

# Deflection Rollers ULR+ULW

Types, sizes, surfaces



Leading the way

# Deflection Rollers

## Technical details

### Optimized coatings

We offer a variety of different coatings to meet every customers needs.  
Please contact our sales team for further information.

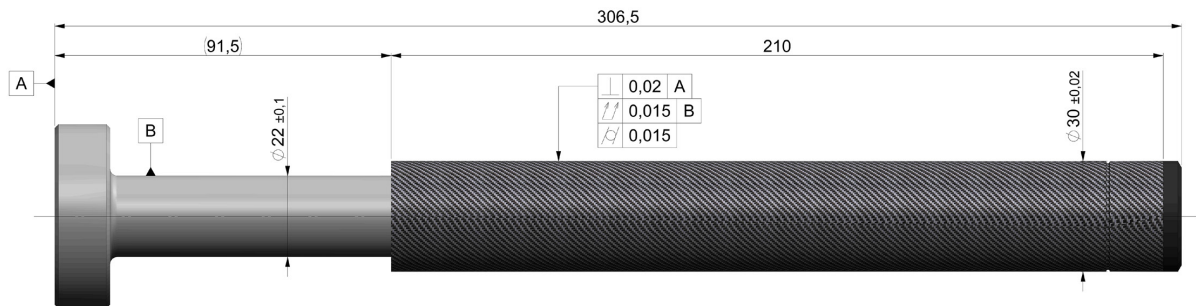
Coating	Purpose	Shell material
Plasma coating (e. g. XP0198 ; PC915S; etc)	non-stick / wear resistance	CFRP; Aluminum
Anodizing	wear resistance; colouring	Aluminum
Hard anodizing	wear resistance; colouring	Aluminum
Hard chrome plating (smooth, orange, etc.)	wear resistance / frictions	Aluminum
Rubber (NBR, EPDM etc.)	friction / pressure rollers	Aluminum

### Customized lubrication

Temco uses a specialized grease for every application. The selection is always optimized for the specific useage. Different bearing loads, speed, accelaration and process sequences can be achieved.  
All Temco bearings are lifetime lubricated.

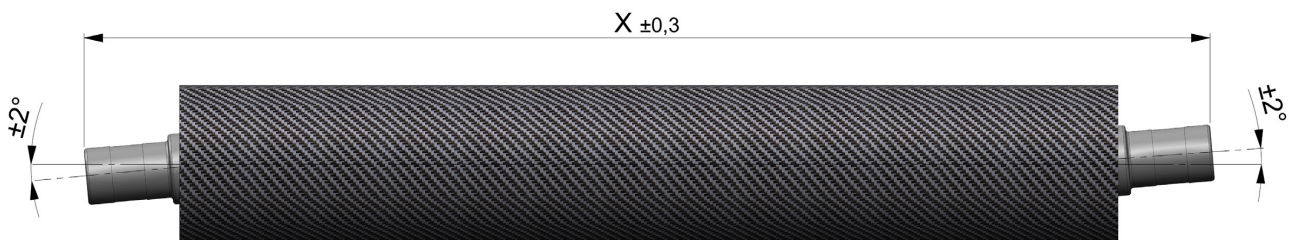
Grease	Purpose	Application
TH1	FDA H1 compliance	Food / Packaging
THL	High load capacity	Packaging
THS	High speed optimized	High performance hygiene / non-wovens
TLT	Low torque	Lithium-Battery
TUL	Ultra low torque	Lithium-Battery

## ULR– Example for highest precision roller (for battery application)



- Cylinder shape: 0,015 mm
- Radial runout: 0,015 mm
- Linearity of the roll shell: 0,02 mm

