



# Instruction Manual

## Ws+ Pump

### Spare Parts List



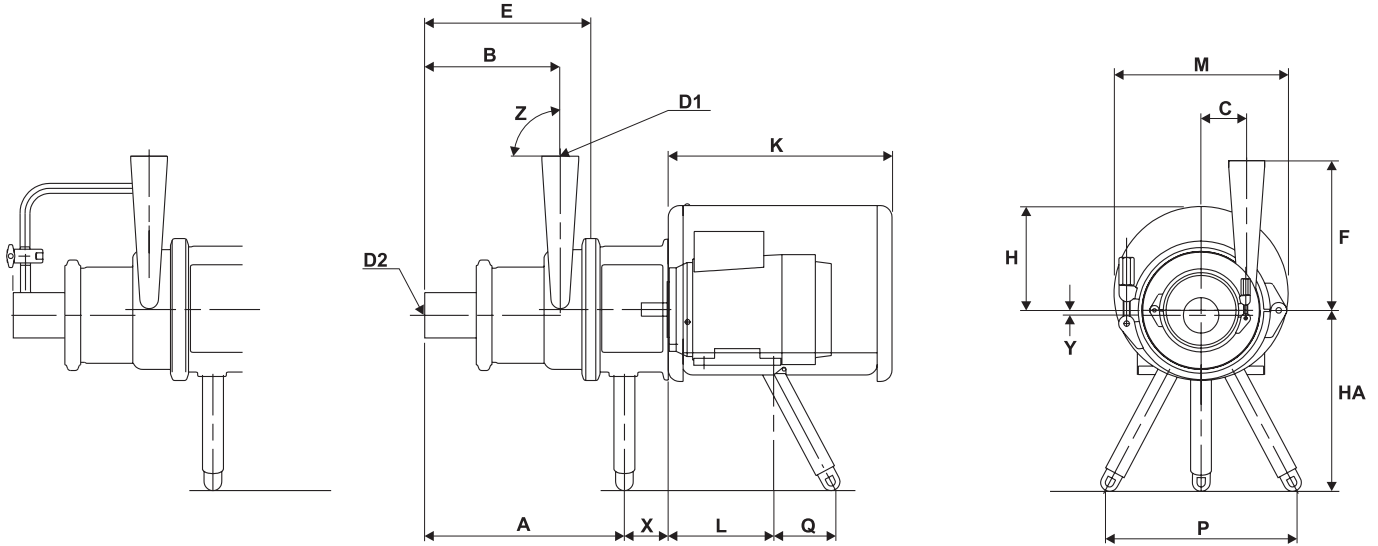
Read and understand this manual prior to operating or servicing this product.



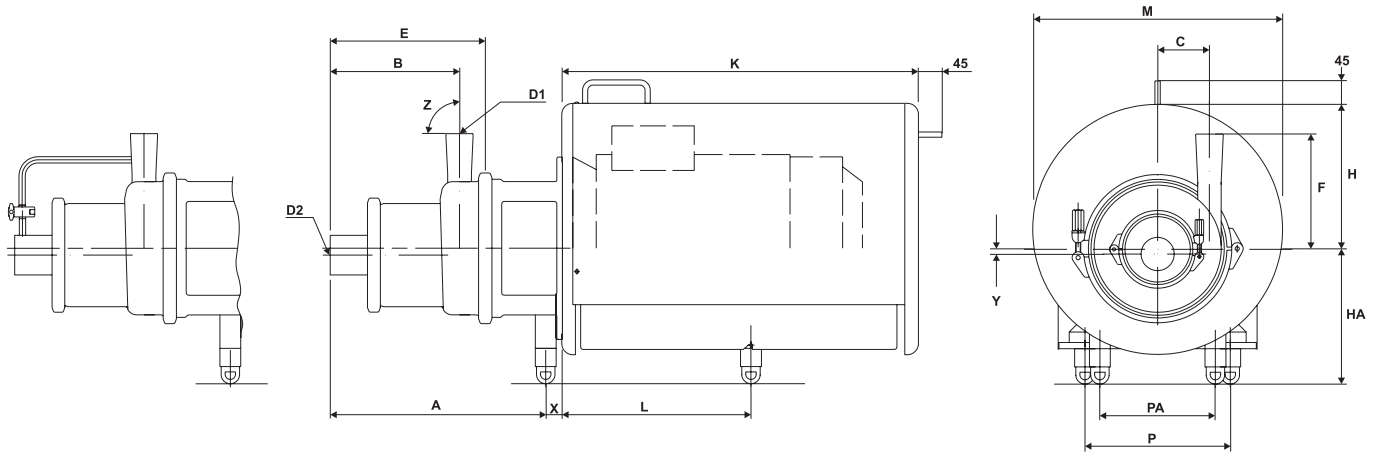
## 7. Pumpens mål og vægt / Pump dimensions and weights

