

Rencol

COMPONENTS

INDUSTRIAL MANUFACTURING SINCE 1923



Rencol

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INDUSTRIAL MANUFACTURING
SINCE 1923

*Rencol's flexible
manufacturing capabilities,
engineering expertise,
global supply chain and
market knowledge
allow us to develop
cost-effective product
solutions that exceed our
customers' expectations.*

Who we are

In the early twentieth century Rencol developed engineered plastic solutions ranging from electric car batteries and recharging stations to the plastic "Joylight" internal combustion engine.

By the 1970s our focus on components had emerged and the Rencol name became synonymous with high quality plastic knobs, handles and handwheels.

Today, we continue to grow, adapt and innovate:

- Our product range is extensive, industry-standard and growing.
- Our manufacturing partners are in key international locations, each chosen for their expertise, compatibility with our values and cost effectiveness.
- Our distribution network is worldwide and expanding.
- Our global supply chain has been in successful continuous operation for over a decade.

We are here to help

Model 10 IP

Exceptional customer service is central to our company philosophy. Our customer service team, on-site engineers, product designers and supply chain experts are here to advise and assist at all stages of the purchase and fulfilment process.

Call or email to:

- Check price and availability
- Make technical queries and request product advice
- Request samples
- Place and progress your order
- Request CAD drawings

Visit our website to:

- Request a quotation
- View product specifications and MOQs
- Find your local distributor
- Request CAD drawings
- Request a catalogue

Tel: +44 (0) 117 916 0090

Fax: +44 (0) 117 982 2235

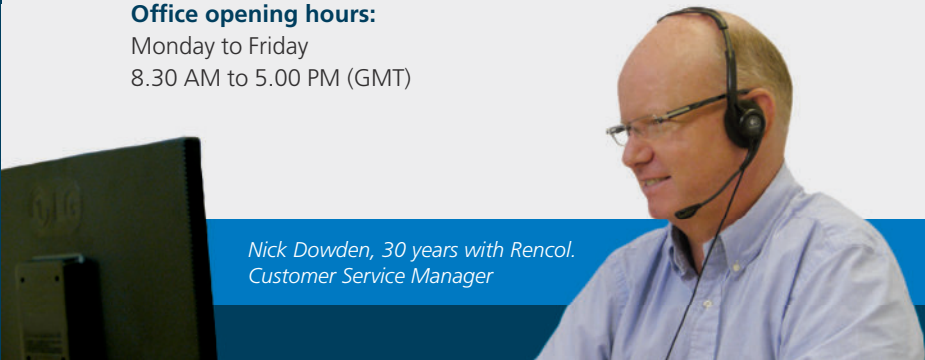
Email: sales@rencol.com

Website: www.rencol.com

Office opening hours:

Monday to Friday

8.30 AM to 5.00 PM (GMT)



Nick Dowden, 30 years with Rencol.
Customer Service Manager

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Technical Specifications & Key

Material performance data, tolerances, colour options, quality certifications and product icon key.



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Model 01 DP Stainless Steel Detent Pin with Pull-Ring

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Model 02 DP Stainless Steel Detent Pin with Push Knob & Pull-Ring

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Modifications & Custom Components

Custom colours, threads, materials, sizes, finishes, etc.

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Technical Specifications & Key

Thermoplastic

Material: Nylon 6 + Polypropylene (PP)
Working temperatures: Nylon up to 130°C peak and 80°C continuous use. Polypropylene maximum 70°C.
Resistant to: alcohols, esters, aromatic hydrocarbons, dilute alkalis, ketones, oils, fuels, grease, fats, weatherability (including UV light - excludes coloured Nylon) and salt water.
With PP also avoid halogenated hydrocarbons and flammable materials (can hold static charge).

Reinforced Thermoplastic

Material: Nylon 6 glass filled
Working temperature: up to 180°C peak, 110°C continuous use.
Resistant to: alcohols, esters, aromatic hydrocarbons, dilute alkalis, ketones, oils, fuels, grease, fats, weatherability (including UV light) and salt water.

