

STUART

HM 0900 Centrifugal Horizontal Multistage Pumps

A range of 9m³/hour nominal flow horizontal multistage pumps featuring a compact, close-coupled design and heavy duty oversized motor shaft.

Featuring AISI 304 stainless steel pump head construction, these robust and durable pumps are available in single phase and three phase options.

Capable of flow rates up to 14m³/h and models available providing up to 90.5 metres head, these pumps are suitable for use in a wide range of water boosting applications.



Features

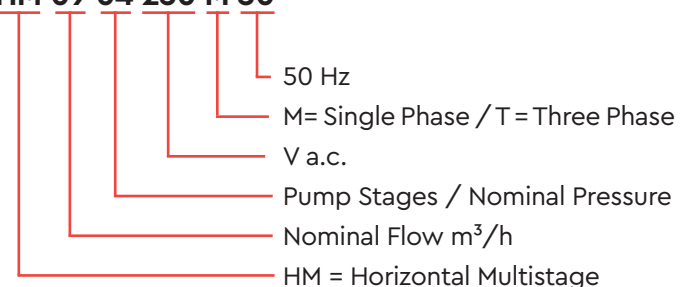
- Multistage centrifugal pump
- Flow rates up to 14 m³/h
- Heads up to 90.5 metres
- Single phase and three phase options
- Compact, close-coupled design
- AISI 304 stainless steel pump head housing, shaft, impellers and diffusers
- Extended life mechanical seal
- Continuously rated induction motor
- Easy maintenance
- WRAS Approved Product
- 1 year warranty

Applications

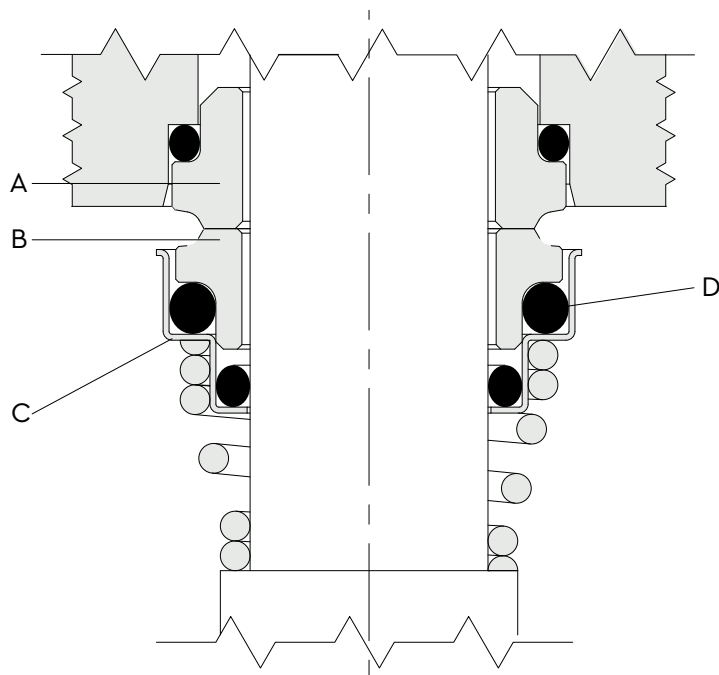
- Domestic and commercial water supply
- Industrial systems, plant and processing
- Wash down units
- Water distribution
- Irrigation and rainwater recovery
- Temperature control and air conditioning systems

Product Code

HM 09 04 230 M 50



Stuart HM 0900 Series Mechanical Seal Specifications



Seal Component Materials

Stationary Seal Face	Rotating Seal Face	Other Components	Elastomers	Temperature
A	B	C	D	
Ceramic Alumina	Carbon Graphite	Stainless Steel AISI 316	EPDM	-15°C - +110°C

Stuart HM 0900 Series Motor Specifications

- Asynchronous, TEFC (Totally Enclosed, Fan-Cooled)
- 2 pole
- Protection degree: IP55
- Insulation class: F
- Max. 60 starts/hour for motor power up to 3 kW (with min. 1 minute resting time)

