



FutureFLEX[®]
AIR-BLOWN FIBER[®] SOLUTIONS

Blowing Head Kit

- ☐ **Kit Contents**
- ☐ **Consumable Items**
- ☐ **Technical Support**
- ☐ **Performance Guidelines**

RETURN INSTRUCTIONS

Please Return the Blowing Head Equipment Kit and All associated Non-Consumable items at the time of Rental or when the Lease is about to Expire to the following address:

Sumitomo Electric Lightwave
201 S Rogers Lane Suite #201
Raleigh, N.C. 27610
Attn: ABF Inventory Control

FOR ADDITIONAL INFORMATION

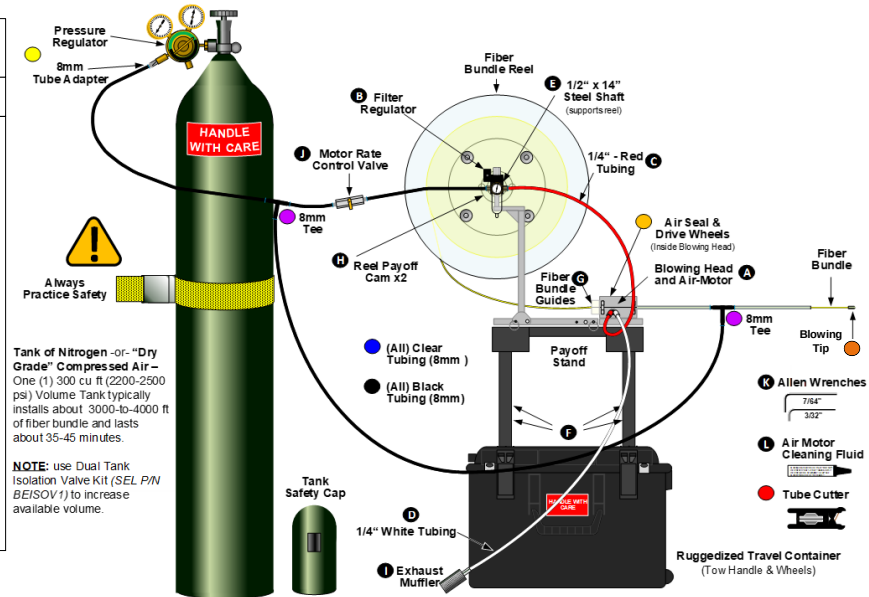
- | | |
|-----------------------------|------------------------------|
| ✓ All Questions | ✓ Report Shipping Damages |
| ✓ Technical Support | ✓ Report Operational Damages |
| ✓ To Extend an Active Lease | ✓ Report Missing Parts |

Please Contact SEL Customer Service at **1-800-358-7378**

BLOWING HEAD EQUIPMENT - (INVENTORY SHEET)

SEL SUPPLIED BLOWING HEAD KIT COMPONENTS

ITEM	DESCRIPTION
A	One (1) Blowing Head / Air Motor Assembly mounted on Payoff Stand
B	One (1) Filter / Regulator Assembly with Payoff Counter
C	One (1) 2-Foot long 1/4" Red Tubing
D	One (1) 6-Foot long 1/4" White Tubing
E	One (1) 1/2" x 14" Steel Shaft
F	Four (4) Screw in Pegs to Mount Payoff Stand
G	One (1) Fiber Bundle Guide (2 pcs.)
H	Two (2) Reel Payoff Cams
I	One (1) Exhaust Muffler
J	One (1) Motor Rate Control Valve with 8mm Push-Fit Fittings
K	Two (2) Allen Wrenches (small 3/32" & large 7/64")
L	One (1) Tube Air Motor Cleaner Fluid



