

## Available materials

- CC	Chrome steel AISI 52100 Balls. Machined AISI 1016 steel housing, toughened & zinc plated
Solve specific application requirements by upgrading materials. Select option by adding suffix i.e. - CS	
- CS	Stainless Steel Balls (AISI 420) but other materials as Standard. Reduce load by 30%.
- SS	All parts in Stainless Steel - out housing AISI 416, Balls AISI 420. Reduce load by 30%.
- CD	Acetal (POM) main ball option - reduce load. See chart overleaf

## Fixing clip selection

Part No.	Ball Size	Minimum Bore $\phi$	Maximum Bore $\phi$
P2730.015	15	24,8	25,0
P2730.022	22	37,0	37,2
P2730.030	30	46,3	46,7

Clip requires a minimum plate thickness of 3mm to grip securely

## How to select the correct unit

Ball Type	Max Load (Kg)	Friction (% of load)	Speed m/sec	Shock Loads		Arduous Conditions	Orientation	Instant Change
				✓✓✓	✓✓			
Medium Duty	20-3500	2%	1,5	✓✓✓	✓✓	✓✓		✓✓✓
Light Duty	7-250	3%	1,0	✓		✓✓		✓✓✓

## Variables to consider:



### Shock Loads:

Standard material ball units have Rockwell 'C' hardness of 60 minimum



### Track Hardness/Conveyed Item Material:

Standard material ball units have Rockwell 'C' hardness of 60 minimum



### Delicate Surfaces:

Ball Units - Acetal (POM) & Phenolic Resin

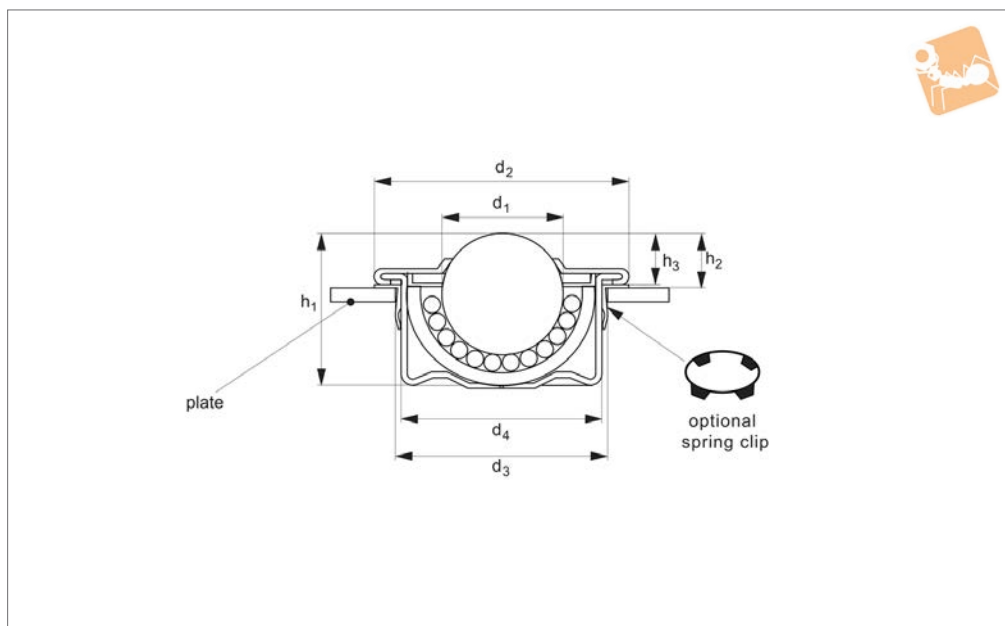


### Operating Environment:

Wet, dirty, outdoor, radioactive



**P2700.AV**



**Material**

Steel (zinc plated), stainless steel (AISI 416 for housing and AISI 420 for balls) and acetal (POM).

**Technical Notes**

Cost-effective and light-weight units formed from sheet steel material. No reduction in load carrying capacity even

when installed upside down.

Sizes 22 and 30 have a felt seal for the ball. Low friction 1:0,03, speeds up to 1m/s. Temperature range -20°C to +70°C.

**Tips**

To compensate for irregular bore diameters we recommend using the spring clip (stainless) part no. P2730.

Clip requires a minimum plate thickness of 3mm to grip securely.

These rollers can only be used in the horizontal or „ball up“ direction.

