

DESIGN ENVELOPE (PERMANENT MAGNET) 6800 G QUADRAPLEX DOMESTIC COLD WATER BOOSTER | (4 DUTY PUMPS OR 3 DUTY + 1 STANDBY PUMP) | SUBMITTAL

File No: 100.613
Date: AUGUST 27, 2021
Supersedes: 100.613, 100.617
Date: APRIL 19, 2019

Job: _____ Representative: _____

Order No: _____ Date: _____

Contractor: _____ Submitted by: _____ Date: _____

Engineer: _____ Approved by: _____ Date: _____

BOOSTER PACKAGE DESIGN DATA

Tag: _____ Model: _____

Operation: 4 Duty 3 Duty + 1 Standby

Total Flow: _____ USgpm (L/s) Flow per Pump: _____ USgpm (L/s)

Suction (Supply) Pressure: _____ ft (psi /m)

Boost Pressure (Head): _____ ft (psi /m)

Discharge Pressure: _____ ft (psi /m) Total Duty Hp: _____

Liquid: Water Max Temperature: 73°F ± 4 (23°C ± 2)

Other: _____ Max Temperature: _____ °F (°C)

Specific Gravity: _____ Viscosity: _____ lbf*s/ft² (Pa*s)

NOTE: Test tolerance according to ISO 9906 Grade 2B
±8% on measured flow and ±5% on measured head

BOOSTER PACKAGE CONSTRUCTION DATA

Certification: NSF 61/372 (as a complete package)

Pump Type: 4700 (Vertical Multi Stage)

Pump Construction: Full Stainless Steel (VMS 10, VMS 15, VMS 20)

Stainless Steel with Cast Iron Bottom
Casing & Casing Cover (VMS 32, VMS 45, VMS 64)

Piping Material: 304 Stainless Steel

Base & Stanchion Material: 304 Stainless Steel

Suction Valve Type: Butterfly **Discharge Valve Type:** Flo-Trex

Suction Connection Orientation: Right Left

Discharge Connection Orientation: Right Left

System Connection Type: Grooved Flanged

Optional Suction Flange Type: ANSI 125/150

Optional Discharge Flange Type: ANSI 125/150
 ANSI 250/300

MOTOR DATA

Motor Type (Efficiency): Induction (NEMA Premium)

Permanent Magnet
(IE5: better than NEMA Super Premium)

Voltage: _____ V Phase: 3 Hertz(rpm): 60 Hz(3600 rpm)
 50 Hz(3000 rpm)

Enclosure: ODP TEFC

NOTE: Permanent Magnet Motors are only available with TEFC Enclosure

DRIVE DATA

Drive Type: VFD (Induction Motors)

ECM (Permanent Magnet Motors)

Enclosure: UL Type 12 (Induction Motors)

IP55 (ECM Motors)

EMI/RFI Control: Integrated filter designed to meet EN61800-3

Harmonic Suppression: Integrated dc link reactors
(in all VFDs and 112 frame ECMs)

Cooling: Fan-cooled through back channel

Ambient temperature: -14°F to +113°F (-10°C to +45°C)
up to 3280 ft (1000m) above sea level

CONTROL PANEL DATA

UL508/CSA labelled

NEMA 4 Enclosure

4.3" Color Touchscreen

Door Interlocked Main Disconnect

Fused Motor Protection

Fused Control Circuit Transformer

Power on Indication

Motor Run Indication

Virtual Hand-Off-Auto (HOA) for each pump

Flash Memory Storage

CONTROLS CAPABILITIES

Safety Features:

- High Suction Pressure Shutdown
- Low Suction Shutdown w/ Auto Restart
- End of Curve Protection
- Soft Fill Mode
- Emergency Power Mode

Conformance to ASHRAE 90.1 Section 10.4:

- No-flow shutdown
- Pressure setback mode

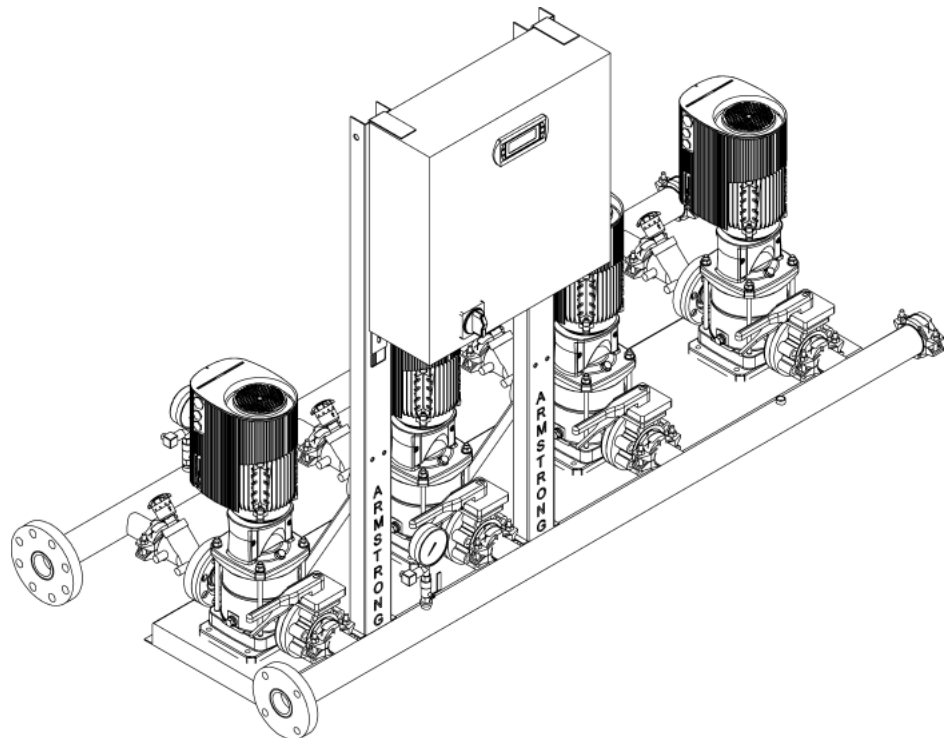
Convenience Features:

- Field Adjustable Set Points, Alarms and Timers
- Alternate Setpoints
- Auto Alternation of Pumps
- Minimal Run Timer
- Pump On Delay Timer
- Pump Switch Over (in case of lead pump failure)
- No-flow pressure optimization

OPTIONAL EQUIPMENT

- BMS Communication Protocol: BACnet/IP
 BACnet MS/TP
 Modbus RTU
 LonWorks

- Locking Handle (c/w [2] Keys)
- System PRV
- Low Suction Level Shutdown
- Float Switch
- Remote Pressure Transducer
- Header Shipped Loose

