

# 4" DRY-SUMP FILTER DIRECTIONS **READ BEFORE INSTALLING**

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**THE FILTER ASSEMBLY NEEDS BE MOUNTED FLAT SO THE SIGHT WINDOW IS FACING UP AND BE MOUNTED SO THE INLET AND OUTLET HOSES ARE LEVEL OR GOING UP TO THE FILTER ASSEMBLY. IF THE HOSES ARE GOING DOWN TO THE FILTER ASSEMBLY, AFTER DRAINING THE FILTER ASSEMBLY THE OIL OR FLUID WILL RUN BACK INTO THE FILTER ASSEMBLY COVERING UP THE FILTER ELEMENT AND FILTERED PARTICLES.**

**THE FILTER ASSEMBLY SHOULD BE MOUNTED USING AT LEAST TWO OF THE 3/8" COARSE THREADED MOUNTING HOLES IN THE BOTTOM OF THE FILTER BASE. WE ALSO HAVE DIFFERENT MOUNTING BRACKET KITS AVAILABLE, WHICH MOUNTS THE FILTER ASSEMBLY FOR ALL DIFFERENT APPLICATIONS. CHECK OUR WEB SITE FOR MORE BRACKET KIT OPTIONS AND MORE PRODUCT INFORMATION.**

**THE FILTER ASSEMBLY HAS INLET THREADED OPENINGS AT EITHER END OF THE FILTER TOP, EITHER ONE COULD BE USED. THE OTHER END NEEDS TO BE PLUGGED. FLUID WILL ONLY FLOW AS MUCH AS THE SMALLEST ORIFICE IN A FLUID SYSTEM. FOR EXAMPLE THE OUTLET ORIFICE ON A BIG BLOCK CHEVY IS 5/8" OR .625" DIAMETER HOLE. ONE INLET OR OUTLET OPENING ON THE FILTER ASSEMBLY HAS LARGER THAN 5/8" OR .625" DIAMETER OPENING, SO THIS 4" FILTER ASSEMBLY WILL NOT RESTRICT THE OIL FLOW. IF THE FILTERING APPLICATION WAS A LARGE INDUSTRIAL ENGINE THAT HAS A 3/4" OR .750" DIAMETER OR LARGER OPENING THAN THE 6" FILTER ASSEMBLY SHOULD BE USED PART# 100-60 OR 100-115.**

**THE THREADED INLET AND OUTLET OPENINGS ARE THREADED TO 1 1/16" 12 THREADS PER INCH. THIS THREAD IS ALSO CALLED #12 STRAIGHT THREAD. THE FITTINGS USED IS CALLED A #12 STRAIGHT THREAD WITH O-RING OR A #12 O-RING BOSS FITTING THAT THREADS INTO THE FILTER, AND THE OTHER END COMES IN MANY DIFFERENT FITTING TYPES TO MAKE IT EASY TO HOOK UP TO DIFFERENT APPLICATIONS AND FLUID SYSTEMS. MOST APPLICATIONS USE A #12 O-RING BOSS ON ONE END AND A #12 JIC MALE ON THE HOSE END OF THE FITTING. THE NUT OF THE FITTING MUST BE 1 1/4" SOME ALUMINUM FITTINGS HAVE 1 3/8" NUT WHICH CAN HIT EACH OTHER IF BOTH INLET AND OUTLET OPENINGS ARE AT THE SAME END. THE #12 FITTINGS COME IN DIFFERENT STYLES AND COME IN STEEL OR ALUMINUM.**

**WE OFFER BLOCK ADAPTERS FOR HOOKING THE FILTER ASSEMBLY TO DIFFERENT ENGINES. THEY ARE A HIGH FLOW DESIGN THAT WILL NOT RESTRICT ANY OIL FLOW. THE BLOCK ADAPTERS HAVE THE SAME THREAD AND USE THE SAME INLET AND OUTLET FITTINGS THAT THE FILTER ASSEMBLY DOES. THIS INSURES THE BLOCK ADAPTER, FITTINGS, HOSES, AND FILTER ASSEMBLY WILL FLOW MORE OIL WITHOUT RESTRICTION!**

**THE FILTER ASSEMBLIES FILTER ELEMENT IS STAINLESS STEEL MESH WITH A VITON RUBBER SEAL AROUND THE INSIDE AND THE OUTSIDE OF THE FILTER ELEMENT. VITON RUBBER IS HEAT, CHEMICAL, AND ALSO ALCOHOL RESISTANT. THESE SEALS FIT INTO GROOVES MACHINED INTO THE FILTER BASE AND TOP HOUSINGS. THE FILTER ELEMENT CAN BE PUT IN WITH EITHER SIDE FACING UP OR DOWN. MAKE SURE THE FILTER ELEMENT SEALS ARE IN THE MACHINED GROOVES, OR IT COULD DAMAGE THE VITON RUBBER SEALS. AFTER THE FILTER ELEMENT IS SET ON THE FILTER BASE WITH THE SEALS IN THE MACHINED GROOVES, THE TOP OF THE FILTER ASSEMBLY CAN BE PUT ON. THE FOUR 3/8" STUDS IN THE FILTER BASE WILL ALIGN THE TOP HOUSING. INSTALL THE TOP HOUSING AND BOLT TOGETHER USING THE FOUR 3/8" AN FLAT WASHERS AND THE 3/8" FINE THREAD 12 POINT NUTS. TIGHTEN ALL FOUR NUTS GRADUALLY USING A DEEP 7/16" - 12 POINT SOCKET. DO NOT TIGHTEN ONE NUT ALL THE WAY, MAKE SURE TO TIGHTEN ALL FOUR A LITTLE AT A TIME THAN SNUG ALL 4 NUTS, **DO NOT OVER TIGHTEN IT COULD DAMAGE THE FILTER ELEMENT SEALS.** FILTER ELEMENT SEALS WILL WEAR OUT OVER TIME CREATING LEAKS, WE RECOMMEND HAVING A SPARE ELEMENT!**

