

STAINLESS STEEL S E R I E S



STAINLESS STEEL SERIES

Submersible Pumps

C.R.I. Submersible Pumps are the products of the expertise gained from over five decades of experience, endurance and workmanship. These products are engineered to perfection with utmost care and stringent quality control at all stages to ensure a trouble free service.

Description : C.R.I. 4", 6", 8" & 10" Stainless steel series submersible pumps are made of corrosion resistance stainless steel with built in check valve. All vital components of these pump models are made of high quality 304 / 316 grade stainless steel and the shaft is of S.S 304 / 329 / 431. The optimal design of impellers and diffusers enables the best possible hydraulic efficiency.

These pumps are of multistage centrifugal type, which can be firmly coupled to a submersible electric motor, which operates submerged beneath the surface of water. Built in check valve prevents back flow, and reduces the risk of water hammer. All mounting dimensions of pumps and motors are in accordance with NEMA standards. C.R.I. submersible pumps can be offered with either C.R.I. 'W' series, water filled rewirable submersible motors / C.R.I. 'R' series, Resin Filled encapsulated (water lubricated) submersible motors / C.R.I. 'L' Series, Non-toxic liquid filled submersible motors or any other NEMA standard motors.

Features :

- More longevity & hygiene
- Precise parts made of S.S 304 / 316
- Shaft is of S.S 304 / 431 / 329
- High operating efficiency
- Highly durable & rigid in construction
- Good resistance against sand & abrasives
- Easy to dismantle & repair
- NEMA mounting standards
- Can handle high upthrust loads
- Extremely hardwearing water lubricated bearings
- Built-in check valve to prevent back flow.

Applications :

- Domestic & Civil Water Supply
- Irrigation
- Fountains
- Industrial & Rural water supply
- Fire fighting & Pressure Boosting units
- Ponds
- Gardens
- Sprinkler Systems and Mining.



GENERAL INFORMATION

Pumped Liquids

Clean, thin, non-aggressive, non explosive, clear, cold, fresh water without abrasives, solid particles or fibre having the following characteristics

a)	Temperature	33°C (max)
b)	Permissible amount of sand	50g/m³ (max)
c)	Chlorine ion density	500 ppm (max)
d)	Allowable solids	3000 ppm (max)
e)	Specific gravity	1.004 (max)
f)	Hardness (Drinking water)	300 (max)
g)	Viscosity	$1.75 \times 10^6 \text{m}^2/\text{sec}$ (max)
h)	Turbidity	50 ppm silica scale (max)
i)	pH	6.5 to 8.5

PUMP OPERATING LIMITATIONS					
Nominal Diameter		4"(100mm)	6"(150mm)	8"(200mm)	10"(250mm)
Power Range		0.37 - 7.5 kW	2.2 - 45 kW	5.5 - 110 kW	9.3 - 187 kW
Speed		2900 rpm	2900 rpm	2900 rpm	2900 rpm
Discharge Range	m³/hr	0.4 - 19	7 - 80	20 - 126	18 - 200
	LPS	0.12 - 5.28	1.94 - 22.24	5.5 - 35	5 - 55.56
Total head range	m	4.0 - 500	4.5 - 520	8 - 416	6 - 455
	ft	13.0 - 1640	14.7 - 1705.6	26.24 - 1364.8	19.68 - 1492.78
Outlet size in inches		1¼, 1½ & 2	2, 2½, 3 & 4	4 & 5	6

Maximum temperature of Pumped liquid

Motor	Minimum cooling flow along the motor	Vertical installation	Horizontal installation minimum 30°angle	Maximum operating pressure	
				4" Submersible pump	5.0 Mpa (50 bar)
4" & 6"	0.15 m/s	33 °C	33 °C	6" Submersible pump	5.2 Mpa (52 bar)
8"	0.16 m/s	33 °C	33 °C	8" Submersible pump	4.1 Mpa (41 bar)
10"	0.15 m/s	33 °C	33 °C	10" Submersible pump	4.6 Mpa (46 bar)

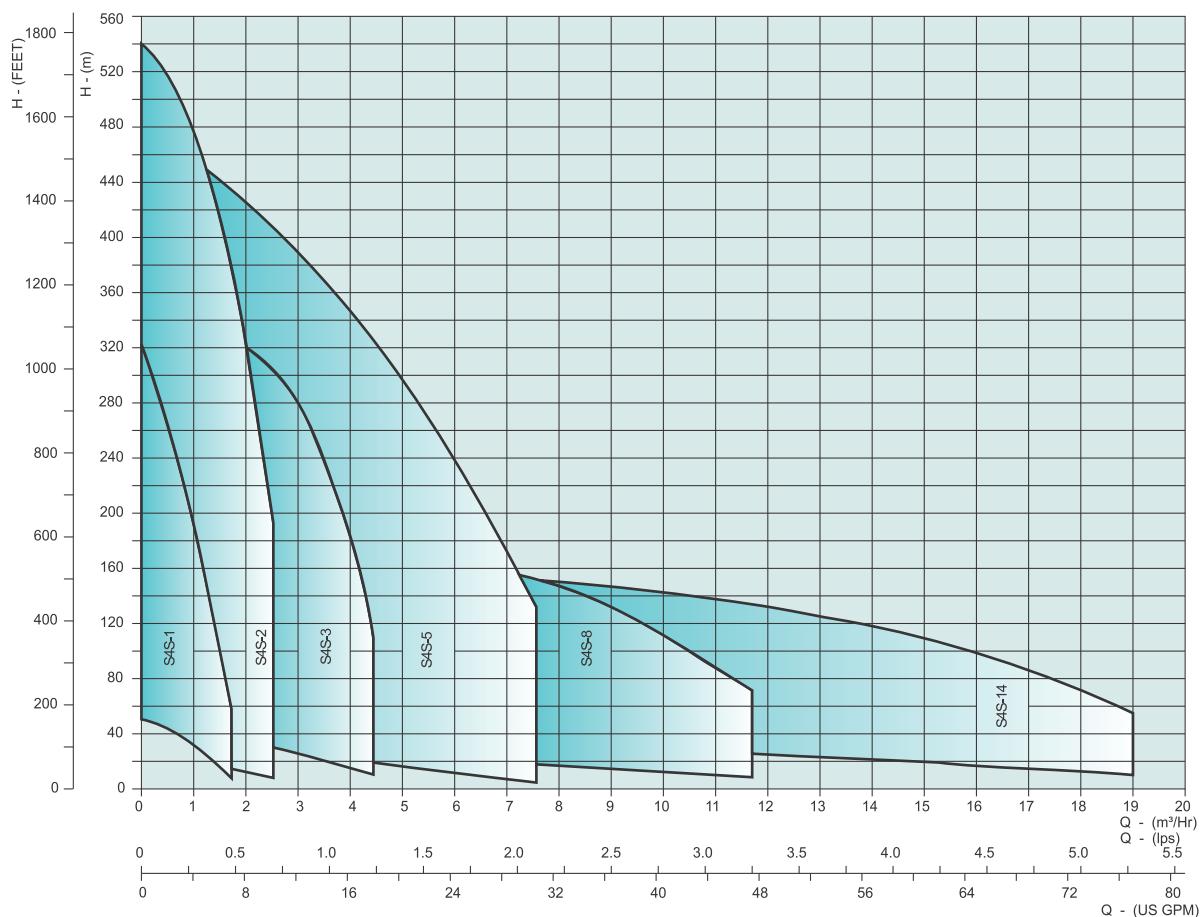
Available types of materials of construction : S (S.S-304) and N (S.S-316). In case of M.O.C Type - N the third digit of the pump model "S" will be replaced with "N".

