



Dyna-Star®

200:1 and 120:1 Air Powered Pump Introduction



Agenda

- Application
- Design Inspiration
- Product Introduction
- Competitor Information
- Key Accessories
- Resources

“High Pressure Grease Injection or Grease Skid”



Key Applications

- Well Services Maintenance Operations
 - Frac Stack Valves
 - Blow out valves
 - Gate Valves
- Well Service Wireline Applications
- Large Rope Shovel / Drag Lines
- **Requires grease delivery at more than 7,500 PSI and up to 20,000 PSI**



Reliability

“Tools you can trust”

Smart operators learn from their experiences. If the last tool didn't complete the job before it went out of service – they look for options that will last.

What happens if there isn't another option?

How many extras do they need to trust they will be able to complete the job?

What would it mean if the tool could **withstand the rigors of the job?**



Legendary Performance

“Grease flow when you need it most”

Lubricating takes time. It takes even longer when you have to overcome large pressures like 10,000 PSI or 15,000 PSI.

What would it mean if you could reduce a 40 minute grease operation down to 20 minutes, multiple times a day?

Less downtime between stage operations means **more work done per day.**



Serviceability

“Effective, efficient rebuilds”

Over time, all machines can wear out. Owners then need to make a decision – **repair or replace?**

Quality equipment should be able to be repaired and operate as good as new. Service parts should be available to minimize down-time

Is the repair intuitive?

Does it require specialized, hard-to-find tools, and difficult-to-achieve torques?



Dyna-Star® Air-Powered Pumps

Longer life, Faster flow at higher pressures, and Fast and easy seal repairs



100% Assembled and Tested in the USA.

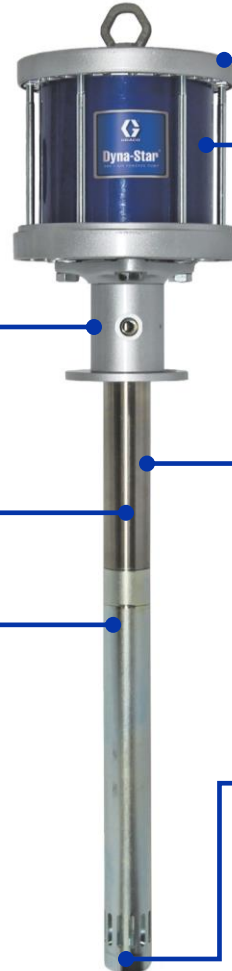
Made in the USA with Global Components

CE and Hazardous Location Certified

ATEX Ex II 2 G Ex h IIA T4 Gb

Standard Barrel Length Options

400 lb barrel and 120 lb keg



200:1 or 120:1 Ratio

20,000 psi (1,379 bar) or 12,000 psi (827 bar) maximum operating pressure

Legendary Merkur Air Motor

Proven air valve is DataTrak®-ready

More flow when you need it most

High flow against high back pressures. 200:1 ratio provides 1.5 L/min flow against 10,000 psi (1,379 bar)

Hex-Style Heavy-Duty Lower

Withstands harsh field conditions and aids in intuitive overhauls



**ALWAYS ON.
ALWAYS INNOVATING.**

Dyna-Star® 200:1 Air Powered Pumps

- **20,000 PSI / 1379 Bar** Maximum Stall Pressure
- 7.5" Merkur Air Motor Platform
- 2 standard lengths
 - P/N 25P785 → 400# / 181kg Barrel
 - P/N 25P784 → 120# / 54 kg Keg (pictured)
- 100% Graco assembled and tested in the USA
- **CE & ATEX Ex II 2 G Ex h IIA T4 Gb**
- High pressure Grease Skids/Injectors
- Wireline Applications

