



# FILTRATION PRODUCTS





## Applications:

- Conditioning lubricants already in use
- Filtering new oil to meet a target cleanliness standard
- Flushing reservoirs to clean out any unwanted contaminants
- Transferring new oils from bulk drums to storage tanks or system reservoirs

## Benefits:

- Reduce maintenance, operating, and downtime costs
- High efficiency, high capacity, fine filtration
- Extending the life expectancy of your assets
- Reduction in energy costs
- Going green by extending the life of your lubricants
- Reduced consumption and disposal costs

One of the principles of lubrication management best practices is ensuring new and in-service lubricants are applied in the right condition. The lubricant is part of the design criteria of the equipment. Original Equipment Manufacturer's (OEM) outline specific cleanliness levels of lubricants to maximize the equipment life expectancy. Unfortunately, new lubricants may not meet the required target cleanliness code and should be filtered prior to being put into service.

Whether you are filtering new oils or reducing contamination levels in service, Trico can assist you with our comprehensive line of filtration solutions. Not only will you increase your equipments' reliability by employing Trico's filtration solutions, you will see a reduction in overall maintenance costs.

**Heavy-duty. High-efficiency. Portable.**





# BEFORE SELECTING A FILTRATION SYSTEM

## 1. WHAT'S YOUR TARGET CLEANLINESS?

Use the OEM recommendations as a good starting point. You can adjust them based on the level of criticality of the equipment. Keep in mind you should also use the same ISO cleanliness targets when filtering new oils prior to being put into service.

## 2. WHAT'S THE OIL TYPE?

Knowing the types of oil being filter is helpful information when choosing a filtration system. Mixing different oils can present compatibility issues. It is recommended to have a separate unit for each oil type. Also keep in mind that some oils have compatibility issues with Buna-N and Viton seals that are common on filtration systems.

## 3. WHAT'S THE VISCOSITY OF THE OIL?

Select a filtration system that is optimized for the viscosity of the lubricant you are filtering and at the temperature at which the filtration system will be used to filter the oil.

## 4. WHAT IS THE SUMP/RESERVOIR VOLUME?

Knowing the sump/reservoir volume will help determine the number of minutes to keep the filtration system on for kidney loop filtration. Kidney loop filtration works best between 6 to 8 turns of your sump/reservoir volume.

# of turns x flow rate (GPM) x sump capacity (Gal) = Min  
(ie - 7 turns x 4 GPM x 3 Gallons = 84 minutes)

## 5. WHAT'S THE INTENDED USE?

A filtration system isn't just for routine or offline filtration anymore, now, more than every it is being used for dispensing new oil and transferring waste oil. Before selecting a filter cart, you should consider its intended use and the features available. A filter by-pass valve comes in handy to prevent dirty oil on its way out from contaminating clean oil on its way in to the equipment. If you will be taking oil samples, a sample port will allow you to take representative samples providing insight to the condition of the lubricant, the health of the equipment and the efficiency of the filters.

## 6. WHERE WILL IT BE USED?

Select features for your filtration unit that will make it easier for the unit to be used in you facility. Consider such factors as power supply, weight, tires, and hose type and fittings just to name a few.



Scan this QR code to watch a short video on selecting the right filtration system for your application.



# SYSTEM COMPARISON MATRIX

## Make sure your chosen filtration system...

- has the right pump type for the oil viscosity in your machines
- will remove the contaminants you need it to
- can pump oil fast enough to keep your machines clean
- has the features you need, like bypass or sample valves
- can be easily transported to the location where you'll be using it



