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TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping Size	Piping Material	Takedown Joints	Fittings	Valves Body	Valves Trim	Bolting & Gaskets	Remarks
SPRINKLING SYSTEM (Dry – Downstream of Manifold Valves) 150 psi 100F degrees See **NOTE 1**	2" & above	Stainless steel seamless or welded, SCH 10S, Type 316L ASTM A312	Flange, weld neck or slip-on 150#, ANSI B16.5" stainless steel Type 316L, ASTM A182	Buttweld, SCH 10S, ANSI B16.9, stainless steel, Type 316L, ASTM A240	None		Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	
	1½" & below	Stainless steel seamless or welded, SCH 40, Type 316L, ASTM A312	Flange, socket weld or screwed 150#, ANSI B16.5, stainless steel, Type 316L, ASTM A182 Union, 150# socket weld, ANSI B16.11 or screwed ANSI B16.3, stainless steel, TY 316L, ASTM 182	Socket weld 3000#, ANSI B16.11, or screwed, 150# ANSI B16.3 plugs, screwed, 150# bronze, ANSI B16.18, ASTM B584, stainless steel, Type 316, ASTM 182				

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
SPRINKLING SYSTEM (Manifold Valves & Upstream) 150 psi 100F degrees See **NOTE 2**	1½" & above	CuNi 90-10 seamless MIL-T-16420 CL. 200 ASTM B466	Flange, weld neck or slip-on, 150# ANSI B16.5, flat face, CuNi 90-10 ASTM B402	Buttweld, CuNi 90-10 BuSHIPS 810-1385880 CL. 200	Gate, globe & angle: R.S., O.S. & Y 150# flanged ANSI B16.24, bronze, ASTM B61 Butterfly: 150# wafer type 46CFR 56.20-5 Category A bronze ASTM B61	Monel renewable seat & disk Type 316 stainless steel stem	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	
FIREMAIN 150 psi 100F degrees See **NOTE 2**	1½" & above	CuNi 90-10 seamless MIL-T-16420 CL. 200 ASTM B466	Flange, weld neck or slip-on, 150# ANSI B16.5, flat face, CuNi 90-10 ASTM B402	Buttweld, CuNi 90-10 BuSHIPS 810-1385880 CL. 200	Gate, globe & angle: R.S., O.S. & Y 150# flanged ANSI B16.24, bronze, ASTM B61	Monel renewable seat & disk	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	
BILGE SYSTEM 50 psi 100F degrees	2" & above	Carbon steel welded or seamless, SCH 40, ASTM A53, Grade B, Type S or E, galvanized	Flange, weld neck or slip-on, 150# ANSI B16.5, steel, galvanized, ASTM A105	Buttweld, SCH 40, ANSI B16.9, steel, galvanized ASTM A234, GR WPB	Gate, globe & angle: R.S., O.S. & Y 150# flanged ANSI B16.24, mal iron, ASTM A197 or A395	Bronze renewable seat & disk	Bolts: ANSI B18.2, galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2, galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	Bilge piping shall be hot-dip galvanized after fabrication.

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
BILGE SYSTEM, cont'd	1½" & below	Carbon steel welded or seamless, SCH 40, ASTM A53, Grade B, Type S or E, galvanized	Union, 300#, socket weld, ground joint ANSI B16.11 or flange, socket weld or slip-on, 150#, ANSI B16.5, steel, ASTM A105 or A181, galvanized	Socket weld 3000#, ANSI B16.11, steel, galvanized, ASTM A105 or A181	Ball valve, swing-out wafer type, 150#, socket weld ends, ANSI B16.11, steel, galvanized ASTM A216	Stainless steel ball TFE seats & seals		
FRESH WATER COOLING SYSTEM (Machinery Freshwater Cooling) 50-100 psi 150-250F degrees	2" & above	Carbon steel welded or seamless, SCH 40, ASTM A53, Grade B, Type S or E	Flange, weld neck or slip-on, 150# ANSI B16.5, steel, ASTM A105	Buttweld, SCH 40, ANSI B16.9, steel, ASTM A234, GR WPB	Gate, globe & angle: R.S., O.S. & Y 150# flanged ANSI B16.5, mal iron, ASTM A197 or A395	Bronze renewable seat & disk	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	Flexible connections: Authoritative Agency approved
	1½" & below		Union, 300#, socket weld, ground joint ANSI B16.11 or flange, socket weld or slip-on, 150#, ANSI B16.5, steel, ASTM A105 or A181	Socket weld 3000#, ANSI B16.11, steel, ASTM A105 or A181	Ball valve, swing-out wafer type, 150#, socket weld ends, ANSI B16.11, steel, ASTM A216	Stainless steel ball TFE seats & seals		

