         TH-2501-S         2-1/2"         4.72         .70         3.46         1.00         10           TH-3001         TH-3001-S         3"         5.45         .70         4.13         1.45         10           TH-4001         4"         7.13         .70         6.00         3.61         1		TH-501	TH-501-S	1/2"	1.50	.33	1.13	.05	25	
TH-1251         TH-1251-S         1-1/4"         2.50         .45         1.95         .21         25           TH-1501         TH-1501-S         1-1/2"         2.90         .45         2.28         .32         25           TH-2001         TH-2001-S         2"         3.50         .45         2.75         .54         10           TH-2501         TH-2501-S         2-1/2"         4.72         .70         3.46         1.00         10           TH-3001         TH-3001-S         3"         5.45         .70         4.13         1.45         10           TH-4001         4"         7.13         .70         6.00         3.61         1		TH-751	TH-751-S	3/4"	1.65	.33	1.30	.04	25	
TH-1501         TH-1501-S         1-1/2"         2.90         .45         2.28         .32         25           TH-2001         TH-2001-S         2"         3.50         .45         2.75         .54         10           TH-2501         TH-2501-S         2-1/2"         4.72         .70         3.46         1.00         10           TH-3001         TH-3001-S         3"         5.45         .70         4.13         1.45         10           TH-4001         4"         7.13         .70         6.00         3.61         1		TH-1001	TH-1001-S	1"	2.08	.33	1.55	.11	25	
TH-2001         TH-2001-S         2"         3.50         .45         2.75         .54         10           TH-2501         TH-2501-S         2-1/2"         4.72         .70         3.46         1.00         10           TH-3001         TH-3001-S         3"         5.45         .70         4.13         1.45         10           TH-4001         4"         7.13         .70         6.00         3.61         1		TH-1251	TH-1251-S	1-1/4"	2.50	.45	1.95	.21	25	
TH-2501         TH-2501-S         2-1/2"         4.72         .70         3.46         1.00         10           TH-3001         TH-3001-S         3"         5.45         .70         4.13         1.45         10           TH-4001         4"         7.13         .70         6.00         3.61         1		TH-1501	TH-1501-S	1-1/2"	2.90	.45	2.28	.32	25	
TH-3001 TH-3001-S 3" 5.45 .70 4.13 1.45 10 TH-4001 4" 7.13 .70 6.00 3.61 1		TH-2001	TH-2001-S	2"	3.50	.45	2.75	.54	10	
TH-4001 4" 7.13 .70 6.00 3.61 1		TH-2501	TH-2501-S	2-1/2"	4.72	.70	3.46	1.00	10	
		TH-3001	TH-3001-S	3"	5.45	.70	4.13	1.45	10	
TH-5001 5" 8.18 .70 6.50		TH-4001		4"	7.13	.70	6.00	3.61	1	
		TH-5001		5"	8.18	.70	6.50			

### PN, PIPE-NIPPLES BRONZE



PN Series cast bronze pipe nipples provide exact alloy compatibility for making inter-connections between numerous marine components such as seacocks, strainers and check valves.

■ Cast-in wrench flat simplifies installation and removal

■ Full flow ■ 1/2"- 4" pipe sizes





MODEL	NPT PIPE SIZE	DIMEN A	ISIONS IN B	INCHES C	WEIGHT	PKG
PN-500	1/2"	1.77	0.88	0.50	0.15	10
PN-750	3/4"	1.77	1.06	0.75	0.19	10
PN-1000	1"	2.34	1.38	1.00	0.31	10
PN-1250	1-1/4"	2.51	1.75	1.25	0.60	10
PN-1500	1-1/2"	2.49	2.00	1.50	0.69	6
PN-2000	2"	2.37	2.50	2.00	0.79	2
PN-2500	2-1/2"	3.41	3.00	2.50	1.24	1
PN-3000	3"	3.53	3.63	3.00	2.25	1
PN-4000	4"	3.53	4.73	4.00	3.20	1

### PNC, PIPE NIPPLES WITH CHECK VALVE BRONZE



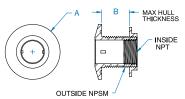
PNC Series are made from PN series cast bronze nipples. A check valve is placed inside to prevent back-flow in plumbing systems. The check valve imposes almost zero flow restriction, and requires less than 1/2 PSI to open. Colored bands indicate flow direction (green to red), confirmed by the permanent laminated tag. Sizes 1/2" to 2". Do not use in diesel fuel or gasoline applications. Refer to PN Series above for dimensions drawing.