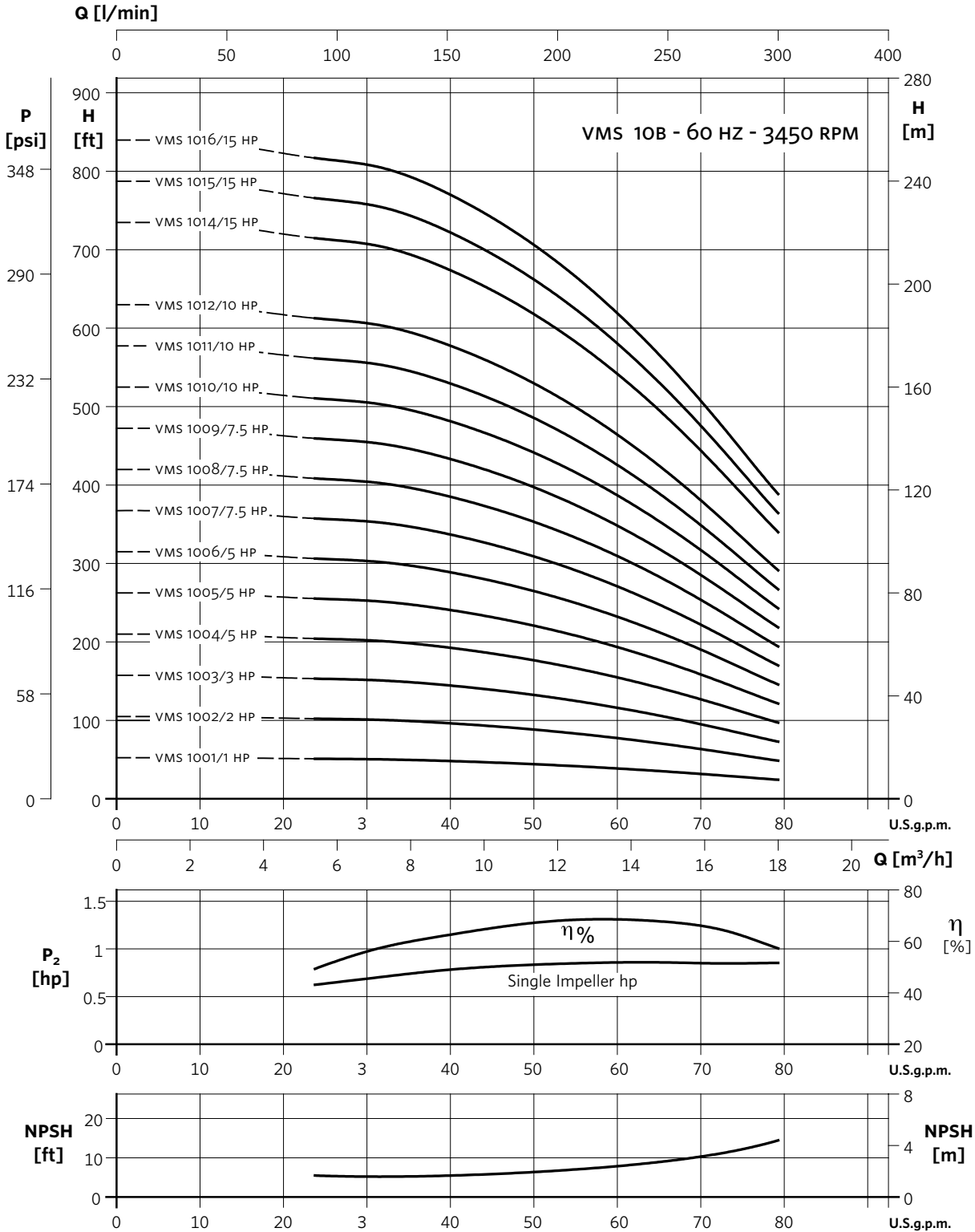


DESIGN ENVELOPE (PERMANENT MAGNET) CAPABILITY DATA

DUTY-DUTY MODELS		DUTY-STANDBY MODELS		PUMP MODEL	MAX FLOW USgpm (L/s)		MAX HEAD ft (m)	BEP EFFICIENCY (%)	HP PER PUMP	DE MOTOR FRAME		DEPM MOTOR FRAME			
DE	DEPM	DE	DEPM		DUTY-DUTY MODELS	DUTY-STANDBY MODELS				ODP	TEFC	TEFC	TEFC		
<input type="checkbox"/>	N430202	<input type="checkbox"/>	PM430202	<input type="checkbox"/>	N330202S	<input type="checkbox"/>	PM330202S	VMS-1002B	301.6 (19.03)	226.2 (14.27)	97.6 (29.7)	67.6	2	56C	905
<input type="checkbox"/>	N430402	<input type="checkbox"/>	PM430402	<input type="checkbox"/>	N330402S	<input type="checkbox"/>	PM330402S	VMS-1004BE	274.94 (17.35)	206.2 (13.01)	196.4 (59.9)	67.6	3	—	182/4TC
<input type="checkbox"/>	N430602	<input type="checkbox"/>	PM430602	<input type="checkbox"/>	N330602S	<input type="checkbox"/>	PM330602S	VMS-1006B	291.34 (18.39)	218.5 (13.79)	294.6 (89.8)	67.6	5	182/4TC	112
<input type="checkbox"/>	N430902	<input type="checkbox"/>	PM430902	<input type="checkbox"/>	N330902S	<input type="checkbox"/>	PM330902S	VMS-1009B	291.34 (18.39)	218.3 (13.77)	444.4 (135.5)	67.6	7.5	182/4TC	112
<input type="checkbox"/>	N431202	<input type="checkbox"/>	PM431202	<input type="checkbox"/>	N331202S	<input type="checkbox"/>	PM331202S	VMS-1012B	291.34 (18.39)	218.3 (13.77)	592.6 (180.6)	67.6	10	213/5TC	112
<input type="checkbox"/>	N431602	<input type="checkbox"/>	PM431602	<input type="checkbox"/>	N331602S	<input type="checkbox"/>	PM331602S	VMS-1016B	303.34 (19.14)	227.5 (14.35)	790.1 (240.8)	67.6	15	213/5TC	—
<input type="checkbox"/>	N450102	<input type="checkbox"/>	PM450102	<input type="checkbox"/>	N350102S	<input type="checkbox"/>	PM350102S	VMS-3201	742.0 (46.81)	556.5 (35.11)	88.6 (27.0)	68.7	5	182/4TC	—
<input type="checkbox"/>	N450222	<input type="checkbox"/>	PM450222	<input type="checkbox"/>	N350222S	<input type="checkbox"/>	PM350222S	VMS-3202-2	742.0 (46.81)	556.5 (35.11)	148.8 (45.4)	68.7	7.5	182/4TC	—
<input type="checkbox"/>	N450322	<input type="checkbox"/>	PM450322	<input type="checkbox"/>	N350322S	<input type="checkbox"/>	PM350322S	VMS-3203-2	744.1 (46.95)	558.1 (35.21)	237.0 (72.2)	68.7	10	213/5TC	—
<input type="checkbox"/>	N450432	<input type="checkbox"/>	PM450432	<input type="checkbox"/>	N350432S	<input type="checkbox"/>	PM350432S	VMS-3204-3	744.1 (46.95)	558.1 (35.21)	314.6 (95.9)	68.7	15	213/5TC	—
<input type="checkbox"/>	N450502	<input type="checkbox"/>	PM450502	<input type="checkbox"/>	N350502S	<input type="checkbox"/>	PM350502S	VMS-3205	732.3 (46.20)	549.2 (34.65)	449.9 (137.1)	68.7	20	254/6TC	—
<input type="checkbox"/>	N450602	<input type="checkbox"/>	PM450602	<input type="checkbox"/>	N350602S	<input type="checkbox"/>	PM350602S	VMS-3206	741.2 (46.76)	555.9 (35.07)	546.1 (166.5)	68.7	25	—	284/6TC
<input type="checkbox"/>	N460102	<input type="checkbox"/>	PM460102	<input type="checkbox"/>	N360102S	<input type="checkbox"/>	PM360102S	VMS-4501E	1111.0 (70.09)	833.3 (52.57)	116.7 (35.6)	83.1	7.5	—	213/5TC
<input type="checkbox"/>	N460212	<input type="checkbox"/>	PM460212	<input type="checkbox"/>	N360212S	<input type="checkbox"/>	PM360212S	VMS-4502-1	1119.5 (70.63)	839.6(52.97)	200.4 (61.1)	83.1	15	213/5TC	—
