

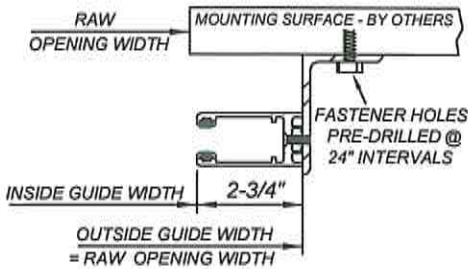


INSTALLING ROLLING GRILLE GUIDES & TUBES

1st CHECK OPENING DIMENSIONS AGAINST DRAWING!!

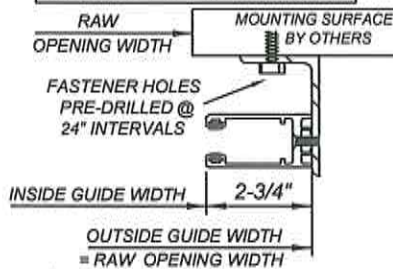
TYPE 1 GUIDE MOUNTING

PRE-MOUNTED ON
STEEL ANGLE
[TO FACE-OF-WALL]



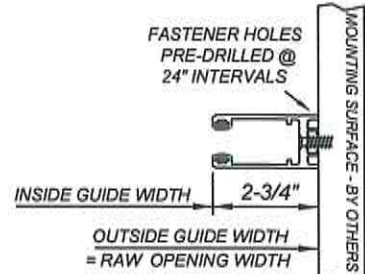
TYPE 2 GUIDE MOUNTING

PRE-MOUNTED ON STEEL
ANGLE [DISASSEMBLE
GUIDES FROM ANGLES TO
MOUNT] TO FACE-OF-WALL



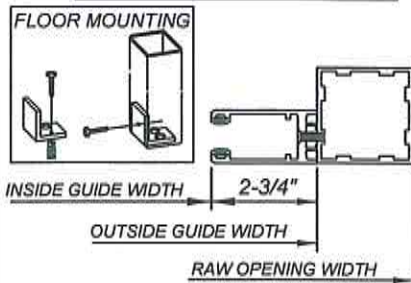
TYPE 3 GUIDE MOUNTING

BETWEEN JAMB
MOUNT ON
STRUCTURE BY OTHERS



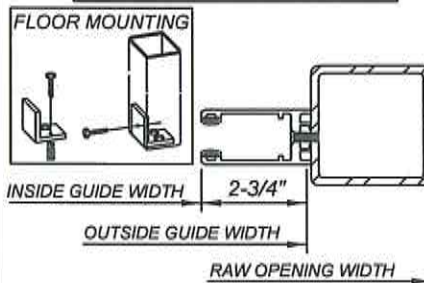
TYPE 4 GUIDE MOUNTING

PRE-MOUNTED FINISHED
EXTRUDED ALUMINUM TUBE
FOR FACE-OF-WALL OR
BETWEEN JAMB CONDITION



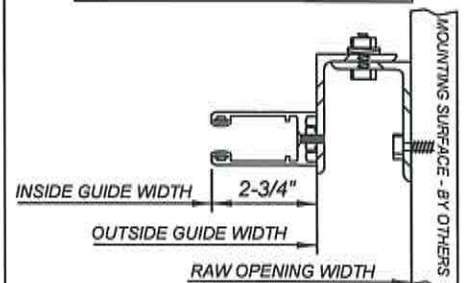
TYPE 5 GUIDE MOUNTING

PRE-MOUNTED ON
STEEL STRUCTURAL TUBE
FOR FACE-OF-WALL OR
BETWEEN JAMB CONDITION

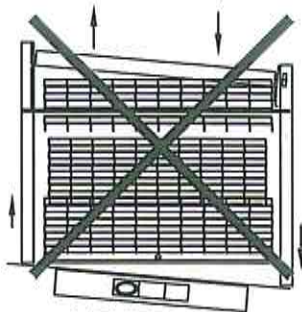


TYPE 6 GUIDE MOUNTING

PRE-MOUNTED PACK-OUT
ON H.S.S. STEEL ANGLE
[DISASSEMBLE ANGLES TO
MOUNT] BETWEEN JAMB

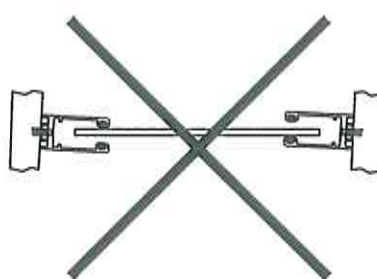


* IMPORTANT! "DO NOTS"



NEVER INSTALL
GRILLE GUIDES, BARREL
OUT OF LEVEL!

MALFUNCTION &
DAMAGE TO THE GRILLE
WILL OCCUR!



NEVER INSTALL
GRILLE GUIDES THAT ARE
NOT STRAIGHT AND MIRRORED

MALFUNCTION &
DAMAGE TO THE GRILLE
WILL OCCUR!

