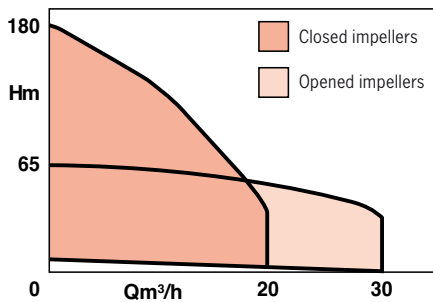


OPERATING RANGES

Flow rates of up to:	30 m ³ /h
Manometric head of up to:	180 mCL
Max. operating pressure:	10/16 bar
Temperature range:	-60°C to +200°C
DN (nominal diameter) of ports:	Male 2"
Max. viscosity:	150 cSt



ADVANTAGES

- High manometric head.
- Requires little space.
- Standardised interchangeable motor.
- Standardised interchangeable mechanical seal.
- One-piece construction - no alignment.
- Vertical or horizontal construction.
- Solid stainless steel construction.
- Moulded by the lost wax process.

MMI 50

316L STAINLESS STEEL CENTRIFUGAL PUMPS

Clean or slightly muddy liquids
Corrosive fluids - Acids - Solvents

APPLICATIONS

Pumping of clean or slightly muddy liquids in the industrial and effluent treatment sectors.

All services in the process environment, unloading, abstraction and transfer of chemical products in a wide variety of fields including chemicals, petrochemicals, pharmaceuticals, nuclear...

IE2



MMI 50

DESIGN

• Hydraulic part

- Centrifugal.
- Multi-stage (1 to 14 stages).
- Threaded suction and delivery housing M 2" Gas.
- DN 50 PN 16 round flange option
- DN 50 ANSI 150 round flange option PN 20.
- Rigid pump - motor coupling.
- Sealing via a standardised mechanical seal or a magnetic coupling.

• Standardised motor

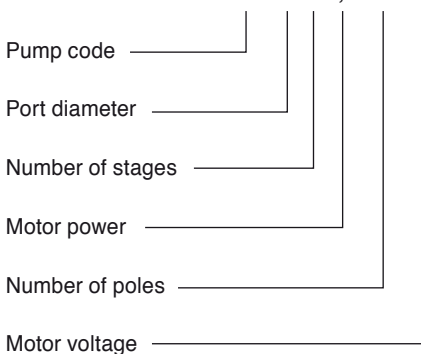
- Form: B 14 / V 1
 Speed: 2900 rpm
 Voltage: 230 - 400 V
 (Single-phase option)
 Frequency: 50Hz (Option 60Hz)
 Insulation class: 155 (F)
 Protection class: IP 55
 Option: ADF (EExdIIBT4)

BASIC CONSTRUCTION

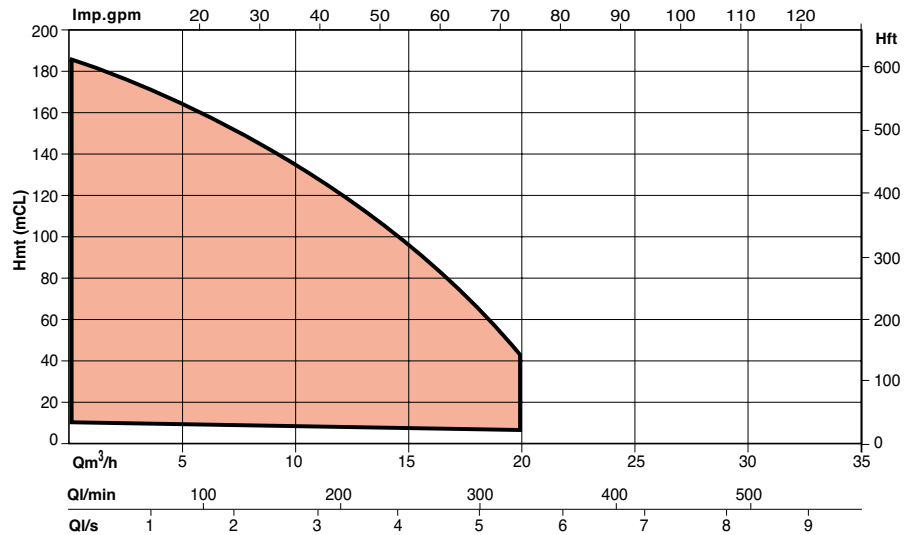
Main parts	Material
Pump housing & stage	316 L stainless steel
Impellers	316 L stainless steel / PPS
Pump shaft	316 L stainless steel
Mechanical seals	Depending on pumped liquid
Seals and gaskets	
Shaft bearing	AL5 stainless steel (V102) Silicon carbide
Lantern ring	ENGJL 250 (FGL 250)

