

GracoLube System, Maintenance, Measure and Monitoring.

////////////////////

aris@kseindonesia.com
0821 2222 8303



Graco History

Founded in 1926, Graco is a world leader in fluid handling systems and components



Leil and Russell Gray





Graco is part of your
everyday life.

PROVEN QUALITY. LEADING TECHNOLOGY.



Graco Worldwide Locations



- More than 3,600 employees
- Headquartered in Minneapolis, Minnesota with global reach

- **Graco Worldwide Locations**

- Bundoora, Australia
- Gurugram, India
- Indianapolis, Indiana
- Maasmechelen, Belgium
- Minnesota, USA (3 facilities)
- Montevideo, Uruguay
- North Canton, Ohio, USA
- Hwaseong-si, Korea
- Shanghai, China
- Sioux Falls, South Dakota, USA
- St. Gallen, Switzerland
- Suzhou, China
- Yokohama, Japan
- and more!





Manufacturing & Distribution



- Major Production Facilities - 1.5 million sq ft

- Minneapolis, MN	Industrial and Automotive Equipment	433,000 sq ft
- Rogers, MN	Contractor Equipment	325,000 sq ft
- Anoka, MN	Lubrication Equipment	208,000 sq ft
- Sioux Falls, SD	Spray guns and tips	147,500 sq ft
- North Canton, OH	Precision dispense equipment	132,000 sq ft
- Suzhou, China	Select high volume, labor intensive products	81,400 sq ft
- St Gallen, Switzerland	Industrial equipment	79,000 sq ft
- West Yorkshire, UK	Industrial equipment	64,000 sq ft



- Global Distribution Centers to Serve You

- Rogers, MN
- Maasmechelen, Belgium
- Yokohama, Japan
- Seoul, Korea
- Shanghai, China
- Melbourne, Australia



Automatic Lubrication Equipment

ALE

Vehicle Service Equipment

VSE

PROVEN QUALITY. LEADING TECHNOLOGY.