Single Phase Models (at 50Hz)

- Standard voltage 220–240 V \pm 5%
- Integrated thermal protection

Motor Size	P _N (kW)	Input Current	Capacitor		230V – 50Hz						
		I _N (A)	μF	V	n _N (min ⁻¹)	I _s / I _N	η%	cos φ	T _N (Nm)	T _s / T _N	T _M / T _N
71	0.75	4.67	16	450	2790	3.5	72.2	0.97	2.56	0.42	1.87
71	1.10	6.60	30	450	2820	3.9	77.0	0.96	3.70	0.38	1.86
80	1.50	8.56	30	450	2830	3.6	79.9	0.95	5.05	0.50	1.92
90	2.20	12.60	60	450	2870	2.2	76.7	0.99	7.30	0.51	1.99

Three Phase Models (at 50Hz)

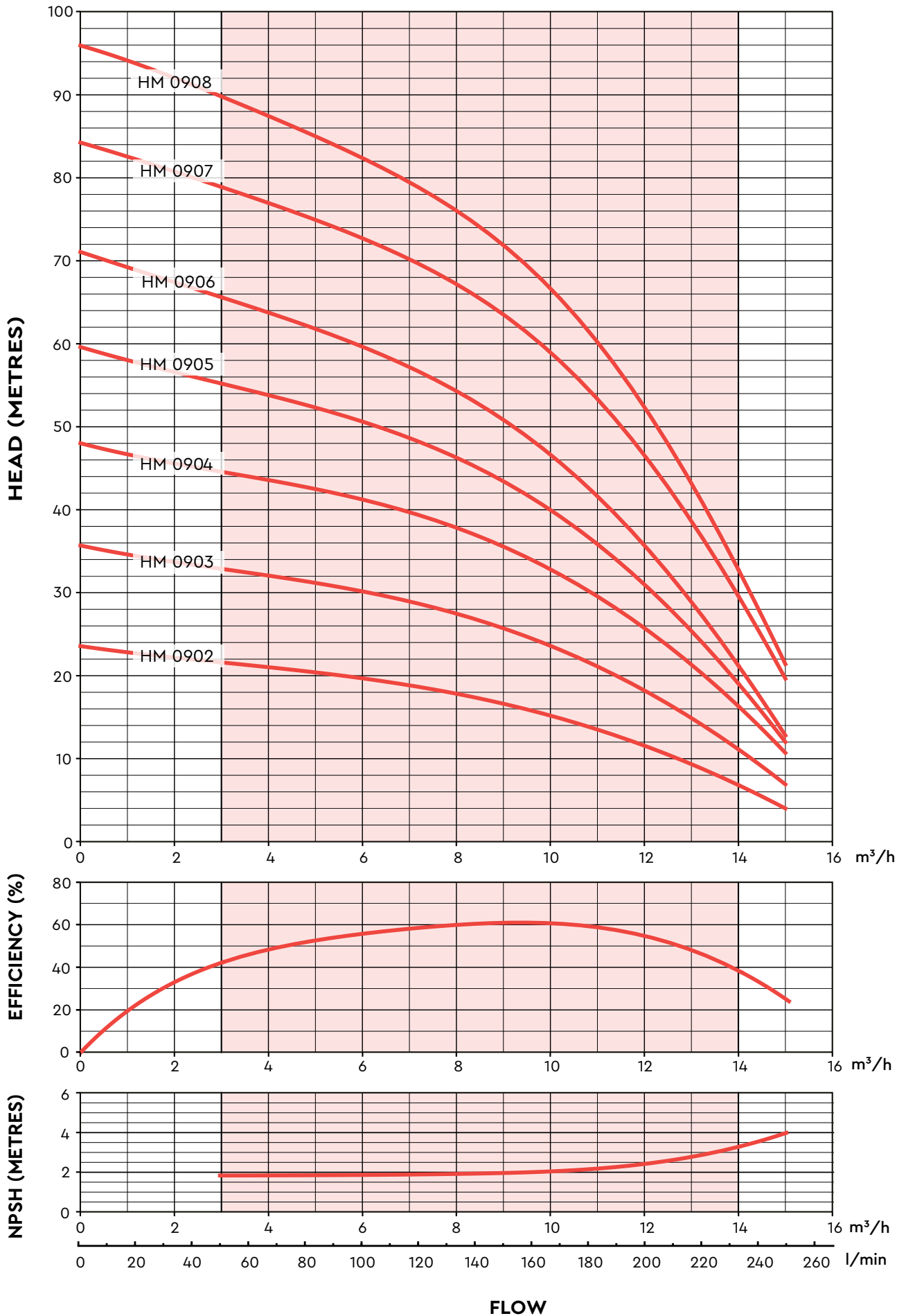
- IE3 premium efficiency motors
- IE efficiency according to IEC 60034-30-1:2014
- Electrical performance according to IEC 60034-2-1:2007
- Standard voltage:
220-240 / 380-415 V \pm 5 % up to 3 kW
380-415 / 660-690 V \pm 5 % from 4 kW
- Thermal protection to be provided within the starter panel