Ws+

TG.1  
Motor 90S - 132M



TG.2  
Motor 160M-180L



Tolerances:	B, +0 mm	F +5 mm	D1, D2 Nominal	Z 90° ± 1.5°	K ± 5 mm	Others ± 2 mm
Tolerancer:	-5	-0	Norminel			Andre

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### Mål / Dimension

	Ws+20/15					Ws+30/30					Ws+44/50								
	Motor																		
	90S	90L	100L	112M	132S	100L	112M	132S	160M	160L	132S	160M	160L	180M	180L				
<b>A</b>	280					271					259					354	404		405
<b>B</b>	190					193					248.5								
<b>C</b>	66					83					100								
<b>D1</b>	51					51					51								
<b>D2</b>	63.5					63.5					76								
<b>E</b>	228					231					297								
<b>F</b>	215					230					220								
<b>Y</b>	8					10					13								
<b>H</b>	138	138	181.5	212	193	181.5	212	193	255	255	193	255	255	277	277				
<b>HA</b>	260	260	260	260	260	260	260	260	260	260	260	260	260	305	305				
<b>K</b>	321	321	394	482	482	394	482	482	588	588	482	588	588	688	688				
<b>L</b>	156	181	230	210	252	203	210	252	318	362	252	318	318	362	362				
<b>M</b>	250	250	305	360	360	305	360	360	450	450	360	450	450	480	480				
<b>P</b>	276	276	276	276	276	276	276	276	254	254	276	254	254	279	279				
<b>PA</b>	-	-	-	-	-	-	-	-	-	-	-	222	222	222	222				
<b>Q</b>	84	84	79	72	62	79	72	62	-	-	-	-	-	-	-				
<b>X</b>	62	62	62	62	62	56	56	56	43	43	39	43	43	43	43				
<b>Z</b>	90°																		

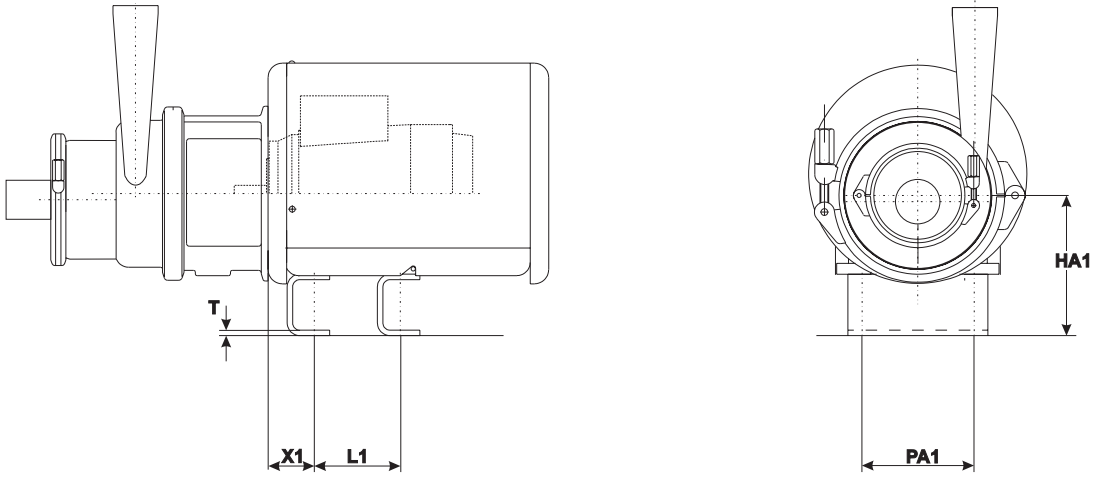
### Egenvægt, kg. / Net weight, kg.

