

# Ws+

## CENTRIFUGAL PUMP

FORM NO.: L453260UK

REVISION: 04/2015

READ AND UNDERSTAND THIS MANUAL PRIOR TO OPERATING OR SERVICING THIS PRODUCT.





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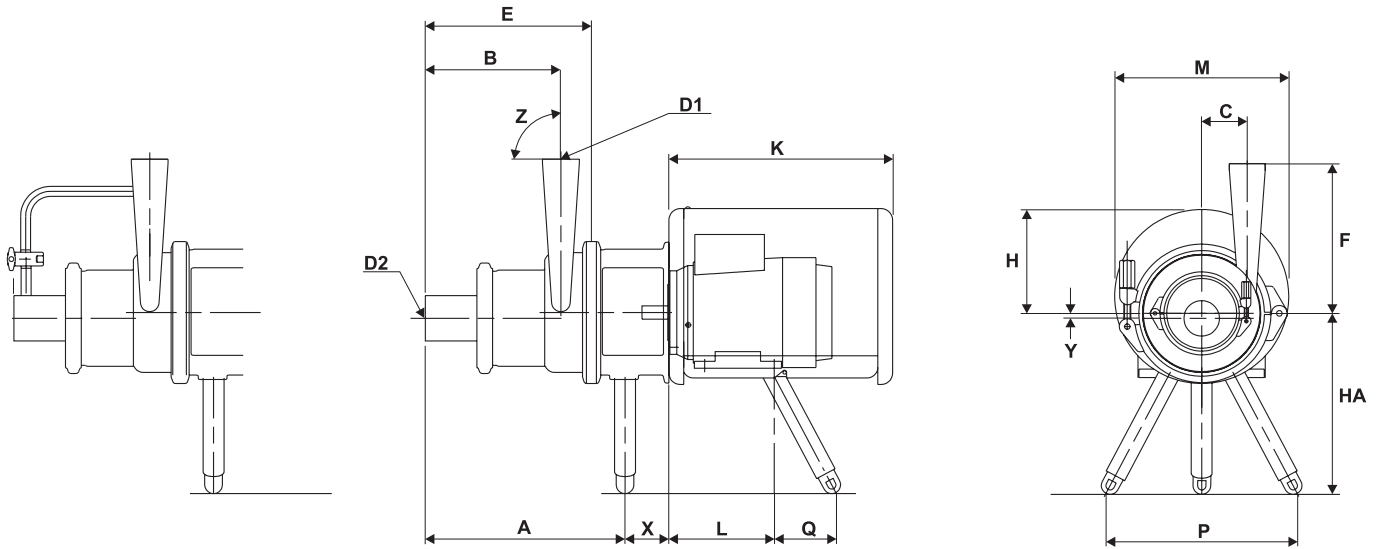


## 1. Pump dimensions

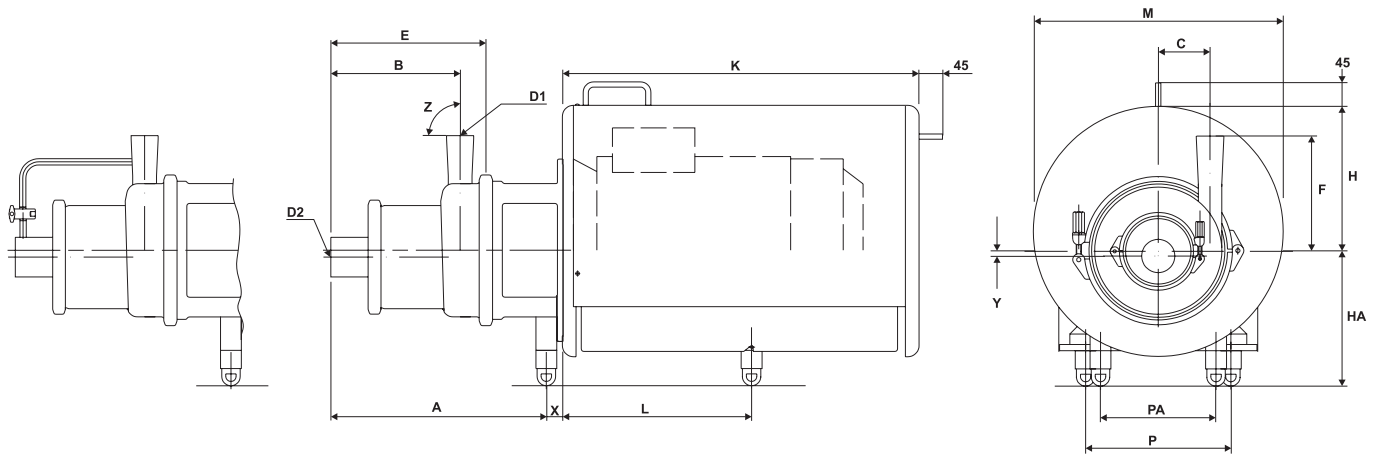
Ws+

### 1.1 Adjustable Feet

#### TG.1 Motor 90 - 132



#### TG.2 Motor 160 - 180



Tolerances: B:  $\begin{matrix} +0 \\ -5 \end{matrix}$  mm F:  $\begin{matrix} +5 \\ -0 \end{matrix}$  mm D<sub>1</sub>, D<sub>2</sub>: Nominal Z:  $90^\circ \pm 1.5^\circ$  K:  $\pm 5$  mm Others:  $\pm 2$  mm

## 1. Pump dimensions

**Ws+**

	Ws+20/15					Ws+30/30					Ws+44/50								
	Motor																		
	90S	90L	100L	112M	132S	100L	112M	132S	160M	160L	132S	160M	160L	180M	180M				
<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°														

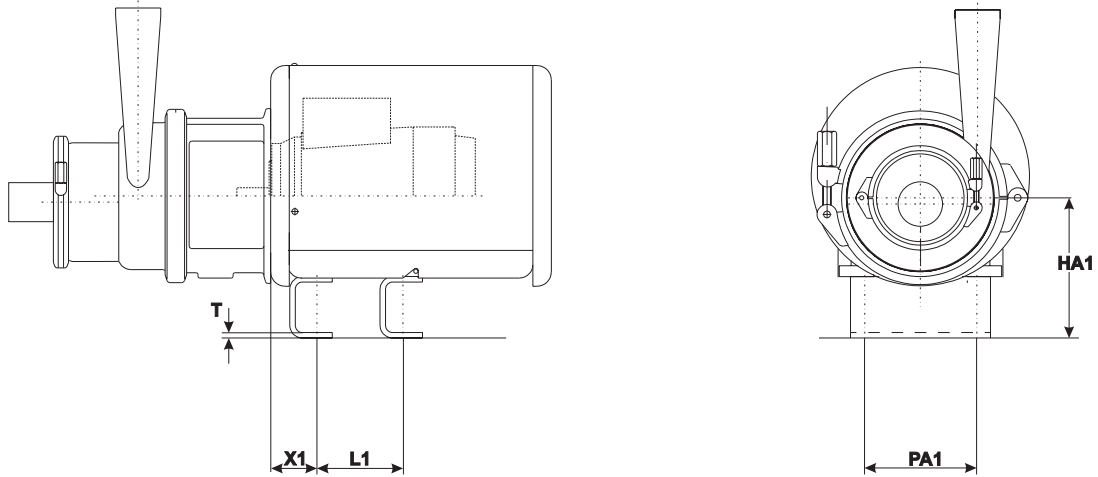
Tolerances: B:  $\begin{matrix} +0 \\ -5 \end{matrix}$  mm F:  $\begin{matrix} +5 \\ -0 \end{matrix}$  mm D<sub>1</sub>, D<sub>2</sub>: Nominal Z: 90° ± 1.5° K: ± 5 mm Others: ± 2 mm