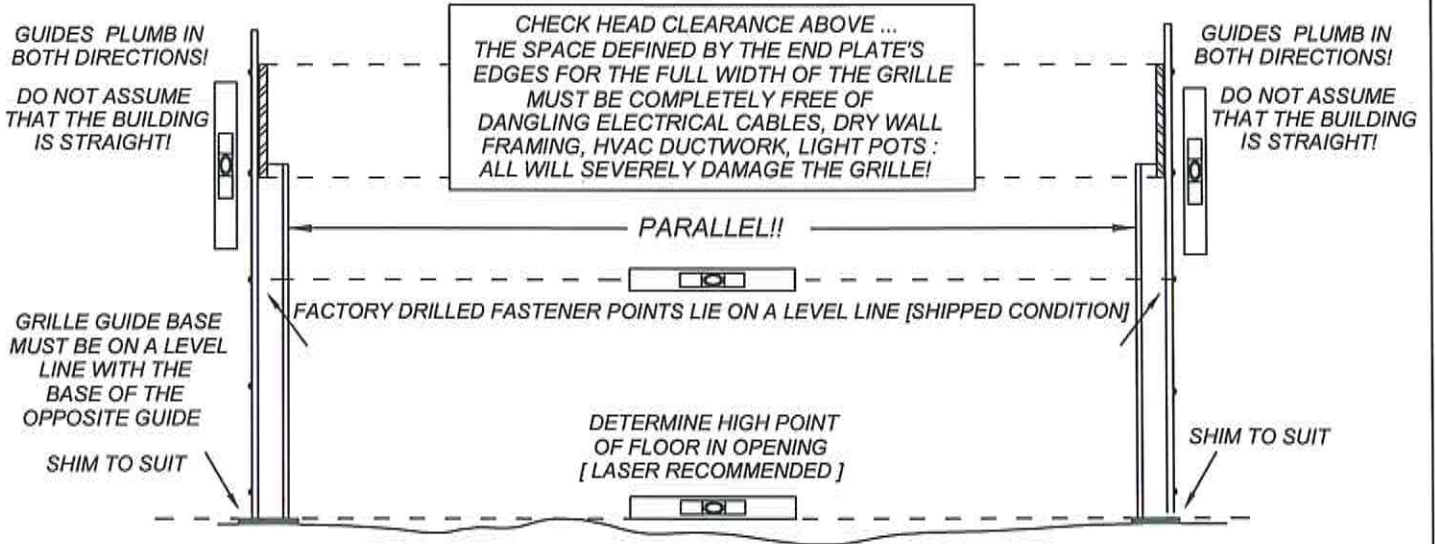


NEVER INSTALL
GRILLE GUIDES THAT ARE
NOT PARALLEL AND PERPENDICULAR

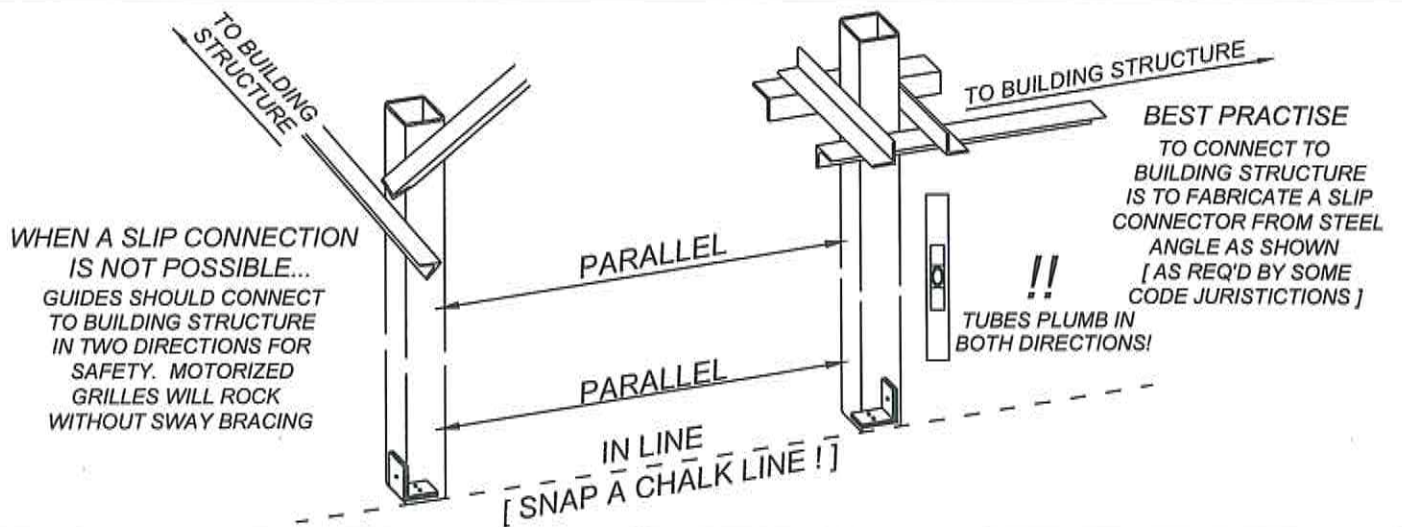
MALFUNCTION &
DAMAGE TO THE GRILLE
WILL OCCUR!



INSTALLING GUIDES & TUBES 2

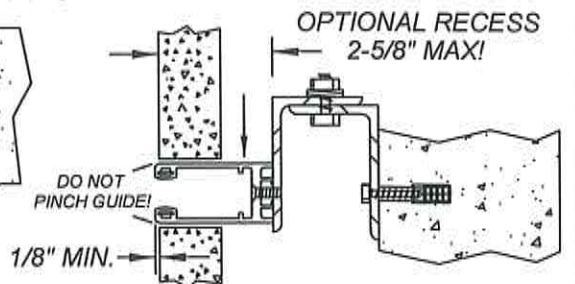
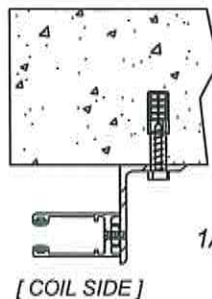
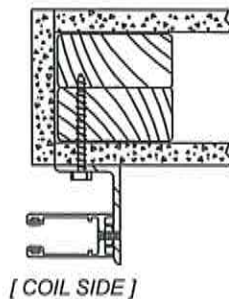
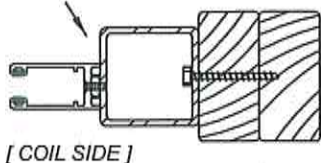


CHECK OPENING DIMENSIONS AGAINST DRAWING!