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
POTABLE, SANITARY, HOT WATER, HEAT RECOVERY SYSTEMS (Hot and Cold Potable Water, Sanitary Flushing, Hot Water Heating, Main Engine Jacket Water Heat Recovery) 50-100 psi 200-250F degrees	All	Copper, seamless hard drawn, ASTM B88, Type K	Flange, 150#, ANSI B16.24, solder joint, bronze, ASTM B61 Flange silbraze, 150#, ANSI B16.24, MIL-F-1183, bronze, ASTM, B61	WROT copper, ANSI B16.22, ASTM B75 Cast bronze, ANSI B16.18, ASTM B584	Gate, globe, angle & check, 150# screwed or solder joint (2" & above, 150# flanged, ANSI B16.24), bronze, ASTM B62 or ASTM B584, ball valve swing-out wafer type, 150# solder tube ends, bronze, ASTM B62	Bronze or stainless steel ball TFE seats and seals	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	Except potable and flushing water fills Flexible connections: Authoritative Agency approved
FILLS (Potable Water Fill, Flushing Water Fill) 150 psi 100F degrees	2" & above	Carbon steel welded or seamless, SCH 40, ASTM A53, Grade B, Type S or E, galvanized	Flange, weld neck or slip-on, 150#, ANSI B16.5, steel, galvanized, ASTM A105	Buttweld SCH 40, ANSI B16.9, steel, galvanized, ASTM A234, Grade WPB	Gate, globe & angle: R.S., O.S. & Y 150# flanged ANSI B16.24, mal. iron, ASTM A197 or A395 Ball valve, 150#, flanged, ANSI B16.5, mal. iron, ASTM A197 or A395	Bronze renewable seat & disk Stainless steel ball TFE seats & seals	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	Flexible connections: Authoritative Agency approved
FUEL SYSTEM (Fuel Oil Service, Filling & Transfer) 150 psi 100F degrees	2" & above	Carbon steel seamless, SCH 40, ASTM A106, Grade B	Flange, weld neck or slip-on, 150#, ANSI B16.5, steel, ASTM A105	Buttweld SCH 40, ANSI B16.9, steel, ASTM A234, Grade WPB	Gate, globe & angle, R.S., O.S. & Y, 150#, flanged ANSI B16.5, cast steel, ASTM A216, Grade WCB	Stainless steel renewable seat & disk	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3000 or equal	Flexible connections: Authoritative Agency approved

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
FUEL SYSTEM, cont'd	1½" & below	Carbon steel seamless, SCH 40, ASTM A106, Grade B	Flange, socket weld or slip-on, 150#, ANSI B16.5, steel, ASTM A105	Socket weld 3000#, ANSI B16.11, steel, ASTM A105	Gate, globe & angle R.S., O.S. & Y, 600#, socket weld, steel, ASTM A105 Ball valve, swing-out wafer type, 300# socket weld ends, ANSI B16.11, steel, ASTM A216	Stainless steel renewable seat & disk Stainless steel ball viton seats & seals		
LUBE OIL SYSTEM (Lube Oil Service Filling & Transfer) 150 psi 200F degrees	2" & above	Carbon steel, seamless, SCH 40, ASTM A106, Grade B	Flange, weld neck or slip-on, 150#, ANSI B16.5, steel, ASTM A105	Buttweld SCH 40, ANSI B16.9, steel, ASTM A234, Grade WPB	Gate, globe & angle, R.S., O.S. & Y, 150#, flanged ANSI B16.5, cast steel, ASTM A216, Grade WCB	Stainless steel renewable seat & disk	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3000 or equal	Flexible connections: Authoritative Agency approved
	1½" & below		Flange, socket weld or slip-on, 150#, ANSI B16.5, steel, ASTM A105	Socket weld 3000#, ANSI B16.11, steel, ASTM A105	Gate, globe & angle R.S., O.S. & Y, 600#, socket weld, steel, ASTM A105 Ball valve, swing-out wafer type, 150# socket weld ends, ANSI B16.11, steel, ASTM A216	Stainless steel renewable seat & disk Stainless steel ball Viton seats & seals		