Duroplast

Material: Phenolic Based Duroplast (PF)
Working temperature: -30°C to 160°C
Resistant to: diluted mineral acids, alcohols, chlorinated hydrocarbons, aromatic hydrocarbons, detergents, grease, oils, weatherability (including UV light). Avoid high pressure or high impact loads (can shatter).

Soft-Touch Mouldings

Material: Polypropylene substrate, TPE over-mould. Rencol has standard parts already available in this design, used particularly extensively in both industrial and special needs market products.

Brass

Material: BS2874 CZ121. Especially recommended for any materials likely to have continued exposure to temperatures below -30°C, where most steel grades become brittle. Also used as a marine grade material when nickel plated.

Zinc Plated Steel

Material: EN1A leaded-bright zinc passivated.

Stainless Steel

Material: Standard grade is 304. For medical, catering or marine use recommended grade is 316 - has high chloride resistance.

Aluminium

Grades are 6061 and A380. Others available on request.

Colours

Colour options include black, red, yellow, green, blue, white and grey. Other colours are available on request. If you would like to see the colours before ordering, samples can be provided free of charge.

Thread Depths

Wherever possible thread depths are a minimum of 1.5 x the diameter of the thread.

Tolerances

In general, our products are produced to the following tolerances:

Bore sizes: $\pm 0.1\text{mm}$ (0.004in)
Outside dimensions: $\pm 0.5\text{mm}$ (0.020in)
Male thread length: $\pm 1\text{mm}$ (0.040in)

Shear Forces

The values given for the shear force are the theoretical breaking load. These are non-binding reference values without considering safety factors. These reference values exclude any liability. The values given are for information purposes only and do not constitute a legally binding assurance of properties.

The load values have been calculated in accordance with DIN 50106. Each user must determine individually whether the ball lock pin is suitable for their respective application.

Different materials in which the detent pins are used, weather conditions, wear and other factors can influence the determined values.

Key

-  **Colour options** - RAL colours on request.
-  **Heavy duty** - Particularly hard wearing item.
-  **Stainless steel** - Partly or totally stainless steel.
-  **Fixing from above**
-  **Fixing from below**
-  **Multi component build** - Assembly available.
-  **Soft touch** - TPE over mould. Oil resistant.



Rencol Components is **ISO 9001:2008 Certified**
Our components are **REACH & RoHS Compliant**

Knob material

High impact resistant thermoplastic

Knob finish

Matt

Body material

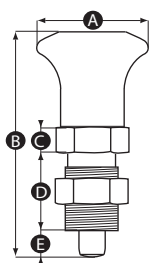
Blackened steel

Standard colour

Black knob

Options

Available with or without a 90° locking rest position.



Part No.	A	B	C	D	E	Thread size	Plunger diameter (mm)	Rest position
12542S	21	45	5	17	5	M10x1.0	5	No
12672P	21	51	5	17	5	M10x1.0	5	No
11831Y	25	45	5	10	6	M12x1.5	6	No
12673W	25	61	6	20	6	M12x1.5	6	No
11833Q	31	54	6	12	8	M16x1.5	8	No
12674S	31	76	8	26	7	M16x1.5	8	No
11832U	25	45	5	10	6	M12x1.5	6	Yes
11834X	31	54	6	12	8	M16x1.5	8	Yes

SS

Knob material

High impact resistant thermoplastic

Knob finish

Matt

Body material

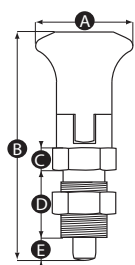
Blackened steel or stainless steel

Standard colour

Black knob

Options

Comes as standard with 90° locking rest position in plunger body.



