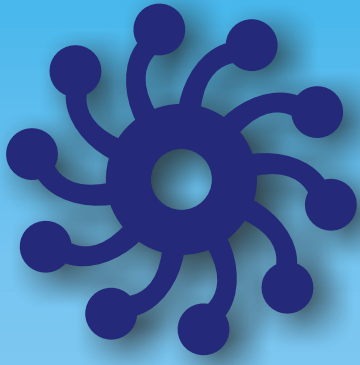


# **Pomac** Pumps

***Flexible impeller pumps***



***IP***

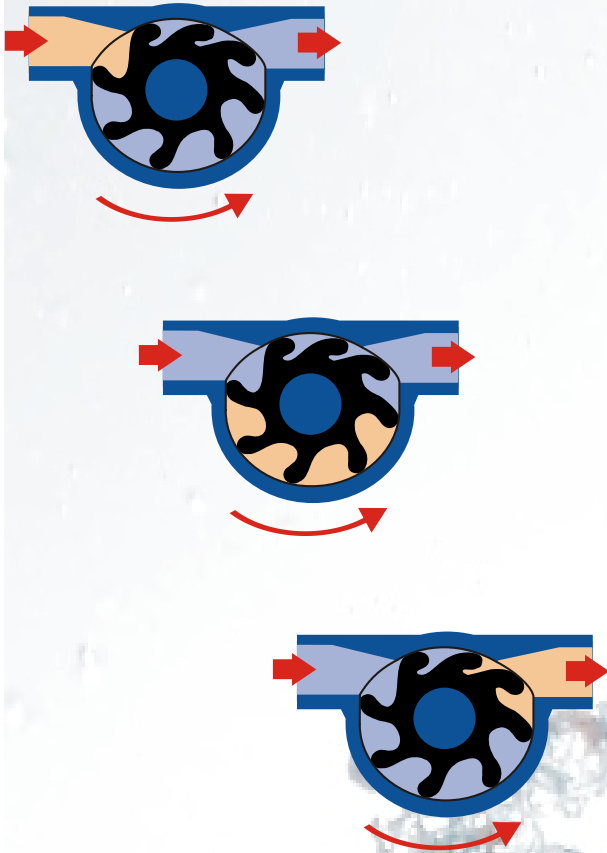


## Pomac IP Flexible impeller pumps

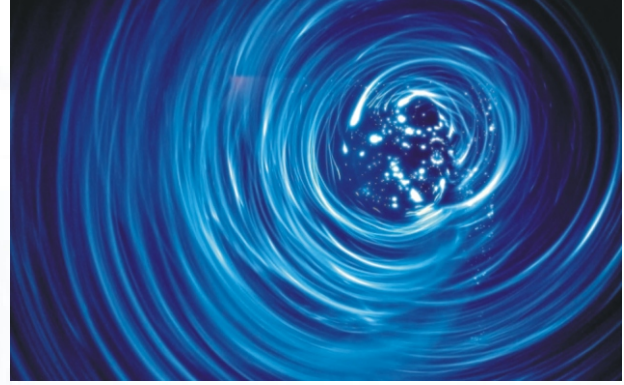
Flexible impeller pumps are suitable for pumping clean- troubled- or high-viscose liquids. One of the main benefits is its dry self-priming capacity. The pumps give a constant, non-pulsating output, which can be reversed easily by changing the direction of rotation. Its simple construction makes cleaning and inspection of the pump very easy. The rubber impeller is self-lubricating and rotates in the pump casing without any axial and radial play.



## Operating principle

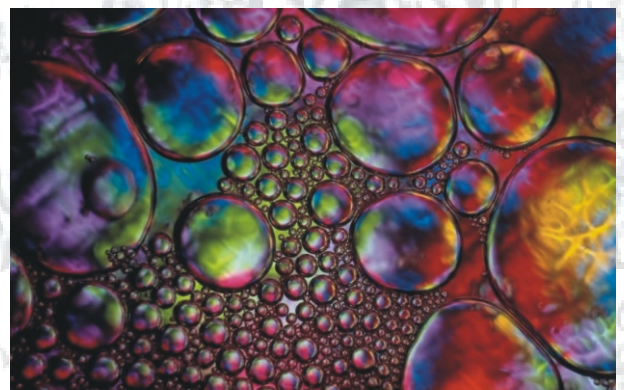


The operating principle is based on the resiliency of the flexible vanes of the impeller. The pump casing in which the impeller rotates, has a narrowing on one side. At this spot the vanes are bent which reduces the space between the vanes. When the vanes have passed the narrowing they spread, thus enlarging again the suction space between the vanes. This creates a vacuum in the space between the vanes. The vacuum causes the pump to prime liquid through the suction port. Subsequently between the vanes of the impeller the liquid passes through the pump casing. When the vanes reaches the narrowing again they bend which reduces the space between them again. The resulting pressure discharges the liquid from between the vanes.