<input type="checkbox"/>	N460322	<input type="checkbox"/>	PM460322	<input type="checkbox"/>	N360322S	<input type="checkbox"/>	PM360322S	VMS-4503-2	1129.1 (71.23)	846.8(53.42)	290.2(88.5)	83.1	20	254/6TC	—
<input type="checkbox"/>	N460412	<input type="checkbox"/>	PM460412	<input type="checkbox"/>	N360412S	<input type="checkbox"/>	PM360412S	VMS-4504-1	1129.1 (71.23)	846.8(53.42)	445.0 (135.6)	83.1	30	284/6TC	—
<input type="checkbox"/>	N460502	<input type="checkbox"/>	PM460502	<input type="checkbox"/>	N360502S	<input type="checkbox"/>	PM360502S	VMS-4505	1106.8 (69.83)	830.1(52.37)	611.3 (186.3)	83.1	40	—	324/6TSC
<input type="checkbox"/>	N470102	<input type="checkbox"/>	PM470102	<input type="checkbox"/>	N370102S	<input type="checkbox"/>	PM370102S	VMS-6401E	1570.4 (99.08)	1177.8(74.31)	123.2 (37.6)	84.7	10	213/5TC	—
<input type="checkbox"/>	N470212	<input type="checkbox"/>	PM470212	<input type="checkbox"/>	N370212S	<input type="checkbox"/>	PM370212S	VMS-6402-1	1623.4 (102.42)	1217.5(76.81)	226.6 (69.1)	84.7	20	254/6TC	—
<input type="checkbox"/>	N470322	<input type="checkbox"/>	PM470322	<input type="checkbox"/>	N370322S	<input type="checkbox"/>	PM370322S	VMS-6403-2	1623.4 (102.42)	1217.5(76.81)	329.2 (100.3)	84.7	30	284/6TC	—
<input type="checkbox"/>	N470422	<input type="checkbox"/>	PM470422	<input type="checkbox"/>	N370422S	<input type="checkbox"/>	PM370422S	VMS-6404-2	1595.5 (100.66)	1196.7(75.50)	465.0 (141.7)	84.7	40	—	324/6TSC
<input type="checkbox"/>	N480102	<input type="checkbox"/>	PM480102	<input type="checkbox"/>	N380102S	<input type="checkbox"/>	PM380102S	VMS-1501B	467.34 (29.48)	350.5 (22.11)	62.6 (19.1)	72.5	2	56C	905
<input type="checkbox"/>	N480302	<input type="checkbox"/>	PM480302	<input type="checkbox"/>	N380302S	<input type="checkbox"/>	PM380302S	VMS-1503BE	470.3 (29.67)	352.7 (22.25)	189.8 (57.9)	72.5	5	182/4TC	112
<input type="checkbox"/>	N480402	<input type="checkbox"/>	PM480402	<input type="checkbox"/>	N380402S	<input type="checkbox"/>	PM380402S	VMS-1504BE	470.3 (29.67)	352.7 (22.25)	253.1 (77.1)	72.5	7.5	—	213/5TC
<input type="checkbox"/>	N480502	<input type="checkbox"/>	PM480502	<input type="checkbox"/>	N380502S	<input type="checkbox"/>	PM380502S	VMS-1505B	467.6 (29.51)	350.7 (22.13)	316.4 (96.4)	72.5	10	213/5TC	112
<input type="checkbox"/>	N480702	<input type="checkbox"/>	PM480702	<input type="checkbox"/>	N380702S	<input type="checkbox"/>	PM380702S	VMS-1507B	470.3 (29.67)	352.7 (22.25)	442.9 (135.0)	72.5	15	213/5TC	—
<input type="checkbox"/>	N481002	<input type="checkbox"/>	PM481002	<input type="checkbox"/>	N381002S	<input type="checkbox"/>	PM381002S	VMS-1510B	473.0 (29.84)	354.7 (22.38)	639.9 (195.0)	72.5	20	254/6TC	—
<input type="checkbox"/>	N490102	<input type="checkbox"/>	PM490102	<input type="checkbox"/>	N390102S	<input type="checkbox"/>	PM390102S	VMS-2001B	534.6 (33.73)	400.95 (25.3)	71.8 (21.9)	73.00	3	143/5TC	90
<input type="checkbox"/>	N490202	<input type="checkbox"/>	PM490202	<input type="checkbox"/>	N390202S	<input type="checkbox"/>	PM390202S	VMS-2002B	525.1 (33.13)	393.8 (24.84)	143.5 (43.7)	73.00	5	182/4TC	112
<input type="checkbox"/>	N490302	<input type="checkbox"/>	PM490302	<input type="checkbox"/>	N390302S	<input type="checkbox"/>	PM390302S	VMS-2003B	737.87 (46.67)	553.4 (35.00)	216.5 (66.0)	73.00	7.5	—	182/4TC

