



Super Flow 450 Regulator





KIRBY MORGAN DIVE SYSTEMS INCORPORATED MAINTENANCE AND REPAIR TECHNICIAN TRAINING



- Only selected Dive Lab trained Technicians are authorized to teach the Technicians Course
 - Only Dive Lab authorized Technicians may teach the KMDSI Operator/User Course
 - Course curriculum must be presented within the guidelines set-up in the repair technician's guide and slide show
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Super Flow 450 Stainless Balanced Regulator



- SuperFlow 450 is a high performance regulator from Kirby Morgan
- Cast stainless steel regulator body, stainless steel internal parts



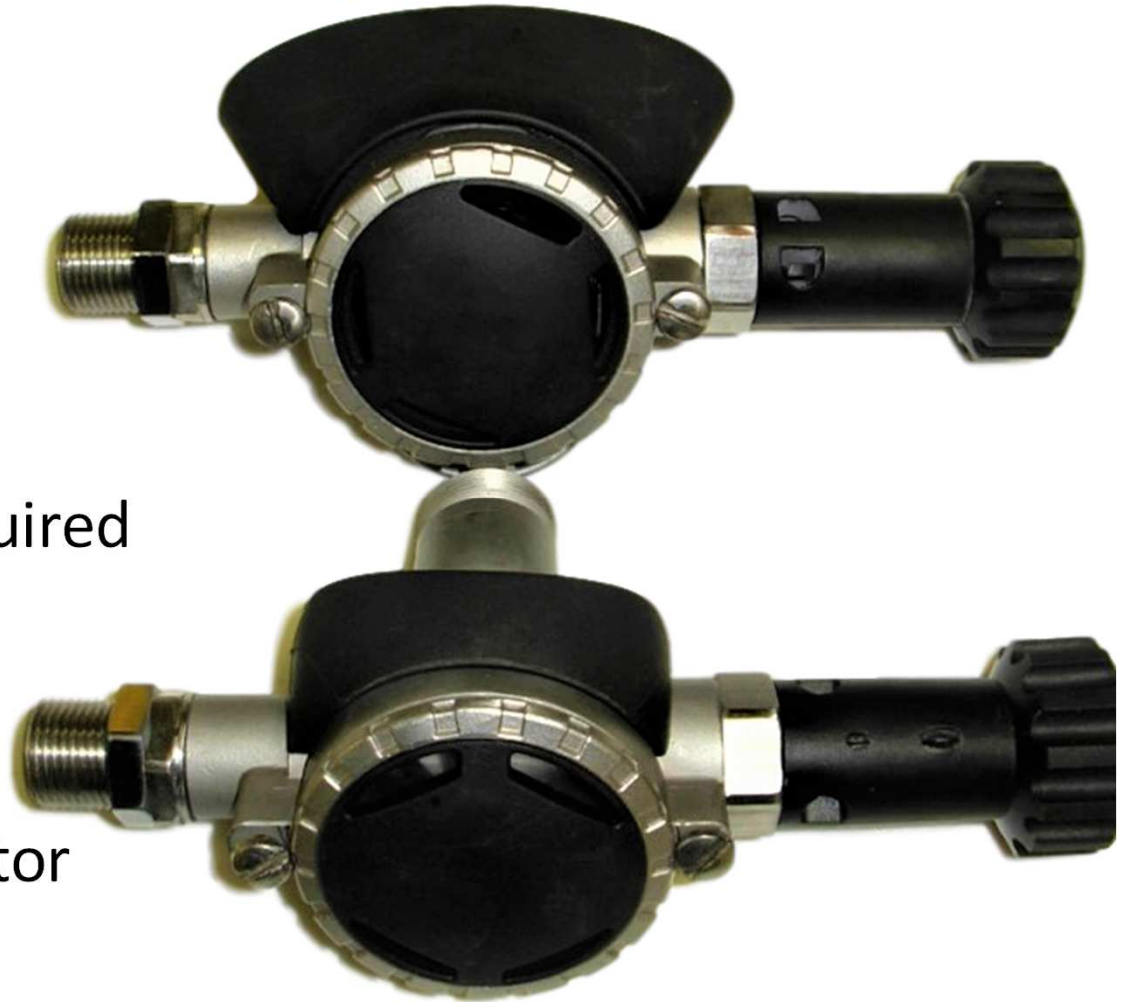
- For adjustment and proper function of regulator supply pressure of 135 to 150 p.s.i.g. should be used



Super Flow 450 Stainless Balanced Regulator



- Standard on KM57
- Will fit on :
17C,K,27,37
- Larger “Spacer” required
for SL27
- Compact high
performance regulator





