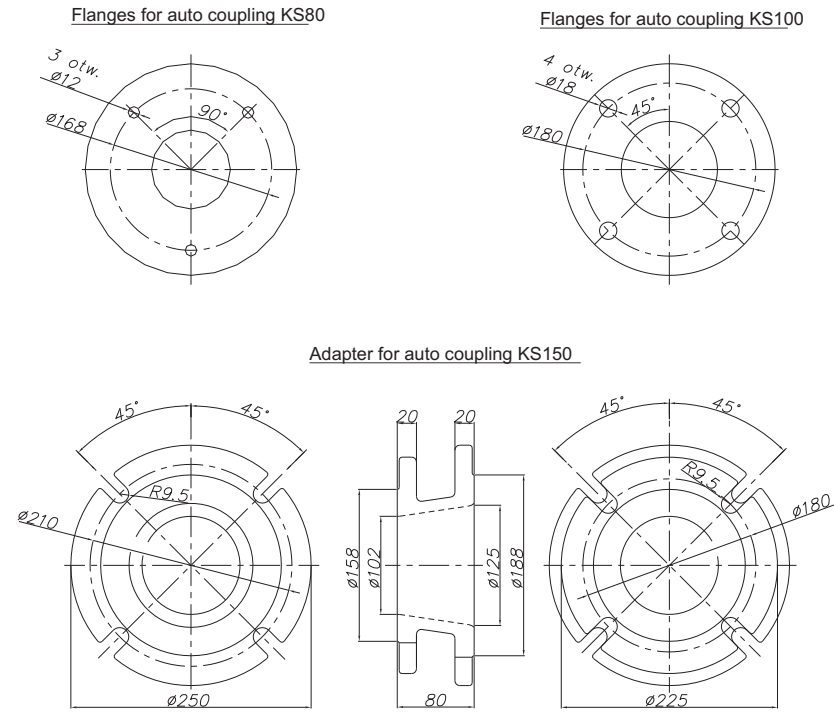
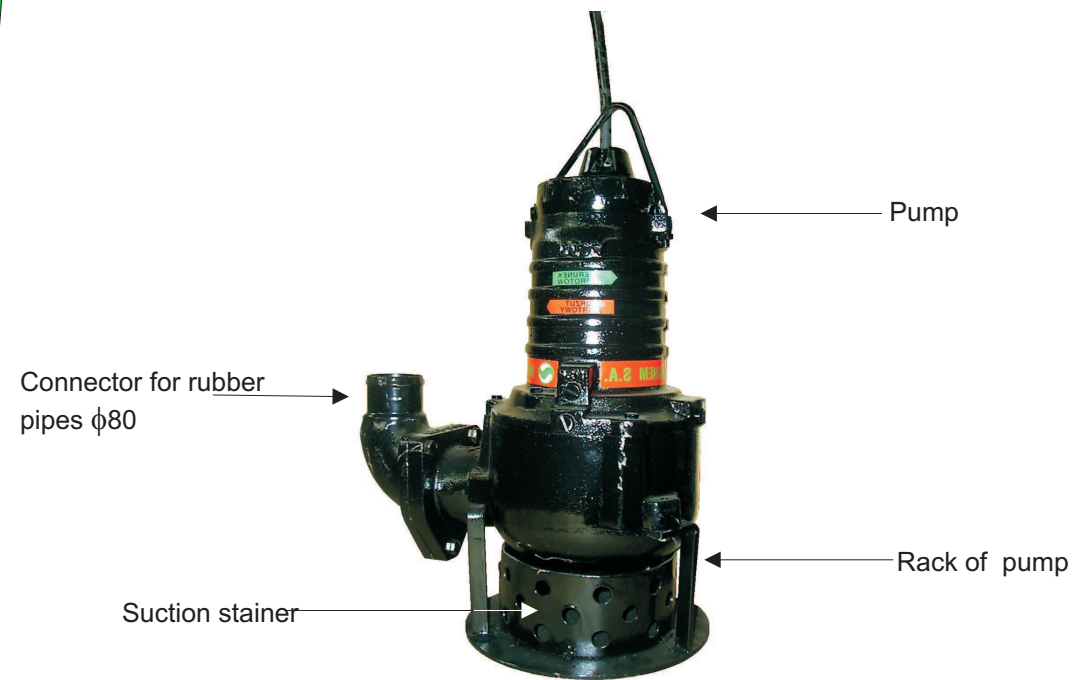


**Typical flanges for auto coupling METALCHEM-WARSZAWA KS80 and KS100**  
Possible other versions pump flange according to customer's requirement.