## 1. Pump dimensions

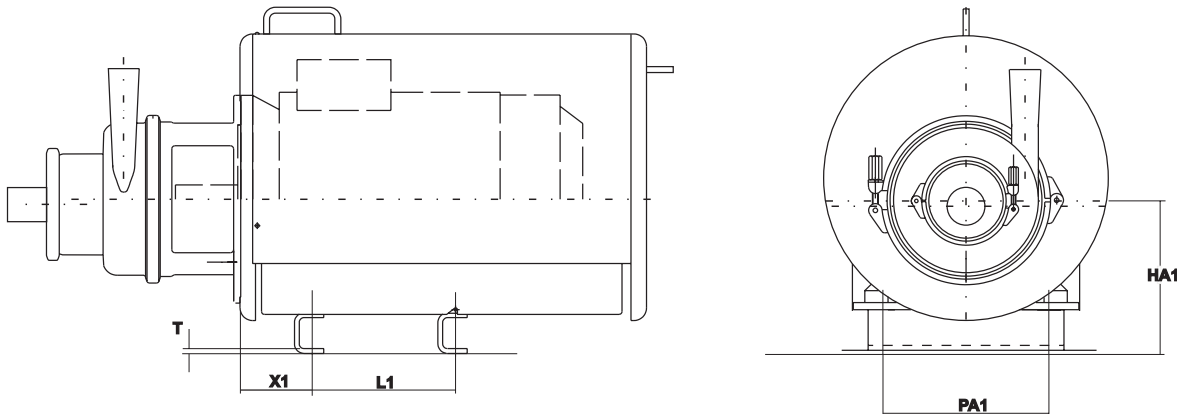
Ws+

### 1.2 Bracket type A

#### Motor 90-132



#### Motor 160M - 180L



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

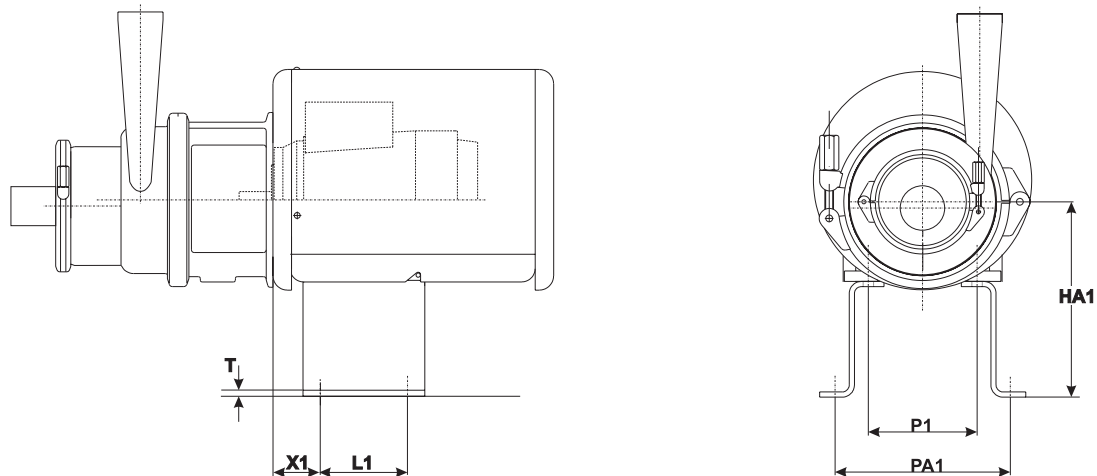
Tolerances: B:  $\begin{matrix} +0 \\ -5 \end{matrix}$  mm F:  $\begin{matrix} +5 \\ -0 \end{matrix}$  mm D<sub>1</sub>, D<sub>2</sub>: Nominal Z: 90° ± 1.5° K: ± 5 mm Others: ± 2 mm

## 1. Pump dimensions

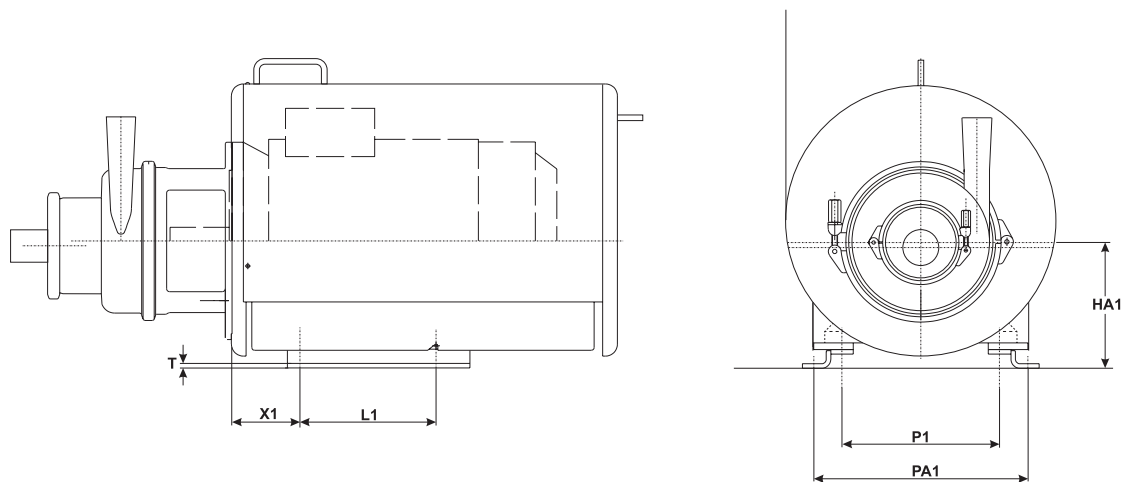
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### 1.3 Bracket type B

#### Motor 90 - 132



#### Motor 160M - 180L



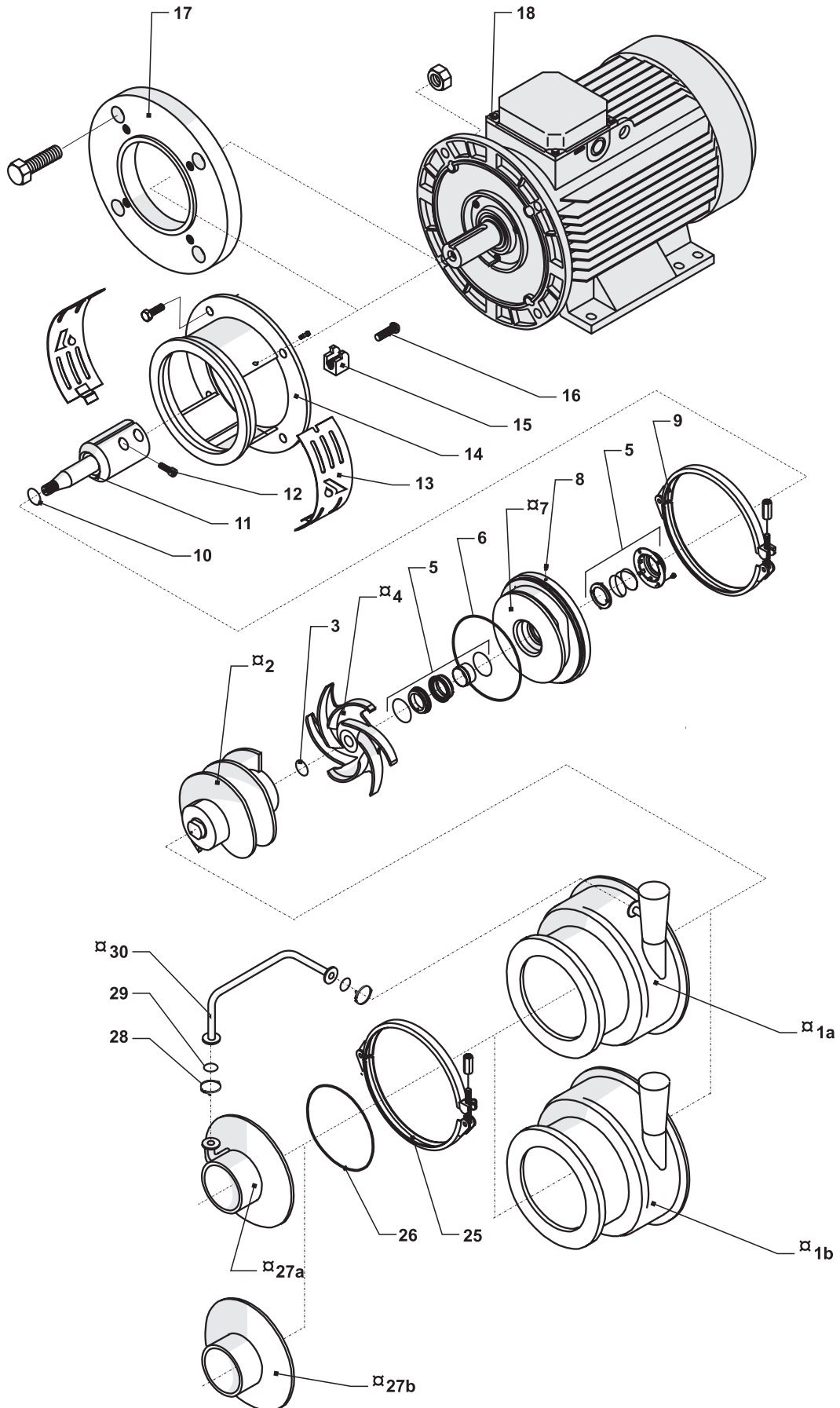
	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
X1	56	56	63	70	112	112	108	108	121	121
L1	125	125	140	140	178	178	254	254	279	279
P1	140	140	160	190	216	216	254	254	279	279
PA1	216	216	236	266	292	292	358	358	379	379
T	6	6	6	6	6	6	6	6	6	6
HA1	225	225	225	225	225	225	225	225	225	225

