

Maximum Performance (MaP)® of Toilet Fixtures - High-Efficiency Flushometer Valve/Bowl Combinations

IMPORTANT NOTE: The evaluation and MaP measurement of the flushometer bowl/valve combinations shown below was performed using the existing MaP protocol designed for residential applications. A **more rigorous** MaP protocol for non-residential (public restroom) applications is under consideration. Performance results may change if the combinations shown below are re-tested using a (proposed) new commercial protocol.

November 19, 2021

MaP Report No. (for internal use)	Flushometer bowl						Flushometer valve											
	Manufacturer of the Bowl	Bowl/ Valve Combination Number (if available)	Bowl Model Name	Bowl Model Number	Spud	Rough-in (inches)*	Round (R) or Elongated (E) bowl	ADA Height Bowl	Rear Discharge (Back Outlet)	Floor- (F) OR Wall-Mounted (W)	WaterSense Compliant Bowl (certified)	Manufacturer of the Valve	Valve Model Number	MaP Performance Score	6-L (1.6-gal) Commercial Combination	4.8-L (1.28-gal) HET Commercial Combination	Rated HET Flush Volume	Valve design: D=Diaphragm; P=Pliston

High-Efficiency (HET) Flushometer Valve/Bowl Combinations (1.1 gallon/4.0 litre max Effective Flush Volume)