	Hand-Held			Portable Filter Cart		
	Low Viscosity	High-Viscosity	Pneumatic	Low Viscosity	High Viscosity	Pneumatic
Viscosity Range	Up to 430 cSt @ 40°C	Up to 1600 cSt @ 40°C	Up to 1600 cSt @ 40°C	Up to 540 cSt @ 40°C	Up to 1600 cSt @ 40°C	Up to 1600 cSt @ 40°C
Pump Type	Gear Pump	Gear Pump	Pneumatic	Gear Pump	Gear Pump	Pneumatic
Flow Capacity	5.5 GPM	1 GPM	1 GPM	7.25 GPM	Up to 4 GPM	3 GPM
Max. Operating Pressure	N/A	N/A	100 PSI	N/A	N/A	100 PSI
Maximum Inlet Vacuum	15" of Mercury	15" of Mercury	15" of Mercury	8" of Mercury	8" of Mercury	8" of Mercury
Pump By-Pass	50 PSI	85 PSI	85 PSI	105 PSI	105 PSI	105 PSI
Filter By-Pass	43 PSI	43 PSI	43 PSI	43 PSI	43 PSI	43 PSI
Electric Service	115V 60 Hz	115V 60 Hz	N/A	115V 60 Hz	115 V 60 Hz	N/A
Suction Line	.75" Dia @ 6' Long	.75" Dia @ 6' Long	.75" Dia @ 6' Long	1" Dia @ 6' or 10' Long	1" Dia @ 6' Long	1" Dia @ 6' Long
Discharge Line	1" Dia @ 6' Long	1" Dia @ 6' Long	1" Dia @ 6' Long	1" Dia @ 6' or 10' Long	1" Dia @ 6' or 10' Long	1" Dia @ 6' or 10' Long
Differential Pressure Gauges	Yes	Yes	Yes	Yes	Yes	Yes
Check Valve	No	No	No	Yes	Yes	Yes
Oil Sampling Ports	Yes	Yes	Yes	Yes	Yes	Yes
FRL Filter	No	No	Yes	No	No	Yes
By-Pass Valve	No	No	No	Yes	Yes	Yes
Drip Pan	No	No	No	Yes	Yes	Yes

# DRUM PUMP FILTRATION SYSTEM

Ideal for filtering 55-gallon drums

### Motor Adapter

Allows for easy transfer of motor to other Drum Pump Filtration Systems

### Differential Pressure Gauges

Indicates when elements need to be changed

### Rubber Dust Cap

Prevents contaminants from entering the nozzle when not in use

### Spin-On Filter

Standard with 10 micron absolute Beta >200 spin-on filter

### Ground Lead

Prevents potential sparking and static build up between conductive equipment by hose grounding structures

### Dispensing Nozzle

Provides continuous flow and safe lubricant transfer

### Hose

Heavy-duty hydraulic hose

### Pump Tube

Capable of fitting 55-gallon drums

### Bung Adapter

Includes sealing bung adapter (not shown in photo)



### Sampling Ports

Two sampling ports available for oil sampling before and after filter (not shown in photo)



P/N 30018 or 30021



P/N 30019



**P/N - 30035**

**P/N - 30018** (Electric Motor)

**P/N - 30019** (Pneumatic Motor)

**P/N - 30021** (Electric Motor - 220V/50 Hz)

## Specifications:

P/N - 30035 (Tube Assembly for 55 Gallon Drums)

P/N - 20012 (Tube Assembly for IBC Totes w/o filter)

Type	Seal-less/Centrifugal
Material	Stainless Steel 316
Tube Length	39" (30035 - 55 gal drum)
Tube Length	47" (20012 - IBC Totes)
Maximum Temperature	180°F (82°C)
Discharge Nozzle	1"
Discharge Line	1" Hydraulic Hose
Hose Line Length	6'
Filter Media	10 Micron Absolute Beta >200
Replace Filter Media	40 PSI Differential

**NOTE:** The Drum Pump Filtration System requires spin-on filters in chart Hand-Held & Drum Pump Filtration Filter Media on Page 10.

## Specifications:

P/N - 30018 & 30021 (Electric)

Motor	1.10 HP @ 10,000 RPM
Maximum Viscosity	1250 cSt @ 40°C
Flow Rate (Max)	Up to 7.25 GPM*
Electric Motor Rating	110-120V 50/60 Hz, 8.5 A (30018) 220-240V 50/60 Hz (30021)

\*Dependent on oil viscosity and temperature.