P _N (kW)	Efficiency $\eta_N\%$						IE
	Δ 230 V Y 400 V			Δ 400 V Y 690 V			
	4/4	3/4	2/4	4/4	3/4	2/4	
0.75	80.9	81.5	79.6	-	-	-	3
1.10	82.7	84.6	84.2	-	-	-	3
1.50	84.3	85.7	85.3	-	-	-	3
2.20	86.1	86.7	85.4	-	-	-	3
3.00	87.1	87.5	86.1	-	-	-	3

Motor Size	P _N (kW)	No Poles	f _N (Hz)	400 V 50Hz				
				cos ϕ	I _S / I _N	T _N (Nm)	T _S / T _N	T _M / T _N
71	0.75	2	50	0.83	6.8	2.6	3.6	3.7
71	1.10	2	50	0.82	5.9	3.7	3.2	3.1
80	1.50	2	50	0.79	6.8	5.1	3.2	3.2
90	2.20	2	50	0.80	9.6	7.3	4.3	4.4
90	3.00	2	50	0.83	9.6	9.9	4.7	4.9

P _N (kW)	Voltage U _N				n _N (min ⁻¹)	Motor Operating Conditions		
	Δ 230 V	Y 400 V	Δ 400 V	Y 690 V		Altitude Above Sea Level (m)	T.amb min/max (°C)	ATEX
	I _N (A)							
0.75	2.8	1.6	-	-	2800	≤ 1000	-15 / 40	No
1.10	4.1	2.3	-	-	2840	≤ 1000	-15 / 40	
1.50	5.7	3.3	-	-	2830	≤ 1000	-15 / 40	
2.20	8.0	4.6	-	-	2880	≤ 1000	-15 / 40	
3.00	10.4	6.0	-	-	2900	≤ 1000	-15 / 40	

