



You have the machine, **WE HAVE THE SOLUTION.**

HIGH-PRESSURE COOLANT SYSTEMS



MIST COLLECTORS



CHILLERS



FILTRATION



WASH DOWN GUNS



PRODUCT GUIDE

Demand Quality. Insist on MP Systems.

BENEFITS OF HIGH-PRESSURE COOLANT SYSTEMS

1

Optimal Chip Control

High-pressure coolant penetrates the vapor barrier between the cutting tool and the work piece to provide rapid quenching. This makes chips brittle, causing them to immediately break into much smaller pieces that are quickly flushed away. There are no long, stringy chips that can wrap around the work piece and chuck. When operators don't have to stop the machine to clear chips and conveyor clogs they can run the machine unattended and achieve 'lights out' machining.

2

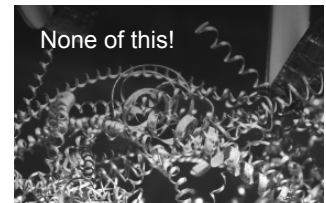
Longer Tool Life

High-pressure coolant lubricates tools and reduces heat, which results in significantly longer tool life. It's common for HPCS users to find that their cutting tools last five times longer.

3

Improved Surface Finishes

High-pressure coolant evacuates chips from the work area before the cutting tool has a chance to re-cut them. This prevents marring of the work piece, resulting in smoother surface finishes.



4

More Machine Tool Capabilities

Machine tools that previously couldn't efficiently perform gun drilling or deep-hole drilling can easily perform these operations when running with high-pressure coolant.

5

Reduced Cycle Times & Increased Production

With high-pressure coolant, machine operators can typically increase speed and feed rates by a minimum of 20 to 30 percent, resulting in much faster cycle times!

6


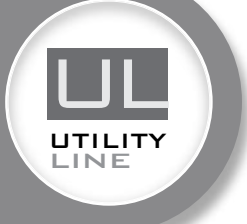




They Literally Pay for Themselves

Adding a high-pressure coolant system to a machine tool is a financially smart move. The investment is recovered within months due to the immediate cost savings resulting from longer lasting cutting tools, faster cycle times, fewer work stops, and the ability to run the machine unattended.

MILL & LATHE FEATURE COMPARISON

FIND THE MOST SUITABLE MP SYSTEMS COOLANT SYSTEM FOR YOUR MACHINE TOOL

MORE CAPABILITY, MORE DURABILITY

MACHINING APPLICATION	 <p>Light Duty</p>	FEATURES <ul style="list-style-type: none"> • Medium pressure 250 PSI • Single filtration • 1 year parts warranty 	
	 <p>Industrial</p>	FEATURES <ul style="list-style-type: none"> • High pressure 1,000 PSI • Dual filtration with deaeration feature • Very durable construction • Low maintenance • Available chiller option • 2 year parts warranty 	
	 <p>Mission Critical</p>	FEATURES <ul style="list-style-type: none"> • Many specialized options available • Variable volume up to 40 GPM • Variable pressures up to 3,000 PSI • Dual filtration with deaeration feature • Abrasive duty upgrade option • Low maintenance • Available chiller option • 2 year parts warranty 	

	UL SERIES	R SERIES	VR SERIES
	<p>The 'UL' Series is a basic design for use in these job shop environments:</p> <ul style="list-style-type: none"> • OD & ID turning operations on free cutting materials • Shallow hole drilling • Light duty • 1 Port • 1 year parts warranty • PLC message displayed 	<p>The 'R' Series is designed to operate with minimal maintenance in environments where machine uptime is critical.</p> <ul style="list-style-type: none"> • OD & ID turning operations on all materials • Deep hole drilling • Pocket milling • Abrasive duty option available • Use chiller option to enhance work piece • 2 ports • 2 year parts warranty • 7x32" 5 micron quick change filter bags • PLC message displayed • Dirty filter alarm • Integrated feed pump 	<p>The 'VR' series is engineered to be extremely durable, energy efficient and to allow full advantage to be taken of the flexibility and range of capabilities found in very sophisticated machine tools.</p> <ul style="list-style-type: none"> • OD & ID turning operations on all materials • Deep hole drilling • Pocket milling • Abrasive duty option available • Use chiller option to enhance work piece thermal stability • Maximum performance for a variety of tooling sizes and requirements • 2 ports • 2 year parts warranty • 7x32" 5 micron quick change filter bags • PLC message displayed • Dirty filter alarm • Integrated feed pump
LATHES	✓	✓	✓
MILLS	✓	✓	✓