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
LUBE OIL SYSTEM (Stern Tube LO) 100 psi 100F degrees See **NOTE 1**	All	Stainless steel, SCH 40, SMLS; SCH 10 Type 316L, ASTM A312; and tubing stainless steel Type 316L, ASTM A269	Flange, 150# R.F., ANSI B16.11, stainless steel, Type 316L, ASTM A182, Weld Neck or Slip-on	Socket Weld 3000#, ANSI B16.11, stainless steel, Type 316L, ASTM A182	Socket Weld, 600#, ANSI B16.34, stainless steel, Type 316	Stainless steel ball, reinforced TFE seals and seats	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3000 or equal	
DECKS DRAINS (Weather Deck Drains) 50 psi 100F degrees	2" & above	Carbon steel welded or seamless, SCH 40, ASTM A53, Grade B, Type S or E, galvanized	Flange, weld neck or slip-on, 150#, ANSI B16.5, steel, galvanized, ASTM A105	Buttweld, SCH 80, ANSI-B16.9, steel, galvanized, ASTM A234, GRADE WPB	None		Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Neoprene cloth inserted	
	1½" & below	Carbon steel welded or seamless, SCH 40, ASTM AA53, Grade B, Type S or E, galvanized	Union, 300# socket weld ground joint ANSI B16.11, steel, galvanized ASTM A105 or A181	Socket weld, 3000# ANSI B16.11, steel, galvanized, ASTM A105 or A181				

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
SANITARY DRAINS/SEWAGE (Sanitary & Interior Deck Drains Sewage Transfer) 150 psi 100F degrees	2" & above	CuNi 90-10 seamless MIL-T-16420, CL. 200, ASTM B466	Flange, weld neck or slip-on 150#, ANSI B16.5, flat face CuNi 90-10, ASTM B402 Flange, silbraze, 150#, ANSI B16.24, MIL-F-1183, bronze, ASTM B61	Buttweld, CuNi 90-10 BuSHIPS 810-1385880, CL. 200 150# SILBRAZE, MIL-F-1183, bronze, ASTM B61	Gate, globe & angle R.S., O.S. & Y, 150#, flanged ANSI B16.24, bronze, ASTM B61 Swing check, 150#, flanged ANSI B16.24, bronze ASTM B61 Ball valve, full port, 150#, flanged, ANSI B16.24, bronze, ASTM B61	Monel renewable seat & disk Monel renewable seat & disk Stainless steel ball & stem, TFE seats & seals	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	Flexible connections: Authoritative Agency approved
SANITARY DRAINS/SEWAGE, cont'd (Sanitary & Interior Deck Drains Sewage Transfer) 150 psi 100F degrees	1½" & below	CuNi 90-10 seamless MIL-T-16420, CL. 200, ASTM B466	Silbraze union, 200#, MIL-F-1183, bronze, ASTM B61 Flange, silbraze, 150#, ANSI B16.24, MIL-F-1183, bronze, ASTM B61	150# silbraze, MIL-F-1183, bronze, ASTM B61	Gate, globe & angle, 150#, silbraze U.E., MIL-F-1183, bronze ASTM B61 Ball valve, swing-out wafer type, 150# silbraze ends, MIL-F-1183, bronze, ASTM B61	Monel renewable seat & disk Stainless steel ball TFE seats & seals	See above	See above

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping Size	Piping Material	Takedown Joints	Fittings	Valves Body	Valves Trim	Bolting & Gaskets	Remarks
SOUNDING TUBES, VENTS AND OVERFLOWS 50 psi 100F degrees	2" & above	Carbon steel welded or seamless, SCH 40, ASTM A53, Grade B, Type S or E, galvanized	Flange, weld neck or slip-on, 150#, ANSI B16.5, steel, galvanized, ASTM A105	Buttweld, SCH 40, ANSI-B16.9, steel, galvanized, ASTM A234, Grade WPB	Vent, 150# flg., bronze, ASTM B61 Sounding tube quick acting gate, 150# scrd, bronze, ASTM B61	Stainless steel ball	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	Except seawater
	1½" & below		Union, 300#, socket weld ground joint ANSI B16.11 or flange, socket weld or slip-on, 150#, ANSI B16.5, steel, galvanized, ASTM A105 or A181	Socket weld, 3000# ANSI B16.11, steel galvanized, ASTM A105 or A181				Vents, sounding tubes and overflows for fuel and lube oil systems shall not be galvanized
COMPRESSED AIR SYSTEM (Upstream of Reducing Stations) 250 psi 175F degrees	2" & above	Carbon steel seamless, SCH 40, ASTM A106, Grade B	Flange, weld neck or slip-on, 300#, ANSI B16.5, steel, ASTM A105	Buttweld, SCH 40, ANSI-B16.9, steel, ASTM A234, Grade WPB	Gate, globe & angle R.S., O.S. & Y, swing check 300# flanged, ANSI B16.5, mal. iron, ASTM A197 or A395	Bronze renewable seat & disk	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Neoprene cloth inserted	Flexible connections: Authoritative Agency approved
	1½" & below		Flange, weld neck or slip-on, 300#, ANSI B16.5, steel, ASTM A105 or A181	Socket weld, 3000# ANSI B16.11, steel, ASTM A105 or A181	Ball valve, swing-out wafer type, 300# socket weld ends ANSI B16.11, steel, ASTM A216	Stainless steel ball TFE seats & seals		

