

TURBO SEPARATOR 3-PHASE CENTRIFUGES

T10-3 • T14-3 • T18-3

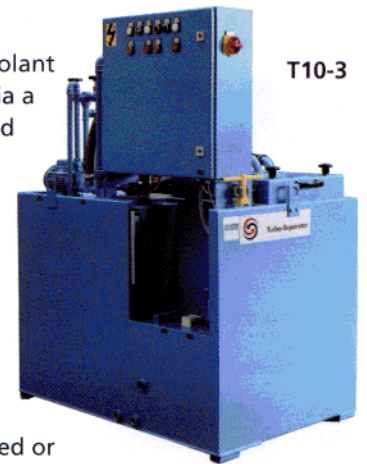
High-efficiency, automatic and manual centrifuges for the 3-phase clarification of:

- **WATER-SOLUBLE COOLANT**
- **SEMI-SYNTHETIC COOLANTS**
- **SYNTHETIC COOLANTS**
- **AQUEOUS PARTS WASHER CHEMICALS**

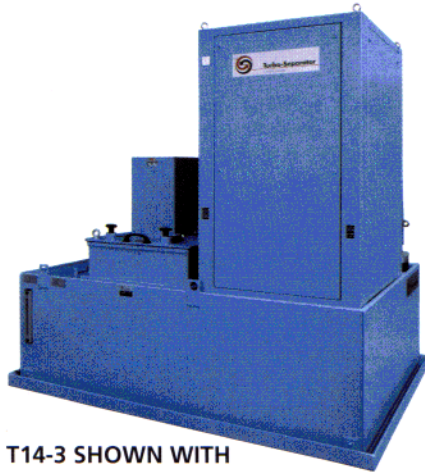
All TURBO SEPARATOR 3-phase units operate with high G force to remove both tramp oil and fine solids from machine tool coolants and parts washer fluids. TURBO SEPARATORS are ideal for grinding applications due to their large solids holding capacity.

TURBO SEPARATORS are designed for the continuous clarification of process fluids contaminated by oils. These units will remove a wide range of particles — ferrous and non-ferrous, glass, graphite and ceramic — down to 2 micron.

The T10-3 is a complete centrifuge system which automatically discharges cleaned coolant into a storage tank, oil into a decantation tank and periodically removes solids via a self-draining, easily-cleaned removable liner. Other components include transfer and feed pumps, valving and controls. The T10-3 can be installed as a free standing batch process unit, integrated with a single machine tool or for on-line side stream processing from central coolant systems. Processing capacity is up to 90 GPH.



T10-3



T14-3 SHOWN WITH
PROCESS TANKAGE

The T14-3 separators have process capacities to 150 GPH. Cleaned coolant and tramp oil are automatically removed from the centrifuge and solids removal is achieved via a self-draining, easily-cleaned removable liner. This centrifuge can be free-standing, tank mounted or supplied with a portable base. The unique centrifuge feed system eliminates the need for a centrifuge feed pump and cleaned coolant is removed under pressure, eliminating the need for a system return pump. A decantation tank improves the quality of removed tramp oil, allowing reusable coolant to be directed back to the coolant cleaning process. For use when recycling aqueous parts washer chemicals, the T14 is available in either anodized aluminum or stainless steel.

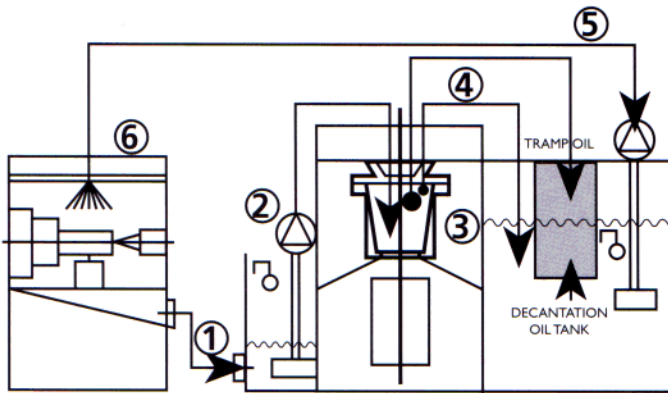
The T18-3 separator is a fully automated self-cleaning centrifuge with process capacities to 8 GPM. Like the T10 and T14 units, cleaned coolant and tramp oil are automatically removed from the centrifuge and, in the T18, solids are also removed automatically by means of a clutch drive scraper mechanism to allow continuous and unattended operation for coolant cleaning. Systems are available for batch purification with process tankage or in conjunction with central coolant systems.