TYPICAL INSTALLATION SITUATIONS

NOTE! GUIDE DOES NOT CENTER ON SUPPORT TUBE DUE TO PACK-OFF REQUIREMENTS





INSTALLING BARREL TO HEAD PLATES

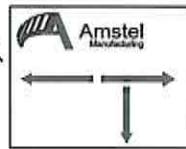
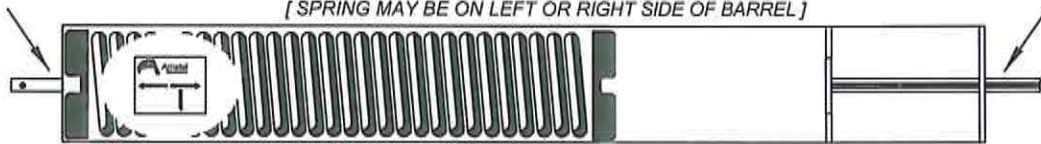
SPRING END

- SHAFT TURNS WITHIN THE BARREL
- ROUND SHAFT HAS NO KEYWAY
- HAS HOLE BORED THROUGH SHAFT

DRIVE END

- SHAFT DOES NOT TURN RELATIVE TO THE STATIONARY BARREL
- KEYWAY CUT IN THE SHAFT

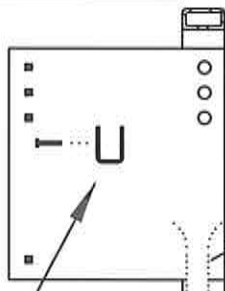
[SPRING MAY BE ON LEFT OR RIGHT SIDE OF BARREL]



NOTE!!

SPRING INFORMATION LABEL AT CHARGE END DENOTES DIRECTION OF SPRING CHARGING, NUMBER OF STARTING TURNS & NUMBER OF TOTAL TURNS TO CHARGE SPRING

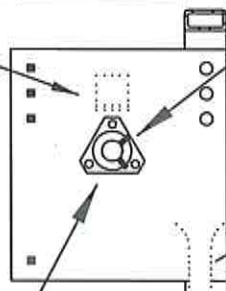
INSIDE CHARGE



SLIP CHARGE WHEEL ONTO SHAFT. LAY SHAFT END IN U-CHANNEL & PIN THRU BRACKET TO SECURE USING BOLT WITH LOCK WASHER AND NUT

OUTSIDE CHARGE

EXTERIOR "L" BRACKET

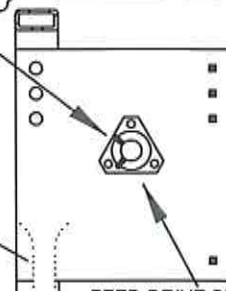


FEED SPRING END THRU THRUST BEARING FOR APPROX. 2-1/2 INCHES

FOR SAFETY!
TIGHTEN SET SCREWS PRIOR TO OPERATION

DRIVE END

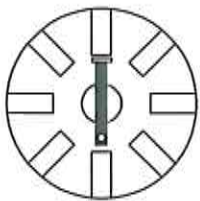
[REMOVE GUIDES FIRST]



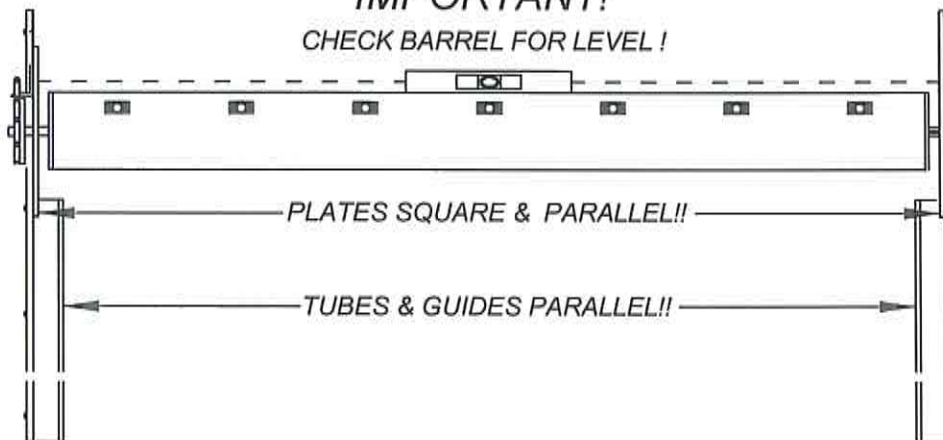
FEED DRIVE SHAFT THRU THRUST BEARING FOR AT LEAST THE DEPTH OF THE PLATE AND BEARING OR APPROX. 2-1/2 INCHES IF A DRIVE SPROCKET IS USED

IMPORTANT!

CHECK BARREL FOR LEVEL !

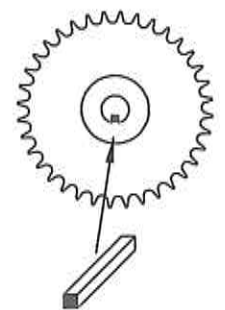


SECURE CHARGE WHEEL TO SHAFT WITH 3/8" DIA. CLEVIS PIN



PLATES SQUARE & PARALLEL!!

TUBES & GUIDES PARALLEL!!



SECURE DRIVE SPROCKET TO SHAFT WITH KEY STOCK IN SHAFT KEYWAY

CHECK OPENING DIMENSIONS AGAINST DRAWING!