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
COMPRESSED AIR SYSTEM, cont'd (Downstream of Reducing Stations) 120 psi 100F degrees	2" & above	Carbon steel seamless, SCH 40, ASTM A106, Grade B	Flange, weld neck or slip-on, 300#, ANSI B16.5, steel, ASTM A105	Buttweld, SCH 40, ANSI-B16.9, steel, ASTM A234, Grade WPB	Gate, globe & angle R.S., O.S. & Y, swing check 150# flanged, ANSI B16.5, mal. iron, ASTM A197 or A395	Bronze renewable seat & disk	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Neoprene cloth inserted	Flexible connections: Authoritative Agency approved
	1½" & below		Union, 300#, socket weld, ground joint, ANSI B16.11 or flange, weld neck or slip-on 150#, ANSI B16.5, steel, ASTM A105 or A181	Socket weld, 3000# ANSI B16.11, steel, ASTM A105 or A181	Ball valve, swing-out wafer type, 150# socket weld ends ANSI B16.11, steel, ASTM A216 Check valve, 150#, flanged, ANSI B16.5, mal. iron, ASTM A395	Stainless steel ball TFE seats & seals Bronze		
SSDG, PROPULSION ENGINE & HOT-WATER OIL-FIRED HEATER SYSTEMS (Diesel Engine Exhaust, Oil-fired Hot Water Heater Uptake) To suit Contractor's Design in. H_2O 775F degrees maximum	All	Carbon steel welded or seamless, ASTM A53, Type S, 14" and above, SCH 10, 8" to 14", 0.250" wall 6" and below SCH 40	Flange, slip-on, 125# L.W., ANSI B16.1, steel, ASTM A105	Buttweld ANSI B16.9 steel, ASTM A234, Grade WPB 14"& above, SCH 10 8" to 14", 0.250" wall 6" & below, SCH 40	Gate, globe & angle R.S. O.S. & Y, swing check 125# flanged, ANSI B16.5, ASTM A105	Stainless steel renewable seat & disk	Bolts: ANSI B18.2, ALLOY STEEL, ASTM A193, Grade B7 Nuts: ANSI B18.2, ALLOW STEEL, ASTM A194, Grade 2H Gaskets: Garlock graph-lock laminated 3125 or equal	Category materials are temperature limited. Flexible Connections: Stainless steel bellows type, flanged 125#, ANSI 16.1, EJMA standards.

