



Series 312 - 11:1 - 33 lb/min

Series 312 industrial air-operated double-acting pumps suitable for transferring very high viscosity oils and lubricants. The double-action guarantees the delivery of a continuous and constant flow. Particularly effective in systems equipped with multiple distribution points.



P/N 90C/111-55

P/N 91C/111-55

P/N 92C/111-55

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	3/4" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity	NLGI 2
Cycles per lb	7.8
Max. air consumption 120 psi	55 cfm
Suction tube length	10.6"
Suction tube external diameter	1.77"
Type of installations	modular
Packaging - Weight	No. 1 1.8 ft ³ lb 26

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	3/4" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity	NLGI 2
Cycles per lb	7.8
Max. air consumption 120 psi	55 cfm
Suction tube length	37"
Suction tube external diameter	1.77"
Type of installations	suitable for drums 400 lb
Packaging - Weight	No. 1 3.3 ft ³ lb 36

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	3/4" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity	NLGI 2
Cycles per lb	7.8
Max. air consumption 120 psi	55 cfm
Suction tube length	29"
Suction tube external diameter	1.77"
Type of installations	suitable for drums 120 lb
Packaging - Weight	No. 1 3.3 ft ³ lb 33

TYPE OF INSTALLATIONS

modular

with drum

PUMP PERFORMANCE

- A A 116 psi
- B B 87 psi
- C C 58 psi

KIND OF FLUID: grease NLGI 1 - 68 °F



Series 312 - 11:1 - 33 lb/min

Series 312 industrial air-operated double-acting pumps suitable for transferring very high viscosity oils and grease. The double-action guarantees the delivery of a continuous and constant flow. Particularly effective in systems equipped with multiple distribution points.



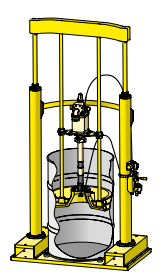
P/N 90F/111-55

P/N 91F/111-55

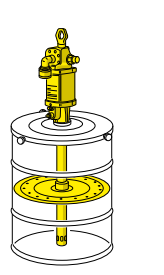
Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	3/4" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity	NLGI 2
Cycles per lb	7.8
Max. air consumption 120 psi	55 cfm
Suction tube length	19"
Suction tube external diameter	1.77"
Type of installations	pump elevator
Packaging - Weight	No. 1 1.58 ft ³ lb 29

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	3/4" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity	NLGI 2
Cycles per lb	7.8
Max. air consumption 120 psi	55 cfm
Suction tube length	37"
Suction tube external diameter	1.77"
Type of installations	suitable for drums 400 lb
Packaging - Weight	No. 1 2.47 ft ³ lb 37

TYPE OF INSTALLATIONS



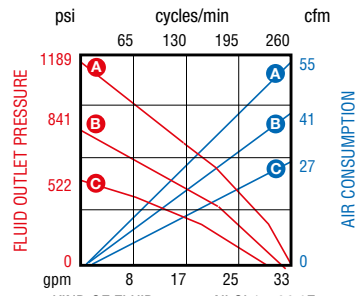
pump elevator



with drum

PUMP PERFORMANCE

- A** 116 psi
- B** 87 psi
- C** 58 psi



psi cycles/min cfm

1189 65 130 195 260

841 8 17 25 33

522 0 0 0 0

0 0 0 0 0

gpm 8 17 25 33

KIND OF FLUID: grease NLGI 1 - 68 °F

AIR CONSUMPTION



Series 412 - 18:1 - 42 lb/min

Series 412 industrial air-operated double-acting pumps suitable for transferring very high viscosity oils and grease. The double-action guarantees the delivery of a continuous and constant flow. Particularly effective in systems equipped with multiple distribution points.



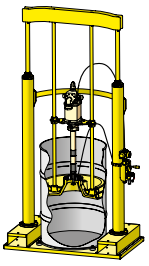
P/N 115F/181-55

P/N 116F/181-55

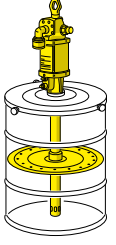
Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	3/4" NPT (f)
Air max. pressure	120 psi
Noise level	80 dB
Max. deliverable grease viscosity	NLGI 2
Cycles per lb	4.8
Max. air consumption 120 psi	102 cfm
Suction tube length	19"
Suction tube external diameter	1.77"
Type of installations	pump elevator
Packaging - Weight	No. 1 1.58 ft ³ lb 34

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	3/4" NPT (f)
Air max. pressure	120 psi
Noise level	80 dB
Max. deliverable grease viscosity	NLGI 2
Cycles per lb	4.8
Max. air consumption 120 psi	102 cfm
Suction tube length	37"
Suction tube external diameter	1.77"
Type of installations	suitable for drums 400 lb
Packaging - Weight	No. 1 2.47 ft ³ lb 40

TYPE OF INSTALLATIONS



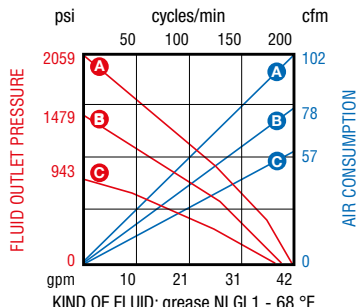
pump elevator



with drum

PUMP PERFORMANCE

- A** 116 psi
- B** 87 psi
- C** 58 psi



psi cycles/min cfm

2059 50 100 150 200

1479 78

943 57

0 0

gpm 10 21 31 42

KIND OF FLUID: grease NLGI 1 - 68 °F



Series 312 - 45:1 - 9.7 lb/min



Series 312 industrial air-operated double-acting pumps suitable for transferring very high viscosity grease up to NLGI 3. The double-action guarantees the delivery of a continuous and constant flow. Particularly effective in systems equipped with multiple distribution points.



