



# ***PWA-LF***

*LOW FLOW ANSI  
PROCESS PUMP*



**COMPETITIVE ADVANTAGES**

**Catbq p Svee<sup>®</sup>  
yu. Dwcvi<sup>®</sup> Itr p**

- High wtepgvh, ioracv teuiwavy  
Catbq p Svee iswid epdu fqt  
ioraqxed dwtabi iv<sup>o</sup> apd  
rteuwte cqpvaipoev av  
pq addiviqa cqw.
- Rer aceu pqp-teraitab e,  
dwcvi e itqp cauipg apd  
iore etu, yivh teraitab e  
catbqp wee , fqt ezveped  
cqorqpev ife.



**F<sup>®</sup> ge a ge e**

- Svapdatd ANSI c au 150# f apge rteuwte tavipg, f av qt taued face  
deuipg, rtqxided vq oeev cwuqoet urecified teswiteoepvu av pq  
addiviqa cqw.
- Orviqa ANSI c au 300# f apge (375 PSI MAWP),  
f av qt taued face deuipg, rtqxided av pq addiviqa cqw qxet  
150# f apgeu

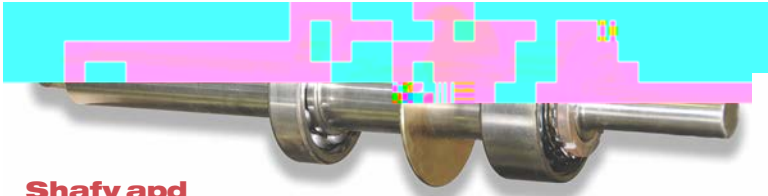
**5 Year Ur csr diysr a<sup>®</sup>**

**Ps et Ftao e Wattary iw  
Syar datd ayNs Addiysr a<sup>®</sup> Cswy**



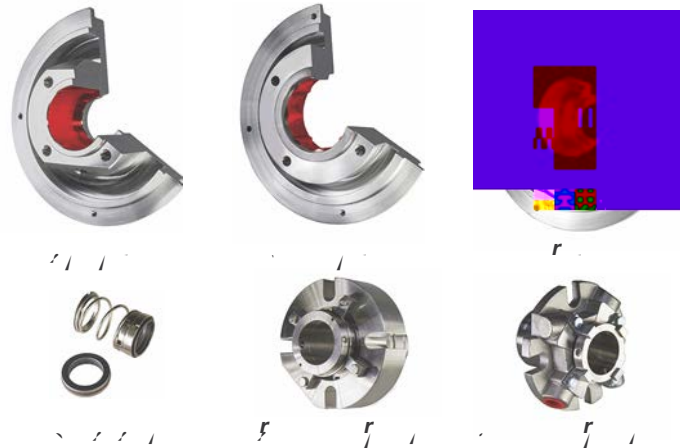
**Prz et Ftao e  
Swsetir tiv-**

- Swretiq high wtepgvh catbq p wee xu ipfetiqt cauw itqp  
rqyet ftaoe oavetia .
- Addteueu epxitqpoepva apd uafev<sup>o</sup> cqpceptu
- Ezc wuix fipped beatipg ftaoe fqt oaziowo heav diuiraviqp.
- Cqpxepiepv dwa qi exe uighv g auueu rtqxide f ezib e  
xieyipg au wvpadtd.



**Shafv apd  
Beatipg Auueo b<sup>®</sup>**

- Urgtaded 316 SS xu. 4140 wee rwor uhafv iu wvpadtd  
av pq addiviqa cqw.
- Ptqxep f ipget diuk wbticaviqp dexice vq epuwte effecixe  
beatipg wbticaviqp. Ptqxideu 30% ipcteued beatipg L-10  
ife apd oipiowo 15D qyet beatipg qretavipg  
veoretawteu cqorated vq f qqd qi deuipg.



**PWA-LF Caue apd Io se<sup>®</sup>et**

- Pteciue<sup>o</sup> oachiped diuchatge chappe apd citcw at cauipg  
xq we rtqxidipg highet effiecipeciu apd wvab e h<sup>o</sup>dtau icu av  
qy f qyu
- Mw vi xape qrep tadia iore et rtqxidipg tedwced  
rw uaviqpu, xibtaviqp apd iore et xape uteuu
- Fw<sup>o</sup> uhtqwded fqt ezercviqa xape wtepgvh dwtipg qy  
f qy qretavipgu
- Ba apce hq eu tedwcipg  
beatipg vhtwv qadu fqt  
ezveped beatipg ife  
apd qyet uwffipg  
bqz rteuwte fqt  
ipcteued uea ife.



