

MATRIX

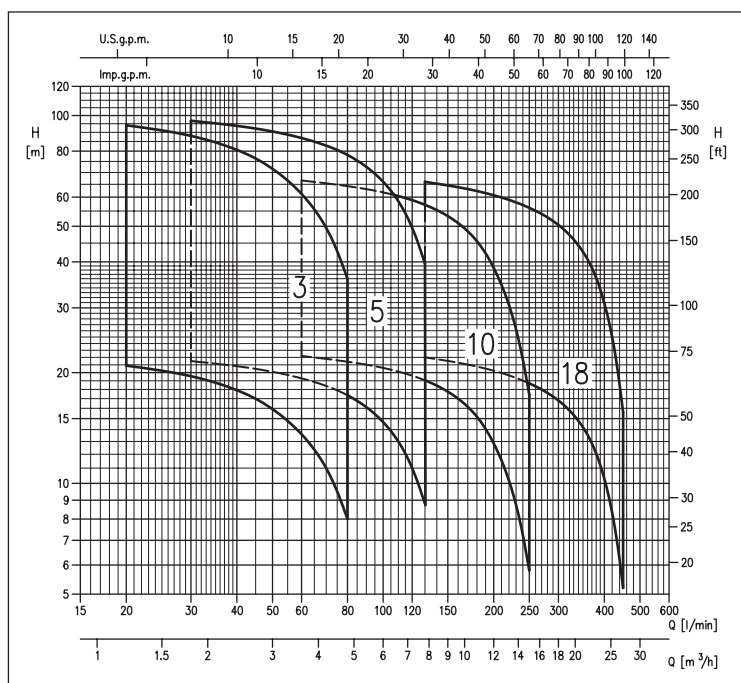
HORIZONTAL MULTISTAGE CENTRIFUGAL ELECTRIC PUMPS

in AISI 304

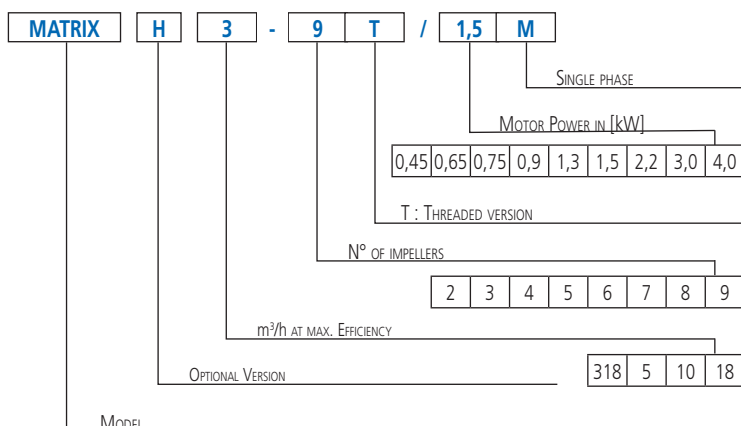


WRAS
APPROVED
PRODUCT

PERFORMANCE CURVES (according to ISO 9906 Attachment A)



IDENTIFICATION CODE



Horizontal multistage centrifugal electric pumps in AISI 304 stainless steel

APPLICATION

- Industrial washing
- Pressure boosting units
- Industrial plants
- Distribution and treatment of water
- Heating and air conditioning
- Cooling and chiller
- Irrigation
- Recovery of rain water

TECHNICAL DETAILS

- Strong and compact construction
- Available in various versions and models
- WRAS approval for the standard version (up to +85°C)

PUMP TECHNICAL DATA

- Temperature of the liquid:
from -15°C to +85°C (standard)
from -15°C to +110°C (for TE version for high temperature)
- Maximum working pressure: 10 bar
 - Maximum chlorine content: 500 ppm
 - G1 suction connection for MATRIX 3, G1¼ for MATRIX 5, G1½ for MATRIX 10, G2 for MATRIX 18
 - G1 discharge connection for MATRIX 3-5, G1¼ for MATRIX 10, G1½ for MATRIX 18

MOTOR TECHNICAL DATA

- High efficiency motors IE2 starting from 0,75kW
- Self-ventilated 2 poles asynchronous motor
- Class of insulation F
- IP55 Protection degree
- 230V ±10%, 50Hz single phase voltage
- 230/400V±10%, 50Hz three phase voltage
- Permanent capacitor inserted and thermo-amperometric protection with automatic rearm incorporated for the single phase motor
- Protection under user's responsibility for the three phase version

MATERIALS

- Pump casing, impellers, intermediate stages, seal housing disc and shaft (part in contact with the liquid) in EN 1.4301 (AISI 304)
- Mechanical seal in Carbon/Ceramic/EPDM
- Bracket in EN AB-AISI11Cu2(Fe) (microcasted aluminium)
- Pump casing, impellers, intermediate stages, seal housing disc and shaft (part in contact with the liquid) in AISI 304
- Mechanical sealing in Carbon/Ceramic/EPDM
- Support and motor casing in aluminium

CONTROL PANELS

- 1EP
- 1EPBH

ACCESSORIES (on request)