Part No.	A	B	C	D	E	Thread size	Plunger diameter (mm)	Body material
11817Z	21	51	5	17	5	M10x1.0	5	Blackened steel
11821U	25	61	6	20	6	M12x1.5	6	Blackened steel
11825P	31	76	8	26	7	M16x1.5	8	Blackened steel
11818V	21	51	5	17	5	M10x1.0	5	Stainless steel
11822Q	25	61	6	20	6	M12x1.5	6	Stainless steel
11826W	31	76	8	26	7	M16x1.5	8	Stainless steel

Knob material

High impact resistant thermoplastic

Knob finish

Matt

Fixing plate material

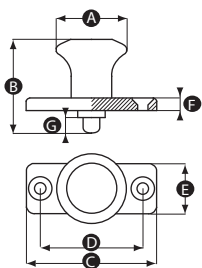
Zinc plated diecast steel

Standard colour

Black knob

Options

Available with or without a 90° rest position.



Part No.	A	B	C	D	E	F	G	Plunger diameter (mm)	Rest position
11819R	25	37	40	30	18	5	6	6	No
11823X	31	44	46	34	20	6	8	8	No
11820Y	25	37	40	30	18	5	6	6	Yes
11824T	31	44	46	34	20	6	8	8	Yes

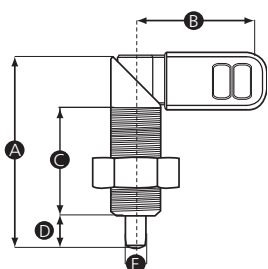
SS HD

Body material

Blackened steel or stainless steel

Includes

Comes as standard with locking nut. Stainless steel body comes complete with black plastic cap, burnished steel without cap.



Part No.	A	B	C	D	E	Thread size	Body material	Includes cap
15714R	47	32	39	8	8	M12x1.5	Blackened steel	Yes
15917T	47	32	39	8	8	M12x1.5	Blackened steel	No
11788U	69	37	36	12	8	M20x1.5	Blackened steel	No
11786R	69	37	36	12	10	M20x1.5	Blackened steel	No
11787Y	69	37	36	12	12	M20x1.5	Blackened steel	No
11794S	69	52	36	12	8	M20x1.5	Stainless steel	Yes
11795Z	69	52	36	12	10	M20x1.5	Stainless steel	Yes
11796V	69	52	36	12	12	M20x1.5	Stainless steel	Yes

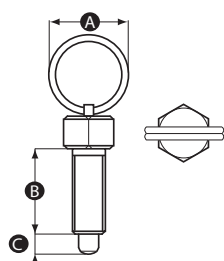
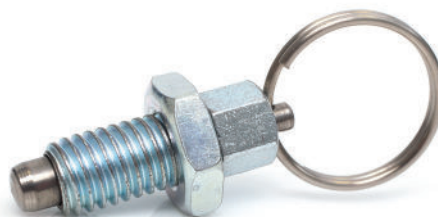
SS

Material

Zinc plated housing with stainless steel pin

Includes

Comes as standard with lift ring and locking nut.



Part No.	A	B	C	Thread size	Plunger diameter (mm)
11827S	14	12	4	M6	4
11828Z	18	16	5	M8	5
11829V	24	20	6	M10	6
11830R	30	24	8	M12	8