VR SERIES

Standard Features:

- Variable volume up to 8 GPM, 16 GPM, twin 8 GPM, or 20 GPM
- User programmable pressures 250-1000 PSI with appropriate interface
- 50 gallon vertical reservoir (VR8)
- 70 gallon vertical reservoir (VR16, VRT, VR20)
- 208/230V standard, not field retrofittable
- 480V special order, not field retrofittable
- Use with water-based coolant or suitable oils

Dimensions:

Floor:

36"L x 28"W x 42"H (VR8)

42"L x 38"W x 42"H (VR16, VRT, VR20)

Options:

- MP 1200 Mist Collection
- Post HEPA filter
- Additional ports
- Auto Cross Over Filtration
- Abrasive Duty option
- Circuit Breaker Kit
- Mounted Chiller, contact MP Systems for details
- MP-R Tank Oil Skimmer

Models: VR8, VR16, VRT, VR20



Shipping:

48"L x 35"W x 66"H - 850lbs (VR8)

54"L x 48"W x 66"H - 1315lbs (VR20)

54"L x 48"W x 66"H - 1250lbs (VR16, VRT)

R SERIES

Standard Features:

- 8 GPM, 16 GPM, or twin 8 GPM, up to 1000 PSI
- Manually adjustable pressures
- 50 gallon vertical reservoir (R8)
- 70 gallon vertical reservoir (R16, RTF)
- 208/230V standard
- 480V special order
- Use with water-based coolant or suitable oils

Dimensions:

Floor:

36"L x 28"W x 42"H (RF8)

42"L x 38"W x 42"H (RF16, RTF)

Options:

- MP 1200 Mist Collection
- Post HEPA filter
- Additional ports
- Auto Cross Over Filtration
- Abrasive Duty option
- Simultaneous Pressure (Turret Lathes)
- Dual Pressure
- Circuit Breaker Kit
- Mounted Chiller, contact MP Systems for details
- MP-R Tank Oil Skimmer

Models: RF8, RF16, RTF



Shipping:

48"L x 35"W x 66"H - 850lbs (RF8)

54"L x 48"W x 66"H - 1250lbs (RF16, RTF)

Abrasive Duty Upgrade:

MP Systems worked extensively on developing high-pressure coolant systems that can withstand the challenges of cutting abrasive materials such as cast iron, cast aluminum and steels coated with mill scale. The proprietary upgrades we have developed for our R and VR series systems elevate our equipment to be more durable and reliable in abrasive environments. To see if this is a good option for your shop, contact us!

VR10/VR15 SERIES

Standard Features:

- Variable volume up to 10 GPM (VR10) or 15 GPM (VR15)
- User programmable pressures 250-3000 PSI with appropriate interface
- 70 gallon vertical reservoir
- 480V
- Use with water-based coolant

Options:

- MP 1200 Mist Collection
- Post HEPA filter
- Additional ports
- Auto Cross Over filtration
- Abrasive Duty Option
- Circuit Breaker Kit
- Extended Life Pleated
- Mounted Chiller, contact MP Systems for details
- MP-R Tank Oil Skimmer

Models: VR10/VR15



Dimensions:

Floor
42"L x 38"W x 42"H (VR10, VR15)

Shipping:

54"L x 48"W x 66"H - 1325lbs (VR10)
54"L x 48"W x 66"H - 1375lbs (VR15)

VR40 SERIES

Standard Features:

- Variable volume twin 20 GPM (40 GPM total)
- User programmable pressures 250 up to 1500 PSI with appropriate interface
- 95-gallon vertical reservoir
- 480V standard, not field retrofittable
- Use with water-based coolant or suitable oils

Options:

- MP 1200 Mist Collection
- Post HEPA filter
- Additional ports
- Auto Cross Over Filtration
- Abrasive Duty option
- Mounted Chiller, contact
- MP Systems for details
- MP-R Tank Oil Skimmer