Stuart HM 0900 Series Performance Summary



Stuart HM 0900 230 M 50 Specifications

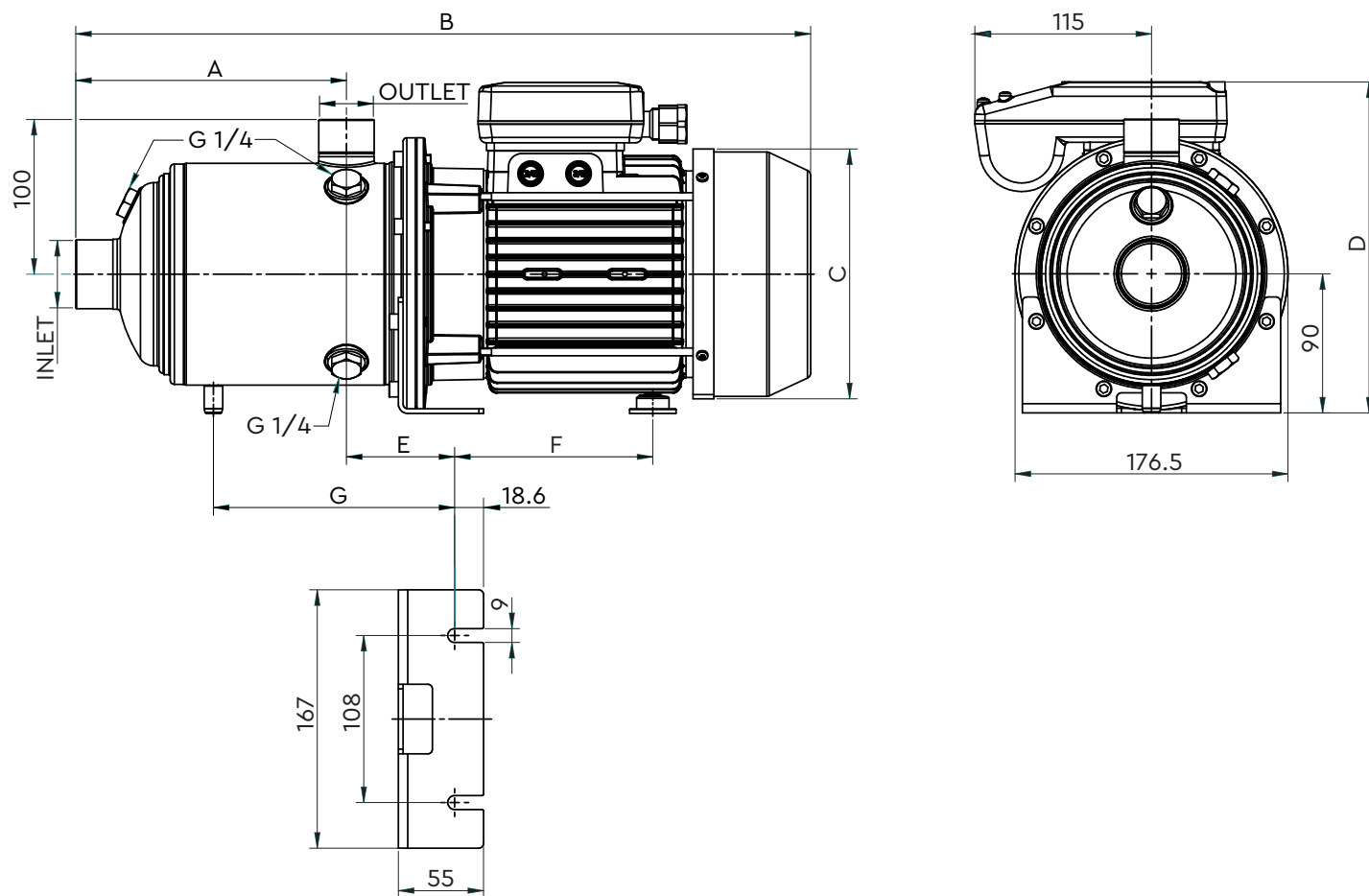
HM 0900 230 M 50	0902	0903	0904	0905	0906	0907
Part No	46766	46767	46768	46769	46770	46771
General						
Warranty	1 Year					
Approvals	WRAS Approved Product, CE					
Pump type	Centrifugal Multistage					
Features						
Impeller stages	2	3	4	5	6	7
Compact, close-coupled design	✓					
Heavy duty oversized motor shaft	✓					
Easy maintenance	✓					
Performance						
Flow rate – nominal (m ³ /h)	9					
Flow rate range (m ³ /h)	3.0 – 14.0					
Maximum head – closed valve (metres)	23.5	35.5	48.0	59.5	71.0	84.0
Head range (metres)	6.5 – 22.0	11.0 – 33.0	16.0 – 45.0	18.5 – 55.5	21.0 – 66.0	29.5 – 79.5
Working pressure – maximum (bar)	10					
Maximum allowable amount of sand	50 g/m ³					
Motor						
Motor type	Induction (Manual reset thermal trip)					
Power supply (Vac/Ph/Hz)	230 V a.c. / 1 / 50 Hz					
Power – input P1 (kW)	0.91	1.35	1.74	2.51	2.89	3.30
