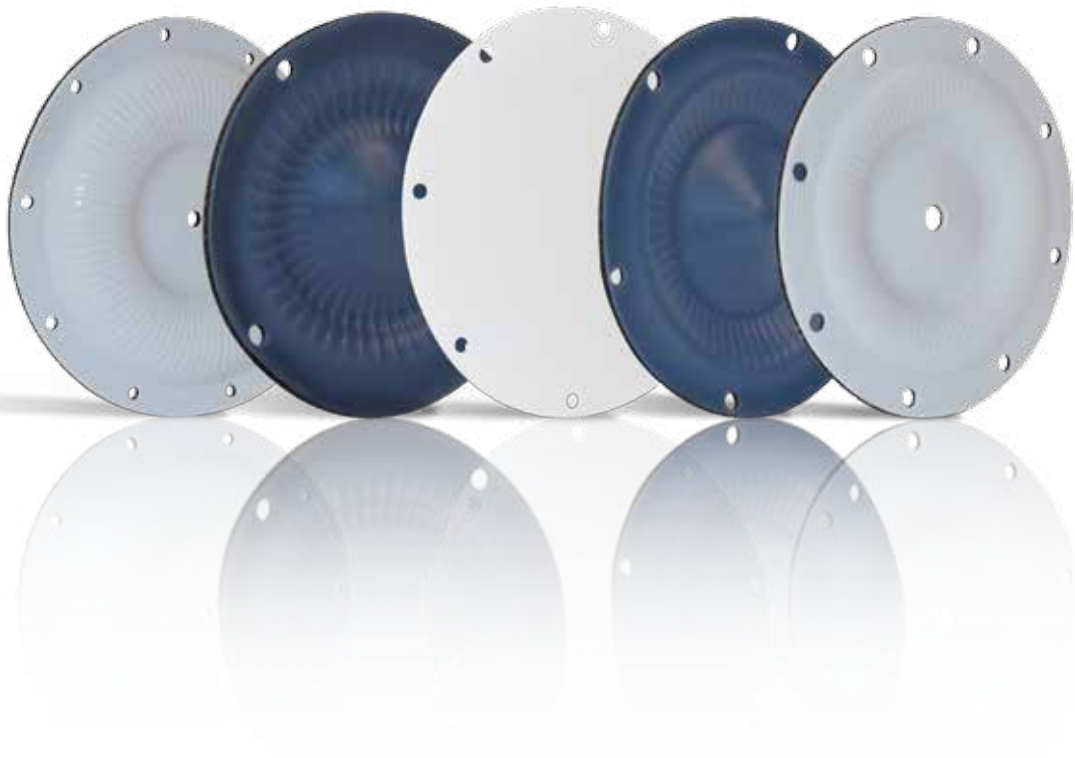


# ONE-UP<sup>®</sup> Diaphragms

Diaphragm Catalog



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Due to the unique dynamics of actuated pumps, Garlock cannot specify temperature limits for actual diaphragms. In a diaphragm pump and valve, there are variables such as but not limited to; diaphragm geometry, displacement, and pump speed that greatly affect the diaphragm performance. Experienced pump and valve manufactures have confirmed that pumps and valves used in low and/or elevated service temperatures (40°F to 200°F) should be re-rated with respect to speed and pressure.

CIP & SIP Capable: Maximum 300°F (149°C)

Meets Specification (GYLON): FDA Regulation 21CFR177.1550,  
3A Standard, NSF 61 Standard, USP Class VI Chapter 87 & 88, USP Part 31, 281 and 661

Meets Specification (EPDM): FDA Regulation 21CFR177.2600

Neoprene backed ONE-UP diaphragms conform to EC Directive 94/9/EC, when installed in an ATEX compliant pump



# ONE-UP® Diaphragms

## GARLOCK® ONE-UP® DIAPHRAGMS

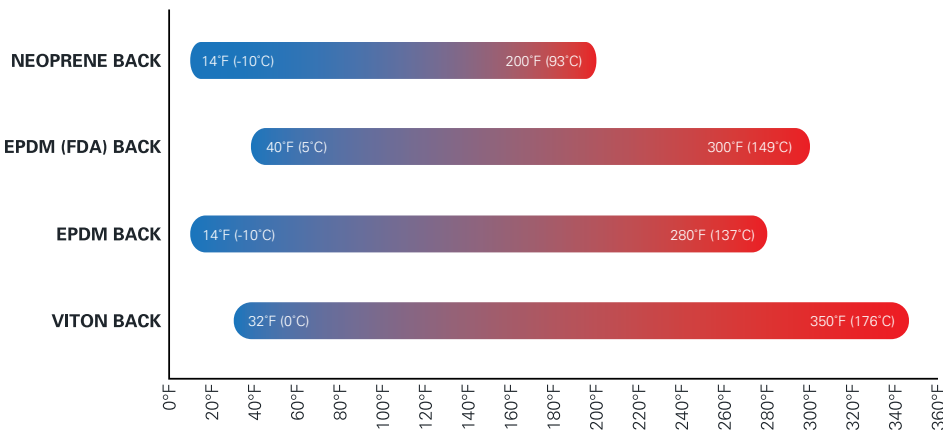
GARLOCK® ONE-UP® Pump Diaphragms are durable and versatile. Containing high performance PTFE GORE® sheet on the wetted side, they last significantly longer than other conventional PTFE diaphragms.

## GYLON® ONE-UP® DIAPHRAGMS

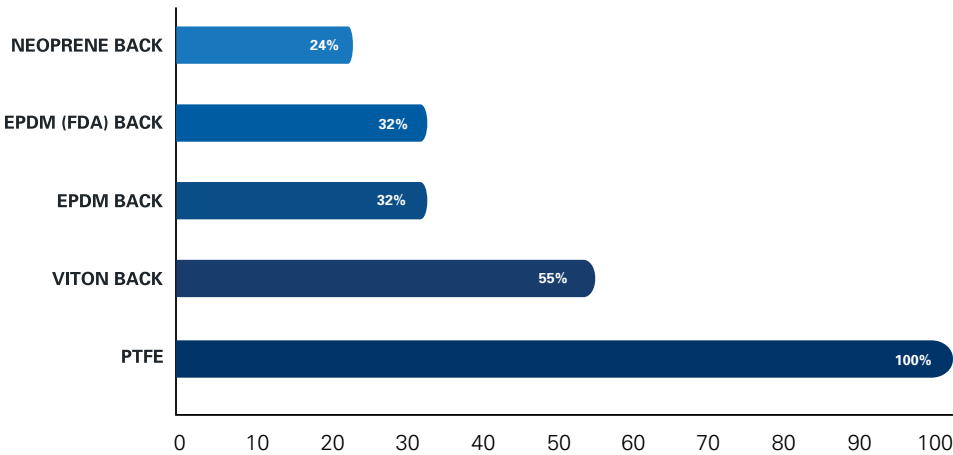
Made using our exclusive GYLON® PTFE Diaphragm material and a proprietary EPDM rubber backing, this product is made with the same patented rib construction of our standard industrial ONE-UP®.