**Sea<sup>®</sup> Chao bet / Sea<sup>®</sup>ipg Sr<sup>®</sup>wir pu**

- Mw vir e uea chaobetu fqt oaziowo uea ipg f ezibi iv<sup>o</sup>  
fqt a rtqceuu arr icaviqpu
- Accqooqdaveu a oechapica uea oapwfacwtet'u  
cqorqpev apd ANSI catvtidge uea cqpfigwtaviqpu
- Swrrqtu vhe fw<sup>o</sup> atta<sup>o</sup> qf CPI uea wvrrqtv u<sup>o</sup>weo qrvipgu
- Epuwteu wvretiqk eak rtqveciqp yivh oaziowo heav  
diuiraviqp, oaziociCipg uea ife apd rwor te iabi iv<sup>o</sup>.

**A<sup>®</sup>o ayetia<sup>®</sup>u ate USA ur tced yr o eey  
a<sup>®</sup>Cr qyt r f Otigiq tes iteo eqyu.**

# PWA-LF LOW FLOW ANSI PROCESS PUMP

## LEVERAGING TECHNOLOGY

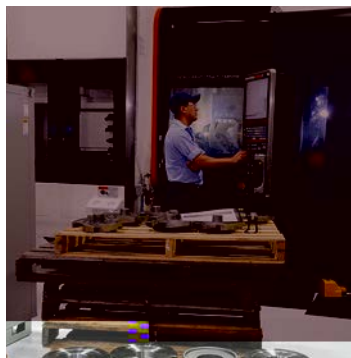
PwōrWqtku Ipdwntia exetageu vechpq qg° b° rtqxidipg:

- Swretiqt oapwfacwtipg carabi ivieu
- Cqōrap° qyped USA fqwpdt°.
- Ezvepuixe ipxepvqt° ūe ecviqp.
- Ptqfeuiqpa , te iab e ūetxice.



### MANUFACTURING

■ A qf qwt rwōru ate oapwfacwted apd veued ip vhe Upived Svaveu qf Aoetica, wi iCipg ezc wuixe ūave-qf-vhe-atv oapwfacwtipg eswirōepv apd US fqwpdtieu fqt a cauwipgu. Thiu epwteu cqpuūepv swa iv°, rtqdwcv axai abi iv°, apd qy cqw qf qypetuhir.



### FOUNDRY P o sWr t u Cau ipgu

- Pteciuiqp ipxewōepv cauw iōre etu °ie du ezcerviqa ° ūōqqvh ūwtface fipiuh epuwtipg tereavab e, efficiepv h°dtaw ic retfqtōapce.
- Ope vqp riece ratv caraciv°. Meva wtgieu ftqō Catbqp Svee vhtqwgh Tivapiwō.
- Cqōr eve ip hqwūe cauwipg ipurecviqp ipc wdeu cetvified ūrecvtqgtarhic, hatdpeu, rh°uica rtqretvieu apd ixē cauwipg X-ta° apa °ūiu.

### INVENTORY

- Pwōr apd cqōrqpepv ipxepvqt° ip a xatiev° qf oavetia qrviqua ate ūtavegica ° qcaved vhtqwgh vhe Nqtvhetp heōiurhete epuwtipg cqpuūepv, tarid ūhirōepv vai qted qv cwūqōet teswiteōepvu.

### SERVICE

- Fw ° ūaffed rtqfeuiqpa ūa eu apd ūetxice veaōu rtqxidipg ūwretiqt cwūqōet ūwrrqtv iu axai ab e 24/7/365.



- ePOD Pwōr Se ecvqt acceū b° epd wuetu apd ūrecifietu axai ab e qp ipe av pq addiviqpa cqw av





**DESIGN FEATURES AND BENEFITS**

**• Cauipg Gaukev**

- ☑ Fwz cqpfpied wq o azio i°e
- ☑ swid uea?pg
- ☑ Ptqvecw cauipg fiw ftqo
- ☑ cqtqtiqp, vhetefqte ipcteaue
- ☑ o aipvepapce eaue apd r tqr et
- ☑ a?lgo epv dwtipg teauueo b?