IDENTIFICATION

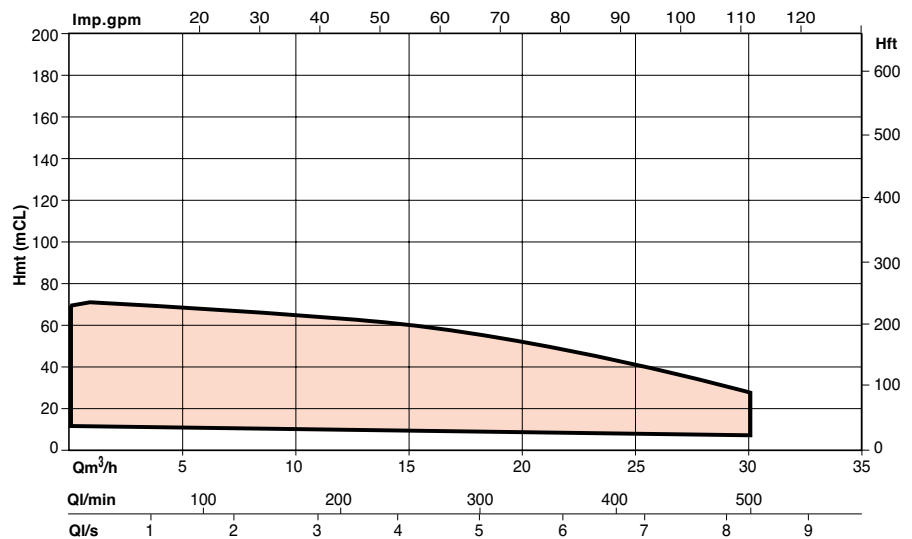
MMI 50-2/0,55/2 T2/4



HYDRAULIC PRESELECTION RANGE WITH CLOSED IMPELLERS



HYDRAULIC PRESELECTION RANGE WITH OPENED IMPELLERS



ACCESSORIES

Supplied for MMI 50

- DN 50 PN 16 round flange option
- DN 50 ANSI 150 round flange option (PN 20).