## OPERATING TEMPERATURE RANGE



## GENERAL CHEMICAL RESISTANCE



### NOTES:

- PA"XXXX" is for Garlock "Industrial ONE-UP"
- GY"XXXX" is for GYLON "FDA ONE-UP"

### WARNING:

Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury. Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing.

While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice.

# ABEL

## DIAPHRAGM DESIGN

» Designs vary from a flat one piece diaphragm, molded or two piece diaphragms

## ONE-UP® Diaphragm Part Numbers

GROUP	CM (Compact Membrane) Metal	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	TBD	Call Garlock	Call Garlock	Call Garlock	Call Garlock
GROUP	EM (Electromechanical Membrane)	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	EM015	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	EM020	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	EM025	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	EM040	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	EM050	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	EM080	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	EM100	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	EM125	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	EM150	Call Garlock	Call Garlock	Call Garlock	Call Garlock
GROUP	HM (Hydraulic Piston Membrane)Metal	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	HMS	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	HMD	Call Garlock	Call Garlock	Call Garlock	Call Garlock
GROUP	HMT/HMQ (Hydraulic Membrane)	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	HMT	Call Garlock	Call Garlock	Call Garlock	Call Garlock
GROUP	OTHER PUMPS	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	Viking Type M	PA0020	Call Garlock	PA0303	Call Garlock

## Dimensions

GROUP	MODEL	NEOPRENE PART #	OUTLET	OUTER DIAMETER	BOLT CIRCLE DIAMETER	# BOLT HOLES	DIAMETER BOLT HOLES
1	Viking Type M	PA0020	TBD	9.53" (242 mm)	N/A	N/A	N/A

# ALMATEC

## DIAPHRAGM DESIGN

- » Integral piston plate, female threads, except for PA0110, which has a threaded male stud
- » Flange/bolt sealing design

## INTERCHANGEABILITY

- » Dellmeco, Tapflo, Verder

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	A10, AD10, CX20, F10, E10U E10T, ET15, CX20E	.375" (9.5 mm)	PA0110	PA0147 / GY0147	PA0009	Call Garlock
2	A15, AD15, AD20, CX50, F20, B20BN, E15E, E15T, CX50E, AD20, ET25	.5" (12.7 mm)	PA0109	PA0148 / GY0148	PA0008	Call Garlock
3	A25, AD25, AD32, CX130, E25, B326N	1" (25 mm)	PA0101	PA0149 / GY0149	PA0107	Call Garlock
4	A40, AD40, AD50 (NEW VERSION), E40T, E40E, E40U, ET50	1.5" (38 mm)	PA0097	PA0150 / GY0150	PA0108	PA0151
5	A50, AD50 (OLD VERSION), E50U, E50T, E50E	2" (51 mm)	PA0025	PA0127 / GY0127	PA0117	PA0025

Part numbers beginning in "GY" are FDA compliant

## Dimensions

GROUP	OUTER DIAMETER	BOLD CIRCLE DIAMETER	# BOLT HOLES (OD)	DIAMETER BOLT HOLES	THREAD TYPE	THREAD LENGTH/DEPTH
1	3.91" (99 mm)	3.55" (90 mm)	4	.20" (5.1 mm)	Male, M6 x 1mm	.306" (7.77 mm)
2	5.66" (144 mm)	5.22" (133 mm)	6	.24" (6.1 mm)	Female, M10 x 1.5mm	.41" (10.41 mm)
3	7.47" (190 mm)	6.94" (176 mm)	6	.33" (8.4 mm)	Female, M12 x 1.75mm	.57" (14.47 mm)
4	10.19" (259 mm)	9.53" (242 mm)	8	.32" (8.1 mm)	Female, M16 x 2mm	.65" (16.51 mm)
5	13.28" (337 mm)	12.56" (319 mm)	8	.42" (10.7 mm)	Female, M20 x 2.5mm	.6" (15.24 mm)



PA0109



GY0147



GY0149

# ARO

## DIAPHRAGM DESIGN

» Flange/bolt sealing designs, at times incorporating both flange/bolt and bead sealing designs in the same diaphragm; see photos (PA0072 & PA0096)

## INTERCHANGEABILITY

» Binks (Gemini II pumps) & PA0084 - Warren Rupp 1" outlet pump

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	PD02P, PX01X	.25" (6.4 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock
1	66605X-XXX, PD05P, PD05X, PM05	.5" (12.7 mm)	PA0096	PA0153	PA0065	Call Garlock
2	6661AX-XXX-C 6661BX-XXX-C 66610X-XXX-C 66611X-XXX-C 66612X-XXX-C 66613X-XXX-C	1" (25 mm)	PA0084	PA0154	PA0035	Call Garlock
3	PM10X, PW10A, PD10P, PD10X	1" (25mm)	Call Garlock	PA0407	Call Garlock	Call Garlock
4	6661TX-XXX-C 6661UX-XXX-C 66615X-XXX-C 66616X-XXX-C 66617X-XXX-C 66618X-XXX-C	1.5" (38 mm)	PA0098	PA0156	PA0066	PA0157
5	6662XX-XXX-C (non-metallic)	2" (51 mm)	PA0098	PA0156	PA0066	PA0157
6	PD20, PF20, PF20R, PM20R, PM20	2" (51 mm)	PA0072	PA0142	PA0143	PA0144
7	PD20P, PD20E, (non-metallic)	2" (52mm)	PA0410**	Call Garlock	Call Garlock	Call Garlock
8	PD30, PH30F, PM30R, PM30, PD30S	3" (76.2 mm)	PA0118	PA0158	PA0119	PA0118

\* Part is either under development or tooling is required, call Garlock

\*\*PA0410 can be used in the same pumps as the PA0072, please contact the Garlock for questions

## Dimensions

GROUP	OUTER DIAMETER	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES
1	6.00" (152 mm)	5.00" (127 mm)	8	.34" (8.6 mm)
2	7.75" (197 mm)	7.00" (178 mm)	8	.34" (8.6 mm)
3	6.36" (162 mm)	N/A	N/A	N/A
4	11.56" (294 mm)	10.50" (267 mm)	10	.41" (10.4 mm)
5	11.56" (294 mm)	10.50" (267 mm)	10	.41" (10.4 mm)
6	11.86" x 11.86" x 4" OCTAGON	12.00" (305 mm)	8	.43" (10.9 mm)
7	11" (280 mm)	N/A	N/A	N/A
8	14.90" x 14.90" x 4" OCTAGON	15.13" (384 mm)	8	.58" (14.7 mm)