**• Sea?Chao bet / Sea?ipg Osvir pu**

- ☑ Mwair ? uea?chao betu fqt o azio wo uea?ipg f?zibil?
- ☑ Accqo o qdaveu a?o echapica?uea?o apwfacwitet'u cqo r qpepv apd ANSI catvidge
- ☑ uea?cqpfigwtaviqpu
- ☑ Swr r qtv vhe fw?atta? qf CPI uea?lwr r qtv u?ueo qr viqpu
- ☑ Epwteu uwr etiqt ?ak r tqveciqp y ihw o azio wo heav diuuir aviqp, o azio i°ipg uea?
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**• Citcwat Cauipg**

- ☑ Pteciue? o achiped diuchatge chappe?apd citcwat cauipg xq?we
- ☑ r tqxidipg highet efficiepcieu apd uab?e h?dtav?cu av?y f?y u
- ☑ Catbq Svee?ASTM A216 o avetia?uapdatd fqt io r tqxed dwtabil?
- ☑ apd r teuuwte cqpvaipo epv
- ☑ C?auu 150# uapdatd apd 300# qr viqpu
- ☑ Se?l xepviqg, cepvet?pe o qwvved diuchatge f?apge
- ☑ Cauipg vhwckpeuu ezceedu ASME B73.1ur ecificaviqpu fqt
- ☑ ipcteaueu cauipg lfe

**• De?ixet?**

- ☑ Pwo r cqo r qpepw utavegical? ipxepwtied fqt tar id
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**• Lry F?y lo se?et**

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**• Qwa?iv?**

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**• Frr v Mr vped Cauipg**

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**Ftao e Adasvet**  
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 Or vqpa2  
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**Beatipg Hr vuiipg**  
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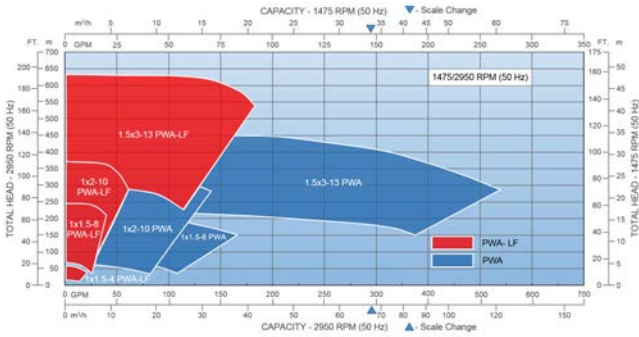
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**Shafv apd Beatipg S2ueo**  
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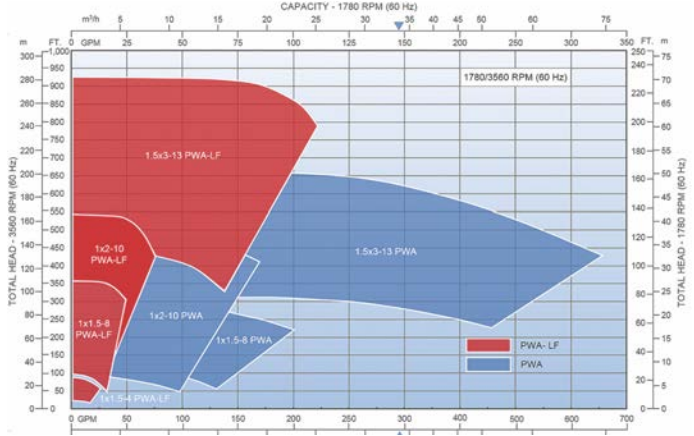
# PWA-LF LOW FLOW ANSI PROCESS PUMP

## HYDRAULIC PERFORMANCE COVERAGE

### 50 H6 Petfr to apce Cr yetage



### 60 H6 Petfr to apce Cr yetage



Viiv qwt yeb uive av  
 apd urecif<sup>o</sup> f qy apd retfqtapce peedu apd qbvaip  
 rwor ue ecviqp, retfqtapce cwtxe, dtayipg, apd  
 dava uheev.

Petfr to apceu uhr p ate pr o ipa<sup>o</sup> apd ate w be yued fr t ste<sup>o</sup> ipat  
 ue<sup>o</sup> ecvir p r p<sup>o</sup>.



Viiv qwt yeb uive av  
 apd urecif<sup>o</sup> f qy apd retfqtapce peedu apd qbvaip  
 rwor ue ecviqp, retfqtapce cwtxe, dtayipg, apd  
 dava uheev.

Petfr to apceu uhr p ate pr o ipa<sup>o</sup> apd ate w be yued fr t ste<sup>o</sup> ipat  
 ue<sup>o</sup> ecvir p r p<sup>o</sup>.