P/N 90F/451-55

P/N 90FSP/451-55

P/N 91F/451-55

P/N 92F/451-55

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	20
Max. air consumption 120 psi	63 cfm
Suction tube length	19.7"
Suction tube external diameter	1.77"
Type of installations	tank
Packaging - Weight	No. 1 1.58 ft ³ lb 35

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	20
Max. air consumption 120 psi	63 cfm
Suction tube length	19.7"
Suction tube external diameter	1.77"
Type of installations	pump elevator
Packaging - Weight	No. 1 1.58 ft ³ lb 35

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	20
Max. air consumption 120 psi	63 cfm
Suction tube length	37"
Suction tube external diameter	1.77"
Type of installations	for drums 400 lb
Packaging - Weight	No. 1 2.47 ft ³ lb 42

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	20
Max. air consumption 120 psi	63 cfm
Suction tube length	29"
Suction tube external diameter	1.77"
Type of installations	for drums 120 lb
Packaging - Weight	No. 1 2.47 ft ³ lb 40

* At minimum working temperature of 59 °F

TYPE OF INSTALLATIONS

tank

pump elevator

with drum

PUMP PERFORMANCE

Kind of Fluid (lbspm)	Air Pressure (psi)	Fluid Outlet Pressure (psi)	Air Consumption (cfm)
2.42	116 (A)	4785	~10
4.84	116 (A)	3625	~20
7.26	116 (A)	2465	~30
9.68	116 (A)	1305	~40
2.42	87 (B)	3625	~10
4.84	87 (B)	2465	~20
7.26	87 (B)	1305	~30
9.68	87 (B)	1305	~40
2.42	58 (C)	2465	~10
4.84	58 (C)	1305	~20
7.26	58 (C)	1305	~30
9.68	58 (C)	1305	~40



Series 312 - 70:1 - 6.6 lb/min

Series 312 industrial air-operated double-acting pumps suitable for transferring very high viscosity grease up to NLGI 3. The double-action guarantees the delivery of a continuous and constant flow. Particularly effective in systems equipped with multiple distribution points.



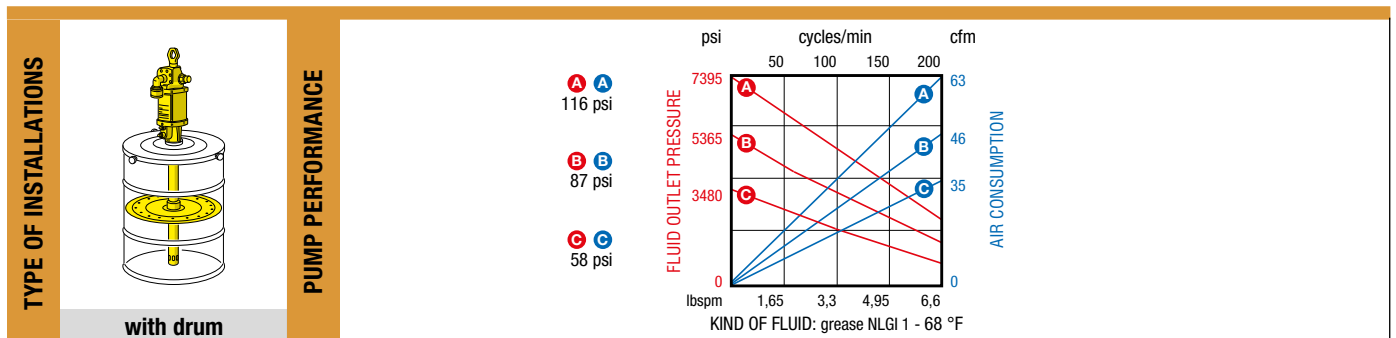
P/N 91C/701-55

P/N 92C/701-55

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air max. pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	30
Max. air consumption 120 psi	63 cfm
Suction tube length	37"
Suction tube external diameter	1.77"
Type of installations	suitable for drums 400 lb
Packaging - Weight	No. 1 2.47 ft ³ lb 42

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air max. pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	30
Max. air consumption 120 psi	63 cfm
Suction tube length	29"
Suction tube external diameter	1.77"
Type of installations	suitable for drums 120 lb
Packaging - Weight	No. 1 2.47 ft ³ lb 40

* At minimum working temperature of 59 °F





Series 412 - 75:1 - 9.7 lb/min



Series 412 industrial air-operated double-acting pumps suitable for transferring very high viscosity grease. The double-action guarantees the delivery of a continuous and constant flow. Particularly effective in systems equipped with multiple distribution points.