Order No.	d <sub>1</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	d <sub>3</sub> min.	d <sub>3</sub> max.	d <sub>4</sub>	h <sub>3</sub>	Housing	Ball	Load kg max.
P2700.150-CC	15	31	21	10.1	25	25.5	24	9.8	Steel	Steel	60
P2700.150-CS	15	31	21	10.1	25	25.5	24	9.8	Steel	Stainless	60
P2700.150-CA	15	31	21	10.1	25	25.5	24	9.8	Steel	Acetal	10
P2700.150-SS	15	31	21	10.1	25	25.5	24	9.8	Stainless	Stainless	40
P2700.220-CC	22	45	29.5	10.4	37.0	37.5	36	10.1	Steel	Steel	160
P2700.220-CS	22	45	29.5	10.4	37.0	37.5	36	10.1	Steel	Stainless	160
P2700.220-CA	22	45	29.5	10.4	37.0	37.5	36	10.1	Steel	Acetal	20
P2700.220-SS	22	45	29.5	10.4	37.0	37.5	36	10.1	Stainless	Stainless	90
P2700.300-CC	30	55	37	14.4	46	46.5	45	14.1	Steel	Steel	280
P2700.300-CS	30	55	37	14.4	46	46.5	45	14.1	Steel	Stainless	280
P2700.300-CA	30	55	37	14.4	46	46.5	45	14.1	Steel	Acetal	25
P2700.300-SS	30	55	37	14.4	46	46.5	45	14.1	Stainless	Stainless	200

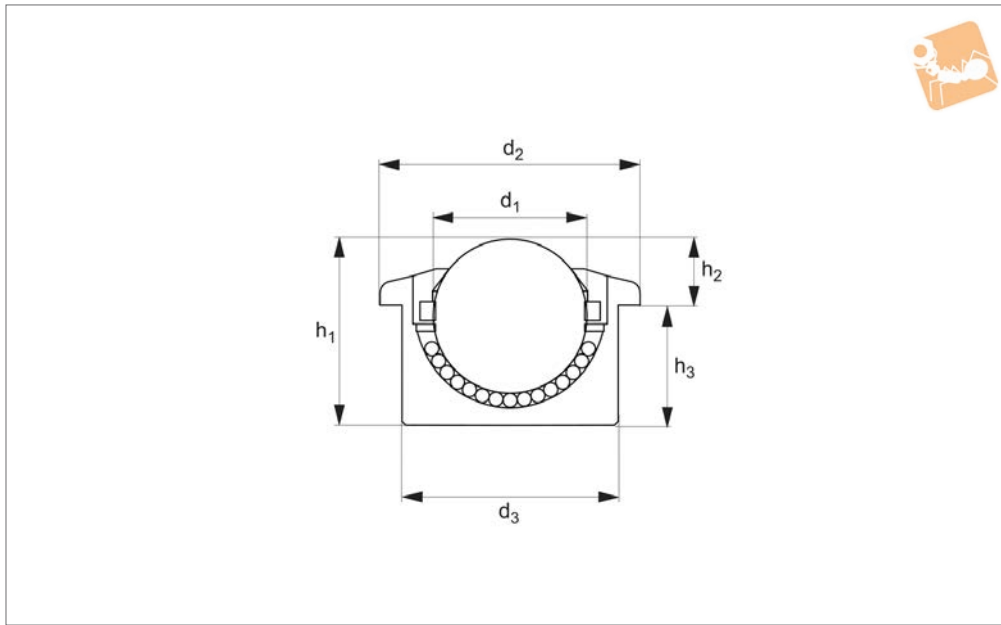


# Acetal Body Ball Transfer Units

light duty, acetal body



Material Handling



**P2701**

MATERIAL HANDLING

### Material

Acetal (POM) housing with acetal or stainless (AISI 316) balls.

### Technical Notes

Push-fit units, these acetal units resist

salt water and chemicals.

They are non-conductive and non-magnetic, low friction 1:0,03.

Temperature range  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ , speeds up to 1m/s.