Power – motor nominal P2 (kW)	0.75	1.10	1.50	2.20	2.20	2.20
Power – motor nominal P2 (hp)	1.0	1.5	2.0	3.0	3.0	3.0
Input current – 220–240v (A)	4.3	6.3	8.2	11.1	12.7	14.5
Efficiency (%)	72.2	77.0	79.9	76.7	76.7	76.7
Insulation class	F					
Duty rating	Continuous (S1)					
Starts per hour	60					
IP rating	IP 55					
Materials						
Pump head housing	AISI 304 stainless steel					
Impellers and diffusers	AISI 304 stainless steel					
Pump shaft	AISI 304 stainless steel					
Pump seal	Ceramic Alumina/Carbon Graphite/AISI 316/EPDM					
Connections						
Connection – inlet	Rp 1½"	Rp 1½"	Rp 1½"	Rp 1½"	Rp 1½"	Rp 1½"
Connection – outlet	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"
Operating Conditions						
Operating Ambient Temperature Range (°C)	-5 °C to +40 °C					
Liquid temperature range (°C)	-15 to +90 °C (110 °C for industrial applications)					
Dimensions						
Height (mm)	207	207	214	221	221	221
Width (mm)	203.5	203.5	203.5	203.5	203.5	203.5
Depth (mm)	380	380	452	527	557	587
Weight (Kg)	11.6	13.2	17.0	23.0	23.8	24.4

