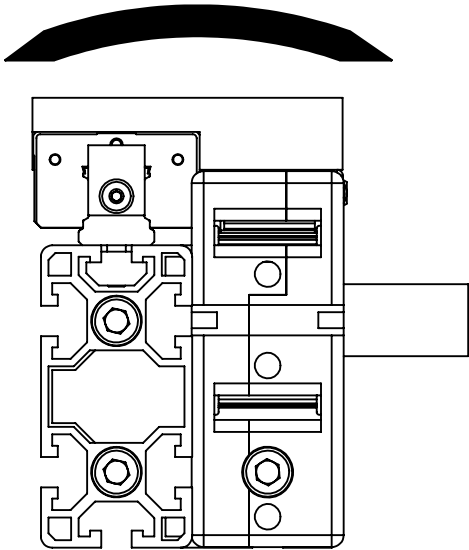
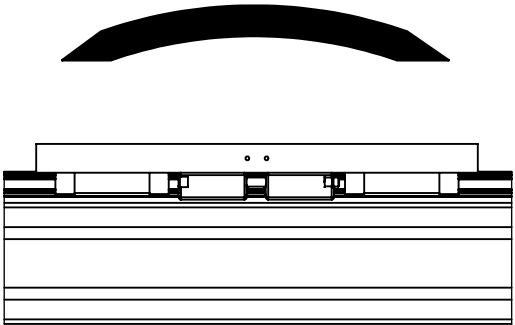


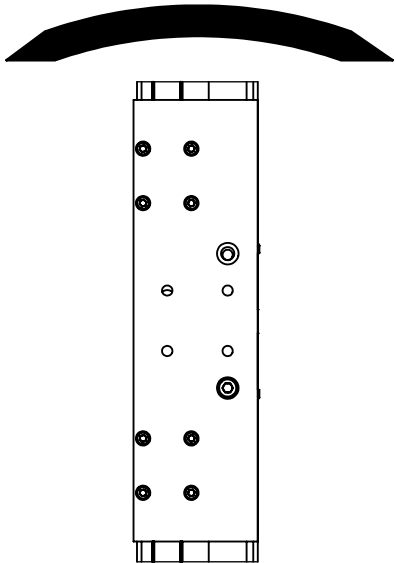
MOMENT LOADING FOR THE MSA-R20 ACTUATOR



M_x (static) = 1371 in-lbs, 155 Nm.
 M_x (dynamic) = 1062 in-lbs, 120 Nm.



M_y (static) = 2564 in-lbs, 289 Nm.
 M_y (dynamic) = 1976 in-lbs, 223 Nm.



M_z (static) = 2564 in-lbs, 289 Nm.
 M_z (dynamic) = 1976 in-lbs, 223 Nm.



MACRON DYNAMICS INC