Tolerances: B:  $\begin{matrix} +0 \\ -5 \end{matrix}$  mm F:  $\begin{matrix} +5 \\ -0 \end{matrix}$  mm  $D_1, D_2$ : Nominal Z:  $90^\circ \pm 1.5^\circ$  K:  $\pm 5$  mm Others:  $\pm 2$  mm



## 2. Pump complete

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## 2. Pump complete

**Ws+**

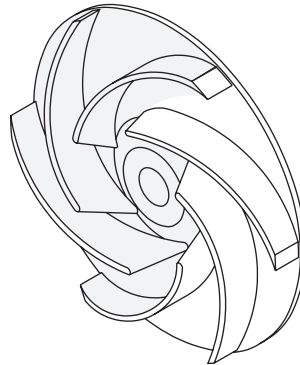
		Pump type																							
		Ws+20/15	Ws+30/30	Ws+44/50	Ws+20/15	Ws+30/30	Ws+44/50	Ws+20/15	Ws+30/30	Ws+44/50	Ws+20/15	Ws+30/30	Ws+44/50												
		Standard			3A			3.1			3.1 3A														
Item	Qty.	Description												Part No.											
□1a	1	Pump housing	L804656	L804657	L804658	L804669	L804670	L804671	L808417	L808418	L808419	L808507	L808508	L808509											
□1b	1	Pump housing	L182849	L182847	L182848	L182857	L182858	L182859	L808414	L808415	L808416	L808504	L808505	L808506											
□2	1	Air screw	L804663	L804664	L804662	L804675	L804676	L804677	L808423	L808424	L808425	L808500	L808501	L808502											
3	1	O-Ring	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>											
□4	1	Impeller	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>	<i>s/p7</i>											
5	1	Shaft seal	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>	<i>s/p8</i>											
6	1	O-ring	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>											
□7	1	Back plate	L261566**	L260935	L260940	L260948**	L260950	L260954	L277023**	L277026	L277031	L274902**	L274905	L274910											
8	1	Pin	---	L772493	L772493	---	L772493	L772493	---	L772493	L772493	---	L772493	L772493											
9	1	Clamp ring	L188430	L188436	L188432	L188430	L188436	L188432	L188430	L188436	L188432	L188430	L188436	L188432											
10	1	O-ring	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>											
11	1	Shaft	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>											
12	2	Screw	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>	<i>s/p12</i>											
13	2	Shaft guard	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>											
14	1	Extension frame	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>	<i>s/p13-14</i>											
15	2	Bracket (Screw)	---	L268499	L268499	---	L268499	L268499	---	L268499	L268499	---	L268499	L268499											
16	2	Screw	---	L701942	L701942	---	L701942	L701942	---	L701942	L701942	---	L701942	L701942											
17	1	Spacer flange	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>	<i>s/p17</i>											
18	1	Motor	---	---	---	---	---	---	---	---	---	---	---	---											
25	1	Clamp ring	L169050	L188430	L804665	L169050	L188430	L804665	L169050	L188430	L804665	L169050	L188430	L804665											
26	1	O-ring	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>											
□27a	1	Front cover	L804659	L804660	L804661	L804672	L804673	L804674	L804696	L804697	L804698	L808513	L808514	L808515											
□27b	1	Front cover	L808291	L808285	L808287	L808296	L808297	L808298	L808420	L808421	L808422	L808510	L808511	L808512											
28	2	Clamp ring	L771837	L771837	L771837	L771837	L771837	L771837	L771837	L771837	L771837	L771837	L771837	L771837											
29	2	Gasket	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>	<i>s/p11</i>											
□30	1	Recirc. pipe	L808288	L808289	L808290	L808288	L808289	L808290	L804712	L804713	L804714	L804712	L804713	L804714											
---	---	Frame	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>	<i>s/p15-18</i>											
---	---	Shroud	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>	<i>s/p19</i>											

*s/pxx* = see page

\*\* Integrated with extension fame item 14

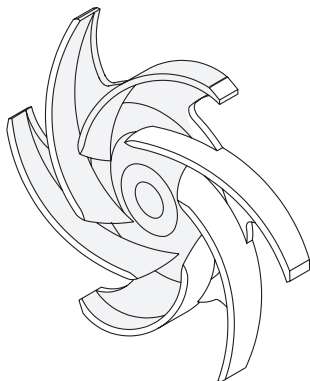
## 3. Impeller

Ws+



Impeller Ø	Pump type							
	Ws+20/15	Ws+30/30	Ws+20/15	Ws+30/30	Ws+20/15	Ws+30/30	Ws+20/15	Ws+30/30
	Standard		3A		3.1		3.1 3A	
	Part No.							
Ø175		L253739		L267000		L277010		L280268
Ø170		L267481		L267001		L277011		L280269
Ø165		L267482		L267002		L277012		L280270
Ø160		L267483		L267003		L277013		L280271
Ø155		L267484		L267004		L277014		L280272
Ø150		L267485		L267005		L277015		L280273
Ø145		L267486		L267006		L277016		L280274
Ø140	L253737*	L267487	L253767*	L267007	L277000*	L277017	L280245*	L280275
Ø135	L267460	L267488	L253768	L267008	L277001	L277018	L280246	L280276
Ø130	L267461	L267489	L253769	L267009	L277002	L277019	L280247	L280277
Ø125	L267462	L267490	L253770	L267010	L277003	L277020	L280248	L280278
Ø120	L267463	L267491	L253771	L267011	L277004	L277021	L280249	L280279
Ø115	L267464		L253772		L277005		L280250	
Ø110	L267465		L253773		L277006		L280251	
Ø105	L267466		L253774		L277007		L280252	
Ø100	L267467		L253775		L277008		L280253	
Ø95	L267468		L253776		L277009		L280254	

\* Ø142



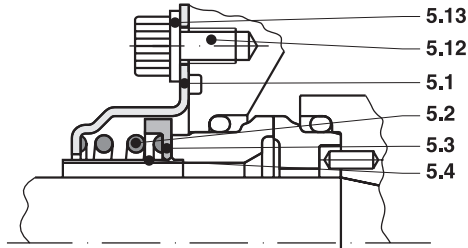
Impeller Ø	Pump type			
	Ws+44/50			
	Standard	3A	3.1	3.1 3A
	Part No.			
Ø220	L253744	L253777	L277132	L274942
Ø215	L267523	L253778	L277133	L274943
Ø210	L267524	L253779	L277134	L274944
Ø205	L267524	L253780	L277135	L274945
Ø200	L267526	L253781	L277136	L274946
Ø195	L267527	L253782	L277137	L274947
Ø190	L267528	L253783	L277138	L274948
Ø185	L267529	L253784	L277139	L274949
Ø180	L267530	L253785	L277140	L274950
Ø175	L267531	L253786	L277141	L274951
Ø170	L267532	L253787	L277142	L274952
Ø165	L267533	L253788	L277143	L274953
Ø160	L267534	L253789	L277144	L274954