PA0072



PA0096



PA0410

# ASHTON

## DIAPHRAGM DESIGN

» Beaded

## INTERCHANGEABILITY

» Blagdon & some Graco pumps

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	RW10, AT10	.375" (9 mm)	PA0122	PA0170	PA0171	Call Garlock
2	AT15, RW15	.5" (12 mm)	PA0029	PA0172	PA0010	PA0146
3	RW25	1" (25 mm)	PA0030	PA0173	PA0011	PA0174
4	RW40, AT40	1.5" (38 mm)	PA0023	PA0175	PA0176	PA0177
5	RW50, AT50	2" (50 mm)	PA0073	PA0178	PA0012	PA0073

## Dimensions

GROUP	OUTER DIAMETER	SEALING DESIGN	DIAMETER OF CENTER HOLE
1	4.26" (108 mm)	BEAD	.25" (6.4 mm)
2	5.03" (128 mm)	BEAD	.25" (6.4 mm)
3	6.65" (169 mm)	BEAD	.44" (11.2 mm)
4	8.85" (225 mm)	BEAD	.5" (12.7 mm)
5	10.88" (276 mm)	BEAD	.5" (12.7 mm)



PA0023



PA0073

# BLAGDON

## DIAPHRAGM DESIGN

» Flange/bolt sealing designs, at times incorporating both flange/bolt and bead sealing designs in the same diaphragm; see photos

## INTERCHANGEABILITY

» Graco, older models, Husky 1030 & 2140

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	Beaver 25, B25.05.PT.BB.XXX-X, B25.05.AA.W3.XXX / Plastic Pumps	1" (25 mm)	PA0018	PA0159	PA0022	PA0160
2	Beaver 25, B25.05.XA.XB.XXS, X25.05.XA.XB.XXS / Metal Pumps	1" (25 mm)	PA0021	PA0161	PA0028	PA0162
3	Beaver 50, B50.05.PX.XB.XXX-X, X50.05.XX.XB.XXX-XX All Models	2" (51 mm)	PA0007	PA0163	PA0019	PA0164

## Dimensions

GROUP	SEALING DESIGN	OUTER DIAMETER	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER BOLT HOLES
1	Flange & Bead	9.00" (229 mm)	8.2" (208 mm)	8	.38" (9.7 mm)
2	Flange	8.88" (226 mm)	8.2" (208 mm)	8	.38" (9.7 mm)
3	Flange & Bead	12.40" (315 mm)	11.66" (296 mm)	12	.45" (11.4 mm)



PA0021



PA0007



# DELLMECO

## DIAPHRAGM DESIGN

- » Integral piston plate, female threads, except for PA0110, which has a threaded male stud
- » Flange/bolt sealing design

## INTERCHANGEABILITY

- » Almatec, Verder & Tapflo

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	DM10	.375" (9.55 mm)	PA0110	PA0147 / GY0147	PA0009	Call Garlock
2	DM15 & DM20	.5" (12.7 mm)	PA0109	PA0148 / GY0148	PA0008	Call Garlock
3	DM25	1" (25 mm)	PA0101	PA0149 / GY0149	PA0107	PA0157
4	DM40	1.5" (38 mm)	PA0097	PA0150 / GY0150	PA0108	PA0151
5	DM50	2" (51 mm)	PA0025	PA0127 / GY0127	PA0117	PA0152

Part numbers beginning in "GY" are FDA compliant

## Dimensions

GROUP	OUTER DIAMETER	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER BOLT HOLES	THREAD TYPE	THREAD LENGTH/DEPTH
1	3.91" (99 mm)	3.55" (90 mm)	4	.20" (5.1 mm)	Male, M6 x 1 mm	.306" (7.77 mm)
2	5.66" (144 mm)	5.22" (133 mm)	6	.24" (6.1 mm)	Female, M10 x 1.5 mm	.41" (10.41 mm)
3	7.47" (190 mm)	6.94" (176 mm)	6	.33" (8.4 mm)	Female, M12 x 1.75 mm	.57" (14.47 mm)
4	10.19" (259 mm)	9.53" (242 mm)	8	.32" (8.1 mm)	Female, M16 x 2 mm	.65" (16.51 mm)
5	13.28" (337 mm)	12.56" (319 mm)	8	.42" (10.7 mm)	Female, M20 x 2.5 mm	.6" (15.24 mm)



GY0127



PA0008



PA0149

## DEPA

### DIAPHRAGM DESIGN

» Outer sealing bead design

### INTERCHANGEABILITY

» LKM

### CONVERSION KITS

» DL25 through DL80 require conversion kits. No conversion kit required for DL15 series.

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL / OUTLET	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	DL-15 METALLIC & NON-METALLIC	.5" (12.7 mm)	PA0049	PA0141	PA0080	Call Garlock
2	DL-25 METALLIC & NON-METALLIC	1" (25 mm)	PA0050	PA0086 / GY0086	PA0057	PA0165
3	DL-40 METALLIC & NON-METALLIC	1.5" (38 mm)	PA0051	PA0121 / GY0121	PA0067	PA0166
4	DL-50 METALLIC & NON-METALLIC	2" (51 mm)	PA0052	PA0040 / GY0040	PA0068	PA0140
5	DL-80 METALLIC & NON-METALLIC	3" (76 mm)	PA0053	PA0167	PA0099	PA0053

Part numbers beginning in "GY" are FDA compliant

## Dimensions

GROUP	OUTER DIAMETER	INNER BOLT CIRCLE DIAMETER	CENTER BOLT HOLES	DIAMETER / BOLT HOLES
1	5.09" (129 mm)	N/A	N/A	N/A
2	7.03" (179 mm)	N/A	N/A	N/A
3	8.64" (219 mm)	N/A	N/A	N/A
4	11.76" (299 mm)	5.10" (130 mm)	6	.63" (16 mm)
5	14.49" (368 mm)	6.9" (175 mm)	6	1.02" (26 mm)



**PA0049**

# FLOTRONIC (FPL)

## DIAPHRAGM DESIGN

- » Outer sealing bead design
- » Embedded threaded insert

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL / OUTLET	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	300, 500, 710, 900 Series 1" through 2"	1" (25 mm) - 1.5" (38 mm) - 2" (52 mm)	PA0082	PA0169	Call Garlock	PA0138
2	300, 500, 710, 900 Modified 1" through 2"	1" (25 mm) - 1.5" (38 mm) - 2" (51 mm)	PA0256	Call Garlock	Call Garlock	Call Garlock
3	300, 500, 710, 900 HI-FLO 2" through 3"	2" (51 mm) - 3" (76.2 mm)	PA0258	Call Garlock	Call Garlock	Call Garlock

## Dimensions

GROUP	OUTER DIAMETER	INSERT INTERNAL DIAMETER	INTERNAL THREAD
1	9.56" (243 mm)	1.4" (36 mm)	M-39 x 2 mm
2	9.56" (243 mm)	1.6" (41 mm)	M-22 x 2 mm
3	14.7" (373 mm)	2.2" (56 mm)	2.25 – 14UNS