**Other version of pumps**



All version and solution of rack and suction stainer is described on first catalogue card about pumps.

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**METALCHEM-WARSZAWA**  
SPÓŁKA AKCYJNA

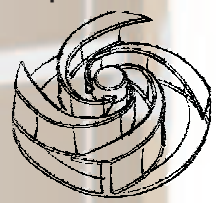
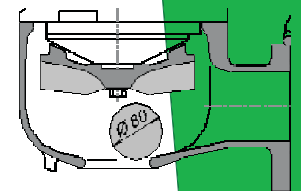
**GENERAL CHARACTERISTIC**

Pumps MSV-80 are designed for pumping sanitary sewage and industrial applications, drainage water and rainwater. They are used in plumbing, sewage treatment plants and pumping stations and many types of drainage systems. Free passage under the impeller solids of up to 80mm provides seamless interoperability with pipelines with diameters DN80, DN100 and larger. The pumps have a limiter of temperature in three phases of the stator windings of the motor and switch of humidity. These elements preclude the possibility of damage to the engine in case of overload or moisture getting into it. The engine is sealed from the side of the pump double mechanical seal in oil chamber. The standard pump is equipped with 10 metres cable in neoprene sheath.



**OPERATING PARAMETERS**

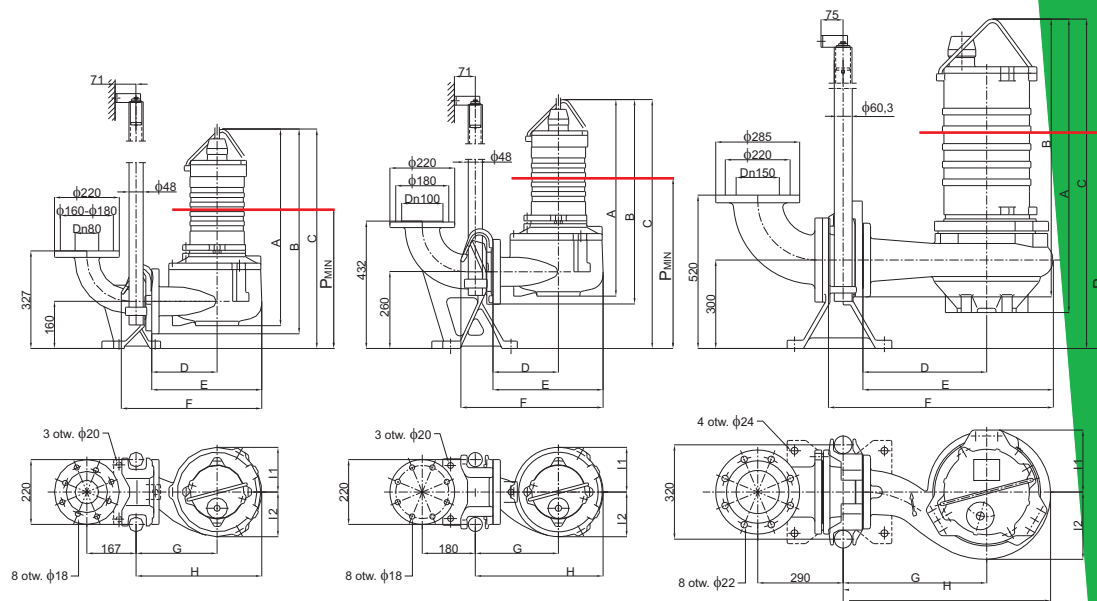
The density of sewage to 1100 kg / m<sup>3</sup>  
Fluid temperature to 40 ° C  
Maximum number of starts 25 / hour