## 4. Shaft seal

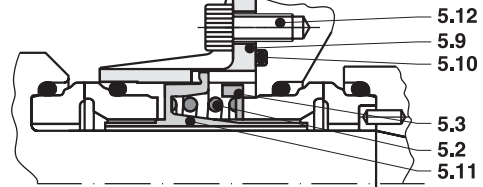
Ws+

### 4.1 Fixing Kit

A. Single Seal Ø25+Ø35



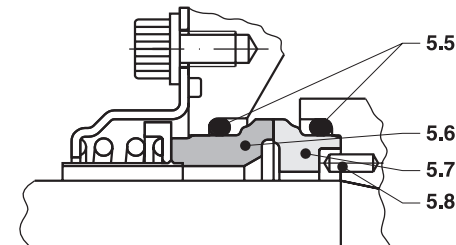
B. Double Seal Ø25+Ø35



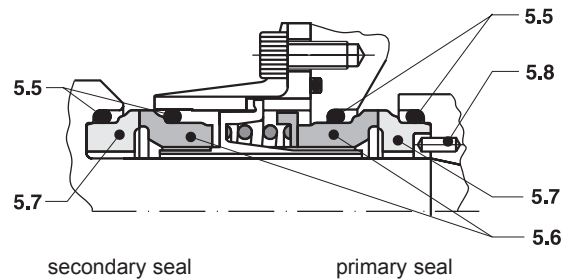
Fixing kit				Shaft size		
				Ø25	Ø35	
Seal type	Item	Description	Material	Part no.		
A	Single Seal	5.1	<b>Complete</b> Seal housing	AISI 316	L772460	L772465
		5.2		AISI 316		
5.3	AISI 316	(L773100)		(L773101)		
5.4	PTFE					
B	Double seal	5.2	<b>Complete</b> Spring	AISI 316	L194448	L194449
		5.3		AISI 316		
5.9	AISI 316					
5.11	AISI 316					
	5.10	O-ring	EPDM	L772470	L771362	
	5.12	4 Screws M6x10	AISI 316	L770496	L770496	

### 4.2 Face Kit

A. Single Seal Ø25+Ø35



B. Double Seal Ø25+Ø35



Face kit	Item material				Shaft size	
	5.5 O-rings x2	5.6 Stationary seal	5.7 Rotary seal	5.8 Pin	Ø25	Ø35
Reaction Bonded SiC/Car EPDM	EPDM	Reaction Bonded SiC	Resin Bonded Carbon	AISI 316L	L772461	L772466
Reaction Bonded SiC/Car FPM	FPM	Reaction Bonded SiC	Resin Bonded Carbon	AISI 316L	L772462	L772467
Reaction Bonded SiC/SiC EPDM	EPDM	Reaction Bonded SiC	Reaction Bonded SiC	AISI 316L	L772463	L772468
Reaction Bonded SiC/SiC FPM	FPM	Reaction Bonded SiC	Reaction Bonded SiC	AISI 316L	L772464	L772469
Self Sintered SiC/Car EPDM	EPDM	Self Sintered SiC	Resin Bonded Carbon	AISI 316L	L782461	L782466
Self Sintered SiC/Car FPM	FPM	Self Sintered SiC	Resin Bonded Carbon	AISI 316L	L782462	L782467
Self Sintered SiC/SiC EPDM	EPDM	Self Sintered SiC	Self Sintered SiC	AISI 316L	L782463	L782468
Self Sintered SiC/SiC FPM	FPM	Self Sintered SiC	Self Sintered SiC	AISI 316L	L782464	L782469
Knife Edge SiC/SiC FPM	FPM	Reaction Bonded SiC	Reaction Bonded SiC	AISI 316L	L789464	L789469

Seal type B: All combinations of materials are available - SPX FT recommends to use SiC/Car as secondary seal

All seal rings marked as below:

SSwwyyx - SS (Self Sintered SiC) - ww (week of production) - yy (year of production) - x (batch)

RBwwyyx - RB (Reaction Bonded SiC) - ww (week of production) - yy (year of production) - x (batch)

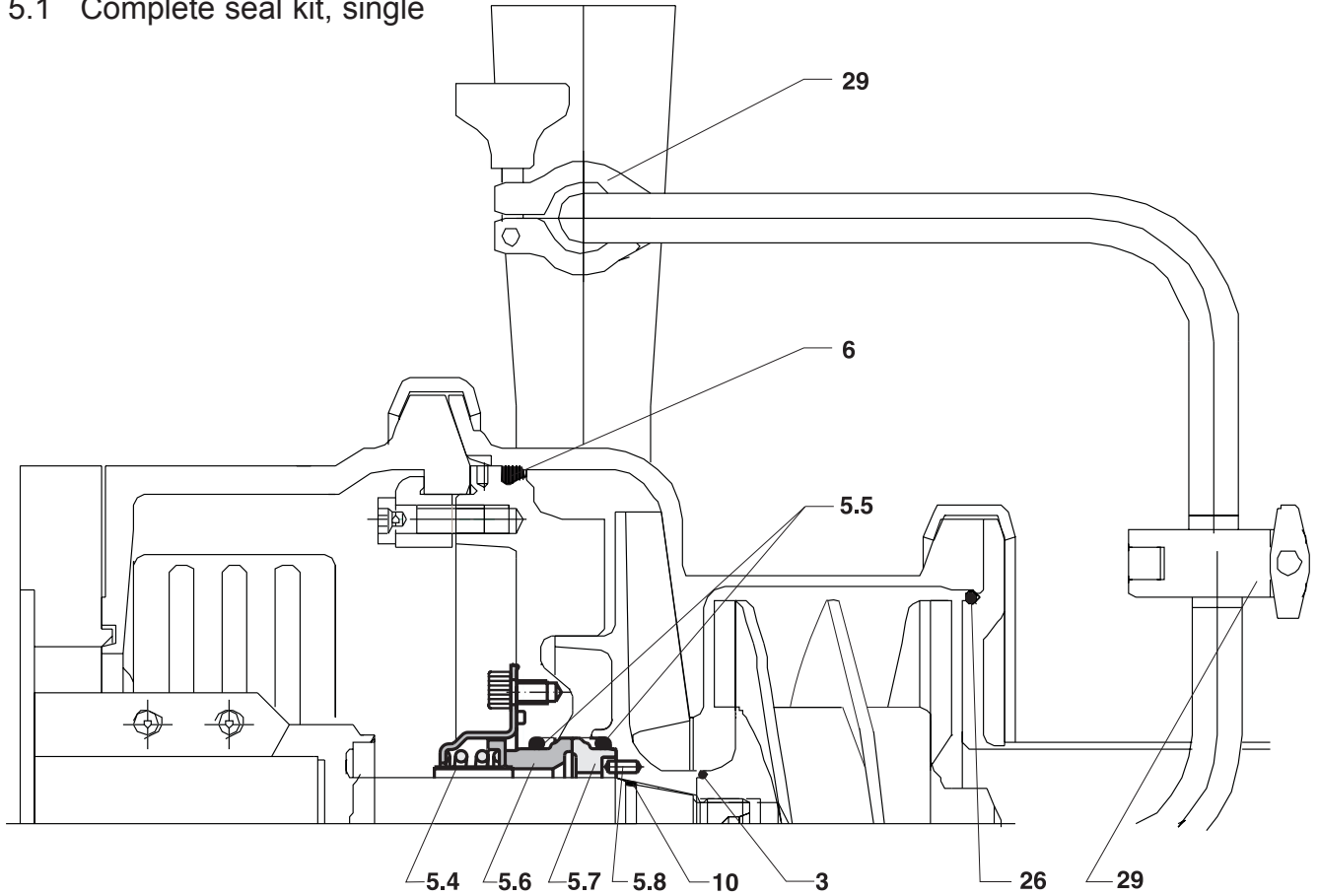
Rebuild from single to double seal: 1x Fixing kit double + 1x Face kit + 1x Item 5.10