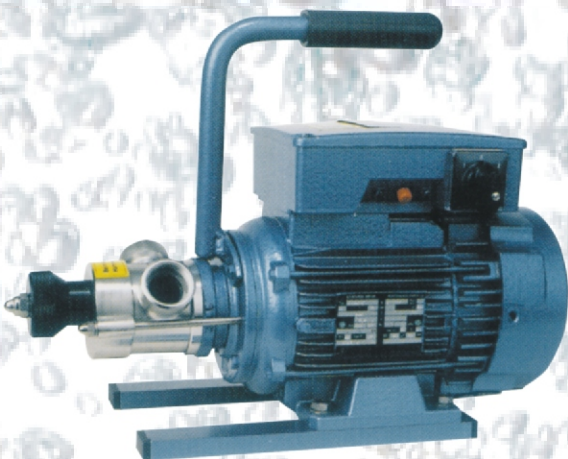
## Properties

- The pump casing is easy to disassemble, which facilitates cleaning or replacement of parts. This makes a flexible impeller pump very suitable for applications in food-, beverage- and pharmaceutical industry. All parts that come into contact with the pumped liquid are made of the same material as the pump casing.
- Flexible impeller pumps are dry self-priming so they are the appropriate pump for emptying vessels.
- Delivery head is determined by the impeller material. The pumps can be supplied with standard or high-pressure impellers. Standard impellers are suitable for delivery heads upto 30 mwk, high-pressure impellers upto 45 mwk.
- The pumps are equipped with a by-pass so they can keep on functioning with closed discharge valve.
- All pump types can be mounted in horizontal as well as in vertical position.



## Construction

- The pump casing is made of rolled and forged, non-porous stainless steel (AISI 304 or AISI 316). All surfaces are high-finish ground and galvanically polished. All pump types are also available in bronze.
- The pump casing is fixed by means of clamps or by means of nuts. This makes it very easy to disassemble for cleaning or parts replacement.
- The pump casings are provided with threaded connections according to DIN 11851 for standard, but Tri Clover clamps, DN-, IDF-, SPV-thread and other special threads are also available. The bronze versions are provided with internal thread according to DIN 259, so several types of thread connections can be fitted into it.
- The standard impeller is made of neoprene. This material is odour- and tasteless and is acid-proof. The rubber vanes are vulcanised on the hub directly. The impeller is also available in materials like NBR and EPDM. Other materials are available on request.
- The shaft is sealed by means of a mechanical seal according to DIN 24960 or by means of a V-sealing ring with shaft sleeve.



## Applications

Applications of flexible impeller pumps are:

### **Beverage industry**

- Wine, spirits, liquors
- Beer, wort, yeast
- Milk, cream, yoghurt, whey
- Fruit and vegetable juices, concentrates, vinegar

### **Food industry**

- Vinegar, mayonnaise, mustard, jelly Jam, fruit jelly, chocolate, honey, sugar solution, ice cream
- Cleaning liquids, waste water