Super Flow 450



- Remove screws and washers on either side of the regulator cover, unscrew the cover retaining ring





Super Flow 450



- Remove cover and diaphragm, inspect diaphragm for holes or tears





Super Flow 450



- Inspect interior of regulator for foreign matter and remove if necessary
- Check regulator exhaust valve for warping, distortion, stiffness, and or damage
- Check exhaust valve seat spokes for damage
- If any damage present replace components





Super Flow 450



- Reinstall the diaphragm and cover assembly
- Cover is only finger tight

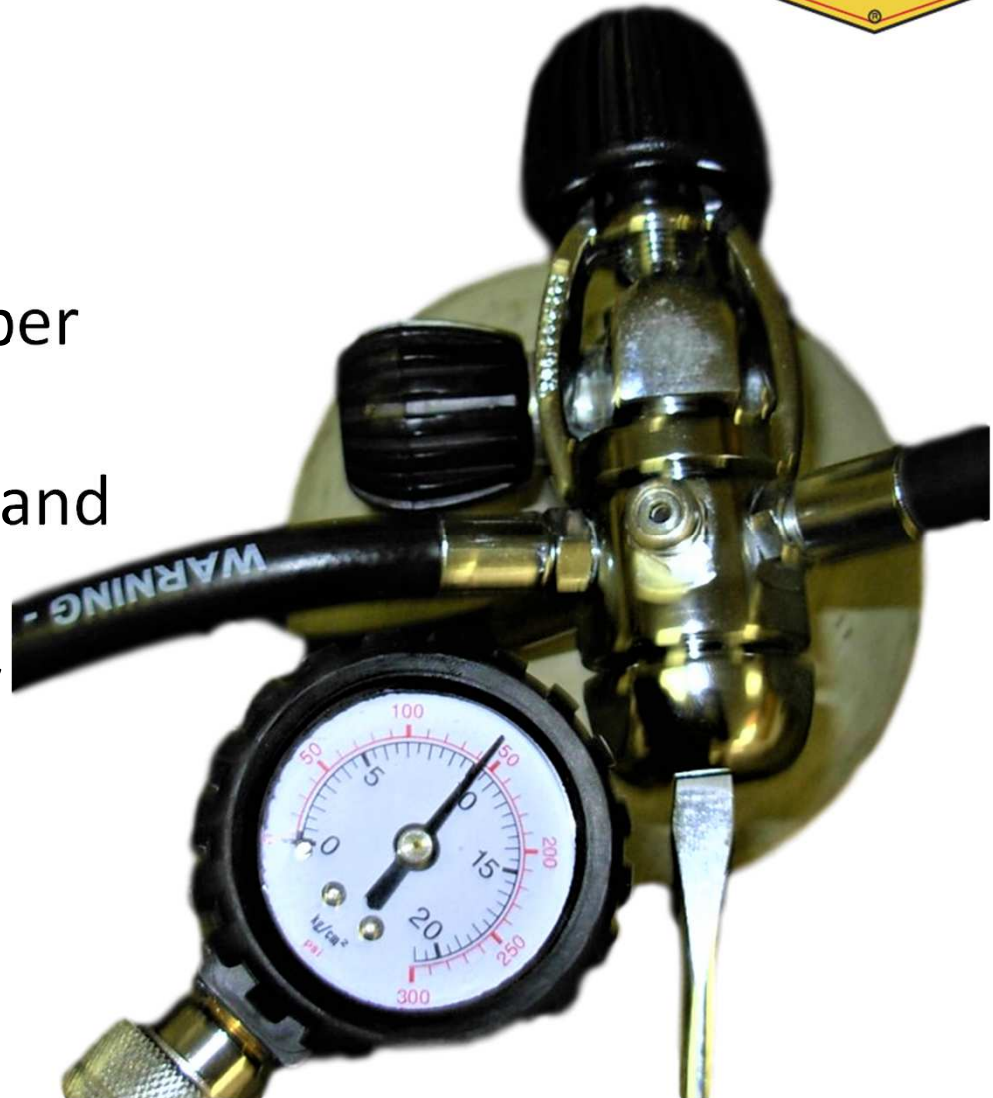




Super Flow 450



- Check regulator for adjustment and proper function with the assembly complete, and supplied with a breathing gas supply pressure of between 135 to 150 psig





Super Flow 450



- Rotate flex knob in, clockwise towards the regulator body, until a clicking can be heard with each full turn of the knob
- This is an audible indication the tension of the bias adjustment spring is as tight as it will get
- The adjustment knob will never bottom out or stop turning in this direction and no damage to the mechanism will occur
- The clicking is an audible indication the adjustment knob is fully positioned in