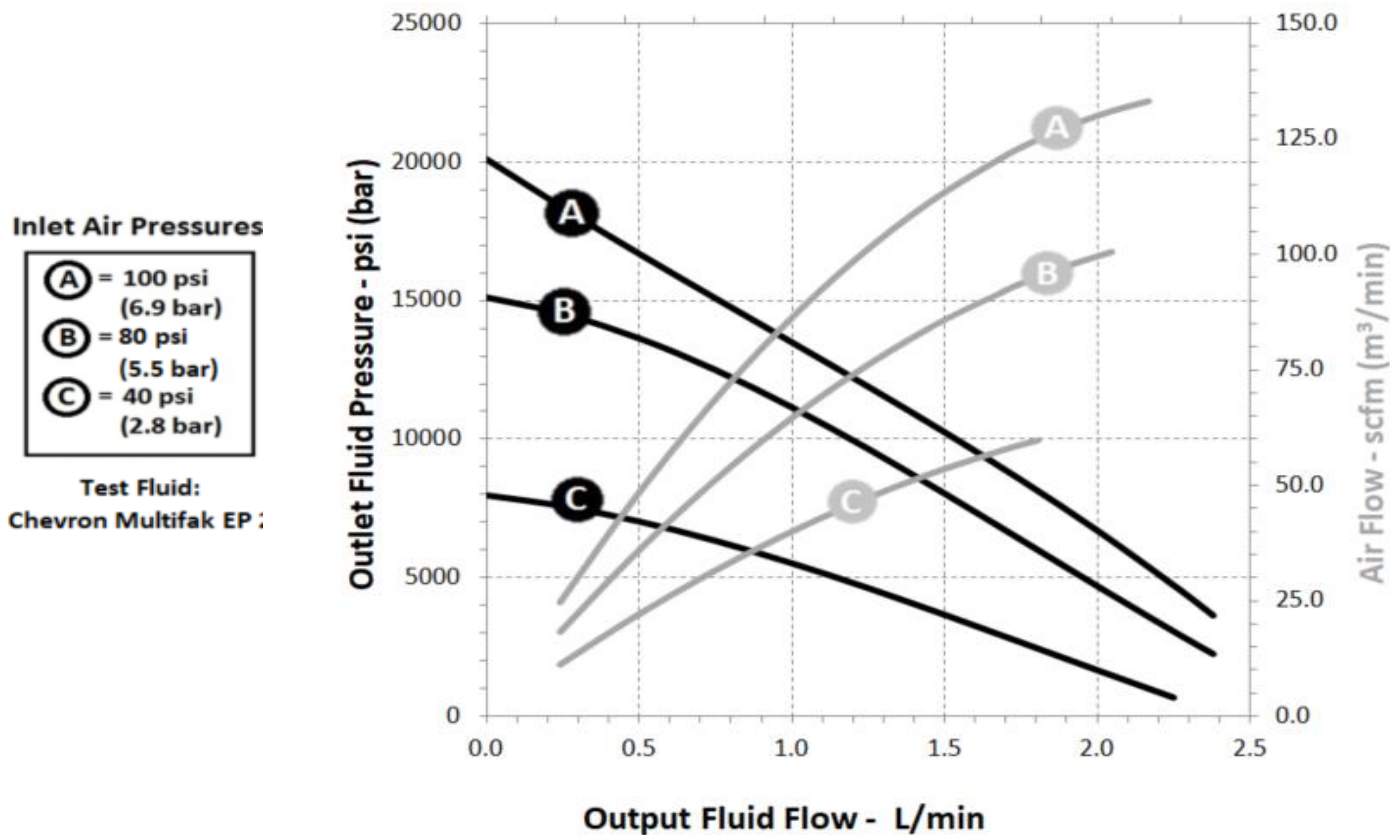


Dyna-Star® 120:1 Air Powered Pumps

- **12,000 PSI / 1827 Bar** Maximum Stall Pressure
- 6" Merkur Air Motor Platform
- 2 standard lengths
 - P/N 26A968 → 400# / 181kg Barrel
 - P/N 26A967 → 120# / 54 kg Keg (pictured)
- 100% Graco assembled and tested in the USA
- **CE & ATEX Ex II 2 G Ex h IIA T4 Gb**
- Large Mining Equipment