Auto Lubrication System

- Progressive system
- Parallel Injector system

////////////////////

ALE – AUTO LUBE SYSTEM



Main component of autolube system

Timer/Controller



Pumps

Metering Device

Tube/Hose & Acc

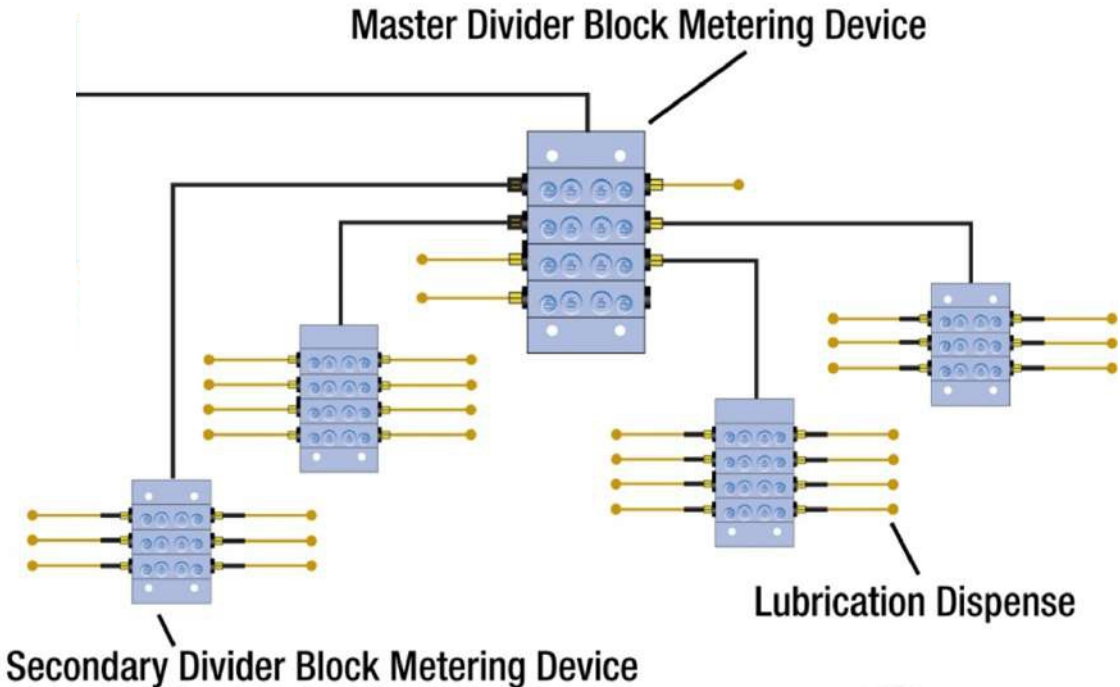
ALE – Progressive System



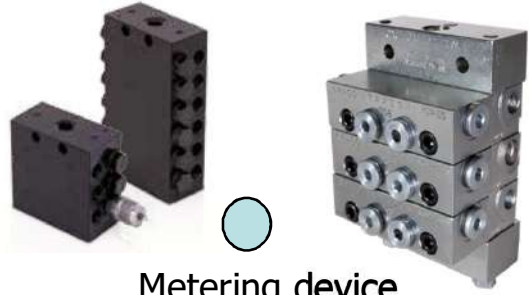
○ Lubrication Pump



Controller/Timer
GLC



- Metering device – Divider block
- Complete system monitoring
- Blocks can have cycle indication
- Performance Indicators have visual indication