RECOMMENDED ACCESSORIES

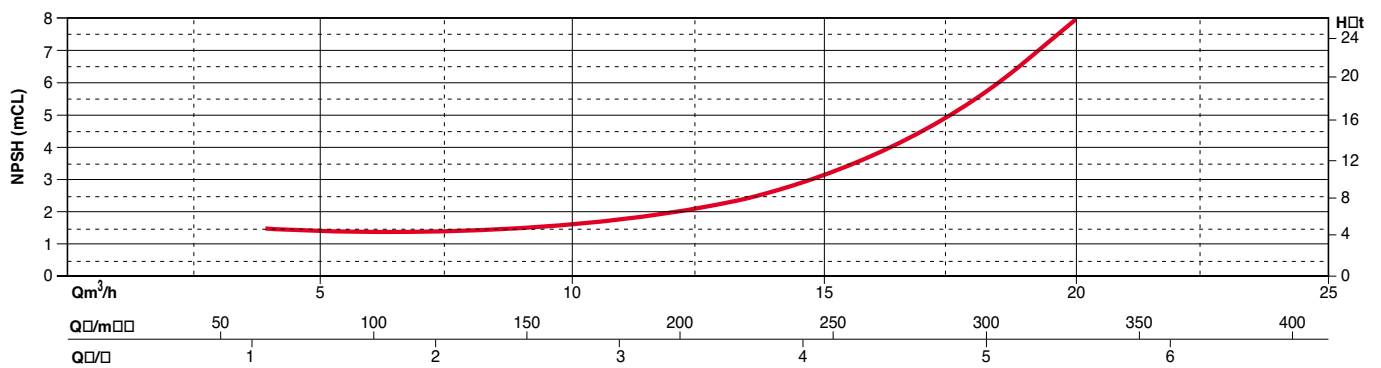
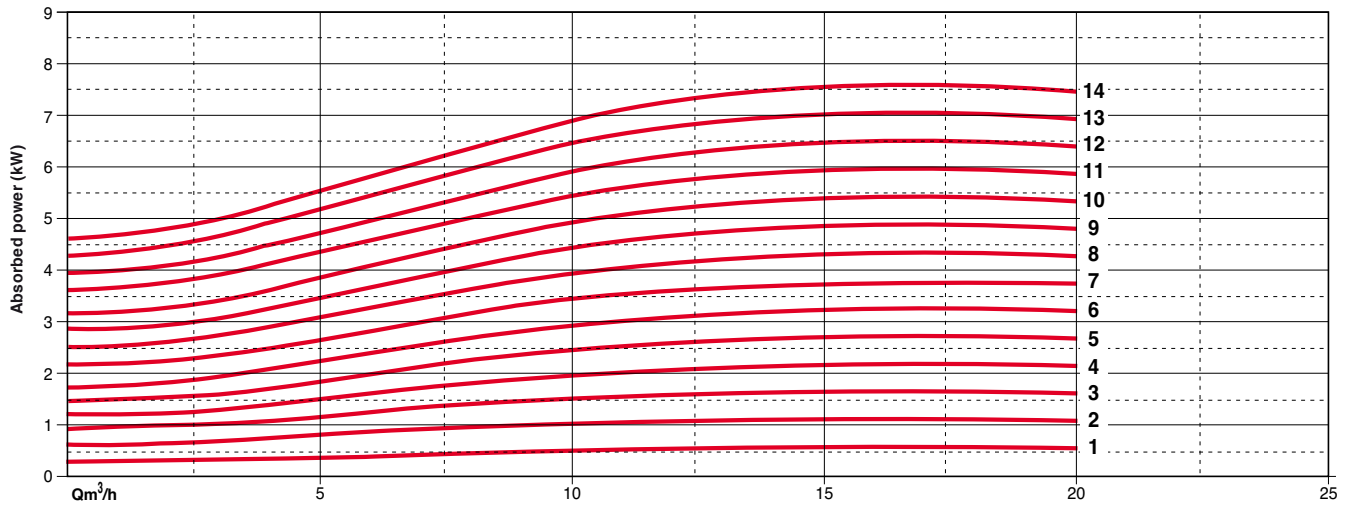
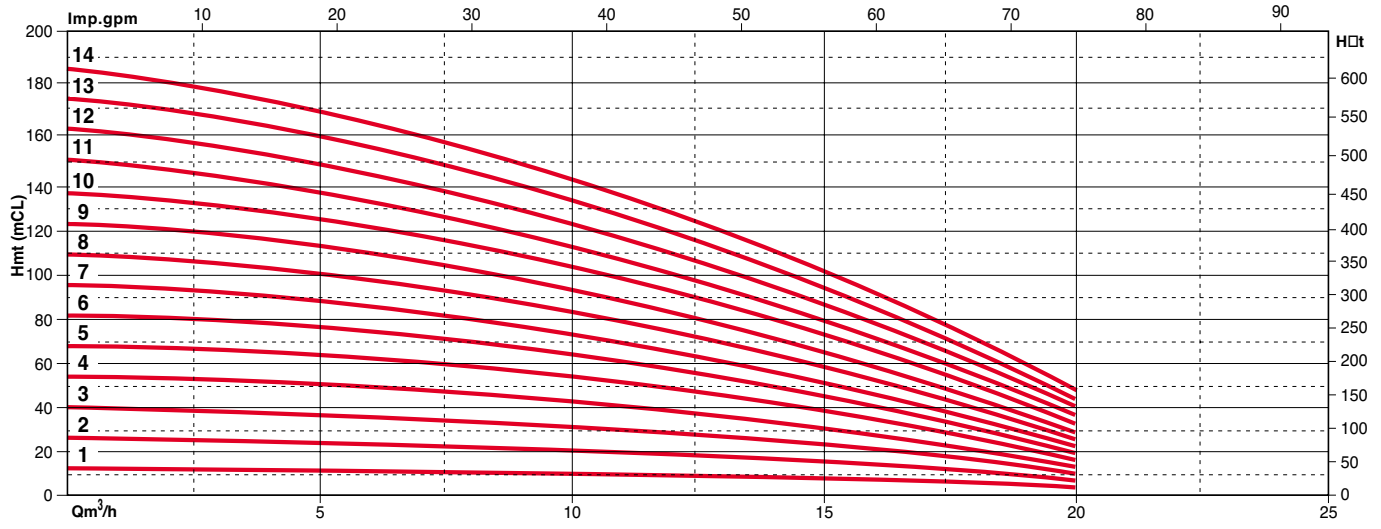
- Protective slave switch for motor
- Shut-off valves
- Pressure gauge.