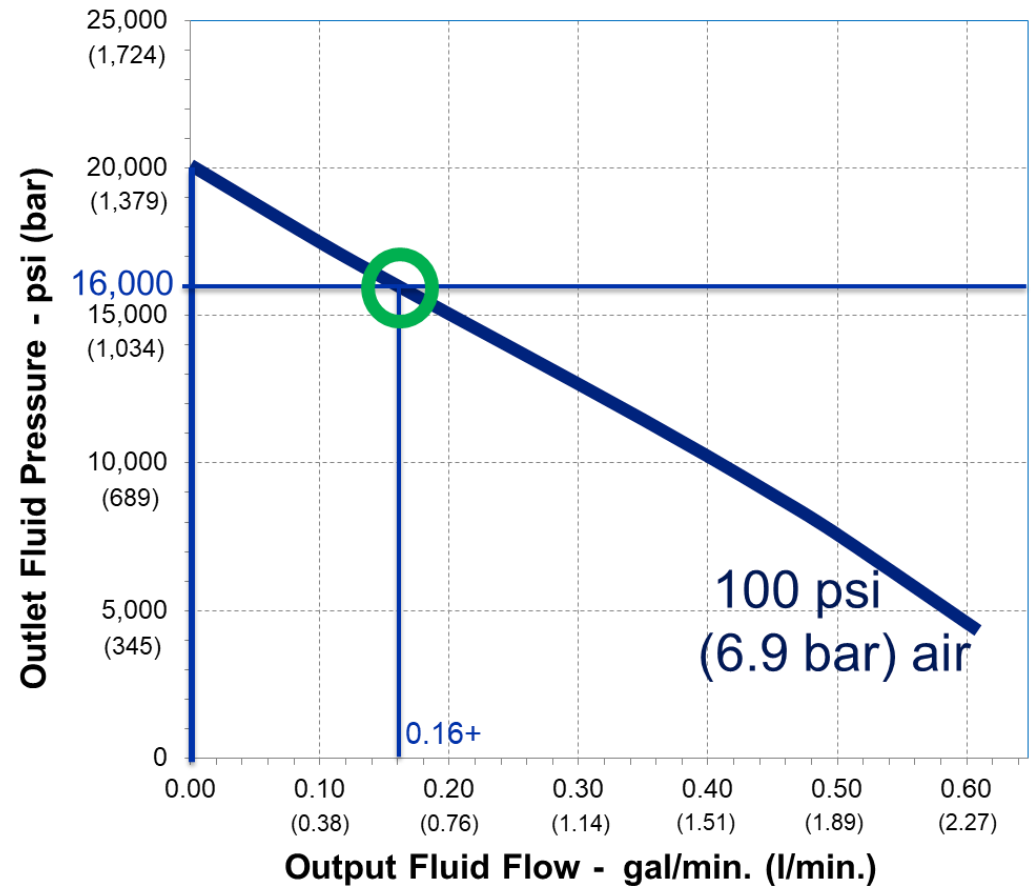
Dyna-Star 200:1 Performance Curve



Dyna-Star 200:1 Performance Curve

Graco 200:1 maximum
air pressure is
100 psi (6.9 bar)

