

### Solid Flooring

#### INSTALLATION INSTRUCTIONS

- Please review the following instructions before starting the strip or plank installation.\*
- **Please inspect flooring material before installation. Warranties do not cover visible defects once they are installed.**

It is the responsibility of the installer/supervisor/owner to insure subfloor and job site conditions are environmentally and structurally acceptable for wood floor installation. Problems or failures related to deficiencies in subfloor or job site damage after installation will not be covered by wood flooring warranty.

#### SUGGESTED TOOLS AND ACCESSORIES:

##### Nailer or Stapler:

For installation over 3/4" wood type sub-floors installed over joist or truss systems a minimum **1 3/4" or 2" long cleat**, or stapler should be used. Use only nailers or staplers designed for installation of 3/4" hardwood floors. 3/4" thick plywood over concrete, 1 1/2" cleats or stapler should be used. See NWFA installation guideline for details. High moisture areas. Room larger than 20 ft. by 20 ft. 1/32 aluminum spacers may be needed for extra expansion as well as 3/4" at any vertical obstruction. i.e. walls.



(fig. 1)

**Mullican recommends prefinished foot for manual and air nailers/staplers. (See fig.1)**

#### HANDLING AND STORAGE:

- Flooring must be protected from adverse moisture conditions during the transportation as well as the storage of the material. The material must be stored at least 4" or more off the ground and stored in a dry area. This practice will prevent a significant change in the moisture content. Open the cartons and allow flooring to acclimate. Follow NWFA guideline for acclimation on job site! See general instructions below.
- \* Factory finished flooring should be installed as close to living conditions as possible!

#### SUBFLOOR:

- **5/8" minimum thickness, preferred 3/4" or thicker plywood** installed with long edges at a right angle to the 16" on center floor joists and staggered so that the end joints in adjacent panels break over different joists. Nail at each bearing with 6d threaded or 8d common nails spaced 10" on center along intermediate joists.
- **1" x 4" to 6" wide, square edge, kiln dried coniferous lumber**, laid diagonally over 16" on center wooden joists. The ends of all boards are to be cut parallel to the center of the joists for solid bearing. Face nail each board solidly at every bearing on the joists with two nails (7d threaded or 8d common).
- **23/32" minimum O.S.B. on 19.2-inch maximum center floor joists** with system properly nailed or minimum 7/8" subfloor with 24" on center floor joists or trusses.
- Baseboards should be installed so that their lower edge is slightly above the level of the finished floor, but not nailed into the finished floor.
- Basement and crawl spaces must be dry and ventilated when plank or strip flooring is to be installed over them. In crawl spaces a vapor barrier should be provided. Follow local building codes or black vapor barrier must be provided below subfloor on the ground. (6 mil. black)
- Plank or Strip flooring is not to be installed below grade.
- All subfloors, new construction or existing should be checked for moisture using a moisture meter. In general wood or plywood subfloors should not exceed 14% moisture content, or **4% moisture content difference between 2 1/4" wood flooring and subfloor, or 2% moisture content difference with plank floor.** Check with your local distributor for your geographical variances.

- Subfloor should be flat or made to be flat to 3/16" in a 8'ft. radius.
- Particle board of any thickness is **NOT ALLOWED!**
- Adequate and proper nailing as well as soundness of the subfloor should be ascertained. Foreign material shall be removed from the subfloor surface and swept clean.
- The clean subfloor shall be covered wall to wall with 15lb. asphalt saturated felt, Aquabar<sup>®</sup>B, or Mullican Moisture Mat. Lap the edges of this felt 4" when positioning it. Double the felt around heat ducts that may be in the floor.

#### GENERAL INSTALLATION INSTRUCTIONS

- Before installing the flooring, ascertain the conditions. Install the flooring after the sheetrock and tile and all brick work has thoroughly dried and all but the final woodwork and trim have been completed. The building interior shall have been dried and seasoned and a comfortable working temperature (at least 60°F) should exist during the material installation. New wood type subfloors should also be checked for moisture using a moisture meter. In general wood or plywood subfloors should not exceed 14% moisture content, or **4% moisture content difference between 2 1/4" wood flooring and subfloor, or 2% moisture content difference with plank floor.** Check with your local distributor for your geographical variances.
- Flooring should be laid at right angles to the floor joists and if possible in the direction of the longest dimension in the room.
- Begin laying the flooring in a room corner with the groove of the flooring facing the wall. Provided not less than 3/4" expansion space or what will be covered by the baseboard and trim specified for the job.
- End joints should be staggered to achieve the best appearance in the finished floor (Min. 6").
- Nailing should be scheduled with the first run and last run of flooring to be faced nailed then countersunk, face nails should be placed in face of wood in grain to match filler/putty. **2 1/4" wide material should be nailed or stapled every 8" to 10". Plank should be nailed or stapled every 6" to 8". Also nailing is required within 2" to 3" of the end joints.**
- 3/4" plank and strip are pre-finished wood flooring products. Be sure to check nail gun **faceplate** to insure it will not damage the surface finish. (See fig. 1)
- Both 3/4" plank and strip have a U.V. cured, Alpha Alumina polyurethane finish.
- To avoid dimensional change and movement in hardwood flooring the Relative Humidity should be maintained year round at 35%-55% Relative Humidity.
- Exotic wood species require special attention as to acclimation, nailing and/or sanding.

#### NOTE:

- \*\* Wood flooring not recommend for wet areas, full baths or shower rooms.
- \*\* **Do not** sand any subfloor that may contain asbestos or lead.
- \*\* **Do not** install over radiant heated floors.
- \*\* **Do not** install any product with visible defects.
- \*\* **ALL** crawl spaces must have 6mil. Black Polyethylene covering surface of crawlspace or follow local building codes.
- \*\* On or above grade only.
- \* For special applications such as glue to concrete call distributor or manufacturer. (No full spread applications)