PA0258



PA0169

# FLUX

## DIAPHRAGM DESIGN

» Outer sealing bead design

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	FDM 12	.5" (12.7 mm)	PA0096	Call Garlock	PA0065	Call Garlock
2	FDM 25	1" (25 mm)	PA0084	PA0154	PA0035	Call Garlock
3	FDM 40	1.5" (38 mm)	PA0098	PA0156	PA0066	PA0157
*	RFM 10 / RFML 10	TBD	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	RFM 15 / RFML 15	TBD	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	RFM 25 / RFML 25	TBD	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	RFM 40	TBD	Call Garlock	Call Garlock	Call Garlock	Call Garlock
*	RFM 50	TBD	Call Garlock	Call Garlock	Call Garlock	Call Garlock

\* Part is either under development or tooling is required, call Garlock

## Dimensions

GROUP	OUTER DIAMETER	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES
1	6.00" (152 mm)	5.00" (127 mm)	8	.34" (8.64 mm)
2	7.75" (197 mm)	7.00" (178 mm)	8	.34" (8.64 mm)
3	11.56" (293.62 mm)	10.50" (267 mm)	10	.41" (10.41 mm)
*	TBD	TBD	TBD	TBD
*	TBD	TBD	TBD	TBD
*	TBD	TBD	TBD	TBD
*	TBD	TBD	TBD	TBD
*	TBD	TBD	TBD	TBD



PA0098

# GRACO

## DIAPHRAGM DESIGN

» Outer sealing bead design, new models. Older models incorporate a flange/bolt and or combination of flange/bolt and bead sealing designs.

## INTERCHANGEABILITY

» Ashton Pumps (United Kingdom), BLAGDON - Older model Graco pumps, Husky 1030 & 2140

## CONVERSION KITS

» Inner & outer pistons are required when converting from overmolded (IPD) diaphragms to standard diaphragms

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL CODE	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	N/A	Husky 205	.25" (6.4 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock
1	D3XXX	Husky 307	.375" (9.5 mm)	PA0122	PA0170	PA0171	Call Garlock
2	24107	Husky 715, 716 & 515	.75" (19.1 mm)	PA0029	PA0172	PA0010	PA0146
3	N/A	1030 / OLD	1" (25 mm)	PA0021	PA0161	PA0028	PA0162
4	N/A	Husky 1030	1" (25 mm)	PA0030	PA0173	PA0011	PA0174
4	FX1XXX	Husky 1040 & 1040 DOUBLE	1" (25 mm)	PA0030	PA0173	PA0011	PA0174
5	FX2XXX, 1590SXXXX	Husky 1590	1.5" (38 mm)	PA0023	PA0175	PA0176	PA0177
6	N/A	Husky 2140	2" (51 mm)	PA0073	PA0178	PA0012	PA0073
6	DF3DXXXX, DF4DXXXX, DX2DXXXX, DX2DXXXX, FX3XXXX	Husky 2150 (METALLIC & NON-METALLIC)	2" (51 mm)	PA0073	PA0178	PA0012	PA0073
*	3300X-XXXXXX, 3150SXXXXX	Husky 3275	3" (76 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock

\* Part is either under development or tooling is required, call Garlock

## Dimensions

GROUP	OUTER DIAMETER	SEALING DESIGN	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES
*	N/A	N/A	N/A	N/A	N/A
1	4.3" (109 mm)	FLANGED	N/A	N/A	N/A
2	5.0" (127 mm)	BEAD	N/A	N/A	N/A
3	8.9" (226 mm)	FLANGED/BOLT	8.2" (208 mm)	8	.38" (9.7 mm)
4	6.7" (170 mm)	BEAD	N/A	N/A	N/A
5	8.9" (226 mm)	BEAD	N/A	N/A	N/A
6	10.9" (277 mm)	BEAD	N/A	N/A	N/A



PA0029

# TAPFLO

## DIAPHRAGM DESIGN

» Integral Piston Diaphragms with bolt holes

## INTERCHANGEABILITY

» Almatec, Verder & Tapflo

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	TR9	.25" (6.4 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock
1	T20, TR20	.375" (9.5 mm)	PA0110	PA0147 / GY0147	PA0009	Call Garlock
1	T25	.375" (9.5 mm)	PA0110	PA0147 / GY0147	PA0009	Call Garlock
2	T50	.5" (12.7 mm)	PA0109	PA0148 / GY0148	PA0008	Call Garlock
2	T70	.5" (12.7 mm)	PA0109	PA0148 / GY0148	PA0008	Call Garlock
3	T100, T120	1" (25 mm)	PA0101	PA0149 / GY0149	PA0107	PA0157
4	T200, T220	1.5" (38 mm)	PA0097	PA0150 / GY0150	PA0108	PA0151
5	T400, T420	2" (51 mm)	PA0025	PA0127 / GY0127	PA0117	PA0025
*	T800, T820	3" (76.2 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock

\* Part is either under development or tooling is required, call Garlock

Part numbers beginning in "GY" are FDA compliant

## Dimensions

GROUP	OUTER DIAMETER	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES	THREAD TYPE	THREAD LENGTH/ DEPTH
*	TBD	TBD	4	TBD	TBD	TBD
1	3.91" (99 mm)	3.55" (90 mm)	4	.20" (5.1 mm)	Male, M6 x 1 mm	.306" (7.77 mm)
2	5.66" (144 mm)	5.22" (133 mm)	6	.24" (6.1 mm)	Female, M10 x 1.5 mm	.41" (10.41 mm)
3	7.47" (190 mm)	6.94" (176 mm)	6	.33" (8.4 mm)	Female, M12 x 1.75 mm	.57" (14.47 mm)
4	10.19" (259 mm)	9.53" (242 mm)	8	.32" (8.1 mm)	Female, M16 x 2 mm	.65" (16.51 mm)
5	13.28" (337 mm)	12.56" (319 mm)	8	.42" (10.7 mm)	Female, M20 x 2.5 mm	.6" (15.24 mm)