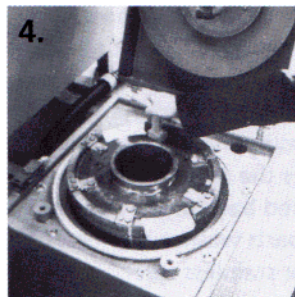
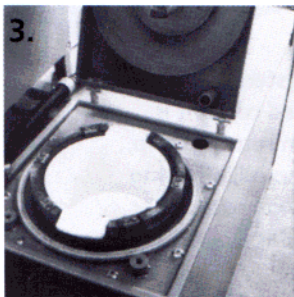
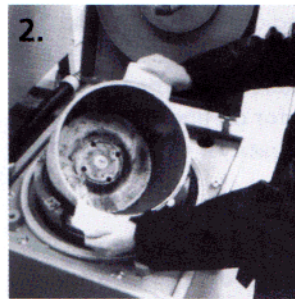
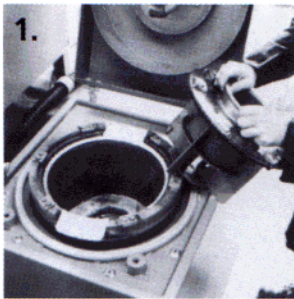
T18-3 INSTALLED WITH
CHILLER UNIT



T10-3 OPERATION SUMMARY



1. Gravitational flow of the dirty fluid into the collecting tank
2. Feeding of the dirty fluid to the rotor with a pump
3. Particles settle out of the fluid and adhere to the sludge basket inner surface
4. The cleaned fluid exits through a pipe and is directed to the clean tank and tramp oil is removed to a decantation tank
5. The correct quantity of clean fluid is pumped under the desired pressure back to the machine tool



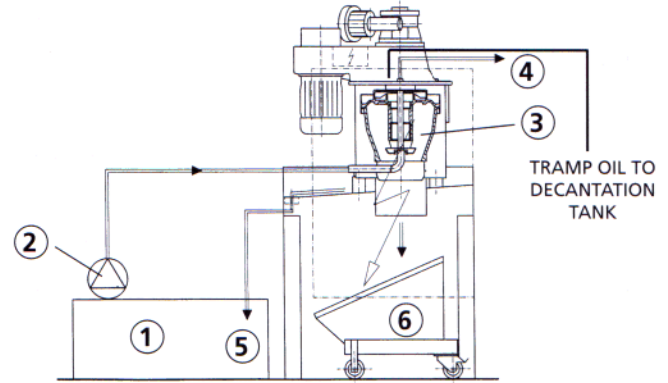
Solids Removal from the T10-3 and T14-3

The separated sludge can be quickly and easily removed from the T10 and T14 models. **1.** The centrifuge is switched off and the housing and rotor cover are removed by disengaging the quick-locks. **2.** The filled sludge basket is removed. **3.** The cleaned sludge basket is re-installed. **4.** The rotor and housing cover are re-installed and the centrifuge is switched on.



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T18-3 OPERATION SUMMARY



The dirty fluid (1) is collected in a feed tank where a feed pump (2) delivers the liquid into a centrifuge rotor (3). The centrifugal force causes the solids to be spun out on the rotor's walls. The clean liquid (4) exits the bowl via a skimmer tube under pressure and tramp oil is skimmed to a decantation tank.

Based on a variable timer cycle, the feed pump (2) is switched off and the dirty liquid accumulates in the feed tank. The rotor continues to dewater the solids through a unique valve arrangement in the centrifuge bowl. Dewatered liquid (5) flows back to the feed tank. The rotor is then stopped and a geared drive sludge-scraping mechanism operates to scrape dry sludge from the rotor's walls into a container (6).

Features

- 2,800 RPM rotating assembly
- Unique bowl design dewateres solids to produce a solids cake low in moisture
- Cleaned liquid removed under pressure
- Can be used to service one or more processes
- Available in a variety of corrosion-resistant materials
- Uses no consumable media
- Rugged industrial construction is ideal for harsh environments

Benefits

- Low-moisture solids cake dramatically lowers fluid replacement and disposal costs
- Reduces maintenance and labor expenses
- Increases production quality and consistency
- Reduces or eliminates downtime for sump cleaning and grinding wheel dressings
- Reduces or eliminates operator attendance
- Use of consistently clean fluids extends machine tool life

GENERAL SPECIFICATIONS

MODEL	T10-3	T14-3	T18-3
Max. Flow (GPH)	90	150	480
Rotor Volume (gal.)	2.4	3.7	4.8
Sludge Capacity (gal.)	1.0	1.0	.8
Rotor (RPM)	2880	2880	2800
Rotor Motor (HP)	3.4	6.7	10
Minimum Inlet Ht. (in.)	4	4	53
Tank Capacity – dirty	25 gal.		
Tank Capacity – clean	125 gal.		
Supply Pump (GPM)	20		
Supply Pump (PSI)	40		
Inlet (in.)	3	3	1 1/4
Outlet (in.)	3/4	1	1
Dimensions (L"xW"xH")	47x31x32	26x21x35	50x50x80
Weight (lbs.)	700	400	2,420