Submersible pumps MSV-80 4-poles										Impeller Vortex	Free passage		
Sewage and industrial													
No.	Pump	Power [kW]	n [rpm]	Qn <sup>1</sup> [l/s]	Hn <sup>1</sup> [m]	In <sup>2</sup> [A]	ZPs <sup>3</sup> [A]	cosφ	η	Passage [mm]	Auto coupling	Impeller type	Mass <sup>4</sup> [kg]
1	14L	1,1	1405	6,3	4,0	2,7	2,5-4	0,80	77	80	KS80	Vortex	57
2	14M	1,1	1405	8,0	4,8	2,7	2,5-4	0,80	77	80	KS80	Vortex	58
3	14H	1,5	1410	9,0	7,0	3,4	4-6,3	0,78	79	80	KS80	Vortex	58
4	24	2,2	1410	11,0	8,7	5,2	4-6,3	0,78	78	80	KS80	Vortex	61
5	34	3,0	1415	15,0	9,5	6,6	6,3-10	0,81	81	80	KS80, KS100	Vortex	86
6	44	4,0	1415	17,2	11,3	9,2	10-16	0,78	81	80	KS80, KS100	Vortex	96
7	54	5,5	1425	22,0	10,0	11,3	10-16	0,84	85	80	KS100	Vortex	142
8	74	7,5	1425	24,0	14,0	14,6	14-20	0,85	89	80	KS100	Vortex	154
9	94	9,2	1455	27,0	14,0	18,5	18-25	0,82	87	80	KS100	Vortex	161
10	114	11,0	1450	30,0	15,0	22,0	25	0,83	87	80	KS100	Vortex	166
11	124L	12,5	1455	34,0	15,7	24,1	32	0,89	89	80	KS150H	Vortex	262
12	124M	12,5	1455	40,0	16,5	24,1	32	0,89	89	80	KS150H	Vortex	264
13	124H	12,5	1455	30,0	22,0	24,1	32	0,89	89	80	KS150H	Vortex	266
14	154L	15,0	1460	40,0	17,0	27,7	32	0,87	89	80	KS150H	Vortex	275
15	154M	15,0	1460	42,0	18,5	27,7	32	0,87	89	80	KS150H	Vortex	277
16	154H	15,0	1460	34,0	23,5	27,7	32	0,87	89	80	KS150H	Vortex	279
17	184L	18,0	1455	40,0	21,6	35,1	40	0,85	89	80	KS150H	Vortex	295
18	184M	18,0	1455	42,0	24,0	35,1	40	0,85	89	80	KS150H	Vortex	297
19	184H	18,0	1455	34,0	28,5	35,1	40	0,85	89	80	KS150H	Vortex	299
20	224L	22,0	1455	45,0	26,0	43,2	63	0,92	92	80	KS150H	Vortex	308
21	224M	22,0	1455	42,0	29,6	43,2	63	0,92	92	80	KS150H	Vortex	310
22	224H	22,0	1455	34,0	34,0	43,2	63	0,92	92	80	KS150H	Vortex	312

<sup>1</sup> For pumps H Qn is the maximum value and the minimum value Hn (except 14M i 14H)

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

<sup>3</sup> Motor overload protection <sup>4</sup>kg of pump mass include a pump hook for KS80 and KS100 and 10m cable



No.	Pump	A	B	C <sub>KS80</sub>	C <sub>KS100</sub>	D	E	F <sub>KS80</sub>	F <sub>KS100</sub>	G <sub>KS80</sub>	G <sub>KS100</sub>	H <sub>KS80</sub>	H <sub>KS100</sub>	I <sub>1</sub>	I <sub>2</sub>	P <sub>MIN</sub>
1	14L	546	568	628	-	219	359	460	-	272	-	398	-	126	151	400
2	14M	546	568	628	-	219	359	460	-	272	-	398	-	126	151	400
3	14H	546	568	628	-	219	359	460	-	272	-	398	-	126	151	400
4	24	546	568	628	-	219	359	460	-	272	-	398	-	126	151	400
5	34	667	694	744	844	222	374	477	482	275	282	427	434	152	152	500*
6	44	667	694	744	844	222	374	477	482	275	282	427	434	152	152	500*
7	54	739	719	-	867	270	454	-	561	-	330	-	498	168	186	500
8	74	819	799	-	947	270	454	-	561	-	330	-	498	168	186	600
9	94	819	799	-	947	270	454	-	561	-	330	-	498	168	186	600
10	114	819	799	-	947	270	454	-	561	-	330	-	498	168	186	600
No.	Pump	A	B	C <sub>KS100</sub>	C <sub>KS150H</sub>	D	E	F <sub>KS100</sub>	F <sub>KS150H</sub>	G <sub>KS100</sub>	G <sub>KS150H</sub>	H <sub>KS100</sub>	H <sub>KS150H</sub>	I <sub>1</sub>	I <sub>2</sub>	P <sub>MIN</sub>
11	124L	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
12	124M	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
13	124H	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
14	154L	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
15	154M	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
16	154H	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
17	184L	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
18	184M	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
19	184H	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
20	224L	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
21	224M	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800
22	224H	995	942	-	1117	420	644	-	676	-	487	-	704	210	228	800

\* Pumps MSV-80-34 i -44 have ability to suspension for KS80 in this way P<sub>MIN</sub> -100

### APPLIED MATERIALS

Motor body, pump body, impeller, hook, auto coupling - cast GJL200, GJLL250.  
 The pump shaft - steel 3H13, 4H13;  
 Fasteners - Stainless steel.  
 Bearings - ball single row (Z), ball double oblique.  
 Front double mechanical seal.  
 Epoxy paint finish.