Super Flow 450



Connect gas supply two different ways





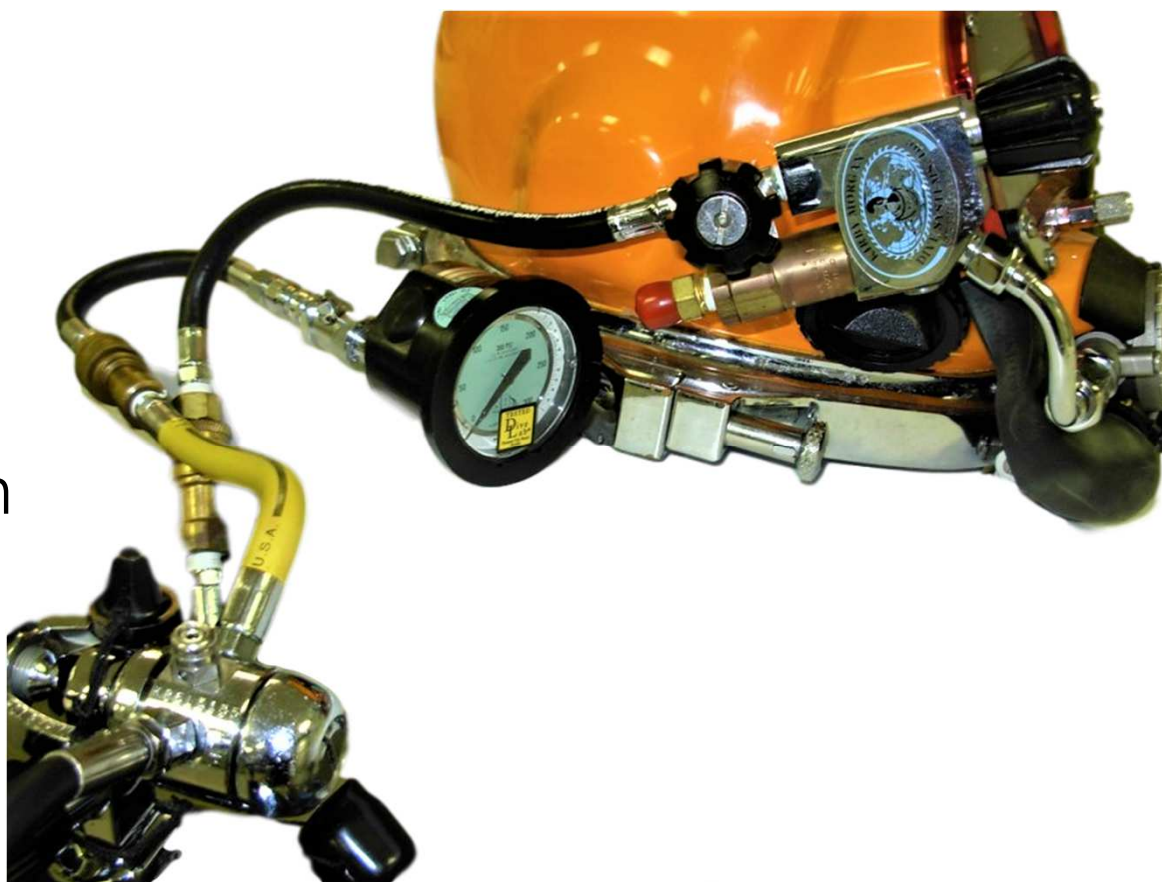
Super Flow 450

Connect gas supply two different ways



Option #1

- ✓ EGS valve or umbilical connection
- ✓ Connect gas supply through side block One Way Valve





Super Flow 450

Connect gas supply two different ways



Option #2

- ✓ Connect gas supply using a 9/16 scuba fitting
- ✓ Bail-out set used quite often for this
- ✓ Bent tube and bent tube adapter is removed





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- Turn on gas supply
- Rotate the Flex Knob out counterclockwise slowly, three full turns
- Lightly depress the regulator purge cover several times and ensure the gas flow is stable





Super Flow 450



- Push in gently on the cover of the regulator
- There should be 1/4" free travel in the cover before gas flow starts
- When the cover is fully depressed, a strong surge of gas must be heard





Super Flow 450



- If the purge cover has NO play, or play is greater than 1/4" before GAS flow is heard, the demand regulator requires internal adjustment