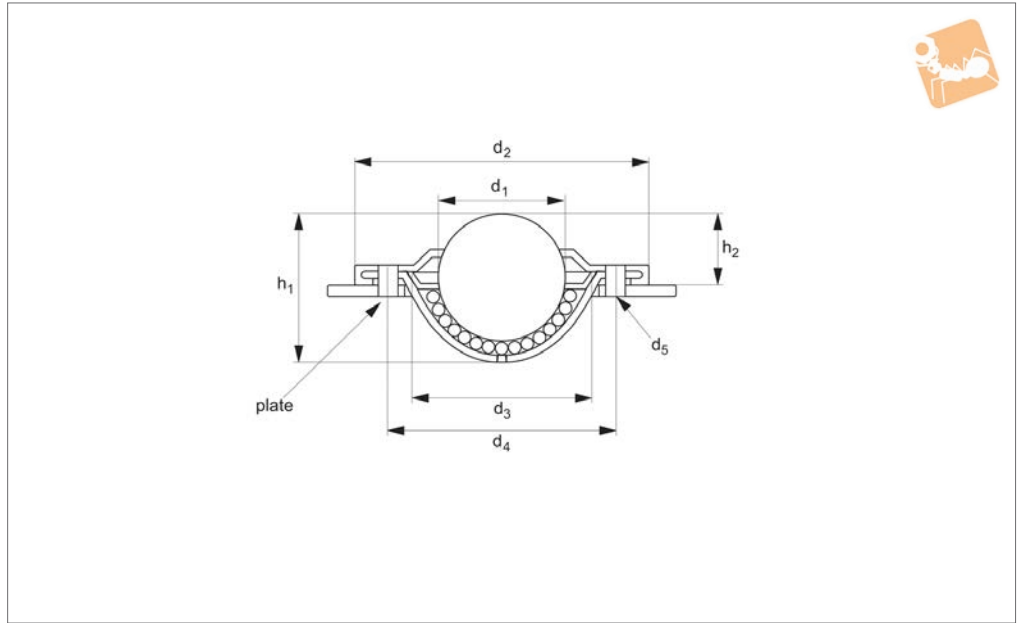
### Tips

These rollers can only be used in the horizontal or „ball up“ direction.

Order No.	$d_1$	$d_2$	$h_1$	$h_2$	$d_3$	$h_3$	Housing	Ball
P2701.150-AS	15	31	21	9.5	24	11.5	Acetal	Stainless
P2701.150-AA	15	31	21	9.5	24	11.5	Acetal	Acetal
P2701.220-AS	22	45	30.5	9.8	36	20.7	Acetal	Stainless
P2701.220-AA	22	45	30.5	9.8	36	20.7	Acetal	Acetal
P2701.300-AS	30	55	37	13.8	45	23.2	Acetal	Stainless
P2701.300-AA	30	55	37	13.8	45	23.2	Acetal	Acetal
P2701.450-AS	45	75	53.5	19	62	34.5	Acetal	Stainless
P2701.450-AA	45	75	53.5	19	62	34.5	Acetal	Acetal



**P2702**



**Material**

Steel (AISI 1040 housing and AISI 52100 for balls), stainless steel (AISI 416 for housing and AISI 420 for balls) and acetal (POM).

**Technical Notes**

Cost-effective and light-weight units

formed from sheet steel material.

No reduction in load carrying capacity even when installed upside down.

Low friction 1:0,03, temperature range - 20°C to +70°C, speeds up to 1m/s.