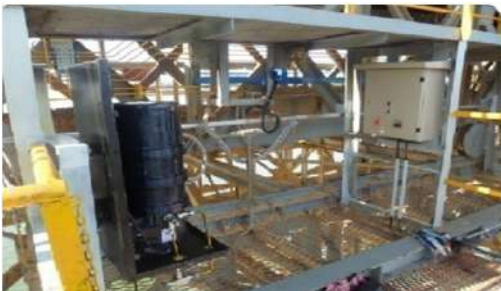


○ Metering device
Series Progressive
system

ALE – Progressive System Application



Industrial



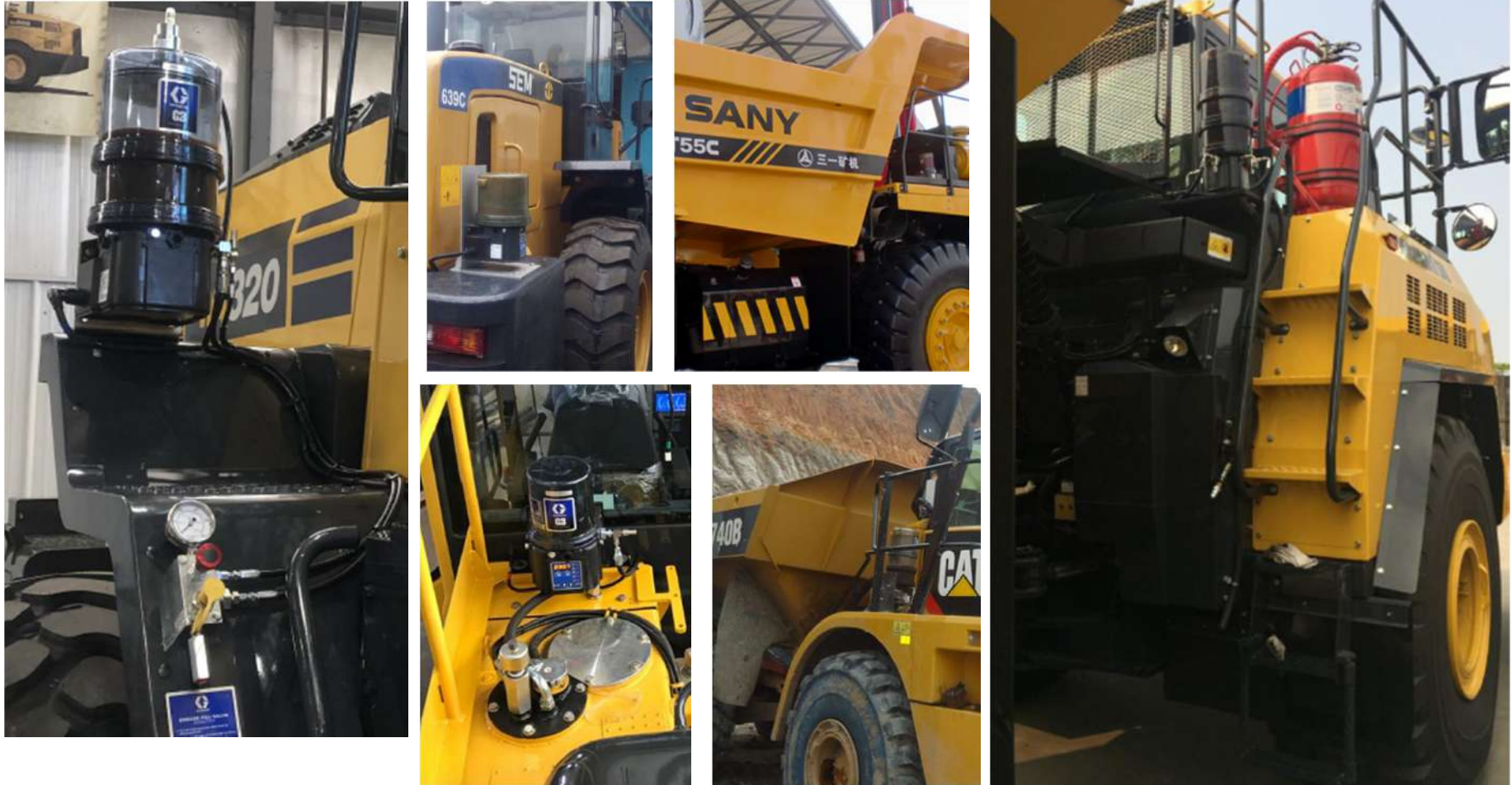
ALE – Progressive System Application



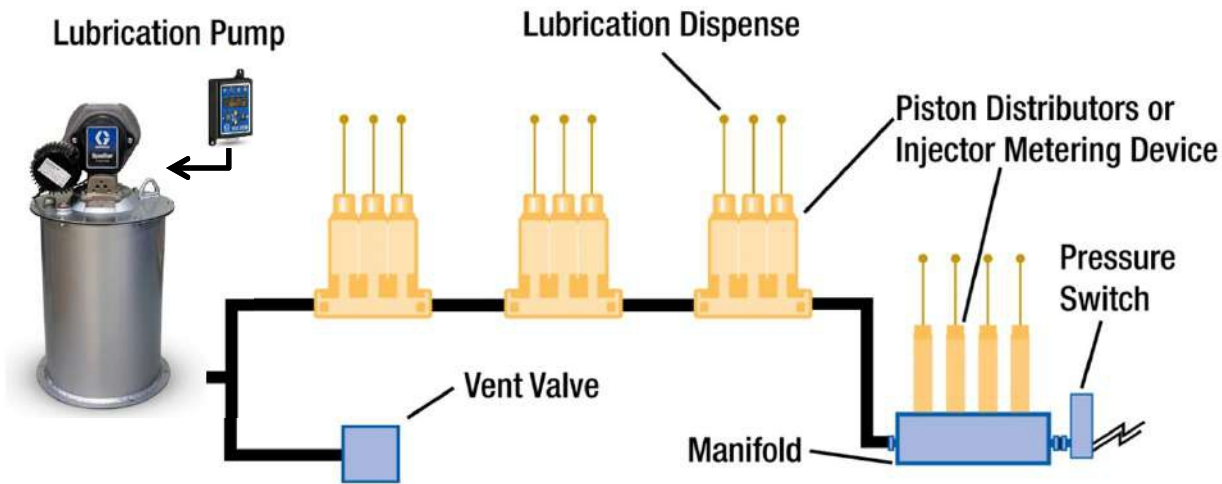
ALE – Progressive System Application



Heavy Equipment



ALE – Parallel Injector Base System



Metering device
Injector Based
system

- Metering device – Injectors
- Simple system monitoring
- Pressure Switch provide cycle indication
- Injector have visual indication

ALE – Injector Base System



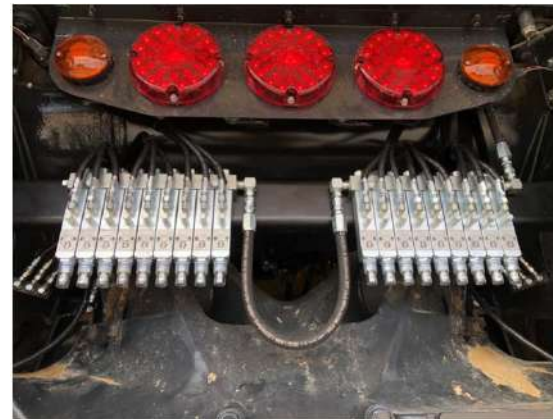
Heavy Equipment



ALE – Injector Base System



Heavy Equipment



ALE – Injector Base System



Heavy Equipment



Graco Auto Lube



Vehicle Service Equipment

- Oil & Grease transfer pump
- Oil & Grease Valve/Meter
- Hose Reels
- Accessories

