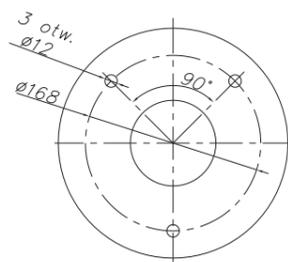


The flange adapted to hook the production METALCHEM-WARSZAWA
Possible other versions pump flange according to customer's requirement.

The flange adapted to hook for KS65, KS80 & KS80H



METALCHEM-WARSZAWA
SPÓŁKA AKCYJNA

GENERAL CHARACTERISTICS

MSV-R pumps are designed for pumping sanitary sewage and industrial applications. They are used in plumbing, sewage treatment plants and pumping stations. Installed grinding device allows you to cut solids contained in the fluid, making it ideally suited for high-pressure sewer discharge pipe of small cross-sections. The pumps have a temperature limiter in three phases of the stator windings of the motor and switch humidistat. These elements preclude the possibility of damage to the engine in case of overload or moisture getting into it. The motor is sealed from the side of the pump double mechanical seal in oil chamber. The standard pump is equipped with a 10 metres cable in neoprene sheath.



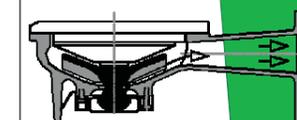
OPERATING PARAMETERS

The density of sewage to 1100 kg / m³
Fluid temperature to 40 ° C
Maximum number of starts 20 / hour

Submersible pumps MSV-R

Impeller Vortex

Grinder



Sewage and industrial

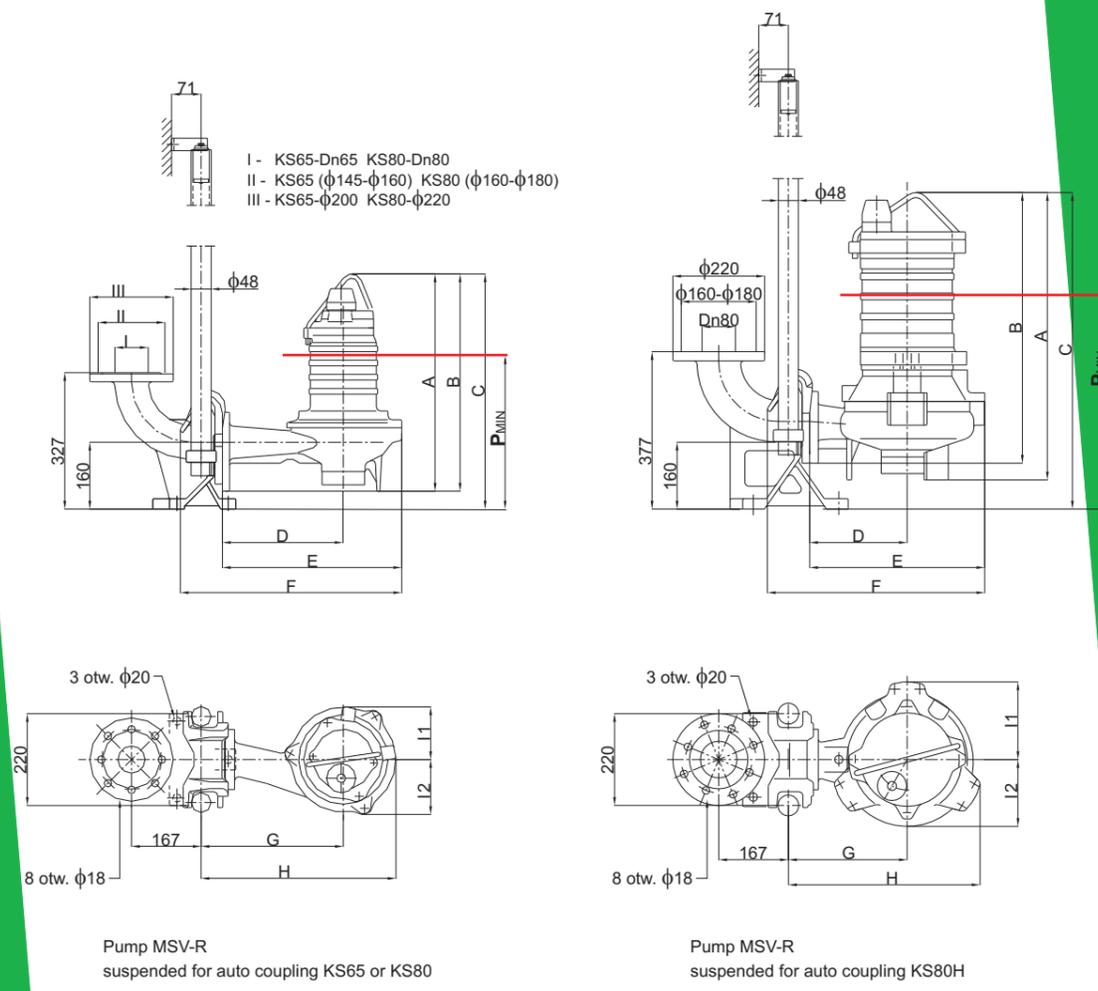
No.	Pump	Power [kW]	n [rpm]	Qn ¹ [l/s]	Hn ¹ [m]	In ² [A]	Zps ³ [A]	cosφ	η [%]	Passage [mm]	Auto coupling	Impeller type	Mass ⁴ [kg]
1	12	1,5	2835	5,0	9,5	3,2	4-6,3	0,83	81	12	KS65, KS80	Vortex+R	62
2	22	2,2	2855	5,2	15,5	4,7	4-6,3	0,82	83	12	KS65, KS80	Vortex+R	64
3	32	3,0	2845	6,0	20,0	6,6	6,3-10	0,82	81	12	KS65, KS80	Vortex+R	66
4	52	5,5	2890	11,1	17,3	10,7	10-16	0,86	86	15	KS80H	Vortex+R	150
5	72	7,5	2920	11,4	26,0	13,9	14-20	0,88	88	15	KS80H	Vortex+R	157
6	92	9,2	2920	10,0	35,0	16,8	18-25	0,89	88	15	KS80H	Vortex+R	163
7	112	11,0	2920	10,0	40,0	20,3	25	0,89	88	15	KS80H	Vortex+R	170