MMI 50

HYDRAULIC PERFORMANCE OF MMI 50 WITH CLOSED IMPELLERS (2900 RPM)

TEST CONDITIONS

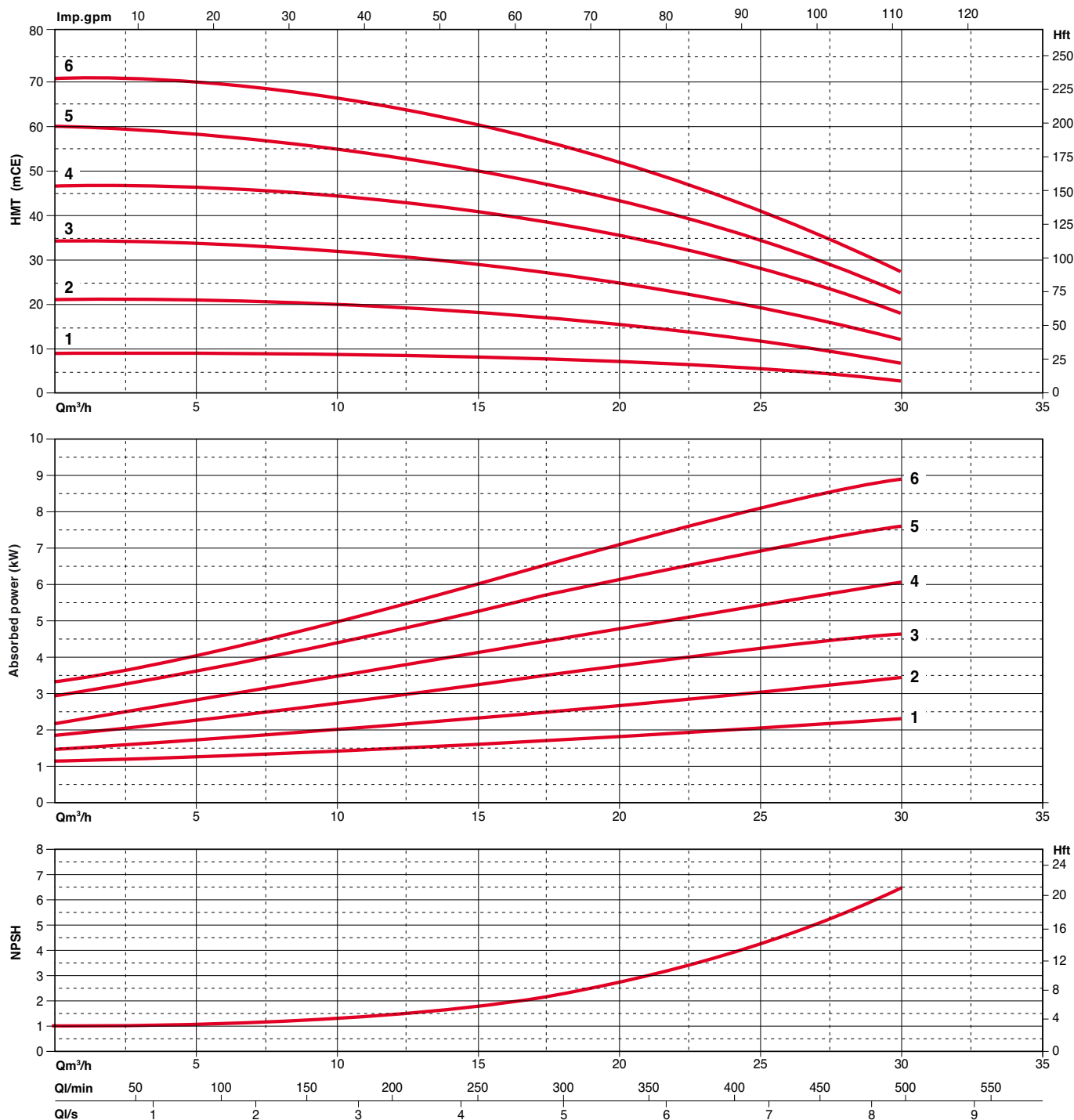
- Motor: 2 pole
- Frequency: 50 Hz
- Fluid used: Water
- Fluid density: 1
- Fluid viscosity: 1 mm²/s
- Fluid Temperature: 20°C