Models: VR40-1500



Dimensions:

Floor:
52"L x 49"W x 53"H

Shipping:

54"L X 48"W X 66"H - 2,000LBS

UTILITY LINE SERIES

Standard Features:

- Up to 12 GPM
- Up to 250PSI
- Qty (1) 7x32" 5-micron quick-change filter bag
- 208/230V ONLY
- Use with water-based coolants
- BUILT IN FEED PUMP (MILLS ONLY)

Options:

- Circuit Breaker Kit

Dimensions:

Floor:
29"L x 22"W x 35"H

Shipping

48"L x 35"W x 66"H - 850lbs (VR8)

Model: UL250



MP 1200 MIST COLLECTOR

Standard Features:

- 1200 CFM (variable speed)
- 3 stage filtration
- Baffle to keep heavy particles out
- 95% efficiency
- 208/230V standard
- Basic installation kit included
- Water-soluble coolant only

Options:

- Post HEPA filter
- 480V special order

Types:

- Pump Mounted
- Machine Mounted
- With Floor Stand

Model: MP1200
Pump Mounted
Shown Here



Dimensions:

Pump Mounted:

Floor:
24"L x 25"W x 40"H

Machine Mounted:

Floor:
26"L x 26.25"W x 44"H

Floor Stand:

Floor:
26.75"L x 26.75"W x 83.5"H

Shipping:

Pump Mounted:

54"L X 48"W X 66"H - 400lbs

Machine Mounted:

48"L x 35"W x 66"H - 425lbs

Floor Stand:

48"L x 35"W x 66"H - 425lbs

Watch the
product video



WASH DOWN SYSTEM

Standard Features:

- 12 GPM, 26 PSI
- 1 HP motor
- 24VDC control / 208/230 volt
- Universal mounting bracket for easy installation
- Magnetically attached on/off hand control and auto shut off
- Operated independently of the machine

Dimensions:

Floor
Hose length, 30'
Feed Pump

Shipping:

(Two small parcel boxes)
20"L x 17"W x 14"H - 38lbs
20"L x 12"W x 10"H - 57lbs

Model: AT WD



Watch the
product video

OIL SKIMMER

Standard Features:

- Effectively removes waste oil from the high pressure coolant reservoir
- Extends coolant life and can reduce coolant disposal costs
- Removing floating surface oils
- Extends cutting tool life and creates a cleaner shop environment by reducing smoke and odors.
- Easy, Drop-In-Place Installation
- 17" Self-Tensioning Belt
- Overflow Prevention
- Crowned Pulleys Ensure Perfect Belt Tracking

Dimensions:

9"L x 13"D x 21"H

Shipping:

Weight 8 lbs

Model: MP-R Tank Oil Skimmer



Compatibility:

Fits MP Systems High Pressure Coolant
System Reservoirs Including:

- R Series
- VR Series

ARE YOU CHASING OFFSETS?

The MP Systems' Chiller Series is built specifically for the harsh environments of the CNC machining industry. Its intended use is for any machining application where increasing coolant and machine tank temperature is, or may cause trouble holding tight tolerances.

- Reduces need to check parts
- Reduces need to adjust offsets in program
- Helps maintain tight tolerances, no growth due to coolant temperature
- Based on part, not industry

Our chillers are designed to operate between 70F - 90F ambient. The RC and CS chillers are open-loop systems meant to pull from and return to the machine tool tank. Intended for use with water based coolants or oils with viscosities between 90 and 140 SUS @ 100F.

MP Systems offers a complimentary chiller test kit so that you can track your offsets, temperature and time. MP Systems will help you determine the benefits of a chiller.

Our chillers include more standard features than our competitors!
Please contact sales for more details.



MP SYSTEMS CHILLER ADVANTAGES

The MP Systems Chiller is designed to maintain both the machine and pump's tank temperatures at or above ambient temperature.

The RC36 and CS36 are designed to remove up to 36,000 BTUs/hour @ 70F ambient.