////////////////////

VSE – Oil transfer pump



Fast-Ball®/Fast-Flo® LD Series™ Pump Fire-Ball® Pumps GT 750™



- Ideal for lower-volume, short-run transfers
- Maximum recommended flow rate of 4 gpm
- Ratio for oil: 1:1



- Ideal for low- to medium-volume applications
- Built-in thermal relief to protect product
- Free-flow at 100 psi (6.9 bar): up to 7.8 gpm (30 lpm)*
- Ratios for oil: 3:1, 5:1
- Ratio for grease: 50:1



- Ideal for low- to medium-volume applications up to demanding high-volume applications
- In-line, corrosion-resistant design with fewer parts for minimal pump wear and longer pump life
- Free-flow at 100 psi (6.9 bar): up to 28.7 gpm (109 lpm)*
- Ratios for oil: 3:1, 5:1, 6:1, 10:1
- Ratios for grease: 10:1, 15:1, 50:1, 75:1



- Ideal for challenging, high-volume applications
- Available in 35, 120 and 400 lb down tube lengths
- Free flow rate @ 100 psi (6.9 bar): 32 lbs/min (14.5 kg/min)
- Ratio for grease: 36:1

VSE – Oil transfer pump



Dyna-Star®/Power-Star™ NXT® Supply Systems Husky™ Diaphragm Pumps LD Series™ Blue Pumps



- Low- to medium-volume applications
- Flow rate for oil: 3-12 gpm (11-45 lmp)
- Flow rate for grease: 1.1-4 lb/min (0.5-1.8 kg)
- Maximum fluid output pressure: 375-2,300 psi (25.1-159 bar)
- Maximum hydraulic inlet pressure: 600-1,500 psi (41-103.5 bar)
- Pump ratios for oil: 1:1, 1/4:1
- Pump ratios for grease: 2.4:1, 5:1, 10:1



- Ideal for bulk transfer – moves fluids fast! 31 gallons of oil or 57 pounds of grease per minute (117 lpm)
- Ratios for oil: 3.5:1, 4.5:1, 6:1, 10:1, 12:1, 23:1
- Ratios for grease: 14:1, 26:1, 29:1, 55:1, 63:1, 68:1



- Simple, reliable transfer pumps ideal for oil, used oil, windshield wash, antifreeze, fuel and DEF
- Flow Rates: 7–275 gpm (27–1041 lpm)
- Packages designed specifically for pre-mixed windshield wash and DEF application



- Dispense DEF solution with choice of electric or manual pump
- Reliable & cost-effective solutions
- 120V or 12V electric options
- Electric: Maximum flow rates up to 9.5 gpm (36.1 lpm)
- Manual: Fast delivery of 11 oz (0.33 l) per stroke

VSE – Application



VSE – Application



VSE – Oil & Grease Valve/Meter



Grease Dispense Valves	SDV15 and XDV20 Control Valves	SD Series™ Mechanical Meters	LDP5 Meters
------------------------	--------------------------------	------------------------------	-------------



- Designed for daily use in dealerships, fleet service and maintenance facilities
- Non-metered and metered options available
- Multiple adapters available
- Pro Shot™: 1/4 in and 3/8 in inlet options; 8,000 psi (552 bar) working pressure
- Accu-Shot™: 1/4 in inlet; 5,000 psi (345 bar) working pressure



- Dispenses motor oils, ATF, gear lube and antifreeze
- Sturdy-cast body designed for use in tough environments
- Lock-on/off trigger
- Indoor or outdoor use
- Multiple extensions available
- 1,500 psi (103 bar)
- Flow rates up to 20 gpm (76 lpm)



- Dispense motor oils, ATF, gear lube and antifreeze
- Manual or preset models
- Indoor and outdoor use
- Multiple extensions available
- 1,500 psi (103 bar)
- Flow rates up to 8 gpm (30 lpm)



- Dispense motor oils, ATF, gear lube and antifreeze
- Preset dispense meter
- Automatic nozzle
- Indoor use
- Multiple extensions available
- 1,000 psi (69 bar)
- Flow rates up to 5 gpm (19 lpm)

VSE – Oil & Grease Valve/Motor



EM® Series Meters	SD Series™ Meters	SD Series™ DEF Meter & Valves	SD Series™ DEF Meter & Valves
-------------------	-------------------	-------------------------------	-------------------------------



- Dispense motor oils, ATF, gear lube and antifreeze
- Manual dispense
- Rugged design to withstand harsh environments
- Indoor or outdoor use – IP69K rated
- Multiple extensions available
- 1,500 psi (102 bar)
- Flow rates up to 20 gpm (76 lpm)