- 5 litres 10 bar ¾ EPDM vessel
- 24 litres 8 bar 1" EPDM vessel
- 24 litres 10 bar 1" EPDM vessel
- 24 litres 16 bar 1" EPDM vessel
- PVC 5m key float with counter-weight
- PVC 10m key float with counter-weight
- SQUARE-D FSG-2 1.4÷4.6 bar G¼ F pressure switch
- FYG-22 2.8÷7 bar G¼ F pressure switch
- FYG-32 5.6÷10.5 bar G¼ F pressure switch
- Presscomfort - Pressure regulator
- E-drive - Frequency inverter
- Body insulation casing for MATRIX

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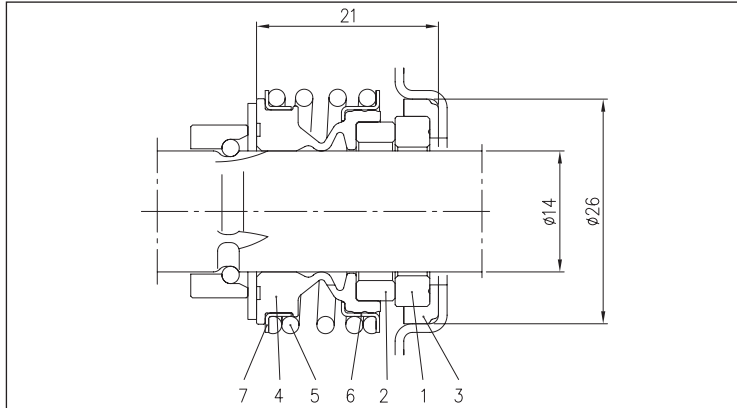
MATERIALS TABLE

Ref.	Name	Material	Ref.	Name	Material
1	Pump body	EN 1.4301 (AISI 304)	42	Foot	Aluminium
3	Motor support	EN AB-AISI11Cu2(Fe)	50	Motor spacer [2]	Aluminium
4	Seal housing disc	EN 1.4301 (AISI 304)	52	Capacitor-holder box [1]	ABS
6	Rotor shaft	-	53	Capacitor-holder box cover [1]	ABS
6-1	Pump shaft	EN 1.4301 (AISI 304)	56	Box gasket	NBR
7	Impeller	EN 1.4301 (AISI 304)	58	Nut ring	-
11	Mechanical seal	Ceramic/Carbon/EPDM	59	Conic gasket	NBR
12	Motor case	-	60	Intermediate stage	EN 1.4301 (AISI 304)+PTFE
13	Motor cover	Aluminium	61	Intermediate stage (suction)	EN 1.4301 (AISI 304)+PTFE
14	Fan	PA	62	Intermediate stage (bearing)	EN 1.4301 (AISI 304) + PTFE + Ceramic
15	Fan cover	Galvanised Fe P04	63	Intermediate stage (discharge)	EN 1.4301 (AISI 304) + PTFE
16	Terminal box	-	68	Shaft casing (intermediate)	EN 1.4301 (AISI 304)
17	Terminal box cover	Aluminium	69	Impeller spacer	EN 1.4301 (AISI 304)
18	Spray protector ring	NBR	69-1	Shaft casing (adapter)	EN 1.4301 (AISI 304)
19	Bearing (pump side)	-	69-2	Shaft casing (adapter)	EN 1.4301 (AISI 304)
20	Bearing (motor side)	-	75	Washer	EN 1.4301 (AISI 304)
21	Adjusting ring	Steel C70	76	Washer	EN 1.4301 (AISI 304)
22	Tie-rod	Galvanised Fe 42	77	O-Ring	EPDM
24	Filler cap	EN 1.4301 (AISI 304)	78	O-Ring	EPDM
25	Drain plug	EN 1.4301 (AISI 304)	90	Terminal box cover [1]	NBR
26	O-Ring	EPDM	91	Shaft washer	EN 1.4301 (AISI 304)
29	Washer	EN 1.4301 (AISI 304)	92	Sealing ring	-
30	Holding ring	EN 1.4301 (AISI 304)	93	Sealing ring	-
30-1/2	Shaft casing	EN 1.4301 (AISI 304)	94	Guide bush	WC - Tungsten carbide
33	Ring	EN 1.4301 (AISI 304)	200	Screw (Pump body)	EN 1.4301 (AISI 304)
34	Screw	EN 1.4301 (AISI 304)	233	Plate	EN 1.4301 (AISI 304)

[1]= Single phase only

[2]= MATRIX 18-5T/4 and MATRIX 18-6T/4 only

MECHANICAL SEAL standard



MATERIALS TABLE standard

Ref.	Name	Material
1	Fixed part	Ceramic
2	Rotating part	Carbon
3	Gasket	EPDM
4	Diaphragm	EPDM
5	Spring	EN 1.4402 (AISI 316)
6	Structure/frame	EN 1.4402 (AISI 316)
7	Retainer ring	EN 1.4402 (AISI 316)

SPECIAL MECHANICAL SEALS (on request)

Ref.	Name	Material			
		Version TE	Version H	Version HS	Version U3Q1EGG
1	Fixed part	Ceramic	Carbon	SiC	Tungsten carbide
2	Rotating part	Carbon	Ceramic	SiC	SiC
3	Gasket	EPDM	FPM	FPM	EPDM
4	Diaphragm	EPDM	FPM	FPM	EPDM
5	Spring	EPDM	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)
6	Structure/frame	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)
7	Retainer ring	EN 1.4402 (AISI 304)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)	EN 1.4402 (AISI 316)