¹ For pumps MSV-15-72; -92 - 112 Qn is the maximum value and the minimum value Hn

² For pumps to 4,0 kW DOL pumps from 5.5 kW up starting intermediate star-delta

³ Motor overload protection

⁴7kg of pump mass include a pump hook and 10m cable



Pump MSV-R
suspended for auto coupling KS65 or KS80

Pump MSV-R
suspended for auto coupling KS80H

No.	Pump	A	B	C _{KS65*}	C _{KS80H}	D	E	F _{KS65*}	F _{KS80H}	G _{KS65*}	G _{KS80H}	H _{KS65*}	H _{KS80H}	I ₁	I ₂	P _{MIN}
1	12	520	520	563	-	289	430	531	-	341	-	467	-	126	132	400
2	22	520	520	563	-	289	430	531	-	341	-	467	-	126	132	400
3	32	520	520	563	-	289	430	531	-	341	-	467	-	126	132	400
4	52	688	648	-	758	234	420	-	521	-	285	-	460	186	160	600
5	72	758	718	-	828	234	420	-	521	-	285	-	460	186	160	600
6	92	758	718	-	828	234	420	-	521	-	285	-	460	186	160	600
7	112	758	718	-	828	234	420	-	521	-	285	-	460	186	160	600

* The same dimension for KS65 and KS80

APPLIED MATERIALS

Motor body, pump body, impeller, hook, auto coupling - cast GJL200, GJL250.
The pump shaft - stainless steel.
Fasteners - Stainless steel.
Bearings - ball single row.
Front double mechanical seal.
Epoxy paint finish.

