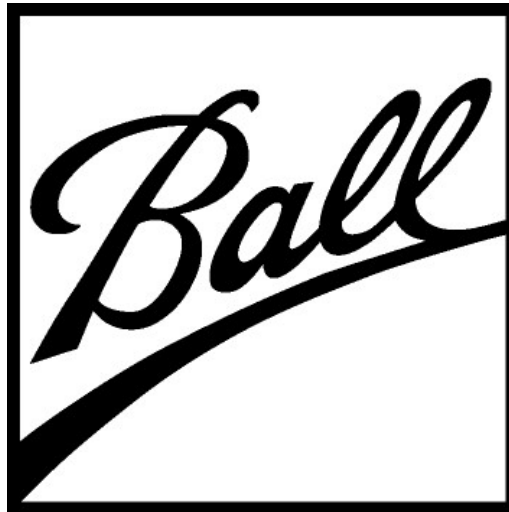# Ball Aerospace

Facilities Guidelines & Standards

B.02

Equipment Naming Standard

Revision 1.3

Table of Contents

Section 1 – Purpose and Expectations

- The purpose of the Ball Aerospace Equipment Naming Standard is to ensure naming consistency between all of Ball's facilities. With this consistency, Ball will be able to operate and maintain our facilities with greater efficiency.

Section 2 – Deliverables

- The Equipment Naming Standard is to be used for all design and as-built drawings, as well as all Revit models and submittal documentation.
- The construction team is to field label all equipment designated in Section 6.0 with heavy-duty labels that display the textual standardized name of the equipment, as well as a QR code that reads the standardized name of the equipment.
  - Electrical equipment display textual field labeling shall match the abbreviated name laid out in Section 5.0. Electrical. However, Electrical QR codes shall read the full-length standardized equipment name.
  - Confirm with EHS that labels comply with our internal CAR system.
  - Ensure no silicone is present in the labels.

Section 3 – Equipment Numbering Process

- The project team is to identify the type and quantity of equipment needed for new equipment in an Excel list.

- The project team is to send the prepared Excel list to Facilities Engineering and Facilities Engineering will send back to the project team an Excel list of starting numbers.
- The project team is to send a final Excel list of new and <mark style="background-color:red;color:white">demolished</mark> equipment to Facilities Engineering at the close of the project.

Section 4 – Equipment Naming Structure

- The following structure shall be used for the naming of all new and replaced equipment.
  - BBBBB_FF_EEE_NNN_CCC_SSS_MMM_TTT_XXX
- 5 characters: BBBBB = Building (no dashes in bldg. name) (See Section 7.0)
- 2 characters: FF = Floor (PH, LL, PL=parking lot, RF-Roof,)
- 3 characters: EEE = Equipment Naming Code (e.g. AHU, VAV, etc.)
- 3 characters: NNN = Equipment Number (e.g. AHU_004)
- 3 characters: CCC = Subcomponent Units (e.g. AHU_004_PMP_001)
- 3 characters: SSS = System (if needed)
- 3 characters: MMM = System number (if needed)
- 3 characters: TTT = Point type (for controls if applicable) (e.g. ALM for alarm or OAT for outside air temperature)
- XXX = Other fields defined as needed

Sections 4.1 – Equipment Naming Parameters

- 32 character maximum
- Each name must be unique
- Equipment numbering continues through each floor (e.g. LL_AHU_01 to ML_AHU_02)
- If replacing existing equipment, add letter designation but retain equipment number (e.g. AHU_001 to AHU_01A)
- Only use the needed number of characters per field.
- Not applicable for NNN = Equipment Number where all three characters must be used.

Section 5 – Electrical Equipment Naming Guidelines

- Electrical equipment should use abbreviated nomenclature on drawings and design packages to help keep circuit labeling clear and concise.

- Abbreviated equipment names should begin with the equipment digits and continue to follow the naming standard EEE_NNN_SSS_MMM_TTT_XXX without the use of underscores.

Full Equipment Name	Abbreviated Name
AHQ_01_XFM_001_SB	XFM1SB

AHQ_01_HV_001_SB	HV1SB
AHQ_01_LV_001_SB	LV1SB
AHQ_01_LV_002	LV2
AHQ_01_LV_003	LV3

- If a project spans multiple buildings (ex: FM and FT), then an Excel table shall be provided to detail complete vs abbreviated equipment names.
- The system characters shall be used to delineate normal, standby, and life safety circuits. SB for standby systems, LS for life safety systems, and blank for normal power systems.
- Subpanels will get a unique equipment number.