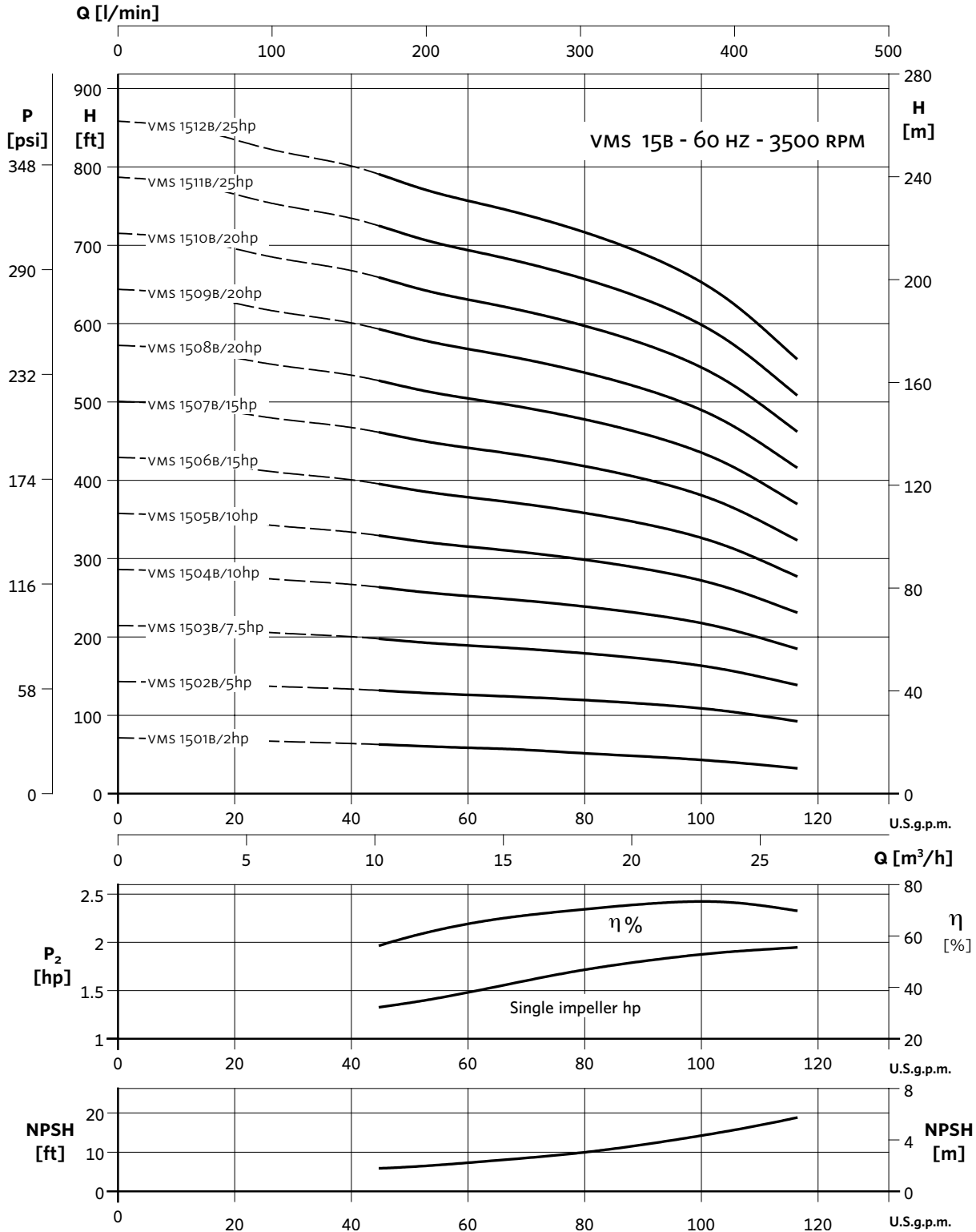
- Notes:**
 1 Standard right hand orientation with grooved connections illustrated
 2 All pumps are the same

PERFORMANCE CURVE - VMS 10B



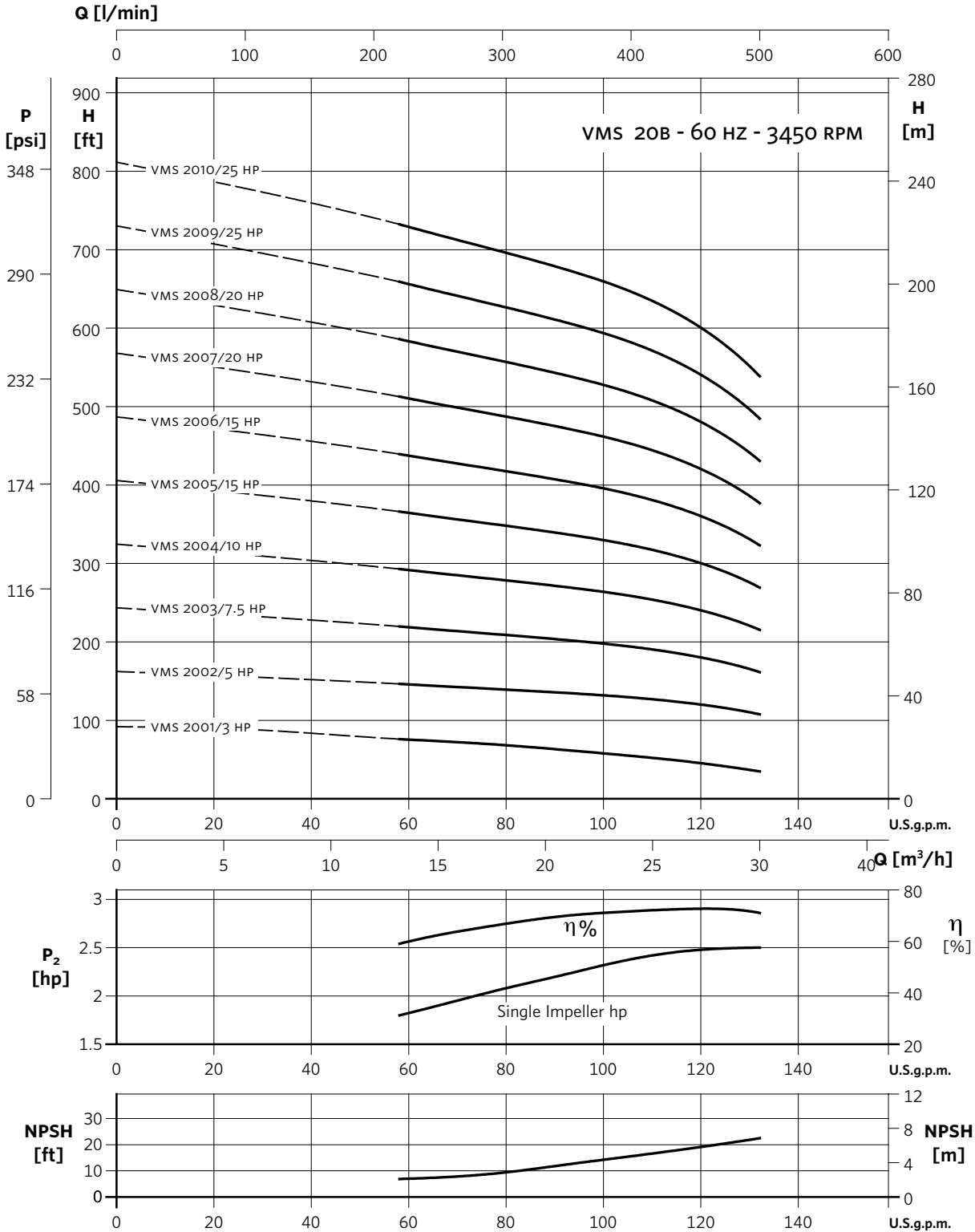
NOTE: Pump curves are shown for information purpose only and should not be used for selection. Individual pump curves don't represent the performance of a complete package as they ignore losses and control constraints. Please refer to **Curves and diagrams** on Armstrong's website for a detailed performance envelope for the specific booster model.