SEE NEXT SLIDE FOR EXPANDED VIEW

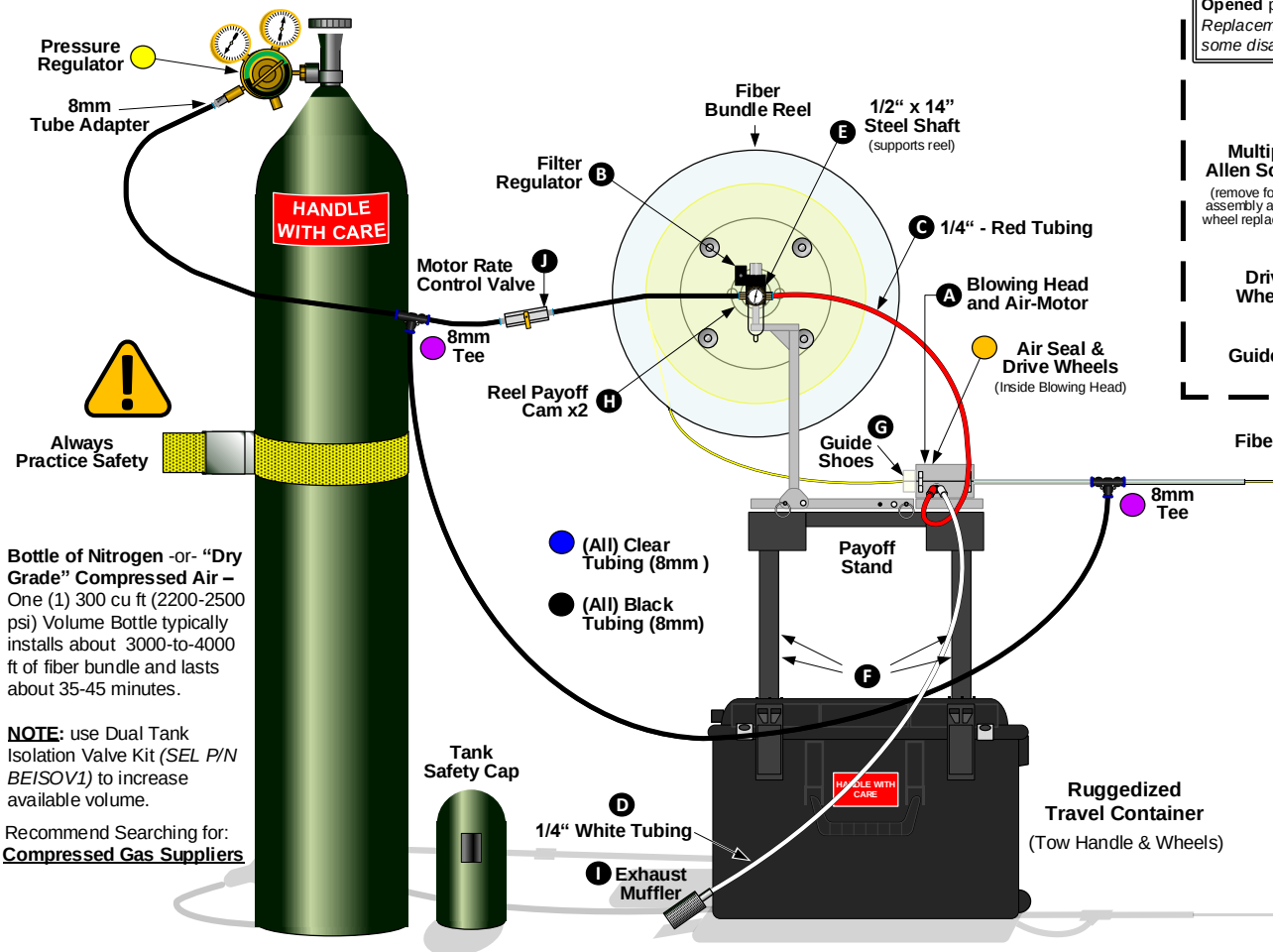
LFI / INSTALLER SUPPLIED BLOWING HEAD KIT - (CONSUMABLE COMPONENTS)

