

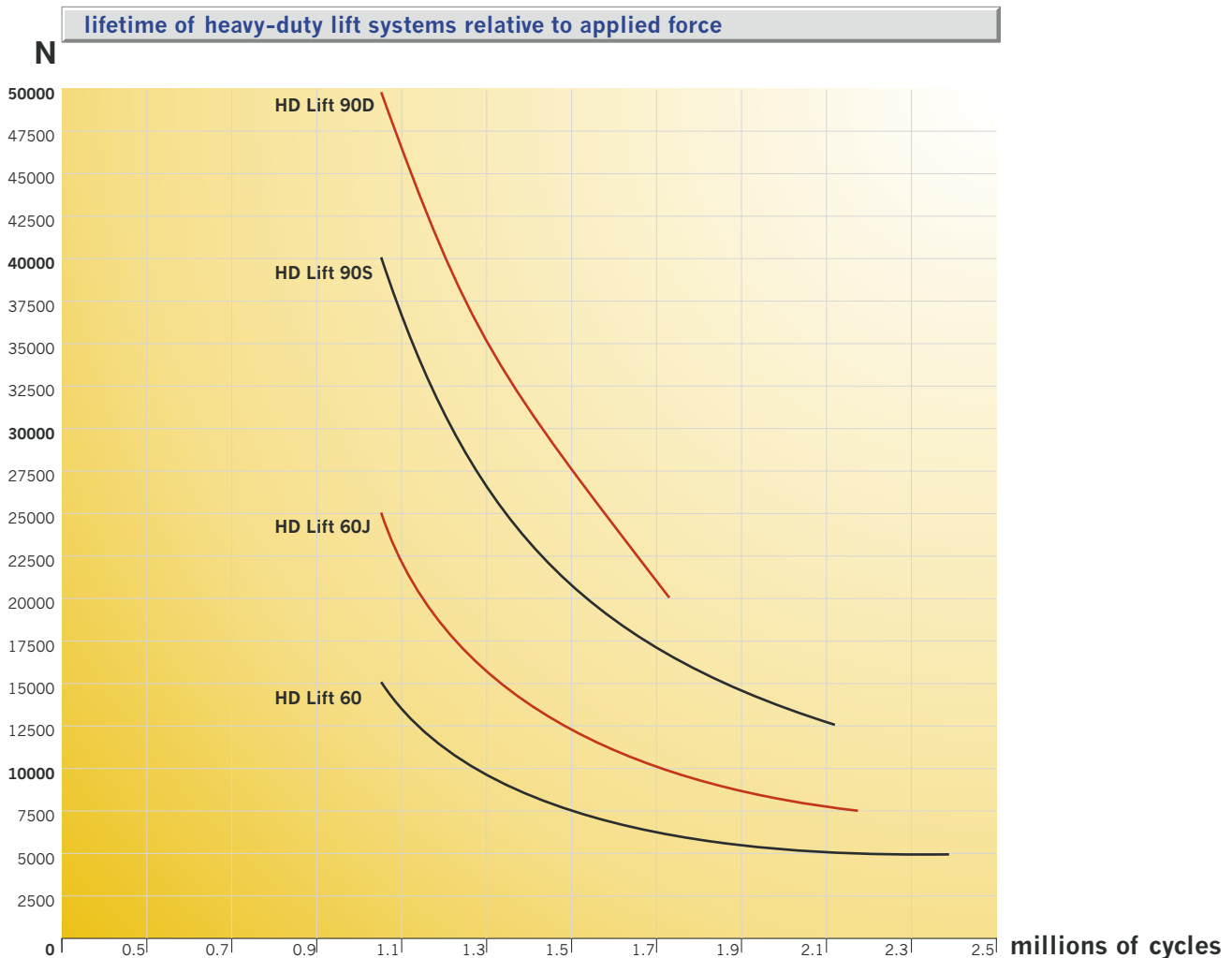
heavy-duty lift systems

The line of heavy-duty lifts is laid out for especially high cycling rates and continuous operation. It has been designed chiefly for application in the manufacturing industry. The guaranteed minimum lifetime is **1 million duty cycles** under maximum load, **provided SERAPID's operating conditions are followed.** (See graph below.)

All types include a permanent lubrication system, with oil-proof drive housing and storage magazine.