PERFORMANCE CURVE - VMS 15B



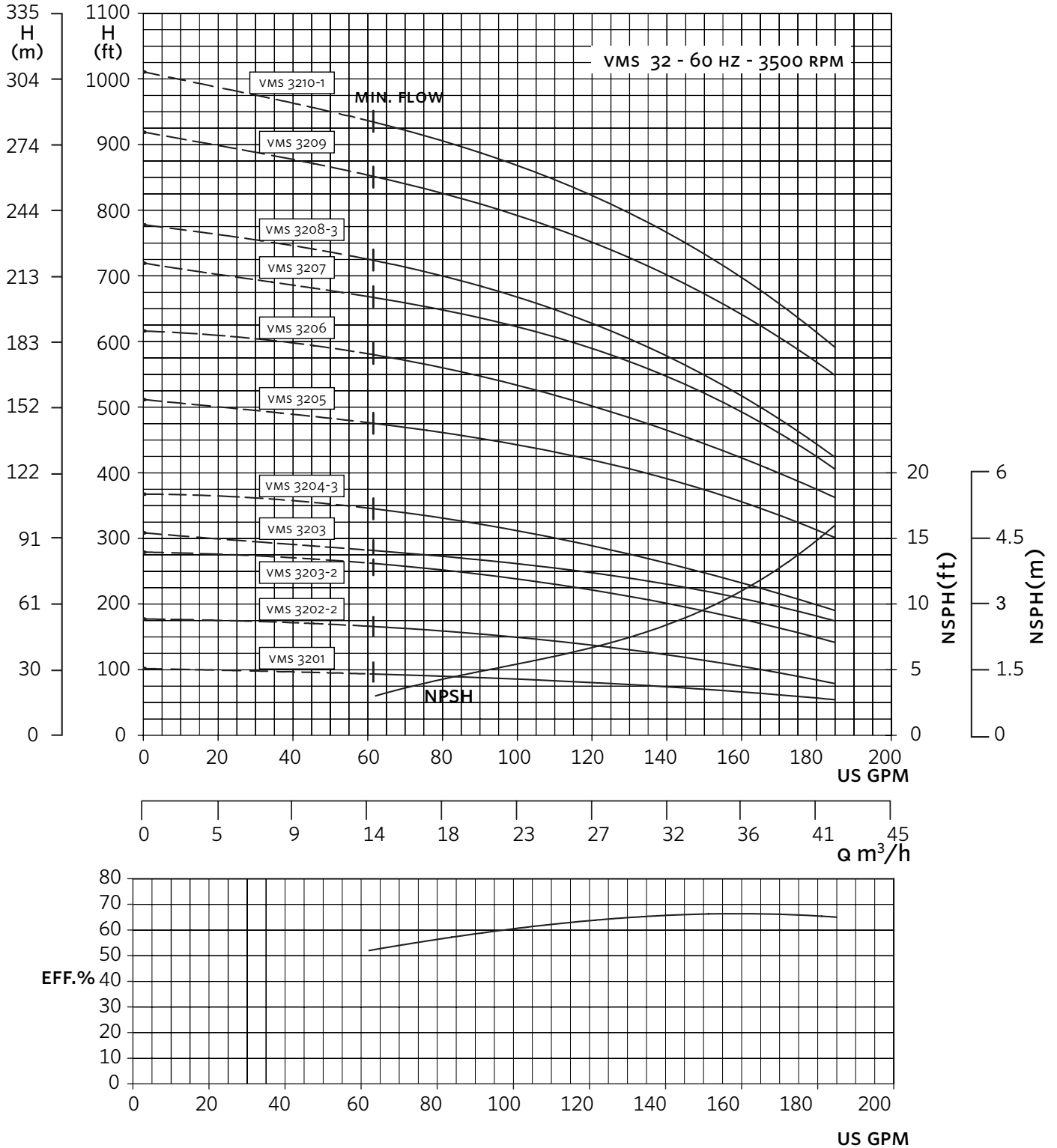
NOTE: Pump curves are shown for information purpose only and should not be used for selection. Individual pump curves don't represent the performance of a complete package as they ignore losses and control constraints. Please refer to **Curves and diagrams** on Armstrong's website for a detailed performance envelope for the specific booster model.