## ULW – Example for flexible adaptation

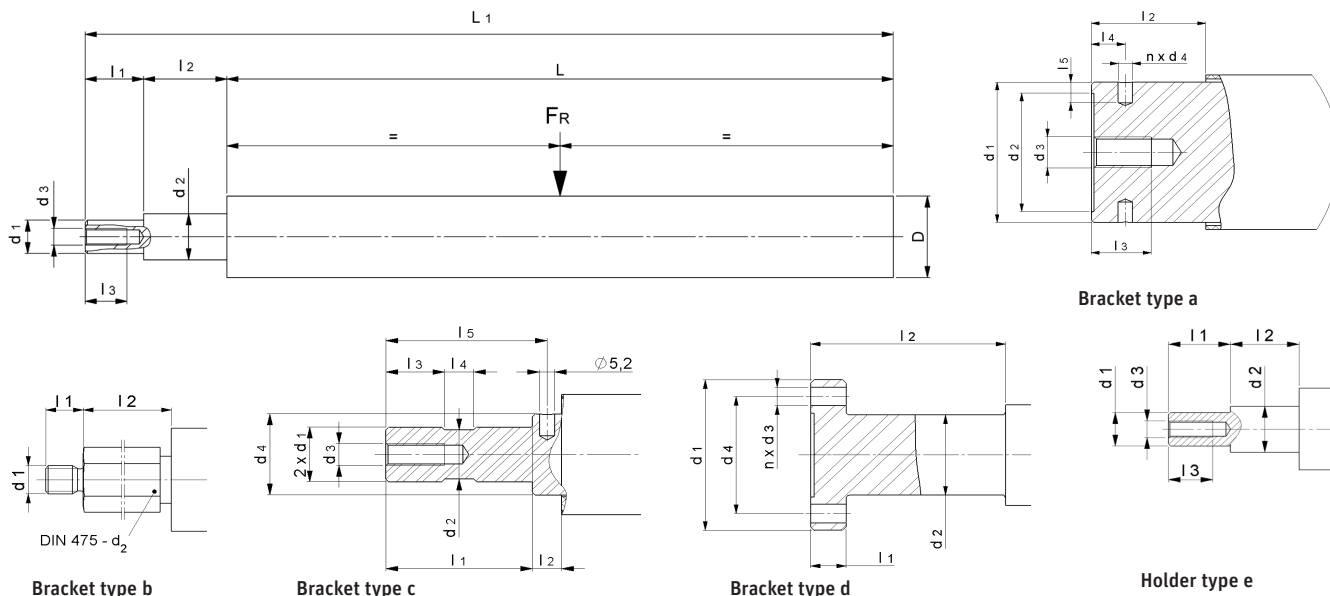


The flexible ULW-adapter is able to correct misalignments of the machine's walls and holes:

- length compensation with a range of  $\pm 0,3$  mm
- angle error compensation with a range of  $\pm 2^\circ$  (to correct coaxial errors of the adaption of the machine walls).

# Deflection Rollers ULR

## Figures



## Labeling system

### ULR XX YY(YY) (-E-EC(T)-R) - ZZ (-HP)

**XX** Shell diameter [mm]

**YY(YY)** Length of the shell [mm]

**E** Eco variant

**EC(T)** Shell coated with elastomer cover

**R** Grooved shell surface

**ZZ** Consecutive number for various versions and customized adaptations (e. g. bracket variants, geometric adaptations, material, coating, H1 approval, etc.)

**HP** High precision

## Product overview (selection)

Type	Shell				Bracket												
	$v_{max}$ [m/min]	$F_{Rmax}$ [N]	D [mm]	L [mm]	Material	Coat	Type	$d_1$ [mm]	$d_2$ [mm]	$d_3$ [mm]	$d_4$ [mm]	$l_1$ [mm]	$l_2$ [mm]	$l_3$ [mm]	$l_4$ [mm]	$l_5$ [mm]	L1 [mm]