Section 6 – Equipment Naming Codes

The following pages contain the Ball equipment naming codes to be used when generating equipment names.

Equipment Name	Equipment Code	Field Label
Air Blower	ABL	X
Condenser, Air-Cooled	ACC	X
Air Curtain	ACT	
Air Conditioner, Window	ACW	X
Air Dryer	ADR	X
Air Handling Unit	AHU	X
Alarm	ALM	
Switch, Automatic Transfer	ATS	X
Building Automation System	BAS	
Backflow Prevention Device	BFP	
Boiler, Steam, Natural Gas	BLR	X
Heater, Baseboard	BSB	
Chiller	CHL	X
Cabinet Heater	CHT	X
Chiller, Air Cooled	CLA	X
Chiller, water cooled	CLW	X
Carbon-Monoxide Detection Sensors	CMD	
Air Compressor	CMP	X
Condenser Pump	CNP	X
Condensate Pump	CP	X
Computer Room Air Conditioning	CRC	X
Condensate Return Unit	CRU	

Cooling Tower	CTR	X
Cabinet Unit Heater	CUH	X
Chill Water Pump	CWP	X
Davits/Roof Anchors/Fall Protection	DAV	
Switch, Disconnect	DCT	X
Deaerator Tank	DEA	X
Fryer, Pressurized Roaster, Gas/Electric	DFF	X
Drinking Fountain	DFN	
Exterior Door	DRE	
Interior Door	DRI	
Drain	DRN	
Duplex Sewage Ejector	DSE	
Dishwasher	DSH	X
Domestic Water Pump	DWP	X
Fan, Exhaust	EFN	X
Emergency Lighting	ELT	
Electric Traction Elevator	ELV	X
Elevator	ELV	X
Emergency Generator	EMG	X
Escalator	ESC	X
Evaporative Cooler	EVP	X
Exit Signs	EXS	
Expansion Tank	EXT	X
Furnace, Forced Air, Natural Gas	FAF	X
Fan	FAN	X
Fan Coil Unit	FCU	X
Fire Extinguishers	FEX	
Filter	FLT	X
Fences and Gates	FNG	
Fire Pump	FPM	X
Refrigerator unit/display case w/external condenser	FRG	X
Refrigerator/Freezer, walk-in box w/external condenser	FRZ	X
Fire and Smoke Dampers	FSD	
Clean-Agent Fire-Extinguishing Systems	FSP	
Dry-Pipe Sprinkler Systems	FSP	
Preaction Sprinkler Systems	FSP	
Wet-Pipe Sprinkler Systems	FSP	

Feed Water Pump	FWP	X
Garbage Disposal	GBG	
Fuel-Gas Detection Sensors	GDS	
Glycol Feed System	GFS	X
Grill	GRL	X
Grease Trap	GTP	
Heating/Cooling Unit	HCU	X
Fire Hose / Hose Connections	HSE	
Heat Pump	HTP	X
Humidifier, Evaporative Pan w/ Heating Coil	HUM	X
High Voltage Panel	HV	X
Heating & Ventilating Units	HVU	X
Boiler, Hot Water	HWB	X
Heating Hot Water Pump	HWP	X
Heat Exchanger	HXR	X
Fire Hydrant	HYD	
Ice Machine	ICE	X
Kathabar System (Liquid Desiccant)	KBR	X
Kitchen Exhaust Hood	KEH	X
Kettle, Steam	KTL	X
Ladder	LDR	
Lifting devices	LFT	
Parking Lots (Paving)	LOT	
Low Voltage Panel	LV	X
Make Up Air Unit	MAU	X
Motor Control Center	MCC	
Mixer, Electric	MIX	
Motor	MOT	
Metering Devices	MTR	
Oven	OVN	X
Parking Arm Gates	PAG	
Powered Doors	PDR	X
Irrigation Pump	PMP	
Pump	PMP	X
Radiator	RAD	X
Roof Membrane	RFM	
Refrigeration Machine	RFR	X
Reverse Osmosis Water Treatment Skid	RO	X