With the mounted RC series, coolant is pulled from the MP Systems HPCS tank and circulated through a heat exchanger in the Chiller where it is cooled. The majority of coolant is then sent to the machine tool tank and the rest is returned to the MP HPCS tank. The MP HPCS tank maintains its coolant level by cycling the feed pump on and off based on float level settings.

The standalone CS series open loop chiller will constantly circulate coolant from the machine tank and maintain machine tank temperature.

There is little maintenance required with the MP Systems Chiller series.

Washable condensing filter
No need to add refrigerant



Ambient

STAND ALONE CHILLER

Standard Features:

- CS36 - 36,000 BTU chiller
- +/- 1 degree F
- Includes supply pump and filtration
- Ambient and set point live temperature monitoring
- PLC messages displayed
- Standard filtration prevents heat exchanger clogging
- Adjustable auto shutdown feature
- No need to replace compressor over its lifetime
- No need to add refrigerant
- 2 year parts warranty
- Available in 208/230V and 480V
- Federally compliant hermetically sealed industrial compressor (no automotive components)

Options:

- Circuit Breaker Kit

Dimensions:

Floor:
39"L x 30"W x 47"H

Shipping:

54"L x 48"W x 66"H - 650 lbs

Installation kits are included with the mounted chiller/HP system.

Model: CS36



MOUNTED CHILLER

Standard Features:

- 36,000 BTU chiller
- +/- 1 degree F
- Includes installation kit, mounts to R series HP systems
- Includes supply pump and filtration
- Ambient and set point live temperature monitoring
- PLC messages displayed
- Standard filtration prevents heat exchanger clogging
- Adjustable auto shutdown feature
- Federally compliant hermetically sealed industrial compressor (no automotive components)
- 2 year parts warranty
- Mounts on MP Systems VR8, RF8, RTF
 - Factory Order only. Not field retrofittable.
 - Available in 208/230V and 480V
- No need to add refrigerant

Dimensions:

Floor (chiller only):
38.5"L x 25.5"W x 22"H

Shipping (chiller only):
54"L x 48"W x 66"H - 650lbs

**For water soluble coolants only.*

Floor (mounted on 70 gallon reservoir):
43"L x 38"W x 66"H

Shipping:

54"L x 48"W x 66"H - 900lbs
(VR8, RF8 compatible units)
54"L x 48"W x 66"H - 1,300lbs
(RTF compatible units)

Installation kits are included with the mounted chiller/HP system.

Model: RC36



SWISS LATHE FEATURE COMPARISON

FIND THE MOST SUITABLE MP SYSTEMS COOLANT SYSTEM FOR YOUR **SWISS** MACHINE TOOL

MORE CAPABILITY, MORE DURABILITY

FEATURES

- 8 GPM, 1000 PSI water based coolants
- 5 GPM, 2000 PSI oil
- Available 8 port remote valve blocks
- Built in feed/supply pump
- Low maintenance
- 2 year parts warranty

V2
SWISS

FEATURES

- 8 GPM, 1000 PSI water based coolants
- 5 GPM, 2000 PSI oil
- 50 gallon reservoir with dual filtration and deaeration feature
- Available 8 ports
- PLC control
- 2 large capacity, quick change filters
- 2 year parts warranty

RDH
SWISS

FEATURES

- 8 GPM, 1000 PSI water based coolants
- 5 GPM, 2000 PSI oil
- 18,000 BTU built in chiller
- Ambient temperature tracking
- Available 8 ports
- PLC control
- 1 large capacity, quick change filter
- Built in feed/supply pump
- Low maintenance
- 2 year parts warranty

S2
SWISS

V2 SWISS

The 'V2' series is designed for use in multi-tool Swiss lathe environments for:

- Optimal chip control
- Permit otherwise impossible machining operations including thru coolant deep hole and gun drilling
- Allow faster cycle times and longer tool life
- Improve coolant filtration
- Dirty filter alarm
- 2 year part warranty
- 7x32" 5 micron quick change filters
- Built in feed pump
- PLC message display

RDH SWISS

The 'RDH' series:

- Best solution for oil aeration problems
- Designed for use with machines that have restricted tank capacity
- Provides additional filtration capacity
- Optimal chip control
- Allow faster cycle times and longer tool life
- 2 year part warranty
- 7x32" 5 micron quick change filters
- Built in feed pump
- PLC message display