38 in³/minute



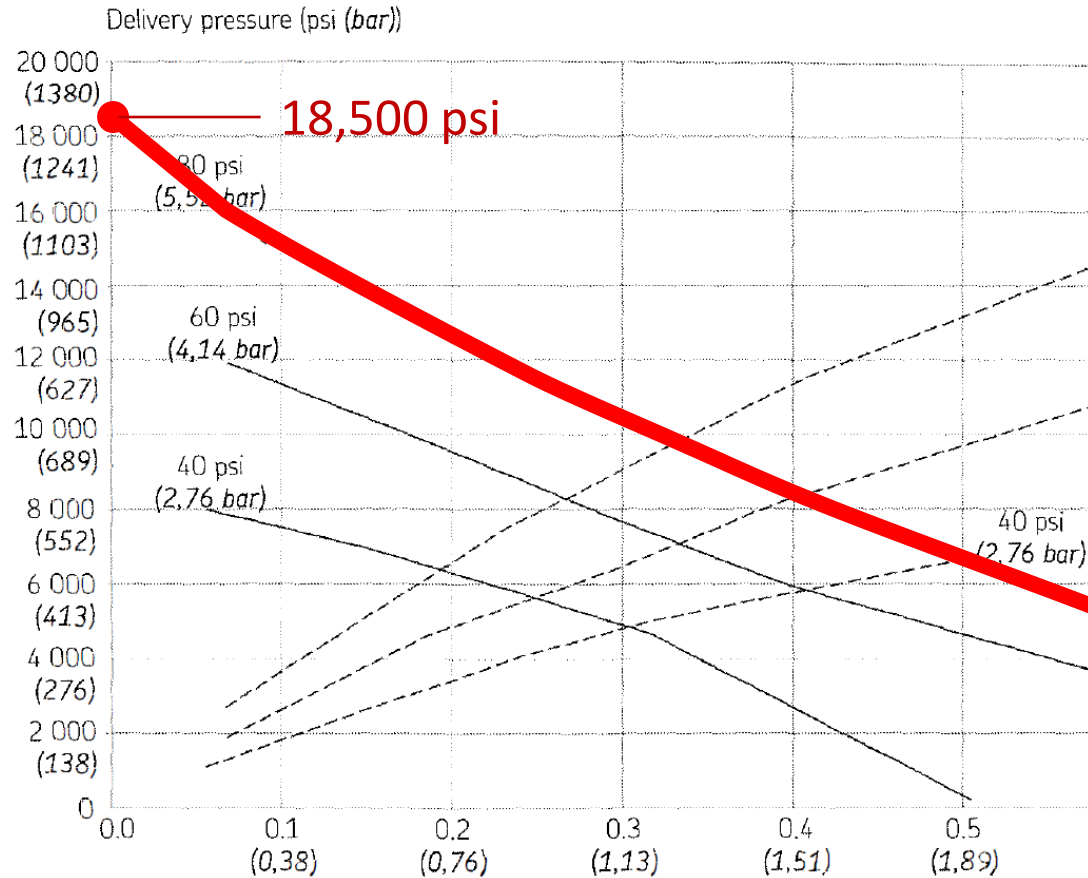
Competitor's High Pressure Pump

Performance chart: 250:1 ratio

250:1, 8" air motor,

80 PSI MAXIMUM

250 x 80 = 20,000
psi theoretical stall
pressure



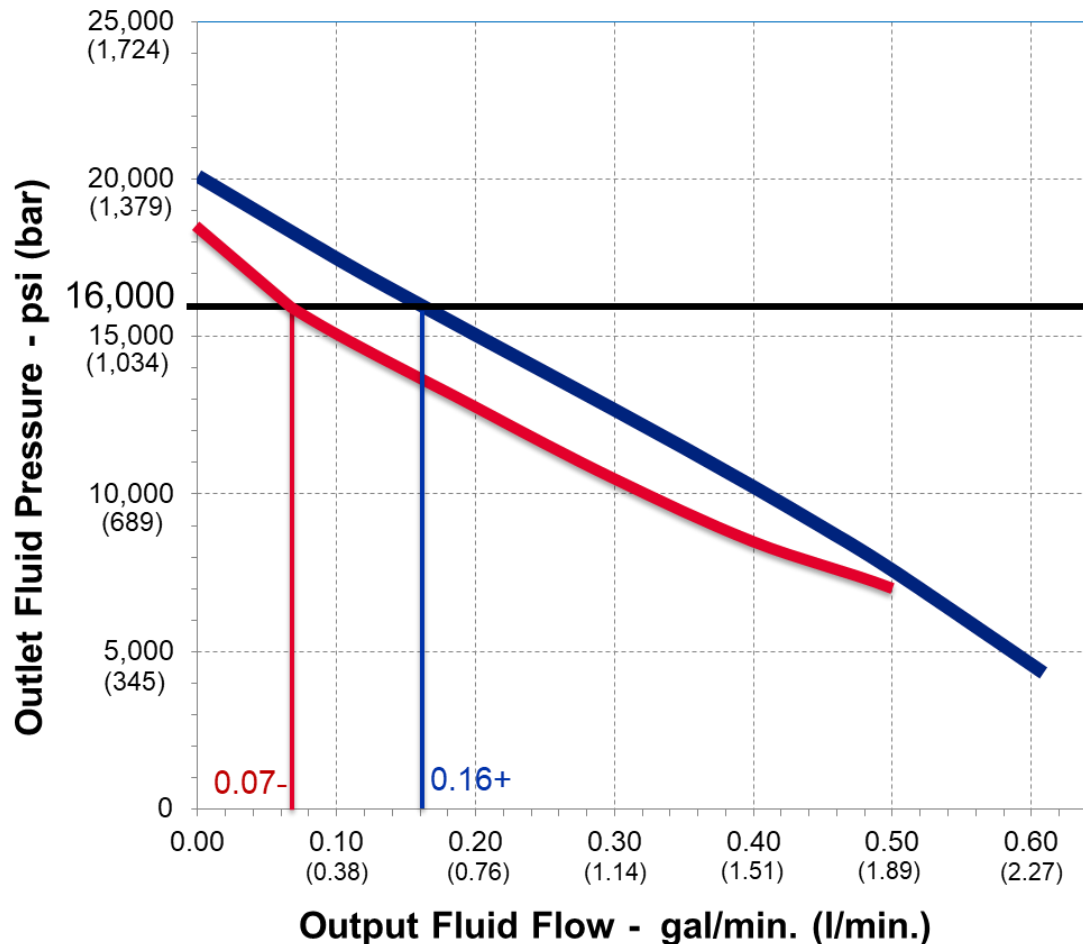
Dyna-Star 200:1 versus Competitor

Graco 200:1 maximum
air pressure
100 psi (6.9 bar)

38 in³/minute

Competitor's "250:1"
maximum air pressure
80 psi (5.5 bar)

16 in³/minute



Longer Life is Reliability

“Peanut Butter” Grease Application

Competitor

- 65K Cycles



Dyna-Star® 200:1

- 770K Cycles



Competitor Summary

Divorced lower design / tall
space claim / heavy

- **Stalls at 18,500 PSI**
- **80 PSI MAX** Operating pressure
- 165 SCFM Air Consumption
- Heads and lowers ship separately
- 2 and 5/8" OD lower, bung mount
- **0.325 gal/min** against 10,000 PSI backpressure
- 4 to 12 hour repairs



Dyna-Star® 200:1 Air Powered Pump

Integrated, Compact, and Light

- **True stall at 20,000 PSI**
- **100 PSI Max** Operating Pressure
- 125 SCFM maximum air consumption
- **100% assembled and tested in USA**
- 30 to 45 min seal overhaul
- **Seal repair kits in-stock**
- 2 and 1/8" OD lower, flange mount
- **0.4 gal/min** flow against 10,000 PSI back pressure