HYDRAULIC PERFORMANCE OF MMI 50 WITH OPENED IMPELLERS (2900 RPM)

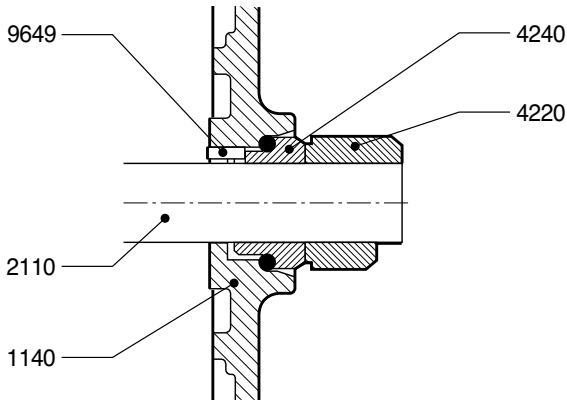
TEST CONDITIONS

- Motor: 2 pole
- Frequency: 50 Hz
- Fluid used: Water
- Fluid density: 1
- Fluid viscosity: 1 mm²/s
- Fluid Temperature: 20°C



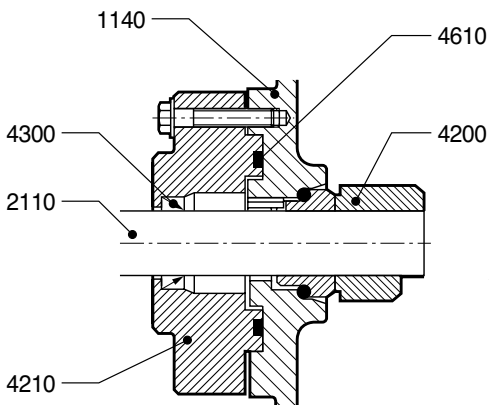
MMI 50

TYPE U STANDARDISED MECHANICAL SEAL (SINGLE OR DOUBLE)

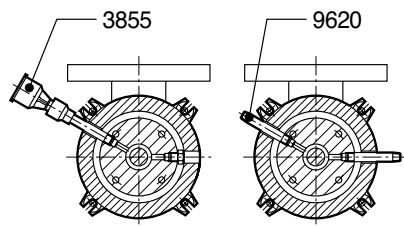


- 1140 - Delivery housing
- 2110 - Pump shaft
- 4220 - Rotating face ring
- 4240 - Stationary face ring
- 9649 - Stationary face ring stop pin

STANDARDISED MECHANICAL SEAL WITH QUENCHING

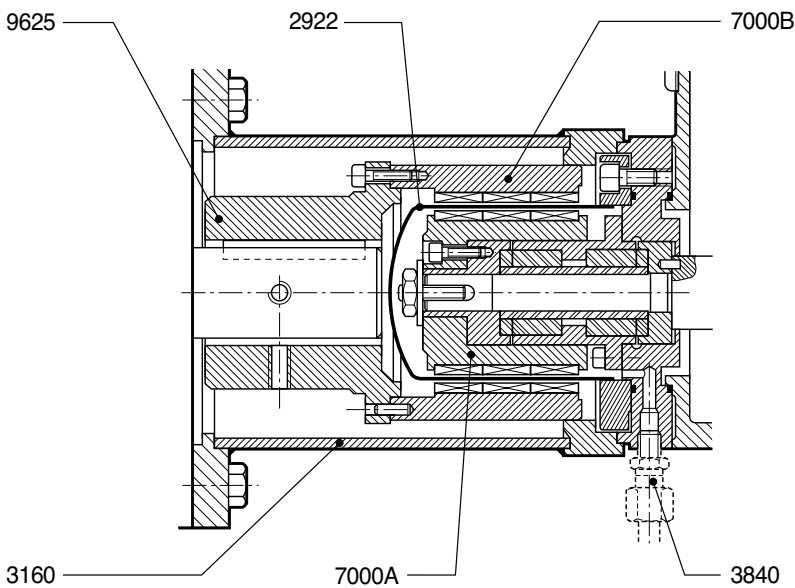


**Quench box
for lost water
circulation**



- 1140 - Delivery housing
- 2110 - Pump shaft
- 3855 - Grease fitting
- 4200 - U mechanical seal
- 4210 - Quench box
- 4300 - Seal ring
- 4610 - Box O-ring
- 9620 - Terminal block

