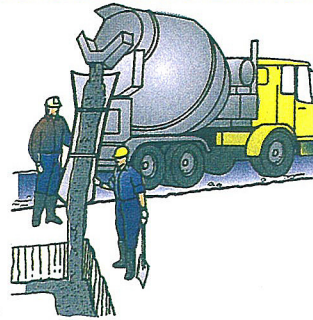


PLACING AND COMPACTING

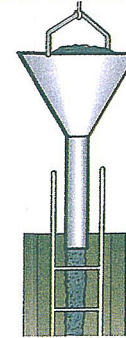
PLACING

- Make sure you can see what you are doing
 - Lights may be needed for thin and/or deep formwork
- Concrete mixers, skips and pumps can easily place the concrete exactly where it is needed
- Make sure that you order the right type of concrete with the correct slump for your placing method because you should not add water to a mix on site
 - A different type of concrete is used for pumping than is used for placing with a skip for example
 - Only small amounts of water may be added to a mix on site to make up for loss of water during travel, and may only be authorised by the Ready Mix supplier
- Placing must be done at the correct speed
 - Too fast and the compacting gang will not be able to keep up
 - Too slow and the mix will stiffen making compaction very difficult
- Concrete should be placed in layers to make sure that it is compacted properly
 - With poker vibrators the layers shouldn't be deeper than the length of the head
 - With vibrating beams layers shouldn't be deeper than 150 mm
- When dropping concrete from a height use tubes and/or baffle boards to prevent damage to the formwork

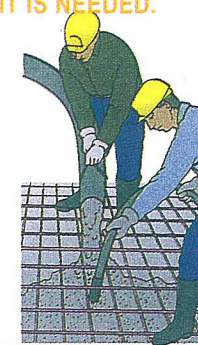
1 CONCRETE MIXERS CAN PLACE THE CONCRETE EXACTLY WHERE IT IS NEEDED.



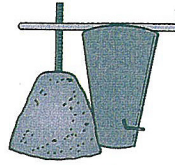
2 TUBES ATTACHED TO SKIPS CAN AIM THE CONCRETE IN THE RIGHT DIRECTION.



3 CONCRETE PUMPS CAN MOVE THE CONCRETE LONG DISTANCES TO WHERE IT IS NEEDED.

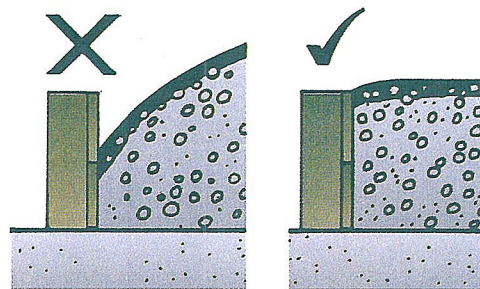


4

SLUMP	ON SITE	
	Site workers must NOT add water to the concrete	Ready Mix suppliers may add up to 10 litres/m ³ to adjust the slump
Check the slump is right for the job		

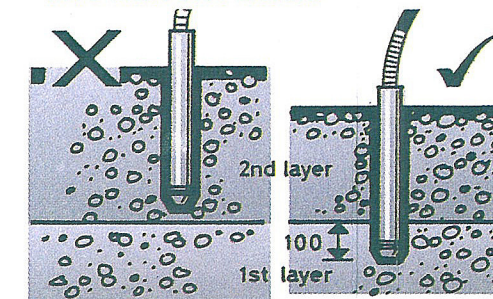
5

DON'T PLACE CONCRETE IN PILES BUT IN FLAT, EVEN LAYERS.



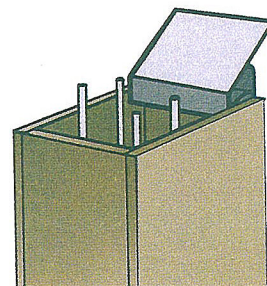
6

DON'T MAKE THE SECOND LAYER TOO THICK. THE POKER MUST GO 100mm INTO THE FIRST LAYER.



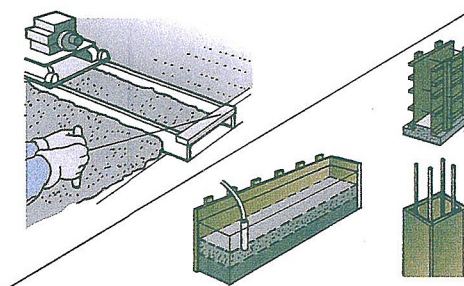
7

BAFFLE BOARDS PROTECT THE FORMWORK FROM BEING DAMAGED BY DROPPED CONCRETE.



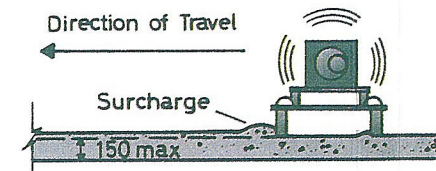
8

FOR THIN SLABS USE A BEAM VIBRATOR. FOR COLUMNS, WALLS AND THICK SLABS USE POKER VIBRATORS.



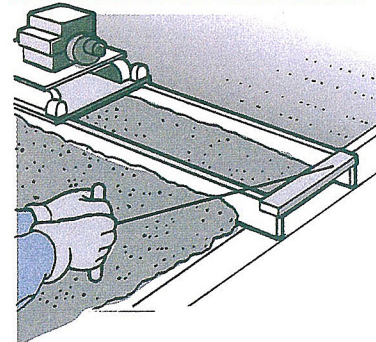
9

ALWAYS HAVE A SURCHARGE OF CONCRETE IN FRONT OF ANY BEAM VIBRATOR.



10

DOUBLE BEAM VIBRATORS REQUIRE NO FINISHING ON SOME JOBS.



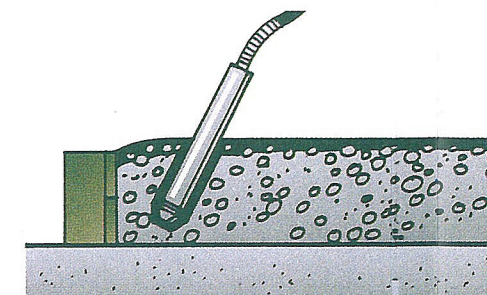
11

FOR SMALL JOB SLABS UP TO 100mm THICK A HAND TAMPER MAY BE USED.



12

POKER VIBRATORS SHOULD BE USED ALONG THE EDGES OF SLABS WHEN COMPACTING WITH A BEAM



COMPACTING

- Air is always trapped in concrete when it is being mixed.
- The aim of compaction is to remove as much of this air as possible.
- Why does getting rid of the air matter?
 - Air holes reduce the strength of concrete. If you don't compact concrete, it may only be half as strong as it should be.
 - Air holes in the concrete stop a good bond forming between the concrete and the reinforcing steel making the structure weaker.
 - Large air holes can cause ugly marks on the surface.
- Use the right compaction equipment for each job.
 - Poker vibrators for beams, columns, walls and deep slabs.
 - Beam vibrators for thin layered slabs.
 - Clamp-on vibrators can be used on special formwork, especially in the precast industry.
- Always have spare compacting equipment in case of a breakdown.
- For more information on the use of poker vibrators see Poster No 4 "Using a Poker Vibrator".