Rebuild from double to single seal: 1x Fixing kit single

## 5. Complete seal kit

Ws+

### 5.1 Complete seal kit, single



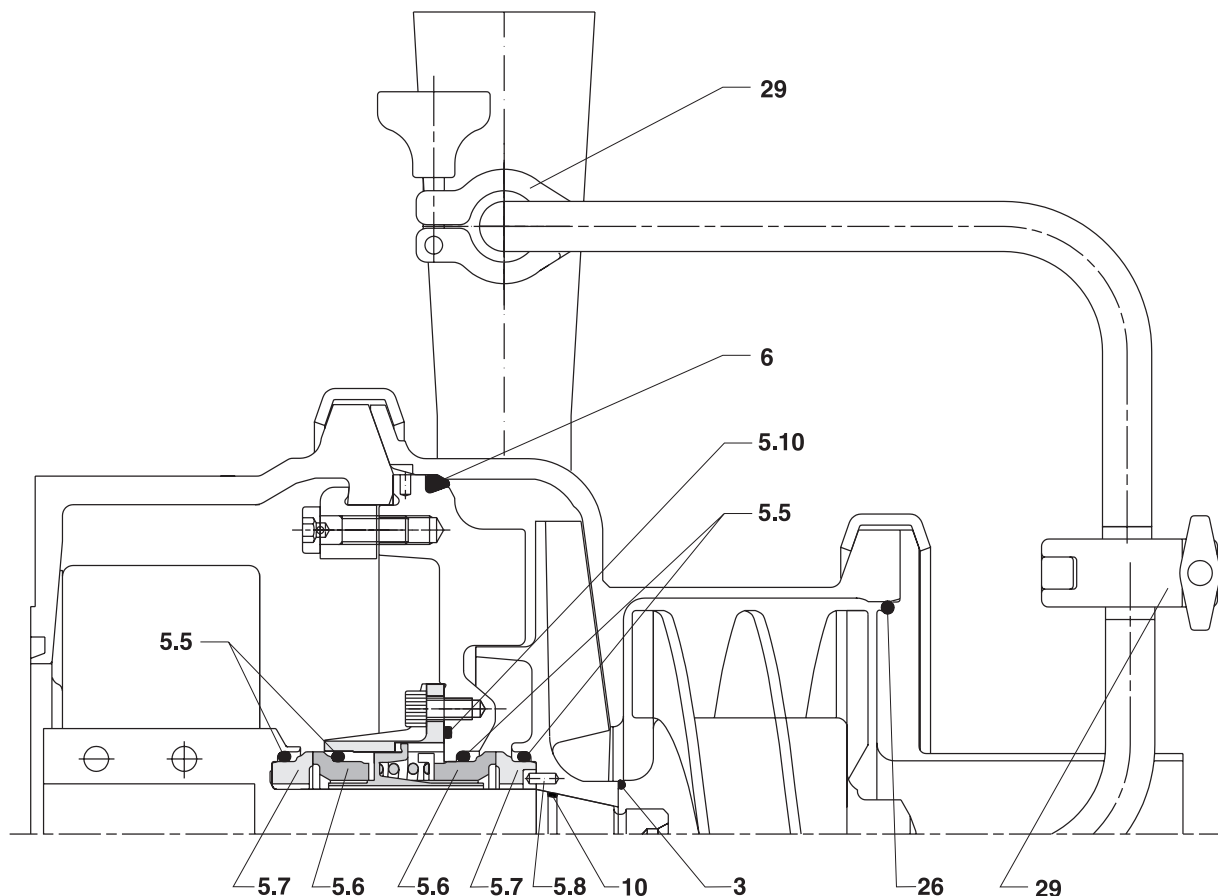
Reaction Bonded SiC		Pump type		
Item	Material	Ws+20/15	Ws+30/30	Ws+44/50
		Part No.		
3, 6, 10, 26, 29 x 2, 5.4, 5.5 x 2, 5.6, 5.7, 5.8	SiC/SiC EPDM	L808325	L808326	L808327
	SiC/Car EPDM	L808328	L808329	L808330
	SiC/SiC FPM	L808331	L808332	L808333
	SiC/Car FPM	L808334	L808335	L808336

Self Sintered SiC		Pump type		
Item	Material	Ws+20/15	Ws+30/30	Ws+44/50
		Part No.		
3, 6, 10, 26, 29 x 2, 5.4, 5.5 x 2, 5.6, 5.7, 5.8	SiC/SiC EPDM	L888325	L888326	L888327
	SiC/Car EPDM	L888328	L888329	L888330
	SiC/SiC FPM	L888331	L888332	L888333
	SiC/Car FPM	L888334	L888335	L888336

## 5. Complete seal kit

Ws+

### 5.2 Complete seal kit, double

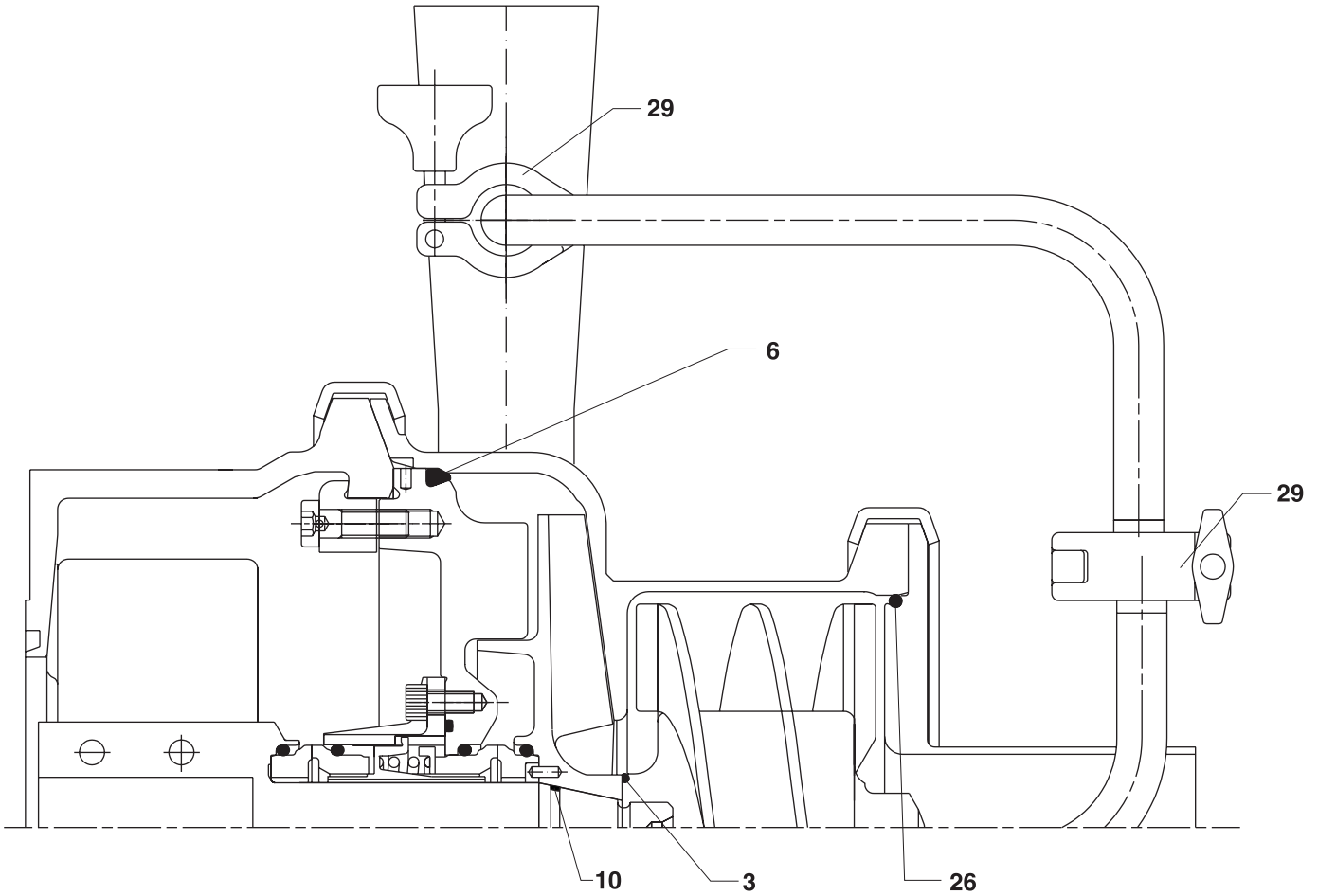


Reaction Bonded SiC		Pump type		
Item	Material	Ws+20/15	Ws+30/30	Ws+44/50
		Part No.		
3, 6, 10, 26, 29 x 2, 5.5 x 2, 5.6 x 2, 5.7 x 2, 5.8, 5.10	SiC/SiC - SiC/Car EPDM	L808551	L808555	L808559
	SiC/Car - SiC/Car EPDM	L808552	L808556	L808534
	SiC/SiC - SiC/Car FPM	L808553	L808557	L808535
	SiC/Car - SiC/Car FPM	L808554	L808558	L808536