	NPT	DIMENSION	IS IN INCHES		
MODEL	PIPE SIZE	Α	В	WEIGHT	PKG
PNC-500	1/2"	1.77	0.88	0.17	10
PNC-750	3/4"	1.77	1.06	0.21	10
PNC-1000	1"	2.34	1.38	0.33	10
PNC-1250	1-1/4"	2.51	1.75	0.62	10
PNC-1500	1-1/2"	2.49	2.00	0.72	6
PNC-2000	2"	2.37	2.50	0.84	2
Opening pressure = .45 psi					

### TH-CS, BULK-HEAD FITTING #316 SS





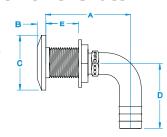


Create your own above-waterline plumbing connection. #316 SS thru-hull fitting is threaded NPT inside.

MODEL	DIAMETER A	В	OUTSIDE NPSM	INSIDE NPT	WEIGHT	PKG	
TH-750-CS	1.90	1.2	3/4"	1/2"	.36	1	
TH-1000-CS	2.32	1.2	1 "	3/4"	.51	1	
TH-1250-CS	2.62	1.2	1-1/4"	1"	.79	1	
TH-1500-CS	2.89	1.2	1-1/2"	1-1/4"	.85	1	
TH-2000-CS	3.33	1.2	2"	1-1/2"	1.53	1	

### HTHC-S, 90° HOSE THRU-HULLS #316 SS





MODEL	NPS SIZE	HOSE ID	A A	MENS B	C IONS IN	I INCHE D	E*	WEIGHT	PKG
HTHC-750-S	3/4"	3/4"	2.71	.30	1.90	2.25	1.25	.56	1
HTHC-1000-S	1"	1"	2.75	.30	2.32	2.20	1.25	.81	1
HTHC-1250-S	1-1/4"	1-1/4"	2.75	.30	2.62	3.03	1.25	1.06	1
HTHC-1500-S	1-1/2"	1-1/2"	4.70	.30	2.89	3.40	1.25	1.31	1
HTHC-2000-S	2"	1-3/4"	5.40	.30	3.33	3.65	1.25	2.00	1
*Maximum hull	thickness								

<sup>\*</sup>Maximum hull thickness

### THE CONCEPT

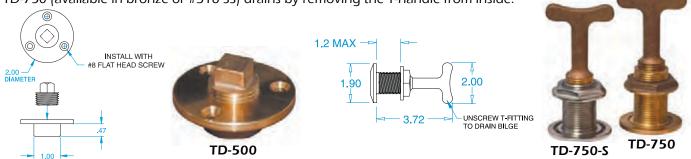
# THT-530 THRU-HULL FITTING INSTALLATION TOOL

THT-530 makes the installation of standard GROCO® thru-hull fittings possible by a single installer. Slide the thru-hull fitting, flanged end first, over the tool. (It will stop at the proper step.) Tie a length of monofilament to the eye and place it into the already-cut hole in the hull of the boat. Apply caulking to the flange of the fitting, and pull the fitting through the hole and against the hull from inside the boat. Thread the mono-filament through the locknut or seacock. With the fitting pulled firmly against the hull the locknut or the seacock may be screwed onto the fitting.



THE CONCEPT HULL DRAINS

Once your boat is in its cradle, sling, lift, or trailer, draining the bilge is easy with a garboard drain. All models install from the outside. TD-500 allows draining from outside by removing the square-drive plug. TD-750 (available in bronze or #316 SS) drains by removing the T-handle from inside.