This product line is comprised of four types of **HD Lift** systems. It covers dynamic and static capacities up to 50000 N and stroke heights up to 2.5 m.

The diagram below shows the graphs of product lifetimes relative to applied forces. Depending on conditions of use, it may be more cost-effective to opt for a stronger type of lift than would be required for the load. The higher lifetime may make it the more economical choice.



capacity specifications

The table below shows the types of SERAPID heavy-duty lifts. The chart shows their (dynamic and static) capacities relative to the stroke height. The corresponding fields represent the recom-

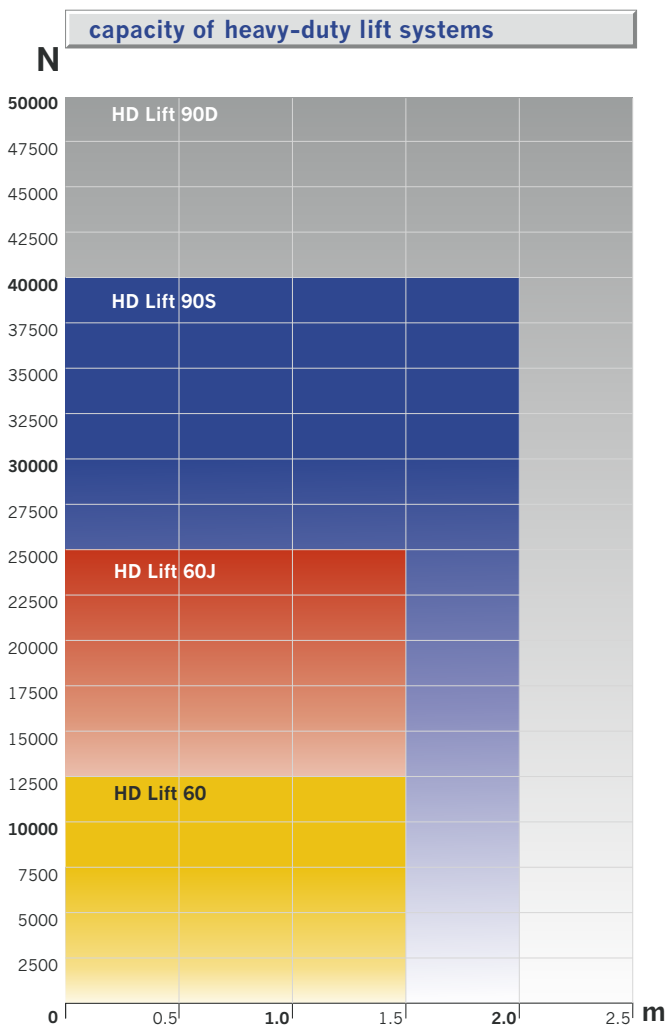
mended application domain for each product.

The specifications are given for the **unguided use** of the lifts. Moreover, they are valid only for the nominal speed of 300 mm/s. Also, the capacities can only be guaranteed

if the mounting tolerances (see technical drawings) are observed.

If your application does not fall within the specifications, ask SERAPID Engineering for your custom solution.

SERAPID heavy-duty lift systems				
	HD Lift 60	HD Lift 60J	HD Lift 90S	HD Lift 90D
pitch of link (mm)	60	60 (2 chains)	90	90
max. stroke (m)	1.5	1.5	2	2.5
max. static force (N)	12 500	25 000	40 000	50 000
max. dynamic force (N)	12 500	25 000	40 000	50 000
nominal speed (mm/s)	300	300	300	300



available options

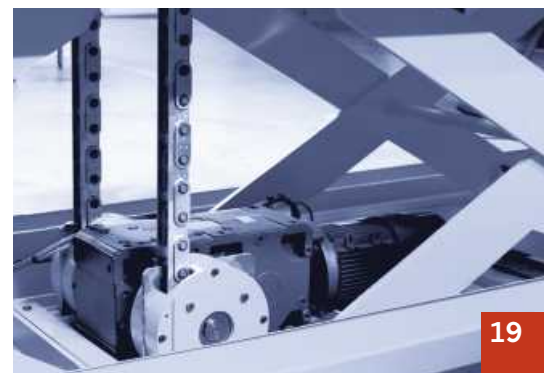
The following options are available for our heavy-duty products:

mounting flange for gear motor

special shaft output to allow integration of **encoder or CAM switch** by the user