SS
Body material

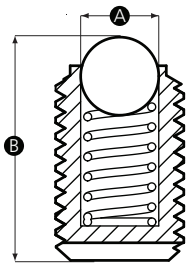
Blackened steel or stainless steel

Ball material

Bearing steel or stainless steel

Spring material

Spring steel or stainless steel



Part No.	A	B	Thread size	Body material	Ball material	Spring material	Initiating force (N)	Force for full retraction (N)
12681X	1.5	8	M3	Blackened steel	Bearing steel	Spring steel	3	5
12682T	2.5	10	M4	Blackened steel	Bearing steel	Spring steel	5	8
12683P	3	13	M5	Blackened steel	Bearing steel	Spring steel	7	11
12684W	3.5	15	M6	Blackened steel	Bearing steel	Spring steel	10	18
12685S	5	18	M8	Blackened steel	Bearing steel	Spring steel	30	45
12686Z	6	21	M10	Blackened steel	Bearing steel	Spring steel	30	50
12687V	8	25	M12	Blackened steel	Bearing steel	Spring steel	50	80
12688R	10	28	M16	Blackened steel	Bearing steel	Spring steel	80	165
12689Y	12	35	M20	Blackened steel	Bearing steel	Spring steel	55	95
12690U	1.5	8	M3	Stainless Steel	Stainless steel	Stainless Steel	3	6
12691Q	2.5	10	M4	Stainless Steel	Stainless steel	Stainless Steel	2	4
12692X	3	13	M5	Stainless Steel	Stainless steel	Stainless Steel	7	11
12693T	3.5	15	M6	Stainless Steel	Stainless steel	Stainless Steel	10	18
12694P	5	18	M8	Stainless Steel	Stainless steel	Stainless Steel	15	25
12695W	6	21	M10	Stainless Steel	Stainless steel	Stainless Steel	25	45
12696S	8	25	M12	Stainless Steel	Stainless steel	Stainless Steel	70	105
12697Z	10	28	M16	Stainless Steel	Stainless steel	Stainless Steel	85	140
12698V	12	35	M20	Stainless Steel	Stainless steel	Stainless Steel	60	100

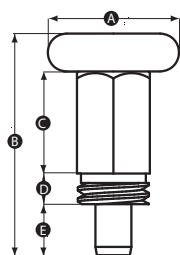
SS

Material

Zinc plated or stainless steel body, pin and spring. Zinc plated diecast head.

Note

M12 options do not have hexagonal body as per image - M12 options have 12mm A/F flats to accept 12mm spanner size.



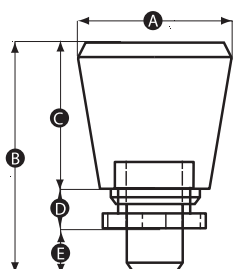
Part No.	A	B	C	D	E	Thread size	Plunger diameter (mm)	Body material	Rest position
15216S	18	30	14	5.5	7	M10x1.0	6	Zinc plated steel	No
15215W	18	30	14	5.5	7	M10x1.0	6	Zinc plated steel	Yes
15214P	24	39	19	8	7	M12x1.75	7	Zinc plated steel	No
15213T	24	39	19	8	7	M12x1.75	7	Zinc plated steel	Yes
15217Z	18	30	14	5.5	7	M10x1.0	6	Stainless steel	No
15218V	18	30	14	5.5	7	M10x1.0	6	Stainless steel	Yes

Material

Aluminium body, steel shell (flange), steel plunger pin and steel spring

Finish

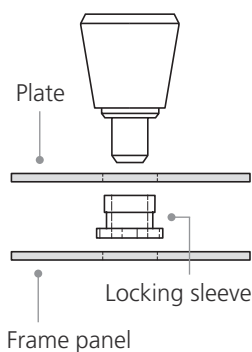
Bright chrome or black powder coated



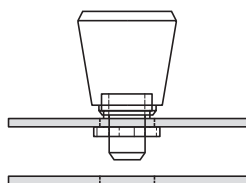
Part No.	A	B	C	D	E	F	Thread size	Plunger diameter	Body material	Rest position
15697T	14	20	13	2	5	7	M7	4.7	Aluminium	Yes
15698P	14	20	13	2	5	7	M7	4.7	Black powder coated aluminium	Yes
15222Q	17	27	17	2	8	9	M9	6.2	Aluminium	Yes
15223X	17	27	17	2	8	9	M9	6.2	Black powder coated aluminium	Yes

Assembly

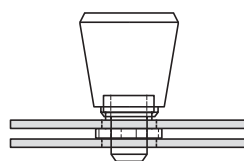
- 1** Unscrew locking sleeve from plunger body.



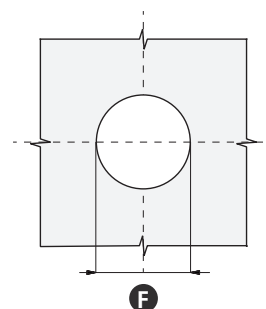
- 2** Locking sleeve screws into plunger body through hole in plate.