### **SPECIAL PURPOSE TAIL PIECES**

### THE CONCEPT

TP and TPC Series tail pieces are threaded with NPS (straight) female pipe thread, and are for use with  $GROCO_{\mathbb{R}}$  SV Series seacocks or with any product with straight male pipe thread.

The use of TP and TPC Series tail pieces on products with NPT (tapered) pipe thread is recommended only for low pressure applications, and then only with a generous application of pipe sealant or thread tape.

			DIME	NSIONS	
	MODEL NO.	PIPE SIZE	Α	В	PKG
	TPT-5062	1/2" NPT	2.16	5/8"	1
	TPT-5075	1/2" NPT	2.16	3/4"	1
NEV	TPT-625	3/4" NPT	2.16	5/8"	1
ciZi	\$TPT-750	3/4" NPT	2.16	3/4"	1
31-	TPT-1075	1" NPT	2.13	3/4"	1
	TP-750	3/4" NPS	2.13	3/4"	1
	TP-1000	1" NPS	2.13	1"	1
	TP-1250	1-1/4" NPS	2.75	1-1/4"	1
	TP-1500	1-1/2" NPS	2.75	1-1/2"	1
	TP-2000	2" NPS	2.50	2"	1
	TP-2500	2-1/2" NPS	2.50	2-1/2"	1

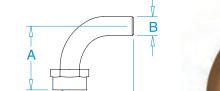
# TP SERIES - STRAIGHT BRONZE TAIL PIECE



**TPC SERIES - 90° BRONZE TAIL PIECE** 

			DIMENSION	s	
MODEL NO.	PIPE SIZE	Α	В	c	PKG
TPC-750	3/4" NPS	2.75	3/4"	2.63	1
TPC-1000	1" NPS	2.75	1"	2.38	1
TPC-1250	1-1/4" NPS	2.50	1-1/4"	2.38	1
TPC-1500	1-1/2" NPS	3.75	1-1/2"	2.75	1
TPC-2000	2" NPS	3.75	2"	3.63	1
TPC-2500	2-1/2" NPS	4.50	2-1/2"	4.50	1

TPC Series 90° tail pieces are comprised of two pieces. The swivel may be rotated in any direction to facilitate ease of hook-up; then the nut is tightened.



FEMALE NPS
PIPE CONNECTION



### DM-5-1500

# To reduce the number of we offer a simple way to pressure lines (sinks and waterline overboard dra attractive, while inside is MANFOLD IS THREADED 1/2" NPT INCLUDES (6) 3/4" HOSE BARB FITTINGS (ANY 1/2" THREADED FITTINGS MAY BE USED) 1.1/2" POLISHED STAINLESS STEEL THRU-HULL

### THE CONCEPT

To reduce the number of above waterline hull openings in your boat we offer a simple way to plumb multiple 1/2" or 3/4" ID low pressure lines (sinks and showers for example) to a single above waterline overboard drain fitting. The exterior look is clean and attractive, while inside is a compact grouping of all connected hoses.

### **FEATURES**

- Manifold is threaded at the ends, so additional manifolds can be added.
- Includes bronze fittings for five (5) 3/4" ID hose connections.
- Accepts any 1/2" NPT threaded valve or fitting.
- Exterior fitting is polished #316 stainless steel.
- Bonding attachment is included.
- Other sizes are available.

### **RWM SERIES - RAW WATER MANIFOLD**

U.S. PATENT NO. 622,713,381

RWM Raw Water Manifold

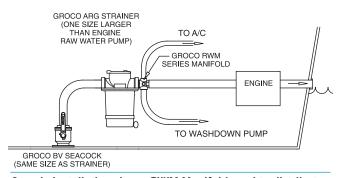
### THE CONCEPT

While we do not recommend the practice of supplying raw or filtered water to multiple "consumers" from a single inlet source (ie: toilets, washdown pumps, air conditioners, generators, etc.) we do recognize that it is common practice to do so, particularly when one or more of the consumers operates intermittently.