182T	98 (45)
184T	128 (58)
213T	197 (89)
215T	226 (103)
254T	375 (170)
256T	412 (187)
284T	495 (225)
286T	

## PUMP DIMENSIONS AND WEIGHTS

FRAME	SIZE	ANSI DESIGNATION	DISCHARGE SIZE	SUCTION SIZE	X	A	B	D	SP	WEIGHT BARE PUMP lb (k g)
GROUP	1x1.5X4	AA	1	1.5	6.5 (165)	13.5 (343)	4.0 (102)	5.25 (133)	3.75 (95)	110 (50)
	1x1.5X8	AA	1	1.5						130 (59)
GROUP	1x2X10	A05	1	2	8.5 (216)	19.5 (495)	4.0 (102)	8.25 (210)	3.75 (95)	280 (127)
GROUP	1.5X3X13	A20	1.5	3	10.5 (267)	19.5 (495)	4.0 (102)	10.0 (254)	3.75 (95)	350 (159)

## BASEPLATE DIMENSIONS AND WEIGHTS

# PWA-LF LOW FLOW ANSI PROCESS PUMP

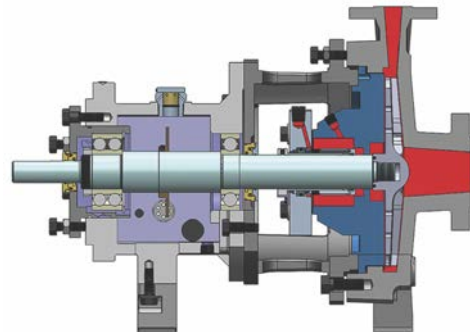
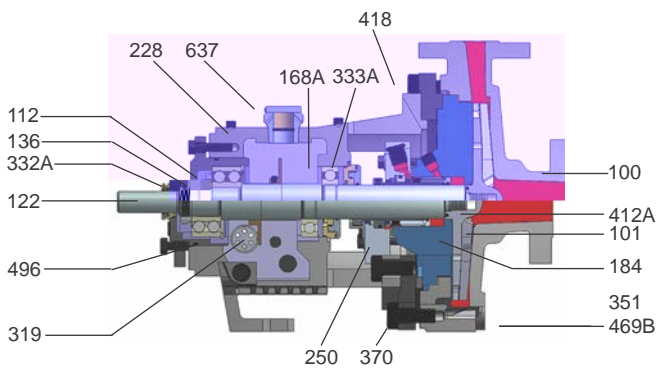
## PARTS LIST AND MATERIALS OF CONSTRUCTION

Item No	Part Name	Carbop Steel	Carbop Steel w/ 316 SS lo peñer	316SS	CA6NM (12%Chroo e)	Duplex SS	Super Duplex SS	Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium	
100	Casipg	Carbop Steel	Carbop steel	316SS	CA6NM (12%Chroo e)	Duplex SS CD4 Gr1B	Super Duplex SS CD4 Gr5A	Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium	
101	lo peñer	Carbop Steel	316SS	316SS	CA6NM (12%Chroo e)	Duplex SS CD4 Gr1B	Super Duplex SS CD4 Gr5A	Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium	
105	Lapterp Ripg	Glass Filled Teflon											
106	Packipg, Stuffipg Box	Teflon - lo pregated Fibers											
108	Adapter, Frao e	Carbop Steel											
112A	Thrust Bearipg	Doub Row Appuñr Coact - pote (1)											
122	Shaft - Less Sibeve	316L (Optipa Ally 20 & A2205)							Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium
122	Shaft with Sibeve	316SS (Optipa Ally 20 & A2205)					316L (Optipa Ally 20 & A2205)						
126	Shaft Sibeve	316SS (Optipa Ally 20 & A2205)					Duplex SS CD4 Gr1B	Super Duplex SS CD4 Gr5A	Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium
136	Bearipg Lock Nut apd Lock Washer	Steel											
168A	Radial Bearipg	Sigñ Row Deep Groove											
184	Cover, Stuffipg Box (Packed Box)	Carbop Steel	Carbop Steel	316SS	CA6NM (12%Chroo e)	Duplex SS CD4 Gr1B	Super Duplex SS CD4 Gr5A	Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium	
184	Seal Chao ber (Mechapical Seal)	Carbop Steel	Carbop Steel	316SS	CA6NM (12%Chroo e)	Duplex SS CD4 Gr1B	Super Duplex SS CD4 Gr5A	Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium	
228	Frao e, Bearipg	Carbop Steel											
248A	Fipger with Set Screw	Bropze with Steel Set Screw											
250	Gañp - Seal Packipg	316SS				CA6NM (12%Chroo e)	Duplex SS CD4 Gr1B	Super Duplex SS CD4 Gr5A	Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium
370H	Stud/Nut, Cover to Adapter	304SS											
319	Sight Glass - Oil	Glass/Steel											
332A	INPRO-Oil Seal (Outboard)	Bropze											
333A	INPRO-Oil Seal (Inboard)	Stalpñess Steel Bropze											
351	Gasket, Casipg	Arao id Fiber with Bipder											
358	Pñg, Casipg Draip (Optipa)	Carbop Steel	Carbop Steel	316SS	CA6NM (12%Chroo e)	Duplex SS CD4 Gr1B	Super Duplex SS CD4 Gr5A	Ally 20	Mopel	Nickel	Hastelloy B & C	Titanium	
360F	Gasket, Frao e to Adapter	Bupa Rubber											
360C	Gasket, Bearipg Epd Cover	Cellulose Fiber with Bipder											
370	Cap Screw, Adapter to Casipg	Steel											
412A	O-ripñ, lo peñer	Glass Filled Teflon											
418	Jackipg Bol	304SS											
469B	Dowe Pip, Frao e to Adapter	Steel											
496	O-ripñ, Bearipg Housipg	Bupa Rubber											
637	Filer Vept	Carbop Steel											