55-023	American Standard		Madera 1.1 EL	2234	Top	10	E			F	WS	American Standard	6147.111 and 6147SM.111	1,000	HET	1.10	D	
55-026	American Standard		Afwall EC 1.1 EL (wall mount-ADA possible)	2257	Top	N.A.	E	ADA	R	W	WS	American Standard	6147.111 and 6147SM.111	1,000	HET	1.10	D	
30-075RN46-RN62	American Standard	2257511.020	Afwall Millennium 1.1 EL ADA	2257.101	Top	N.A.	E	ADA	R	W	WS	American Standard	6065.111 (1.1 gpf)(battery)	1,000	HET	1.10	P	WS
30-075RN46-RN62	American Standard		Afwall Millennium 1.1 EL ADA	2634.101	Rear	N.A.	E	ADA	R	W	WS	American Standard	6065.111 (1.1 gpf)(battery)	1,000	HET	1.10	P	WS
55-020	American Standard		Madera 1.1 EL ADA	3043	Top	10	E	ADA		F	WS	American Standard	6147.111 and 6147SM.111	1,000	HET	1.10	D	
55-026	American Standard		Afwall EC 1.1 EL (wall mount-ADA possible)	3351	Top	N.A.	E	ADA	R	W	WS	American Standard	6147.111 and 6147SM.111	1,000	HET	1.10	D	
30-075RN46-RN62	American Standard	3351511.020	Afwall EC TS 1.1 EL ADA	3351.101	Top	N.A.	E	ADA	R	W	WS	American Standard	6065.111 (battery)	1,000	HET	1.10	P	WS
30-075RN46-RN62	American Standard		Afwall EC Millennium 1.1 EL ADA	3353.101	Rear	N.A.	E	ADA	R	W	WS	American Standard	6065.111 (battery)	1,000	HET	1.10	P	WS
55-023	American Standard		Madera 1.1 EL	3451	Top	10	E			F	WS	American Standard	6147.111 and 6147SM.111	1,000	HET	1.10	D	
55-020	American Standard		Madera 1.1 EL ADA	3461	Top	10	E	ADA		F	WS	American Standard	6147.111 and 6147SM.111	1,000	HET	1.10	D	
40-017RN56	American Standard		Priolo EL	3690.001	Top	14	E		W	F	WS	American Standard	6065.111 (1.1 gpf)	1,000	HET	1.10	P	WS
41-003RN57	American Standard		Priolo EL	3690.001	Top	14	E		R	F	WS	American Standard	Flowise 1.1 6047.111 (manual)	1,000	HET	1.10	P	WS
40-015RN56	American Standard		Priolo EL ADA	3695.001	Top	14	E	ADA	R	F	WS	American Standard	6065.111 (1.1 gpf)	1,000	HET	1.10	P	WS
41-002RN57	American Standard		Priolo EL ADA	3695.001	Top	14	E	ADA	R	F	WS	American Standard	Flowise 1.1 6047.111 (manual)	1,000	HET	1.10	P	WS
32-039RN48	American Standard	3451511.020	Madera 1.1 EL	2234.001 (NOTE: also includes 2623.001, 2624.001, 3451.001, 3452.001, 3455.001)	Top	12	E			F	WS	American Standard	6065.111 (1.1 gpf)(battery)	1,000	HET	1.10	P	WS
41-005RN57	American Standard		Madera EL	2234.001 or 3451.001	Top	12	E			F	WS	American Standard	Flowise 1.1 6047.111 (manual)	1,000	HET	1.10	P	WS
41-001RN57	American Standard		Afwall EL ADA	2257.101 or 3351.101	Top	N.A.	E	ADA	R	W	WS	American Standard	Flowise 1.1 6047.111 (manual)	1,000	HET	1.10	P	WS
30-075RN46-RN62	American Standard		Afwall Millennium 1.1 EL ADA	2633.101 (w/BPL)	Top	N.A.	E	ADA	R	W	WS	American Standard	6065.111 (1.1 gpf)(battery)	1,000	HET	1.10	P	WS
32-044RN48	American Standard	3461511.020	Madera 1.1 EL	3043.001 (NOTE: also includes 3248.001, 3249.001, 3461.001, 3462.001, 3463.001, 3464.001)	Top	12	E	ADA		F	WS	American Standard	6065.111 (1.1 gpf)(battery)	1,000	HET	1.10	P	WS
41-004RN57	American Standard		Madera EL ADA	3043.001 or 3461.001	Top	12	E	ADA		F	WS	American Standard	Flowise 1.1 6047.111 (manual)	1,000	HET	1.10	P	WS