double output of drive shaft

special output shaft, custom design as required

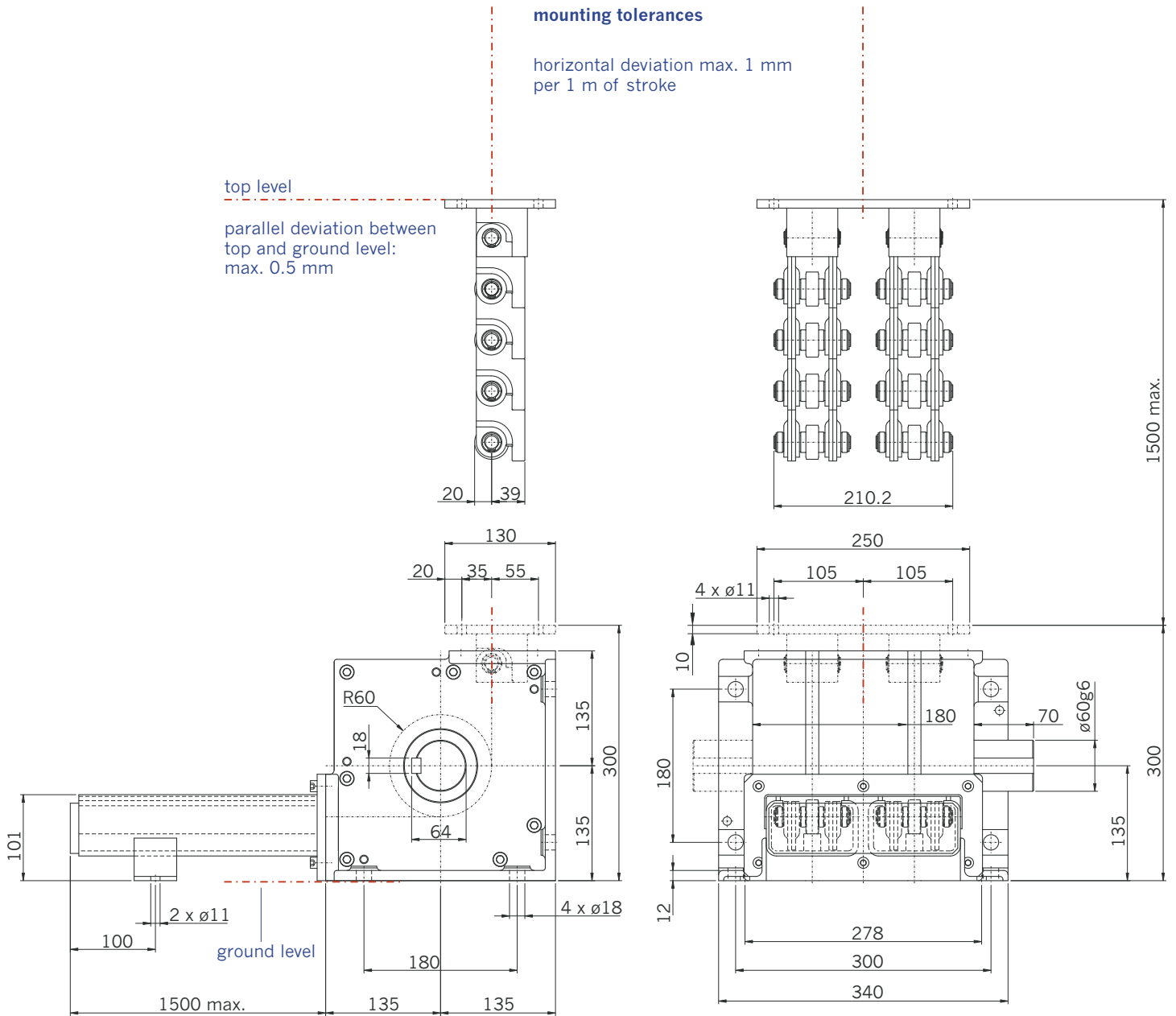


mounting tolerances

horizontal deviation max. 1 mm
per 1 m of stroke

top level

parallel deviation between
top and ground level:
max. 0.5 mm

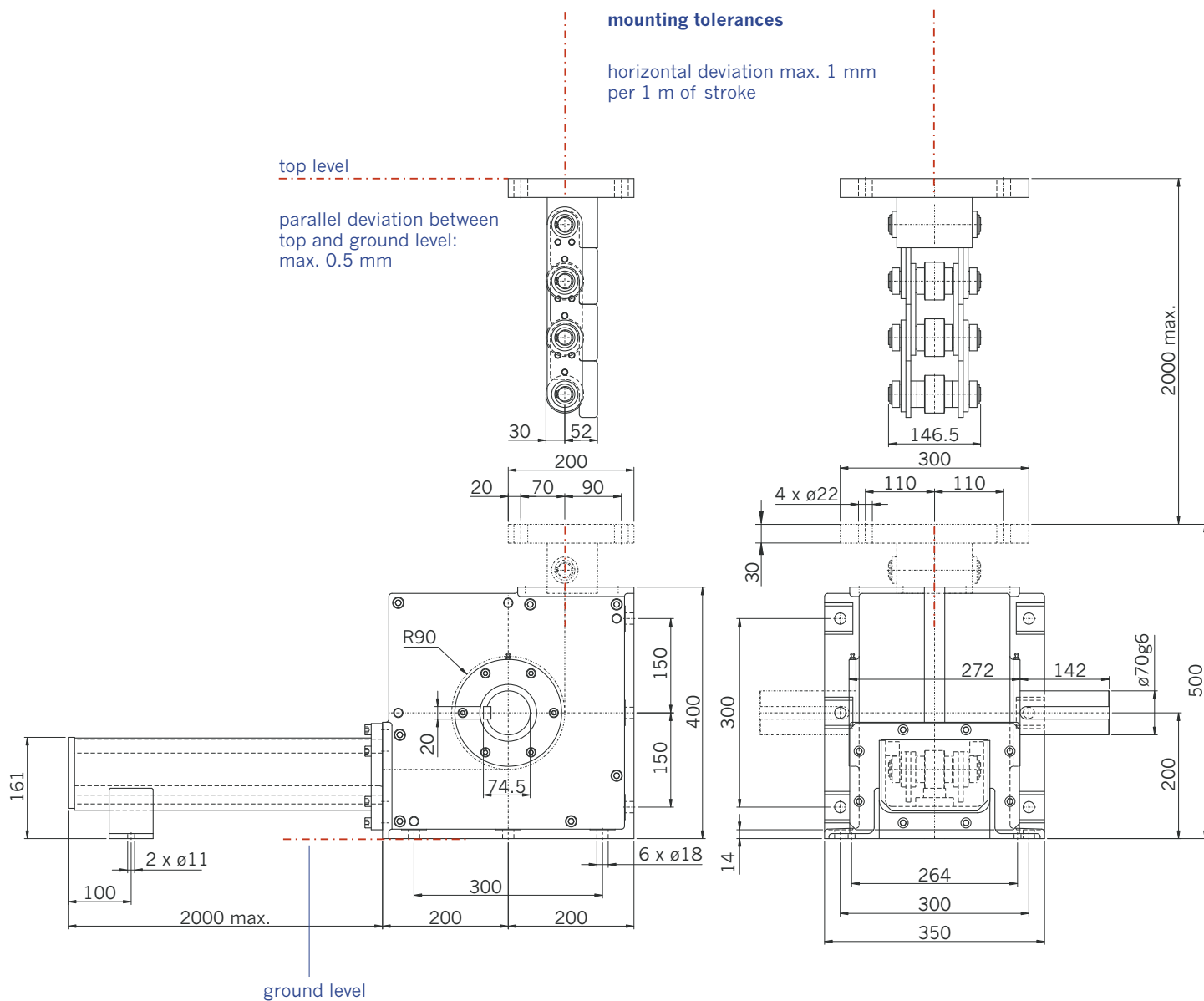


all dimensions in mm

HD Lift 60J

pitch of link (mm)	60 (equal to segment radius of drive pinions), 2 chains
chain weight per m (kg)	2 x 10.5
drive housing	cast steel, 90°, standard guide and reaction plates, oil-proof
max. stroke (m)	1.5
max. dynamic force (N)	25 000
max. static force (N)	25 000
nominal speed (mm/s)	300