- 3** Pin locates in frame panel hole.



Cut out



Knob material

High impact resistant thermoplastic

Knob finish

Matt

Body material

Zinc plated steel

Pin material

Stainless steel

Spring material

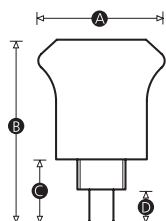
Stainless steel

Standard colour

Black knob

Options

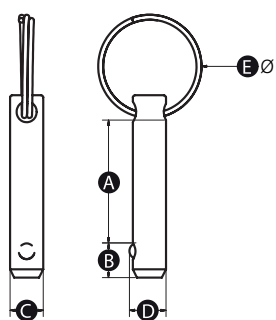
Available with or without rest position



Part No.	A	B	C	D	Thread size	Thread length	Plunger diameter	Locking hex face to face	Rest position
15581V	21	30	10	5	M8 x 0.75	5	4	10	No
15908W	21	30	10	5	M8 x 0.75	5	5	10	No
15909S	25	35	15	7	M10 x 1.0	8	6	12	No
15910Z	25	35	15	7	M10 x 1.0	8	7	12	No
15911V	21	30	10	5	M8 x 0.75	5	4	10	Yes
15912R	21	30	10	5	M8 x 0.75	5	5	10	Yes
15913Y	25	35	15	7	M10 x 1.0	8	6	12	Yes
15914U	25	35	15	7	M10 x 1.0	8	7	12	Yes

Material

Stainless steel 304

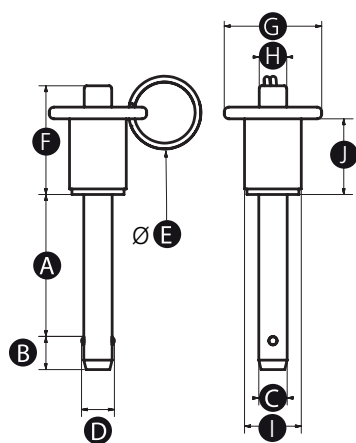


**See note on double shear force in technical section*

Part No.	A	B	C	D	E	Double shear force (kN)
16411Q	15	7	6	6.5	25	47
16412X	20	7	6	6.5	25	47
16413T	30	7	6	6.5	25	47
16414P	40	7	6	6.5	25	47
16415W	30	8	8	8.8	25	68
16416S	40	8	8	8.8	25	68
16417Z	50	8	8	8.8	25	68

Material

Stainless steel 304


**See note on double shear force in technical section*

Part No.	A	B	C	D	E	F	G	H	I	J	Double shear force (kN)
16418V	10	6	5	5.5	15	23.4	20.6	5.8	11.9	16	29
16419R	15	6	5	5.5	15	23.4	20.6	5.8	11.9	16	29
16420Y	20	6	5	5.5	15	23.4	20.6	5.8	11.9	16	29
16421U	25	6	5	5.5	15	23.4	20.6	5.8	11.9	16	29
16422Q	30	6	5	5.5	15	23.4	20.6	5.8	11.9	16	29
16423X	20	7	6	7	15	23.4	20.6	5.8	11.9	16	41
16424T	30	7	6	7	15	23.4	20.6	5.8	11.9	16	41
16425P	40	7	6	7	15	23.4	20.6	5.8	11.9	16	41
16426W	50	7	6	7	15	23.4	20.6	5.8	11.9	16	41
16427S	20	8	8	9.4	15	23.4	20.6	5.8	11.9	16	62
16428Z	30	8	8	9.4	15	23.4	20.6	5.8	11.9	16	62
16429V	40	8	8	9.4	15	23.4	20.6	5.8	11.9	16	62
16430R	50	8	8	9.4	15	23.4	20.6	5.8	11.9	16	62
16431Y	20	9	10	11.9	15	25.7	25.4	7.4	14.2	17.8	88
16432U	30	9	10	11.9	15	25.7	25.4	7.4	14.2	17.8	88
16433Q	40	9	10	11.9	15	25.7	25.4	7.4	14.2	17.8	88