30-075RN46-RN62	American Standard		Afwall EC Millennium 1.1 EL ADA	3352.101 (w/BPL)	Top	N.A.	E	ADA	R	W	WS	American Standard	6065.111 (battery)	1,000	HET	1.10	P	WS
30-075RN46-RN62	American Standard		Afwall EC Millennium 1.1 EL ADA	3354.101 (rear outlet w/BPL)	Top	N.A.	E	ADA	R	W	WS	American Standard	6065.111 (battery)	1,000	HET	1.10	P	WS
43-005RN59	AMTC	AEF**1012T11	None EL	AUT-1012	Top	10	E			F	WS	AMTC	AEF-801-**CT-11	800	HET	1.10	D	WS
43-005RN59	AMTC	HSM1012T11	None EL	AUT-1012	Top	10	E			F	WS	AMTC	HSM-801-CT-11	800	HET	1.10	D	WS
43-005RN59	AMTC	MF1012T11	None EL	AUT-1012	Top	10	E			F	WS	AMTC	MF-700-T11	800	HET	1.10	D	WS
43-004RN59	AMTC	AEF**1012AT11	None EL ADA	AUT-1012A	Top	10	E	ADA		F	WS	AMTC	AEF-801-**CT-11	800	HET	1.10	D	WS
43-004RN59	AMTC	HSM1012AT11	None EL ADA	AUT-1012A	Top	10	E	ADA		F	WS	AMTC	HSM-801-CT-11	800	HET	1.10	D	WS
43-004RN59	AMTC	MF1012AT11	None EL ADA	AUT-1012A	Top	10	E	ADA		F	WS	AMTC	MF-700-T11	800	HET	1.10	D	WS
43-003RN59	AMTC	AEF**1012WT11	None EL (wall mount-ADA possible)	AUT-1012W	Top	N.A.	E	ADA	R	W	WS	AMTC	AEF-801-**CT-11	800	HET	1.10	D	WS
43-003RN59	AMTC	HSM1012WT11	None EL (wall mount-ADA possible)	AUT-1012W	Top	N.A.	E	ADA	R	W	WS	AMTC	HSM-801-CT-11	800	HET	1.10	D	WS
43-003RN59	AMTC	MF1012WT11	None EL (wall mount-ADA possible)	AUT-1012W	Top	N.A.	E	ADA	R	W	WS	AMTC	MF-700-T11	800	HET	1.10	D	WS
51-005	Conrac		Colter Commercial EL	4765BEU	Rear	10	E			F	WS	AMTC	MF-700-T11	600	HET	1.10	D	WS
51-004	Conrac		Colter Commercial EL	4765BEX	Top	10	E			F	WS	AMTC	MF-700-T11	800	HET	1.10	D	WS
51-003	Conrac		Clay Commercial EL ADA	4765BOU	Rear	10	E	ADA		F	WS	AMTC	MF-700-T11	600	HET	1.10	D	WS
51-002	Conrac		Clay Commercial EL ADA	4765BOU	Top	10	E	ADA		F	WS	AMTC	MF-700-T11	800	HET	1.10	D	WS
54-033	Conrac		Clark Commercial EL (wall mount-ADA possible)	4765CEX	Rear	N.A.	E	ADA	R	W	WS	AMTC	MF-700-T11	800	HET	1.10	D	WS
54-032	Conrac		Clark Commercial EL (wall mount-ADA possible)	4765CEX	Top	N.A.	E	ADA	R	W	WS	AMTC	MF-700-T11	800	HET	1.10	D	WS
46-041RN62	Duravit		Starck 3 (wall-mount - ADA possible)	222909	Top	N.A.	S	ADA	R	W	WS	Toto	TET 11N-32	600	HET	1.10	P	WS
46-052RN62	Kohler		Wellcome Ultra EL	K-96053	Top	12	E			F	WS	Zurn	ZTR6200-ONE	1,000	HET	1.10	P	WS
42-056RN58	Kohler		Highcliff Ultra EL	K-96057	Top	12	E	ADA		F	WS	Zurn	ZTR6200-ONE	1,000	HET	1.10	P	WS
42-057RN58	Kohler		Juvenile Ultra EL (Youth size: 13.5-inch bowl height)	K-96059	Top	10	E			F	WS	Zurn	ZTR6200-ONE	1,000	HET	1.10	P	WS
41-025RN57	PROFLO (Ferguson brand)		ProFlo EL	PF1721	Top		E			F	WS	Sloan	ECOS 8111-1.1	1,000	HET	1.10	D	WS
41-024RN57	PROFLO (Ferguson brand)		ProFlo EL ADA	PF1723	Top		E	ADA		F	WS	Sloan	ECOS 8111-1.1	1,000	HET	1.10	D	WS
57-020	PROFLO (Ferguson brand)		ProFlo FMBO EL ADA (1.0 gpf)	PF1726	Top	N.A.	E	ADA	R	F	WS	AMTC	MF-700-T11-1.1GPF	1,000	HET	1.10	D	WS
41-023RN57	PROFLO (Ferguson brand)		ProFlo EL (wall mount-ADA possible)	PF1731	Top	N.A.	E	ADA	R	W	WS	Sloan	ECOS 8111-1.1	1,000	HET	1.10	D	WS
57-019	PROFLO (Ferguson brand)		ProFlo EL (wall-hung - ADA possible)(1.0 gpf)	PF1732	Rear	N.A.	E	ADA	R	W	WS	AMTC	MF-700-T11-1.1GPF	1,000	HET	1.10	D	WS
38-022RN54	Sloan Valve	WETS 2001.1101-1.1 ECOS	EL	ST2009	Top	10	E			F	WS	Sloan	ECOS 8111-1.1	800	HET	1.10	D	WS