### Packaging applications

ULR39220-E-01 <sup>1</sup>	440	100	39	220	Al	hard anodized	e	Ø16	Ø22	M8	-	28	81	20	-	-	329.0	-
ULR39320-E-01 <sup>1</sup>	440	100	39	320	Al	hard anodized	e	Ø16	Ø22	M8	-	28	31	20	-	-	379.0	-
ULR39320-E-02	440	100	39	320	Al	hard anodized	e	Ø16	Ø22	M8	-	28	40	20	-	-	379.1	-
ULR39320-E-04	440	100	39	320	Al	non-stick	e	Ø16	Ø22	M8	-	28	31	20	-	-	379.2	-
ULR39320-E-05	440	100	39	320	Al	non-stick	e	Ø16	Ø22	M8	-	28	40	20	-	-	379.3	-
ULR39320-ER-01	440	100	39	320	Al	anodized	Special grooved roll shell with special bracket. Please contact our sales team										355	-
ULR85300-00	100	110	85	300	Al	hard anodized	b	M12	SW19	-	-	15	10	-	-	-	325.0	-

## Product overview (selection)

Type	Shell				Material		Bracket											
	V <sub>max</sub> [m/min]	F <sub>Rmax</sub> [N]	D [mm]	L [mm]	Material	Coat	Type	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	d <sub>3</sub> [mm]	d <sub>4</sub> [mm]	l <sub>1</sub> (mm)	l <sub>2</sub> (mm)	l <sub>3</sub> (mm)	l <sub>4</sub> (mm)	l <sub>5</sub> (mm)	L1 [mm]	n
<b>Hygiene applications</b>																		
ULR28150-E-01 <sup>1</sup>	100	100	28	150	Al	-	a	Ø23,5	-	M6	-	-	8	12	-	-	158.0	-
ULR34250-06	750	100	34	250	CFRP	-	a	Ø29,6	-	M8	Ø5,5	-	24,8	20,5	12,5	-	275.0	1
ULR34250-07	750	100	34	250	CFRP	-	b	M12	SW24	-	-	15	125	-	-	-	390.0	-
ULR34250-08	750	100	34	250	CFRP	non-stick	a	Ø29,6	-	M8	Ø5,2	-	25	20,5	12,5	-	275.0	1
ULR34250-09	750	100	34	250	CFRP	non-stick	b	M12	SW24	-	-	15	125	-	-	-	390.0	-
ULR34250-10 <sup>2</sup>	750	100	34	250	CFRP	-	c	Ø18	Ø17	M8	-	45	-1,5	16	8	37,5	293.5	-
ULR34250-11	750	100	34	250	CFRP	non-stick	c	Ø18	Ø17	M8	-	45	-1,5	16	8	37,5	293.5	-
ULR34250-15 <sup>1</sup>	750	100	34	250	CFRP	-	c	Ø18	Ø17	M8	-	75	-1,5	16	8	37,5	323.5	-
ULR34300-02-HP <sup>1</sup>	700	100	34	300	CFRP	-	a	Ø29,6	-	M10	Ø5,2	-	25	20,5	12,5	-	325.0	1
ULR34400-02 <sup>2</sup>	650	100	34	400	CFRP	-	c	Ø18	Ø17	M8	-	45	-1,5	16	8	37,5	443.5	-
ULR34400-E-03 <sup>2</sup>	385	100	34	400	CFRP	-	a	Ø30	Ø25	M8	-	-	15	16	-	-	415.0	-
ULR34400-E2-01 <sup>3</sup>	350	50/20	34	2x200	CFRP	-	a	Ø26,65	Ø25	M8	-	-	82,5	16	-	-	487,5	-
ULR3495-E-00	385	100	34	95	CFRP	-	w/o bracket	-	-	-	-	-	-	-	-	-	400.0	-
ULR36400-E-00 <sup>1</sup>	400	100	36	400	Al	anodized	w/o bracket	-	-	-	-	-	-	-	-	-	260.0	-
ULR44200-02 <sup>2</sup>	450	100	44	200	CFRP	-	c	Ø20	Ø18	M8	Ø29,6	50	10	20	10	55	390.0	-
ULR44250-04 <sup>1</sup>	550	100	44	250	CFRP	-	b	M12	SW24	-	-	15	125	-	-	-	318.5	-
ULR44250-11 <sup>2</sup>	700	100	44	250	CFRP	-	c	Ø18	Ø17	M8	Ø23,5	45	23,5	16	8	37,5	318.5	-
ULR44250-12 <sup>1</sup>	700	100	44	250	CFRP	non-stick	c	Ø18	Ø17	M8	Ø23,5	45	23,5	16	8	37,5	360.0	-
ULR44300-02 <sup>2</sup>	450	100	44	300	CFRP	-	c	Ø20	Ø18	M8	Ø29,6	50	10	20	10	55	112,5	-
ULR44400-05 <sup>1</sup>	650	100	44	400	CFRP	-	c	Ø18	Ø17	M8	Ø29,6	45	-1,5	16	8	37,5	443.5	-
ULR44400-06 <sup>1</sup>	650	100	44	400	CFRP	non-stick	c	Ø18	Ø17	M8	Ø29,6	45	-1,5	16	8	37,5	443.5	-
ULR44650-00	450	200	44	650	CFRP	-	c	Ø18	Ø17	M8	Ø29,6	45	-1,5	16	8	37,5	693,5	-
ULR60300-01 <sup>1</sup>	700	100	60	300	CFRP	-	a	Ø54,5	Ø46	M12	Ø5,2	0	22	22	12,5	-	322.0	2
ULR60320-00 <sup>2</sup>	700	100	60	320	CFRP	-	a	Ø54,5	Ø46	M12	Ø5,2	0	22	22	12,5	-	342.0	2
ULR60440-05	450	200	60	440	Al	hardanodized	e	Ø25	Ø35	M12	-	15	115	15	-	-	570.0	-