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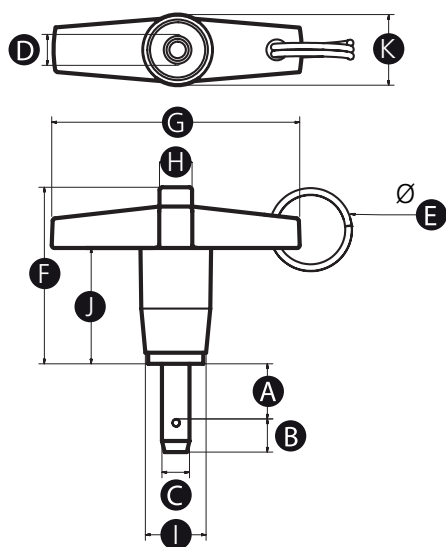
Part No.	A	B	C	D	E	F	G	H	I	J	Double shear force (kN)
16434X	50	9	10	11.9	15	25.7	25.4	7.4	14.2	17.8	88
16435T	60	9	10	11.9	15	25.7	25.4	7.4	14.2	17.8	88
16436P	20	10	12	14.5	15	32.3	34.7	10.7	18.3	21.6	142
16437W	30	10	12	14.5	15	32.3	34.7	10.7	18.3	21.6	142
16438S	40	10	12	14.5	15	32.3	34.7	10.7	18.3	21.6	142
16439Z	50	10	12	14.5	15	32.3	34.7	10.7	18.3	21.6	142
16440V	60	10	12	14.5	15	32.3	34.7	10.7	18.3	21.6	142
16441R	70	10	12	14.5	15	32.3	34.7	10.7	18.3	21.6	142
16442Y	80	10	12	14.5	15	32.3	34.7	10.7	18.3	21.6	142
16443U	30	14	16	19	15	41.9	44.5	13.7	23.9	27.9	198
16444Q	40	14	16	19	15	41.9	44.5	13.7	23.9	27.9	198
16445X	50	14	16	19	15	41.9	44.5	13.7	23.9	27.9	198
16446T	60	14	16	19	15	41.9	44.5	13.7	23.9	27.9	198
16447P	70	14	16	19	15	41.9	44.5	13.7	23.9	27.9	198
16448W	80	14	16	19	15	41.9	44.5	13.7	23.9	27.9	198

Material

Cast aluminium t-handle and stainless steel (SS303) pin

Fixing

Designed to be press fit into a hole 0.1mm larger than the diameter of the body



**See note on double shear force in technical section*

Part No.	A	B	C	D	E	F	G	H	I	J	K	Double shear force (kN)
16676X	10	6	5	5.5	15	32	45	6	11	21	13	29
16677T	15	6	5	5.5	15	32	45	6	11	21	13	29
16678P	20	6	5	5.5	15	32	45	6	11	21	13	29
16679W	25	6	5	5.5	15	32	45	6	11	21	13	29
16680S	30	6	5	5.5	15	32	45	6	11	21	13	29
16681Z	20	7	6	7	15	32	45	6	11	21	13	41
16682V	30	7	6	7	15	32	45	6	11	21	13	41
16683R	40	7	6	7	15	32	45	6	11	21	13	41
16684Y	50	7	6	7	15	32	45	6	11	21	13	41
16685U	20	8	8	9.4	15	32	45	6	11	21	13	62
16686Q	30	8	8	9.4	15	32	45	6	11	21	13	62
16687X	40	8	8	9.4	15	32	45	6	11	21	13	62
16688T	50	8	8	9.4	15	32	45	6	11	21	13	62
16689P	20	9	10	11.9	20	37	50.8	7	14	23	15	62