## Specifications:

P/N - 30019 (Pneumatic)

Motor	3/4 HP @ 8,000 RPM
Maximum Viscosity	1250 cSt @ 40°C
Flow Rate (Max)	Up to 6 GPM*
Inlet Pressure	100 PSI max @ 28 CFM
Stall Pressure	50 PSI
Air Inlet Connection	1/4" NPT Female

\*Dependent on oil viscosity and temperature.

# HIGH-VISCOSITY HAND-HELD SYSTEM

### Oil Sampling Ports

Two sampling ports available to monitor condition of oil

### Differential Pressure Gauges

Indicates when elements need to be changed

### FRL Filter

Removes moisture and debris from air line to prevent premature wear and failure (pneumatic motor version only - not shown in photo)



### Gear Pump or Pneumatic Motor

Industrial quality for long life

### Compact Frame

Lightweight design provides flexibility to service equipment located in hard to reach areas

### Dual Filters

Two-stage filtration for long element life and pump protection

### Hoses

Heavy-duty hydraulic hose (not shown)

**P/N - 36971** (Electric)

**P/N - 36934** (Pneumatic)

Hand-held, portable unit ideal for hard to reach places and applications with 3-50 gallon reservoirs.

**NOTE:** The High-Viscosity Hand-Held System requires spin-on filters in chart Hand-Held & Drum Pump Filtration Filter Media on Page 10.

## Specifications:

P/N - 36971 (Electric)

P/N - 36934 (Pneumatic)

	P/N - 36971 (Electric)	P/N - 36934 (Pneumatic)
Pump Type	Industrial Grade Gear Pump	Pneumatic Driven Industrial Gear Pump
Flow Capacity	1 GPM	1 GPM
Gear Pump Speed	3/4 HP @ 1750 RPM	Max 1.7 HP @ 3000 RPM Variable
Maximum Inlet Vacuum	15" of Mercury	15" of Mercury
Hose Sizing	.75" Inlet @ 6' Long/1.0" Outlet @ 6' Long	.75" Inlet @ 6' Long/1.0" Outlet @ 6' Long
Max. Operating Temperature	110°F Continuous ~ 150°F Limited Use	110°F Continuous ~ 150°F Limited Use
Pump By-Pass	85 PSI	85 PSI
Filter By-Pass	43 PSI	43 PSI
Maximum Viscosity	1600 cSt @ 40°C	1600 cSt @ 40°C
Seal and Gasket Material	Viton®	Viton®
Electrical Service Required	115 Volts, 10 Amps, Single Phase, 60 Hz	N/A
Air Inlet Connection	N/A	1/4" NPT Female
Max. Operating Pressure	N/A	100 PSI
Weight	50 lbs.	49 lbs.
Dimensions	27"W x 13"D x 17"H	27"W x 13"D x 17"H



# HIGH-VISCOSITY PORTABLE CART SYSTEM

**P/N - 36970 & 36998** (Electric)

**P/N - 36933** (Pneumatic)

Portable filtration cart that can service multiple pieces of equipment

**By-Pass Valve**

Allows transfer of oil without filtering

**Check Valve**

Prevents fluid back flow when pumping vertically

**Oil Sampling Ports**

Two sampling ports available to monitor condition of oil

**Quad Filters**

Four filter elements for increased holding capacity

**FRL Filter**

Removes moisture and debris from air line to prevent premature wear and failure (pneumatic motor version only - not shown in photo)



**Heavy Duty Cart**

Rugged and built to last

**Differential Pressure Gauges**

Indicates when elements need to be changed

**Hose & Wand Assembly**

Hydraulic hose with 3' long metal wands (not shown)