Stuart HM 0900 230-400 T 50 Technical Specifications

HM 0900 230-400 T 50	0902	0903	0904	0905	0906	0907	0908
Part No	46772	46773	46774	46775	46776	46777	46778
General							
Warranty	1 Year						
Approvals	WRAS Approved Product, CE						
Pump type	Centrifugal Multistage						
Features							
Impeller stages	2	3	4	5	6	7	8
Compact, close-coupled design	✓						
Heavy duty oversized motor shaft	✓						
Easy maintenance	✓						
Performance							
Flow rate - nominal (m ³ /h)	9						
Flow rate range (m ³ /h)	3.0 - 14.0						
Maximum head - closed valve (metres)	23.5	35.5	48.0	59.5	71.0	84.0	96.0
Head range (metres)	6.5 - 22.0	11.0 - 33.0	16.0 - 45.0	18.5 - 55.0	21.0 - 66.0	29.5 - 79.5	32.5 - 90.5
Working pressure - maximum (bar)	10						
Maximum allowable amount of sand	50 g/m ³						
Motor							
Motor type	Induction (thermal trip fitted by installer)						
Power supply (Vac/Ph/Hz)	230 - 400 V a.c. / 3 / 50 Hz						
Power - input P1 (kW)	0.87	1.24	1.70	2.20	2.60	3.08	3.49
Power - motor nominal P2 (kW)	0.75	1.10	1.50	2.20	2.20	3.00	3.00
Power - motor nominal P2 (hp)	1.0	1.5	2.0	3.0	3.0	4.0	4.0
Input current 220-240v (A)	2.7	3.8	5.5	7.1	8.2	9.5	10.4
Input current 380-415v (A)	1.6	2.2	3.2	4.1	4.7	5.5	6.0
Efficiency class	IE3	IE3	IE3	IE3	IE3	IE3	IE3
Efficiency 3 Phase 2/4 (%)	79.6	84.2	85.3	85.4	85.4	86.1	86.1
Efficiency 3 Phase 3/4 (%)	81.5	84.6	85.7	86.7	86.7	87.5	87.5
Efficiency 3 Phase 4/4 (%)	80.9	82.7	84.3	86.1	86.1	87.1	87.1
Insulation class	F						
Duty rating	Continuous (S1)						
Starts per hour	60						
IP rating	IP 55						
Materials							
Pump head housing	AISI 304 stainless steel						
Impellers and diffusers	AISI 304 stainless steel						
Pump shaft	AISI 304 stainless steel						
Pump seal	Ceramic Alumina/Carbon Graphite/AISI 316/EPDM						
Connections							
Connection - inlet	Rp 1½"	Rp 1½"	Rp 1½"	Rp 1½"	Rp 1½"	Rp 1½"	Rp 1½"
Connection - outlet	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"	Rp 1¼"
Operating Conditions							
Operating Ambient Temperature Range (°C)	-5 °C to +40 °C						
Liquid temperature range (°C)	-15 to +90 °C (110 °C for industrial applications)						
Dimensions							
Height (mm)	207	207	214	221	221	221	221
Width (mm)	176.5	176.5	176.5	176.5	176.5	176.5	176.5
Depth (mm)	382	382	449	526	556	621	651
Weight (Kg)	11.2	12.0	15.8	21.8	22.4	26.0	26.6

