Item No.	Valve Number (KKS)									Valve Description	Manufacturer / Country of Origin	Design Condition		Fluid Medium	Valve Type	Nominal Valve Size	Valve Rating	Body Material	End Connection	Valve Operation	Reference P&ID	Remarks
	Level 0 (Total Plant)	Level 1 (System Code)			Level 2 (Equipment Code)			Level 3 (Component Code)				Press	Temp									
	G	F_3	$F_1F_2F_3$	F_4	A_1A_2	A_3	A_4	B_1B_2	B_3			(barg)	(°C)	(-)	(See Item 2.6 of Instrn Sht)	(DN)	(LB)	(-)	(See Item 2.10 of Instrn Sht)	(See Item 2.11 of Instrn Sht)		
2185	0	0	GBB	20	AA	101	N/A	N/A	N/A	PRETREATMENT PIPE MIXER A INLET VALVE	BRAY/CHINA	2.5	30	RAW SEAWATER	BUTTERFLY VALVE	350	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2186	0	0	GBB	20	AA	102	N/A	N/A	N/A	PRETREATMENT PIPE MIXER B INLET VALVE	BRAY/CHINA	2.5	30	RAW SEAWATER	BUTTERFLY VALVE	350	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2187	0	0	GBB	20	AA	103	N/A	N/A	N/A	PRETREATMENT PIPE MIXER C INLET VALVE	BRAY/CHINA	2.5	30	RAW SEAWATER	BUTTERFLY VALVE	350	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2188	0	0	GBB	20	AA	201	N/A	N/A	N/A	PRETREATMENT PIPE MIXER A OUTLET VALVE	BRAY/CHINA	2.5	30	RAW SEAWATER	BUTTERFLY VALVE	300	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	AUTOMATIC BY ELECTRIC MOTOR ACTUATOR, WITH POSITIONER	TJB56-L3-OFF-C-GCA-M-PID-0005	
2189	0	0	GBB	20	AA	202	N/A	N/A	N/A	PRETREATMENT PIPE MIXER B OUTLET VALVE	BRAY/CHINA	2.5	30	RAW SEAWATER	BUTTERFLY VALVE	300	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	AUTOMATIC BY ELECTRIC MOTOR ACTUATOR, WITH POSITIONER	TJB56-L3-OFF-C-GCA-M-PID-0005	
2190	0	0	GBB	20	AA	203	N/A	N/A	N/A	PRETREATMENT PIPE MIXER C OUTLET VALVE	BRAY/CHINA	2.5	30	RAW SEAWATER	BUTTERFLY VALVE	300	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	AUTOMATIC BY ELECTRIC MOTOR ACTUATOR, WITH POSITIONER	TJB56-L3-OFF-C-GCA-M-PID-0005	
2191	0	0	GBB	20	AA	111	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 1	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2192	0	0	GBB	20	AA	112	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 2	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2193	0	0	GBB	20	AA	113	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 3	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2194	0	0	GBB	20	AA	114	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 4	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2195	0	0	GBB	20	AA	115	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 5	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2196	0	0	GBB	20	AA	116	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 6	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2197	0	0	GBB	20	AA	117	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 7	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2198	0	0	GBB	20	AA	118	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 8	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2199	0	0	GBB	20	AA	119	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 9	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2200	0	0	GBB	20	AA	120	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 10	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2201	0	0	GBB	20	AA	121	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 1	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2202	0	0	GBB	20	AA	122	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 2	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2203	0	0	GBB	20	AA	123	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 3	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2204	0	0	GBB	20	AA	124	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 4	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2205	0	0	GBB	20	AA	125	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 5	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2206	0	0	GBB	20	AA	126	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 6	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2207	0	0	GBB	20	AA	127	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 7	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2208	0	0	GBB	20	AA	128	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 8	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2209	0	0	GBB	20	AA	129	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 9	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2210	0	0	GBB	20	AA	130	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK B DRAIN VALVE 10	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2211	0	0	GBB	20	AA	131	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 1	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2212	0	0	GBB	20	AA	132	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 2	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2213	0	0	GBB	20	AA	133	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 3	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2214	0	0	GBB	20	AA	134	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 4	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2215	0	0	GBB	20	AA	135	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 5	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2216	0	0	GBB	20	AA	136	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 6	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2217	0	0	GBB	20	AA	137	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 7	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2218	0	0	GBB	20	AA	138	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 8	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2219	0	0	GBB	20	AA	139	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 9	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2220	0	0	GBB	20	AA	140	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK C DRAIN VALVE 10	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	MANUALLY BY HANDWHEEL	TJB56-L3-OFF-C-GCA-M-PID-0005	
2221	0	0	GBB	20	AA	211	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 11	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	PNEUMATIC ACTUATOR	TJB56-L3-OFF-C-GCA-M-PID-0005	
2222	0	0	GBB	20	AA	212	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 12	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	PNEUMATIC ACTUATOR	TJB56-L3-OFF-C-GCA-M-PID-0005	
2223	0	0	GBB	20	AA	213	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 13	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	PNEUMATIC ACTUATOR	TJB56-L3-OFF-C-GCA-M-PID-0005	
2224	0	0	GBB	20	AA	214	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 14	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	PNEUMATIC ACTUATOR	TJB56-L3-OFF-C-GCA-M-PID-0005	
2225	0	0	GBB	20	AA	215	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 15	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	PNEUMATIC ACTUATOR	TJB56-L3-OFF-C-GCA-M-PID-0005	
2226	0	0	GBB	20	AA	216	N/A	N/A	N/A	COAGULATING SEDIMENTATION TANK A DRAIN VALVE 16	BRAY/CHINA	1.0	30	SLURRY	BUTTERFLY VALVE	200	PN10	CARBON STEEL WITH POLYESTER COATING	WAFER	PNEUMATIC ACTUATOR	TJB56-L3-OFF-C-GCA-M-PID-0005	