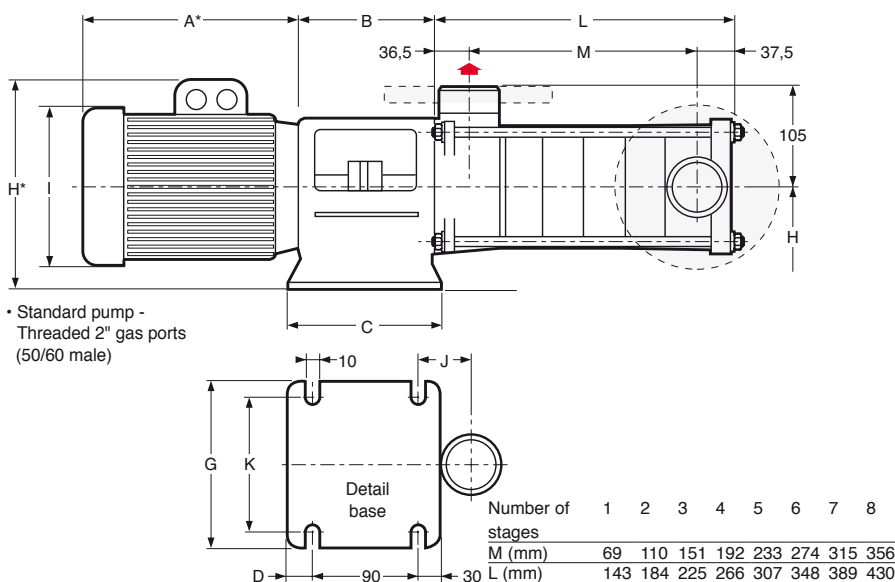
MAGNETIC COUPLING



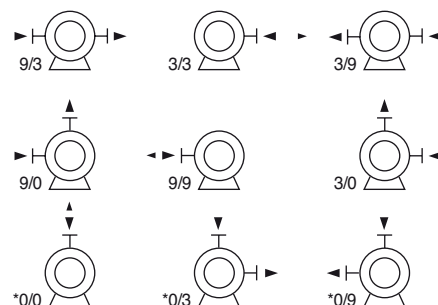
- 2922 - Shroud
- 3160 - Lantern ring brace
- 3840 - Coupling lubrication
- 7000A - Interior rotor
- 7000B - Exterior rotor
- 9625 - Coupling sleeve

DIMENSIONAL SPECIFICATIONS

• Horizontal MMI 50 up to 4 kW



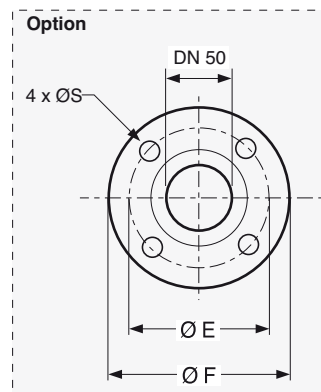
• Standard pump - Threaded 2" gas ports (50/60 male)



Suction and delivery positions

* Please contact us with regard to installation conditions.

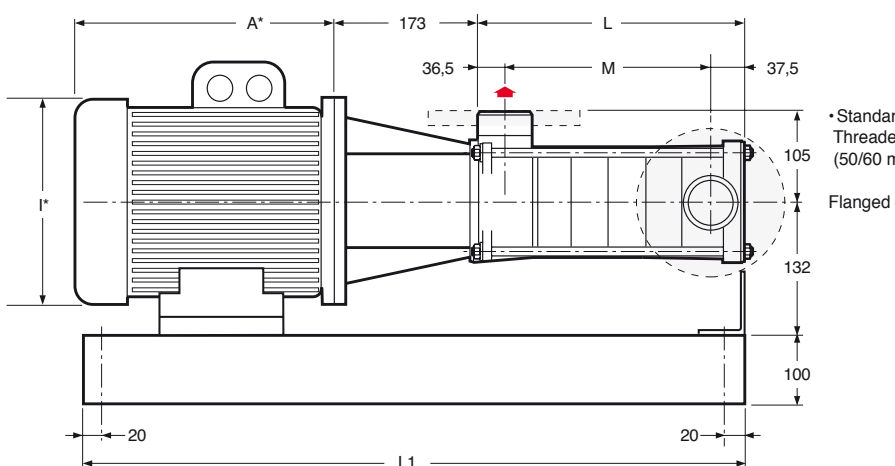
Dimensions of flanges (mm)	Ø E	Ø F	Ø S
DN 50 ISO PN10/16	125	165	18
DN 50 ANSI 150	120,6	152	19



