

Name	Specifications	MANUFACTURERS	Material submittal
Breeching Inlet	Not Found	Not found	NAFFCO
Butterfly valve	Found	Approved Manufacturers For All Valves: Num:21 1000	Shield
		1. Grinnell Fire Protection.	
		2. McWane, Inc.; Kennedy Valve Div.	
		3. NIBCO.	
		4. Victulic	
		5. Approved alternatives/substitutions under provision of general conditions of contract.	
Fire Extinguishers	Found	Approved MANUFACTURERS	NAFFCO
		1. Portable fire extinguishers. NAFFCO UAE	
		2. Wheeled fire extinguishers. Watania UAE	
		3. Fire-protection cabinets for the following: Viking USA / Europe	
		a. Portable fire extinguishers. Angus Fire USA / Europe	
		b. Fire hoses and Reel. SFFECO KSA	
pipe	Found	PIPE, TUBE, AND FITTINGS	HUIKE
		A. Refer to individual Division 21 piping Sections for pipe, tube, and fitting joining methods.	
		B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.	
fitting	Found	PIPE, TUBE, AND FITTINGS	Hebei
		A. Refer to individual Division 21 piping Sections for pipe, tube, and fitting materials and joining methods.	
		B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.	
Flow switch	Found	Water-Flow Indicator: UL 346, electrical-supervision, paddle-operated-type, water-flow detector with 250-psig (1725-kPa) pressure rating and designed for horizontal or vertical installation. Include two single-pole, double-throw circuit switches for isolated alarm and auxiliary contacts, 7 A, 125-V ac and 0.25 A, 24-V dc; complete with factoryset, field adjustable retard element to prevent false signals and tamperproof cover that sends signal if removed.	SHIELD
		1. Approved Manufacturers:	
		a. ADT Security Services, Inc.	
		b. Grinnell Fire Protection.	
		c. ITT McDonnell & Miller.	
		d. Potter Electric Signal Company.	
		e. System Sensor.	
		f. Viking Corp.	
		g. Watts Industries, Inc.; Water Products Div.	
		h. Approved alternatives/substitutions under provision of general conditions of contract.	
Grooved Fittings	Found	Grooved-End, Standard-Weight Steel Pipe: ASTM A 53/A 53M, ASTM A 135, or ASTM A 795, seamless with factory- or field-formed, square-cut- or roll-grooved ends.	SHIELD
		1. Grooved-Joint Piping Systems:	
		1. Grooved-Joint Piping Systems:	
		a. Approved Manufacturers:	
		1) Anvil International, Inc.	
		2) Central Sprinkler Corp.	
		3) Ductilic, Inc.	
		4) JDH Pacific, Inc.	
		5) National Fittings, Inc.	
		6) Shurjoint Piping Products, Inc.	
		7) Southwestern Pipe, Inc.	
		8) Star Pipe Products; Star Fittings Div.	
		9) Victaulic Co. of America.	
		10) Ward Manufacturing.	
		11) Approved alternatives/substitutions under provision of general conditions of contract.	

Fire Hose Reel	Found	Approved MANUFACTURERS	NAFFCO
		1. Portable fire extinguishers. NAFFCO UAE	
		2. Wheeled fire extinguishers. Watania UAE	
		3. Fire-protection cabinets for the following: Viking USA / Europe	
		a. Portable fire extinguishers. Angus Fire USA / Europe	
Landing Valve	Not Found	b. Fire hoses and Reel. SFFECO KSA	NAFFCO
Pressure Reducing Valve	Not Found	Not found	NAFFCO
FIRE PUMPS	Found	Approved Manufacturers:	ARMSTRONG
		a. A-C Pump; ITT Industries.	
		b. Armstrong Darling, Inc.	
		c. Aurora Pump; Pentair Pump Group.	
		d. Fairbanks Morse; Pentair Pump Group.	
		e. Patterson Pump Company.	
		f. Reddy-Buffaloes Pump Co.	
		g. Sterling Peerless Pump; Sterling Fluid Systems Group.	
		h. Grunfos Fire Pumps.	
Sprinkler	Found	i. Approved alternative/substitutions under provisions of the General Conditions of Contract.	Shield AG
		Approved Manufacturers:	
		1. Grinnell Fire Protection.	
		2. Reliable Automatic Sprinkler Co., Inc.	
		3. Star Sprinkler Inc.	
		4. Venus Fire Protection, Ltd.	
		5. Victaulic Co. of America.	
		6. Viking Corp.	
		7. Approved alternatives/substitutions under provision of general conditions of contract.	