**Industrial Strength Tires**

Wide tires capable of getting over large grate gaps

**Drip Pan**

Keeps work area safe and clean

**Specifications:**

**P/N - 36970 & 36998** (Electric)

**P/N - 36933** (Pneumatic)

Pump Type	Industrial Grade Gear Pump	Pneumatic Driven Industrial Gear Pump
Flow Capacity	4 GPM (36970) & 3.5 GPM (36998)	3 GPM
Gear Pump Speed	1-1/2 HP @ 1750 RPM (36970) 1-1/2 HP @ 1425 RPM (36998)	Max 4 HP @ 3000 RPM Variable
Maximum Inlet Vacuum	8" of Mercury	8" of Mercury
Hose Sizing	1" Suction and Discharge Line @ 6' Long	1" Suction and Discharge Line @ 6' Long
Max. Operating Temperature	110°F Continuous ~ 150°F Limited Use	110°F Continuous ~ 150°F Limited Use
Pump By-Pass	105 PSI	105 PSI
Filter By-Pass	43 PSI	43 PSI
Maximum Viscosity	1600 cSt @ 40°C	1600 cSt @ 40°C
Seal and Gasket Material	Viton®	Viton®
Electrical Service Required	115V, 20 Amps, Single Phase, 60 Hz (36970) 220V 50 Hz (36998)	N/A
Air Inlet Connection	N/A	1/4" NPT Female
Max. Operating Pressure	N/A	100 PSI
Weight	140 lbs.	156 lbs.
Dimensions	28"W x 21"D x 48"H	28"W x 21"D x 48"H

# LOW-VISCOSITY HAND-HELD SYSTEM

### Oil Sampling Ports

Two sampling ports available to monitor condition of oil

### Differential Pressure Gauges

Indicates when elements need to be changed

### Dual Filters

Two-stage filtration for long element life and pump protection



### Bronze Internal Helical Gear Pump

Industrial quality for long life

### Compact Frame

Lightweight design provides flexibility to service equipment located in hard to reach areas

### Hoses

Heavy-duty hydraulic hose (not shown in photo)

## P/N - 36994 & 36944

Hand-held, portable unit ideal for hard to reach places and applications with 3-50 gallon reservoirs.

**NOTE:** The Low-Viscosity Hand-Held System requires spin-on filters in chart Hand-Held & Drum Pump Filtration Filter Media on Page 10.

## Specifications:

Pump Type	Bronze Internal Helical Gear Pump
Flow Capacity	5.5 GPM
Electric Motor Rating	1/2 HP @ 1750 RPM
Maximum Inlet Vacuum	15" of Mercury
Hose Sizing	.75" Suction @ 6' Long/1.0" Discharge @ 6' Long
Max. Operating Temperature	150°F (65°C)
Pump Pressure Relief	50 PSI
Filter By-Pass	43 PSI
Maximum Viscosity	430 cSt @ 40°C
Seal and Gasket Material	Viton®
Electrical Service Required	115V, 8.8 Amps, Single Phase, 60 Hz (36994) 220V 50 Hz (36944)
Suction/Lift	20 ft
Weight	47 lbs.
Dimensions	11"W x 20"D x 12"H



# LOW-VISCOSITY PORTABLE CART SYSTEM

### By-Pass Valve

Allows transfer of oil without filtering

### Oil Sampling Ports

Two sampling ports available to monitor condition of oil

### Dual Filters

Two-stage filtration for long element life and pump protection

### Industrial Strength Tires

Wide tires capable of getting over large grate gaps



### Heavy Duty Cart

Rugged and built to last

### Check Valve

Prevents fluid back flow when pumping vertically

### Differential Pressure Gauges

Indicates when elements need to be changed

### Hose Assembly

Heavy-duty hydraulic hose (6 ft) with 3' long metal wands or heavy-duty hydraulic hose (10 ft) with quick connects (not shown in photo)

### Drip Pan

Keeps work area safe and clean

## Specifications:

Pump Type	Steel Internal Gear Pump
Flow Capacity	7.25 GPM - #36900 & #36946 6.00 GPM - #36901 & #36947
Electric Motor Rating	1-1/2 HP @ 1750 RPM - #36900 & #36946 1 HP @ 1424 RPM - #36901 & #36947
Maximum Inlet Vacuum	8" of Mercury
Hose Sizing	1" Dia @ 6' Long with 3' Wands - #36946 & #36947 1" Dia @ 10' Long with Quick Connects - #36900 & #36901
Max. Operating Temperature	2000°F (93°C)
Pressure Relief	105 PSI
Filter By-Pass	43 PSI
Maximum Viscosity	540 cSt @ 40°C
Seal and Gasket Material	Viton®
Electrical Service Required	115 V, 60 Hz, 14.5 A - #36900 & #36946 220 V, 50 Hz, 7.0 A - #36901 & #36947
Max. Filter Oper. Pressure	120 PSI
Weight	130 lbs.
Dimensions	28"W x 18"D x 48"H

## P/N - 36900 & 36901

Includes 10 foot hydraulic hoses with quick connects and 10 and 3 micron filters.