Roof System and Drains	RFS	
Range, Gas	RNG	**X**
Package Unit	RTU	**X**
Smoke Detection Sensors	SDS	
Humidifier, Steam	SHS	**X**
Sump Pump	SMP	**X**
Snow Melt System	SMS	
Split-System Air Conditioner	SSA	**X**
Steam Trap	STR	
Steam Station	STS	**X**
Switchboard, Electrical	SWB	**X**
switch gear	SWG	**X**
Terminal Unit	TMU	
Tank	TNK	**X**
Transformer, Oil-Filled	TRN	**X**
Space Heater	UHT	**X**
Unit Heater	UHT	**X**
UPS (Uninterruptable Power Supply)	UPS	**X**
Underground Storage Tank (UST)	UST	
VAV (Variable Air Volume Boxes)	VAV	**X**
Vacuum Pump	VCP	**X**
Variable Frequency Drive	VFD	
Voltage Regulator	VLT	
Valves	VLV	
Condenser, Water-Cooled	WCC	**X**
Water Heater, Electric	WHT	**X**
Water Heater, Natural Gas	WHT	**X**
Wheelchair Lift	WLF	
Water Softener	WSF	**X**
Water Treatment (Chemical)	WTM	**X**
Dry Type Transformer	XF	**X**

Section 7 – Building Name Codes

The following pages contain the Ball building codes to be used when generating equipment names.

Building Code	Site	Address	City
ADO	NORTH	1600 Commerce Street	BOULDER
BACH	NORTH	4946 63rd Street	BOULDER

CO3	NORTH	1645 Conestoga Street	BOULDER
CO5	NORTH	1685 Conestoga Street	BOULDER
CO6	NORTH	1688 Conestoga Street	BOULDER
CO7	NORTH	1727 Conestoga Street	BOULDER
CO8	NORTH	1730-50 Conestoga Street	BOULDER
CO9	NORTH	1777 Conestoga Street	BOULDER
CO10	NORTH	1780 Conestoga Street	BOULDER
FA	NORTH	1600 Commerce Street	BOULDER
FI	NORTH	1600 Commerce Street	BOULDER
FM	NORTH	1600 Commerce Street	BOULDER
FT	NORTH	1600 Commerce Street	BOULDER
RA1	NORTH	5151 Arapahoe Street	BOULDER
RA4	NORTH	1640 Range Street	BOULDER
RA5	NORTH	1705 Range Street	BOULDER
RA6	NORTH	1680-90 Range Street	BOULDER
RA7	NORTH	1735 Range Street	BOULDER
RA8	NORTH	1720-30 Range Street	BOULDER
RA10	NORTH	1770 Range Street Unit B	BOULDER
RA11	NORTH	1835 Range Street	BOULDER
T1	NORTH	1600 Commerce Street	BOULDER
T2	NORTH	1600 Commerce Street	BOULDER
T3	NORTH	1600 Commerce Street	BOULDER
TT	NORTH	1600 Commerce Street	BOULDER
WE2	NORTH	5490 Western Avenue	BOULDER
AMC (AMC1)	SOUTH	9675 W. 108th Circle	WESTMINSTER
AMC2	SOUTH	9675 W. 108th Circle	WESTMINSTER
AMC4	SOUTH	9675 W. 108th Circle	WESTMINSTER
AHQ	SOUTH	10 Longs Peak Drive	BROOMFIELD
BAH	SOUTH	12202 AIRPORT WAY	BROOMFIELD
BPW	SOUTH	11575 Main Street Ste. 600	BROOMFIELD
BRD	SOUTH	7 Longs Peak Drive	BROOMFIELD
BPW2 (CO-MS)	SOUTH	11575 Main Street Ste. 100	BROOMFIELD
BPW3 (CO-MS2)	SOUTH	11575 Main Street Ste. 500	BROOMFIELD
PDF	SOUTH	7 Longs Peak Drive	BROOMFIELD
PIA	SOUTH	9467 W. 108th Circle	WESTMINSTER
WMR (WMR1)	SOUTH	10055 Westmoor Drive	WESTMINSTER
WMR2	SOUTH	10075 Westmoor Drive	WESTMINSTER
WMR3	SOUTH	10155 Westmoor Drive	WESTMINSTER
WMR7	SOUTH	10955 Westmoor Drive	WESTMINSTER
AWH	SOUTH	1100 W. 120th Avenue	WESTMINSTER

Supplemental Document Information

The following resource documents should be referenced for execution of the standards and guidelines described above.

Document Number	Document Title

Revision Log

Revision	Release Date	Description of Changes
1.2	5/18/2022	Initial Release
1.3	7/29/2022	Reformatting, added new equipment codes.