Motor type	Form	Power 2 pole - kW	Dimensions (mm)										
			A(1)*	A(2)*	B	C	D	G	H*	I(1)*	I(2)*	J	K
80	B 14	1,1	215	265	133	159	39	175	105	228	267	54,5	163
90 S	B 14	1,5	218	270	143	150	30	200	112	245	274	62,5	174
90 L	B 14	2,2	245	265	143	150	30	200	112	245	287	62,5	174
100 L	B 14	3	290	327	153	150	30	200	112	250	287	62,5	174
112 M	B 14	4	290	315	153	150	30	200	112	250	317	62,5	174

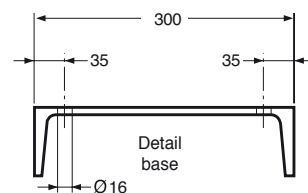
(1): IP 55 motor | (2): ADF EEx d II B motor | * Dimensions associated with motor, not contractually binding

• Horizontal MMI 50 up to 9 kW



• Standard pump Threaded 2" gas ports (50/60 male)

Flanged connector option



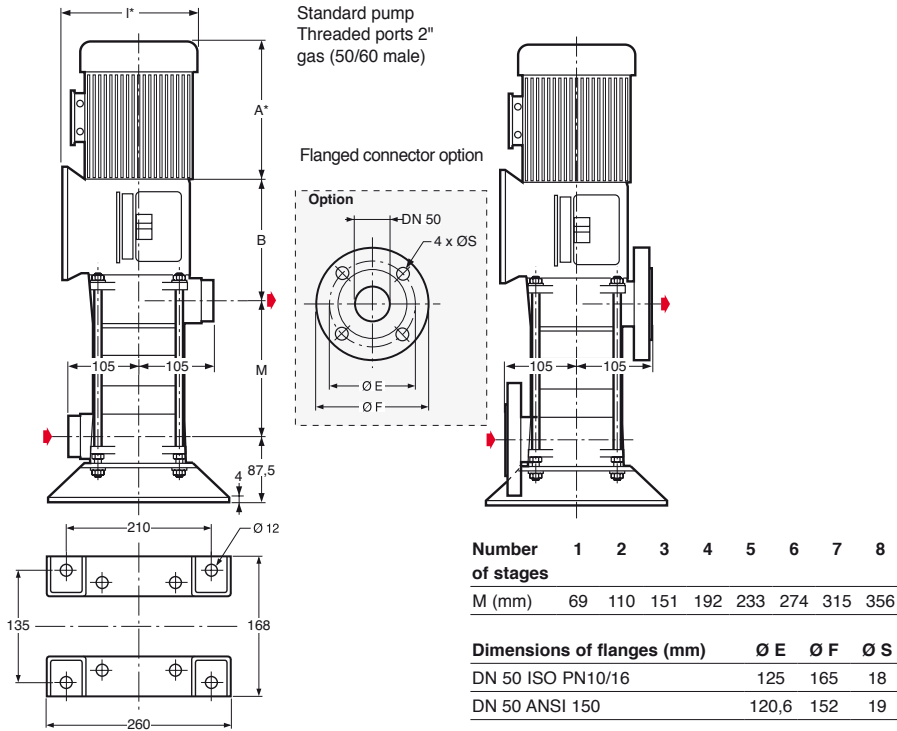
Motor type	Form	Power 2 pole - kW	Dimensions (mm)			
			A(1)	A(2)	I(1)	I(2)
132 S	B 35	5,5	350	340	303	370
132 S	B 35	7,5	350	380	303	400
132 M	B 35	9	387	—	330	—
132 M	B 35	11 kW optimised	387	—	330	—

(1): IP 55 motor | (2): ADF EEx d II B motor | * May vary according to the motor manufacturer

Number of stages	3	4	5	6	7	8
M (mm)	151	192	233	274	315	356
L (mm)	225	266	307	348	389	430
L1 (mm)	770	810	850	900	930	970

MMI 50

DIMENSIONAL SPECIFICATIONS - VERTICAL MMI 50 UP TO 4 KW

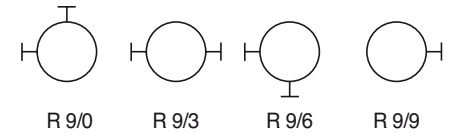
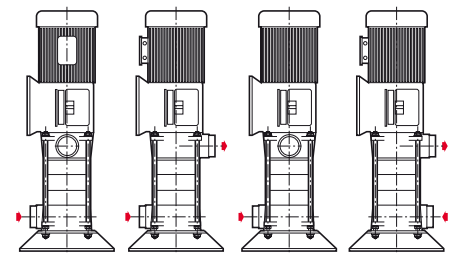