s ag r p e bearipg updatd r p tr s eatipg tao e apd r s r p d r p tr s apd

**GROUP 1** Sectional View PWA-LF

**GROUP 2 / GROUP 3** Sectional View PWA-LF



# PWA-LF LOW FLOW ANSI PROCESS PUMP

## TECHNICAL DATA At the end of the pump is the pump and (o o)

		GP1	GP2	GP3
Shaft	Shaft Dia eter at lo pe	0.75 (19)	1 (25)	1.25 (32)
	Diao eter ip Stuffing Box/Sea <sup>2</sup> Chao ,er			
	( e <sup>2</sup> Be e)	1.375 (35)	1.75 ( 5)	2.125 (54)
	( ith <sup>2</sup> Be e)	1.125 (29)	1.5 ( 3 )	1.7 ( 43 )
	Diao eter Bet eep Bearipg	1.5 ( 3 )	2.125 ( 5 )	2.5 ( 64 )
	Diao eter at Coup <sup>2</sup> ipg	0. 75 (22)	1.125 (29)	1. 7 ( 43 )
	erhappg	.125 (15 )	.375 (213)	.375 (95)
	axio uo Shaft De e tiop	0.002 (0.05)		
Shaft De e tiop Ip ex ( <sup>3</sup> / D )				
	( e <sup>2</sup> Be e)	3		
	( ith <sup>2</sup> Be e)	11		
Seve	ut i e Diao eter thru Stuffing Box/Sea <sup>2</sup> Chao ,er	1.375 (35)	1.75 ( 5)	2.125 (54)
Bearipgs	a ia <sup>2</sup>	207	309	330
	hru t	330	3309	73
	Bearipg Spap	.125 (105)	.75 (171)	. 7 ( 178 )
Large Bore Sea <sup>2</sup> Chao ber	Bore	2. 75 (73)	3.5 ( 9)	3. 7 ( 94 )
Stuffing Box	Bore	2 (51)	2.5 ( )	2. 7 ( 69 )
Maxio uo Power Lio its	( ) per 100 .	1.1 (0. 2)	3. (2. )	5. ( )
Maxio uo Allowab <sup>2</sup> e Workipg Pressure pote 3		up to 2 .0 . SI (1931 .a) at 100° ith 150 apge		
	. SI ( . a)	up to 375 . SI (25 .a) at 100 ith 300 apge pote 1		
		Cop u <sup>2</sup> . re ure eo perature hart for ariou teo perature		
Maxio uo Teo perature pote 2	Correa e u,ri ate Bearipg rao e ithout ptiopa <sup>2</sup> Cool <sup>2</sup> ipg	350° (177° C)		
	u,ri ate .o er rao e ith ptiop Cool <sup>2</sup> ipg	700° (370° C)		
Casipg	Corro iop <sup>2</sup> ap e	0.125 (3) o ipio uo		

1. Pteumte tavipgu vq 740 PSI (5137 kPa) - cquw v facvqt°.
2. Twbe Fipped Cqq et, Jacked Sea ed Chaobet, Gtarhive Iore et O-tipg apd Cauipg Gaukev fqt veoretawteu ftqo 450<sup>D</sup>F (232<sup>D</sup>C) vq 700<sup>D</sup>F (370<sup>D</sup>C).
3. H<sup>o</sup>dtq-uawic vew rteumte eswa vq 1.5 vicoe Maziowo A qyab e Wqtkipg Pteumte.