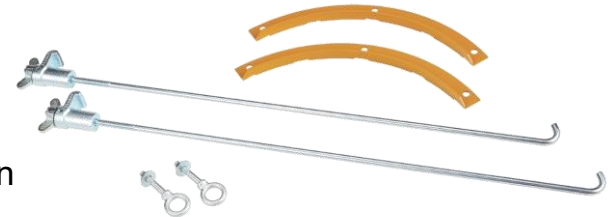


Cross Reference

Competitor Model P/N	Description	Graco P/N	Description
2390	8", 250:1, 400#	25P785	7.5", 200:1, 400#
2391	8", 250:1, 120#	25P784	7.5", 200:1, 120#
2392	6", 140:1, 400#	26A968	6", 120:1, 400#
2393	6", 140:1, 120#	26A967	6", 120:1, 120#

Accessories


- Barrel Covers
 - Tie-Down Kit Ready
 - Connector for Follower Plate Tether
 - Fits most Fire-Ball® and Dyna-Star® Pump Mounts
- Follower Plates
 - Heavy
 - Handles
 - Chain Tether
- Tie-Down Kits
- DataTrak – P/N 24A592
 - Recommend using with environmental enclosure
 - 25U440 – Reed switch upgrade for stroke counting and piston position information

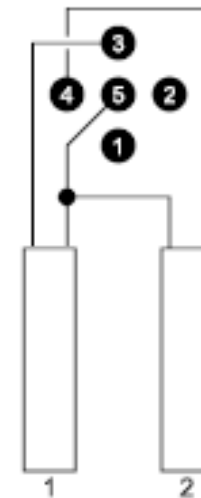
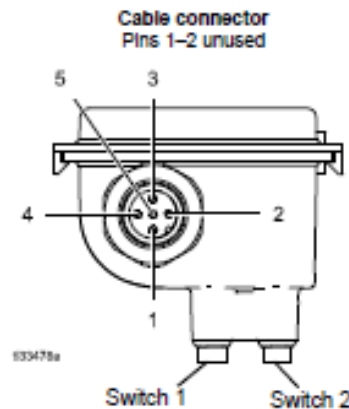
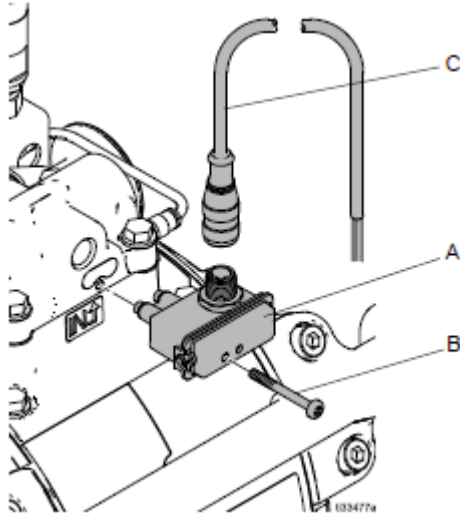


Reed Switch Cycle Counter – P/N 25U440

Ref	Description
A	Switch, reed assembly
B	Fastener
C	Cable, M12 5-pin, 5.0 meter long, flying leads

Class I, Div 1, Group A, B, C, D T4
 $-40^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$

 II 1 G
 Ex ia IIC T4 Ga
 $-40^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$



Graco.com/Dynastar

Flyer – P/N 352892

Dyna-Star® Air-Powered Pumps

200:1 Ratio
20,000 psi (1,379 bar) maximum operating pressure with 1.5 L/min flow at 10,000 psi back pressure.

100% Assembled and Tested
100% assembled and tested in the USA.

CE and Hazardous Location Certified
CE and ATEX Ex II 2 G Da to IECEx 14 Da.

Standard Barrel Length Options
400 to barrel and 120 to bag.

Hex-Style Heavy-Duty Lower
Withstands harsh field conditions and aids installation and replacement.

More flow when you need it most
High flow against high back pressures. Less time required to grease high pressure applications.

Legendary Markur Air Motor
Power air valve is DuoTrap®-ready.

PROVEN QUALITY. LEADING TECHNOLOGY.