ID	DESCRIPTION	PART-NO.
	One (1) Pressure Regulator Assembly & 8mm Tube Adapter	SEL-P/N: BERE02
	Two (2) Red 2mm Drive Wheels	SEL-P/N: BE02DW
	Two (2) Black 3mm Drive Wheels	SEL-P/N: BE03DW
	One (1) Black 2mm Air Seal	SEL-P/N: BE02SL
	One (1) Black 3mm Air Seal	SEL-P/N: BE03SL
	One (1) Black 4mm Air Seal	SEL-P/N: BE04SL
	One (1) Red 2mm Blowing Tip	SEL-P/N: BE2MFT
	One (1) Black 3mm Blowing Tip	SEL-P/N: BE3MFT
	One (1) Green 3.5mm Blowing Tip	SEL-P/N: BE35MFT
	One (1) Blue 4mm Blowing Tip	SEL-P/N: BE4MFT
	One (1) Tube Cutter	SEL-P/N: BETC001
	Two (2) (8mm) Tee Couplers	SEL-P/N: DE08MT
	All 8mm Clear Tubing	SEL-P/N: TC01TCX
	All 8mm Black Tubing	SEL-P/N: TC01TBX

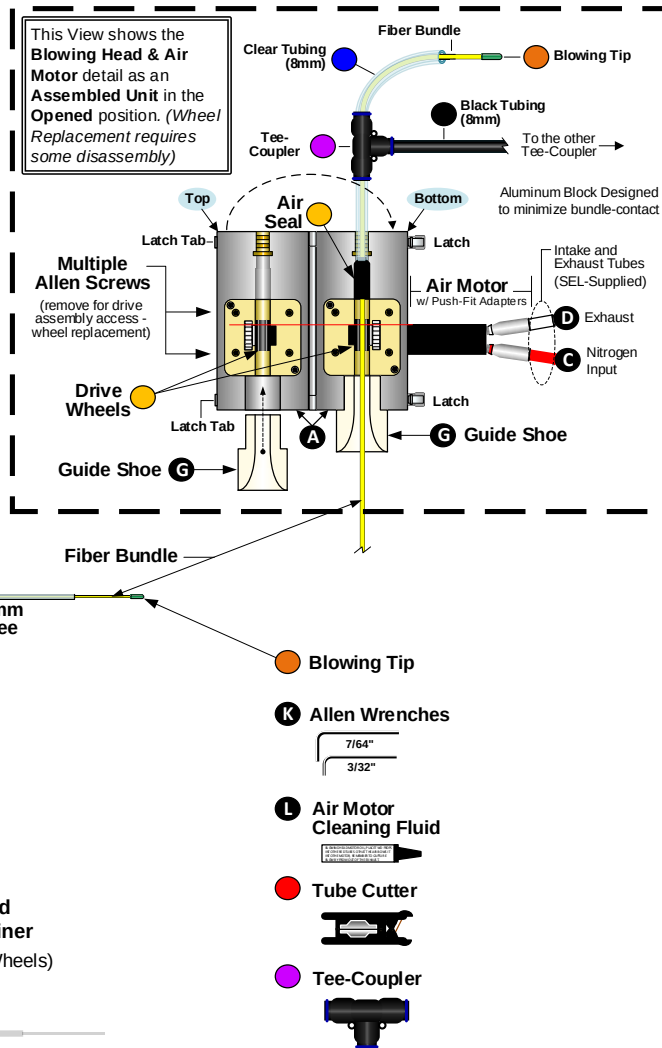
Orders: Please Contact a Certified SEL Distributor:
<https://sumitomelectriclightwave.com/distributors>

Product or Technical Assistance
1-800-358-7378

BE200LR - BLOWING SYSTEM (COMPONENTS AND CONNECTIONS)