### **Waste water treatment**

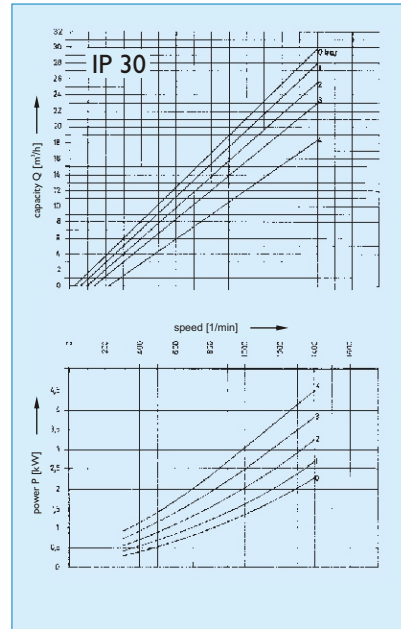
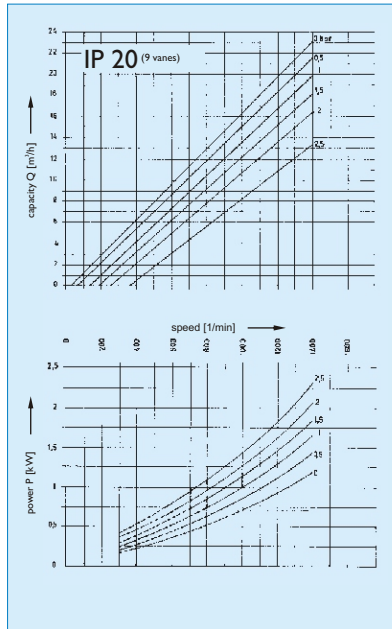
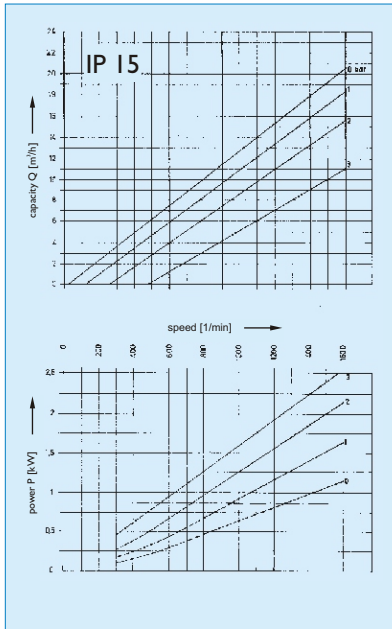
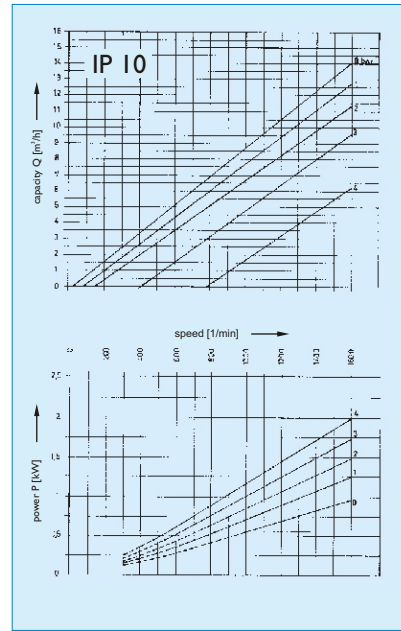
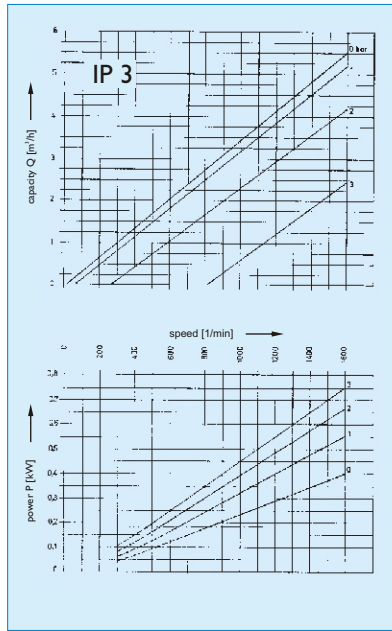
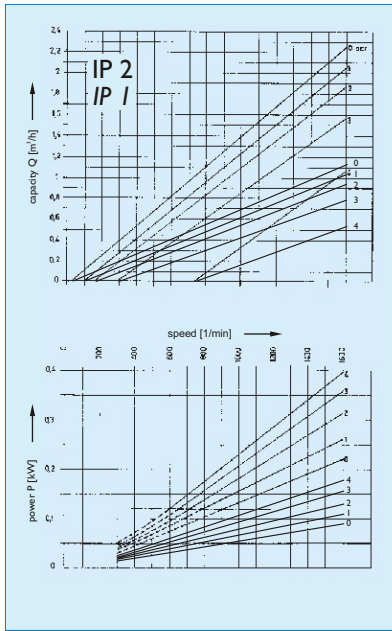
- Slurries
- Sewage
- Natrium hydroxide