PERFORMANCE CURVE - VMS 20B



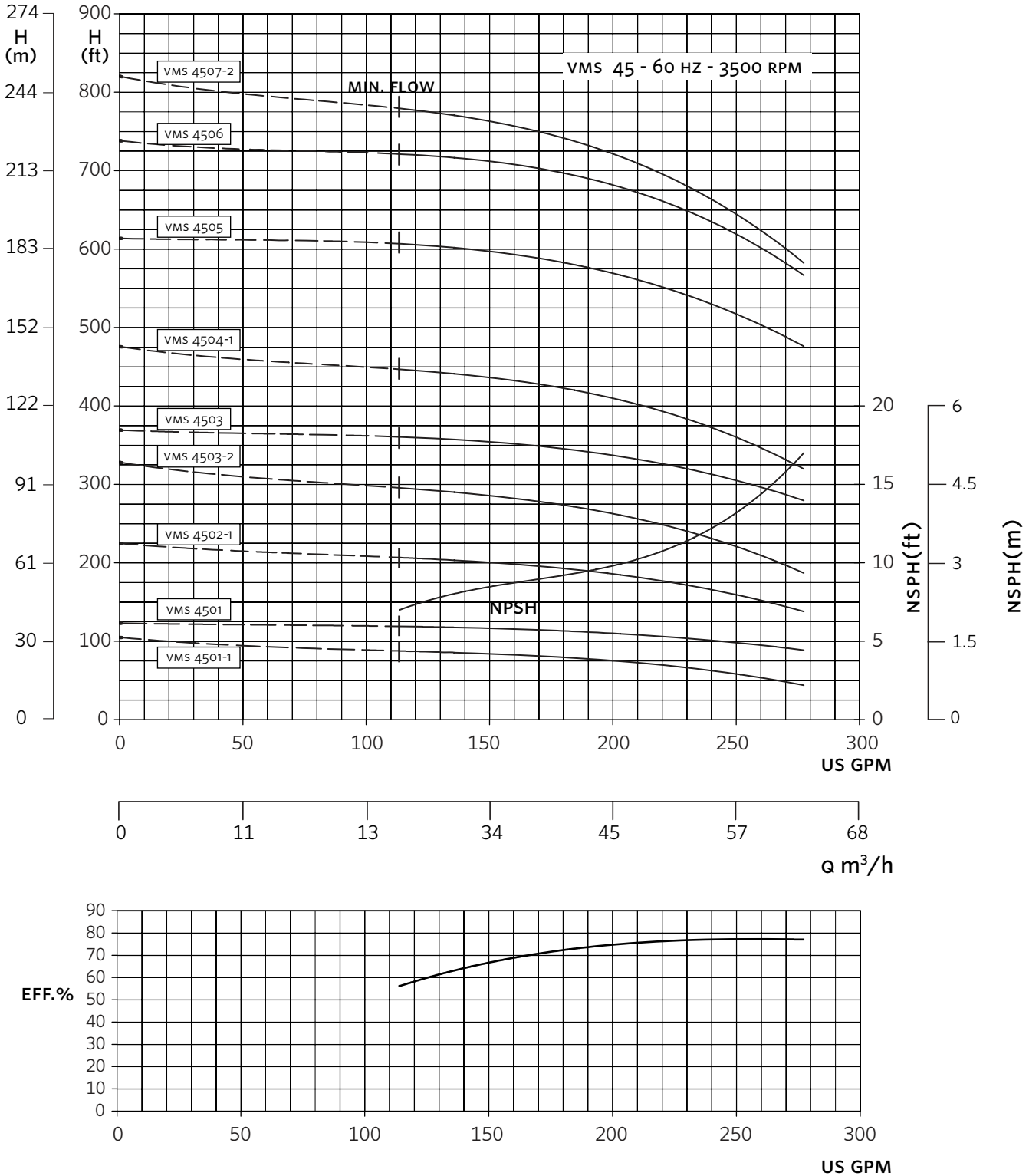
NOTE: Pump curves are shown for information purpose only and should not be used for selection. Individual pump curves don't represent the performance of a complete package as they ignore losses and control constraints. Please refer to **Curves and diagrams** on Armstrong's website for a detailed performance envelope for the specific booster model.

PERFORMANCE CURVE - VMS 32



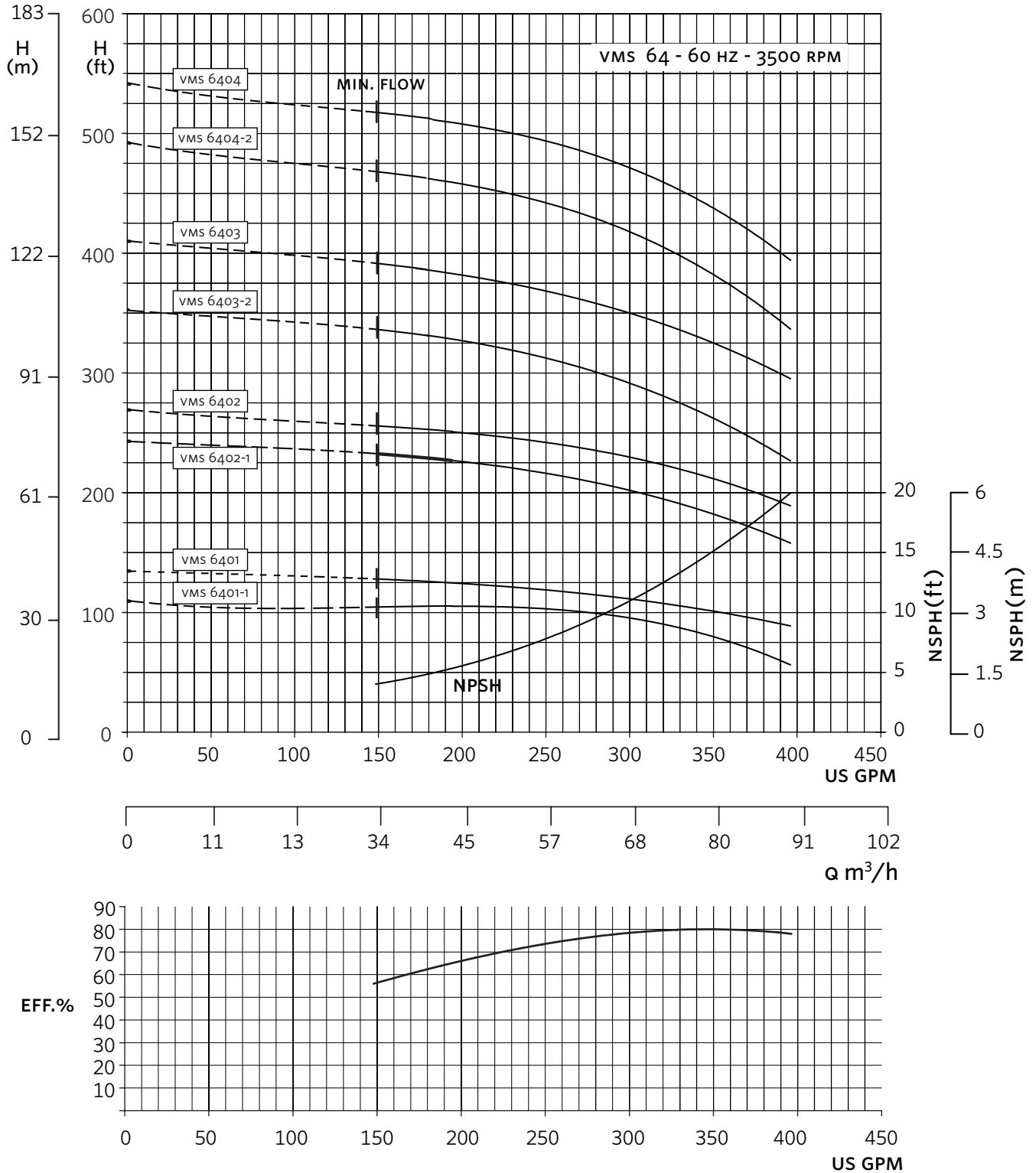
NOTE: Pump curves are shown for information purpose only and should not be used for selection. Individual pump curves don't represent the performance of a complete package as they ignore losses and control constraints. Please refer to **Curves and diagrams** on Armstrong's website for a detailed performance envelope for the specific booster model.