PA0097



PA0150

# VERDER

## DIAPHRAGM DESIGN

» Beaded, integrated piston design and bolted designs used

## INTERCHANGEABILITY

» Almatec, Tapflo, Dellmeco, Warren Rupp

## CONVERSION KITS

» Conversion kits needed for some models, no kit needed for Pure Series pumps

## ONE-UP® Diaphragm Part Numbers

GROUP	VA SERIES MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	VA8	.25" (6.4 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock
1	VA10	.375" (9.5 mm)	PA0122	PA0170	PA0171	Call Garlock
2	VA15	.5" (12.7 mm)	PA0029	PA0172	PA0010	PA0146
3	VA20	.75" (19.1 mm)	PA0029	PA0172	PA0010	PA0146
4	VA25	1" (25 mm)	PA0030	PA0173	PA0011	PA0174
5	VA40	1.5" (38 mm)	PA0023	PA0175	PA0176	PA0177
6	VA50	2" (51 mm)	PA0073	PA0178	PA0012	PA0173
GROUP	PURE SERIES MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
*	VA-P08	.25" (6.4 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock
7	VA-P10, VDP-D 10	.375" (9.5 mm)	PA0110	PA0147 / GY0147	PA0009	Call Garlock
8	VA-P15, VDP-D 15	.5" (12.7 mm)	PA0109	PA0148 / GY0148	PA0008	Call Garlock
8	VDP-D 20	.75" (19.1 mm)	PA0109	PA0148 / GY0148	PA0008	Call Garlock
9	VA-P25, VDP-D 25	1" (25 mm)	PA0101	PA0149 / GY0149	PA0107	Call Garlock
9	VDP-D 32	1.25" (31.8 mm)	PA0101	PA0149 / GY0149	PA0107	Call Garlock
10	VA-P40, VDP-D 40	1.5" (38 mm)	PA0097	PA0150 / GY0150	PA0108	PA0151
11	VA-P50, VDP-D 50	2" (51 mm)	PA0025	PA0127 / GY0127	PA0117	PA0152

\* Part is either under development or tooling is required, call Garlock

## Dimensions

GROUP	OUTER DIAMETER	SEALING DESIGN	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES	THREAD TYPE	THREAD LENGTH/DEPTH
1	4.26" (108 mm)	Bead	N/A	N/A	N/A	N/A	N/A
2	5.03" (128 mm)	Bead	N/A	N/A	N/A	N/A	N/A
3	5.03" (128 mm)	Bead	N/A	N/A	N/A	N/A	N/A
4	6.65" (169 mm)	Bead	N/A	N/A	N/A	N/A	N/A
5	8.85" (225 mm)	Bead	N/A	N/A	N/A	N/A	N/A
6	10.88" (276 mm)	Bead	N/A	N/A	N/A	N/A	N/A
7	3.91" (99 mm)	FLANGE/BOLT	3.55" (90 mm)	4	.20" (5.1 mm)	Male, M6 x 1 mm	.306" (7.77 mm)
8	5.66" (144 mm)	FLANGE/BOLT	5.22" (133 mm)	6	.24" (6.1 mm)	Female, M10 x 1.5 mm	.41" (10.41 mm)
9	7.47" (190 mm)	FLANGE/BOLT	6.94" (176 mm)	6	.33" (8.4 mm)	Female, M12 x 1.75 mm	.57" (14.47 mm)
10	9.53" (242 mm)	FLANGE/BOLT	9.53" (242 mm)	8	.32" (8.1 mm)	Female, M16 x 2 mm	.65" (16.51 mm)
11	12.56" (319 mm)	FLANGE/BOLT	12.56" (319 mm)	8	.42" (10.7 mm)	Female, M20 x 2.5 mm	.6" (15.24 mm)

Part numbers beginning in GY are FDA compliant

# VERSAMATIC

## DIAPHRAGM DESIGN

» Outer sealing bead design, new models. Older models incorporate a flange/bolt and or combination of flange/bolt and bead sealing designs.

## INTERCHANGEABILITY

» Wilden, Dominator, Lutz, Storck, Tecnomatic, Sureflow, Teledyne, Sprague And Serflico

## CONVERSION KITS

» When converting from a rubber or full stroke diaphragm, shaft & piston/washers will need to be converted to “Teflon fitted” components.

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL / OUTLET	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	V5, PVM, KVM, TVM, SVM, HVM, VM	.5" (12.7 mm)	PA0081	PA0199 / GY0199	PA0031	PA0235
*	E5 / (New Pump)	.5" (12.7 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock
2	E1, E1P, E1K, V1, V1P, V1K, P1, PVM, KVM	1" (25 mm)	PA0095	PA0183 / GY0183	PA0039	PA0139
3	E4, V4	1.25" (32 mm)	PA0078	PA0045 / GY0045	PA0083	PA0014
*	E4P, E4K / (New Pump)	1.25" (32 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock
4	E2, V2, V2FV, U2	2" (51 mm)	PA0075	PA0044 / GY0044	PA0094	PA0015
5	E2P, E2K, P2	2" (51 mm)	PA0042	PA0184 / GY0184	PA0043	PA0042
6	E2 HP	2" (51 mm)	PA0315	Call Garlock	Call Garlock	Call Garlock
7	E3, V3	3" (76 mm)	PA0087	PA0091 / GY0091	PA0033	PA0046

\* Part is either under development or tooling is required, call Garlock

Part numbers beginning in "GY" are FDA compliant

## Dimensions

GROUP	OUTER DIAMETER	SEALING DESIGN	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES
1	4.9" (124 mm)	BEAD	N/A	N/A	N/A
2	8.1" (206 mm)	FLANGE/BOLT	7.0" (178 mm)	8	.34" (8.6 mm)
3	8.6" (219 mm)	BEAD	N/A	N/A	N/A
4	11.4" (290 mm)	BEAD	N/A	N/A	N/A
5	12.0" (305 mm)	FLANGE/BOLT	11.0" (279 mm)	10	.34" (8.6 mm)
6	11.4" (290 mm)	BEAD	N/A	N/A	N/A
7	14.4" (366 mm)	BEAD	N/A	N/A	N/A



PA0042



# WARREN RUPP

## DIAPHRAGM DESIGN

» Warren Rupp/ Sandpiper brand has the largest selection of pumps and pump parts. The majority of the diaphragms are flange bolt-sealing design, but they also have bead designs, including 100% PTFE diaphragms without elastomer backings.

## INTERCHANGEABILITY

» Marathon, Crane Deming, Crown, Gold, Bo Kwang, QBY, Chourong, Sludgepiper, Aro, Verder, Flux and Big Pumps.

## CONVERSION KITS

» SB3 and SB4 are the only two pumps in the entire product line which require conversion kits.