Super Flow 450



- Turn off the air supply and bleed off the pressure and remove the supply hose to expose the adjustment nipple
- Insert a flat head screwdriver into slot in the end of the adjustment nipple to make adjustments as may be necessary





Super Flow 450



- If there is too much play in the lever, the adjustable nipple will need to be turned out (counter clockwise)
- Too little play, the nipple will need to be turned in
- Whatever direction is needed, make the adjustment in very small increments and re-check
- Usually 1/16 turn at a time or less of a turn will suffice



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- Re-connect air supply and re-check, (repeat as necessary) until required play is obtained
- Adjustments are complete, reconnect bent tube adapter and bent tube





Super Flow 450



- Regulator is adjusted and ready for use





SUPERFLOW 450



- Because regulator is balanced it should not require pre-dive adjustment
- If regulator requires adjustment refer to operations and maintenance manual or take it to a trained KMDSI technician

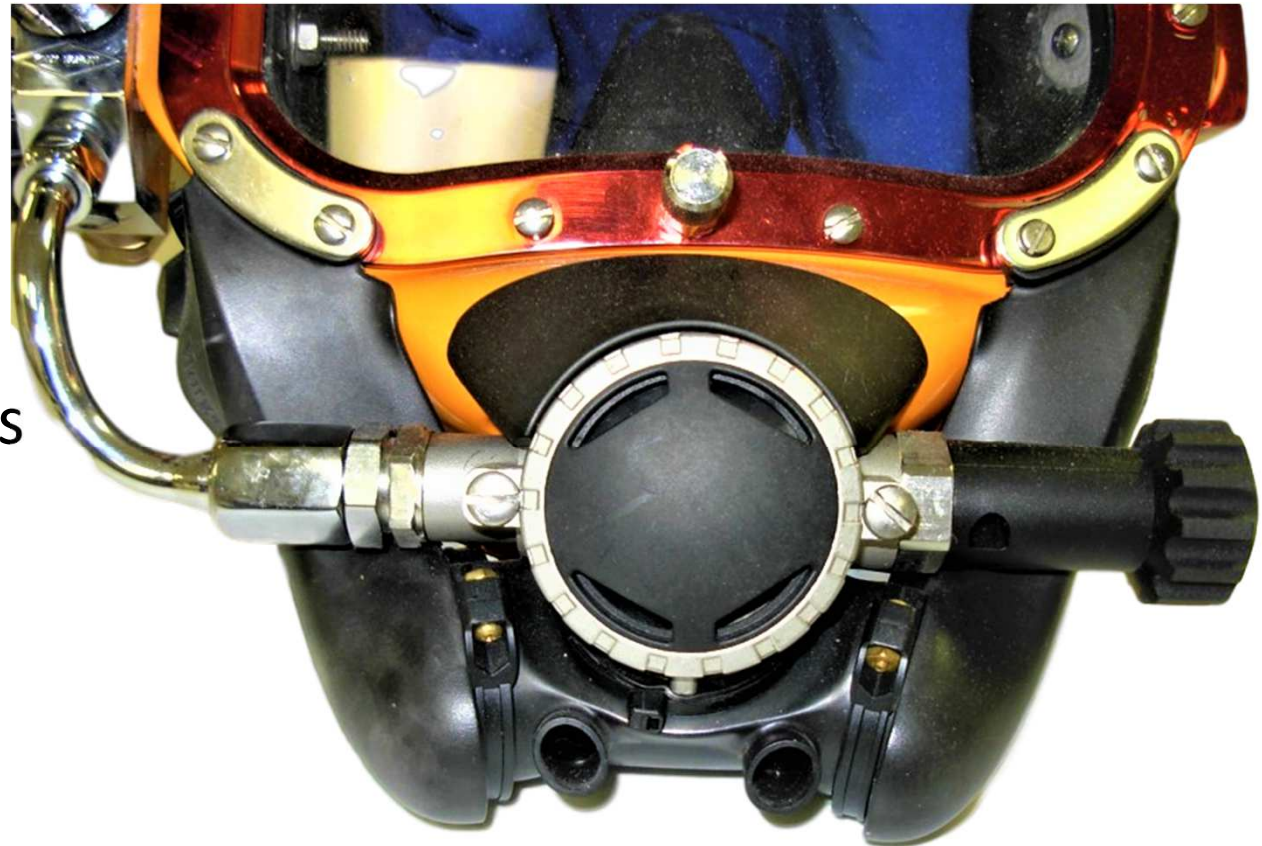


Summary



Always refer to Operations & Maintenance manual for adjustment procedures

- Inspection
- Adjustments





QUESTIONS