Motor type	Form	Power 2 pole kW	Dimensions (mm)			
			A(1)*	A(2)*	B	I(1)* I(2)*
80	B 14	1,1	215	265	170	188 193
90 S	B 14	1,5	218	270	180	201 211
90 L	B 14	2,2	245	265	180	201 211
100 L	B 14	3	290	327	190	211 218
112 M	B 14	4	290	315	190	223 218

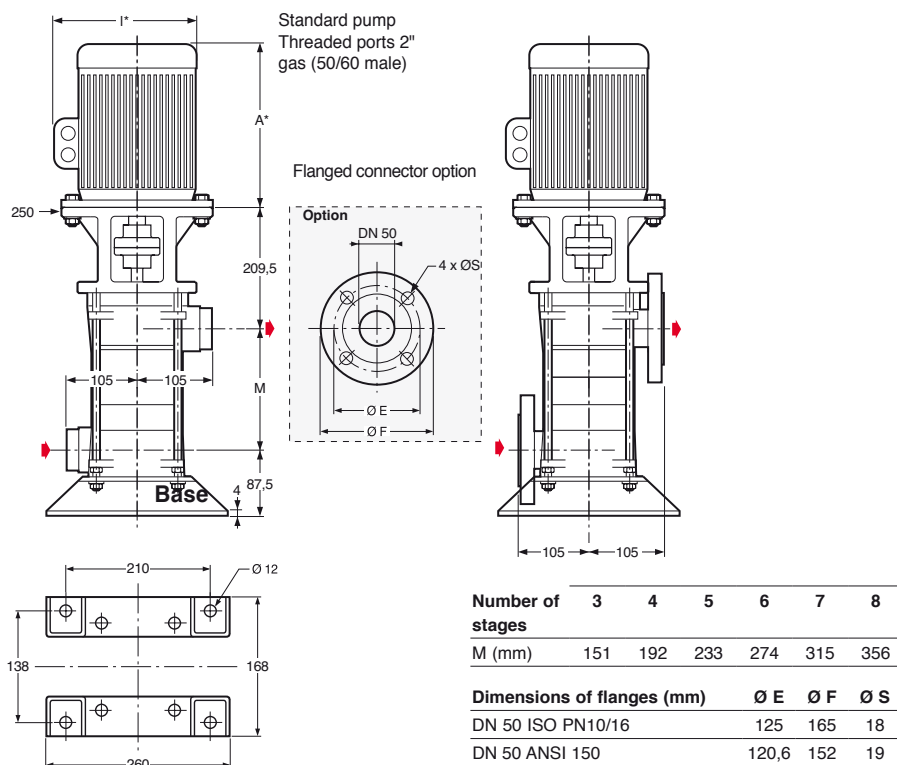
(1): IP 55 motor

(2): ADF EEx d II B motor

* Dimensions associated with motor, not contractually binding



DIMENSIONAL SPECIFICATIONS - VERTICAL MMI 50 UP TO 9 KW



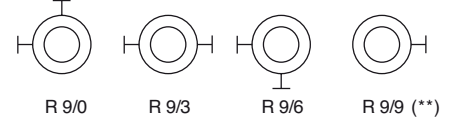
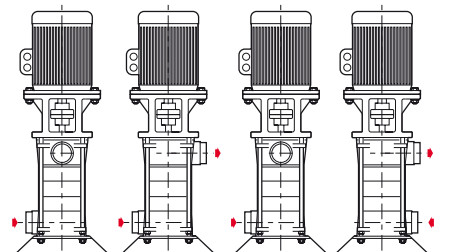
Motor type	Form	Power 2 pole kW	Dimensions (mm)			
			A(1)*	A(2)*	B	I(1)* I(2)*
132 S	B 14	5,5	350	340	266	351 193
132 S	B 14	7,5	350	380	266	351 211
132 M	B 14	9	387	—	315	— 211
132 M	B 14	11 optimized	387	—	315	— 218

(1): IP 55 motor

(2): ADF EEx d II B motor

* Dimensions associated with motor, not contractually binding

Suction and delivery positions



(**) Flanges option from 4 stages