### PUMP MOTORS 400V/ 50Hz

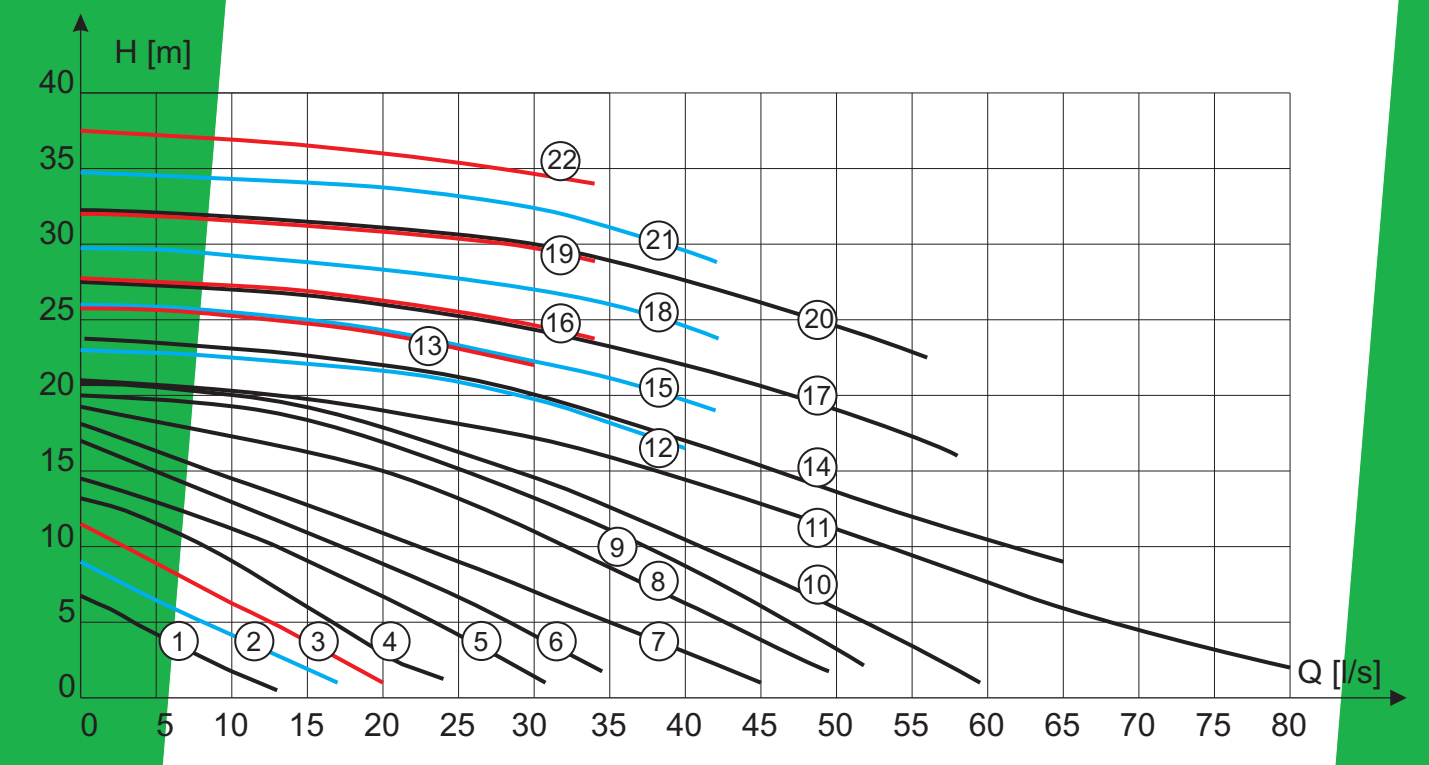
Insulation class F

### STANDARDS

PN/M-44015-PN-ISO 9908 : 1996  
 ISO STANDARD 2548 CLASS B

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Legend  
 — Pumps L  
 — Pumps M  
 — Pumps H