## P/N - 36946 & 36947

Includes 6 foot hydraulic hoses with 3 foot wands and 10 and 3 micron filters.

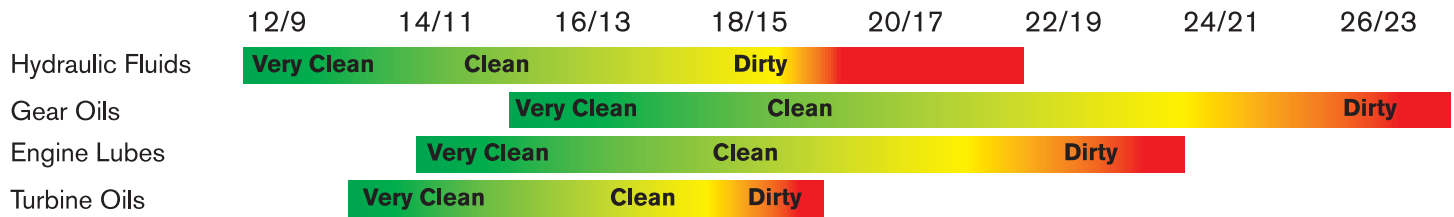
**NOTE:** The Low-Viscosity Portable Cart System requires spin-on filters in chart Portable Cart Filter Media on Page 10.

# FILTER MEDIA

## Selecting the Proper Filter Media

Filter selection is determined by what cleanliness level is recommended for your oil. The selection of the appropriate cleanliness level should be based on the operational and environmental conditions as well as recommended manufacturer specifications. Subjecting components to fluids with higher contamination levels may result in shorter component life. Consult your equipment manufacturer whenever possible.

### Recommended Fluid Cleanliness ISO Levels



### Hand-Held System Filter Media

	36976	36977	36978
Micron Rating	3	10	10
Filter Type	Particulate	Particulate	Water
Media Type	Synthetic Micro-Glass	Synthetic Micro-Glass	–
Diameter	3.7"	3.7"	3.7"
Length	8"	8"	8"
Thread	3/4-16 UN-2B	3/4-16 UN-2B	3/4-16 UN-2B
Beta Ratio	Beta 3 ≥ 200 Absolute	Beta 10 ≥ 200 Absolute	10 micron nominal
Dirt Holding Capacity	41 grams	48 grams	N/A
Water Holding Capacity	N/A	N/A	8 oz*

\* Based on flow rate and viscosity

### Portable Cart Filter Media & Drum Pump Filter Media

	36972	36973	36974	36975
Micron Rating	3	10	20	10
Filter Type	Particulate	Particulate	Particulate	Water
Media Type	Synthetic Micro-Glass	Synthetic Micro-Glass	Synthetic Micro-Glass	–
Diameter	5"	5"	5"	5"
Length	11"	11"	11"	11"
Thread	1 1/2-16 UN-2B	1 1/2-16 UN-2B	1 1/2-16 UN-2B	1 1/2-16 UN-2B
Beta Ratio	Beta 3 ≥ 200 Absolute	Beta 10 ≥ 200 Absolute	Beta 20 ≥ 200 Absolute	10 micron nominal
Dirt Holding Capacity	102 grams	120 grams	125 grams	N/A
Water Holding Capacity	N/A	N/A	N/A	16 oz*

