



# LASERSTAR™ Regulator/Filter Panels and Filter Panels

LASERSTAR regulator/filter and filter panels protect your fiber laser from submicron particles.

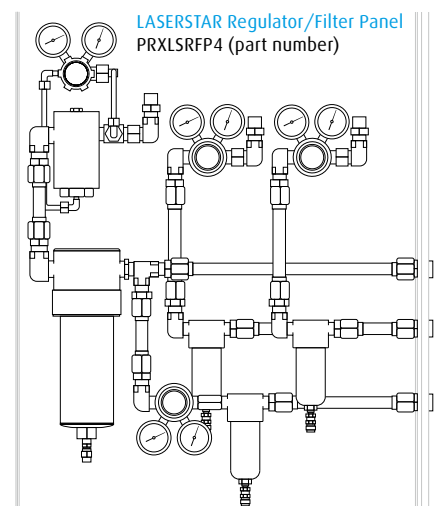
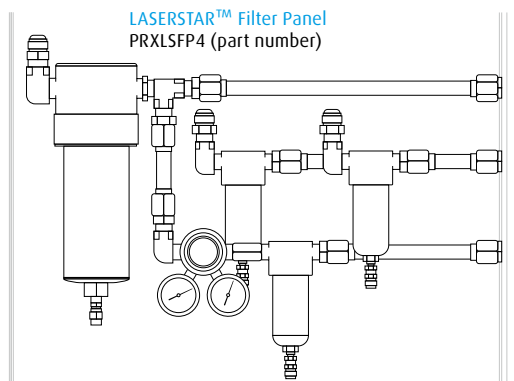


These particulates, common dust, metallic dust or flakes are generally smaller than 40 micron or invisible to the unaided human eye. The sources of these particulates are industrial gas components, such as, check valves, safeties, gas lines, threaded fittings, balls valves, tanks and cryogenic pumps. Though they are crucial to the process, these components may release these particulates following an installation and as they wear.

The LASERSTAR™ filter panel, is designed to trap submicron particles, while minimizing pressure drop and maintaining the gas pressure and flow needed for precision laser cutting.

Regulator Panel  
(apply to only the  
regulator/filter)

LASERSTAR™ K15 gas type 3	Nitrogen dome loaded regulator, 3/4" inlet/outlet, maximum inlet pressure 2,640 psig, maximum outlet pressure 450 psig, 700 psig safety, 1/2" FNPT inlet and outlet, pre-filter adapter, outlet 3/4" MJIC
LASERSTAR™ K10 gas type 1	Oxygen regulator, maximum inlet pressure psig, maximum outlet pressure up to 450 psig, FNPT inlet and outlet, with removable CGA540 connection, outlet 1/2" MJIC
LASERSTAR K10 N <sub>2</sub> head purge	Nitrogen regulator, maximum inlet pressure psig, maximum outlet pressure 2,640 psig, FNPT inlet and outlet, with removable CGA580 connection, outlet 1/2" MJIC
4 - Hoses	3/4" inlet /outlet 3 feet long
LASERSTAR K10 AUX assist gas	Aux regulator, maximum inlet pressure 2,640 psig, maximum outlet pressure 450 psig, maximum flow 3,000 cfh, safety lift at 600 psig, 1/2" FNPT inlet/outlet



**Regulator Panel  
(apply to both the  
regulator and  
filter panel)**

<b>Nitrogen assist gas</b>	Maximum inlet working pressure 600 psig, inlet safety will open at 700 psig, pipe-a-way style safety, should outside venting be required, 1/2" MJIC* inlet connection, flow 10,000 cfh, 3/4" MJIC exiting the panel, 3' flexible SS hose with 3/4" FJIC fitting with a 3/4" MJIC by 1/2" MNPT adapter	
<b>Nitrogen head purge</b>	Includes K-10 step down regulator for 50 – 100 psig head purge N <sub>2</sub> , maximum flow 3,000 cfh, 3/4" MJIC exiting the panel, 3' flexible SS hose with 3/4" FJIC fitting with a 3/4" MJIC by 1/2" MNPT adapter	
<b>Air assist gas or ABR</b>	Maximum inlet working pressure 500 psig, inlet safety will open at 600 psig, pipe-a-way style safety, should outside venting be required, maximum flow 3,000 cfh, 3/4" MJIC exiting the panel, 3' flexible SS hose with 3/4" FJIC fitting with a 3/4" MJIC by 1/2" MNPT adapter	
<b>Oxygen assist gas</b>	Maximum inlet working pressure 500 psig, inlet safety will open at 600 psig, pipe-a-way style safety, should outside venting be required, maximum flow 3,000 cfh, 3/4" MJIC exiting the panel, 3' flexible SS hose with 3/4" FJIC fitting with a 3/4" MJIC by 1/2" MNPT adapter	
<b>Install</b>	Floor – bolt to floor close to the gas bulkheads on the laser, SS hoses limited to 3ft long	Wall – order optional wall mount kit (PRX WALL-MTG-BRKT), longer SS hoses may be required
<b>Incoming piping</b>	All components should be washed, capped and cleaned before installation and protected during installation. Lines must be back-purged with N <sub>2</sub> while being brazed or welded in order to reduce oxidation particulates. Gas lines must be tested following installation using particle bags (LSU76532), provided in the regulator panel. This test should only be performed by a trained technician.	Gas line drops must be a minimum 3/4" ID. Header ID should be larger than the drops. Valves should be a lock-out style. When changing filter elements the lock-out should be used for personal protection. Only trained personnel should operate and maintain these gas panels
<b>Maintenance</b>	Filter element replacement every 6 months, trained personnel using the lockouts on the valves and wearing safety glasses. Clean bowls if dirty with PROSTAR™ Alkaline Cleaner (PRSAC14400) and 130°F water. Rinse thoroughly and dry. Relubricate bowl threads and o-rings with Krytox or Lox-8 Green, use no oil.	
<b>Parts</b>	<p><b>Filter Elements: N<sub>2</sub> Assist Gas</b> Die Cast Aluminum Housing – Filter Element PRX PFE265, Jan 2017 to July 2018 <a href="#">Note: features a non-threaded element</a></p> <p>Bar stock aluminum housing – filter element PRX PFE380, July 2018 to present <a href="#">Note: features a threaded element</a></p>	<p><b>Filter Elements: N<sub>2</sub> Head Purge, O<sub>2</sub> assist gas and ABR or Air</b> Brass housing – filter element PRX PFE050 Jan 2017 to May 2018 three piece design <a href="#">Note: all three pieces: stem, element and cap must be removed before replacing with new, one-piece element</a></p> <p>June 2018 to present one piece replacement design, no part number change</p>

\* 3/4" MJIC also available

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