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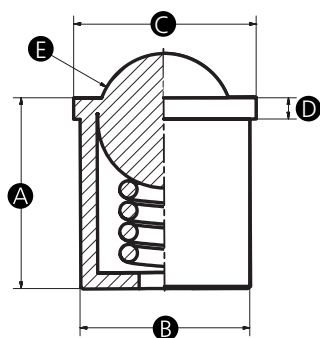
Part No.	A	B	C	D	E	F	G	H	I	J	K	Double shear force (kN)
16690W	30	9	10	11.9	20	37	50.8	7	14	23	15	88
16691S	40	9	10	11.9	20	37	50.8	7	14	23	15	88
16692Z	50	9	10	11.9	20	37	50.8	7	14	23	15	88
16693V	60	9	10	11.9	20	37	50.8	7	14	23	15	88
16694R	20	10	12	14.5	20	37	50.8	7	14	23	15	142
16695Y	30	10	12	14.5	20	37	50.8	7	14	23	15	142
16696U	40	10	12	14.5	20	37	50.8	7	14	23	15	142
16697Q	50	10	12	14.5	20	37	50.8	7	14	23	15	142
16698X	60	10	12	14.5	20	37	50.8	7	14	23	15	142
16699T	70	10	12	14.5	20	37	50.8	7	14	23	15	142
16700P	80	10	12	14.5	20	37	50.8	7	14	23	15	142
16701W	30	14	16	19	25	45	78	12.7	21	29	23	198
16702S	40	14	16	19	25	45	78	12.7	21	29	23	198
16703Z	50	14	16	19	25	45	78	12.7	21	29	23	198
16704V	60	14	16	19	25	45	78	12.7	21	29	23	198
16705R	70	14	16	19	25	45	78	12.7	21	29	23	198
16706Y	80	14	16	19	25	45	78	12.7	21	29	23	198

Material

- i) Stainless steel body, stainless steel spring & stainless steel ball
- ii) Acetal body, stainless steel spring & stainless steel ball
- iii) Acetal body, stainless steel spring & acetal ball

Fixing

Designed to be press fit into a hole 0.1mm larger than the diameter of the body



Part No.	A	B	C	D	E	Body material	Ball material	Spring material	Initiating force (N)	Force for full retraction (N)
16885X	3	2	2.5	0.7	1.5	Stainless Steel	Stainless Steel	Stainless Steel	3	6
16617R	4	3	3.5	0.75	2.38	Stainless Steel	Stainless Steel	Stainless Steel	4	9
16618Y	5	4	4.5	0.9	3	Stainless Steel	Stainless Steel	Stainless Steel	3	10
16619U	6	5	5.5	1	4	Stainless Steel	Stainless Steel	Stainless Steel	6	14
16620Q	7	6	6.5	1	5	Stainless Steel	Stainless Steel	Stainless Steel	7	18
16621X	9	8	8.5	1.1	6.4	Stainless Steel	Stainless Steel	Stainless Steel	11	28
16622T	13	10	11	1.7	8.5	Stainless Steel	Stainless Steel	Stainless Steel	16	37
16623P	16	12	13	2.5	10	Stainless Steel	Stainless Steel	Stainless Steel	16	56
16624W	4	3	3.5	0.75	2.38	Acetal	Stainless Steel	Stainless Steel	3	8
16625S	5	4	4.5	0.9	3	Acetal	Stainless Steel	Stainless Steel	5	13
16626Z	6	5	5.5	1	4	Acetal	Stainless Steel	Stainless Steel	6	14
16627V	7	6	6.5	1	5	Acetal	Stainless Steel	Stainless Steel	6	15
16628R	9	8	8.5	1.2	6.4	Acetal	Stainless Steel	Stainless Steel	8	27
16629Y	13	10	11	1.5	8.5	Acetal	Stainless Steel	Stainless Steel	9	22
16630U	4	3	3.5	0.75	2.38	Acetal	Acetal	Stainless Steel	3	7
16631Q	5	4	4.5	0.9	3	Acetal	Acetal	Stainless Steel	5	12
16632X	6	5	5.5	1	4	Acetal	Acetal	Stainless Steel	6	14
16633T	7	6	6.5	1	5	Acetal	Acetal	Stainless Steel	6	15
16634P	9	8	8.5	1.2	6.4	Acetal	Acetal	Stainless Steel	9	27
16635W	13	10	11	1.5	8.5	Acetal	Acetal	Stainless Steel	8	22