MaP Report No. (for internal use)	Flushometer bowl										Flushometer valve							
	Manufacturer of the Bowl	Bowl/ Valve Combination Number (if available)	Bowl Model Name	Bowl Model Number	Spud	Rough-in (inches)*	Round (R) or Elongated (E) bowl	ADA Height Bowl	Rear Discharge (Back Outlet)	Floor- (F) OR Wall-Mounted (W)	WaterSense Compliant Bowl (certified)	Manufacturer of the Valve	Valve Model Number	MaP Performance Score	6-L (1.6-gal) Commercial Combination	4.8-L (1.28-gal) HET Commercial Combination	Rated HET Flush Volume	Valve design: P=Diaphragm, P=Piston
38-021RN54	Sloan Valve	WETS 2021.1101-1.1 ECOS	EL ADA	ST2029	Top	10	E	ADA		F	WS	Sloan	ECOS 8111-1.1	800		HET 1.10	D	WS
45-025RN61	Sloan Valve		EL (juvenile bowl height: 13.5-inch = 343 mm)	ST2449	Top	10	E			F	WS	Sloan	ECOS 111-1.1	800		HET 1.10	D	WS
38-019RN54	Sloan Valve	WETS 2451.1101-1.1 ECOS	EL (wall mount-ADA possible)	ST2459	Top	N.A.	E	ADA	R	W	WS	Sloan	ECOS 8111-1.1	800		HET 1.10	D	WS
51-008	Toto		EL ADA	CT705ULN or CT705ULN*	Top		E	ADA		F	WS	Toto	TET 1UA32 OR TET 6UA32 or TET 2UA31/32/33 OR TET 3UA31/32/33	800		HET 1.00	P	WS
51-007	Toto		EL ADA	CT705UN or CT705UN*	Top		E	ADA		F	WS	Toto	TET 1UA32 OR TET 6UA32 or TET 2UA31/32/33 OR TET 3UA31/32/33	800		HET 1.00	P	WS
51-009	Toto		EL (wall mount-ADA possible)	CT708U or CT708U*	Top	N.A.	E	ADA	R	W	WS	Toto	TET 1UA32 OR TET 6UA32 or TET 2UA31/32/33 OR TET 3UA31/32/33	800		HET 1.00	P	WS
51-009	Toto		EL (wall mount-ADA possible)	CT708UV or CT708UV*	Rear	N.A.	E	ADA	R	W	WS	Toto	TET 1UA32 OR TET 6UA32 or TET 2UA31/32/33 OR TET 3UA31/32/33	800		HET 1.00	P	WS
41-025RN57	Tynan		Torc EL	7501	Top		E			F	WS	Sloan	ECOS 8111-1.1	1,000		HET 1.10	D	WS
41-024RN57	Tynan		Torrin EL ADA	7502	Top		E	ADA		F	WS	Sloan	ECOS 8111-1.1	1,000		HET 1.10	D	WS
41-023RN57	Tynan		Lir EL (wall mount-ADA possible)	7503	Top	N.A.	E	ADA	R	W	WS	Sloan	ECOS 8111-1.1	1,000		HET 1.10	D	WS
57-020	Tynan		Torrin FMBO EL ADA (1.0 gpf)	7506	Top	N.A.	E	ADA	R	F	WS	AMTC	MF-700-T11-1.1GPF	1,000		HET 1.10	D	WS
57-019	Tynan		Lir EL (wall-hung - ADA possible) (1.0 gpf)	7503R	Rear	N.A.	E	ADA	R	W	WS	AMTC	MF-700-T11-1.1GPF	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5615-BWL (wall-hung-back outlet)	Top	N.A.	E	ADA	R	W	WS	Zurn	Z6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5615-BWL (wall-hung-back outlet)	Top	N.A.	E	ADA	R	W	WS	Zurn	ZEM6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5615-BWL (wall-hung-back outlet)	Top	N.A.	E	ADA	R	W	WS	Zurn	ZR6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5615-BWL (wall-hung-back outlet)	Top	N.A.	E	ADA	R	W	WS	Zurn	ZR6000AV-ONE	1,000		HET 1.10	D	WS
36-001RN52	Zurn		EL (wall mount-ADA possible)	Z5615-BWL (wall-hung-back outlet)	Top	N.A.	E	ADA	R	W	WS	Zurn	ZTR6200-ONE	800		HET 1.10	P	WS
44-094RN60	Zurn		EL	Z5655-BWL1	Top	12	E			F	WS	Zurn	Z6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5655-BWL1	Top	12	E			F	WS	Zurn	ZEM6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5655-BWL1	Top	12	E			F	WS	Zurn	ZER6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5655-BWL1	Top	12	E			F	WS	Zurn	ZR6000AV-ONE	1,000		HET 1.10	D	WS