### Battery applications

ULR15110-00	330	10	15	110	CFRP	-	a	Ø18	-	M6	-	-	21,2	10,5	-	-	139	-
ULR30250-00 <sup>1</sup>	440	50	30	250	CFRP	-	d	Ø45	-	Ø5,5	Ø25	10	100	-	-	-	355.0	4
ULR46350-01	25	50	46	350	Al	-	d	Ø70	Ø46	Ø6,6/M5	Ø58	10	135,2	-	-	-	511	4/4
ULR60250-03	400	100	60	245	CFRP	-	d	Ø60	Ø35	Ø6,6/M6	Ø48	15	65	-	-	-	370	4/8
ULR60250-04	400	100	60	245	CFRP	-	d	Ø65	Ø39	Ø6,6/M6	Ø55	12	78	-	-	-	415	4/4
ULR60250-06	530	50	60	250	CFRP	-	d	Ø85	Ø39	Ø6,5/M6	Ø72	10	100	-	-	-	375,5	4/8
ULR60250-07	700	50	60	245	CFRP	-	d	Ø85	Ø39	Ø6,5/M6	Ø72	10	60	-	-	-	376,5	4/8
ULR60250-12	200	100	60	245	CFRP	-	d	Ø84	Ø56	Ø6,6/M5	Ø71	10	177,5	-	-	-	422,5	4/4
ULR60250-13	200	100	60	245	CFRP	-	c	Ø18	Ø17	-	Ø56	44	77,5	6	33	-	366,5	-
ULR60250-14	200	100	60	245	Al	anodized	d	Ø84	Ø56	Ø6,6/M5	Ø71	10	177,5	-	-	-	422,5	4/4