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
SSDG, PROPULSION ENGINE SYSTEMS (Diesel Engine Exhaust Boiler Uptake) To suit Contractor's Design in. H_2O 1100F degrees maximum	All	CrMo Steel seamless or welded ASTM A335, GR P11 or ASTM A387	Flange, slip-on, 125# L.W., ANSI B16.5, CrMo steel, ASTM A182, GR F11	CrMo steel buttweld ANSI B16.9 14"& above, SCH 10 8" to 14", 0.250" wall 6" & below, SCH 40	Gate, globe & angle R.S., O.S & Y, swing check, 125# flanged, ANSI B16.5, CrMo steel	CrMo steel renewable seat and disk	Bolts: ANSI B18.2 CrMo steel, ASTM A193, Grade B6 Nuts: ANSI B18.2 CrMo steel ASTM A194, GR B4 Gaskets: Garlock	Category materials are temperature limited Flexible Connections: CrMo steel bellows type flanged 125#, ANSI B16.1, EJMA standards
REFRIGERATION SYSTEM 300 psi 250F degrees	All	Copper, seamless hard drawn, ASTM B88, Type K	See remarks	WROT copper, ANSI B16.22, ASTM B75 Cast bronze, ANSI B16.18, ASTM B584	See remarks		See remarks	Refrigerant pressure/temp rating shall be suitable for materials, specialty piping components suitable for refrigeration service shall be provided. Flexible connections: Authoritative Agency approved
CO_2 SYSTEM (Fixed CO_2) 1000 psi (600 psi downstream of last stop valve) 100F degrees	2" & above	Carbon steel seamless, SCH 80, ASTM A53, Grade B, Type S or E galvanized	Flange, weld neck or slip-on, 600#, ANSI B16.5, steel, galvanized, ASTM A105 or A181	Buttweld SCH 80, ANSI B16.9, steel, galvanized, ASTM A234, Grade WPB	Furnished by USCG approved CO_2 system manufacturer	Furnished by USCG approved CO_2 system manufacturer	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock gylon 3500 or equal	300#, ANSI B16.5 flanges are suitable downstream of last stop valve Flexible connections: furnished by USCG approved CO_2 system manufacturer
	1½" & below			Socket weld or screwed, 3000#, ANSI B16.11, steel, galvanized, ASTM A105 or A181				

TABLE 74-4
144-AUTO FERRY PIPING MATERIAL SCHEDULE

Piping System and Design Press. & Temp.	Piping				Valves		Bolting & Gaskets	Remarks
	Size	Material	Takedown Joints	Fittings	Body	Trim		
Hi-Fog® SYSTEM (Fixed Hi-Fog®) Freshwater supply from Hi-Fog Tank to Hi-Fog Sprinkler Pump Unit	all	Stainless steel seamless or welded, SCH 40, Type 316L, ASTM A312 to suit USCG approval	Flange, socket weld or screwed 150#, ANSI B16.5, stainless steel, Type 316L, ASTM A182 Union, 150# socket weld, ANSI B16.11 or screwed ANSI B16.3, stainless steel, TY 316L, ASTM 182	Socket weld 3000#, ANSI B16.11, or screwed, 150# ANSI B16.3 plugs, screwed, 150# bronze, ANSI B16.18, ASTM B584, stainless steel, Type 316, ASTM 182	Socket Weld, 600#, ANSI B16.34, stainless steel, Type 316	Stainless steel ball, reinforced TFE seals and seats	Bolts: ANSI B18.2 galvanized steel, ASTM A307, Grade B Nuts: ANSI B18.2 galvanized steel ASTM A563 Grade A Gaskets: Garlock Blue Gard 3300 or equal	System designed and furnished by a USCG approved Hi-Fog® system manufacturer
Hi-Fog® SYSTEM System distribution	all	Type 316L stainless steel to suit USCG approval	Ferrule type DIN 2353 or SAE 518J flange joints	Ferrule type DIN 2353 or SAE 518J flange joints	Per manufacturer	Per manufacturer	Bolts: Per manufacturer Nuts: Per manufacturer Gaskets: GARLOCK Blue-Gard 3300 or equal	System designed and furnished by a USCG approved Hi-Fog® system manufacturer
HYDRAULIC SYSTEM (Not Package Units) 1200 psi 140F degrees See **NOTE 1**	2" through ¾"	Steel,seamless, ASTM A106, Grade B, Type S or E, ANSI B36.10, SCH 80	SAE Flange with O-ring, steel, 2000#	Steel, socket weld, ASTM A105, ANSI B16.11, 3000#	Steel, socket weld, ASTM A105, ANSI B16.11, ball, 2000# See Remarks	Stainless steel ball & stem, Viton seats & seals	See Remarks	Specialty piping components suitable for hydraulic service shall be provided.
	½" and below	Stainless steel tube, seamless ASTM A269	Swagelok stainless steel Type 316	Swagelok stainless steel, Type 316				

NOTE 1 -- Screwed stainless steel joints shall be coated with MolyKote or similar anti-sieze prior to assenbly.

NOTE 2 -- Fire and Sprinkler Pump suction piping and up to the first valve of the discharge piping shall use MATERIAL SCHEDULE Specification for the Firemain.

NOTE 3 – Water supply piping to pump shall use MATERIAL SCHEDULE Specification for the Potable, Sanitary, Hot Water.

(END OF TABLE)