## ONE-UP® Diaphragm Part Numbers

GROUP	S Series Model	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
2	SE 1/2-A	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
2	SB1-A, SB25-A	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
6	SB1-1/2-A, SB1-1/2-H, SB40-A	1.5" (32 mm)	PA0090	PA0136	PA0037	PA0137	N/A
7	SB2-A	2" (51 mm)	PA0085	PA0191	PA0038	PA0054	N/A
10	SB3-A	3" (76.2 mm)	PA0048	PA0196	PA0056	PA0048	N/A
10	SB4-A (12 Bolt Hole)	4" (102 mm)	PA0048	PA0196	PA0056	PA0048	N/A
GROUP	E Series Model	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
*	E02	.25" (6.4 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
1	EB1/2-A, EB1/2-T	.5" (12.7 mm)	PA0088	Call Garlock	PA0034	Call Garlock	N/A
2	EB1SM, EB1A, EB1M, EB1-1/2SM EB1-1/2A	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
7	EB2A, EB2SA, EB2SM, EB2M, EB2MB, MEB2M, EB3SM, EB3SA, EB50-M	2" (51 mm)	PA0085	PA0191	PA0038	PA0054	N/A
9	EB3M, EB4M, EB80-M	3" (76.2 mm)	PA0047	PA0194	PA0055	PA0047	N/A
GROUP	P Series Model	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
*	PB1/4A	.5" (12.7 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
1	PB1/2A	.5" (12.7 mm)	PA0088	Call Garlock	PA0034	Call Garlock	N/A
1	PB3/4A	.75" (19.1 mm)	PA0089	Call Garlock	PA0035	Call Garlock	N/A
3	PB1A	1" (25 mm)	PA0089	PA0189	PA0036	PA0190	N/A
6	PB1-1/2A, PB2A	1.5" (32 mm)	PA0090	PA0136	PA0037	PA0137	N/A
GROUP	S & E Flap Valve Series Model	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
2	SA1A, SA25-A	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
7	SA2A, EA2A, MSA2-A, MSA2-B	2" (51 mm)	PA0085	PA0191	PA0038	PA0054	N/A
*	SA3A, SA4A	4" (102 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
9	SA3M, SA4M	4" (102 mm)	PA0047	PA0194	PA0055	PA0047	N/A

# WARREN RUPP

## ONE-UP® Diaphragm Part Numbers

GROUP	PHOENIX SERIES MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
8	EH2M, EH2A, SH2M, SH2M, SH2A	2" (51 mm)	PA0130	Call Garlock	Call Garlock	Call Garlock	N/A
GROUP	HYDRAULIC SERIES MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
6	SB1-1/2H	1.5" (32 mm)	PA0090	PA0136	PA0037	PA0137	N/A
GROUP	VIP SERIES MODEL (4 Diaphragms required)	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
12	ET1A, ET1M	1" (25 mm)	PA0084 & **	PA0154 & **	PA0035 & **	PA0084 & **	** PA0131
13	ET1-1/2A	1.5" (32 mm)	PA0129 & **	Call Garlock	Call Garlock	Call Garlock	** PA0132
13	ET1-1/2M	1.5" (32 mm)	PA0129 & **	Call Garlock	Call Garlock	Call Garlock	** PA0132
15	ET1-1/2SM	3" (76.2 mm)	PA0084	PA0154 & PA0186	PA0035 & PA0187	PA0084 & PA0188	N/A
16	ET2M	2" (51 mm)	PA0085 & PA0134	PA0191 & PA0128	PA0038 & PA0192	PA0054 & PA0193	N/A
16	ET3SM	TBD	PA0085 & PA0134	PA0191 & PA0128	PA0038 & PA0192	PA0054 & PA0193	N/A
4	ST1A, ST25-A	1" (25 mm)	PA0084 & **	PA0154 & **	PA0035 & **	PA0084 & **	** PA0103
13	ST1-1/2A, ST40-A	1.5" (32 mm)	PA0129 & **	Call Garlock	Call Garlock	Call Garlock**	** PA0104
GROUP	NEW S SERIES PLASTIC MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
11	S30	3" (76.2 mm)	PA0309	Call Garlock	Call Garlock	Call Garlock	Garlock
GROUP	NEW S SERIES METALLIC MODELS	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
*	E02	.25" (6.4 mm)	N/A	N/A	N/A	N/A	N/A
*	S05	.5" (12.7 mm)	N/A	N/A	N/A	N/A	N/A
2	S1F	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
5	S15	1.5" (32 mm)	PA0283	PA0284	PA0285	Call Garlock	N/A
7	S20	2" (51 mm)	PA0085	PA0191	PA0038	PA0054	N/A
9	S30	3" (76.2 mm)	PA0047	PA0194	PA0055	PS0047	N/A

# WARREN RUPP

## ONE-UP® Diaphragm Part Numbers

GROUP	USDA SERIES MODELS	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)	100% PTFE (No Rubber)
2	SSB1A	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
2	DSB1	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
14	SSB2A	2" (51 mm)	PA0129	Call Garlock	Call Garlock	Call Garlock	N/A
12	SET1A (4 diaphragms)	1" (25 mm)	PA0084 & **	PA0154 & **	PA0035 & **	Call Garlock	** PA0131 Outer Diaphragm
*	SSA2A	2.5" (64 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
14	SET2M, SET2A (4 diaphragms)	2.5" (64 mm)	PA0129 & **	PA0227 & **	PA0226 & **	Call Garlock	** PA0132 Outer Diaphragm
GROUP	WASTE WATER SERIES MODELS	PUMP OUTLET	NEOPRENE Backed	EPDM Backed	VITON Backed	Abrasive Resistant (Neoprene)	100% PTFE (No Rubber)
*	W09-2 Type 1	2" (51 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
*	W09-3 Type 1	3" (76.2 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
*	W15-3 Type 1	3" (76.2 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
*	W15-4 Type 1	4" (102mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
GROUP	SURGE SUPPRESSORS SERIES MODELS	PUMP OUTLET	NEOPRENE Backed	EPDM Backed	VITON Backed	Abrasive Resistant (Neoprene)	100% PTFE (No Rubber)
2	TA1	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
2	TD1-1/2	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	N/A
6	TA2	1.5" (32 mm) & 2" (51 mm)	PA0090	PA0136	PA0037	PA0137	N/A
9	TA3	3" (76.2 mm)	PA0047	PA0194	PA0055	PA0195	N/A
*	D2AE	TBD	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
1	DA1/2, DA3/4	TBD	PA0088	Call Garlock	PA0034	Call Garlock	N/A
*	DA05, DA07, DA10 (NEW)	TBD	Call Garlock	Call Garlock	Call Garlock	Call Garlock	N/A
GROUP	MINE/CONSTRUCTION DUTY MODEL	PUMP OUTLET	NEOPRENE Backed	EPDM Backed	VITON Backed	Abrasive Resistant (Neoprene)	
2	MSB1, MSF1, MSB25	1" (25 mm)	PA0084	PA0154	PA0035	PA0084	
6	MSB 1 1/2	1.25" (31.8 mm)	PA0090	PA0136	PA0037	PA0137	
7	MSB 2	2" (51 mm)	PA0085	PA0191	PA0038	PA0054	
10	MSB 3	3" (76.2 mm)	PA0048	PA0196	PA0056	PA0048	