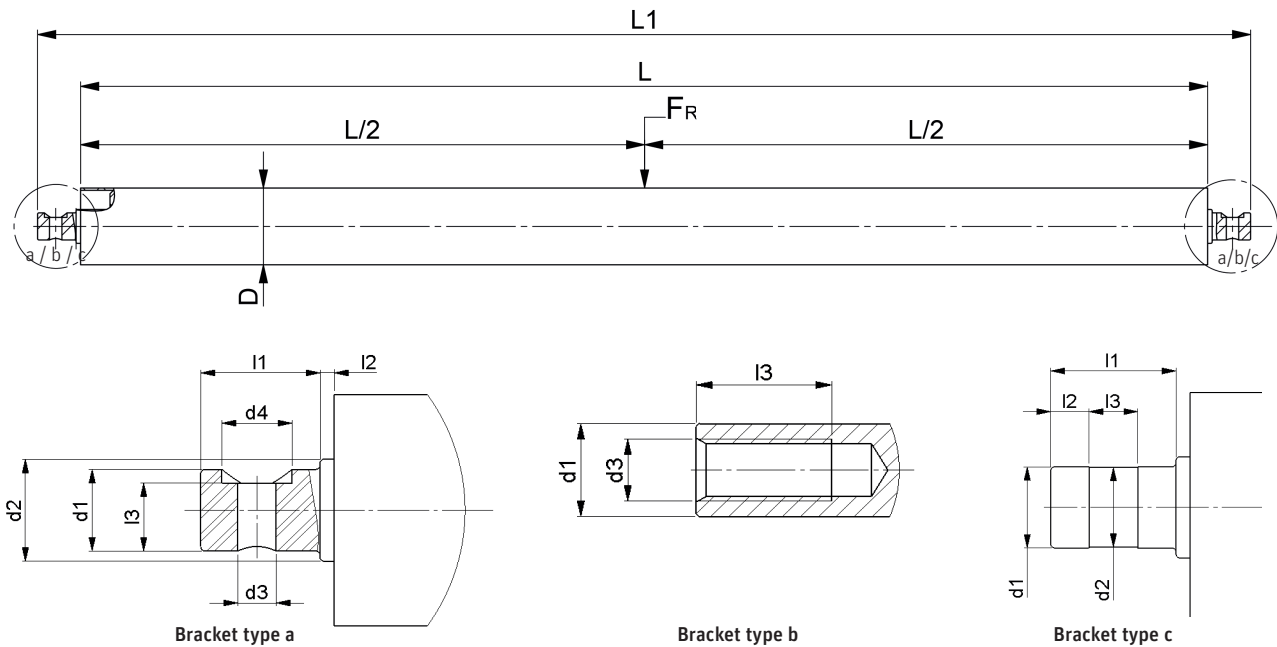
<sup>1</sup> Acceptance only with minimum quantity

<sup>2</sup> FDA conformity

<sup>3</sup> Double roller with independent adjacent roll shells

# Deflection Rollers ULW

## Figures



## Labeling system

**ULW XX YY(YY) – ZZ**

**XX** Shell diameter [mm]

**YY(YY)** Length of the shell [mm]

**ZZ** Consecutive number for various versions and customised adaptations (e. g. bracket variants, geometric adaptations, material, coating, H1 approval, etc.)

## Product overview (selection)

Type	Shell		Bracket														
	$v_{max}$ [m/min]	$F_{Rmax}$ [N]	D [mm]	L [mm]	Material	Coat	Type	d1 [mm]	d2 [mm]	d3 [mm]	d4 [mm]	l1 [mm]	l2 [mm]	l3 [mm]	l4 [mm]	l5 [mm]	L1 [mm]

### Packaging applications

ULW401060	-	100	40	1060	Al	anodized	b	Ø12	-	M8	-	30	-	-	-	-	1120	-
ULW401160-00	-	100	40	1160	Alu	anodized	b	Ø12	-	M8	-	30	-	-	-	-	1220	-
ULW40990	-	100	40	990	Al	anodized	b	Ø12	-	M8	-	30	-	-	-	-	1050	-