S2 SWISS

The 'S2' series is designed for use when:

- Temperature control and mitigation of thermal growth is critical to a machining process
- A coolant chiller is needed to provide the level of thermal stability required to machine high volume high precision parts
- Space is limited in tightly packed Swiss machine environments
- 2 year part warranty
- 7x32" 5 micron quick change filters
- Built in feed pump
- PLC message display

LATHES



MILLS



V2/S2 SWISS

Standard Features:

- 5 GPM, up to 2000 PSI, oil only
- 8 GPM, up to 1000 PSI
- Filter evacuate the system for cleaner filter changes (V2)
- Heat exchanger prevents excessive heat (V2)
- 208/230V standard
- Use with water-based coolant or suitable oils
- 8 port remote valve block
- 18,000 BTU build-in chiller (S2)
- Ambient temperature tracking (S2)
- Programmable 7-day timer clock (s2)

Options:

- 12 ports
- 480V
- 3 GPM, 3000 PSI oil
- 10 GPM, 1000 PSI oil

Models: V-2 HW8, V-2 HO8
V-2 SW8, S2, V-2 SW2
V-2 SO8



Dimensions:

Floor Dimensions:

44"L x 24"W x 36"H (V2)

51"L x 21"W x 44"H (S2)

Shipping:

54"L x 48"W x 66"H - 750lbs (V2)

66"L x 34"W x 66"H - 850lbs (S2) 650 lbs

RDH SWISS

Standard Features:

- 5 GPM, up to 2000 PSI, oil only
- 8 GPM, up to 1000 PSI
- Heat exchanger prevents excessive heat
- 50-gallon reservoir
- 208/230V standard
- 480V special order
- Use with water-based coolant or suitable oils
- 2 ports or 8 ports version available
- Deaeration feature

Options

- Abrasive Duty option
- 3 GPM, 3000 PSI oil
- 10 GPM, 1000 PSI oil

Model: RDH



Dimensions:

Floor:

36"L x 28"W x 42"H

Shipping:

48"L x 35"W x 66"H - 850lbs

BENEFITS OF FILTRATION

- 1** Prevents unexpected shutdowns due to chips clogging pumps and nozzles.
- 2** Greatly extends time between need for tank clean outs.
- 3** Clean coolant lasts significantly longer.
- 4** Prevents buildup of fines and debris from accumulating in coolant tank.
- 5** Eliminates coolant starvation of the flood & TSC pumps.
- 6** Cleaner coolant improves part quality and extends cutting tool life.

Remember how well your machine ran when it was new and clean?
Imagine constantly washing your machine with clean fluid, instead of letting your old dirty coolant contaminate everything in its path.

- Every MP Filtration System comes with full installation parts kit and instructions.
- Includes circuit breaker and wiring to pull power directly from the machine in most applications.
- Multiple options are included to run the system per the application's requirements.
- Auto start on power up, Scheduled Timer w/RTC, or External Signal from the Machine tool.