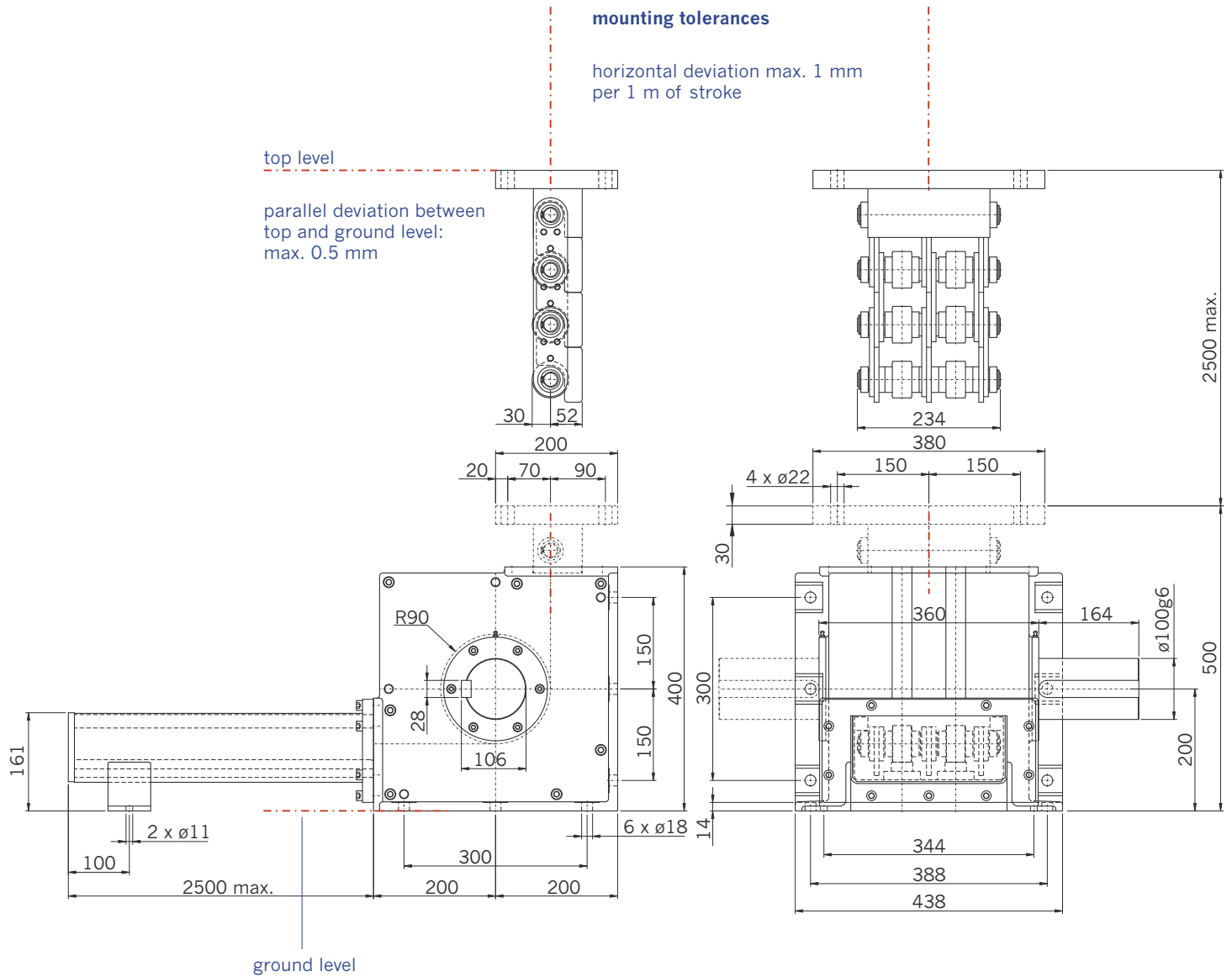
heavy-duty lift systems



all dimensions in mm

HD Lift 90S

pitch of link (mm)	90 (equal to segment radius of drive pinions)
chain weight per m (kg)	31
drive housing	cast steel, 90°, standard guide and reaction plates, oil-proof
max. stroke (m)	2
max. dynamic force (N)	40 000
max. static force (N)	40 000
nominal speed (mm/s)	300



all dimensions in mm

HD Lift 90D

pitch of link (mm)	90 (equal to segment radius of drive pinions)
chain weight per m (kg)	49
drive housing	cast steel, 90°, standard guide and reaction plates, oil-proof
max. stroke (m)	2.5
max. dynamic force (N)	50 000
max. static force (N)	50 000
nominal speed (mm/s)	300