- Dispenses motor oils, ATF, gear lube and antifreeze
- Manual and preset dispense models
- Four-finger pressure balance trigger for superior comfort and ergonomics
- Multiple extensions available
- 1,500 psi (103 bar)
- Flow rates up to 18 gpm (68 lpm)
- Durable cast aluminum body
- Premium LCD display with easy-to-use operator controls
- Option to display meter name/fluid type on LCD screen



- Dispense DEF
- Choose with or without built-in meter
- Easy-to-install inline design
- Break-away system for low-cost repairs
- 50 psi maximum pressure
- Nozzle flow rates up to 12 gpm (45 lpm)
- Meter flow rates up to 26.4 gpm (99 lpm)



- Dispense DEF, motor oil, ATF and antifreeze
- Heavy-duty design
- Nozzle features automatic shut-off valve
- Meter: 1,500 psi (103 bar), 1/2 in NPT inlet
- Nozzle: 50 psi (3.4 bar), 3/4 in BSPP inlet
- Nozzle flow rates up to 11 gpm (41 lpm)
- Meter flow rates up to 14 gpm (53 lpm)

VSE – HoseReel / CordReel



LDX™ Series



- Small maintenance shops
- Tire maintenance shops
- Small fast lubes
- Independent repair facilities
- Industrial manufacturing facilities

SDX™ 10 / 20 Series



- Car dealerships
- Light-/medium-duty truck dealers
- Fleet maintenance
- Public works garages
- Construction vehicle maintenance
- Light-utility service trucks

SD™ Series Cord Reels



- Automotive dealerships
- Fast lube centers
- Service shops
- Heavy-duty dealerships
- Fleet services facilities
- In-plant
- Lube trucks
- Mining

XDX™ 10 / 20 Series



- Heavy-duty truck dealers
- Fleet maintenance
- Mining maintenance
- Public works garage
- Construction vehicle maintenance
- Heavy-duty mobile service trucks
- Mining
- Lube trucks

VSE – HoseReel / CordReel



XD™ 30 Series



- Heavy-duty truck dealers
- Fleet maintenance
- Mining maintenance
- Public works garage
- Construction vehicle maintenance
- Heavy-duty mobile service trucks
- Mining
- Lube trucks

XD™ 60 / 70 / 80 Series



- Heavy-duty truck dealers
- Fleet maintenance
- Mining maintenance
- Public works garages
- Construction vehicle maintenance
- Heavy-duty mobile service trucks
- Agriculture
- Lube trucks

XD™ 40 / 50 Series



- Heavy-duty truck dealers
- Fleet maintenance
- Mining maintenance
- Public works garages
- Construction vehicle maintenance
- Heavy-duty mobile service trucks
- Agriculture
- Lube trucks

Typical Fluid

- Petroleum- and synthetic-based oils
- Diesel fuel
- Air
- Water
- Grease
- Antifreeze
- Windshield washer fluid
- Pressure wash
- Waste oil evacuation
- Diesel exhaust fluid (DEF)

VSE – Application



VSE – Application



VSE – Accessories



Fluid Management System

- PULSE PRO – OIL MANAGEMENT SYSTEM

////////////////////

VSE – Fluid Management System (Pulse PRO)