# VISCOSITY

## Viscosity Range

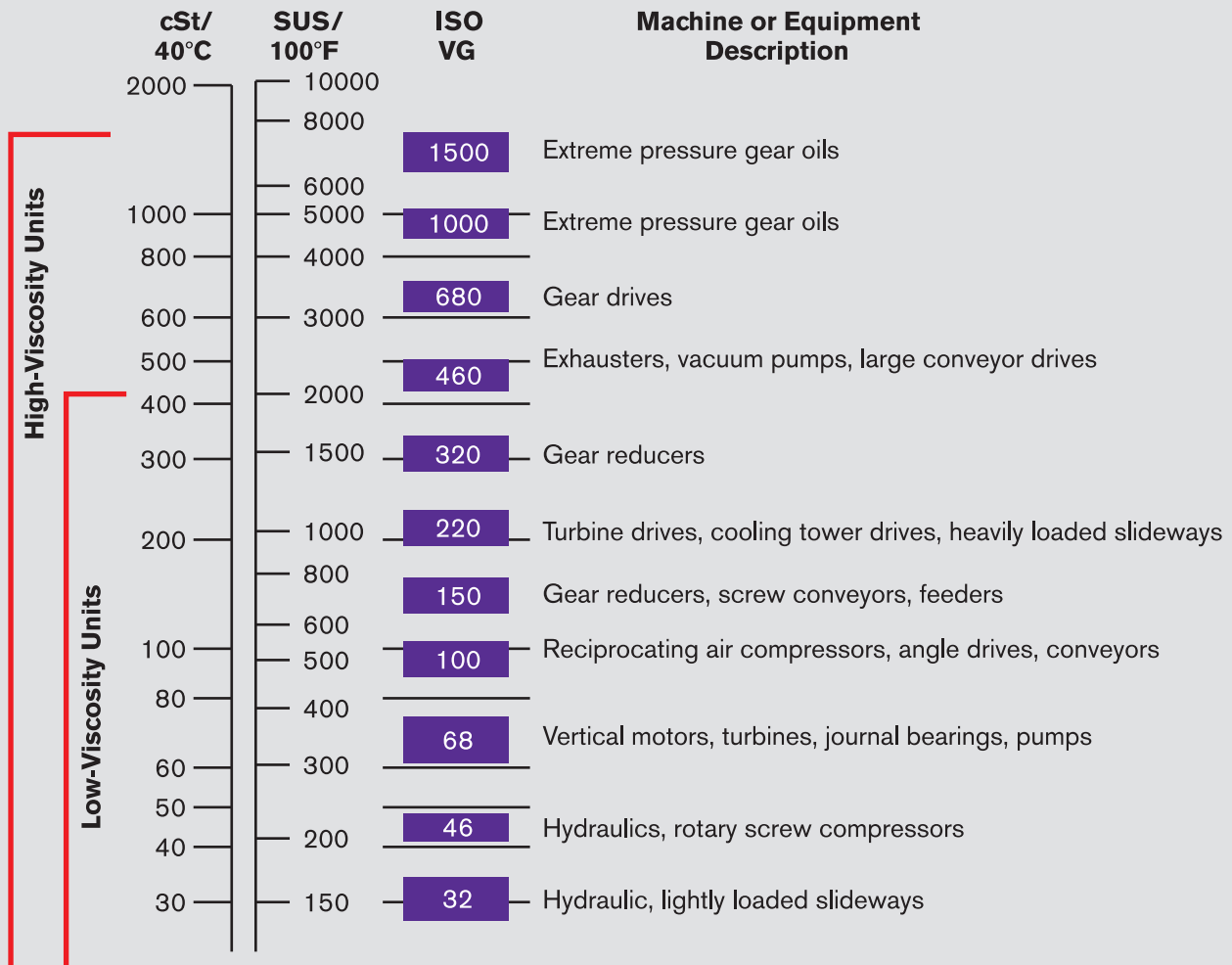
Trico's High-Viscosity Filtration Systems are specifically designed for high viscosity fluids, such as gear oils, and can filter up to 1600 cSt @ 40°C.

## Fluid Compatibility

Trico's Filtration Products are compatible with most petroleum based oils.

- Hydraulic Oils
- Gear Oils
- Turbine Oils
- Transformer Oils
- Motor Oils

*The chart above reflects operating range for filtration systems with oil temperatures at 40°C for cSt and 100°F for SUS*







## IT'S EASY TO GET STARTED

If you're looking to prevent machine failure, enhance machine performance and gain a competitive edge, Trico offers a comprehensive line of filtration solutions.