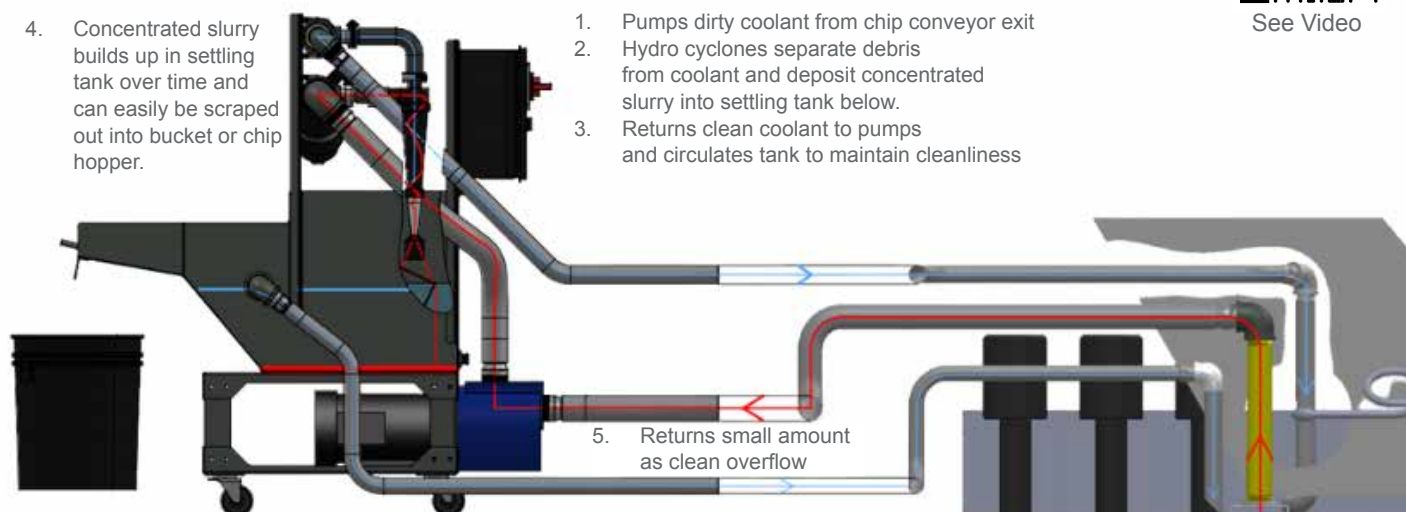
CYCLONIC DEBRIS REMOVAL (CDR “CYCLONIC DONE RIGHT”)

Made for high volume machining centers with filtering conveyors, running multiple shifts.
Best for cast iron, aluminum, or other metals creating fines and sludge in the coolant tank.

The CDR provides constant, full-flow coolant filtration to catch and prevent fines from accumulating in your machine's coolant tank, where they contaminate the entire coolant system and machining environment. This buildup eventually takes away from valuable coolant volume and requires frequent clean outs. The CDR picks up the dirty coolant as it enters the tank and pumps it through a carefully engineered hydro-cyclone configuration at 80GPM. It then deposits a concentrated slurry into an easily cleanable settling tank below, and allows clean coolant to return to the machine tool tank. Cleaner coolant improves part quality, cutting tool life, and greatly extends time between tank clean outs. When the CDR settling tank is full, simply scrape out the debris into a bucket or chip hopper without having to interrupt production.

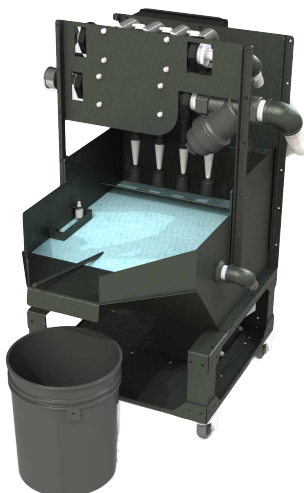


See Video



Standard Features:

- High Flow and Debris Removal Rate
- No Disposable Filters
- Low Maintenance
- Green/Yellow/Red Status Light
- Cleanable Pre-Filter
- Easy to Clean Settling Tank
- Scraper and Bucket Included
- 2-Year Warranty
- Water-based coolant only



Specifications:

- Flow rate - 80GPM
- Filtration - D50 = 8µm
- Power - 208-230 VAC 3PH
- FLA - 9A
- Motor - 3HP
- 480V optional FLA 4 Amps

Dimensions:

24"W X 48"L X 48"H

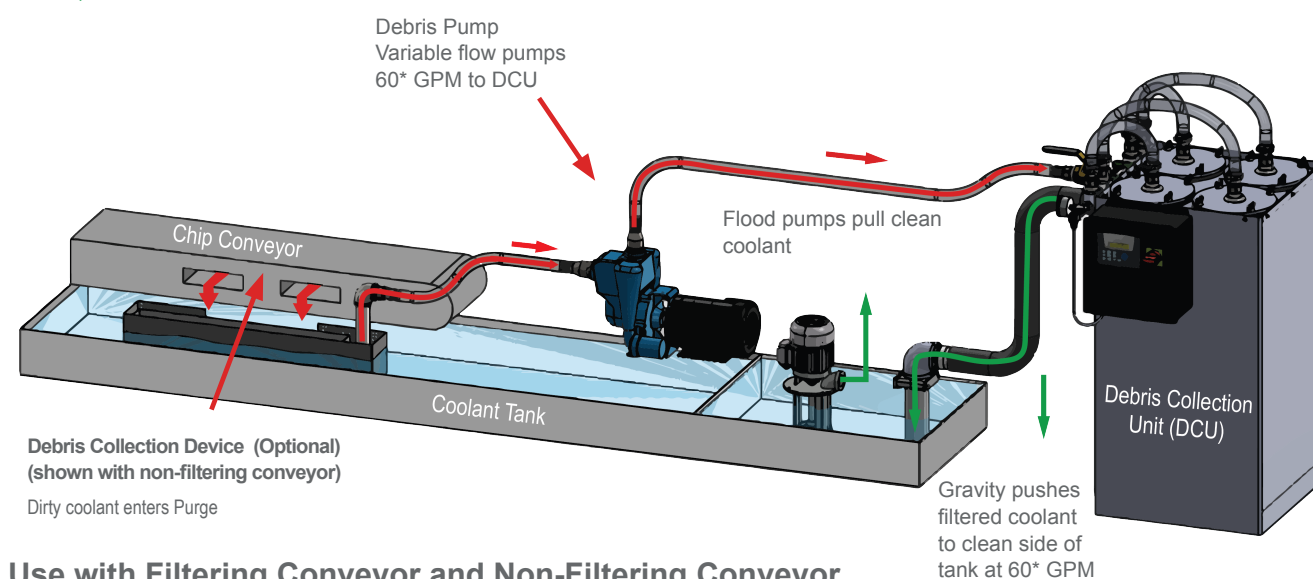
PURGE - CONSTANT FLOW MEDIA FILTRATION

Made for moderate volume production applications with or without filtering conveyors. Great for a wide variety of materials including various metals, ceramics, and composites.

The purge provides constant, full-flow coolant filtration to prevent small chips and fines from entering the machine tool's flood pumps and high-pressure coolant system. The purge circulates coolant through its debris collections system where filters catch all debris before returning the ultra-filtered coolant to the machine tool. Cleaner coolant improves part quality, cutting tool life, and greatly extends time between tank clean outs. When the Purge is full, users simply lift out the dirty filter bags and throw them away like a trash bag, without having to interrupt production. A variety of different types of filter media can be used depending on the application.

*Example only

 **Dirty Coolant**
 **Clean Coolant**



See Video

Use with Filtering Conveyor and Non-Filtering Conveyor

Filtering Conveyors/Drum/Filter Box:

- Provides exceptional performance in most environments.
- Purge suction inlet can be placed directly at output of filtering conveyor.

Non-Filtering Conveyors:

- A screen basket with perforations $\frac{1}{4}$ " or smaller is required to capture chips before the suction inlet to the purge filter system.
- Some machines come standard with a screen basket. Custom baskets are available upon request. Contact MP Systems for more information.

Standard Features:

- Configurable Flow Rates depending on application
- Maintains constant flow rate as filters accumulate debris
- Accepts a variety of filtration media types
- Green/Yellow/Red Status Light
- 4 Easy, Quick Change Filters
- Holds up to 20 Gallons of Chips
- Compact Footprint
- 2-Year Warranty
- Full Installation Parts Kit Included
- Water and oil-based coolants

Specifications:

- Flow rate - 30-60GPM
- Filtration - Down to $5\mu\text{m}$
- Power - 208-230 VAC 3PH
- FLA - 9FLA
- Motor - 3HP
- 480V optional 4 FLA

Dimensions:

22"W X 28"L X 48"H

MP SYSTEMS – WHO WE ARE

At MP Systems we develop products designed to evolve and keep up with the ever changing manufacturing industry.

Since our humble beginning we've worked directly with our customers to produce the best solutions for their high-pressure needs. We've succeeded in providing reliable products that revolutionize the efficiency and longevity of your machine tool. Our unwavering call for quality set the foundation for new products, like our CDR and Purge Units, and upgrades, such as the R and VR Series abrasive duty options, to flourish.

Our high-pressure coolant systems, chillers, filtration systems, and accessories for machine tools, support a wide variety of applications tailored to your company's manufacturing needs.

Demand Quality. Insist on MP Systems.





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Specifications are subject to change