Self Sintered SiC		Pump type		
Item	Material	Ws+20/15	Ws+30/30	Ws+44/50
		Part No.		
3, 6, 10, 26, 29 x 2, 5.5 x 2, 5.6 x 2, 5.7 x 2, 5.8, 5.10	SiC/SiC - SiC/Car EPDM	L888551	L888555	L888559
	SiC/Car - SiC/Car EPDM	L888552	L888556	L888534
	SiC/SiC - SiC/Car FPM	L888553	L888557	L888535
	SiC/Car - SiC/Car FPM	L888554	L888558	L888536

## 6. O-rings kit

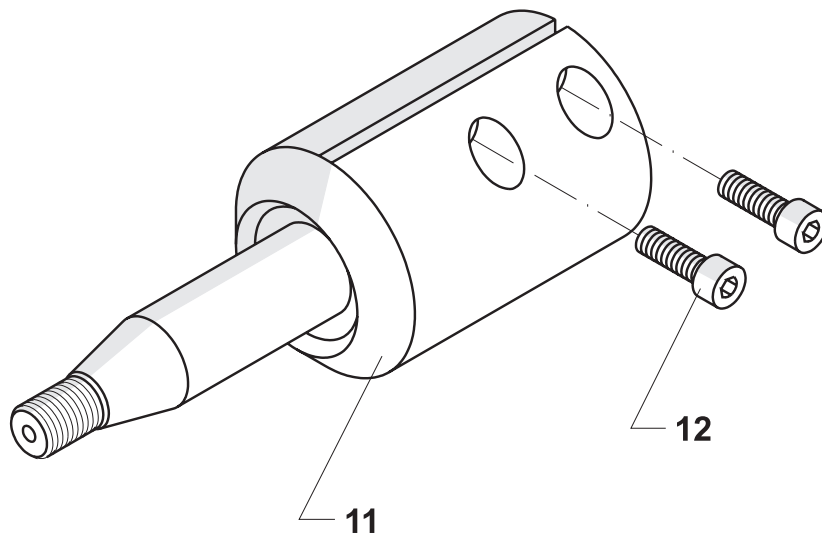
Ws+



Item	Material	Pump type		
		Ws+20/15	Ws+30/30	Ws+44/50
		Part No.		
3, 6, 10, 26 & 29 x 2	EPDM	L808619	L808620	L808621
3, 6, 10, 26 & 29 x 2	FPM(Viton)	L808622	L808623	L808624

## 7. Shaft

Ws+



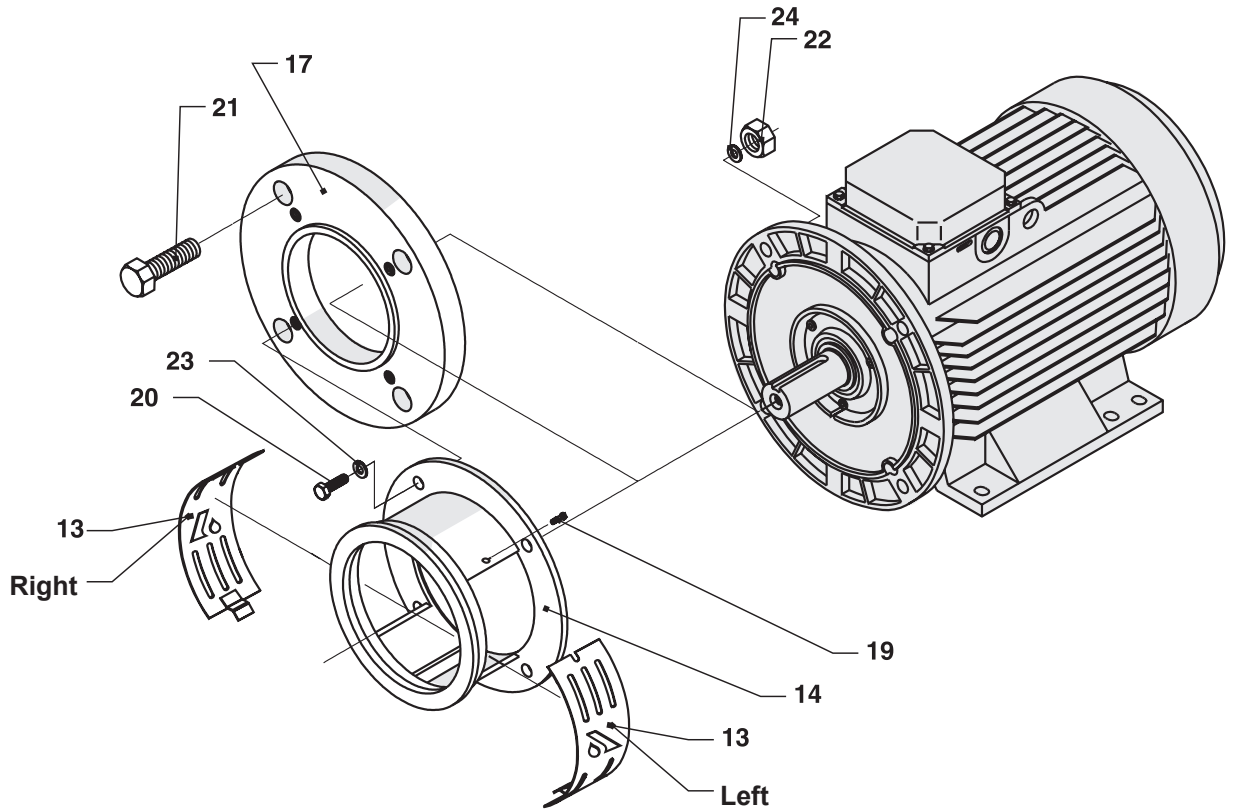
Pumpe type	Motor							
	90	100	112	132	160	132	160	180
	Item 11 - Shaft Ø25				Item 11 - Shaft Ø35			
Ws+20/15	L261559	L261560	L261560	L261547				
Ws+30/30		L261560	L261560	L261547	L261548			
Ws+44/50						L261550	L261551	L261563

Item 12								
Stk./Qty	1	2	2	2	2	2	2	2
Skruer/Screw	L771199	L771199	L771199	L771199	L771199	L771199	L771199	L771199



## 8. Extension frame and shaft guard

Ws+



Pump type	Motor					
	90	100	112	132*	160	180
	Item 14 - Extension Frame					
Ws+20/15	L261566	L261566	L261566	L261566		
Ws+30/30		L261565	L261565	L261565	L261564	
Ws+44/50				L261567	L261568	L261568
Item 17 - Flange						
*				L267665		

## 8. Extension frame and shaft guard

Ws+

Pump type	Qty.	Motor					
		90	100	112	132	160	180
		Item 13 - Shaft Guard					
Ws+20/15	2 R/L	L188334	L188334	L188334	L188334		
Ws+30/30	1 R		L188333	L188333	L188333		
	1 L		L188285	L188285	L188285		
	2 R/L					L188259	
Ws+44/50	1 R				L188339		
	1 L				L188597		
	2 R/L					L188335	L188335