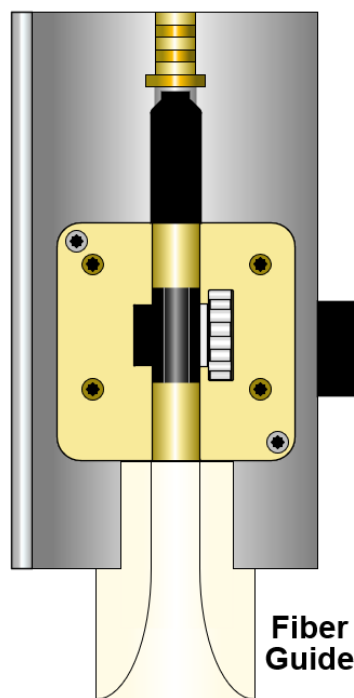
BLOWING HEAD & AIR MOTOR DETAILS



IMPORTANT EQUIPMENT STORAGE PROCEDURES

- ✓ To ensure the Air Motor remains free of contaminants when the equipment is stored inside the Blowing Head Case, install the “Provided” Plugs in both Air Motor Fittings, Plugs in both of the Filter / Regulator Assembly Push-to-Connect Fittings, and install (2) Caps on both ends of the “Provided” 1/4” Red Tubing.
- ✓ When setting up the Blowing Head, remove and store Plugs and Caps in the Plastic Bag provided in the Tool Box. **Note:** *(Extra Plugs and Caps are provided in the Plastic Bag in case of loss)*

Lower Block



Air Motor

**Plugs and Caps are
SEL Supplied, Please
Use but Do Not Lose**

PLUGS
DE06MP
6mm O.D.

PLUG
DE55MP
5.5mm O.D.

PLUG
DE06MP
6mm O.D.

**Filter / Regulator
Assembly**

Caps

1/4” Red Tube

Nitrogen or “Dry Grade” Air Consumption Estimates - (Conservative)

Nitrogen or “Dry Grade” Compressed Air: One (1) 300 Cubic Foot Volume Tank typically installs about 3,000 - to - 4,000 feet of Fiber Bundle and lasts about 35 - 45 minutes; *Use our Dual Tank Isolation Valve Kit (SEL P/N BEISOV1) to increase available volume.*

2mm Drive Wheels - One (1) pair of BE02DW Red Fiber Bundle Drive Wheels typically installs about 10,000 feet of 2mm OD Fiber Bundle.

3mm Drive Wheels - One (1) pair of BE03DW Black Fiber Bundle Drive Wheels typically installs about 5,000 feet of 3mm OD Fiber Bundle and less for larger ODs.

The importance of using New Drive Wheels cannot be over emphasized !!!

Typical Pressure Regulator Settings - (Operational Parameters)

Air Motor Pressure - Pressures between 85-90 psi are the most efficient for good Air Motor operation; do not exceed 100 psi

Air Flow Pressure - Typically, start Blowing Operations with the Pressure Regulator set at:

- Between 80 - 90 psi for tube span runs greater than 500 feet ... start easy and increase later.
- Between 60 - 70 psi for tube span runs less than 500 feet ... to save gas.

Note: During any blowing operation, always make Air Flow Pressure adjustments slowly, only as required and in small 10 psi increments ... to prevent causing “back-pressure” situations.

WARNING: NEVER Exceed 200 psi “Safe Working Pressure Rating” of Tubes and Couplers.

CONSERVATIVE BLOWING DISTANCES

Using One (1) Blowing Head

6 and 12 FIBER BUNDLES (2mm OD)		APPROX. BLOWING DISTANCE
All OSP tube cables All MTIO tube		1500 meters or 5000 feet
TRC (Riser) tube cables		1000 meters or 3300 feet
TGX (General Purpose) single tube and TP2 (Plenum) tube cables		600 meters or 1950 feet

24-FIBER BUNDLES (3mm OD)		APPROX. BLOWING DISTANCE
All OSP tube cables and MTIO tube cables		1200 meters or 4000 feet
TRC (Riser) tube cables		1000 meters or 3300 feet
TGX (General Purpose) single tube and TP2 (Plenum) tube cables		300 meters or 1000 feet

CONSERVATIVE BLOWING DISTANCES

Using One (1) Blowing Head

48-FIBER BUNDLES (3.1 & 3.7mm OD)		APPROX. BLOWING DISTANCE
All OSP tube cables & MTIO tube cables		975 meters or 3200 feet
TRC (Riser) tube cables		800 meters or 2000 feet
TGX (General Purpose) single tube and TP2 (Plenum) tube cables		223 meters or 750 feet
72-FIBER BUNDLES (3.7 & 4.1mm OD)		APPROX. BLOWING DISTANCE
OSP tube cables (without lubricant)		450 meters or 1500 feet
OSP tube cables (with lubricant)		1220 meters or 3500 feet
TRC (Riser) tube cables		610 meters or 2000 feet
TGX (General Purpose) single tube and TP2 (Plenum) tube cables		228 meters or 750 feet

BLOWING HEAD PREVENTIVE MAINTENANCE REQUIREMENTS

Periodic cleaning is required to maintain good Blowing Head performance

General cleaning:

- ✓ Wipe down entire Blowing Head with a dry, clean soft cloth.