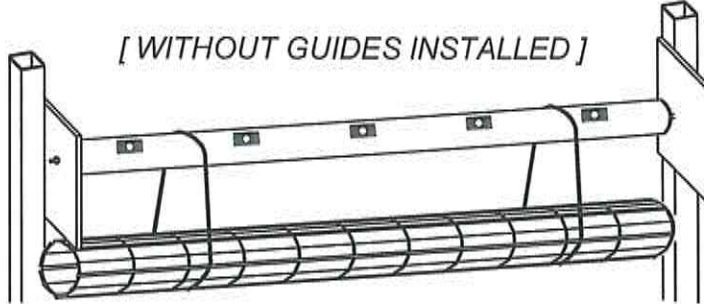
Amstel
Manufacturing

INSTALLING CURTAIN TO BARREL

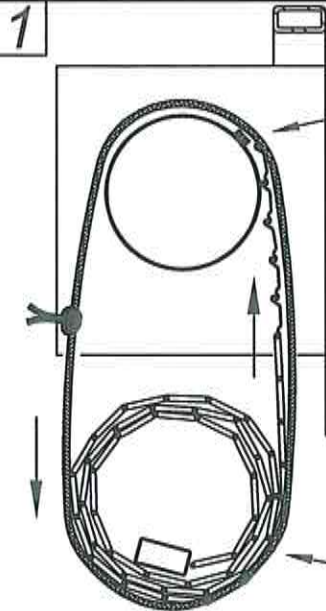
NOTICE!

ROLLING GRILLE CURTAINS CAN BE VERY HEAVY. SAFE LIFTING PROCEDURES MUST BE FOLLOWED. GENIE-TYPE LIFTS AND FORK LIFTS ARE RECOMMENDED. LADDERS MUST BE SAFELY TIED OFF. LIFTING WITH SKYJACK-TYPE SCISSOR LIFTS IS CONSIDERED TO BE AN UNSAFE PRACTISE.

[WITHOUT GUIDES INSTALLED]



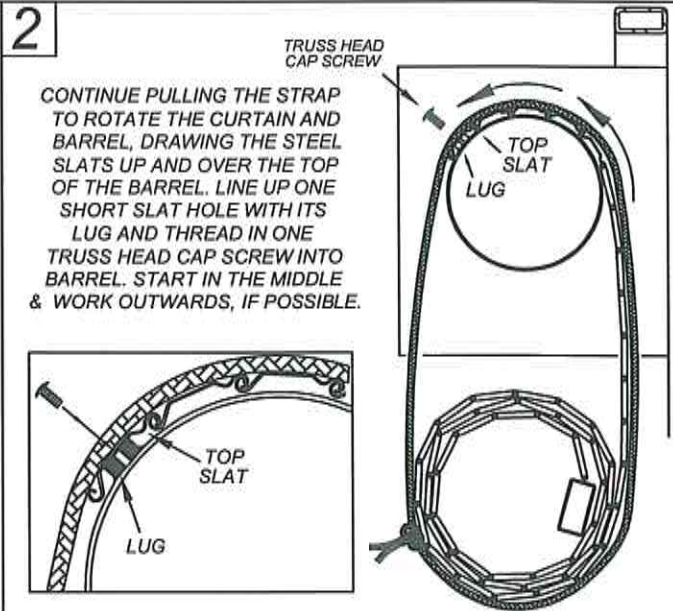
USING TWO STRONG ROPES OR STRAPS OF EQUAL LENGTH, HANG THE GRILLE CURTAIN APPROX. ONE ARM'S LENGTH BELOW THE BARREL [SLAT ORIENTED AS PER DRAWINGS BELOW, WRAPPED BOTTOM BAR INSIDE THE COIL]



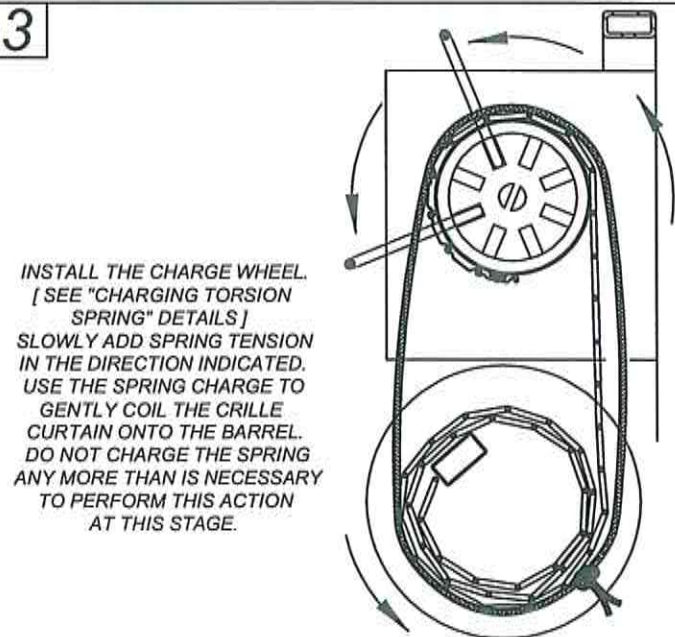
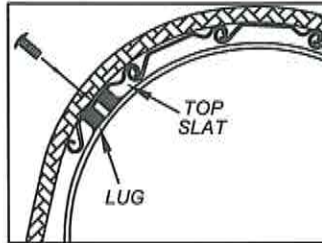
NOTE THAT THE TOP OF EACH GRILLE CURTAIN CONSISTS OF STEEL SLATS. THE TOP COURSE HAS SHORT LENGTHS THAT ARE DRILLED TO ACCEPT MOUNTING SCREWS THROUGH INTO THREADED LUGS, WELDED TO THE BARREL.

PULLING THE STRAP TO ROTATE, FEED THE CURTAIN SLATS BETWEEN THE SLINGS AND BARREL AS SHOWN. TRY TO LINE UP BARREL LUGS WITH DRILLED TOP SLATS AT THIS STAGE.