The given performance ranges are same for Type - S & N.

In view of continuous developments, the information / descriptions / specifications / illustrations are subject to change without notice.

STAINLESS STEEL SERIES

Group Performance Curves - 4"



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STAINLESS STEEL SERIES

Materials of Construction

PART NAME	NOMINAL DIA. 4"		NOMINAL DIA . 6", 8" & 10"	
	TYPE - S	TYPE - N	TYPE - S	TYPE - N
CHECK VALVE HOUSING	S.S - 304	S.S. - 316	S.S. - 304	S.S. - 316
CHECK VALVE DISC	S.S - 304	S.S. - 316	S.S. - 304	S.S. - 316
CHECK VALVE SEAT	NBR	NBR	NBR	NBR
DIFFUSER CHAMBER	S.S - 304	S.S. - 316	S.S. - 304	S.S. - 316
IMPELLER	S.S - 304	S.S. - 316	S.S. - 304	S.S. - 316
SPLIT CONE WITH NUT***	S.S - 304	S.S. - 316	S.S. - 304	S.S. - 316
IMPELLER WEAR RING / SEAL RING	NBR	NBR	NBR	NBR
UPTHRUST WASHER / STOP RING	S.S - 304 / TEFLON S.S - 420 / BRONZE	S.S - 316 / TEFLON	S.S. - 420 / CARBON	S.S. - 329 / CARBON
INTERMEDIATE BEARING	NBR	NBR	NBR	NBR
SUCTION INTER CONNECTOR	S.S. - 304	S.S. - 316	S.S. - 304	S.S. - 316
INLET SCREEN	S.S. - 304	S.S. - 316	S.S. - 304	S.S. - 316
PUMP SHAFT	S.S. - 304 / 431**	S.S. - 316 / 329**	S.S. - 431	S.S. - 329
COUPLING SPLINES	S.S. - 329	S.S. - 329	S.S. - 329	S.S. - 329
LOCKING STRAPS	S.S. - 304	S.S. - 316	S.S. - 304	S.S. - 316
CABLE GUARD	S.S. - 304	S.S. - 316	S.S. - 304	S.S. - 316

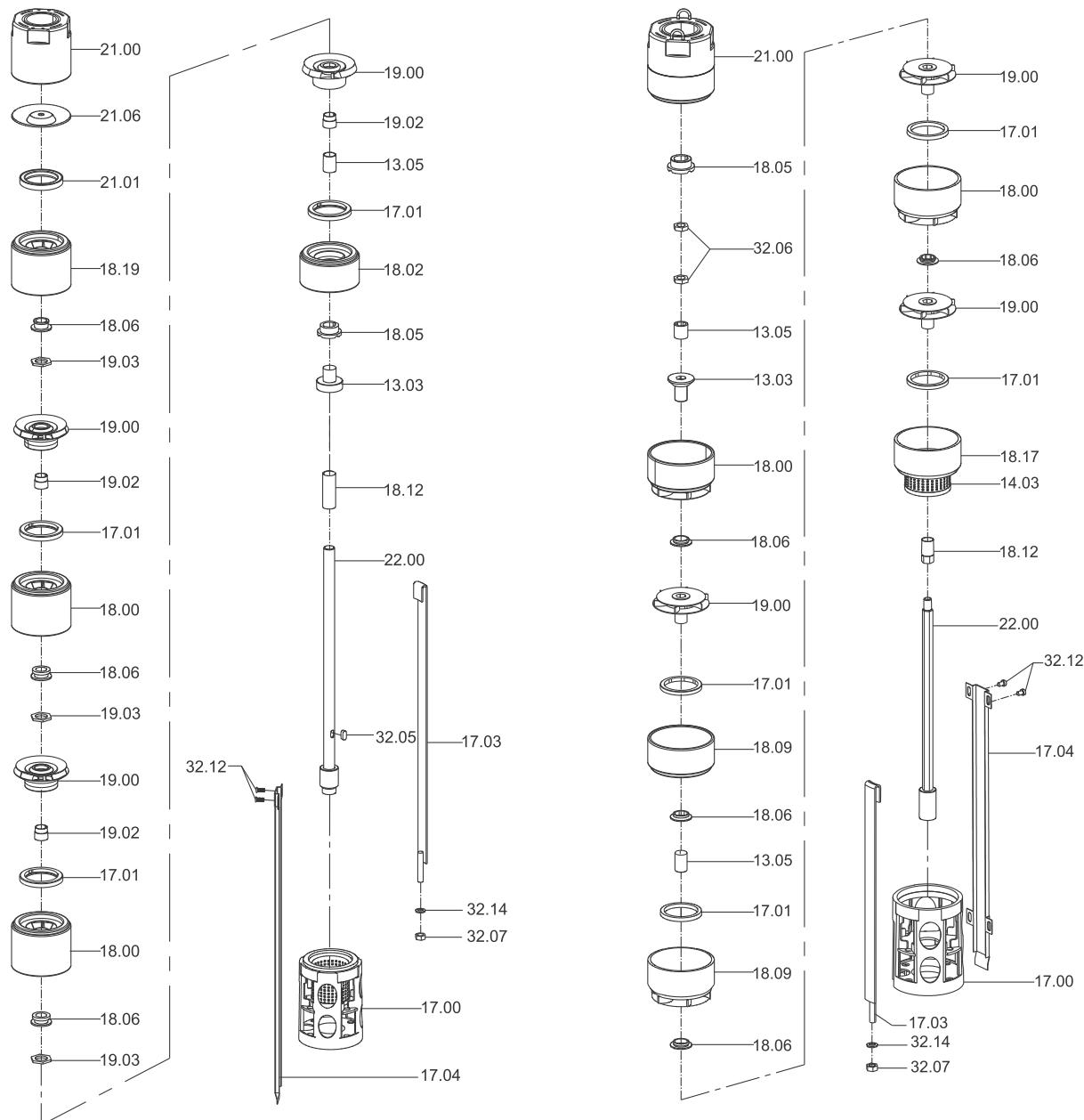
** Provided only for 4", 14m³/hr.