Star 200:1 Pump Performance Curve

Star 120:1 Pump Performance Curve

Ordering Information

Package Number	Description
25P785	Dyna-Star® 200:1 Air-Powered Bare Grease Pump for 400 to (180 kg) Bag
25P784	Dyna-Star® 200:1 Air-Powered Bare Grease Pump for 120 to (55 kg) Bag
25A968	Dyna-Star® 120:1 Air-Powered Bare Grease Pump for 400 to (180 kg) Bag
25A967	Dyna-Star® 120:1 Air-Powered Bare Grease Pump for 120 to (55 kg) Bag
25A960	Dyna-Star® 200:1 Air-Powered Grease Pump with Cover (25A202) for 400 to (180 kg) Bag
25A961	Dyna-Star® 200:1 Air-Powered Grease Pump with Cover (25A202) 120 to (55 kg) Bag
25A962	Dyna-Star® 120:1 Air-Powered Grease Pump with Cover (25A202) for 400 to (180 kg) Bag
25A963	Dyna-Star® 120:1 Air-Powered Grease Pump with Cover (25A202) for 120 to (55 kg) Bag

Accessories

Package Number	Description
25A969	Dyna-Star® 200:1 and 120:1 Air-Powered Grease Pump Seal Repair Kit
25A916	Dyna-Star® 200:1 or 120:1 Air-Powered Grease Pump Lower Shortening Conversion Kit - 400 to (180 kg) Bag to 120 to (55 kg) Bag
25A939	Dyna-Star® 200:1 or 120:1 Air-Powered Grease Pump Lower Extension Conversion Kit - 120 to (55 kg) Bag to 400 to (180 kg) Bag
25A200	Heavy-Duty Follow-On Plate with Handles and Retained Chain for 400 to (180 kg) Bag
25A201	Heavy-Duty Follow-On Plate with Handles and Retained Chain for 120 to (55 kg) Bag
25A202	Drum Cover with Retained Chain Connection for 400 to (180 kg) Bag
25A203	Drum Cover with Retained Chain Connection for 120 to (55 kg) Bag
25P781	Tie Chain Kit - 400 to Barrel
25A961	Tie Chain Kit - 120 to Bag

Specifications

Item	Dyna-Star 200:1	Dyna-Star 120:1
Flow (max)	1.5 L/min (0.4 gpm)	1.5 L/min (0.4 gpm)
Maximum Fluid Temperature	180°F (82°C)	180°F (82°C)
Output pressure	20,000 psi (1,379 bar)	12,000 psi (827 bar)
Certification	CE, ATEX Ex II 2 G Da to IECEx 14 Da	CE, ATEX Ex II 2 G Da to IECEx 14 Da
Instruction Manual	3A7519	3A7519

Contact us today!
Call 800-533-9656 to speak with a Graco representative, or visit www.graco.com for more information.

Manual – 3A7519

Instructions

Dyna-Star® 200:1 and 120:1 Grease Pumps

3A7519A
EN

For dispensing grease in wellhead valve maintenance and wireline applications only. For professional use only.

Dyna-Star 200:1 Model No.
25P785: 400 lb Drum Length
25P784: 120 lb Drum Length

20,000 psi (137.9 MPa, 1379 bar) Maximum Working Pressure
100 psi (0.69 MPa, 6.89 bar) Maximum Air Pressure

Dyna-Star 120:1 Model No.
26A968: 400 lb Drum Length
26A967: 120 lb Drum Length

12,000 psi (82.7 MPa, 827 bar) Maximum Working Pressure
100 psi (0.69 MPa, 6.89 bar) Maximum Air Pressure

Important Safety Instructions
Read all warnings and instructions in this manual before using the equipment. Save these instructions.

Related Manuals

Manual (English)	Description
3A7718	Dyna-Star® Air Motors

PROVEN QUALITY. LEADING TECHNOLOGY.



Dyna-Star® Air Powered Pumps

Reliability you can trust to provide fast grease delivery against high back pressures in an easy-to-service package.