PERFORMANCE CURVE - VMS 45



NOTE: Pump curves are shown for information purpose only and should not be used for selection. Individual pump curves don't represent the performance of a complete package as they ignore losses and control constraints. Please refer to **Curves and diagrams** on Armstrong's website for a detailed performance envelope for the specific booster model.

PERFORMANCE CURVE - VMS 64

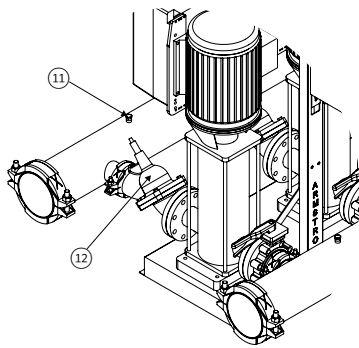
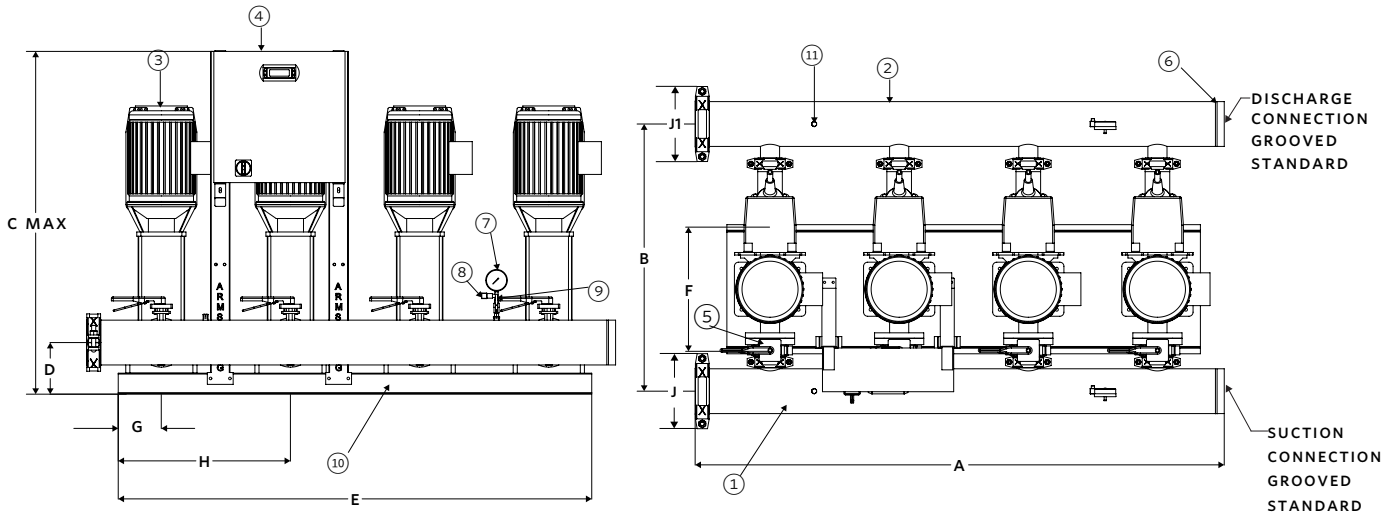


NOTE: Pump curves are shown for information purpose only and should not be used for selection. Individual pump curves don't represent the performance of a complete package as they ignore losses and control constraints. Please refer to **Curves and diagrams** on Armstrong's website for a detailed performance envelope for the specific booster model.

Design Envelope (Permanent Magnet) 6800 G
 Quadraplex Domestic Cold Water Booster

SUBMITTAL

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Quadraplex Domestic Cold Water Booster

ITEM	DESCRIPTION
①	Stainless steel suction header
②	Stainless steel discharge header
③	Pump with integrated ivs controls
④	Control panel with plc
⑤	Suction isolation valve
⑥	Grooved connection
⑦	Pressure gauge
⑧	Pressure transducer
⑨	Pressure gauge isolation valve
⑩	Stainless steel base and panel support
⑪	Plug pipe
⑫	Flo-Trex valve