*** Applicable for 4", 14m³/hr and 6" 14m³ to 60m³/hr pump models.

Note : 4" 1m³ to 8m³/hr pumps are provided with hexagonal shaft and other 4" & 6" pumps are with cylindrical shaft.

GENERAL INFORMATION

Exploded View of 4" Mixed & Radial flow pumps



Part No.	Part Name
13.03	Up Thrust washer
13.05	Sleeve
17.00	Suction Inter Connector
17.01	Wearing Ring
17.03	Locking Strap-Pump
17.04	Cable Guard
18.00	Chamber-Rubber Bush
18.02	Chamber-CT Bearing
18.05	Bush-CT Pad

Part No.	Part Name
18.06	Bush-Rubber
18.12	Spacer
18.19	Chamber-Top
19.00	Impeller
19.02	Split Cone
19.03	Split Cone Nut
21.00	Valve Housing
21.01	Valve Seat
21.06	Valve Disc

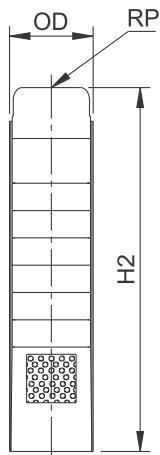
Part No.	Part Name
22.00	Pump Shaft
32.05	Key
32.07	Nut
32.12	Screw
32.14	Spring Washer
14.03	Strainer
17.00	Suction Inter Connector
18.17	Chamber Suction
32.06	Lock Nut

STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **1m³/h**Outlet Size : **1 1/4"**

Performance Table

DIMENSIONS & WEIGHT



PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT. WEIGHT (kg)
	kW	HP	OD	RP	H2	
S4S-1/09	0.37	0.5	97	32	356	4.4
S4S-1/14	0.37	0.5	97	32	466	6.1
S4S-1/18	0.55	0.75	97	32	554	7.3
S4S-1/21	0.55	0.75	97	32	620	8.4
S4S-1/28	0.75	1	97	32	774	10.7
S4S-1/36	1.1	1.5	97	32	1118	16.9
S4S-1/42	1.1	1.5	97	32	1262	18.7
S4S-1/50	1.5	2	97	32	1478	21.4
S4S-1/57	1.5	2	97	32	1646	22.8

PUMP MODEL	MOTOR kW	Ips	0	0.11	0.16	0.22	0.27	0.33	0.38	0.44	0.47
			m ³ /h	0	0.40	0.60	0.80	1.0	1.2	1.4	1.7
S4S-1/09	0.37	TOTAL MANOMETRIC HEAD IN METRES - (COLUMN WATER)	50	45	41	38	32	26.5	20	12	9
S4S-1/14	0.37		80	70.5	65	58	49	39	29	18	12.5
S4S-1/18	0.55		105	94	88	79.5	70	59.5	47	33	26
S4S-1/21	0.55		125	116.5	108.5	99	85	69.5	53	39	30
S4S-1/28	0.75		165	148	135	122.5	107.5	90	69	47	35
S4S-1/36	1.1		198	182	165	145	123	102	80	54	41
S4S-1/42	1.1		230	211	190	165	140	116	89	60	45
S4S-1/50	1.5		280	250	226	199	170	140	106	70	51
S4S-1/57	1.5		320	284	253	221	189	155	120	82	63

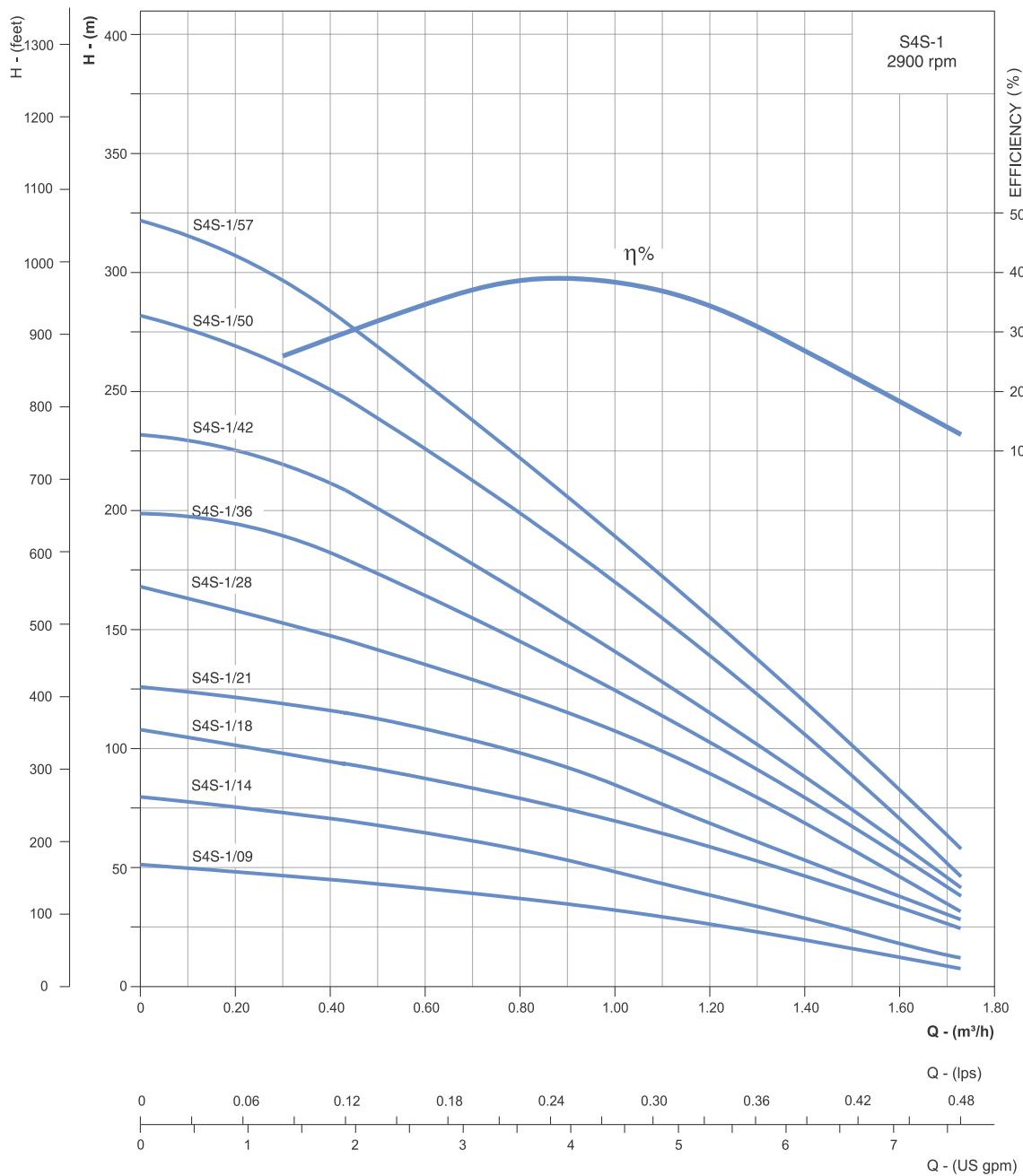
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STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **1 m³/h**Outlet Size : **1 1/4"**