# WARREN RUPP

## Dimensions

GROUP	OUTER DIAMETER	SEALING DESIGN	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES
1	4.7" (119 mm)	BEAD	N/A	N/A	N/A
2	7.8" (198 mm)	FLANGE/BOLT	7.0" (178 mm)	8	.34" (8.6 mm)
3	8.0" (203 mm)	BEAD	N/A	N/A	N/A
4	10.4" (264 mm)	FLANGE/BOLT	9.5" (241 mm)	8	.31" (7.9 mm)
5	11" (279 mm)	FLANGE/BOLT	10" (254 mm)	8	.5" (12.7 mm)
6	10" (254 mm)	BEAD	N/A	N/A	N/A
7	11.3" (287 mm)	FLANGE/BOLT	10.5" (267 mm)	8	.5" (12.7 mm)
8	9.75" (248 mm)	BEAD	N/A	N/A	N/A
9	15.5" (394 mm)	FLANGE/BOLT	14.6" (371 mm)	8	.75" (19.1 mm)
10	15.5" (394 mm)	FLANGE/BOLT	14.6" (371 mm)	12	.75" (19.1 mm)
11	15.5" (394 mm)	FLANGE/BOLT	14.6" (371 mm)	10	.56" (14.2 mm)
12	7.8" (198 mm)	FLANGE/BOLT	7.0" (178 mm)	8	.34" (8.6 mm)
13	13.3" (338 mm)	FLANGE/BOLT	13.3" (338 mm)	12	.47" (11.9 mm)
14	9.75" (248 mm)	BEADED	N/A	N/A	N/A
15	7.8" (198 mm)	FLANGE/BOLT	7.0" (178 mm)	8	.34" (8.6 mm)
16	11.3" (287 mm)	FLANGE/BOLT	10.5" (267 mm)	8	.5" (12.7 mm)

NOTE: Dimensions in the chart above are for primary diaphragms, the chart below shows dimensions of the 100% PTFE diaphragms & secondary diaphragms.

PART NUMBER	MATERIAL	OUTER DIAMETER	SEALING DESIGN	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES
PA0104	100% PTFE	14.6" (371 mm)	FLANGE/BOLT	13.31" (338 mm)	12	.47" (12 mm)
PA0131	100% PTFE	7.75" (197 mm)	FLANGE/BOLT	7.0" (178 mm)	8	.34" (8.6 mm)
PA0132	100% PTFE	11.3" (287 mm)	FLANGE/BOLT	10.5" (267 mm)	8	.5" (12.7 mm)
PA0134	PTFE bonded to rubber backer, no center hole	11.3" (287 mm)	FLANGE/BOLT	10.5" (267 mm)	8	.5" (12.7 mm)



PA0084



PA0103



PA0129

# WILDEN

## DIAPHRAGM DESIGN

» Outer sealing bead design on all models.

## INTERCHANGEABILITY

» Versamatic, Dominator, Lutz, Storck, Tecnomatic, Sureflow, Teledyne, Sprague, Serflico, Nambang and Whytehall.

## CONVERSION KITS

» All Wilden pumps X2-X15 require conversion kits. The X1 series (M1, A1, P1, T1) and the HP250 pump are the only pumps that do not require conversion kits.

## ONE-UP® Diaphragm Part Numbers

GROUP	MODEL	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
1	A.025, P.025	.25" (6.4 mm)	Call Garlock	Call Garlock	Call Garlock	Call Garlock
2	M1, A1, P1, P.050, T1, PX1, A100P, P100	.5" (12.7 mm)	PA0081	PA0199 / GY0199	PA0031	PA0235
3	M2, A2, P2, P2R, T2, T2R, PX200, P200, A200P, XPX200	1" (25 mm)	PA0077	PA0092 / GY0092	PA0032	Call Garlock
4	M4, A4, P4, T4, W4, All PX4's, All P400's, PV400, PV420, PX430	1.5" (38 mm)	PA0078	PA0045 / GY0045	PA0083	PA0014
5	M8, A8, P8, T8, W8, PX8, PX8 SANIFLO, All P800's, PV800, PX820, PX830	2" (51 mm)	PA0075 / PA0221*	PA0044 / GY0044	PA0094	PA0015
6	HP250, H800	2" (51 mm)	PA0315**	PA0040	PA0068	PA0140
7	M15, A15, P15, T15, W15, PX15, PX15 SANIFLO, PX1500, PV15, PZ1520, PX1530	3" (76 mm)	PA0087	PA0091 / GY0091	PA0033	PA0046

GROUP	MODEL (UNITEC SERIES)	PUMP OUTLET	NEOPRENE BACKED	EPDM BACKED	VITON BACKED	ABRASIVE RESISTANT (NEOPRENE)
8	UA.038, UX.050	.38" (10mm mm) & .5" (13 mm)	PA0110	PA0147 / GY0147	PA0009	Call Garlock
9	UA.050, UH.050, UH.075	.5" (13 mm) & .75" (19 mm)	PA0109	PA0148 / GY0148	PA0008	Call Garlock
10	UH2, UA2, UX3	1" (25 mm) & 1.25" (32 mm)	PA0101	PA0149 / GY0149	PA0107	Call Garlock
11	UA4, UH4	1.5" (38 mm)	PA0097	PA0150 / GY0150	PA0108	PA0151
12	UA8	2" (51 mm)	PA0025	PA0127 / GY0127	PA0117	PA0152

Part numbers beginning in "GY" are FDA compliant \*PA0221 is designed for Plastic Wilden Pumps / PA0075 is designed for Metallic Wilden Pumps. PA0075 can be utilized in both; however, the PA0221 has been designed to better fit the outer bead.

## Dimensions

GROUP	OUTER DIAMETER	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES	THREAD TYPE	THREAD LENGTH/ DEPTH
1	NA	N/A	N/A	N/A	N/A	N/A
2	4.9" (124 mm)	N/A	N/A	N/A	N/A	N/A
3	6.6" (168 mm)	N/A	N/A	N/A	N/A	N/A
4	8.6" (219 mm)	N/A	N/A	N/A	N/A	N/A
5	11.4" (290 mm)	N/A	N/A	N/A	N/A	N/A
6	11.4" (290 mm)	N/A	N/A	N/A	N/A	N/A
7	14.4" (366 mm)	N/A	N/A	N/A	N/A	N/A
8	3.91" (99 mm)	3.55" (90 mm)	4	.20" (5.1 mm)	Male, M6 X 1mm	.306" (7.77mm)
9	5.66" (144 mm)	5.22" (133 mm)	6	.24" (6.1 mm)	Female, M10 X 1.5mm	.41" (10.41mm)
10	7.47" (190 mm)	6.94" (176 mm)	6	.33" (8.4 mm)	Female, M12 X 1.75mm	.57" (14.47mm)
11	10.19" (259 mm)	9.53" (242 mm)	8	.32" (8.1 mm)	Female, M16 X 2mm	.65" (16.51mm)
12	13.28" (337 mm)	12.56" (319 mm)	8	.42" (10.7 mm)	Female, M20 X 2.5mm	.6" (15.24mm)

## YAMADA

### DIAPHRAGM DESIGN

» All Yamada original equipment diaphragms are 100% PTFE and are retained inside the pump using a metal retaining ring. Garlock has designed ONE-UP® diaphragms for Yamada pumps using the flange/bolt sealing design and elastomer backing for longer service life/performance. We also offer 100% PTFE ONE-UP® diaphragms for customers unable to utilize an elastomer-backed diaphragm, typically for high purity applications. 100% PTFE diaphragms are available for all Yamada NDP and DP series pumps. Elastomer-backed/flange bolt-designed ONE-UP® diaphragms will only fit the new NDP series pumps.