R=Right

L=Left

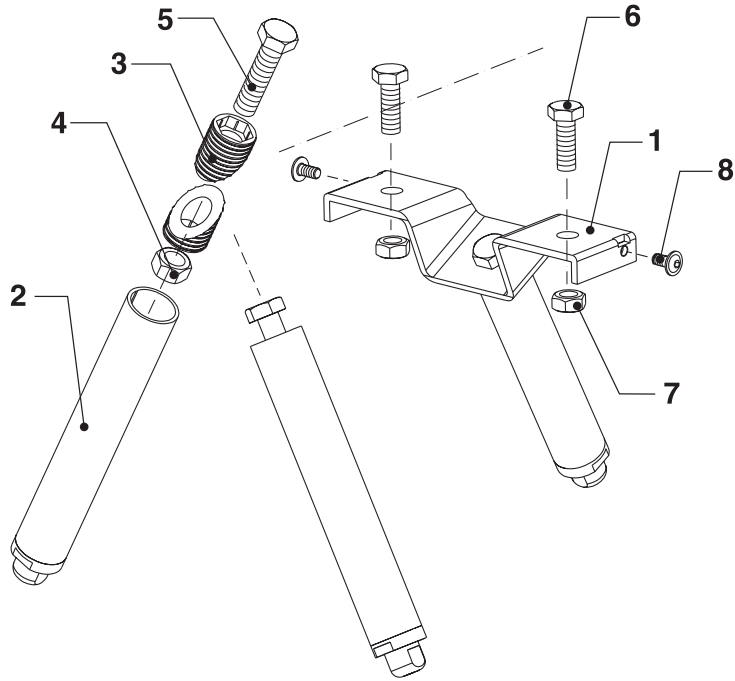
Description	Item	Qty.	Motor					
			90	100	112	132	160	180
			Part No.					
Screw	19	2	L700420	L700420	L700420	L700420	L700420	L700420
Screw	20	4	L700234	L700234	L700234	L700234	*L771944	*L771944
Screw	21	4				L701078		
Nut	22	4					L701387	L701387
Washer	23	4	L771425	L771425	L771425	L771425		
Washer	24	4					L701254	L701254

\* Qty. = 2

## 9. Adjustable Feet

Ws+

### 9.1 Motor Type 90-132

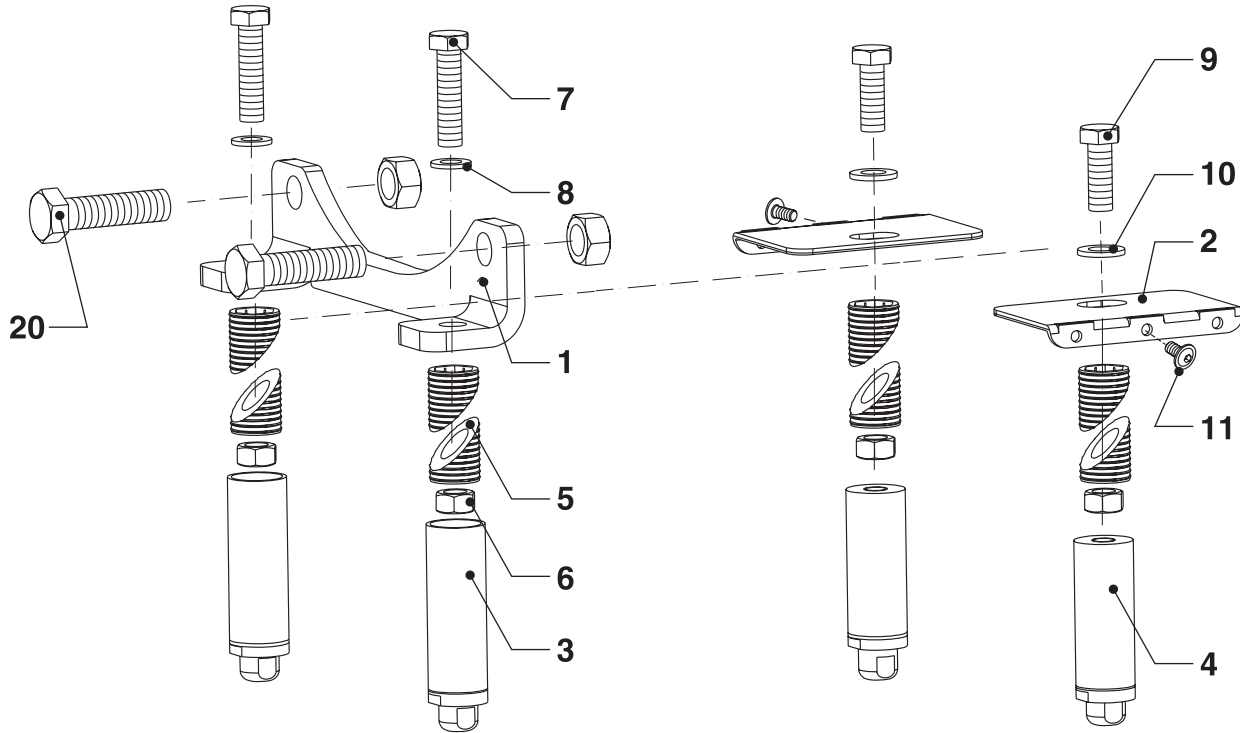


			Motor			
			90	100	112	132
			Centre height			
			260			
Item	Qty.	Description	Part No.			
-	-	Complete frame	L808802	L808803	L808804	L808805
1	1	Frame	L809055	L809056	L809057	L809058
2	2	Leg, complete	L809061	L809061	L809061	L809061
3	4	Split bushing	L282473	L282473	L282473	L282473
4	2	Nut	L700242	L700242	L700242	L700242
5	2	Screw	L701981	L701981	L701981	L701981
6	2	Screw	L701380	L701380	L701380	L700238
7	2	Nut	L700864	L700864	L700864	L700242
8	2	Screw, flange head	L700420	L700420	L700420	L700420

## 9. Adjustable Feet

Ws+

### 9.2 Motor Type 160-180

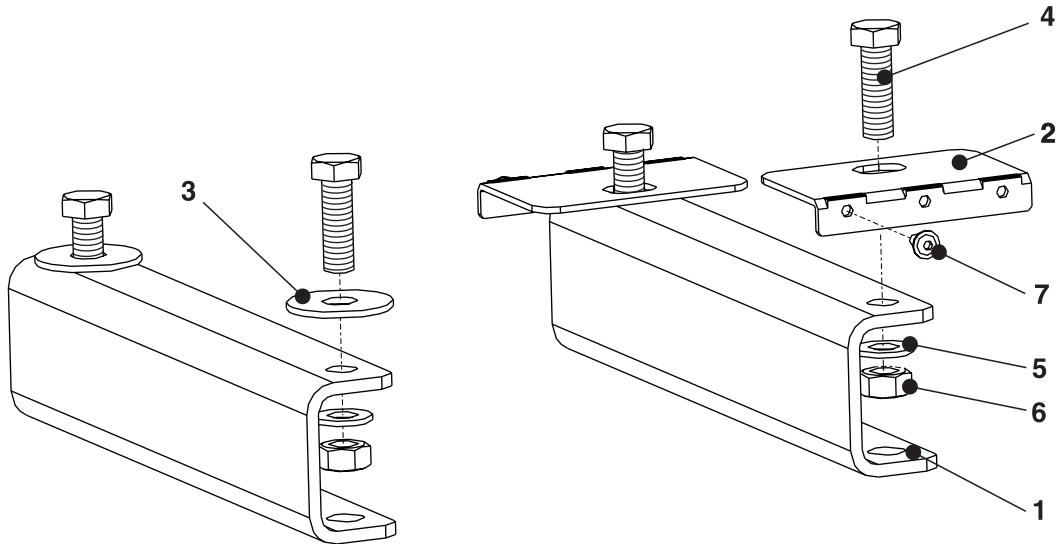


			Motor					
			160			180		
			Centre height					
			260	305	350	260	305	350
Item	Qty.	Description	Part No.					
-	-	Complete frame	L808806	L808807	L808808	L808809	L808810	L808811
1	1	Frame for front leg	L279962	L279962	L279962	L279962	L279962	L279963
2	2	Angle plate	L282488	L282488	L282488	L282488	L282488	L282488
3	4	Leg, complete	L809063	L809051	L809061	----	----	----
3	2	Leg front, complete	----	----	----	L809063	L809051	L809066
4	2	Leg back, complete	----	----	----	L809062	L809060	L809049
5	8	Split bushing	----	L282473	L282473	----	L282473	L282473
6	4	Nut	----	L700242	L700242	----	L700242	L700242
7	2	Screw	L701265	L703141	L703141	L701265	L703141	L703141
8	2	Washer	L701475	L701475	L701475	L701475	L701475	L701475
9	2	Screw	L702996	L771697	L771697	L702996	L771697	L771697
10	2	Washer	L781058	L781058	L781058	L781058	L781058	L781058
11	2	Screw, fl. head	L700420	L700420	L700420	L700420	L700420	L700420
20	2	Screw	L701474	L701474	L701474	L701474	L701474	L701474