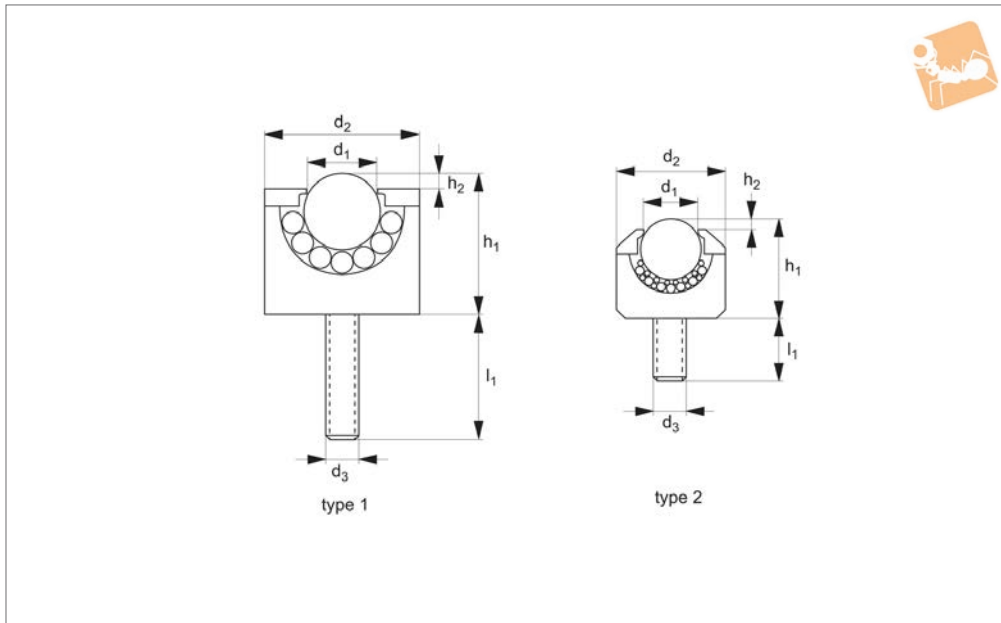
**Tips**

These rollers can only be used in the hori-

zontal or „ball up“ direction.

P2702.320-SS and P2702.330-SS have 7 large fluid drain holes & no felt seal.

Order No.	d <sub>1</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>	d <sub>5</sub>	Housing	Ball	Load kg max.
P2702.160-CC	15	41.0	19.3	10.8	24.0	30.0	2 x 3,4	Steel	Steel	15
P2702.160-CS	15	41.0	19.3	10.8	24.0	30.0	2 x 3,4	Steel	Stainless	10
P2702.160-CA	15	41.0	19.3	10.8	24.0	30.0	2 x 3,4	Steel	Acetal	10
P2702.220-CC	23	45.0	27.7	9.8	33.0	39.0	3 x 3,5	Steel	Steel	120
P2702.220-CA	23	45.0	27.7	9.8	33.0	39.0	3 x 3,5	Steel	Acetal	90
P2702.320-SS	32	73.7	36.1	16.2	45.5	58.7	2 x 5,5	Stainless	Stainless	125
P2702.250-CA	25	56.0	30.0	14.6	36.0	45.0	2 x 4,0	Steel	Acetal	22
P2702.330-SS	32	74.0	36.1	16.2	46.0	58.7	3 x 5,5	Stainless	Stainless	125
P2702.220-CS	23	45.0	27.7	9.8	33.0	39.0	3 x 3,5	Steel	Stainless	22
P2702.250-CC	25	56.0	30.0	14.6	36.0	45.0	2 x 4,0	Steel	Steel	60
P2702.250-CS	25	56.0	30.0	14.6	36.0	45.0	2 x 4,0	Steel	Stainless	40
P2702.250-SS	25	47.1	29.6	14.3	38.1	-	-	Stainless	Stainless	55



**P2705**

MATERIAL HANDLING

**Material**

Carbon steel, aluminium or stainless steel housing. Carbon steel or stainless steel balls.

amount of oil, to protect from oxidation.

**Tips**

Normally used in measuring equipment, small linear motion systems (e.g photocopy slides) and miniature mechanisms.