DUTY-DUTY MODELS		DUTY-STANDBY MODELS		A	B	C MAX	D	E	F	G	H	J	J1	CONNECTION SIZE	MAX WORKING PRESSURE	DE WEIGHT	DEPM WEIGHT
DE	DEPM	DE	DEPM														
<input type="checkbox"/> N430202	<input type="checkbox"/> PM430202	<input type="checkbox"/> N330202S	<input type="checkbox"/> PM330202S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1034 (469)	1332 (604)
<input type="checkbox"/> N430402	<input type="checkbox"/> PM430402	<input type="checkbox"/> N330402S	<input type="checkbox"/> PM330402S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1123 (509)	1072 (486)
<input type="checkbox"/> N430602	<input type="checkbox"/> PM430602	<input type="checkbox"/> N330602S	<input type="checkbox"/> PM330602S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1136 (515)	1085 (492)
<input type="checkbox"/> N430902	<input type="checkbox"/> PM430902	<input type="checkbox"/> N330902S	—	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1374 (623)	1323 (600)
<input type="checkbox"/> N431202	<input type="checkbox"/> PM431202	<input type="checkbox"/> N331202S	<input type="checkbox"/> PM331202S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	8.25 (210)	4	363 (25)	1746 (792)	1694 (768)
<input type="checkbox"/> N431602	—	<input type="checkbox"/> N331602S	—	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	8.25 (210)	4	363 (25)	1914 (868)	—
<input type="checkbox"/> N450102	—	<input type="checkbox"/> N350102S	—	96.48 (2451)	39.63 (1007)	62.70 (1592)	8.06 (205)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	9.00 (229)	9.00 (229)	6	232 (16)	1722 (781)	—
<input type="checkbox"/> N450222	—	<input type="checkbox"/> N350222S	—	96.48 (2451)	39.63 (1007)	62.70 (1592)	8.06 (205)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	9.00 (229)	9.00 (229)	6	232 (16)	1883 (854)	—
<input type="checkbox"/> N450322	—	<input type="checkbox"/> N350322S	—	96.48 (2451)	39.63 (1007)	62.70 (1592)	8.06 (205)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	9.00 (229)	9.00 (229)	6	232 (16)	2407 (1092)	—
<input type="checkbox"/> N450432	—	<input type="checkbox"/> N350432S	—	96.48 (2451)	39.63 (1007)	62.70 (1592)	8.06 (205)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	9.00 (229)	9.00 (229)	6	232 (16)	2487 (1128)	—
<input type="checkbox"/> N450502	—	<input type="checkbox"/> N350502S	—	96.48 (2451)	41.63 (1057)	62.70 (1592)	8.06 (205)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	9.00 (229)	10.00 (254)	6	363 (25)	2942 (1334)	—
<input type="checkbox"/> N450602	—	<input type="checkbox"/> N350602S	—	96.48 (2451)	41.63 (1057)	63.40 (1610)	8.06 (205)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	9.00 (229)	10.00 (254)	6	363 (25)	3795 (1722)	—
<input type="checkbox"/> N460102	—	<input type="checkbox"/> N360102S	—	96.78 (2458)	43.85 (1114)	62.70 (1592)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	13.50 (343)	8	232 (16)	2104 (954)	—
<input type="checkbox"/> N460212	—	<input type="checkbox"/> N360212S	—	96.78 (2458)	43.85 (1114)	62.70 (1592)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	13.50 (343)	8	232 (16)	2682 (1216)	—
<input type="checkbox"/> N460322	—	<input type="checkbox"/> N360322S	—	96.78 (2458)	43.85 (1114)	62.70 (1592)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	13.50 (343)	8	232 (16)	3123 (1416)	—
<input type="checkbox"/> N460412	—	<input type="checkbox"/> N360412S	—	96.78 (2458)	45.85 (1165)	65.23 (1657)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	13.50 (343)	8	232 (16)	4312 (1956)	—
<input type="checkbox"/> N460502	—	<input type="checkbox"/> N360502S	—	96.78 (2458)	45.85 (1165)	69.73 (1771)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	15.00 (381)	8	363 (25)	5094 (2311)	—

Note:

- 1 Tolerances are ±1/2" (12 mm) unless otherwise specified
- 2 Dimensions are based on boosters shipped with headers installed. Dimensions and weight for Optional Header Shipped Loose available upon request

DUTY-DUTY MODELS		DUTY-STANDBY MODELS		A	B	C	D	E	F	G	H	J	J1	CONNECTION SIZE	MAX WORKING PRESSURE	DE WEIGHT	DEPM WEIGHT			
DE	DEPM	DE	DEPM	inches (mm)														inches	psi (bar)	lbs (kg)
<input type="checkbox"/> N470102	—	<input type="checkbox"/> N370102S	—	96.78 (2458)	48.87 (1241)	62.70 (1592)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	13.50 (343)	8	232 (16)	3193 (1448)	—			
<input type="checkbox"/> N470212	—	<input type="checkbox"/> N370212S	—	96.78 (2458)	48.87 (1241)	62.70 (1592)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	13.50 (343)	8	232 (16)	3680 (1669)	—			
<input type="checkbox"/> N470322	—	<input type="checkbox"/> N370322S	—	96.78 (2458)	48.87 (1241)	62.70 (1592)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	13.50 (343)	8	232 (16)	4576 (2076)	—			
<input type="checkbox"/> N470422	—	<input type="checkbox"/> N370422S	—	96.78 (2458)	51.44 (1307)	66.03 (1677)	9.44 (240)	86.61 (2200)	22.72 (577)	7.87 (200)	31.50 (800)	13.50 (343)	15.00 (381)	8	363 (25)	5554 (2519)	—			
<input type="checkbox"/> N480102	<input type="checkbox"/> PM480102	<input type="checkbox"/> N380102S	<input type="checkbox"/> PM380102S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1014 (460)	1032 (468)			
<input type="checkbox"/> N480302	<input type="checkbox"/> PM480302	<input type="checkbox"/> N380302S	<input type="checkbox"/> PM380302S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1165 (529)	1114 (505)			
<input type="checkbox"/> N480402	<input type="checkbox"/> PM480402	<input type="checkbox"/> N380402S	<input type="checkbox"/> PM380402S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1319 (598)	1268 (575)			
<input type="checkbox"/> N480502	<input type="checkbox"/> PM480502	<input type="checkbox"/> N380502S	<input type="checkbox"/> PM380502S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1669 (757)	1617 (733)			
<input type="checkbox"/> N480702	—	<input type="checkbox"/> N380702S	—	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1836 (833)	—			
<input type="checkbox"/> N481002	—	<input type="checkbox"/> N381002S	—	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	8.25 (210)	4	363 (25)	2249 (1020)	—			
<input type="checkbox"/> N490102	<input type="checkbox"/> PM490102	<input type="checkbox"/> N390102S	<input type="checkbox"/> PM390102S	85.78 (2179)	31.70 (805)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	9.00 (229)	9.00 (229)	4	232 (16)	1155 (524)	1032 (468)			
<input type="checkbox"/> N490202	<input type="checkbox"/> PM490202	<input type="checkbox"/> N390202S	<input type="checkbox"/> PM390202S	85.65 (2176)	30.70 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.50 (191)	7.50 (191)	4	232 (16)	1085 (492)	1032 (468)			
<input type="checkbox"/> N490302	<input type="checkbox"/> PM490302	<input type="checkbox"/> N390302S	<input type="checkbox"/> PM390302S	85.65 (2176)	30.7 (780)	61.42 (1560)	6.19 (157)	78.74 (2000)	16.81 (427)	3.94 (100)	27.56 (700)	7.5 (191)	7.5 (191)	4	232 (16)	1307 (593)	1255 (569)			

Note:

- 1 Tolerances are ±1/2" (12 mm) unless otherwise specified
- 2 Dimensions are based on boosters shipped with headers installed. Dimensions and weight for Optional Header Shipped Loose available upon request

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