Modifications & Custom Components

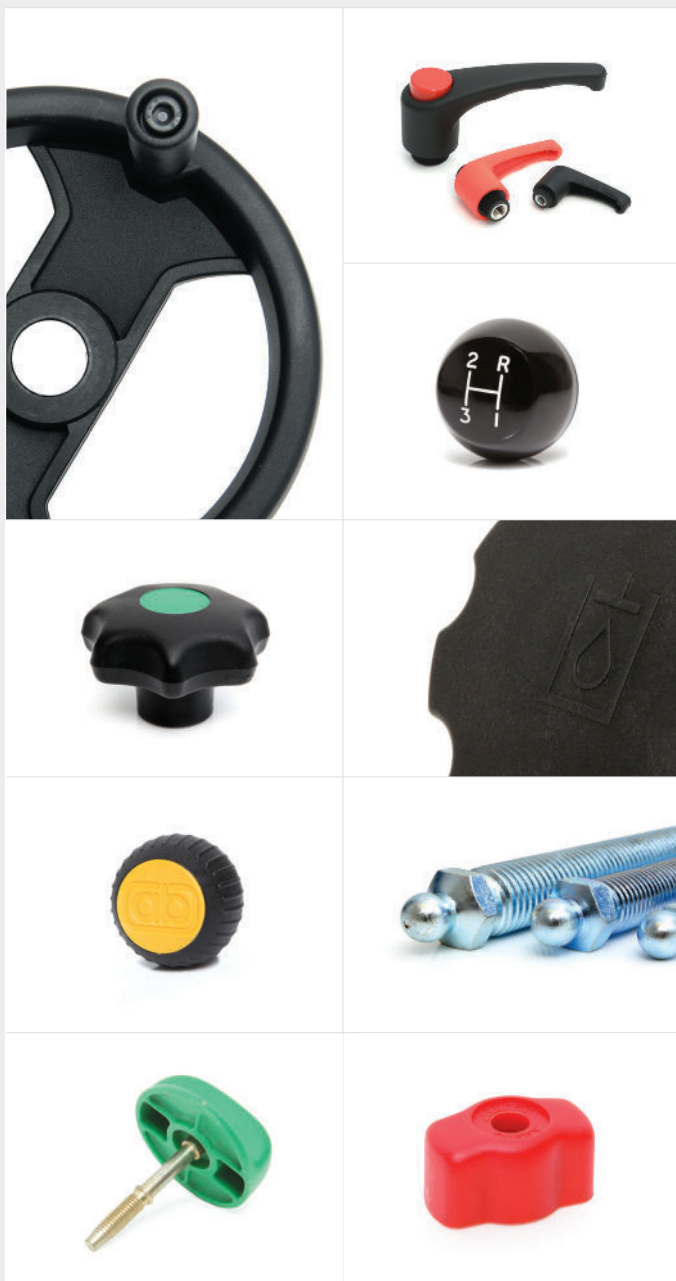
Diverse manufacturing capabilities and experienced on-site technical personnel allows Rencol Components to offer a wide range of product modifications and custom product solutions. We regularly adapt standard components or manufacture custom products to suit our customers' specific requirements. New tooling can be produced quickly and cost effectively with a typical MOQ of just 500 pieces.

Manufacturing Processes

Plastic & Metal Injection Moulding / Die casting / Machining / Forging / Stamping / Rapid Prototyping / 3D Printing

Modifications & Custom Options

Thread size & length / RAL Colours / Engraving / Pad-Printing & Screen-Printing / TPE Over mould / Materials / Finishes / Logos





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