Routine cleaning:

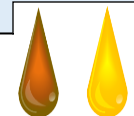
- ✓ Wipe down entire Blowing Head with damp, clean, soft cloth and denatured alcohol to remove build-ups of dust, dirt, & debris.
- ✓ Remove Upper and Lower Brass Plates and clean inside drive mechanism areas (Gears, Brass Hubs, Bearing Hangers, and Fiber Bundle Drive Wheels) with damp, clean, soft cloth and denatured alcohol; denatured alcohol will not harm rubber Drive Wheels.

Air Motor Maintenance: *(This is required for old-style Motors Only if your Blowing Head Kit did not come with a tube of Air Motor Cleaner, Please disregard this Maintenance Procedure)* New Air Motors do not require Cleaning Fluids

1. **BEFORE EVERY USE** ... Apply 3 - 4 drops of supplied Air Motor Cleaner Fluid (no substitutes) into Red input line to Air Motor; Cleaner Fluid may be applied with or without Fiber Bundle installed or loaded into the Blowing Head.
2. Run Air Motor
 - If Fiber Bundle is not installed or loaded into Blowing Head, run Air Motor for about 10 seconds
 - If Fiber Bundle is installed / loaded in Blowing Head, continue on with blowing operations.
3. Any dirt / contamination will flush out of Air Motor and flow into Exhaust Muffler tube.
4. If an excessive amount of dirt / contamination flushes out of Air Motor, stop and immediately re-apply another 3 - 4 drops of Air Motor Cleaner Fluid.



Contamination - **Re-Apply**



No Contamination



PRESSURE AND OBSTRUCTION TESTING

MANDATORY TESTING

- Pressure and Obstruction Test All Tubes after the Tube Cable Installation is complete
 - ✓ All tube cables are installed and secured
 - ✓ All TDU and FTU tube interconnections are complete

STRONGLY RECOMMENDED TESTING

- Pressure and Obstruction Test Individual Tubes just before installing a Fiber Bundle
 - ✓ Always Test All Installed Tubes
 - ✓ “Last Minute” Testing is a highly recommended and smart practice

PRESSURE TEST CRITERIA

- Ref: SRP SP-F04-003 Pressure Test
 - ✓ Test Pressure = 150 psi
 - ✓ Charge the Tube Span – (Pressurize)
 - ✓ Hold 146 - 150 psi for 10 seconds = Pass
 - ✓ Cannot hold 145 psi or less = Fail
- Fill out Test Data Sheets; record the results
- ☐ *Rule of Thumb*: It Takes about 20 - 30 seconds to pressurize 1000 feet of tubing

OBSTRUCTION TEST CRITERIA

- Ref: SRP SP-F04-004 Obstruction Test
 - ✓ Test Pressure = 60 - 80 psi
 - ✓ Time the Bead Travel
 - ✓ Bead exits Tube = Pass
 - ✓ Bead does not exit Tube = Fail
- Fill out Test Data Sheets; record the results
- ☐ *Rule of Thumb*: It takes about 20 - 30 seconds for a Bead to travel about 1000 feet

8mm Tube End
Cap (DE08MA)

REMINDER: ALWAYS CAP BOTH ENDS OF EACH TESTED TUBE-SPAN WHEN THE TEST IS COMPLETE !!! - P/N: (DE08MA)

8mm Tube End
Cap (DE08MA)

TUBE TEST KIT - P/N BEPT001 ... Not Provided in the Blowing Head Rental Kit
All Test Kits must be purchased separately from a licensed FutureFLEX® Distributor.

ALWAYS PRACTICE SAFETY AND DOCUMENT ALL TEST RESULTS