PUMP MOTORS 400V / 50Hz

Insulation class F

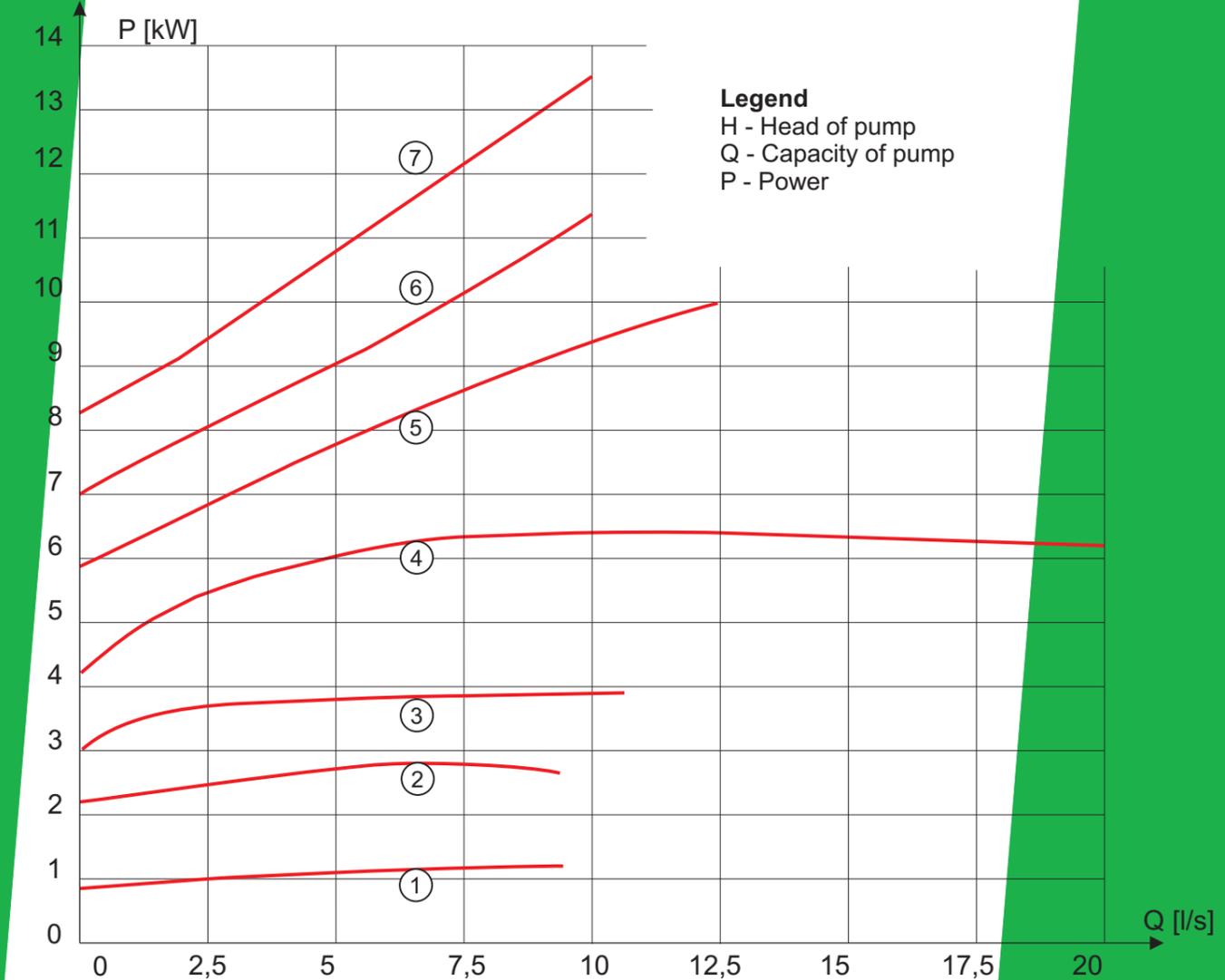
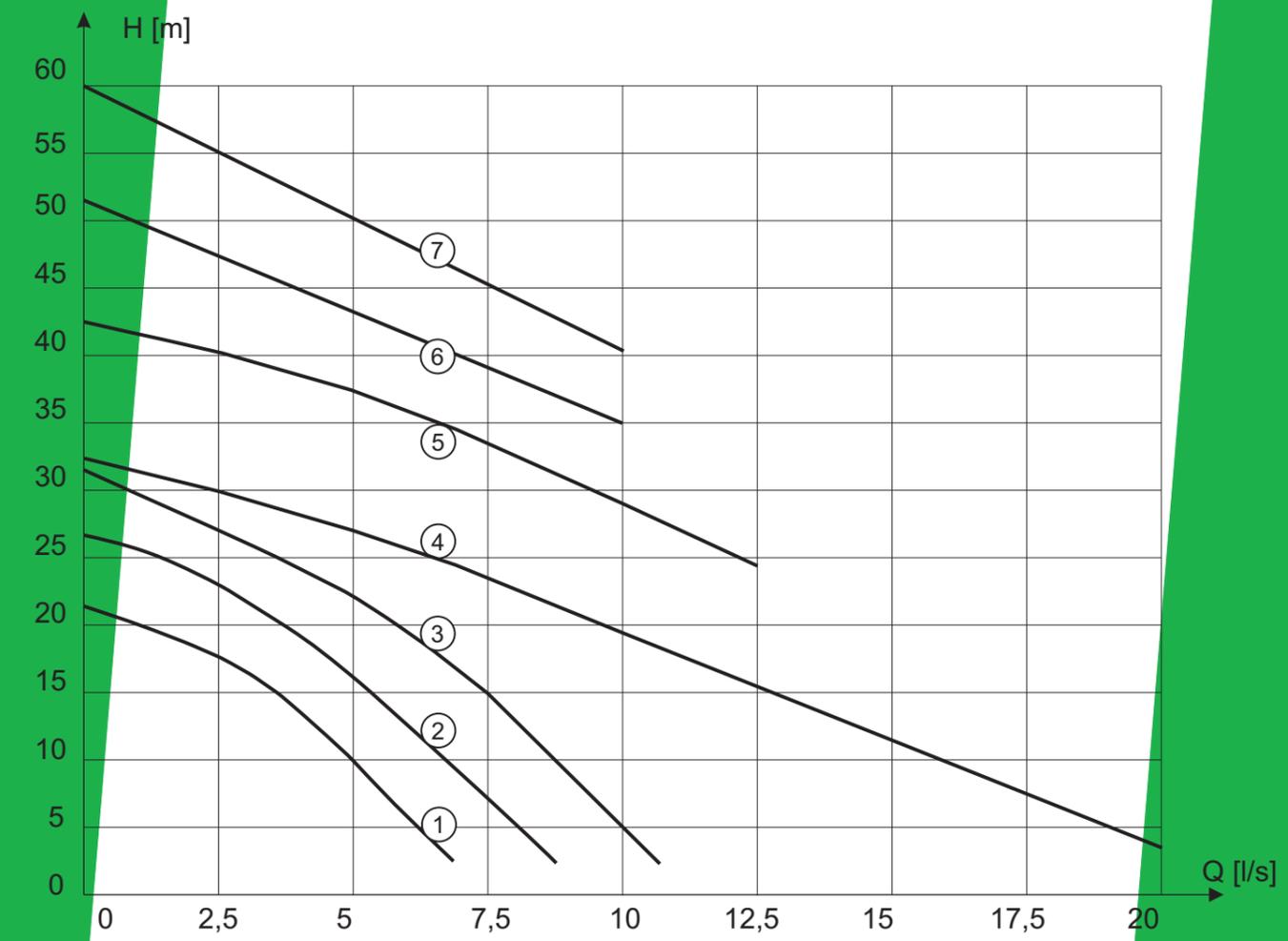
STANDARDS

ISO 9908
ISO 2548 STANDARD CLASS B

METALCHEM-WARSZAWA Spółka Akcyjna

ul. Studzienna 7a, 01-259 Warszawa
www.metalchemsa.pl

Centrala: +48 22 837 12 70
Sekretariat: +48 22 836 07 61
Fax: +48 22 836 89 50



Legend
H - Head of pump
Q - Capacity of pump
P - Power