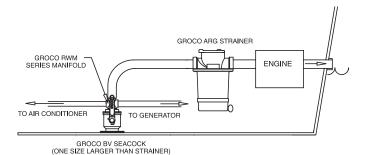
GROCO® RWM Raw Water Manifold requires use of proper pipe or hose sizes, thus reducing the possibility of dangerous flow restrictions to consumers.

The barbed outlet is connected to the primary consumer (your main engine, for example) and is smaller than the threaded inlet which screws into a seacock or strainer outlet of the next larger pipe size (see sample installations). The larger threaded end requires that a larger strainer or seacock be used, thus promoting adequate flow to consumers.

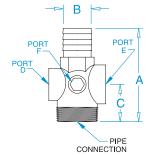
The combined cross-sectional flow of the consumers does not exceed the cross-section of the threaded inlet.



Sample Installation shows RWM Manifold used to distribute filtered water



Sample Installation shows RWM Manifold used to distribute raw (unfiltered) water



	H	OSE ID				
PIPE	Α	В	C	PORT-D	PORT-E	PORT-F
/4" NPT 3	3.75	1"	1.37	1/2" NPT	1/2" NPT	1/4" NPT
/2" NPT 4	ł.13	1-1/4"	1.57	3/4" NPT	3/4" NPT	1/4" NPT
/2" NPT 4	ł.13	1-1/4"	1.57	1/2" NPT	1" NPT	1/4" NPT
2" NPT 4	1.65	1-1/2"	2.00	3/4" NPT	3/4" NPT	1/4" NPT
"NPT 4	1.65	1-1/2"	2.00	3/4" NPT	1" NPT	1/4" NPT
/2" NPT 5	5.00	2"	2.00	3/4" NPT	1" NPT	1/4" NPT
B" NPT 5	5.50	2-1/2"	2.50	1" NPT	1-1/4" NPT	1/4" NPT
	/4" NPT	PIPE A  /4" NPT 3.75  /2" NPT 4.13  /2" NPT 4.65  "NPT 4.65  /2" NPT 5.00	/4" NPT 3.75 1" /2" NPT 4.13 1-1/4" /2" NPT 4.13 1-1/4" !" NPT 4.65 1-1/2" !" NPT 4.65 1-1/2" /2" NPT 5.00 2"	PIPE A B C  /4" NPT 3.75 1" 1.37  /2" NPT 4.13 1-1/4" 1.57  /2" NPT 4.13 1-1/4" 1.57  "NPT 4.65 1-1/2" 2.00  "NPT 4.65 1-1/2" 2.00  /2" NPT 5.00 2" 2.00	PIPE A B C PORT-D  /4" NPT 3.75 1" 1.37 1/2" NPT  /2" NPT 4.13 1-1/4" 1.57 3/4" NPT  /2" NPT 4.13 1-1/4" 1.57 1/2" NPT  "NPT 4.65 1-1/2" 2.00 3/4" NPT  "NPT 4.65 1-1/2" 2.00 3/4" NPT  /2" NPT 5.00 2" 2.00 3/4" NPT	PIPE A B C PORT-D PORT-E  /4" NPT 3.75 1" 1.37 1/2" NPT 1/2" NPT  /2" NPT 4.13 1-1/4" 1.57 3/4" NPT 3/4" NPT  /2" NPT 4.13 1-1/4" 1.57 1/2" NPT 1" NPT  "NPT 4.65 1-1/2" 2.00 3/4" NPT 3/4" NPT  "NPT 4.65 1-1/2" 2.00 3/4" NPT 1" NPT  /2" NPT 5.00 2" 2.00 3/4" NPT 1" NPT

Utility Use, Fuel Transfer, Oil Change Kits	GEAR PUMPS
Utility Use and Deck Wash Kits	VANE PUMPS
Marine & Automotive	CENTRIFUGAL PUMPS
Rotory Pumps & Kits	ROTORY PUMPS
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# Powerful Gearpump Delivers Nearly Twice The Flow Of Competitive Models





Same Features as G3.
G-4 and G-5 utilize the G-6 Enclosure,
leaving room for expansion.
(See Page 35)

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