System Component Overview



Hub



Meter



TLM



PAC



Extender



Remote
Extender



Mobile Cart

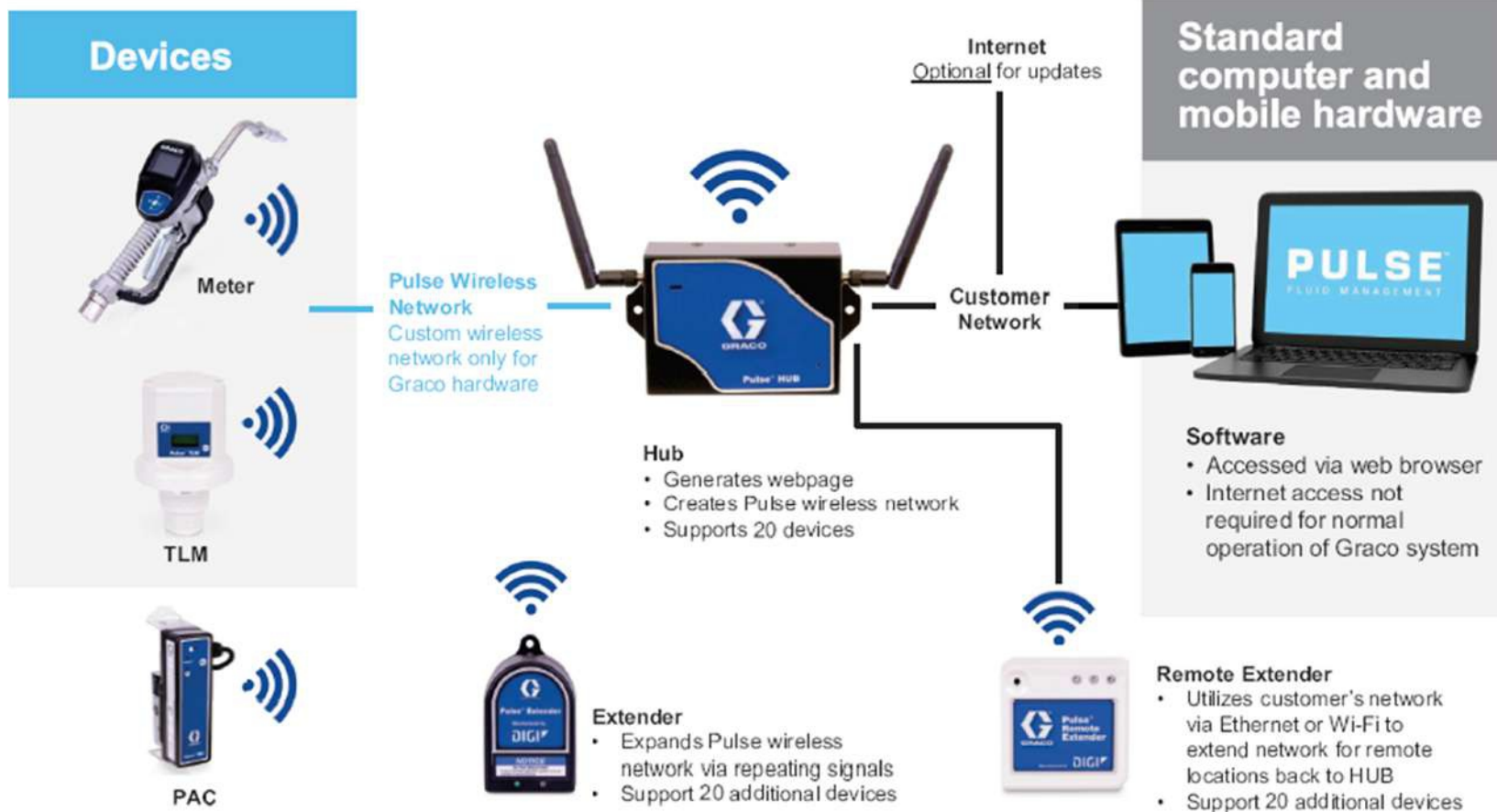


Oil Bar

VSE – Fluid Management System (Pulse PRO)



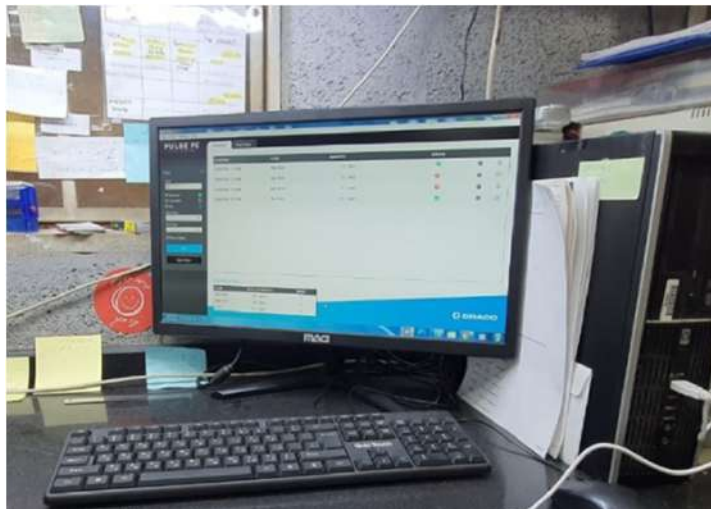
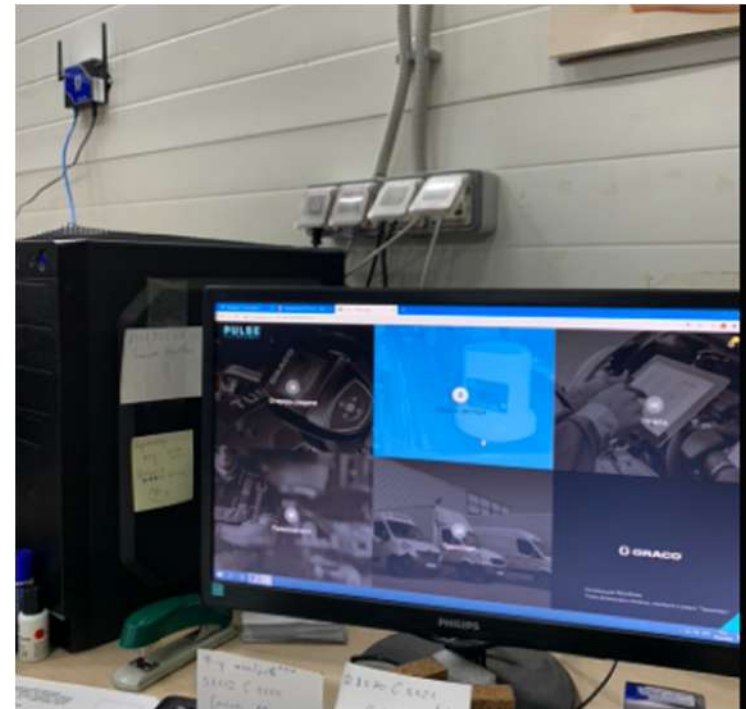
Architecture Overview