Motor	90S,L	90LB	100L	100LB	112M	112MB	132S;M	132SC		160L	160LB	180M	180LB
kW@50Hz	1,5; 2,2	2,7	3	4	4	5,5	5,5 ; 7,5	11	11 ; 15	18,5	22	22	30
kW@60Hz	1,7; 2,5	3,1	3,5	4,6	4,6	6,3	6,3 ; 8,6	12,7	12,7 ; 17,2	21,3	25,3	25,3	34,5
<b>Pump type</b>													
Ws+20/15	37,4	42,9	50,4	51,1	56,7	58,4	73,2	84,2	-	-	-	-	-
Ws+30/30	-	-	56,5	57,2	62,8	64,5	83,4	94,4	119,9	130,9	135,9	-	-
Ws+44/50	-	-	-	-	-	-	92,7	103,7	133,9	144,9	151,1	173,4	190,4

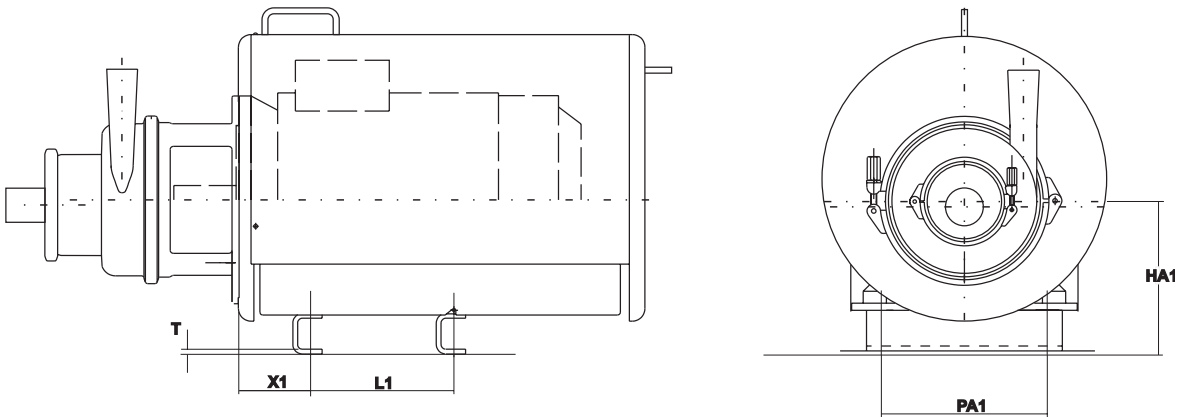
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**Ws+**