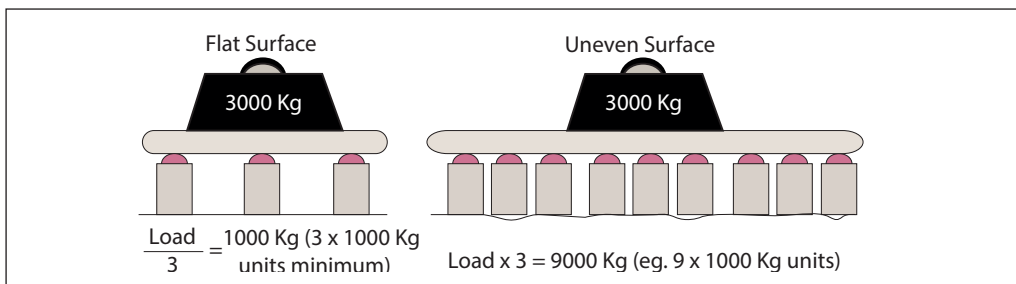
**Technical Notes**

All steel parts are supplied with a small

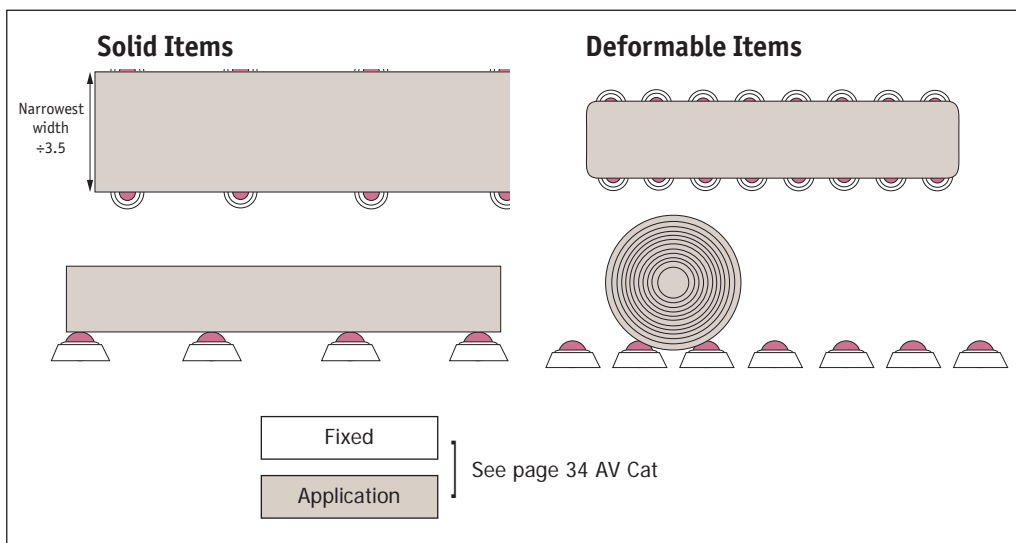
Order No.	Type	d <sub>1</sub>	d <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	Housing	Ball	Load kg max.
P2705.050-CC	Type 1	4.8	13	9	1	M6	15	Steel	Steel	10
P2705.150-CC	Type 1	15.8	24	20.5	4	M6	12	Steel	Steel	70
P2705.150-SS	Type 1	15.8	24	20.5	4	M6	12	Stainless	Stainless	70
P2705.160-CC	Type 1	15.8	24	20.5	4	M6	12	Steel	Steel	70
P2705.160-SS	Type 1	15.8	24	20.5	4	M6	12	Stainless	Stainless	70
P2705.050-SS	Type 1	4.8	13	9	1	M6	15	Stainless	Stainless	10
P2705.050-AS	Type 2	4.8	8	6	1	M2	2.5	Aluminium	Stainless	5
P2705.060-SS	Type 1	6.4	17	11	2	M6	15	Steel	Steel	20
P2705.070-SS	Type 1	6.4	17	11	2	M6	15	Stainless	Stainless	20
P2705.060-AS	Type 2	6.4	13	10.5	2	M3	6	Aluminium	Stainless	15
P2705.080-CC	Type 1	7.9	18	14	2	M8	18	Steel	Steel	30
P2705.080-SS	Type 1	7.9	18	14	2	M8	18	Stainless	Stainless	30
P2705.090-AS	Type 2	7.9	15	12.5	2	M4	8	Aluminium	Stainless	20
P2705.100-CC	Type 1	9.6	23	20	2	M8	20	Steel	Steel	40
P2705.100-SS	Type 1	9.6	23	20	2	M8	20	Stainless	Stainless	40
P2705.130-CC	Type 1	12.7	28	25	3.5	M8	23	Steel	Steel	50
P2705.130-SS	Type 1	12.7	28	25	3.5	M8	23	Stainless	Stainless	50



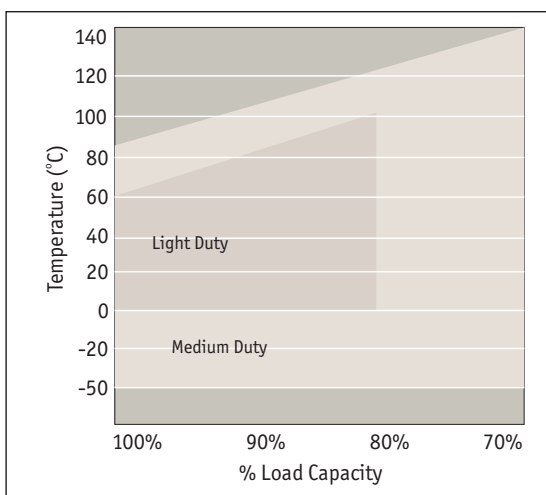
## Load & Stability



## Pitch & Spacing



## Operating Temperature



Ball Transfer Units from Automation Components

MATERIAL HANDLING