### INTERCHANGEABILITY

» Iwaki, Iwata, Hethon, Graymills, Johnson.

### CONVERSION KITS

» Required on all pumps NDP20 through NDP80. Conversion kits not required for NDP5, NDP15 series.

## ONE-UP® Diaphragm Part Numbers

GROUP	Model / Outlet	PUMP OUTLET	NEOPRENE Backed	EPDM Backed	VITON Backed	Abrasive Resistant (NEOPRENE)	100% PTFE (NO RUBBER)
1	NDP-5	.25" (6.4 mm)	PA0016	PA0201	Call Garlock	Call Garlock	PA0123***
9	DP-5F	.25" (6.4 mm)	N/A	N/A	N/A	N/A	PA0123
2	NDP-15 / DP-15	.38" (9.7 mm) / .5" (12.7 mm)	PA0059	PA0202	PA0002	Call Garlock	PA0124***
10	DP-10 DP-10F	.38" (9.7 mm)	N/A	N/A	N/A	N/A	PA0124
3	NDP-20	.75" (19.1 mm)	PA0060	PA0203	PA0003	Call Garlock	PA0112***
11	DP-20F	.75" (19.1 mm)	N/A	N/A	N/A	N/A	PA0112***
4	NDP-20-BST	.75" (19.1 mm)	PA0409	Call Garlock	Call Garlock	Call Garlock	N/A
5	NDP-25	1" (25 mm)	PA0061	PA0120 / GY0120	PA0004	PA0204	PA0113***
12	DP-25F	1" (25 mm)	N/A	N/A	N/A	N/A	PA0113
6	NDP-40	1.5" (32 mm)	PA0062	PA0205	PA0005	PA0206	Call Garlock
*	DP-38, DP-38F	1.5" (32 mm)	N/A	N/A	N/A	N/A	Call Garlock
7	NDP-50, NDP-50FAN	2" (51 mm)	PA0063 / PA0321**	PA0207	PA0006	PA0063 / PA0321*	Call Garlock
*	DP-50	2" (51 mm)	N/A	N/A	N/A	N/A	Call Garlock
8	NDP-80	3" (76 mm)	PA0064	PA0209	PA0102	Call Garlock	Call Garlock
*	DP-75	3" (76 mm)	N/A	N/A	N/A	N/A	Call Garlock

\* for the VIP & USDA series pumps denotes the option to have a 100% PTFE diaphragm such as the one shown above (PA0103).

\*\* PA0321 is for non-metallic 2" pumps; the OD has been made without the ridges and is completely flat.

\*\*\* optional PTFE overlay diaphragm or PTFE diaphragm alternative

Part numbers beginning in "GY" are FDA compliant



PA0059



PA0061



PA0409

## YAMADA

## Dimensions

GROUP	OUTER DIAMETER	SEALING DESIGN	BOLT CIRCLE DIAMETER	FLANGE BOLT HOLES	DIAMETER / BOLT HOLES	THREAD TYPE	THREAD LENGTH/DEPTH
1	4.2" (107 mm)	FLANGE/BOLT	3.8" (96.5 mm)	8	.31" (7.9 mm)	N/A	N/A
2	5.6" (142 mm)	FLANGE/BOLT	4.9" (124 mm)	6	.38" (9.7 mm)	N/A	N/A
3	7.1" (180 mm)	FLANGE/BOLT	6.3" (160 mm)	6	.35" (8.9 mm)	N/A	N/A
4*	5.75" (146 mm)	FLAT FLANGE	N/A	N/A	N/A	Female, M10 x 1.5	.5" (12.7 mm)
5	8.3" (211 mm)	FLANGE/BOLT	7.3" (185 mm)	8	.44" (11.2 mm)	N/A	N/A
6	11.0" (279 mm)	FLANGE/BOLT	10.0" (254 mm)	8	.5" (12.7 mm)	N/A	N/A
7	12.6" (320 mm)	FLANGE/BOLT	11.7" (297 mm)	8	.5" (12.7 mm)	N/A	N/A
8	16.1" (409 mm)	FLANGE/BOLT	15.2" (386 mm)	12	.5" (12.7 mm)	N/A	N/A

\* Thread Type - Female, M10 x 1.5 (Thread depth, .5" (12.7 mm))

GROUP	PART NUMBER	Material	OUTER DIAMETER	SEALING DESIGN	THICKNESS	CENTER HOLE DIAMETER
9	PA0123	100% PTFE	3.3" (84 mm)	RETAINING RING	.020" (.5 mm)	.25" (6.4 mm)
10	PA0124	100% PTFE	4.4" (112 mm)	RETAINING RING	.035" (.9 mm)	.31" (7.9 mm)
11	PA0112	100% PTFE	5.75" (146 mm)	RETAINING RING	.055" (1.4 mm)	.56" (14.2 mm)
12	PA0113	100% PTFE	6.7" (170 mm)	RETAINING RING	.055" (1.4 mm)	.56" (14.2 mm)

For new product inquiries please contact the Garlock Diaphragm Applications group.

Please contact Garlock for ONE-UP diaphragm compatibility for any pump manufacturers not listed in this catalog.



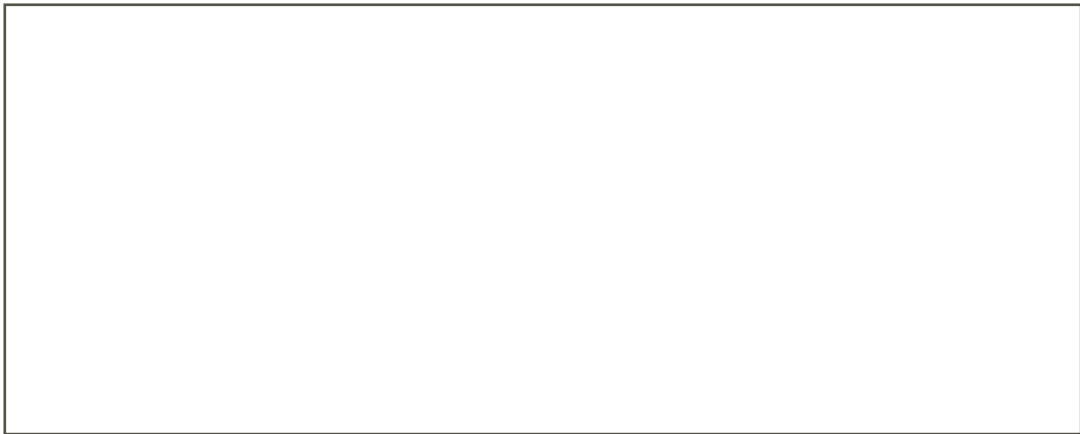
PA0062



PA0124

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