P/N 115F/751-55

P/N 115FSP/751-55

P/N 116F/751-55

P/N 117F/751-55

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	20.5
Max. air consumption 120 psi	113 cfm
Suction tube length	19.7"
Suction tube external diameter	1.77"
Type of installations	tank
Packaging - Weight	No. 1 1.6 ft ³ lb 35

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	20.5
Max. air consumption 120 psi	113 cfm
Suction tube length	19.7"
Suction tube external diameter	1.77"
Type of installations	pump elevator
Packaging - Weight	No. 1 1.6 ft ³ lb 35

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	20.5
Max. air consumption 120 psi	113 cfm
Suction tube length	37"
Suction tube external diameter	1.77"
Type of installations	suitable for drums 400 lb
Packaging - Weight	No. 1 2.47 ft ³ lb 46

Type of seals	polyurethane
Suction tube upper body	carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	20.5
Max. air consumption 120 psi	113 cfm
Suction tube length	29"
Suction tube external diameter	1.77"
Type of installations	suitable for drums 120 lb
Packaging - Weight	No. 1 2.47 ft ³ lb 44

* At minimum working temperature of 59 °F

TYPE OF INSTALLATIONS

tank

pump elevator

with drum

PUMP PERFORMANCE

Kind of Fluid (lbspm)	Fluid Outlet Pressure (psi) - Curve A	Fluid Outlet Pressure (psi) - Curve B	Fluid Outlet Pressure (psi) - Curve C	Air Consumption (cfm) - Curve A	Air Consumption (cfm) - Curve B	Air Consumption (cfm) - Curve C
0	0	0	0	0	0	0
2.42	7975	5945	4060	~20	~30	~40
4.84	~5945	~4060	~2060	~40	~60	~80
7.26	~4060	~2060	~1060	~60	~80	~100
9.68	~2060	~1060	~60	~80	~100	~113

psi: 7975, 5945, 4060, 0
cycles/min: 50, 100, 150, 200
cfm: 113, 85, 60, 0
lbspm: 2.42, 4.84, 7.26, 9.68
KIND OF FLUID: grease NLGI 1 - 68 °F



Series 412 - 40:1 - 22 lb/min

Series 412 industrial air-operated double-acting pumps suitable for transferring very high viscosity grease. The double-action guarantees the delivery of a continuous and constant flow. Particularly effective in systems equipped with multiple distribution points.



P/N 115F/401-55

P/N 118F/401-55

P/N 118FSP/401-55

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	12
Max. air consumption 120 psi	162 cfm
Suction tube length	29"
Suction tube external diameter	2"
Type of installations	suitable for drums 120 lb
Packaging - Weight	No. 1 3.2 ft ³ lb 50

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	12
Max. air consumption 120 psi	162 cfm
Suction tube length	23.6"
Suction tube external diameter	2"
Type of installations	tank
Packaging - Weight	No. 1 3.2 ft ³ lb 46

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	12
Max. air consumption 120 psi	162 cfm
Suction tube length	23.6"
Suction tube external diameter	2"
Type of installations	pump elevator
Packaging - Weight	No. 1 3.2 ft ³ lb 46

* At minimum working temperature of 59 °F

TYPE OF INSTALLATIONS

with drum

tank

pump elevator

PUMP PERFORMANCE

Kind of Fluid (°F)	Fluid Outlet Pressure (psi)			Air Consumption (cfm)		
	116 (A)	87 (B)	58 (C)	116 (A)	87 (B)	58 (C)
5.0	4640	3480	2320	65	130	195
9.9	4640	3480	2320	130	195	260
14.9	4640	3480	2320	195	260	325
19.8	4640	3480	2320	260	325	390



Series 412 - 40:1 - 22 lb/min

Series 412 industrial air-operated double-acting pumps suitable for transferring very high viscosity grease. The double-action guarantees the delivery of a continuous and constant flow. Particularly effective in systems equipped with multiple distribution points.



P/N 116F/401-55

P/N 117F/401-55

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	12
Max. air consumption 120 psi	162 cfm
Suction tube length	37"
Suction tube external diameter	2"
Type of installations	suitable for drums 400 lb
Packaging - Weight	No. 1 3.2 ft ³ lb 55

Type of seals	polyurethane
Suction tube upper body	aluminum - carbon steel
Suction tube	carbon steel
Air inlet connection	1/2" NPT (f)
Fluid outlet connection	1/2" NPT (f)
Air working pressure	90 - 120 psi
Noise level	80 dB
Max. deliverable grease viscosity *	NLGI 3
Cycles per lb	12
Max. air consumption 120 psi	162 cfm
Suction tube length	33.8"
Suction tube external diameter	2"
Type of installations	tank
Packaging - Weight	No. 1 3.2 ft ³ lb 52

* At minimum working temperature of 59° F

TYPE OF INSTALLATIONS

with drum

tank

PUMP PERFORMANCE

	A A	B B	C C	
	116 psi	87 psi	58 psi	

KIND OF FLUID: grease NLGI 1 - 68 °F