Stuart HM 0900 230 M 50 Dimensions

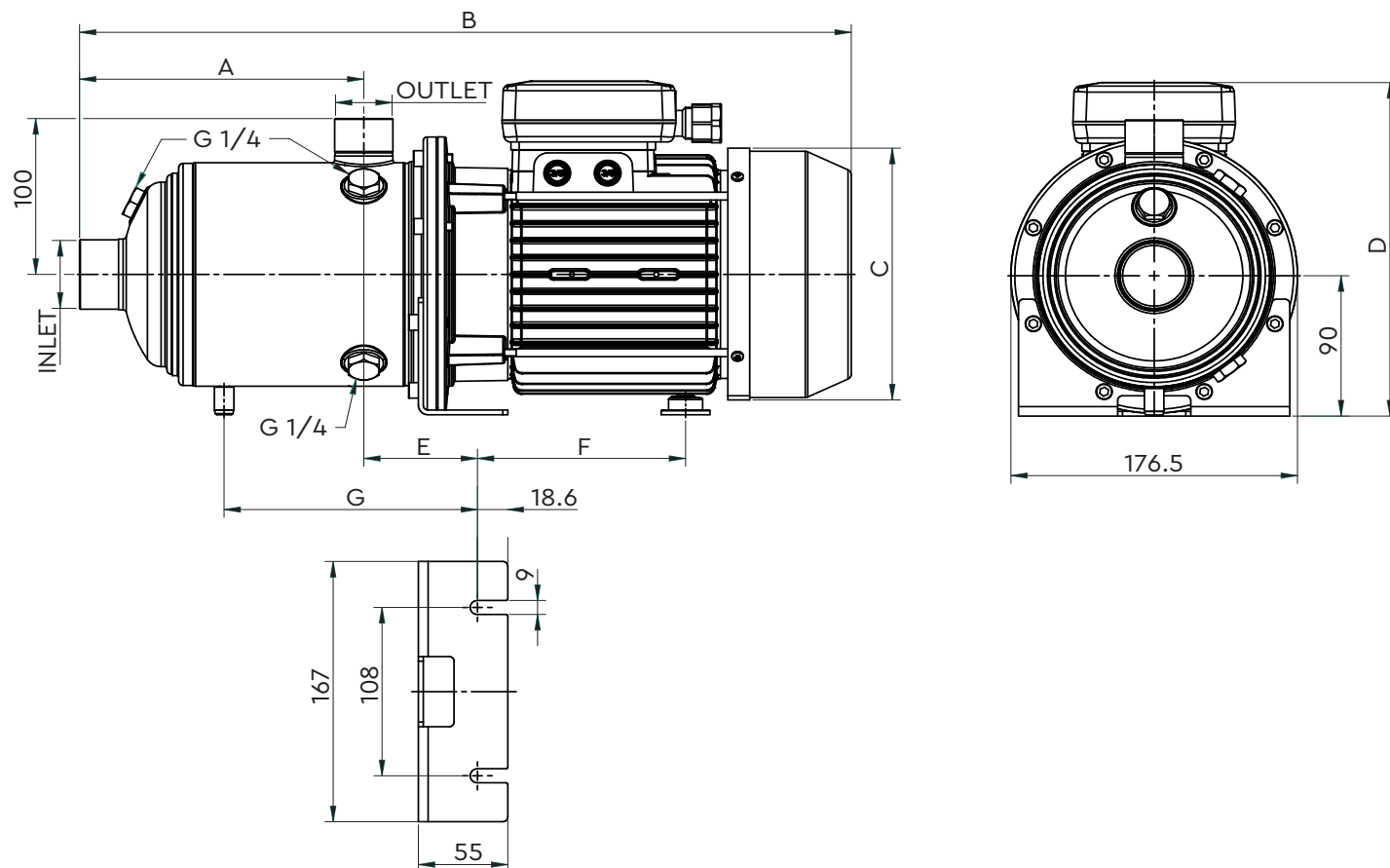
Dimensions: HM 0900 230 M 50



Part No	Description	Dimensions (mm)								Weight (Kg)	Inlet	Outlet
		A	B	C	D	E	F	G				
46766	HM0902 230 M 50	118	380	144	207	74	101	-	11.6	Rp 1½"	Rp 1¼"	
46767	HM0903 230 M 50	118	380	144	207	74	101	-	13.2	Rp 1½"	Rp 1¼"	
46768	HM0904 230 M 50	148	452	162	214	74	128	-	17.0	Rp 1½"	Rp 1¼"	
46769	HM0905 230 M 50	178	527	179	221	74	172	-	23.0	Rp 1½"	Rp 1¼"	
46770	HM0906 230 M 50	208	557	179	221	74	172	192	23.8	Rp 1½"	Rp 1¼"	
46771	HM0907 230 M 50	238	587	179	221	74	172	222	24.4	Rp 1½"	Rp 1¼"	

Stuart HM 0900 230-400 T 50 Dimensions

Dimensions: HM 0900 230-400 T 50



Part No	Description	Dimensions (mm)								Weight (Kg)	Inlet	Outlet
		A	B	C	D	E	F	G				
46772	HM0902 230-400 T 50	118	382	144	207	74	101	-	11.2	Rp 1½"	Rp 1¼"	
46773	HM0903 230-400 T 50	118	382	144	207	74	101	-	12.0	Rp 1½"	Rp 1¼"	
46774	HM0904 230-400 T 50	148	449	162	214	74	128	-	15.8	Rp 1½"	Rp 1¼"	
46775	HM0905 230-400 T 50	178	526	179	221	74	172	-	21.8	Rp 1½"	Rp 1¼"	
46776	HM0906 230-400 T 50	208	556	179	221	74	172	192	22.4	Rp 1½"	Rp 1¼"	
46777	HM0907 230-400 T 50	238	621	179	221	74	172	222	26.0	Rp 1½"	Rp 1¼"	
46778	HM0908 230-400 T 50	268	651	179	221	74	172	252	26.6	Rp 1½"	Rp 1¼"	

Stuart Turner Limited reserves the right to amend specifications without notice.

Stuart Turner Ltd, Market Place, Henley-on-Thames, Oxfordshire, RG9 2AD

Tel: +44 (0) 1491 572655

www.stuart-turner.co.uk

Pt. No. 21219 Issue 0321/01-01