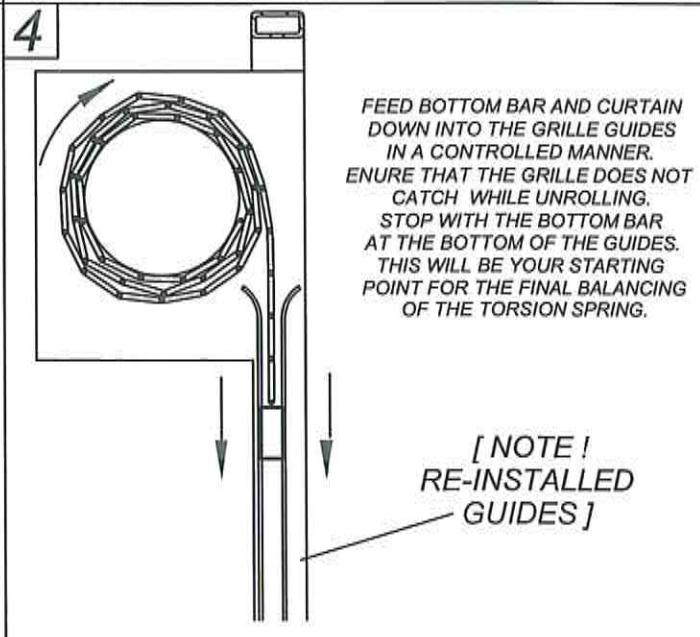
NOTE: ORIENTATION OF COIL, LOCATION OF BOTTOM BAR



CONTINUE PULLING THE STRAP TO ROTATE THE CURTAIN AND BARREL, DRAWING THE STEEL SLATS UP AND OVER THE TOP OF THE BARREL. LINE UP ONE SHORT SLAT HOLE WITH ITS LUG AND THREAD IN ONE TRUSS HEAD CAP SCREW INTO BARREL. START IN THE MIDDLE & WORK OUTWARDS, IF POSSIBLE.



INSTALL THE CHARGE WHEEL. [SEE "CHARGING TORSION SPRING" DETAILS] SLOWLY ADD SPRING TENSION IN THE DIRECTION INDICATED. USE THE SPRING CHARGE TO GENTLY COIL THE GRILLE CURTAIN ONTO THE BARREL. DO NOT CHARGE THE SPRING ANY MORE THAN IS NECESSARY TO PERFORM THIS ACTION AT THIS STAGE.



FEED BOTTOM BAR AND CURTAIN DOWN INTO THE GRILLE GUIDES IN A CONTROLLED MANNER. ENSURE THAT THE GRILLE DOES NOT CATCH WHILE UNROLLING. STOP WITH THE BOTTOM BAR AT THE BOTTOM OF THE GUIDES. THIS WILL BE YOUR STARTING POINT FOR THE FINAL BALANCING OF THE TORSION SPRING.

[NOTE !
RE-INSTALLED
GUIDES]



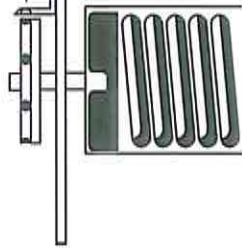
Amstel
Manufacturing

CHARGING TORSION SPRINGS

3/8" HOLE DRILLED THRU SPRING SHAFT FOR CLEVIS PIN TO LOCK CHARGING WHEEL ON SPRING SHAFT



1/2" DIA. STEEL ROUND PIN LOCKS CHARGE WHEEL



OUTSIDE CHARGE

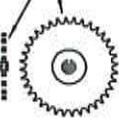


TORSION SPRING ASSEMBLY

BARREL

STEADY SHAFT

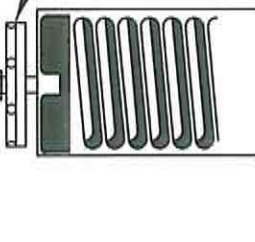
DRIVE SPOCKET WHEEL ON DRIVE SHAFT WITH KEYWAY [WHEN APPLICABLE]



3/8" CLEVIS PIN LOCKS CHARGE WHEEL



3/8" HOLE DRILLED THRU SPRING SHAFT FOR CLEVIS PIN TO LOCK CHARGING WHEEL ON SPRING SHAFT



INSIDE CHARGE

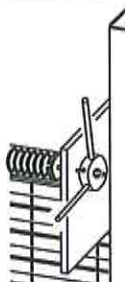


TORSION SPRING ASSEMBLY

BARREL

STEADY SHAFT

LEFT HAND OPERATION



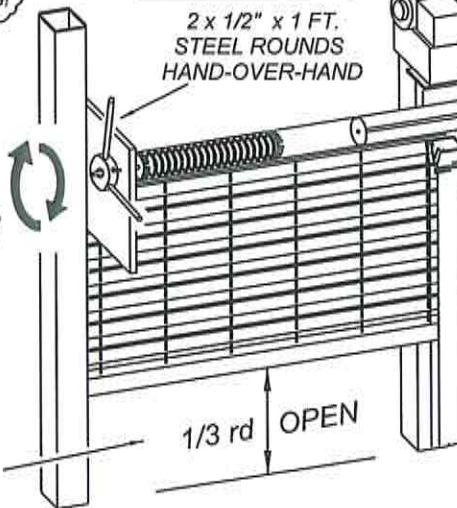
IMPORTANT NOTE !!
CURTAIN MUST BE ALL THE WAY DOWN INTO THE CLOSED POSITION PRIOR TO CHARGING!

ALWAYS!
ADD CHARGE THIS DIRECTION!