### **Chemical industry**

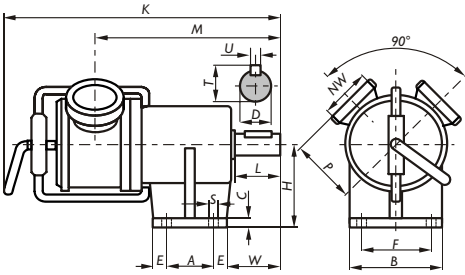
- Acids, alkalis
- Pastes, inks
- Solvents, detergents
- Varnish, glue, cooling agent
- Salt solutions, etc.



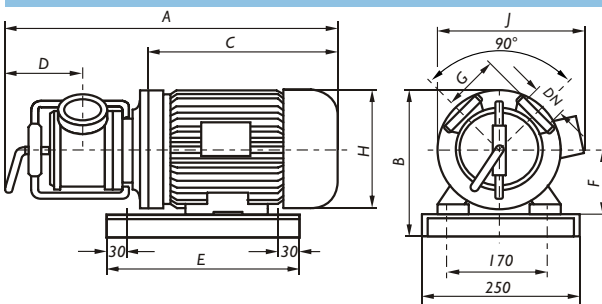
# Curves and dimensions



Type	A	B	C	E	F	H	K	M	P	S	W	D	L	T	U	connections DIN 11851
IP 2	35	80	8	10	60	60	240	154	73	9,5	54	19	40	21,5	6	NW25
IP 3	35	80	8	10	60	60	250	168	60	9,5	54	19	40	21,5	6	NW25
IP 10	55	90	10	10	70	90	352	207	80	9,5	60	24	50	26,9	8	NW40
IP 15	55	90	10	10	70	90	375	221	80	9,5	60	24	50	26,9	8	NW40
IP 20	70	110	15	15	80	100	440	285	92	13,5	90	38	60	41,3	10	NW50
IP 30	70	110	15	15	80	100	454	292	98	13,5	90	38	60	41,3	10	NW50



Type	A	B	C	D	E	F	G	H	J	connections DIN 11851
IP 1	252	200	220		210	71		135	135	(R1/2")
IP 2	380	210	230	80	250	80	56	165	120	DN25
IP 3	400	210	230	90	300	80	60	165	120	DN25
IP 10	485	225	250	95	300	90	78	182	126	DN40
IP 15	550	265	305	105	300	112	78	218	168	DN40
IP 20	620	295	305	130	400	140	92	218	168	DN50
IP 30	700	315	370	140	500	140	96	260	192	DN50



## Flexible impeller pump

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<b>Type</b>	<b>IP</b>
<b>Material</b>	Stainless steel/neoprene
<b>Capacity</b>	Max 30 m <sup>3</sup> /h
<b>Delivery head</b>	Max 45m
<b>Viscosity</b>	Max 10000 cP

### Available assemblies:

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Pump with bearing bracket, assembled with electric motor on baseplate.



All pumps can be provided with a carrier grip.



Close-coupled assembly, mounted on baseplate or on wheel carrier.

### Available accessories:

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- ON/OFF switch
- 1- or 3-phase AC electric motor
- Speed controlled motor
- Two-speed motor
- Dry-run protection

The Pomac delivery program - besides the pump assortment in this brochure - comprises an extensive choice of:

- stainless steel hygienic pumps
- screw pumps
- lobe pumps
- magnet driven pumps

More detailed information on these pump types is available and will be sent to you on request.

Pomac Pumps produces and supplies a complete range of stainless steel centrifugal and positive displacement pumps for the international market. These pumps are used in food and drug industries as well as in pharmaceutical and chemical industries. The Pomac organisation is characterised by a high degree of customer focussing, flexibility, good service and fast deliveries. Pomac guarantees high quality and reliability in every detail!

# Pomac Pumps

### Pomac b.v.

Feithspark 13 - 9356 BX Tolbert  
P.O. Box 32 - 9356 ZG Tolbert  
Holland  
tel +31 (0)594 512877  
fax +31 (0)594 517002  
E-mail: [info@pomacpumps.com](mailto:info@pomacpumps.com)  
[www.pomacpumps.com](http://www.pomacpumps.com)