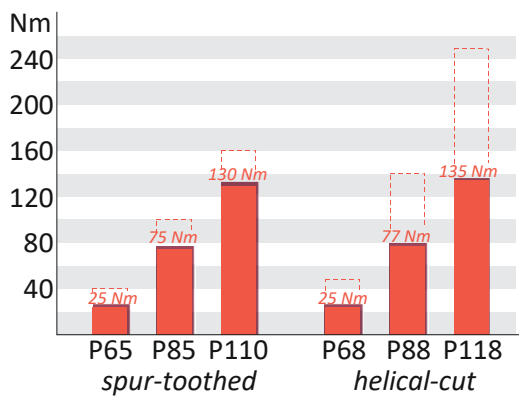


## Planetary Gearing

Planetary gearboxes deliver an extremely high efficiency ratio of up to 97%.  
The backlash can be reduced to up to 0.1 degrees.

### Overview of permissible (and maximum) planetary gearbox torques



### Spur-toothed planetary gearing

#### Size P65

Reduction ratio	Perm. torque [Nm]	Max. torque [Nm]	Emergency Off torque [Nm]
5	25	40	100
7	25	40	100
10	15	30	80

#### Size P85

Reduction ratio	Perm. torque [Nm]	Max. torque [Nm]	Emergency Off torque [Nm]
5	75	100	200
7	75	100	200
10	50	75	150

#### Size P110

Reduction ratio	Perm. torque [Nm]	Max. torque [Nm]	Emergency Off torque [Nm]
5	130	160	300
7	130	160	300
10	120	150	280



### Helical-cut planetary gearing

#### Size P68

Reduction ratio	Perm. torque [Nm]	Max. torque [Nm]	Emergency Off torque [Nm]
5	25	50	90
7	25	50	90
10	20	40	70

#### Size P88

Reduction ratio	Perm. torque [Nm]	Max. torque [Nm]	Emergency Off torque [Nm]
5	77	140	250
7	77	140	250
10	60	120	200

#### Size P118

Reduction ratio	Perm. torque [Nm]	Max. torque [Nm]	Emergency Off torque [Nm]
5	135	250	470
7	135	250	470
10	125	220	420

### Multi-stage planetary gearing

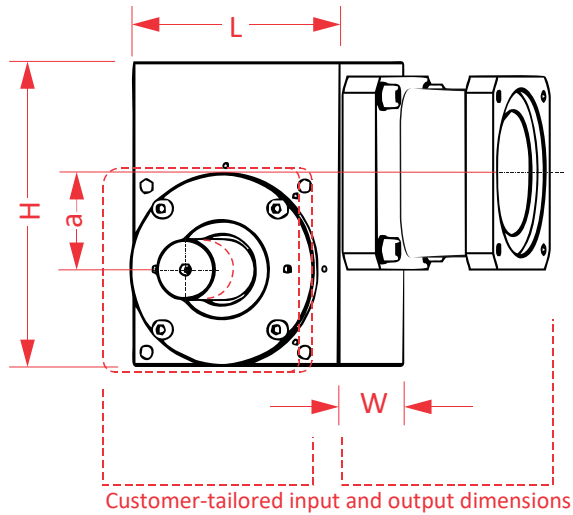
If larger gear reductions are required, several planetary stages can be arranged sequentially.

Example:

Reduction ratio 35  $\left\{ \begin{array}{l} 1^{\text{st}} \text{ stage reduction } 7 + \\ 2^{\text{nd}} \text{ stage reduction } 5 \end{array} \right.$

The permissible torque results from the last planetary wheel stage on the output side.

## Worm drive dimensions



Axle distance a [mm]	Length L [mm]	Width W [mm]	Height H [mm]
25	60	40	70
35	85	65	100
40	95	75	110
50	120	90	140
53	150	95	160
63	190	110	185
80	230	120	220

The measures are reference values only and can be optimized according to your requirements.

## Applications

Langguth drives are used in many different industries but they all have one thing in common: They are truly special.

*Packaging machines*



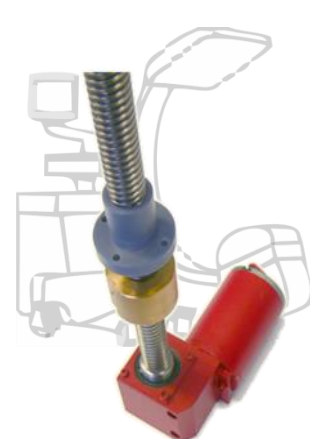
*Pick&Place robots*



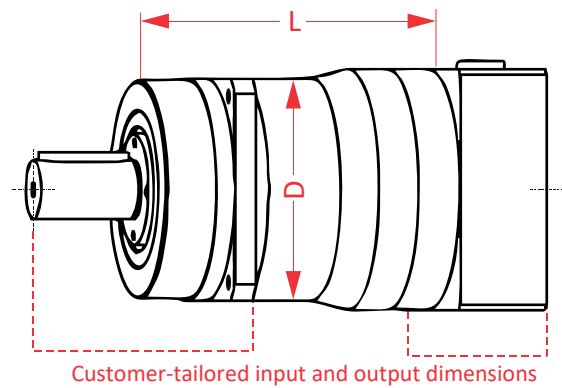
*Actuators*



*X-ray machines (C-shape)*



## Planetary gearing dimensions



Type	Diameter D [mm]	Length L [mm]
P65	65	72
P85	85	87
P110	110	96
P68	65	94
P88	85	107
P118	110	126

*Other housing shape?  
Special sizes?  
No problem whatsoever. Contact us.*