Performance Curves

Flow Range : 0.4 - 1.7 m³/h

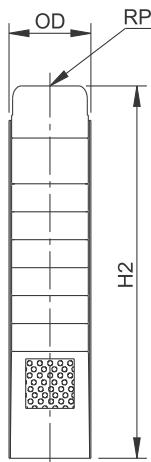
Refer General Information for performance curve conditions and for other details.
Curve tolerance according to ISO : 9906, Annex - A.

STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **2m³/h**Outlet Size : **1 1/4"**

Performance Table

DIMENSIONS & WEIGHT



PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT. WEIGHT (kg)
	kW	HP	OD	RP	H2	
S4S-2/06	0.37	0.5	97	32	290	4.1
S4S-2/09	0.37	0.5	97	32	356	4.8
S4S-2/13	0.55	0.75	97	32	444	5.7
S4S-2/15	0.55	0.75	97	32	488	6.1
S4S-2/18	0.75	1	97	32	554	6.8
S4S-2/23	1.1	1.5	97	32	664	8.0
S4S-2/28	1.5	2	97	32	774	9.1
S4S-2/33	1.5	2	97	32	1046	10.2
S4S-2/40	2.2	3	97	32	1214	12.5
S4S-2/48	2.2	3	97	32	1430	15.2
S4S-2/55	3	4	97	32	1598	17.5
S4S-2/65	3	4	97	32	1862	22.3
S4S-2/75	4	5.5	97	32	2102	26.8
S4S-2/90	4	5.5	97	32	2486	33.2

PUMP MODEL	MOTOR kW	lps	0	0.16	0.27	0.38	0.50	0.55	0.61	0.72
			m ³ /h	0	0.6	1.0	1.4	1.8	2.0	2.2
S4S-2/06	0.37		35	28	26.5	25	23	20	17	8
S4S-2/09	0.37		54	49	45	40	35	30	25	19
S4S-2/13	0.55		76	72	68	60	48	42	36	27
S4S-2/15	0.55		90	82	78	70	60	57	48	38
S4S-2/18	0.75		120	115	102	92	80	72	63	50
S4S-2/23	1.1		145	140	128	113	93	82	71	57
S4S-2/28	1.5		180	172	160	142	121	110	98	77
S4S-2/33	1.5		215	199	183	165	140	124	108	82
S4S-2/40	2.2		249	232	218	195	165	144	127	92
S4S-2/48	2.2		285	272	254	227	195	174	148	100
S4S-2/55	3		335	306	282	250	209	183	158	110
S4S-2/65	3		405	375	342	301	257	228	196	138
S4S-2/75	4		460	435	403	363	305	272	235	164
S4S-2/90	4		535	513	473	421	358	319	276	198

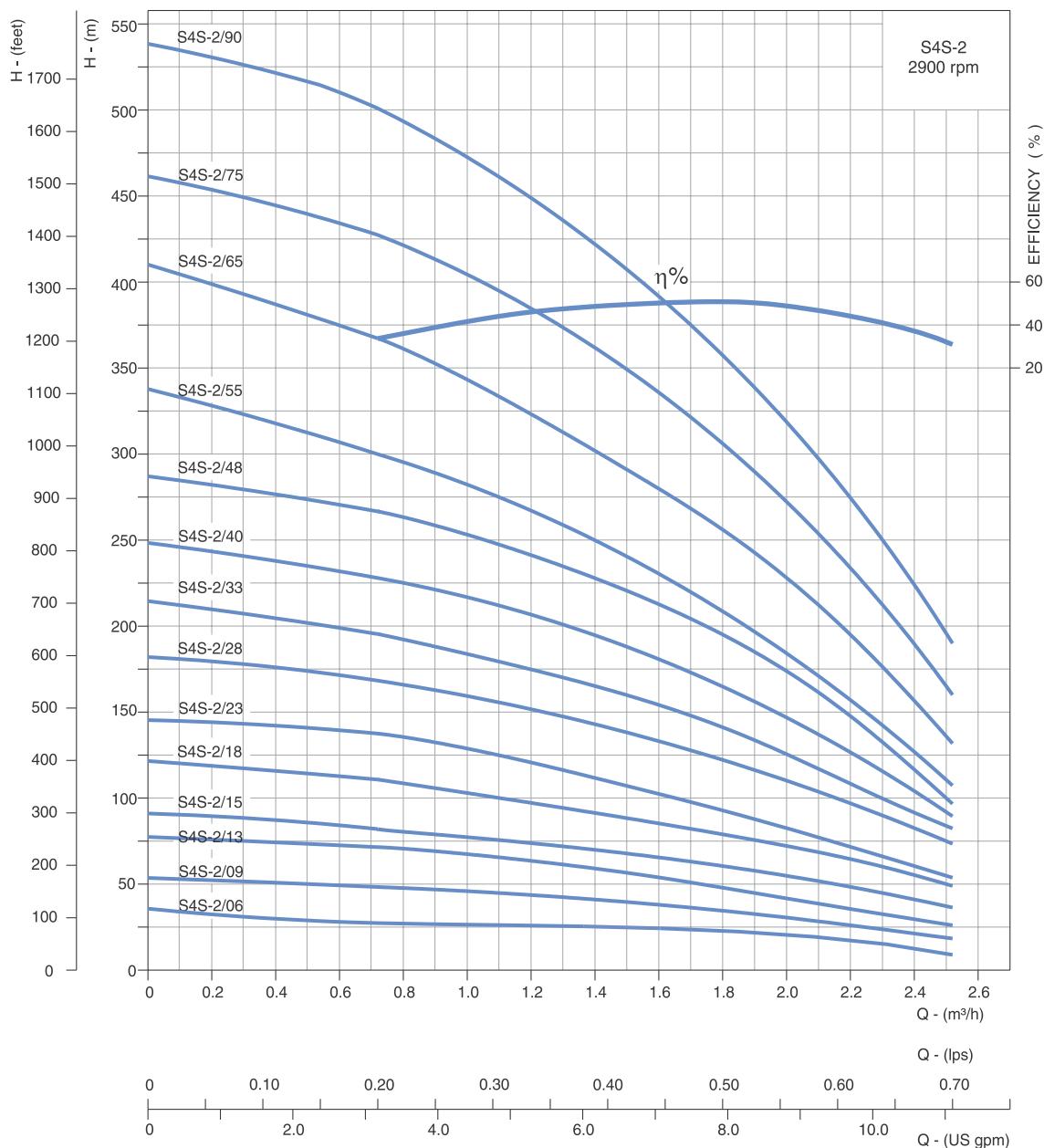
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STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **2m³/h**Outlet Size : **1 1/4"**

Performance Curves

Flow Range : 0.7 - 2.5 m³/h

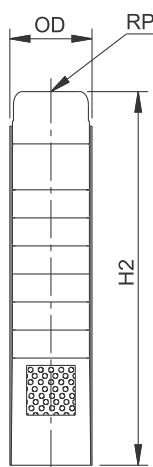
Refer General Information for performance curve conditions and for other details.
Curve tolerance according to ISO : 9906, Annex - A.

STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **3m³/h**Outlet Size : **1 1/4"**

Performance Table

DIMENSIONS & WEIGHT



PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT. WEIGHT (kg)
	kW	HP	OD	RP	H2	
S4S-3/06	0.37	0.5	97	32	290	2.30
S4S-3/09	0.55	0.75	97	32	356	3.40
S4S-3/12	0.75	1	97	32	422	4.20
S4S-3/15	1.1	1.5	97	32	488	5.00
S4S-3/18	1.1	1.5	97	32	554	5.60
S4S-3/22	1.5	2	97	32	642	6.60
S4S-3/25	1.5	2	97	32	708	7.30
S4S-3/29	2.2	3	97	32	796	8.20
S4S-3/33	2.2	3	97	32	884	13.20
S4S-3/39	3	4	97	32	1016	14.20
S4S-3/45	3	4	97	32	1148	17.30
S4S-3/52	4	5.5	97	32	1302	19.20
S4S-3/60	4	5.5	97	32	1478	22.20

PUMP MODEL	MOTOR kW	Ips	0	0.41	0.55	0.69	0.83	0.97	1.11	1.25
		m ³ /h	0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
S4S-3/06	0.37		36	34	32	30	28	22	17	10
S4S-3/09	0.55		54	52	50	48	42	35	27	15
S4S-3/12	0.75		75	69	65	60	54	45	33	20
S4S-3/15	1.1		98	90	86	80	72	60	45	28
S4S-3/18	1.1		110	106	102	95	86	73	52	34
S4S-3/22	1.5		145	140	130	120	105	88	65	40
S4S-3/25	1.5		168	159	148	134	117	98.5	74	45
S4S-3/29	2.2		190	181	170	159	140	117	89.5	50
S4S-3/33	2.2		216	205	195	181	161	130	95	57
S4S-3/39	3		250	237	225	209	186	155	118	66
S4S-3/45	3		280	258	249	233	210	180	137	81
S4S-3/52	4		330	303	290	272	244	206	162	103
S4S-3/60	4		384	345	328	304	274	228	180	110

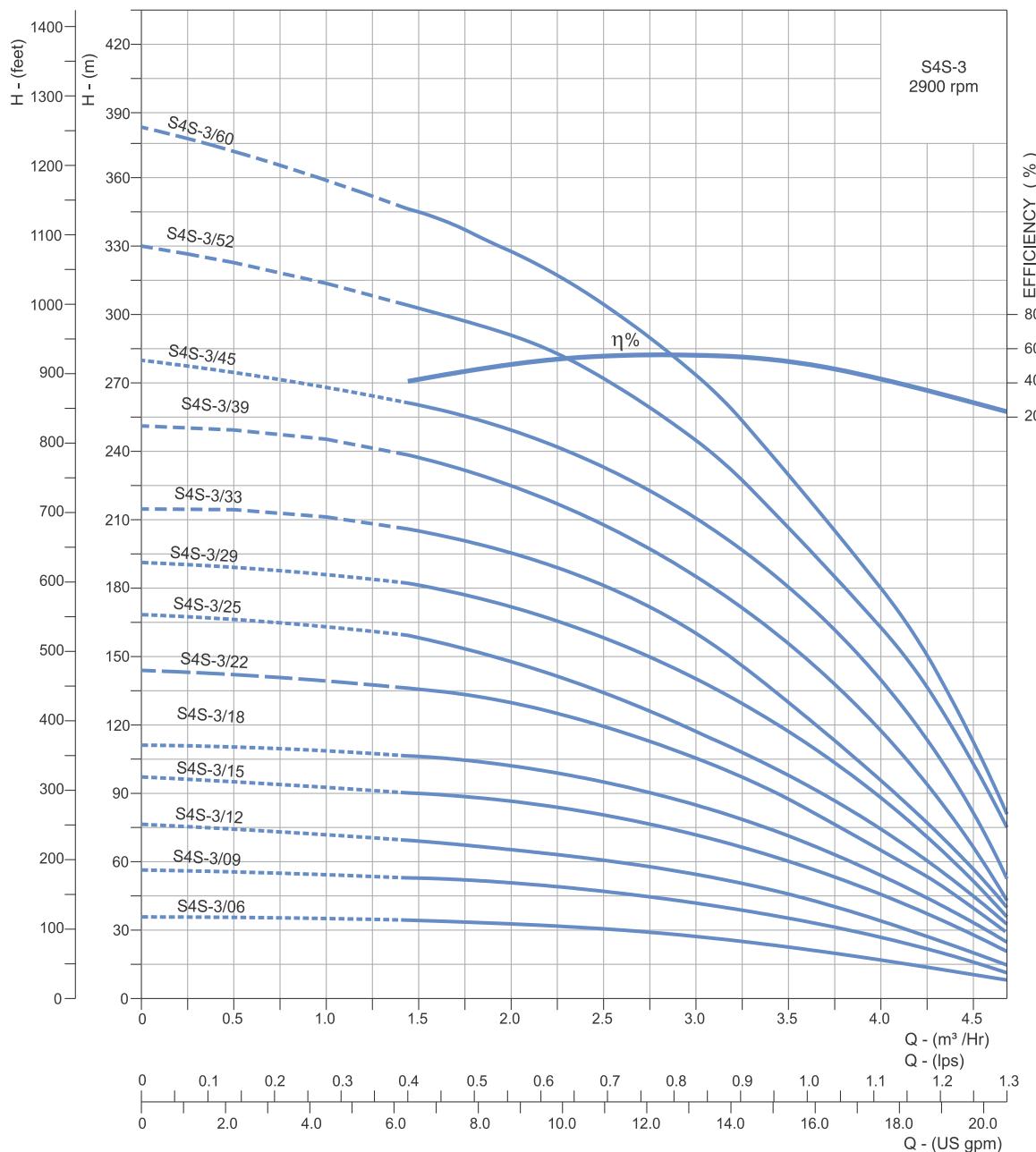
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STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **3m³/h**Outlet Size : **1 1/4"**

Performance Curves

Flow Range : **1.44 - 4.5 m³/h**

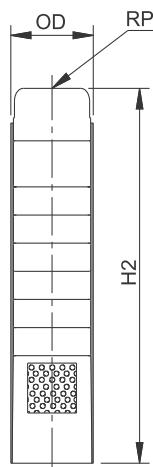
Refer General Information for performance curve conditions and for other details.
Curve tolerance according to ISO : 9906, Annex - A.

STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **5m³/h**Outlet Size : **1½"**

Performance Table

DIMENSIONS & WEIGHT



PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT. WEIGHT (kg)
	kW	HP	OD	RP	H2	
S4S-5/04	0.37	0.5	97	40	253	2.8
S4S-5/06	0.55	0.75	97	40	301	3.5
S4S-5/08	0.75	1	97	40	349	4.0
S4S-5/12	1.1	1.5	97	40	445	5.4
S4S-5/17	1.5	2	97	40	565	6.9
S4S-5/21	2.2	3	97	40	661	8.0
S4S-5/25	2.2	3	97	40	757	9.1
S4S-5/33	3	4	97	40	1116	13.9
S4S-5/38	4	5.5	97	40	1246	15.3
S4S-5/44	4	5.5	97	40	1402	17.5
S4S-5/52	5.5	7.5	97	40	1636	20.5
S4S-5/60	5.5	7.5	97	40	1844	22.2
S4S-5/75	7.5	10	97	40	2228	25.6

PUMP MODEL	MOTOR kW	Ips	0	0.55	0.83	1.11	1.39	1.66	1.94
		m ³ /h	0	2.0	3.0	4.0	5.0	6.0	7.0
S4S-5/04	0.37		28	26	22.5	20	17	12	5
S4S-5/06	0.55		39	36	32	28	22	17	10
S4S-5/08	0.75		46	42.5	40	37	32	23	15
S4S-5/12	1.1		75	71	65	57	48	38	24
S4S-5/17	1.5		108	94	88	80	68	51	33
S4S-5/21	2.2		138	121	112	99	84	65	42
S4S-5/25	2.2		162	143	131	119	102	77	53
S4S-5/33	3		202	179	165	147	128	100	68
S4S-5/38	4		241	215	198	177	152	119	81
S4S-5/44	4		280	244	223	199	170	134	92
S4S-5/52	5.5		324	281	258	230	199	156	108
S4S-5/60	5.5		360	322	300	262	236	190	130
S4S-5/75	7.5		487	427	392	352	302	237	168

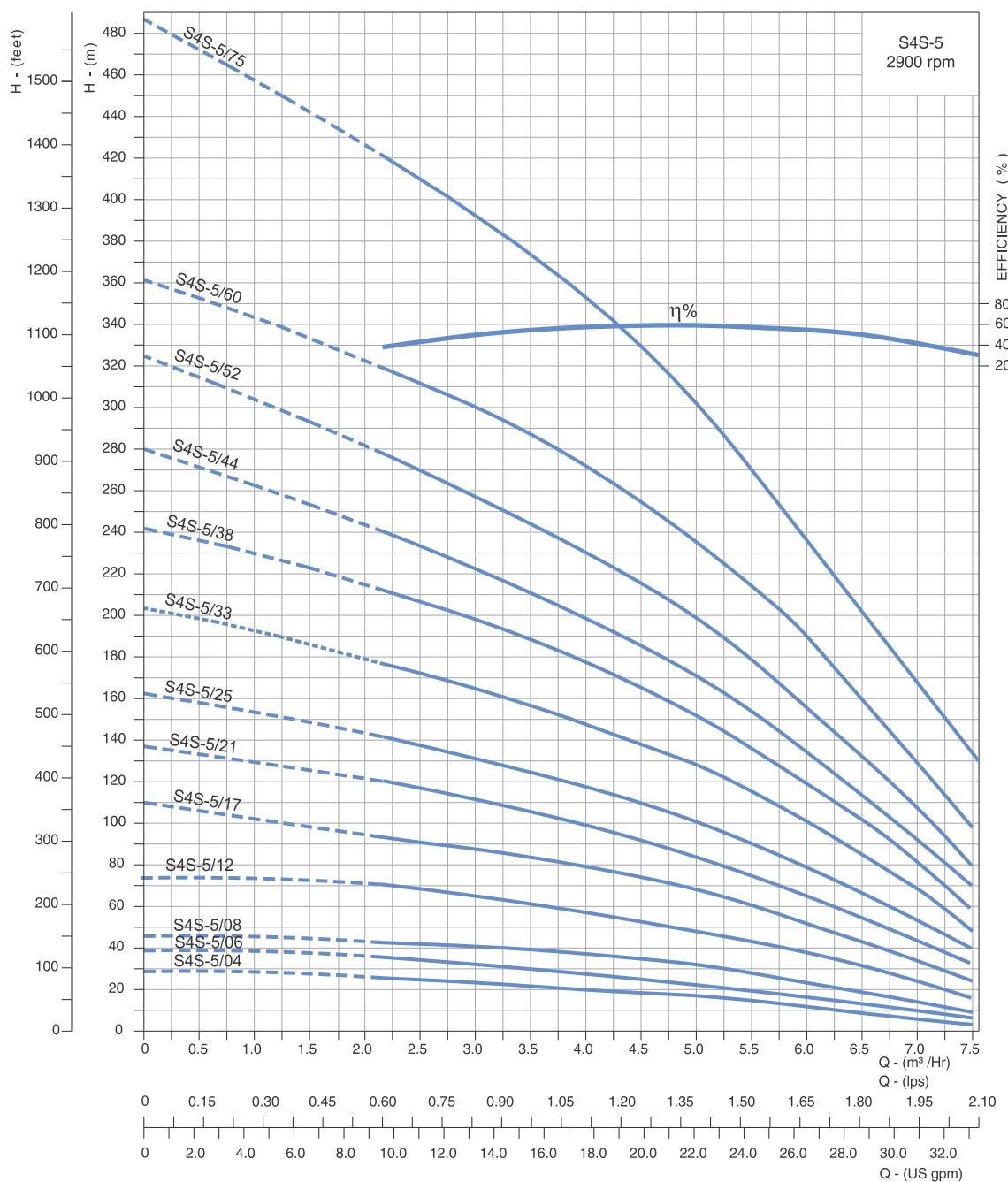
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STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **5m³/h**Outlet Size : **1 1/2"**

Performance Curves

Flow Range : 2 - 7.5 m³/h

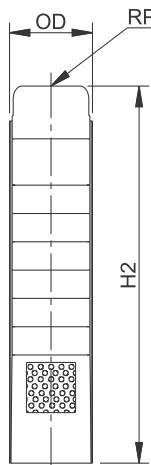
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Curve tolerance according to ISO : 9906, Annex - A.

STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **8m³/h**Outlet Size : **2"**

Performance Table

DIMENSIONS & WEIGHT



PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT. WEIGHT (kg)
	kW	HP	OD	RP	H2	
S4S-8/05	0.75	1	97	50	410	4.5
S4S-8/07	1.1	1.5	97	50	482	5.6
S4S-8/09	1.5	2	97	50	554	6.6
S4S-8/10	1.5	2	97	50	590	6.9
S4S-8/12	2.2	3	97	50	662	7.6
S4S-8/15	2.2	3	97	50	772	9.2
S4S-8/18	3	4	97	50	902	10.6
S4S-8/22	4	5.5	97	50	1046	12.5
S4S-8/25	4	5.5	97	50	1154	13.8
S4S-8/30	5.5	7.5	97	50	1334	16.0
S4S-8/34	5.5	7.5	97	50	1478	17.7
S4S-8/44	7.5	10	97	50	1862	22
S4S-8/50	7.5	10	97	50	2102	24.8

PUMP MODEL	MOTOR kW	lps	0	0.83	1.11	1.39	1.66	1.94	2.22	2.50	2.78	3.05
			m ³ /h	0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
S4S-8/05	0.75		32	27	25	23.5	22	20	18	16	13.5	11
S4S-8/07	1.1		42	38.5	37	35.5	34	31.5	27	24.5	20	16
S4S-8/09	1.5		55	50	48.5	46	44	41.5	37.5	33.5	28	22
S4S-8/10	1.5		63	55	52	50	48	44	40	35	30	24
S4S-8/12	2.2		74	68.5	67	65	61	56	51	44.5	37	27.5
S4S-8/15	2.2		94	85.5	82.5	79	74.8	69	63	55	46.5	36
S4S-8/18	3		112	107	103	99	94	87	79	68.5	57	44
S4S-8/22	4		136	128.5	124	117	110	102	93	82	69	54
S4S-8/25	4		155	142	136	129.5	123.5	116	105.5	94	79	63
S4S-8/30	5.5		188	166	158	151	142.5	132	123	109	91	70
S4S-8/34	5.5		206	188	182	175	167.5	157.5	145	129	110	87.5
S4S-8/44	7.5		262	237	228	217	205	191	178	155	129	100
S4S-8/50	7.5		304	272	261	249	235	220	200	176	148	112

Available types of materials of construction : S (S.S-304) and N (S.S-316). In case of M.O.C Type - N the third digit of the pump model "S" will be replaced with "N". The given performance curves are same for Type - S & N.

In view of continuous developments, the information / descriptions / specifications / illustrations are subject to change without notice.

STAINLESS STEEL SERIES

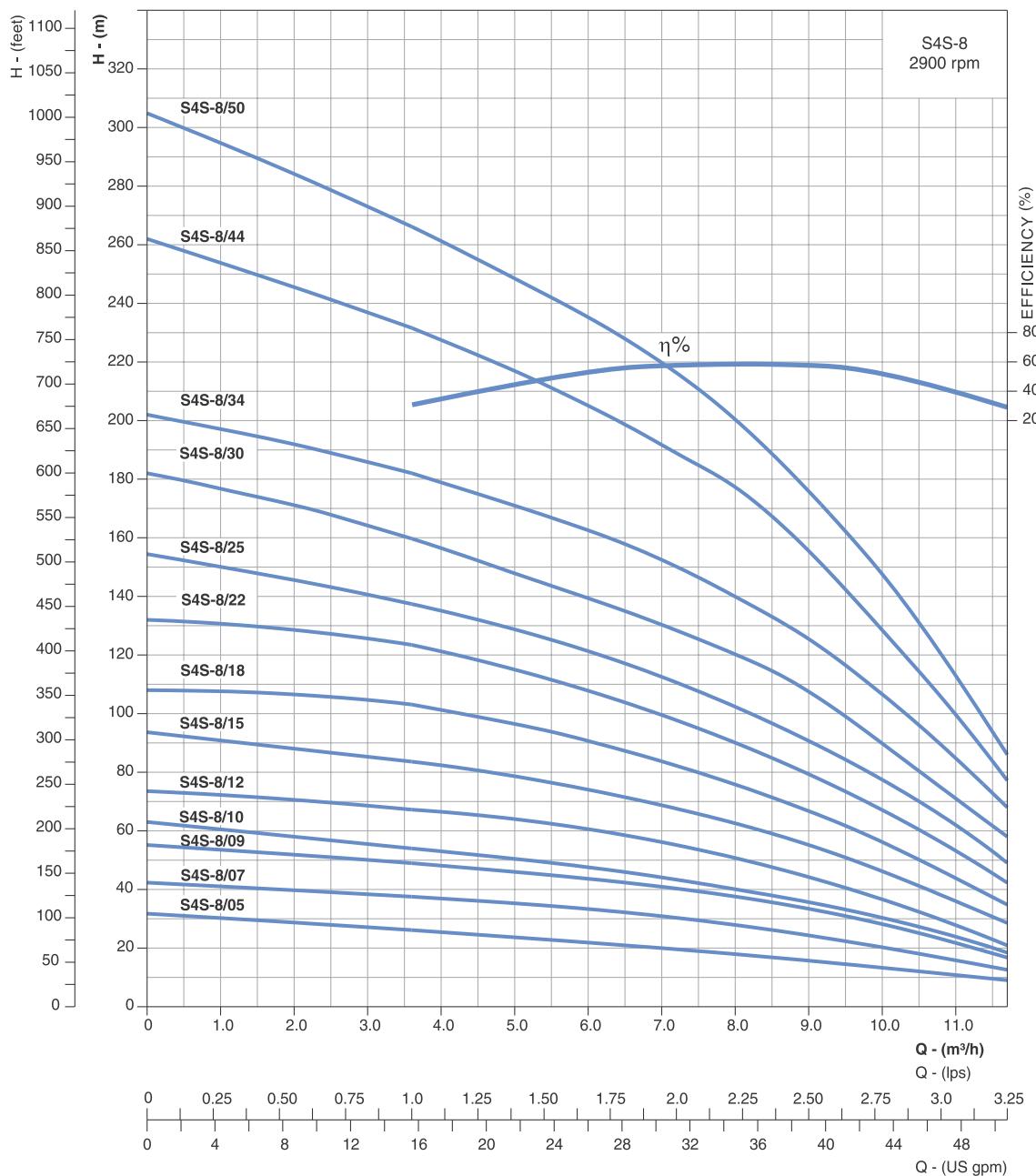
Nominal Diameter : **4"**

Nominal Flow : **8m³/h**

Outlet Size : **2"**

Performance Curves

Flow Range : 3.6 - 11.7 m³/h



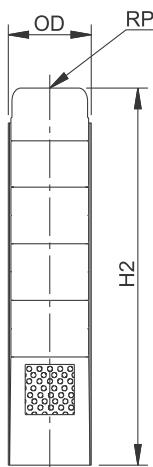
Refer General Information for performance curve conditions and for other details.
Curve tolerance according to ISO : 9906, Annex - A.

STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **14m³/h**Outlet Size : **2"**

Performance Table

DIMENSIONS & WEIGHT



PUMP MODEL	REQUIRED MOTOR POWER		DIMENSIONS (mm)			APPROX NETT. WEIGHT (kg)
	kW	HP	OD	RP	H2	
S4S-14/05	1.5	2	97	50	573	6.5
S4S-14/07	2.2	3	97	50	703	7.8
S4S-14/09	3	4	97	50	833	9.1
S4S-14/10	3	4	97	50	898	9.9
S4S-14/11	3.7	5	97	50	963	10.8
S4S-14/13	4	5.5	97	50	1093	12.2
S4S-14/16	5.5	7.5	97	50	1288	14.4
S4S-14/18	5.5	7.5	97	50	1418	16.2
S4S-14/22	7.5	10	97	50	1678	18.7
S4S-14/25	7.5	10	97	50	1873	20.8

PUMP MODEL	MOTOR kW	lps	0	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00
			m ³ /h	0	4	6	8	10	12	14	16
S4S-14/05	1.5		31	30	29	28	26	23	20	16	12
S4S-14/07	2.2		42	41	40	39	37	33	29	24	15
S4S-14/09	3		56	55	53	51	47	43	38	32	25
S4S-14/10	3		65	63	60	57	54	49	43	37	29
S4S-14/11	3.7		75	72	70	66	62	56	50	42	32
S4S-14/13	4		85	83	80	75	70	64	56	47	36
S4S-14/16	5.5		104	102	99	95	89	81	71	59	44
S4S-14/18	5.5		119	115	112	107	100	91	81	56	50
S4S-14/22	7.5		141	136	132	127	120	111	96	78	58
S4S-14/25	7.5		161	156	152	145	137	125	110	91	68

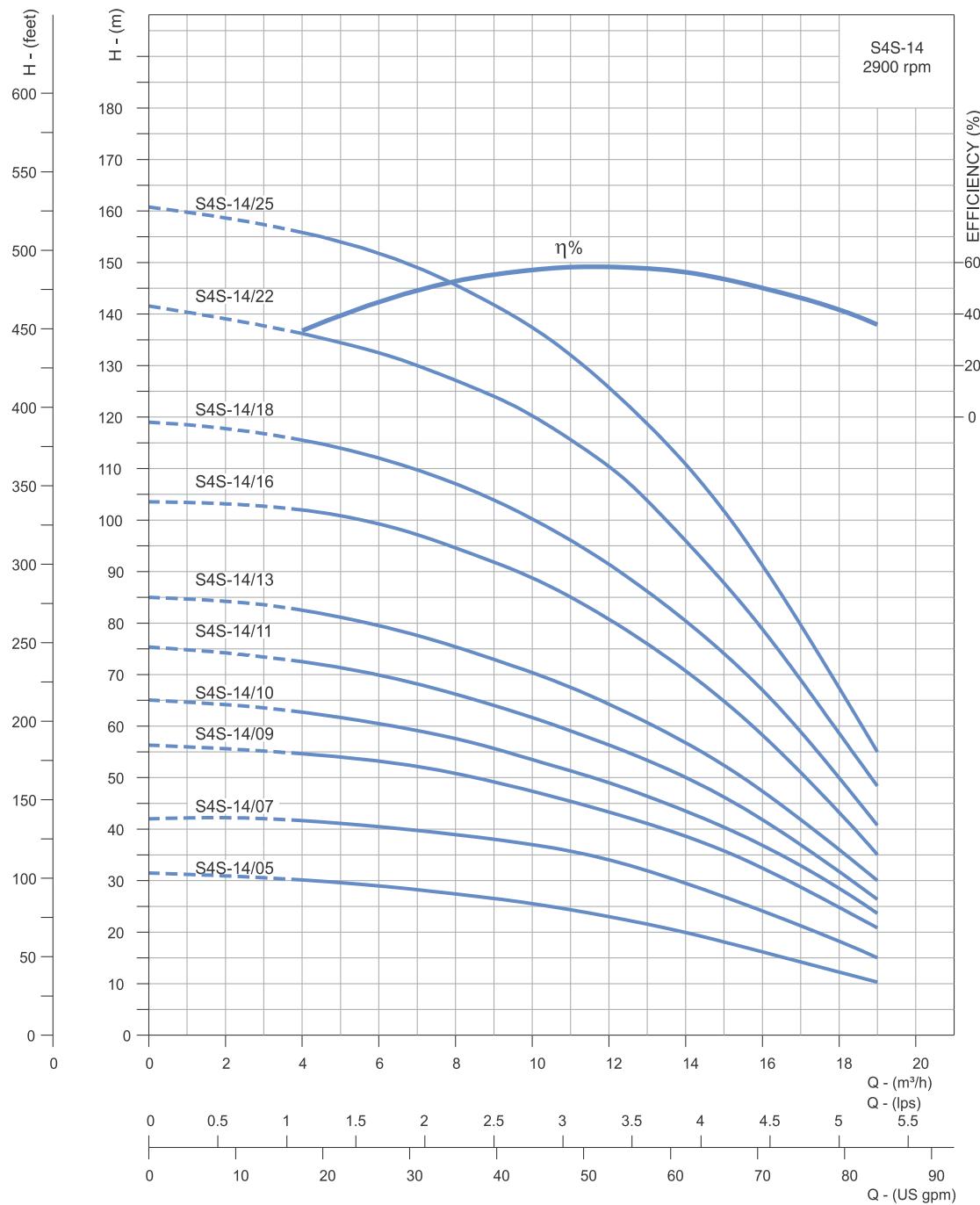
Available types of materials of construction : S (S.S-304) and N (S.S-316). In case of M.O.C Type - N the third digit of the pump model "S" will be replaced with "N". The given performance curves are same for Type - S & N.

In view of continuous developments, the information / descriptions / specifications / illustrations are subject to change without notice.

STAINLESS STEEL SERIES

Nominal Diameter : **4"**Nominal Flow : **14m³/h**Outlet Size : **2"**

Performance Curves

Flow Range : 4 - 19 m³/h

Refer General Information for performance curve conditions and for other details.
Curve tolerance according to ISO : 9906, Annex - A.