41-015RN57	Zurn		EL	Z5655-BWL1	Top	12	E	ADA		F	WS	Zurn	ZTR6200-ONE	1,000		HET 1.10	P	WS
44-094RN60	Zurn		EL	Z5655-BWL1	Top	12	E			F	WS	Zurn	Z6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5655-BWL1	Top	12	E			F	WS	Zurn	ZEM6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5655-BWL1	Top	12	E			F	WS	Zurn	ZER6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5655-BWL1	Top	12	E			F	WS	Zurn	ZR6000AV-ONE	1,000		HET 1.10	D	WS
41-015RN57	Zurn		EL	Z5655-BWL1 w/BPL	Top	12	E	ADA		F	WS	Zurn	ZTR6200-ONE	1,000		HET 1.10	P	WS
44-094RN60	Zurn		EL	Z5657-BWL1	Rear	12	E	ADA		F	WS	Zurn	Z6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5657-BWL1	Rear	12	E	ADA		F	WS	Zurn	ZEM6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5657-BWL1	Rear	12	E	ADA		F	WS	Zurn	ZER6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL	Z5657-BWL1	Rear	12	E	ADA		F	WS	Zurn	ZR6000AV-ONE	1,000		HET 1.10	D	WS
41-015RN57	Zurn		EL	Z5657-BWL1 w/AM glaze	Rear	12	E	ADA		F	WS	Zurn	ZTR6200-ONE	1,000		HET 1.10	P	WS
44-094RN60	Zurn		EL ADA	Z5665-BWL1	Top	12	E	ADA		F	WS	Zurn	Z6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5665-BWL1	Top	12	E	ADA		F	WS	Zurn	ZEM6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5665-BWL1	Top	12	E	ADA		F	WS	Zurn	ZER6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5665-BWL1	Top	12	E	ADA		F	WS	Zurn	ZR6000AV-ONE	1,000		HET 1.10	D	WS
41-014RN57	Zurn		EL ADA	Z5665-BWL1	Top	12	E	ADA		F	WS	Zurn	ZTR6200-ONE	1,000		HET 1.10	P	WS
44-094RN60	Zurn		EL ADA	Z5666-BWL1	Top	12	E	ADA		F	WS	Zurn	Z6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5666-BWL1	Top	12	E	ADA		F	WS	Zurn	ZEM6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5666-BWL1	Top	12	E	ADA		F	WS	Zurn	ZER6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5666-BWL1	Top	12	E	ADA		F	WS	Zurn	ZR6000AV-ONE	1,000		HET 1.10	D	WS
41-014RN57	Zurn		EL ADA	Z5666-BWL1 w/BPL	Top	12	E	ADA		F	WS	Zurn	ZTR6200-ONE	1,000		HET 1.10	P	WS
44-094RN60	Zurn		EL ADA	Z5667-BWL1 (back outlet)	Rear	12	E	ADA		F	WS	Zurn	Z6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5667-BWL1 (back outlet)	Rear	12	E	ADA		F	WS	Zurn	ZEM6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5667-BWL1 (back outlet)	Rear	12	E	ADA		F	WS	Zurn	ZER6000AV-ONE	1,000		HET 1.10	D	WS
44-094RN60	Zurn		EL ADA	Z5667-BWL1 (back outlet)	Rear	12	E	ADA		F	WS	Zurn	ZR6000AV-ONE	1,000		HET 1.10	D	WS
41-014RN57	Zurn		EL ADA	Z5667-BWL1 w/AM glaze	Rear	12	E	ADA		F	WS	Zurn	ZTR6200-ONE	1,000		HET 1.10	P	WS

Notes: *-Rough-in dimension shown is the actual dimension of the tested installaiton; some bowis on this list may accommodate BOTH 10-inch and 12-inch rough-in

RF - Round-front toilet bowl

EL - Elongated-front toilet bowl

N.A. - Wall (rear) outlet bowl. Rough-in dimension is NOT applicable.

S - Special bowl height for child installations as follows:

Amer Std Approx. 10.4 inches to 14 inches (260 to 355 mm)

Gerber Approx. 13.4 inches (340 mm)

ADA-Meets bowl-height requirements of Americans with Disabilities Act; does NOT imply that fixture meets any other ADA requirements.

G - Gallons per Flush

L - Litres per Flush

BPL - Bowl with Bed Pan Lugs