VSE – Fluid Management System (Pulse PRO)



VSE – Fluid Management System (Pulse PRO)



Pneumatic Pressure Washer

- Hydraclean

////////////////////

Pneumatic Pressure Washer



THE HIGHEST RATIO PNEUMATIC PRESSURE WASHER

The new HydraClean LT delivers up to 4,500 psi. Paired with Graco's proven pump quality, this pressure washer is the solution to your toughest cleaning challenges.

THE SUPREME CHOICE IN HIGH-PRESSURE SPRAY

- Adjustable Pressure up to 4500 psi
- Efficient Cleaning with Hot or Cold Water
- Highest Quality Component Materials
- Easy-to-Use, Simple to Set Up

HIGH-PRESSURE, SINGLE-GUN CLEANING

- Up to 4,500 psi (310.3 bar)
- ATEX approved for hazardous locations

EASY-TO-USE

- Use with cold or hot water up to 160°F (71°C)
- PPE friendly large pressure controls
- Includes 5 fan pattern spray tips for various applications

ROBUST CONSTRUCTION

- SST pump withstands harsh chemicals and environments
- High quality Graco piston pump technology
- Strongest tubular steel cart on the market

*based on current list price

Pneumatic Pressure Washer



Cleaning

Graco offers high-pressure cleaning equipment for easy and safe maintenance of your machines and equipment.

Diaphragm Pump

- Air Operated Diaphragm Pump

////////////////////

Diaphragm Pump - Air Operated (AODD)



Husky 515

- 1/2 in (12.7 mm) connection
- Max flow: 15 gpm (57 lpm)
- Polypropylene, acetal, PVDF



Husky 716

- 3/4 in (19.1 mm) connection
- Max flow: 16 gpm (61 lpm)
- Aluminum, SST



Husky 1050

- 1 in (25.4 mm) connection
- Max flow: 50 gpm (189 lpm)
- Aluminum, polypropylene, conductive polypropylene, PVDF, SST, hastelloy



Husky 1050HP

- 1 in (25.4 mm) connection
- Max flow: 50 gpm (189 lpm)
- Aluminum and SST



Husky 1590

- 1-1/2 in (38.1 mm) connection
- Max flow: 90 gpm (340 lpm)
- Polypropylene, aluminum, SST



Husky 15120

- 1-1/2 in (38.1 mm) connection
- Max flow: 120 gpm (454 lpm)
- Polypropylene, PVDF



Husky 2150

- 2 in (50.8 mm) connection
- Max flow: 150 gpm (568 lpm)
- Polypropylene, aluminum, SST, iron



Husky 2200

- 2 in (50.8 mm) connection
- Max flow: 200 gpm (757 lpm)
- Polypropylene, PVDF



Husky 3300

- 3 in (76.2 mm) connection
- Max flow: 300 gpm (1135 lpm)
- Polypropylene, aluminum, SST