**Motor 90-132M type A**



**Motor 160M - 180L type A**



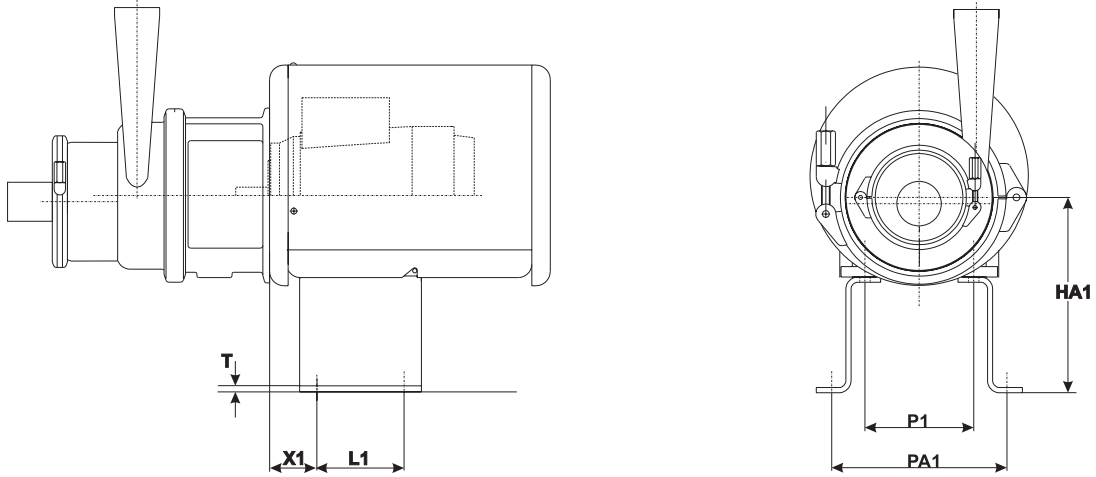
**Med konsol type A  
With bracket type A  
Motor 90 - 180L**

	90S	90L	100L	112M	132S	160M	160L	180M	180L
<b>X1</b>	56	56	63	70	112	108	108	121	121
<b>L1</b>	100	125	140	140	140	210	254	241	279
<b>PA1</b>	140	140	160	190	216	254	254	279	279
<b>T</b>	6	6	6	6	6	6	6	6	6
<b>HA1</b>	170	170	180	192	212	240	240	260	260

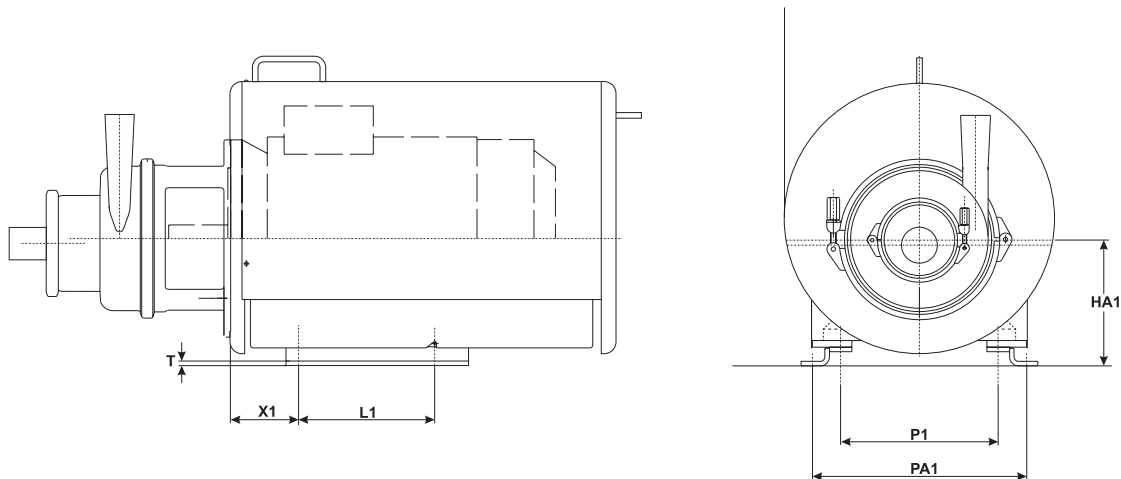
## 7. Pumpens mål og vægt / Pump dimensions and weights

Ws+

### Motor 90 - 132M type B



### Motor 160M - 180L type B



### Med konsol type B With bracket type B Motor 90 - 180L

	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
<b>X1</b>	56	56	63	70	112	112	108	108	121	121
<b>L1</b>	125	125	140	140	178	178	254	254	279	279
<b>P1</b>	140	140	160	190	216	216	254	254	279	279
<b>PA1</b>	216	216	236	266	292	292		358		379
<b>T</b>	6	6	6	6	6	6	6	6	6	6
<b>HA1</b>	225	225	225	225	225	225	225	225	225	225



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