## Product overview (selection)

Type	Shell				Bracket														
	$v_{max}$ [m/min]	$F_{Rmax}$ [N]	D [mm]	L [mm]	Material	Coat	Type	d <sub>1</sub> [mm]	d <sub>2</sub> [mm]	d <sub>3</sub> [mm]	d <sub>4</sub> [mm]	l <sub>1</sub> [mm]	l <sub>2</sub> [mm]	l <sub>3</sub> [mm]	l <sub>4</sub> [mm]	l <sub>5</sub> [mm]	L1 [mm]	n	
<b>Hygiene applications</b>																			
ULW34160-00	600	100	34	160	CFRP	-	c	Ø12	Ø11,8	-	-	18	5,5	7	-	-	200.0	-	
ULW34220-01	600	100	34	220	CFRP	-	a	Ø13	Ø15	Ø6,5	-	18,5	42	-	-	-	327.0	-	
ULW34320-02	600	100	34	320	CFRP	-	c	Ø12	Ø11,8	-	-	18	5,5	7	-	-	360.0	-	
ULW34500-02	600	100	34	500	CFRP	-	c	Ø12	Ø11,8	-	-	18	5,5	7	-	-	540.0	-	
ULW34500-04	600	100	34	500	CFRP	-	a	Ø13	Ø15	Ø5,5	Ø10	17	2	10	-	-	538.0	-	
ULW34500-05	600	100	34	500	CFRP	-	a	Ø13	Ø15	Ø5,5	Ø10	37	2	10	-	-	578.0	-	
ULW35920-02	500	100	35	920	CFRP	-	a	Ø13	Ø15	Ø5,5	Ø10	37	2	10	-	-	998.0	-	
ULW40900-00	400	120	40	900	Alu	anodized	c	Ø15	Ø14	-	-	30	2,5	7	-	-	960.0	-	
ULW44600-00	600	100	44	600	CFRP	-	c	Ø15	Ø14	-	-	30	2,5	7	-	-	660.0	-	
ULW44800-01	600	100	44	800	CFRP	-	a	Ø13	Ø15	Ø5,5	Ø10	17	2	10	-	-	838.0	-	
ULW44800-03	600	100	44	800	CFRP	-	c	Ø15	Ø14	-	-	30	2,5	7	-	-	860.0	-	
ULW441080-00	600	100	44	1080	CFRP	-	c	Ø15	Ø14	-	-	30	2,5	7	-	-	1140.0	-	
ULW60530-00	700	200	60	530	CFRP	-	c	Ø12	Ø11,8	-	-	18	5,5	7	-	-	570.0	-	
ULW60530-01	700	200	60	530	CFRP	non-stick	c	Ø12	Ø11,8	-	-	18	5,5	7	-	-	570.0	-	
ULW601000-00	700	200	60	1000	CFRP	-	b	Ø25	-	M8	-	-	-	17	-	-	1030.0	-	
ULW601000-01	700	200	60	1000	CFRP	non-stick	b	Ø25	-	M8	-	-	-	17	-	-	1030.0	-	
<b>Battery applications</b>																			
ULW30380-01	75	20	30	380	CFRP	-	b	Ø15	-	-	-	65/130	-	-	-	-	575	-	
ULW40380-01	75	20	40	380	CFRP	-	b	Ø20	-	-	-	150/75	-	-	-	-	605	-	
ULW46350-01	25	60	46	350	CFRP	-	b	Ø19,5	-	M8	-	67,4/26,2	-	-	-	-	443,6	-	
ULW63580-00	200	120	63	580	CFRP	-	b	Ø26,2	-	2xM5	-	10	-	-	-	-	600	-	
ULW79600-00	100	200	79	600	Alu	hard chrome	b	Ø19,5	-	M8	-	5	-	-	-	-	610	-	
ULW85600-00	100	200	85	600	Alu	NBR	b	Ø19,5	-	M8	-	5	-	-	-	-	610	-	
ULW85600-01	100	200	85	600	Alu	EPDM	b	Ø19,5	-	M8	-	5	-	-	-	-	610	-	
ULW1201000-00	660	200	120	1000	Alu	hard anodized	c	Ø15	-	-	-	-	-	-	-	-	1063	-	

<sup>1</sup> Acceptance only with minimum quantity

<sup>2</sup> FDA conformity



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