**THE FILTER ASSEMBLIES ARE PACKAGED WITH THE FOUR 12 POINT MOUNTING NUTS LOOSE SO MAKE SURE TO TIGHTEN! THESE FOUR NUTS ARE THE ONLY FASTENERS THAT NEED TO BE TAKEN OFF TO CLEAN OR CHANGE THE FILTER ELEMENT. THE FILTER TOP ASSEMBLY HAS THREE VITON RUBBER O-RINGS, WHICH SEAL THE VIEWING WINDOW AND WINDOW RETAINER INTO THE FILTERS TOP HOUSING. THESE CAN BE CHANGED EASILY BY TAKING OUT THE EIGHT #10 - 24 THREADS PER INCH ALLEN HEAD FASTENERS, THESE ARE PUT IN WITH BLUE LOC TIGHT. WHEN THE EIGHT FASTENERS ARE OUT, THE WINDOW RETAINER AND THE VIEWING WINDOW WILL COME OUT. THE O-RING ON THE WINDOW RETAINER IS A 161 VITON, THE O-RING IN THE VIEWING WINDOW IS A 159 VITON, AND THE O-RING IN THE TOP HOUSING WHICH SEALS AROUND THE WINDOW IS A 162 VITON. THESE ARE COMMON O-RINGS THAT CAN BE PURCHASED AT LOCAL O-RING STORE OR PURCHASED THROUGH CLEAR VIEW FILTRATION. WHILE REPLACING THE THREE O-RINGS PUT A LITTLE OIL ON THEM. HOLD THE TOP HOUSING LIKE IT GOES ON THE FILTER WITH THE TOP SIDE FACING UP. NOW INSTALL THE WINDOW FROM THE BOTTOM WITH THE O-RING IN THE GROOVE OF THE WINDOW FACING UP. IT WILL TAKE A LITTLE FORCE TO PUSH THE WINDOW IN. THEN INSTALL THE WINDOW RETAINER WITH THE O-RING IN THE GROOVE FACING UP. THIS WILL ENSURE THE O-RINGS WILL STAY IN THEIR O-RING GROOVES. NOW HOLD THE ENTIRE TOP ASSEMBLY TOGETHER AND FLIP IT OVER AND INSTALL THE EIGHT ALLEN HEAD FASTENERS. USE A LITTLE BLUE LOC TIGHT AND HAND TIGHTEN. THESE ARE SMALL FASTENERS, DO NOT OVER TIGHTEN, OR IT COULD STRIP OUT THE THREADS. IF THIS HAPPENS YOU MUST PUT A HELI-COIL OR FIX THE THREADS IN THE FILTER TOP. THERE IS A LOT OF FORCE APPLIED TO THESE FASTENERS AND THE FILTER MUST HAVE THEM ALL TIGHT AND WITH GOOD THREADS, THIS IS IMPORTANT.**

**VERY IMPORTANT! THE CLEAR SIGHT WINDOW IS 1/2" THICK POLY CARBONATE, IT HAS AN AR2 COATING THAT IS HEAT, CHEMICAL AND SCRATCH RESISTANT TO A CERTAIN POINT, IT WILL SCRATCH IF SCOTCH BRITE, SAND PAPER OR COARSE CLOTH COMES INTO CONTACT WITH THE WINDOW. TO CLEAN THE VIEWING WINDOW USE A SOFT CLOTH AND GLASS CLEANER, MAKE SURE WINDOW IS CLEAR OF DIRT OR ROCKS BEFORE CLEANING. REPLACEMENT WINDOWS ARE AVAILABLE AND EASY TO INSTALL IF DAMAGED.**

**WHEN THE FILTER ASSEMBLY IS MOUNTED AND EVERY THING IS TIGHT START THE ENGINE. LOOK FOR LEAKS INCASE ANYTHING WAS LEFT LOOSE. WHEN THE MOTOR IS NOT RUNNING, THE FILTER ASSEMBLY CAN BE EMPTIED OF OIL OR FLUID BY SIMPLY USING COMPRESSED AIR AND AN AIR CHUCK TO APPLY A QUICK SHOT OF AIR PRESSURE TO THE AIR FITTING ON THE SIDE OF THE INLET OPENING. THERE IS NO NEED TO HOLD THE AIR PRESSURE STEADY ON THE AIR FITTING. IF THE FILTER DOES NOT EMPTY COMPLETELY ON THE FIRST SHOT OF AIR GIVE IT A SECOND QUICK SHOT. IT WILL EMPTY AND ALLOW VISUAL INSPECTION OF THE FILTERED PARTICLES. FOR QUICK EASY ENGINE INSPECTION WITHOUT DRAINING OR LEAKING ANY OIL, UNBOLTING OR LOOSENING ANY FASTENERS OR FITTINGS AND WITHOUT THE LOSS OF ANY OIL OUT OF THE SYSTEM.**