CHARGE UNTIL NEUTRAL BALANCE ABOUT 1/3rd OPEN

RIGHT HAND OPERATION

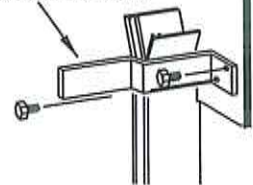
2 x 1/2" x 1 FT. STEEL ROUNDS HAND-OVER-HAND



1/3 rd OPEN

REMOVE ANY DRIVE CHAIN FROM SHAFT BEFORE CHARGING SPRING

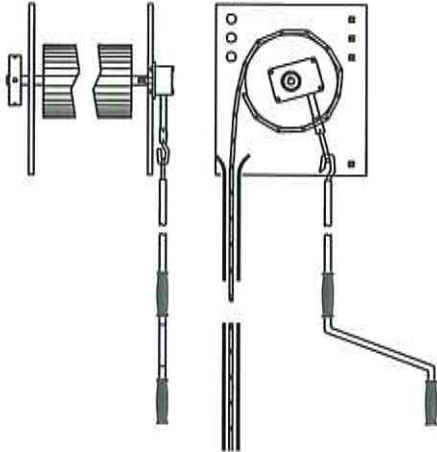
BOTTOM BAR STOPPER SHOULD BE INSTALLED PRIOR TO CHARGING SPRING



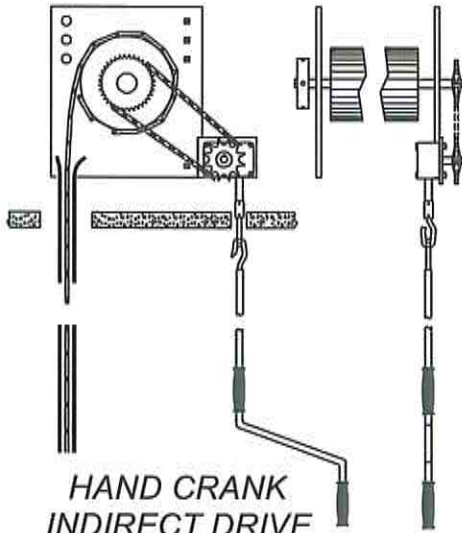


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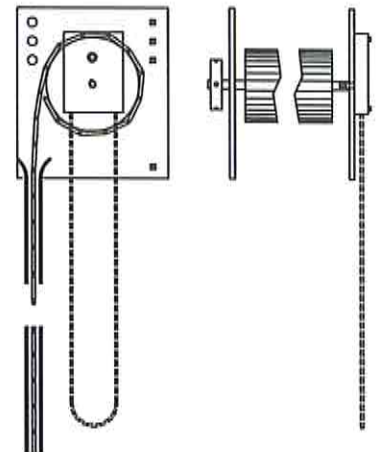
MOUNTING OPERATORS



*HAND CRANK
DIRECT DRIVE*



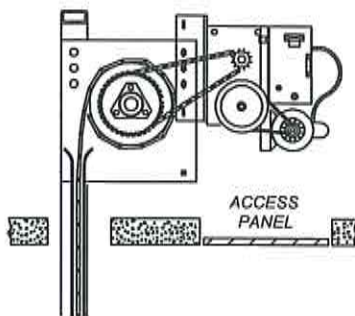
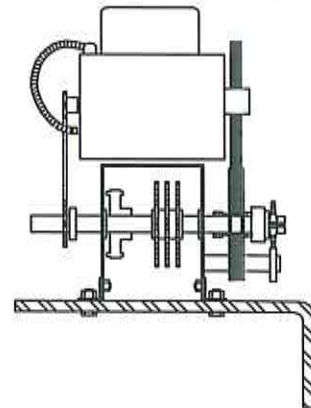
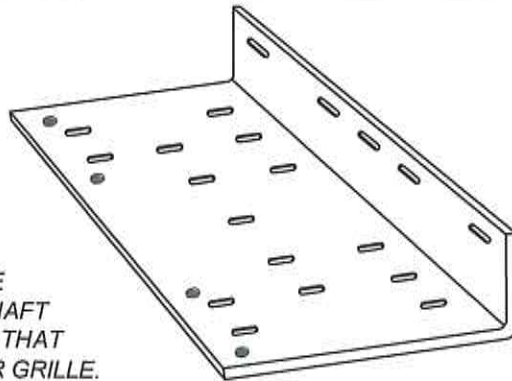
*HAND CRANK
INDIRECT DRIVE*



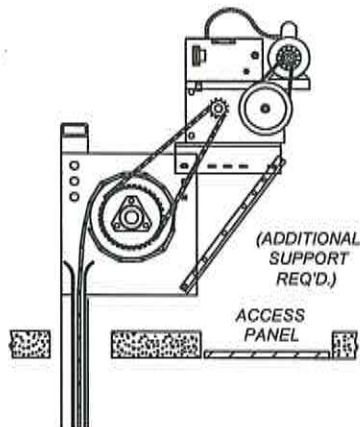
*CHAIN HOIST
DIRECT DRIVE*

NOTE!

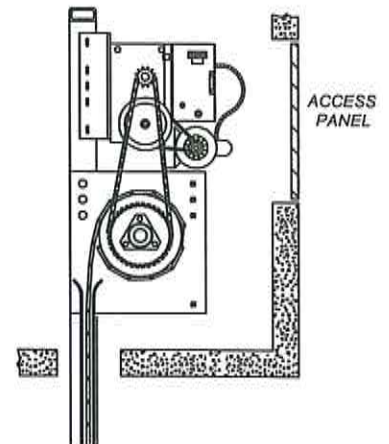
YOUR MOTOR IS SHIPPED WITH AN AMSTEL UNIVERSAL MOUNTING BRACKET. IT HAS MULTIPLE HOLES TO SUIT THE DIFFERENT TYPES OF JACKSHAFT AND GEARHEAD OPERATORS THAT MAY BE SUPPLIED WITH YOUR GRILLE.