Diaphragm Pump - Hose Pump - Hydraclean



Hose Pump



Hydraclean
Pneumatic
Pressure
washer



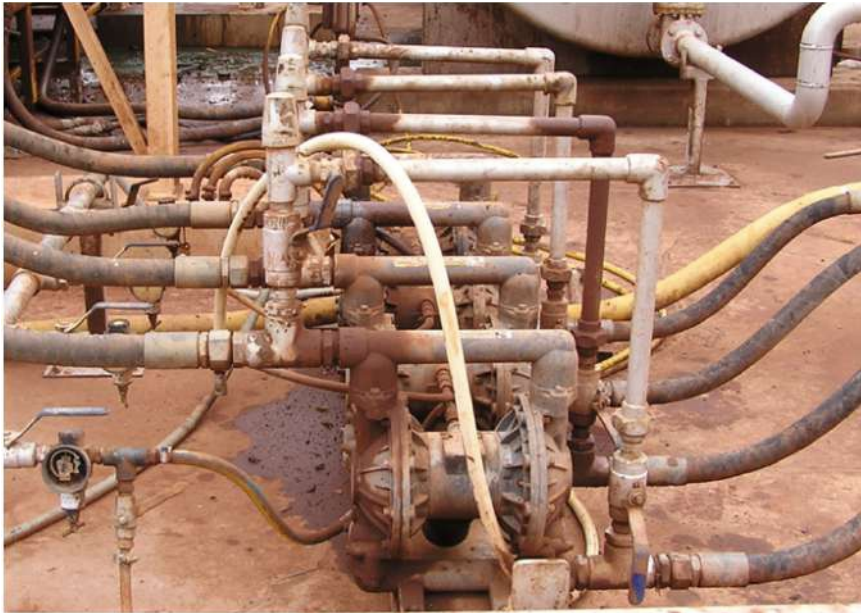
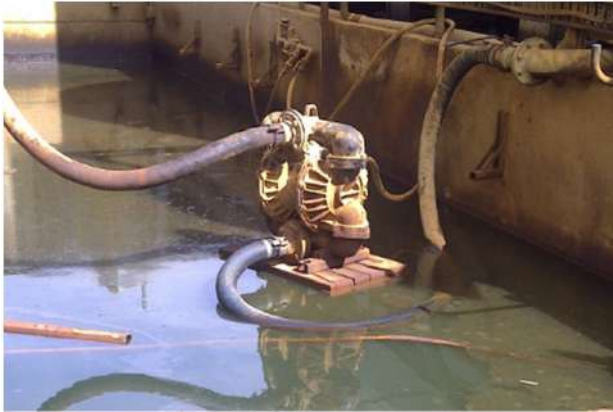
Electric Operated
Diaphragm Pump



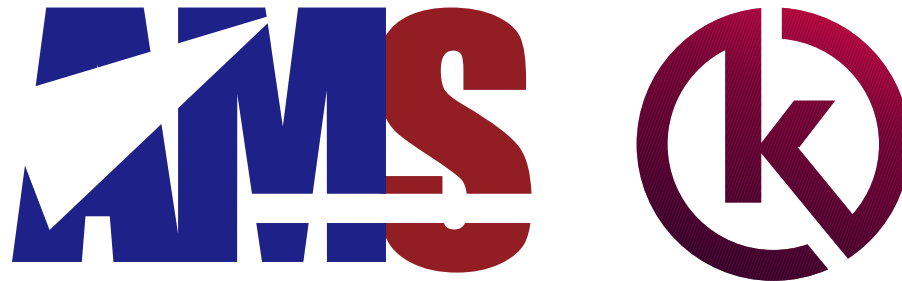
Sanitary AODD
(FDA)



Diaphragm Pump - Air Operated (AODD)



AMS-KSEIndonesia Corp



PT. APINDO MITRA SELARAS

Serang Office :

Komp. Lebak Indah Griya Asri
Blok D4-D5 No.17 & No.05
Waringin Kuring - Kramatwatu
Serang, Banten
42161

Cilegon Office :

Jl. Raya Pondok Cilegon Indah
Ruko Cilegon City Square Blok I No.7
Kedaleman - Cibeber
Cilegon, Banten
42422

Workshop :

Jl. Sultan Syahrir Kubang Sepat
Citangkil No. 105
Cilegon, Banten
42441

aris@kseindonesia.com - sales@kseindonesia.com - cso@kseindonesia.com

www.kseindonesia.com



Move | Measure | Mix | Control | Dispense | Spray

WORLDWIDE LEADERS IN FLUID HANDLING

www.graco.com