## 10. Bracket Type A

Ws+

Motor 90 - 180

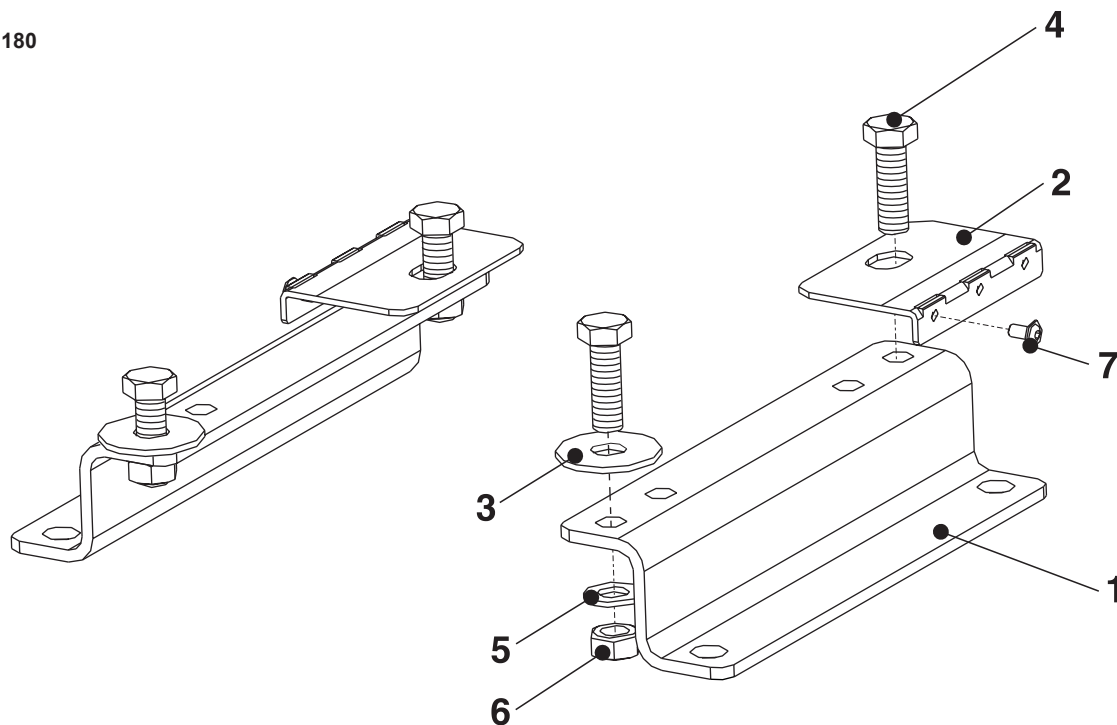


			Motor					
			90	100	112	132	160M-L	180M-L
			Centre height					
			170	180	192	212	240	260
Item	Qty.	Description	Part No.					
-	-	Complete bracket	L809084	L809085	L809086	L809087	L809088	L809089
1	2	Bracket	L279981	L279982	L279983	L279984	L279985	L279986
2	2	Angle plate	L282502	L282503	L282503	L282503	L282488	L282488
3	2	Washer	L781058	L781058	L781058	L781058	L781062	L781062
4	4	Bolt	L701669	L701669	L701669	L702996	L773643	L773643
5	4	Washer	L701479	L701479	L701479	L701475	L772450	L772450
6	4	Nut	L700864	L700864	L700864	L700242	L772449	L772449
7	2	Screw, fl. head	L700420	L700420	L700420	L700420	L700420	L700420

## 11. Bracket Type B

Ws+

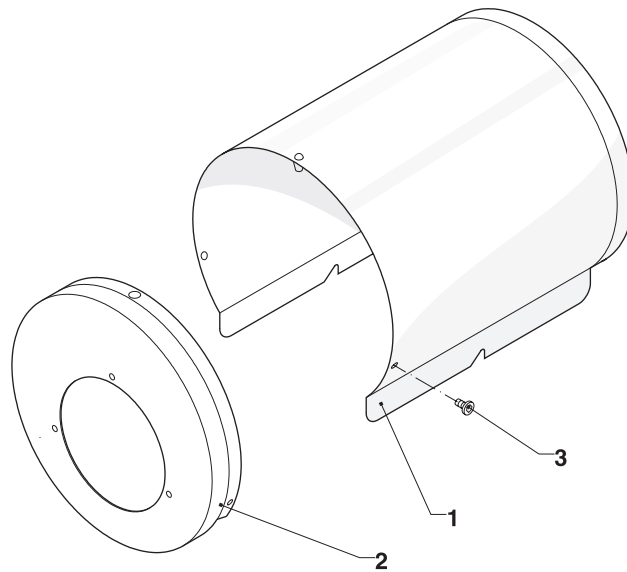
Motor 90 - 180



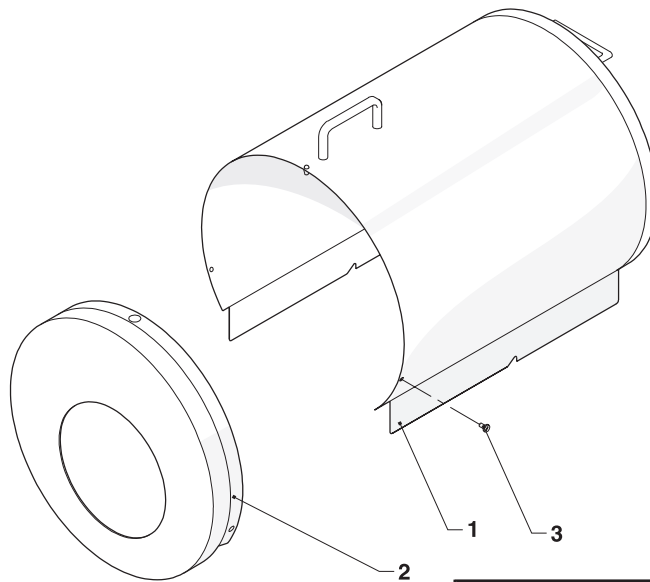
			Motor					
			90	100	112	132	160	180
			Centre height					
			225	225	225	225	225	225
Item	Qty.	Description	Part No.					
-	-	Complete bracket	L809098	L809099	L809100	L809101	L809102	L809103
1	2	Bracket	L279988	L279989	L279990	L279991	L279992	L279993
2	2	Angle plate	----	L282503	L282503	L282503	L282488	L282488
3	2	Washer	----	L781058	L781058	L781058	L781062	L781062
4	4	Bolt	L756001	L701669	L701669	L702996	L773643	L773643
5	4	Washer	L701479	L701479	L701479	L701475	L772450	L772450
6	4	Nut	L700864	L700864	L700864	L700242	L772449	L772449
7	2	Screw, fl. head	L700420	L700420	L700420	L700420	L700420	L700420

## 12. Shroud

Ws+



Item	Qty.	Description	Motor			
			90	100	112	132
			Part No.			
1	1	Shroud	L188445	L188446	L188447	L188447
2	1	Collar	L194421	L194422	L194472	L194424
3	2	Screw	L773113	L773113	L773113	L773113



Item	Qty.	Description	Motor	
			160	180
			Part No.	
1	1	Shroud	L188448	L188449
2	1	Collar	L194425	L194426
3	4	Screw	L773113	L773113

Ws+

**CENTRIFUGAL PUMP  
SPARE PARTS LIST**



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