*VERTICAL
FRONT MOUNT*



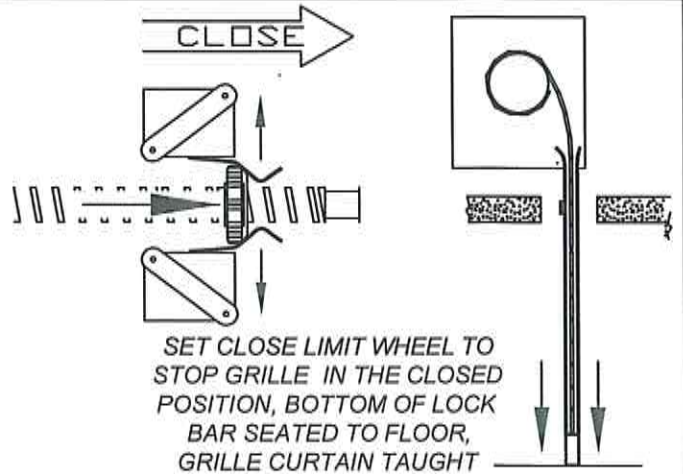
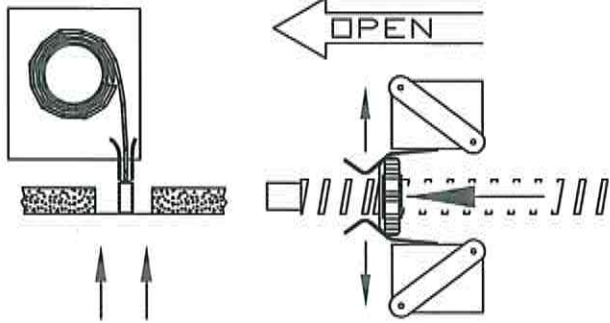
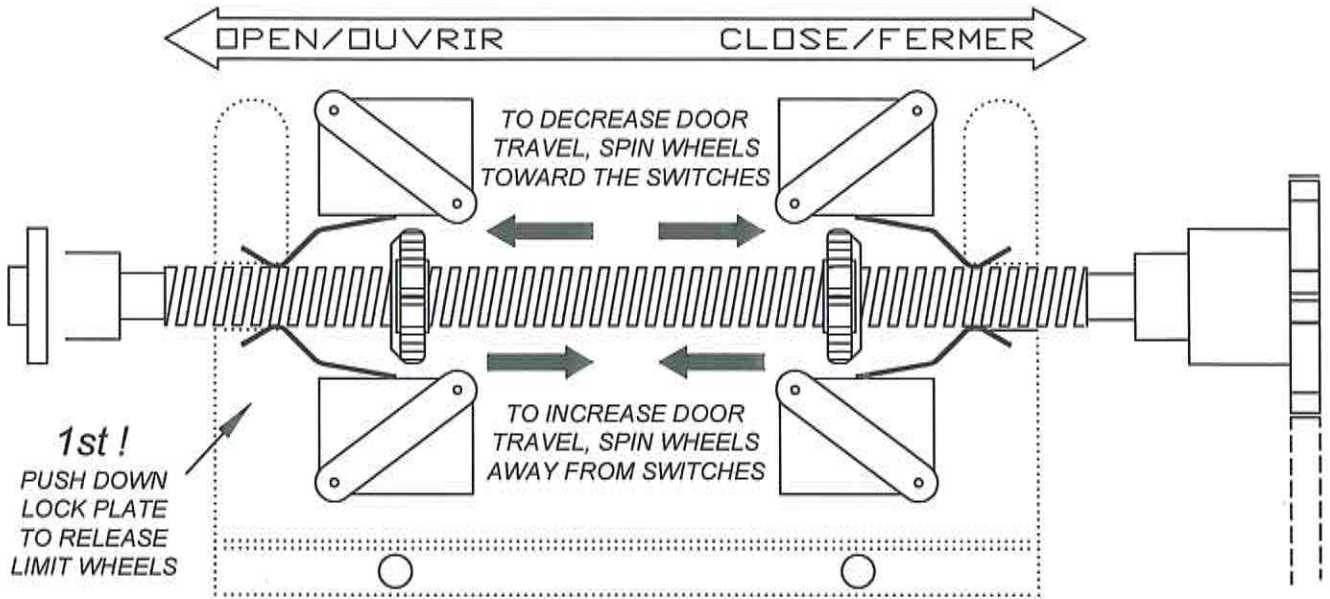
*HORIZONTAL
FRONT MOUNT*



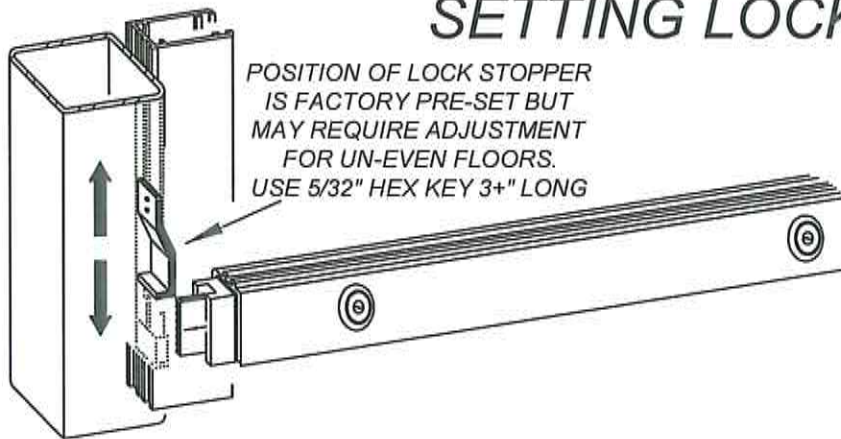
*VERTICAL
TOP MOUNT*



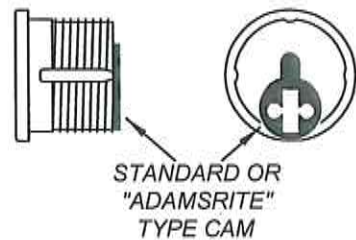
SETTING MOTOR LIMITS



SETTING LOCKS



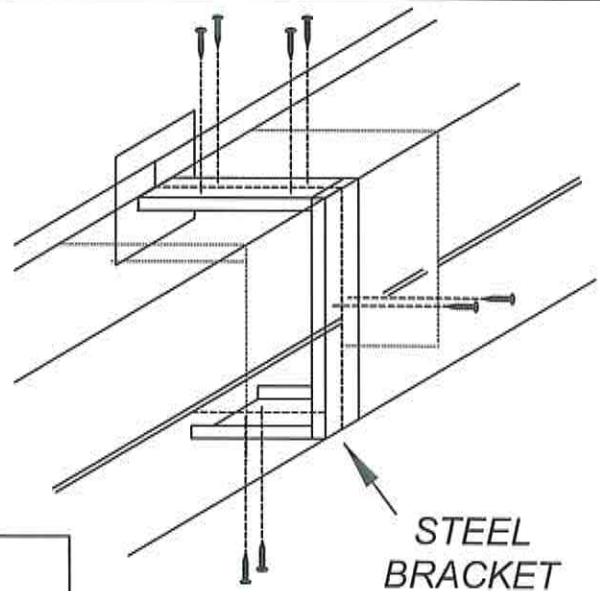
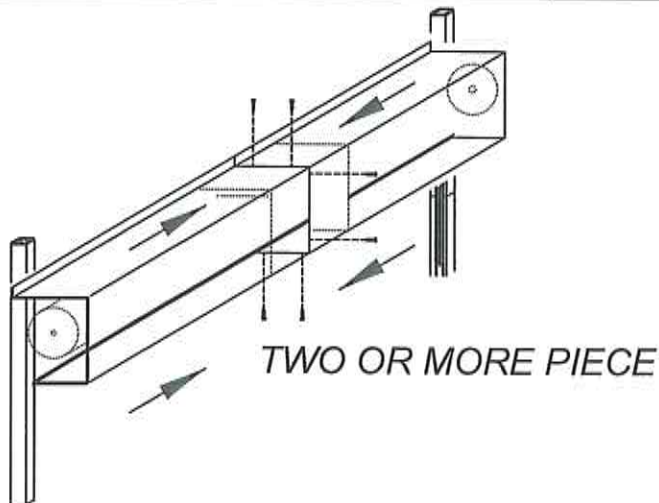
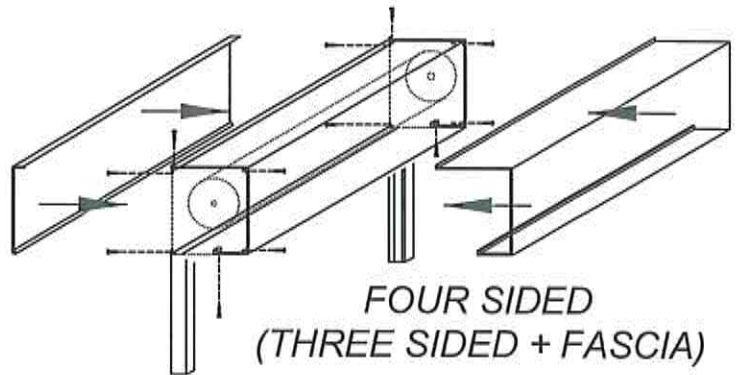
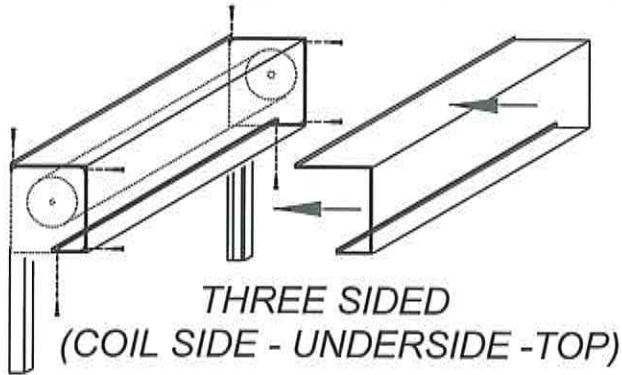
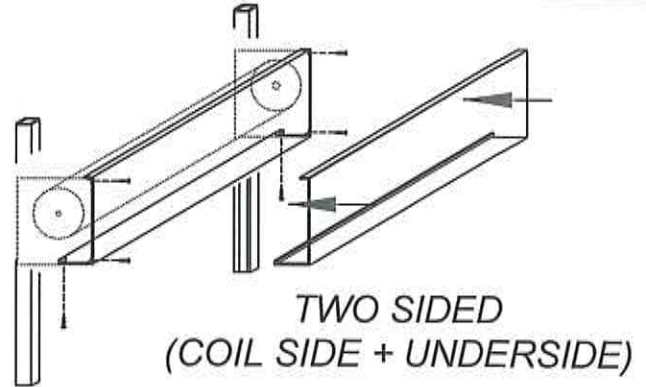
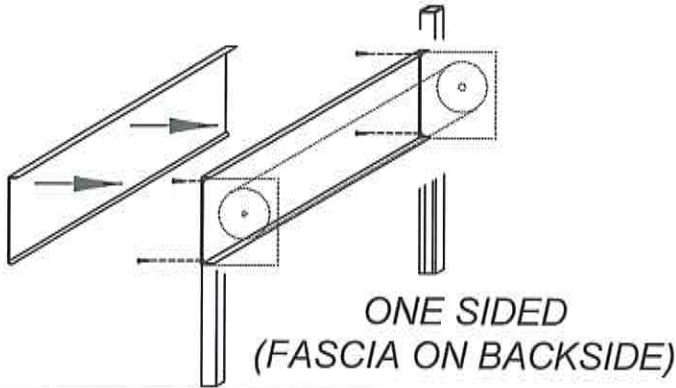
GRILLE LOCK WILL ACCEPT ANY STANDARD 5, 6 OR 7 PIN MORTISE CYLINDER





Amstel
Manufacturing

INSTALLING HOODS



THE MAXIMUM SINGLE PIECE HOOD WIDTH IS 12 FEET. WIDER HOODS ARE MADE WITH MULTIPLE SECTIONS THAT REQUIRE AN EXTRA INTERNAL STEEL BRACKET TO SUPPORT THE MIDSPAN JOINTS.